


Blind Spot Detection/Rear Cross Traffic Alert > Blind Spot Detection/Rear Cross Traffic Alert





INSPECTION

Refer to "Basic Diagnostic Procedure" of "Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)" section.  [Ref. to Blind Spot Detection/Rear Cross Traffic Alert \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

Blind Spot Detection/Rear Cross Traffic Alert > Blind Spot Detection/Rear Cross Traffic Alert


NOTE

For procedure of each component in the Blind Spot Detection/Rear Cross Traffic Alert system, refer to the respective sections.

- Radar sensor:  [Ref. to Blind Spot Detection/Rear Cross Traffic Alert>Radar Sensor.](#)
- BSD/RCTA OFF switch:  [Ref. to Blind Spot Detection/Rear Cross Traffic Alert>Switches and Harness.](#)
- Combination meter:  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)
- Outer mirror assembly:  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly.](#)


Blind Spot Detection/Rear Cross Traffic Alert > Blind Spot Detection/Rear Cross Traffic Alert

WIRING DIAGRAM

Refer to "Blind Spot Detection/Rear Cross Traffic Alert system" in the wiring diagram.  [Ref. to WIRING SYSTEM>Blind Spot Detection/Rear Cross Traffic Alert>WIRING DIAGRAM.](#)


Blind Spot Detection/Rear Cross Traffic Alert > Combination Meter

NOTE

For the operation procedures for combination meter, refer to "INSTRUMENTATION/DRIVER INFO" section.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)


Blind Spot Detection/Rear Cross Traffic Alert > Diagnostics with Phenomenon

INSPECTION

Refer to "Diagnostics with Phenomenon" of "Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)" section.  [Ref. to Blind Spot Detection/Rear Cross Traffic Alert \(DIAGNOSTICS\)>Diagnostics with Phenomenon.](#)

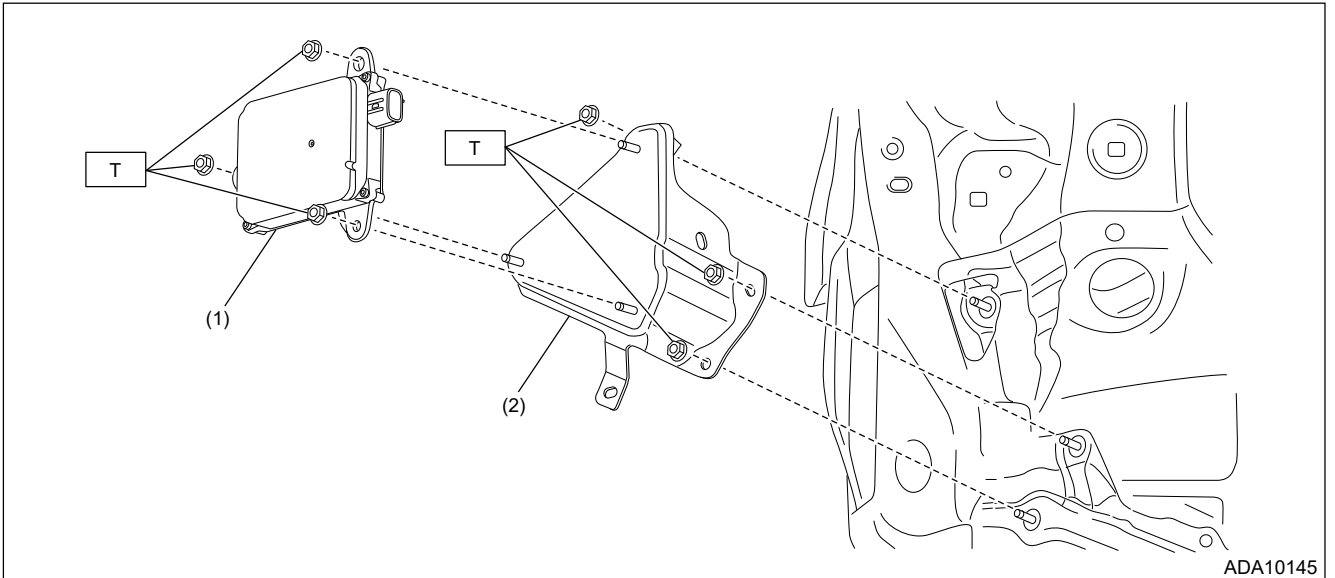
Blind Spot Detection/Rear Cross Traffic Alert > General Description

CAUTION

- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery. When replacing the electrical parts provided with memory functions that store contents specified by a customer, record the memory contents before disconnecting the battery ground cable.
- For precautions for rear vehicle detection function, refer to "CAUTION" in "Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)" section.  [Ref. to Blind Spot Detection/Rear Cross Traffic Alert \(DIAGNOSTICS\)>General Description>CAUTION.](#)

COMPONENT

1. RADAR SENSOR




(1) Radar sensor (master & slave) (2) Radar bracket

Tightening torque: N·m (kgf·m, ft·lb)

T: 7.5 (0.8, 5.5)

Blind Spot Detection/Rear Cross Traffic Alert > General Description

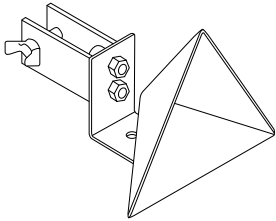

LOCATION

Refer to "LOCATION" of "Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)" section. 
[Ref. to Blind Spot Detection/Rear Cross Traffic Alert \(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)

Blind Spot Detection/Rear Cross Traffic Alert > General Description

PREPARATION TOOL

1. SPECIAL TOOL


ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST87699AL00A</p>	87699AL00A	Radar reflector	Used for adjusting the radar axis of the radar sensor. Note: Attach the radar reflector to a round pole with a diameter of approx. 20 mm (0.79 in) or a 20-mm (0.79 in) square pole.
 <p>STSSM4</p>	— (Newly adopted tool)	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. Note: For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
DST-i	Used together with Subaru Select Monitor 4.
Measure (5 m (16 ft) or more)	Used for adjusting the radar axis of the radar sensor.
Leveling line	
Plumb bob	
Packing tape	
Stand, tripod, etc.	

Blind Spot Detection/Rear Cross Traffic Alert > Outer Mirror Assembly

NOTE

For the operation procedures for the outer mirror assembly, refer to "GLASS/WINDOWS/MIRRORS" section.  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly.](#)

ADJUSTMENT

1. RADAR AXIS ADJUSTMENT

Caution:

- After removal/installation or replacement of the radar sensor, perform the radar axis adjustment.
- The procedure for the master is only shown here. However the procedure for the slave can also be done in the same way as the master.

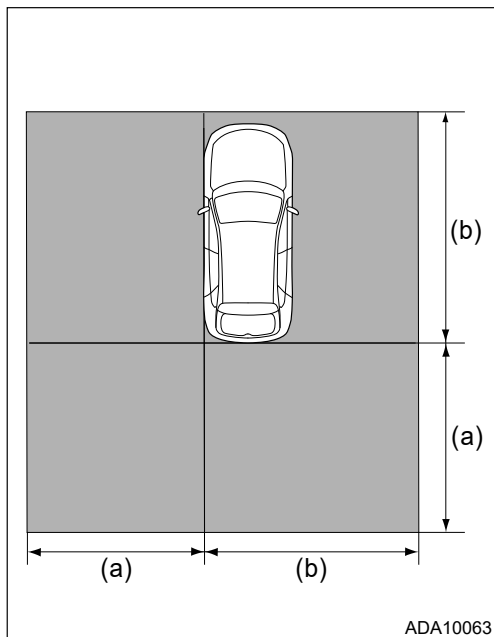
1. Before performing the inspection, check the following items.
 - The inflation pressure of tires is correct.
 - The vehicle does not have load.
 - Vehicle's fuel tank is fully filled.
2. Place the vehicle on a level surface, where approximately 5 m (16.41 ft) square area can be secured behind the vehicle.

Caution:

- No metallic objects around the vehicle and on the floor in the area.
- Do not let in objects other than the radar reflector (ST), persons and metallic objects inside the area.

Note:

The illustration shows the secured area for adjusting the radar axis on the master side.



(a) Approx. 4 m (13.12 ft)

(b) Approx. 5 m (16.41 ft)

3. Prepare the Subaru Select Monitor, measure, leveling line, plumb bob, packing tape, RADAR REFLECTOR (ST), and stand or tripod for fixing the RADAR REFLECTOR.

Preparation tool:

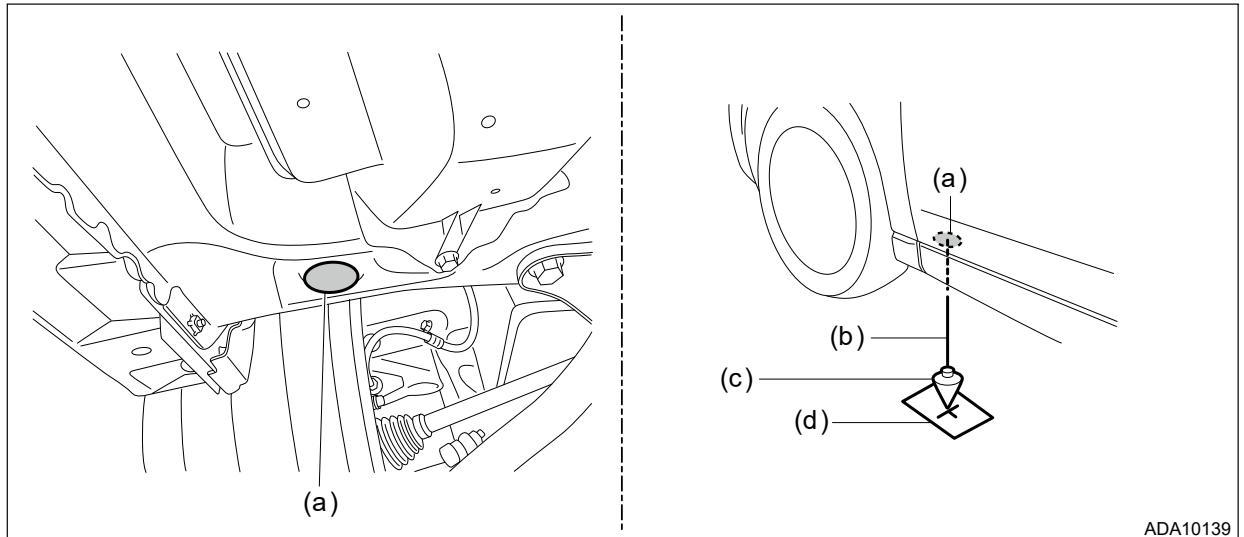
ST: RADAR REFLECTOR (87699AL00A)

4. Set up the radar reflector.

Note:

The following procedure explains the method of setting the radar reflector so that the distance between radar reflector and radar sensor is 1,500 mm (4.92 ft) and the radar is positioned at an angle of 50 degree.

- (1) Suspend the plumb bob from the center of the front hole cap, and mark the position where the plumb bob touches the ground. (Point A)

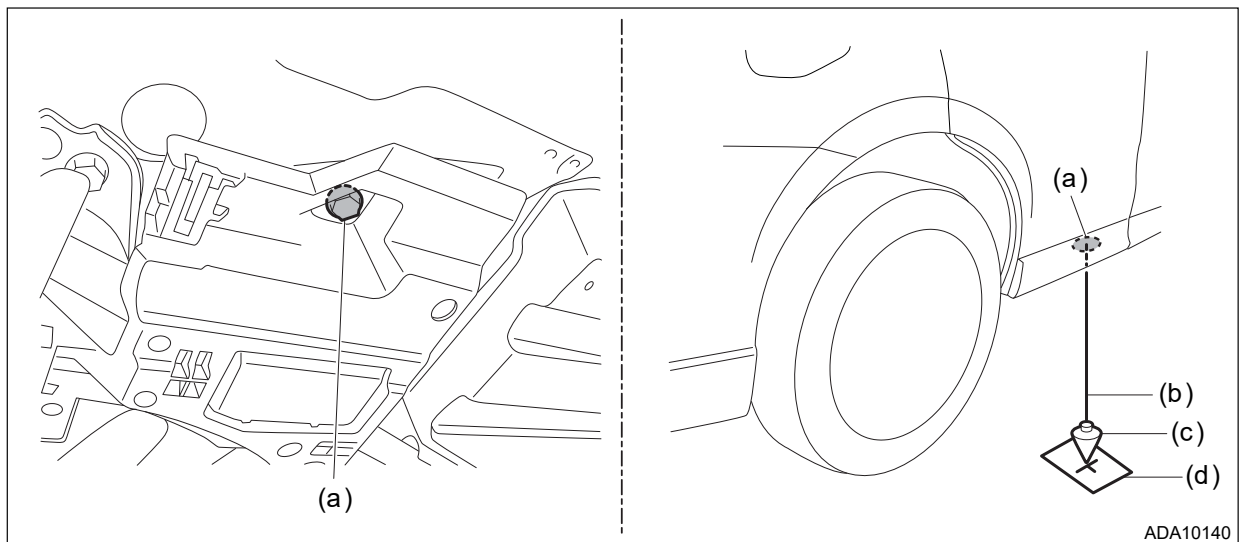


(a) Front hole cap (c) Plumb bob (d) Point A
 (b) Leveling line

Note:

Stick the packing tape etc. on the floor, then make a marking on the tape.

- (2) Suspend the plumb bob from the center of the fuel tank protector mounting bolt, and mark the position where the plumb bob touches the ground. (Point B)



(a) Fuel tank protector mounting bolt (c) Plumb bob (d) Point B
 (b) Leveling line

Note:

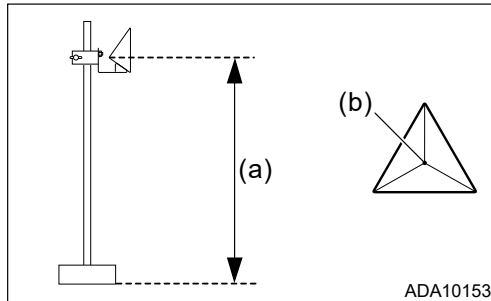
Stick the packing tape etc. on the floor, then make a marking on the tape.

- (3) Stretch a leveling line to draw an arc with the marked point A as a pivot.

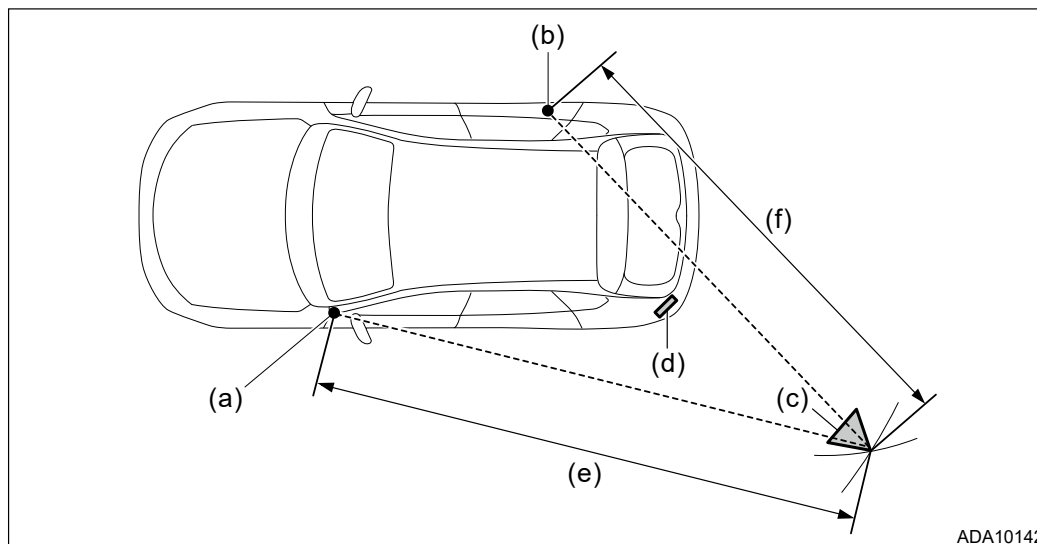
- (4) Stretch a leveling line to draw an arc with the marked point B as a pivot.
- (5) Set up the radar reflector at the cross point.

Caution:

When setting up the radar reflector, adjust the height so that the center of the pyramid points at the radar sensor as shown in the figure.



- (a) 650±10 mm (25.59±0.39 in)
 (b) Center of pyramid



- | | | |
|-------------|---------------------|-------------------------|
| (a) Point A | (c) Radar reflector | (e) 4,270 mm (14.01 ft) |
| (b) Point B | (d) Radar sensor | (f) 3,518 mm (11.54 ft) |

5. Connect the Subaru Select Monitor.

Note:

- Use the Subaru Select Monitor equipped with the latest version of the software.
- For detailed operation procedures, refer to "Application help".

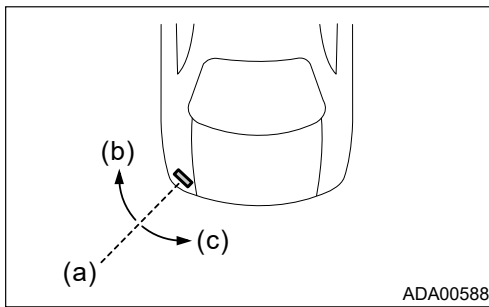
6. Turn the ignition switch to ON and wait for 10 seconds.

7. Perform radar axis adjustment.

- (1) On [Start] display, select [Diagnosis].
- (2) On [Vehicle selection] display, enter vehicle information and select [OK].
- (3) On [Main Menu] display, select [Each System].
- (4) On [Select System] display, select [Blind Spot Detection/Rear Cross Traffic Alert(RH)] or [Blind Spot Detection/Rear Cross Traffic Alert(LH)], and then select [Enter].
- (5) On [Select Function] display, select [Work Support].
- (6) On the work support item list, select [RADAR Alignment].
- (7) Follow the messages displayed on the Subaru Select Monitor screen when working.

Note:

Deviation of radar axis direction is indicated by + (plus) or – (minus).



(a) Center of radar

(b) + (plus)

(c) – (minus)

- (8) If the result is out of permissive range, it is assumed that the radar reflector position may be incorrect or the radar bracket or its installation location on the vehicle may be deformed. Check the set position of the radar reflector, radar bracket and other attachment, and perform the radar axis adjustment again.



Blind Spot Detection/Rear Cross Traffic Alert > Radar Sensor

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Radar sensor and radar bracket: 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
3. Perform the adjustment of the radar sensor radar axis.  [Ref. to Blind Spot Detection/Rear Cross Traffic Alert>Radar Sensor>ADJUSTMENT > RADAR AXIS ADJUSTMENT.](#)

Blind Spot Detection/Rear Cross Traffic Alert > Radar Sensor


REMOVAL

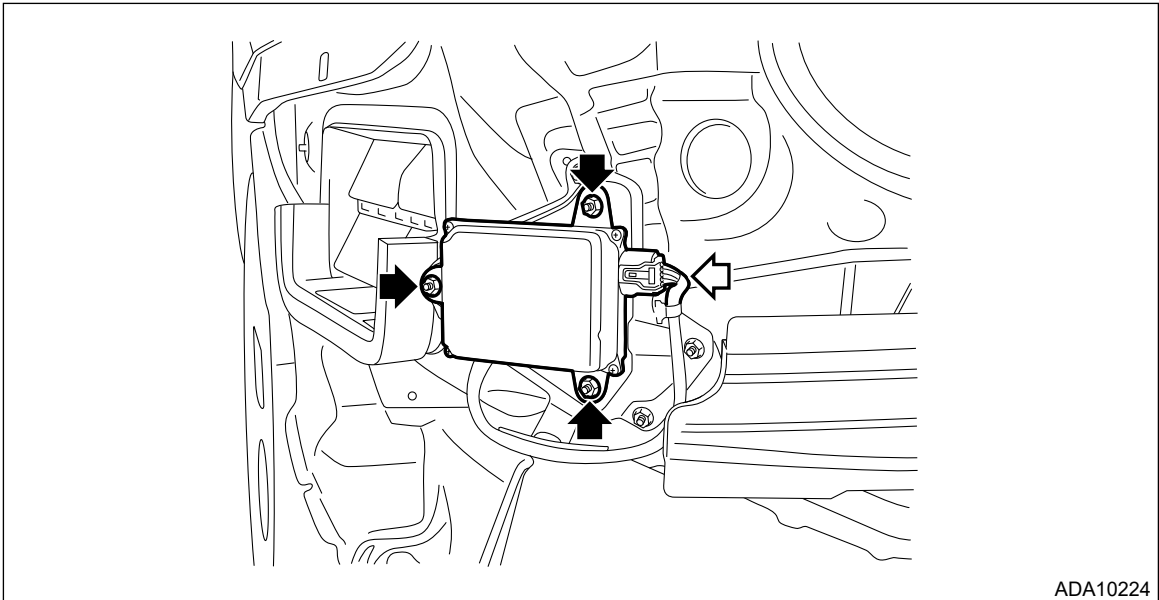
1. RADAR SENSOR LH (MASTER)

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

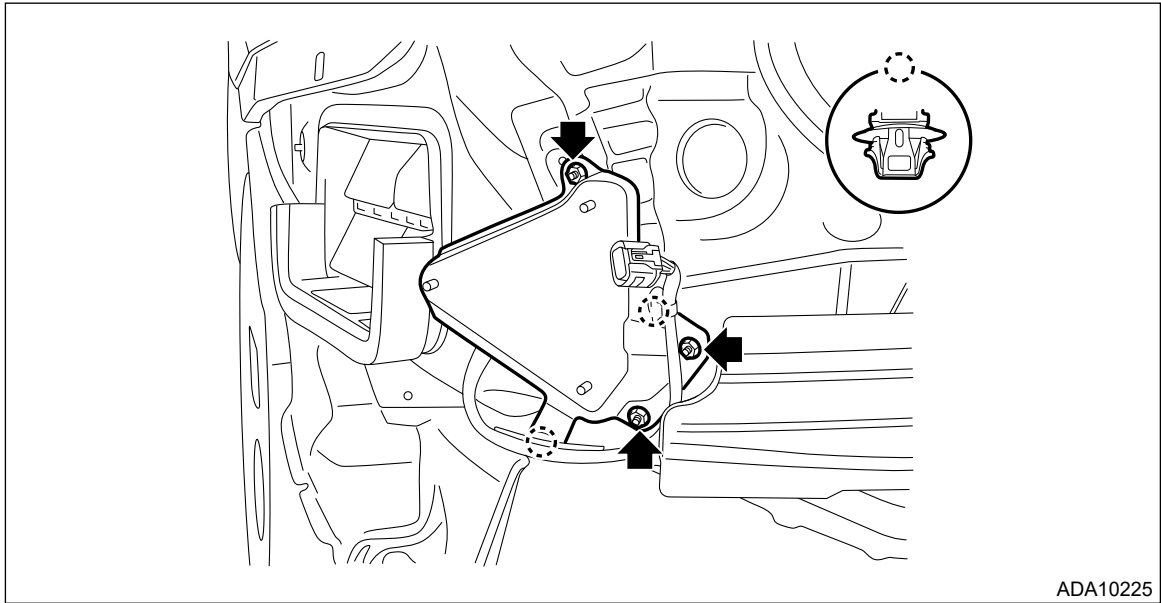
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the bumper face - rear.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>REMOVAL.](#)
3. Remove the radar sensor LH (master).
 - (1) Disconnect the connector.
 - (2) Remove the nut and remove the radar sensor LH (master).



4. Remove the radar bracket.
 - (1) Remove each harness clip.
 - (2) Remove the nut and remove the radar bracket.



2. RADAR SENSOR RH (SLAVE)

Note:

For the procedure of radar sensor RH (slave), refer to "RADAR SENSOR LH (MASTER)".

Blind Spot Detection/Rear Cross Traffic Alert > Relay and Fuse

INSPECTION

1. CHECK FUSE

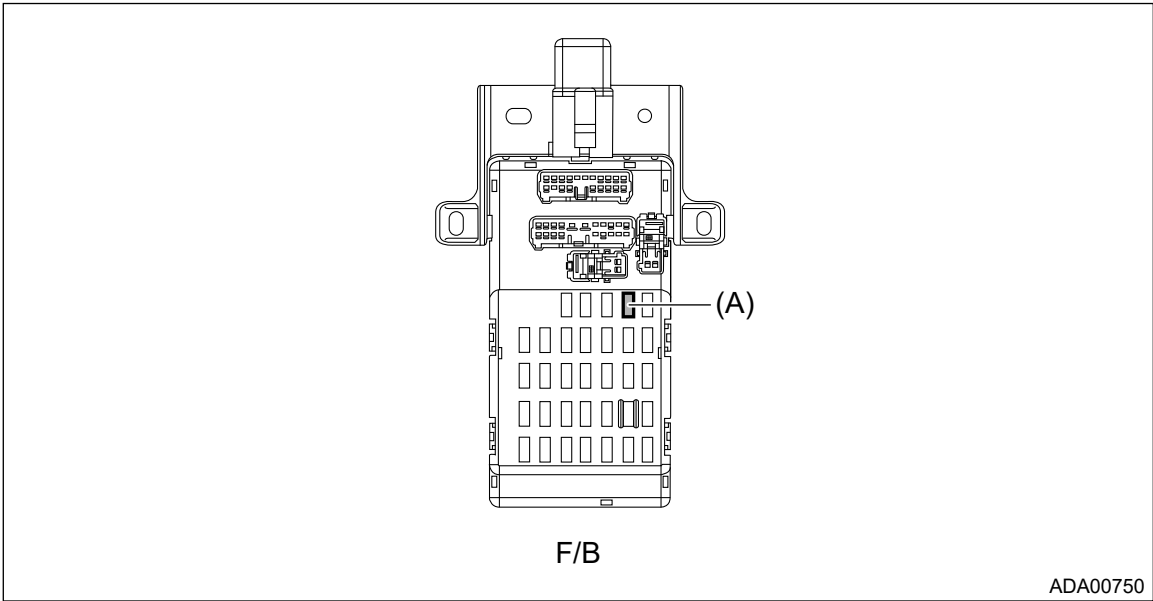
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:

If the fuse is blown again, check the system wiring harness.

Blind Spot Detection/Rear Cross Traffic Alert > Relay and Fuse

LOCATION



Fuse & Relay Box	Fuse 10 A (radar sensor LH (master), radar sensor RH (slave), BSD/RCTA OFF switch)	(A)
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Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

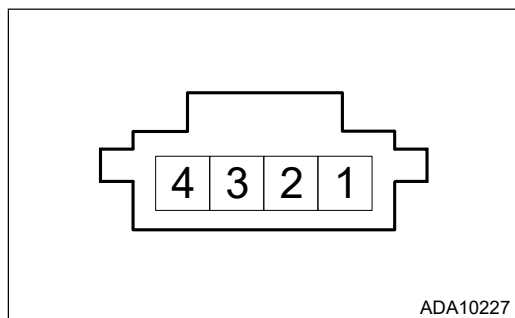
INSPECTION

1. BSD/RCTA OFF SWITCH

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
1 – 4	Switch OFF	1 MΩ or more
	Switch ON	Less than 1 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.


Terminal No.	Inspection conditions	Specification
2 (+) – 3 (-)	Apply battery voltage.	Light ON

3. Replace the BSD/RCTA OFF switch if it is found defective.

Blind Spot Detection/Rear Cross Traffic Alert > Switches and Harness

INSTALLATION

1. BSD/RCTA OFF SWITCH

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


REMOVAL

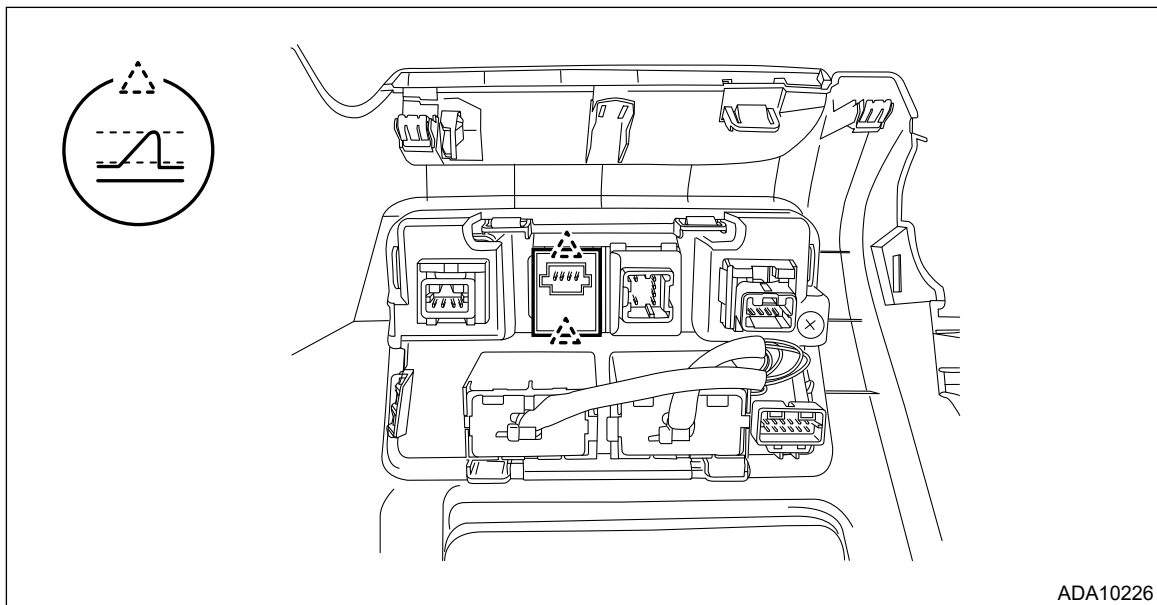
1. BSD/RCTA OFF SWITCH

- 1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

- 2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
- 3. Release the claws and remove the BSD/RCTA OFF switch.




BODY STRUCTURE > General Description

SPECIFICATION

Refer to "Body Repair Manual" for general description of body structure, reference points and reference dimensions.

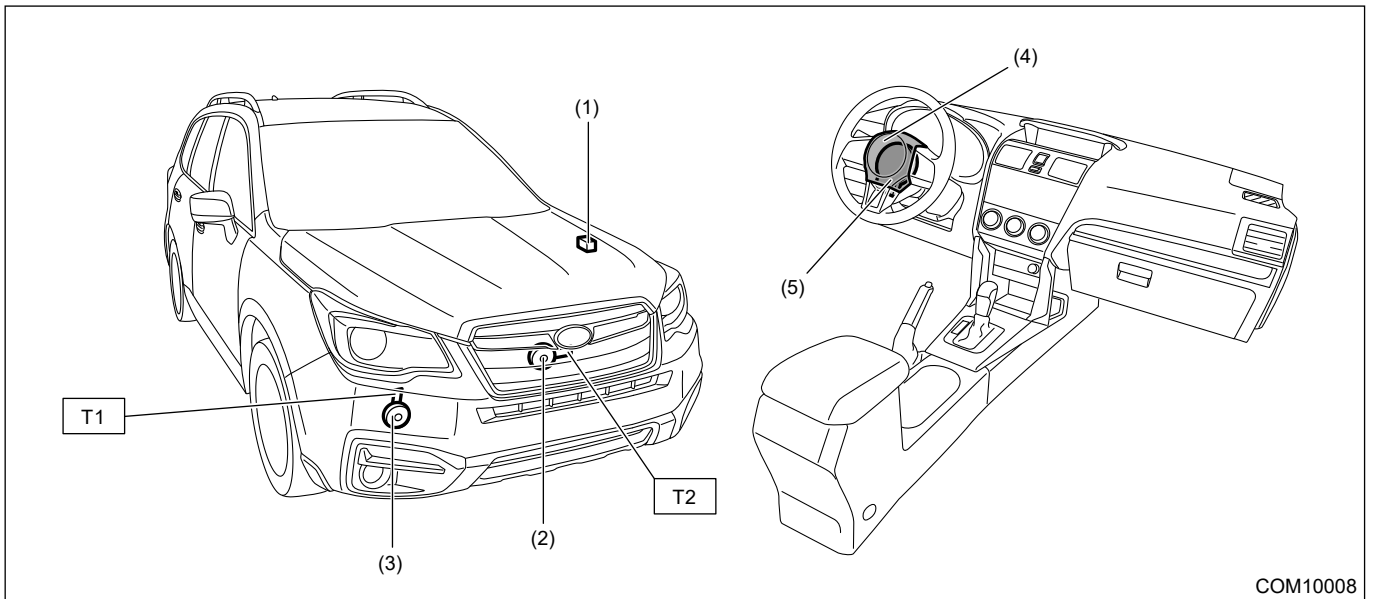
COMMUNICATION SYSTEM > General Description

CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that the each component operates normally.
- Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of "AIRBAG SYSTEM" in this case.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Be careful not to damage the airbag system wiring harness when servicing electrical parts and switches.

COMMUNICATION SYSTEM > General Description

COMPONENT



- (1) Horn relay
- (2) Horn ASSY - Lo
- (3) Horn ASSY - Hi

- (4) Horn switch (driver's airbag module ASSY)
- (5) Roll connector

Tightening torque: N-m (kgf-m, ft-lb)

T1: 13 (1.33, 9.6)

T2: 18 (1.84, 13.3)

COMMUNICATION SYSTEM > General Description

PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

INSPECTION

1. CHECK HORN SWITCH

Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. [Ref. to NOTE>NOTE > BATTERY.](#)

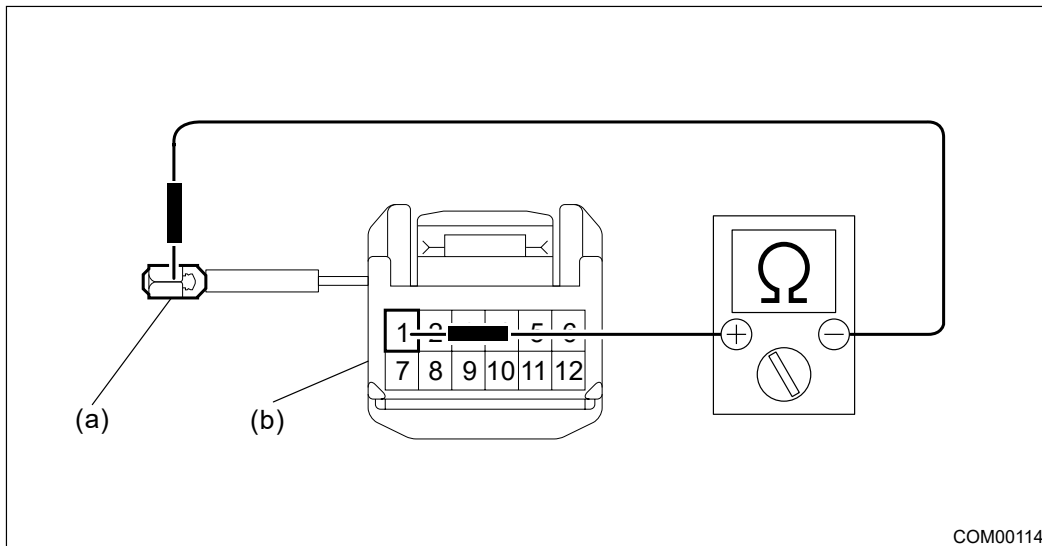
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the driver's airbag module. [Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
4. Check that the connection of the horn switch harness connector is correct.
5. Measure the resistance between connectors.

Preparation tool:

Circuit tester



(a) Ground terminal (b) Horn switch terminal

Terminal No.	Inspection conditions	Standard
Horn switch terminal — ground terminal	Always	Less than 1 Ω


6. Replace the driver's airbag module if the inspection result is not within the standard value.

2. CHECK ROLL CONNECTOR

Caution:


- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC. [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT.](#)
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [Ref. to AIRBAG SYSTEM>General](#)

Description>CAUTION.

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  Ref. to NOTE>NOTE > BATTERY.

Note:

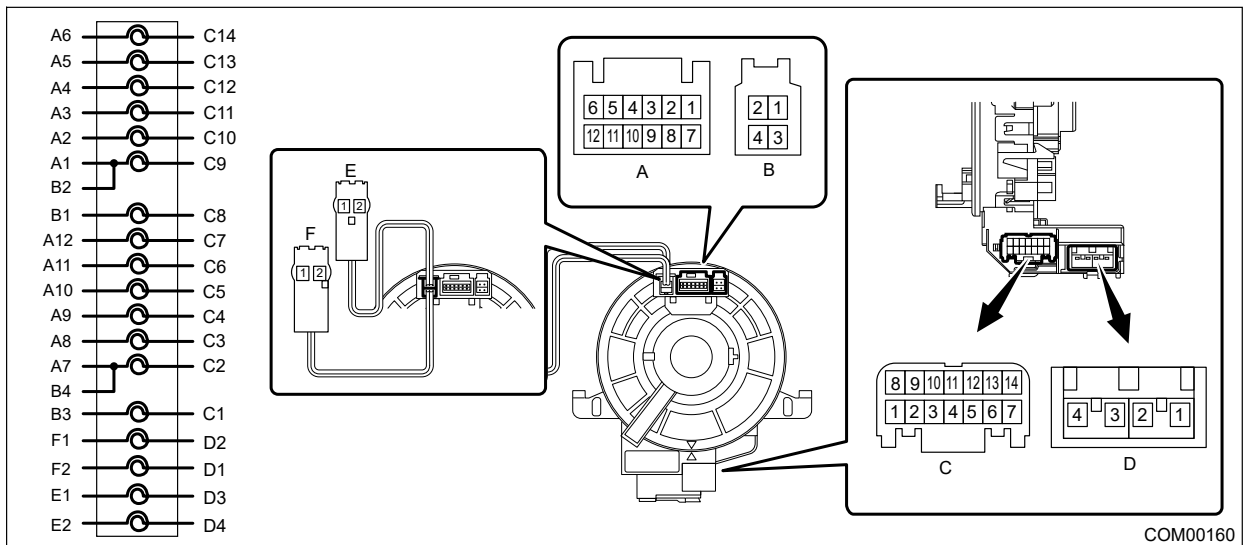
For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the roll connector.  Ref. to AIRBAG SYSTEM>Roll Connector>REMOVAL.
4. Measure the resistance between connector terminals.

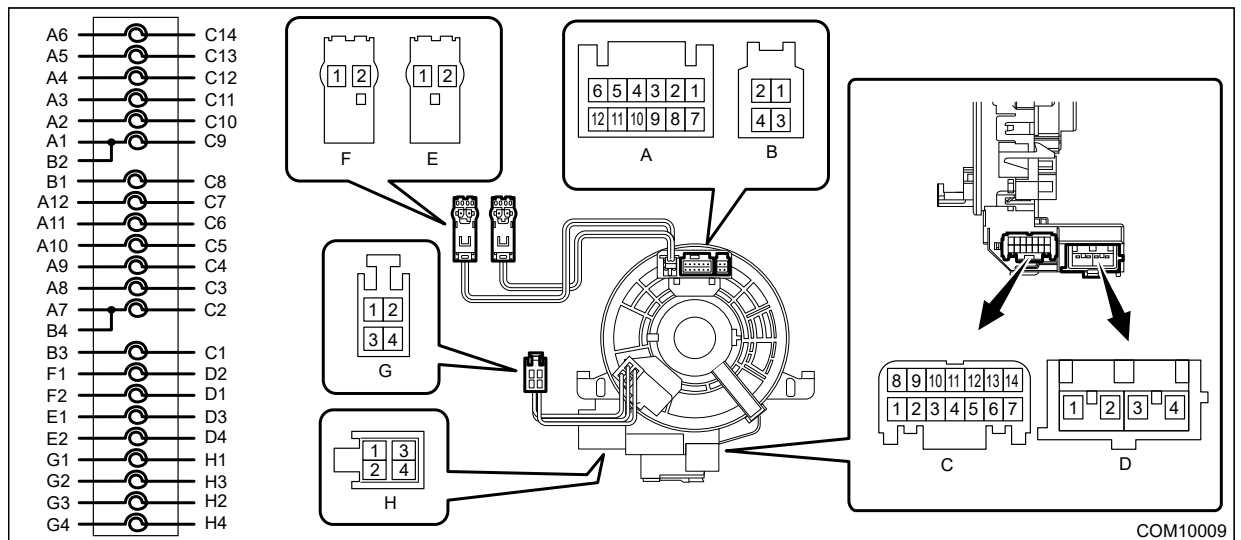
Preparation tool:

Circuit tester

- Without steering heater



- With steering heater




Terminal No.	Inspection conditions	Standard
A1 – C9	Always	Less than 1 Ω

5. Replace the roll connector if the inspection result is not within the standard value.

COMMUNICATION SYSTEM > Horn Switch

NOTE

Horn switch is a unit with the driver's airbag module. For operation procedures, refer to "Driver's Airbag Module" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>Driver's Airbag Module.](#)

COMMUNICATION SYSTEM > Horn System

INSPECTION

Symptoms	Inspection steps
Horn does not sound	1. Check the fuse.
	2. Check the horn relay.
	3. Check the role connector.
	4. Check the horn switch.
	5. Check the horn assembly.
	6. Check the harness.

COMMUNICATION SYSTEM > Horn System


NOTE

For operation procedures of each component of the horn system, refer to the respective section.

- Horn ASSY:  [Ref. to COMMUNICATION SYSTEM>Horn.](#)
- Horn switch:  [Ref. to COMMUNICATION SYSTEM>Horn Switch.](#)


COMMUNICATION SYSTEM > Horn System

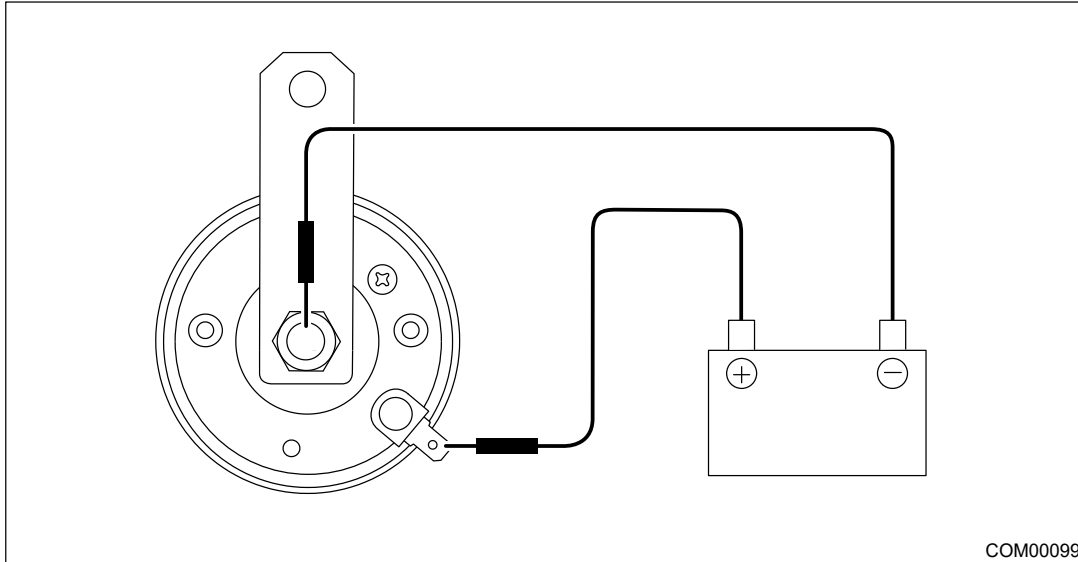
WIRING DIAGRAM

Refer to "Horn System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Horn System>WIRING DIAGRAM.](#)

INSPECTION

1. CHECK HORN ASSEMBLY

1. Remove the horn assembly (Hi & Lo).  [Ref. to COMMUNICATION SYSTEM>Horn>REMOVAL.](#)
2. Check the horn sounds when applying the battery voltage to the horn assembly.



Terminal No.	Inspection conditions	Specification
Horn terminal (+) – Horn case (-)	Connect battery to the terminals	Sounds

3. If it does not operate normally, replace the horn assembly.

COMMUNICATION SYSTEM > Horn

INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:

Horn assembly - Hi: 13 N·m (1.33 kgf-m, 9.6 ft-lb)

Horn assembly - Lo: 18 N·m (1.84 kgf-m, 13.3 ft-lb)

COMMUNICATION SYSTEM > Horn

REMOVAL

Caution:

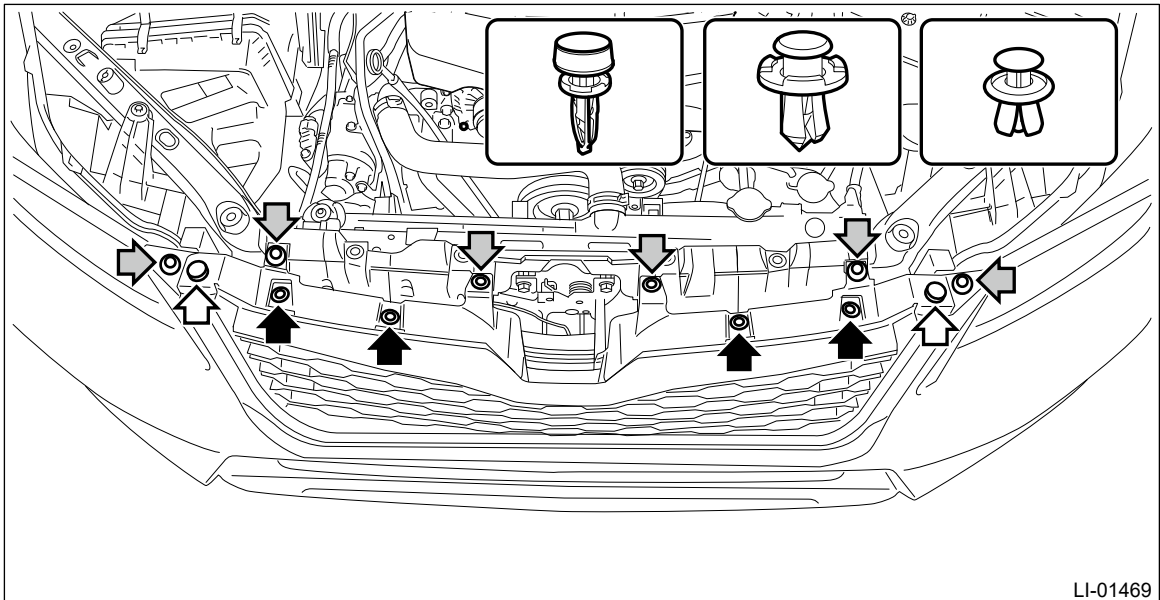
Do not remove the bumper face - front when removing the horn, in order to prevent damaging the claws of the bracket - front bumper corner and the bracket - front bumper side.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

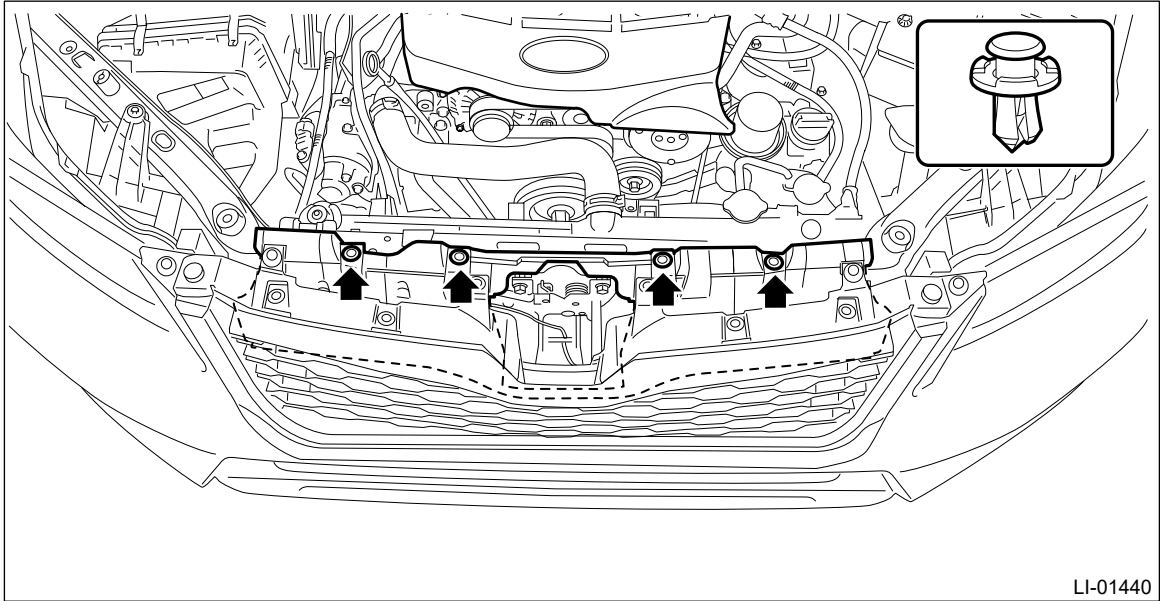
2. Remove the bracket - grille.
(1) Remove each bumper clip.



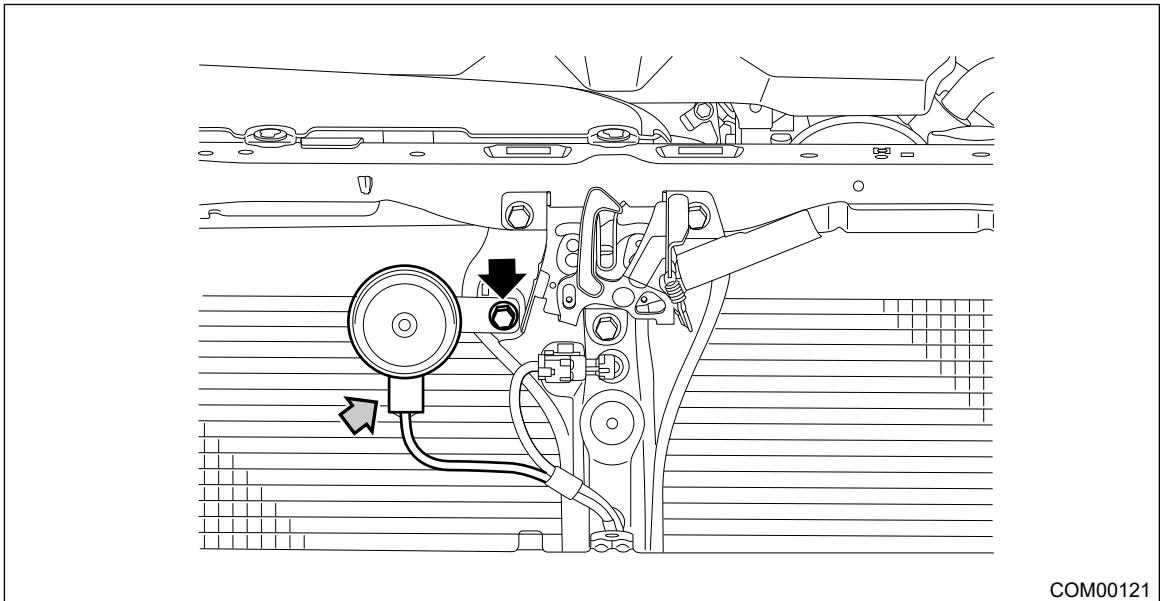
- (2) Remove the clip, and remove the bracket - grille.

Caution:

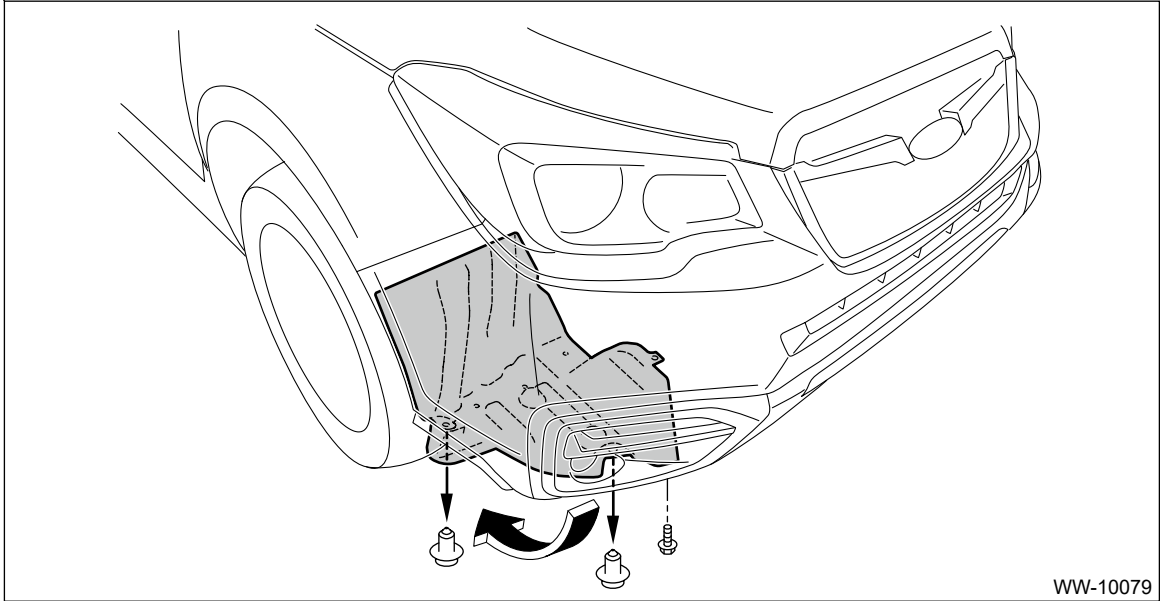
- **To prevent damage to the bracket - grille, make sure to remove all clips.**
- **Be careful not to damage the front grille assembly, etc.**



- 3.** Inserting your hand into the gap through the bumper face - front, remove the horn assembly - Lo.
- (1) Disconnect the connector.
 - (2) Remove the horn bracket mounting bolt, and remove the horn assembly - Lo.



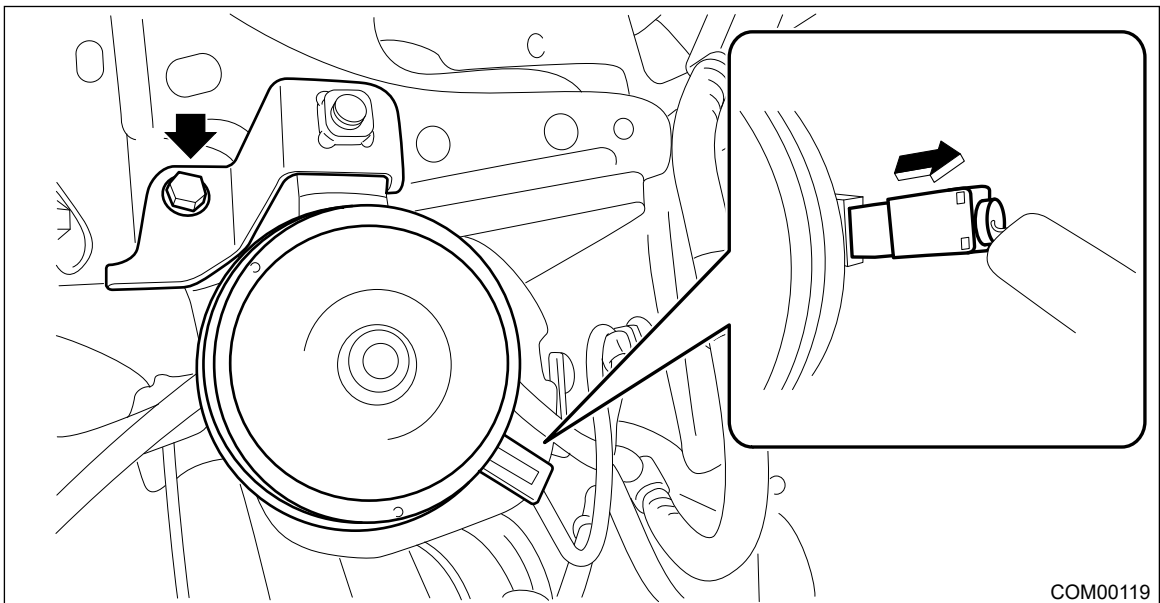
- 4.** Remove the horn assembly - Hi.
- (1) Remove the screw and clips, and turn over the mud guard - front RH.



- (2) Disconnect the horn connector.
- (3) Remove the horn bracket mounting bolt, and remove the horn assembly - Hi.

Caution:

The resistor may become hot. Be careful not to burn yourself.



COMMUNICATION SYSTEM > Relay and Fuse

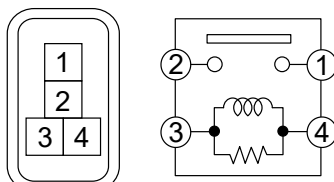
INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

2. CHECK RELAY

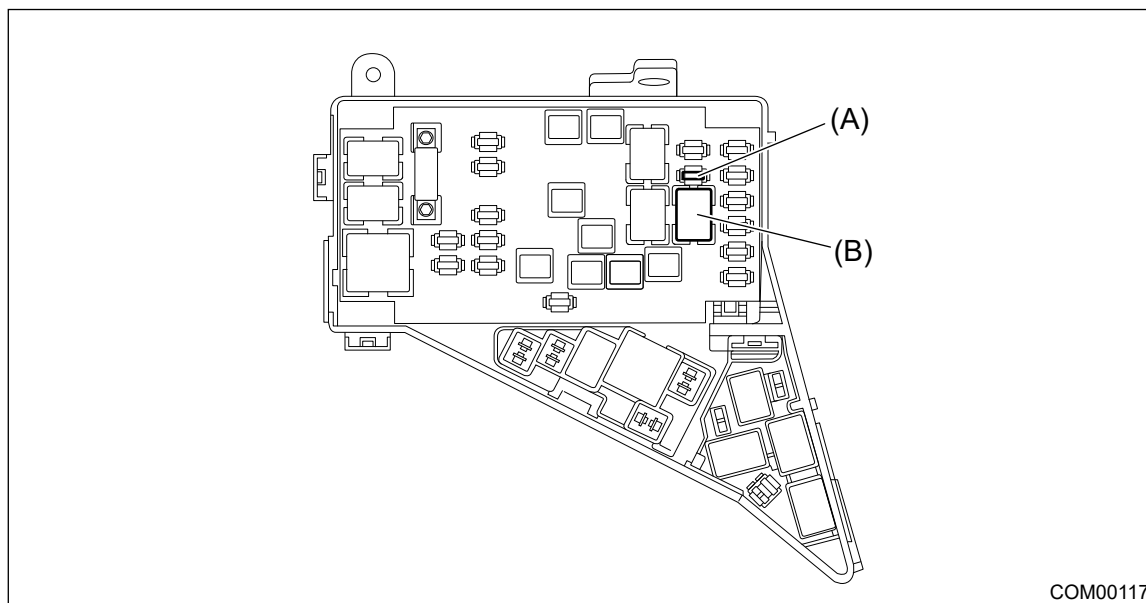
1. Check the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 MΩ or more	 <p style="text-align: right;">SR-00180</p>
1 – 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

2. Replace the relay if the inspection result is not within the standard value.

COMMUNICATION SYSTEM > Relay and Fuse

LOCATION



COM00117


Main fuse box	Fuse 15 A (horn assembly - Hi, Lo)	(A)
	Horn relay	(B)

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)


CRUISE CONTROL SYSTEM > Clutch Switch

NOTE

For clutch switch, refer to "CLUTCH SYSTEM" section.  [Ref. to CLUTCH SYSTEM>Clutch Switch.](#)

CRUISE CONTROL SYSTEM > Combination Meter





NOTE

For the combination meter, refer to "INSTRUMENTATION/DRIVER INFO" section.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)

CRUISE CONTROL SYSTEM > Control Unit

NOTE

System control of the cruise control is performed by each module. For procedure, refer to the following sections.

- Engine control module (ECM)
 - Non-turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\)>Engine Control Module \(ECM\).](#)
 - Turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DOTC\)>Engine Control Module \(ECM\).](#)
- Transmission control module (TCM)
 - Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Transmission Control Module \(TCM\).](#)
 - Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Transmission Control Module \(TCM\).](#)

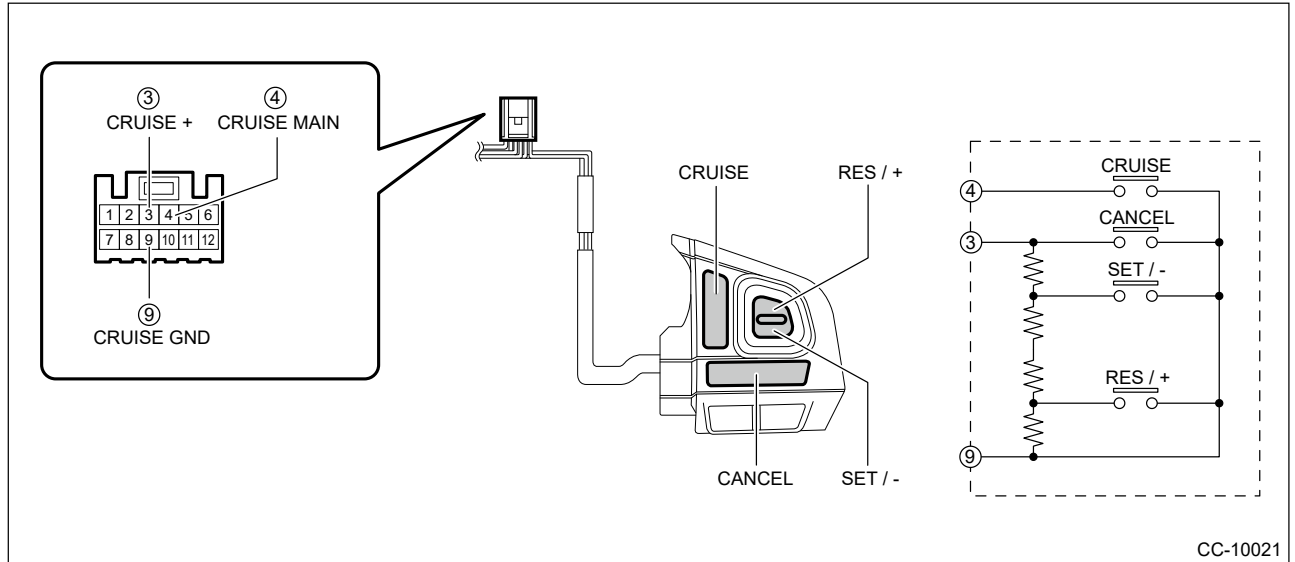
CRUISE CONTROL SYSTEM > Cruise Control Command Switch

INSPECTION

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions		Standard
3 – 9	{CANCEL} {SET}/- SET/+	All OFF	Approx. 4,020 Ω
	{CANCEL}	{ON}	Less than 1 Ω
	{SET}/-	{ON}	Approx. 250 Ω
	SET/+	{ON}	Approx. 1,470 Ω
4 – 9	{CRUISE} (MAIN)	{OFF}	1 MΩ or more
		{ON}	Less than 1 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.



Terminal No.	Inspection conditions	Specification
10 (+) – 11 (-)	Apply battery voltage.	Light ON


3. Replace the cruise control command switch assembly if it is found defective.

CRUISE CONTROL SYSTEM > Cruise Control Command Switch

INSTALLATION

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- If the steering wheel has been removed, make sure that the steering roll connector is not turned from the original position.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT.](#)
- Securely install the switch. Improper insertion of the pin or claw of the switch may cause improper installation.

1. Align the center position of the steering roll connector.  [Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.](#)

2. Install each part in the reverse order of removal.

Note:

Align the alignment marks on the steering wheel and the column assembly - steering.

Tightening torque:

Steering wheel: 39 N·m (3.98 kgf-m, 28.8 ft-lb)

Clearance:


Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)


3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

CRUISE CONTROL SYSTEM > Cruise Control Command Switch

REMOVAL




Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Set the tire to the straight-ahead position.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the driver's airbag module.  [Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
4. Remove the steering wheel.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>REMOVAL.](#)
5. Remove the cruise control command switch assembly.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>DISASSEMBLY.](#)

CRUISE CONTROL SYSTEM > Cruise Control System

INSPECTION

Refer to "Basic Diagnostic Procedure" of "CRUISE CONTROL SYSTEM (DIAGNOSTICS)".  [Ref. to CRUISE CONTROL \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

CRUISE CONTROL SYSTEM > Cruise Control System

NOTE

For operation procedures of each component of the cruise control system, refer to the respective section.

- Control module:

Note:

System control of the cruise control is performed by each module. For procedure, refer to the following sections.

– Engine control module (ECM)








Non-turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\)>Engine Control Module \(ECM\).](#)

Turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DOTC\)>Engine Control Module \(ECM\).](#)

– Transmission control module (TCM)

Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Transmission Control Module \(TCM\).](#)



Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Transmission Control Module \(TCM\).](#)

- Cruise control command switch:  [Ref. to CRUISE CONTROL SYSTEM>Cruise Control Command Switch.](#)
- Combination meter:  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)
- Stop light and brake switch:  [Ref. to BRAKE>Stop Light Switch.](#)
- Clutch switch:  [Ref. to CLUTCH SYSTEM>Clutch Switch.](#)
- Inhibitor switch
 - Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Inhibitor Switch.](#)
 - Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Inhibitor Switch.](#)
- Neutral position switch:  [Ref. to MANUAL TRANSMISSION AND DIFFERENTIAL\(6MT\)>Switches and Harness.](#)

CRUISE CONTROL SYSTEM > Cruise Control System

WIRING DIAGRAM

Refer to "Cruise Control System" in the wiring diagram.

- Non-turbo model:  [Ref. to WIRING SYSTEM>Cruise Control System>WIRING DIAGRAM > NON-TURBO MODEL.](#)
- Turbo model:  [Ref. to WIRING SYSTEM>Cruise Control System>WIRING DIAGRAM > TURBO MODEL.](#)

CRUISE CONTROL SYSTEM > Diagnostics with Phenomenon



INSPECTION

Refer to "Diagnostics with Phenomenon" of "CRUISE CONTROL SYSTEM (DIAGNOSTICS)" section.

 [Ref. to CRUISE CONTROL \(DIAGNOSTICS\)>Diagnostics with Phenomenon.](#)


CRUISE CONTROL SYSTEM > General Description

CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Adjust parts to the given specifications.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that the each component operates normally.
- Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of "AIRBAG SYSTEM" in this case.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Be careful not to damage the airbag system wiring harness when servicing electrical parts and switches.
- When removing, installing or replacing the VDCCM&H/U, VDCCM&H/U bracket, steering wheel or steering angle sensor (steering roll connector), perform "VSC(VDC) Centering Mode" of the VDC.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT.](#)

CRUISE CONTROL SYSTEM > General Description

LOCATION

Refer to "LOCATION" of "CRUISE CONTROL SYSTEM (DIAGNOSTICS)" section.  [Ref. to CRUISE CONTROL \(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)

CRUISE CONTROL SYSTEM > General Description



PREPARATION TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

CRUISE CONTROL SYSTEM > Inhibitor Switch


NOTE

For inhibitor switch, refer to "CONTINUOUSLY VARIABLE TRANSMISSION" section.

- Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Inhibitor Switch.](#)
- Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Inhibitor Switch.](#)

CRUISE CONTROL SYSTEM > Neutral Position Switch

NOTE

For neutral position switch, refer to "MANUAL TRANSMISSION AND DIFFERENTIAL" section.  [Ref. to MANUAL TRANSMISSION AND DIFFERENTIAL\(6MT\)>Switches and Harness.](#)

CRUISE CONTROL SYSTEM > Relay and Fuse

INSPECTION

1. CHECK FUSE

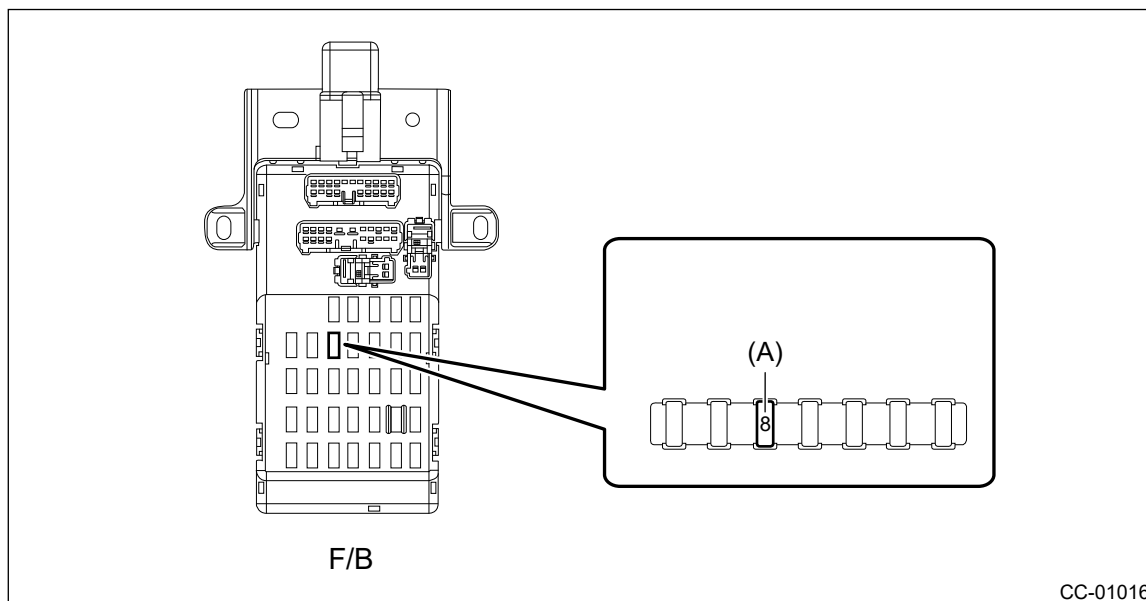
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:

If the fuse is blown again, check the system wiring harness.

CRUISE CONTROL SYSTEM > Relay and Fuse

LOCATION




Relay & fuse box	Fuse 10 A (stop light and brake switch)	(A)
------------------	---	-----

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

CRUISE CONTROL SYSTEM > Stop Light & Brake Switch



NOTE

For stop light and brake switch, refer to "BRAKE" section.  [Ref. to BRAKE>Stop Light Switch.](#)

CRUISE CONTROL SYSTEM > Transmission Control Module (TCM)

NOTE


For transmission control module (TCM), refer to "CONTINUOUSLY VARIABLE TRANSMISSION" section.

- Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Transmission Control Module \(TCM\).](#)
- Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Transmission Control Module \(TCM\).](#)

ENTERTAINMENT > Antenna

INSTALLATION


Caution:

- After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.
- Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:

Antenna assembly - radio or antenna assembly - telematics: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

REMOVAL

1. RADIO/TELEMATICS ANTENNA


Caution:

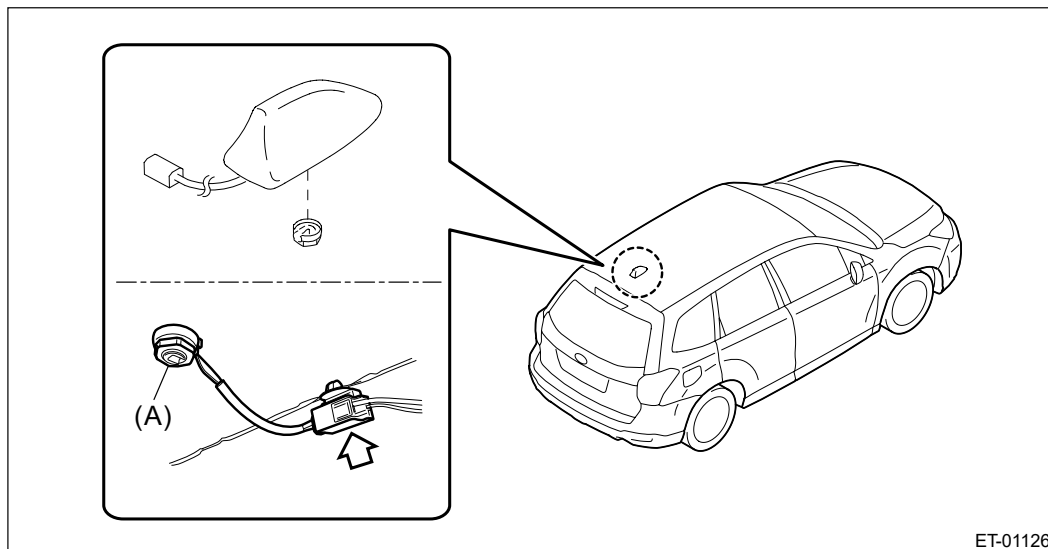
Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:


For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the trim panel - roof assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
3. Remove the antenna assembly - radio or telematics.
 - (1) Disconnect the connector and remove the mounting nut (A).
 - (2) Pull out the antenna assembly - radio or antenna assembly - telematics from the top of roof panel.



2. ANTENNA FEEDER CORD




Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


Note:


For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - roof assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
3. Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT>Audio>REMOVAL.](#)
4. Turn over the floor mat.  [Ref. to EXTERIOR/INTERIOR TRIM>Floor Mat>REMOVAL.](#)
5. Remove the cord assembly - antenna feeder.

3. TELEMATICS SUB ANTENNA




Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT>Audio>REMOVAL.](#)
3. Remove the combination meter assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.](#)
4. Remove the GPS antenna.  [Ref. to ENTERTAINMENT>GPS Antenna>REMOVAL.](#)

Note:

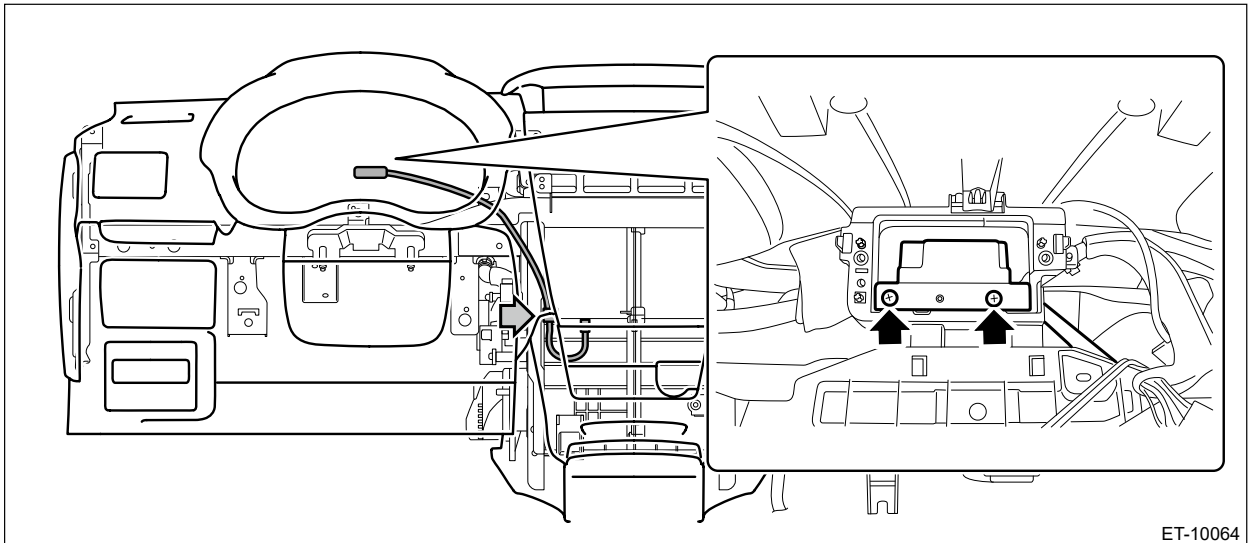
Remove the antenna only. Do not pull the cord.

5. Remove the telematics sub antenna.
 - (1) Tie a string to the telematics sub antenna connector on the data communication module side.

Note:

A string makes operation easier during installation.

- (2) Remove the screw and harness clamp, and pull out the telematics sub antenna cord from the combination meter side.



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- (3) After the telematics sub antenna has been pulled out, remove the string attached to the connector in step (1).

INSPECTION

1. BASIC INSPECTION

MODEL WITH 6.2 INCH DISPLAY

1. Using the Check List for Interview, ask the customer the condition of how trouble occurs. [📄 Ref. to ENTERTAINMENT>Check List for Interview>CHECK > MODEL WITH 6.2 INCH DISPLAY.](#)
2. Check the battery. [📄 Ref. to STARTING/CHARGING SYSTEMS\(H4DO\)>Battery>INSPECTION.](#)
3. Check the list of Diagnostics with Phenomenon, and perform diagnosis according to the procedures. [📄 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>LIST > AUDIO SYSTEM.](#)

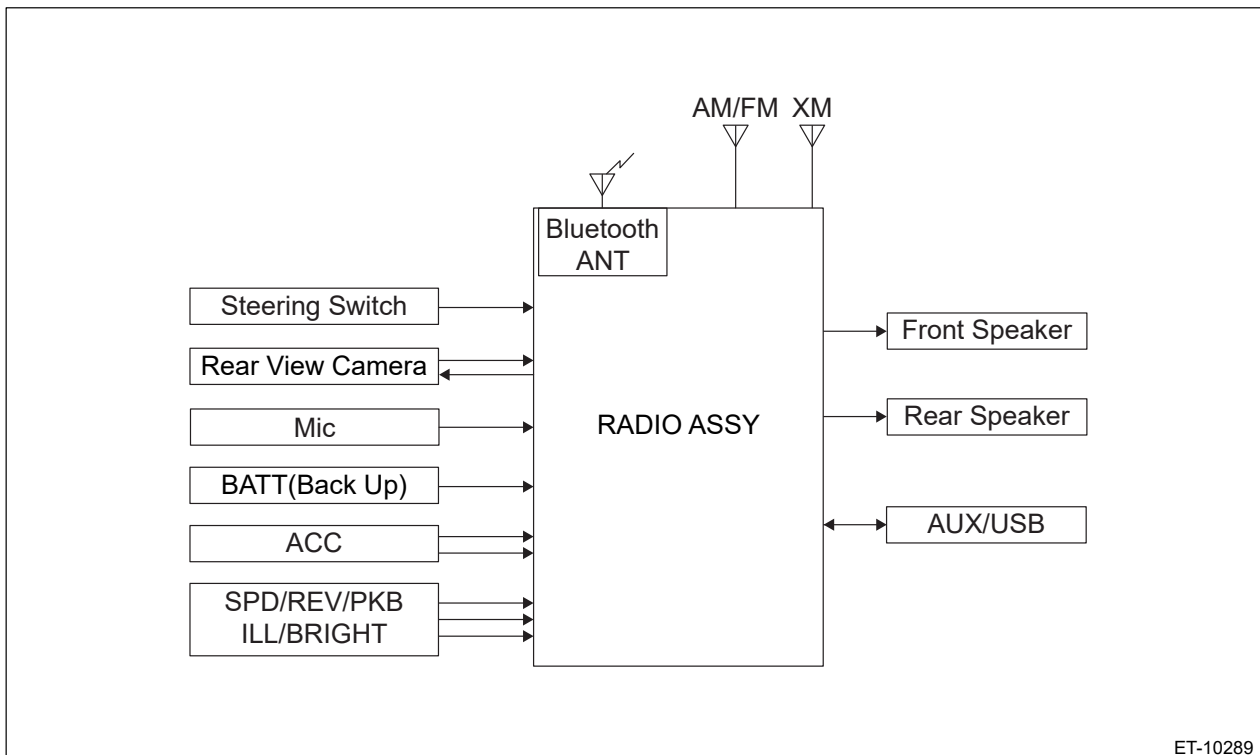
MODEL WITH 7 INCH DISPLAY

Note:

Refer to "BASIC INSPECTION" in "Navigation System". [📄 Ref. to ENTERTAINMENT>Navigation System>INSPECTION > BASIC INSPECTION.](#)

2. SYSTEM BLOCK DIAGRAM

MODEL WITH 6.2 INCH DISPLAY



*1: Model with telematics

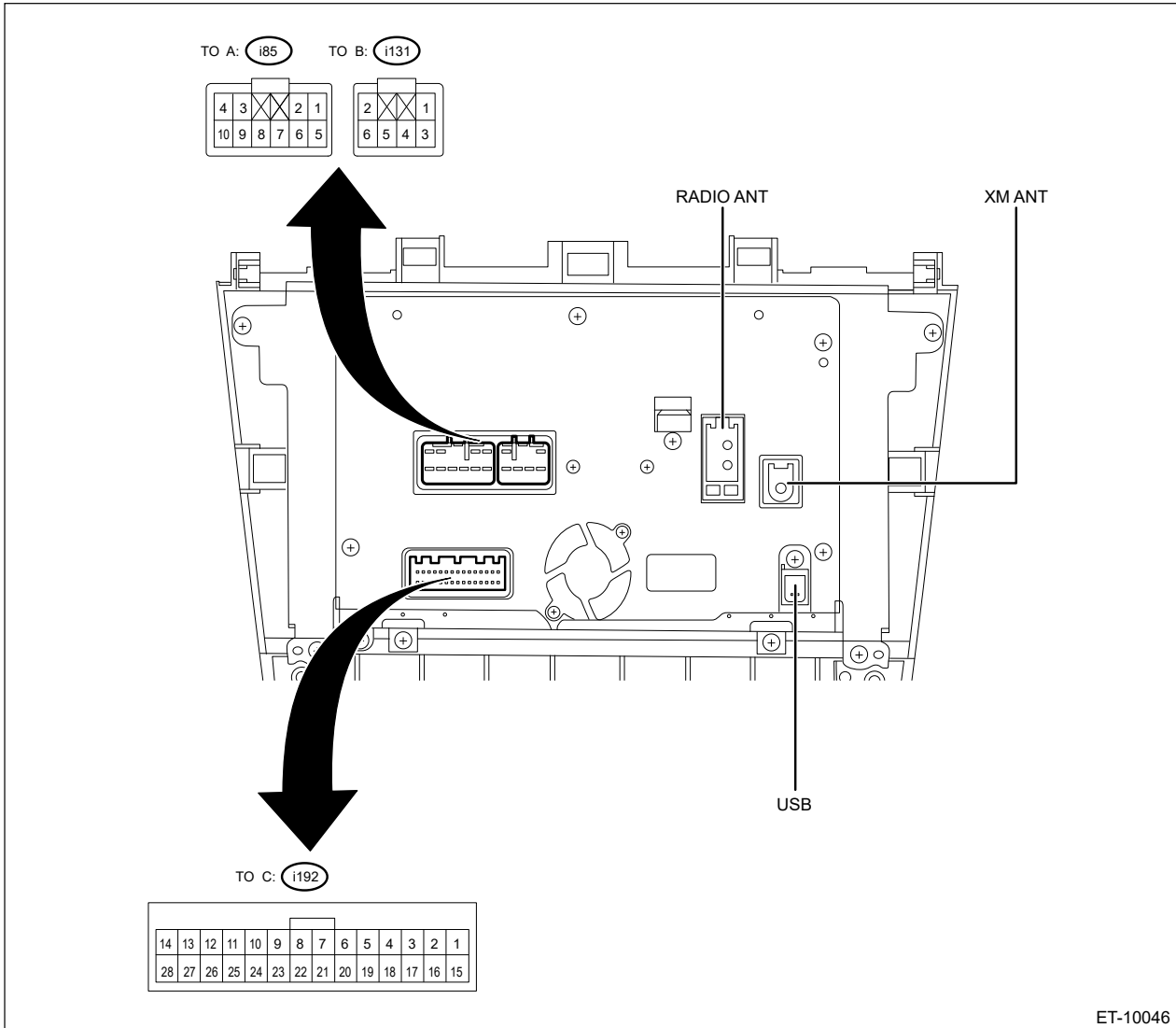
MODEL WITH 7 INCH DISPLAY

Note:

Refer to "System Block Diagram" in "Navigation System". [📄 Ref. to ENTERTAINMENT>Navigation System>INSPECTION > MODULE I/O SIGNAL.](#)

3. MODULE I/O SIGNAL

MODEL WITH 6.2 INCH DISPLAY



ET-10046

- Power supply and speaker output terminal

Terminal No.	Contents	Measuring condition	Measured value
(i85) No. 1	FRONT-RH (+)	—	—
(i85) No. 2	FRONT-LH (+)	—	—
(i85) No. 3 ↔ Chassis ground	ACC	ACC ON	11 — 15 V
(i85) No. 4 ↔ Chassis ground	+B	Always	11 — 15 V
(i85) No. 5	FRONT-RH (-)	—	—
(i85) No. 6	FRONT-LH (-)	—	—
(i85) No. 7 ↔ Chassis ground	GND	Always	0 V
(i85) No. 8	ANTENNA-ON	—	—
(i85) No. 9	N.C.	—	—
(i85) No. 10	ILLUMI (+)	—	—
(i131) No. 1	REAR-RH (+)	—	—
(i131) No. 2	REAR-LH (+)	—	—
(i131) No. 3	REAR-RH (-)	—	—
(i131) No. 4	N.C.	—	—


(i131) No. 5	ILLUMI (-)	—	—
(i131) No. 6	REAR-LH (-)	—	—

- Satellite switch and AUX input terminal for microphone, etc.

Terminal No.	Contents	Measuring condition	Measured value
(i192) No. 1	N.C.	—	—
(i192) No. 2	{REV}	—	—
(i192) No. 3	BRIGHT	—	—
(i192) No. 4	MACC+B	—	—
(i192) No. 5	MIC (+)	—	—
(i192) No. 6	MIC-DET	—	—
(i192) No. 7	N.C.	—	—
(i192) No. 8	N.C.	—	—
(i192) No. 9	N.C.	—	—
(i192) No. 10	N.C.	—	—
(i192) No. 11	CAM + 6V	—	—
(i192) No. 12	CV (+)	—	—
(i192) No. 13	CV (-) (SHIELD)	—	—
(i192) No. 14	SHIELD-GND (AUX)	—	—
(i192) No. 15 ↔ Chassis ground	{PKB}	At parking ON	1 V or less
(i192) No. 16	N.C.	—	—
(i192) No. 17 ↔ Chassis ground	{SPD}	When the tire is rotating	Pulse signal
(i192) No. 18	SHIELD-GND (MIC)	—	—
(i192) No. 19	MIC (-)	—	—
(i192) No. 20	GND (CAMERA)	—	—
(i192) No. 21	SW1	—	—
(i192) No. 22	SW2	—	—
(i192) No. 23	SWG	—	—
(i192) No. 24	N.C.	—	—
(i192) No. 25	AUX-ON	—	—
(i192) No. 26	AUX-R (+)	—	—
(i192) No. 27	AUX-LR (-)	—	—
(i192) No. 28	AUX-L (+)	—	—

MODEL WITH 7 INCH DISPLAY

Note:

Refer to the "Module I/O Signal" of "Navigation System".  Ref. to [ENTERTAINMENT>Navigation System>INSPECTION > MODULE I/O SIGNAL.](#)

ENTERTAINMENT > Audio System

NOTE

For procedure of each component in the audio system, refer to the respective sections.

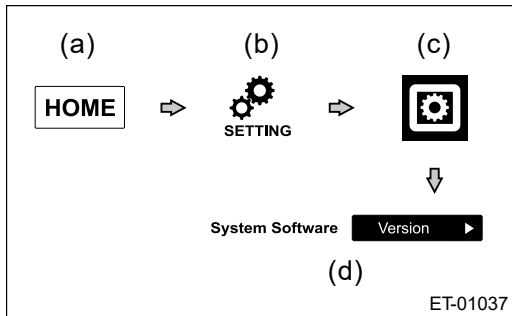
- Audio unit:  [Ref. to ENTERTAINMENT>Audio.](#)
- Power amplifier (model with power amplifier):  [Ref. to ENTERTAINMENT>Power Amplifier.](#)
- Front speaker
 - Tweeter (instrument panel):  [Ref. to ENTERTAINMENT>Front Speaker>REMOVAL > TWEETER.](#)
 - Door speaker:  [Ref. to ENTERTAINMENT>Front Speaker>REMOVAL > DOOR SPEAKER.](#)
- REAR DOOR SPEAKER
 - Tweeter (model with power amplifier):  [Ref. to ENTERTAINMENT>Rear Speaker>REMOVAL > TWEETER.](#)
 - Door speaker:  [Ref. to ENTERTAINMENT>Rear Speaker>REMOVAL > DOOR SPEAKER.](#)
- Antenna:  [Ref. to ENTERTAINMENT>Antenna.](#)
- Switches and harness:  [Ref. to ENTERTAINMENT>Switches and Harness.](#)
- Microphone:  [Ref. to ENTERTAINMENT>Microphone.](#)
- External connection terminal:  [Ref. to ENTERTAINMENT>External Connection Terminal.](#)
- Rearview camera:  [Ref. to ENTERTAINMENT>Rearview Camera System.](#)

OPERATION

1. SUBARU STARLINK CONNECTION ID DISPLAY

MODEL WITH 6.2 INCH DISPLAY

1. Turn the ignition switch to ACC.
2. Press the HOME button (a) to display the {HOME} screen.
3. Touch the {SETTINGS} (b) to display the {SETTINGS} screen.
4. Touch the {Settings General} (c) to display the {Settings General} screen.
5. Touch the {Version} (d) in {System Software}.



6. Confirm the Serial Number (8 digits).

MODEL WITH 7 INCH DISPLAY

Note:

Operation is the same as that of navigation assembly, therefore, refer to "Navigation System". [Ref. to ENTERTAINMENT>Navigation System>OPERATION > SUBARU STARLINK CONNECTION ID DISPLAY.](#)

2. SOFTWARE VERSION DISPLAY

MODEL WITH 6.2 INCH DISPLAY

1. Perform the same procedure as for the "SUBARU STARLINK connection ID display". [Ref. to ENTERTAINMENT>Audio System>OPERATION>SUBARU STARLINK CONNECTION ID DISPLAY>MODEL WITH 6.2 INCH DISPLAY.](#)
2. Confirm the Software Ver.

MODEL WITH 7 INCH DISPLAY

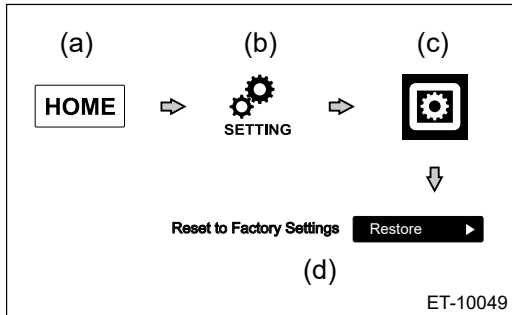
Note:

Operation is the same as that of navigation assembly, therefore, refer to "Navigation System". [Ref. to ENTERTAINMENT>Navigation System>OPERATION > SOFTWARE VERSION DISPLAY.](#)

3. INITIALIZATION (FACTORY DEFAULT)

MODEL WITH 6.2 INCH DISPLAY

1. Turn the ignition switch to ACC.
2. Press the HOME button (a) to display the {HOME} screen.
3. Touch the {SETTINGS} (b) to display the {SETTINGS} screen.
4. Touch the {Settings General} (c) to display the {Settings General} screen.
5. Touch the {Restore} (d) in {Reset to Factory Settings}.



6. Touch {OK} after {Are you sure you want to delete All Data?} is displayed.
7. {DO NOT OPERATE. Initializing now.} is displayed, and all data deletion is initiated.
8. When all data is deleted, {All date has been deleted. Start up the engine to reboot.} is displayed.

MODEL WITH 7 INCH DISPLAY

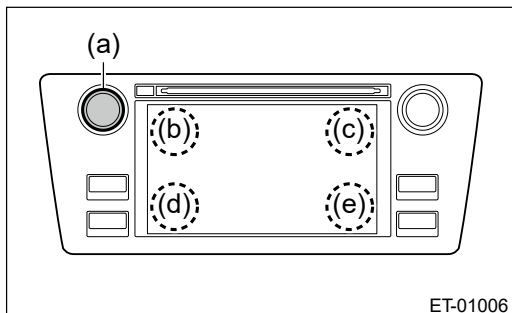
Note:

Operation is the same as that of navigation assembly, therefore, refer to "Navigation System". [Ref. to ENTERTAINMENT>Navigation System>OPERATION > INITIALIZATION \(FACTORY DEFAULT\).](#)

4. CHECK CONNECTIONS WITH LINE DIAG MODE

MODEL WITH 6.2 INCH DISPLAY

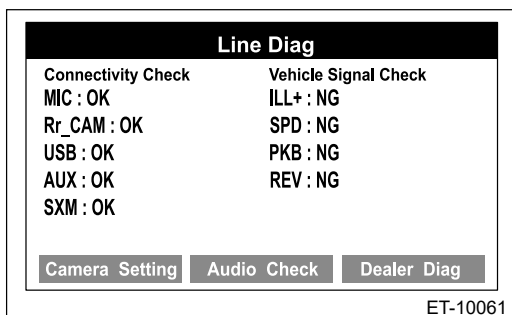
1. Turn the ignition switch to ACC.
2. Press the button (a) to display the Audio OFF screen.
3. Touch the screen in order from (b) to (e).



Note:

Pressing the button (a) or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

4. {Line Diag} screen is displayed.
5. Check the connection status with the {Connectivity Check} in the {Line Diag} screen.



OK: Each connection device is connected properly.


NG: No connection or abnormal connection is detected.

Note:

Check the external connection terminals (USB 1, 2 and AUX) by connecting a memory for check or a pin jack.

MODEL WITH 7 INCH DISPLAY

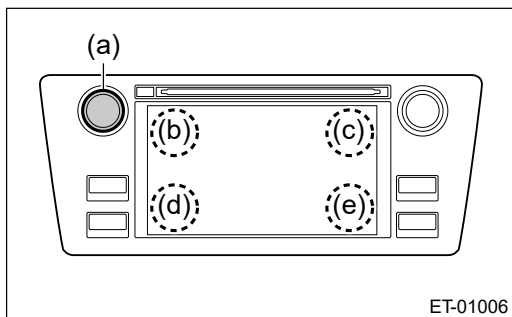
Note:

Operation is the same as that of navigation assembly, therefore, refer to "Navigation System".  **Ref. to ENTERTAINMENT>Navigation System>OPERATION > CHECK CONNECTIONS WITH LINE DIAG MODE.**

5. CHECK VEHICLE SIGNALS WITH LINE DIAG MODE

MODEL WITH 6.2 INCH DISPLAY

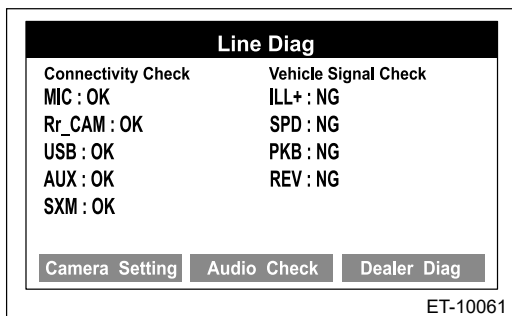
1. Turn the ignition switch to ACC.
2. Press the button (a) to display the Audio OFF screen.
3. Touch the screen in order from (b) to (e).



Note:

Pressing the button (a) or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

4. {Line Diag} screen is displayed.
5. Check the signal status with the {Vehicle Signal Check} in the {Line Diag} screen.



- Check illumination

Note:

Make sure that the bright switch is not ON.

1. Set the lighting switch to the parking position.
2. Make sure that {OK} lights in ILL+ and then the screen becomes dim.

OK: Normal.

NG: Abnormal. Check the signal line connector. If there are no problems, the unit could be faulty.

- Check speed sensor

Note:

- Before starting inspections, check the safety around the vehicle.
- Lift up the vehicle as necessary.
- When the diagnostic trouble code is input in the VDC CM, perform the Clear Memory Mode.

1. Drive the vehicle at 8 km/h (5 MPH) or more.
2. Check that {OK} is displayed in SPD.
 - OK: Normal.
 - NG: Vehicle speed is less than 8 km/h (5 MPH), or malfunction is detected in the signal line. Check the signal line connector. If there are no problems, the unit could be faulty.
- Check parking brake signal
 1. Pull parking brake lever.
 2. Check that {OK} is displayed in PKB.
 - OK: Normal.
 - NG: Abnormal. Check the signal line connector. If there are no problems, the unit could be faulty.
- Check back sensor


Note:

Before starting inspections, check the safety behind the vehicle.

1. Turn the ignition to ON.
2. Pull the parking brake lever and depress the brake pedal, then place the select lever or gear shift lever in reverse.
3. Make sure that {OK} is displayed in REV.
 - OK: Normal.
 - NG: Abnormal. Check the signal line connector. If there are no problems, the unit could be faulty.

MODEL WITH 7 INCH DISPLAY

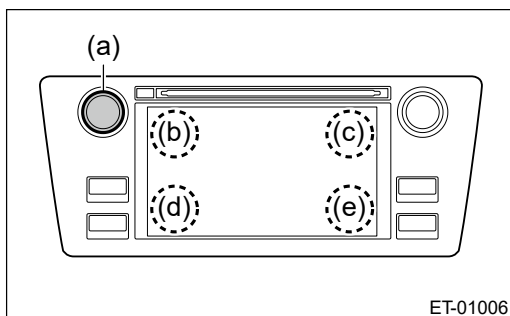
Note:

Operation is the same as that of navigation assembly, therefore, refer to "Navigation System".  Ref. to [ENTERTAINMENT>Navigation System>OPERATION > CHECK VEHICLE SIGNALS WITH DIAGNOSTIC MODE.](#)

6. CHECK SPEAKER OUTPUT WITH LINE DIAG MODE

MODEL WITH 6.2 INCH DISPLAY

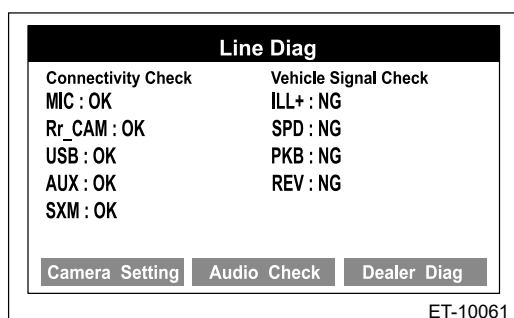
1. Turn the ignition switch to ACC.
2. Press the button (a) to display the Audio OFF screen.
3. Touch the screen in order from (b) to (e).



Note:

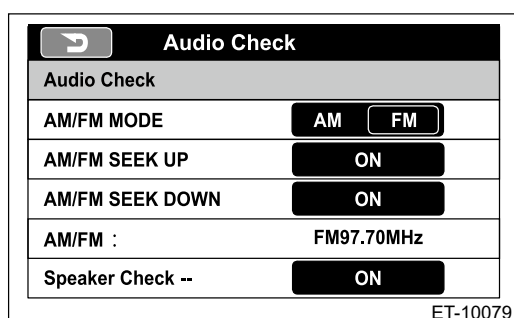
Pressing the button (a) or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

4. {Line Diag} screen is displayed.



5. Touch {Audio Check} on the {Line Diag} screen.

6. {Audio Check} screen is displayed.




7. Touch the {ON} key of {Speaker Check} to check speaker output.

Note:

- The speaker front left → front right → rear right → rear left will sound in order for 2 seconds each.
- The speaker sounds at the maximum volume during speaker check.
- Press the {Return} key to return to the {Line Diag} screen.

MODEL WITH 7 INCH DISPLAY

Note:

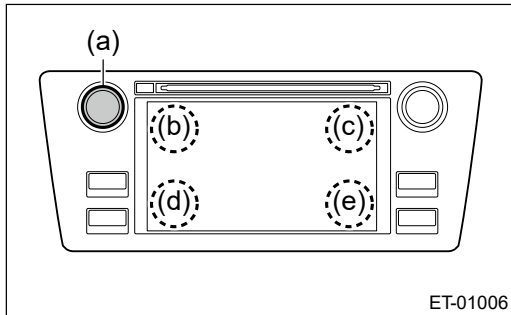
Operation is the same as that of navigation assembly, therefore, refer to "Navigation System".  Ref. to [ENTERTAINMENT>Navigation System>OPERATION > CHECK SPEAKER OUTPUT WITH LINE DIAG MODE.](#)

7. RADIO FREQUENCY RANGE SWITCH-OVER

Note:

- Some items are not displayed according to destination.
- Displayed only for model with 6.2 inch display.

1. Turn the ignition switch to ACC.
2. Press the button (a) to display the Audio OFF screen.
3. Touch the screen in order from (b) to (e).

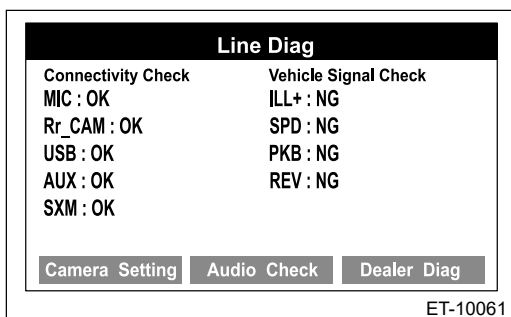


ET-01006

Note:

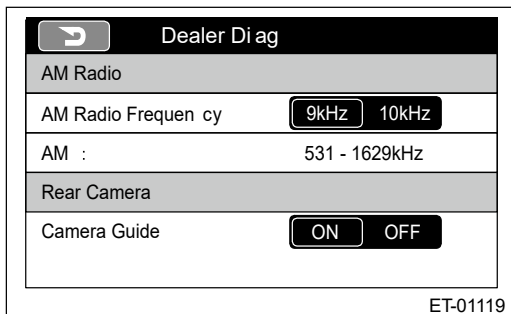
Pressing the button (a) or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

4. {Line Diag} screen is displayed.



ET-10061

5. Touch {Dealer Diag} on the {Line Diag} screen.
6. The {Dealer Diag} screen is displayed.



ET-01119

7. Touch the {9kHz} or {10kHz} key to switch the AM radio frequency range.


Display key	Frequency range
9 kHz	Set the AM frequency range to 531 – 1629 kHz.
10 kHz	Set the AM frequency range to 530 – 1710 kHz.

Note:

- **When the setting is changed, reboot confirmation for frequency switch-over is displayed. Select {OK} to reboot. When {cancel} is pressed, the {Dealer Diag} screen is displayed.**
- **The initial settings is at 9 kHz.**





WIRING DIAGRAM

1. MODEL WITH 6.2 INCH DISPLAY

Refer to "Audio System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM > 6.2 INCH DISPLAY.](#)


2. MODEL WITH 7 INCH DISPLAY

Refer to "Audio System" in the wiring diagram.

- WITHOUT AUDIO AMPLIFIER, WITHOUT TELEMATICS:  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM > 7 INCH DISPLAY\(WITHOUT AUDIO AMPLIFIER, WITHOUT TELEMATICS\).](#)
- WITHOUT AUDIO AMPLIFIER, WITH TELEMATICS:  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM > 7 INCH DISPLAY\(WITHOUT AUDIO AMPLIFIER, WITH TELEMATICS\).](#)
- WITH AUDIO AMPLIFIER, WITHOUT TELEMATICS:  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM > 7 INCH DISPLAY\(WITH AUDIO AMPLIFIER, WITHOUT TELEMATICS\).](#)
- WITH AUDIO AMPLIFIER, WITH TELEMATICS:  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM > 7 INCH DISPLAY\(WITH AUDIO AMPLIFIER, WITH TELEMATICS\).](#)

INSTALLATION


Caution:

- After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.
- Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and cables to interfere with or get caught by other parts.

1. Install each part in the reverse order of removal.

Tightening torque:

Audio assembly: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

REMOVAL





Caution:

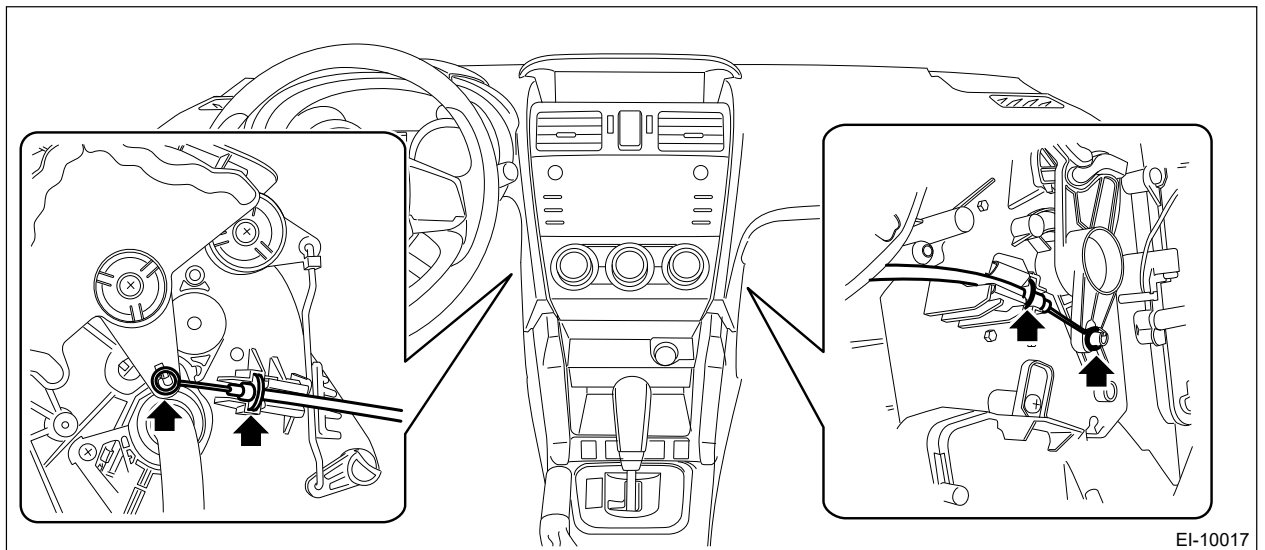
Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

- 1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

- 2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
- 3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
- 4. Remove the glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
- 5. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
- 6. Remove the audio assembly.
 - (1) On manual A/C models, disconnect the control cables from both sides of the heater and cooling unit assembly.

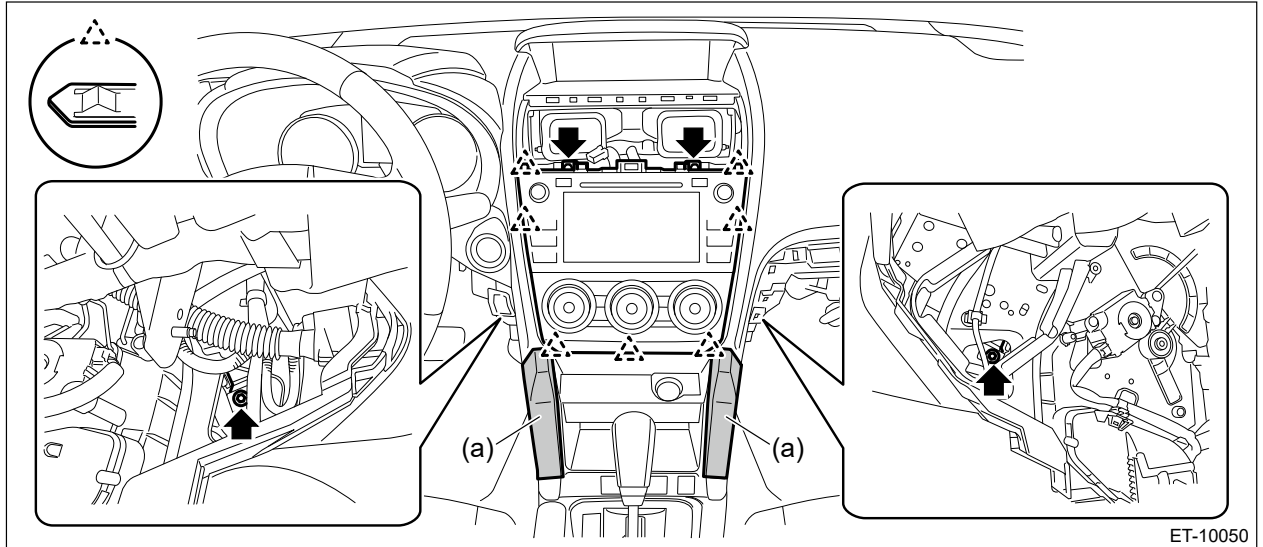


- (2) Attach the protective tape (a) to the cover - shift lever.
- (3) Remove the screws and bolts, release the claws, and partially pull out the audio assembly.

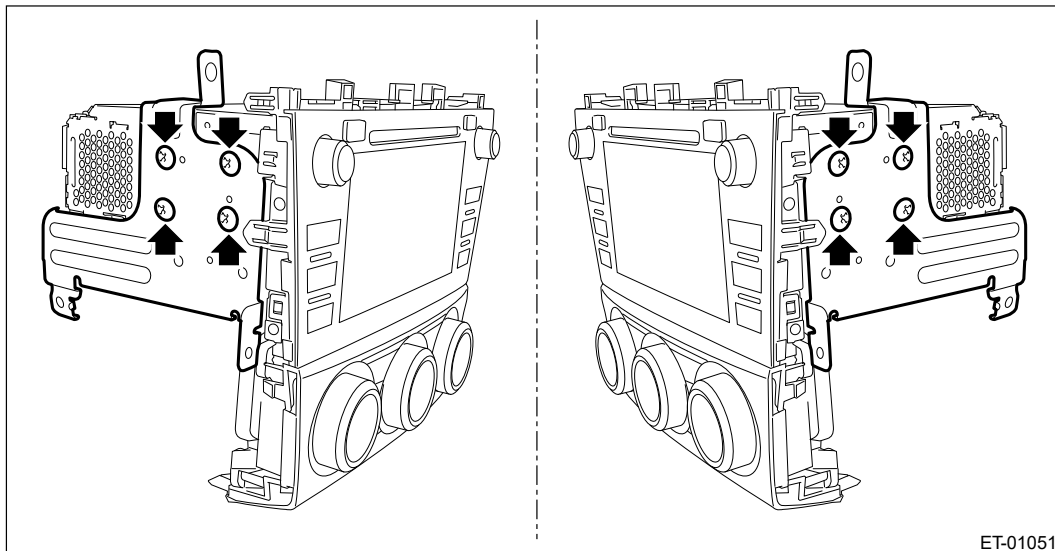
Note:

Release the claw by using a clip remover wrapped with protective tape.


- (4) Disconnect the connectors, and remove the audio assembly.

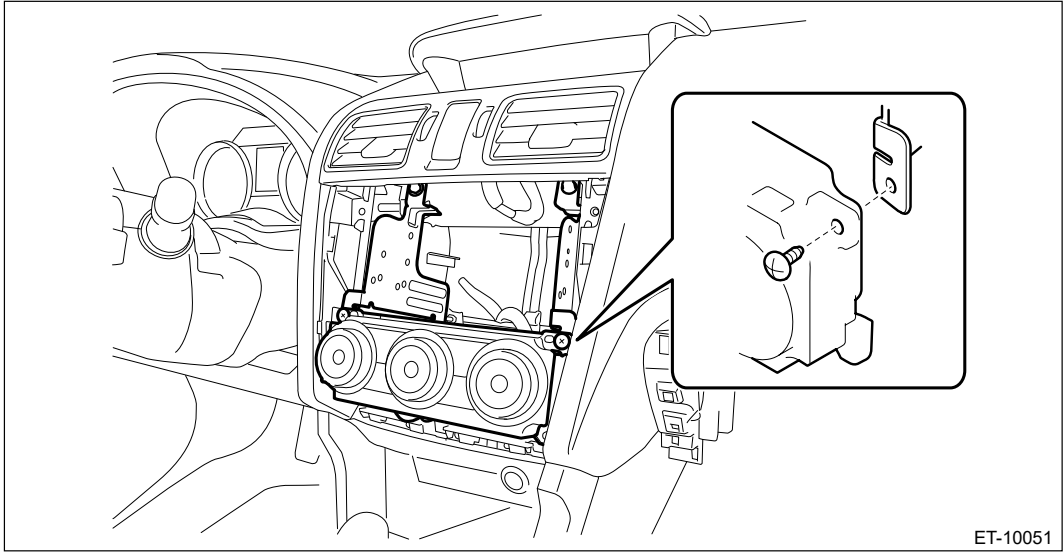


7. Remove the screws, and then remove the audio bracket.



Note:

- **The model with telematics is equipped with the data communication module under the audio assembly.**
- **When sending the audio for repair, remove the audio bracket and heater control assembly, and install on the vehicle as shown in the figure below.  Ref. to HVAC SYSTEM (HEATER, VENTILATOR AND A/C)>Control Panel>REMOVAL.**



ET-10051

ENTERTAINMENT > Check List for Interview

CHECK

- Inspect the following items regarding the vehicle’s state.
- Print out this page for interviewing customers.


1. MODEL WITH 6.2 INCH DISPLAY



Check List for Interview		Date of Vehicle Bring-in: Year Month Date		
Customer’s name		Registration number		Initial year of registration Year Month Date
		Vehicle model		Frame number
Interviewer	Inspector	Engine type		Odometer reading
Customer specified content • • • •				
Product information	Part No.	Manufacturer model number		Serial No.
	Software version*1			
	Connected device (example: iPod connected via USB cable)			
SUBARU STARLINK connection ID*1				
SUBARU STARLINK app version				
Mobile phone	Mobile phone carrier (example: AT&T)			
	Mobile phone model (example: Apple iPhone 6)			
	Mobile phone OS version (example: software version information)			
Date when problem occurred		Year	Month	Date

Conditions at event	Weather <input type="checkbox"/> Fine <input type="checkbox"/> Cloudy <input type="checkbox"/> Rainy <input type="checkbox"/> Snowy <input type="checkbox"/> Others ()
	Temperature °C (°F)
	How often <input type="checkbox"/> Always (Check here if reproduced.) <input type="checkbox"/> Once in the past <input type="checkbox"/> Sometimes (times a day/ times a week/ times a month)
When	Example: It occurs about 30 minutes after driving.
Occurrence condition 1 (In what situations did it occur?)	<input type="checkbox"/> Fast Driving <input type="checkbox"/> Rough Roads <input type="checkbox"/> Parked <input type="checkbox"/> Unknown <input type="checkbox"/> Others
Occurrence condition 2 (In what operations did it occur?)	<input type="checkbox"/> ACC On <input type="checkbox"/> Insert Disc <input type="checkbox"/> Press Specific Button or Mode <input type="checkbox"/> Press Specific Button or Mode <input type="checkbox"/> Unknown <input type="checkbox"/> Others
Recovering condition (What helped the status return to normal?)	<input type="checkbox"/> Recover on its own <input type="checkbox"/> ACC Off and On <input type="checkbox"/> Does not recover <input type="checkbox"/> Others
Occurrence location	<input type="checkbox"/> Unknown <input type="checkbox"/> Any Place <input type="checkbox"/> Driving around open areas like in the country <input type="checkbox"/> Driving around hills or mountains <input type="checkbox"/> Driving around cities with large buildings <input type="checkbox"/> Driving around residential areas or no large buildings <input type="checkbox"/> Driving around areas with power
Error message content (error message displayed)	
Display trouble	<input type="checkbox"/> Black screen <input type="checkbox"/> White screen <input type="checkbox"/> Blue screen <input type="checkbox"/> Dim <input type="checkbox"/> Vertical/horizontal noise (lines) <input type="checkbox"/> Poor color tone <input type="checkbox"/> Unclear <input type="checkbox"/> Display corruption <input type="checkbox"/> No picture <input type="checkbox"/> Others
Occurrence conditions (screen display related problems)	<input type="checkbox"/> CD <input type="checkbox"/> Radio <input type="checkbox"/> External devices <input type="checkbox"/> Others ()
Operating problems	<input type="checkbox"/> Display does not switch <input type="checkbox"/> Display changes unexpectedly <input type="checkbox"/> Response is dull/slow <input type="checkbox"/> Does not respond to key entry <input type="checkbox"/> Does not respond to steering switch entry <input type="checkbox"/> Does not change to night mode screen <input type="checkbox"/> Discs cannot be inserted or ejected <input type="checkbox"/> Others
Display/touch switch malfunction	<input type="checkbox"/> Brightness / Contrast <input type="checkbox"/> Discoloration <input type="checkbox"/> No rear camera <input type="checkbox"/> Partial Display <input type="checkbox"/> Lines in screen <input type="checkbox"/> No Audio Control Screen <input type="checkbox"/> Others
Voice recognition malfunction	<input type="checkbox"/> Voice recognition is not ready <input type="checkbox"/> Not recognize commands <input type="checkbox"/> Others
BEEP on operation entry	<input type="checkbox"/> Present <input type="checkbox"/> None
Radio malfunction	<input type="checkbox"/> AM: Station (Hz) <input type="checkbox"/> FM: Station (Hz) <input type="checkbox"/> SXM: Station (channel) (only for North America)

	<input type="checkbox"/> HD: Station (channel) (only for North America) <input type="checkbox"/> No Sound <input type="checkbox"/> No / Poor Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Sound cuts in / out <input type="checkbox"/> Others
SW color change at operation	<input type="checkbox"/> Present <input type="checkbox"/> None
Audio malfunction	<input type="checkbox"/> Does not sound <input type="checkbox"/> Front (<input type="checkbox"/> R <input type="checkbox"/> L) <input type="checkbox"/> Rear (<input type="checkbox"/> R <input type="checkbox"/> L) <input type="checkbox"/> Others () <input type="checkbox"/> Operation related problems <input type="checkbox"/> Cannot adjust volume level <input type="checkbox"/> Cannot use tone control or adjust tone range <input type="checkbox"/> Cannot record <input type="checkbox"/> Sound skipping <input type="checkbox"/> CD <input type="checkbox"/> DVD <input type="checkbox"/> Others () • Specified mode / disc ()
CD/USB/SD/iPod malfunction	<input type="checkbox"/> Will not accept <input type="checkbox"/> Will not eject (CD) <input type="checkbox"/> Will not play <input type="checkbox"/> Skips / Jump Chapter <input type="checkbox"/> No Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Sound cuts in / out <input type="checkbox"/> Shows Error <input type="checkbox"/> Others
Bluetooth Audio related malfunction	<input type="checkbox"/> Will Not Pair <input type="checkbox"/> Will Not Play <input type="checkbox"/> No Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Disconnect on its own <input type="checkbox"/> Others
Bluetooth handsfree related malfunction	<input type="checkbox"/> Will Not Pair <input type="checkbox"/> Cannot Hear (Receiver) <input type="checkbox"/> Cannot Hear (Caller) <input type="checkbox"/> Sounds Garbled <input type="checkbox"/> Address Book Will Not Transfer <input type="checkbox"/> Disconnect on its own
SUBARU STARLINK malfunction	<input type="checkbox"/> Bluetooth connection not established <input type="checkbox"/> SUBARU STARLINK app disabled <input type="checkbox"/> SUBARU STARLINK app disabled <input type="checkbox"/> Communication gets out of service <input type="checkbox"/> Pandora disabled <input type="checkbox"/> MirrorLink disabled <input type="checkbox"/> AHA disabled <input type="checkbox"/> USB connection not established <input type="checkbox"/> Others
Check result	Reproductivity <input type="checkbox"/> Reproduced <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Cannot be reproduced <input type="checkbox"/> Others
	Condition <input type="checkbox"/> Cold <input type="checkbox"/> Warm <input type="checkbox"/> At starting <input type="checkbox"/> Immediately after starting <input type="checkbox"/> During warm-up <input type="checkbox"/> At idling <input type="checkbox"/> When start driving <input type="checkbox"/> While driving <input type="checkbox"/> At acceleration <input type="checkbox"/> At deceleration <input type="checkbox"/> <input type="checkbox"/> When applying brake

*1: For confirmation procedure, refer to Audio System. :  [Ref. to ENTERTAINMENT>Audio System>OPERATION.](#)

2. MODEL WITH 7 INCH DISPLAY (AUDIO)

Note:

[Refer to model with 6.2 inch display.](#)  [Ref. to ENTERTAINMENT>Check List for Interview>CHECK > MODEL WITH 6.2 INCH DISPLAY.](#)


3. MODEL WITH 7 INCH DISPLAY (NAVIGATION)



Check List for Interview	Date of Vehicle Bring-in:		
	Year	Month	Date
Customer's name	Registration number	Initial year of	

(In what situations did it occur?)	
Occurrence condition 2 (In what operations did it occur?)	<input type="checkbox"/> ACC On <input type="checkbox"/> Insert Disc <input type="checkbox"/> Press Specific Button or Mode <input type="checkbox"/> Press Specific Button or Mode <input type="checkbox"/> Unknown <input type="checkbox"/> Others
Recovering condition (What helped the status return to normal?)	<input type="checkbox"/> Recover on its own <input type="checkbox"/> ACC Off and On <input type="checkbox"/> Does not recover <input type="checkbox"/> Others
Occurrence location	<input type="checkbox"/> Unknown <input type="checkbox"/> Any Place <input type="checkbox"/> Driving around open areas like in the country <input type="checkbox"/> Driving around hills or mountains <input type="checkbox"/> Driving around cities with large buildings <input type="checkbox"/> Driving around residential areas or no large buildings <input type="checkbox"/> Driving around areas with power
Error message content (error message displayed)	
Display trouble	<input type="checkbox"/> Black screen <input type="checkbox"/> White screen <input type="checkbox"/> Blue screen <input type="checkbox"/> Dim <input type="checkbox"/> Vertical/horizontal noise (lines) <input type="checkbox"/> Poor color tone <input type="checkbox"/> Unclear <input type="checkbox"/> Display corruption <input type="checkbox"/> No picture <input type="checkbox"/> Others
Occurrence conditions (screen display related problems)	<input type="checkbox"/> Navigation <input type="checkbox"/> CD <input type="checkbox"/> Radio <input type="checkbox"/> External devices <input type="checkbox"/> Others ()
Operating problems	<input type="checkbox"/> Display does not switch <input type="checkbox"/> Display changes unexpectedly <input type="checkbox"/> Response is dull/slow <input type="checkbox"/> Does not respond to key entry <input type="checkbox"/> Does not respond to steering switch entry <input type="checkbox"/> Does not change to night mode screen <input type="checkbox"/> Discs cannot be inserted or ejected <input type="checkbox"/> Others
Display/touch switch malfunction	<input type="checkbox"/> Brightness / Contrast <input type="checkbox"/> Discoloration <input type="checkbox"/> No rear camera <input type="checkbox"/> Partial Display <input type="checkbox"/> Lines in screen <input type="checkbox"/> No Audio Control Screen <input type="checkbox"/> No Navi Map on Screen <input type="checkbox"/> Others
Voice recognition malfunction	<input type="checkbox"/> Voice recognition is not ready <input type="checkbox"/> Not recognize commands <input type="checkbox"/> Others
BEEP on operation entry	<input type="checkbox"/> Present <input type="checkbox"/> None
Radio malfunction	<input type="checkbox"/> AM: Station (Hz) <input type="checkbox"/> FM: Station (Hz) <input type="checkbox"/> SXM: Station (channel) (only for North America) <input type="checkbox"/> HD: Station (channel) (only for North America) <input type="checkbox"/> No Sound <input type="checkbox"/> No / Poor Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Sound cuts in / out <input type="checkbox"/> Others
SW color change at operation	<input type="checkbox"/> Present <input type="checkbox"/> None
Audio malfunction	<input type="checkbox"/> Does not sound <input type="checkbox"/> Front (<input type="checkbox"/> R <input type="checkbox"/> L) <input type="checkbox"/> Rear (<input type="checkbox"/> R <input type="checkbox"/> L) <input type="checkbox"/> Others () <input type="checkbox"/> Operation related problems <input type="checkbox"/> Cannot adjust volume level <input type="checkbox"/> Cannot use tone control or adjust tone range <input type="checkbox"/> Cannot record

	<input type="checkbox"/> Sound skipping <input type="checkbox"/> CD <input type="checkbox"/> DVD <input type="checkbox"/> Others () <ul style="list-style-type: none"> • Specified mode / disc ()
CD/USB/SD/iPod malfunction	<input type="checkbox"/> Will not accept <input type="checkbox"/> Will not eject (CD) <input type="checkbox"/> Will not play <input type="checkbox"/> Skips / Jump Chapter <input type="checkbox"/> No Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Sound cuts in / out <input type="checkbox"/> Shows Error <input type="checkbox"/> Others
Fault in navigation system	<input type="checkbox"/> Cursor or map rotating <input type="checkbox"/> Wrong location of vehicle <input type="checkbox"/> Cursor hopping during driving <input type="checkbox"/> Map image incomplete <input type="checkbox"/> No GPS marks displayed <input type="checkbox"/> Incorrect time display <input type="checkbox"/> Guide not initiated <input type="checkbox"/> No route search <input type="checkbox"/> Caution remains on navigation screen <input type="checkbox"/> Unexpected return back to opening screen <input type="checkbox"/> No Voice Guidance <input type="checkbox"/> Guidance Volume too Low <input type="checkbox"/> Will Not Read Data <input type="checkbox"/> Will Not Update <input type="checkbox"/> Destination / Route Problem <input type="checkbox"/> Display Does Not Change (Frozen) <input type="checkbox"/> Overall Navi Operation Slow <input type="checkbox"/> No GPS reception <input type="checkbox"/> Others
Bluetooth Audio related malfunction	<input type="checkbox"/> Will Not Pair <input type="checkbox"/> Will Not Play <input type="checkbox"/> No Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Disconnect on its own <input type="checkbox"/> Others
Bluetooth handsfree related malfunction	<input type="checkbox"/> Will Not Pair <input type="checkbox"/> Cannot Hear (Receiver) <input type="checkbox"/> Cannot Hear (Caller) <input type="checkbox"/> Sounds Garbled <input type="checkbox"/> Address Book Will Not Transfer <input type="checkbox"/> Disconnect on its own
SUBARU STARLINK malfunction	<input type="checkbox"/> Bluetooth connection not established <input type="checkbox"/> SUBARU STARLINK app disabled <input type="checkbox"/> SUBARU STARLINK app disabled <input type="checkbox"/> Communication gets out of service <input type="checkbox"/> Pandora disabled <input type="checkbox"/> MirrorLink disabled <input type="checkbox"/> AHA disabled <input type="checkbox"/> USB connection not established <input type="checkbox"/> Others
Check result	Reproductivity <input type="checkbox"/> Reproduced <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Cannot be reproduced <input type="checkbox"/> Others
	Condition <input type="checkbox"/> Cold <input type="checkbox"/> Warm <input type="checkbox"/> At starting <input type="checkbox"/> Immediately after starting <input type="checkbox"/> During warm-up <input type="checkbox"/> At idling <input type="checkbox"/> When start driving <input type="checkbox"/> While driving <input type="checkbox"/> At acceleration <input type="checkbox"/> At deceleration <input type="checkbox"/> When applying brake

*1: For confirmation procedure, refer to Navigation System.  [Ref. to ENTERTAINMENT>Navigation System>OPERATION.](#)

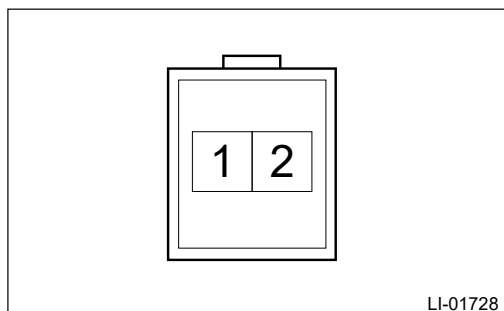
INSPECTION

1. BACKUP BATTERY

1. Measure the voltage between connector terminals.

Preparation tool:

Circuit tester




Terminal No.	Standard
1 (+) - 2 (-)	2 V or more

2. Replace the backup battery if the inspection result is not within the standard value.

INSTALLATION

Caution:

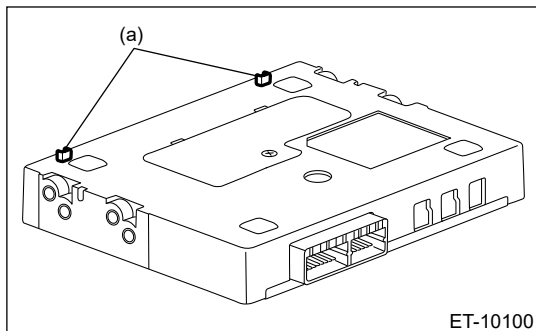
- After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.
- Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)




1. DATA COMMUNICATION MODULE

1. Install each part in the reverse order of removal.

Note:


Align the positioning pin (a) of the data communication module with the positioning hole of the audio assembly or navigation assembly.



2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
3. Perform the registration if the data communication module is replaced with a new part.  [Ref. to ENTERTAINMENT>Telematics System>OPERATION > REGISTRATION \(COMM CHECK\).](#)
4. Check LED lighting status of overhead console or stereo camera cover assembly.  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Check List for Interview>CHECK > LED ILLUMINATION STATUS LIST.](#)

2. BACKUP BATTERY

Caution:

- After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.
- Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:


Backup battery: 0.3 N·m (0.03 kgf-m, 0.2 ft-lb)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

REMOVAL

1. DATA COMMUNICATION MODULE






Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

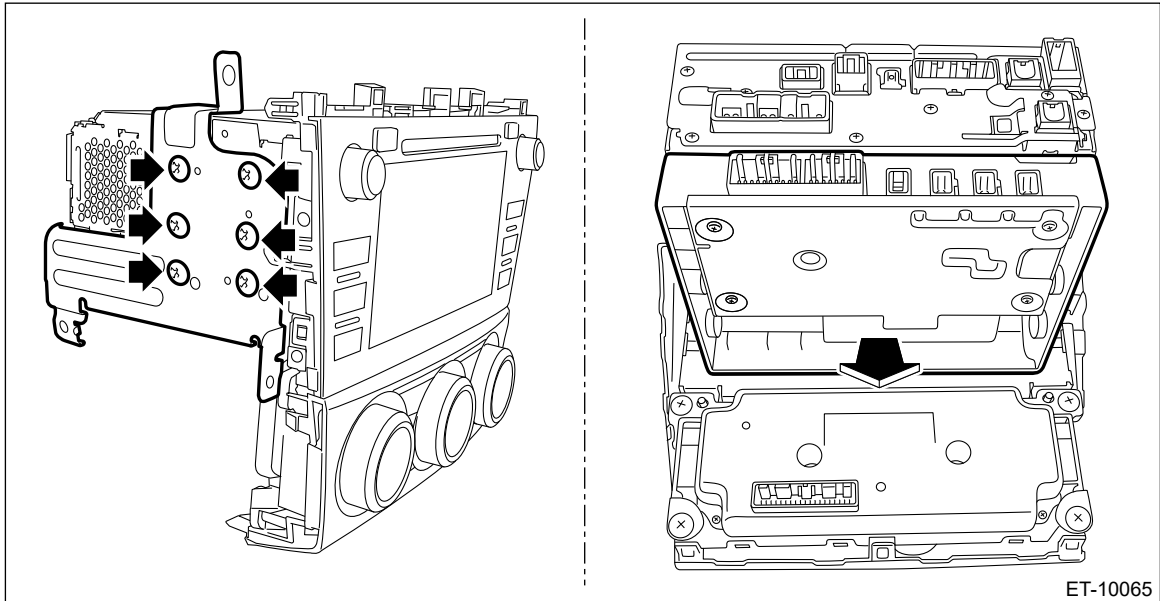
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
5. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
6. Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT>Audio>REMOVAL.](#)
7. Remove the data communication module.
 - (1) Remove the screws.
 - (2) Remove the audio bracket or navigation bracket, and then remove the data communication module.


Caution:


Do not drop or apply any impact to the data communication module.



2. BACKUP BATTERY


Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

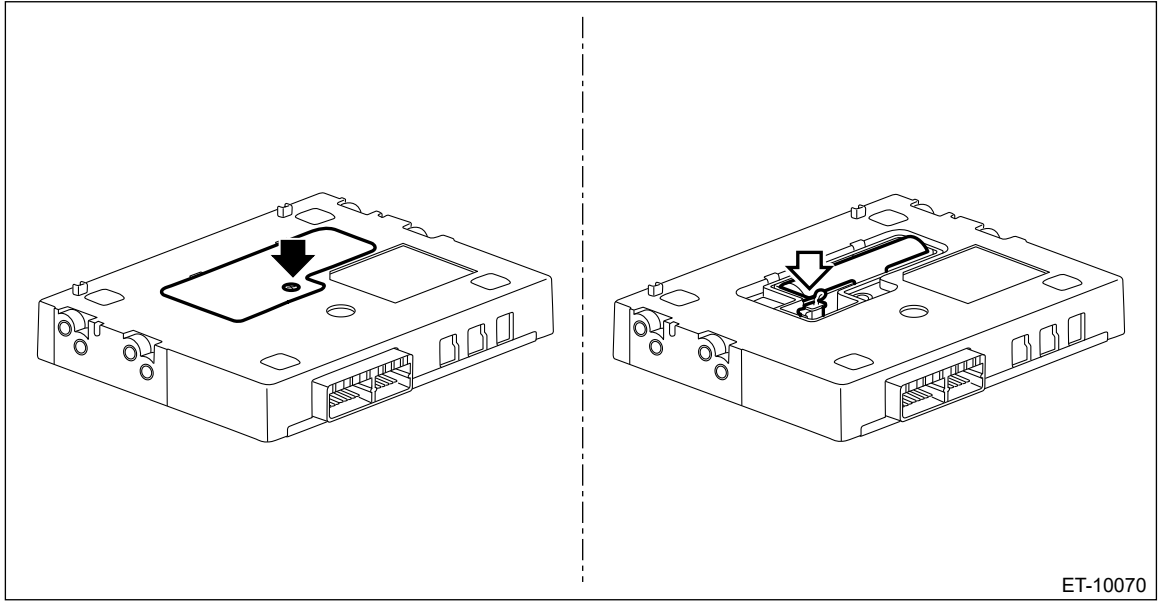
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the data communication module.  [Ref. to ENTERTAINMENT>Data Communication Module>REMOVAL > DATA COMMUNICATION MODULE.](#)
3. Remove the backup battery.
 - (1) Remove the screws, and then remove the battery cover.

Preparation tool:

TORX® T10

- (2) Disconnect the connector and remove the backup battery.





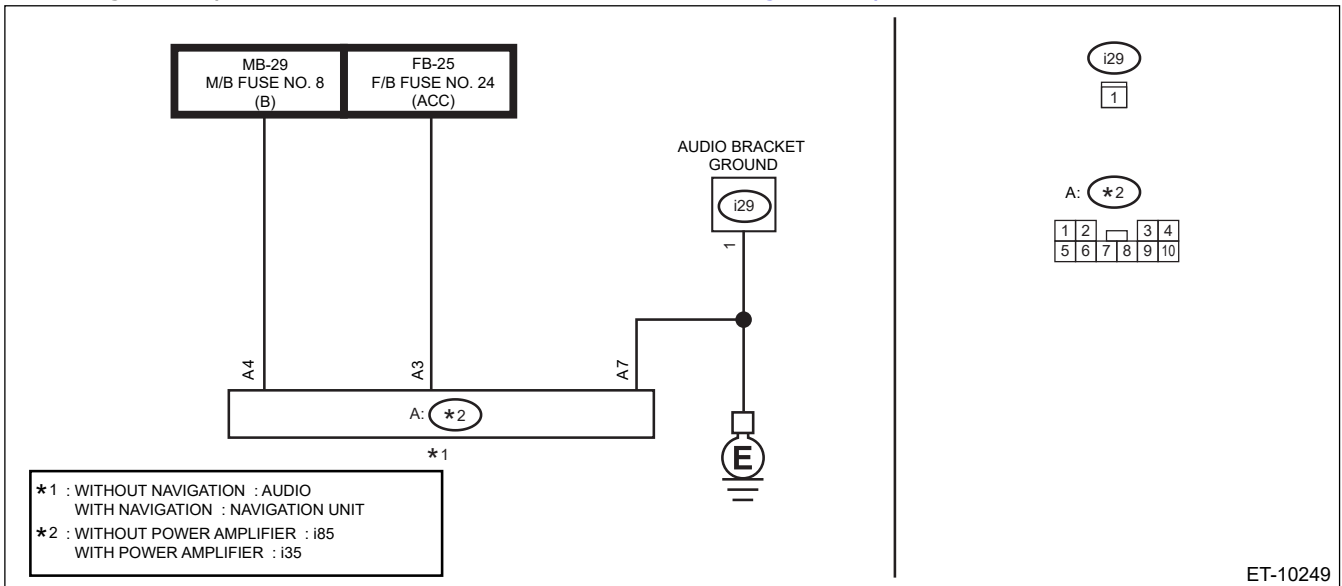
ET-10070

INSPECTION

1. POWER WILL NOT TURN ON

Wiring diagram:

- Audio system:  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM.](#)
- Navigation system:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM.](#)



1. CHECK CONNECTOR CONNECTION.

Check that the connector is connected to the unit.

Is the connector connected?

Yes

 [Go to 2.](#)

No


Connect the connector.

2. CHECK CONNECTOR.

Check for poor contact of connectors or terminals.

Is the connector OK?

Yes

 [Go to 3.](#)

No

Repair or replace the harness.

3. CHECK POWER SUPPLY VOLTAGE.



1. Disconnect the connector.
2. Turn the ignition switch to ACC.
3. Using a tester, measure the voltage between connector and chassis ground.

Note:

Turn the electrical parts to OFF.

Connector & terminal

Model without power amplifier

(i85) No. 4 (+) — Chassis ground (-):

Model with power amplifier

(i35) No. 4 (+) — Chassis ground (-):

Is the voltage 12 V or more?

Yes

[Go to 8.](#)

No

[Go to 4.](#)

4. CHECK FUSE.



1. Turn the ignition to OFF.
2. Check the fuse No. 8 inside the main fuse box.

Is the fuse OK?

Yes

[Go to 5.](#)

No

Replace the fuse. If the fuse is blown again, check or replace the short circuit of the power supply harness.

5. CHECK HARNESS (POWER SUPPLY).



Measure the resistance between main fuse box and connector.

Connector & terminal

F/B fuse No. 8 — (i85) No. 4:

Is the resistance 1 Ω or less?

Yes

[Go to 6.](#)

No

Repair or replace the open circuit of harness.

6. CHECK HARNESS (GROUND).


Measure the resistance between connector and chassis ground.

Connector & terminal

(i85) No. 7 — Chassis ground:

Is the resistance 1 Ω or less?


Yes

 [Go to 7.](#)

No


Repair or replace the open circuit of harness.

7. CHECK BATTERY.

Check the battery.  [Ref. to STARTING/CHARGING SYSTEMS\(H4DO\)>Battery>INSPECTION.](#)

Is the battery OK?

Yes

 [Go to 8.](#)

No

Charge or replace the battery.

8. CHECK OPERATION.


1. Connect all connectors.
2. Turn the ignition switch to ACC and the power supply switch of the unit to ON.

Does the power turn ON?

Yes

Currently no failure is found.

No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)


2. THE SCREEN FREEZES AND DOES NOT ACCEPT ANY OPERATION ENTRY

1. CHECK RESTARTING DISPLAY.


Turn the ignition switch OFF → ACC.

Is the screen freeze eliminated?

Yes

 [Go to 5.](#)

No


 [Go to 2.](#)

2. REMOVE OTHER MEDIA OR EXTERNAL DEVICES.


Remove the CD, SD card (model with SD card slot) or external devices connected to USB. Also, remove the external devices with Bluetooth.

Is the screen freeze eliminated?

Yes

 [Go to 3.](#)

No

 [Go to 6.](#)

3. CHECK OTHER EXTERNAL DEVICE CONNECTION.


When screen freeze is eliminated, connect external devices one by one to identify the device that causes screen freeze.

Is the device that reproduces screen freeze identified?

Yes

 [Go to 4.](#)

No

 [Go to 5.](#)

4. CHECK OTHER EXTERNAL DEVICE CONNECTION.

1. Replace the identified device with the one that has the same performance.

2. Turn the ignition switch to ACC.

Does the screen freeze occur?

Yes

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

No

The external device may be defective.

5. CHECK OPERATION PROCEDURE.

Ask how the user operates when screen freeze occurs, and perform using the same procedure.

Are the operation and screen normal?

Yes

Currently no failure is found.

No


 [Go to 6.](#)

6. CHECK ENVIRONMENTAL CONDITION.

Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is an external device installed?

Yes

Remove the external device and perform the inspection from step 2 again. If the fault is not fixed:  [Go to 7.](#)

No



 [Go to 7.](#)

7. PERFORM INITIALIZATION PROCEDURE.

Perform the initialization procedure for the unit.



Caution:

When the initialization procedure is performed, the data, telephone directory, etc. recorded in the unit body will be deleted. Before initialization, obtain permission from the user.


- Audio system:  [Ref. to ENTERTAINMENT>Audio System>OPERATION > INITIALIZATION \(FACTORY DEFAULT\).](#)
- Navigation system:  [Ref. to ENTERTAINMENT>Navigation System>OPERATION > INITIALIZATION \(FACTORY DEFAULT\).](#)

Is the screen freeze eliminated?

Yes

 [Go to 5.](#) If the screen freeze occurs again, replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

3. THE SCREEN IS BLACKED OUT, OR THE SCREEN IS NOT DISPLAYED

1. CHECK RESTARTING DISPLAY.


Turn the ignition switch OFF → ACC.

Is the screen properly displayed?

Yes

Currently no failure is found.

No

 [Go to 2.](#)

2. CHECK POWER SUPPLY BUTTON.


Check if the screen OFF mode is turned on by pressing the power supply button of the unit body.

Is the screen properly displayed?

Yes

The screen OFF mode might be activated. Currently no failure is found.

No

 [Go to 3.](#)

3. CHECK BUTTON ILLUMINATION.


Turn the ignition switch to ACC.

Do the buttons located beside the screen illuminate?

Yes

 [Go to 4.](#)

No

Perform "Power will not turn ON" in Diagnostics with Phenomenon.  [Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > POWER WILL NOT TURN ON.](#)

4. CHECK INDICATION WITH ILLUMINATION ON.

Turn the lighting switch to ON.

Does the screen brightness change?

Yes

 [Go to 7.](#)

No

 [Go to 5.](#)


5. CHECK HARNESS.



Check for poor contact of the harnesses, connectors and terminals that are connected to the unit body.

Is harness normal?

Yes

 [Go to 6.](#)

No

Repair or replace the harness.

6. CHECK BODY INTEGRATED UNIT.



Using Subaru Select Monitor, display the data of [Lighting I Switch Input].

Note:

For detailed operation procedures, refer to "Application help".

Is the input signal normal?

Yes

 [Go to 7.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)


7. CHECK UNDER OVERLOAD CONDITION.




1. Turn the ignition to OFF.
2. Leave as is for 10 minutes (cooling down), and then turn the ignition to ACC to check the operation.

Is the screen properly displayed?

Yes

 [Go to 8.](#)

No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

No

8. OPERATIONAL CHECK.




Obtain the information about the audio device that the user used (SD, Bluetooth, CD, etc.), and connect the same device. Then play the device for 10 minutes or more.

Is the screen properly displayed?

Yes

Currently no failure is found.

No

 [Go to 9.](#)

9. CHECK EXTERNAL DEVICE.




1. Replace the external device that might cause trouble with another device. (If trouble occurs while using a CD, replace the CD with another one. If trouble occurs while using an external device that is connected via USB, replace the external device with another device.)
2. Operate for 10 minutes or more.

Is the screen properly displayed?

Yes



The external device might have trouble, resulting in the overload state.

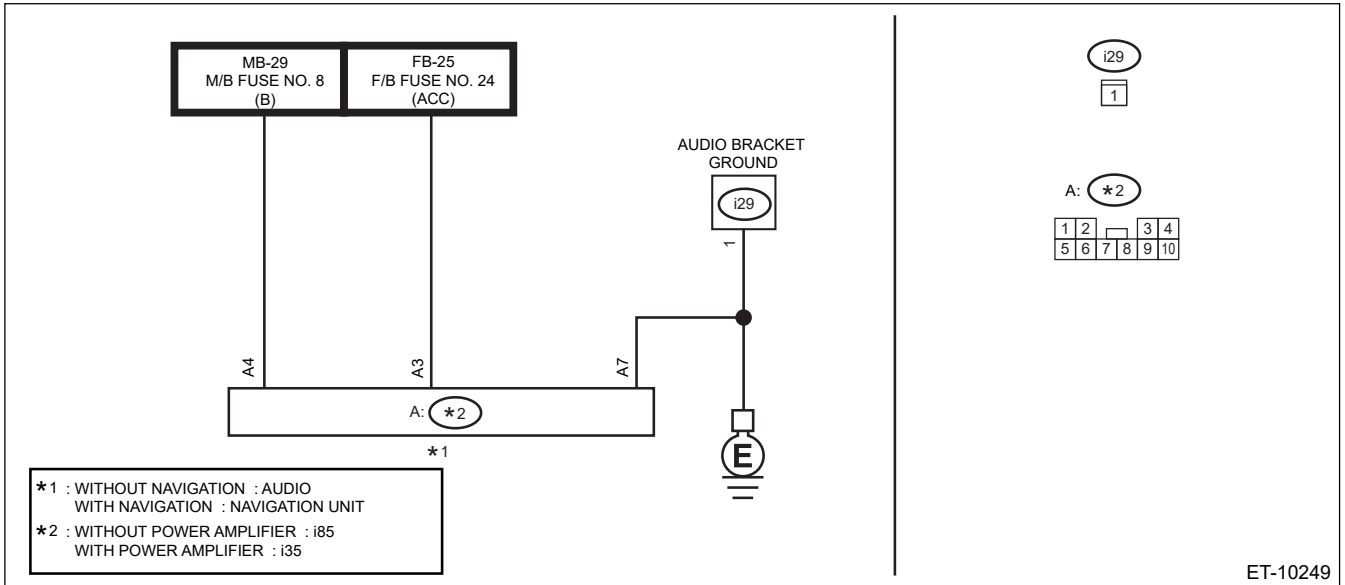
No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

4. SYSTEM IS RESET

Wiring diagram:

- Audio system:  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM.](#)
- Navigation system:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM.](#)



1. CHECK ENVIRONMENTAL CONDITION.

Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is an external device installed?

Yes

Remove the external device to check the operation. If the fault is not fixed:

[Go to 2.](#)

No

[Go to 2.](#)

2. CHECK CONNECTOR CONNECTION.

Check that the connector is connected to the unit.

Is the connector connected?

Yes

[Go to 3.](#)

No


Connect the connector.

3. CHECK CONNECTOR.

Check for poor contact of connectors or terminals.

Is the connector OK?

Yes

 [Go to 4.](#)

No

Repair or replace the harness.

4. CHECK POWER SUPPLY VOLTAGE.

1. Turn the ignition switch to ACC.
2. Using a tester, measure the voltage between connector and chassis ground.

Note:

Turn the electrical parts to OFF.

Connector & terminal

Model without power amplifier

(i85) No. 4 (+) — Chassis ground (—):

Model with power amplifier

(i35) No. 4 (+) — Chassis ground (—):

Is the voltage 12 V or more?

Yes

 [Go to 8.](#)

No

 [Go to 5.](#)

5. CHECK OPEN CIRCUIT IN HARNESS (POWER SUPPLY).

Using the tester, measure the resistance between connector and chassis ground while shaking the harness.

Connector & terminal

(i85) No. 4 — Chassis ground:

Is the resistance 1 Ω or less?

Yes

 [Go to 6.](#)

No

Repair or replace the open circuit of harness.

6. CHECK OPEN CIRCUIT IN HARNESS (GROUND).

Using the tester, measure the resistance between connector and chassis ground while shaking the harness.

Connector & terminal

(i85) No. 7 — Chassis ground:

Is the resistance 1 Ω or less?

Yes


 [Go to 7.](#)

No

Repair or replace the open circuit of harness.

7. CHECK BATTERY.



Check the battery.  [Ref. to STARTING/CHARGING SYSTEMS\(H4DO\)>Battery>INSPECTION.](#)

Is the battery OK?

Yes

 [Go to 8.](#)

No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

8. CHECK UNIT OPERATION.




1. Connect all connectors.
2. Turn the ignition switch to ACC and the power supply switch of the unit to ON.

Is the reset eliminated?

Yes

Currently no failure is found.

No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

5. CDS CANNOT BE PLAYED BACK


1. CONFIRM CD INSERTION CONDITION.



Check that the CD is inserted properly.

Is the CD normal?

Yes

 [Go to 2.](#)

No


Insert the CD properly.

2. CHECK CD.

Check the CD surfaces are free from scratches or dirt.

Is the CD normal?

Yes

 [Go to 3.](#)

No

The CD is defective.

3. CHECK CD.

Replace the CD with another one. (Use a playable CD. Refer to owner's manual for details.)

Is the CD played back?

Yes

The CD is defective.

No

 [Go to 4.](#)

4. CHECK DEW CONDENSATION IN UNIT.

1. After starting the engine, turn ON the air conditioner and dry inside the vehicle for 10 minutes or more.


2. Check the CD operation.

Is the CD played back?

Yes

Dew condensation occurred inside the unit.

No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)


6. SOUND DOES NOT COME OUT FROM THE SPEAKER

1. CHECK THE MODE IN WHICH NO SOUND COME OUT.

Check if sound comes out in each mode such as CD, radio, etc.


Does it have no sound in all modes?


Yes


 [Go to 2.](#)

No

Check each mode in which no sound come out.



For CD:  [Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > CDS CANNOT BE PLAYED BACK.](#)

For radio:  [Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > RADIO VOLUME IS LOW OR INTERFERENCE NOISE OCCURS.](#)

For Bluetooth audio:  [Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > Bluetooth CONNECTION CANNOT BE ESTABLISHED.](#)

2. CHECK DIAGNOSTIC MODE.

Perform {Audio Check} on the {Line Diag} screen.

- Audio system:  [Ref. to ENTERTAINMENT>Audio System>OPERATION > CHECK SPEAKER OUTPUT WITH LINE DIAG MODE.](#)
- Navigation system:  [Ref. to ENTERTAINMENT>Navigation System>OPERATION > CHECK SPEAKER OUTPUT WITH LINE DIAG MODE.](#)

Does it have no sound in all speakers?

Yes

 [Go to 3.](#)

No

Check the harness between the unit and speaker for open circuit or short circuit. If no fault is found, replace the speaker.

3. CHECK MUTE MODE.

Check if the MUTE mode is turned on when the MUTE button is installed.

Is the volume level set to the minimum?

Yes

Since the MUTE mode is on or the volume level is set to the minimum, sound does not come out.

No

 [Go to 4.](#)

4. CHECK DTC (MODEL WITH TELEMATICS).



Read DTCs of the Telematics. [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Diagnostic Trouble Code \(DTC\).](#)

Are B2A0E (mute line circuit), B2A05 (left speaker/audio circuit) and B2A06 (right speaker/audio circuit) displayed?

Yes

Perform the diagnosis according to DTC. [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Diagnostic Procedure with Diagnostic Trouble Code \(DTC\)>DTC B2A0E MUTE LINE CIRCUIT.](#)

No

[Go to 5.](#)

5. CHECK CONNECTOR.



Check for poor contact in the connector of the unit and the connector of each speaker.

Are the connectors and terminals normal?

Yes

Replace the unit. [Ref. to ENTERTAINMENT>Audio.](#)

No

Repair or replace the harness.

7. Bluetooth CONNECTION CANNOT BE ESTABLISHED

1. CHECK Bluetooth DEVICE.



Restart the Bluetooth device, and connect again.

Does it start properly?

Yes

Currently no failure is found.

No

[Go to 2.](#)

2. CHECK Bluetooth DEVICE.




Re-register the Bluetooth device, and connect again.

Is communication successful?

Yes

Currently no failure is found.

No

 [Go to 3.](#)

3. CHECK Bluetooth DEVICE.

1. Connect another Bluetooth device.

Note:

For Bluetooth supported standard, refer to the Notes in the margin.

Is connection established?

Yes

Bluetooth device which cannot be connected might be faulty.

No

 [Go to 4.](#)

4. CHECK ENVIRONMENTAL CONDITION.

Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is an external device installed?

Yes

Remove the external device and perform the inspection from step 1 again.

No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

Note:

Supported standard

Supported standard for model with 7-inch display: Ver. 3.0+EDR supported

• **Bluetooth Phone**

Profile

- **HFP: Ver. 1.6**
- **OPP: Ver. 1.2**
- **PBAP: Ver. 1.1**
- **MAP: Ver. 1.0**
- **SPP: Ver. 1.1**

- **Bluetooth Audio Device Profile**

- **A2DP: Ver. 1.2**
- **AVRCP: Ver. 1.4**

Supported standard for model with 6.2-inch display: Ver. 2.1+EDR supported

- **Bluetooth Phone Profile**

- **HFP: Ver. 1.5**
- **OPP: Ver. 1.1**
- **PBAP: Ver. 1.0**
- **MAP: Ver. 1.0**
- **SPP: Ver. 1.0**

- **Bluetooth Audio Device Profile**

- **A2DP: Ver. 1.2**
- **AVRCP: Ver. 1.4**

8. Bluetooth DOES NOT OPERATE

1. CHECK Bluetooth DEVICE.

Restart the Bluetooth device, and connect again.

Does it start properly?

Yes

Currently no failure is found.

No

 [Go to 2.](#)

2. CHECK Bluetooth DEVICE.

Re-register the Bluetooth device, and connect again.

Is communication successful?

Yes

Currently no failure is found.

No

 [Go to 3.](#)

3. CHECK Bluetooth DEVICE.

1. Connect another Bluetooth device.

Note:


For Bluetooth supported standard, refer to the Notes in the margin.

Is connection established?

Yes

Bluetooth device which cannot be connected might be faulty.

No

 [Go to 4.](#)

4. CHECK ENVIRONMENTAL CONDITION.


Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is an external device installed?

Yes

Remove the external device and perform the inspection from step 1 again.

No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

Note:

Supported standard

Supported standard for model with 7-inch display: Ver. 3.0+EDR supported

- **Bluetooth Phone Profile**
 - **HFP: Ver. 1.6**
 - **OPP: Ver. 1.2**
 - **PBAP: Ver. 1.1**
 - **MAP: Ver. 1.0**
 - **SPP: Ver. 1.1**
- **Bluetooth Audio Device Profile**
 - **A2DP: Ver. 1.2**
 - **AVRCP: Ver. 1.4**




Supported standard for model with 6.2-inch display: Ver. 2.1+EDR supported

- **Bluetooth Phone Profile**
 - **HFP: Ver. 1.5**
 - **OPP: Ver. 1.1**
 - **PBAP: Ver. 1.0**
 - **MAP: Ver. 1.0**
 - **SPP: Ver. 1.0**
- **Bluetooth Audio Device Profile**



- A2DP: Ver. 1.2
- AVRCP: Ver. 1.4

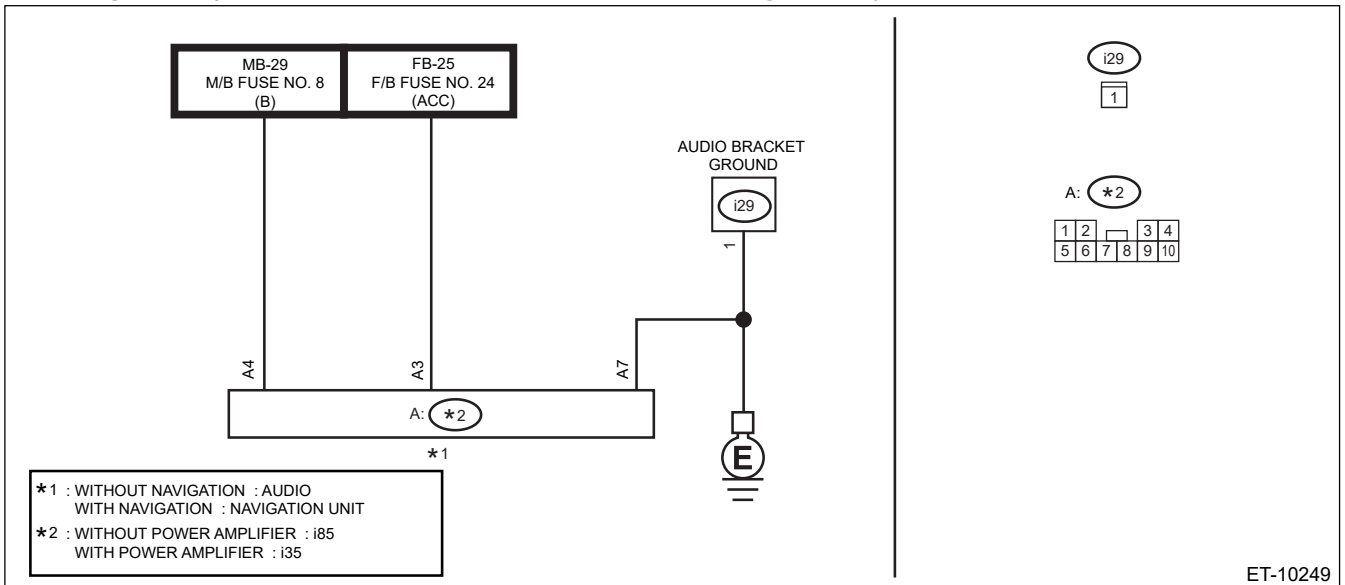
9. RADIO VOLUME IS LOW OR INTERFERENCE NOISE OCCURS

Caution:

- If non-genuine electrical parts are installed, they may cause interference noise.
- Refer to the following diagnostic procedure if equipped with the digital radio using the Internet connection.
 - Check SUBARU STARLINK service:  Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > CHECK SUBARU STARLINK SERVICE.
 - Bluetooth connection cannot be established:  Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > Bluetooth CONNECTION CANNOT BE ESTABLISHED.
 - Check connection between smartphone and unit:  Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > CHECK CONNECTION BETWEEN SMARTPHONE AND UNIT.

Wiring diagram:

- Audio system:  Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM.
- Navigation system:  Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM.



1. CHECK SYMPTOM.

Check in which condition (place) the noise occurs.

Does it occur in any places?

Yes

 [Go to 2.](#)

No

Radio wave reception condition is poor. (In tunnel, buildings, etc.) There is no failure on the vehicle.

2. CHECK ANTENNA.



Check for poor contact of connectors or terminals.

Is the connector OK?

Yes

 [Go to 3.](#)

No

Repair or replace the harness.

3. CHECK HARNESS.



Check the antenna harness for an open or short circuit, and check the booster.

Is harness normal?

Yes

 [Go to 4.](#)

No

Repair or replace the harness.

4. CHECK UNIT GROUND CIRCUIT.



Check the unit ground connector (1P on back side).

Is the engine ground circuit normal?

Yes

 [Go to 5.](#)

No

Repair or replace the ground circuit.


5. CHECK ENVIRONMENTAL CONDITION.




Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is an external device installed?

Yes

Remove the external device. There is no failure if it returns to normal. If the fault is not fixed:  [Go to 6.](#)

No


 [Go to 6.](#)

6. CHECK NOISE OCCURRENCE CONDITION.

Stop the engine, and turn the ignition switch to ON to check for noise occurrence.

Does the noise occur while the engine stops?

Yes

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

No

Check that the engine ignition system, generator, engine ground circuit and chassis ground circuit are connected securely.

Note:

When the volume of Aha and Pandora is low, connect the smartphone to the Internet, and check that Aha and Pandora is audible on the smartphone itself. When it is inaudible, or the volume is too low, there is a problem with the smartphone, Internet connection or service provider. When it is audible with the smartphone without any troubles, there is a problem with connection to the vehicle (USB connection or Bluetooth connection).

10. WRONG LOCATION OF VEHICLE, NO GPS RECEPTION

1. CHECK SYMPTOM.

Check in which condition (place) the vehicle is located out of position.

Does it occur in any places?

Yes

 [Go to 2.](#)

No


 [Go to 4.](#)

2. CHECK EXTERNAL DEVICE INSTALLATION.


Check if an external device is installed near the GPS antenna or unit.

Is an external device installed?


Yes

Remove the external device. There is no failure if it returns to normal. If the fault is not fixed:  [Go to 3.](#)

No


 [Go to 3.](#)

3. CHECK DIAGNOSTIC MODE.


Check the GPS item on the {Line Diag} screen.  [Ref. to ENTERTAINMENT>Navigation System>OPERATION > CHECK CONNECTIONS WITH LINE DIAG MODE.](#)

Is the display OK?

Yes

 [Go to 5.](#)

No

 [Go to 4.](#)

4. CHECK GPS ANTENNA.


Check that the GPS antenna connector is connected.

Is the connector connected?

Yes

Replace the navigation assembly.  [Ref. to ENTERTAINMENT>Navigation Body.](#)

No

Replace the GPS antenna.  [Ref. to ENTERTAINMENT>GPS Antenna.](#)

5. INSPECTION OF VEHICLE SPEED SENSOR.


Read the DTC of VDC CM using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is DTC displayed?

Yes

Perform the diagnosis according to DTC.  [Ref. to BRAKE CONTROL \(DIAGNOSTICS\)>List of Diagnostic Trouble Code \(DTC\)>LIST.](#)

No

 [Go to 6.](#)

6. CHECK VEHICLE SPEED SIGNAL.


Check the vehicle speed pulse using an oscilloscope.

Is the pulse normal?

Yes

Replace the navigation assembly.  [Ref. to ENTERTAINMENT>Navigation Body.](#)

No


 [Go to 7.](#)

7. CHECK VEHICLE SPEED PULSE SIGNAL HARNESS.

1. Disconnect the VDC CM connector.
2. Check the vehicle speed pulse with VDC CM connector using an oscilloscope.

Is there any noise while the vehicle stops?

Yes

Replace the VDC CM.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\).](#)

No

Repair or replace the harness.

11. CHECK CONNECTION BETWEEN SMARTPHONE AND UNIT

1. CHECK COMPATIBILITY OF SMARTPHONE.

Check that the customer's smartphone is compatible with the system.

- iPhone: iOS 4.3.5 or later
- Android: Android 4.0 or later

Is it compatible?

Yes

 [Go to 2.](#)

No

The smartphone is not compatible; therefore, it does not work with the system.

2. ACTIVATION OF APP.


Check the SUBARU STARLINK app of the smartphone.

Is it installed?

Yes

 [Go to 4.](#)

No

 [Go to 3.](#)

3. INSTALLATION OF APP.

Install SUBARU STARLINK app to smartphone.

Is installation successful?

Yes

 [Go to 4.](#)

No

Reboot the smartphone, and install the SUBARU STARLINK.

4. ACTIVATION OF APP.

Activate SUBARU STARLINK app.

Is SUBARU STARLINK app activated?

Yes

 [Go to 5.](#)

No

Reinstall the app and activate it. If you still fail to activate it, the smartphone may be defective.

5. CHECK Bluetooth CONNECTION.

Note:

For model with 6.2-inch display and iPhone (with USB connection):  [Go to 6.](#)


Confirm the Bluetooth connection with the unit.

Is Bluetooth connection established?

Yes

 [Go to 7.](#)

No

Check that the unit can connect with other smartphones. If successful, the smartphone may be defective. If the unit cannot communicate with other smartphones, replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)


6. CHECK USB (FOR MODEL WITH 6.2-INCH DISPLAY AND IPHONE).




Check that the USB cable is connected to the unit.

Is USB connection successful?

Yes

 [Go to 7.](#)

No

Check that the unit can connect with other smartphones. If successful, the smartphone may be defective. If the unit cannot communicate with other smartphones, replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)

7. REBOOT THE SMARTPHONE.



1. Reboot the smartphone.
2. Reinstall the SUBARU STARLINK app.

Is it operating normally?

Yes

The system has returned to a normal condition at this time. Reproduce the failure, and then perform the diagnosis again.

No

 [Go to 8.](#)

8. CHECK POWER SUPPLY.



Turn the ignition to OFF → ACC ON.

Is it operating normally?

Yes

The system has returned to a normal condition at this time. Reproduce the failure, and then perform the diagnosis again.

No

 [Go to 9.](#)

9. DELETE CACHE INFORMATION OF THE UNIT.




Delete cache information of the unit. Refer to the Notes in the margin.

Is it operating normally?

Yes

Cache information temporary stored in the unit was corrupted. Currently, it is normal.

No

Perform the procedures described on "Check SUBARU STARLINK service".  [Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION >CHECK SUBARU STARLINK SERVICE.](#)

Note:

- **7-inch display**
 1. Select **SUBARU STARLINK** from the **APPS** screen.
 2. On the **SUBARU STARLINK** display (including an error message screen), press and hold the right bottom corner of the screen for **30 seconds** or more.
 3. Lift your finger off the screen. If the message [Select Audio Source] appears when you lift your finger off the screen, the cache information is successfully deleted.
- **6.2 inch display**
 1. Press the **HOME** button to display the **HOME** screen.
 2. Press the **SETTINGS** key to display the **SETTINGS** screen. (The most recent set entry is displayed.)
 3. Press the **Settings General** key to display the **Settings General** screen.
 4. Press the **System Software** key to display the **System Software** screen.
 5. Press the **Delete** key, and press **OK** on the confirmation message display. Then the cache information is successfully deleted.

12. CHECK SUBARU STARLINK SERVICE

1. CHECK SMARTPHONE.

Check the smartphone connection.

Can the smartphone connect the Internet?

Yes

 [Go to 4.](#)

No

 [Go to 2.](#)

2. CHECK RADIO WAVE CONDITION.

Move to a location where the radio wave condition is good, and confirm the connection.

Can the smartphone connect the Internet?

Yes

 [Go to 4.](#)

No

 [Go to 3.](#)

3. CHECK RADIO WAVE CONDITION.

Communication network gets busy at times even in a good radio wave location. In this case, wait for some time and then try again.

Can the smartphone connect the Internet?

Yes

 [Go to 4.](#)

No

The smartphone may be defective.

4. CHECK SUBARU STARLINK.


Check service provision status with SUBARU STARLINK.

Is there any problem in the service provision status?

Yes

Try to connect after the problem in service provision is solved.

No

Replace the unit.  [Ref. to ENTERTAINMENT>Audio.](#)


ENTERTAINMENT > Diagnostics with Phenomenon












LIST

1. AUDIO SYSTEM


Symptoms	Reference
Power will not turn ON.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > POWER WILL NOT TURN ON.
The screen freezes and does not accept any operation entry.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > THE SCREEN FREEZES AND DOES NOT ACCEPT ANY OPERATION ENTRY.
The screen is blacked out, or the screen is not displayed.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > THE SCREEN IS BLACKED OUT, OR THE SCREEN IS NOT DISPLAYED.
System is reset.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > SYSTEM IS RESET.
CDs cannot be played back.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > CDS CANNOT BE PLAYED BACK.
Sound does not come out from the speaker.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > SOUND DOES NOT COME OUT FROM THE SPEAKER.
Bluetooth connection cannot be established.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > Bluetooth CONNECTION CANNOT BE ESTABLISHED.
Bluetooth does not operate.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > Bluetooth DOES NOT OPERATE.
Radio volume is low or interference noise occurs.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > RADIO VOLUME IS LOW OR INTERFERENCE NOISE OCCURS.
Error message is displayed.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>LIST > INSPECTION WHEN AN ERROR MESSAGE IS DISPLAYED (SUBARU STARLINK).
SUBARU STARLINK is faulty.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>LIST > CHECK ABNORMALITY OF SUBARU STARLINK.

2. NAVIGATION SYSTEM

Symptoms	Reference
Power will not turn ON.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > POWER WILL NOT TURN ON.


The screen freezes and does not accept any operation entry.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > THE SCREEN FREEZES AND DOES NOT ACCEPT ANY OPERATION ENTRY.
The screen is blacked out, or the screen is not displayed.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > THE SCREEN IS BLACKED OUT, OR THE SCREEN IS NOT DISPLAYED.
System is reset.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > SYSTEM IS RESET.
CDs cannot be played back.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > CDS CANNOT BE PLAYED BACK.
Sound does not come out from the speaker.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > SOUND DOES NOT COME OUT FROM THE SPEAKER.
Bluetooth connection cannot be established.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > Bluetooth CONNECTION CANNOT BE ESTABLISHED.
Bluetooth does not operate.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > Bluetooth DOES NOT OPERATE.
Radio volume is low or interference noise occurs.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > RADIO VOLUME IS LOW OR INTERFERENCE NOISE OCCURS.
Wrong location of vehicle, or no GPS reception.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > WRONG LOCATION OF VEHICLE, NO GPS RECEPTION.
Error message is displayed.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>LIST > INSPECTION WHEN AN ERROR MESSAGE IS DISPLAYED (SUBARU STARLINK).
SUBARU STARLINK is faulty.	 Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>LIST > CHECK ABNORMALITY OF SUBARU STARLINK.

3. CHECK ABNORMALITY OF SUBARU STARLINK

Symptoms	Counter-measure
SUBARU STARLINK application was terminated.	Perform the procedures described on "Check connection between smartphone and unit".  Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>INSPECTION > CHECK CONNECTION BETWEEN SMARTPHONE AND UNIT.
Smartphone was powered off while connecting via the SUBARU STARLINK.	
Bluetooth connection stops while connecting via the SUBARU STARLINK.	
Communication gets out of	

service while connecting via the SUBARU STARLINK.	
Radio wave reception becomes worse while connecting via the SUBARU STARLINK.	

Note:

Possible error messages with relation to the above symptoms. When the message below is displayed, perform inspection according to "Inspection when an error message is displayed (SUBARU STARLINK)".  Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>LIST > ERROR MESSAGE IS DISPLAYED.

Details of message
Please disconnect mobile device and install the STARLINK application on your mobile device and try again. Bluetooth disconnected, please reconnect and try again. Smartphone data connection is poor, please try to connect again.

4. INSPECTION WHEN AN ERROR MESSAGE IS DISPLAYED (SUBARU STARLINK)

No.	Inspection	Possible cause	Action 1	Action 2
1	Check internet connection of smartphone	Check that the Internet sites can be viewed with a web browser of the smartphone. Note: Make sure that the displayed contents are not from previously loaded screen (cache) and that new contents can be reloaded.	When connection to the Internet fails, confirm that connection can be established where the radio wave condition is good, and go to No. 2.	Check that the smartphone can perform communication.
2	Activate SUBARU STARLINK application for the smartphone	Activate the "SUBARU STARLINK" application for the smartphone.	Check that the SUBARU STARLINK application is activated, and go to No. 5.	If the SUBARU STARLINK application is not installed, go to No. 3 and 4.
3	Install the SUBARU STARLINK application (Android)	Search the SUBARU STARLINK on Google Play, and install the application.	After installation, go to No. 2.	When installation cannot be completed, check the setting of the smartphone. (Communication environment, account, etc.)
4	Install the SUBARU STARLINK application (iPhone)	Search the SUBARU STARLINK on APP Store, and install the app.	After installation, go to No. 2.	When installation cannot be completed, check the setting of the smartphone. (Communication

				environment, account, etc.)
5	Check connection to the SUBARU STARLINK server	Select "SETTING" tab from the "SUBARU STARLINK" application for the smartphone, and select "Press to check network status".	When "The network connection is good" is displayed, go to No. 8.	For the case other than shown on the left, go to No. 6 or No. 7.
6		When "NETWORK PROBLEMS" is displayed.	Move to a location where the radio wave condition is good, and go to No. 5.	—
7		When "SERVER MAINTENANCE" is displayed.	Wait until the server maintenance completes, and go to No. 5.	—
8	Check the smartphone type	Check the phone type (iPhone or Android).	For iPhone, go to No. 12.	For Android, go to No. 10.
9	Check Bluetooth connection between smartphone — on-vehicle device	On the on-vehicle device, select {HOME} - {SETTINGS} - {Bluetooth tab} - {BT devices Connection}, and check that Bluetooth setting at the upper right is ON.	When the setting is OFF, switch to ON and go to No. 10.	When the setting is ON, switch to OFF once and to ON again, then go to No. 10.
10		From the "Setting" application for the smartphone, select "Bluetooth" and check that it is set to ON. (Note that procedures vary depending on a device.)	When the setting is OFF, switch to ON and go to No. 11.	When the setting is ON, switch to OFF once and to ON again, then go to No. 11.
11		Check that Bluetooth pairing is established between the smartphone and on-vehicle device. <ul style="list-style-type: none"> • The selected smartphone icon is displayed on the on-vehicle device. • The smartphone BT is connected to the on-vehicle device. 	If the connection cannot be confirmed, go to No. 9.	—
12	Check USB connection between smartphone — on-vehicle	Check that the smartphone and on-vehicle device are connected via USB.	After connecting via USB, go to No. 13.	—

	device (with iPhone)			
13	Check the SUBARU STARLINK initial screen	On the on-vehicle device, press down {APPS} - {SUBARU STARLINK}, and check that the SUBARU STARLINK initial screen is displayed.	If the activation cannot be confirmed, go to No. 14.	—
14	Delete the SUBARU STARLINK connection information inside the on-vehicle device.	Clear the Browser cache on the on-vehicle device. (Select the tool tab from the SETTING menu, select {Browser cache Delete}, and select {OK}. Then, press {SETTINGS} from the APPS screen. From {SETTING}, select {Bluetooth - tab}, and select {BT Devices Connection}. Select the {Trash can} icon of the registered device. Select {OK} on the confirmation pop-up screen.)	For Android, go to No. 15. For iPhone, go to No. 17.	—
15		Clear the Bluetooth connection information inside the on-vehicle device.	Go to No. 16.	—
16		Turn OFF the power supply of the on-vehicle device, and wait for 30 seconds or more before turning ON the power supply again.	Go to No. 17.	—
17	Delete the SUBARU STARLINK connection information inside the smartphone.	Delete data in the "SUBARU STARLINK" application. (Click the "SETTING" icon of the "SUBARU STARLINK" application. Then, press "CONFIG" from the APPS list screen. Select "Delete the SUBARU STARLINK application data" to delete the data in the application. Activate the "Setting" application for the smartphone. From "SETTING", select the "Bluetooth-tab", and select "BT Devices Connection".	Go to No. 18.	—

		Select the "Bluetooth" setting item. Select the connection information. Select the "Trash can" icon of the registered device. Select "Forget This Device" to delete the connection information.		
18		Delete the Bluetooth connection information.	Go to No. 19.	—
19		Turn OFF the power of the smartphone, then turn it ON again.	Go to No. 20.	—
20	Re-connect SUBARU STARLINK	Establish connection according to the SUBARU STARLINK connection procedure.	—	—

5. ERROR MESSAGE IS DISPLAYED

- 6.2 inch display

Mode	Message	Cause	Action
aha	Please reconnect your mobile device or restart the Aha app. Press VOLUME knob twice to retry, or press AUDIO/TUNE knob to exit.	Displayed when Aha Application needs to be rebooted.	Reboot Aha Application.
	Please login to Aha on your mobile device before accessing in the vehicle.	Displayed when selecting the Aha mode while being log-out.	Log in to Aha on the device that is disconnected from the on-vehicle device, re-connect this device to the on-vehicle device, and select the Aha mode.
	Please update to the latest version of the Aha app on your mobile device.	Displayed when Aha Application needs to be updated.	Update Aha Application.
	Please reconnect mobile device to continue using Aha.	Displayed when the smartphone is disconnected.	Recovers when the connection is established.
	Aha is temporarily unavailable. Please try again later.	Displayed when the connected network is invalid.	Recovers when connection is established again and the network is valid.
	Aha is temporarily unavailable. Please try again later.	When an error occurred during the Start session.	Recovers when the communication between the device and server is normalized.
Pandora	Please reconnect your mobile device or restart the	Displayed when connection is not established, and when	Reboot Pandora Application.

Pandora App. Press VOLUME knob twice to retry, or press AUDIO/TUNE knob to exit.	Pandora Application needs to be rebooted.	
No saved stations. Please create one on the Pandora mobile app. Press VOLUME knob twice to retry, or press AUDIO/TUNE knob to exit.	Displayed when no Station is set up with Pandora Application.	Recovers when at least one Station is set up on the device side.
Pandora is temporarily unavailable. Please try again later.	Displayed when Pandora Server is under Maintenance.	Recovers when Maintenance of Pandora Server is completed and Server is resumed.
Please update the Pandora app on your mobile device.	Displayed when Pandora Application needs to be updated.	Update Pandora Application.
You have reached the maximum number of saved stations. Please delete a station before creating a new one.	Displayed when the number of Station has already reached the upper limit.	Displays for five seconds.
Pandora is not available in the current region.	Displayed when connection to Pandora is attempted from outside of the U.S.	Re-connect from inside the U.S.
Pandora user not logged in. Please login to Pandora on your mobile device. Press VOLUME knob twice to retry, or press AUDIO/TUNE knob to exit.	Displayed when selecting the Pandora mode while being log-out.	Log in and select the Pandora mode.
Insufficient network connectivity to play Pandora. Waiting to regain connectivity.	Displayed when the connected network is invalid.	Re-connect with valid network.

- Model with 7 inch display (audio and navigation)


Mode	Message	Cause	Action
aha	"Information acquisition error. (Information acquisition error.)"	When not able to get the requested information.	Please try again (Refresh etc.) later or reconnect it.
	"Poor wireless reception. (Poor wireless reception.)"	When a communication error has been detected.	Please try again in a better communications environment.
	"Entry not recognized. (Entry not recognized.)"	When an invalid operation has been executed.	Please try again (Refresh etc.) later or reconnect it.
	"The station list cannot be acquired. (The station list cannot be acquired.)"	When not able to get the station information.	Please try again (Refresh etc.) later or reconnect it.
	"The content cannot be		

	acquired. (The content cannot be acquired.)”	<ul style="list-style-type: none"> • When not able to get the content information. • When not able to switch to the Top content when touching. 	<ul style="list-style-type: none"> • Please try again (Refresh etc.) later or reconnect it. • Select the desired station again when the station list appears.
	“Action not available. (Action not available.)”	When content-specific operations such as “fast forward” or “reverse” are not available.	Please try again (Refresh etc.) later or reconnect it.
	“Failed. (Failed.)”	When data transmission failed when touching.	Please try again later.
	“aha communication error - Please check Owner’s Manual. (aha communication error - Please check Owner’s Manual.)”	<ul style="list-style-type: none"> • When invalid data is received from the aha application or there is no response. • When the connection to the aha application via Bluetooth is not available. • When the data reception from this unit is rejected. 	Please try again (Refresh etc.) later or reconnect it. If it is still not improved, restart the aha application.
	“Please select the type of connection in “aha Settings”. (Please select the type of connection in “aha Settings”).”	When aha radio setting is set to (USB) when the Android device is going to be paired via Bluetooth.	When you want to connect to the aha application with the Android device, select (Bluetooth) in the aha radio setting from the setting screen.
Pandora	“No stations have been added to your list. (No stations have been added to your list.)”	When no stations have been registered.	Please register stations.
	“Your ratings information was not saved. (Your ratings information was not saved.)”	When ratings information has not been updated to the Pandora server.	Please try again later.
	“Bookmark not saved. (Bookmark not saved.)”	When bookmark registration information has not been updated to the Pandora server.	Please try again later.
	“Pandora is not available at your current location. (Pandora is not available at your current location.)”	When Pandora is used in an area where it is not available.	Please try again at a different location.
	“The selected Pandora station is no longer available. (The selected Pandora station is no longer available.)”	When the selected station has been deleted, or has expired.	Please select another station.

	"Pandora Error. (Pandora Error.)"	When the Pandora server is undergoing maintenance, or another error has occurred.	Please try again later.
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ENTERTAINMENT > External Connection Terminal

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


ENTERTAINMENT > External Connection Terminal

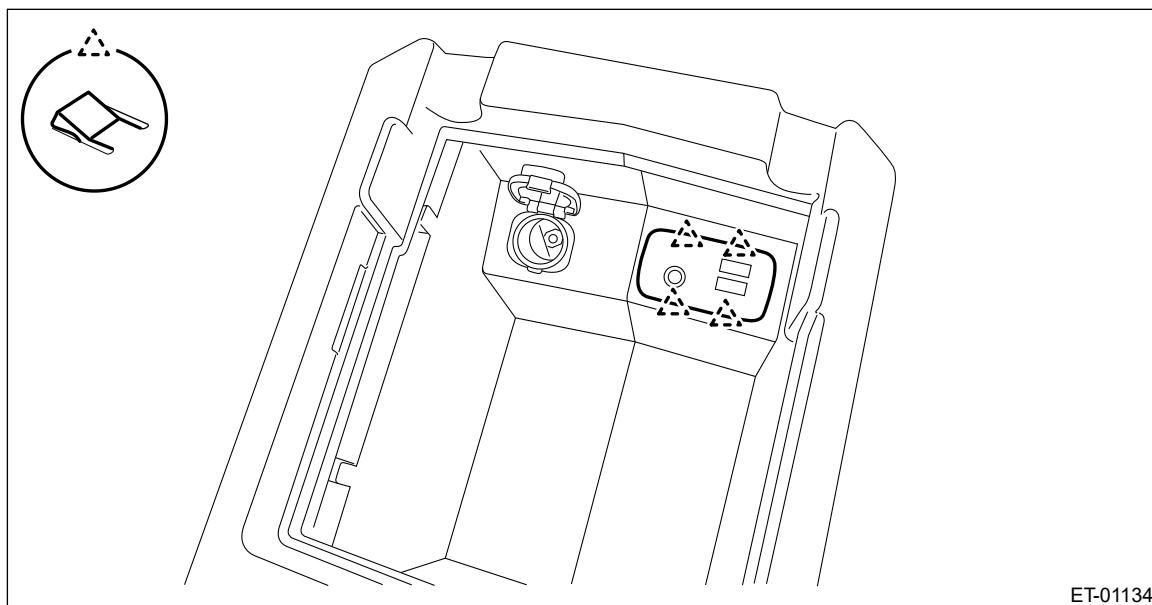
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
3. While pressing the claw, press it in from the rear to remove the unit assembly - AUX.



ENTERTAINMENT > Front Accessory Power Supply Socket

INSTALLATION

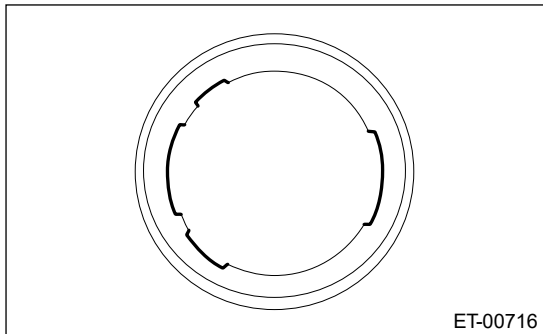
Caution:


- After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.
- Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Note:

Align the grooves of the holder with the claws of accessory power supply socket.





2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

ENTERTAINMENT > Front Accessory Power Supply Socket

REMOVAL






Caution:

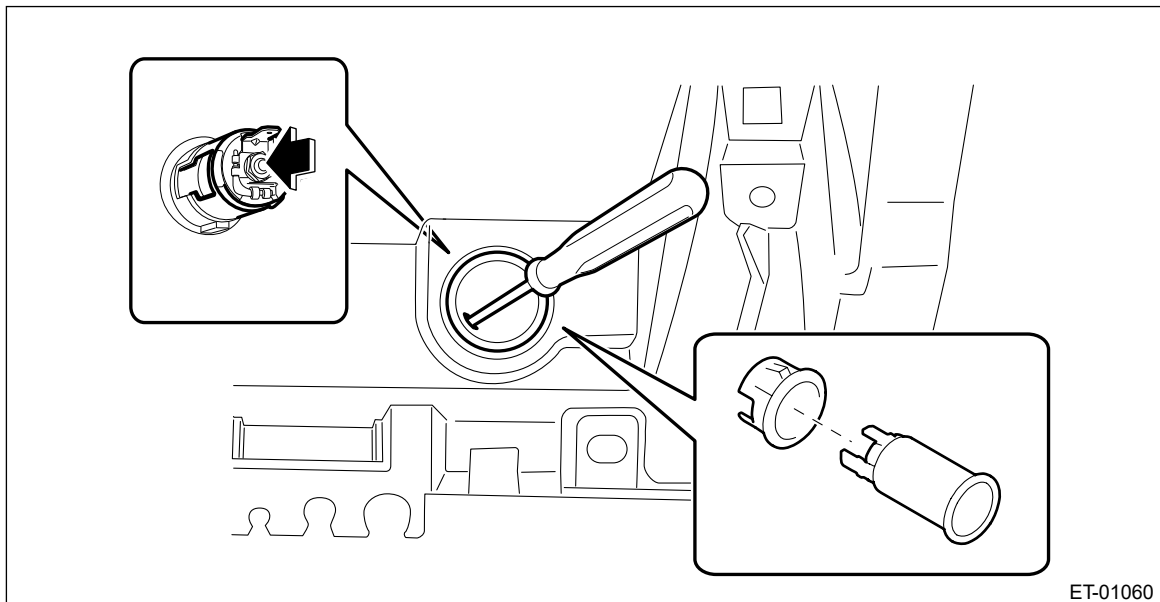
Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
5. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
6. Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT>Audio>REMOVAL.](#)
7. Remove the socket assembly.
 - (1) Disconnect the connector.
 - (2) While releasing the claw inside, press it in from the rear to remove the socket assembly.



- (3) Remove the clip - socket.


ENTERTAINMENT > Front Accessory Power Supply Socket

WIRING DIAGRAM

Refer to "Front Accessory Power Supply Socket System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Front Accessory Power Supply Socket System>WIRING DIAGRAM.](#)

ENTERTAINMENT > Front Speaker

INSTALLATION

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

ENTERTAINMENT > Front Speaker

REMOVAL

1. TWEETER

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the speaker assembly - tweeter.
 - (1) Release the clips and claws, then detach the grille speaker side.

Note:

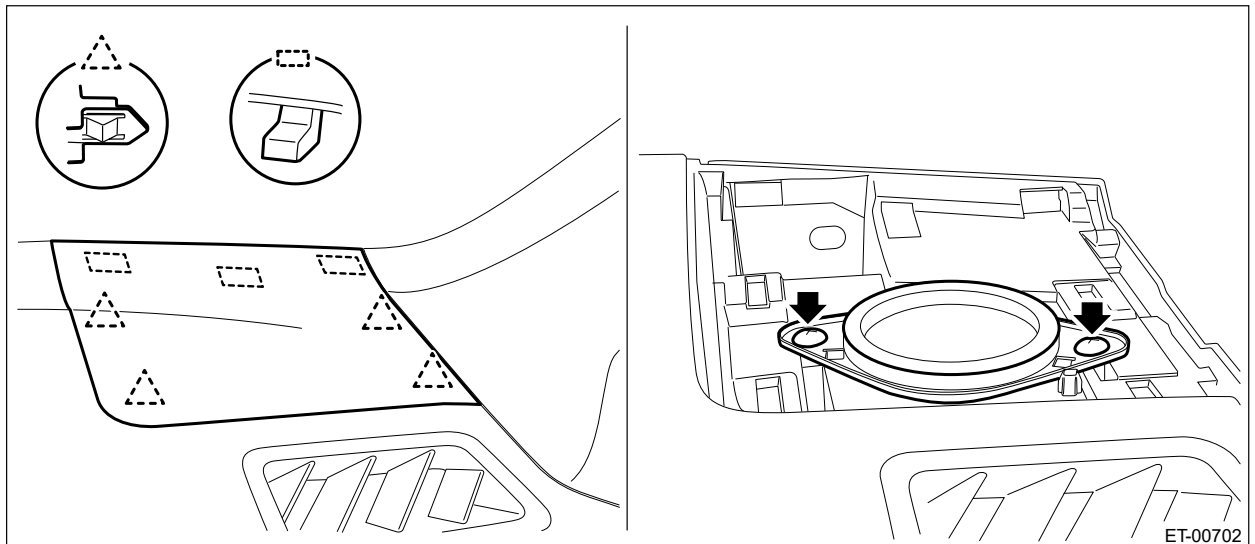
Remove the grille speaker side by using a plastic remover.

- (2) Remove the screws.


Preparation tool:

Stubby screwdriver

- (3) Disconnect the connector and remove the speaker assembly - tweeter.



2. DOOR SPEAKER

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)

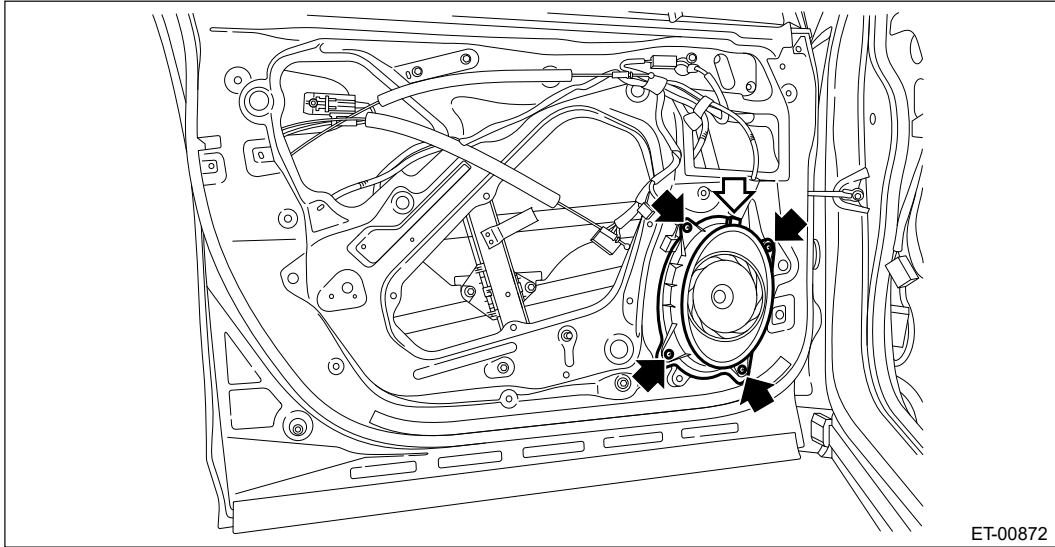
3. Remove the speaker assembly - front.

- (1) Disconnect the connector.

- (2) Remove the screws and remove the speaker assembly - front.

Caution:

Be careful not to damage the claw for temporary retention.



ET-00872

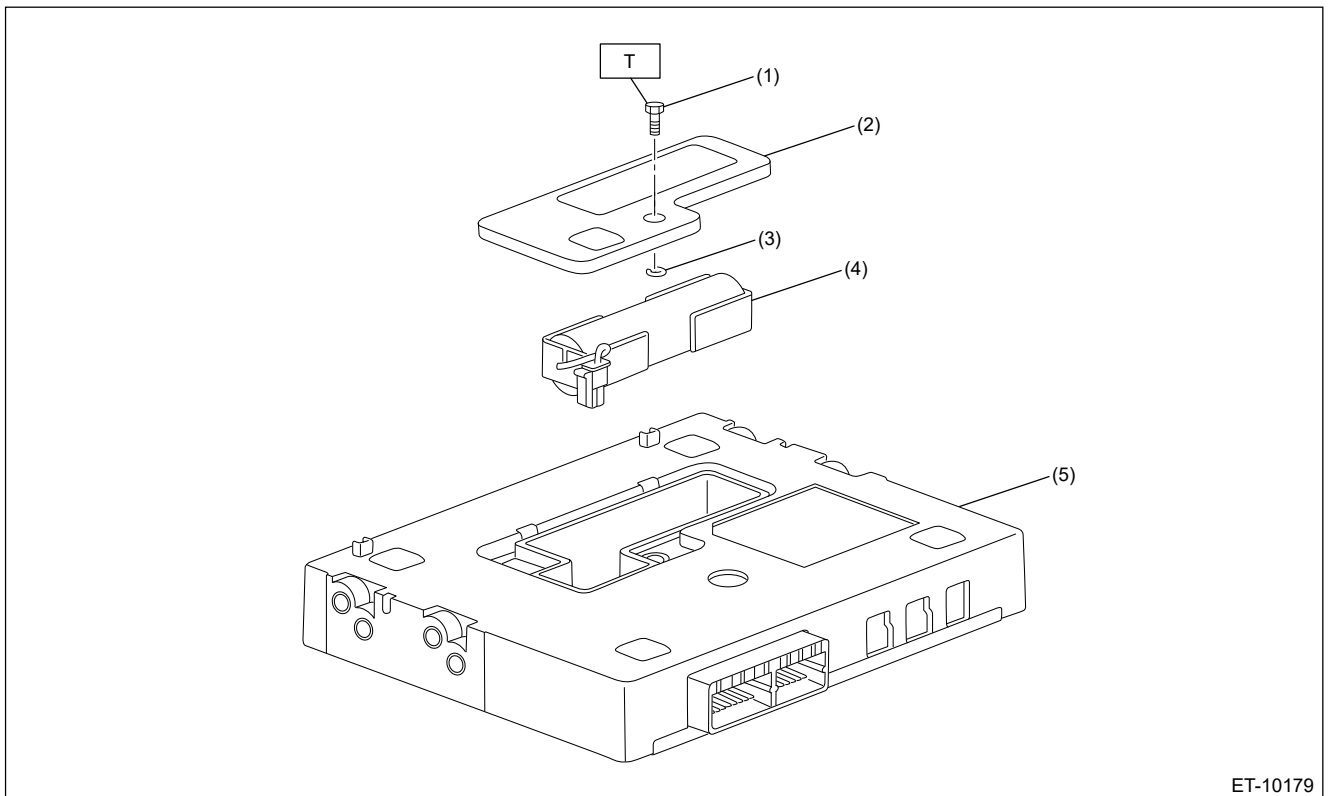
ENTERTAINMENT > General Description

CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Adjust parts to the given specifications.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that the each component operates normally.
- Be careful of the following items. Failing to do so may cause the airbag system malfunction.
 - Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. When using a tester on these circuits, follow the cautions of "AIRBAG SYSTEM". [🔗 Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
 - Be careful not to damage the airbag system wiring harness when servicing the electrical parts around the steering column.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC. [🔗 Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT.](#)

COMPONENT

1. DATA COMMUNICATION MODULE



ET-10179

(1) Cap screw

(4) Backup battery

Tightening torque: N·m (kgf·m, ft·lb)

(2) Backup battery cover

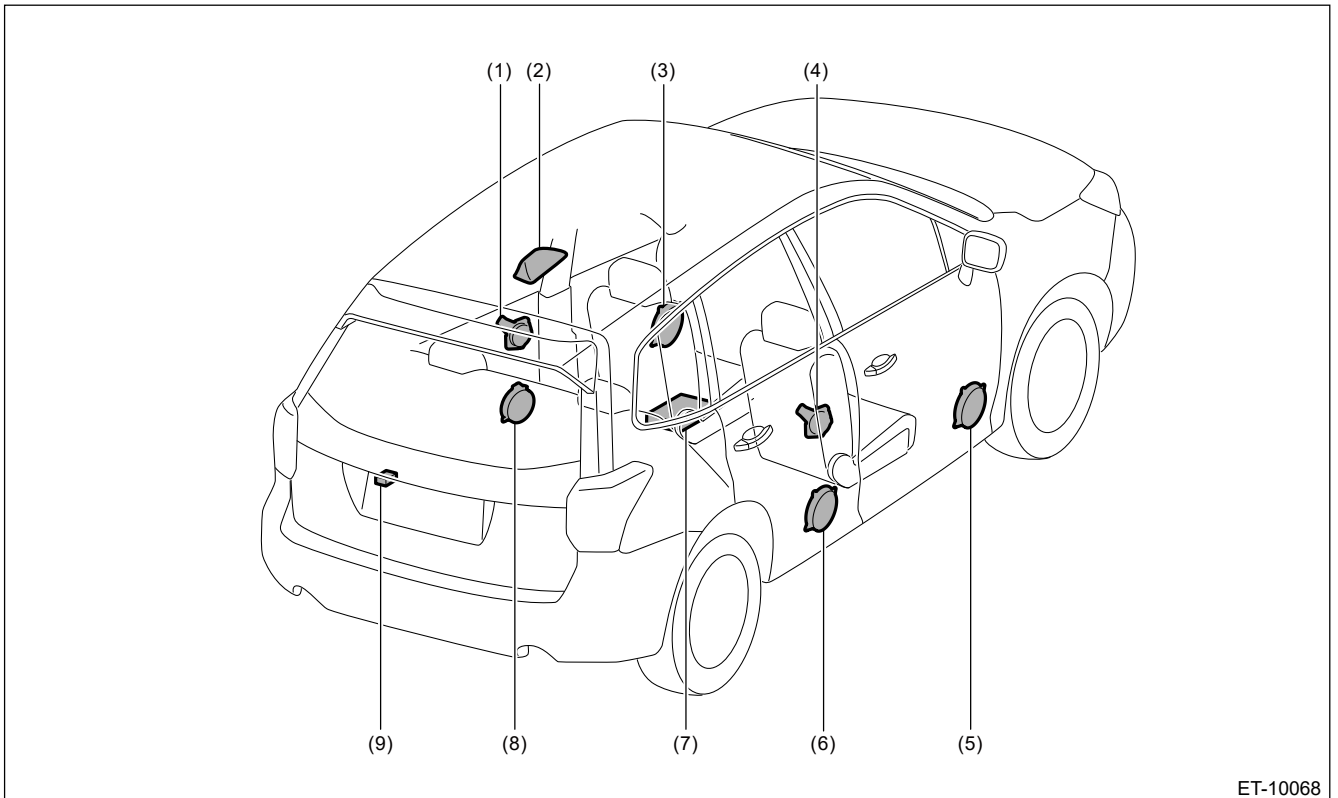
(5) Data communication module

T: 0.3 (0.03, 0.2)

(3) Circlip

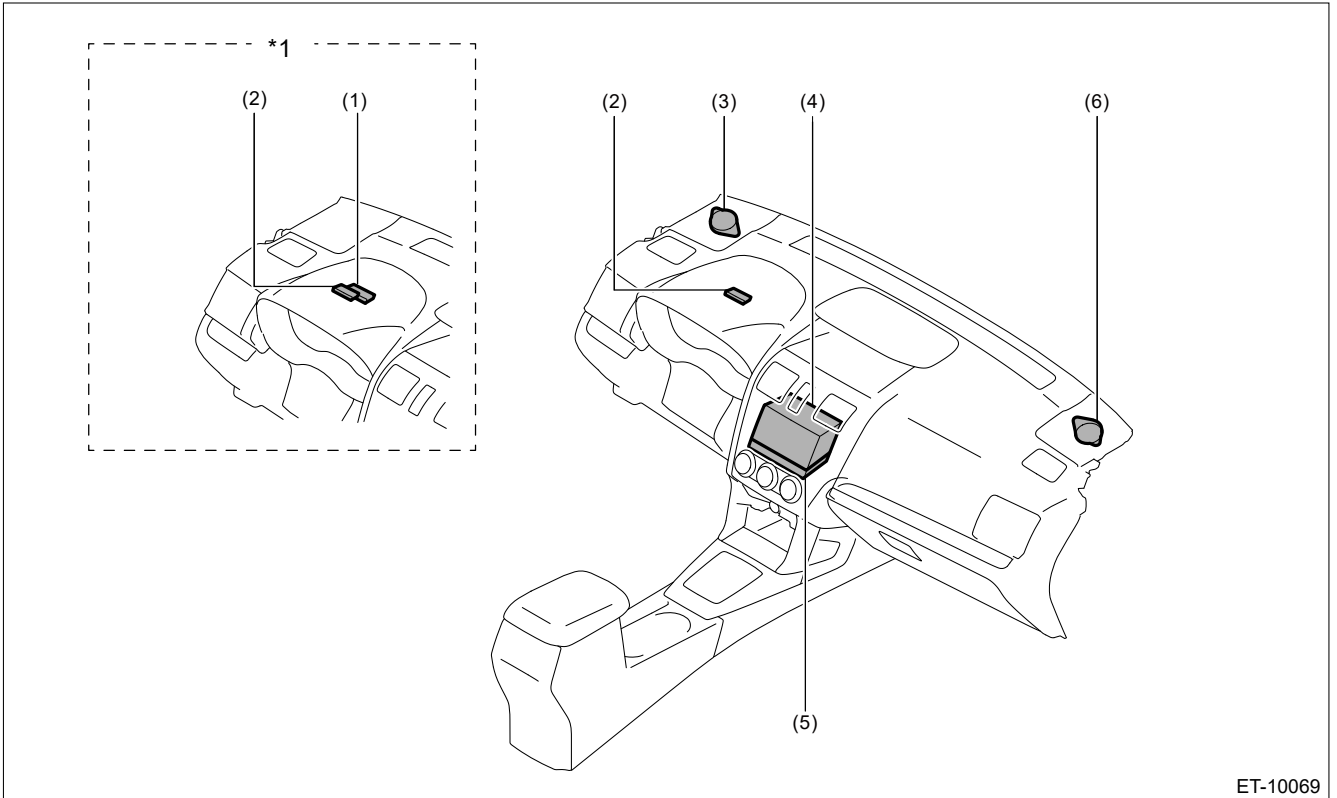
LOCATION

1. AUDIO AND NAVIGATION SYSTEM



ET-10068

- | | | |
|---|------------------------------------|----------------------------|
| (1) Speaker ASSY - tweeter rear LH | (4) Speaker ASSY - tweeter rear RH | (7) Power amplifier ASSY |
| (2) Antenna ASSY - radio or antenna ASSY - telematics | (5) Speaker ASSY - front RH | (8) Speaker ASSY - rear LH |
| (3) Speaker ASSY - front LH | (6) Speaker ASSY - rear RH | (9) Rearview camera ASSY |



ET-10069

(1) Telematics sub antenna

(3) Speaker ASSY - tweeter front LH

(5) Data communication module LH


(2) GPS antenna ASSY

(4) Audio ASSY or navigation ASSY

(6) Speaker ASSY - tweeter front RH


*1: Model with telematics

2. TELEMATICS SYSTEM

Refer to "LOCATION" of "TELEMATICS SYSTEM (DIAGNOSTICS)" section.  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)

PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>STSSM4</p>	<p>— (Newly adopted tool)</p>	<p>SUBARU SELECT MONITOR 4</p>	<p>Used for setting of each function and troubleshooting for electrical system.</p> <p>Note: For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".</p>


2. GENERAL TOOL


TOOL NAME	REMARKS
<p>Circuit tester</p>	<p>Used for measuring resistance, voltage and current.</p>
<p>DST-i</p>	<p>Used together with Subaru Select Monitor 4.</p>

ENTERTAINMENT > GPS Antenna

INSTALLATION

Caution:

- After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.
- Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and cables to interfere with or get caught by other parts.


1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

ENTERTAINMENT > GPS Antenna

REMOVAL







Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

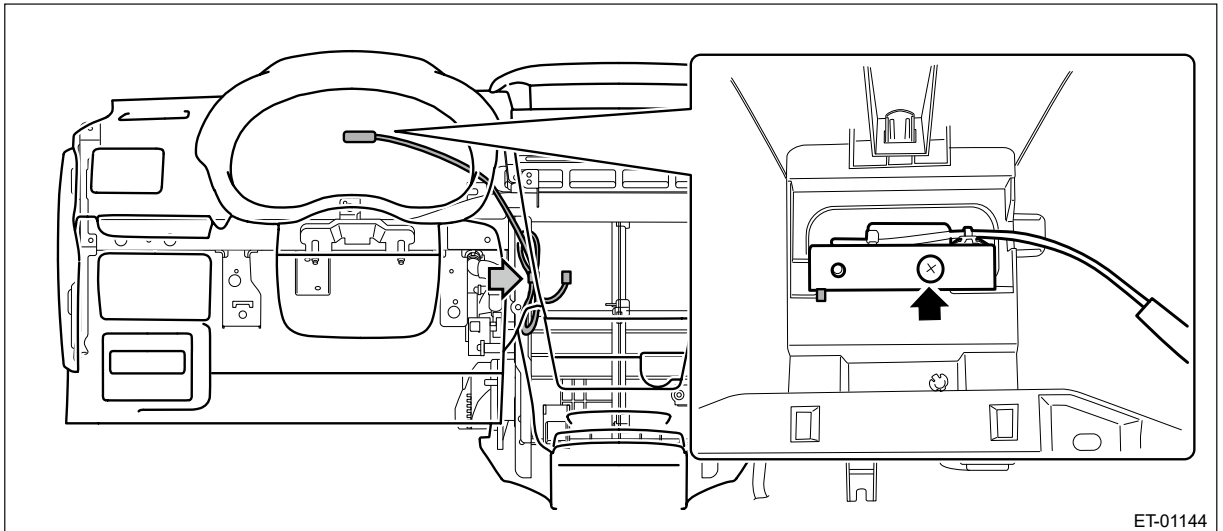
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
5. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
6. Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT>Audio>REMOVAL.](#)
7. Remove the combination meter assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.](#)
8. Remove the GPS antenna assembly.
 - (1) Tie a string to the GPS antenna assembly connector on the navigation and audio unit side.

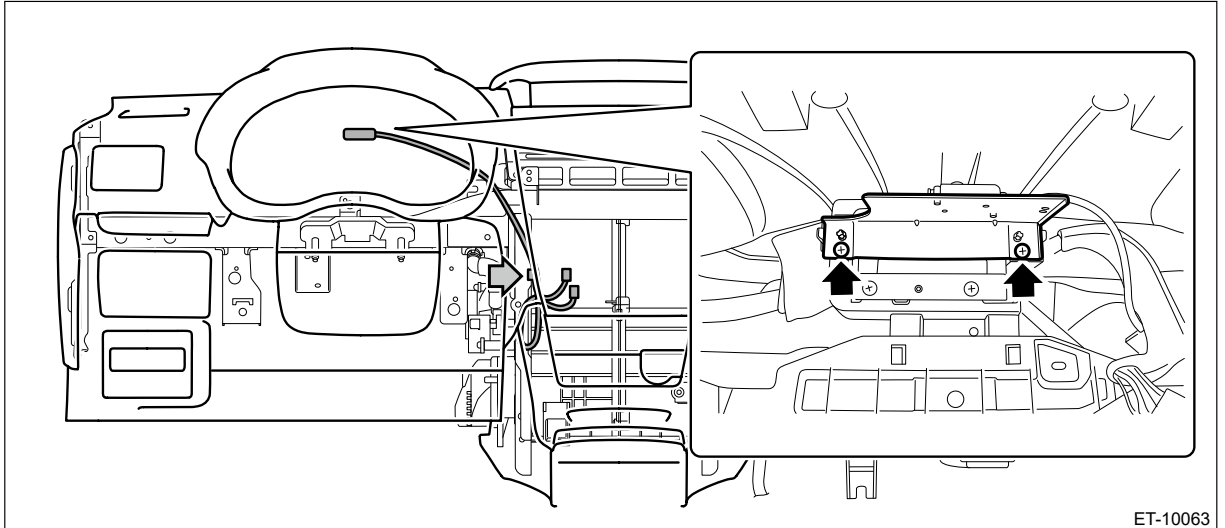
Note:

- **A string makes operation easier during installation.**
- **For the model with telematics, also tie a string to the connector on the data communication module side.**

- (2) Remove the screw and harness clamp, and pull out the GPS antenna assembly cord from the combination meter side.
 - Model without telematics



- Model with telematics




ET-10063

(3) When the GPS antenna assembly is pulled out, remove the string attached to the connector in step (1).

ENTERTAINMENT > Microphone


NOTE

The microphone is integrated in the overhead console or stereo camera cover.

For removal and installation operation procedures, refer to "LIGHTING SYSTEM" section.  [Ref. to LIGHTING SYSTEM>Spot Map Light.](#)

ENTERTAINMENT > Navigation Body

NOTE

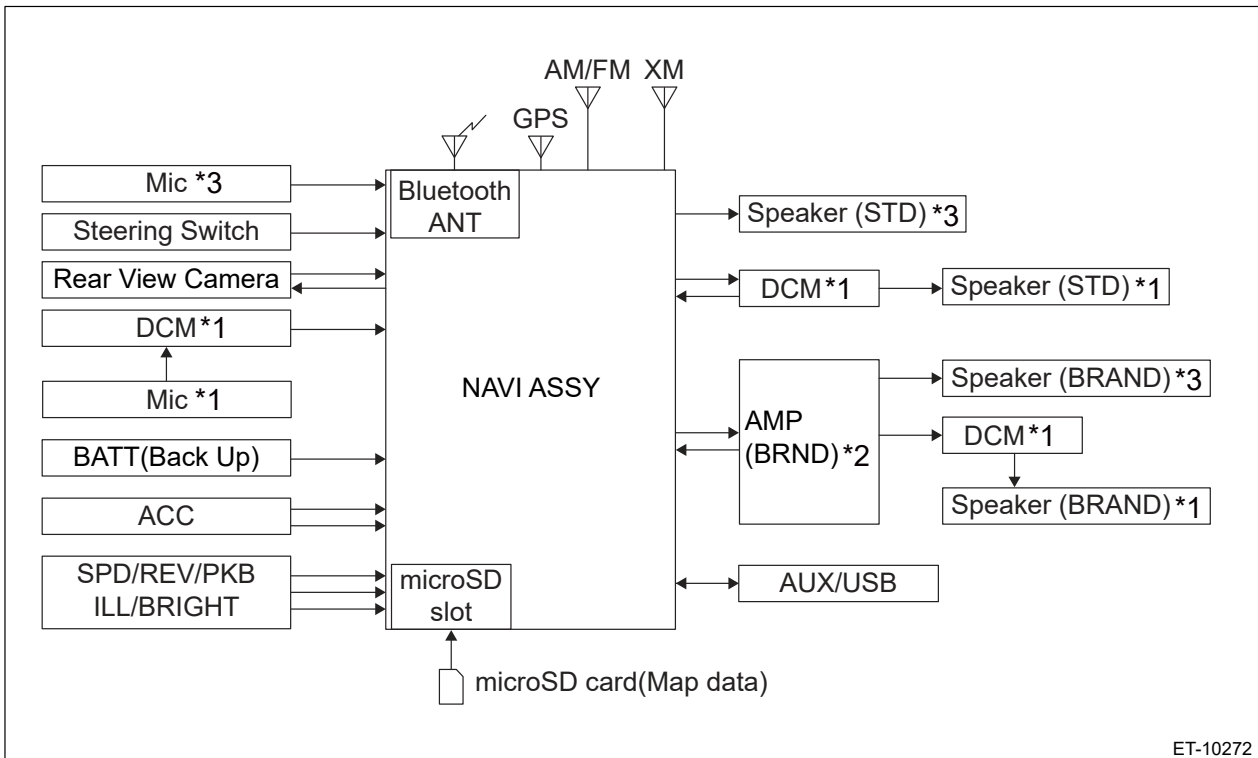
For the removal and installation operation procedures for navigation assembly, refer to {Audio} section.  [Ref. to ENTERTAINMENT>Audio.](#)

INSPECTION

1. BASIC INSPECTION

1. Using the Check List for Interview, ask the customer the condition of how trouble occurs. [Ref. to ENTERTAINMENT>Check List for Interview>CHECK > MODEL WITH 7 INCH DISPLAY \(NAVIGATION\).](#)
2. Check the battery. [Ref. to STARTING/CHARGING SYSTEMS\(H4DO\)>Battery>INSPECTION.](#)
3. Check the list of Diagnostics with Phenomenon, and perform diagnosis according to the procedures. [Ref. to ENTERTAINMENT>Diagnostics with Phenomenon>LIST > NAVIGATION SYSTEM.](#)

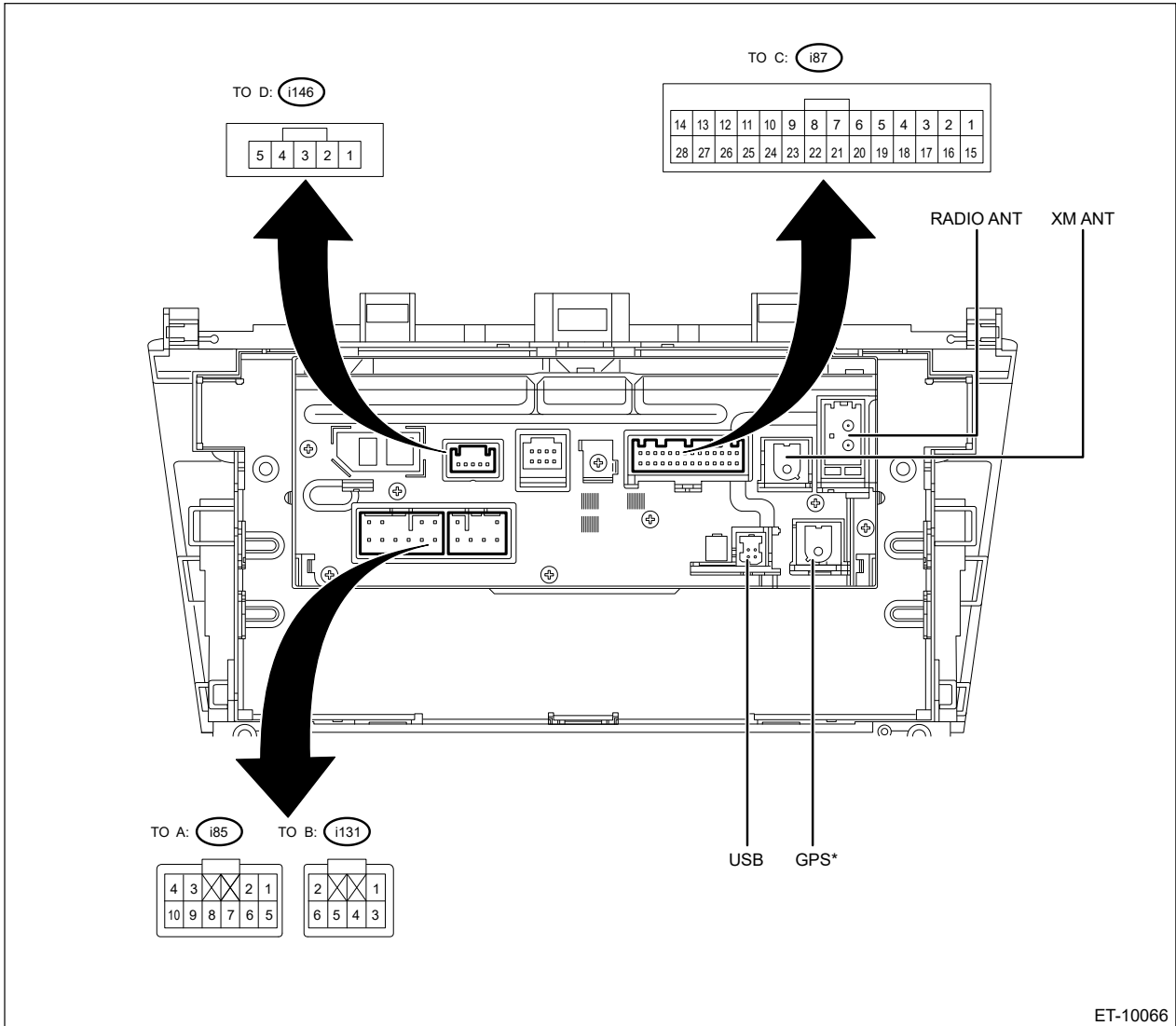
2. SYSTEM BLOCK DIAGRAM



- *1: Model with telematics
- *2: Model with power amplifier
- *3: Model without telematics

3. MODULE I/O SIGNAL

UNIT BODY



*: Navigation model

- Power supply and speaker output terminal

Terminal No.	Contents	Measuring condition	Measured value
(i85) No. 1	FRONT-RH (+)	—	—
(i85) No. 2	FRONT-LH (+)	—	—
(i85) No. 3 ↔ Chassis ground	ACC	ACC ON	11 — 15 V
(i85) No. 4 ↔ Chassis ground	+B	Always	11 — 15 V
(i85) No. 5	FRONT-RH (-)	—	—
(i85) No. 6	FRONT-LH (-)	—	—
(i85) No. 7 ↔ Chassis ground	GND	Always	0 V
(i85) No. 8	ANTENNA-ON	—	—
(i85) No. 9	N.C.	—	—
(i85) No. 10	ILLUMI (+)	—	—
(i131) No. 1	REAR-RH (+) / N.C.*	—	—
(i131) No. 2	REAR-LH (+) / INT+*	—	—
(i131) No. 3	REAR-RH (-) / N.C.*	—	—

(i131) No. 4	N.C. / SLD2*	—	—
(i131) No. 5	ILLUMI (-)	—	—
(i131) No. 6	REAR-LH (-) / INT (-)*	—	—

*: Model with power amplifier

- Satellite switch and AUX input terminal for microphone, etc.

Terminal No.	Contents	Measuring condition	Measured value
(i87) No. 1	N.C.	—	—
(i87) No. 2	{REV}	—	—
(i87) No. 3	BRIGHT	—	—
(i87) No. 4	MACC	—	—
(i87) No. 5	MIC (+)	—	—
(i87) No. 6	MIC-DET	—	—
(i87) No. 7	N.C. / TX1+ (for AMP communication)*	—	—
(i87) No. 8	N.C. / TX1- (for AMP communication)*	—	—
(i87) No. 9	N.C.	—	—
(i87) No. 10	N.C.	—	—
(i87) No. 11	N.C.	—	—
(i87) No. 12	N.C.	—	—
(i87) No. 13	N.C.	—	—
(i87) No. 14	N.C.	—	—
(i87) No. 15 ↔ Chassis ground	{PKB}	At parking ON	1 V or less
(i87) No. 16	N.C. / MUTE*	—	—
(i87) No. 17 ↔ Chassis ground	{SPD}	When the tire is rotating	Pulse signal
(i87) No. 18	N.C.	—	—
(i87) No. 19	MIC (-)	—	—
(i87) No. 20	N.C.	—	—
(i87) No. 21	SW1	—	—
(i87) No. 22	SW2	—	—
(i87) No. 23	SWG	—	—
(i87) No. 24	N.C.	—	—
(i87) No. 25	AUX-DET	—	—
(i87) No. 26	AUX-R (+)	—	—
(i87) No. 27	AUX-LR (-)	—	—
(i87) No. 28	AUX-L (+)	—	—

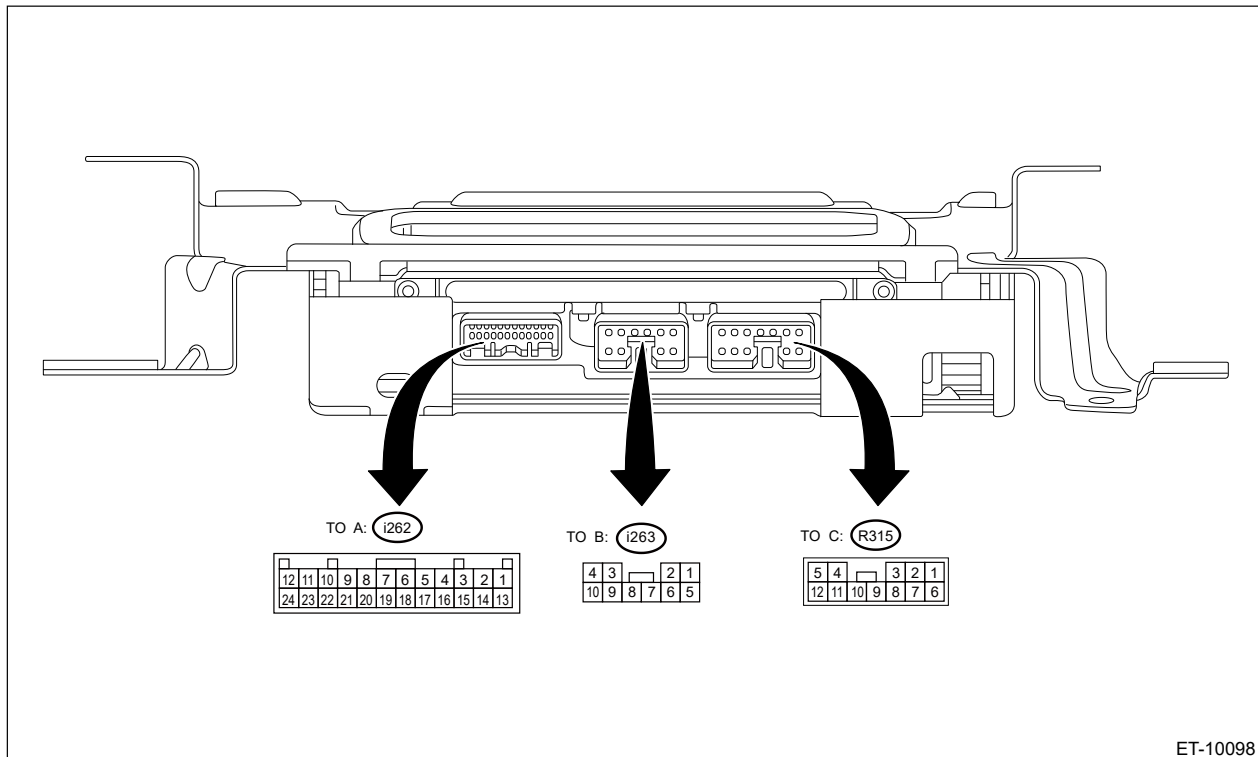
*: Model with power amplifier

- Rearview camera

Terminal No.	Contents	Measuring condition	Measured value

(i146) No. 1 ↔ Chassis ground	CGND	Always	0 V
(i146) No. 2	CB+	—	—
(i146) No. 3	CV+	—	—
(i146) No. 4	CV-	—	—
(i146) No. 5	N.C.	—	—

POWER AMPLIFIER



Terminal No.	Contents	Detail
(i262) No. 1	MUTE	{MUTE}
(i262) No. 2	L- IN	Left channel negative input
(i262) No. 3	L+ IN	Left channel positive input
(i262) No. 4	R- IN	Right channel negative input
(i262) No. 5	R+ IN	Right channel positive input
(i262) No. 6	S-GND	Shield ground
(i262) No. 7	TX-	Transmitter negative
(i262) No. 8	TX+	Transmitter positive
(i262) No. 9	NOT USED	UNUSED
(i262) No. 10	EQ SEL	Equalizer select
(i262) No. 11	SPEED	Speed pulse
(i262) No. 12	ACC	ACC power supply
(i262) No. 13	NOT USED	UNUSED
(i262) No. 14	NOT USED	UNUSED
(i262) No. 15	NOT USED	UNUSED
(i262) No. 16	NOT USED	UNUSED
(i262) No. 17	NOT USED	UNUSED

(i262) No. 18	NOT USED	UNUSED
(i262) No. 19	NOT USED	UNUSED
(i262) No. 20	NOT USED	UNUSED
(i262) No. 21	NOT USED	UNUSED
(i262) No. 22	II1-	Interrupt information negative
(i262) No. 23	II1+	Interrupt information positive
(i262) No. 24	NOT USED	UNUSED
(i263) No. 1	+B	Battery power supply
(i263) No. 2	IN-PANE (80 mm (3.15 in)) L+	Instrument panel left side speaker (80 mm (3.15 in)) positive
(i263) No. 3	FRONT (6X9) R+	Right side front door speaker (6 x 9 inch) positive
(i263) No. 4	FRONT (6X9) L-	Left side front door speaker (6 x 9 inch) negative
(i263) No. 5	+B	Battery power supply
(i263) No. 6	IN-PANE (80 mm (3.15 in)) L-	Instrument panel left side speaker (80 mm (3.15 in)) negative
(i263) No. 7	IN-PANE (80 mm (3.15 in)) R-	Instrument panel right side speaker (80 mm (3.15 in)) negative
(i263) No. 8	IN-PANE (80 mm (3.15 in)) R+	Instrument panel right side speaker (80 mm (3.15 in)) positive
(i263) No. 9	FRONT (6X9) R-	Right side front door speaker (6 x 9 inch) negative
(i263) No. 10	FRONT (6X9) L+	Left side front door speaker (6 x 9 inch) positive
(R315) No. 1	REAR (80 mm (3.15 in)) R-	Right side rear door speaker (80 mm (3.15 in)) negative
(R315) No. 2	REAR (80 mm (3.15 in)) R+	Right side rear door speaker (80 mm (3.15 in)) positive
(R315) No. 3	REAR (80 mm (3.15 in)) L-	Left side rear door speaker (80 mm (3.15 in)) negative
(R315) No. 4	REAR (160 mm (6.3 in)) R+	Right side rear door speaker (160 mm (6.3 in)) positive
(R315) No. 5	REAR (160 mm (6.3 in)) L+	Left side rear door speaker (160 mm (6.3 in)) positive
(R315) No. 6	GND	Ground
(R315) No. 7	GND2	Ground
(R315) No. 8	NOT USED	UNUSED
(R315) No. 9	REAR (80 mm (3.15 in)) L+	Left side rear door speaker (80 mm (3.15 in)) positive
(R315) No. 10	REAR (160 mm (6.3 in)) R-	Right side rear door speaker (160 mm (6.3 in)) negative
(R315) No. 11	NOT USED	UNUSED
(R315) No. 12	REAR (160 mm (6.3 in)) L-	Left side rear door speaker (160 mm (6.3 in)) negative

ENTERTAINMENT > Navigation System

NOTE

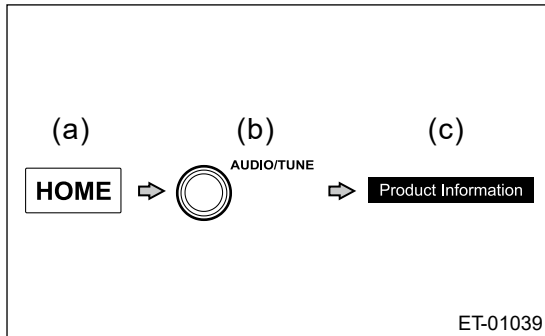
For procedure of each component in the navigation system, refer to the respective section.

- Navigation unit:  [Ref. to ENTERTAINMENT>Navigation Body.](#)
- GPS antenna:  [Ref. to ENTERTAINMENT>GPS Antenna.](#)

OPERATION

1. SUBARU STARLINK CONNECTION ID DISPLAY

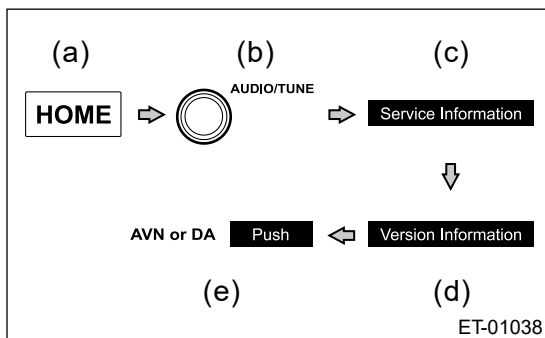
1. Turn the ignition switch to ACC.
2. Press the AUDIO/TUNE knob (b) five times with the HOME button (a) pressed to display the {Service Menu} screen.
3. Touch the {Product Information} (c) to display the {Product Information} screen.



4. Confirm the connectivity ID (16 digits).

2. SOFTWARE VERSION DISPLAY

1. Turn the ignition switch to ACC.
2. Press the AUDIO/TUNE knob (b) five times with the HOME button (a) pressed to display the {Service Menu} screen.
3. Touch the {Service Information} (c).
4. Touch the {Version Information} (d) to display the {Version Information} screen.
5. Touch the {AVN or DA} (e) to display the {Unit Version Information} screen.



6. Confirm the version.

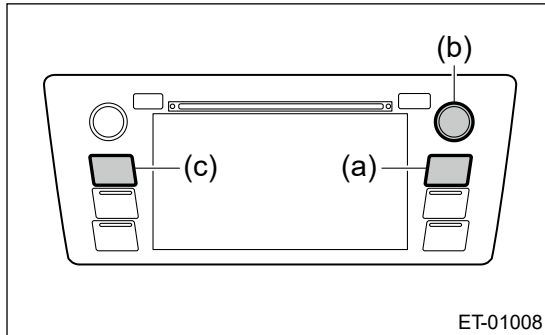
3. INITIALIZATION (FACTORY DEFAULT)

1. Turn the ignition switch to ACC.
2. Press the HOME button to display the {HOME} screen.
3. Touch the {SETTINGS} to display the {SETTINGS} screen.
4. Touch the {General} to display the {General Setting} screen.
5. Touch the {Delete Personal Data}, and touch the {Delete}.

6. {Deleting personal date. Please do not turn the vehicle off.} is displayed, and all data deletion is initiated.
7. When all data is deleted, {Initialization Complete.} is displayed.

4. CHECK CONNECTIONS WITH LINE DIAG MODE

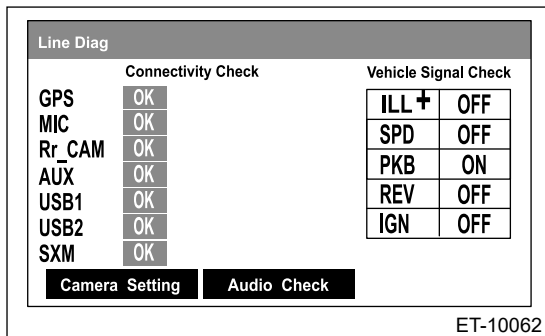
1. Turn the ignition switch to ACC.
2. Press the button (b) twice with the button (a) pressed.



Note:

Pressing the button (c) for 3 seconds or more, or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

3. {Line Diag} screen is displayed.
4. Check the connection status with the {Connectivity Check} in the {Line Diag} screen.



OK: Each connection device is connected properly.

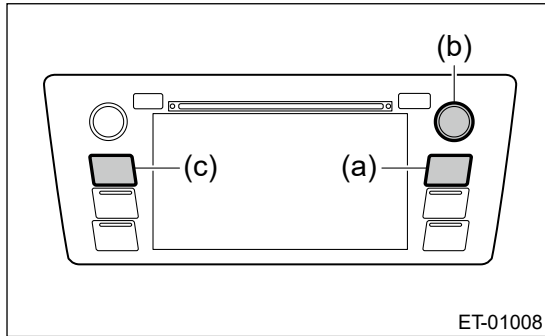
NG: No connection or abnormal connection is detected.

Note:

Check the external connection terminals (USB 1, 2 and AUX) by connecting a memory for check or a pin jack.

5. CHECK VEHICLE SIGNALS WITH DIAGNOSTIC MODE

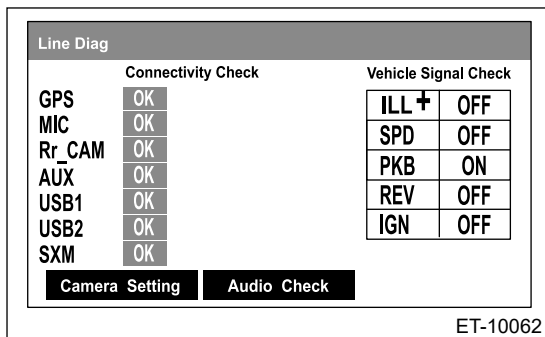
1. Turn the ignition switch to ACC.
2. Press the button (b) twice with the button (a) pressed.



Note:

Pressing the button (c) for 3 seconds or more, or turning the ignition switch from the OFF to ACC position can exit the diagnostic mode.

3. {Line Diag} screen is displayed.
4. Check the signal status with the {Vehicle Signal Check} in the {Line Diag} screen.



- Check illumination

Note:

Make sure that the bright switch is not ON.

1. Set the lighting switch to the parking position.
2. Make sure that {ON} lights in ILL+ and then the screen becomes dim.

ON: Normal.

OFF: Abnormal. Check the signal line connector. If there are no problems, the unit could be faulty.

- Check speed sensor

Note:

– Before starting inspections, check the safety around the vehicle.

– Lift up the vehicle as necessary.

– When the diagnostic trouble code is input in the VDC CM, perform the Clear Memory Mode.

1. Drive the vehicle at 9 km/h (6 MPH) or more.
2. Check that {ON} is displayed in SPD.

ON: Normal.

OFF: Vehicle speed is less than 7 km/h (4 MPH), or malfunction is detected in the signal line. Check the signal line connector. If there are no problems, the unit could be faulty.

- Check parking brake signal

1. Pull parking brake lever.

2. Check that {ON} is displayed in PKB.

ON: Normal.

OFF: Abnormal. Check the signal line connector. If there are no problems, the unit could be faulty.

- Check back sensor

Note:

Before starting inspections, check the safety behind the vehicle.

1. Turn the ignition to ON.

2. Pull the parking brake lever and depress the brake pedal, then place the select lever or gear shift lever in reverse.

3. Make sure that {ON} is displayed in REV.

ON: Normal.

OFF: Abnormal. Check the signal line connector. If there are no problems, the unit could be faulty.

- CHECK IGNITION SIGNAL

1. Turn the ignition to ON.

2. Make sure that {OFF} is displayed in IGN.

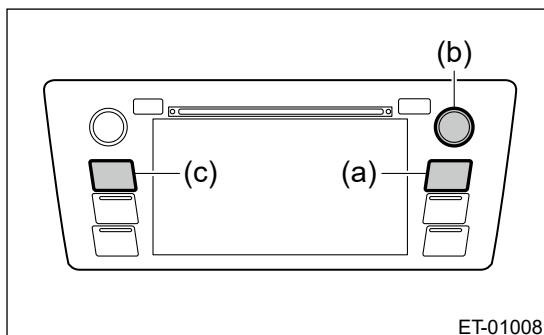
Note:

There is no signal line; therefore, always {OFF} is displayed.

6. CHECK SPEAKER OUTPUT WITH LINE DIAG MODE

1. Turn the ignition switch to ACC.

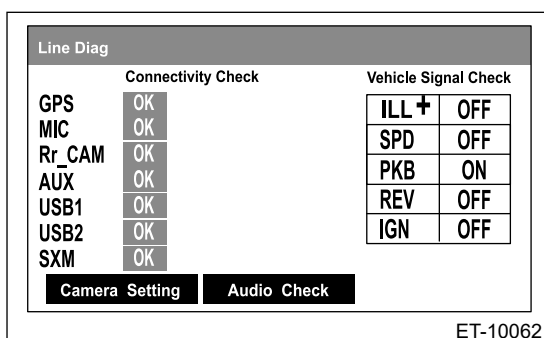
2. Press the button (b) twice with the button (a) pressed.



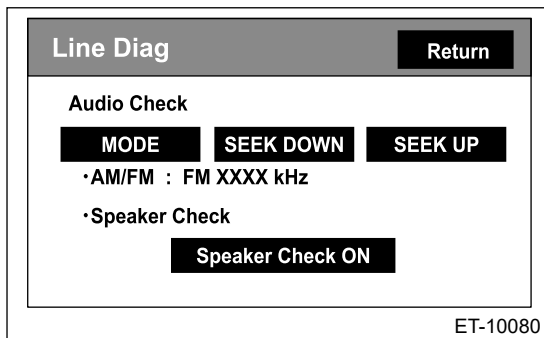
Note:

Pressing the button (c) for 3 seconds or more, or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

3. {Line Diag} screen is displayed.



4. Touch {Audio Check} on the {Line Diag} screen.
5. {Audio Check} screen is displayed.



6. Touch the {Speaker Check ON} key of {Speaker Check} to check speaker output.





Note:

- **The speaker front left → front right → rear right → rear left will sound in order for 2 seconds each.**
- **The speaker sounds at the maximum volume during speaker check.**
- **Press the {Return} key to return to the {Line Diag} screen.**

ENTERTAINMENT > Navigation System

WIRING DIAGRAM

Refer to "Navigation System" in the wiring diagram.

- WITHOUT AUDIO AMPLIFIER, WITHOUT TELEMATICS:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM > WITHOUT AUDIO AMPLIFIER, WITHOUT TELEMATICS.](#)
- WITHOUT AUDIO AMPLIFIER, WITH TELEMATICS:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM > WITHOUT AUDIO AMPLIFIER, WITH TELEMATICS.](#)
- WITH AUDIO AMPLIFIER, WITHOUT TELEMATICS:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM > WITH AUDIO AMPLIFIER, WITHOUT TELEMATICS.](#)
- WITH AUDIO AMPLIFIER, WITH TELEMATICS:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM > WITH AUDIO AMPLIFIER, WITH TELEMATICS.](#)


ENTERTAINMENT > Power Amplifier

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Power amplifier assembly: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

ENTERTAINMENT > Power Amplifier

REMOVAL

Note:

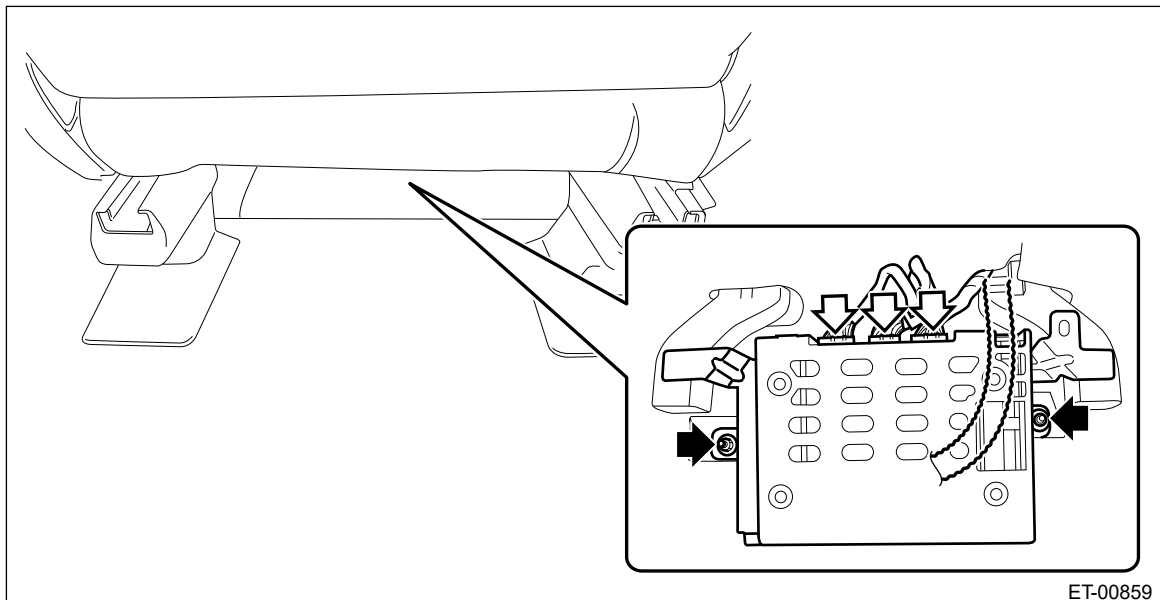
Remove the power amplifier assembly after sliding the front seat LH back and forth as necessary.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the power amplifier assembly.
 - (1) Disconnect the connector.
 - (2) Remove the nut and remove the power amplifier assembly.



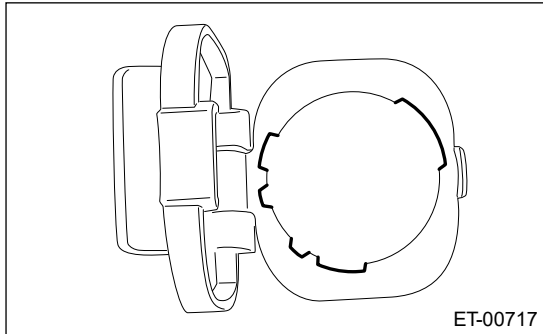
ENTERTAINMENT > Rear Accessory Power Supply Socket


INSTALLATION

1. Install each part in the reverse order of removal.

Note:

Align the grooves of the holder with the claws of accessory power supply socket.



2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

ENTERTAINMENT > Rear Accessory Power Supply Socket


REMOVAL

1. CONSOLE

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

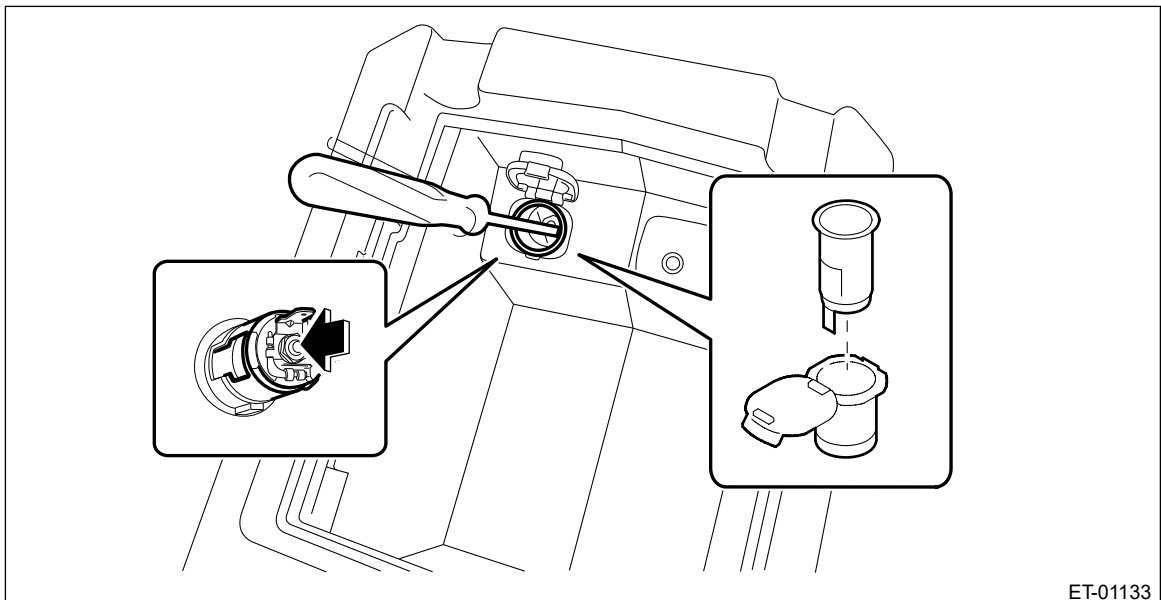
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)

3. Remove the socket assembly.

(1) While releasing the claw inside, press it in from the rear to remove the socket assembly.



(2) Remove the cap - socket.

2. LUGGAGE ROOM

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

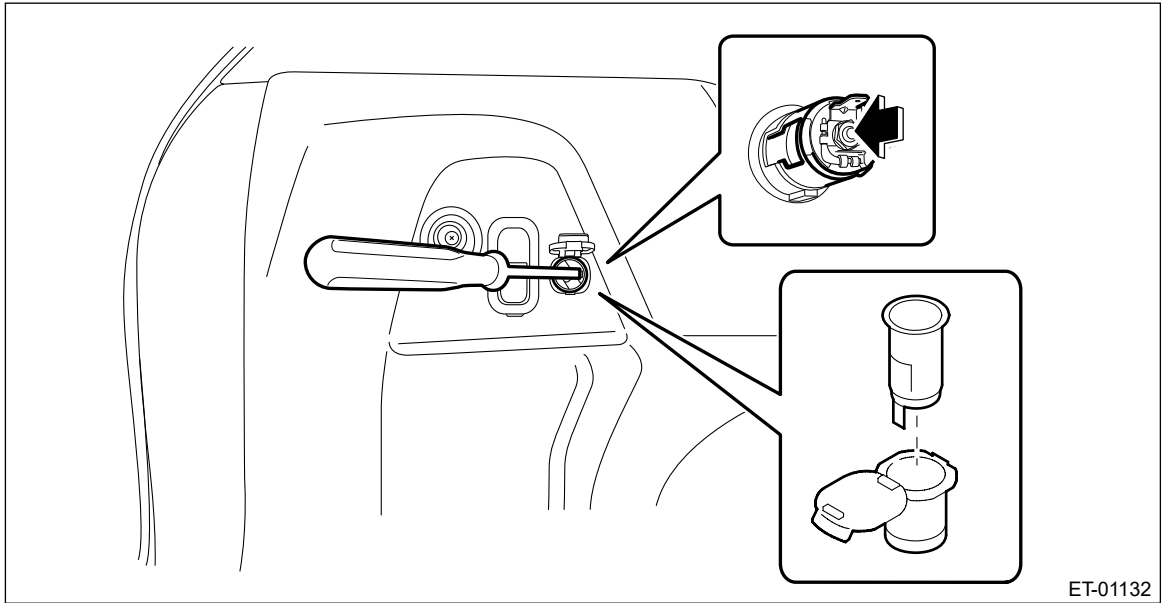
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear apron LH.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)

3. Remove the socket assembly.

(1) While releasing the claw inside, press it in from the rear to remove the socket assembly.




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(2) Remove the cap - socket.

ENTERTAINMENT > Rear Accessory Power Supply Socket

WIRING DIAGRAM

Refer to "Rear Accessory Power Supply Socket System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Rear Accessory Power Supply Socket System>WIRING DIAGRAM.](#)

ENTERTAINMENT > Rear Speaker

INSTALLATION


1. Install each part in the reverse order of removal.

Note:

If the bracket is removed from the speaker assembly - tweeter, tighten it with the following torque.

Tightening torque:

4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

ENTERTAINMENT > Rear Speaker

REMOVAL

1. TWEETER


Note:

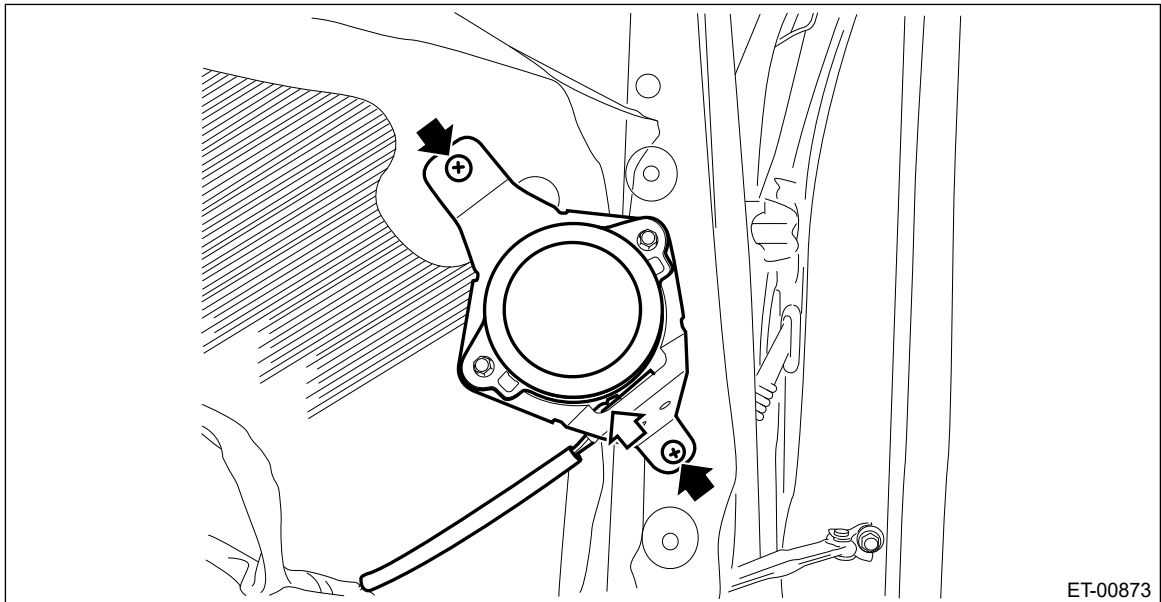
Only for model with power amplifier.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

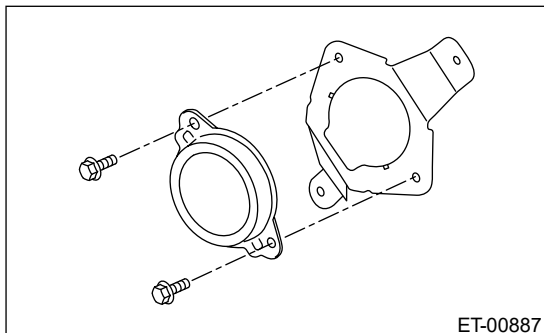
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the speaker assembly - tweeter.
 - (1) Disconnect the connector.
 - (2) Remove the screws and remove the speaker assembly - tweeter.



Note:

As necessary, remove the bracket from the speaker assembly - tweeter.




2. DOOR SPEAKER

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

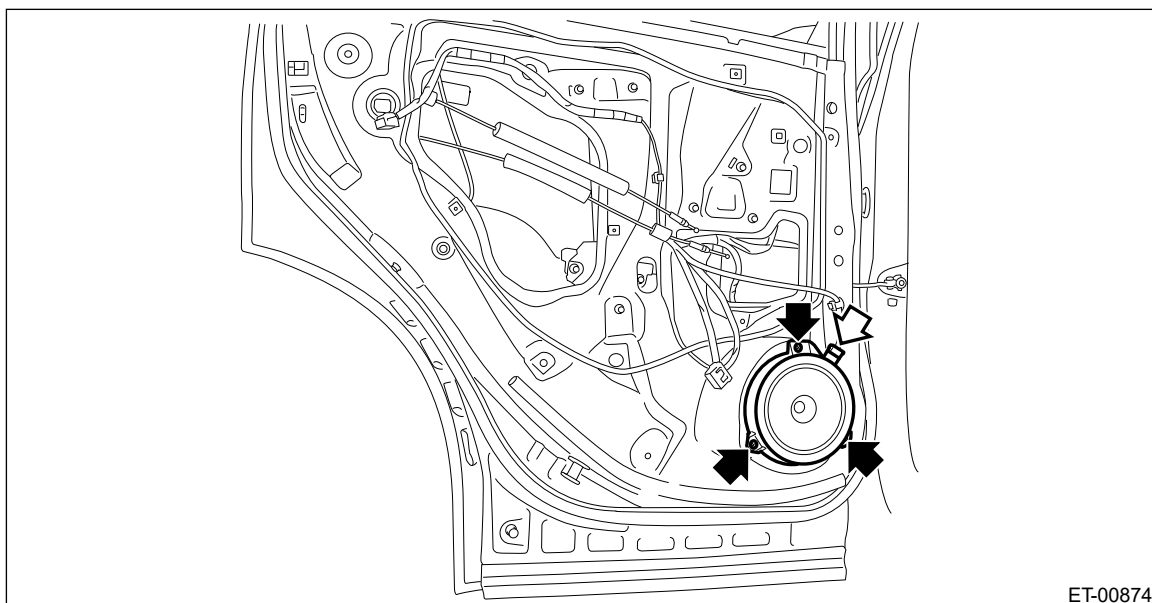
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the speaker assembly - rear.
 - (1) Disconnect the connector.
 - (2) Remove the screws to remove the speaker assembly - rear.

Caution:

Be careful not to damage the claw for temporary retention. (Model without power amplifier)



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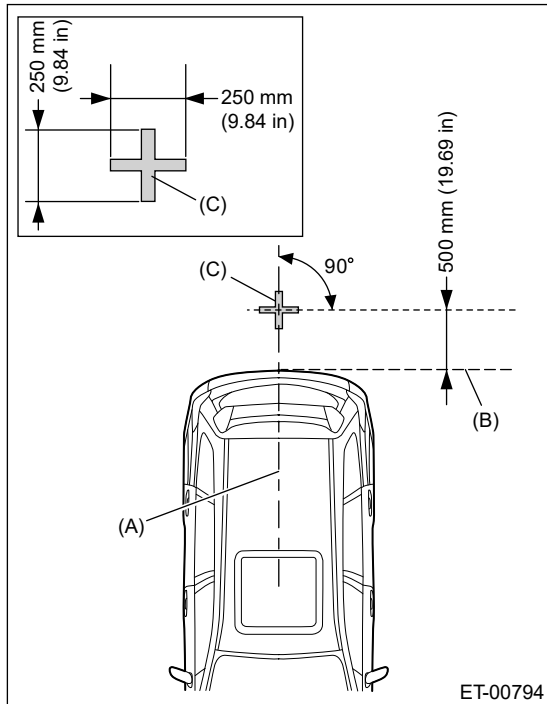
ENTERTAINMENT > Rearview Camera System

INSPECTION

1. Park the vehicle at the level place where there are enough area at the rear of the vehicle.
2. Attach the tape as the target point for standard at the floor rearward of the vehicle as shown in the figure below.

Note:

Standard tape width is about 30 – 50 mm (1.18 – 1.97 in) and brilliant color shall be used.





- (A) Vehicle body center line
- (B) Rear edge of bumper
- (C) Target point



3. Confirm the following before checking the corresponding items.

(1) Rearview camera image is not displayed. (Audio and navigation screens are displayed normally.)

1. Check the condition of back sensor connection.

- Audio system:  [Ref. to ENTERTAINMENT>Audio System>OPERATION > CHECK VEHICLE SIGNALS WITH LINE DIAG MODE.](#)
- Navigation system:  [Ref. to ENTERTAINMENT>Navigation System>OPERATION > CHECK VEHICLE SIGNALS WITH DIAGNOSTIC MODE.](#)

2. Check the condition of rearview camera connection.

- Audio system:  [Ref. to ENTERTAINMENT>Audio System>OPERATION > CHECK CONNECTIONS WITH LINE DIAG MODE.](#)
- Navigation system:  [Ref. to ENTERTAINMENT>Navigation System>OPERATION > CHECK CONNECTIONS WITH LINE DIAG MODE.](#)

(2) Marker position is not aligned or displayed.


The rearview camera or its installation location on the vehicle may be deformed. Check the rearview camera and its installation location on the vehicle, and repair or replace if necessary.

ENTERTAINMENT > Rearview Camera System

INSTALLATION

Caution:

Be sure to confirm the marker position, whenever the rearview camera is removed/installed/replaced.

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


ENTERTAINMENT > Rearview Camera System

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

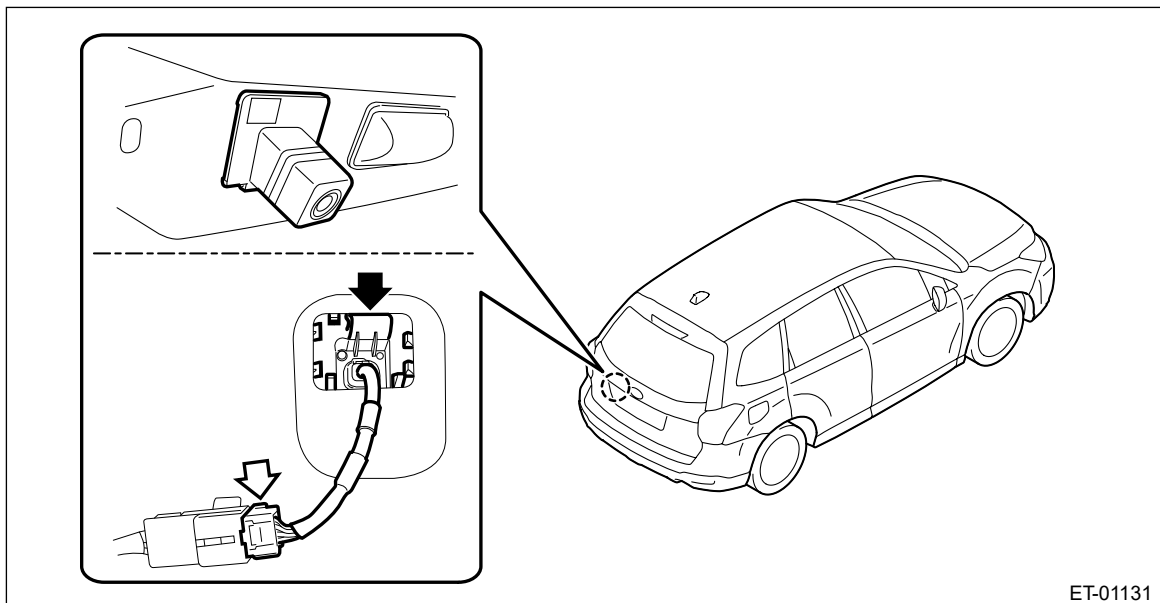
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear gate and the garnish assembly - rear gate.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Garnish>REMOVAL.](#)
3. Remove the rearview camera assembly.

Caution:

Do not drop or apply any impact to the rearview camera because it is a precision equipment.



- (1) Disconnect the connector.
- (2) Disconnect the claws and then remove the rearview camera assembly.



ENTERTAINMENT > Rearview Camera System

WIRING DIAGRAM

Refer to "Rearview Camera System" in the wiring diagram.

- Model with 6.2 inch display:  [Ref. to WIRING SYSTEM>Rearview Camera System>WIRING DIAGRAM > 6.2 INCH DISPLAY.](#)
- Model with 7 inch display:  [Ref. to WIRING SYSTEM>Rearview Camera System>WIRING DIAGRAM > 7 INCH DISPLAY.](#)

ENTERTAINMENT > Relay and Fuse

INSPECTION

1. CHECK FUSE

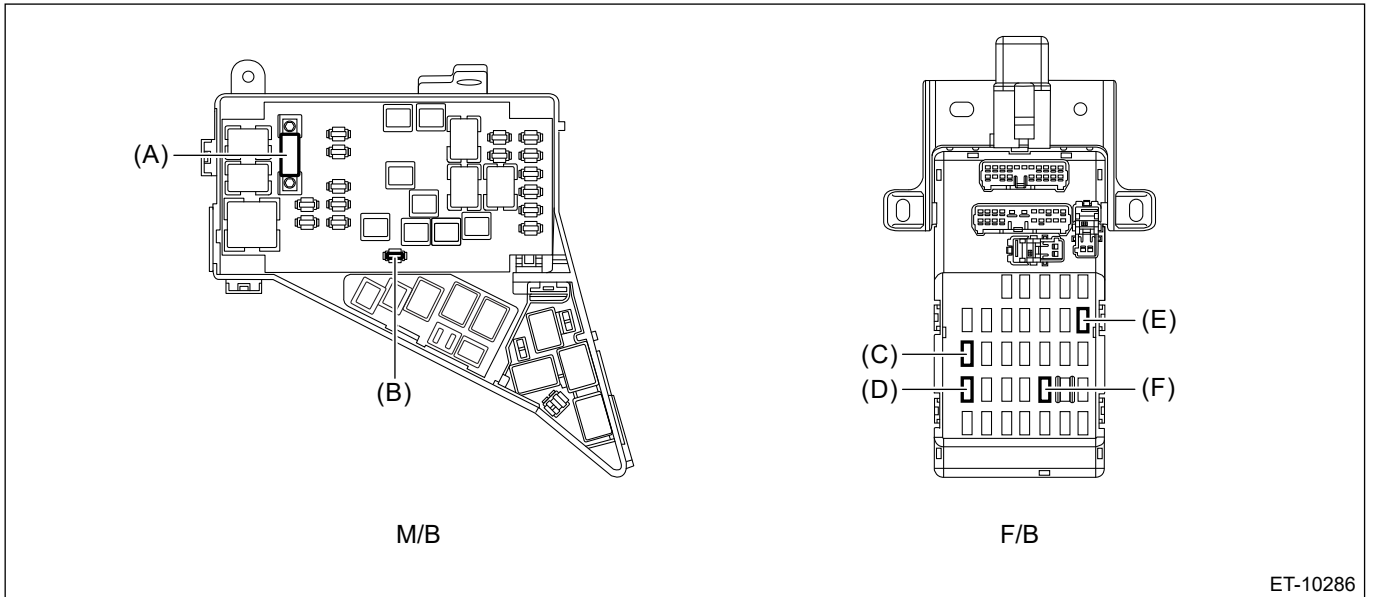
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:

If the fuse is blown again, check the system wiring harness.

ENTERTAINMENT > Relay and Fuse

LOCATION



Main Fuse Box	MAIN SBF120 A (data communication module*1)	(A)
	Fuse 20 A (audio, navigation unit)	(B)
Relay & fuse box	Fuse 20 A (rear accessory power supply socket)	(C)
	Fuse 10 A (front accessory power supply socket)	(D)
	Fuse 15 A (data communication module*1)	(E)
	Fuse 10 A (audio, navigation unit, data communication module*)	(F)

*1: Model with telematics

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

ENTERTAINMENT > Service Diagnostics Mode

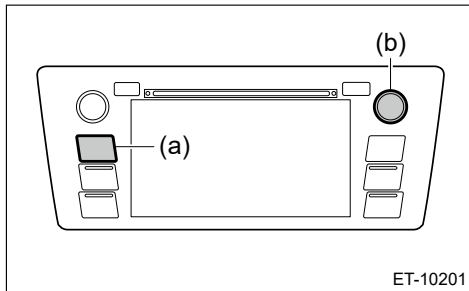
OPERATION

Note:

Installed only to model with 7 inch display.

1. PROCEDURE TO SWITCH TO SERVICE DIAGNOSTICS MODE

1. Turn the ignition switch to ACC.
2. After turning the ignition switch to ACC and wait for 20 seconds or more, press the button (d) five times with the button (a) pressed.

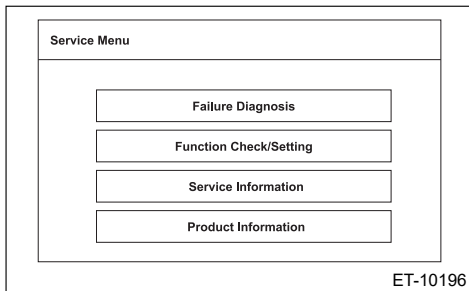


Note:

Pressing the button (a) for 3 seconds or more, or turning the ignition switch from the OFF to ACC position can exit the diagnostic mode.

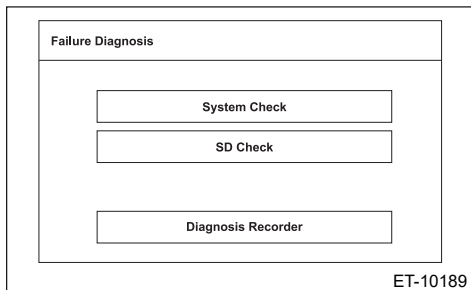
2. SERVICE INSPECTION

Upon entering the service diagnostics mode, the following screen is displayed.



FAILURE DIAGNOSIS MENU

On Service Menu, click Failure Diagnosis to display the following screen.

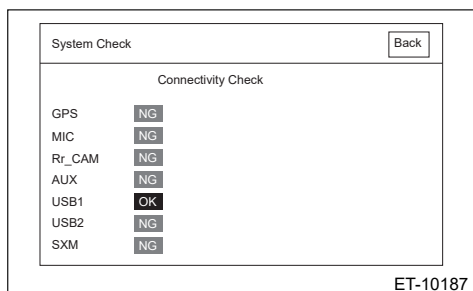


Note:

SD Check is displayed only for the navigation system.

1. System Check

On the Failure Diagnosis screen, click System Check to display the following screen.



OK: Each connection device is connected properly.

NG: Connection is not established, or connection status (including harness) is faulty.

Check the connection status of the connector and harness. If there are no problems, the connection device or unit could be faulty.

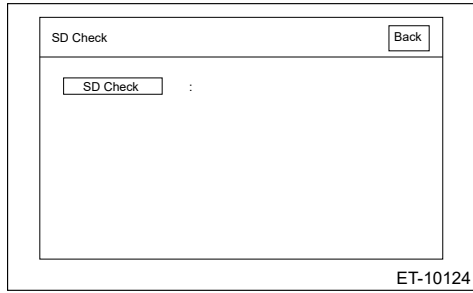
Note:

- Check the external connection terminals (USB 1, USB 2 and AUX) by connecting memory or a pin jack for inspection.
- The following shows information to be displayed and its description.

Item	Item detection method	OK judgment condition	Note
GPS	Direct line	GPS antenna is connected. (NG is displayed when short circuit is detected.)	Only model with navigation system
MIC	Direct line	(i87) No. 6 falls to GND level.	—
Rr_CAM	Direct line	Synchronized signals from the camera are input to (i146) No. 3.	—
AUX	Direct line	(i87) No. 25 falls to GND level.	—
USB1	Communication	USB device is connected to USB-HUB to obtain USB device information properly. (Should be recognizable as a supported USB device.)	—
USB2	Communication	USB device is connected to USB-HUB to obtain USB device information properly. (Should be recognizable as a supported USB device.)	—
SXM	Direct line	XM-ANT is connected. (NG is displayed when short circuit is detected.)	It takes approx. 30 seconds to become recognizable.

2. SD Check

On the Failure Diagnosis screen, click SD Check to display the following screen.



On the SD Check screen, click SD Check to display a diagnostic result.

OK: There is no defect on the SD card.

NG: There is defect on the SD card.

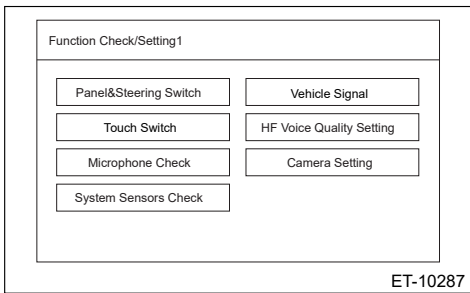
Note:

The following shows information to be displayed and its description.

Item	Contents
OK	SD card diagnosis is completed. Diagnostic result is OK.
NG	SD card diagnosis is completed. Diagnostic result is NG.
During diagnosis	SD card diagnosis is in progress.

FUNCTION CHECK/SETTING

On Service Menu, click Function Check/Setting to display the following screen.

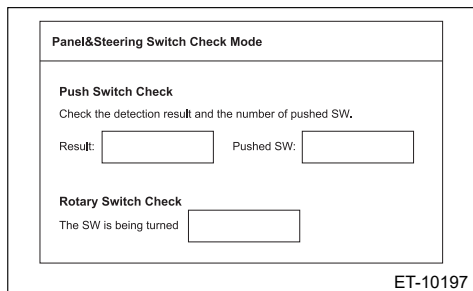


Note:

System Sensors Check is displayed only for the navigation system.

1. Panel & Steering Switch Check Mode

On the Function Check/Setting screen, click Panel & Steering Switch to display the following screen.



Once the screen is displayed, press the push switches to check that the number of pushed switches matches the number shown in Pushed SW.

If the number of SW does not match, SW conditions are not properly recognized. Therefore, perform inspection for unrecognized switches.

In addition, turn the rotary switch clockwise or counterclockwise to check that the screen indicates correct status according to the operation. If the screen display does not match the actual operation, the rotary SW may be faulty. Perform inspection for the rotary SW.

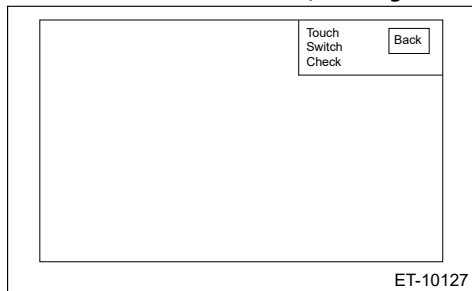
Note:

The following shows information to be displayed and its description.

Item	Display	Contents
Result	Pressed	Pressing of switch is detected.
Number of switch pushed	1	One pressed switch is detected.
	2	Two pressed switches are detected.
	3	Three pressed switches are detected.
	4	Four pressed switches are detected.
Direction of switch rotation	Clockwise	The rotary switch is turned clockwise.
	Counterclockwise	The rotary switch is turned counterclockwise.

2. Touch Switch Check

On the Function Check/Setting screen, click Touch Switch to display the following screen.



Once the screen appears, touch the screen. + (cursor) appears where you touched.

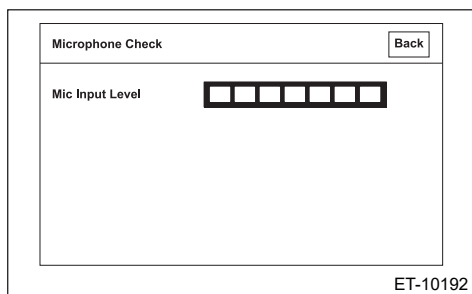
Note:

The following shows information to be displayed and its description.

Item	Contents
+ (Cursor)	Appears when the screen is touched. The displayed white-outlined + (cursor) stays on, even when a touching finger is removed, until the screen is switched.

3. Microphone Check

On the Function Check/Setting screen, click Microphone Check to perform inspection for microphone.



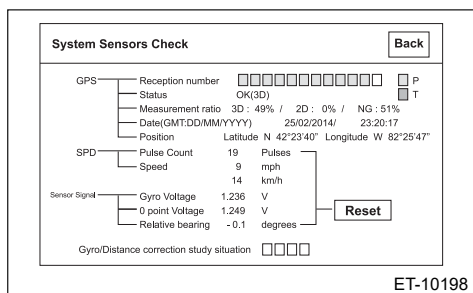
With the microphone input level screen displayed, make sound toward the microphone.

Fluctuate the sound volume to check that the microphone input level changes accordingly.

If the input level does not become green or the input level does not change even when the sound volume is fluctuated, the microphone may be faulty.

4. System Sensors Check

On the Function Check/Setting screen, click Touch Switch to display the following screen.



GPS related check: Status of the GPS signal reception can be checked. When there is faulty in reception status, position detection or date indication, re-check the reception status at a location with a fine view and no obstacles around that will interrupt the signal reception. When normal condition is still not obtained, the GPS antenna may be faulty.

- GPS/Reception number: Normal when it is indicated in blue.
- GPS/Status: Normal when OK is indicated.
- GPS/Measurement ratio 3D:
- GPS/Measurement ratio 2D:
- GPS/Date: Normal when current time is indicated. When current date/time is not indicated, click the Date Setting button to set the current date on the displayed date setting screen.
- GPS/Position: Normal when longitude and latitude of the current position are indicated.

SPD check: Status of the vehicle speed sensor signal can be checked.

1. Before starting inspections, check the safety around the vehicle. (Lift up the vehicle as necessary.)
2. When VDC CM detected DTC, clear the DTC.
3. Drive the vehicle at 9 km/h (6 MPH) or more.
4. Check that SPD indicates vehicle speed that is almost equivalent to the figure displayed on the combination meter.
5. Vehicle speed is not displayed. Or, when the vehicle speed is not correct, check if the DTC related to the vehicle sensor is stored for the VDC system, and perform inspection according to the procedure. If no fault is found with the vehicle speed sensor, and the vehicle speed is displayed on the combination meter, the unit itself may be faulty.

Gyro sensor related check: Status of the Gyro sensor signal can be checked. If fault is found with the Gyro sensor related indications, the main unit could be faulty.

- Gyro sensor/Gyro Voltage: Shake the vehicle to the left and right to check that the voltage changes.
- Gyro sensor/Relative bearing: Normal when the value changes when direction of the vehicle is changed.
- Inclined angle sensor/relative angle: Park the vehicle on uphill or downhill surface. Normal when the value changes.
- Gyro/Distance correction study situation: Study situation can be checked.
- Reset: Press and hold the Reset button for three seconds to reset the pulse count of SPD, relative bearing of Gyro sensor, relative angle of inclined angle sensor.

Note:

The following shows information to be displayed and its description.

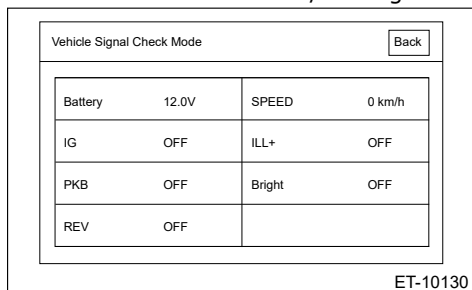
Item	Display	Contents
GPS/Reception number	Green	When notification of "Positioning with collected data is used" is received from the GPS reception device. (Status: In-use)
	Yellow	When notification of "Tracking in progress" is received from the GPS reception device. (Status: Reception in progress)
	Transparent	When notification of "Positioning with

		collected data is not used" or "Searching in progress" is received from the GPS reception device. (Status: Not used)
GPS/Status	OK (H3D)	When three-dimensional positioning (Hyper 3D positioning) using satellites with less accuracy degradation is used.
	OK (H2D)	When two-dimensional positioning (Hyper 2D positioning) using satellites with less accuracy degradation is used.
	OK (3D)	When three-dimensional positioning is used.
	OK (2D)	When two-dimensional positioning is used.
	NG	When the positioning data is not available.
	error	When a reception error occurred.
	—	For cases other than above.
GPS/Measurement ratio 3D	Ratio	Displays ratio of three-dimensional positioning satellites.
GPS/Measurement ratio 2D	Ratio	Displays ratio of two-dimensional positioning satellites.
GPS/Measurement ratio NG	Ratio	Displays ratio of non-positioning satellites.
GPS/Date	Current date and time	Displays date information obtained from GPS in four digits for year and 24-hour clock for time. Date information is displayed as [Y/M/D].
GPS/Position (latitude)	Current position, latitude information	Displays latitude information of the current position in "degree", "minute" and "second". When positioning information is not obtained, it appears as 00° 00' 00".
GPS/Position (longitude)	Current position, longitude information	Displays longitude information of the current position in "degree", "minute" and "second". When positioning information is not obtained, it appears as 00° 00' 00".
SPD/Pulse Count	Pulse count	Displays SPD signal status in the following format. <ul style="list-style-type: none"> • The number of input pulses accumulated since this screen is displayed. (Indicated in four-digit DEC code.) • The number returns to 0 after 9999. • Reset with ACC OFF/ON.
SPD/Speed	Speed	Displays SPD signal status in the following format.

		<ul style="list-style-type: none"> • LSB: Displays in km-per-hour as 1 km/h. • Displays 255 km/h for MAX value or more, and 0 km/h for MIN value or less.
Gyro sensor/Gyro Voltage	Voltage value	Voltage value (unit: V, LSB: 1 mV).
Gyro sensor/0 point Voltage	Unit: 0 point voltage	Displays 0 point voltage of the Gyro sensor used by each company.
Gyro sensor/Relative bearing	Relative bearing	-360° — +360°
Inclined angle sensor/relative angle	Relative angle	Displays longitudinal inclination angle of the vehicle in the relative angle (unit: °, LSB: 1°, no sign for elevation angle, negative sign for depression angle: -), while the position when this screen appears is set as [0°].
Gyro/Distance correction study situation	Gyro/Distance correction study situation	Gyro/Distance correction study situation is displayed.
Reset	Reset the following display items to [0]. <ul style="list-style-type: none"> • SPD pulse count • Relative bearing of Gyro sensor • Relative angle of inclined angle sensor 	Press and hold the reset button for three seconds or more.

5. Vehicle Signal Check

On the Function Check/Setting screen, click Vehicle Signal to display the following screen.



- **Battery:** Status of the battery voltage signal input can be checked. Measure the battery voltage using a tester. System is normal when the indicated voltage is almost equivalent to the tester value. When the indicated voltage is different from the tester value, perform inspection for the power supply circuit of main unit.
- **SPEED:** Status of the vehicle speed signal input can be checked.
 1. Before starting inspections, check the safety around the vehicle. (Lift up the vehicle as necessary.)
 2. When VDC CM detected DTC, clear the DTC.
 3. Drive the vehicle at 9 km/h (6 MPH) or more.
 4. Check that SPD indicates vehicle speed that is almost equivalent to the figure displayed on the combination meter.
 5. Vehicle speed is not displayed. Or, when the vehicle speed is not correct, check if the DTC related to the vehicle sensor is stored for the VDC system, and perform inspection according to the procedure. If no fault is found with the vehicle speed sensor, and the vehicle speed is displayed on the combination meter, the unit itself may be faulty.
- **IG:** Status of the IG signal input can be checked. Turn the ignition switch to ON, and check that the IG indication appears as ON. If the indication does not appear as ON, check the IG signal line.

- ILL+: Status of the illumination signal input can be checked.
 1. Before starting inspections, turn the ignition to ON.
 2. Set the lighting switch to the parking position.
Make sure that the bright switch is not turned ON at this time.
 3. Check that ON lights in ILL+ and then the screen becomes dim.
ON: Normal.
OFF: Abnormal. Check the signal line and connector. If no faulty is found, the unit itself may be faulty.
- PKB: Status of the parking brake signal input can be checked.
- GPS: Normal when longitude and latitude of the current position are indicated.
Pull parking brake lever. Check that ON is displayed in PKB.
ON: Normal.
OFF: Abnormal. Check the signal line and connector. If no faulty is found, the unit itself may be faulty.
- Bright: Status of the Bright signal input can be checked.
Operate the dial-type bright switch next to the steering wheel. System is normal when the signal indicates ON.
If the signal does not indicate ON, check the bright switch.
- REV: Status of the reverse range signal input can be checked.
 1. Before starting inspections, check the safety around the rear end of the vehicle and then turn the ignition to ON.
 2. Pull the parking brake lever and depress the brake pedal, then place the select lever or gear shift lever in reverse.
 3. Check that ON is displayed in REV.
ON: Normal.
OFF: Abnormal. Check the signal line and connector. If no faulty is found, the unit itself may be faulty.

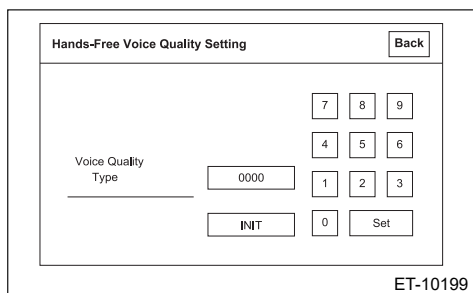
Note:

The following shows information to be displayed and its description.

Item	Display	Contents
Battery	Status of battery voltage	0 V – 24 V (Minimum unit: 0.1V)
SPEED	Status of vehicle speed	0 km/h – 255 km/h (Minimum unit: 1 km/h)
IG	ON	IG power supply ON
	OFF	IG power supply OFF
ILL+	ON	ILL+ signal ON
	OFF	ILL+ signal OFF
{PKB}	ON	PKB signal ON
	OFF	PKB signal OFF
Bright	ON	Bright with dimmer
	OFF	Bright without dimmer
{REV}	ON	REV signal ON
	OFF	REV signal OFF

6. Hands-free voice quality setting

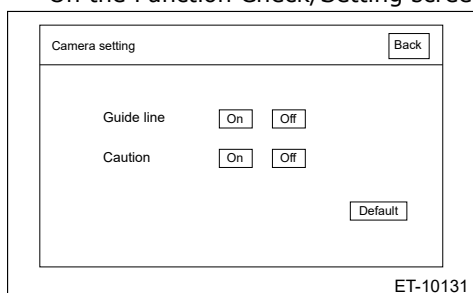
On the Function Check/Setting screen, click Hands-Free Voice Quality Setting to display the following screen.



Setting of the hands-free voice quality setting is possible.

7. {Camera setting}

On the Function Check/Setting screen, click Camera Setting to display the following screen.



Setting of the rearview camera adjustment is possible.

- Guide line: Turn ON the guide line display to show the guide lines.
- Caution: Turn ON the caution display to enable caution display during the rearview camera display.
- Default: Click the Default button to return the Guide line display and Caution display settings to the initial settings.

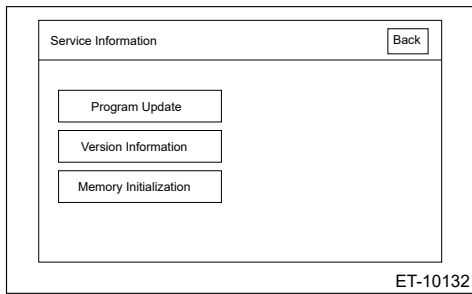
Note:

The following shows information to be displayed and its description.

Item	Contents
Guide line	Guide line display setting switch <ul style="list-style-type: none"> • Turns on/off the guide line display for the rearview camera display screen. • When On is selected, guide lines will appear on the rearview camera display screen.
Caution	Caution display setting switch <ul style="list-style-type: none"> • Turns on/off the caution display for the rearview camera display screen. • When On is selected, the caution will appear on the rearview camera display screen.
Default	Default setting switch <ul style="list-style-type: none"> • Returns the Guide line display setting and Caution display setting to the default settings.

SERVICE INFORMATION

On Service Menu, click Service Information to display the following screen.



- Program Update: This function is used when the main unit program is updated, and not used as troubleshooting.
- Version Information: This function is used to view version of the main unit, and not used as troubleshooting.
- Memory Initialization: This function is used to initialize information stored in the main unit memory.

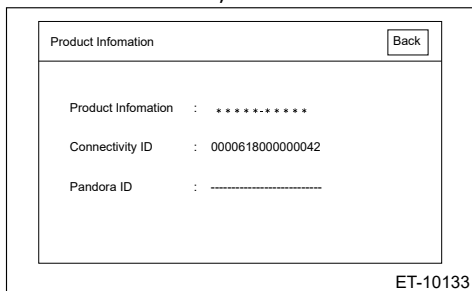
Caution:

When this function is used, music information and navigation setting information saved in the main unit will be deleted. Therefore, obtain permission from the user before using this function.

When initializing the memory, perform procedures by following the indicated messages. Also, when clicking the OK button, press and hold it.

PRODUCT INFORMATION

On Service Menu, click Product Information to display the following screen.



- Product Information: Displays the product number of the main unit.
- Connectivity ID: ID that is required upon using the SUBARU STARLINK functions. When this ID is not indicated, the SUBARU STARLINK functions are not accessible.
- Pandora ID: ID that is required upon using Pandora. When this ID is not indicated, Pandora is not accessible.

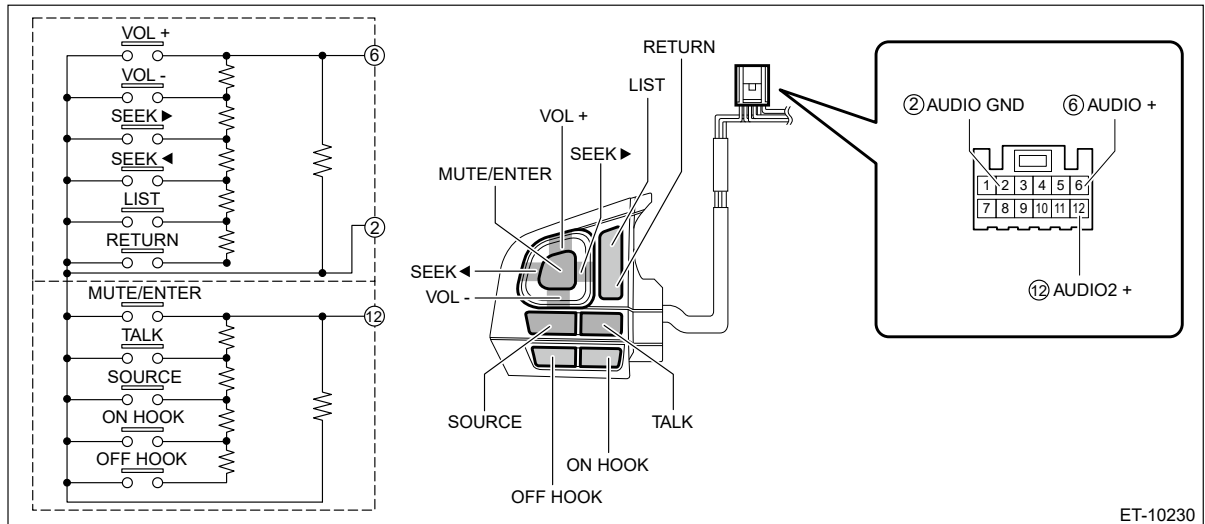
INSPECTION

1. SATELLITE SWITCH ASSEMBLY

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



ET-10230

Terminal No.	Inspection conditions		Standard
6 - 2	VOL (+) VOL (-) SEEK (>) SEEK (<) {LIST} {RETURN}	A circuit is all OFF.	Approx. 100 kΩ
	VOL (+)	ON	Less than 1 Ω
	VOL (-)	ON	Approx. 50 Ω
	Preset CH UP/SEEK (>)	ON	Approx. 120 Ω
	Preset CH DOWN/SEEK (<)	ON	Approx. 230 Ω
	{LIST}	ON	Approx. 430 Ω
12 - 2	{RETURN}	ON	Approx. 1,000 Ω
	MUTE/ENTER TALK {SOURCE} {ON HOOK} {OFF HOOK}	B circuit is all OFF.	Approx. 100 kΩ
	MUTE/ENTER	ON	Less than 1 Ω
	TALK	ON	Approx. 50 Ω
	{SOURCE}	ON	Approx. 120 Ω
	{ON HOOK}	ON	Approx. 230 Ω
{OFF HOOK}	ON	Approx. 430 Ω	

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the

switch.

Terminal No.	Inspection conditions	Specification
10 (+) – 11 (-)	Apply battery voltage.	Light ON

3. If it is found to be defective as a result of the inspection, replace the satellite switch assembly.

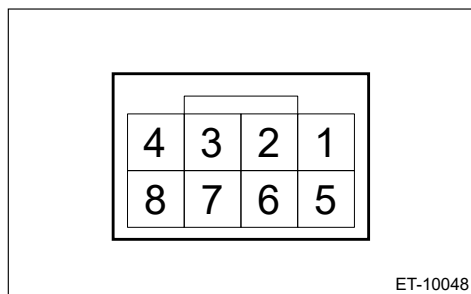
2. TELEMATICS BUTTON

1. Check the button.

- (1) Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



- SOS button

Terminal No.	Inspection conditions	Standard
6 – 1	{OFF}	Approx. 1.6 kΩ
	{ON}	Less than 1 Ω

- i-button

Terminal No.	Inspection conditions	Standard
3 – 1	{OFF}	Approx. 1.6 kΩ
	{ON}	Less than 1 Ω

- (2) Apply battery voltage between the connector terminals to check lighting status of illumination inside the button.

Terminal No.	Inspection conditions	Specification
8 (+) – 2 (-)	Apply battery voltage.	Light ON

2. Check the indicator.

- (1) Check the continuity between the connector terminals.



Terminal No.	Indicator	Specification
4 – 1	Green	Continuity exists
7 – 1	Red	Continuity exists


3. Replace the overhead console or stereo camera cover assembly if faulty is found in the inspection.

INSTALLATION

1. SATELLITE SWITCH ASSEMBLY

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- If the steering wheel has been removed, make sure that the steering roll connector is not turned from the original position.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform the VDC setting mode.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.](#)
- Securely install the switch. Improper insertion of the pin or claw of the switch may cause improper installation.

1. Align the center position of the steering roll connector.  [Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.](#)

2. Install each part in the reverse order of removal.

Note:

Align the alignment marks on the steering wheel and the column assembly - steering.

Tightening torque:

Steering wheel: 39 N·m (3.98 kgf-m, 28.8 ft-lb)


Clearance:

Between column cover and steering wheel: 4 – 6 mm (0.16 – 0.24 in)

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

2. TELEMATICS BUTTON

The telematics button is a single unit with the overhead console or stereo camera cover assembly.


For removal and installation operation procedures, refer to "LIGHTING SYSTEM" section.  [Ref. to LIGHTING SYSTEM>Spot Map Light.](#)

REMOVAL

1. SATELLITE SWITCH ASSEMBLY




Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Set the tire to the straight-ahead position.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the driver's airbag module.  [Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
4. Remove the steering wheel.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>REMOVAL.](#)
5. Remove the satellite switch assembly.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>DISASSEMBLY.](#)


2. TELEMATICS BUTTON

The telematics button is a single unit with the overhead console or stereo camera cover assembly.

For removal and installation operation procedures, refer to "LIGHTING SYSTEM" section.  [Ref. to LIGHTING SYSTEM>Spot Map Light.](#)

ENTERTAINMENT > Telematics System





INSPECTION

Refer to "Basic Diagnostic Procedure" of "TELEMATICS SYSTEM (DIAGNOSTICS)" section.  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

ENTERTAINMENT > Telematics System

NOTE

For procedure of each component in the telematics system, refer to the respective section.

- Data communication module:  [Ref. to ENTERTAINMENT>Data Communication Module.](#)
- Antenna:  [Ref. to ENTERTAINMENT>Antenna.](#)
- GPS antenna:  [Ref. to ENTERTAINMENT>GPS Antenna.](#)
- Switches and harness:  [Ref. to ENTERTAINMENT>Switches and Harness.](#)

OPERATION

1. REGISTRATION (COMM CHECK)

Caution:

Do not press and hold the i-button for more than two seconds during communication check, or settings will return to factory mode in poor radio wave environment. If the settings has returned to factory mode, perform the communication check again. To check the mode status, see "Subscription Status" in the current data display on Subaru Select Monitor.

- 1.** Replace the data communication module with a new part.
- 2.** Check the LED of overhead console or stereo camera cover assembly illuminates in green.
- 3.** Press and hold the i-button for 2 seconds or more.



Note:

When the subscription is completed, the telematics system will automatically activate.

ENTERTAINMENT > Telematics System

WIRING DIAGRAM

Refer to "Telematics System" in the wiring diagram.

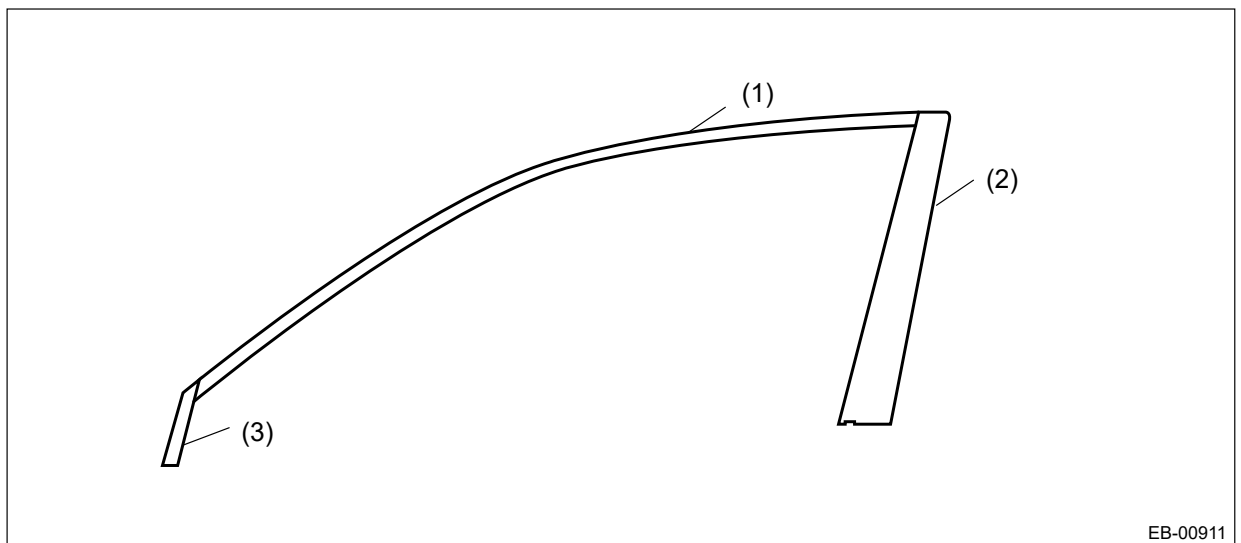
- Model without power amplifier:  [Ref. to WIRING SYSTEM>Telematics System>WIRING DIAGRAM > WITHOUT AUDIO AMPLIFIER.](#)
- Model with power amplifier:  [Ref. to WIRING SYSTEM>Telematics System>WIRING DIAGRAM > WITH AUDIO AMPLIFIER.](#)

EXTERIOR BODY PANELS > Door Sash Tape

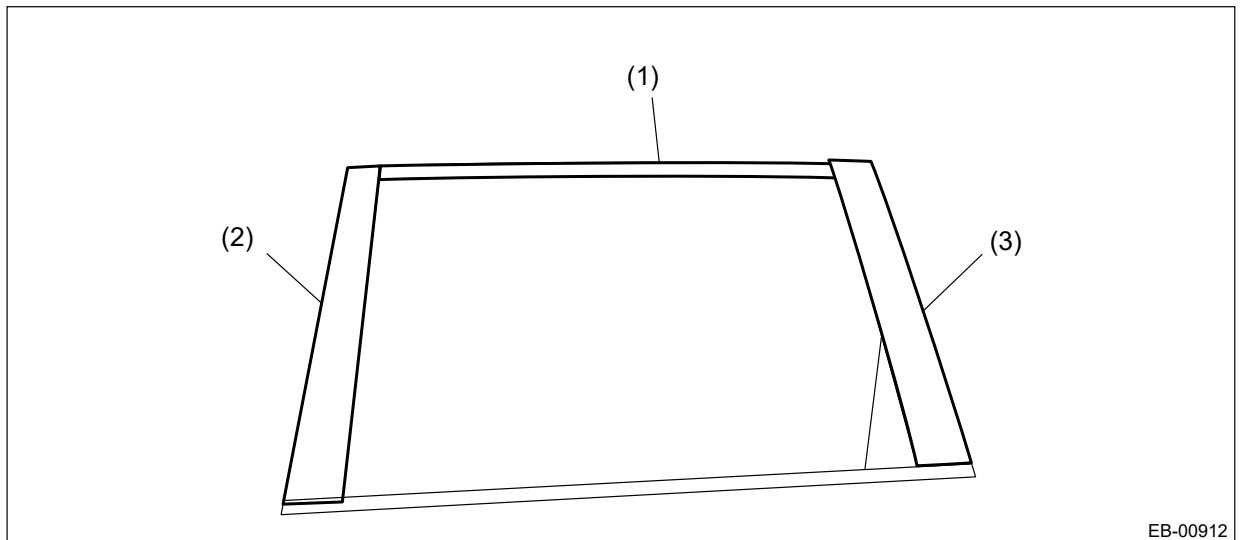
INSTALLATION

Caution:

- Do not reuse the removed door sash tape. Replace it with a new tape.
- When applying tape, use a spatula, etc. to apply evenly, pushing it against the sash to make sure that no air bubbles are formed.
If air bubbles are formed, reapply the tape.
- If the tape is wrinkled, etc. during application, replace the tape.
- Be sure to press the ends of the tape firmly to adhere securely. If the tape comes off at the ends or where folded, the adhesive strength is weakened and the tape may peel off.
- There are locations where the tape ends will overlap each other. When applying the tape, be careful of the order of their application.
 - Front

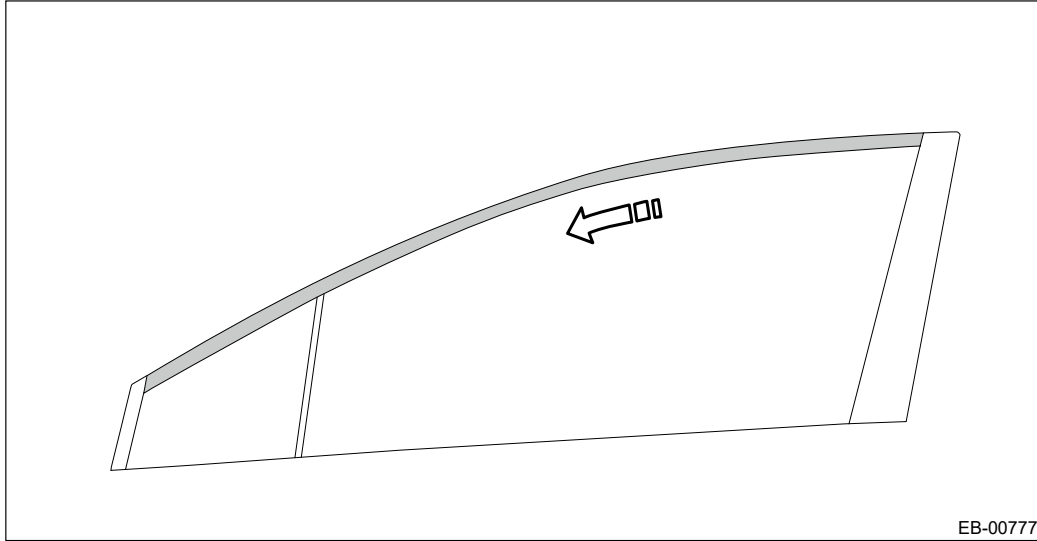


- Rear

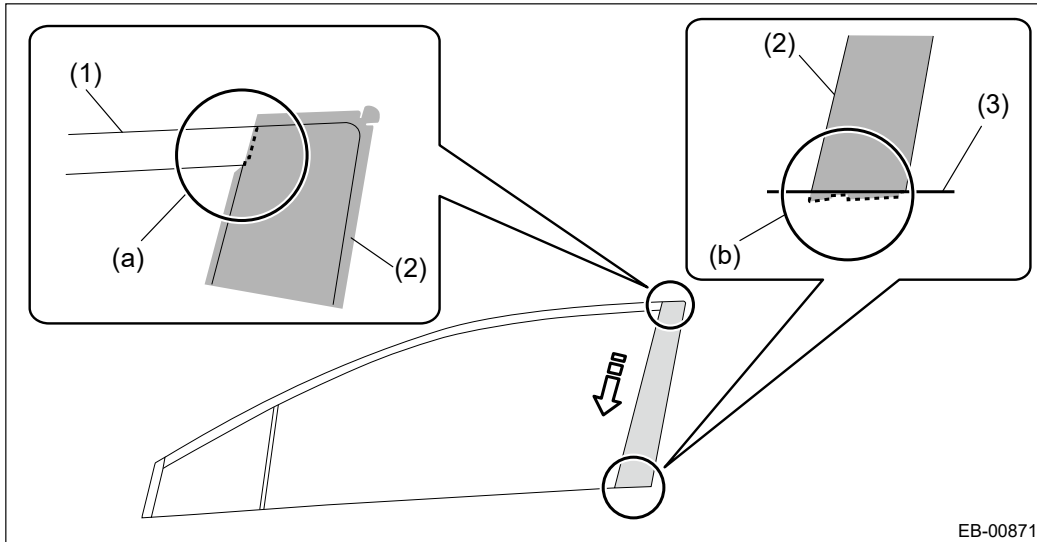


1. FRONT DOOR

1. Apply the front door sash tape - medium from the rear of the vehicle towards the front.



2. When applying the front door sash tape - rear, align the tape on the position (a) shown in the figure, from the upper to the lower side of the vehicle, align it on the position (b) shown in the figure.

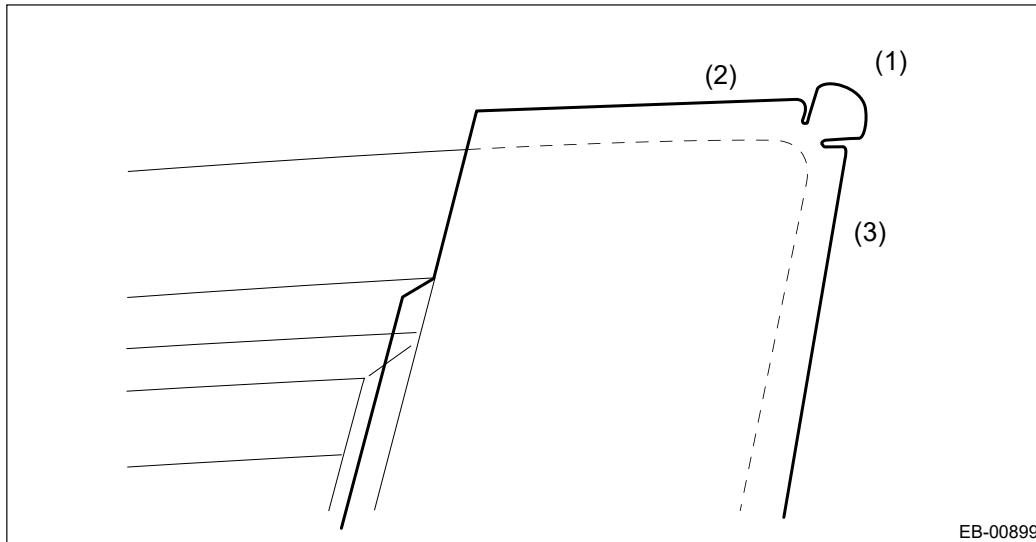


(1) Front door sash tape - medium

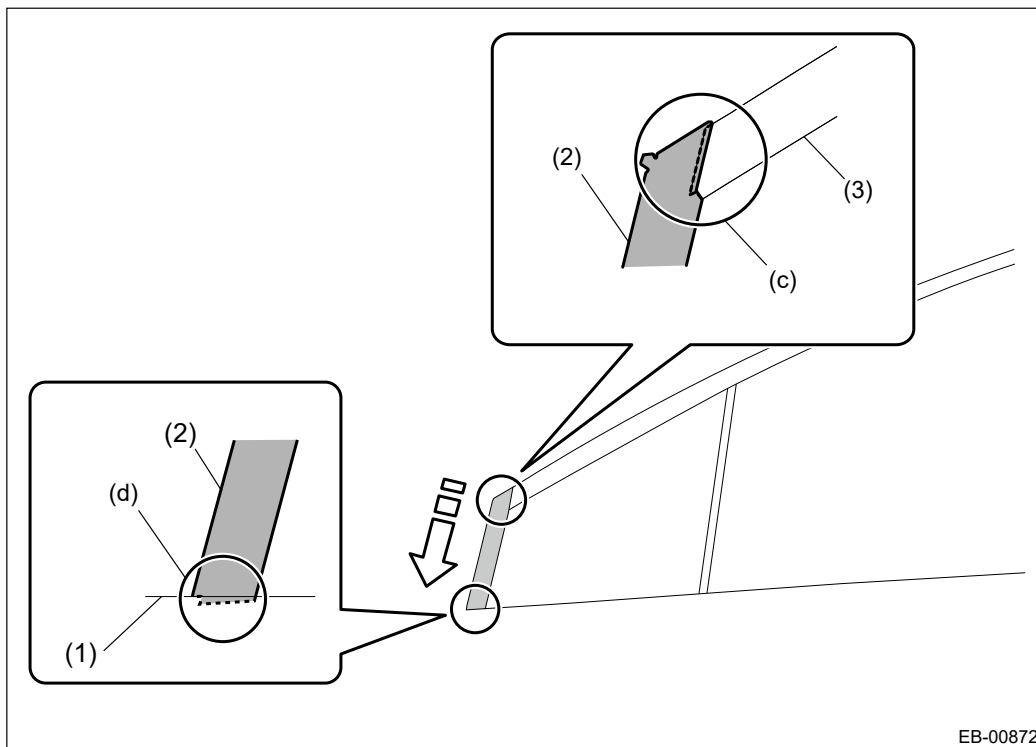
(2) Front door sash tape - rear

(3) End of panel outer

3. Fold the corners at the door upper end area in the order of (1) – (3).

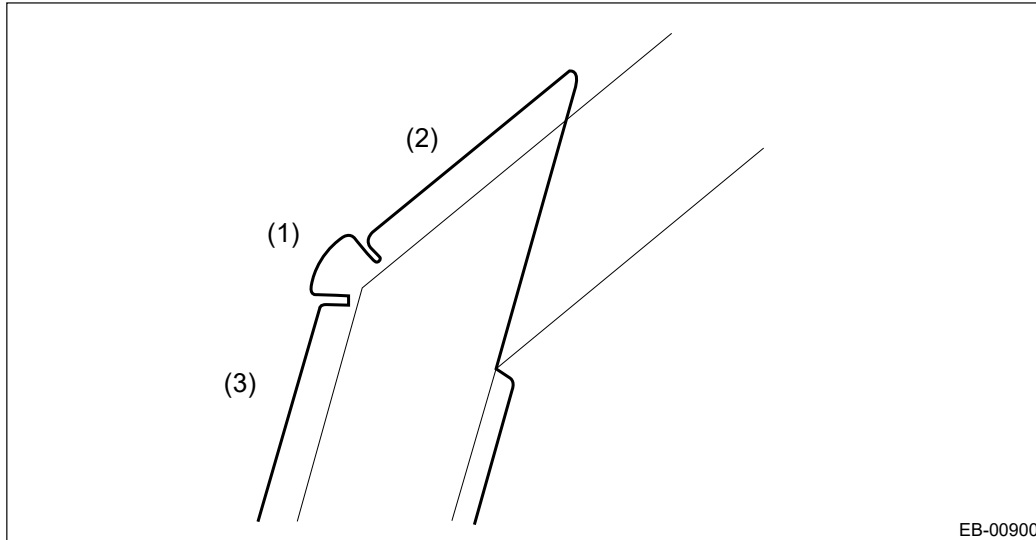


4. When applying the front door sash tape - front, align the tape on the position (c) shown in the figure, from the upper to the lower side of the vehicle, align it on the position (d) shown in the figure.



- (1) Upper end of weather strip (2) Front door sash tape - front (3) Front door sash tape - medium


5. Fold the corners at the door upper end area in the order of (1) – (3).



6. Thereafter, install door parts in the reverse order of removal.

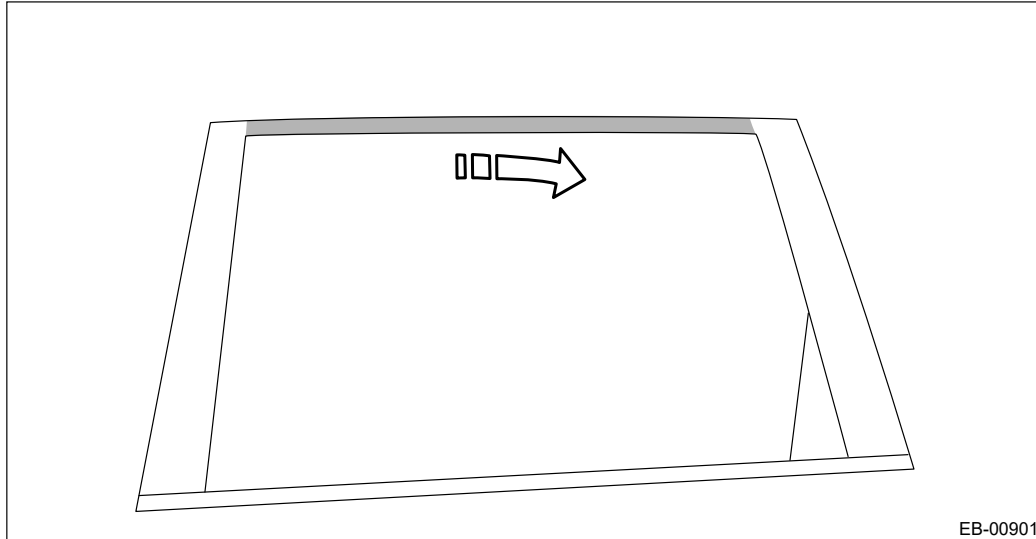
Note:

- Remote cable is free from deformation such as fray.
 - Grease is applied sufficiently to remote cable joints.
- If grease is insufficient, add it as necessary before assembling the remote cable.**

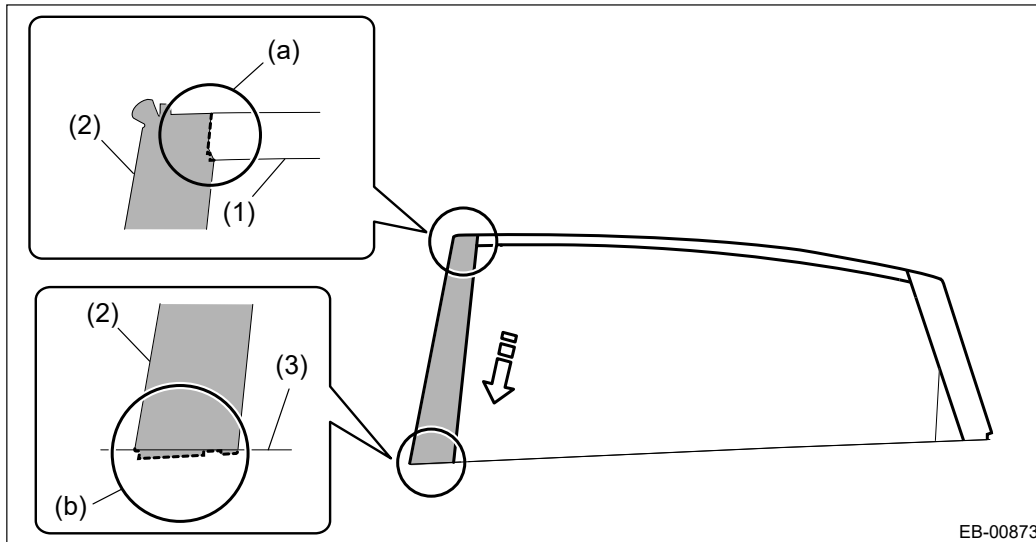
7. Connect the battery ground terminal.  Ref. to NOTE>NOTE > BATTERY.

2. REAR DOOR

1. Apply the rear door sash tape - medium from the front of the vehicle towards the rear.



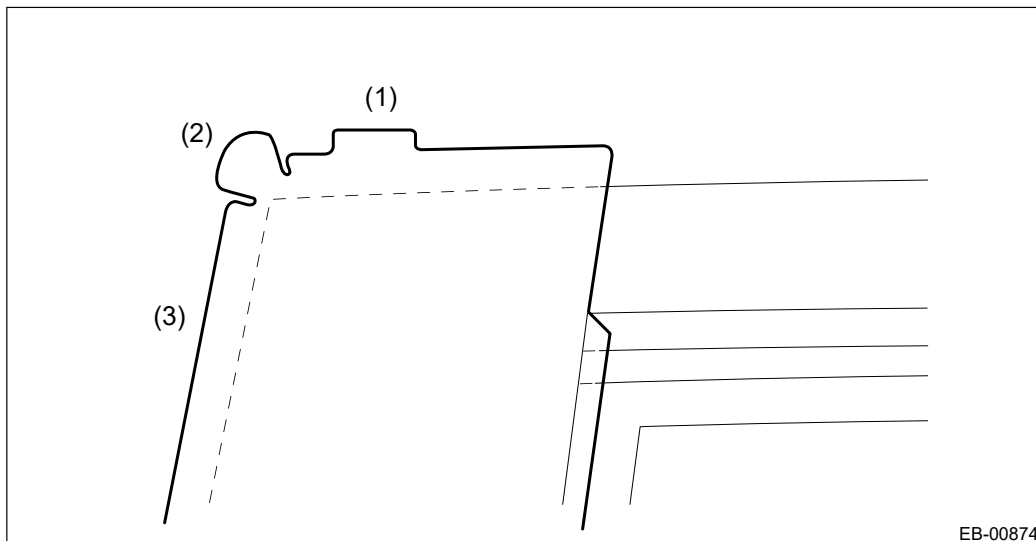
2. When applying the rear door sash tape - front, align the tape on the position (a) shown in the figure, from the upper to the lower side of the vehicle, align it on the position (b) shown in the figure.



EB-00873

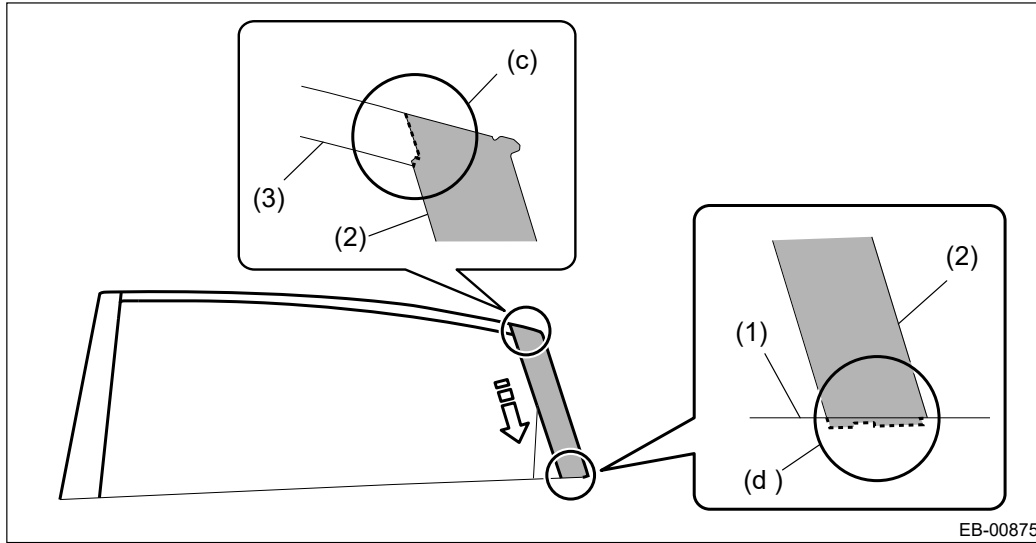
(1) Rear door sash tape - medium (2) Rear door sash tape - front (3) Upper end of weather strip

3. Fold the corners at the door upper end area in the order of (1) – (3).



EB-00874

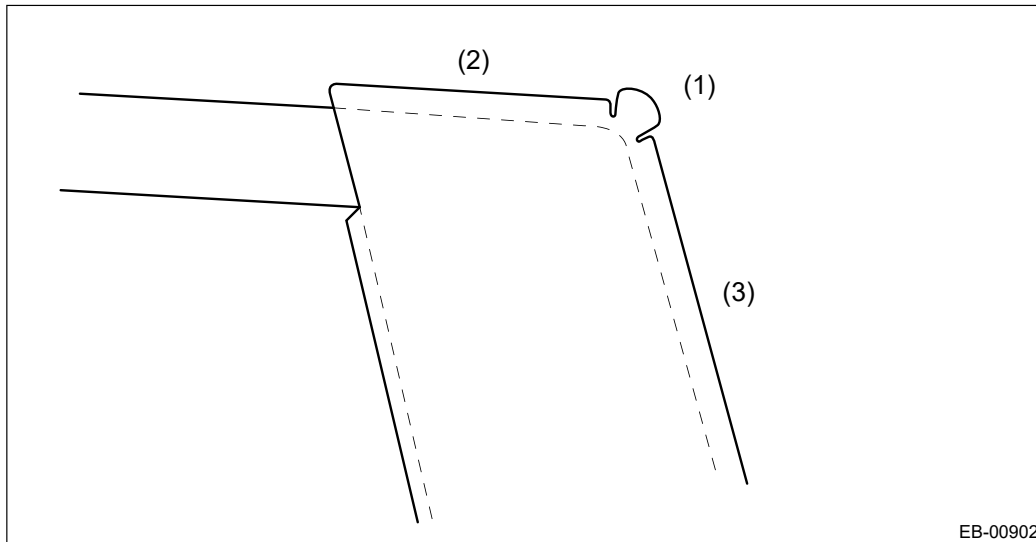
4. When applying the rear door sash tape - rear, align the tape on the position (c) shown in the figure, from the upper to the lower side of the vehicle, align it on the position (d) shown in the figure.



EB-00875

(1) Upper end of weather strip (2) Rear door sash tape - rear (3) Rear door sash tape - medium

5. Fold the corners at the door upper end area in the order of (1) – (3).




EB-00902

6. Thereafter, install door parts in the reverse order of removal.

Note:


- Remote cable is free from deformation such as fray.
 - Grease is applied sufficiently to remote cable joints.
- If grease is insufficient, add it as necessary before assembling the remote cable.**

7. Connect the battery ground terminal.  Ref. to NOTE>NOTE > BATTERY.

EXTERIOR BODY PANELS > Door Sash Tape





REMOVAL

1. FRONT DOOR

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

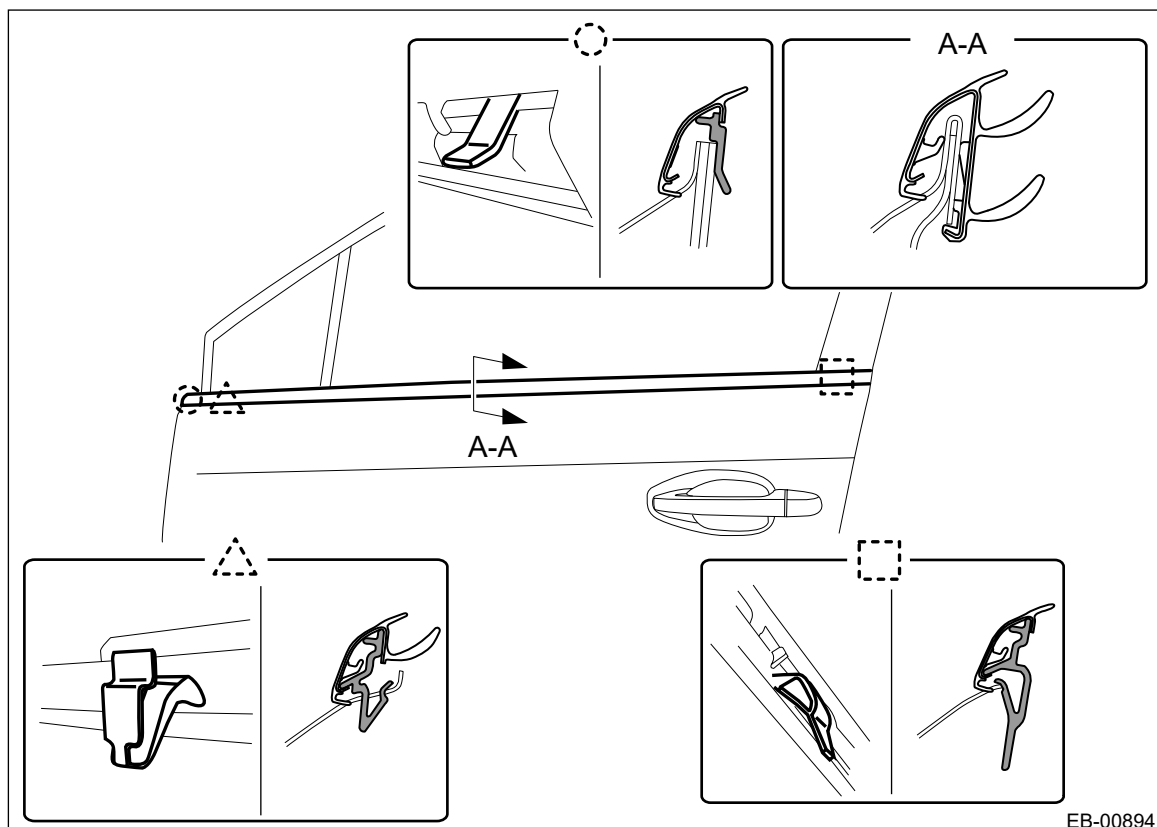
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Remove the outer mirror assembly.  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>REMOVAL.](#)
4. Remove the sealing cover - front door.  [Ref. to EXTERIOR BODY PANELS>Front Sealing Cover>REMOVAL.](#)
5. Remove the glass assembly - front door.  [Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL.](#)
6. Remove the running channel - front door.
7. Remove the weather strip outer - front door.

Caution:

- **When removing the weather strip outer, be careful not to damage the vehicle.**
- **Do not reuse the weather strip outer. Always replace with a new part.**



8. Peel the door sash tape from the door sash.

Note:




- If the tape is difficult to remove, warm the tape with a hairdryer, etc. to make the removal easier.
Use a household hairdryer. Do not use industrial dryers.
- If tape residue is remaining on the door sash, wipe clean.

2. REAR DOOR

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

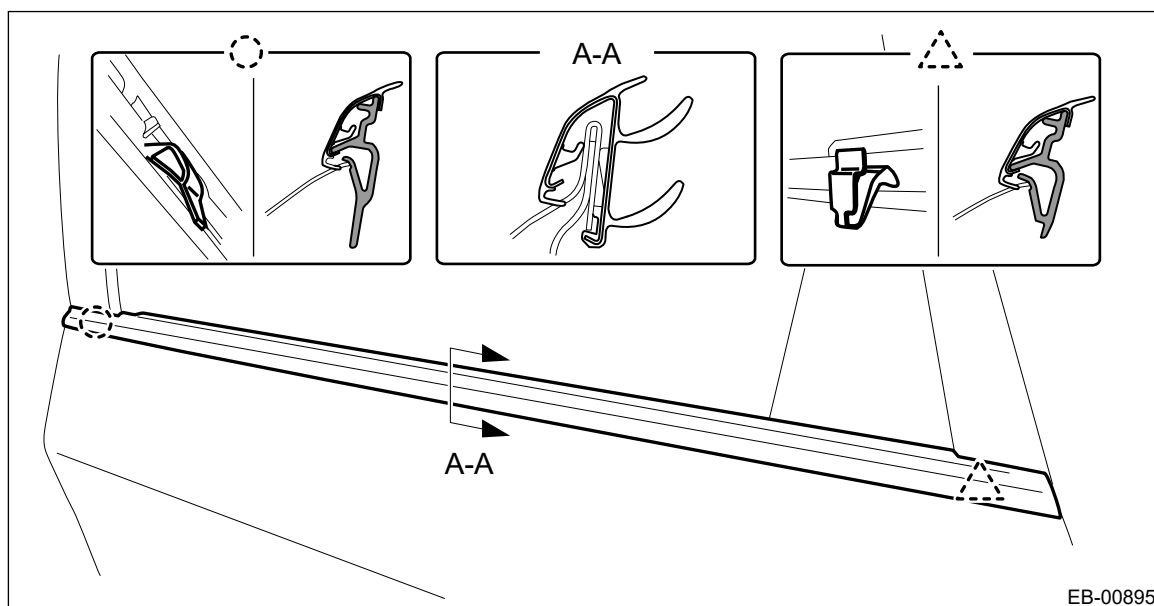
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the sealing cover - rear door.  [Ref. to EXTERIOR BODY PANELS>Rear Sealing Cover>REMOVAL.](#)
4. Remove the glass assembly - rear door.  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>REMOVAL.](#)
5. Remove the running channel - rear door.
6. Remove the weather strip outer - rear door.

Caution:

- When removing the weather strip outer, be careful not to damage the vehicle.
- Do not reuse the weather strip outer. Always replace with a new part.



7. Peel the door sash tape from the door sash.

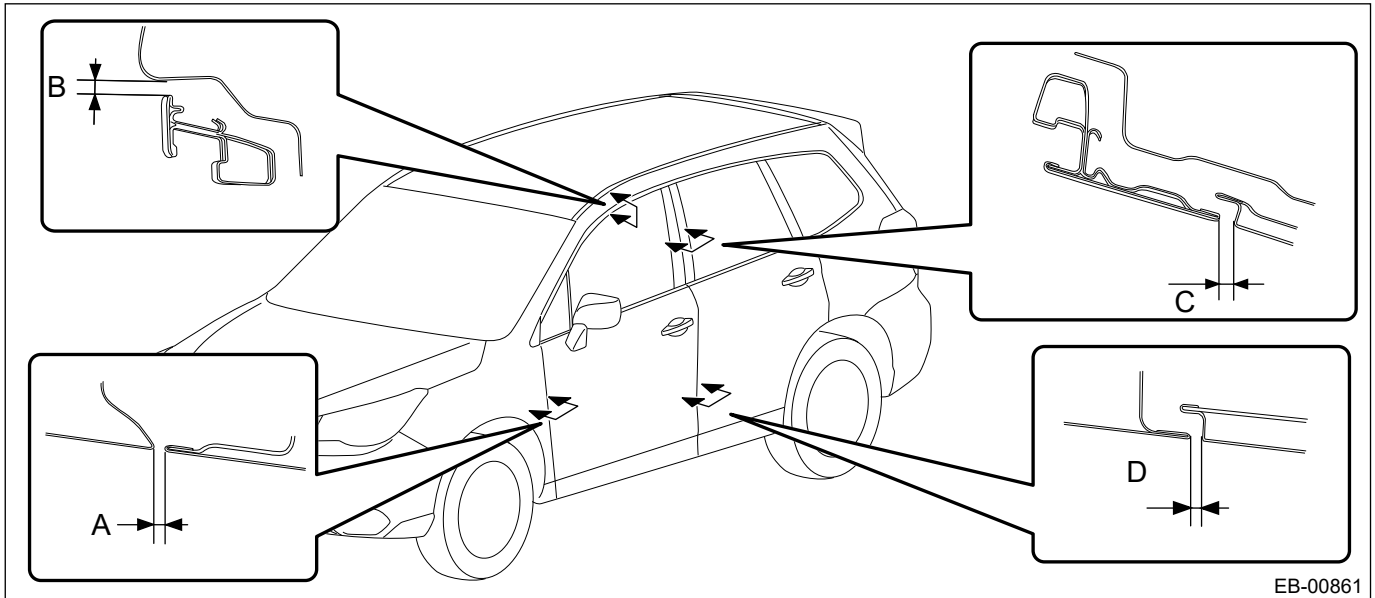
Note:

- If the tape is difficult to remove, warm the tape with a hairdryer, etc. to make the removal easier.
Use a household hairdryer. Do not use industrial dryers.
- If tape residue is remaining on the door sash, wipe clean.

EXTERIOR BODY PANELS > Front Door

ADJUSTMENT

Adjust the clearance around the panel assembly - front door as follows.



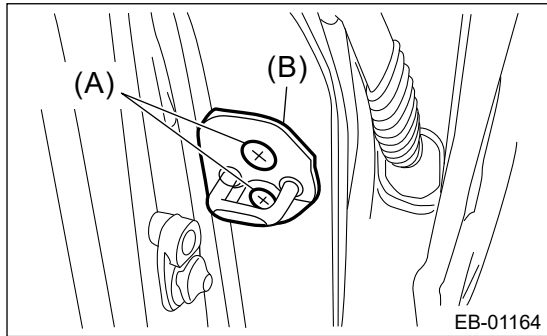
EB-00861

Part		Standard
A	Fender COMPL - front to Panel assembly - front door	4.5±1 mm (0.18±0.04 in)
B	Panel side outer to Front door sash	5.7+1.5, -1 mm (0.22+0.06, -0.04 in)
C	Front door sash to Rear door sash	5.5+1.5, -1 mm (0.22+0.06, -0.04 in)
D	Panel assembly - front door to Panel assembly - rear door	4.5±1 mm (0.18±0.04 in)

1. Adjust the vertical and horizontal positions of the panel assembly - front door.
 - (1) Turn over the mud guard - front, loosen the body side bolts of the upper hinge - front door and the lower hinge - front door.
 - (2) Adjust the vertical and horizontal clearance of the panel assembly - front door.
2. Adjust the surface level gap between the panel assembly - front door and the panel assembly - rear door.

Caution:

Do not use an impact wrench. Welding area on the striker nut plate is easily broken.



- (1) Loosen the screws (A).
- (2) Tap the striker - front door (B) using a plastic hammer to adjust the surface level gap between the rear end of the panel assembly - front door and the front end of the panel assembly - rear door.

INSTALLATION

1. FRONT DOOR PANEL


Caution:

- **The panel assembly - front door is heavy. When removing and installing it, always work in a team of two or more persons.**
- **While removing or installing, do not use a jack, etc. on the garnish section.**

1. Apply grease to the sliding area of door hinges, and install the door hinge to vehicle.
2. Have the door supporting staff adjust the height, and temporarily install the panel assembly - front door to the upper hinge - front door and the lower hinge - front door.

Note:

- **When installing the panel assembly - front door, make sure that a uniform clearance is created around the panel.**
- **Perform installation while paying attention to the assembly direction of the grommet.**


3. Adjust the clearance around the panel assembly - front door.  [Ref. to EXTERIOR BODY PANELS>Front Door>ADJUSTMENT.](#)
4. Tighten the bolts and nuts of the door hinge and the checker assembly - front door.


Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > FRONT DOOR.](#)

5. Install door internal parts in the reverse order of removal.

Note:

- **Remote cable is free from deformation such as fray.**
- **Grease is applied sufficiently to remote cable joints.**
If grease is insufficient, add it as necessary before assembling the remote cable.
- **For installation of the door sash tape, refer to the door sash tape.**  [Ref. to EXTERIOR BODY PANELS>Door Sash Tape>INSTALLATION.](#)


6. Connect door harness connector, and install the cover side sill - front.
7. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

2. FRONT DOOR HINGE

1. Apply grease to the sliding area of door hinges, and install the door hinge to vehicle.
2. Have the door supporting staff adjust the height, and temporarily install the panel assembly - front door to the upper hinge - front door and the lower hinge - front door.

Note:

When installing the panel assembly - front door, make sure that a uniform clearance is created around the panel.

3. Adjust the clearance around the panel assembly - front door.  [Ref. to EXTERIOR BODY PANELS>Front Door>ADJUSTMENT.](#)
4. Tighten the bolts and nuts of the door hinge and the checker assembly - front door.


Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > FRONT DOOR.](#)

EXTERIOR BODY PANELS > Front Door

REMOVAL

1. FRONT DOOR PANEL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

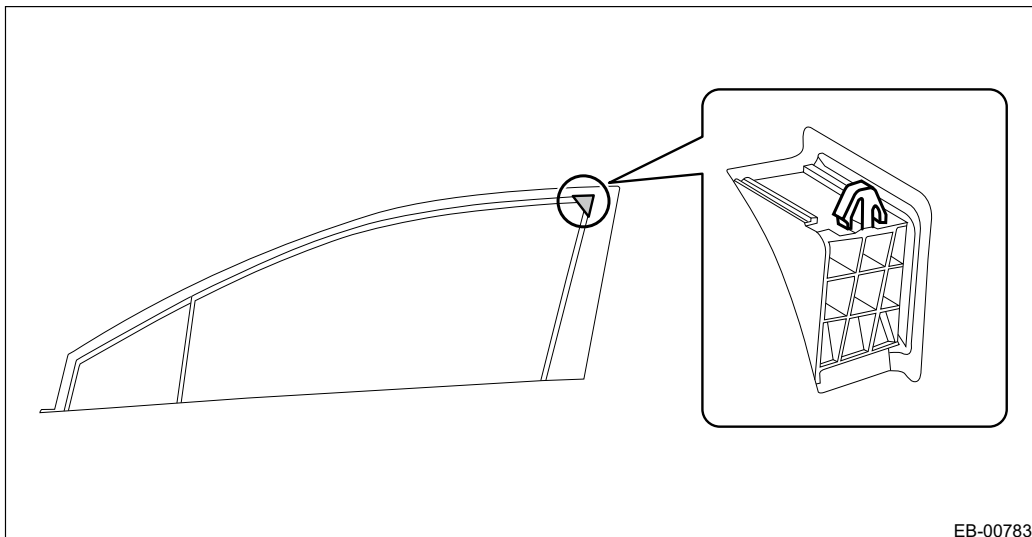
Note:







For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Remove the sealing cover - front door.  [Ref. to EXTERIOR BODY PANELS>Front Sealing Cover>REMOVAL.](#)
4. Remove the outer mirror assembly.  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>REMOVAL.](#)
5. Remove the front door speaker assembly.  [Ref. to ENTERTAINMENT>Front Speaker>REMOVAL.](#)
6. Remove the B pillar upper clip.

Caution:

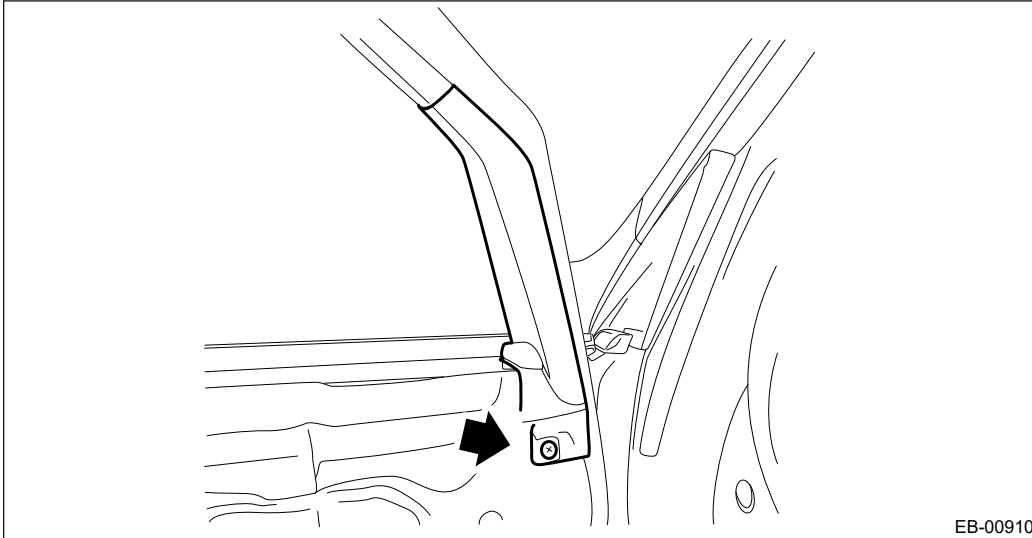
The clip cannot be reused, therefore, always replace with a new part.



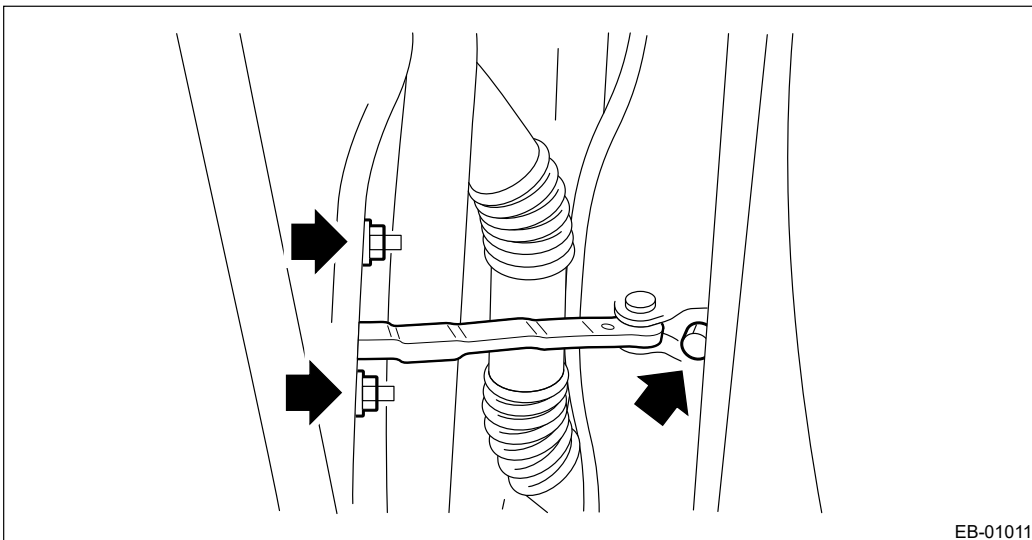
7. Remove the front door impact sensor assembly.  [Ref. to AIRBAG SYSTEM>Front Door Impact Sensor>REMOVAL.](#)
8. Remove the glass assembly - front door and the glass - front door partition.  [Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL.](#)
9. Remove the regulator & motor assembly - front of the front door.  [Ref. to GLASS/WINDOWS/MIRRORS>Front Regulator and Motor Assembly>REMOVAL.](#)
10. Remove the latch and actuator assembly - front.  [Ref. to SECURITY AND LOCKS>Front Door Latch and Door Lock Actuator Assembly>REMOVAL.](#)
11. Remove the handle - door outer.  [Ref. to SECURITY AND LOCKS>Front Outer Handle>REMOVAL.](#)
12. Remove the weather strip - front door.  [Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > FRONT DOOR.](#)
13. Remove the clips and the upper hooks, and remove the cover sash - inner front.



Caution:

Do not forcibly pull the cover sash - inner front. Otherwise, the hook section of the cover sash - inner front may be damaged.




- 14.** Remove the bolts and nuts, and then detach the checker assembly - front door.

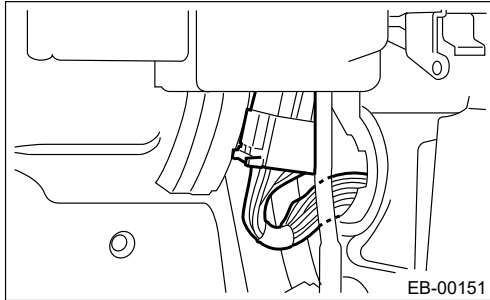


- 15.** Remove the cover side sill - front INN and cover side sill - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
- 16.** Disconnect the front door impact sensor harness connector.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > FRONT DOOR IMPACT SENSOR \(BETWEEN AIRBAG REAR HARNESS AND DOOR HARNESS\).](#)

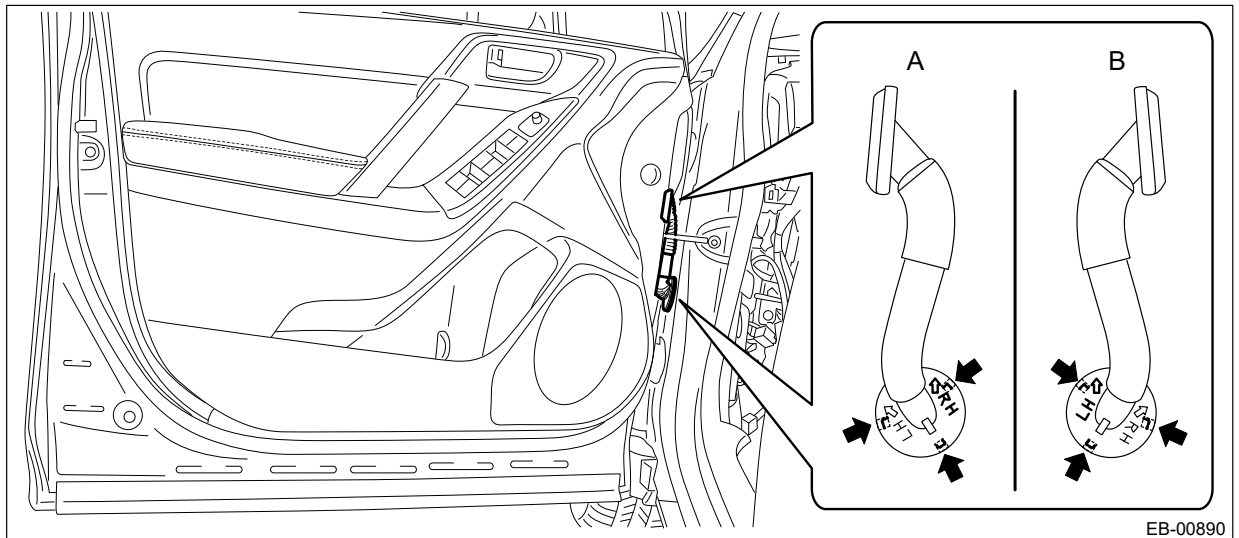
Caution:

Always refer to "CAUTION" of "General Description" in the "AIRBAG SYSTEM" before performing any service that handles the airbag connectors.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

- 17.** Disconnect the front door harness connectors.
- (1) Disconnect the connector of door harness from body harness.



(2) Push in the claws to remove the grommet, and pull out the door harness connector.

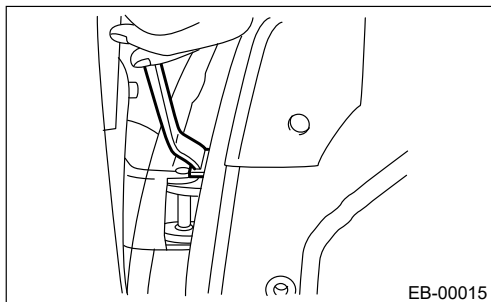


A	Left door
B	Right door

18. Remove the door-side bolts for the upper hinge - front door and the lower hinge - front door to remove the panel assembly - front door.

Caution:

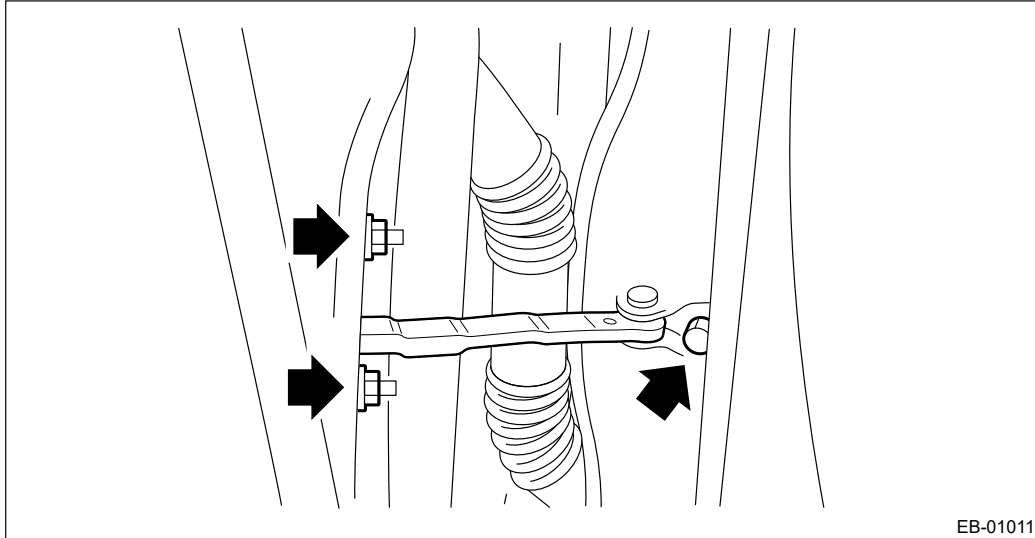
- **The panel assembly - front door is heavy. When removing and installing it, always work in a team of two or more persons.**
- **While removing or installing, do not use a jack, etc. on the garnish section.**



19. Remove the door hinge from vehicle.

2. FRONT DOOR HINGE

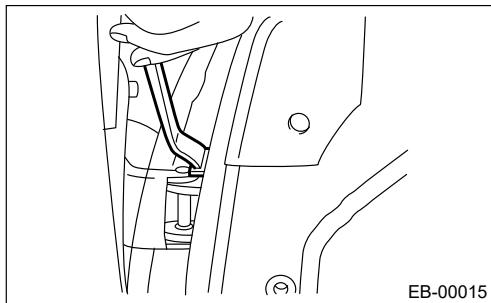
1. Remove the bolts from the vehicle side to disconnect the checker assembly - front door.



2. Remove the bolts of the upper hinge - front door or the lower hinge - front door.

Caution:

- **The panel assembly - front door is heavy. When removing and installing it, always work in a team of two or more persons.**
- **While removing or installing, do not use a jack, etc. on the garnish section.**
- **Do not remove the upper hinge - front door and the lower hinge - front door at the same time.**



3. Remove the hinge - front door from the vehicle.

EXTERIOR BODY PANELS > Front Fender

INSTALLATION

1. Install each part in the reverse order of removal.

Caution:

After installing the fender COMPL - front, be sure to perform headlight beam adjustment.


Tightening torque:


Fender COMPL - front: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

Light assembly - head: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)



Note:

When installing the fender COMPL - front, make sure that a uniform clearance is created around it.

- Fender COMPL - front to Hood COMPL - front:  [Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.](#)
- Fender COMPL - front to Panel assembly - front door:  [Ref. to EXTERIOR BODY PANELS>Front Door>ADJUSTMENT.](#)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

3. Adjust the headlight beam and fog light beam.

- Adjust the headlight beam.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT > HEADLIGHT BEAM ADJUSTMENT.](#)
- Adjust the fog light beam. (Model with fog light)  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)



EXTERIOR BODY PANELS > Front Fender

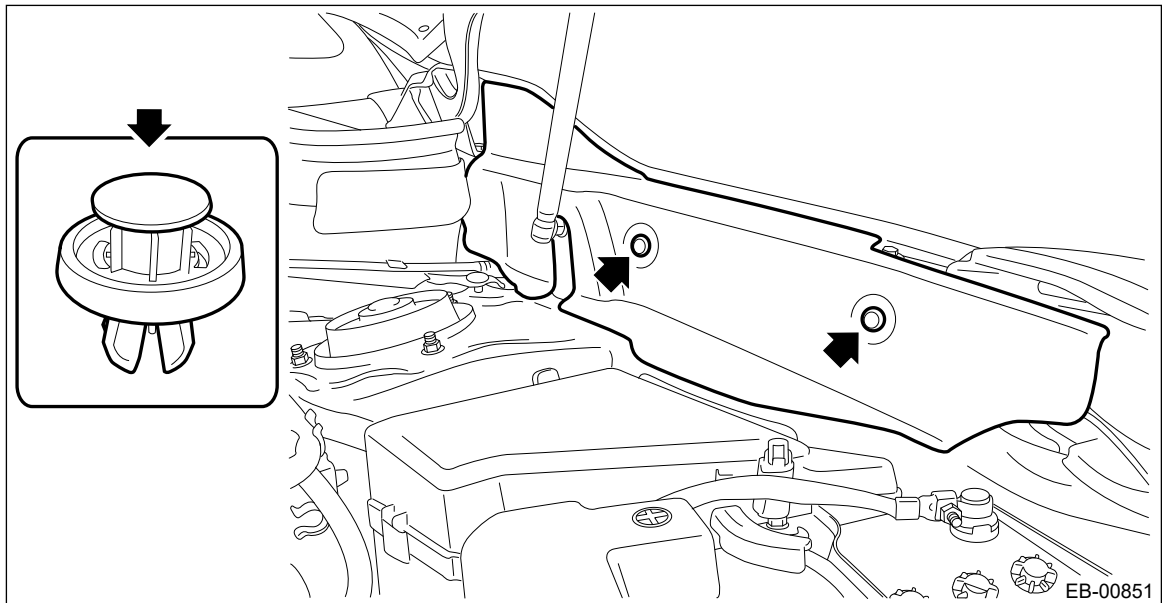
REMOVAL


1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

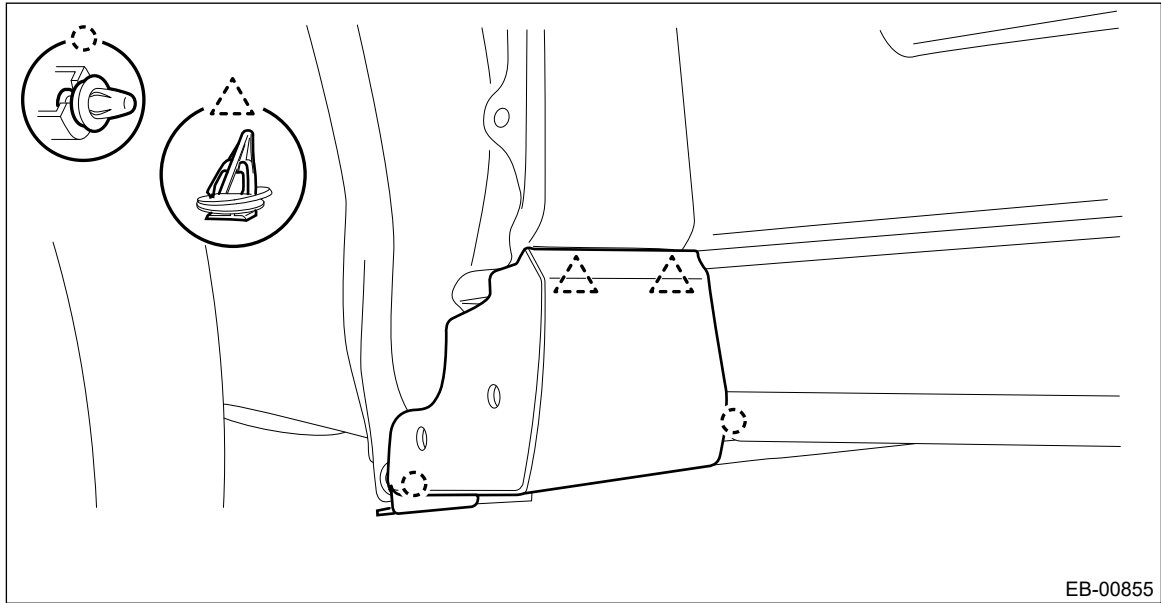
2. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)
3. Remove the light assembly - head.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>REMOVAL.](#)
4. Remove the cover - front fender.
 - (1) Remove the clip.
 - (2) Release the claws by pulling them forward, and remove the cover - front fender.



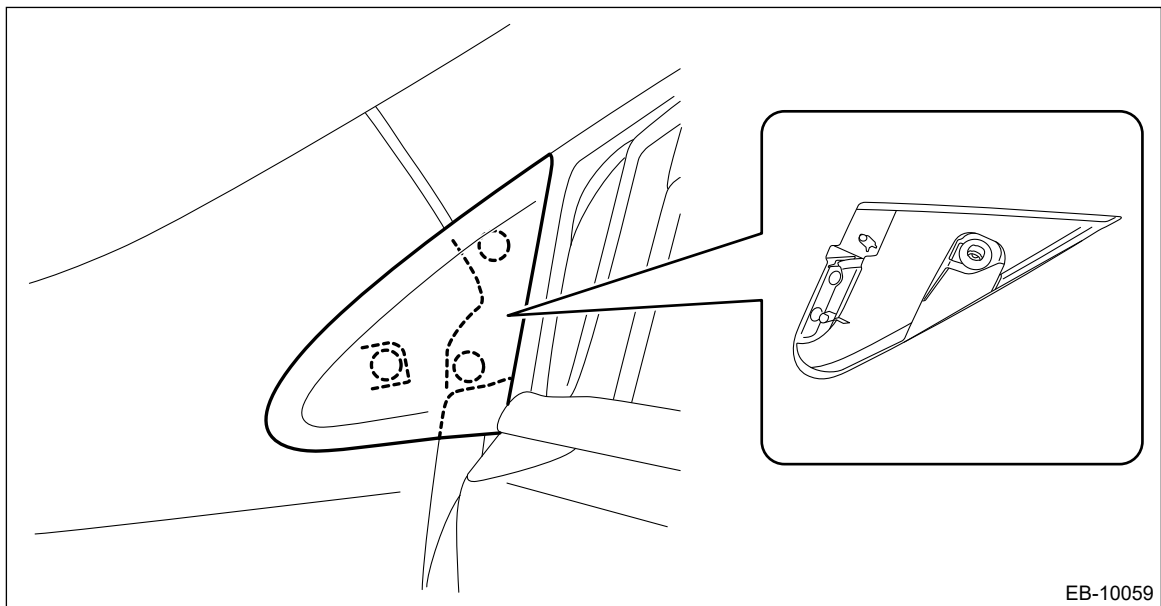
5. Remove the mud guard - front (a).  [Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>REMOVAL.](#)
6. Remove the clips and remove the garnish assembly - fender.

Note:

- **Forcibly removing the garnish assembly - fender may damage the clips.**
- **For easy removal of the clips, pinch the claw from the backside of fender COMPL - front with pliers, etc.**

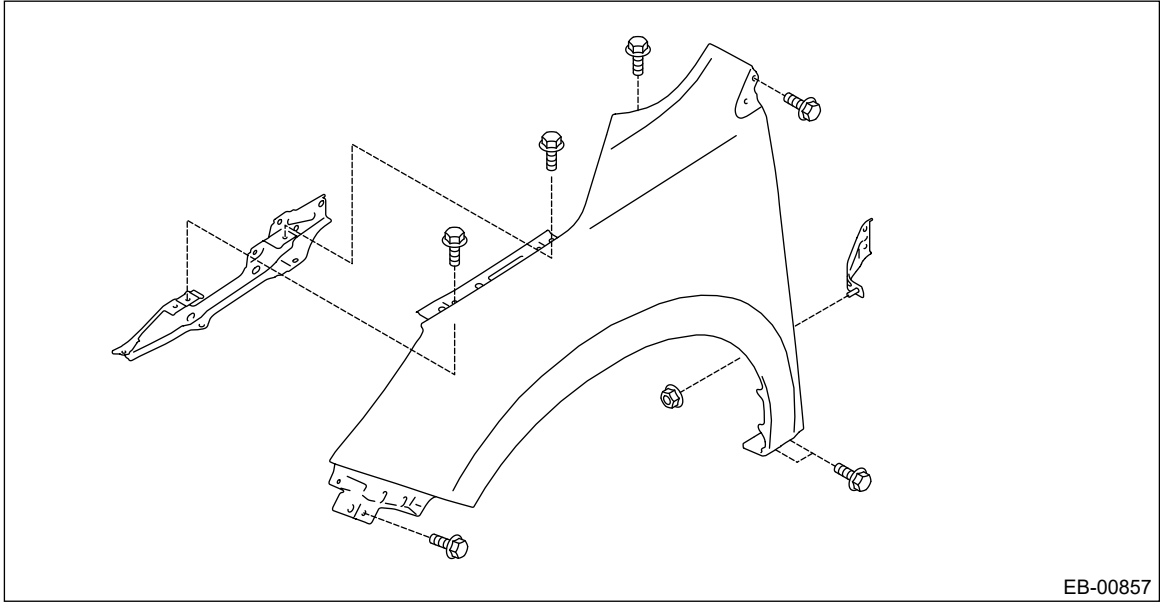


7. Remove the clips, and remove the cover - A pillar assembly.



8. Remove the fender COMPL - front.

(1) Remove the bolts and nuts, and remove the fender COMPL - front.



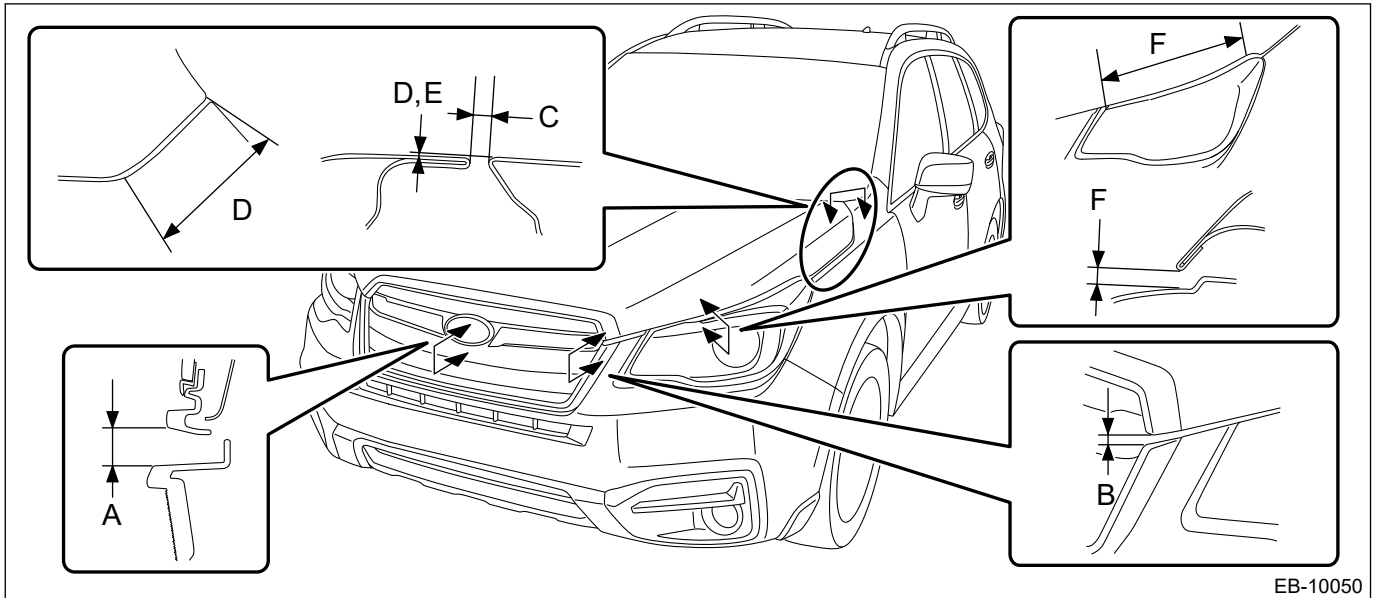
EXTERIOR BODY PANELS > Front Hood

ADJUSTMENT

Note:

Adjustment should be performed in the fender COMPL - front, lock assembly - front hood and buffer - front hood because adjustment cannot be performed on the hood COMPL - front side of the hinge COMPL - front hood.

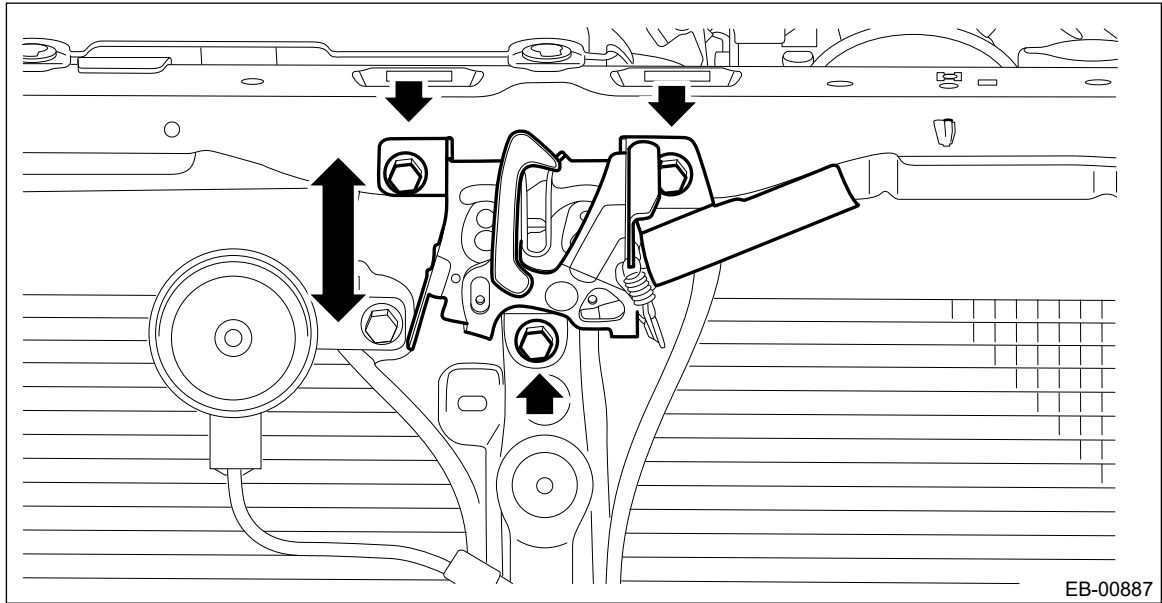
Adjust the clearance around the hood COMPL - front as follows.



EB-10050

Part		Standard
A	Grille CTR to Grille LWR	15.7 mm (0.62 in)
B	Grille assembly - front UPR to Molding of grille assembly - front LWR	6.8 mm (0.27 in)
C	Hood COMPL - front to Fender COMPL - front (from front end to just before curved portion)	4.0±1 mm (0.16±0.04 in)
D	Hood COMPL - front to Fender COMPL - front (from rear end to just before curved portion)	0.5+0.5, -1 mm (0.02+0.02, -0.04 in)
E	Surface level gap: Hood COMPL - front to Fender COMPL - front	0±1 mm (0.02±0.04 in)
F	Headlight assembly to Hood COMPL - front (F section: from headlight end to just before curved portion of hood COMPL - front)	6.0+1.5, -0.5 mm (0.24+0.06, -0.02 in)

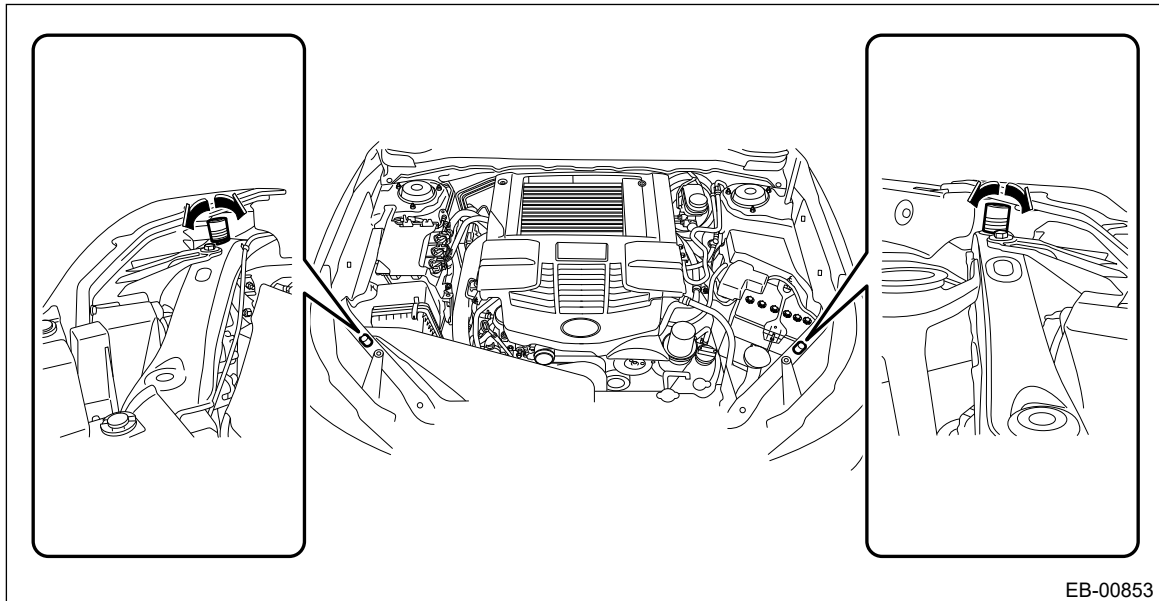
- 1.** Adjust the front end height of the hood COMPL - front.
 - (1) Loosen the bolts on the lock assembly - front hood.
 - (2) Adjust the lock assembly - front hood by moving it up and down.



Tightening torque:

33 N•m (3.36 kgf-m, 24.3 ft-lb)

2. Rotate the buffer - front hood of the hood COMPL - front to adjust the height.



INSTALLATION

Caution:

The hood COMPL - front is heavy. When removing or installing the hood COMPL - front, the hinge COMPL - front hood and the stay assembly - front hood, be sure to work in a group of two or more.

1. INSTALLATION PROCEDURE WHEN THE HINGE COMPL - FRONT HOOD IS REMOVED

1. Temporarily fit the hinge COMPL - front hood around the original position on the vehicle body.
2. Install the hood COMPL - front to the hinge COMPL - front hood.

Tightening torque:

25 N•m (2.55 kgf-m, 18.4 ft-lb)

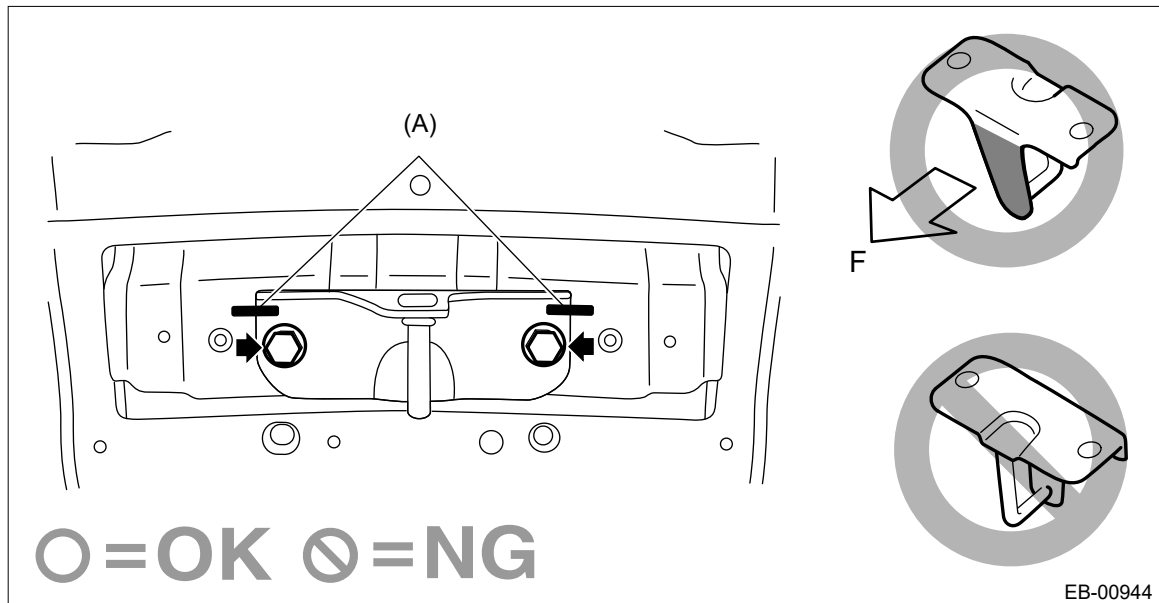
3. Align the alignment marks (A), and install the striker - front hood to the hood COMPL - front.

Caution:

When installing the striker - front hood, make sure that the front and rear sides are positioned in a correct direction.

Tightening torque:

33 N•m (3.36 kgf-m, 24.3 ft-lb)



Note:

It is not necessary to adjust the striker - front hood because there is no span of adjustable range.

4. Install each part to the hood COMPL - front in the reverse order of removal.

Tightening torque:

Grille assembly - front CTR: 4.5 N•m (0.46 kgf-m, 3.3 ft-lb)

Bracket - grille UPR: 4.5 N•m (0.46 kgf-m, 3.3 ft-lb)



Grille assembly - front UPR: 4.5 N•m (0.46 kgf-m, 3.3 ft-lb)

5. When temporarily fitting the fender COMPL - front and adjusting the clearance, make sure

that a uniform clearance is created around the hood COMPL - front.

Note:

When installing the fender COMPL - front, make sure that a uniform clearance is created around it.

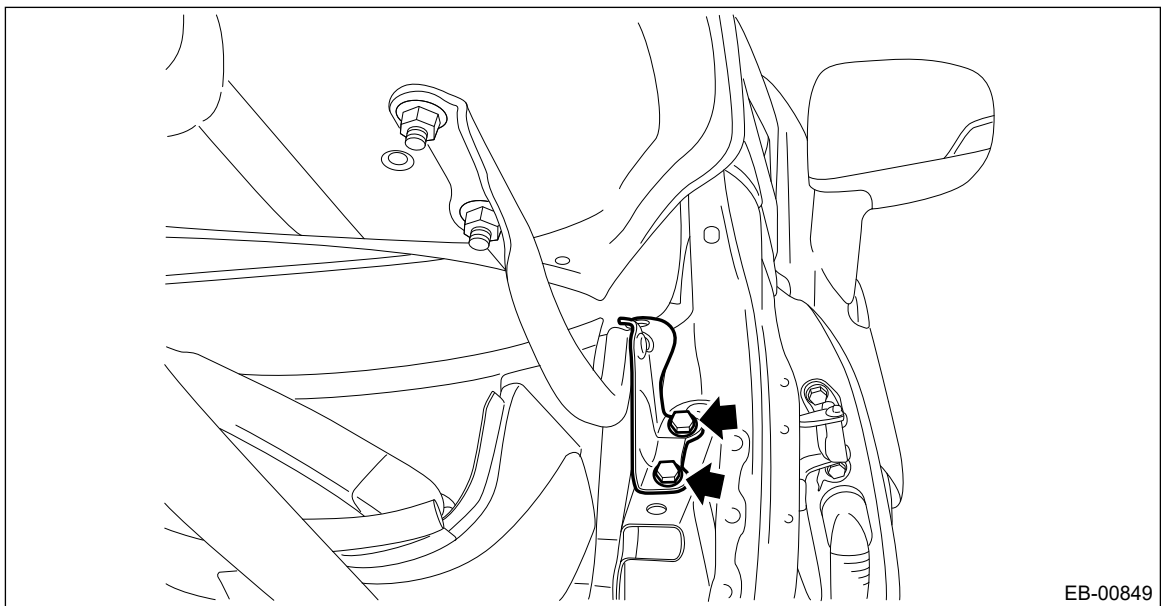
- **Fender COMPL - front to Hood COMPL - front:**  [Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.](#)
- **Fender COMPL - front to Panel assembly - front door:**  [Ref. to EXTERIOR BODY PANELS>Front Door>ADJUSTMENT.](#)

6. Install the hinge COMPL - front hood.

- (1) Tighten the bolts at the front side, and temporarily fit the bolts at the rear side.
- (2) Remove the fender COMPL - front, and finally tighten the bolts at the rear side.

Tightening torque:



25 N•m (2.55 kgf-m, 18.4 ft-lb)



7. Readjust the fender COMPL - front to install.

Note:

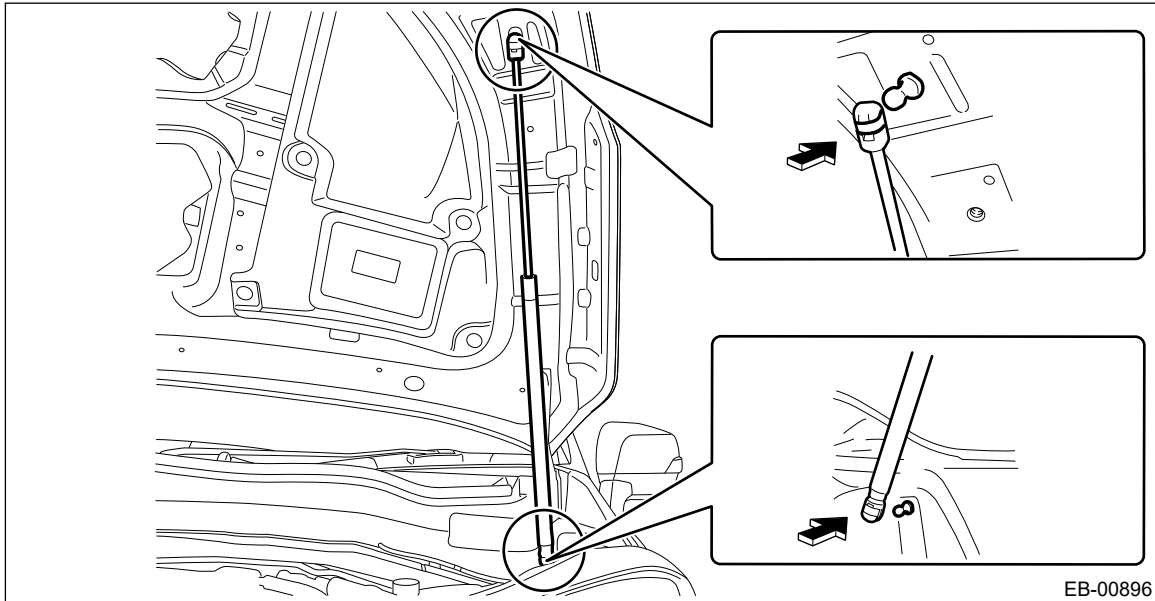
When installing the fender COMPL - front, make sure that a uniform clearance is created around it.

- **Fender COMPL - front to Hood COMPL - front:**  [Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.](#)
- **Fender COMPL - front to Panel assembly - front door:**  [Ref. to EXTERIOR BODY PANELS>Front Door>ADJUSTMENT.](#)

8. Install the insulator - front hood in the reverse order of removal.

9. Install the duct - inner front hood in the reverse order of removal. (Turbo model)

10. Install the stay assembly - front hood.



2. WHEN ONLY THE HOOD COMPL - FRONT IS REMOVED

1. Install each part in the reverse order of removal.

Tightening torque:

Grille assembly - front CTR: 4.5 N•m (0.46 kgf-m, 3.3 ft-lb)

Bracket - grille UPR: 4.5 N•m (0.46 kgf-m, 3.3 ft-lb)

Grille assembly - front UPR: 4.5 N•m (0.46 kgf-m, 3.3 ft-lb)

Note:

It is not necessary to adjust the striker - front hood because there is no span of adjustable range.

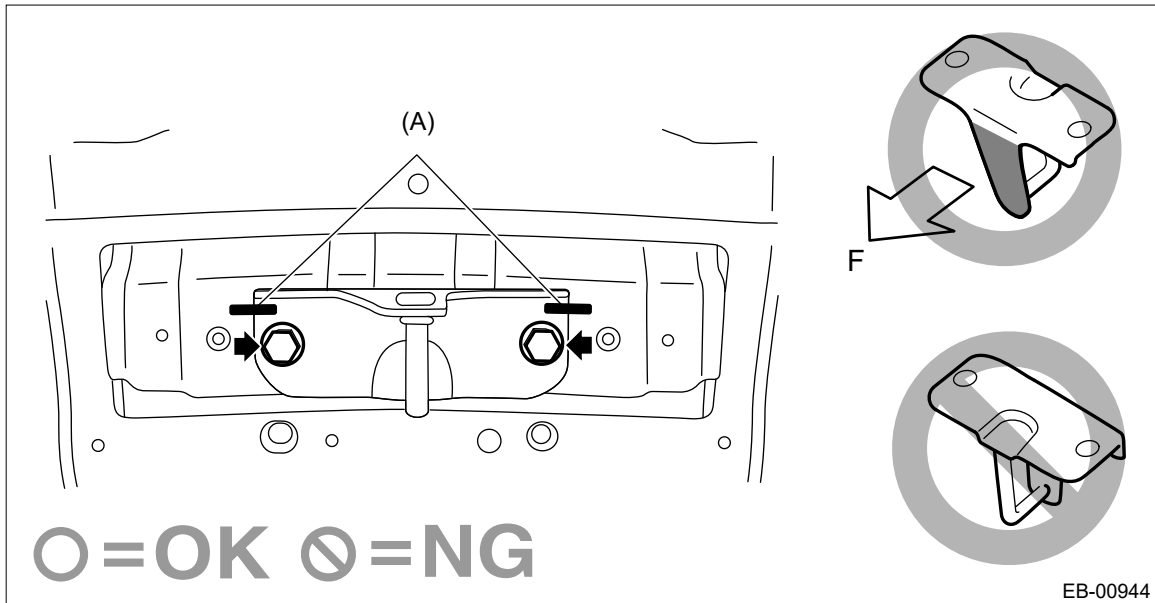
2. Align the alignment marks (A), and install the striker - front hood to the hood COMPL - front.

Caution:

When installing the striker - front hood, make sure that the front and rear sides are positioned in a correct direction.

Tightening torque:

33 N•m (3.36 kgf-m, 24.3 ft-lb)



Note:

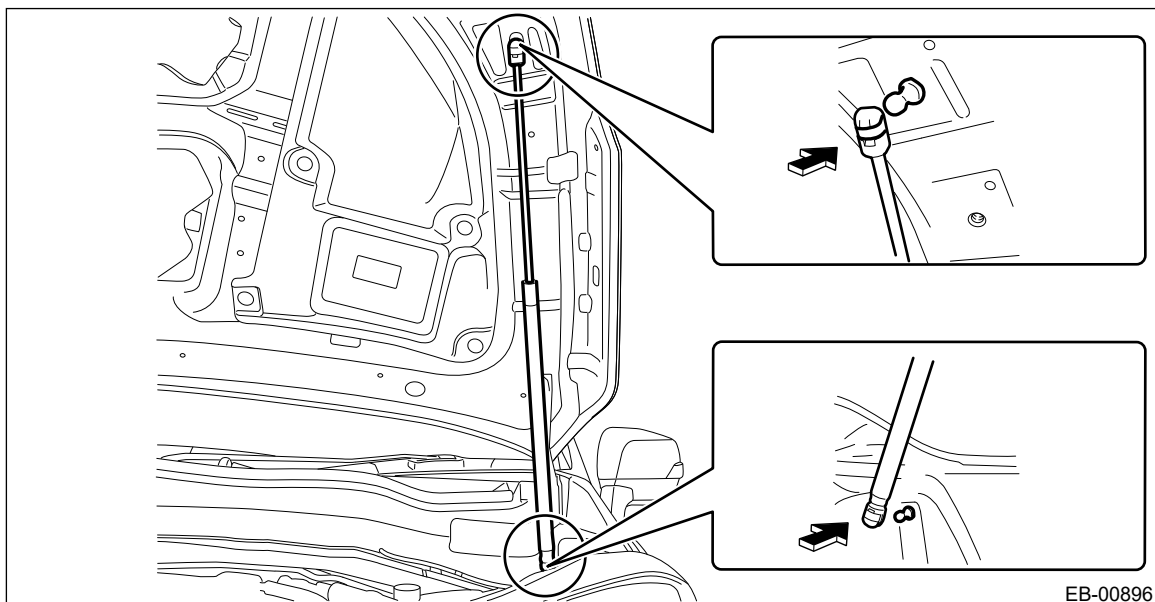
It is not necessary to adjust the striker - front hood because there is no span of adjustable range.

- 3.** Install the bracket - grille UPR in the reverse order of removal.

Tightening torque:

Bracket - grille UPR: 4.5 N•m (0.46 kgf-m, 3.3 ft-lb)

- 4.** Install the insulator - front hood in the reverse order of removal.
- 5.** Install the duct - inner front hood in the reverse order of removal. (Turbo model)
- 6.** Install the stay assembly - front hood.



EXTERIOR BODY PANELS > Front Hood

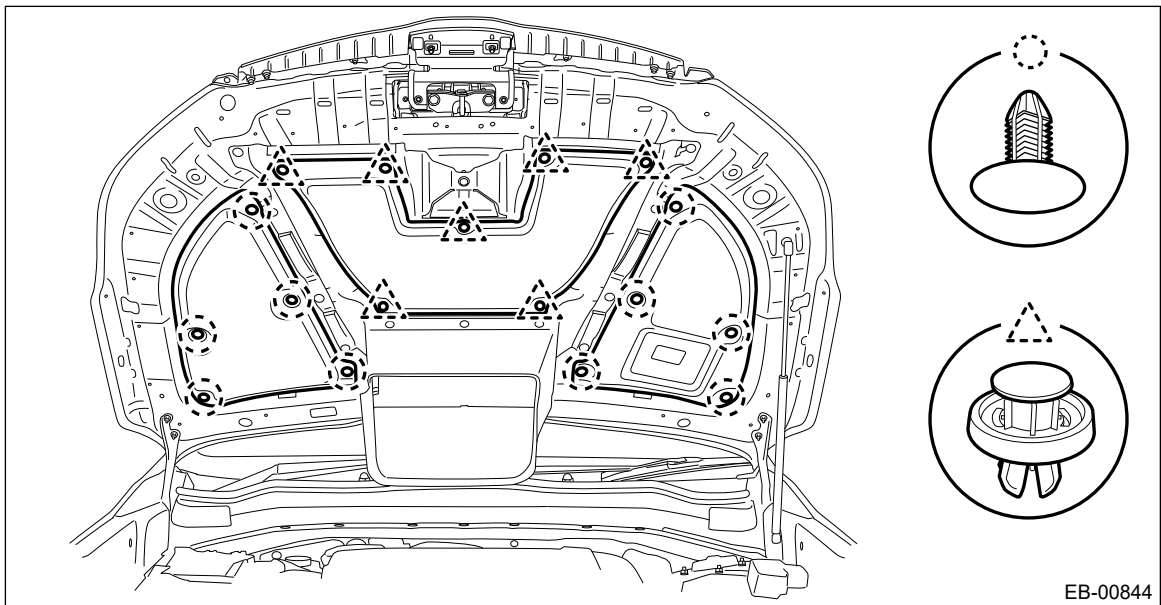
REMOVAL

1. FRONT HOOD PANEL

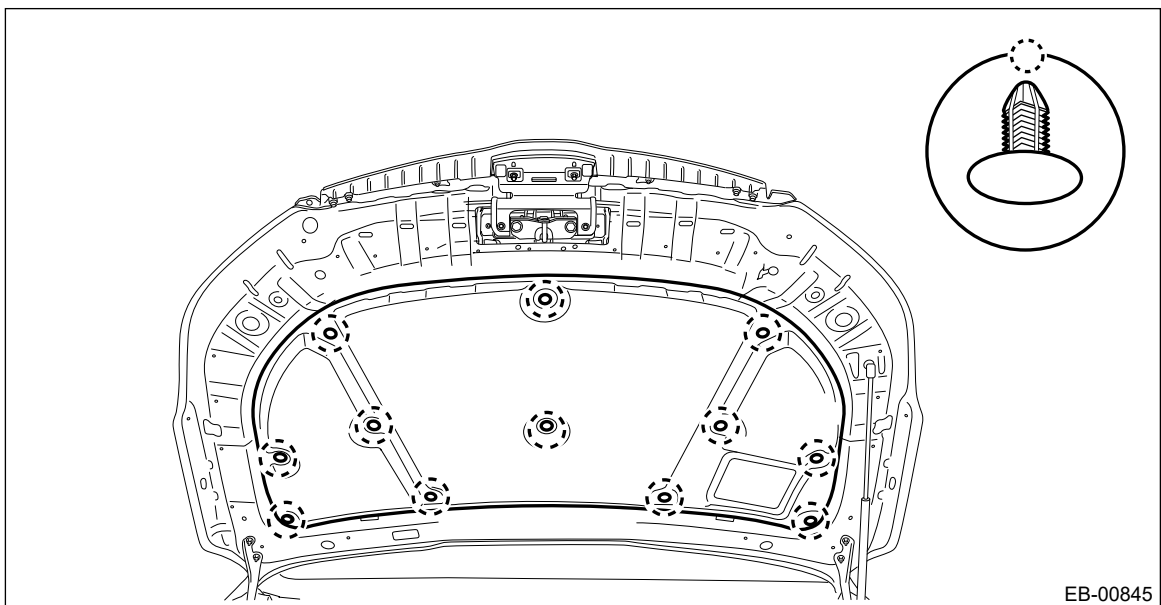
Caution:

The hood COMPL - front is heavy. When removing and installing it, always work in a team of two or more persons.

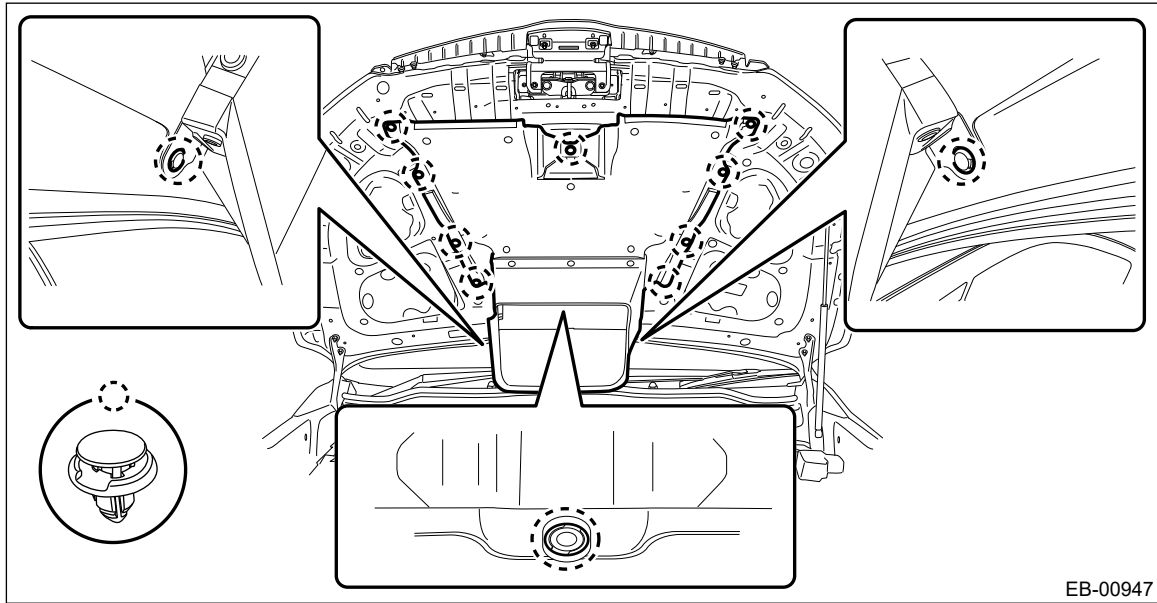
- 1. Open the hood COMPL - front.
- 2. Remove the clips, and remove the insulator - front hood.
 - Turbo model




- Non-turbo model

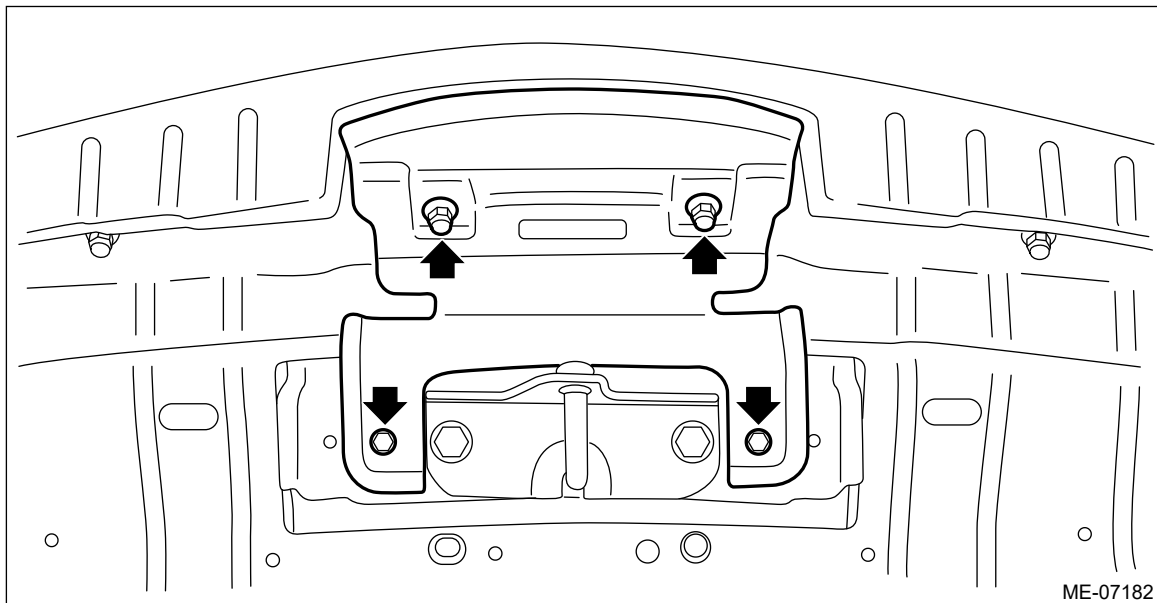


- 3. Remove the clips, and remove the duct - inner front hood. (Turbo model)



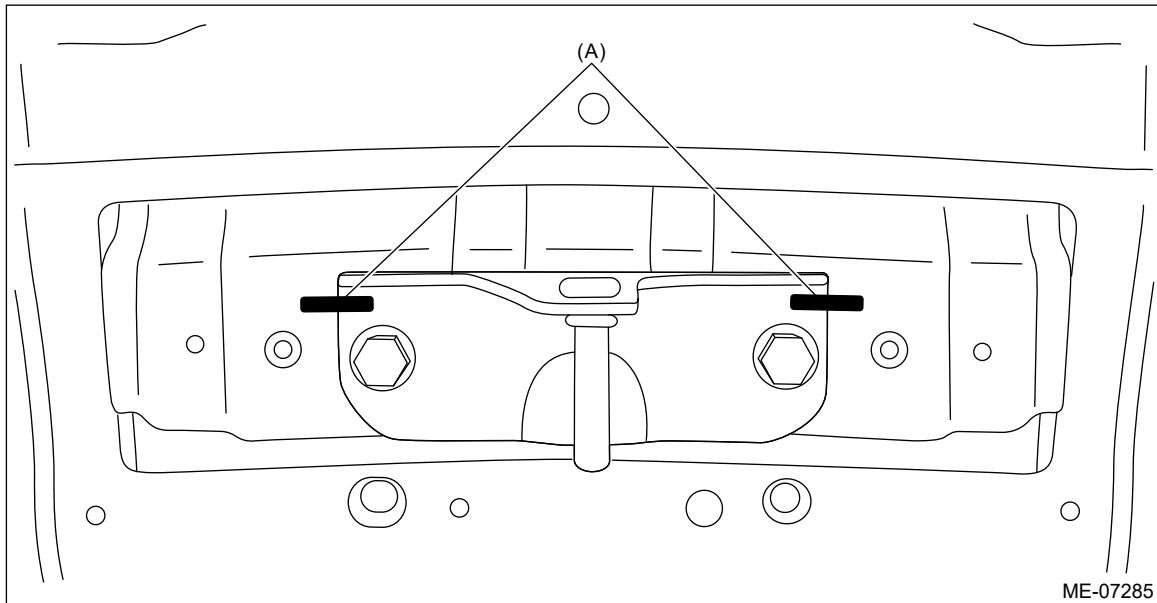
EB-00947

4. Remove the front grille upper.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Grille>REMOVAL > FRONT GRILLE UPPER.](#)
5. Open the hood COMPL - front, and remove the bracket - grille UPR from the hood COMPL - front.

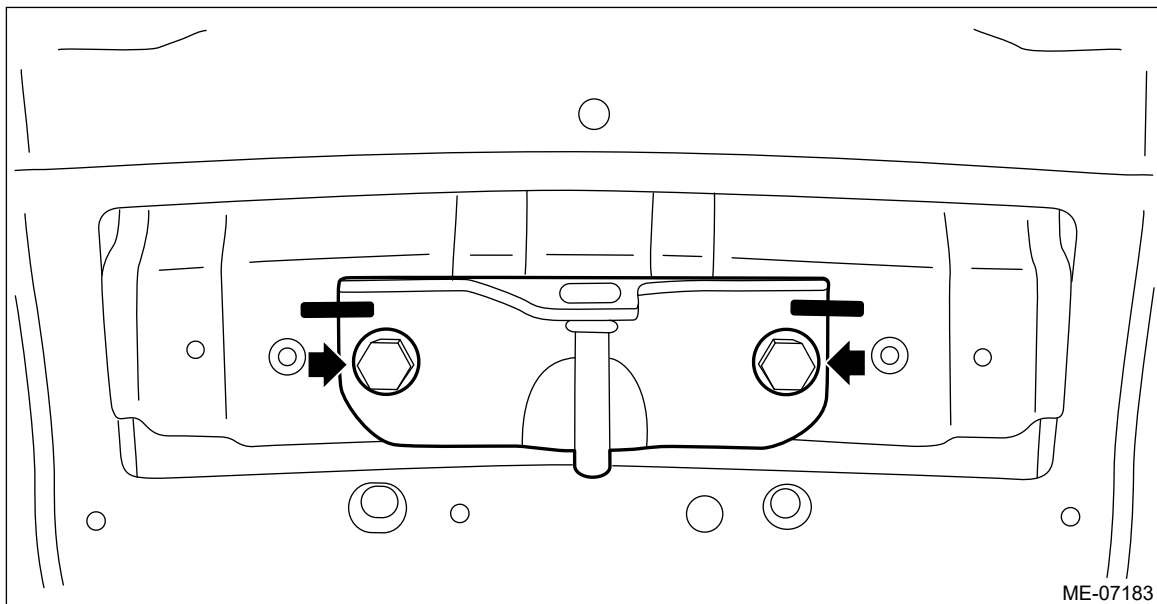


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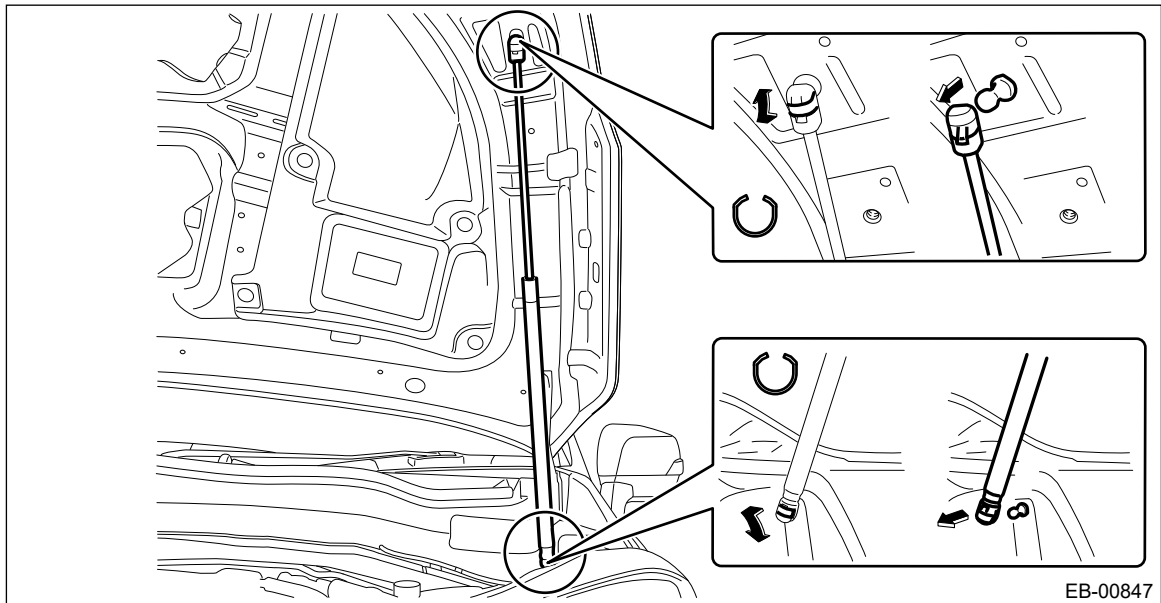
6. Using a marker pen, make alignment marks (A) on the hood COMPL - front and the striker - front hood.



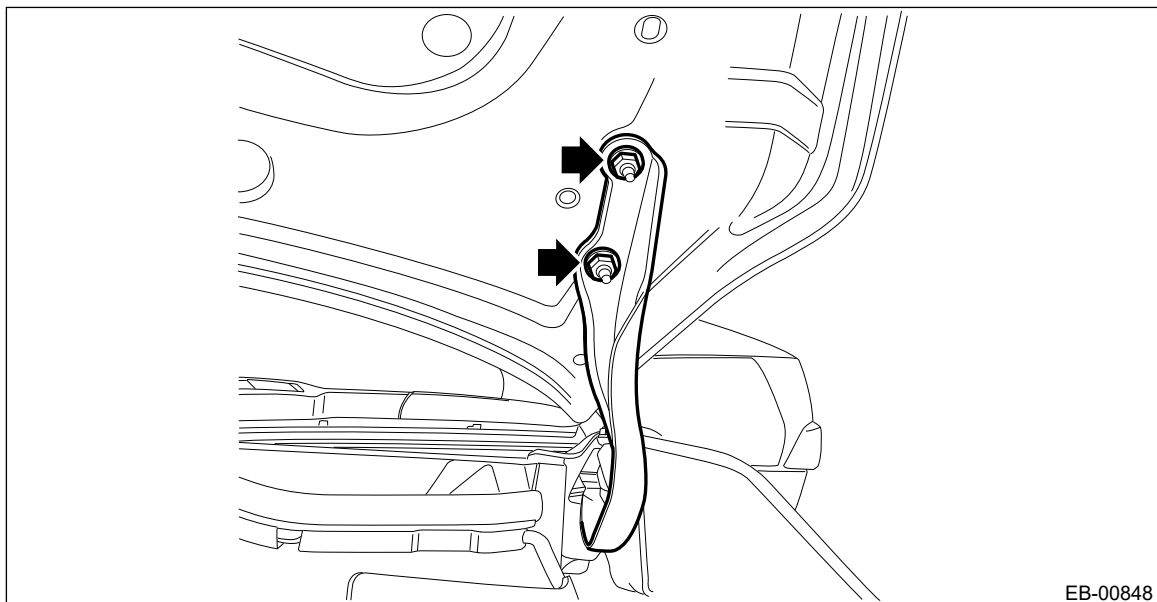
- 7.** Remove the striker - front hood from the hood COMPL - front.



- 8.** Remove the stay assembly - front hood.
- (1) Float the lock pin using a flat tip screwdriver, etc. and slide it.
 - (2) Pull the mounting point of the stay assembly - front hood, and remove the stay assembly - front hood.



- 9.** Remove the nut on the hood COMPL - front side, and remove the hood COMPL - front.

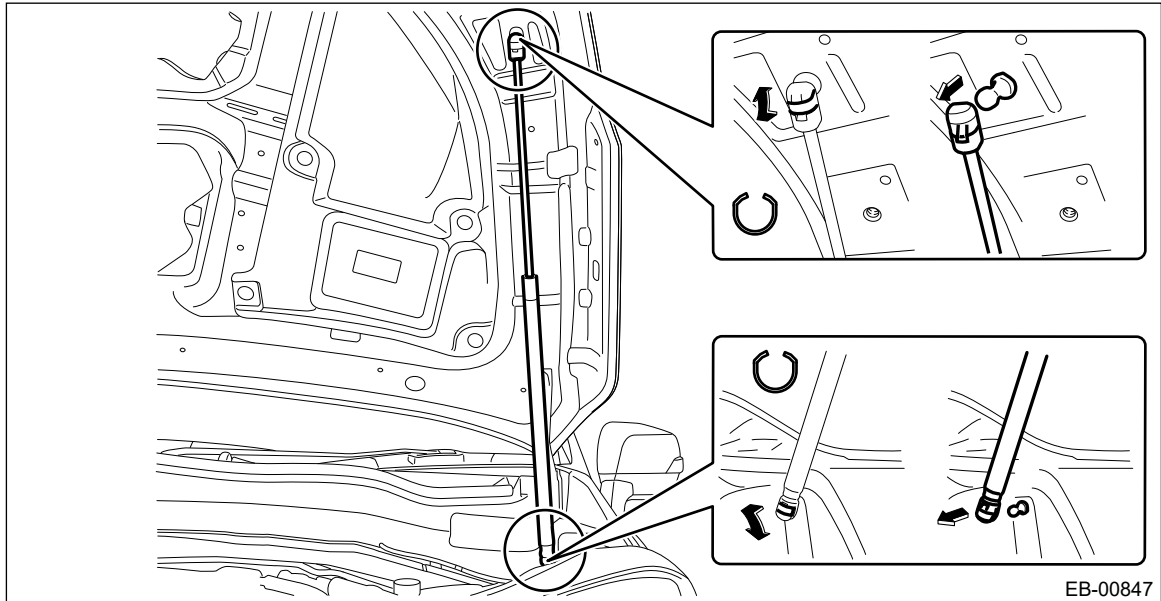


2. FRONT HOOD DAMPER

Caution:

- Do not damage the piston rods and oil seals of stay assembly - front hood.
- Never disassemble the stay assembly - front hood: They contain gas.
- The hood COMPL - front is heavy. When removing or installing the stay assembly - front hood and the hinge COMPL - front hood, be sure to work in a group of two or more.

- 1.** Remove the stay assembly - front hood.
- (1) Float the lock pin using a flat tip screwdriver, etc. and slide it.
 - (2) Pull the mounting point of the stay assembly - front hood, and remove the stay assembly - front hood.




3. FRONT HOOD HINGE

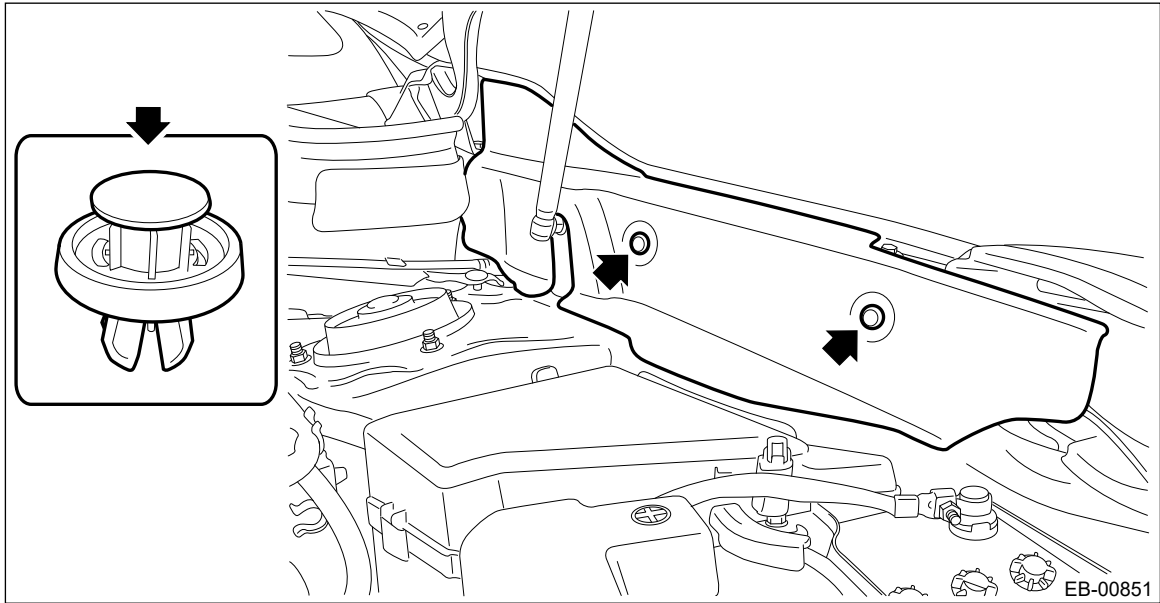
Caution:


- The hood COMPL - front is heavy. When removing or installing the hinge COMPL - front hood, be sure to work in a group of two or more.
- Note that the service will be handled as a repair if the fender COMPL - front is removed.

Note:

The front hood hinge cannot be removed with the fender COMPL - front attached. Therefore, remove the fender COMPL - front beforehand.

1. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)
2. Remove the cover - front fender.
 - (1) Remove the clip.
 - (2) Release the claws by pulling them forward, and remove the cover - front fender.

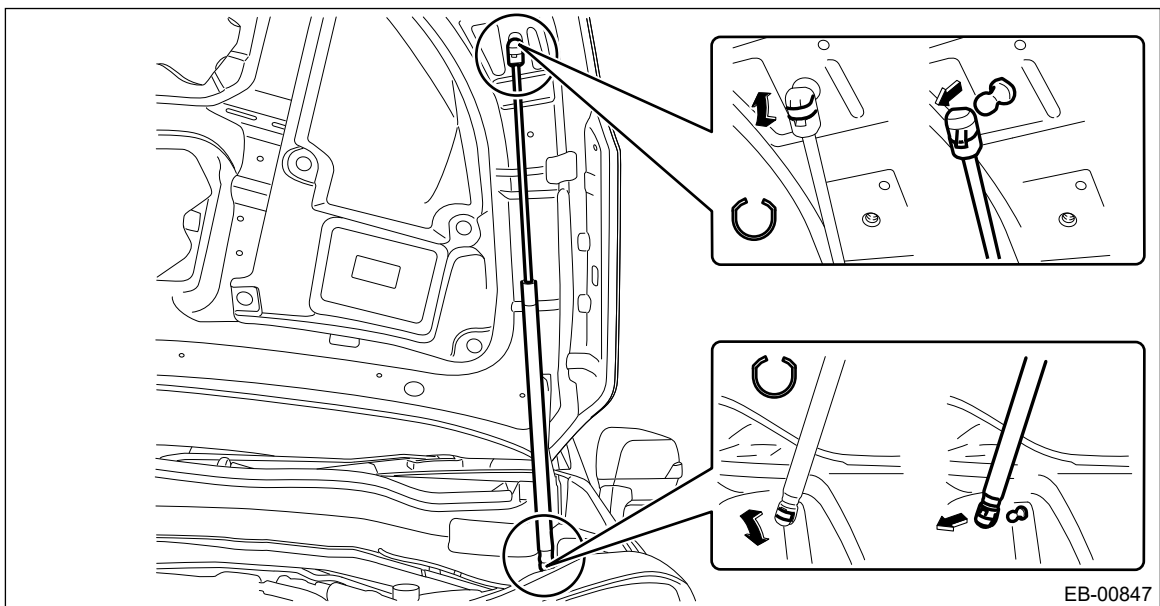


3. Remove the fender COMPL - front.  [Ref. to EXTERIOR BODY PANELS>Front Fender>REMOVAL.](#)

4. Remove the stay assembly - front hood.

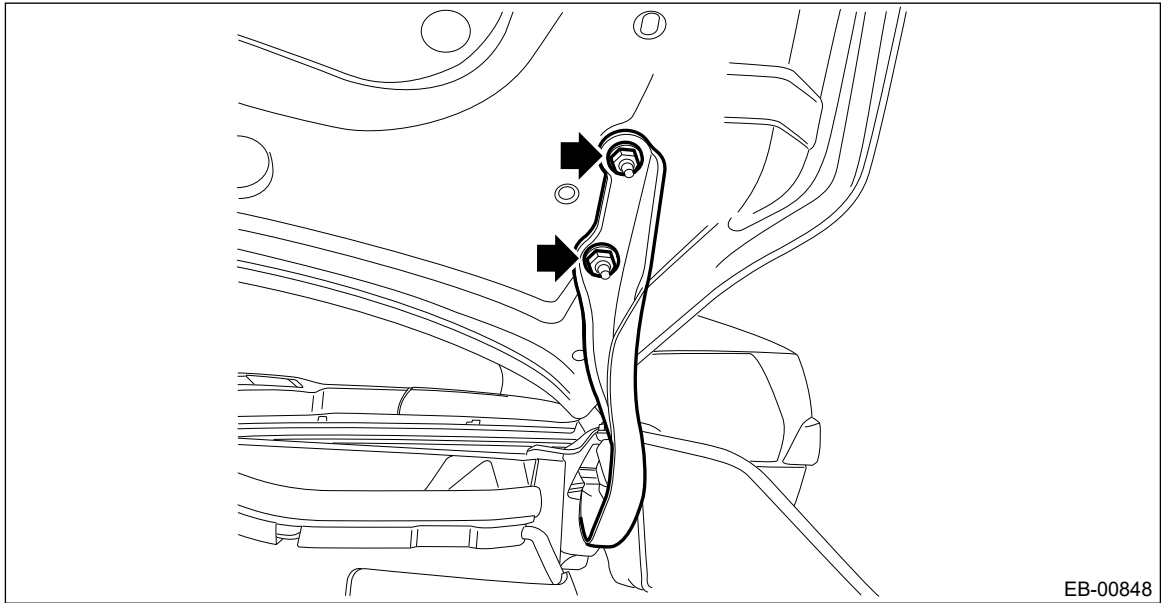
(1) Float the lock pin using a flat tip screwdriver, etc. and slide it.

(2) Pull the mounting point of the stay assembly - front hood, and remove the stay assembly - front hood.



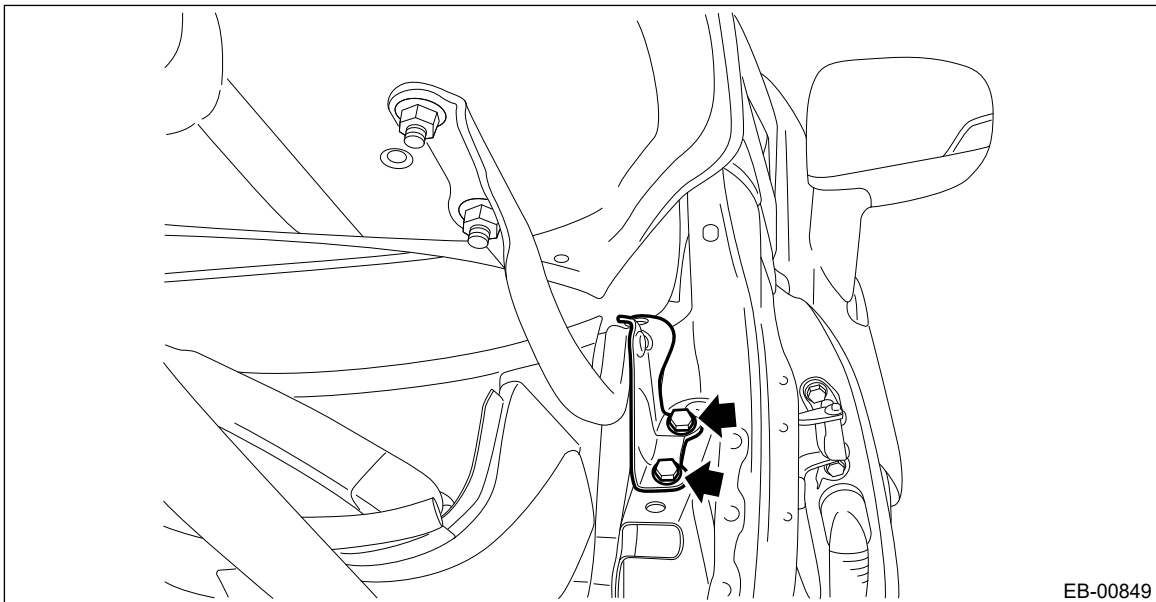
5. Remove the hood COMPL - front.

(1) Remove the nut on the hood COMPL - front side, and remove the hood COMPL - front.



EB-00848

6. Remove the bolts, and remove the hinge COMPL - front hood.



EB-00849

EXTERIOR BODY PANELS > Front Sealing Cover

INSPECTION

If the sealing cover - front door is broken, replace it with a new part.

EXTERIOR BODY PANELS > Front Sealing Cover

INSTALLATION

Caution:

- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Apply a uniform bead of butyl tape.**
- **Attach the sealing cover - front door, keeping it from becoming wrinkled.**
- **Breaks in the bead will allow water leakage and contamination.**

1. When replacing the sealing cover - front door, use the butyl tape.
2. Press the butyl tape-applied area firmly to prevent any floating on surface.


Butyl tape:

3M 8626 or equivalent

3. Install each part in the reverse order of removal.


Note:

- **Remote cable is free from deformation such as fray.**
- **Grease is applied sufficiently to remote cable joints.**
If grease is insufficient, add it as necessary before assembling the remote cable.

4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


EXTERIOR BODY PANELS > Front Sealing Cover

REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

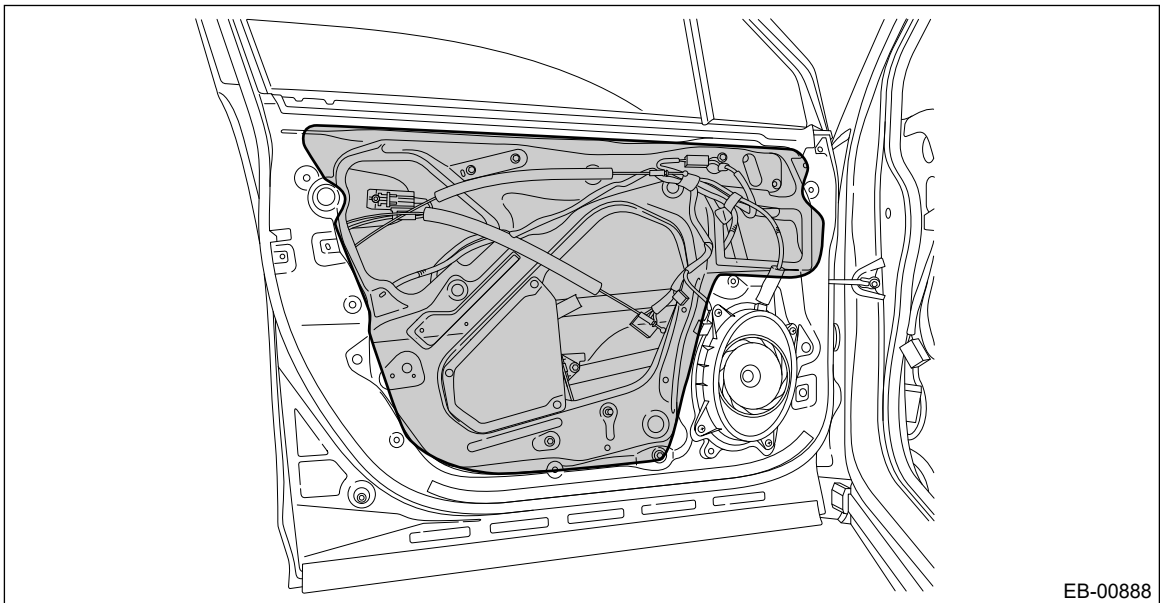
2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Remove the sealing cover - front door.

Caution:

- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Disconnect connectors.

(2) Carefully remove the butyl tape to remove the sealing cover - front door.



EB-00888

EXTERIOR BODY PANELS > General Description

CAUTION

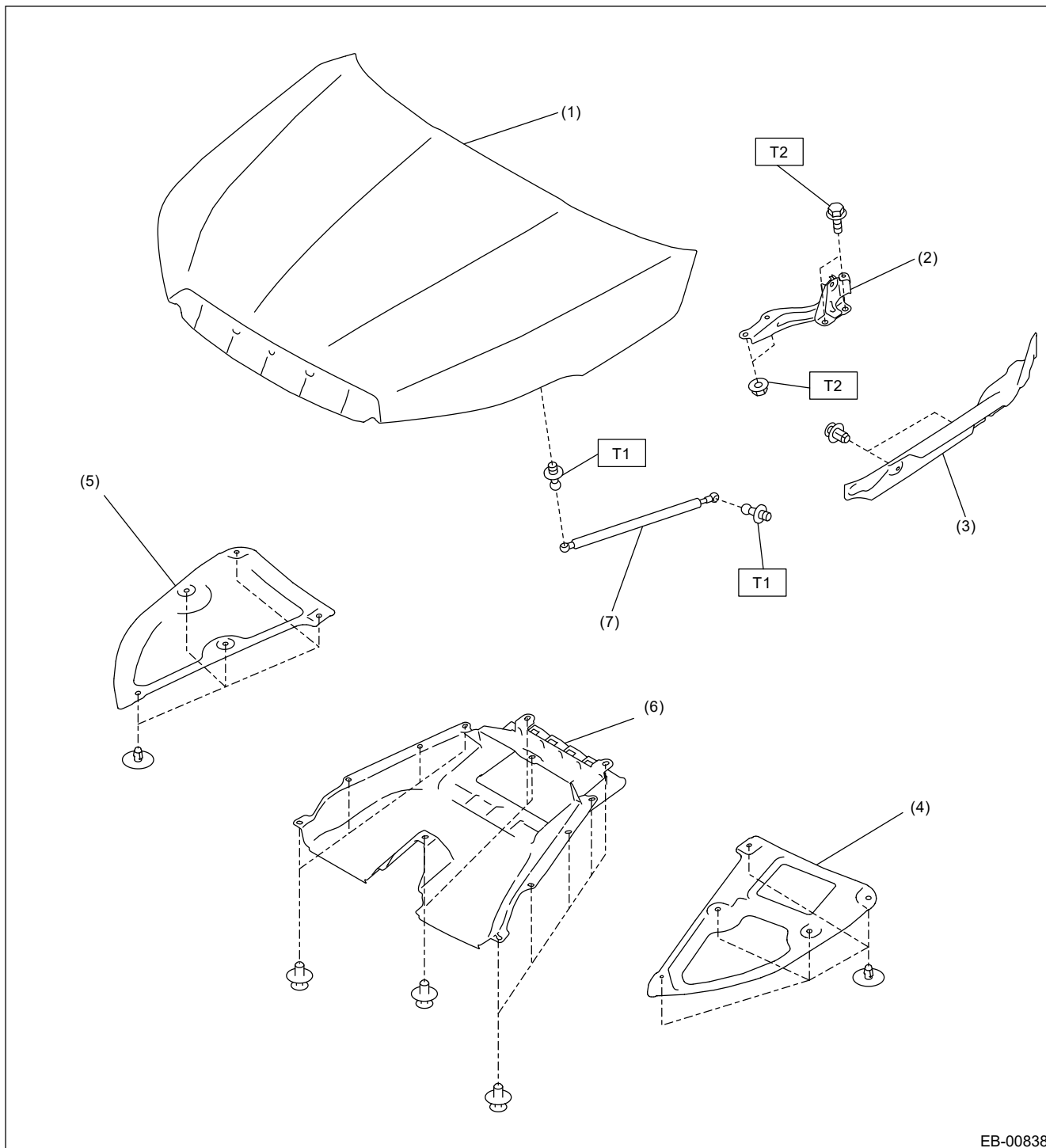
Exterior body panels are heavy. When removing and installing them, do not drop and damage the panels. Also, be careful not to scratch the coated surfaces of the panels.

EXTERIOR BODY PANELS > General Description

COMPONENT

1. FRONT HOOD

Turbo model



EB-00838

(1) Hood COMPL - front

(5) Insulator - front hood RH

Tightening torque: N·m (kgf·m, ft·lb)

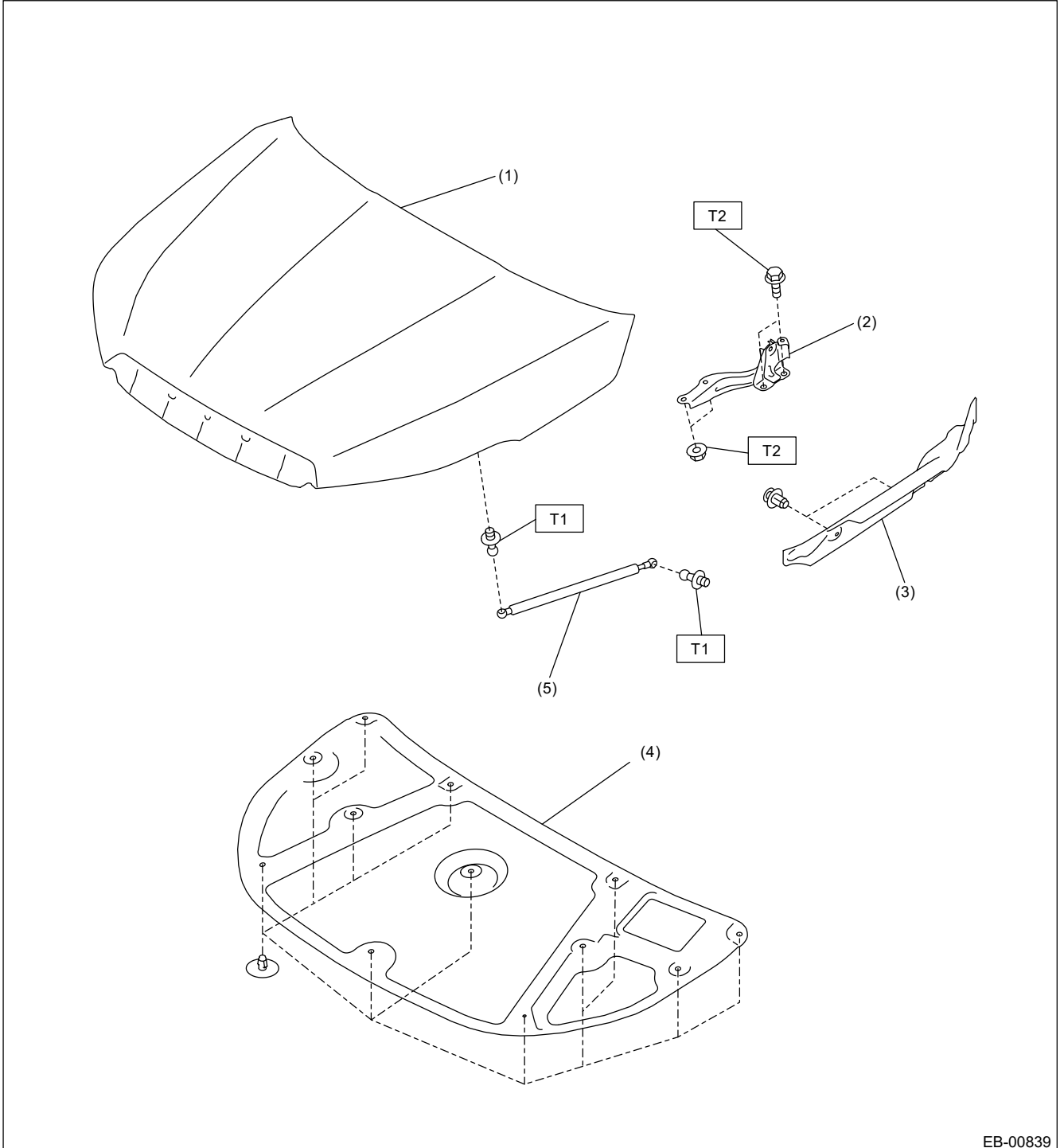
- (2) Hinge COMPL - front hood
- (3) Cover - front fender
- (4) Insulator - front hood LH

- (6) Duct - inner front hood
- (7) Stay ASSY - front hood

T1: 20 (2.04, 14.8)

T2: 25 (2.55, 18.4)

Non-turbo model



EB-00839

- (1) Hood COMPL - front

- (4) Insulator - front hood

Tightening torque: N·m (kgf·m, ft·lb)

- (2) Hinge COMPL - front hood

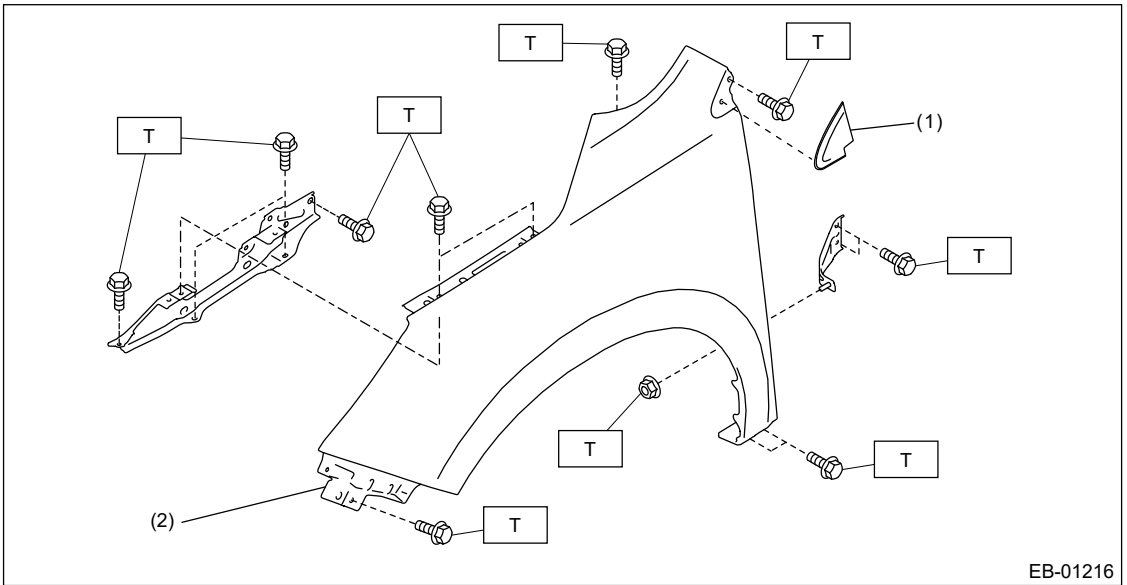
- (5) Stay ASSY - front hood

T1: 20 (2.04, 14.8)

- (3) Cover - front fender

T2: 25 (2.55, 18.4)

2. FRONT FENDER



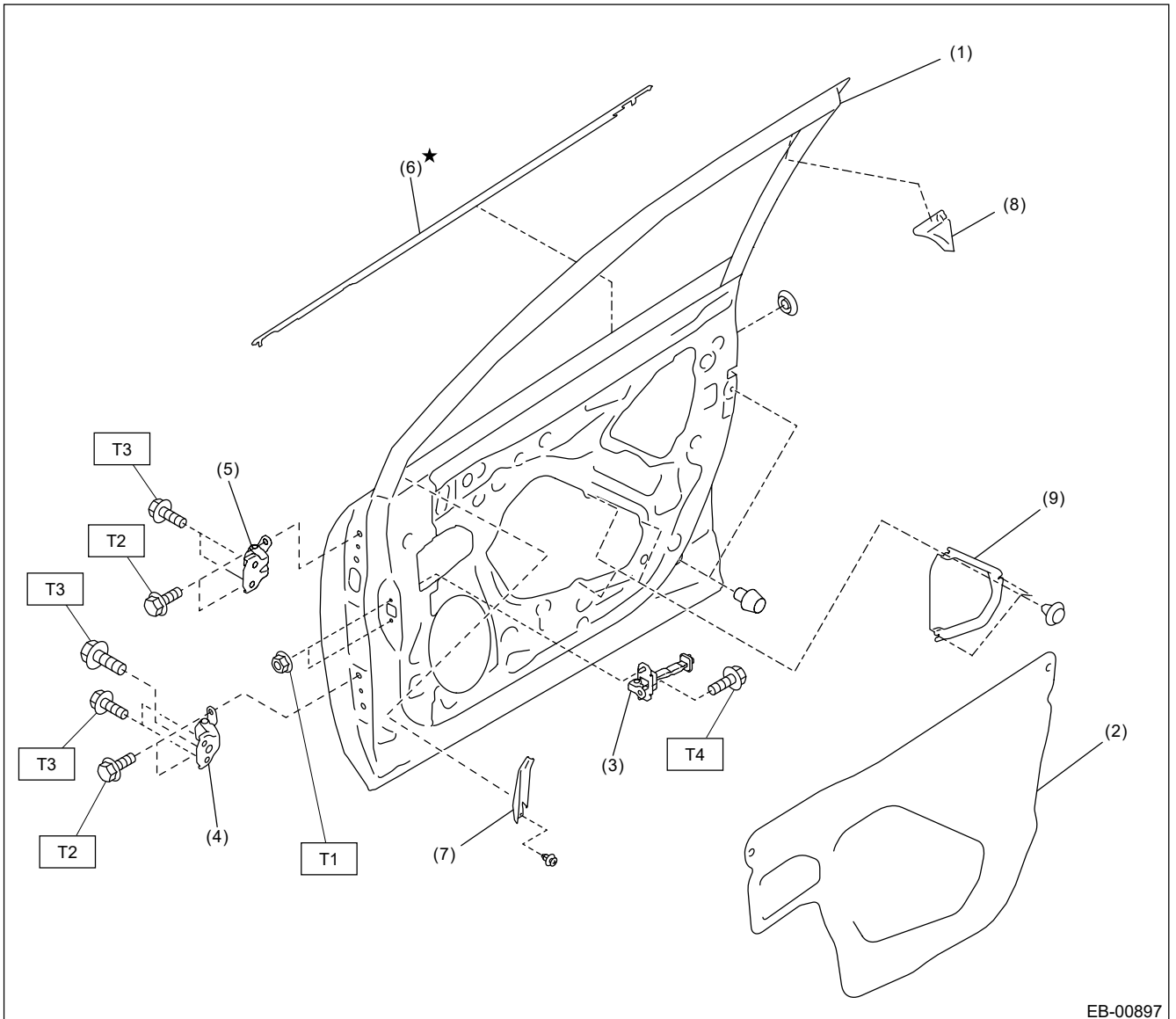
(1) Cover - A pillar ASSY

(2) Fender COMPL - front

Tightening torque: N·m (kgf·m, ft·lb)

T: 7.5 (0.76, 5.5)

3. FRONT DOOR



EB-00897

(1) Panel ASSY - front door

(2) Sealing cover - front door

(3) Checker ASSY - front door

(4) Lower hinge - front door

(5) Upper hinge - front door

(6) Weather strip outer - front door

(7) Cover sash - inner front

(8) Cover B pillar - inner front door

(9) Front door inner pad

Tightening torque: N·m (kgf·m, ft·lb)

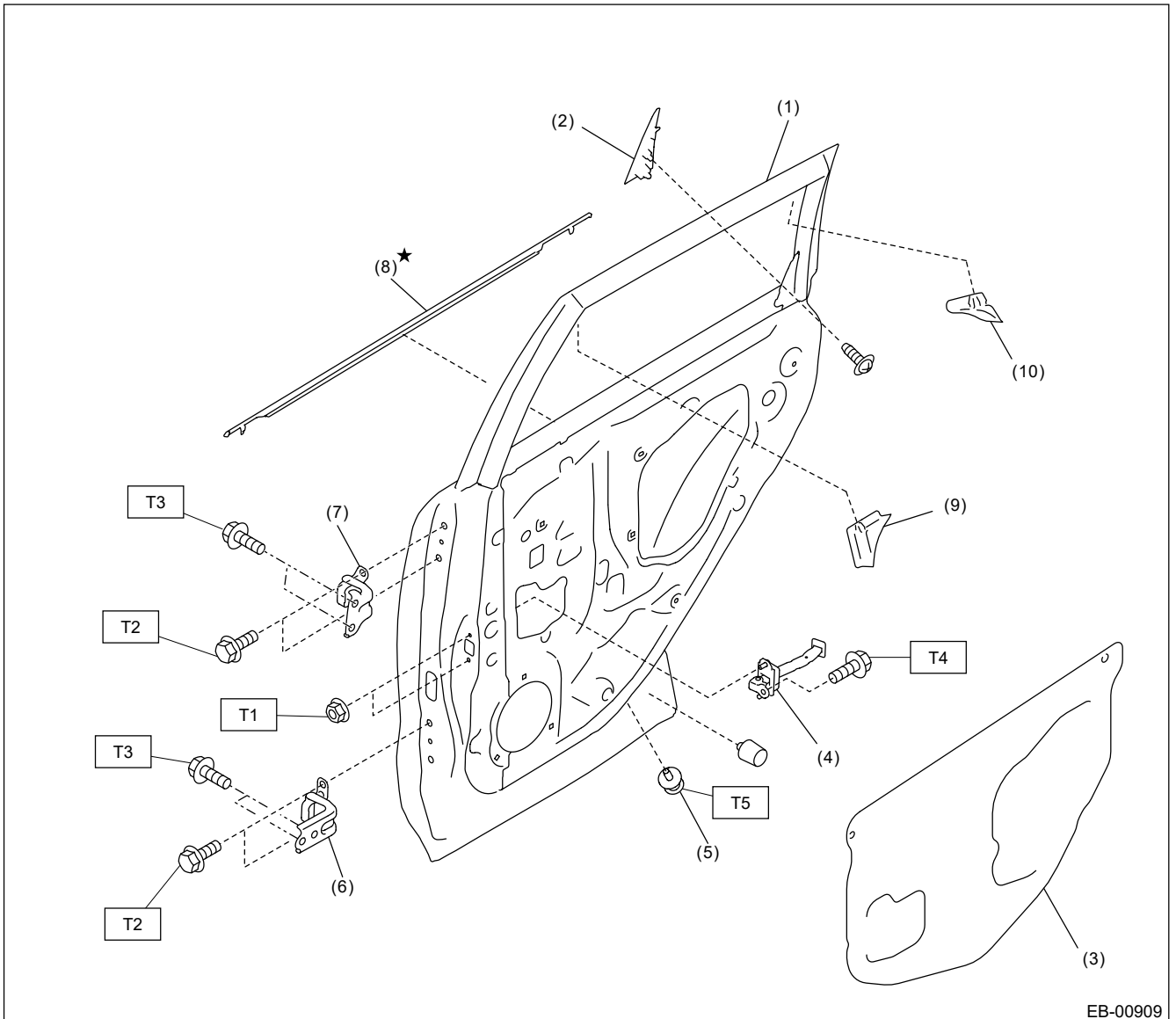
T1: 7.5 (0.76, 5.5)

T2: 25 (2.55, 18.4)

T3: 30 (3.06, 22.1)

T4: 33 (3.36, 24.3)

4. REAR DOOR



(1) Panel ASSY - rear door

(6) Lower hinge - rear door

Tightening torque: N·m (kgf·m, ft·lb)

(2) Cover - gusset outer

(7) Upper hinge - rear door

T1: 7.5 (0.76, 5.5)

(3) Sealing cover - rear door

(8) Weather strip outer - rear door

T2: 25 (2.55, 18.4)

(4) Checker ASSY - rear door

(9) Cover B pillar - inner rear

T3: 30 (3.06, 22.1)

(5) Catcher - rear door

(10) Cover C pillar - inner rear

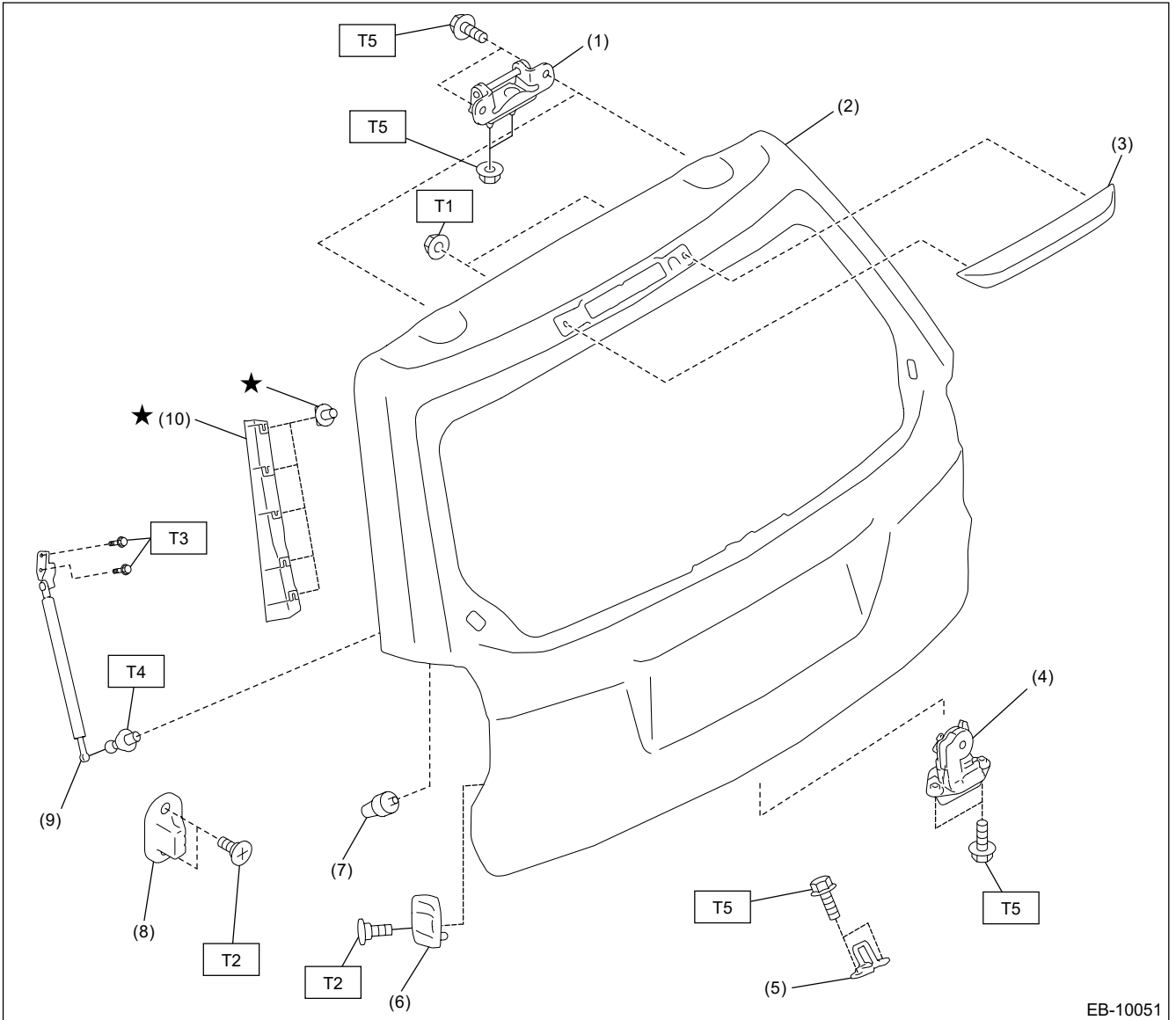
T4: 33 (3.36, 24.3)

T5: 38 (3.87, 28)

5. REAR GATE

Note:

For the components of power rear gate, refer to the power rear gate system.  [Ref. to POWER REAR GATE SYSTEM>General Description>COMPONENT.](#)



EB-10051

(1) Hinge - rear gate

(6) Buffer - rear gate

Tightening torque: N·m (kgf·m, ft·lb)

(2) Panel - rear gate

(7) Stopper - rear gate

T1: 4.5 (0.46, 3.3)

(3) Light ASSY - high-mounted

(8) Buffer - body side

T2: 7.5 (0.76, 5.5)

(4) Latch & actuator - rear gate

(9) Stay ASSY - rear gate

T3: 13 (1.33, 9.6)

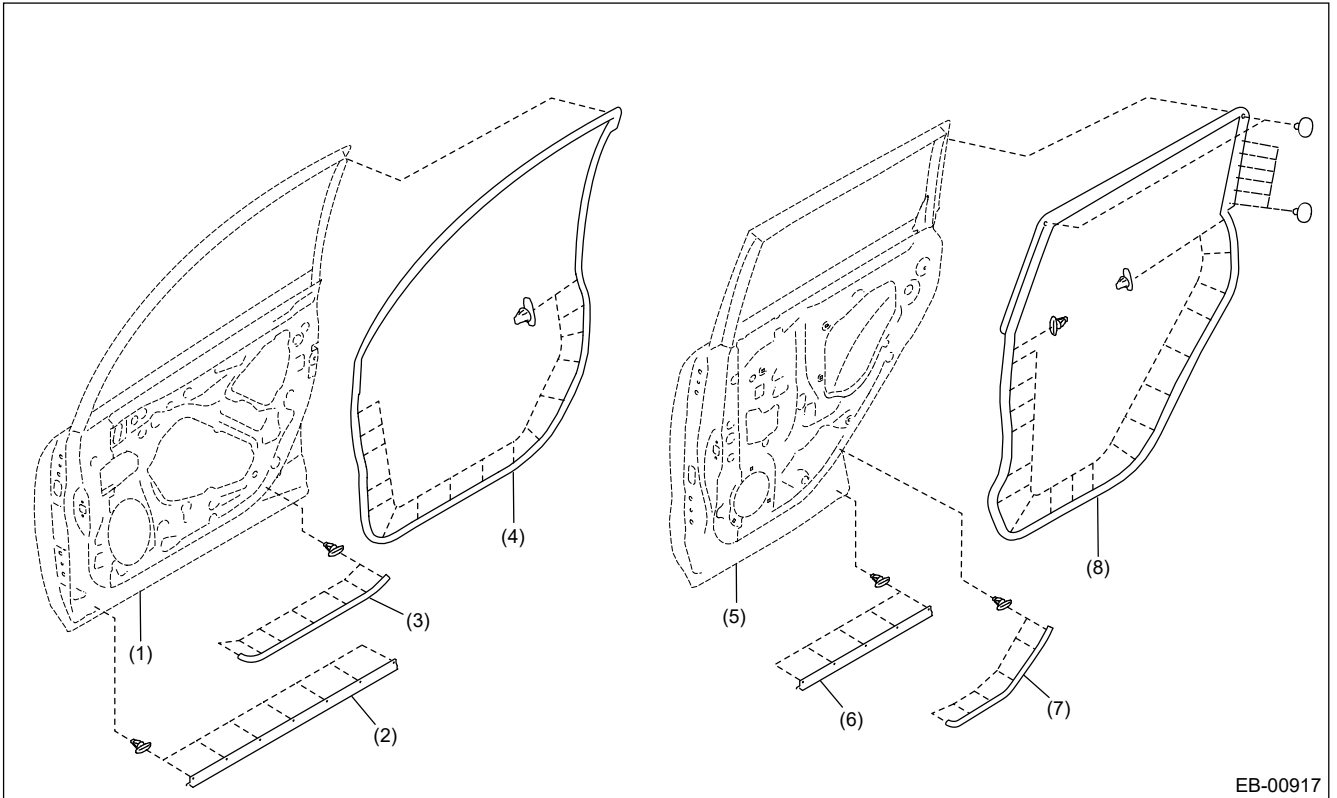
(5) Striker - rear gate

(10) Molding - side rear gate

T4: 20 (2.04, 14.8)

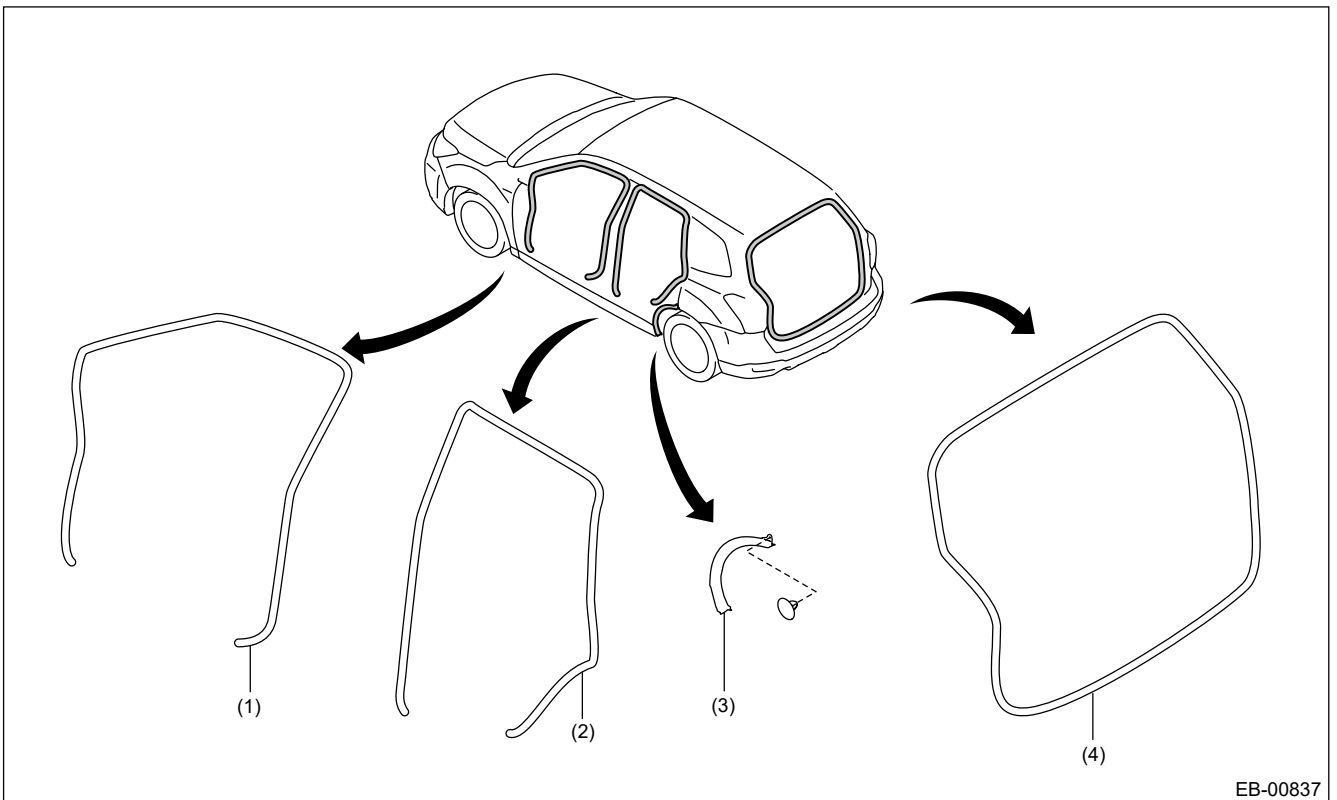
T5: 25 (2.55, 18.4)

6. WEATHER STRIP



EB-00917

- (1) Panel ASSY - front door
- (2) Weather strip side sill - front
- (3) Weather strip - front door LWR
- (4) Weather strip - front door
- (5) Panel ASSY - rear door
- (6) Weather strip side sill - rear
- (7) Weather strip - rear door LWR
- (8) Weather strip - rear door



EB-00837

(1) Weather strip - body side
flange front

(2) Weather strip - body side
flange rear

(3) Weather strip - body arch

(4) Weather strip - rear gate

EXTERIOR BODY PANELS > General Description

PREPARATION TOOL

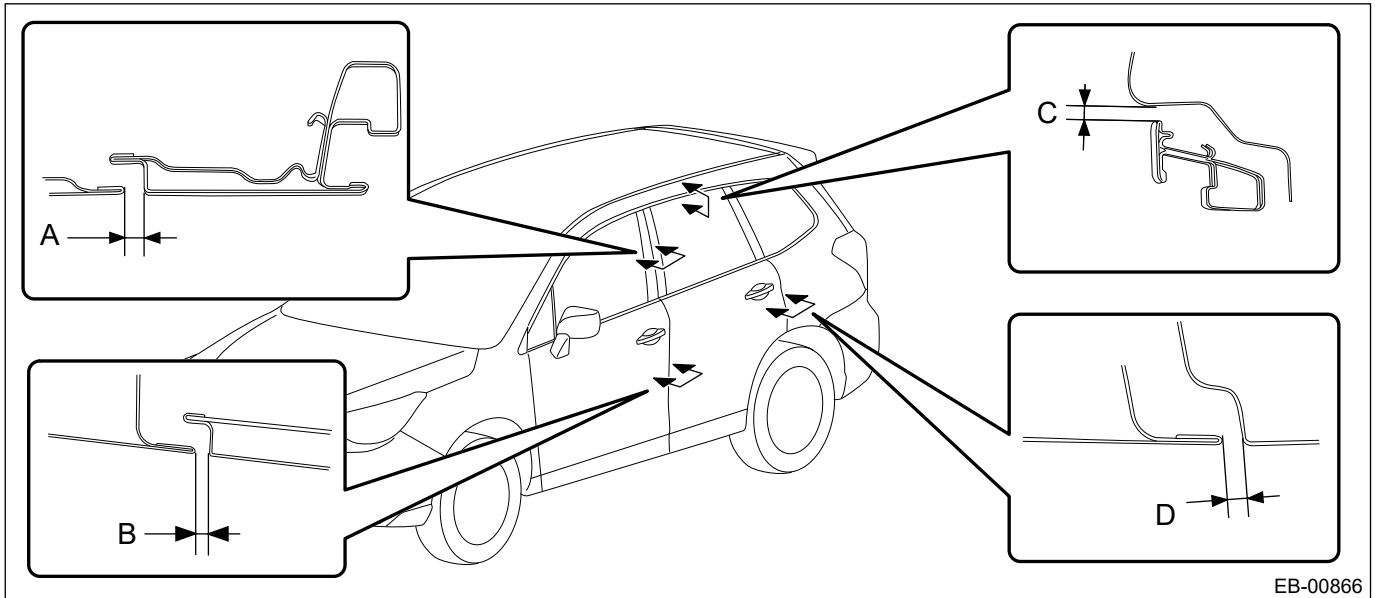
1. GENERAL TOOL

TOOL NAME	REMARKS
Clip remover	Used for removing various types of clips.

EXTERIOR BODY PANELS > Rear Door

ADJUSTMENT

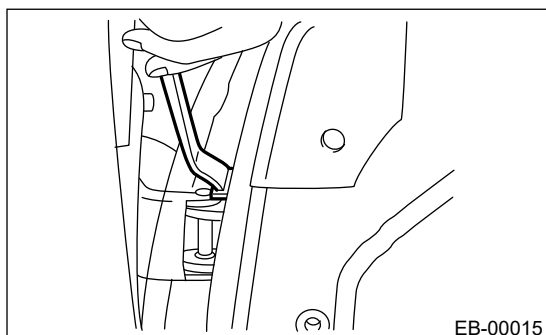
Adjust the clearance around the panel assembly - rear door as follows.



EB-00866

Part		Standard
A	Front door sash to Rear door sash	5.5+1.5, -1 mm (0.22+0.06, -0.04 in)
B	Panel assembly - front door to Panel assembly - rear door	4.5±1 mm (0.18±0.04 in)
C	Panel side outer to Rear door sash	5.7+1.5, -1 mm (0.22+0.06, -0.04 in)
D	Panel assembly - rear door to Panel side outer	4.5+1.5, -1 mm (0.18+0.06, -0.04 in)

1. Adjust the vertical and horizontal positions of the panel assembly - rear door.

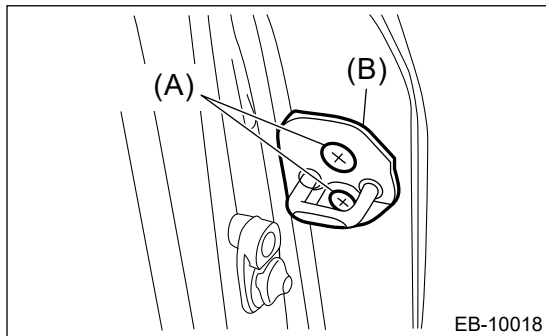


- (1) Loosen the body side bolts of the upper hinge - rear door and the lower hinge - rear door.
- (2) Adjust the vertical and horizontal clearance of the panel assembly - rear door.

2. Adjust the surface level gap between the panel assembly - rear door and the body.

Caution:

Do not use an impact wrench. Welding area on the striker nut plate is easily broken.



- (1) Loosen the screws (A).
- (2) Tap the striker - rear door (B) using a plastic hammer to adjust the surface level gap between the rear end of the panel assembly - rear door and the rear quarter.

INSTALLATION

1. REAR DOOR PANEL


Caution:

- **The panel assembly - rear door is heavy. When removing and installing it, always work in a team of two or more persons.**
- **While removing or installing, do not use a jack, etc. on the garnish section.**

1. Apply grease to the moving part of door hinges.
2. Have the door supporting staff adjust the height, and temporarily install the panel assembly - rear door to the upper hinge - rear door and the lower hinge - rear door.

Note:

- **When installing the panel assembly - rear door, make sure that a uniform clearance is created around the panel.**
- **Perform installation while paying attention to the assembly direction of the grommet.**

3. Adjust the clearance around the panel assembly - rear door.  [Ref. to EXTERIOR BODY PANELS>Rear Door>ADJUSTMENT.](#)


4. Tighten the bolts and nuts of the door hinge and the checker assembly - rear door.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > REAR DOOR.](#)

5. Install door internal parts in the reverse order of removal.

Note:

- **Remote cable is free from deformation such as fray.**
- **Grease is applied sufficiently to remote cable joints.**
If grease is insufficient, add it as necessary before assembling the remote cable.
- **For installation of the door sash tape, refer to the door sash tape.  [Ref. to EXTERIOR BODY PANELS>Door Sash Tape>INSTALLATION.](#)**

6. Connect the door harness connector, and install the harness grommet.


7. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

2. REAR DOOR HINGE

1. Apply grease to the moving part of door hinges.
2. Have the door supporting staff adjust the height, and temporarily install the panel assembly - rear door to the upper hinge - rear door and the lower hinge - rear door.

Note:

When installing the panel assembly - rear door, make sure that a uniform clearance is created around the panel.

3. Adjust the clearance around the panel assembly - rear door.  [Ref. to EXTERIOR BODY PANELS>Rear Door>ADJUSTMENT.](#)

4. Tighten the bolts and nuts of the door hinge and the checker assembly - rear door.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > REAR DOOR.](#)

EXTERIOR BODY PANELS > Rear Door







REMOVAL

1. REAR DOOR PANEL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

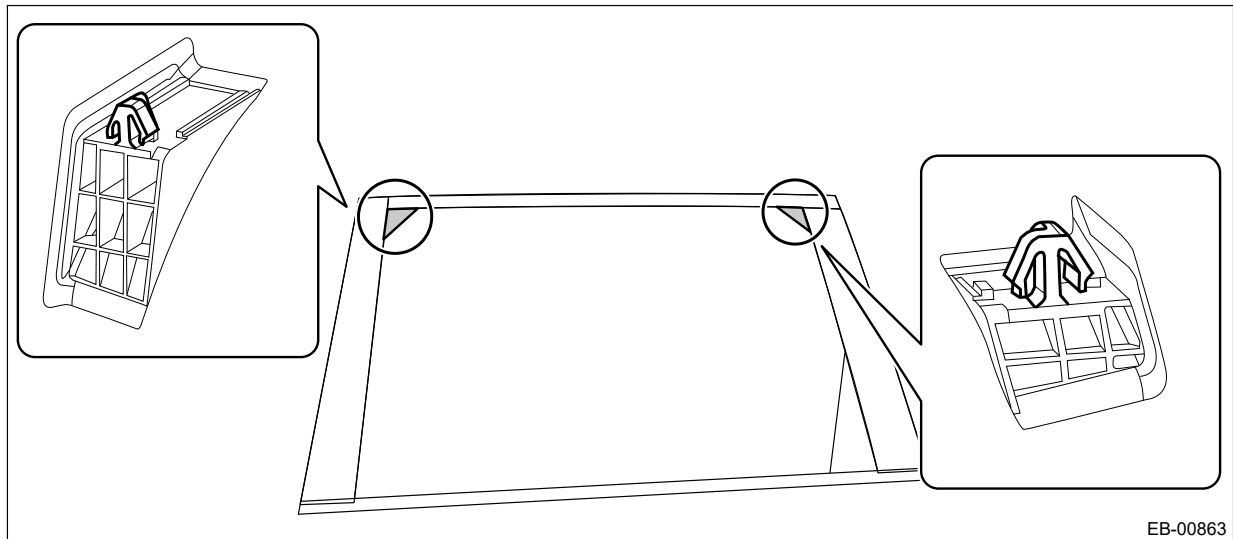
Note:




For model with battery sensor, disconnect the ground terminal from battery sensor.

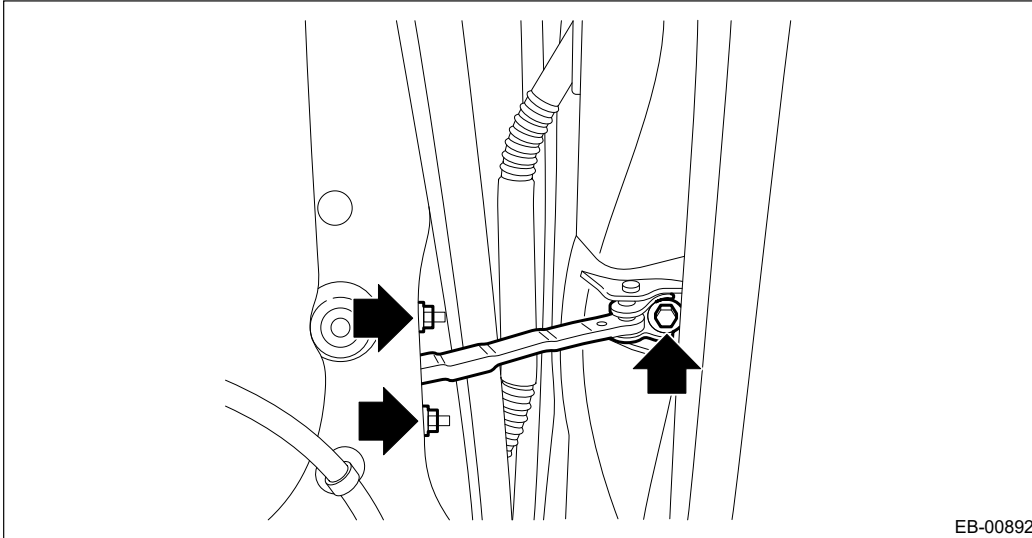
2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the sealing cover - rear door.  [Ref. to EXTERIOR BODY PANELS>Rear Sealing Cover>REMOVAL.](#)
4. Remove the speaker assembly - tweeter. (Model with harman/kardon® audio system)  [Ref. to ENTERTAINMENT>Rear Speaker>REMOVAL > TWEETER.](#)
5. Remove the rear door speaker assembly.  [Ref. to ENTERTAINMENT>Rear Speaker>REMOVAL > DOOR SPEAKER.](#)
6. Remove the sash COMPL - rear partition and the glass assembly - rear door.  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>REMOVAL.](#)
7. Remove the regulator - rear.  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Regulator and Motor Assembly>REMOVAL.](#)
8. Remove the cover B pillar - rear door INN and the cover C pillar - rear door INN.

Caution:

The clip cannot be reused, therefore, always replace with a new part.



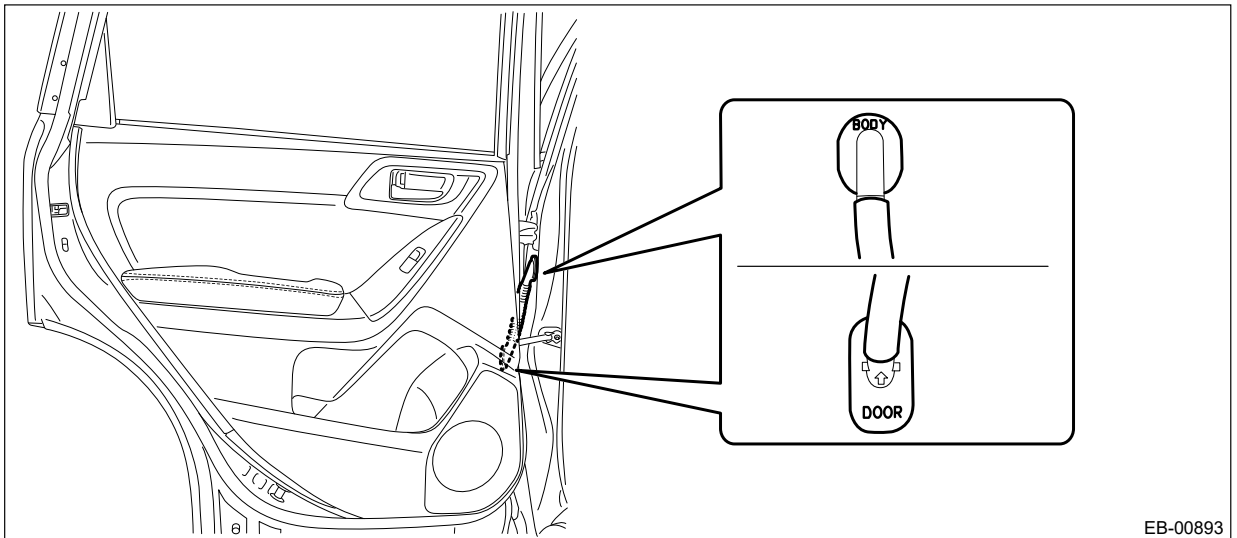
9. Remove the latch and actuator assembly - rear.  [Ref. to SECURITY AND LOCKS>Rear Door Latch and Door Lock Actuator Assembly>REMOVAL.](#)
10. Remove the cover - handle rear outer.  [Ref. to SECURITY AND LOCKS>Rear Outer Handle>REMOVAL.](#)
11. Remove the weather strip - rear door.  [Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > FRONT DOOR.](#)
12. Remove the bolts and nuts, and then detach the checker assembly - rear door.



EB-00892

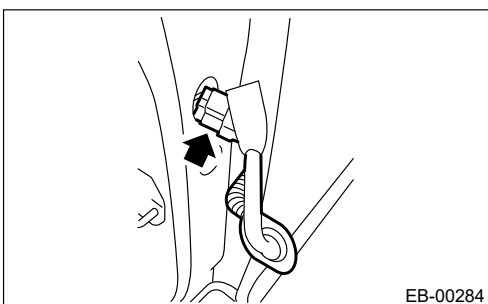
13. Disconnect the rear door harness connectors.

(1) Remove the grommet and pull out the rear door harness connector from inside the center pillar.



EB-00893

(2) Disconnect the rear door harness connectors.

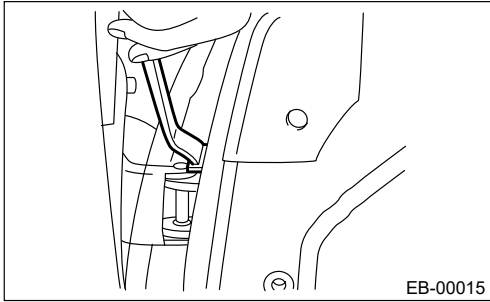


EB-00284

14. Remove the door-side bolts for the upper hinge - rear door and the lower hinge - rear door to remove the panel assembly - rear door.

Caution:

- **The panel assembly - rear door is heavy. When removing and installing it, always work in a team of two or more persons.**
- **While removing or installing, do not use a jack, etc. on the garnish section.**



- 15.** Remove the door hinge from vehicle.  [Ref. to EXTERIOR BODY PANELS>Rear Door>REMOVAL > REAR DOOR HINGE.](#)

2. REAR DOOR HINGE

- 1.** Open the panel assembly - front door, and remove the bolts of the upper hinge - rear door or the lower hinge - rear door.

Caution:

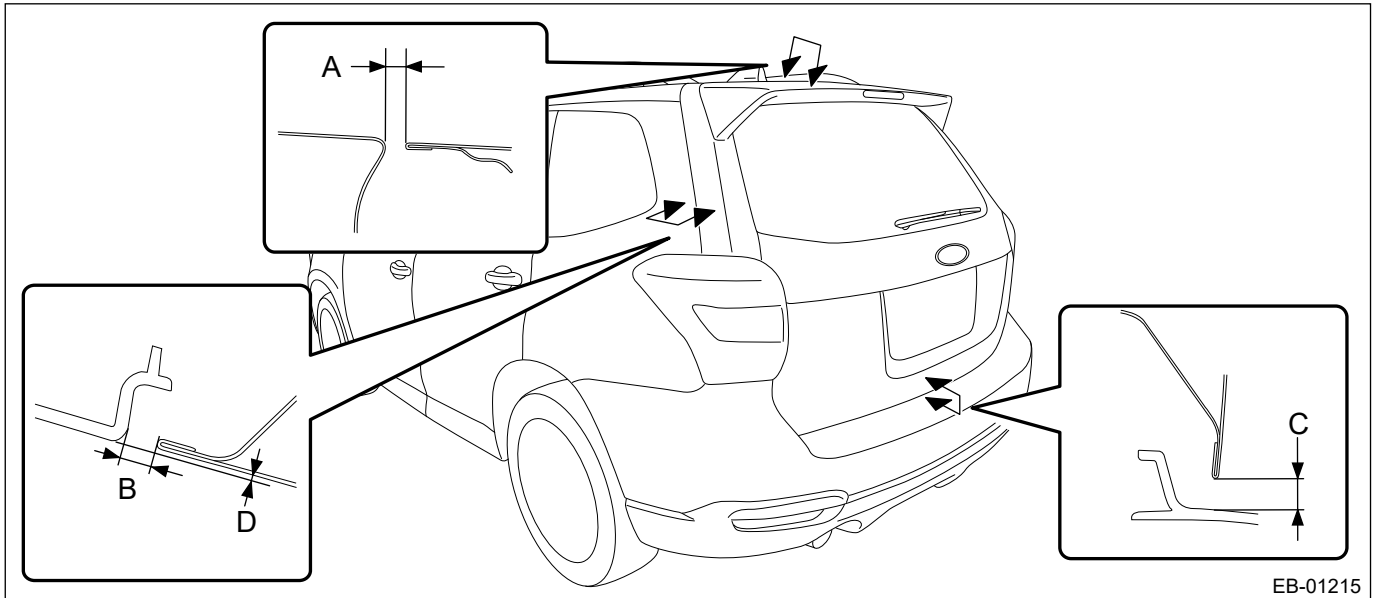
- **The panel assembly - rear door is heavy. When removing and installing it, always work in a team of two or more persons.**
- **While removing or installing, do not use a jack, etc. on the garnish section.**
- **Do not remove the upper hinge - rear door and the lower hinge - rear door at the same time.**

- 2.** Remove the rear door hinge from vehicle.


EXTERIOR BODY PANELS > Rear Gate

ADJUSTMENT

Adjust the clearance around the panel - rear gate as follows.

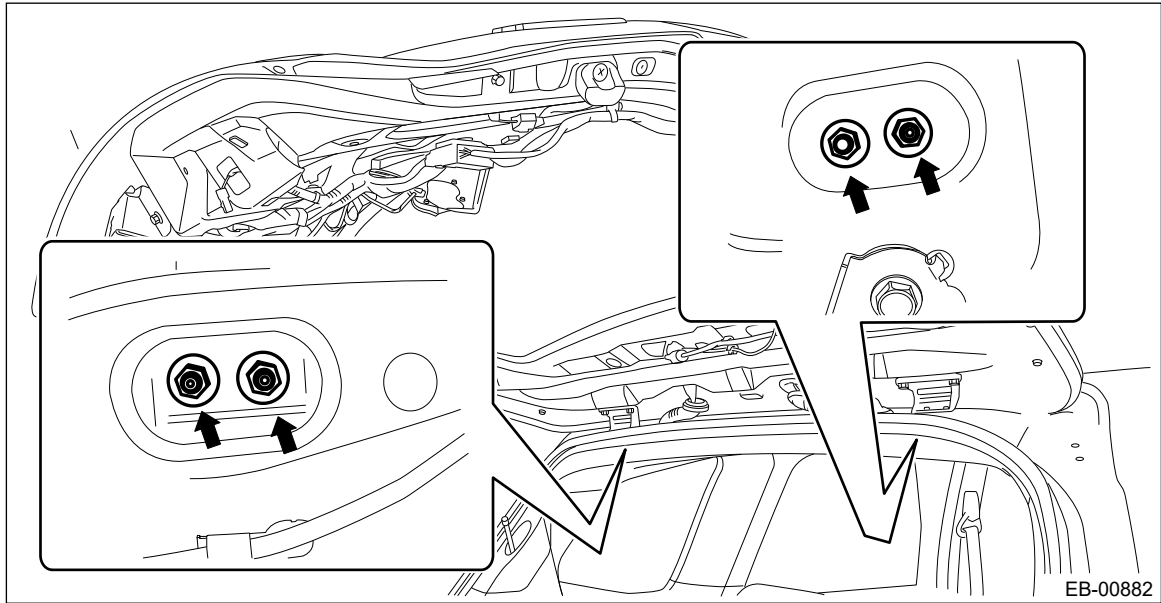


Part		Standard
A	Panel - rear gate to Roof panel	6.5+1, -0.5 mm (0.26+0.04, -0.02 in)
B	Panel - rear gate to Panel side outer	6.5±1 mm (0.26±0.04 in)
C	Panel - rear gate to Bumper face - rear	7.0±1 mm (0.28±0.04 in)
D	Surface level gap: Panel - rear gate to Panel side outer	0+0, -1.5 mm (0+0, -0.06 in)

1. Remove the trim panel - roof assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
2. Adjust the vertical and horizontal positions of the panel - rear gate.

Note:

Adjust the panel - rear gate after removing the stay assembly - rear gate.

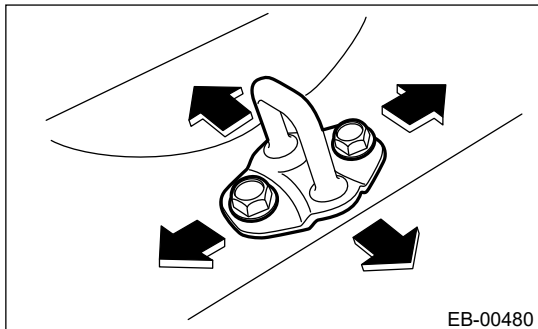


- (1) Loosen the mounting nuts on the body side of the hinge - rear gate.
- (2) Adjust the vertical and horizontal clearance of the panel - rear gate.

Tightening torque:

25 N·m (2.55 kgf-m, 18.4 ft-lb)

- 3.** Adjust the surface level gap between the panel - rear gate and the body.



- (1) Remove the trim panel - rear skirt.
- (2) Loosen the bolt.
- (3) Tap the striker - rear gate using a plastic hammer to adjust the surface level gap between the panel - rear gate and the body.

Tightening torque:

25 N·m (2.55 kgf-m, 18.4 ft-lb)

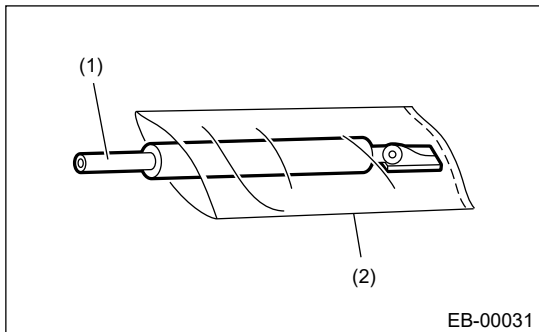
DISPOSAL

1. REAR GATE DAMPER STAY

Caution:

Gas is colorless, odorless, and harmless. However, gas pressure may spray cutting powder or oil. Be sure to wear dust-resistant goggles.

- 1. Cover with a vinyl sack as shown in the figure.

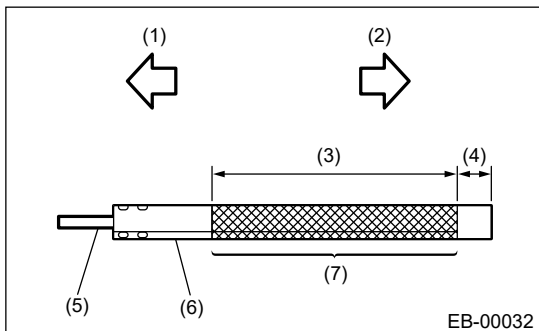


- (1) Stay ASSY - rear gate
- (2) Vinyl sack

Note:

Prevent the vinyl sack from being caught by drill cutting edge.

- 2. Lift the body side slightly with piston rods fully extended, and secure the body side with vise. Drill a hole of 2 to 3 mm (0.08 to 0.12 in) diameter at a point 6 to 196 mm (0.24 to 7.72 in) from the body side, and bleed the gas in the stay assembly - rear gate completely.



- (1) Door side
- (2) Body side
- (3) 196 mm (7.72 in)
- (4) 6 mm (0.24 in)
- (5) Piston rod
- (6) Cylinder
- (7) Portion to be drilled

INSTALLATION

1. REAR GATE PANEL


Caution:

The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.

1. Temporarily install the hinge - rear gate to the vehicle body.
2. Install the panel - rear gate to the hinge - rear gate.

Note:

- **When installing, make sure that a uniform clearance is created around the panel - rear gate.**
- **When the installation positions do not fit properly, loosen the attaching nuts of the hinge - rear gate on vehicle body and then install the panel - rear gate by adjusting the position.**

3. Adjust the clearance around the panel - rear gate.  [Ref. to EXTERIOR BODY PANELS>Rear Gate>ADJUSTMENT.](#)

4. Tighten the nuts of the hinge - rear gate.

Tightening torque:


25 N·m (2.55 kgf-m, 18.4 ft-lb)


5. Install each part in the reverse order of removal.

Tightening torque:

Rear gate parts:  [Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > REAR GATE.](#)

Garnish assembly - rear gate: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

Arm assembly - rear wiper and motor assembly - rear wiper:  [Ref. to WIPER AND WASHER SYSTEMS>General Description>COMPONENT > REAR WIPER.](#)

6. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

2. REAR GATE DAMPER STAY

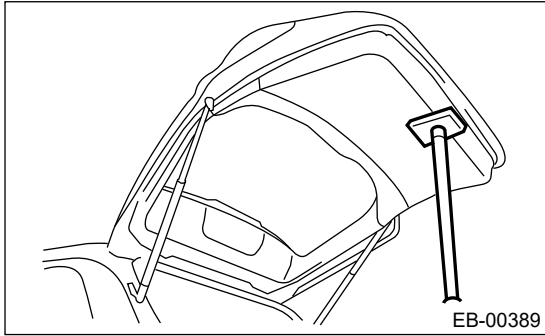
Caution:

The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.

1. Prevent the panel - rear gate from closing using prop or the like.

Caution:

If the prop comes off, operators may get injured and vehicle may get damaged. Make sure to support the panel - rear gate with secure material to prevent injury or damage.



2. Install each part in the reverse order of removal.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > REAR GATE.](#)

EXTERIOR BODY PANELS > Rear Gate

REMOVAL

Caution:









The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.

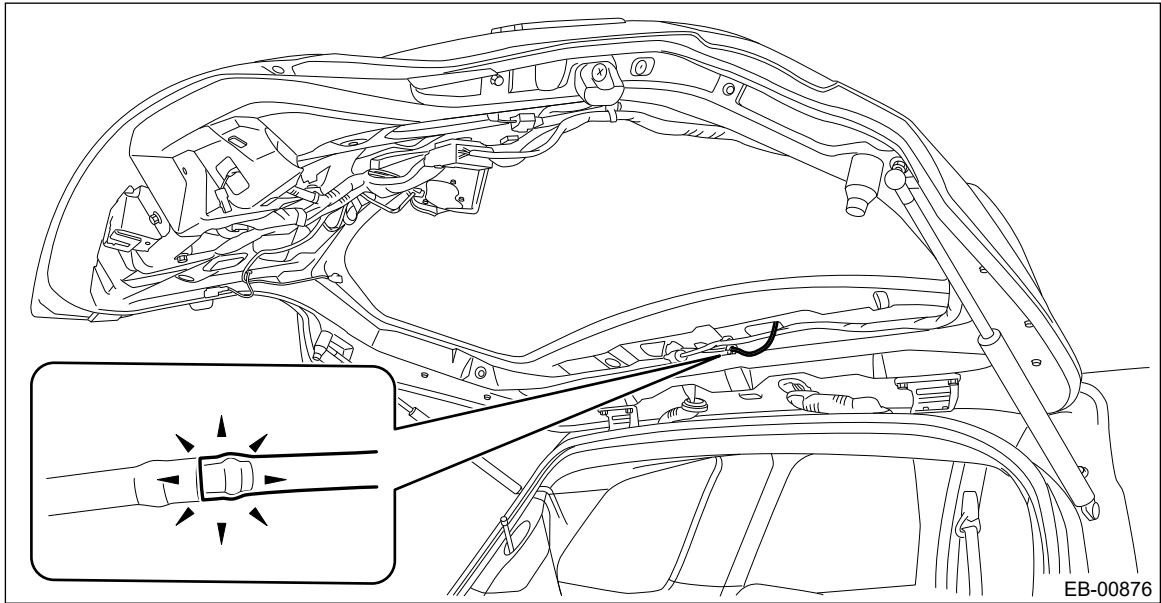
1. REAR GATE PANEL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

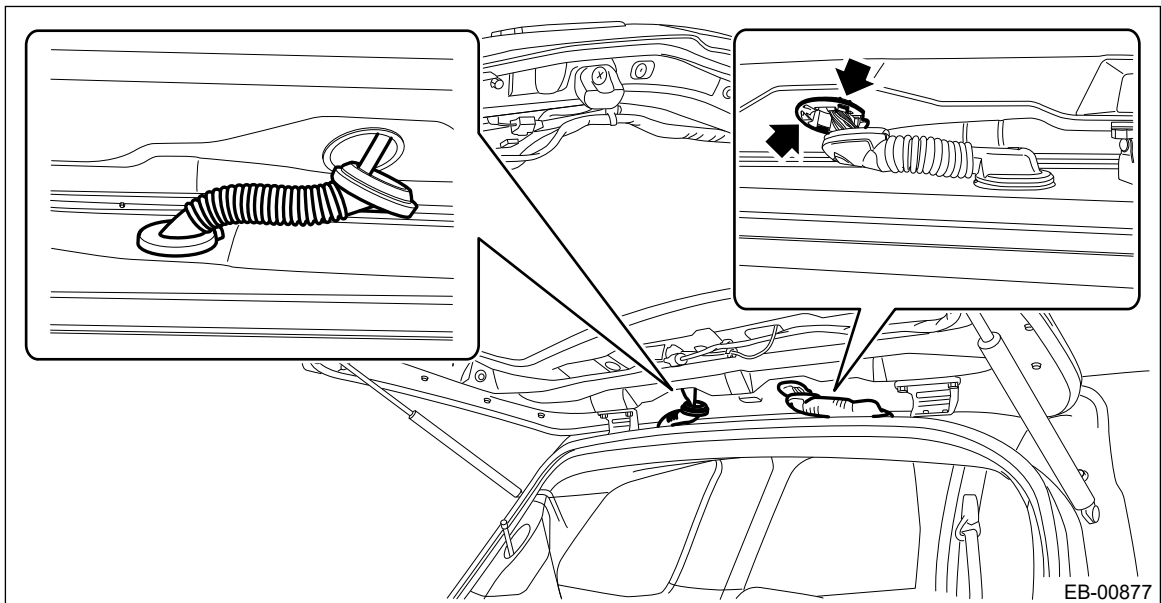
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

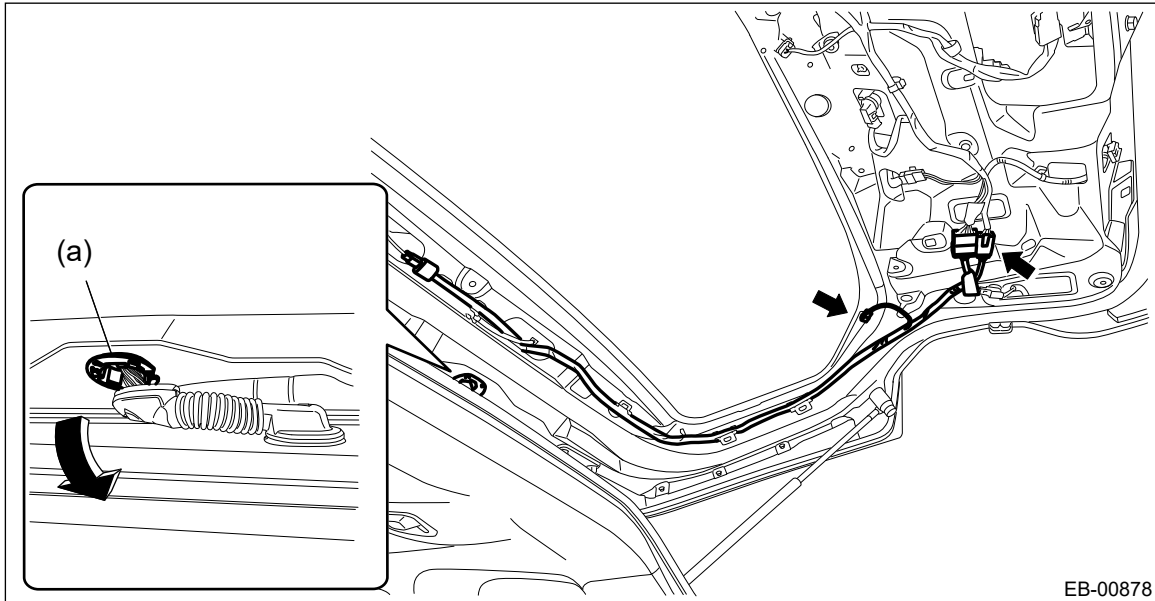
2. Remove the trim panel - rear gate and the garnish assembly - rear gate.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Garnish>REMOVAL.](#)
3. For the model with power rear gate, remove the following parts.
 - Power rear gate auto closer:  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Auto Closer>REMOVAL.](#)
 - Power rear gate touch sensor:  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Touch Sensor>REMOVAL.](#)
 - Power rear gate buzzer:  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Buzzer>REMOVAL.](#)
4. Remove the arm assembly - rear wiper and the motor assembly - rear wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Rear Wiper Motor>REMOVAL.](#)
5. Remove the light assembly - high-mounted and the nozzle - rear washer.  [Ref. to WIPER AND WASHER SYSTEMS>Rear Washer>REMOVAL.](#)
6. Remove the rear gate latch and actuator - rear gate.  [Ref. to SECURITY AND LOCKS>Rear Gate Latch and Actuator Assembly>REMOVAL.](#)
7. Remove the nozzle - rear washer.  [Ref. to WIPER AND WASHER SYSTEMS>Rear Washer>REMOVAL.](#)
8. Disconnect the hose assembly - rear washer.
 - (1) Disconnect the joint portion of the hose assembly - rear washer.
 - (2) Remove the clip.



- 9.** Remove the rubber duct on the side of the panel - rear gate.
- (1) Pull out the claw while pushing it using a flat tip screwdriver or similar tools.
 - (2) Remove the connection of the rubber duct on the side of the panel - rear gate.



- 10.** Disconnect the connector, and then pull out the harness from the panel - rear gate shown in the figure (a).

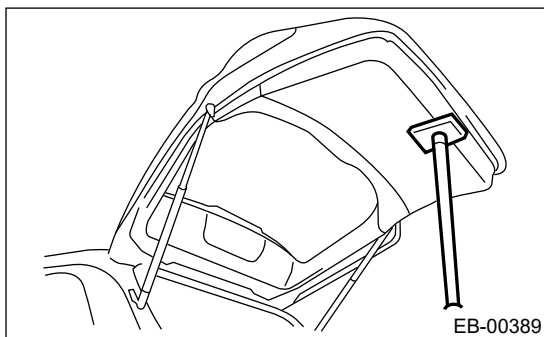


EB-00878

- 11.** Remove harness clip of each harness from the panel - rear gate.
- 12.** Before removing the stay assembly - rear gate, prevent the panel - rear gate from closing by using a prop or the like.

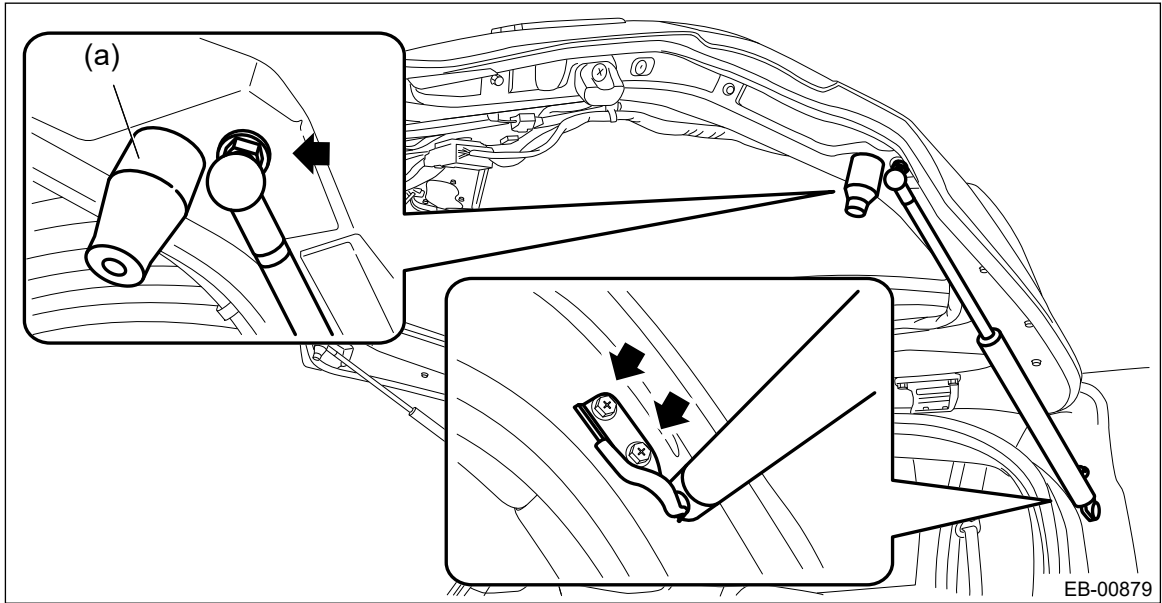
Caution:

If the prop comes off, operators may get injured and vehicle may get damaged. Make sure to support the panel - rear gate with secure material to prevent injury or damage.



EB-00389

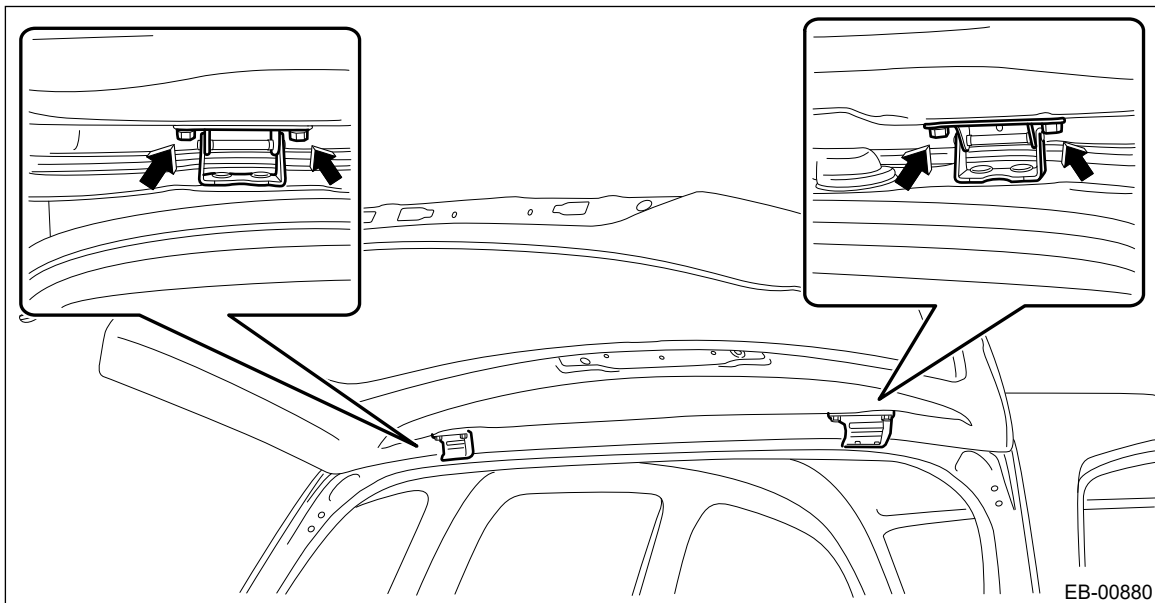
- 13.** Remove the stay assembly - rear gate.
 - (1) Remove the stopper - rear gate (a), and remove the mounting bolts of stay assembly - rear gate.
 - (2) Remove the mounting bolts on the body side.



14. Remove the bolts of the hinge - rear gate, and remove the panel - rear gate.

Caution:

The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.



15. Remove the hinge - rear gate from the vehicle.

2. REAR GATE DAMPER STAY

Caution:

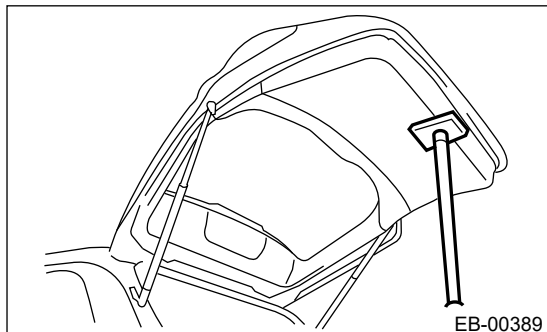
- **Do not damage piston rods and oil seals.**
- **Never disassemble cylinders: They contain gas.**
- **The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.**

1. Before removing the stay assembly - rear gate, prevent the panel - rear gate from closing by

using a prop or the like.

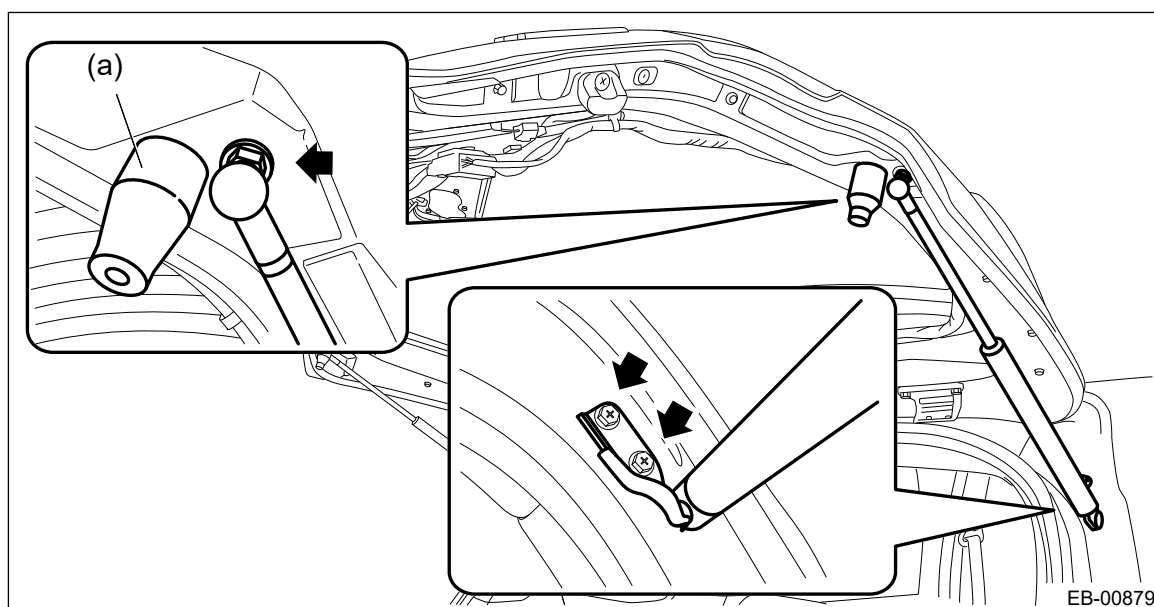
Caution:

If the prop comes off, operators may get injured and vehicle may get damaged. Make sure to support the panel - rear gate with secure material to prevent injury or damage.



2. Remove the stay assembly - rear gate.

- (1) Remove the stopper - rear gate (a), and remove the mounting bolts of stay assembly - rear gate.
- (2) Remove the mounting bolts on the body side.



EXTERIOR BODY PANELS > Rear Sealing Cover

INSPECTION

If the sealing cover - rear door is broken, replace it with a new part.

EXTERIOR BODY PANELS > Rear Sealing Cover

INSTALLATION

Caution:

- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Apply a butyl tape evenly.**
- **Attach the sealing cover - rear door, keeping it from becoming wrinkled.**
- **If the butyl tape is applied unevenly, it will cause water leakage and soiling.**

1. When replacing the sealing cover - rear door, use the butyl tape.
2. Press the butyl tape-applied area firmly to prevent any floating on surface.

Butyl tape:

3M 8626 or equivalent

3. Install each part in the reverse order of removal.

Note:

- **Remote cable is free from deformation such as fray.**
- **Grease is applied sufficiently to remote cable joints.**
If grease is insufficient, add it as necessary before assembling the remote cable.

4. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)


EXTERIOR BODY PANELS > Rear Sealing Cover

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

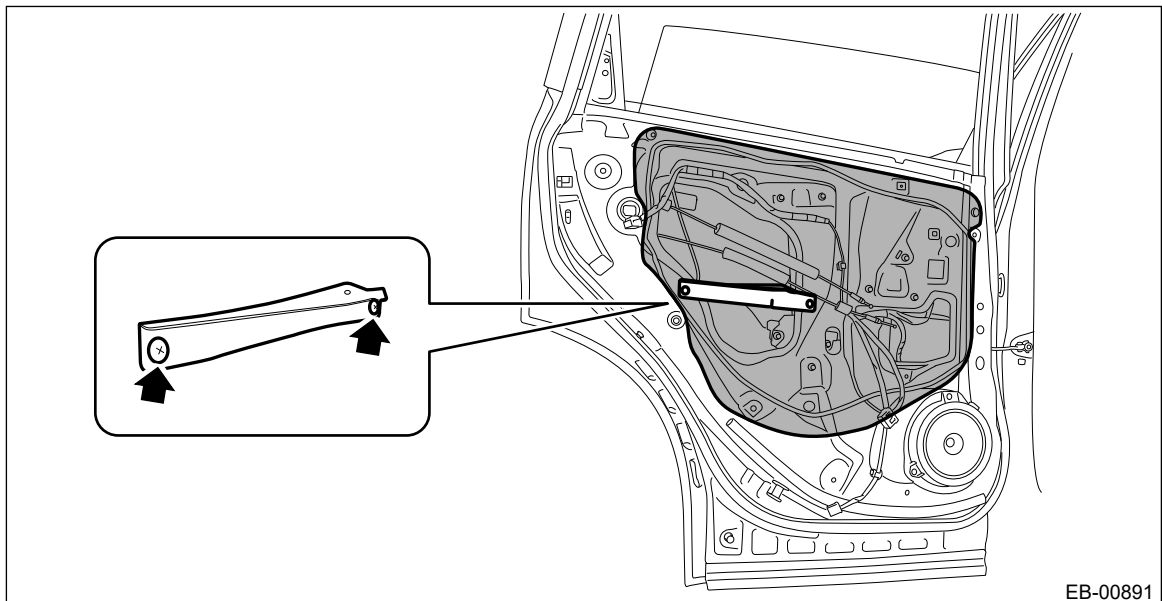
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the sealing cover - rear door.

Caution:

- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

- (1) Remove the screw to remove the bracket - door trim rear.
- (2) Carefully remove the butyl tape to remove the sealing cover - rear door.



EB-00891

EXTERIOR BODY PANELS > Weather Strip

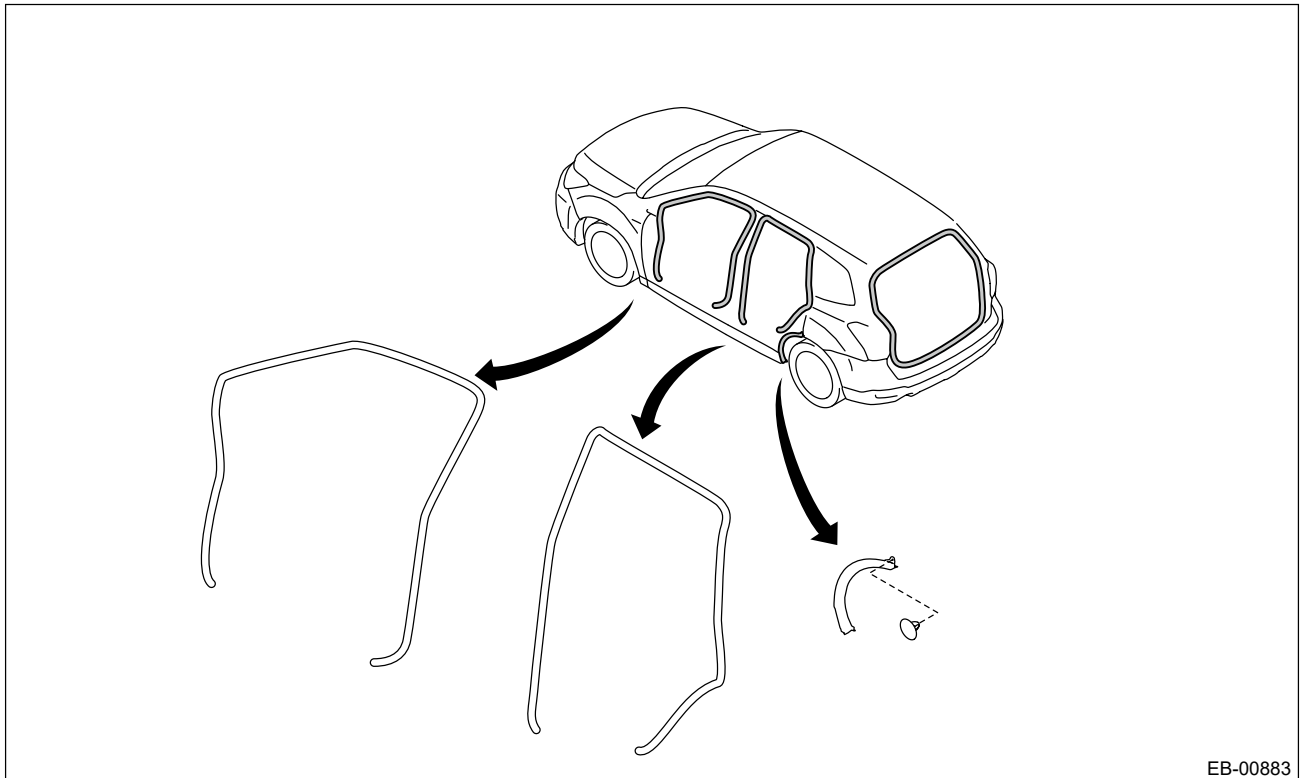
REPLACEMENT

1. FLANGE

1. Remove the weather strip - body side flange while pulling the rubber. Be careful not to tear the rubber.

Note:

While removing, be careful not to damage the clips attached to the weather strip - body arch.

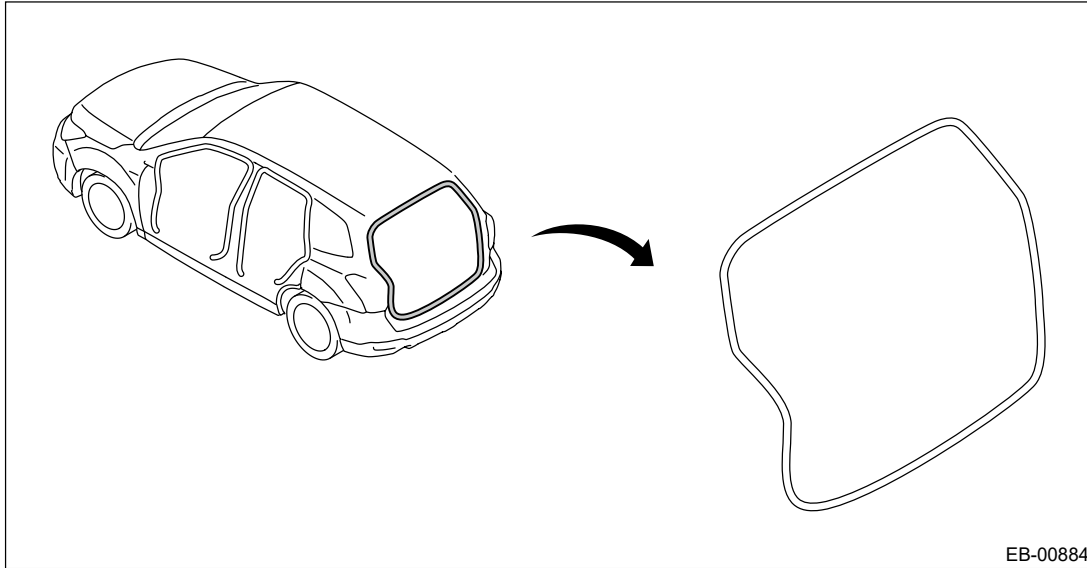


EB-00883

2. Replace the weather strip - rear gate while pulling the rubber. Be careful not to tear the rubber.

Note:

While removing the weather strip - rear gate, be careful not to allow adhesive to contact the trim panel - roof assembly and trim panel - trunk side.

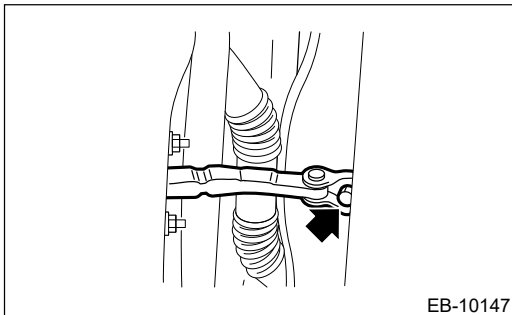


2. FRONT DOOR

1. Remove the bolt from the checker assembly - front door.

Caution:

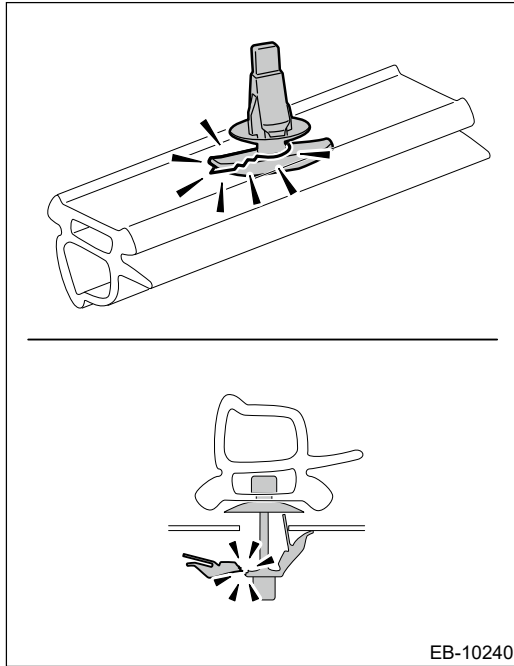
Cover the removed checker assembly - front door with waste cloth to prevent damage.



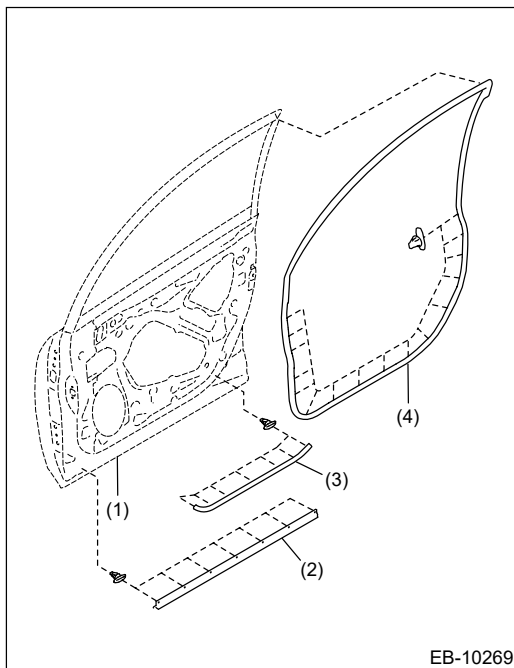
2. Remove the weather strip after removing the clip. Be careful not to tear the rubber.

Caution:

- **The weather strip may tear if being pulled. Also, the weather strip clip may be damaged if being removed with excessive force.**



- **When fragments of the damaged clip fall in the door panel, be sure to remove them.**



- (1) Panel ASSY - front door
- (2) Weather strip side sill - front door
- (3) Weather strip - front door LWR
- (4) Weather strip - front door

3. Install each weather strip.

Caution:


- **Replace the damaged weather strip clip with a new part.**
- **When fragments of the clip fall in the door panel, be sure to remove them.**

4. Install the checker assembly - front door.

Tightening torque:

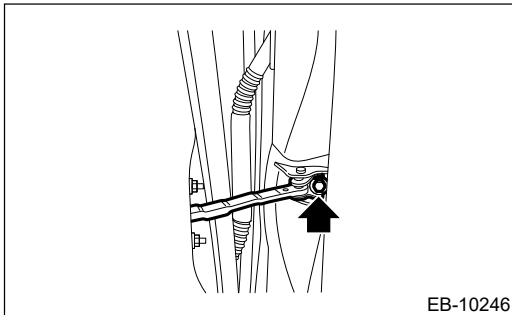
33 N·m (3.4 kgf-m, 24.3 ft-lb)

3. REAR DOOR

1. Remove the rear door trim.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
2. Remove the bolt from the checker assembly - rear door.

Caution:

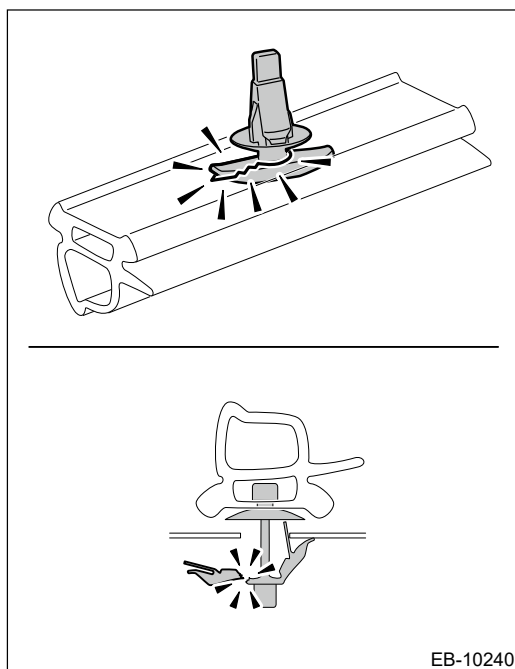
Cover the removed checker assembly - rear door with waste cloth to prevent damage.



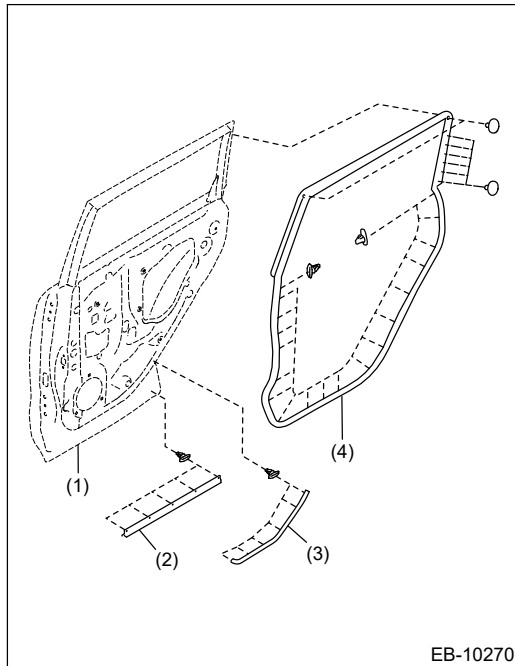
3. Remove the weather strip after removing the clip. Be careful not to tear the rubber.

Caution:

- **The weather strip may tear if being pulled. Also, the weather strip clip may be damaged if being removed with excessive force.**



- **When fragments of the damaged clip fall in the door panel, be sure to remove them.**



EB-10270

- (1) Panel ASSY - rear door
- (2) Weather strip side sill - rear
- (3) Weather strip - rear door LWR
- (4) Weather strip - rear door

4. Install each weather strip.

Caution:

- **Replace the damaged weather strip clip with a new part.**
- **When fragments of the clip fall in the door panel, be sure to remove them.**

5. Install the checker assembly - rear door.

Tightening torque:

33 N·m (3.4 kgf-m, 24.3 ft-lb)

6. Install the rear door trim.  Ref. to [EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION](#).

Note:

When the clearance between the door trim upper rear end and the weather strip is not uniform, perform installation of the weather strip again.

EXTERIOR/INTERIOR TRIM > Assist Grip

INSTALLATION

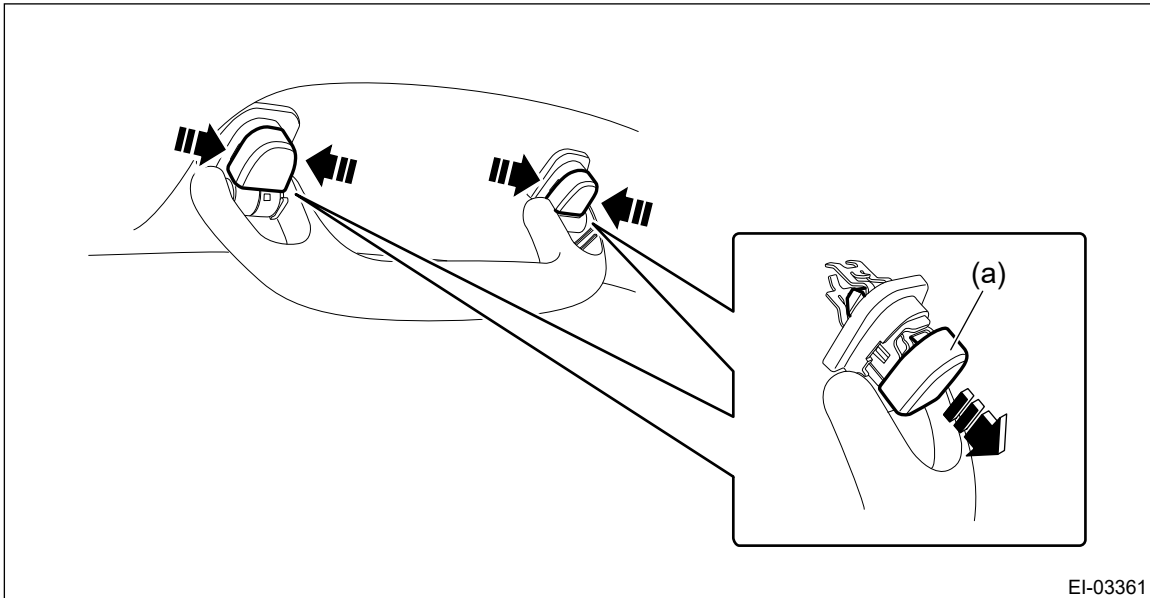
Install each part in the reverse order of removal.

EXTERIOR/INTERIOR TRIM > Assist Grip

REMOVAL

Remove the assist rail.

- 1.** Remove the cap (a) by pulling the both sides of the cap (a) using a flat tip screwdriver wrapped with a protection tape.
- 2.** Pull the assist grip toward you (to the vehicle center) and remove the metal clip from the bracket.




EI-03361

EXTERIOR/INTERIOR TRIM > Center Console

INSTALLATION

Caution:

After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)



EXTERIOR/INTERIOR TRIM > Center Console

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL.](#)
3. Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT>Audio>REMOVAL.](#)

EXTERIOR/INTERIOR TRIM > Console Box


INSTALLATION

Install each part in the reverse order of removal.

1. Install each part in the reverse order of removal.

Tightening torque:

6.5 N•m (0.66 kgf-m, 4.8 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

After connecting the battery sensor terminal, place the select lever in the "P" position.

EXTERIOR/INTERIOR TRIM > Console Box

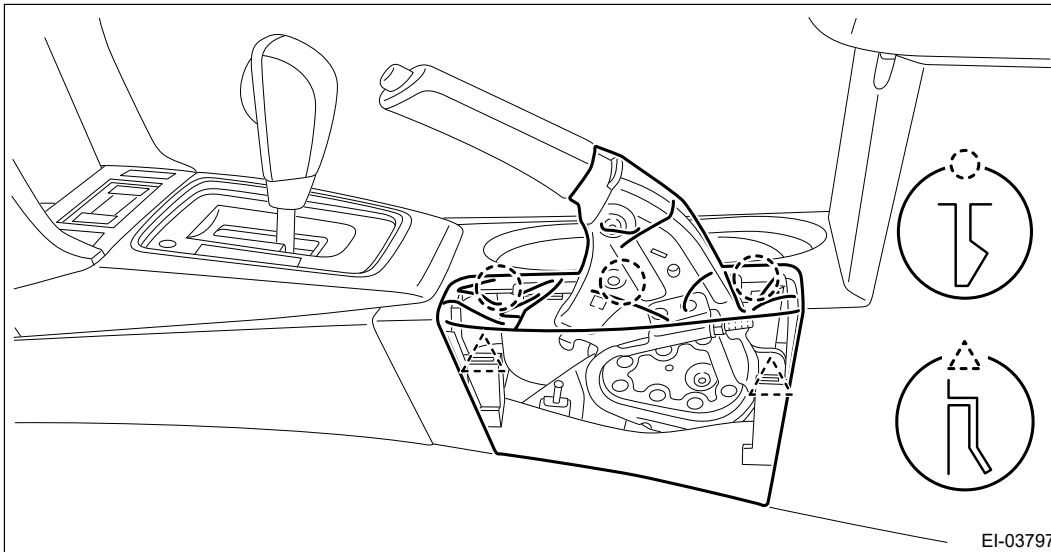
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

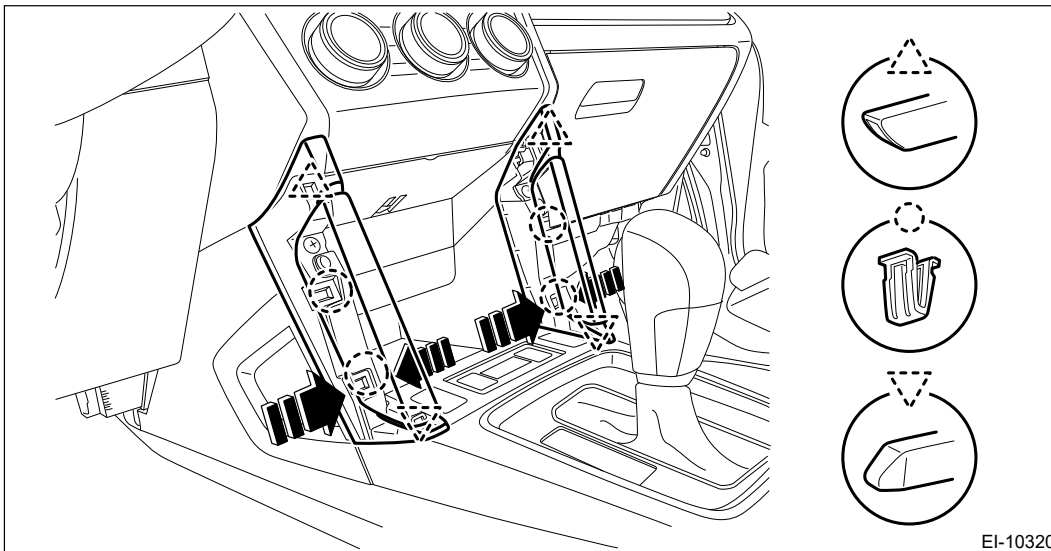
Note:

- For model with battery sensor, disconnect the ground terminal from battery sensor.
- On CVT models, shift the select lever into "N" before disconnecting the battery ground cable.
- For the power seat, move the seat to the front-most position before removing the battery ground terminal.

2. Release the claws, and then remove the boot - hand brake.



3. Release the clips, and remove the ornament panel - console.

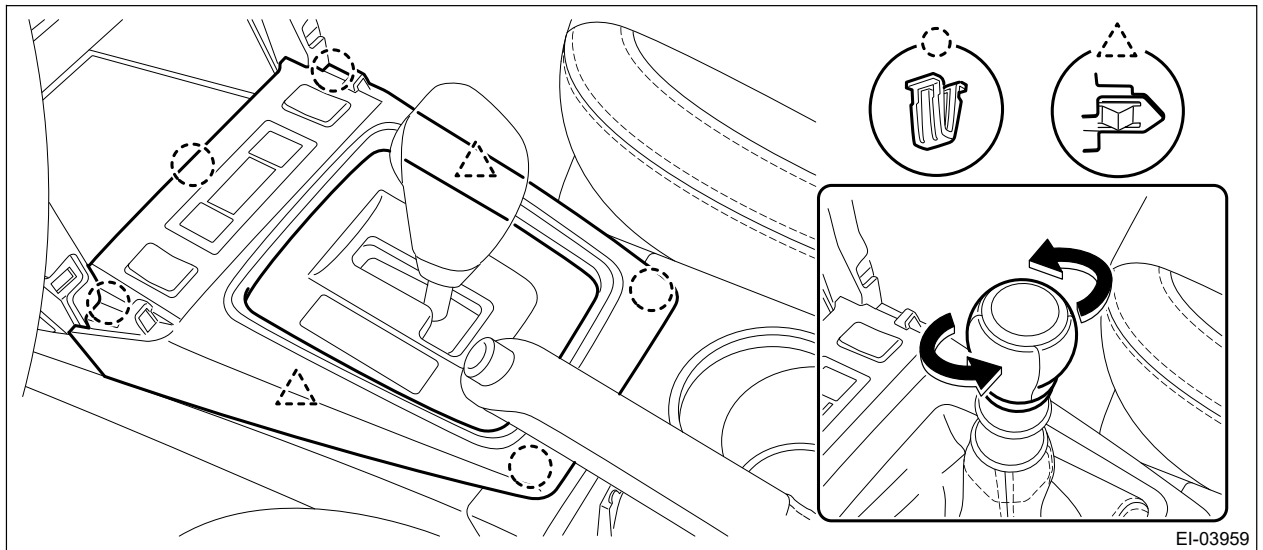


Note:

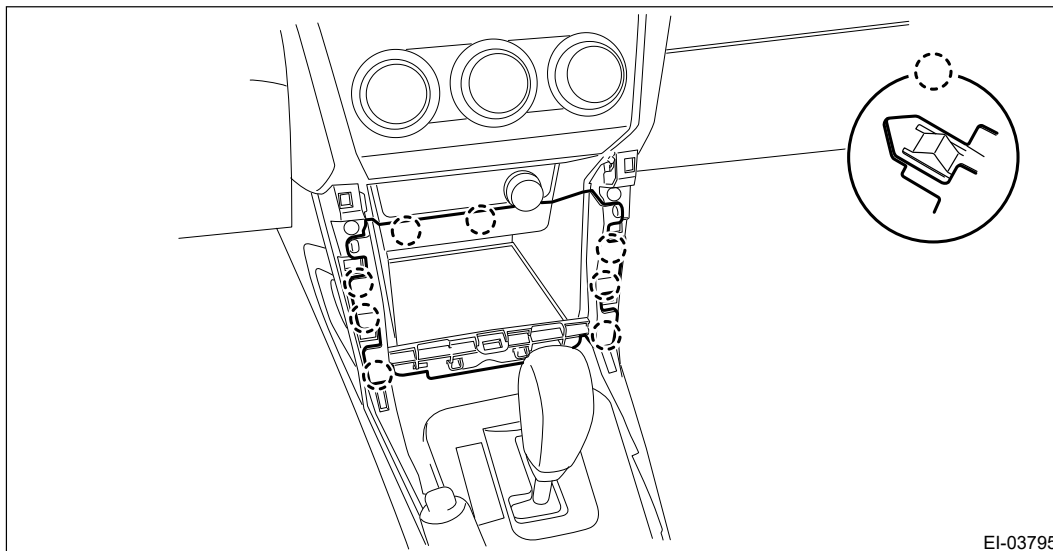
Removal is easier if you grab the arrow sections from right and left and pull them at the same time.

4. Remove the cover - shift lever.
 - (1) Remove the shift knob. (MT model)

(2) Release the clips and claws, then pull up the cover - shift lever.

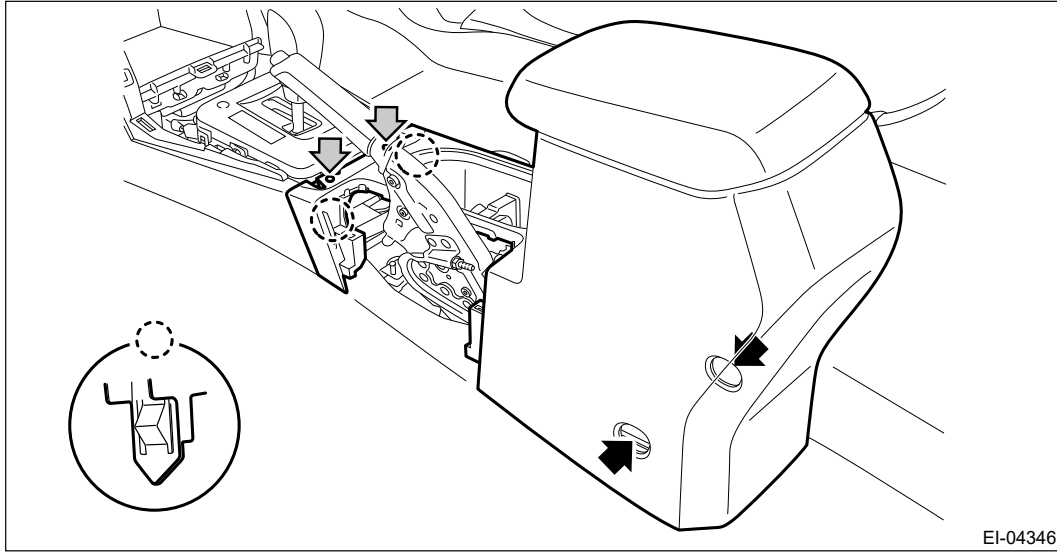


5. Release the claws, and remove the tray assembly - CTR LWR.



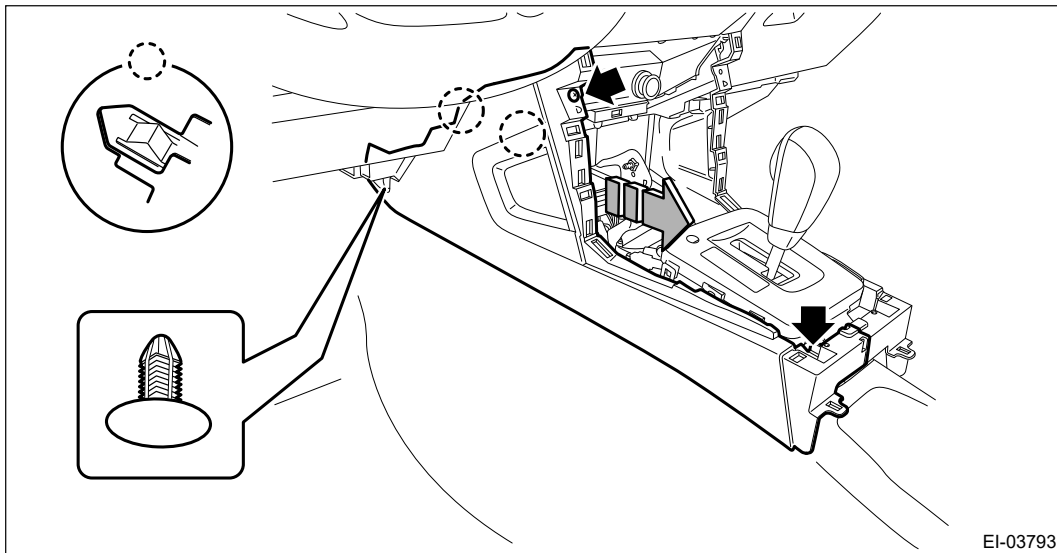
6. Remove the console box assembly.

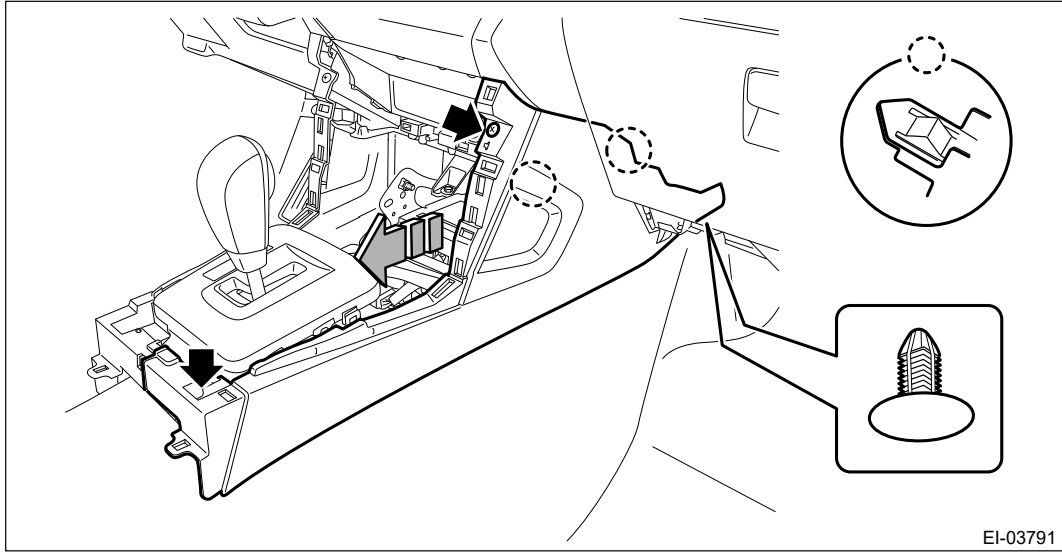
- (1) Move the seat forward, and remove the bolts after detaching the left and right caps.
- (2) Remove the screws and release the claws, then disconnect the harness connector and remove the console box assembly.



7. Remove the left and right panel center LWR.

- (1) Remove the screws and clips.
- (2) Release the claws, and then pull the panel center LWR to remove.





EI-03791

EXTERIOR/INTERIOR TRIM > Cowl Panel

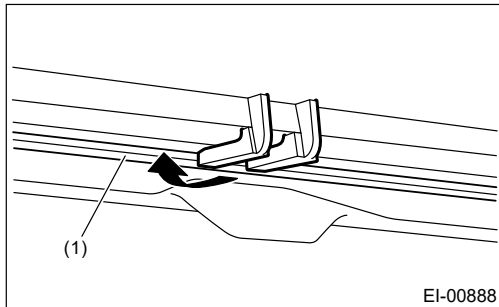
INSTALLATION

1. Install the cowl panel assembly.

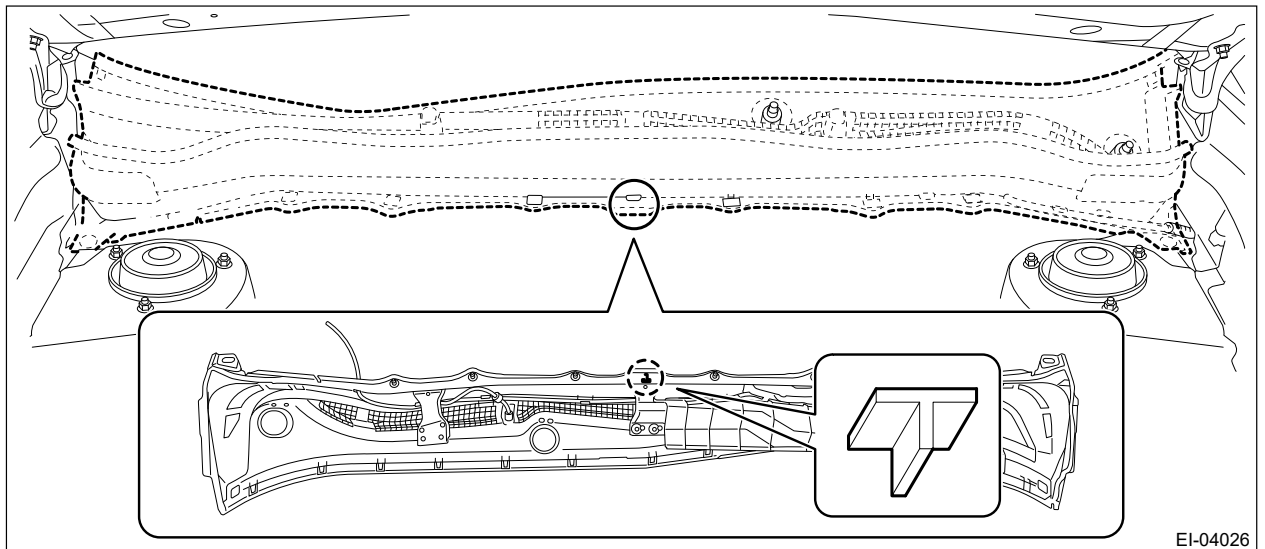
Caution:

- If the cowl panel assembly cannot be installed properly, do not hit or set it forcibly. The claws of the cowl panel or the windshield glass may be damaged.
- Before installing the windshield glass and cowl panel, make sure there are no gravel in the installing area.



- (1) Hook the claw of the cowl panel on the lower end (1) of the windshield glass.



- (2) Align the center protrusion of the cowl panel assembly to the cutout portion of the vehicle side, then install the cowl panel assembly.




- (3) Attach the clip and connect the washer hose.

2. Install the cowl panel - side.
3. Install the arm assembly - windshield wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>INSTALLATION.](#)
4. If the washer nozzles have been removed from the cowl panel assembly, adjust the washer spray positions.  [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose>ADJUSTMENT.](#)

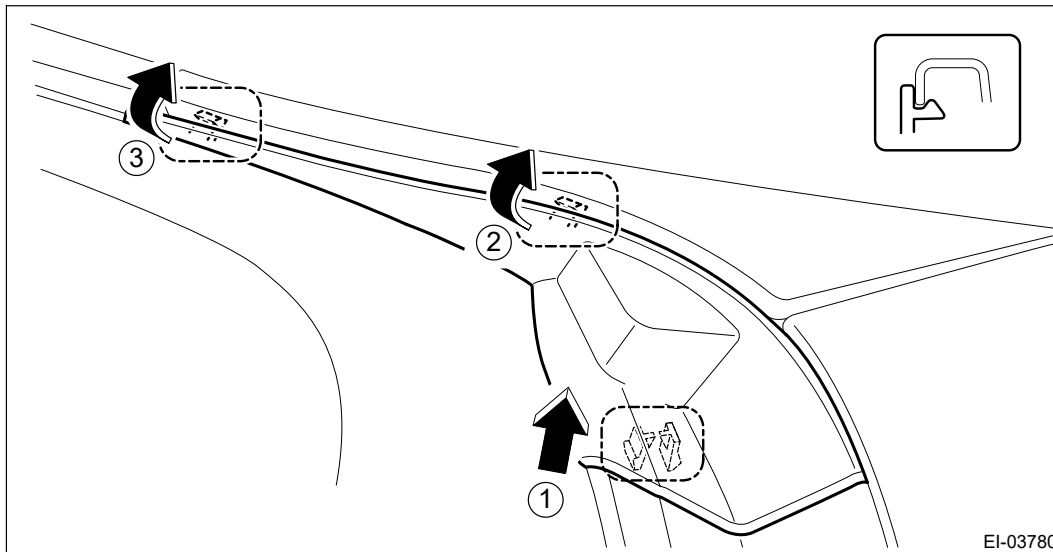
EXTERIOR/INTERIOR TRIM > Cowl Panel

REMOVAL

1. Open the front hood.
2. Remove the arm assembly - windshield wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
3. Release the claws from (1) to (3) in sequence, and then remove the cowl panel - side.

Caution:

Pulling with excessive force may damage the cowl panel - side. If it is difficult to remove, use a plastic remover or equivalent tool.



4. Remove the cowl panel assembly.

Caution:

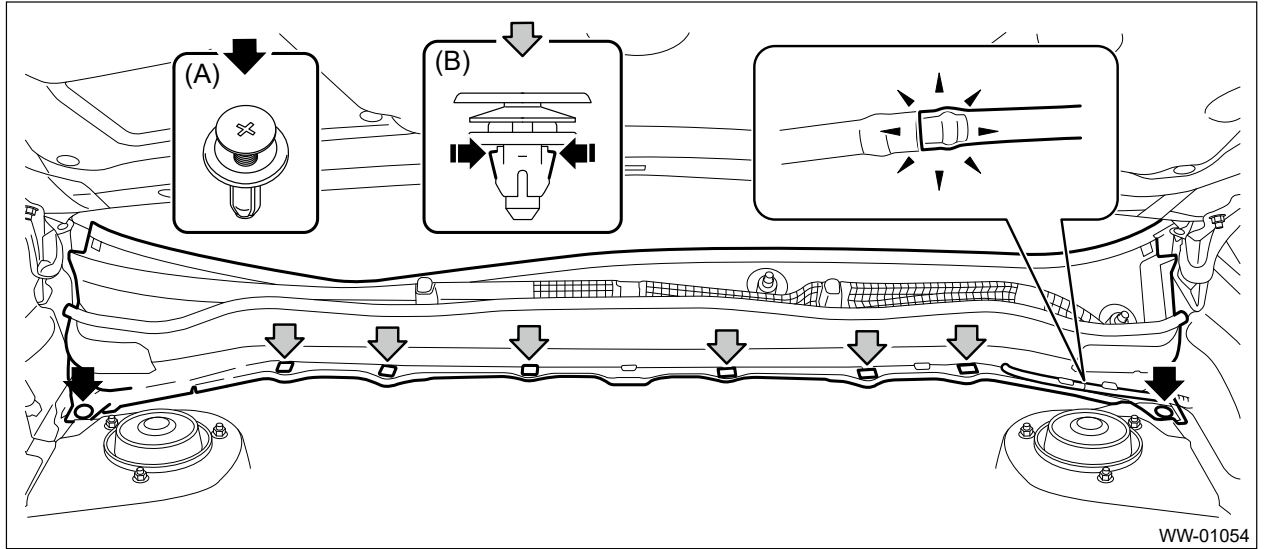
Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.


- (1) Disconnect the washer hose.
- (2) Remove clips (A).
- (3) Check the direction of the clip (B), and push the claws from both sides to remove it.

Caution:

When removing the clip (B), push the claw of the clip from both sides. Be careful not to apply excessive force when pulling the clip (B), as the clip may become damaged.

- (4) Remove the cowl panel assembly by pulling it out towards the front of the vehicle.



5. Remove the washer nozzle and washer hose as required.  [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose>REMOVAL.](#)

EXTERIOR/INTERIOR TRIM > Door Trim

ASSEMBLY

1. Bend the claws while pushing the weather strip - door INN against the door trim.

Caution:

Beware of the direction of folding the claws.

2. Install the rivet, and attach unwoven cloth to the rivet crimped section.

Caution:

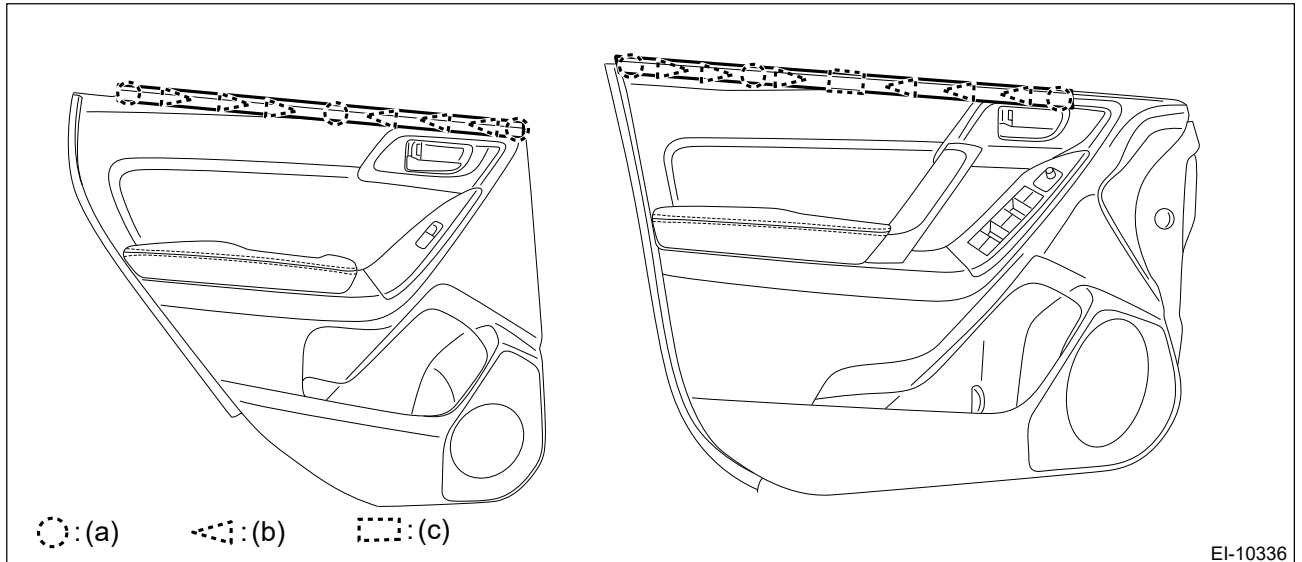
- **Set the height of rivet crimped section as 3 mm (0.12 in). If the crimp is not sufficient, press them with pliers, etc. in order not to interfere the door trim.**
- **Apply unwoven cloth tape so that the rivet crimped section is covered. If unwoven cloth tape is not applied, a knocking noise may occur when the door panel contacts the rivet crimped section.**

Preparation tool and item:

Hand riveter (corresponding to $\varnothing 3.2$ mm (0.13 in))

Rivet

Tape: 94029FG000/TAPE or unwoven cloth



(a) Rivet

(b) Direction of folding claws

(c) Claw bending direction: bend forward for LH side, backward for RH side.

EI-10336

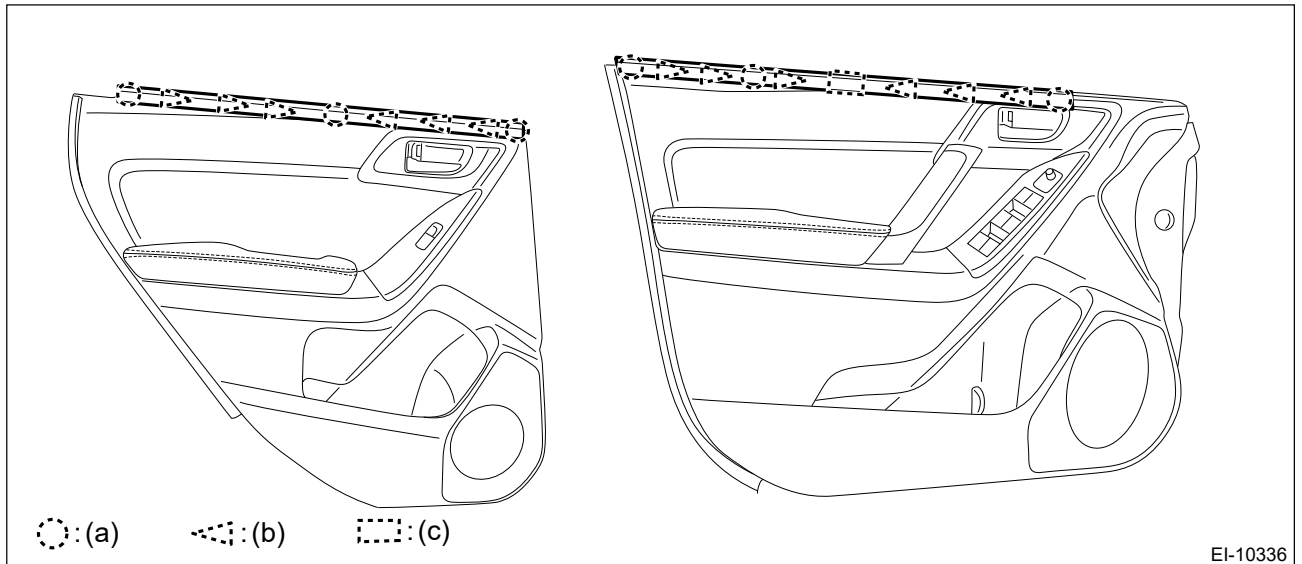
3. After installing the weather strip - door INN, perform the following checks.

- Make sure there are no gaps between the weather strip - door INN and the door trim.
- Make sure there are no looseness when pulling the weather strip - door INN lightly.

EXTERIOR/INTERIOR TRIM > Door Trim

DISASSEMBLY

1. Remove the door trim.
2. Remove the rivets and claws, and remove the weather strip - door INN from the door trim.



EI-10336

(a) Rivet

(b) Claw

(c) Claw

Note:

Remove the rivets with a rivet cutter or nipper, etc.

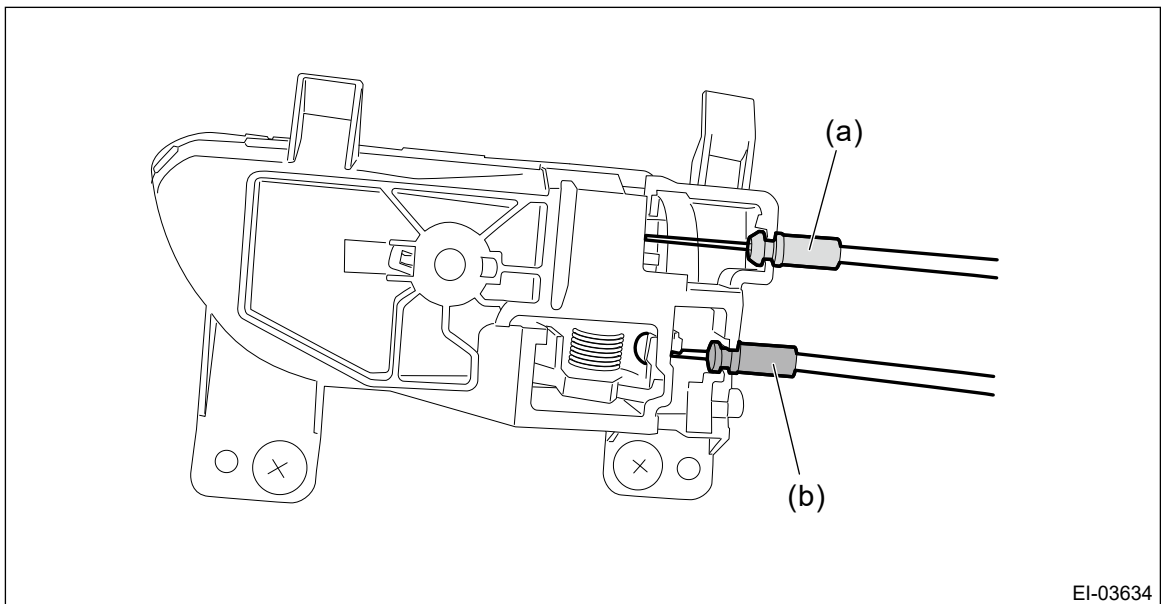
EXTERIOR/INTERIOR TRIM > Door Trim

INSTALLATION


1. Before installation, check the following items.
 - Cable is free from deformation such as fray.
 - Grease is applied sufficiently to cable joints.
 - If grease is insufficient, add it as necessary before assembling the cable.
2. Install each part in the reverse order of removal.

Note:

Attach the door lock cable (a - end ball: small) to the upper side, and attach the door open cable (b - end ball: large) to the lower side.




EI-03634

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Door Trim

REMOVAL

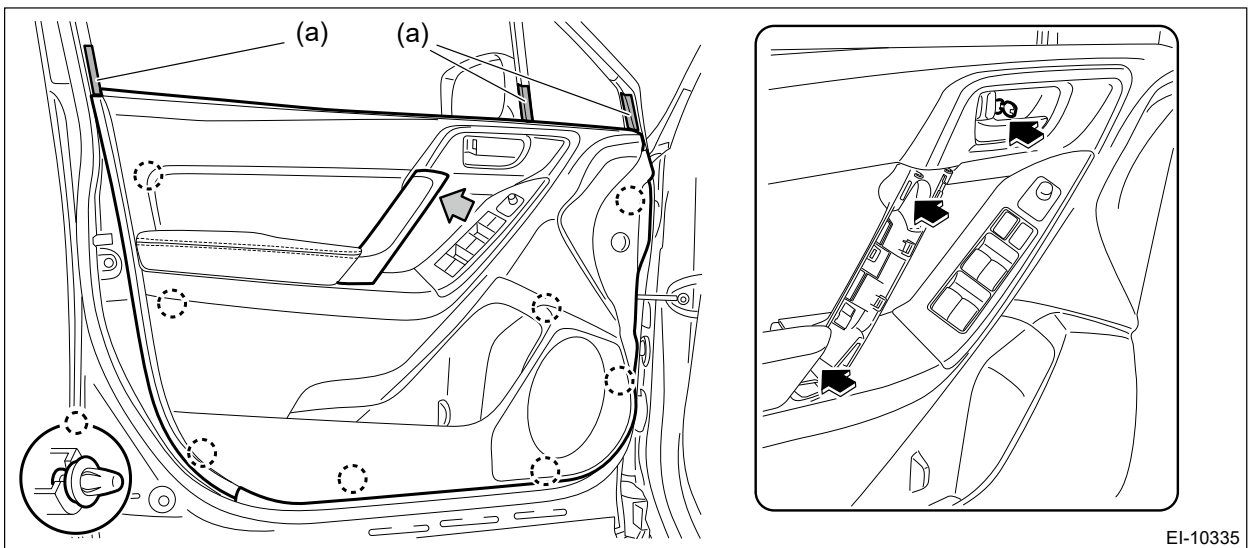
1. FRONT DOOR

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front door.
 - (1) Attach the protective tape (a).
 - (2) Remove the cover - door handle by using a plastic remover.
 - (3) Remove the screws and clips, and remove the trim panel - front door from the panel assembly - front door.

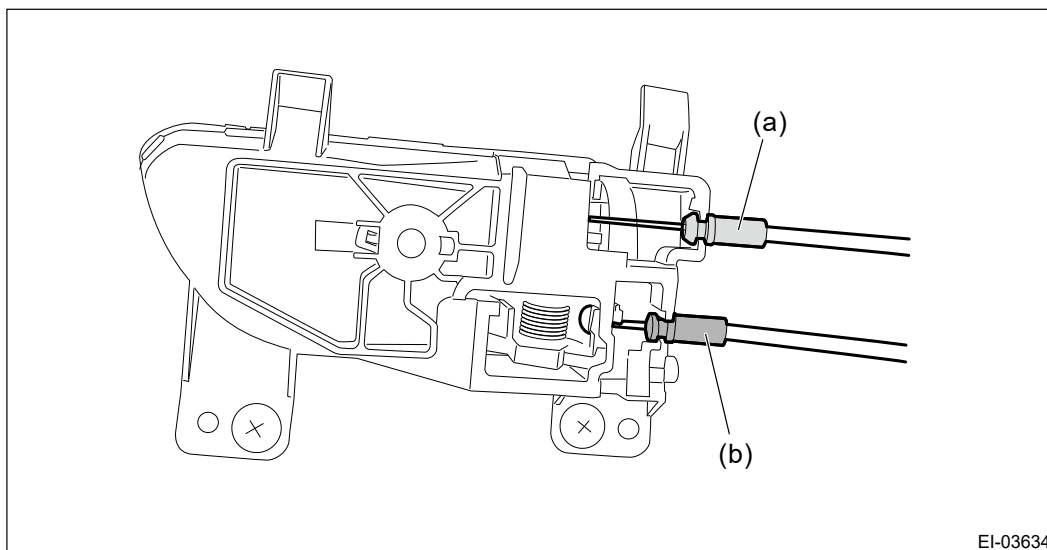


EI-10335

Note:

It is easier to remove the cover - door handle if the removal is performed from the gray arrow section.

- (4) Detach the door lock cable (a) and door open cable (b) from the remote assembly - door.






EI-03634

(5) Disconnect the harness connector and remove the trim panel - front door.

Caution:

Pulling the door trim excessively may damage the harness.

3. Remove each part as required.

- Remote assembly - door:  [Ref. to SECURITY AND LOCKS>Front Inner Remote>REMOVAL.](#)
- Switch - power window main:  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > MAIN SWITCH.](#)
- Weather strip - door INN:  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>DISASSEMBLY.](#)

2. REAR DOOR

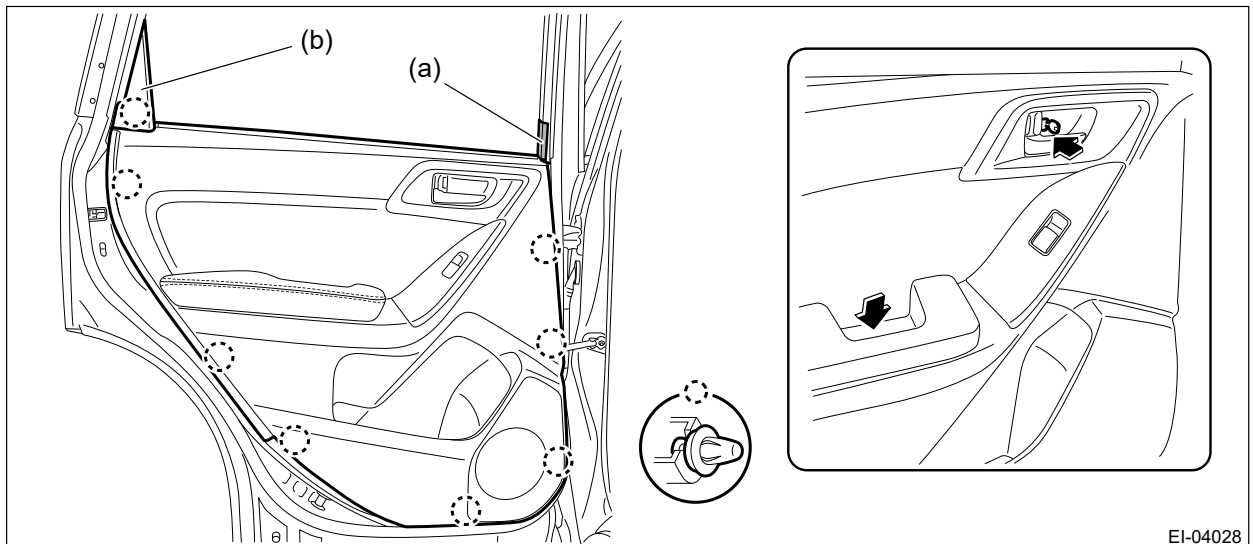
1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

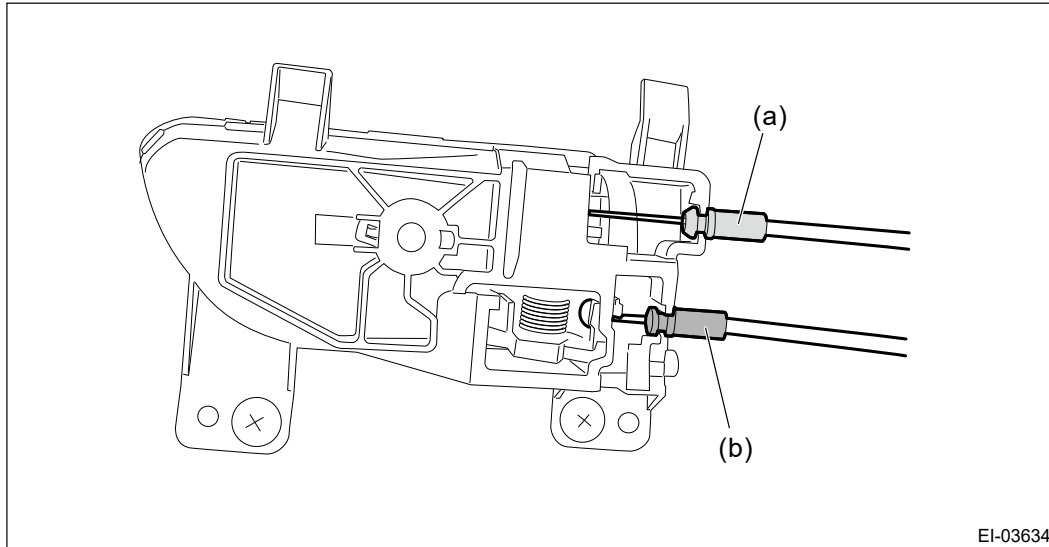
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear door.

- (1) Attach the protective tape (a) to the door sash.
- (2) Remove the clip, and remove the cover - gusset door (b).
- (3) Open the cover and remove the screw.
- (4) Remove the clips, and remove the trim panel - rear door from the panel assembly - rear door.



(5) Detach the door lock cable (a) and door open cable (b) from the remote assembly - door.






(6) Disconnect the harness connector and remove the trim panel - rear door.

Caution:

Pulling the door trim excessively may damage the harness.

3. Remove each part as required.

- Remote assembly - door:  [Ref. to SECURITY AND LOCKS>Rear Inner Remote>REMOVAL.](#)
- Switch - power window sub:  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > SUB-SWITCH.](#)
- Weather strip - door INN:  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>DISASSEMBLY.](#)

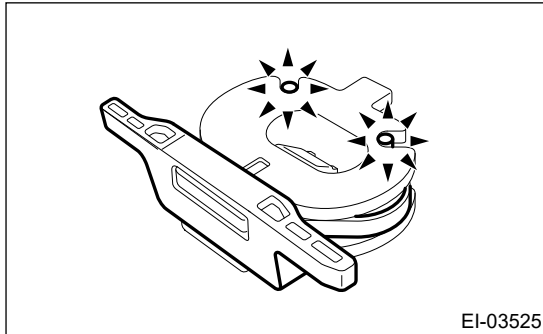
EXTERIOR/INTERIOR TRIM > Floor Mat

INSTALLATION

1. Install each part in the reverse order of removal.


Caution:

Make sure that the knobs of the hook - seat cushion rear are securely installed.



Note:

Secure the mat firmly with clips.

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

After connecting the battery sensor terminal, place the select lever in the "P" position.

EXTERIOR/INTERIOR TRIM > Floor Mat

REMOVAL

Caution:

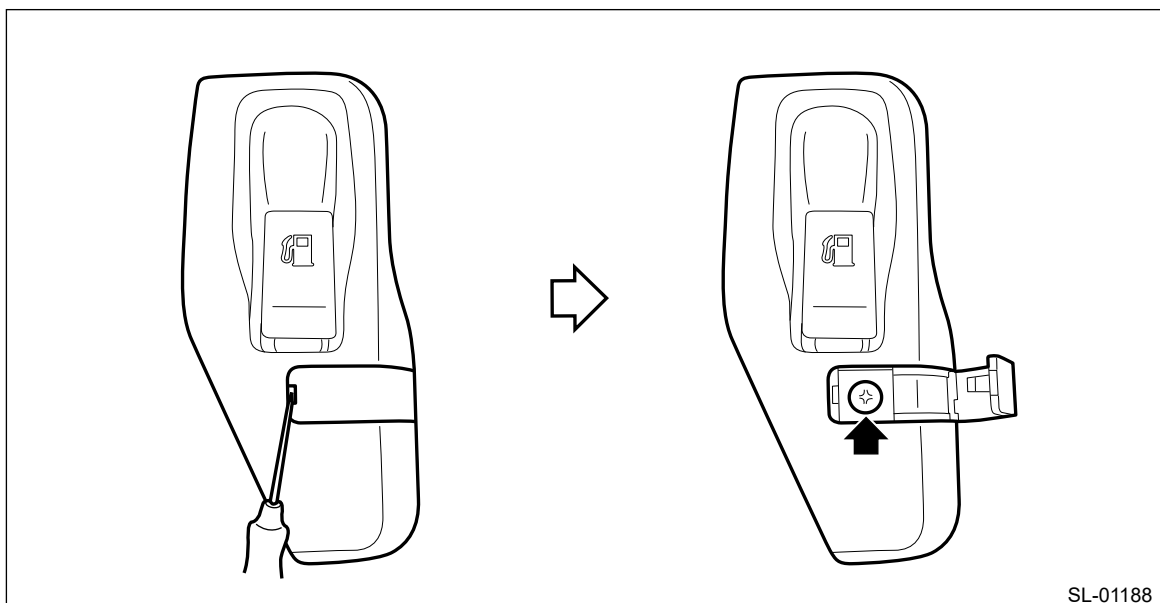
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [🔗 Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)

Note:

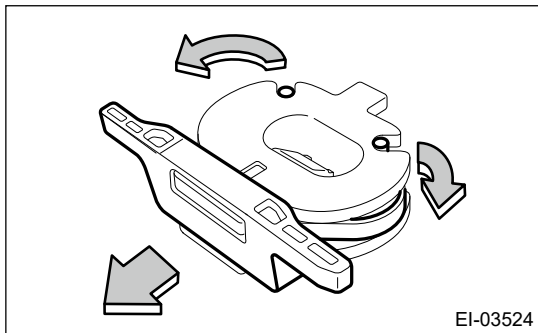
- For model with battery sensor, disconnect the ground terminal from battery sensor.
- On CVT models, shift the select lever into "N" before disconnecting the battery ground cable.
- For models with power seat, remove the front seat before removing the battery ground terminal.

2. Remove the front seat assembly. [🔗 Ref. to SEATS>Front Seat>REMOVAL.](#)
3. Remove the rear seat cushion assembly. [🔗 Ref. to SEATS>Rear Seat>REMOVAL.](#)
4. Remove the console box assembly and panel center LWR. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
5. Remove the lower inner trim. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
6. Remove the pull handle cover.
 - (1) Open the cover by using a flat tip screwdriver.
 - (2) Remove the screw and remove the pull handle cover.

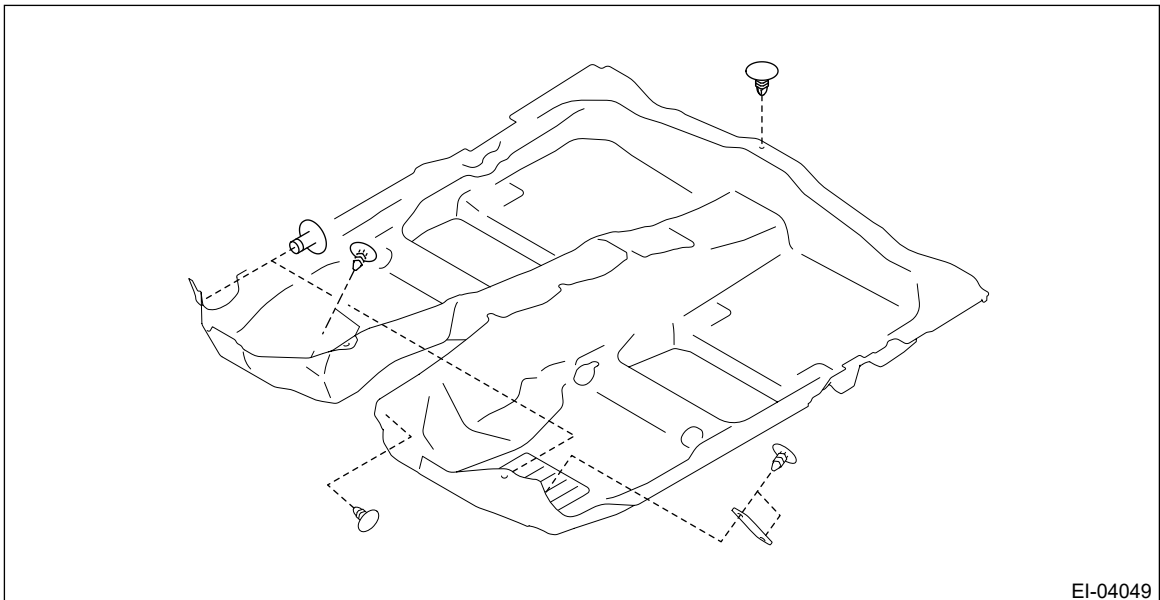


SL-01188

- 7.** Remove the knobs of the hook - seat cushion rear.



- 8.** Take out the floor mat from the vehicle.
(1) Remove the clips from the floor mat.
(2) Remove the mat hook on both sides.
(3) Take out the floor mat after folding down.



EXTERIOR/INTERIOR TRIM > Floor Under Protector

INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:

7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

EXTERIOR/INTERIOR TRIM > Floor Under Protector

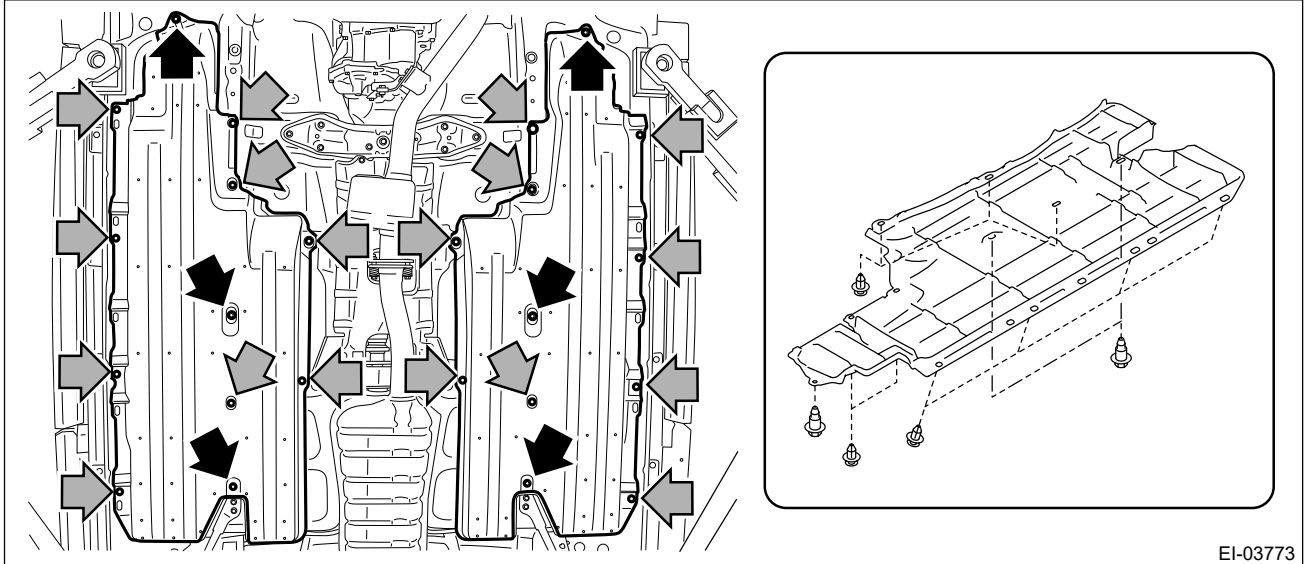
REMOVAL

1. Lift up the vehicle.

Note:

A plate type lift cannot be used.

2. Remove the bolts and clips, and remove the front under protector.



EI-03773

EXTERIOR/INTERIOR TRIM > Front Bumper

INSTALLATION

1. Install the duct bumper - front.

Preparation tool and item:

Hand riveter (corresponding to $\varnothing 4.3$ mm (0.17 in))

Rivet

2. Install the remaining parts in the reverse order of removal.


Tightening torque:

Fog light assembly - front: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)


Headlight assembly: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

3. Secure the flange section of the bumper face - front to the bracket - front bumper side.



Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to EXTERIOR/INTERIOR TRIM>General Description>COMPONENT > FRONT BUMPER.](#)

4. Install each part in the reverse order of removal.


5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

6. Adjust the headlight beam and fog light beam.

- Adjust the headlight beam.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT > HEADLIGHT BEAM ADJUSTMENT.](#)
- Adjust the fog light beam. (Model with fog light)  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)

EXTERIOR/INTERIOR TRIM > Front Bumper

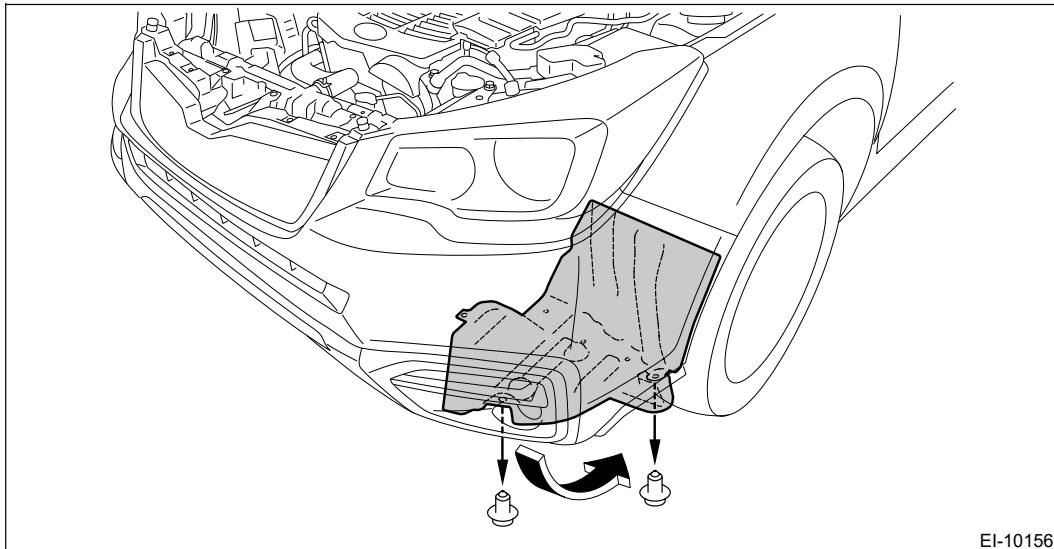
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

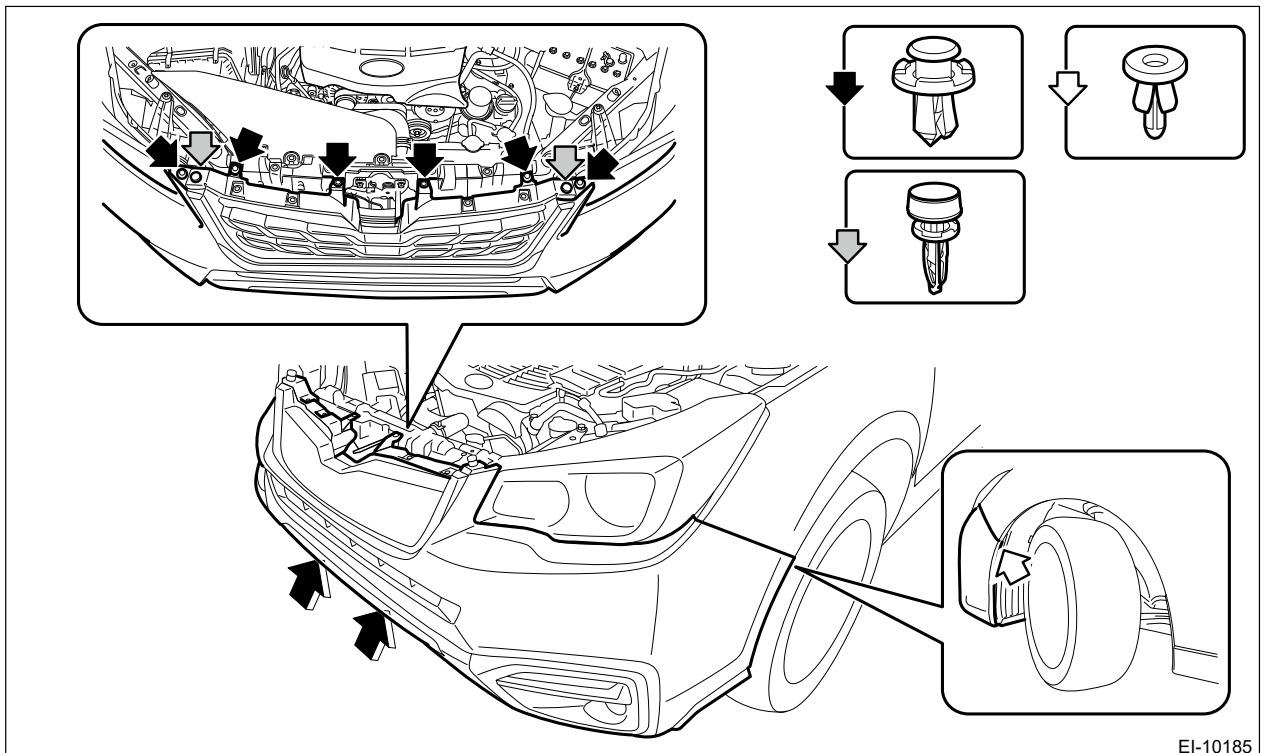
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the bumper face - front.
 - (1) Remove the clips, and turn over the mud guard - front.



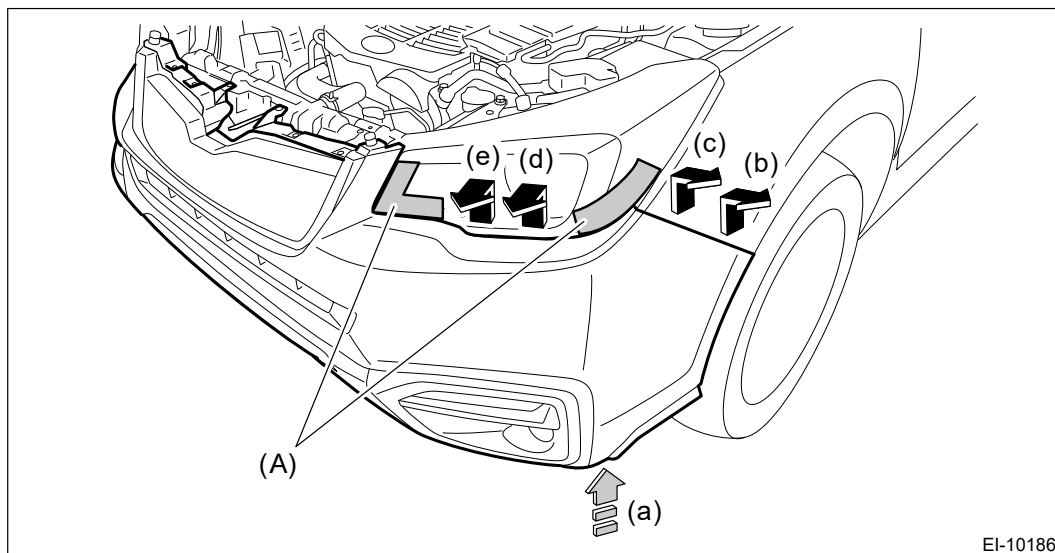
- (2) Disconnect the connectors of the left and right fog light assembly - front. (Model with fog light)
- (3) Remove the clips at the upper side of the bumper face - front.
- (4) Remove the clips from the fender.
- (5) Remove the clips at the lower side of the bumper face - front.



- (6) Apply protective tape (A) to the light assembly - head.
- (7) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove in the order from (b) to (e).

Caution:

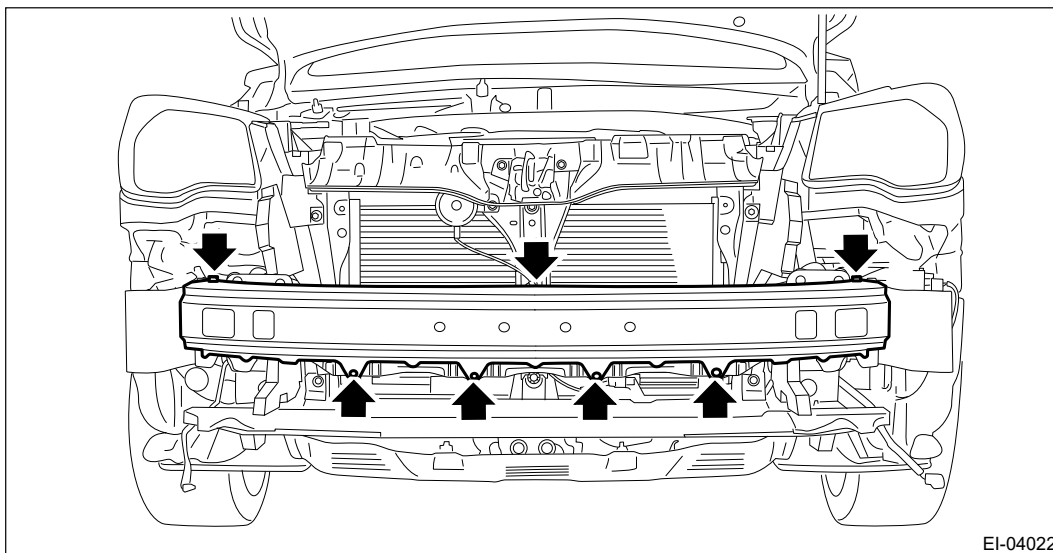
Do not pull forcibly. It may damage the flange sections of the bumper face - front.



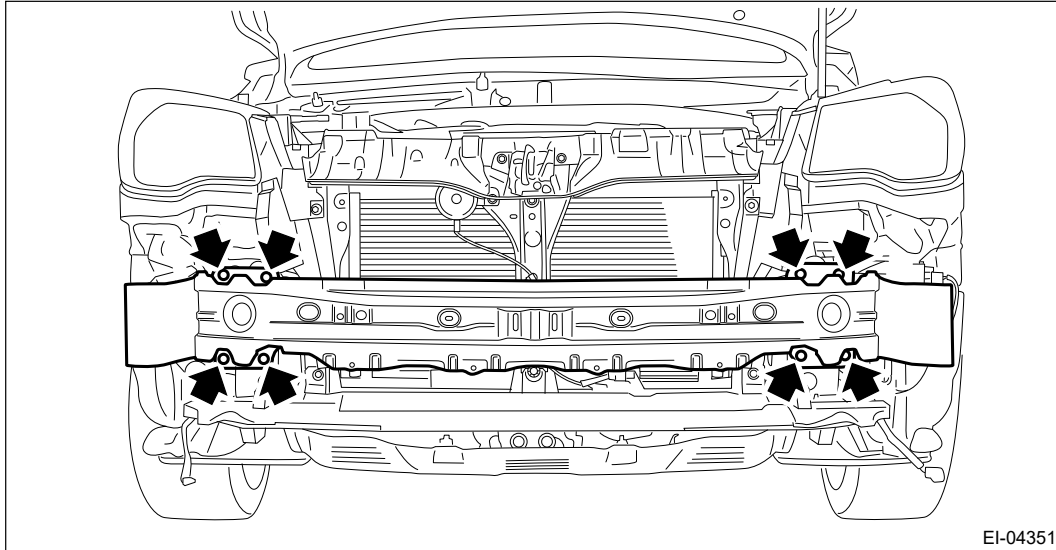
Note:

Detach the opposite side in the same manner.

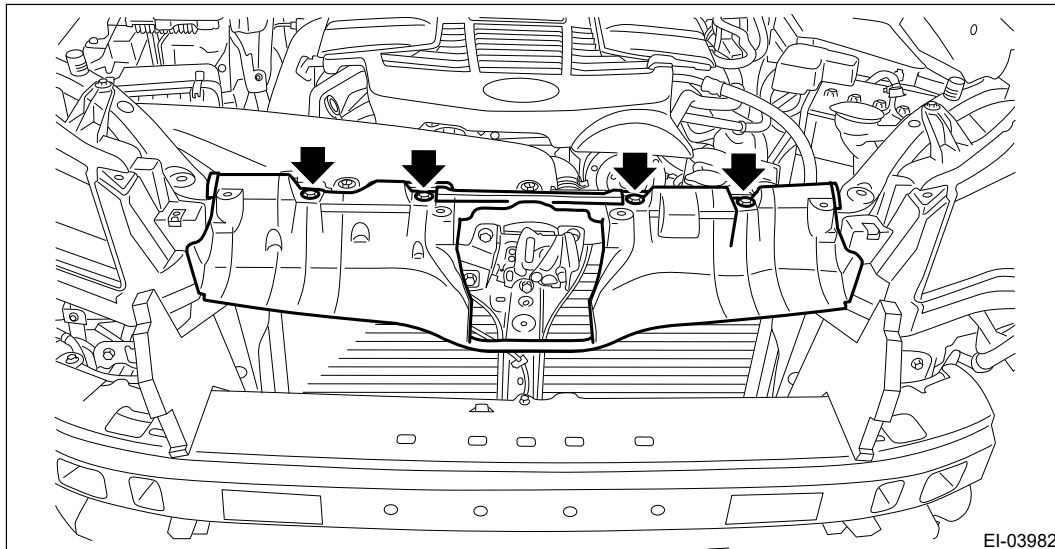
- 3.** Remove the bumper beam COMPL - front.
 - (1) Remove the energy absorber - front bumper.




- (2) Remove the bolts, and remove the bumper beam COMPL - front.



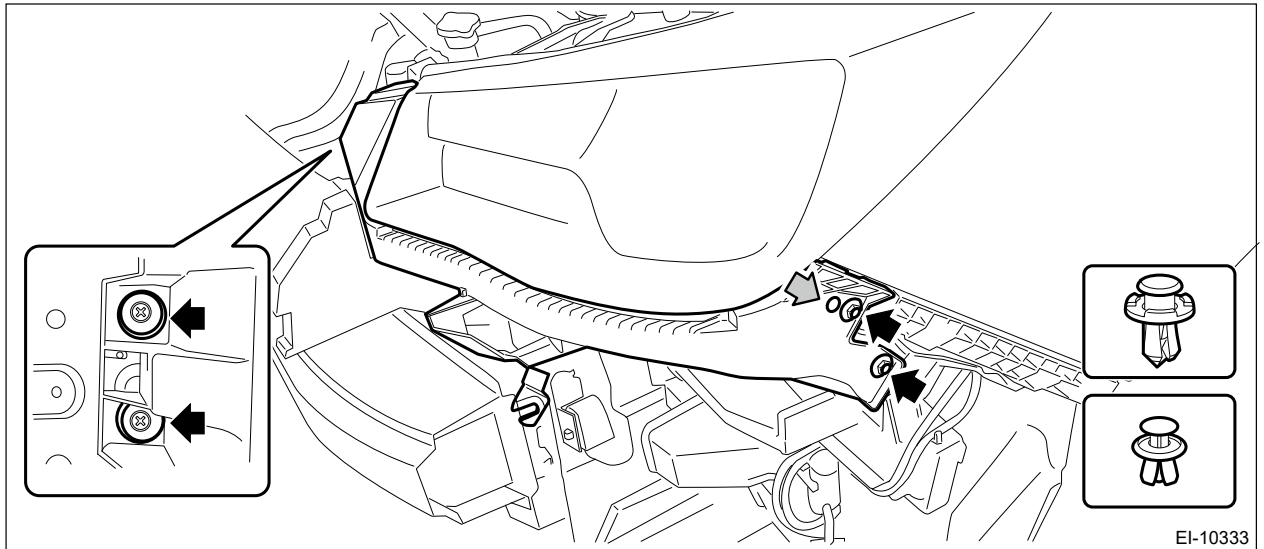
4. Remove the clip, and remove the bracket - grille.



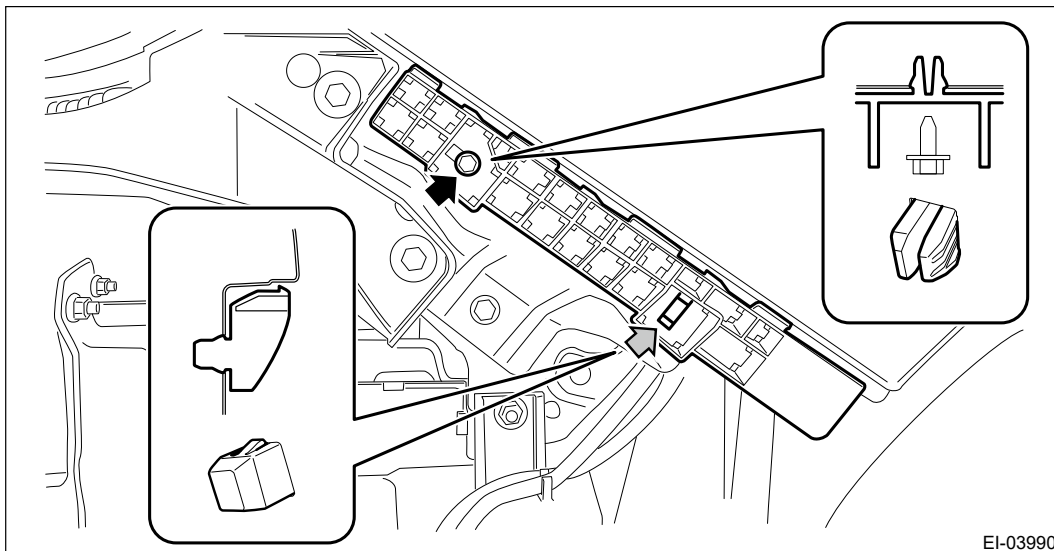
Note:


The bracket - grille can be removed without removing the bumper face - front by referring to the removal procedure in "Condenser" of "HVAC SYSTEM".  Ref. to HVAC SYSTEM (HEATER, VENTILATOR AND A/C)>Condenser>REMOVAL.

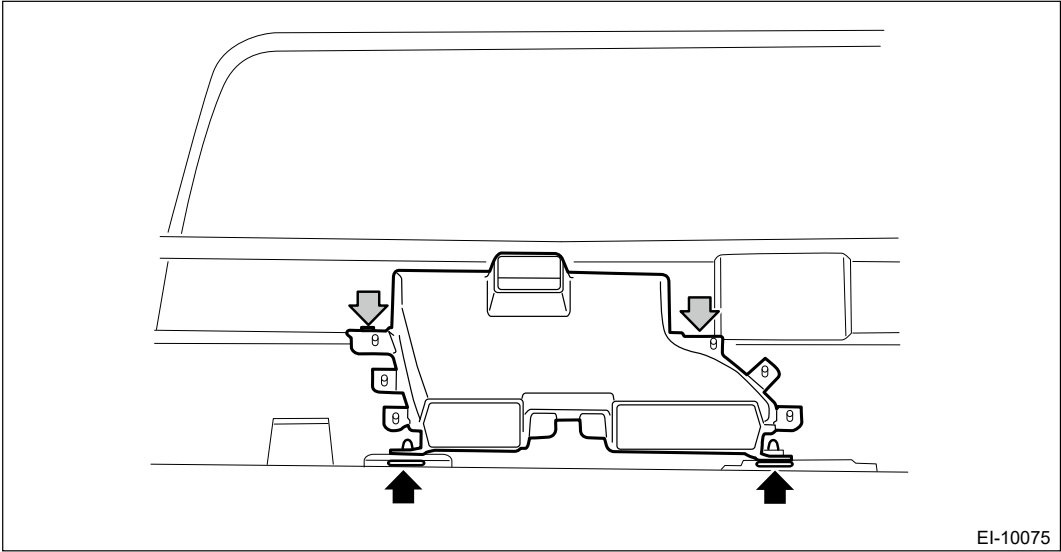
5. Remove the bracket - front bumper.
 - (1) Remove the bolts and clips, and remove the bracket - front bumper corner.



- (2) Remove the screws and release the tabs from the reverse side of fender COMPL - front, then remove the bracket - front bumper side.



- 6.** Remove the fog light assembly - front.  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>REMOVAL.](#)
- 7.** Remove the duct bumper - front as necessary.
- (1) Remove the clip.
 - (2) Remove the rivets, and remove the duct bumper - front.



EI-10075

EXTERIOR/INTERIOR TRIM > Front Bumper

REPAIR

1. COATING METHOD FOR PP BUMPER

Process No.	Process name	Job contents	
1	Bumper installation	Place the bumper on a paint worktable as required. Use the paint worktable conforming to inner shape of bumper if possible.	<p>Cross section of bumper</p> <p>(1) Bumper (2) Paint worktable</p> <p>EI-00234</p>
2	Masking	Mask specified part (black base) with masking tape. Use masking tape for PP.	
3	Degreasing/cleaning	Clean all parts to be painted with appropriate cleaning solvent, normal alcohol, etc. to remove dirt, oil, grease, etc.	
4	Primer paint	Apply primer to all parts to be painted, using spray gun. Use primer (clear).	
5	Drying	<p>Dry at normal temperature. [10 – 15 min. at 20°C (68°F)]</p> <p>In half-dried condition, PP primer paint is dissolved by solvent, e.g. thinner, etc.</p> <p>Therefore, if dust or dirt must be removed, use ordinary alcohol etc.</p>	
6	Top coat paint (I)	Non-colored	Metallic paint
		<p>Use section (block) paint for top coat.</p> <p>For paint/hardener mixture, observe the specifications recommended by the manufacturers.</p> <ul style="list-style-type: none"> • Viscosity: 10 – 13 sec./20°C (68°F) • Film thickness: 35 – 45 μ • Spraying pressure: 245 – 343 kPa (2.5 – 3.5 kgf/cm², 36 – 50 psi) 	<p>Use section (block) paint for top coat.</p> <p>For paint/hardener mixture, observe the specifications recommended by the manufacturers.</p> <ul style="list-style-type: none"> • Viscosity: 10 – 13 sec./20°C (68°F) • Film thickness: 15 – 20 μ • Spraying pressure: 245 – 343 kPa (2.5 – 3.5 kgf/cm², 36 – 50 psi)
7	Drying	Not required.	<p>Dry at normal temperature [at least 10 min. at 20°C (68°F)].</p> <p>In half-dried condition, avoid dust, dirt.</p>
8	Top coat paint (II)	Not required.	Apply a clear coat to parts with top coat paint (I), three times at 5 – 7 minute intervals.

		For paint/hardener mixture, observe the specifications recommended by the manufacturers. <ul style="list-style-type: none"> • Viscosity: 14 – 16 sec./20°C (68°F) • Film thickness: 25 – 30 μ • Spraying pressure: 245 – 343 kPa (2.5 – 3.5 kgf/cm², 36 – 50 psi)
9	Drying	60°C (140°F), 60 min. or 80°C (176°F), 30 min. If the temperature is higher than 80°C (176°F), PP may be deformed. Keep maximum temperature at 80°C (176°F) or less.
10	Inspection	Check paint.
11	Removal of masking	Remove the masking tape applied in procedure 2.

2. REPAIR INSTRUCTIONS FOR COLORED PP BUMPER

Note:

All PP bumpers are provided with a grained surface, and if the surface is damaged, it cannot normally be restored to its former condition. Damages limited to the shallow scratches that cause only a change in the luster of the base material or coating, can be almost fully restored. Before repairing a damaged area, explain this point to the customer and obtain an understanding about the matter.

Repair methods are outlined below, based on a classification of the extent of damage.

- Minor damage causing only a change in the luster of the bumper due to a light touch
Almost restorable.

Process No.	Process name	Job contents	
1	Cleaning	Clean the area to be repaired using water.	
2	Sanding	Grind the repairing area with No. 500 sand paper in a "feathering" motion.	
3	Finish	Resin section	Coated section
		Polish the waxed area with clean cloth after 5 – 10 minutes. Repeatedly apply wax to the affected area using soft cloth (such as flannel). Recommended wax: Tire wax or equivalent	Perform either the same procedures as for the resin section or process No. 18 and subsequent in section 3), depending on the degree and nature of damage.

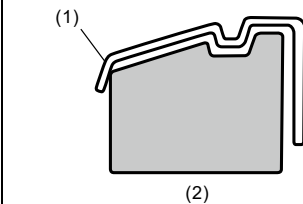
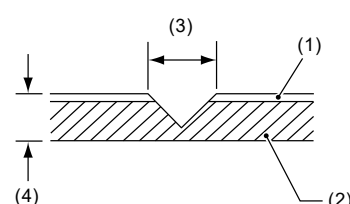
- Deep damage caused by scratching with fences etc.
A dent cannot be repaired but a whitened or swelled part can be removed.

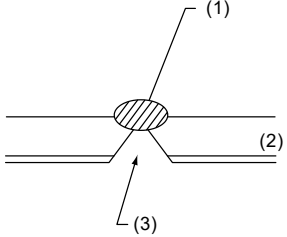
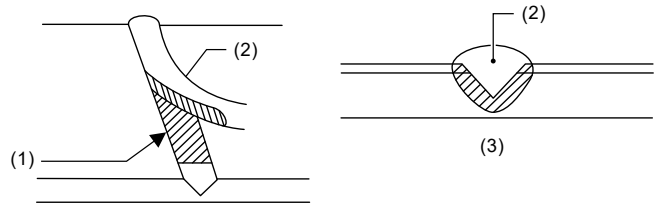
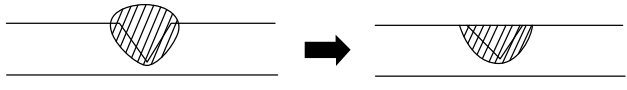
Process No.	Process name	Job contents
1	Cleaning	Clean the damaged area with water.

2	Removal of damaged area	Cut off protruding area, if any, due to collision, using a putty knife.	
3	Sanding	Grind the repairing area with No. 100 – 500 sand paper.	
4	Finish	Resin section	Coated section
		Same as process No. 3 in section "1)".	Perform process No. 12 and subsequent operations in section "3)".

3. Deep damage such as a break or hole that requires filling

Much of the peripheral grained surface must be sacrificed for repair. The degree of restoration is not really worth the expense. (The surface, however, will become almost flush with adjacent areas.)

Process No.	Process name	Job contents	
1	Bumper removal	Remove the bumper as required.	
2	Removal of parts	Remove the parts built into bumper as required.	
3	Bumper placement	Place the bumper on a paint worktable as required. It is recommended to use the paint worktable conforming to internal shape of bumper.	<p>Cross section of bumper</p>  <p>(1) Bumper (2) Paint worktable</p> <p>EI-00234</p>
4	Surface preparation	Remove dust, oil, etc. from areas to be repaired and surrounding areas, using an appropriate solvent (appropriate cleaning solvent or alcohol, etc.).	
5	Cutting	If the damage is a crack or a hole, cut a guide slit of 20 – 30 mm (0.79 – 1.18 in) in length along the crack or hole up to the bumper base surface. Next, use a knife or grinder to carve a V-shaped groove in the area for repair.	 <p>(1) Paint surface (2) PP base surface (3) 20 – 30 mm (0.79 – 1.18 in) (4) 3 mm (0.12 in)</p> <p>EI-00235</p>
6	Sanding (I)	Grind beveled surface with sand paper (#40 – #60) to smooth finish.	
7	Cleaning	Clean the sanded surface with the same solvent as used in process No. 4.	
8	Temporary welding	Grind the side just opposite the beveled area with sand paper (No. 40 – 60) and clean using a solvent. Temporarily spot-weld the side, using PP welding rod and heater gun.	

		 <p>(1) Welded point (Use heater gun and PP welding rod) (2) PP base surface (3) Beveled section</p> <p>Note:</p> <ul style="list-style-type: none"> • Do not melt welding rod until it flows out. This results in reduced strength. • Leave the welded spot unattended until it cools completely.
9	Welding	<p>Using a heater gun and PP welding rod, weld the beveled spot while melting both the rod and damaged area.</p>  <p>(1) Welding rod (2) Melt hatched area (3) Section</p> <p>Note:</p> <ul style="list-style-type: none"> • Melt the sections indicated by hatched area. • Do not melt the welding rod until it flows out, in order to provide strength. • Always keep the heater gun 1 – 2 cm (0.4 – 0.8 in) away from the welding spot. • Leave the welded spot unattended until it cools completely.
10	Sanding (II)	<p>Remove excess part of weld with a putty knife. If a drill or disc wheel is used instead of the knife, operate it at a rate less than 1,500 r/min and grind the excess part little by little. A higher rpm will cause the PP substrate to melt from the heat.</p>  <p>Sand the welded spot smooth with No. 240 sand paper.</p>
11	Masking	Mask the black substrate section using masking tape.

12	Cleaning/degreasing	Completely clean the entire coated area, using solvent similar to that used in process No. 4.	
13	Primer coating	Apply a coat of primer for bumpers to the repaired surface and its surrounding areas. Mask these areas, if necessary. Note: Be sure to apply a coat of primer using a spray gun at a pressure of 245 – 343 kPa (2.5 – 3.5 kgf/cm², 36 – 50 psi).	
14	Leave unattended	Leave the repaired area unattended at 20°C (68°F) for 10 – 15 minutes until primer is half-dry. Note: If dirt or dust comes in contact with the coated area, wipe it off with a cloth dampened with alcohol. (Do not use thinner since it could melt the coated area.)	
15	Surfacer coating	Apply a coat of surfacer for PP bumpers to the repaired area two or three times at an interval of 3 – 5 minutes. For surfacer/hardener mixture, viscosity and paint thickness, observe the specifications of the surfacers to be used.	
16	Drying	Allow the coated surface to dry for 20 minutes at 20°C (68°F) [or 30 minutes at 60°C (140°F)].	
17	Sanding (III)	Sand the coated surface and its surrounding areas using No. 400 sand paper and water.	
18	Cleaning/degreasing	Same as process No. 12.	
19	Top coat (I)	Non-colored	Metallic paint
		Use a "block" coating method. For paint/hardener mixture, observe the specifications recommended by the manufacturers. • Viscosity: 11 – 13 sec./20°C (68°F) • Coating film thickness: 40 – 50 μ • Spraying pressure: 245 – 343 kPa (2.5 – 3.5 kgf/cm ² , 36 – 50 psi)	Use a "block" coating method. For paint/hardener mixture, observe the specifications recommended by the manufacturers. • Viscosity: 11 – 13 sec./20°C (68°F) • Coating film thickness: 20 – 30 μ • Spraying pressure: 245 – 343 kPa (2.5 – 3.5 kgf/cm ² , 36 – 50 psi)
20	Leave unattended	Not required.	Leave unattended at 20°C (68°F) for at least 10 minutes until the topcoated area is half-dry. Note: Be careful to keep dust or dirt from coming in contact with the affected area.
21	Top coat (II)	Not required.	Apply a clear coat three times at an interval of 3 to 5 minutes. For paint/hardener mixture, observe the specifications recommended by the manufacturers.

		<ul style="list-style-type: none"> • Viscosity: 10 — 13 sec./20°C (68°F) • Coating film thickness: 20 — 30 μ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm², 36 — 50 psi)
22	Drying	<p>Allow the coated surface to dry for two hours at 20°C (68°F) or 30 minutes at 60°C (140°F).</p> <p>Note: Do not allow the temperature to exceed 80°C (176°F) since this will deform the PP substrate.</p>
23	Inspection	Carefully check the condition of the repaired area.
24	Removal of masking	Remove the masking tape applied in process No. 11 and 13.
25	Parts installation	Install parts on the bumper in reverse order of removal.
26	Bumper installation	Install the bumper.



EXTERIOR/INTERIOR TRIM > Front Grille

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

7.5 N•m (0.74 kgf-m, 5.5 ft-lb)

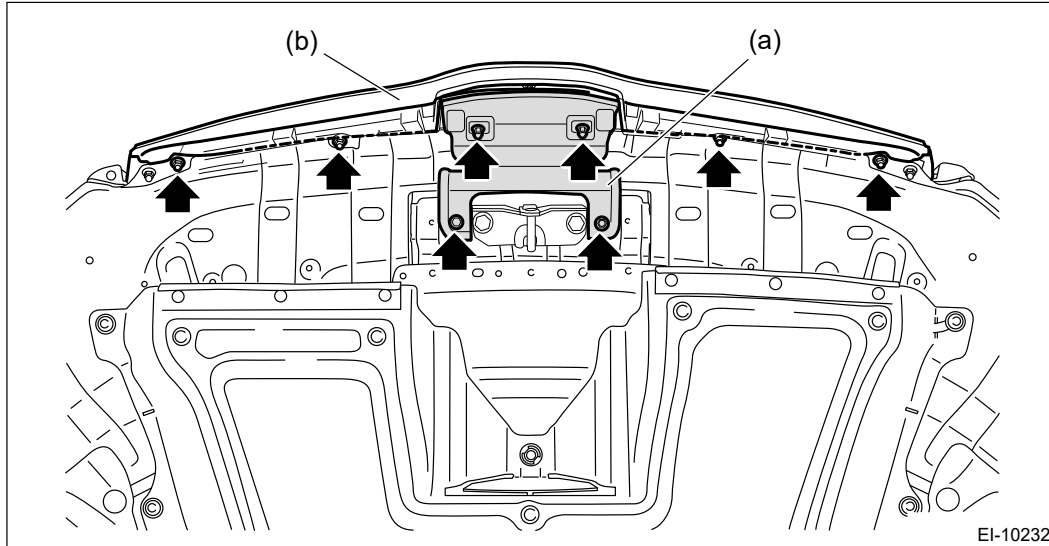
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
3. Adjust the fog light beam. (Model with fog light)  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)

EXTERIOR/INTERIOR TRIM > Front Grille

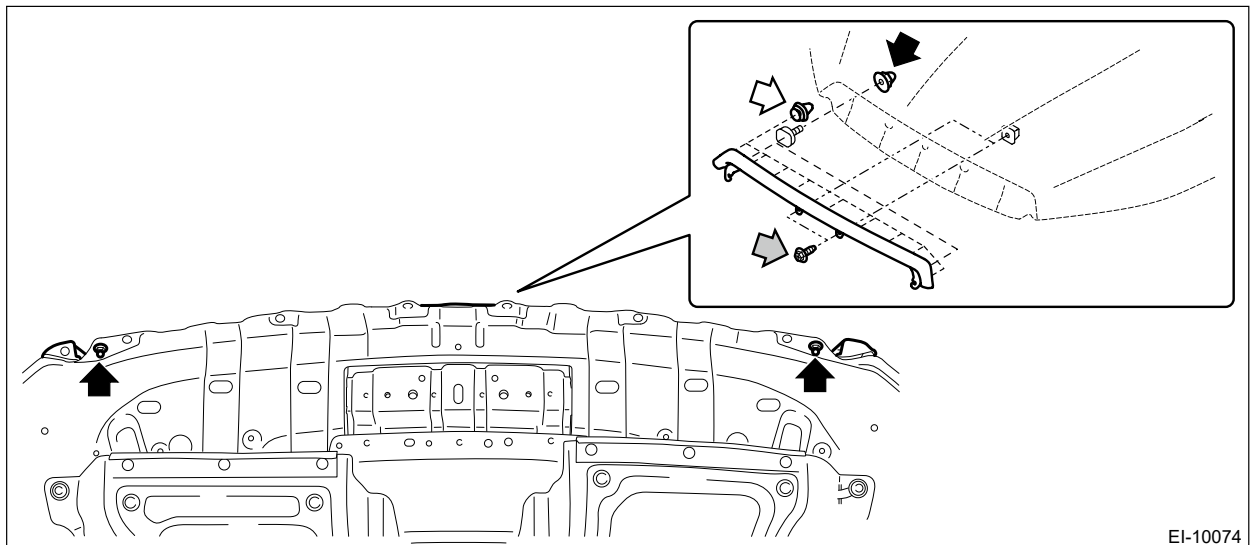
REMOVAL

1. FRONT GRILLE UPPER

1. Remove the hexagon cap nut, and remove the bracket - grille UPR (a).
2. Remove the hexagon cap nut, and remove the grille assembly - front CTR (b).



3. Remove the screws and nuts, and remove the grille assembly - front UPR.




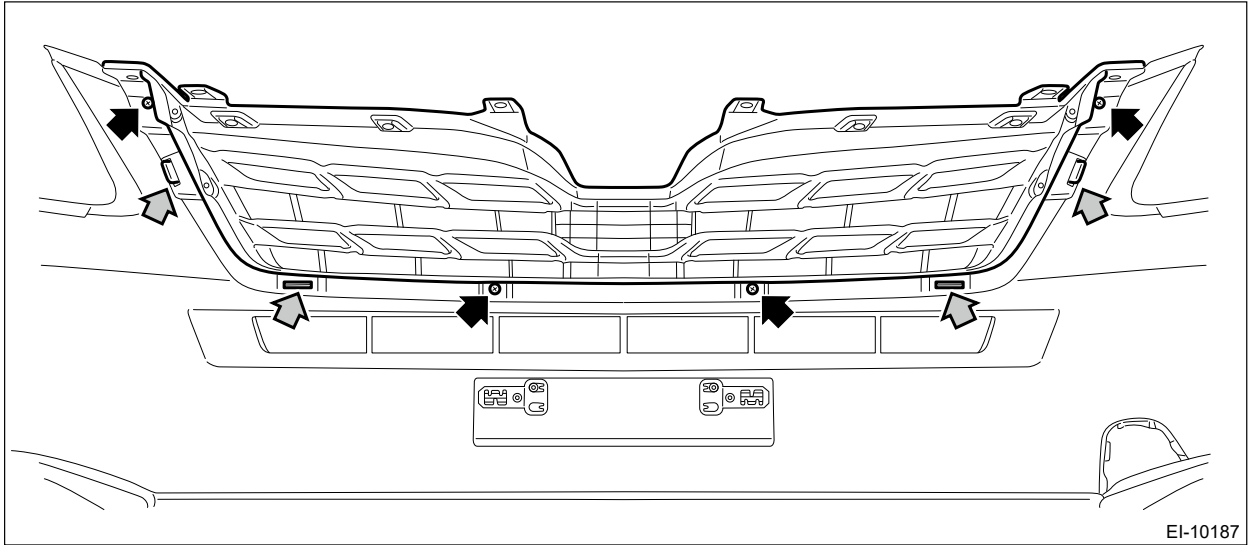
2. FRONT GRILLE LOWER

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)
3. Remove the front grille assembly.
 - (1) Remove the screws from the back side of the bumper face - front.
 - (2) Release the claws, and remove the grille assembly - front LWR.



EI-10187

EXTERIOR/INTERIOR TRIM > Front Hood Duct

NOTE

Refer to the "Front hood" section of "EXTERIOR BODY PANELS" for removal and installation procedure of the front hood duct.  [Ref. to EXTERIOR BODY PANELS>Front Hood>REMOVAL > FRONT HOOD PANEL.](#)

EXTERIOR/INTERIOR TRIM > Front Under Cover

INSTALLATION

Install each part in the reverse order of removal.

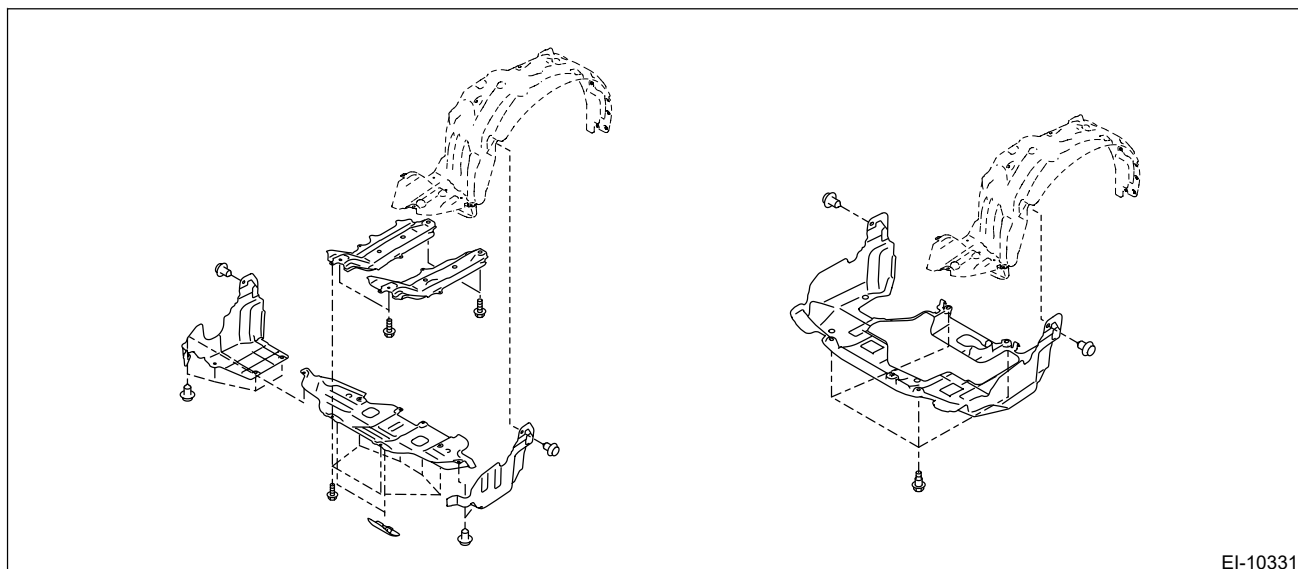
Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to EXTERIOR/INTERIOR TRIM>General Description>COMPONENT > FRONT UNDER COVER.](#)

EXTERIOR/INTERIOR TRIM > Front Under Cover

REMOVAL

1. Lift up the vehicle.
2. Remove the bolts and clips, and then remove the under cover COMPL, plate CTR and front guard.



EXTERIOR/INTERIOR TRIM > Fuel Tank Protector

NOTE

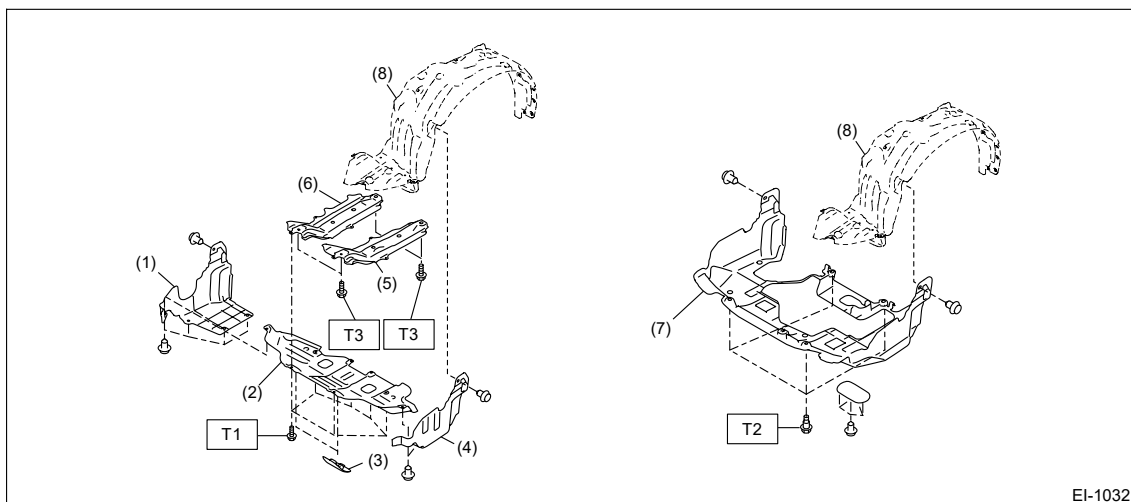
Refer to "FUEL INJECTION" section for removal and installation procedure of the fuel tank protector.

 [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\)>Fuel Tank Protector.](#)

EXTERIOR/INTERIOR TRIM > General Description

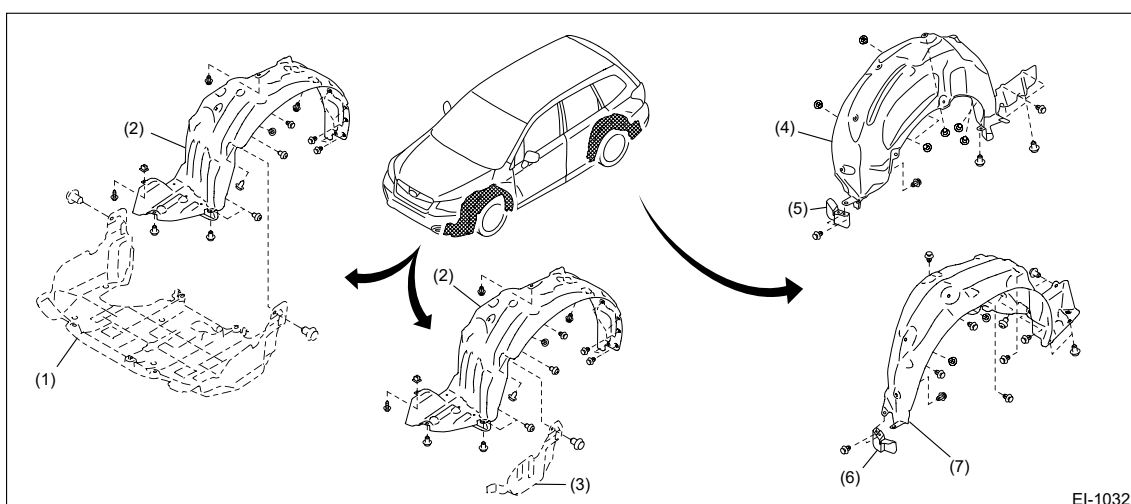
COMPONENT

1. FRONT UNDER COVER



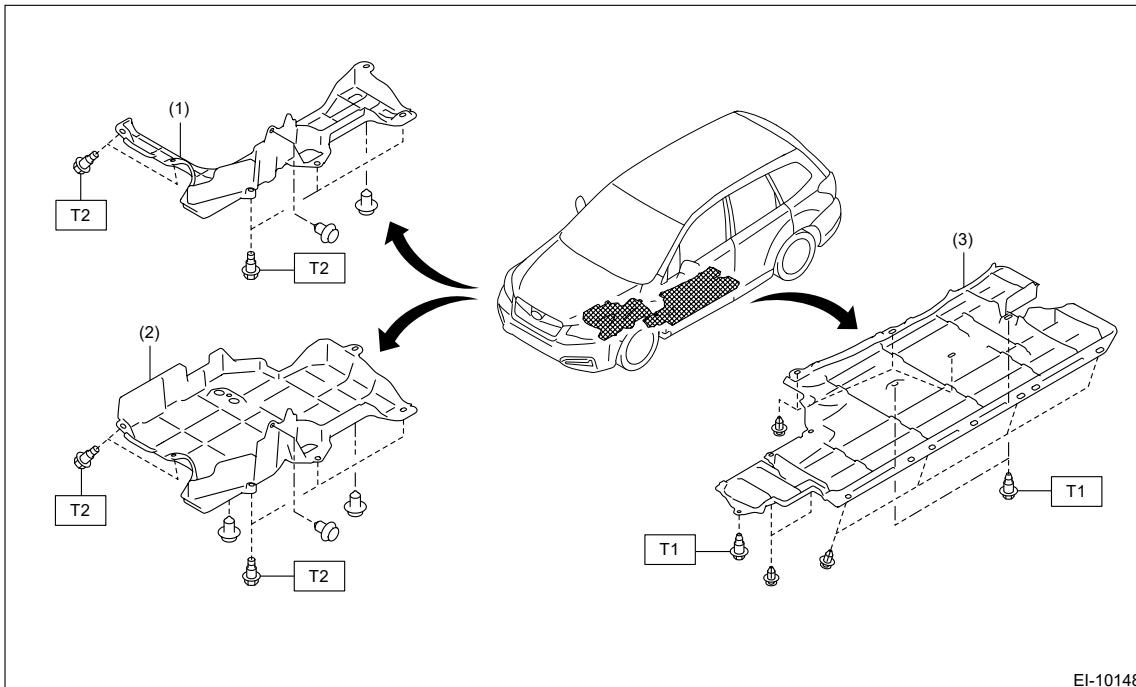
- | | | |
|--|---|--|
| (1) Under cover COMPL - front RH (turbo model) | (5) Under cover - front guard LH (turbo model) | Tightening torque: N·m (kgf-m, ft-lb) |
| (2) Plate CTR - aluminum (turbo model) | (6) Under cover - front guard RH (turbo model) | |
| (3) Cover - plate (turbo model) | (7) Under cover COMPL - front (non-turbo model) | T1: 7.5 (0.76, 5.5) |
| (4) Under cover COMPL - front LH (turbo model) | (8) Mud guard - front | T2: 18 (1.84, 13.3) |
| | | T3: 32 (3.26, 23.6) |

2. MUD GUARD



- | | | |
|---|------------------------------|-------------------------|
| (1) Under cover COMPL - front (non-turbo model) | (4) Mud guard - rear RH | (7) Mud guard - rear LH |
| (2) Mud guard - front | (5) Plate - air flap rear RH | |
| (3) Under cover COMPL - front LH (turbo model) | (6) Plate - air flap rear LH | |

3. FLOOR UNDER PROTECTOR



EI-10148

- (1) Under cover front - transmission (CVT non-turbo model)
- (2) Under cover front - transmission (MT non-turbo model)


- (3) Under cover - rear

Tightening torque: N·m (kgf-m, ft-lb)

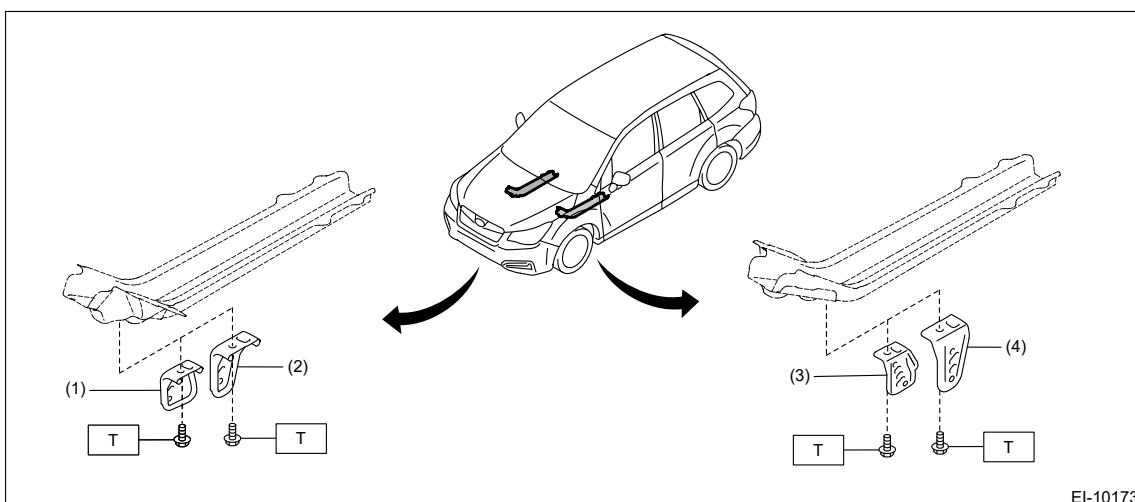
T1: 7.5 (0.76, 5.5)

T2: 18 (1.84, 13.3)

4. FUEL TANK PROTECTOR

For exploded view of the fuel tank protector, refer to "FUEL TANK" of "FUEL INJECTION" section.  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\)>General Description>COMPONENT > FUEL TANK.](#)

5. PROTECTOR OIL COVER



EI-10173

- (1) Protector oil cover RH (CVT, turbo model)
- (2) Protector oil cover RH (CVT, non-turbo model)

- (3) Protector oil cover LH (CVT, turbo model)
- (4) Protector oil cover LH (CVT, non-turbo model)

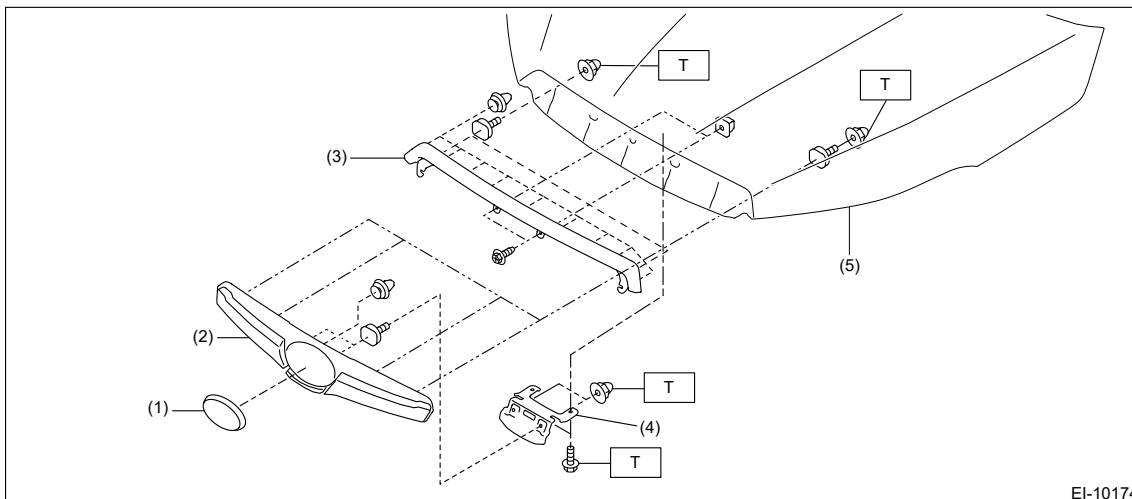
Tightening torque: N·m (kgf-m, ft-lb)

T: 100 (10.2, 73.3)

6. FRONT HOOD GRILLE

For exploded view of the front hood grille, refer to "Front hood" of "EXTERIOR BODY PANELS" section. [Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > FRONT HOOD.](#)

7. FRONT BUMPER

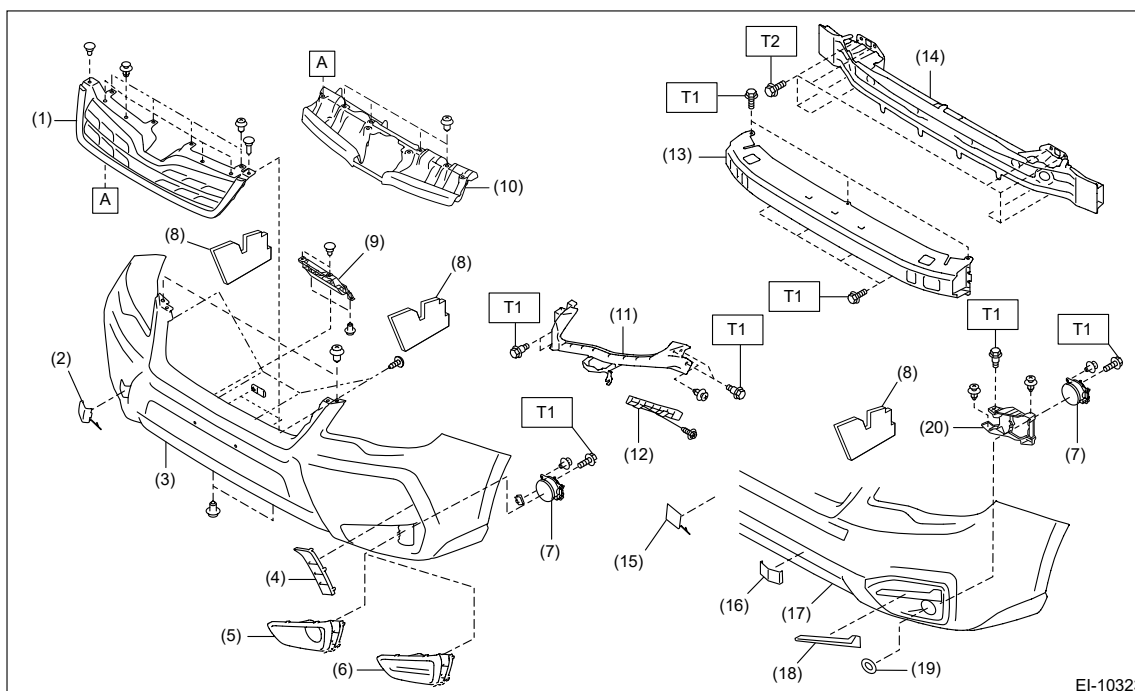


EI-10174

- | | |
|-----------------------------|--------------------------|
| (1) Ornament front | (4) Bracket - grille UPR |
| (2) Grille ASSY - front CTR | (5) Hood COMPL - front |
| (3) Grille ASSY - front UPR | |

Tightening torque: N·m (kgf·m, ft·lb)

T: 4.5 (0.46, 3.3)

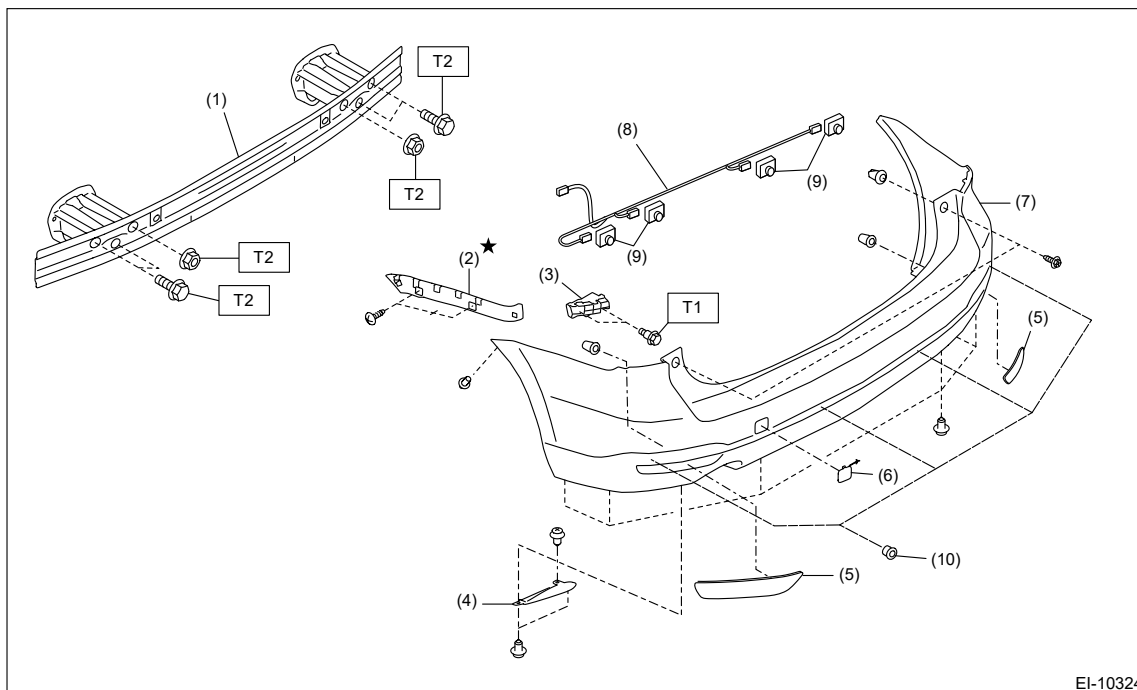


EI-10323

- | | | |
|--|--|--|
| (1) Grille ASSY - front LWR | (9) Duct bumper - front (Type A model) | (17) Bumper face - front (Type B model) |
| (2) Cover hook - front (Type A model) | (10) Bracket - grille front | (18) Molding - bumper (Type B model) |
| (3) Bumper face - front (Type A model) | (11) Bracket - front bumper corner | (19) Cover bumper - front (Type B model) |
| (4) Cover side - front | (12) Bracket - front bumper side | (20) Fog light BRKT (Type B model) |

- | | | |
|---|--|--|
| (5) Cover - fog light (Type A model) | (13) Energy absorber - front bumper | |
| (6) Cover bumper - front (Type A model) | (14) Bumper beam COMPL - front | Tightening torque: N·m (kgf-m, ft-lb) |
| (7) Light ASSY - front fog | (15) Cover hook - front (Type B model) | T1: 7.5 (0.76, 5.5) |
| (8) Radiator gasket | (16) Cover - INT CTR (Type B model) | T2: 32 (3.26, 23.6) |

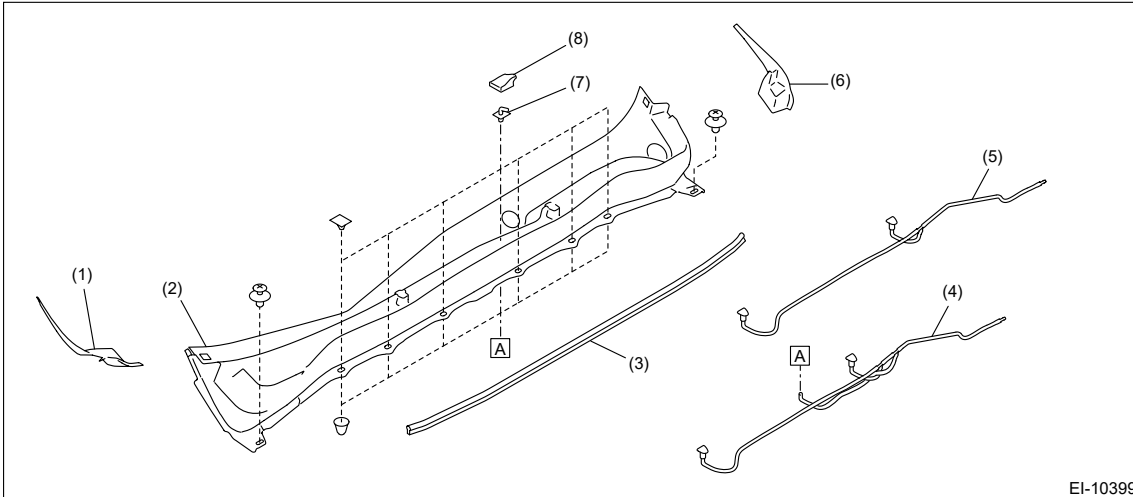
8. REAR BUMPER



EI-10324

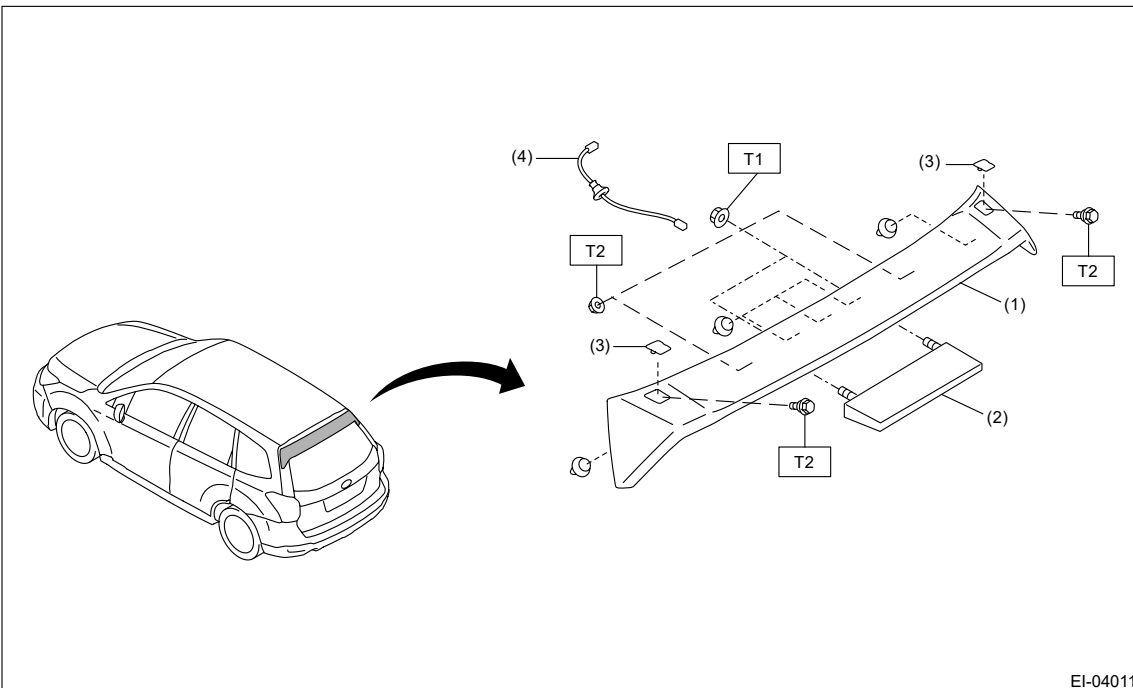
- | | | |
|----------------------------------|------------------------|--|
| (1) Beam COMPL - rear | (6) Cover - hook rear | Tightening torque: N·m (kgf-m, ft-lb) |
| (2) Bracket - rear bumper side | (7) Bumper face - rear | T1: 7.5 (0.76, 5.5) |
| (3) Bracket - rear bumper corner | (8) Cord ASSY - sonar | T2: 70 (7.14, 51.6) |
| (4) Cover - rear bumper | (9) Sonar ASSY | |
| (5) Reflex reflector | (10) Bezel - sonar | |

9. COWL PANEL



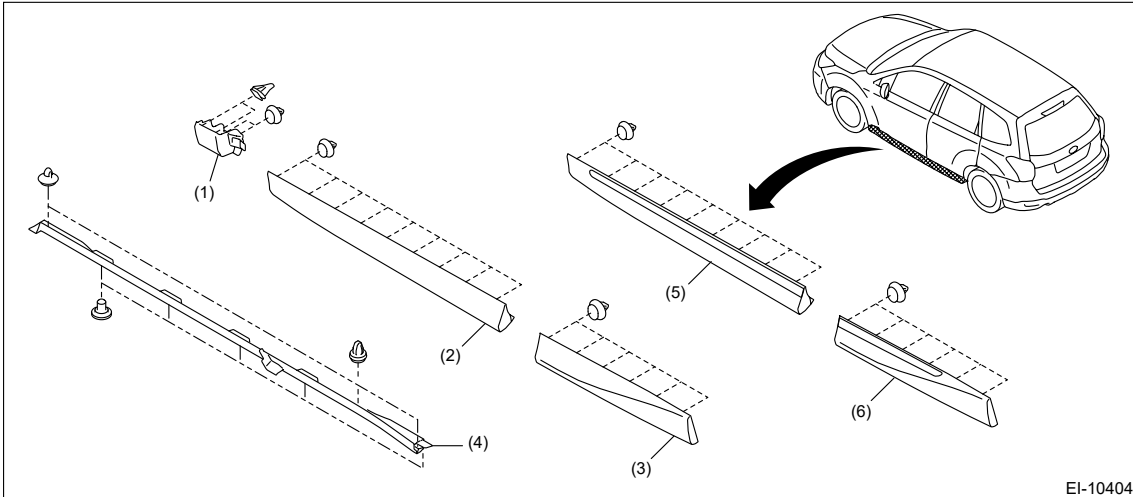
- | | | |
|--------------------------|--|-------------------------|
| (1) Cowl panel - side RH | (4) Hose ASSY - washer (model with EyeSight) | (7) Joint - washer hose |
| (2) Cowl panel ASSY | (5) Hose ASSY - washer | (8) Cover - joint |
| (3) Seal - front panel | (6) Cowl panel - side LH | |

10. ROOF SPOILER



- | | | |
|-------------------------------|--|--|
| (1) Roof spoiler | (4) Harness ASSY - high-mounted stop light | Tightening torque: N·m (kgf-m, ft-lb) |
| (2) Light ASSY - high-mounted | | T1: 4.5 (0.46, 3.3) |
| (3) Cap | | T2: 7.5 (0.76, 5.5) |

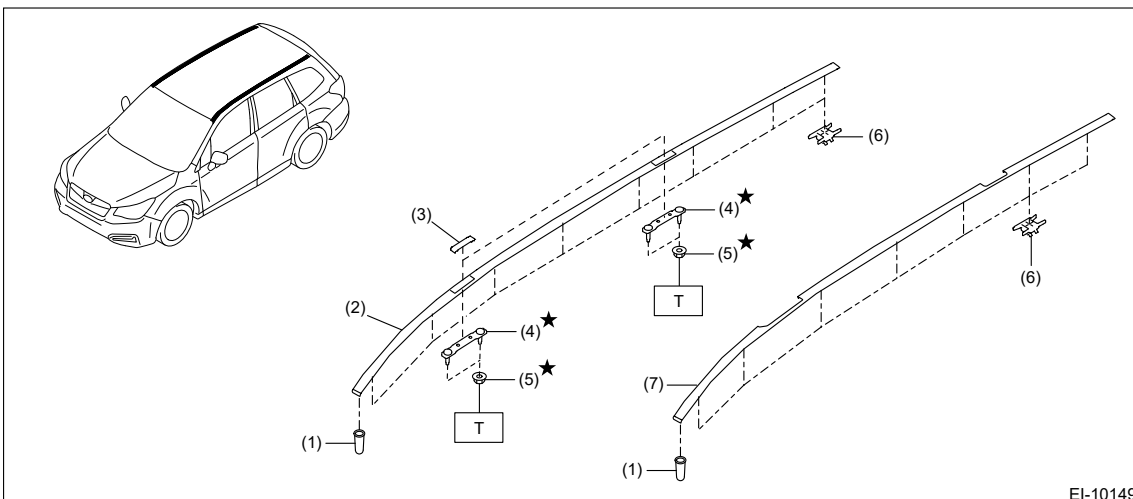
11. SIDE GARNISH



EI-10404

- | | | |
|---|--|--|
| (1) Garnish ASSY - fender | (3) Garnish ASSY - door rear (normal type) | (5) Garnish ASSY - side sill (illumination molding type) |
| (2) Garnish ASSY - door front (normal type) | (4) Garnish ASSY - side sill (normal type) | (6) Garnish ASSY - side sill (illumination molding type) |

12. ROOF MOLDING



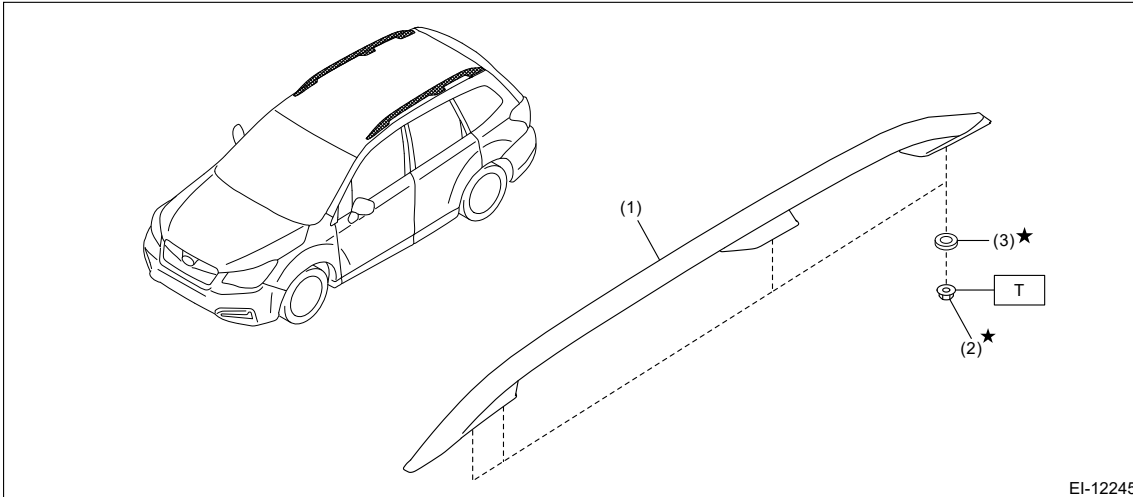
EI-10149

- | | |
|--|---|
| (1) Rivet | (5) Flange nut |
| (2) Molding - roof (model without roof rail) | (6) Fastener |
| (3) Cap - molding | (7) Molding - roof (model with roof rail) |
| (4) Carrier BRKT | |

Tightening torque: N·m (kgf·m, ft·lb)

T: 7.5 (0.76, 5.5)

13. ROOF RAIL



EI-12245

(1) Roof rail

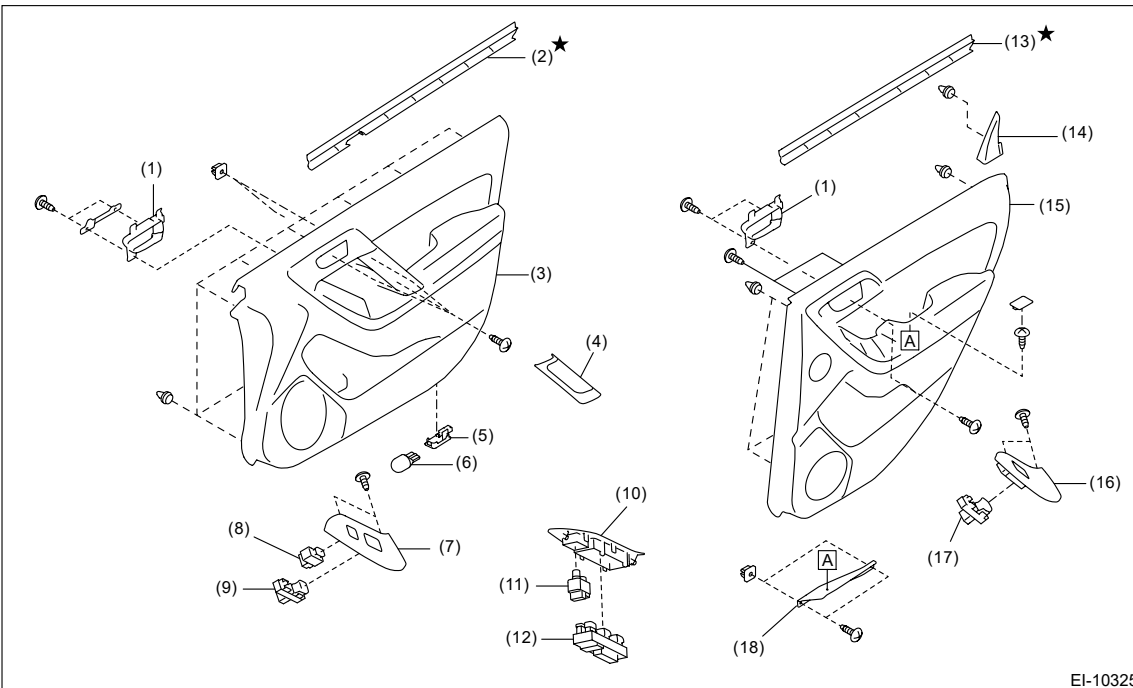
(3) Gasket

Tightening torque: N·m (kgf·m, ft·lb)

(2) Self-locking nut

T: 7.5 (0.76, 5.5)

14. DOOR TRIM



EI-10325

(1) Remote ASSY - door

(7) Panel - power window sub-switch front

(13) Weather strip - door rear INN

(2) Weather strip - door front INN

(8) Switch - door lock

(14) Cover - gusset rear

(3) Trim panel - front door

(9) Switch - power window sub front

(15) Trim panel - rear door

(4) Grip - door front

(10) Panel - power window main switch

(16) Panel - power window sub-switch rear

(5) Holder - door step light

(11) Switch - door mirror

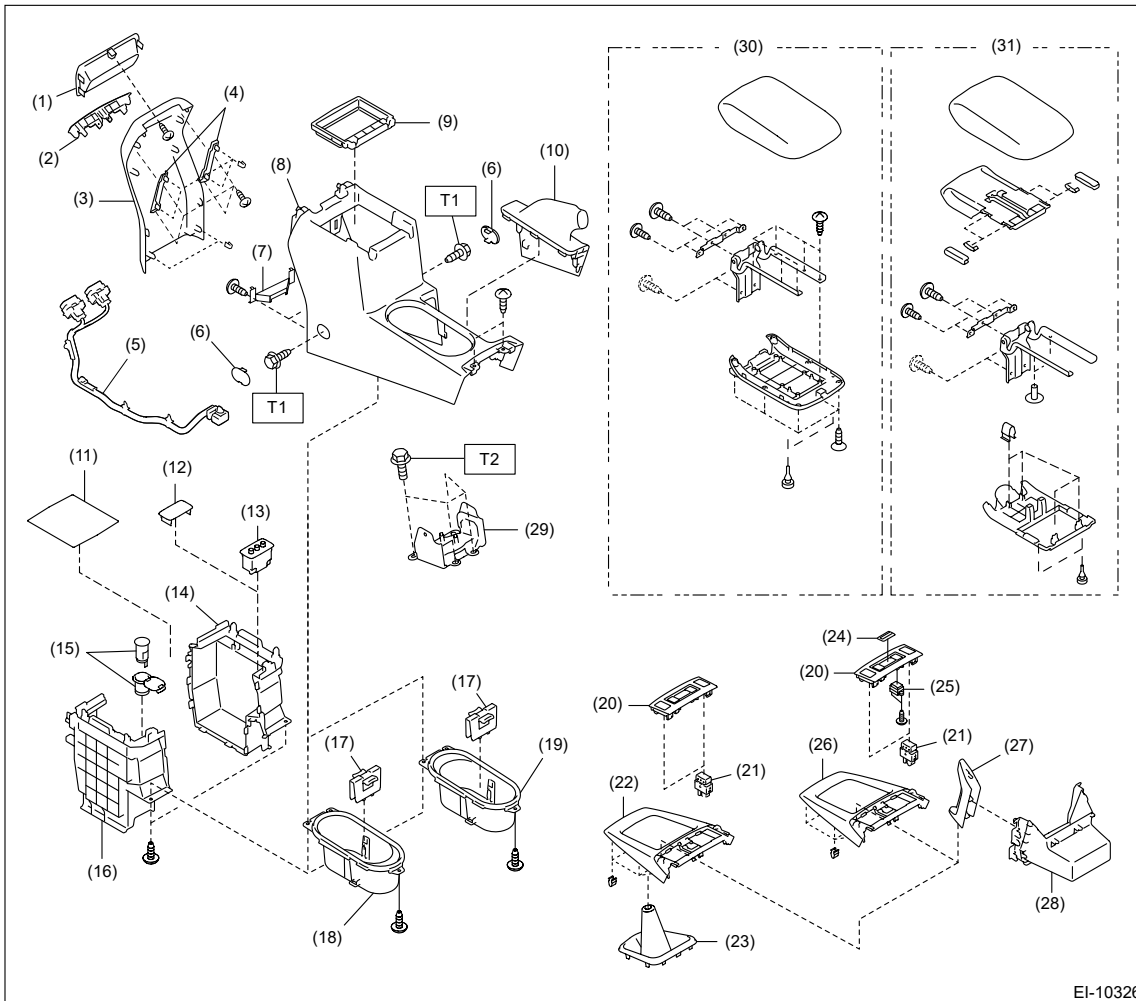
(17) Switch - power window sub rear

(6) Valve

(12) Switch - power window main

(18) Bracket - door trim rear

15. CONSOLE BOX



EI-10326

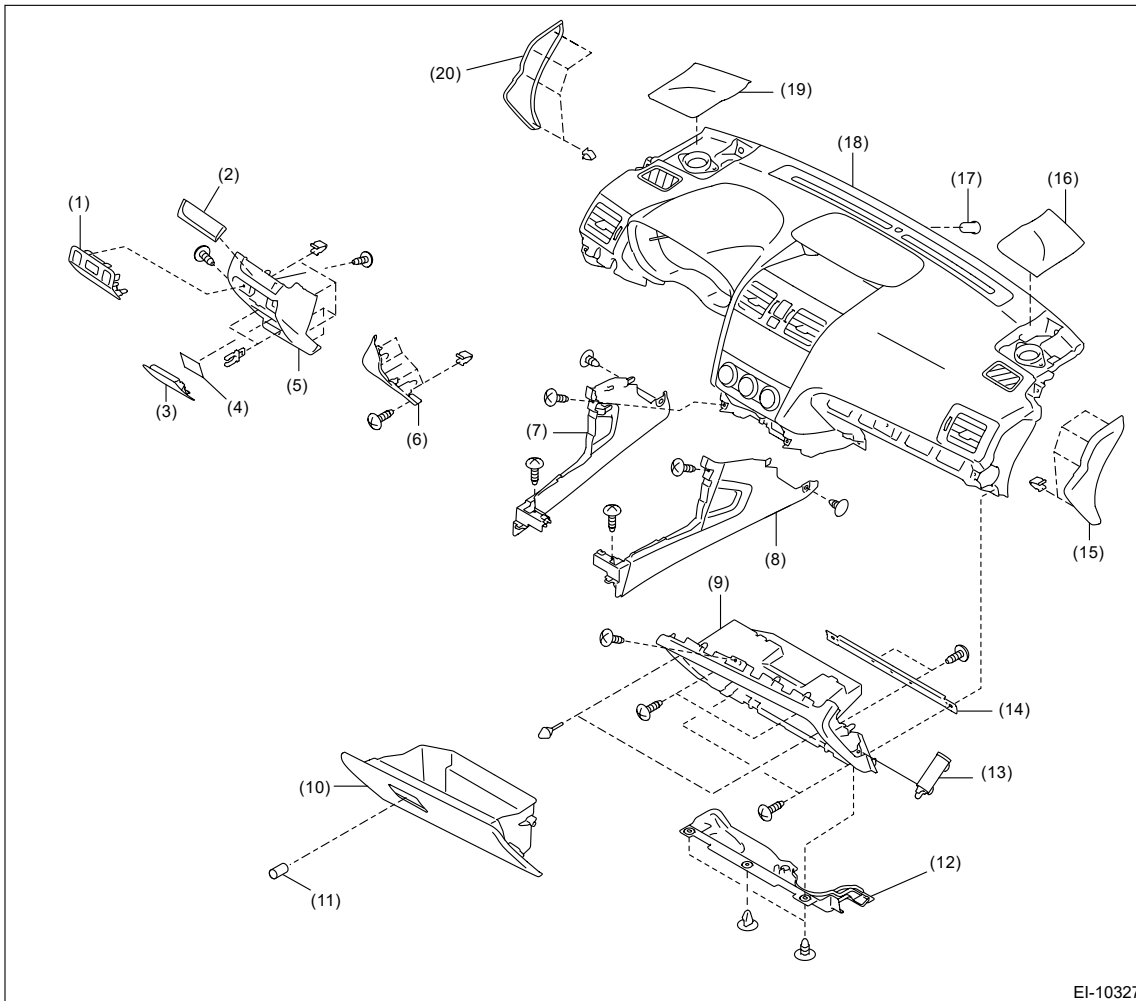
- | | | |
|--|-------------------------------------|--|
| (1) Cover - console panel | (13) AUX unit | (25) X MODE switch |
| (2) Ring - rear console (only for models with rear seat heater) | (14) Pocket console box LH | (26) Cover - shift lever (CVT model) |
| (3) Console box, rear | (15) Accessory socket | (27) Ornament panel - console |
| (4) Reinforcement - rear console (only for models with rear seat heater) | (16) Pocket console box RH | (28) Tray ASSY - CTR LWR |
| (5) Harness ASSY - console (only for models with rear seat heater) | (17) Partition - cup holder | (29) Bracket - console box |
| (6) Cap | (18) Cup holder (MT model) | (30) Lid ASSY - console box (fixed type) |
| (7) Holder - cable clamp (only for models with rear seat heater) | (19) Cup holder (CVT model) | (31) Lid ASSY - console box (sliding type) |
| (8) Console box | (20) Switch case | |
| (9) Tray - console box | (21) Switch - seat heater | |
| (10) Boot - parking brake | (22) Cover - shift lever (MT model) | |
| (11) Mat | (23) Boot - shift lever (MT model) | |
| (12) Cap - AUX | (24) Plate - X MODE | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 6.5 (0.66, 4.8)

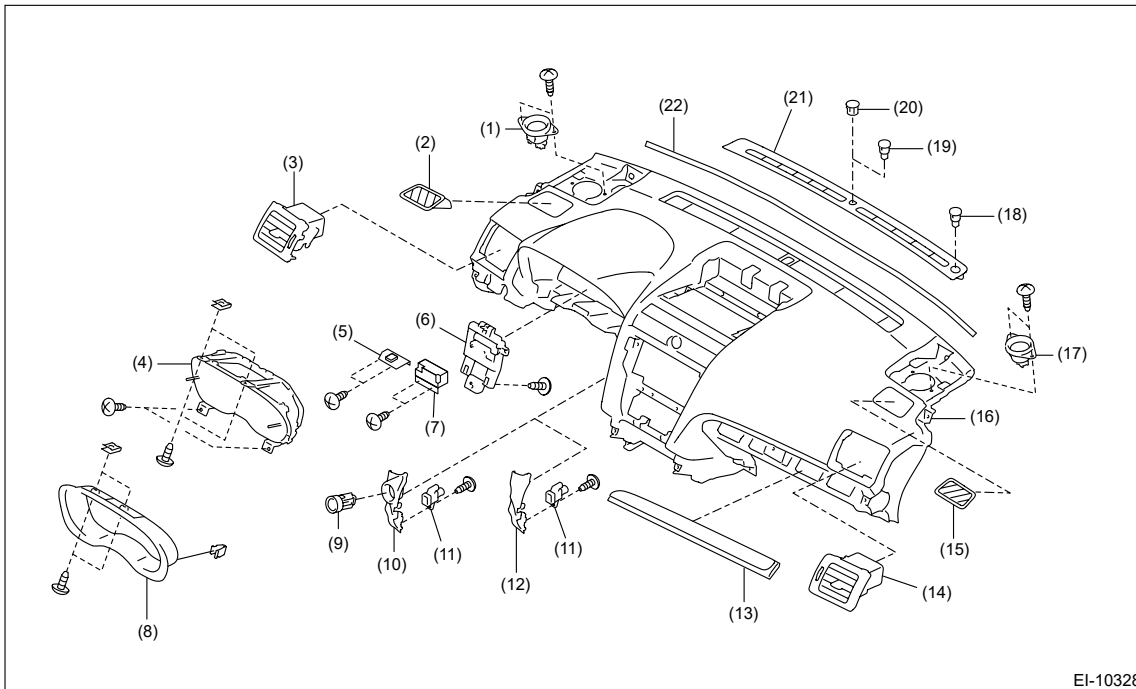
T2: 18 (1.84, 13.3)

16. INSTRUMENT PANEL

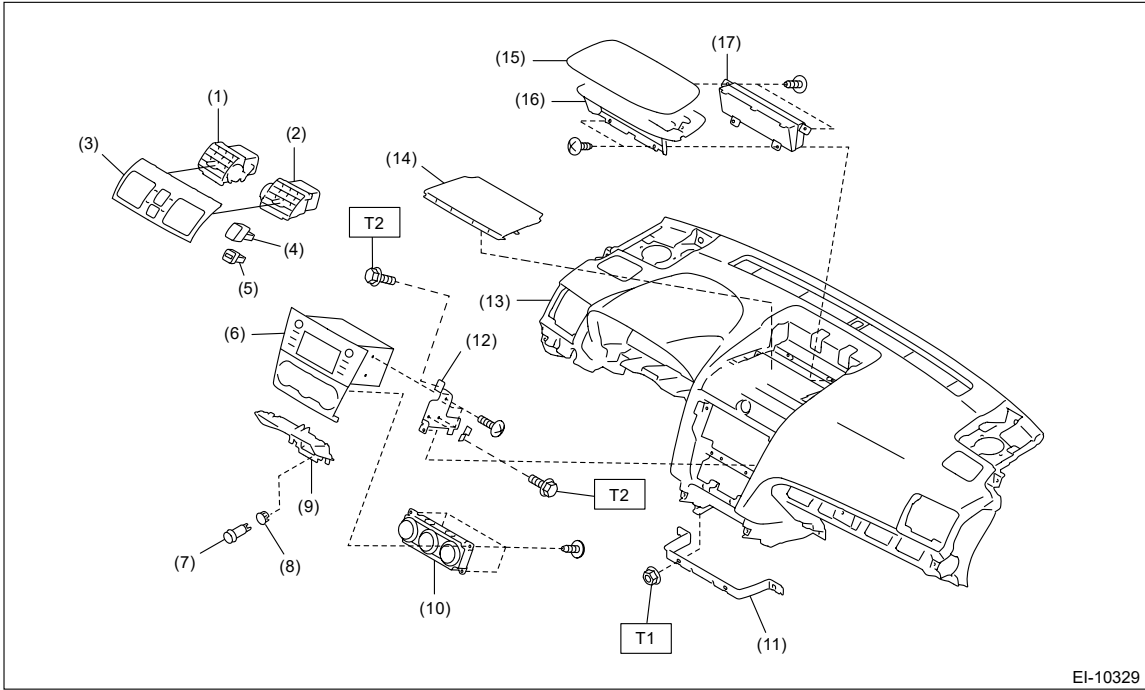


EI-10327

- | | | |
|--|-----------------------------------|---------------------------------------|
| (1) Panel - switch | (8) Panel center LWR RH | (15) Cover - instrument panel side RH |
| (2) Ornament panel ASSY driver | (9) Back panel - pocket | (16) Grille speaker side RH |
| (3) Lid ASSY - fuse box | (10) Pocket ASSY | (17) Cap - guide pin |
| (4) Label - fuse | (11) Key cylinder - pocket | (18) Panel COMPL - instrument |
| (5) Cover ASSY - instrument panel LWR driver OUT | (12) Under cover ASSY - passenger | (19) Grille speaker side LH |
| (6) Cover ASSY - instrument panel LWR driver INN | (13) Damper COMPL - pocket | (20) Cover - instrument panel side LH |
| (7) Panel center LWR LH | (14) Reinforcement - passenger | |

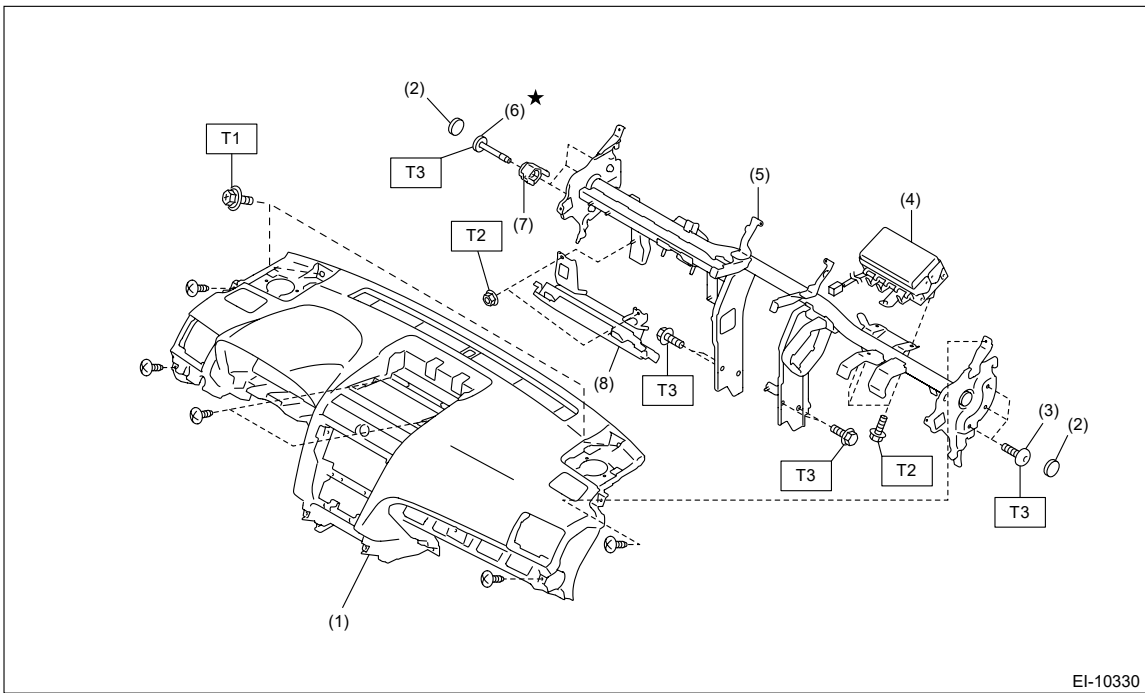


- | | | |
|---------------------------------------|--|--------------------------------|
| (1) Speaker ASSY - tweeter LH | (9) Push button ignition switch | (17) Speaker ASSY - tweeter RH |
| (2) Grille defroster - front LH | (10) Panel - switch cover - switch starter | (18) Sensor - automatic light |
| (3) Grille ASSY - ventilation LH | (11) Case - sensor | (19) Sunload sensor |
| (4) Combination meter ASSY | (12) Cover - switch starter | (20) Cap |
| (5) Antenna ASSY - GPS | (13) Ornament panel ASSY | (21) Grille - front defroster |
| (6) Reinforcement - combination meter | (14) Grille ASSY - ventilation RH | (22) Cushion |
| (7) SUB antenna ASSY - telematics | (15) Grille defroster - front RH | |
| (8) Visor - combination meter ASSY | (16) Panel COMPL - instrument ASSY | |



EI-10329

- | | | |
|--------------------------------------|-----------------------------------|--|
| (1) Grille ASSY - CTR ventilation LH | (8) Cap | (15) Panel - display UPR |
| (2) Grille ASSY - CTR ventilation RH | (9) Back panel - center pocket | (16) Panel - display LWR |
| (3) Panel - center grille | (10) Heater control ASSY | (17) Multi-function display ASSY |
| (4) Switch - hazard | (11) Reinforcement - center lower | |
| (5) Switch - multi-function display | (12) Bracket - audio | Tightening torque: N·m (kgf-m, ft-lb) |
| (6) Audio ASSY | (13) Panel COMPL - instrument | T: 7 (0.71, 5.2) |
| (7) Socket ASSY | (14) Cover center UPR | |



EI-10330

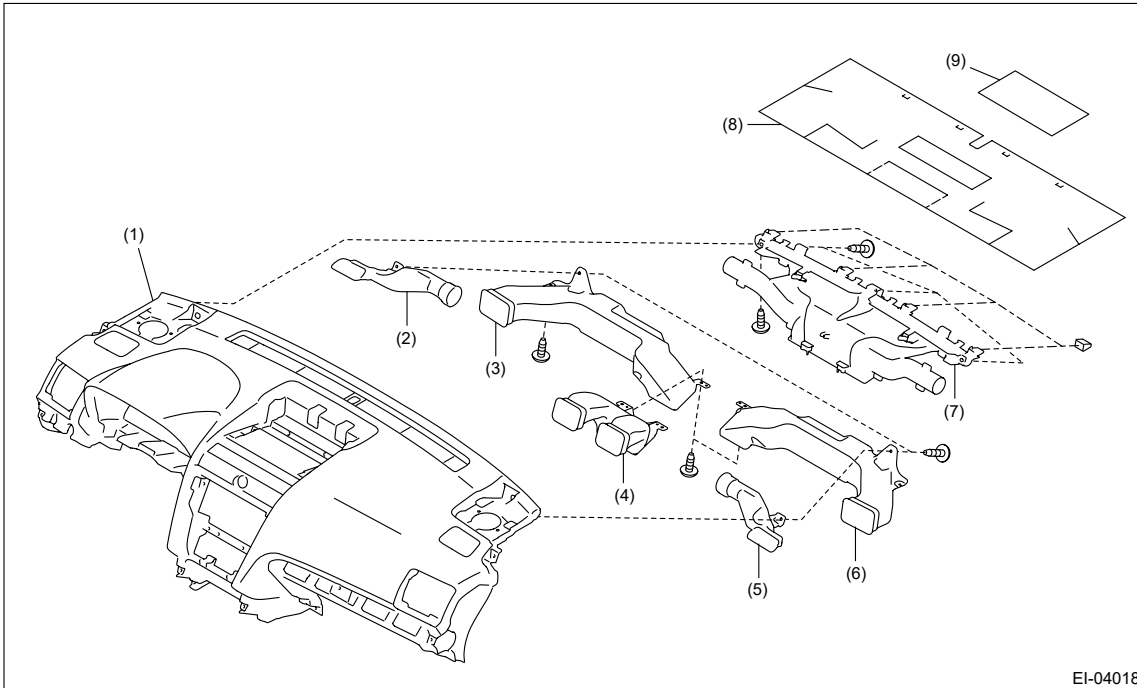
- (1) Panel COMPL - instrument
- (2) Cap - bolt
- (3) TORX® bolt (M8×37)
- (4) Passenger's airbag module ASSY
- (5) Beam COMPL - steering
- (6) TORX® bolt (M8×57)
- (7) Adjuster - clip space
- (8) Knee airbag module ASSY

Tightening torque: N·m (kgf-m, ft-lb)

T1: 7 (0.71, 5.2)

T2: 7.5 (0.76, 5.5)

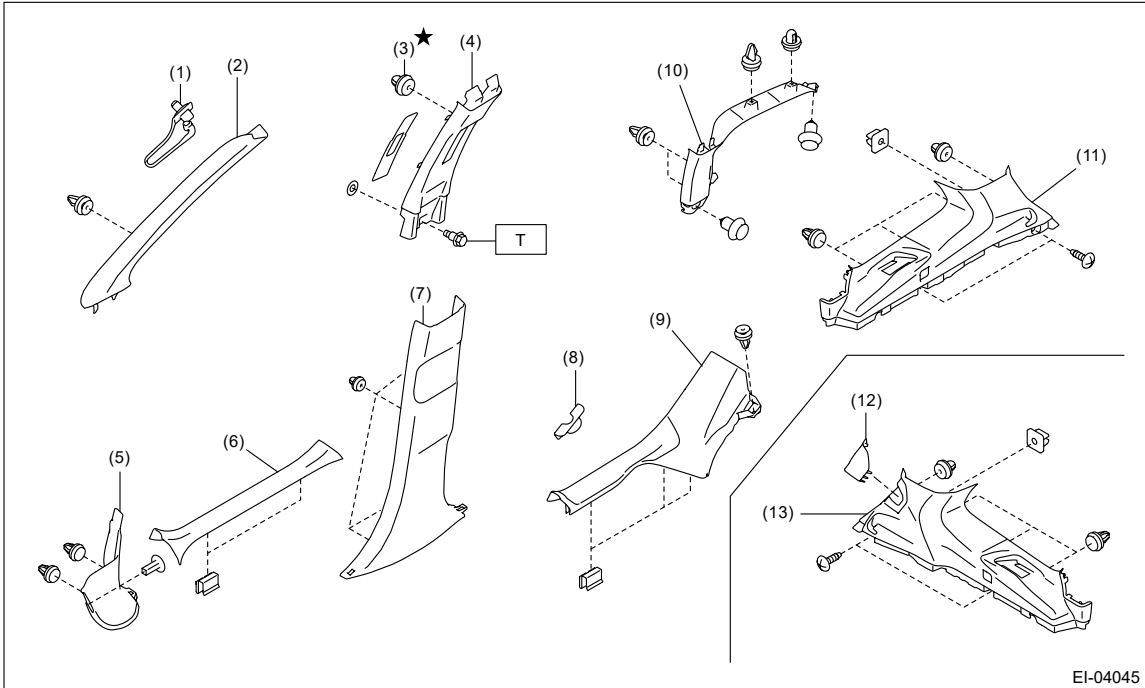
T3: 25 (2.55, 18.4)



EI-04018

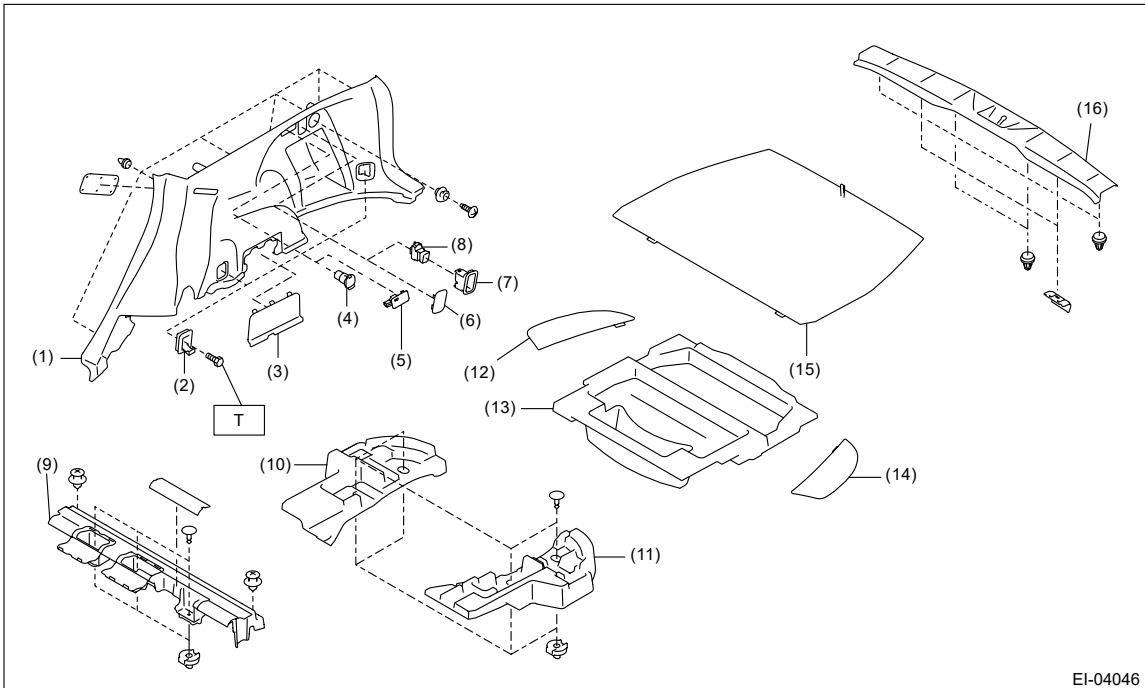
- (1) Panel COMPL - instrument
- (2) Duct - side defroster LH
- (3) Duct - side ventilation LH
- (4) Duct - center vent
- (5) Duct - side defroster RH
- (6) Duct - side ventilation RH
- (7) Nozzle - front defroster
- (8) Insulator - instrument
- (9) Insulator - airbag

17. INNER TRIM



EI-04045

- | | | |
|------------------------------------|--|--|
| (1) Tether clip | (7) Trim panel - center pillar LWR | (13) Trim panel - rear quarter pillar UPR LH |
| (2) Trim panel - front pillar UPR | (8) Cover - catcher | |
| (3) Clip | (9) Cover side sill - rear INN | Tightening torque: N·m (kgf·m, ft·lb) |
| (4) Trim panel - center pillar UPR | (10) Trim panel - rear pillar UPR | T: 7.5 (0.76, 5.5) |
| (5) Cover side sill - front | (11) Trim panel - rear quarter pillar UPR RH | |
| (6) Cover side sill - front INN | (12) Cap - rear quarter pillar UPR LH (model with power rear gate) | |



EI-04046

- (1) Trim panel - rear apron
- (2) Hook - luggage
- (3) Cap - rear strut
- (4) Socket ASSY

- (8) Switch ASSY - cargo
- (9) Spacer - rear floor
- (10) Spacer - rear floor side RH
- (11) Spacer - rear floor side LH

- (15) Mat - rear floor CTR
- (16) Trim panel - rear skirt

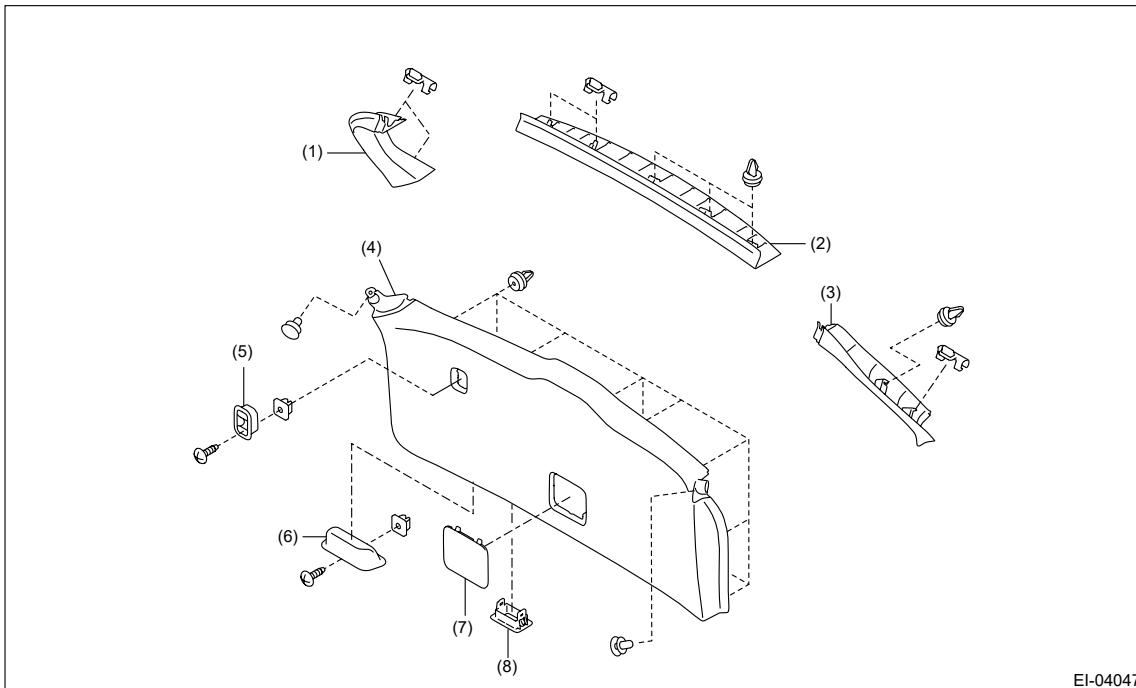
- (5) Light ASSY - luggage
- (6) Cap
- (7) Switch holder

- (12) Mat - rear floor RH
- (13) Cover - trunk
- (14) Mat - rear floor LH

Tightening torque: N·m (kgf·m, ft·lb)

T: 7.5 (0.76, 5.5)

18. REAR GATE TRIM

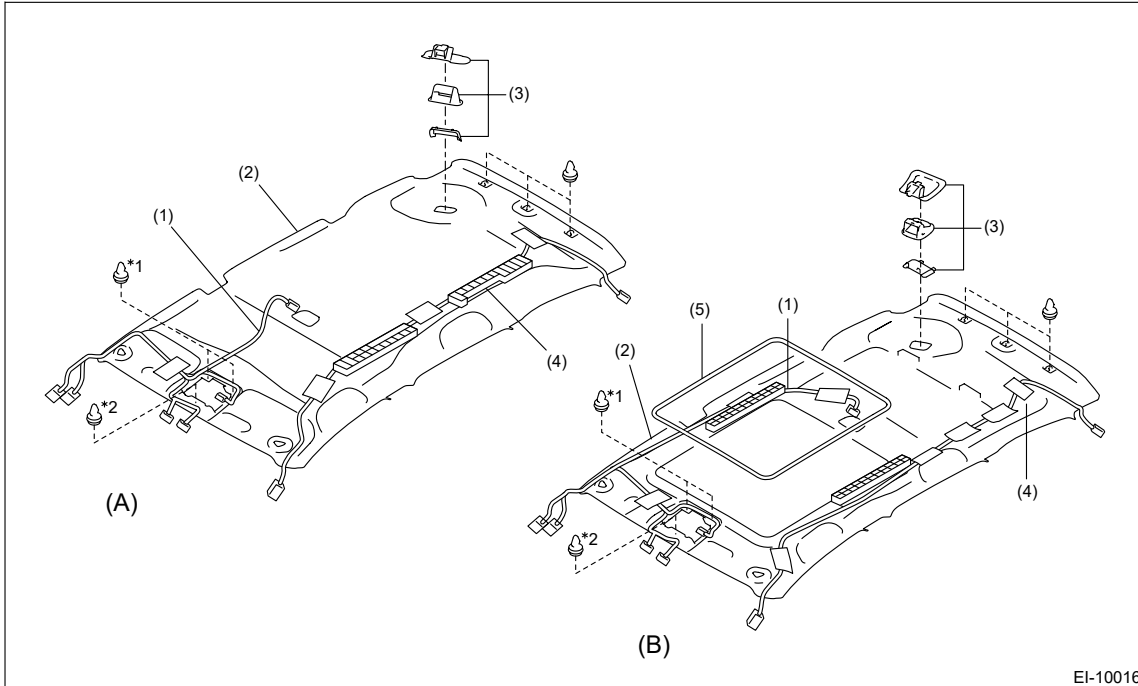


- (1) Trim panel - rear gate pillar side RH
- (2) Trim panel - rear gate UPR
- (3) Trim panel - rear gate pillar side LH

- (4) Trim panel - rear gate LWR
- (5) Hook ASSY
- (6) Rear gate handle

- (7) Cap
- (8) Power rear gate inner switch

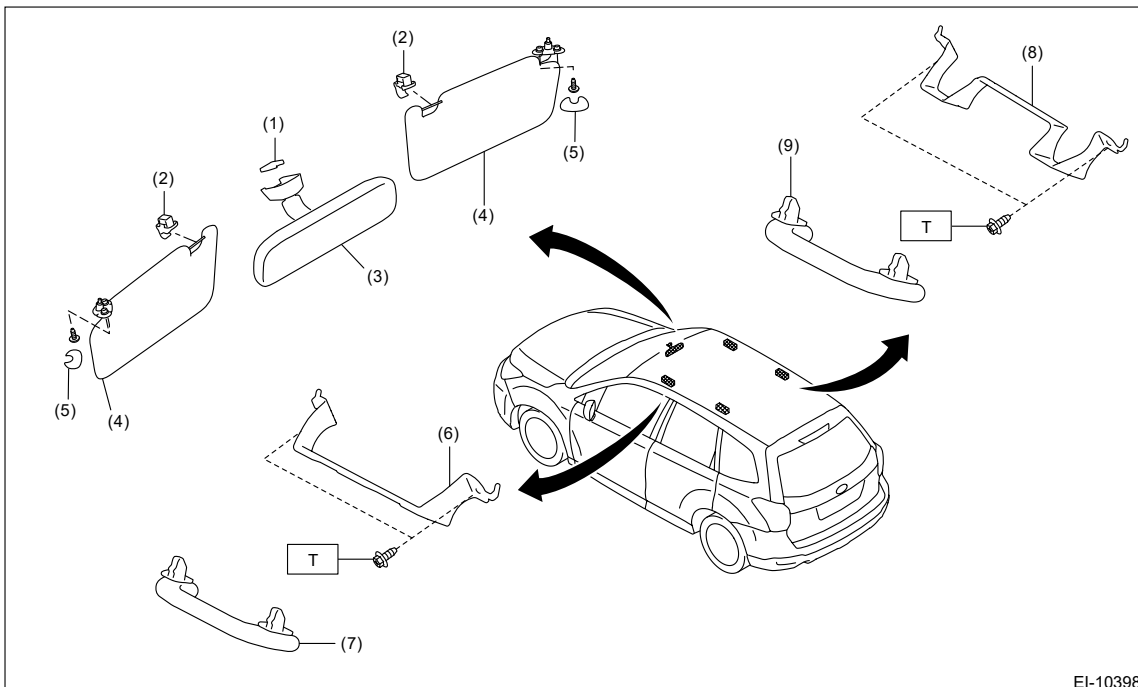
19. ROOF TRIM



EI-10016

- | | | |
|----------------------------|--------------------------------|--------------------|
| (A) Normal roof | (B) Sunroof type | |
| (1) Cord - roof | (3) Holder - seat belt | (5) Garnish - roof |
| (2) Trim panel - roof ASSY | (4) Cord ASSY - antenna feeder | |
| *1 Models with EyeSight | *2 Models without EyeSight | |

20. ROOM INNER PARTS



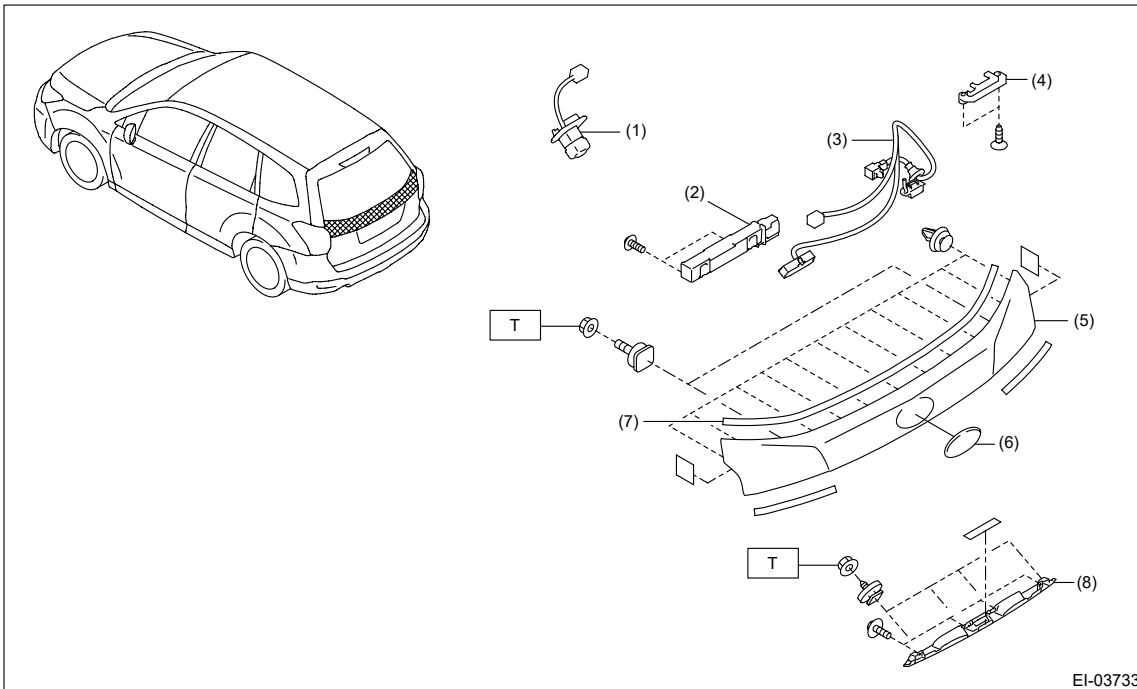
EI-10398

- | | | |
|----------------------------------|---------------------------------|------------------------|
| (1) Base - inner mirror | (5) Cap - sun visor | (9) Assist rail - rear |
| (2) Hook - sun visor | (6) Bracket - assist rail front | |
| (3) Mirror ASSY - rearview inner | (7) Assist rail - front | |
| (4) Sun visor ASSY | (8) Bracket - assist rail rear | |

Tightening torque: N·m (kgf·m, ft·lb)

T: 7.5 (0.76, 5.5)

21. REAR GATE GARNISH



EI-03733

- | | |
|--|------------------------------|
| (1) Camera ASSY - rearview | (5) Garnish ASSY - rear gate |
| (2) Rear exterior antenna | (6) Ornament rear |
| (3) Switch - opener rear gate
(model with keyless access) | (7) Gasket |
| (4) Bracket - request switch | (8) Garnish switch bracket |

**Tightening torque: N·m (kgf-m,
ft-lb)**

T: 4.5 (0.46, 3.3)

EXTERIOR/INTERIOR TRIM > General Description


PREPARATION TOOL

TOOL NAME	REMARKS
Clip remover	Used for removing trim. <ul style="list-style-type: none">• KTC AP201-10A• KTC AP201-N• KTC AP203-10A• KTC AP20L-10B Or equivalent.
Clip clamp pliers	Used for removal of various clips and clamps. <ul style="list-style-type: none">• KTC CCP-190 Or equivalent.
TORX® T40	Used for removing and installing the beam COMPL - steering.

EXTERIOR/INTERIOR TRIM > Glove Box

INSTALLATION

Install each part in the reverse order of removal.

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Glove Box

REMOVAL

Note:

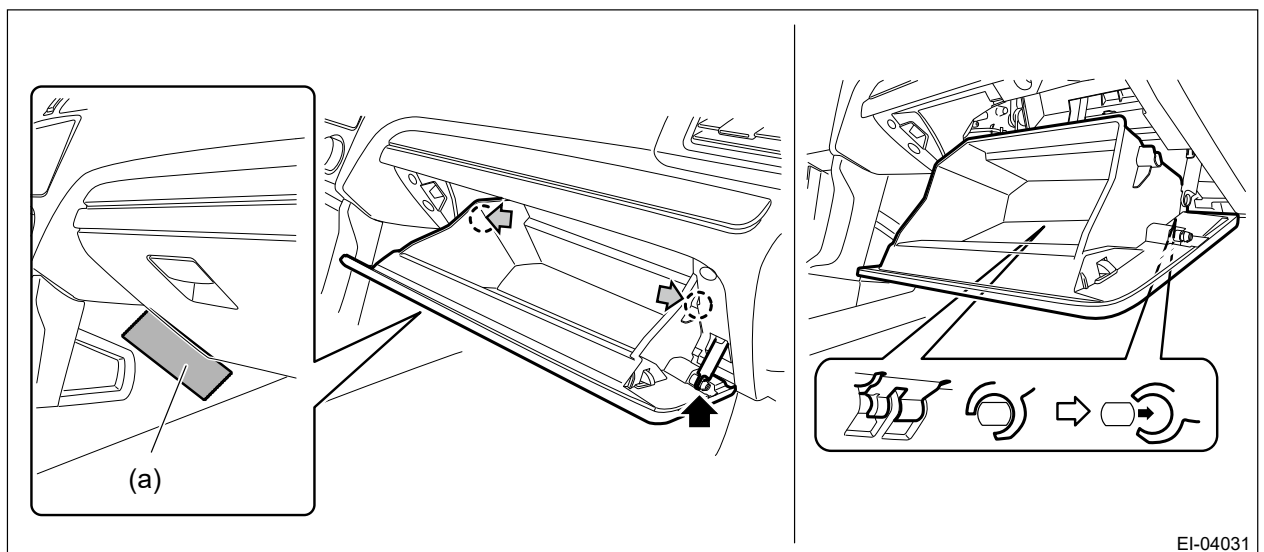
Refer to "Security and Locks" section for key cylinder replacement.  [Ref. to SECURITY AND LOCKS>Key Lock Cylinders>REPLACEMENT > GLOVE BOX LID.](#)

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the pocket assembly.
 - (1) Attach the protective tape (a) to the panel center LWR.
 - (2) Remove the damper complete - pocket.
 - (3) Release the stoppers and remove the pocket assembly by pulling it toward you.



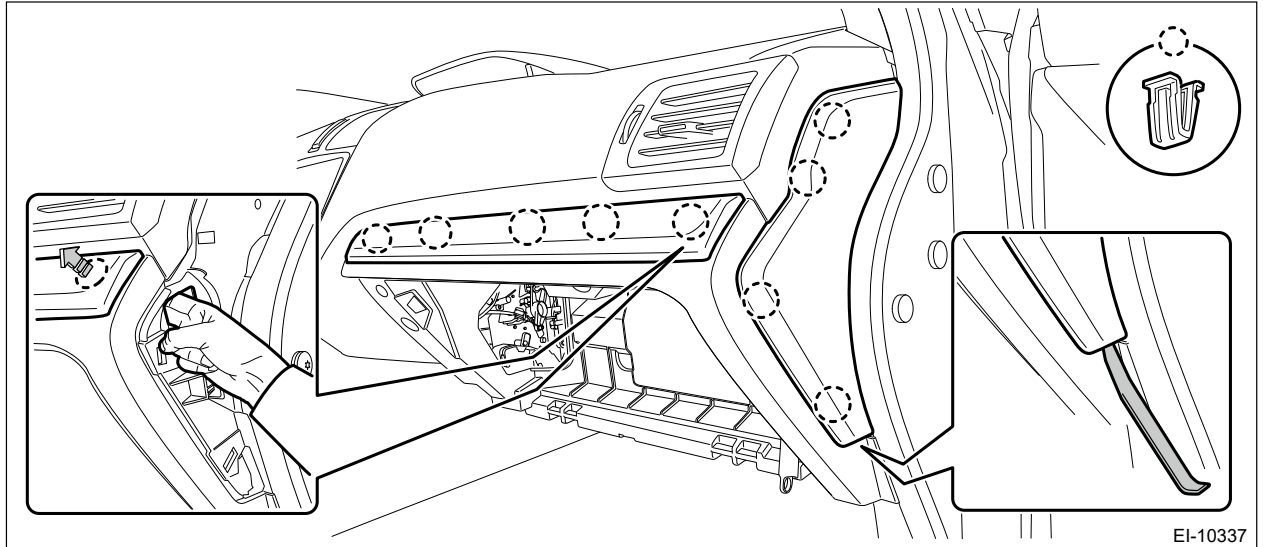
EI-04031

3. Remove the back panel - pocket.
 - (1) Remove the clips, and remove the cover - instrument panel side RH.

Note:

Remove the cover - instrument panel side RH by using a plastic remover.

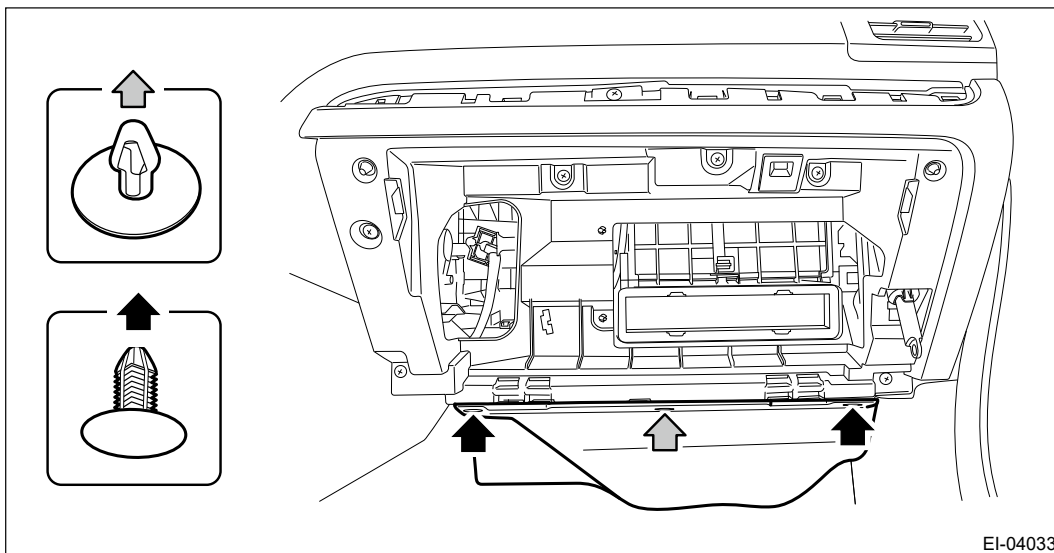
- (2) Release the clips, and remove the ornament - panel assembly passenger.



Note:

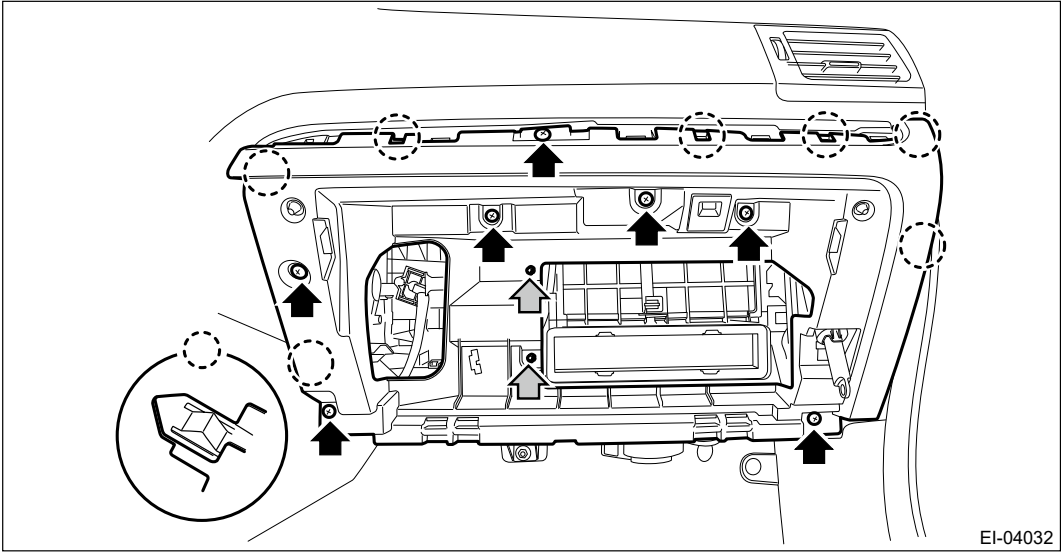
To facilitate the removal, push the clip of the ornament - panel assembly passenger from the backside.

- (3) Release the clips, and remove the glove box under cover.



- (4) Remove the glove box light LED, and disconnect the connector.

- (5) Remove the screws, claws and harness clamp, then remove the back panel - pocket.



EI-04032

EXTERIOR/INTERIOR TRIM > Heat Shield Cover


NOTE

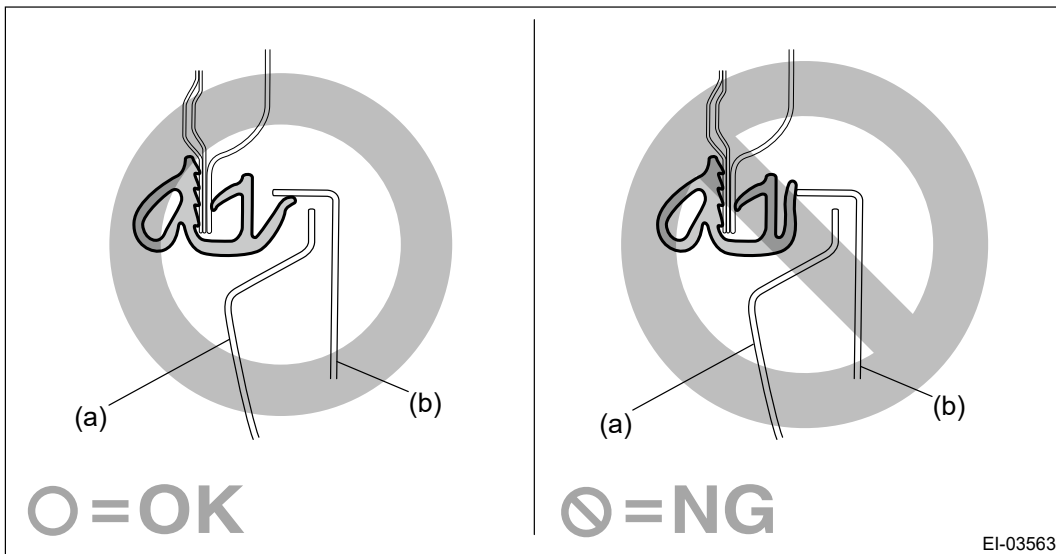
Refer to "EXHAUST" section for removal and installation procedure of the heat shield cover.

EXTERIOR/INTERIOR TRIM > Instrument Panel Assembly

INSTALLATION

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.
- When installing the cover - instrument panel side (a), make sure that the body side weather strip - flange front does not come inside the panel COMPL - instrument (b).



- Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.
- Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.
- Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.

1. Attach components until the instrument panel assembly is formed, in the reverse order of removal.

Tightening torque:

Passenger's airbag module: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

Note:

Method of installing insulator

- Adhesive

Use polyurethane adhesive. When assembling the instrument panel assembly, wait until the adhesive has evaporated to prevent filling of the smell in the compartment.

- Double-sided tape

Use commercial double-sided tape. (Use strong double-sided adhesive tape.)

2. Insert the matching pins on the body side (three locations - one in the center and the remaining two on both sides) into the instrument panel assembly and the beam COMPL - steering.
3. Check that the matching pins are inserted securely, and then route the harness.
4. Install the grille - front defroster.

5. Secure the instrument panel assembly and the beam COMPL - steering to the vehicle body.

- (1) Position the instrument panel assembly and the beam COMPL - steering to the vehicle body and tighten the adjuster - clip space.

Preparation tool:

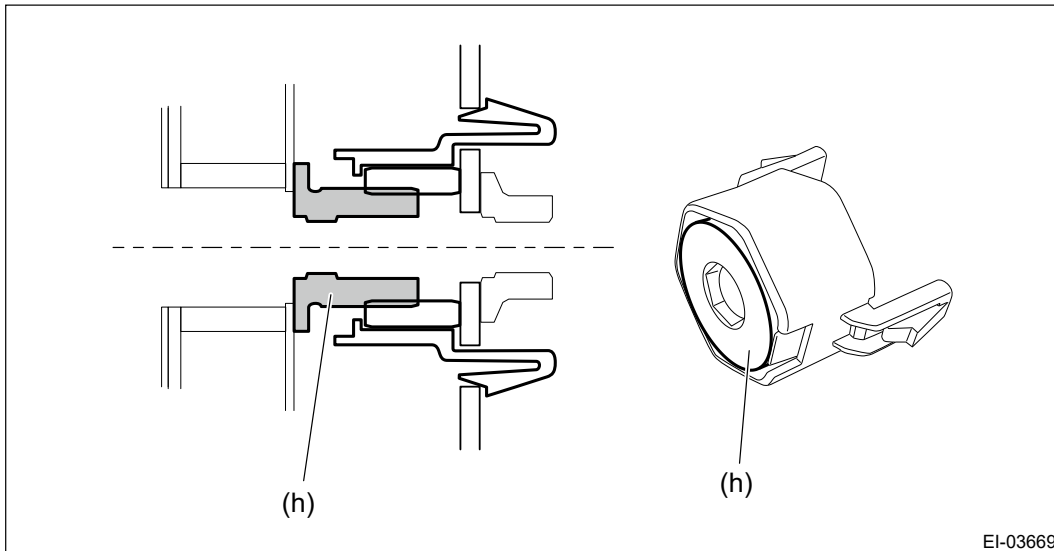
Hexagon wrench: 8 mm (0.31 in)

Note:

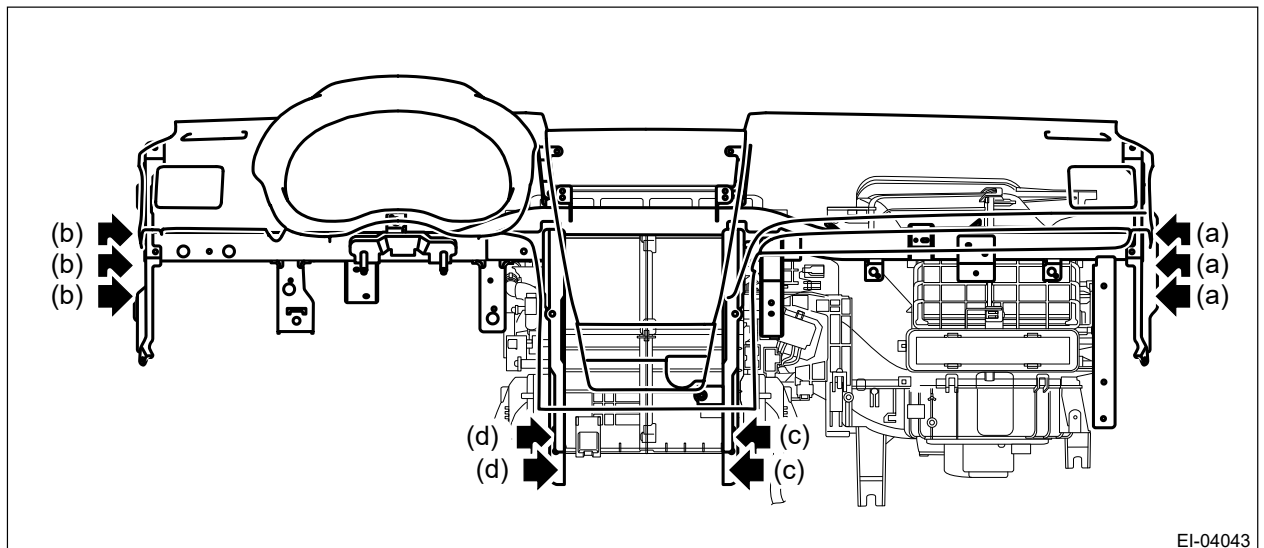
Tighten so that there is no gap between the adjuster portion (h) and the body.

Tightening torque:

Adjuster - clip space: 0.8— 4 N·m (0.08 — 0.41 kgf-m, 0.6 — 2.95 ft-lb)



- (2) Temporarily tighten the bolts (a), (b), (c) and (d) of the beam COMPL - steering.





- (3) Tighten the beam COMPL - steering in the order from (a) to (d) to the specified torque.

Tightening torque:

Beam COMPL - steering: 25 N·m (2.55 kgf-m, 18.4 ft-lb)

Preparation tool:

TORX® T40

- 6.** Tighten the column assembly - steering installation nut.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Column>INSTALLATION.](#)
- 7.** Install the universal joint assembly - steering.  [Ref. to POWER ASSISTED SYSTEM \(POWER](#)

[STEERING](#)>[Universal Joint](#)>[INSTALLATION](#).

8. Install the remaining parts in the reverse order of removal.


Note:

For installation of the trim panel - front pillar UPR, refer to "Upper Inner Trim".  [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>INSTALLATION](#).

Tightening torque:

Console box assembly: 6.5 N·m (0.66 kgf-m, 4.8 ft-lb)

Front seat assembly: 53 N·m (5.40 kgf-m, 39.1 ft-lb)

9. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY](#).


Note:

After connecting the battery sensor terminal, place the select lever in the "P" position.

EXTERIOR/INTERIOR TRIM > Instrument Panel Assembly


REMOVAL

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Be careful not to damage the airbag system harness when servicing the instrument panel. Damage may cause the system to malfunction.


Note:

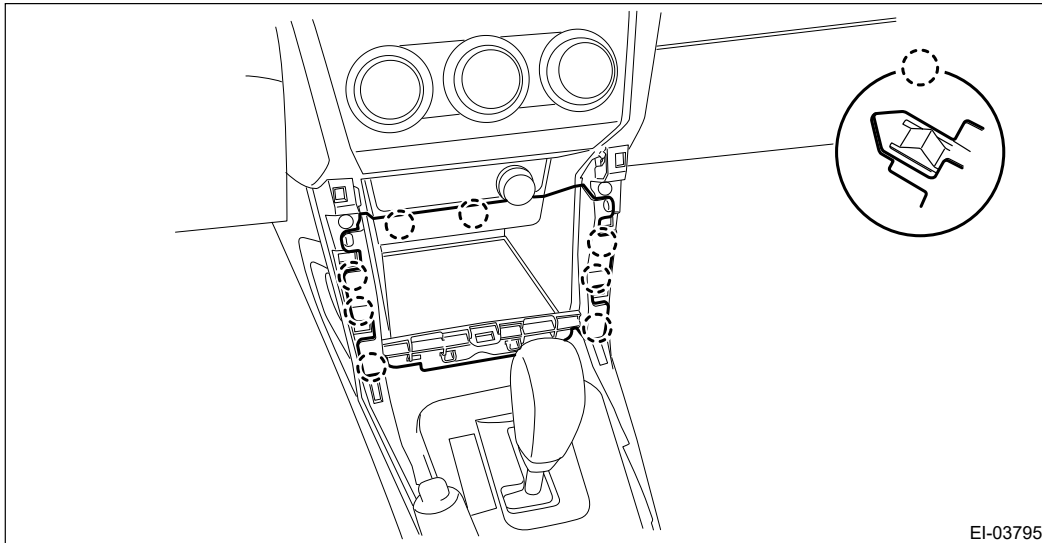
- Remove the instrument panel assembly and the beam COMPL - steering as a unit.
- For models with power amplifier, remove the front seat assembly LH and turn over the floor mat before disconnecting the power amplifier harness.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

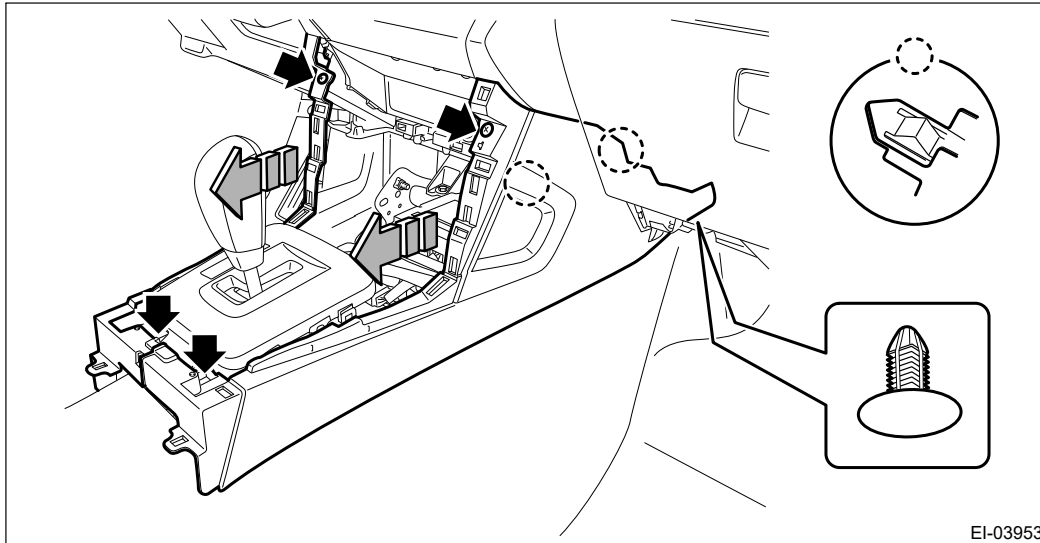
Note:

- For model with battery sensor, disconnect the ground terminal from battery sensor.
- On CVT models, shift the select lever into "N" before disconnecting the battery ground cable.


2. Remove the boot - hand brake, ornament panel - console, cover - shift lever and console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
3. Release the claws, and remove the tray assembly - CTR LWR.

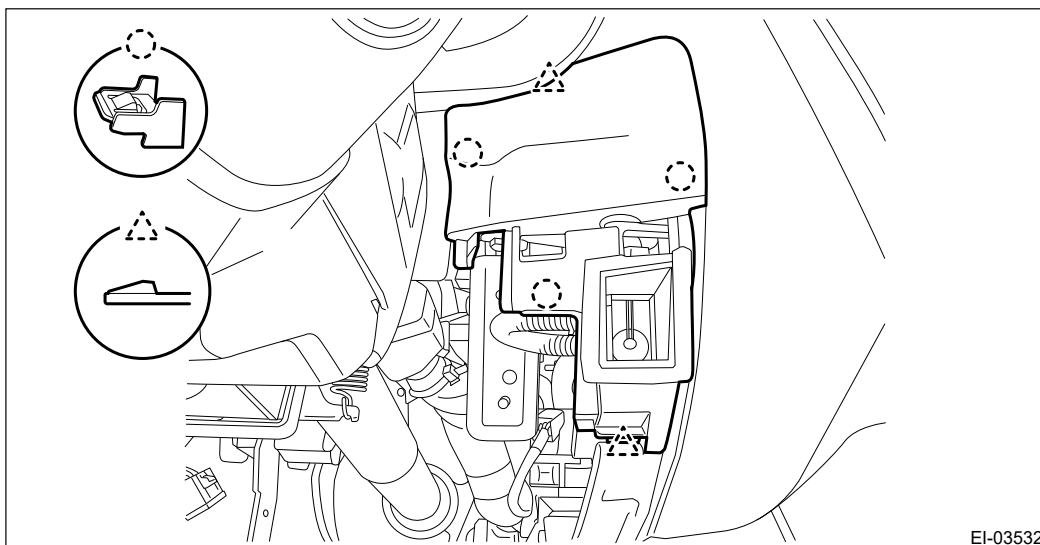


4. Remove the left and right panel center LWR.
 - (1) Remove the screws and clips.
 - (2) Release the claws, and then pull the panel center LWR to remove.



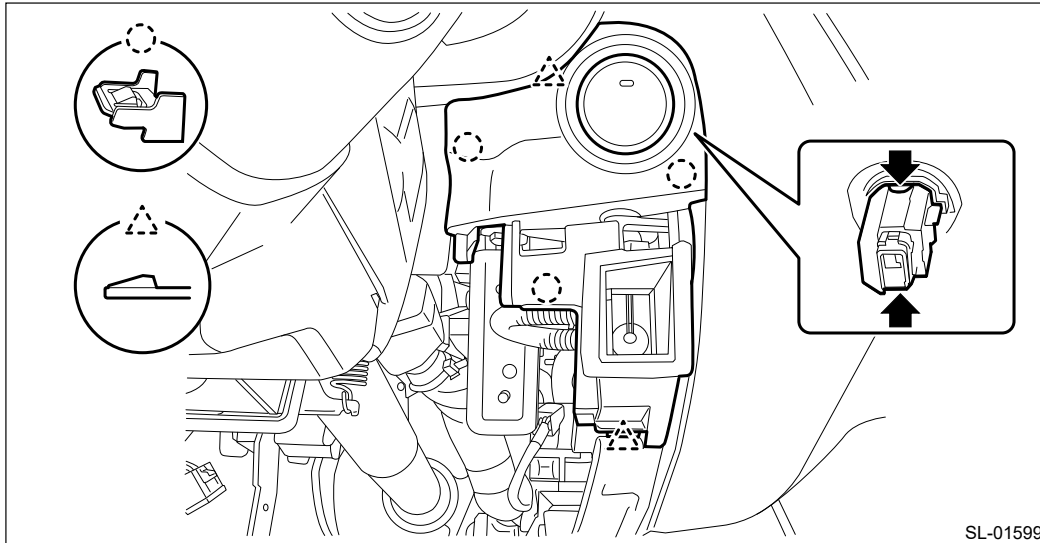
EI-03953

5. Remove the cover - instrument panel side LH, cover assembly - instrument panel LWR driver INN and OUT.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
6. Remove the cover switch - starter. (Models without the keyless access with push button start)
 - (1) Release the claws and remove the cover switch - starter.
 - (2) Disconnect the connector and aspirator hose.

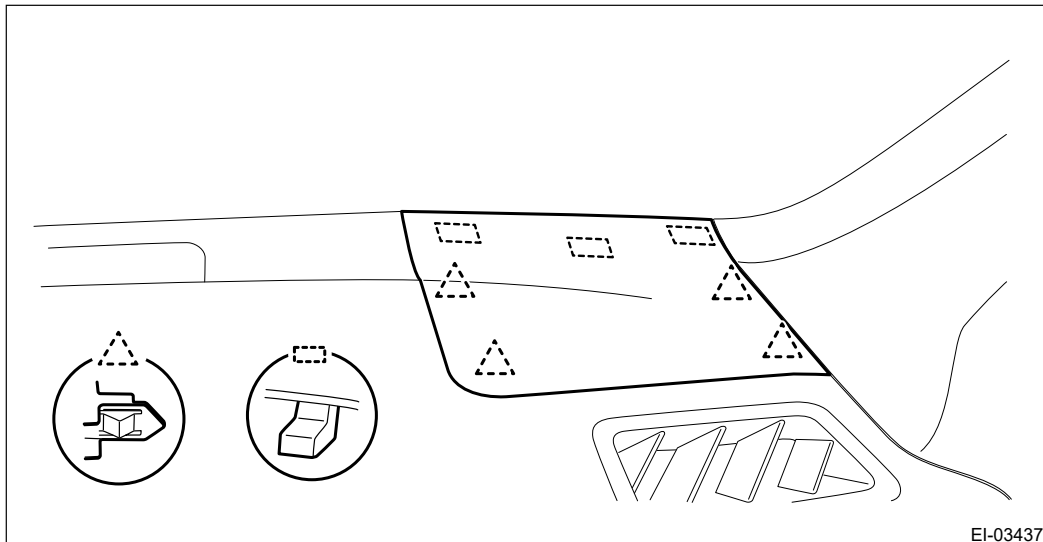


EI-03532

7. Remove the panel - switch. (Model with keyless access with push button start)
 - (1) Release the claws of the push button ignition switch, and disconnect the connector.
 - (2) Release the claws, and then remove the panel - switch.
 - (3) Disconnect the connector and aspirator hose.



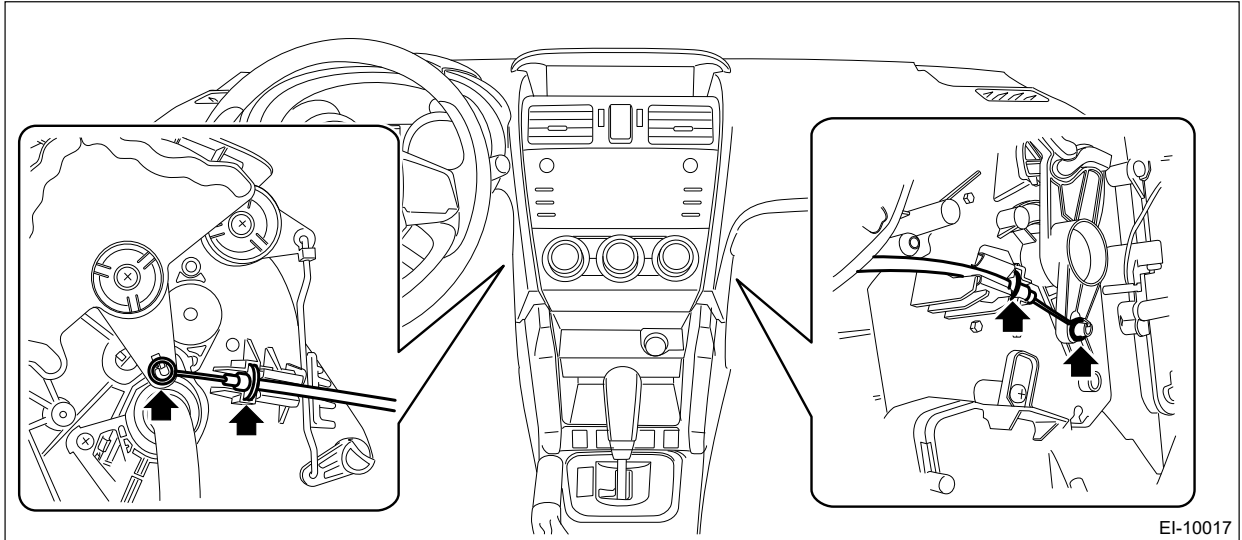
- 8.** Remove the knee airbag module. [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
- 9.** Release the clips and claws, then detach the left and right grille speaker side.








Note:

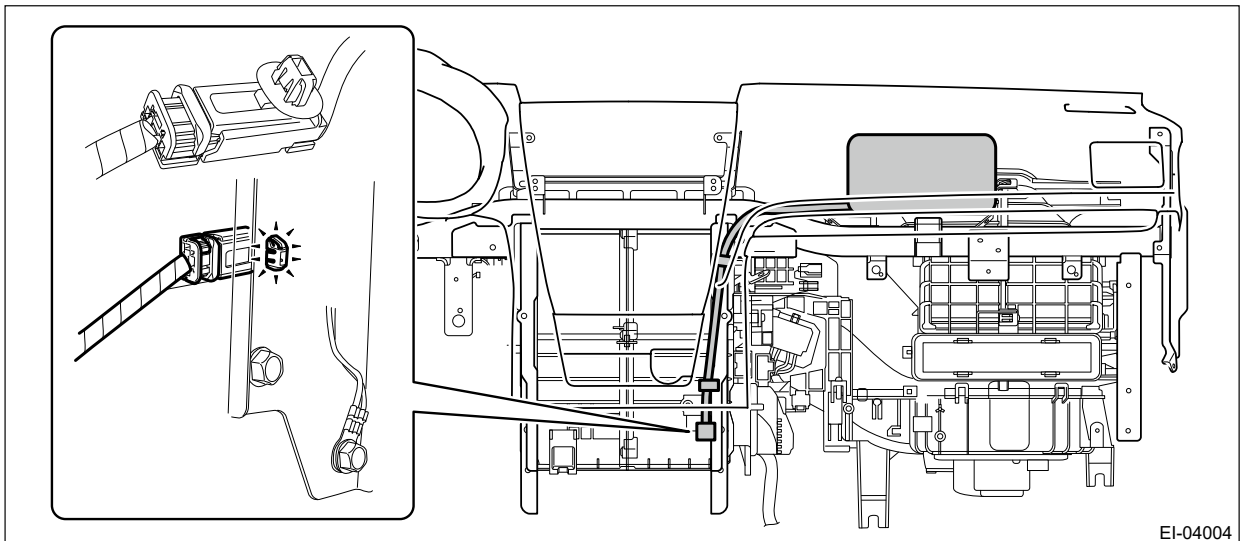
Remove the grille speaker side by using a plastic remover.

- 10.** Remove the trim panel - front pillar UPR on the left and right sides. [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL.](#)
- 11.** Remove the glove box assembly. [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
- 12.** On manual A/C models, disconnect the control cables from both sides of the heater & cooling unit.






EI-10017

- 13.** Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL.](#)
- 14.** Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT>Audio>REMOVAL.](#)
- 15.** Remove the multi-function display assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display \(MFD\)>REMOVAL.](#)
- 16.** Remove the combination meter assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.](#)
- 17.** Disconnect the passenger's airbag module connector.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > PASSENGER'S AIRBAG MODULE.](#)



EI-04004

- 18.** Remove the universal joint assembly - steering.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Universal Joint>REMOVAL.](#)
- 19.** Remove the column assembly - steering.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Column>REMOVAL.](#)
- 20.** Remove the cover side sill - front INN and cover side sill - front on the RH and LH side.  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
- 21.** For models with power amplifier, disconnect the power amplifier harness.
 - (1) Remove the front seat assembly LH.
 - (2) Disconnect the power amplifier harness.
 - (3) Turn over the floor mat, and pull out the power amplifier harness.

- 22. Remove the body side weather strip - flange front.
- 23. Remove the instrument panel assembly and the beam COMPL - steering as a unit.

Caution:

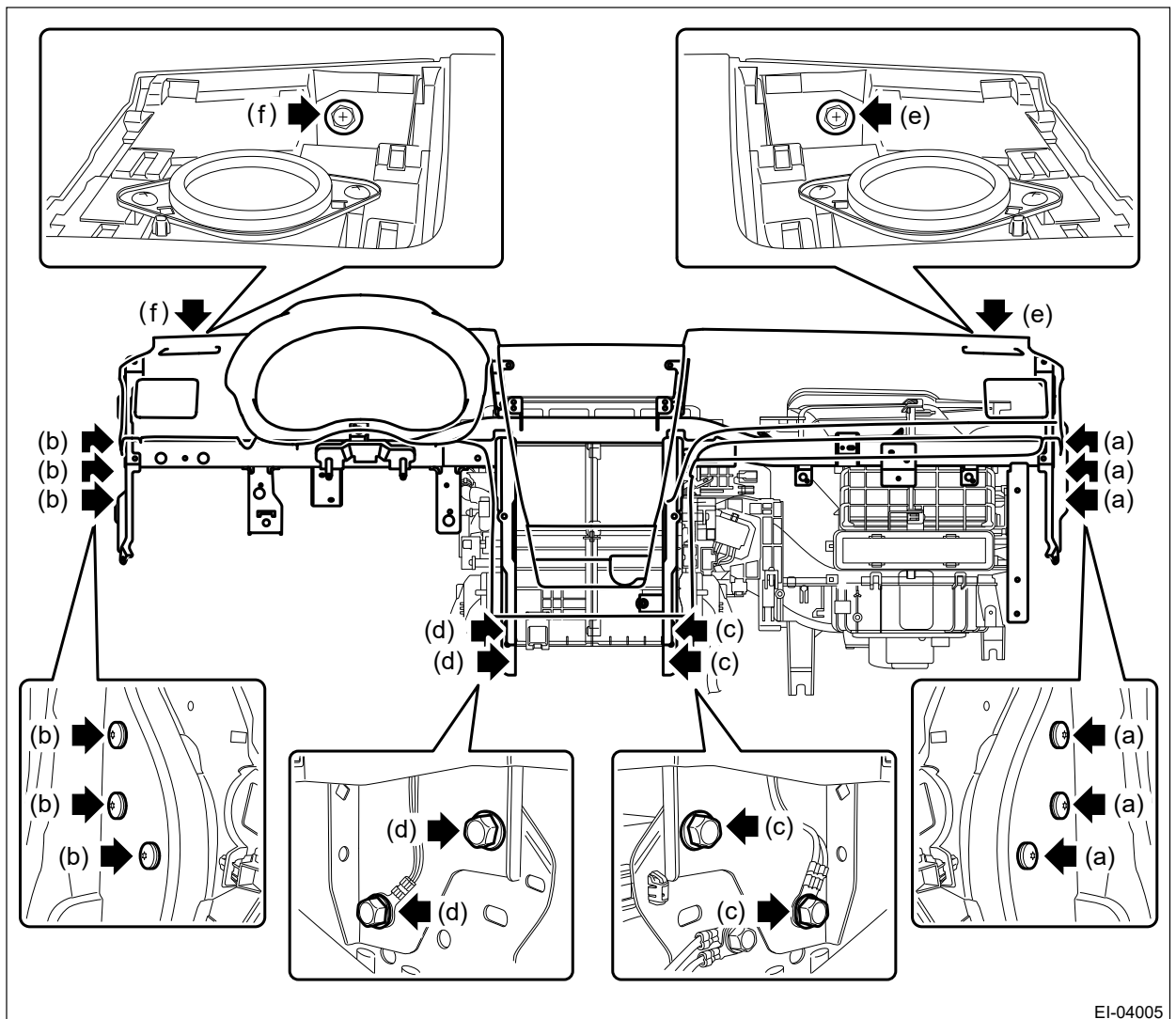
The instrument panel assembly and the beam COMPL - steering are heavy. Always work in a team of two persons when removing them from the vehicle, so as not to damage the vehicle interior.

- (1) Remove the fuse box and relay box.
- (2) Disconnect all harness clamps and connectors of the instrument panel harness.
- (3) Remove the TORX® bolt. (a), (b)

Preparation tool:

TORX® T40

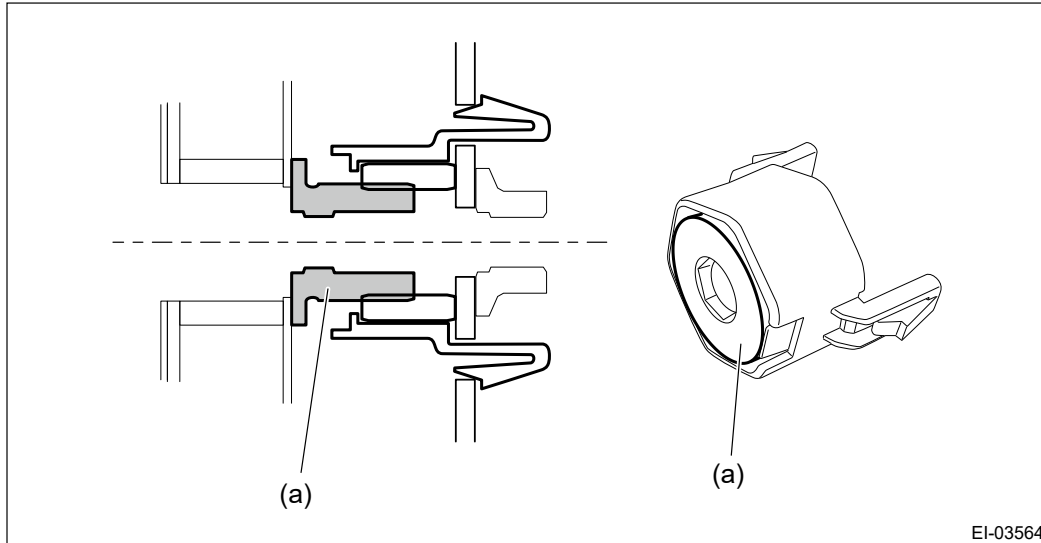
- (4) Remove the bolts at the floor center. (c), (d)
- (5) Remove the bolt. (e), (f)



- (6) Loosen the adjuster portion (a) of the adjuster - clip space. (Only LH side of the beam COMPL - steering)

Preparation tool:

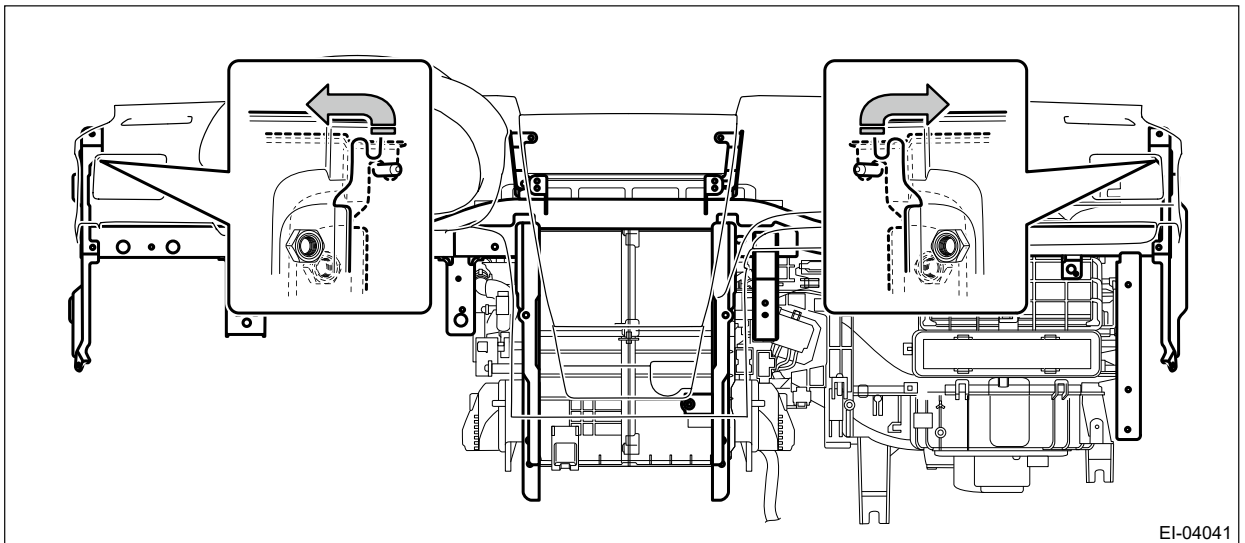
Hexagon wrench: 8 mm (0.31 in)



(7) Slightly lift the instrument panel assembly together with the beam COMPL - steering to detach the left and right pins. Then pull it toward you to remove the assembly.

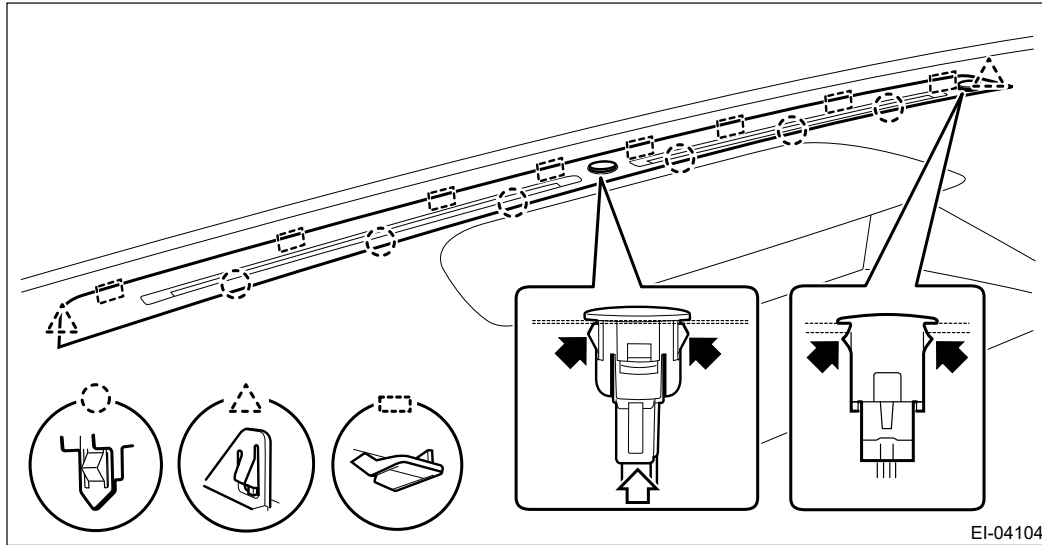
Caution:

- Check that all harness clamps and connectors are detached.
- The instrument panel assembly and the beam COMPL - steering are heavy. Always work in a team of two persons when removing them from the vehicle, so as not to damage the vehicle interior.

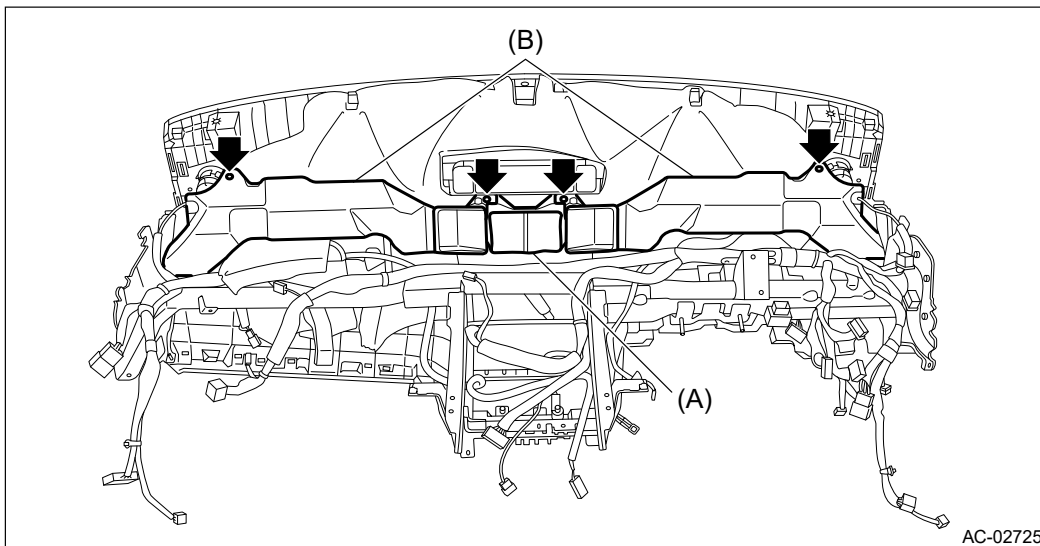


24. Remove the grille - front defroster.

- (1) Disconnect the sunload sensor connector.
- (2) Disconnect the connector of the sensor - automatic light. (Model with automatic light function)
- (3) Release the claws, and then remove the grille - front defroster.

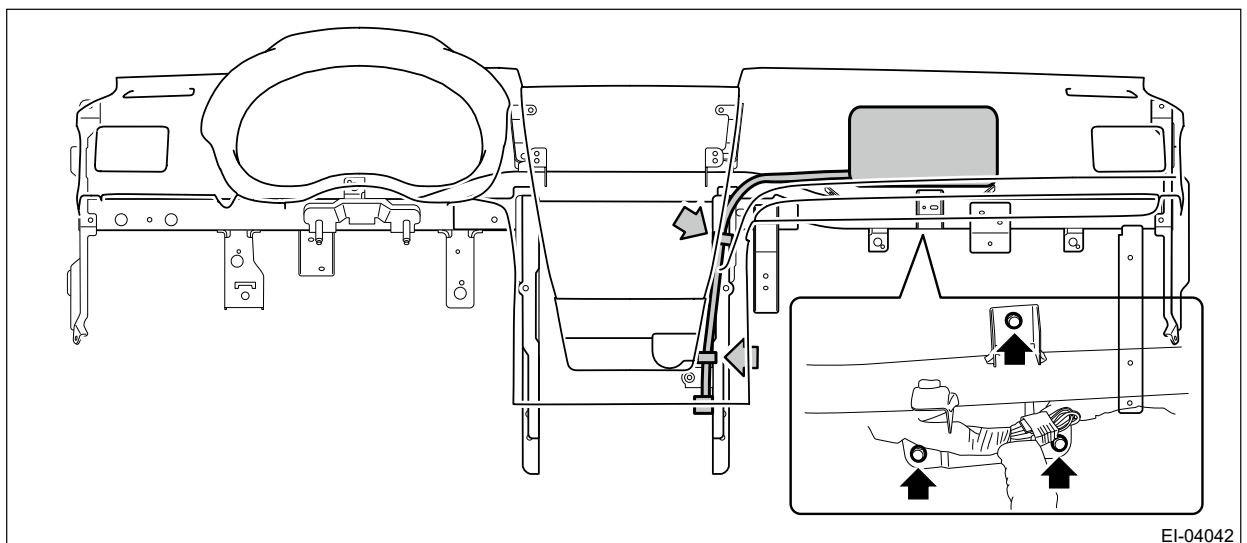


25. Remove the screws and remove the front (A) and side vent duct (B) LH, RH.



26. Separate the panel COMPL - instrument and the beam COMPL - steering.

(1) Remove the clamps and bolts of the passenger's airbag module harness.



(2) Remove the left and right speakers.

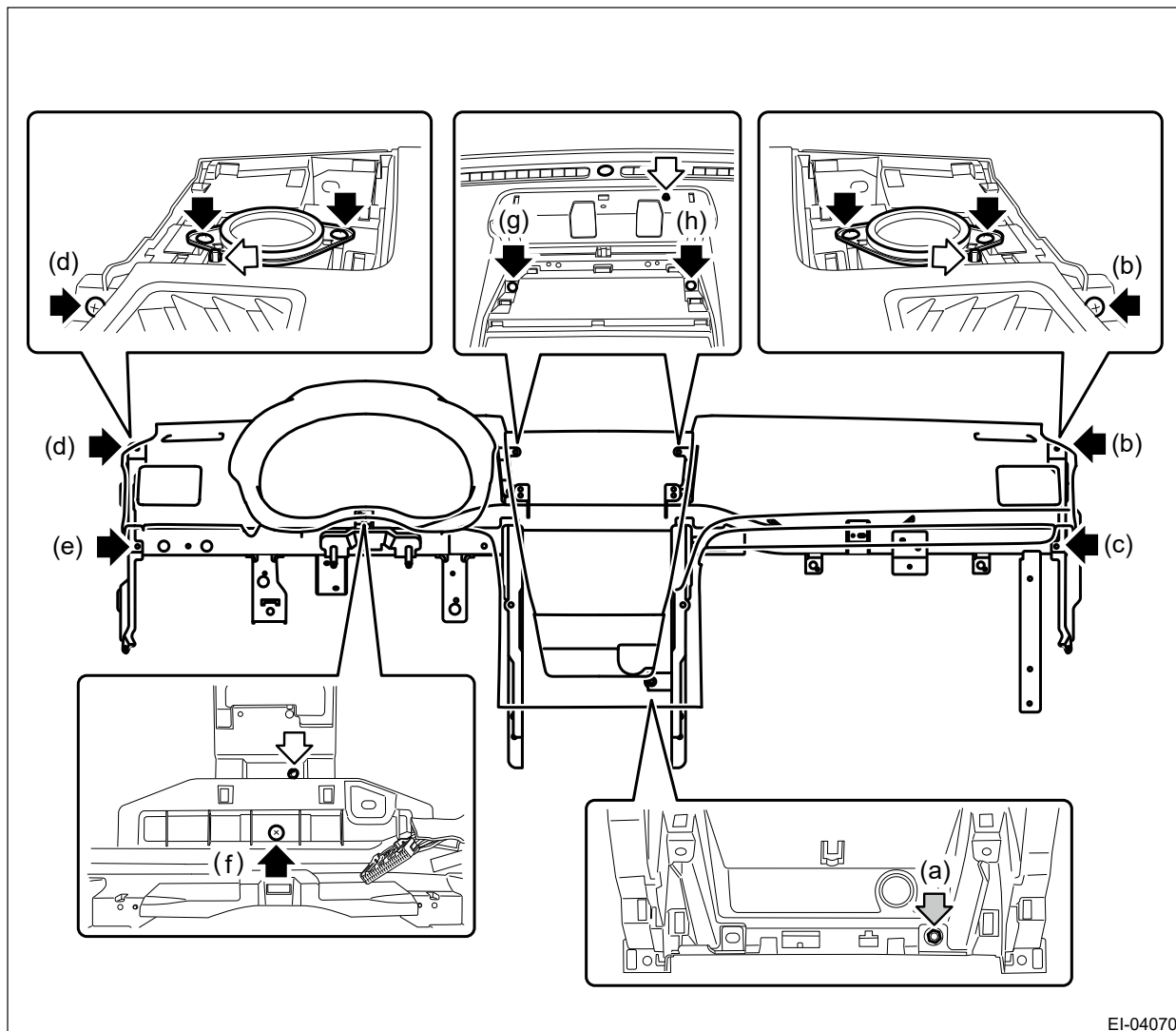
Note:

Detach the harness clamp together.

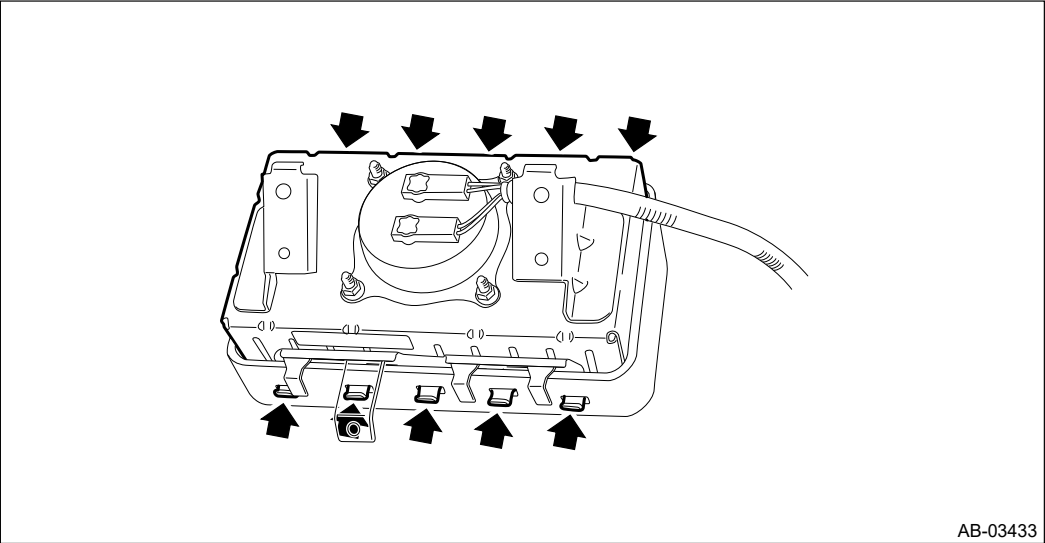
(3) Disconnect the front accessory socket connector.

(4) Remove the nut (a) and screws (b), (c), (d), (e), (f), (g) and (h).

(5) While being careful with the harness, separate the panel COMPL - instrument and the beam COMPL - steering.




27. Remove the claws, and remove the passenger's airbag module.



AB-03433

EXTERIOR/INTERIOR TRIM > Instrument Panel Lower Cover

INSTALLATION


1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Instrument Panel Lower Cover

REMOVAL

Caution:

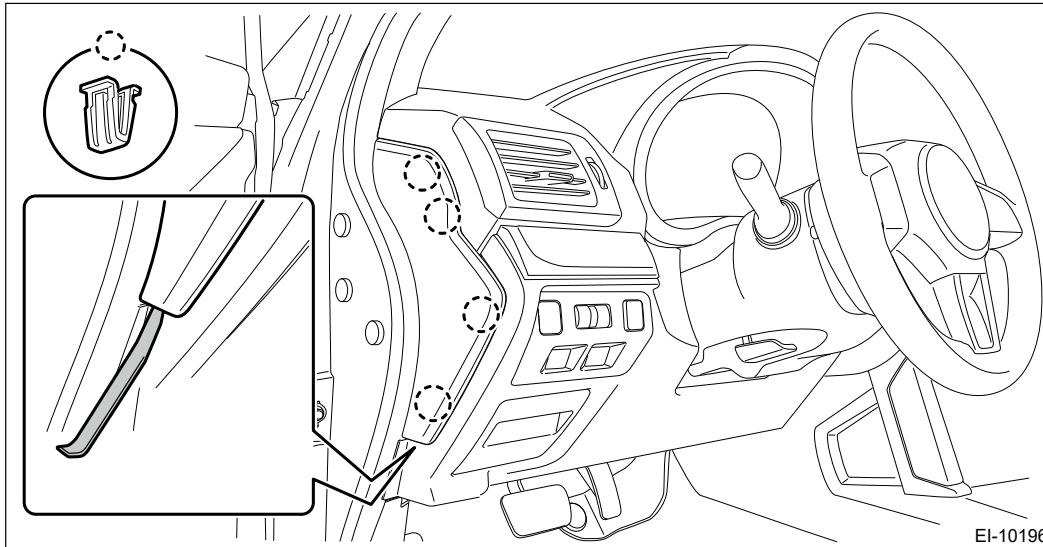
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  Ref. to NOTE>NOTE > BATTERY.

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the clips, and remove the cover - instrument panel side LH.



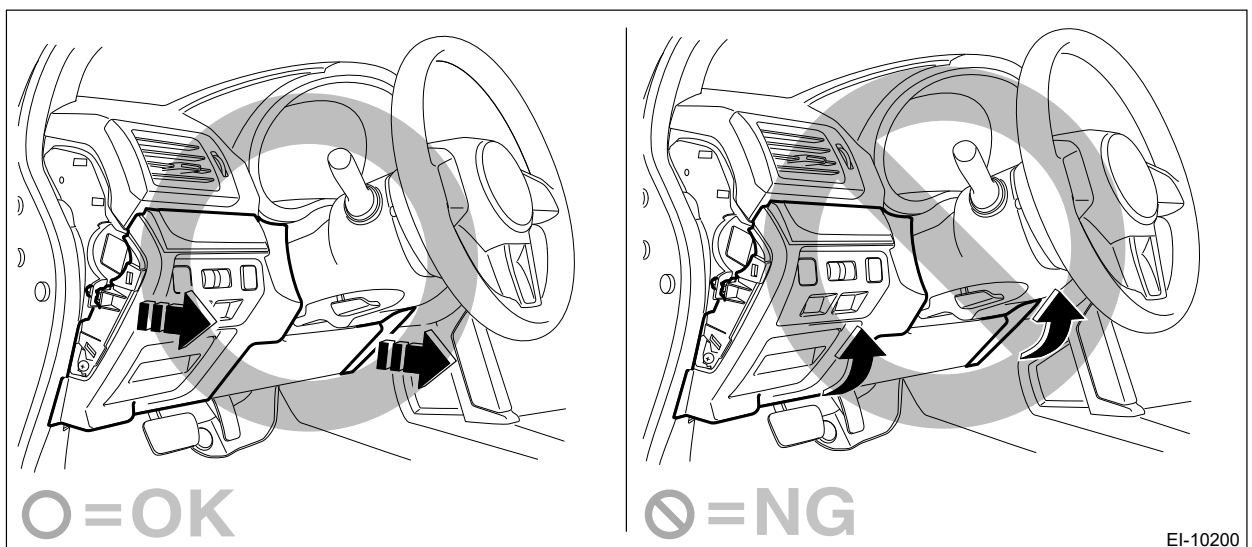
Note:

Using a plastic remover, open the cover - instrument panel side LH.

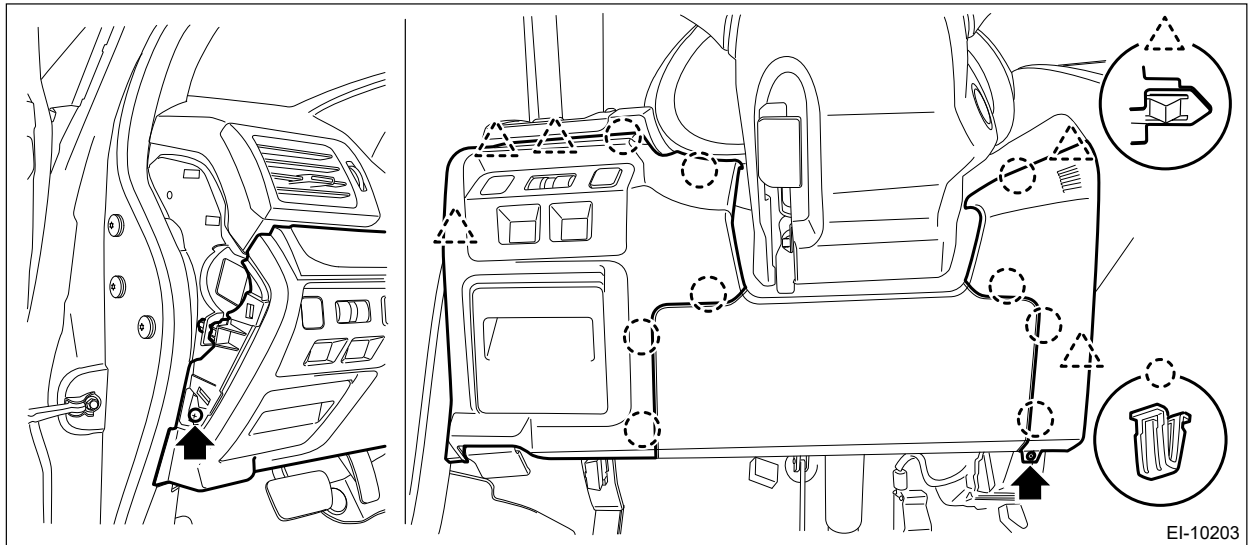
3. Remove the cover assembly - instrument panel LWR driver INN and OUT.

Caution:

When removing the cover assembly - instrument panel LWR driver, be sure to pull it toward you. If attempting to remove by turning it upward, the claws may be damaged.



- (1) Remove the screws and release the clips and claws.
- (2) Disconnect the harness connectors, and remove the cover assembly - instrument panel LWR driver INN and OUT.



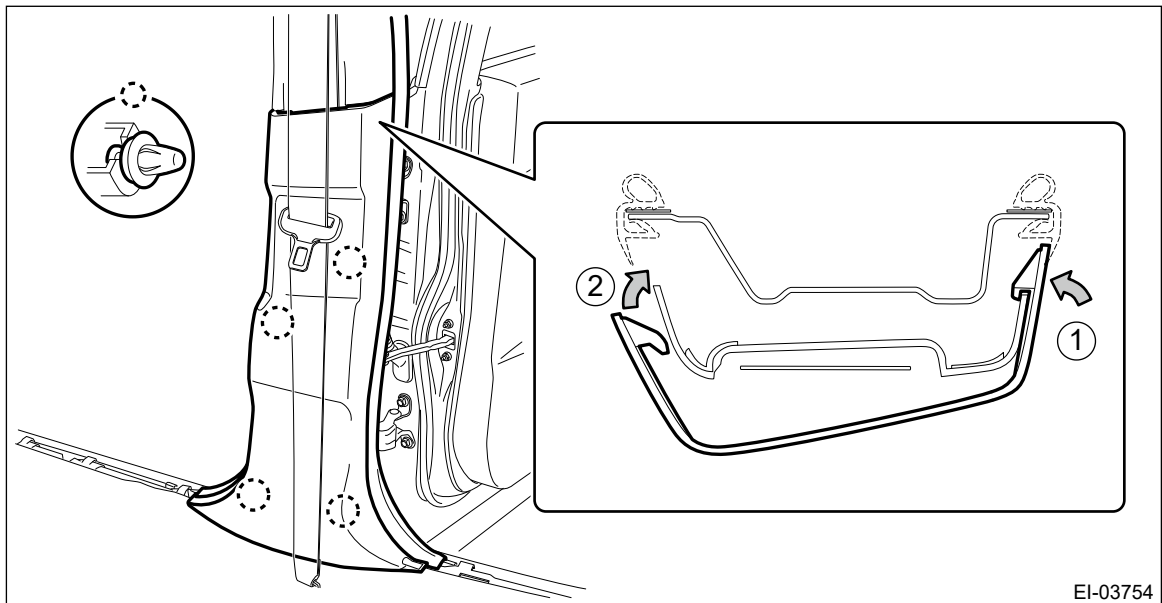
EXTERIOR/INTERIOR TRIM > Lower Inner Trim


INSTALLATION

1. Install each part in the reverse order of removal.

Note:

Assemble the trim panel - center pillar LWR to the trim panel - center pillar UPR securely.





2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Lower Inner Trim

REMOVAL

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

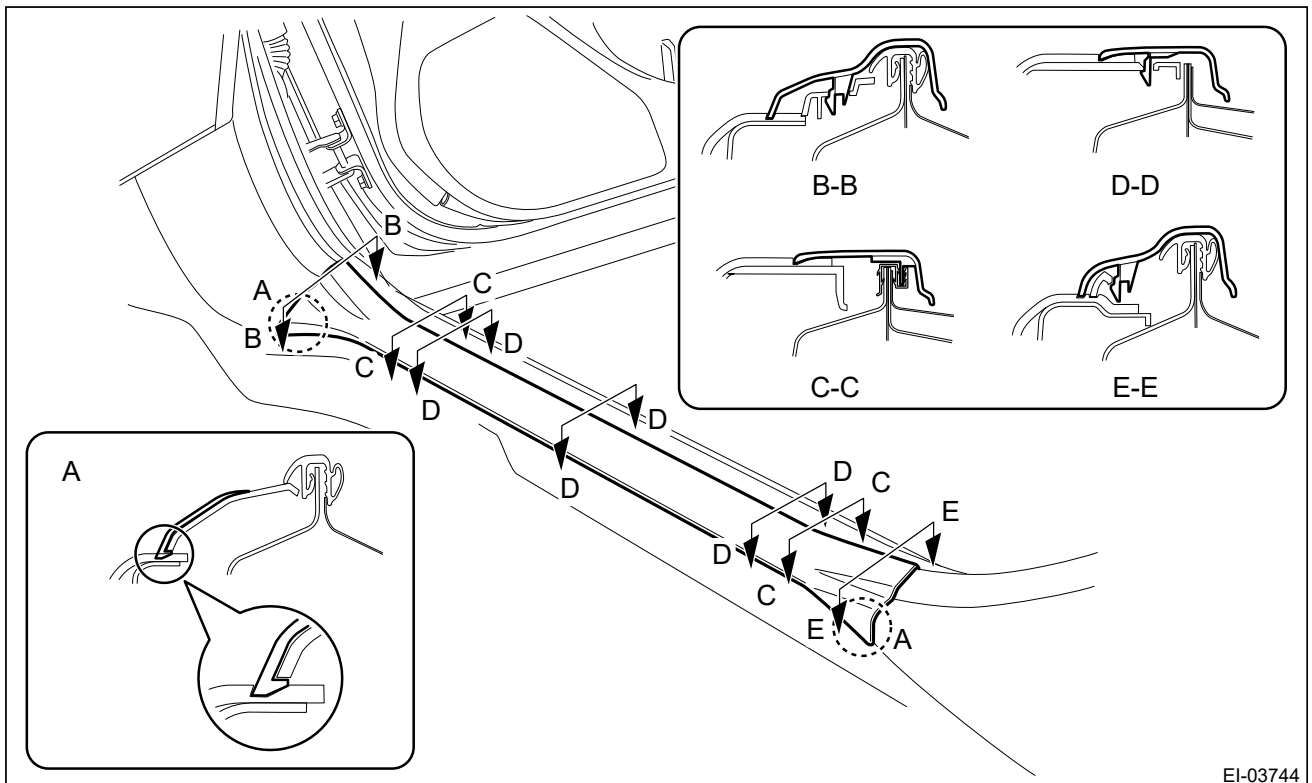
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Release the claws, and then remove the cover side sill - front INN.

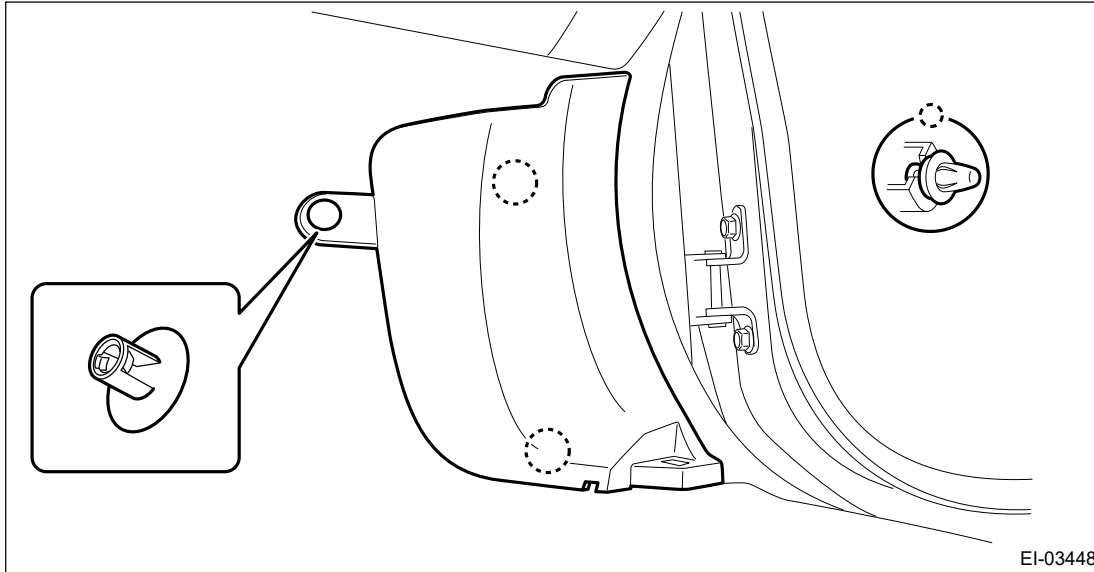
Caution:


Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



EI-03744

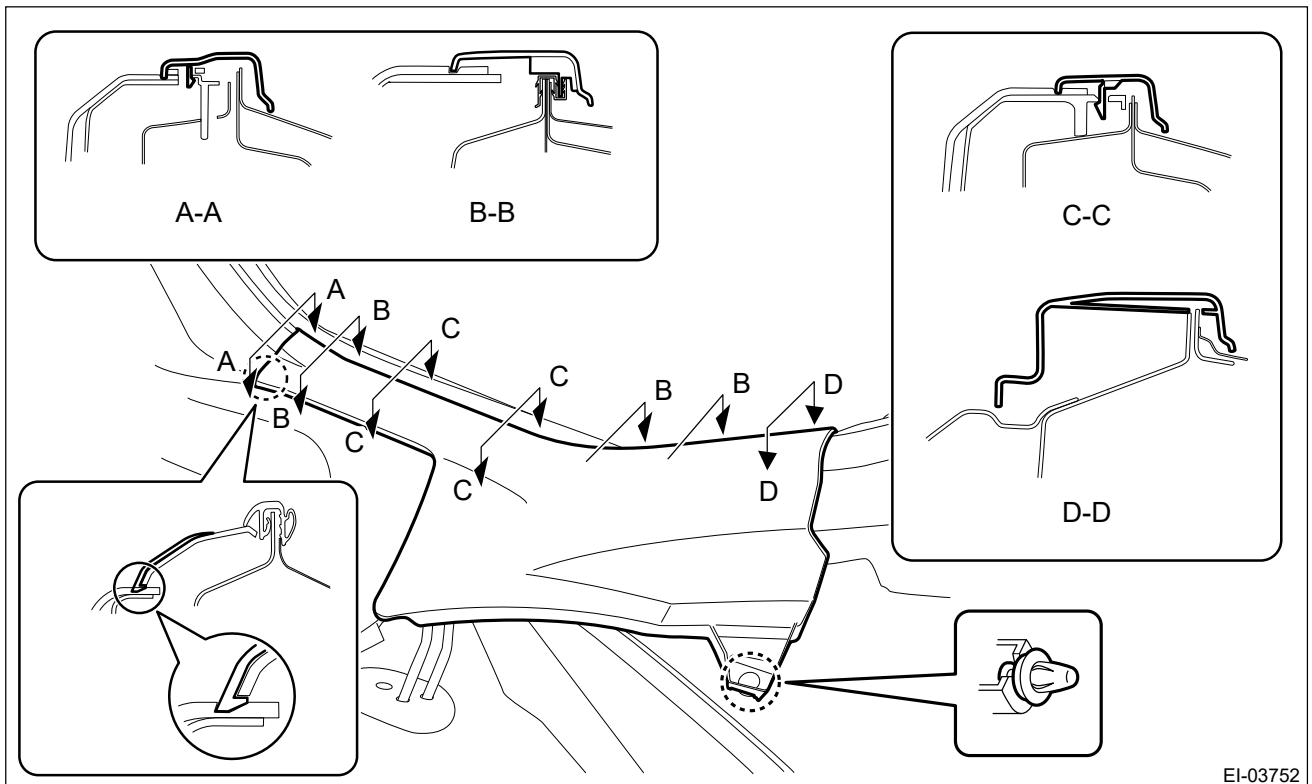
3. Remove the clips, and remove the cover side sill - front.



4. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
5. Release the clips and claws, and then remove the cover side sill - rear INN.

Caution:

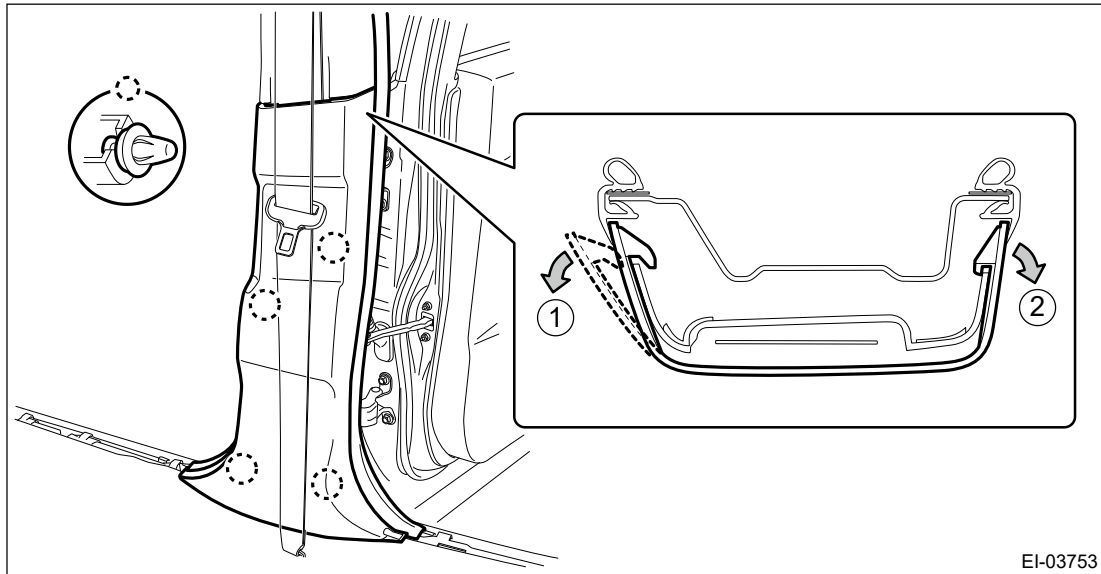
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



6. Remove the trim panel - center pillar LWR.
 - (1) Release the clip by pulling the trim panel - center pillar LWR toward you.
 - (2) Expand the claws of the trim panel - center pillar LWR outward, and remove it from the trim panel - center pillar UPR.

Caution:

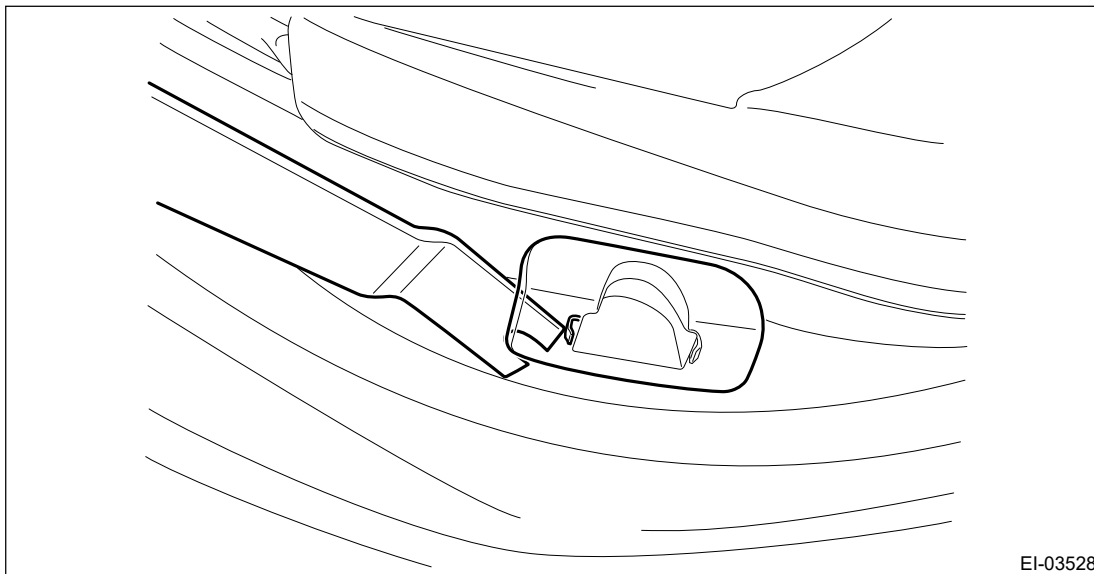
Do not expand the trim panel - center pillar LWR excessively. Doing so may damage the trim.



Note:

First release the claw located to the front of the vehicle.

7. Disconnect the claws and remove the cover - catcher.



Note:

Remove the cover - catcher by using a plastic remover.

EXTERIOR/INTERIOR TRIM > Mud Guard

INSTALLATION

Install each part in the reverse order of removal.

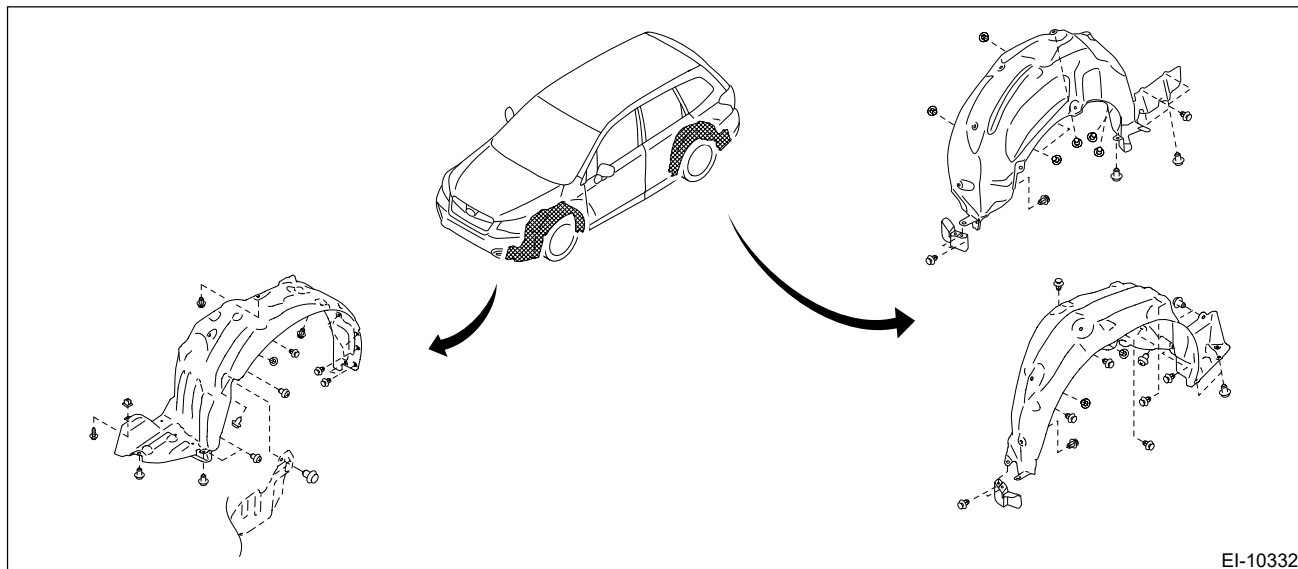
Tightening torque:

Wheel nut: 120 N·m (12.24 kgf-m, 88.5 ft-lb)

EXTERIOR/INTERIOR TRIM > Mud Guard

REMOVAL

1. Lift up the vehicle.
2. Remove the wheels.
3. Remove the screws and clips to remove the mud guard.

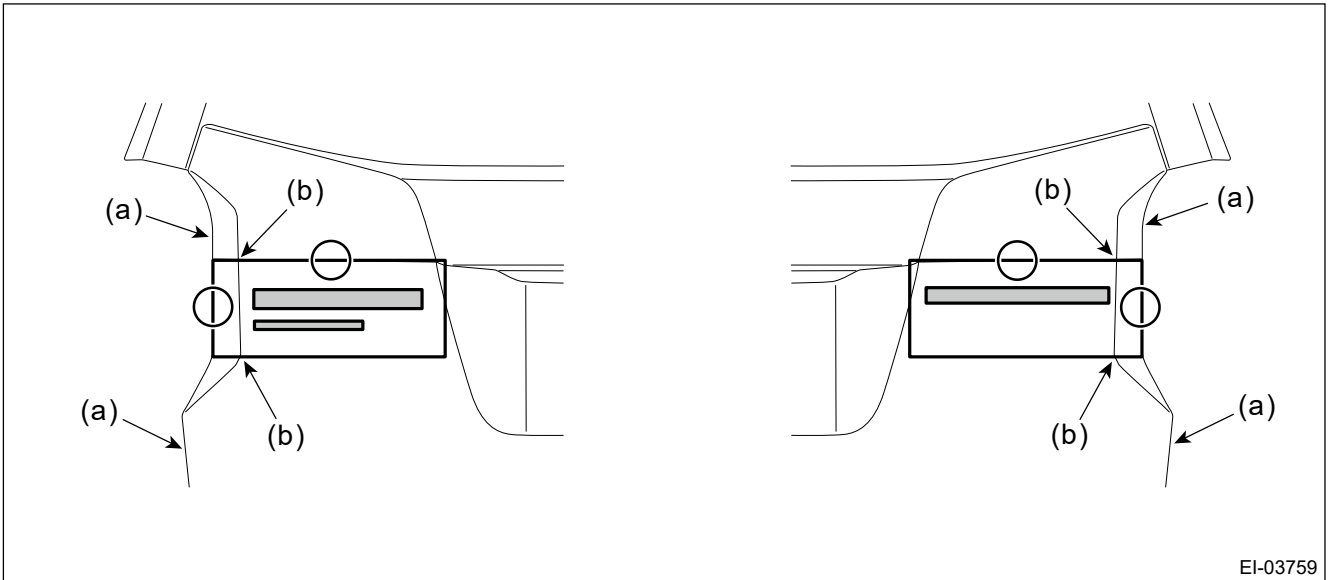


EI-10332

INSTALLATION

1. LETTER MARK

Align the end of application tape with the end of panel, then adhere the letter mark.



(a) Panel - rear gate end

(b) Fold it along with the character line.

EXTERIOR/INTERIOR TRIM > Rear Bumper

INSTALLATION

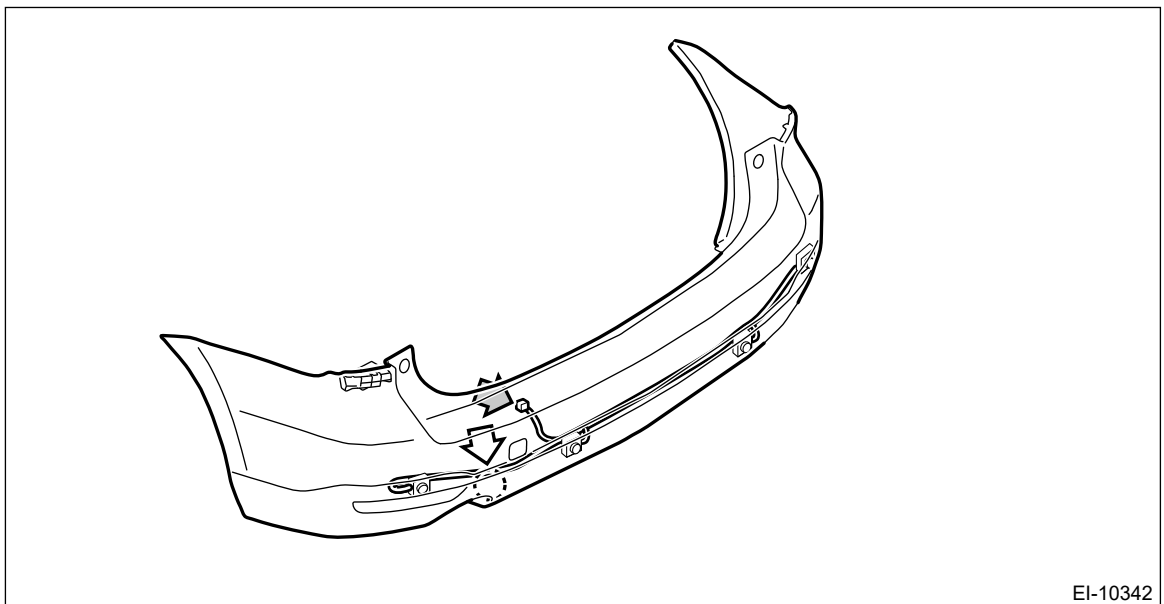
Caution:

Before installing the bumper face, match the claws on the bracket - rear bumper with the engaging position of flange section on the bumper face side. If the engaging position is not correct, the flange section may be broken or the clearance between fender panel and bumper face may not be uniform.

1. If installing the following parts, refer to the "Reverse Automatic Braking" section.
 - Sonar assembly
 - Cord assembly - sonar
 - Bezel - sonar
2. Install the remaining parts in the reverse order of removal.

Caution:

- **Do not reuse the removed bracket - rear bumper side. This may cause water leakage on the body panel.**
- **For models with Reverse Automatic Braking, securely fasten the harness clamp (white arrow) of the cord assembly - sonar.**



EI-10342

Note:

If the bumper face - rear comes off too easily, adjust the hook of the bracket side.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to EXTERIOR/INTERIOR TRIM>General Description>COMPONENT > REAR BUMPER.](#)

Light assembly - rear combination: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Rear Bumper

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

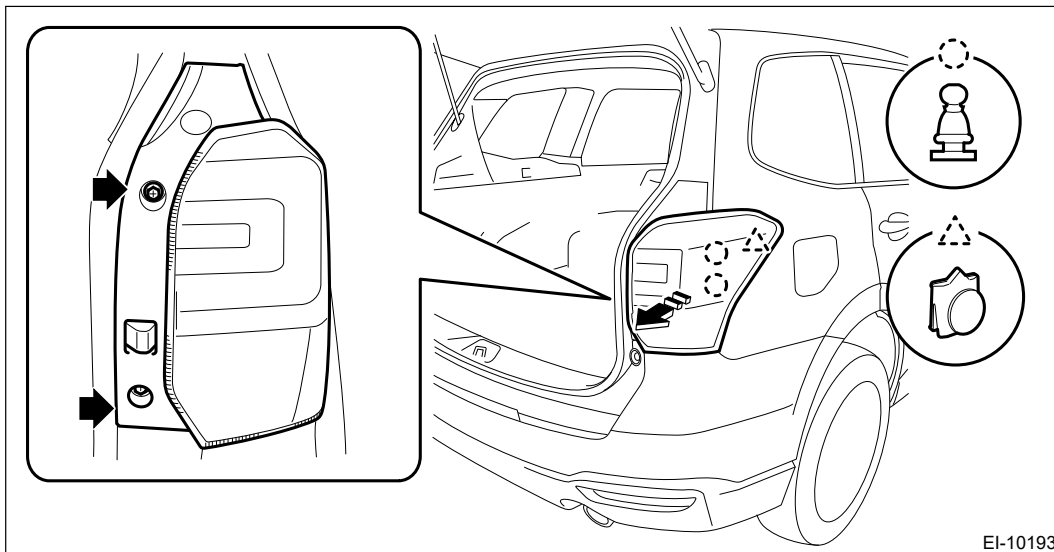
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - rear combination.

Caution:

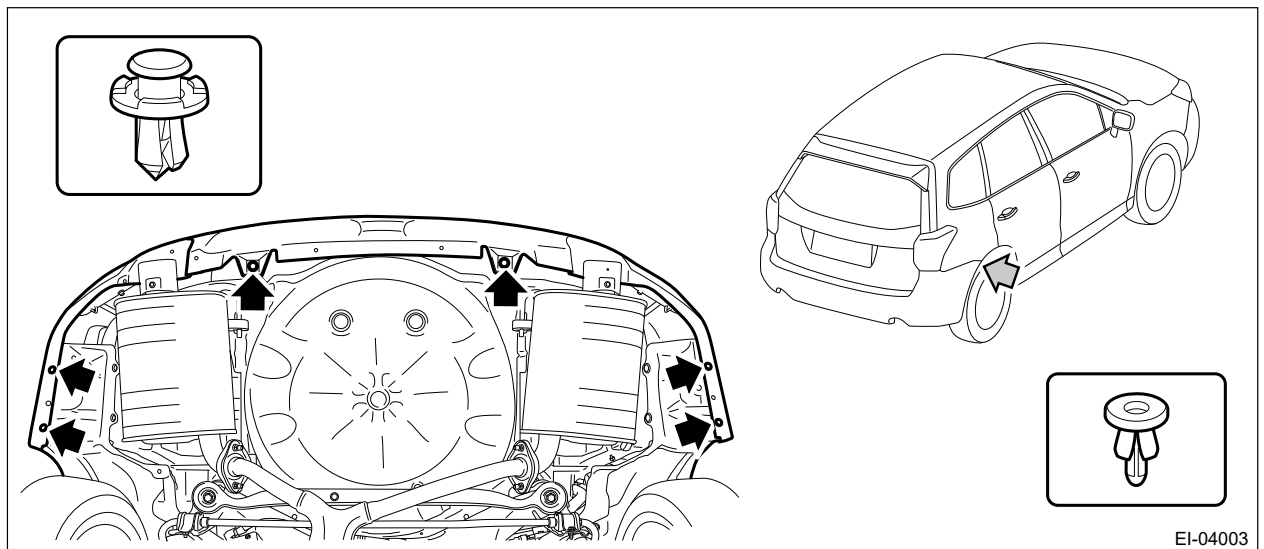
Be careful not to damage the clips.

- (1) Release the bolts and clips, then pull out the light assembly - rear combination to the vehicle rear.
- (2) Disconnect the connector and remove the light assembly - rear combination.



3. Remove the bumper face - rear.

- (1) Remove the clips inside the wheel housing.
- (2) Remove the clips at the lower side of the bumper face - rear.

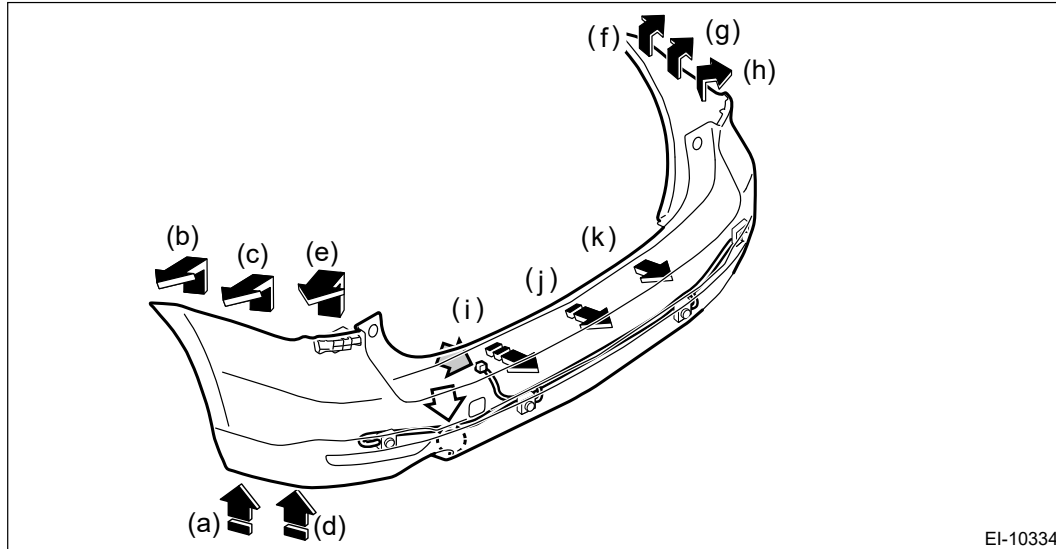


- (3) Detach (b) and (c) while pulling up (a) of the bumper face - rear.
- (4) Detach (e) while pulling up (d) of the bumper face - rear.
- (5) Perform the same procedures when detaching (f) to (h) on the opposite side.
- (6) Detach in order from (i) to (k) by carefully pulling toward you while pulling up the center of bumper

face - rear.

Caution:

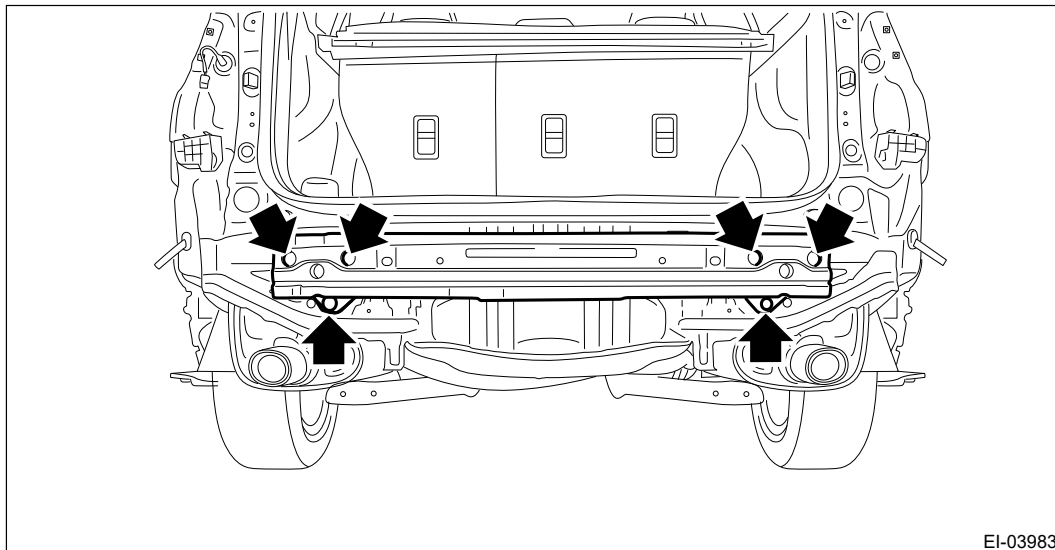
- Pulling with excessive force may damage the bracket.
- For models with reverse sonar sensor, be careful not to damage the connector located on the gray arrow position.



EI-10334

(7) For models with reverse sonar sensor, disconnect the connector of the cord assembly - sonar.

4. Remove the bolts and nuts, and remove the bumper beam COMPL - rear.



EI-03983

Note:

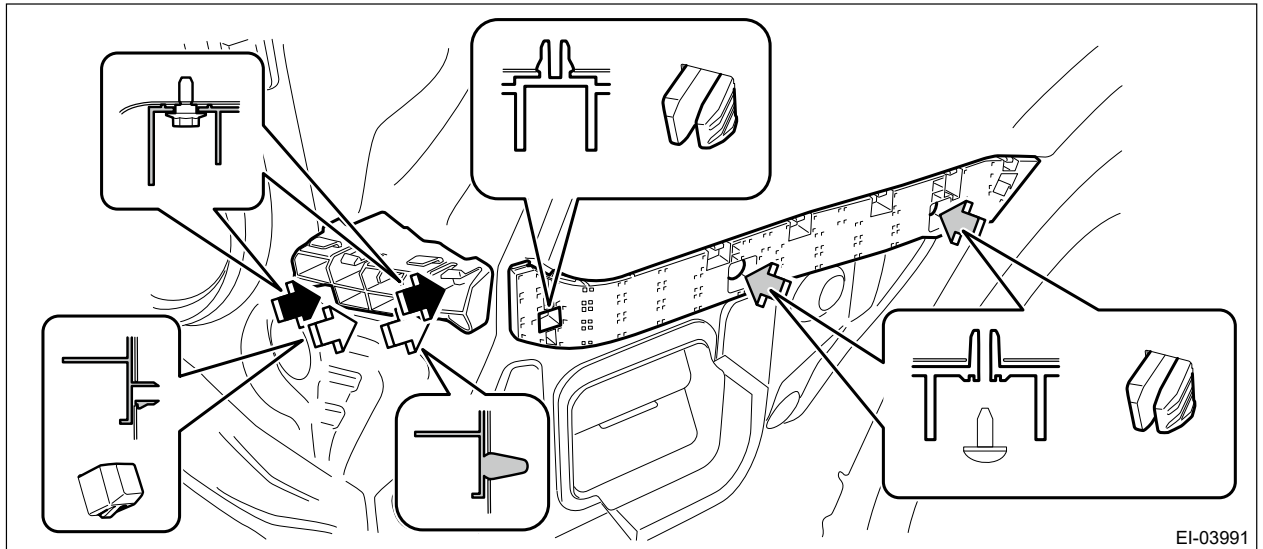
After all nuts are removed, raise the bumper beam COMPL - rear a little to remove it from vehicle body.

5. Remove bumper brackets.

Caution:

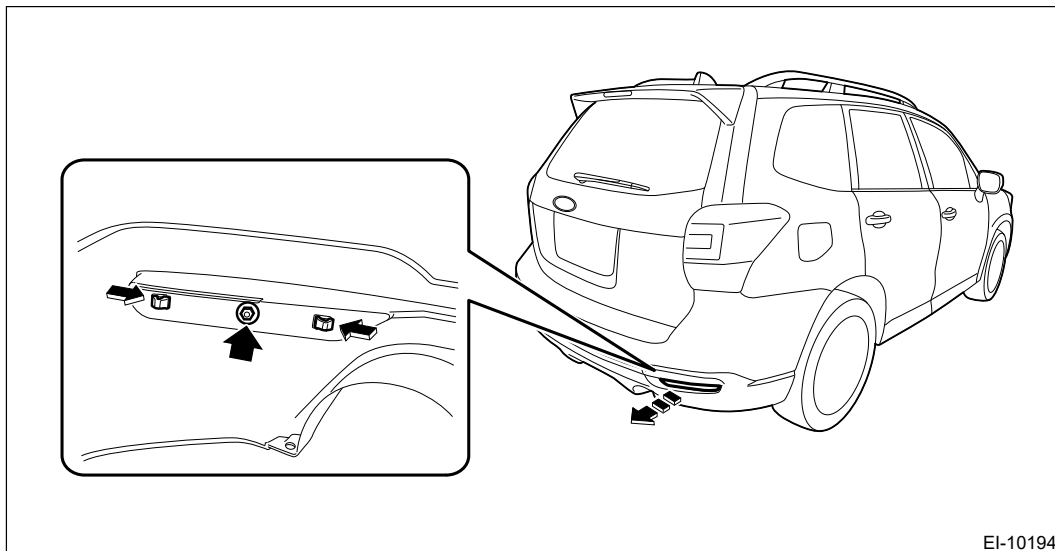
Do not reuse the removed bracket - rear bumper side. This may cause water leakage on the body panel.

- (1) Remove the screws.
- (2) Turn over the trim panel - rear apron, and detach the claw of the clip from the back side.



EI-03991

- 6.** From behind the bumper face - rear, release the nuts and claws and remove the reflex reflector assembly.




EI-10194

- 7.** If removing the following parts, refer to "Reverse Automatic Braking".
- Cord assembly - sonar
 - Sonar assembly
 - Bezel - sonar

EXTERIOR/INTERIOR TRIM > Rear Bumper


REPAIR

Refer to the description for front bumper repair.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REPAIR.](#)

EXTERIOR/INTERIOR TRIM > Rear Gate Garnish

INSTALLATION


Caution:

- **Make sure that the harness grommet is securely installed. If not properly installed, this may cause leaks.**
- **For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>INSTALLATION.](#)**

1. Install each part in the reverse order of removal.

Tightening torque:

Garnish assembly - rear gate: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Rear Gate Garnish

REMOVAL


1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)


Note:

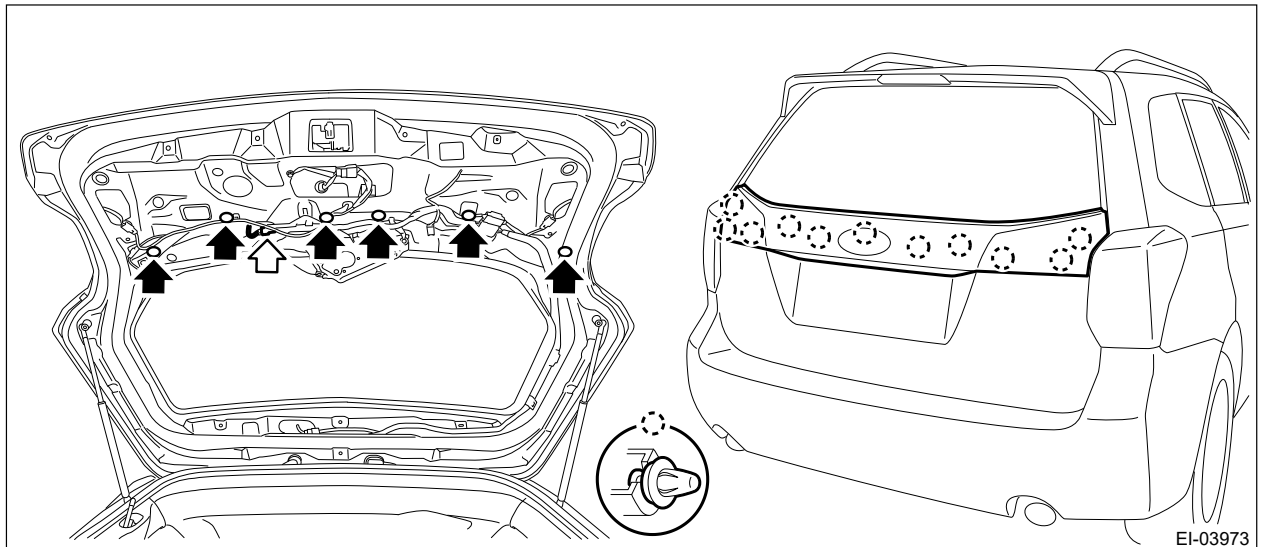
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Disconnect the rod - power rear gate. (Only for models with power rear gate)

Caution:

For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>REMOVAL.](#)

3. Remove the rear gate trim.  [Ref. to EXTERIOR/INTERIOR TRIM>General Description>COMPONENT > REAR GATE TRIM.](#)
4. Remove the garnish assembly - rear gate.
 - (1) Disconnect the harness connector of license plate light assembly.
 - (2) Remove the nuts.
 - (3) Remove the clips and remove the garnish assembly - rear gate.





EI-03973

EXTERIOR/INTERIOR TRIM > Rear Gate Trim

INSTALLATION


Caution:

For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>INSTALLATION.](#)

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Rear Gate Trim

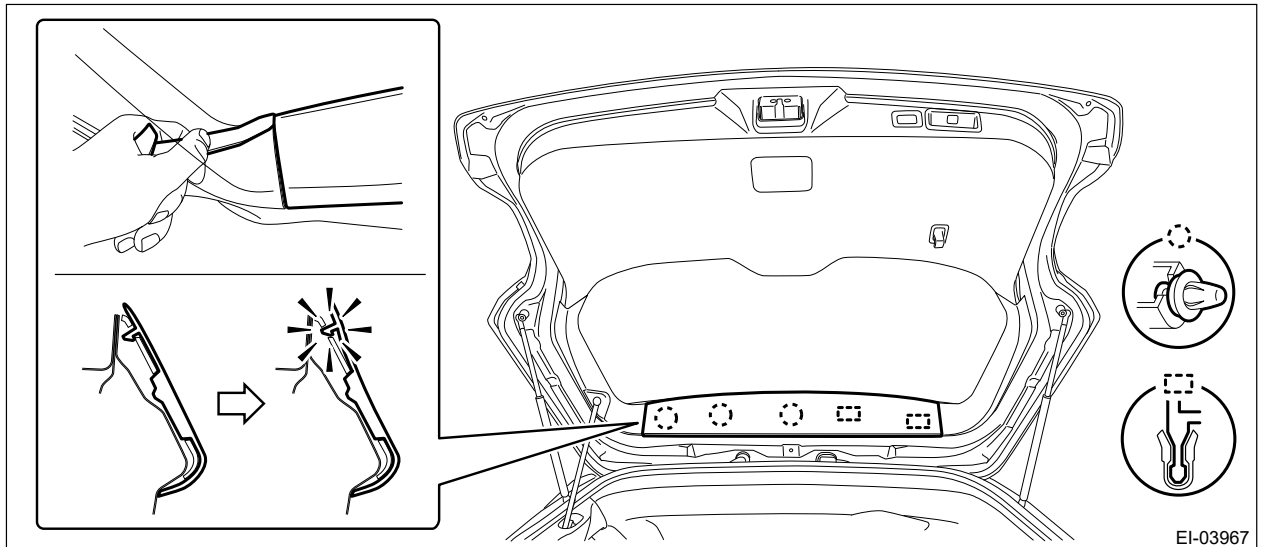
REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the trim panel - rear gate UPR.
 - (1) Remove the claws on the trim edge.
 - (2) Release the claws in the center of trim, and remove the trim panel - rear gate UPR.



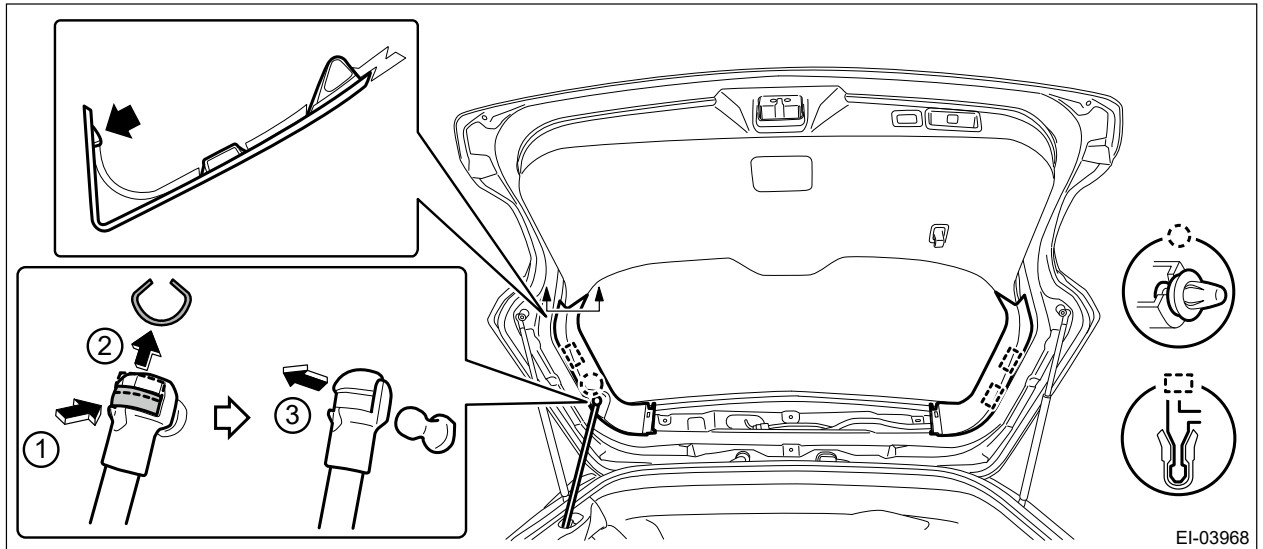
EI-03967

3. Remove the trim panel - rear gate pillar side.
 - (1) Disconnect the rod - power rear gate before removing the trim panel - rear gate pillar side LH. (Only for models with power rear gate)

Caution:

For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>REMOVAL.](#)

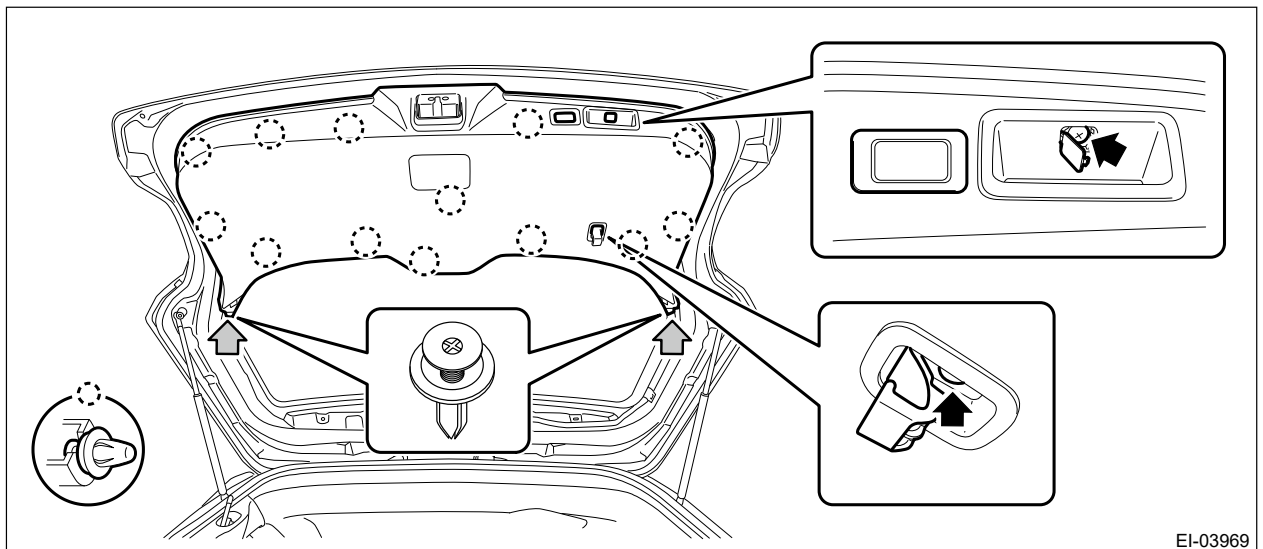
- (2) Release the claws.
- (3) Remove the claws on the bottom of trim, and remove the trim panel - rear gate pillar side.



EI-03968

4. Remove the trim panel - rear gate LWR.

- (1) Remove the power rear gate inner switch and disconnect the connector. (Only for models with power rear gate)
- (2) Remove the screw and clips on both ends.
- (3) Release the clips, and remove the trim panel - rear gate LWR.




EI-03969

EXTERIOR/INTERIOR TRIM > Rear Quarter Trim

INSTALLATION

Caution:


For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>INSTALLATION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:

Rear seat belt lower anchor: 30 N•m (3.06 kgf-m, 22.1 ft-lb)


Trim panel - rear apron: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Rear Quarter Trim

REMOVAL


Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

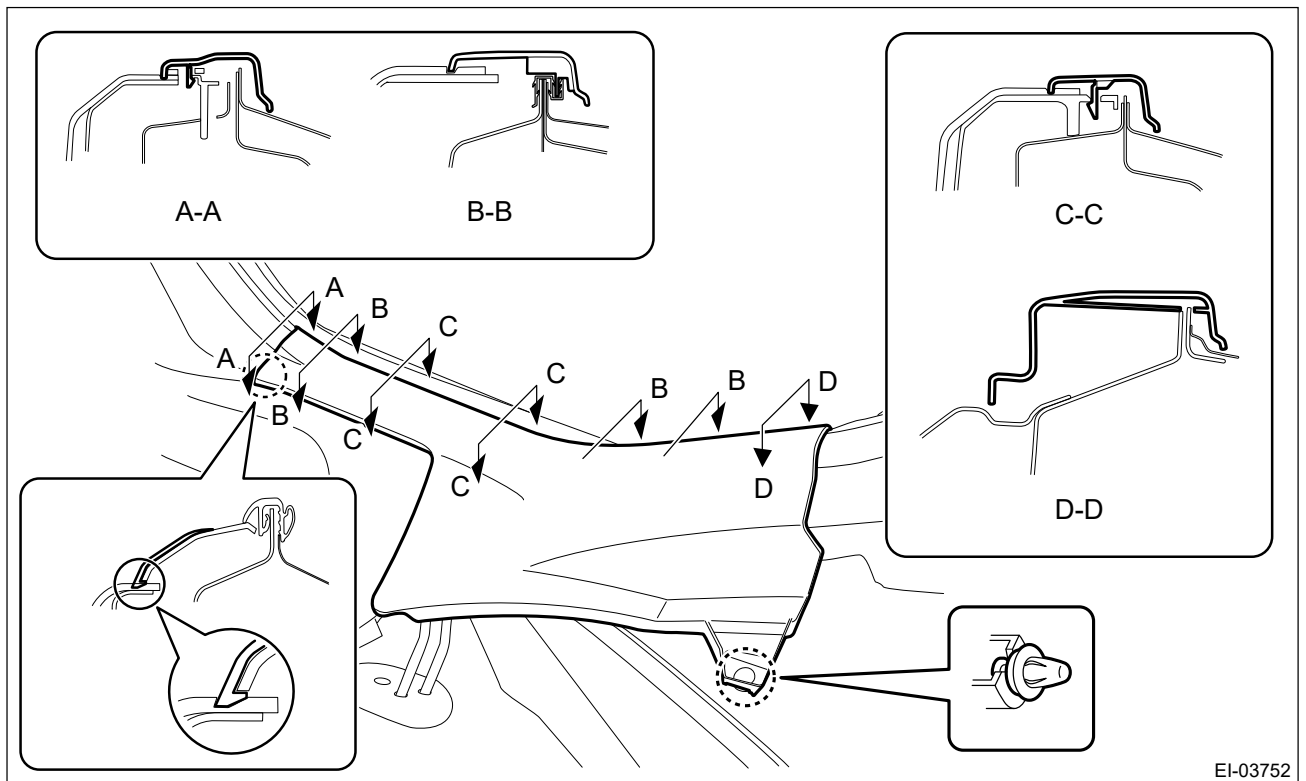
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

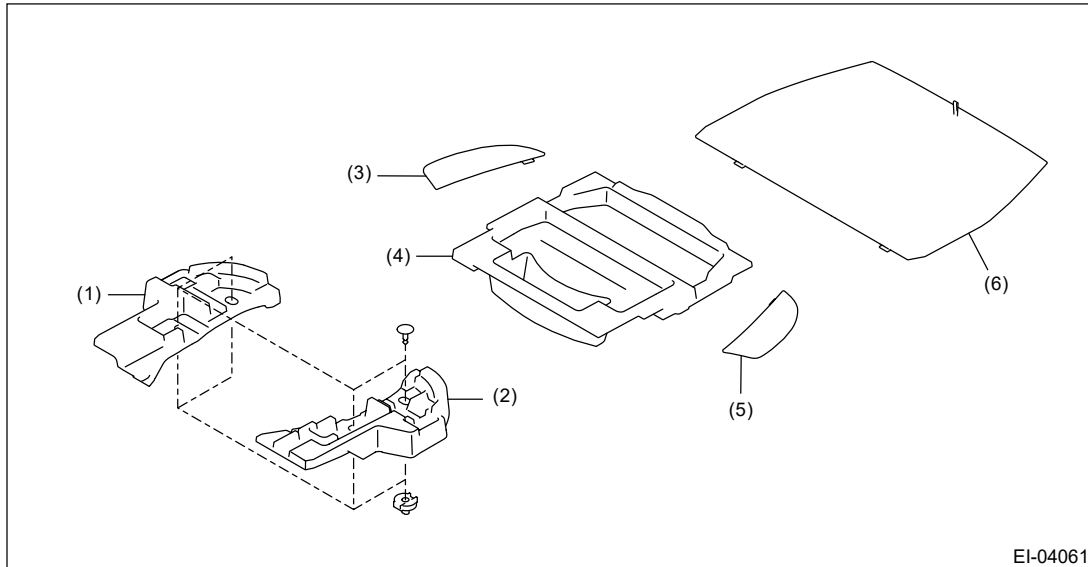
2. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
3. Release the clips and claws, and then remove the cover side sill - rear INN.

Caution:

Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



4. Remove the mat - rear floor, spacer - rear floor, and cover - trunk.

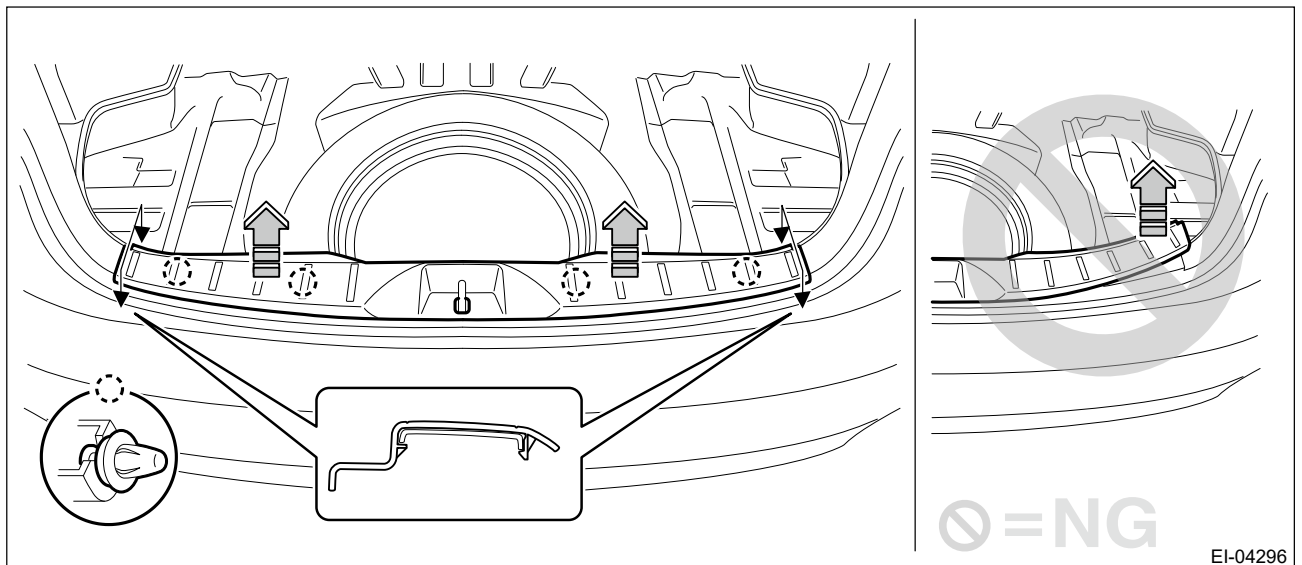


- | | | |
|---------------------------------|-------------------------|--------------------------|
| (1) Spacer - rear floor side RH | (3) Mat - rear floor RH | (5) Mat - rear floor LH |
| (2) Spacer - rear floor side LH | (4) Cover - trunk | (6) Mat - rear floor CTR |

5. Remove the clips, and remove the trim panel - rear skirt.

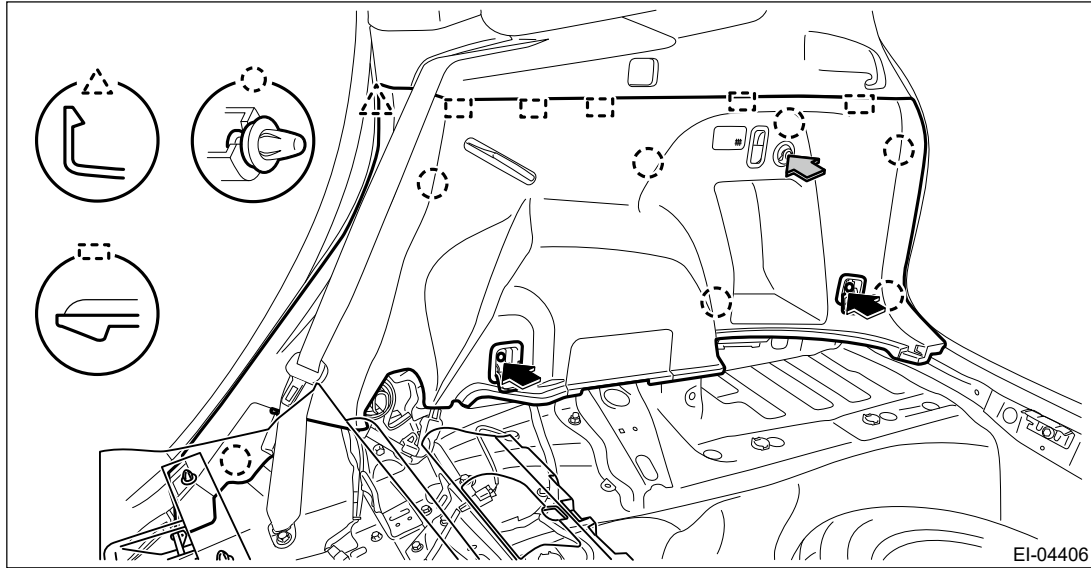
Caution:

Do not lift the trim panel - rear skirt from the edge. Doing so may damage the part.



6. Remove the trim panel - rear apron.


- (1) Open the cover, remove the bolts, and remove the hook - luggage. (2 places)
- (2) Remove the screws, and release the clips.
- (3) Disconnect the connectors and remove the trim panel - rear apron.

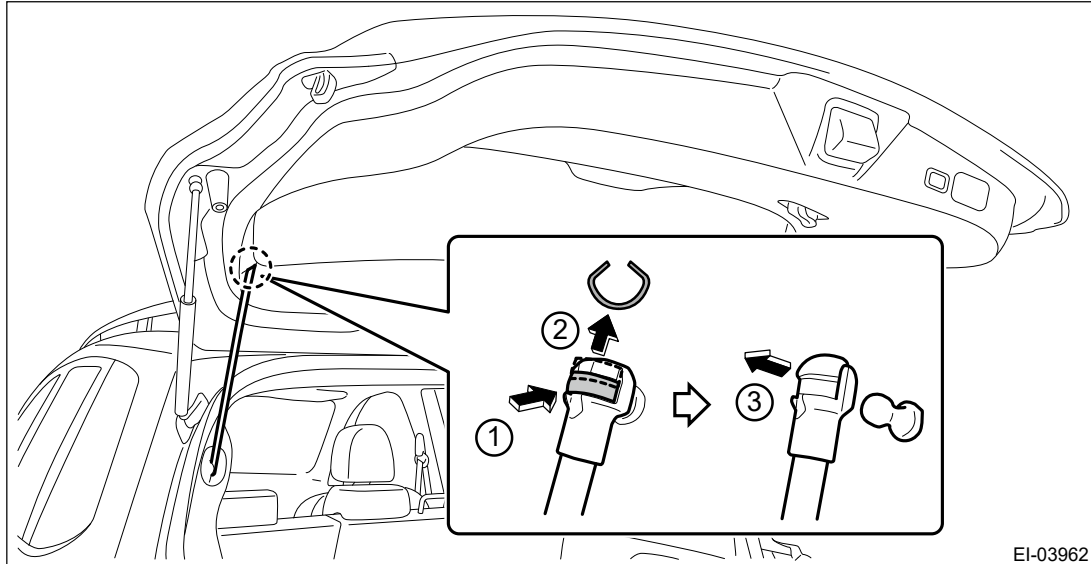


7. Remove the trim panel - rear quarter pillar UPR.

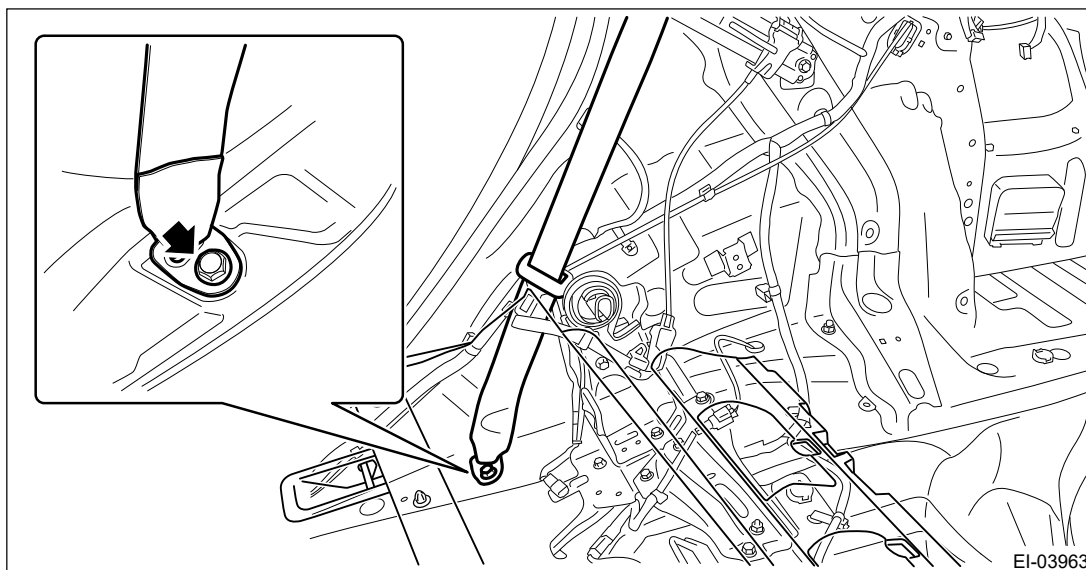
- (1) Disconnect the rod - power rear gate before removing the trim panel - rear quarter pillar UPR LH.
(Only for models with power rear gate)

Caution:

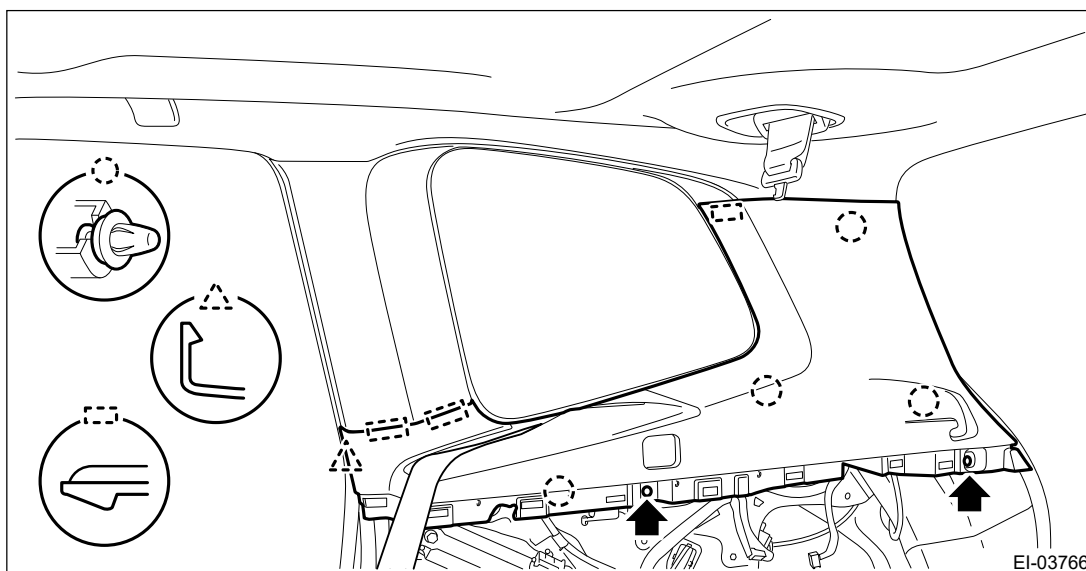
For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal.  Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>REMOVAL.



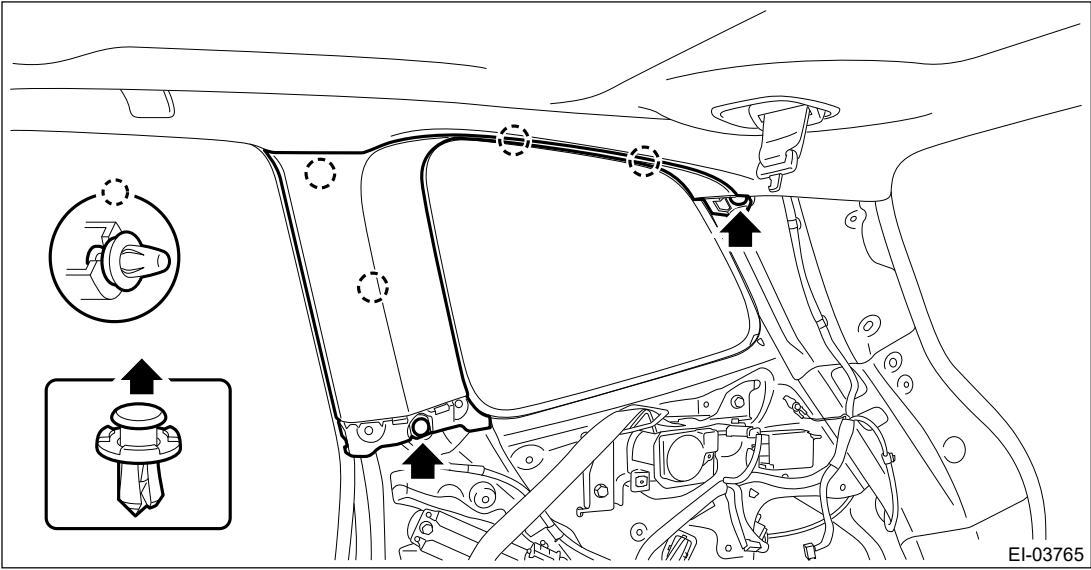
- (2) Remove the lower anchor bolts of rear seat belts.



(3) Remove the screws and clips, and remove the trim panel - rear quarter pillar UPR.



8. Release the clips, and remove the trim panel - rear pillar UPR.



EI-03765

EXTERIOR/INTERIOR TRIM > Roof Molding

INSTALLATION

1. Install the carrier BRKT.

Caution:

- When the carrier BRKT is removed, always replace it with a new carrier BRKT and nut. If the carrier BRKT and nut are reused, water leakage may occur.
- When butyl rubber is used for the seal material, properly remove the seal material adhered to the vehicle body and clean the mounting surface.

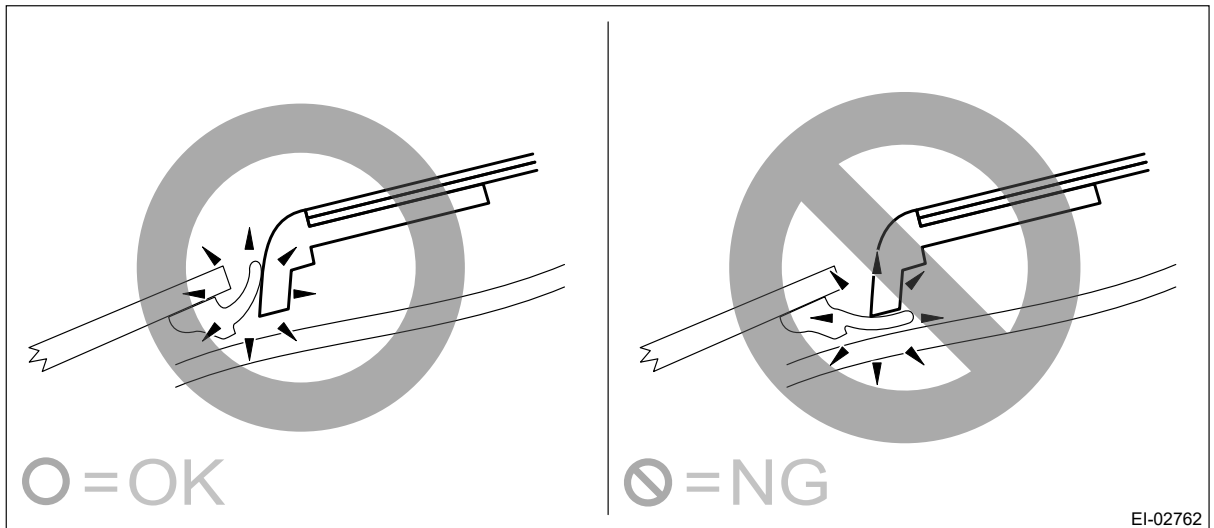
Tightening torque:

7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

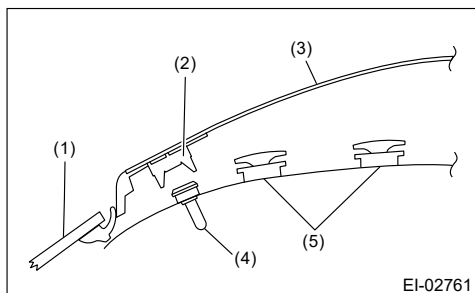
2. Remove the clips from the molding - roof, and attach to the studs on the vehicle.

Caution:

- Always replace the clips that were damaged during removal of the molding - roof with new parts.
- While installing the molding - roof, be careful not to catch the glass molding with the tip of the front side and rear side.



3. Push the front end of the molding - roof against the front window, and attach the forward positioning clip onto the rivet on the body.



- (1) Windshield
- (2) Positioning clip
- (3) Molding - roof
- (4) Rivet
- (5) Clip


4. While pushing down the molding - roof from above, connect the molding - roof and the clip.

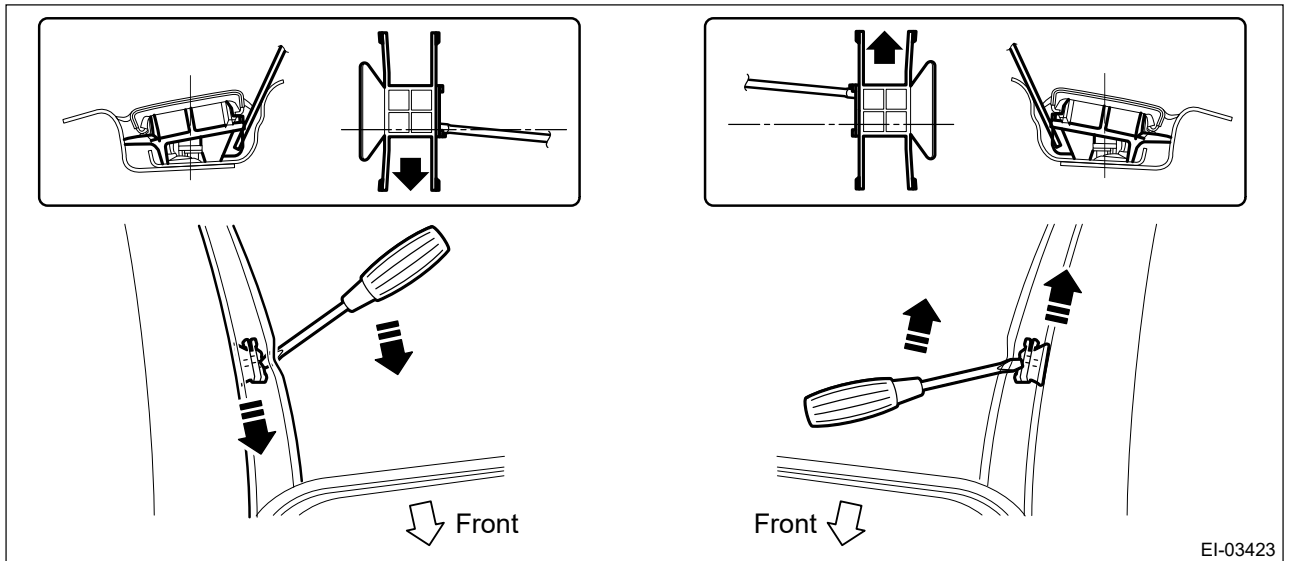
EXTERIOR/INTERIOR TRIM > Roof Molding

REMOVAL

Caution:

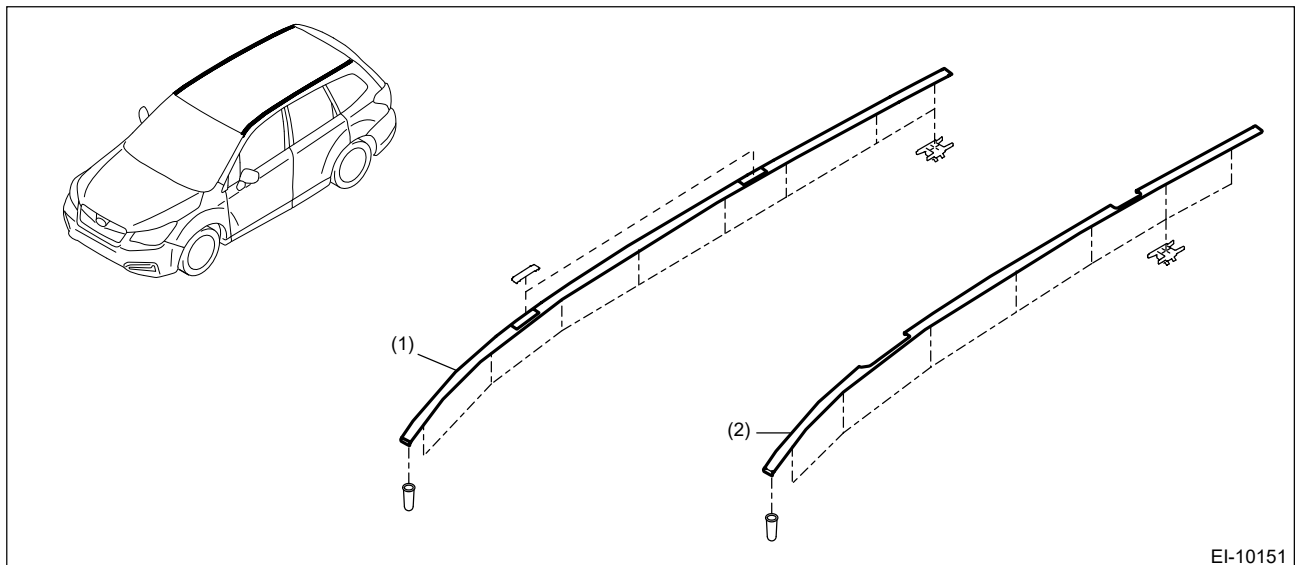
Be careful not to damage the body.

1. Remove the roof rail assembly. (model with roof rail)  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Rail>REMOVAL.](#)
2. Turn over the front end of the molding - roof.
3. Slide the inner fastener in the direction of the arrow using a flat tip screwdriver, then remove the fastener from the stud on the vehicle side.



Right side: Slide towards the front of the vehicle.

Left side: Slide towards the rear of the vehicle.




(1) Without roof rail: 8 places

(2) With roof rail: 7 places

4. Pull up the molding - roof, and remove from the vehicle.
5. When removing the carrier BRKT, remove the trim panel - roof and the curtain airbag module.

Caution:



- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- **Be careful not to damage the curtain airbag module during removal.**

(1) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.

 [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

- (2) Remove the trim panel - roof.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
- (3) Remove the curtain airbag module.  [Ref. to AIRBAG SYSTEM>Curtain Airbag Module>REMOVAL.](#)
- (4) Remove the nuts, and remove the carrier BRKT.

EXTERIOR/INTERIOR TRIM > Roof Rail

INSTALLATION


Caution:

- **When removing or installing the roof rail, be careful not to scratch the body panel with the stud bolt of roof rail.**
- **Be sure to replace the self-locking nut and gasket with new ones. If the self-locking nut and gasket are reused, water leakage may occur.**

1. Install the roof rail.

Tightening torque:


7.5 N•m (0.76 kgf-m, 5.5 ft-lb)


2. Install the remaining parts in the reverse order of removal.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Roof Rail

REMOVAL



Caution:

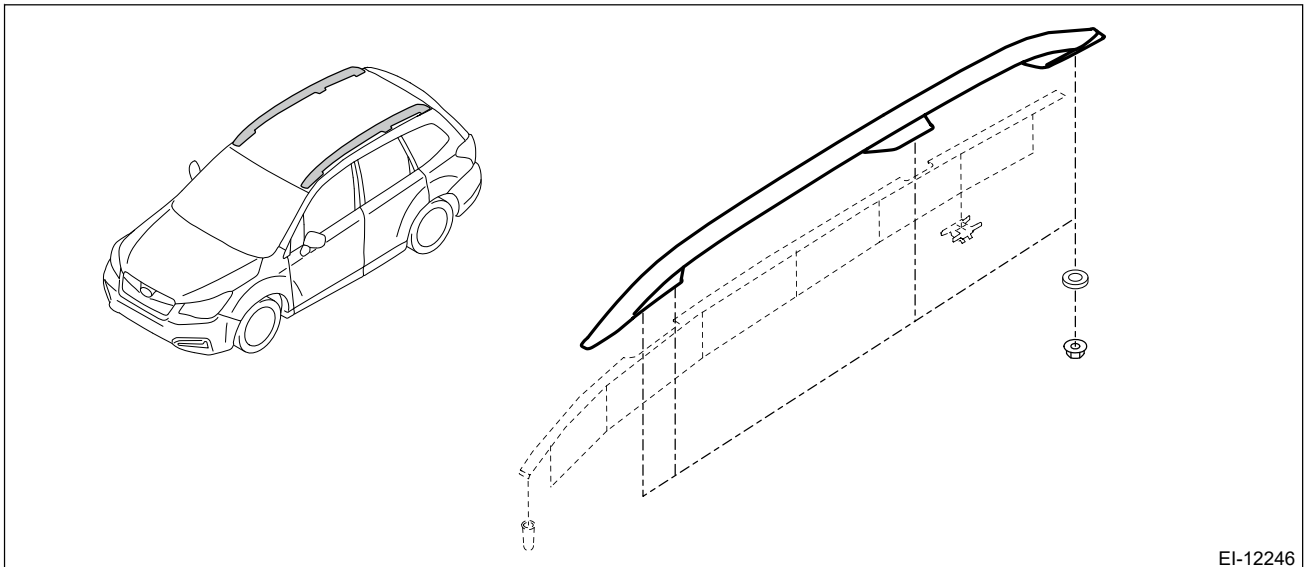
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Be careful not to damage the curtain airbag module during removal.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - roof.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
3. Remove the curtain airbag module.  [Ref. to AIRBAG SYSTEM>Curtain Airbag Module>REMOVAL.](#)
4. Remove the four installing nuts.




EI-12246

EXTERIOR/INTERIOR TRIM > Roof Spoiler

INSTALLATION

Caution:

- **Make sure the bolt is tightened securely because improper installation may cause the water leakage.**
- **For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>INSTALLATION.](#)**

1. Install the high-mounted stop light.

Tightening torque:


4.5 N•m (0.46 kgf-m, 3.3 ft-lb)

2. Install the spoiler assembly - roof.

Tightening torque:

7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

3. Install the remaining parts in the reverse order of removal.

4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Roof Spoiler

REMOVAL


1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)


Note:

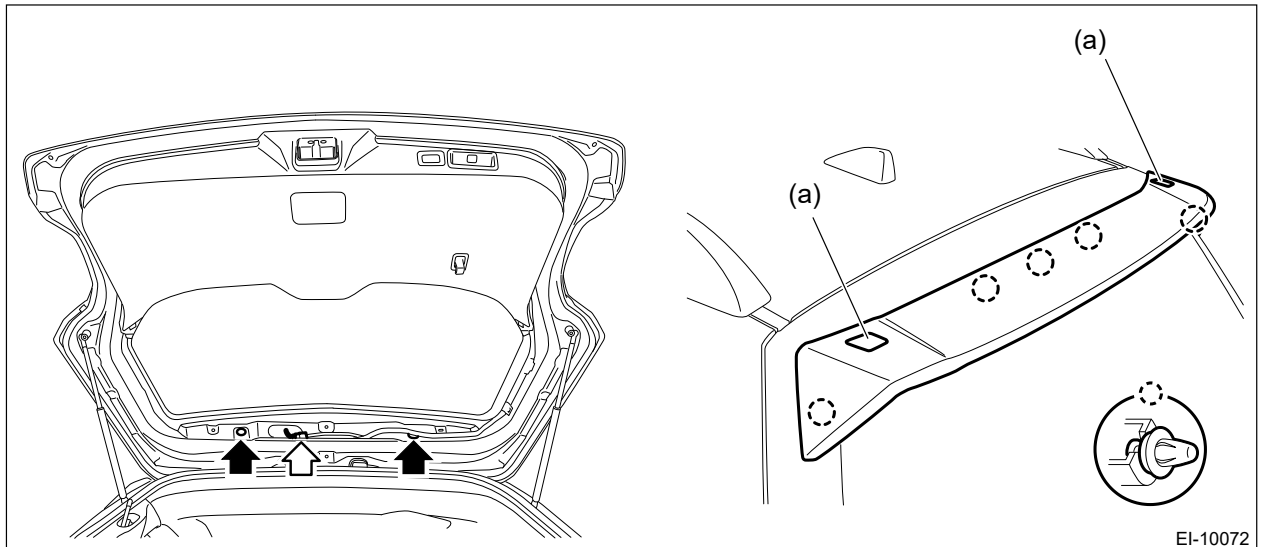
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Disconnect the rod - power rear gate. (Only for models with power rear gate)

Caution:

For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>REMOVAL.](#)

3. Remove the trim panel - rear gate UPR and the trim panel - rear gate pillar side.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Trim>REMOVAL.](#)
4. Remove the spoiler assembly - roof.
 - (1) Disconnect the connector and remove the nut.
 - (2) Open the caps (a), and remove the bolt inside.
 - (3) Remove the clips and remove the spoiler assembly - roof.



EI-10072

5. Remove the high-mounted stop light.  [Ref. to LIGHTING SYSTEM>High-mounted Stop Light>REMOVAL.](#)

EXTERIOR/INTERIOR TRIM > Roof Trim

INSTALLATION

1. Apply the feeder cord and roof cord along the mark-off line of the roof trim.

Caution:

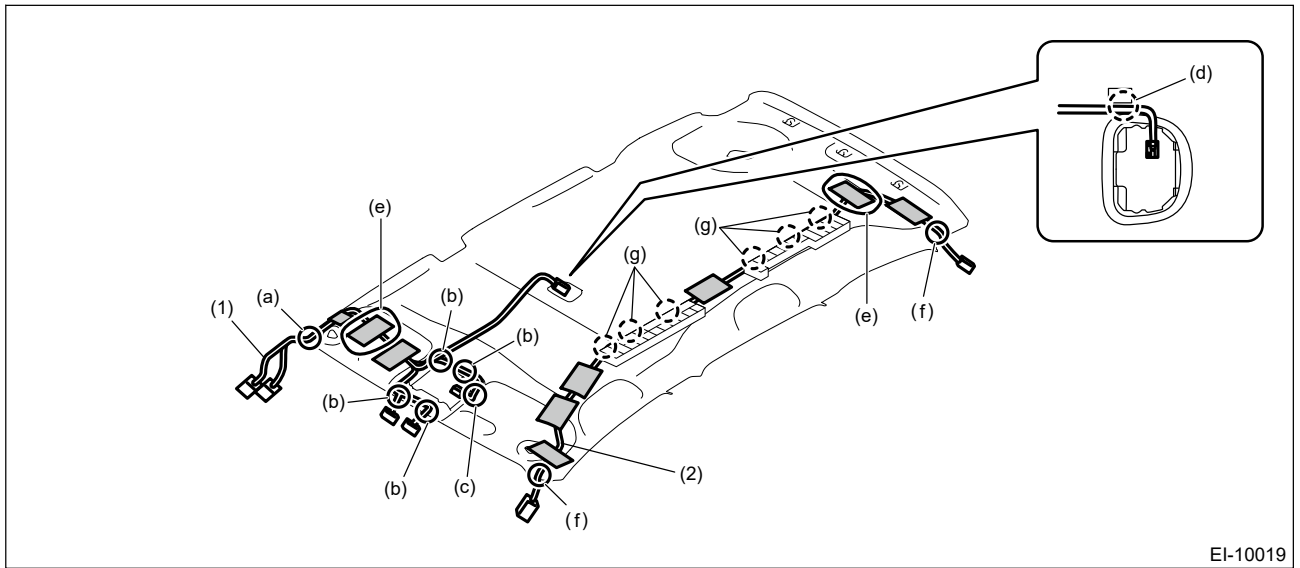
Route each cord carefully. The cord may interfere, thus preventing normal deployment of the curtain airbag when necessary.

Preparation items:

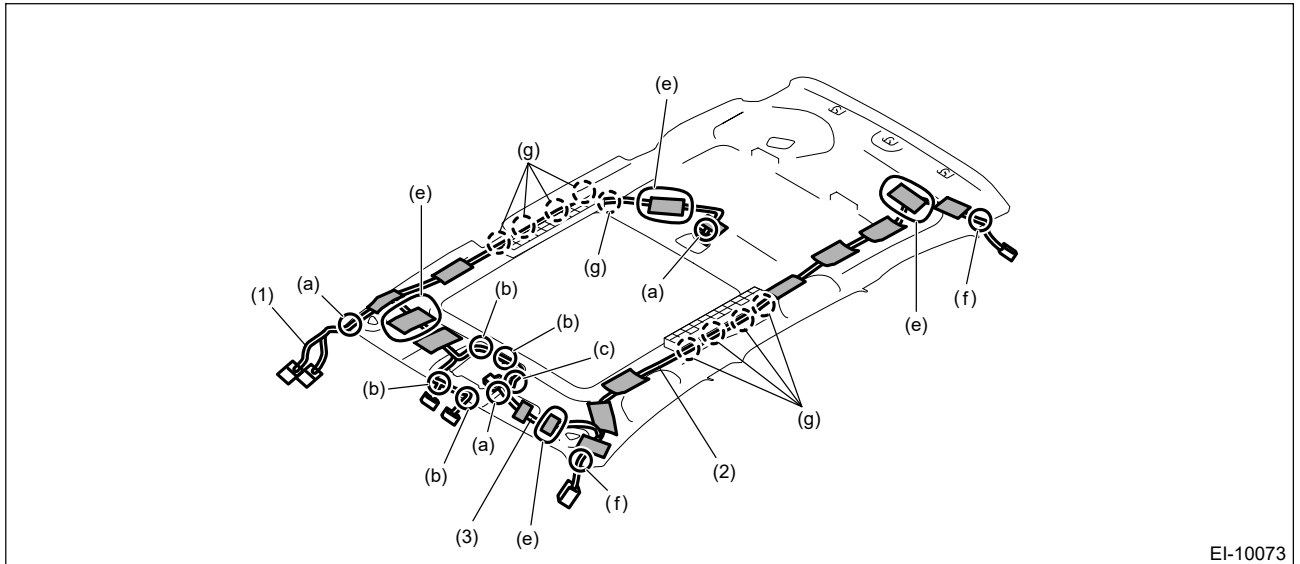
Part No.: 86359SC000/TAPE

Note:

Use the tape (service parts) by cutting into 80 mm × 50 mm (3.2 in × 2 in).



EI-10019



EI-10073

- | | | |
|--|---|--|
| (1) Roof cord | (2) Feeder cord | (3) Telematics harness |
| (a) Align the marking (white tape) of the cord with the clamp to secure. | (d) Bind the cord between the patch and the trim. | (g) Secure the cord to the roof pad clamp. |
| (b) Secure the cord to the clamp | (e) Fix with the tape by adjusting | |



of the patch.

the excess portion of cord at the (e) position.

- (c) Affix the polyurethane section of the cord to the clamp of the patch.
- (f) Align the marking (red tape) of the cord with the clamp to secure.

2. Install each part in the reverse order of removal.

Caution:

- **For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera Cover" in the "EyeSight" section and observe the precautions for installation.**  **[Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)**
- **For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation.**  **[Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>INSTALLATION.](#)**
- **Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.**
- **Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.**
- **Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.**
- **Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.**

Note:

For installation of the trim panel - front pillar UPR, refer to "Upper Inner Trim". 
[Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>INSTALLATION.](#)

Tightening torque:

Rear seat belt lower anchor: 30N·m (3.06 kgf-m, 22.1 ft-lb)

Trim panel - rear apron: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

Trim panel - center pillar UPR: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

3. Connect the battery ground terminal.  **[Ref. to NOTE>NOTE > BATTERY.](#)**

EXTERIOR/INTERIOR TRIM > Roof Trim

REMOVAL

Caution:

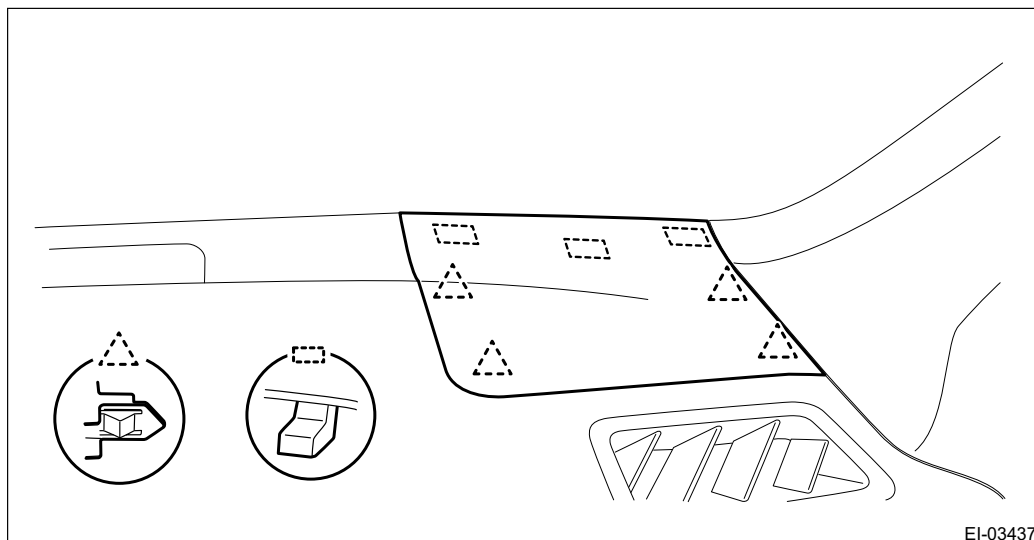
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [🔗 Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

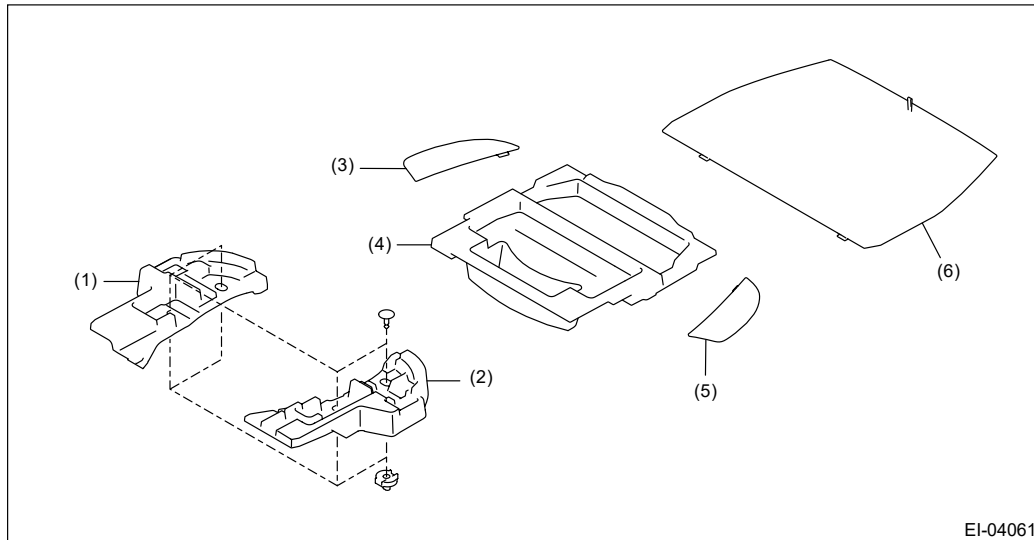
2. Adjust the front seat position.
 - (1) Remove the headrest.
 - (2) Move the seat to the front-most position and tilt the backrest rearward.
3. Remove the rear seat cushion assembly. [🔗 Ref. to SEATS>Rear Seat>REMOVAL.](#)
4. Release the clips and claws, then detach the left and right grille speaker side.



Note:

Remove the grille speaker side by using a plastic remover.


5. Remove the lower inner trim on the RH and LH sides. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
6. Remove the upper inner trim on the RH and LH sides. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL.](#)
7. Remove the mat - rear floor, spacer - rear floor, and cover - trunk.

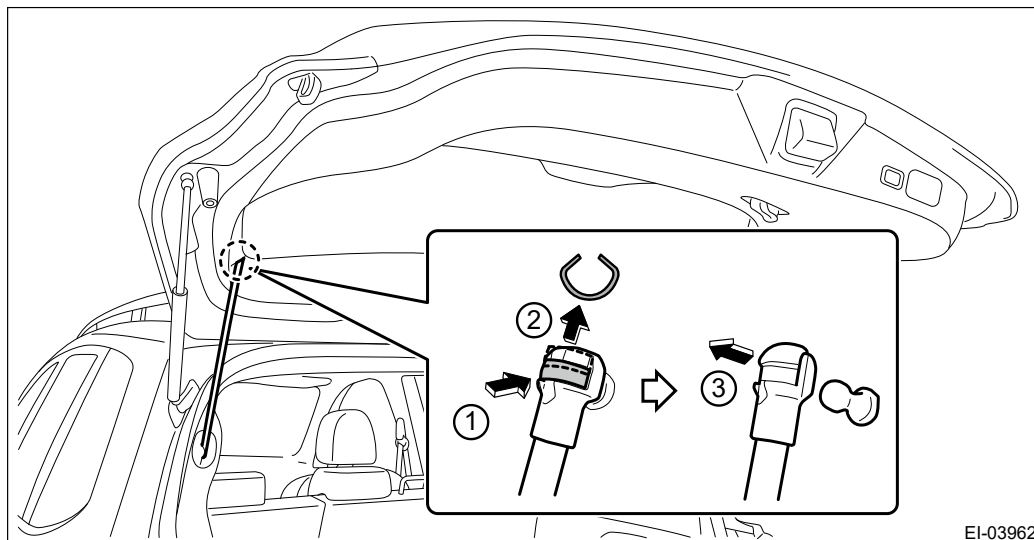



- | | | |
|---------------------------------|-------------------------|--------------------------|
| (1) Spacer - rear floor side RH | (3) Mat - rear floor RH | (5) Mat - rear floor LH |
| (2) Spacer - rear floor side LH | (4) Cover - trunk | (6) Mat - rear floor CTR |

- 8.** Disconnect the rod - power rear gate before removing the trim panel - rear quarter pillar UPR LH. (Only for models with power rear gate)

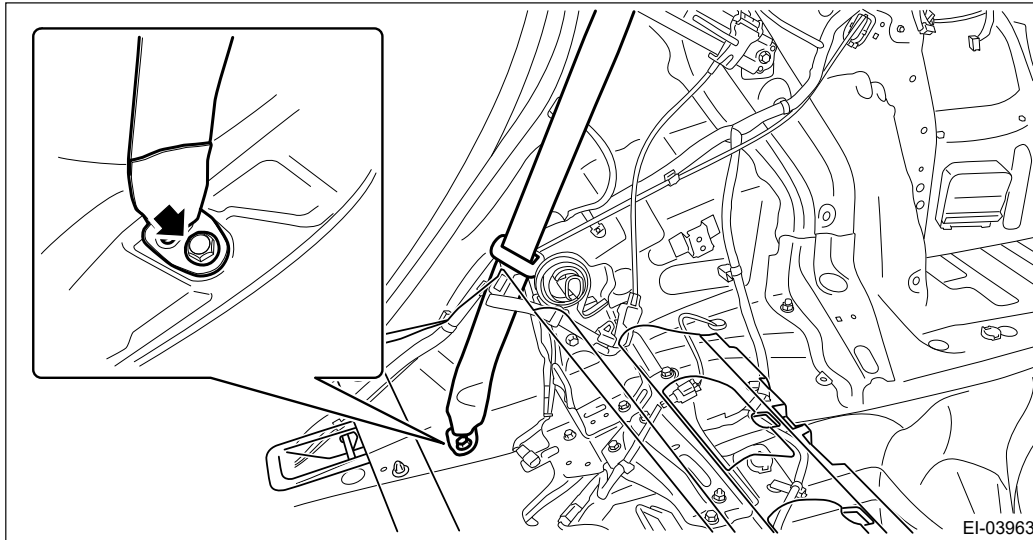
Caution:

For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal.  Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>REMOVAL.



- 9.** Remove the trim panel - rear skirt and the trim panel - rear apron.  Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.

- 10.** Remove the trim panel - rear quarter pillar UPR.
 (1) Remove the lower anchor bolts of rear seat belts.

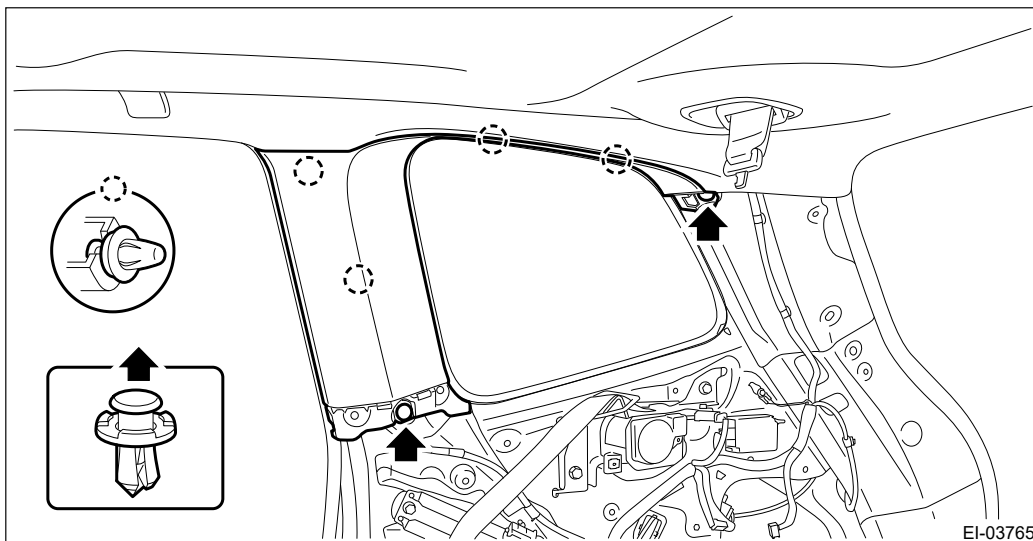


(2) Remove the screws and clips, and remove the trim panel - rear quarter pillar UPR.

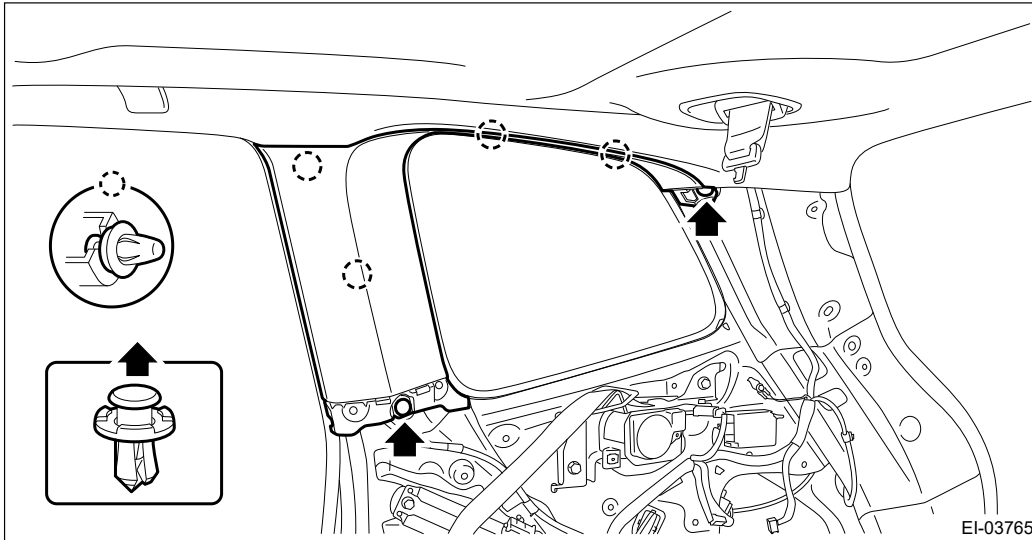
代替画像1






この画像は代替画像です

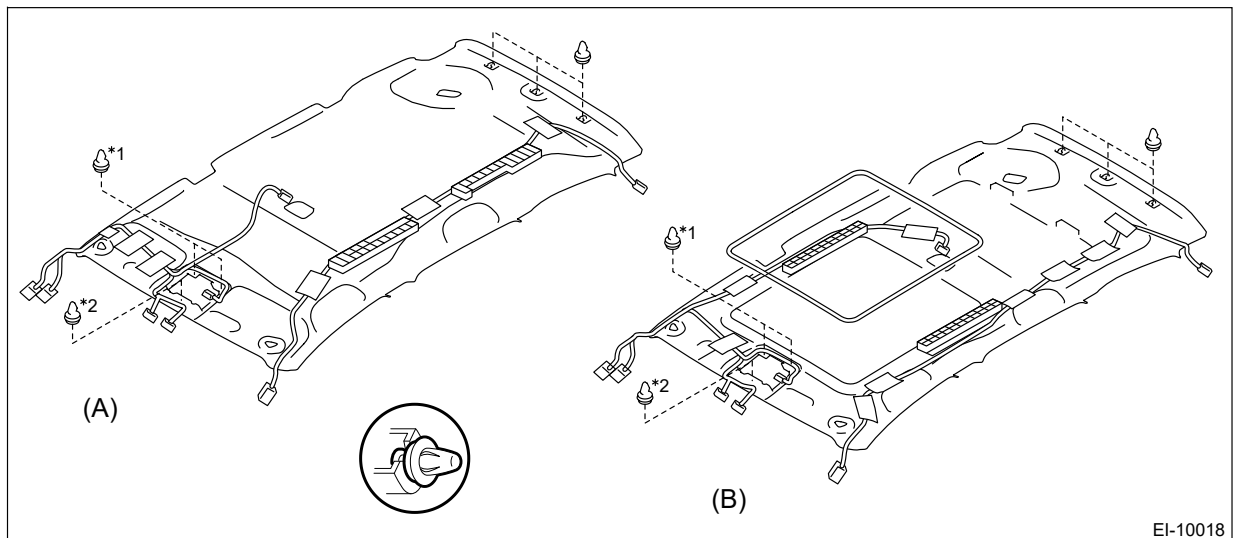
(3) Release the clips, and remove the trim panel - rear pillar UPR.



11. Release the clips, and remove the trim panel - rear pillar UPR.



- 12.** Remove the light assembly - map. (Models without EyeSight)  [Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL > MODELS WITHOUT EyeSight.](#)
- 13.** Remove the stereo camera cover. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
- 14.** Remove the left and right sun visor assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Sun Visor>REMOVAL.](#)
- 15.** Remove the light assembly - room.  [Ref. to LIGHTING SYSTEM>Room Light>REMOVAL.](#)
- 16.** Remove all assist grips.  [Ref. to EXTERIOR/INTERIOR TRIM>Assist Grip>REMOVAL.](#)
- 17.** Remove the garnish - roof. (Model with sunroof)
- 18.** Remove the trim panel - roof assembly.
 - (1) Remove the harness clamp of the cord assembly - antenna feeder and the cord - roof, and disconnect the connectors.
 - (2) Remove the clips and remove the Velcro tape behind the room light.



- (A) Normal roof (B) Sunroof type
- *1 Models with EyeSight *2 Models without EyeSight

- (3) Remove the weather strip - body side flange from the front/rear and left/right doors, and remove the trim panel - roof assembly.
- (4) Take out the trim panel - roof assembly from the rear gate opening to outside.

EXTERIOR/INTERIOR TRIM > Side Garnish

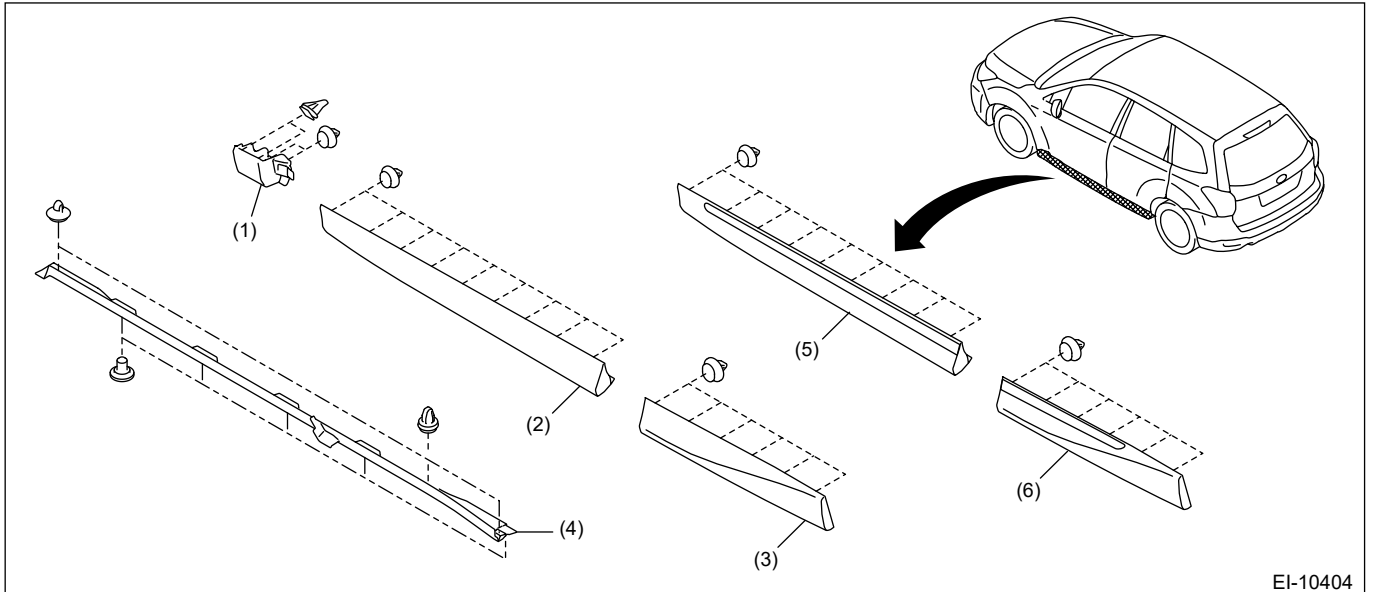
INSTALLATION

Install each part in the reverse order of removal.

EXTERIOR/INTERIOR TRIM > Side Garnish

REMOVAL

Remove the clips, and remove the garnish.



EI-10404

(1) Garnish ASSY - fender

(3) Garnish ASSY - door rear
(normal type)

(5) Garnish ASSY - side sill
(illumination molding type)


(2) Garnish ASSY - door front
(normal type)

(4) Garnish ASSY - side sill

(6) Garnish ASSY - side sill
(illumination molding type)


EXTERIOR/INTERIOR TRIM > Sun Visor

INSTALLATION

- 1.** Install the hook - sun visor.
- 2.** Install the sun visor assembly.
- 3.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Sun Visor

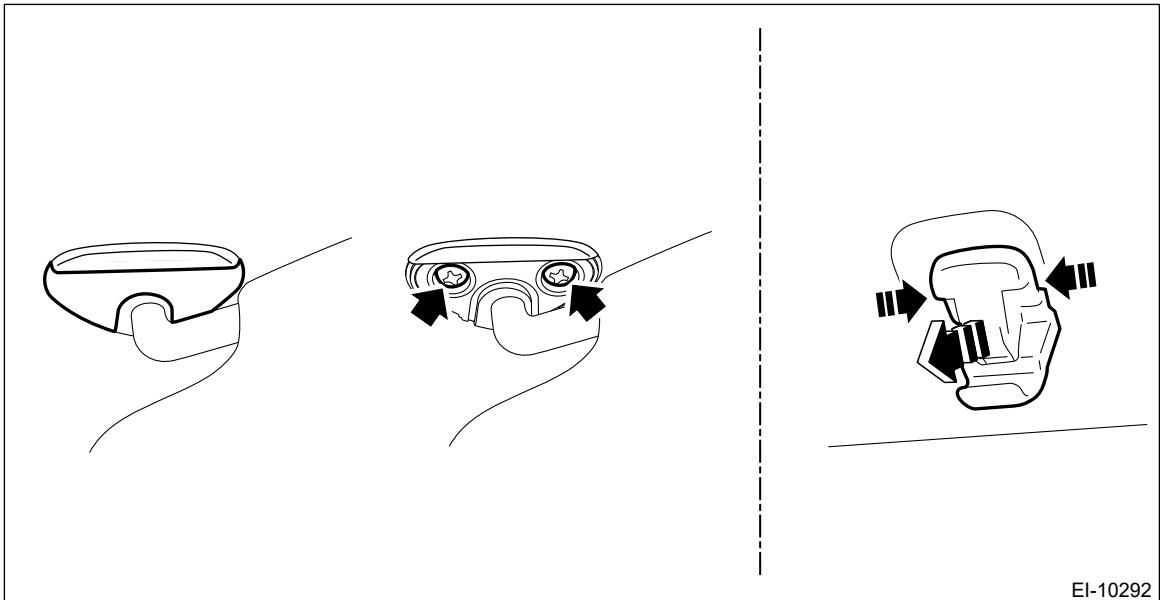
REMOVAL

1. Disconnect the ground cable from battery. (Only model with vanity mirror light)  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the sun visor assembly.
 - (1) Remove the cap - sun visor, and then remove the screws.
 - (2) Disconnect the connector. (Only model with vanity mirror light)
 - (3) Remove the sun visor assembly.
3. Remove the hook - sun visor.
 - (1) Press both sides using a flat tip screwdriver.
 - (2) Remove the hook - sun visor by pulling it toward you.



EI-10292

EXTERIOR/INTERIOR TRIM > Upper Inner Trim

INSTALLATION

Caution:

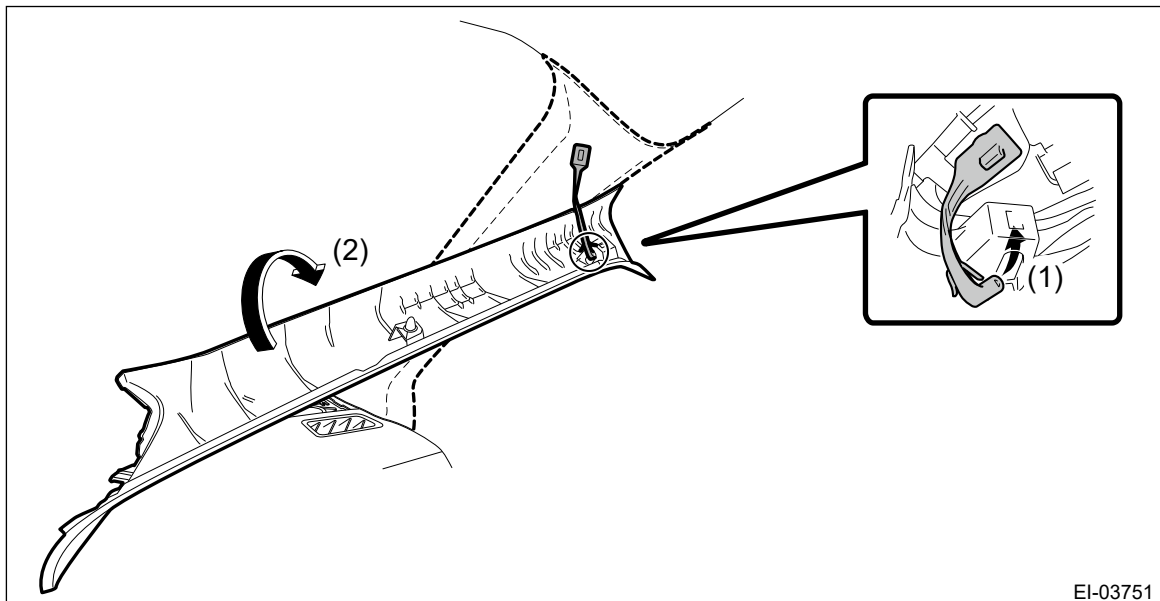
- Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.
- Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.
- Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.
- Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.

1. Install the trim panel - front pillar UPR.

- (1) Hook the tip of the tether clip on the trim panel - front pillar UPR.
- (2) Turn the trim panel - front pillar UPR, and install the trim panel - front pillar UPR.

Caution:


When attaching the tether clips, do not use any tools. If the tether clip is damaged, replace it with a new tether clip.



EI-03751

2. Install the remaining parts in the reverse order of removal.

Tightening torque:

Front seat belt:  [Ref. to SEAT BELT SYSTEM>General Description>COMPONENT > FRONT SEAT BELT.](#)


Trim panel - center pillar UPR: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)


3. Connect the battery ground terminal. [Ref. to NOTE>NOTE > BATTERY.](#)

EXTERIOR/INTERIOR TRIM > Upper Inner Trim

REMOVAL



Caution:

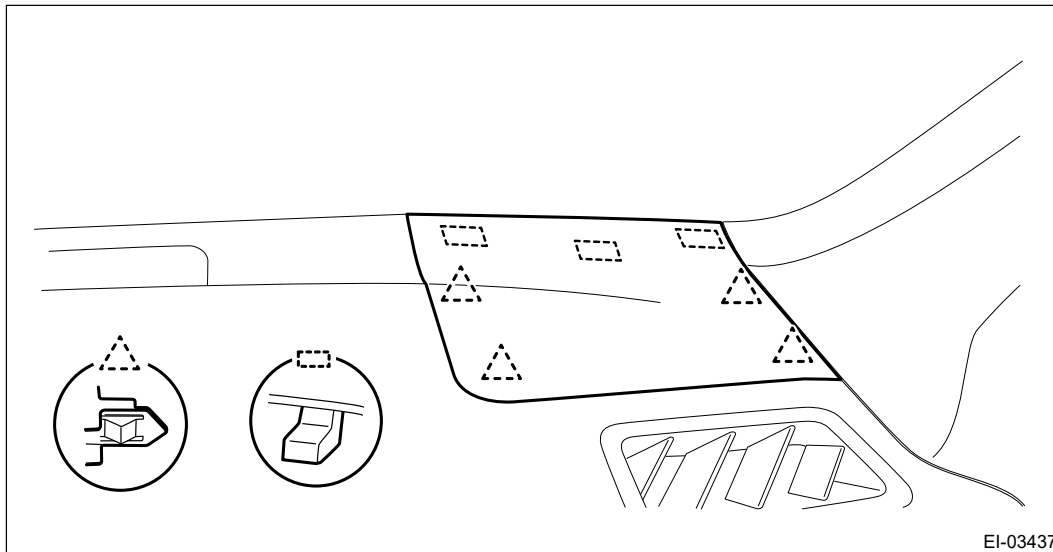
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
3. Remove the following lower inner trims.  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
 - Cover side sill - front INN
 - Cover side sill - rear INN
 - Trim panel - center pillar LWR
4. Release the clips and claws, then detach the left and right grille speaker side.



Note:

Remove the grille speaker side by using a plastic remover.

5. Remove the trim panel - front pillar UPR.

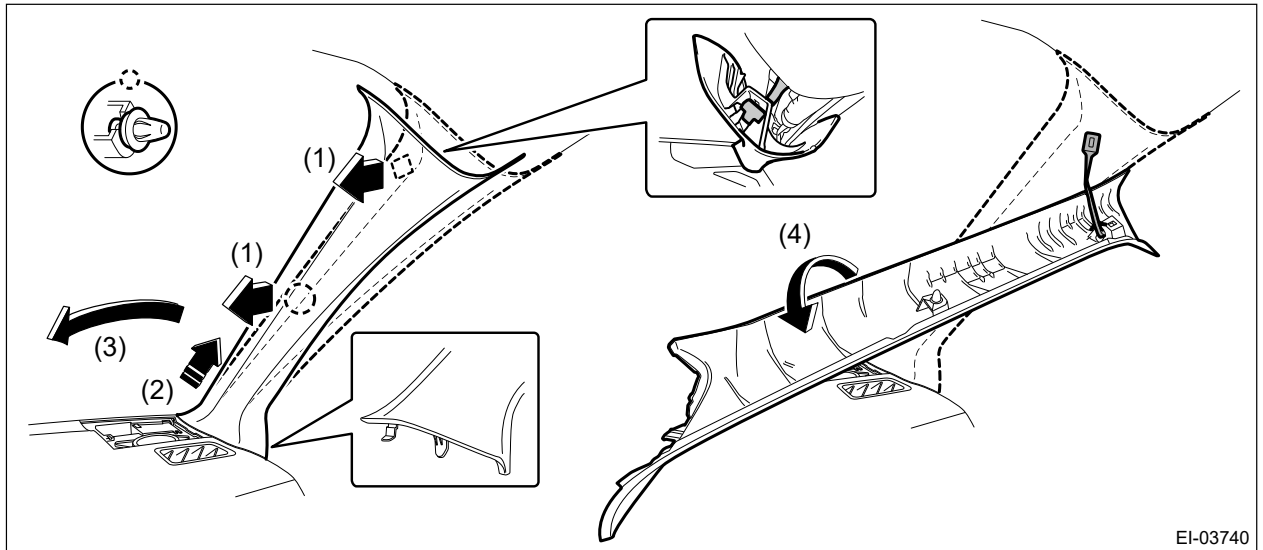
Caution:

Be careful not to damage the trim panel surface and curtain airbag module.

- (1) Pull the trim panel - front pillar UPR towards the center of the vehicle to release the clips.
- (2) Pull out the end portion of the trim panel - front pillar UPR.
- (3) Pull out the trim panel - front pillar UPR towards the center of the vehicle.
- (4) Rotate the trim panel - front pillar UPR, release the tether clips, and remove the trim panel - front pillar UPR.

Caution:

Do not use tools when releasing the tether clip. If the tether clip is damaged, replace it with a new clip.

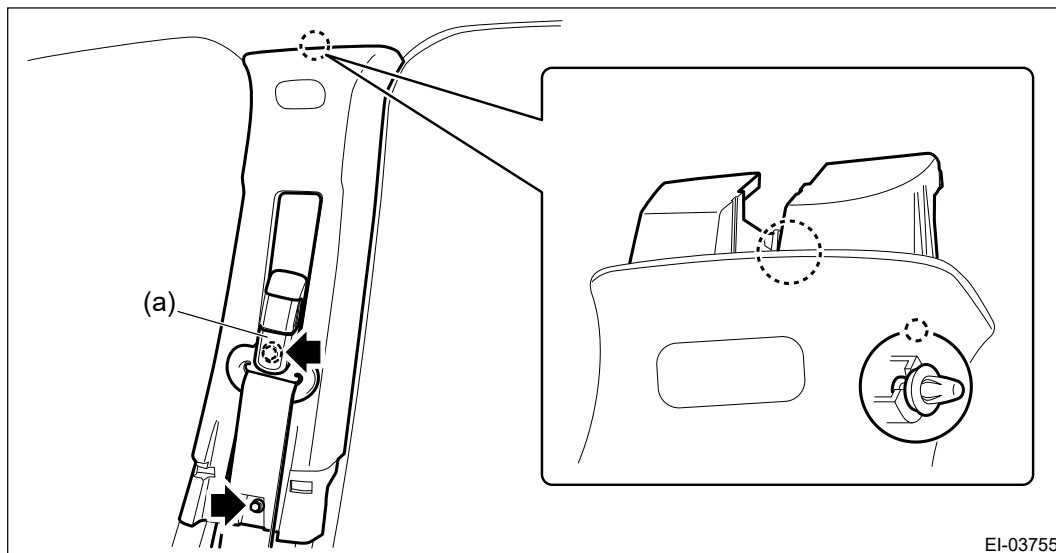


6. Remove the trim panel - center pillar UPR.

- (1) Remove the cover through (a), and remove the seat belt anchor bolt.
- (2) Remove the bolt on the lower side of the trim panel - center pillar UPR.
- (3) Remove the clip by pulling the upper part of the trim toward you, and while lowering the entire trim, remove the trim panel - center pillar UPR.

Caution:

Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.



EyeSight > Body Integrated Unit

NOTE

Refer to the "SECURITY AND LOCKS" section for operation procedures of the body integrated unit.

 [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

PROCEDURE

Caution:

- Perform the camera adjustment and inspection at curb weight without passengers.
- Handle **RANDOM CHART (ST: 87599VA000)** carefully so as not to break it with the adhesive force of the tape.

Perform inspection or adjustment according to the following procedures.

- Readjustment of stereo camera

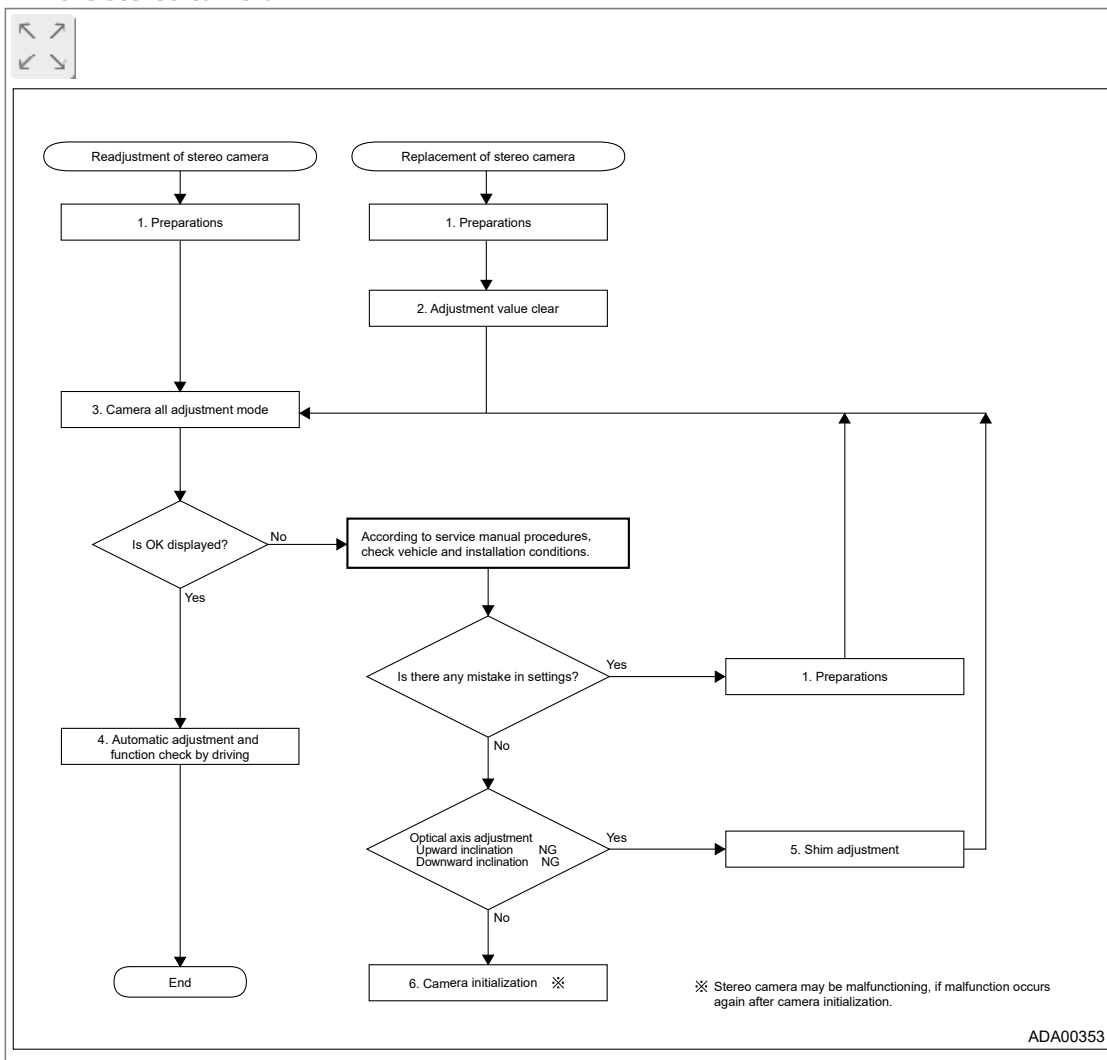
Perform the adjustment in the following order: [1. Preparations] → [3. Camera all adjustment mode (replacement/removal)] → [4. Automatic adjustment and function check by driving].

- Replacement of stereo camera

Perform the replacement in the following order: [1. Preparations] → [2. Adjustment value clear] → [3. Camera all adjustment mode (replacement/removal)] → [4. Automatic adjustment and function check by driving].

Note:

When the stereo camera or windshield glass has been removed or installed, always perform readjustment of the stereo camera.



1. PREPARATIONS

Perform the preparation of the adjustment and inspection for the stereo camera.

- **WHEN PERFORMING ADJUSTMENT OR INSPECTION BY AFFIXING RANDOM CHART ONTO PARTITION**

1. Before preparation, check the following items.

- (1) The headlight is off.

- (2) The vehicle is parked on a level surface.
- (3) The inflation pressure of tires is correct.
- (4) The vehicle does not have load.
- (5) The front wheels are directed to the straight ahead position, when the steering wheel is set to the center position.

Note:

When the front wheels are not directed to the straight ahead position, adjust the alignment.

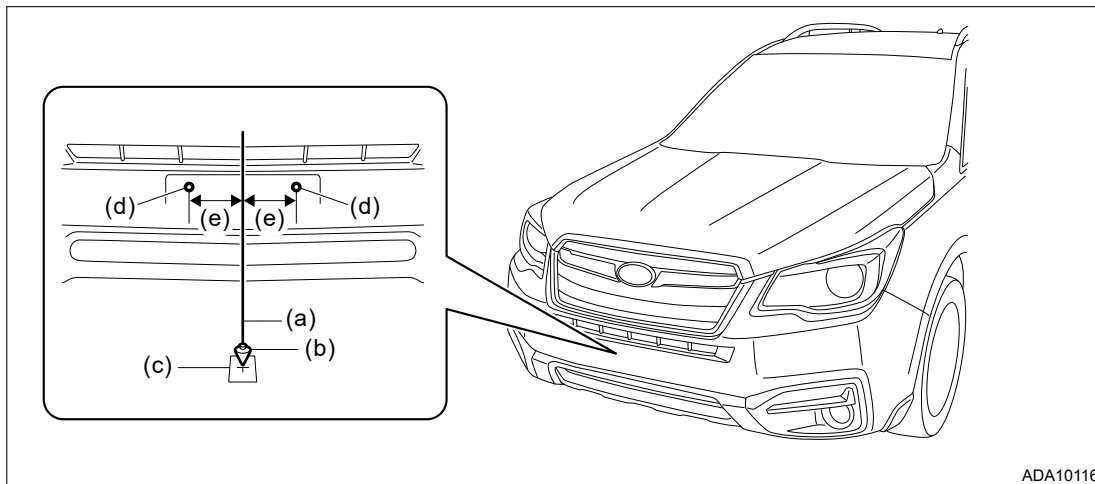
 **Ref. to FRONT SUSPENSION>Wheel Alignment>ADJUSTMENT.**

2. Prepare the Subaru Select Monitor, measure, plumb bob, leveling line and RANDOM CHART (ST).

Preparation tool:

ST: RANDOM CHART (87599VA000)

3. Place the vehicle on a level surface where approximately 5 m (16.4 ft) space can be secured in front of the vehicle.
4. Suspend the plumb bob with leveling line from front center position of vehicle (center of the license plate base), and mark the position where the plumb bob touches the ground. (Point A)

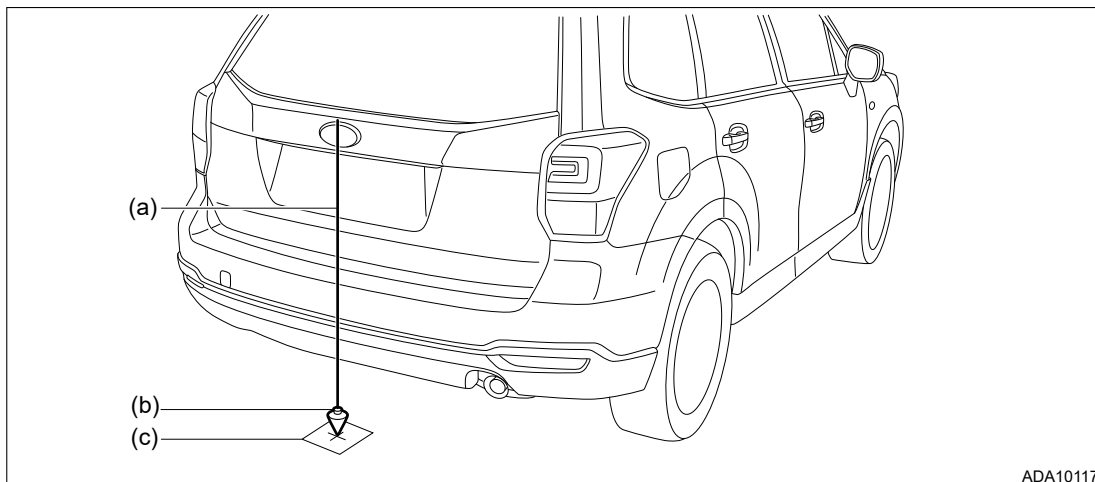


- | | | |
|-------------------|------------------------|-------------------|
| (a) Leveling line | (c) Point A | (e) Same distance |
| (b) Plumb bob | (d) License plate base | |

Note:

Stick the packing tape etc. on the floor, then make a marking on the tape.

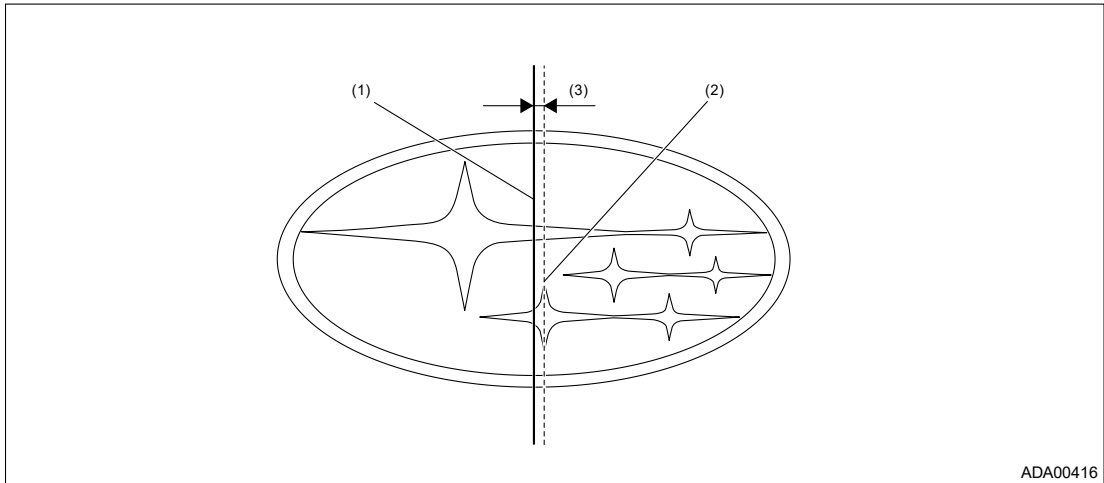
5. Suspend the plumb bob with leveling line from rear center position of vehicle (center of rear ornament), and mark the position where the plumb bob touches the ground. (Point B)



- | | | |
|-------------------|---------------|-------------|
| (a) Leveling line | (b) Plumb bob | (c) Point B |
|-------------------|---------------|-------------|

Note:

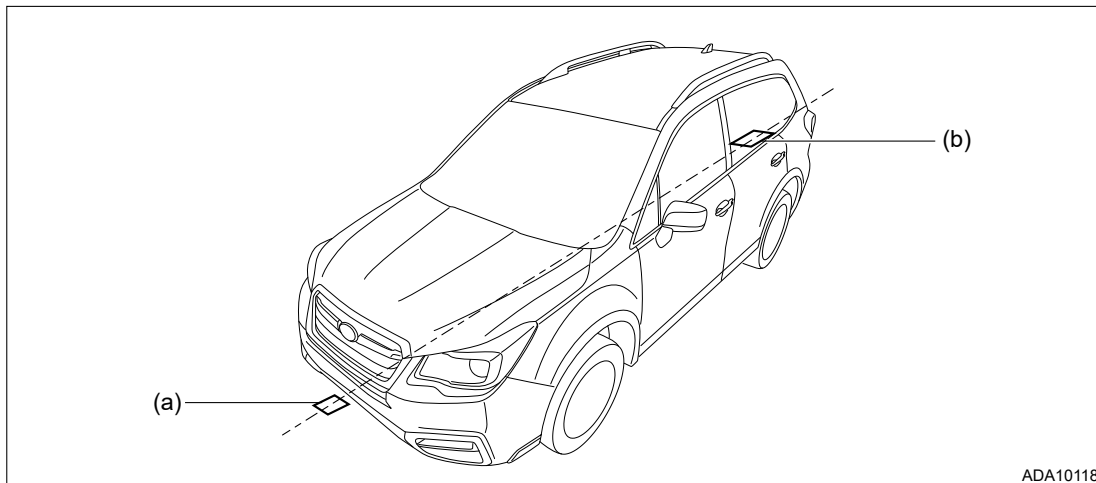
- Center of the ornament is located at 2 mm (0.08 in) from the top of the second star from the left.



(1) Center of ornament (2) Top of the star (3) 2 mm (0.08 in)

- Stick the packing tape etc. on the floor, then make a marking on the tape.

6. Strain approximately 5 m (16.4 ft) leveling line from the marking point B through the marking point A toward front of the vehicle, and fix it with packing tape. (A-B line)

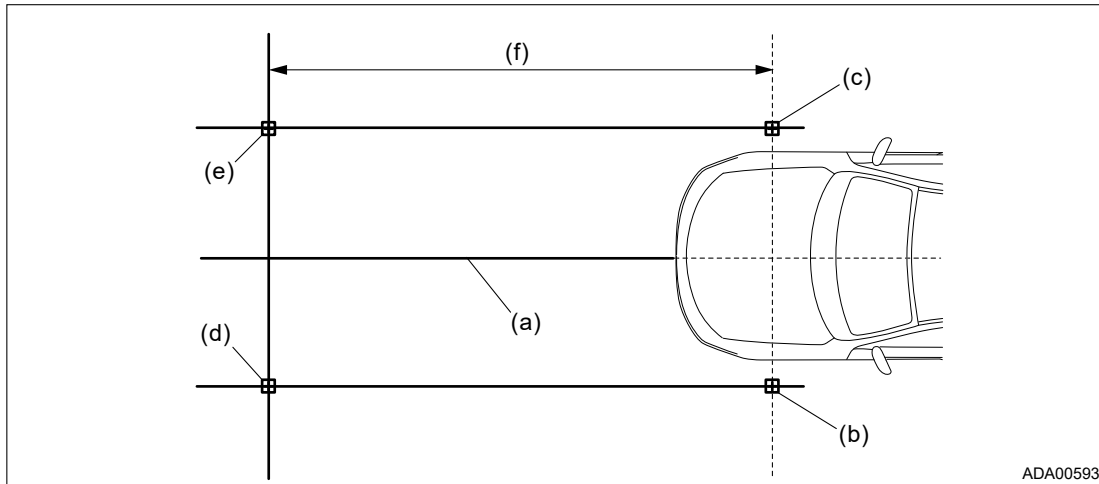


(a) Point A (b) Point B

Note:

Confirm that there is no wet condition or unevenness on the floor, to strain the leveling line correctly.

7. Mark the installation position of the partition.
 - (1) Suspend the plumb bob from the center of each front wheel, and mark the point C and point D.
 - (2) Strain the leveling lines from the point C and point D toward the front of vehicle parallel to the vehicle body center line (A-B line), and fix the leveling lines with packing tape.
 - (3) Make markings at the points 4,000 mm (13 ft, 1 1/2 in) ahead of the vehicle from the point C and point D. (Point E and point F)
 - (4) Strain the leveling line so that it passes through the point E and point F. (E-F line)



ADA00593

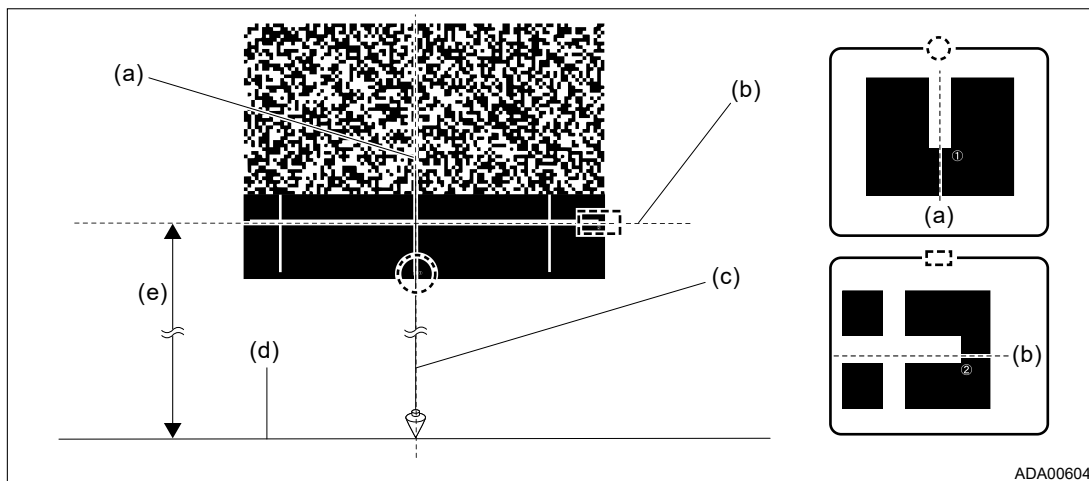
- | | | |
|---|-------------|--------------------------------|
| (a) Vehicle body center line (A-B line) | (c) Point D | (e) Point F |
| (b) Point C | (d) Point E | (f) 4,000 mm (13 ft, 1 1/2 in) |

8. Place the partition and RANDOM CHART.

Caution:

- **Affix the RANDOM CHART onto the vertical partition with flat surface.**
- **When affixing the RANDOM CHART using tape, place the tape within 10 mm (0.39 in) from the edge of the CHART. In this case, do not affix with lustrous tapes which may reflect the light.**
- **Perform the adjustment work at lighted places. If the lighting is not enough, adjustment cannot be done, and accuracy rate may not be acquired.**
- **The adjustment in the outdoors cannot be recommended. Note the sun position, when adjusting it in outdoor by necessity. (It is not acceptable when the sunlight comes from front or rear of the vehicle)**

- (1) Using the plumb bob, attach the RANDOM CHART on the partition, so that the setting reference (vertical line) center is aligned with the vehicle body center line (leveling line) and the height of the setting reference (horizontal line) center from the floor is 1,000 mm (3 ft, 3 3/8 in).
- (2) Adjust the partition so that it is parallel to E-F line.

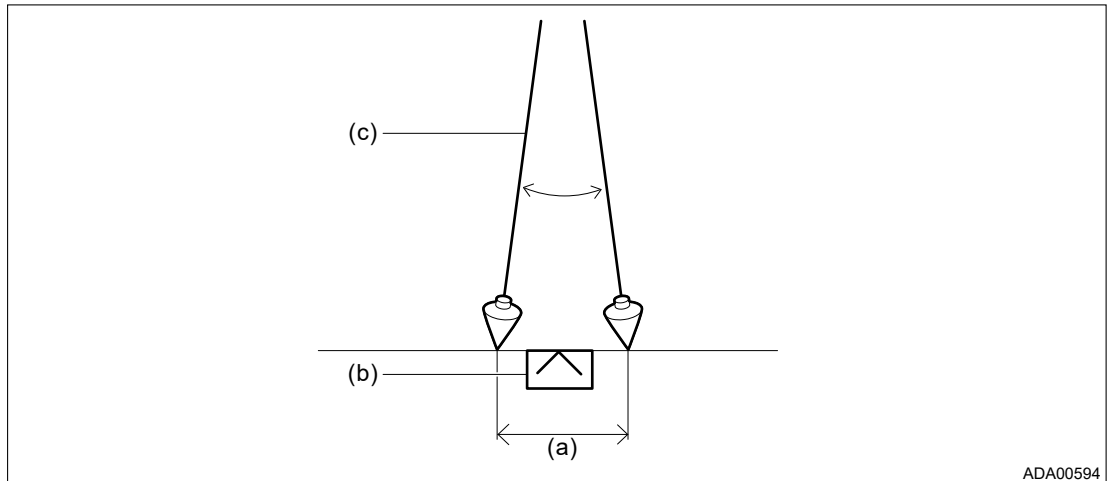


ADA00604

- | | | |
|---|---------------|-------------------------------|
| (a) ① = Setting reference (vertical line) and vehicle body center line (A-B line) | (c) Plumb bob | (e) 1,000 mm (3 ft, 3 3/8 in) |
| (b) ② = Setting reference (horizontal line) | (d) E-F line | |

Caution:

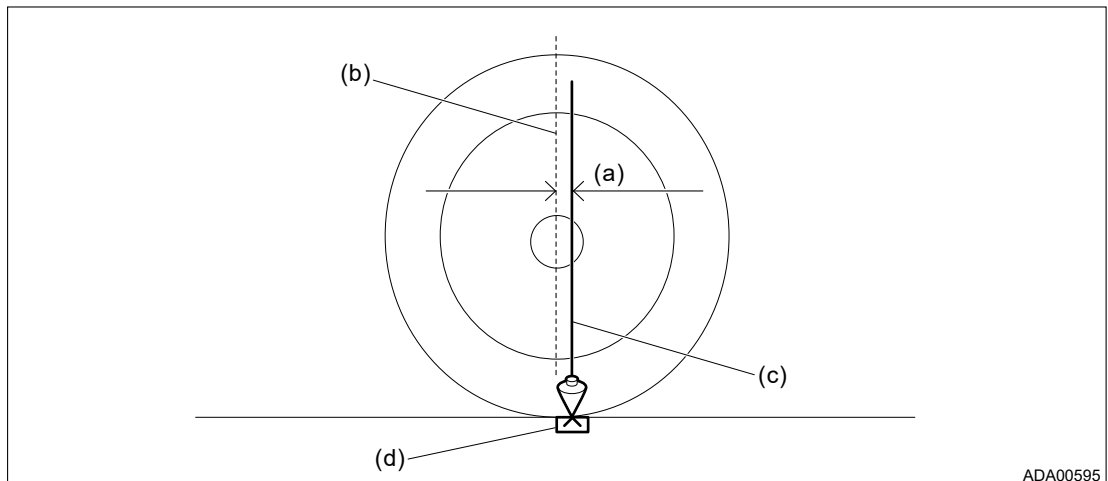
- Centering accuracy of the plumb bob shall be ± 4 mm (± 0.16 in) or less.



ADA00594

(a) ± 4 mm (± 0.16 in) (b) Marking (c) Plumb bob

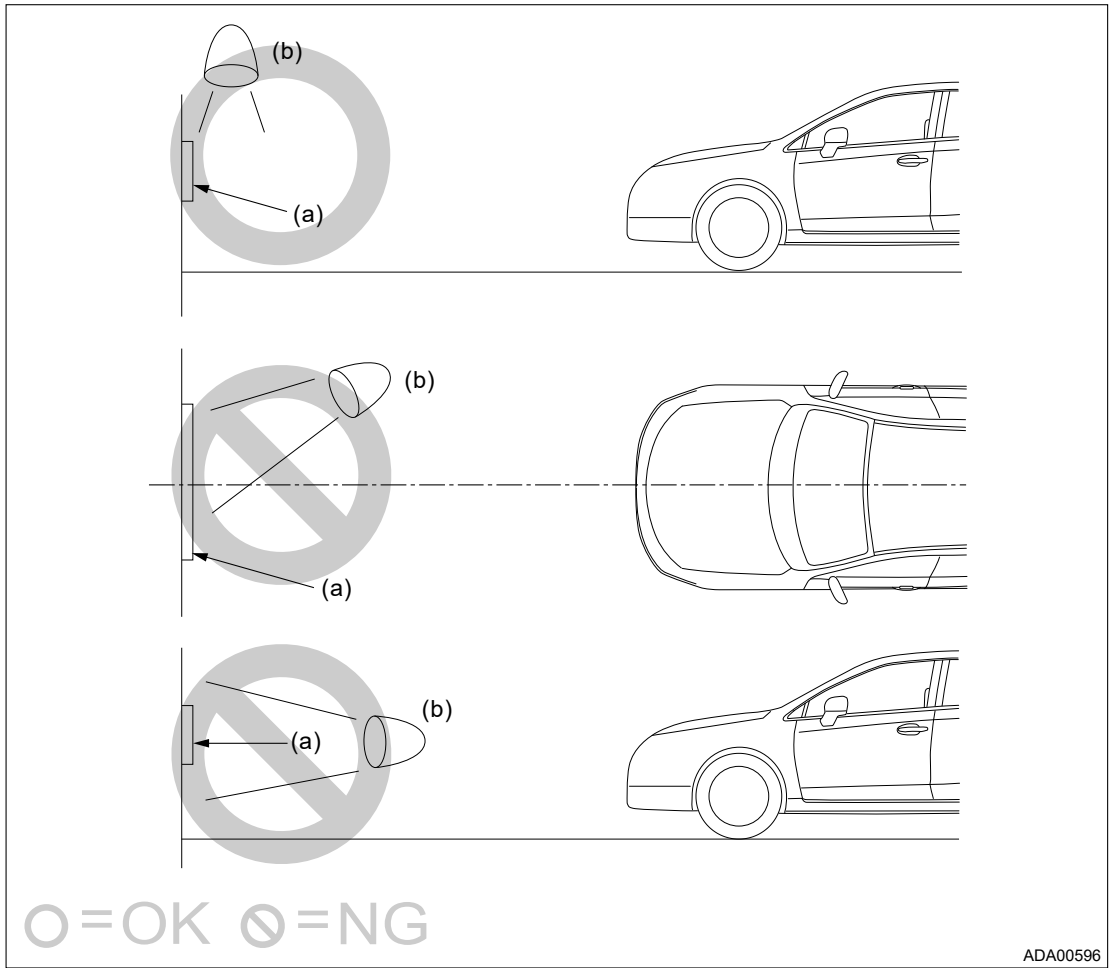
- Positioning accuracy of the measure shall be ± 2 mm (± 0.08 in) or less.
- Centering accuracy of the tire shall be ± 4 mm (± 0.16 in) or less.



ADA00595

(a) ± 4 mm (± 0.16 in) (c) Plumb bob (d) Marking
(b) Tire center line

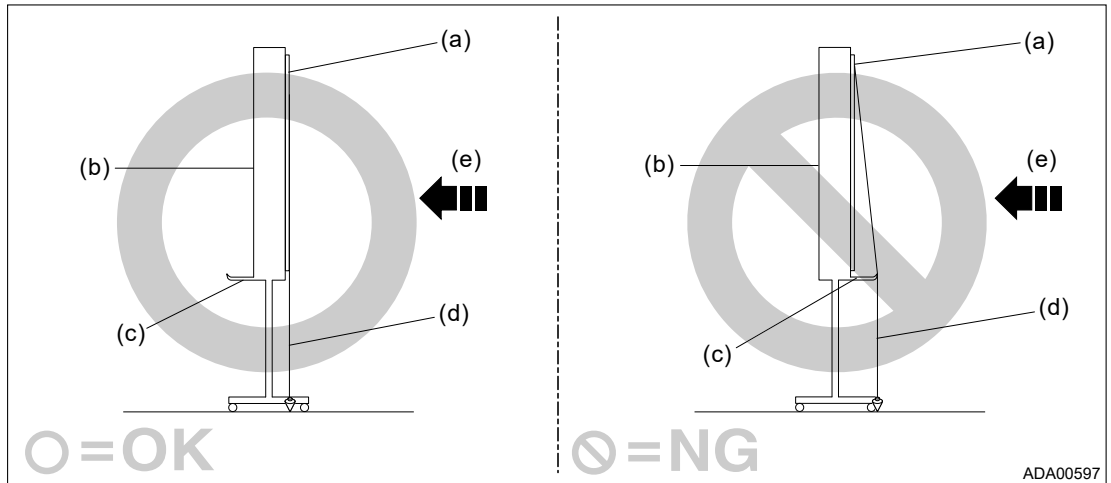
- Apply the lighting from the upper direction of RANDOM CHART, and make adjustment so that brightness is even in the CHART. (If the lighting is applied from the position where light reflects at RANDOM CHART, the adjustment cannot be done, because the reflected light enters the camera.)



ADA00596


(a) RANDOM CHART (b) Lighting

- When using a white board as a partition, affix the RANDOM CHART on the flat surface without protrusion such as penholder. When suspending the plumb bob, suspend it vertically from the RANDOM CHART by avoiding protrusion.



ADA00597

(a) RANDOM CHART (b) White board (c) Protrusion (penholder, etc.) (d) Plumb bob (e) Vehicle travel direction

9. Turn the ignition switch to OFF.
10. Check the windshield glass and the dashboard.  [Ref. to EyeSight \(DIAGNOSTICS\)>General](#)

Caution:

If there are any dirt, object or reflection from dashboard within the visibility of stereo camera, the correct adjustment and inspection can not be performed. Especially, do not put paper etc. on the dashboard.

- 11.** Connect the Subaru Select Monitor.

Note:

- **Use the Subaru Select Monitor equipped with the latest version of the software.**
- **For detailed operation procedures, refer to "Application help".**

- 12.** Turn the ignition switch to ON.

- 13.** Wait for 10 seconds.

- 14.** On [Start] display, select [Diagnosis].

- 15.** On [Vehicle selection] display, enter vehicle information and select [OK].

- 16.** On [Main Menu] display, select [Each System].

- 17.** On the [Select System] display, select [EyeSight], and then select [Enter] while pressing the pre-collision brake OFF switch and the lane departure warning OFF switch mounted on the stereo camera cover assembly at the same time.

Note:

If [EyeSight] is selected without pressing two switches at the same time, the camera adjustment items are not displayed in [Work Support]. (for preventing misoperation)

Also, the message is not displayed, when the camera does not finish the start-up (approx. 10 seconds after ignition switch ON). In that case, repeat from the selection of [EyeSight].

- 18.** On [Select Function] display, select [Work Support].

- 19.** From the work support item list, select and perform camera adjustment or other inspections.

Note:

- **When performing {Camera adjustment, inspection}, pre-collision brake OFF indicator light, lane departure warning OFF indicator light in the meter will illuminate, and the normal function will be disabled.**
- **After camera adjustment, the function will be enabled, when the ignition switch is turned to OFF and system is restarted.**

● **WHEN PERFORMING ADJUSTMENT OR INSPECTION BY AFFIXING RANDOM CHART ONTO WALL**

- 1.** Before preparation, check the following items.

(1) The headlight is off.

(2) The vehicle is parked on a level surface.

(3) The inflation pressure of tires is correct.

(4) The vehicle does not have load.

(5) The front wheels are directed to the straight ahead position, when the steering wheel is set to the center position.

Note:

When the front wheels are not directed to the straight ahead position, adjust the alignment.

 **Ref. to FRONT SUSPENSION>Wheel Alignment>ADJUSTMENT.**

- 2.** Prepare the Subaru Select Monitor, measure, plumb bob, leveling line and RANDOM CHART (ST).

Preparation tool:

ST: RANDOM CHART (87599VA000)

- 3.** Mark the setting position of the vehicle.

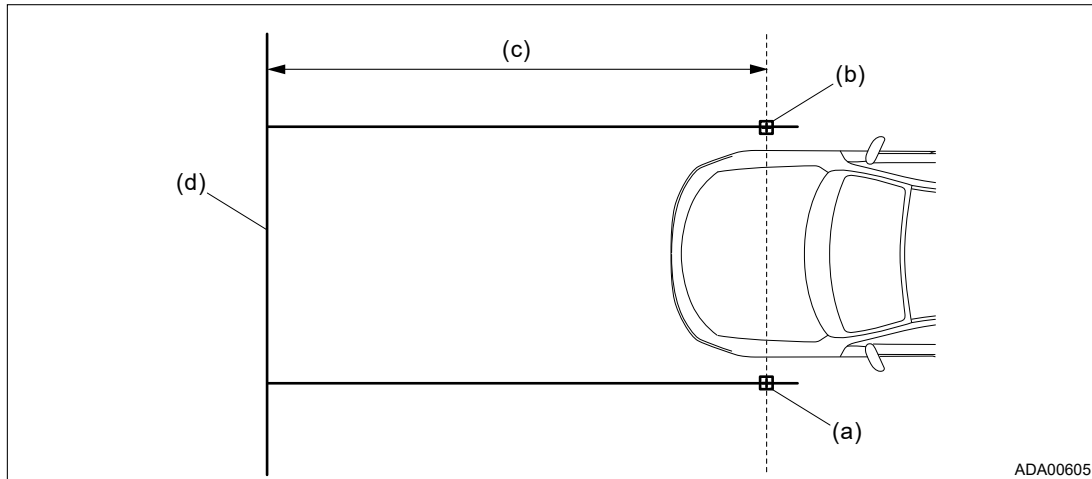
(1) Strain the leveling line so that it is at right angles to wall on which the RANDOM CHART is affixed, and fix the leveling line with packing tape.

(2) Make a marking 4,000 mm (13 ft, 1 1/2 in) away from the wall where the leveling line is fixed. (Point A and point B)

Note:

Stick the packing tape etc. on the floor, then make a marking on the tape.

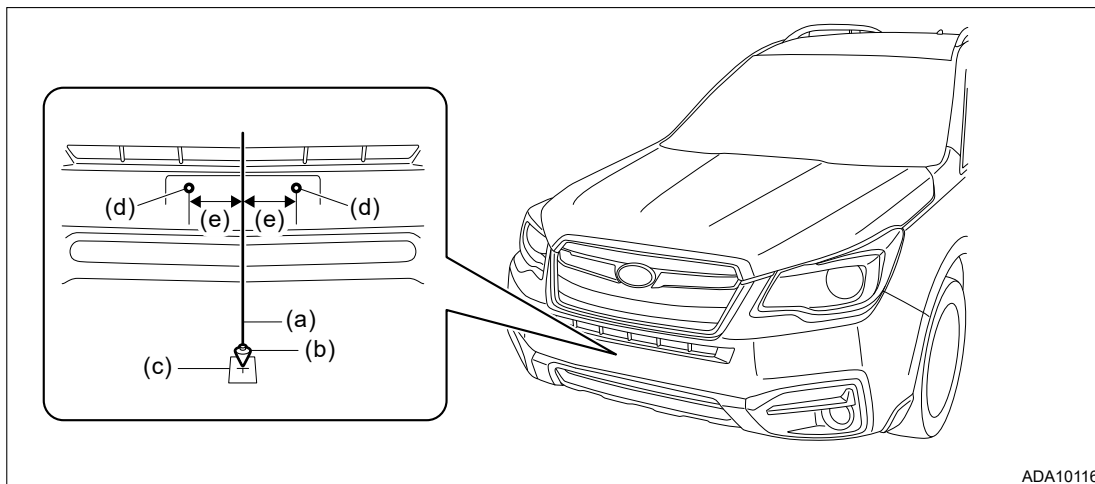
(3) Strain the leveling line so that it passes through the point A and point B. (A-B line)



ADA00605

- (a) Point A
- (b) Point B
- (c) 4,000 mm (13 ft, 1 1/2 in)
- (d) Wall

4. Suspend the plumb bob from the center of each front wheel of the vehicle, and place the vehicle so that it is aligned with the leveling line (A-B line).
5. Suspend the plumb bob with leveling line from front center position of vehicle (center of the license plate base), and mark the position where the plumb bob touches the ground. (Point C)



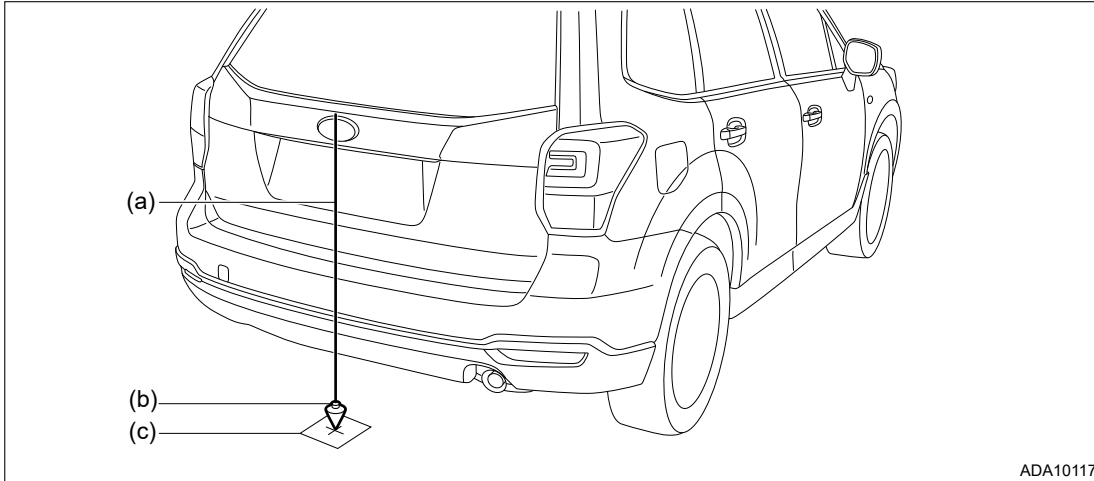
ADA10116

- (a) Leveling line
- (b) Plumb bob
- (c) Point C
- (d) License plate base
- (e) Same distance

Note:

Stick the packing tape etc. on the floor, then make a marking on the tape.

6. Suspend the plumb bob with leveling line from rear center position of vehicle (center of rear ornament), and mark the position where the plumb bob touches the ground. (Point D)



ADA10117

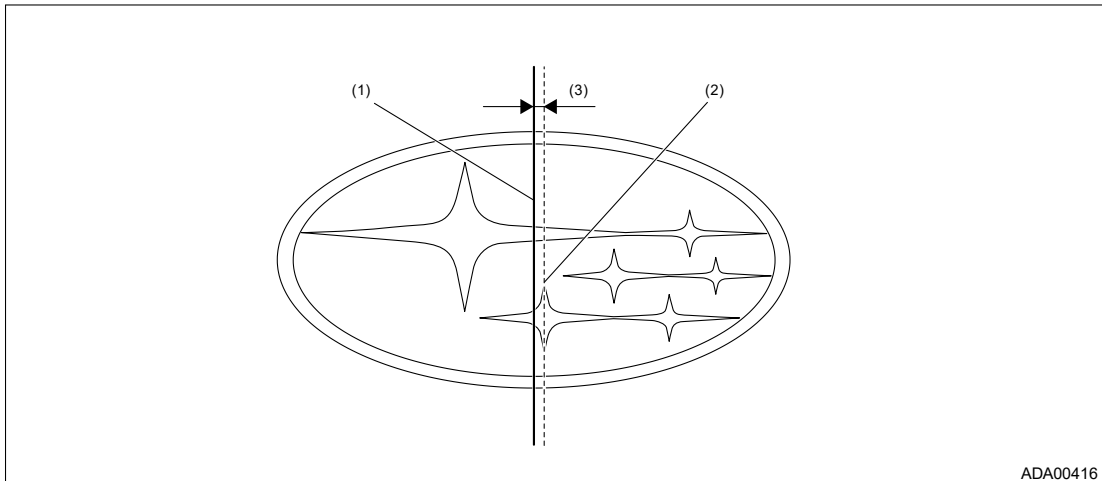
(a) Leveling line

(b) Plumb bob

(c) Point D

Note:

- **Center of the ornament is located at 2 mm (0.08 in) from the top of the second star from the left.**



ADA00416

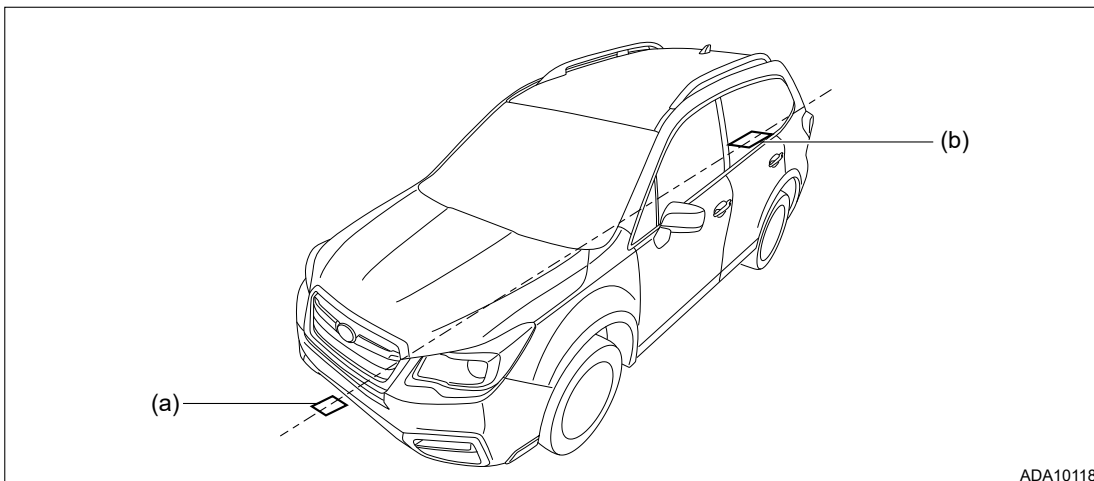
(1) Center of ornament

(2) Top of the star

(3) 2 mm (0.08 in)

- **Stick the packing tape etc. on the floor, then make a marking on the tape.**

7. Strain the leveling line from the making point D through the marking point C to the wall, and fix it with packing tape. (C-D line)



ADA10118

(a) Point C

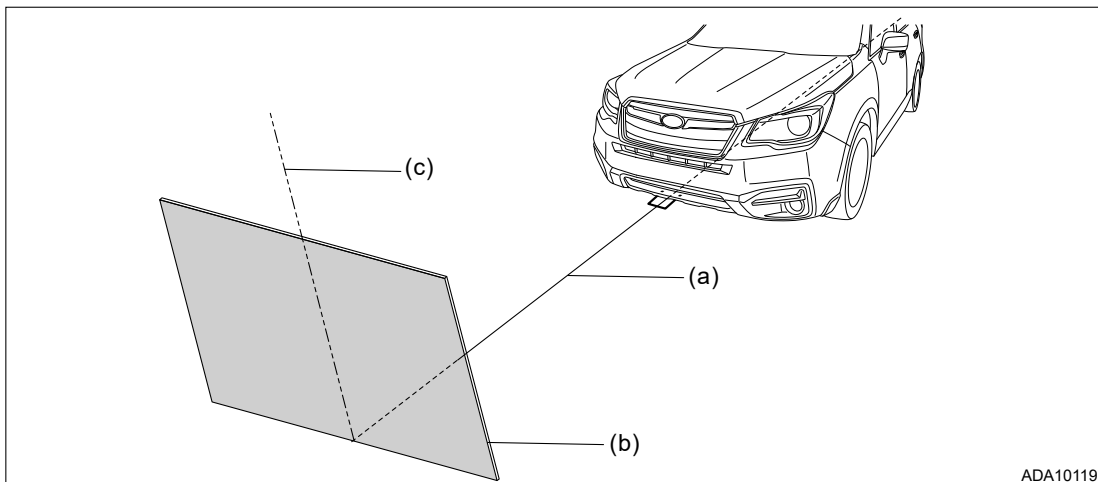
(b) Point D

8. Place the RANDOM CHART.

Caution:

- **Affix the RANDOM CHART onto the vertical wall, etc. with flat surface.**
- **When affixing the RANDOM CHART using tape, place the tape within 10 mm (0.39 in) from the edge of the CHART. In this case, do not affix with lustrous tapes which may reflect the light.**
- **Perform the adjustment work at lighted places. If the lighting is not enough, adjustment cannot be done, and accuracy rate may not be acquired.**
- **The adjustment in the outdoors cannot be recommended. Note the sun position, when adjusting it in outdoor by necessity. (It is not acceptable when the sunlight comes from front or rear of the vehicle)**

(1) Using the plumb bob, attach the RANDOM CHART on a wall, so that the setting reference (vertical line) center is aligned with the vehicle body center line (leveling line) and the height of the setting reference (horizontal line) center from the floor is 1,000 mm (3 ft, 3 3/8 in).

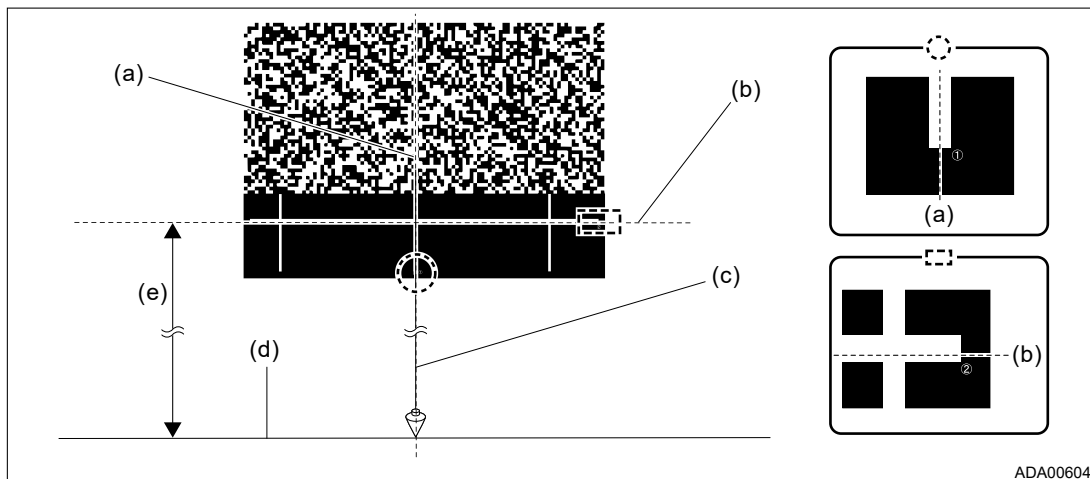


ADA10119

(a) Vehicle body center line (C-D line)

(b) Wall

(c) Setting reference (vertical line)



ADA00604

(a) ① = Setting reference (vertical line) and vehicle body center line (C-D line)

(c) Plumb bob

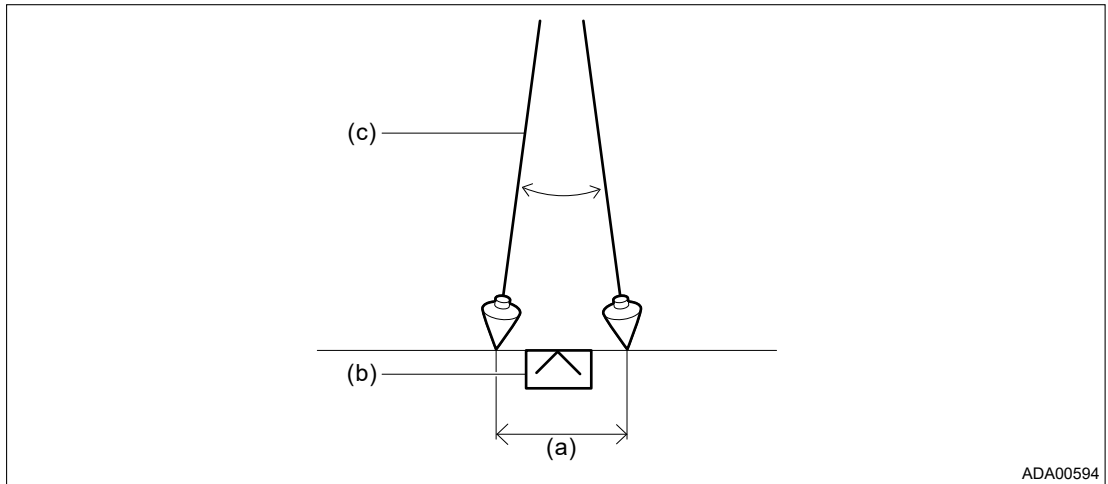
(e) 1,000 mm (3 ft, 3 3/8 in)

(b) ② = Setting reference (horizontal line)

(d) Floor

Caution:

- **Centering accuracy of the plumb bob shall be ± 4 mm (± 0.16 in) or less.**



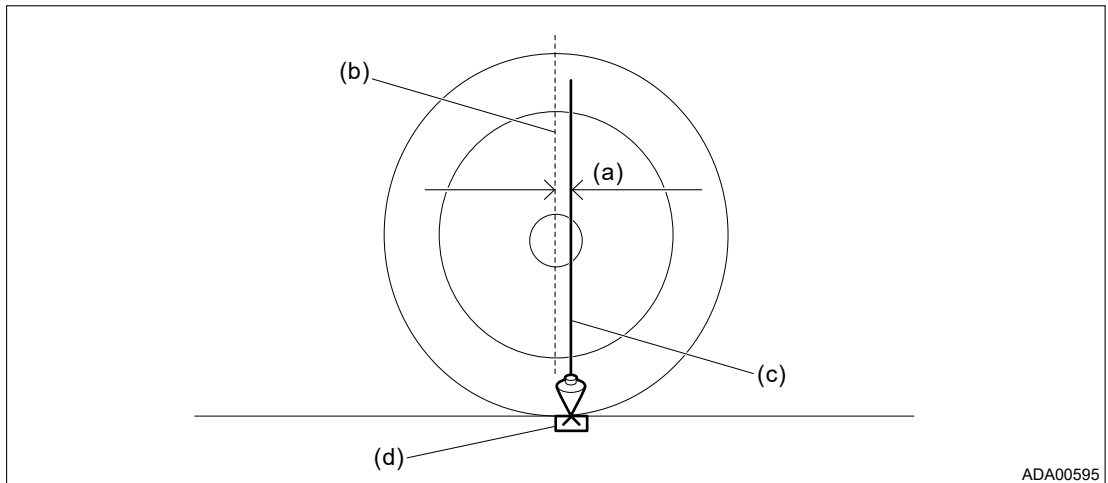
ADA00594

(a) ± 4 mm (± 0.16 in)

(b) Marking

(c) Plumb bob

- **Positioning accuracy of the measure shall be ± 2 mm (± 0.08 in) or less.**
- **Centering accuracy of the tire shall be ± 4 mm (± 0.16 in) or less.**



ADA00595

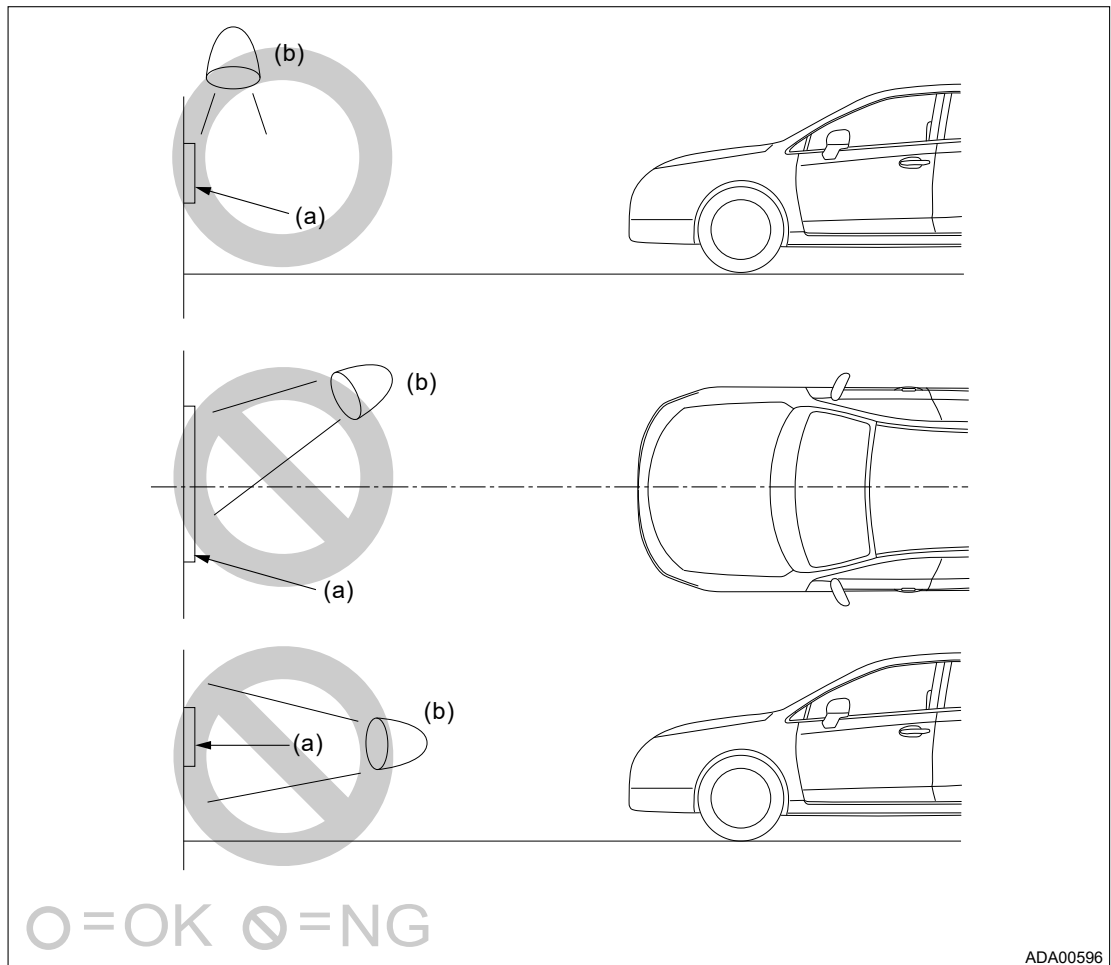
(a) ± 4 mm (± 0.16 in)

(c) Plumb bob

(d) Marking

(b) Tire center line


- **Apply the lighting from the upper direction of RANDOM CHART, and make adjustment so that brightness is even in the CHART. (If the lighting is applied from the position where light reflects at RANDOM CHART, the adjustment cannot be done, because the reflected light enters the camera.)**



(a) RANDOM CHART

(b) Lighting

9. Turn the ignition switch to OFF.

10. Check the windshield glass and the dashboard.  [Ref. to EyeSight \(DIAGNOSTICS\)>General Description>INSPECTION > WINDSHIELD GLASS AND DASHBOARD.](#)

Caution:

If there are any dirt, object or reflection from dashboard within the visibility of stereo camera, the correct adjustment and inspection can not be performed. Especially, do not put paper etc. on the dashboard.

11. Connect the Subaru Select Monitor.

Note:

- Use the Subaru Select Monitor equipped with the latest version of the software.
- For detailed operation procedures, refer to "Application help".

12. Turn the ignition switch to ON.

13. Wait for 10 seconds.

14. On [Start] display, select [Diagnosis].

15. On [Vehicle selection] display, enter vehicle information and select [OK].

16. On [Main Menu] display, select [Each System].

17. On the [Select System] display, select [EyeSight], and then select [Enter] while pressing the pre-collision brake OFF switch and the lane departure warning OFF switch mounted on the stereo camera cover assembly at the same time.

Note:

If [EyeSight] is selected without pressing two switches at the same time, the camera adjustment items are not displayed in [Work Support]. (for preventing misoperation)

Also, the message is not displayed, when the camera does not finish the start-up (approx. 10 seconds after ignition switch ON). In that case, repeat from the selection of [EyeSight].

18. On [Select Function] display, select [Work Support].

19. From the work support item list, select and perform camera adjustment or other inspections.

Note:

- **When performing {Camera adjustment, inspection}, pre-collision brake OFF indicator light, lane departure warning OFF indicator light in the meter will illuminate, and the normal function will be disabled.**
- **After camera adjustment, the function will be enabled, when the ignition switch is turned to OFF and system is restarted.**


2. ADJUSTMENT VALUE CLEAR

Perform when replacing stereo camera. (Do not perform when performing stereo camera re-adjustment and inspection)

1. On the work support item list, select [Clear adjustment value].
2. When [Make the following adjustment/inspection. Please push OK if ready. CAUTION! - Please confirm because the chart position height differs according to the model (vehicle height). - Set the ignition switch to OFF after press Cancel at the end of adjustment/inspection mode.] is displayed, select [OK] if preparation is ready.
3. After [Clear the adjustment value. CAUTION! Perform this only under the conditions listed in the service manual.] is displayed, select [OK].
4. When [Clearing adjustment value...] is displayed, wait until it finishes.
5. When the adjustment value clear is finished correctly, and [Adjustment value cleared OK! Adjustment value clearing has been completed normally.] is displayed, select [OK] to finish.
6. Turn the ignition switch to OFF and wait for approx. 5 seconds or more.

Caution:


If the ignition switch OFF period is short, the adjustment value clear can not be performed correctly.

7. Next, perform the camera all adjustment mode (replacement/removal).  [Ref. to EyeSight>Camera Adjustment, Inspection>PROCEDURE > CAMERA ALL ADJUSTMENT MODE \(REPLACEMENT/REMOVAL\).](#)

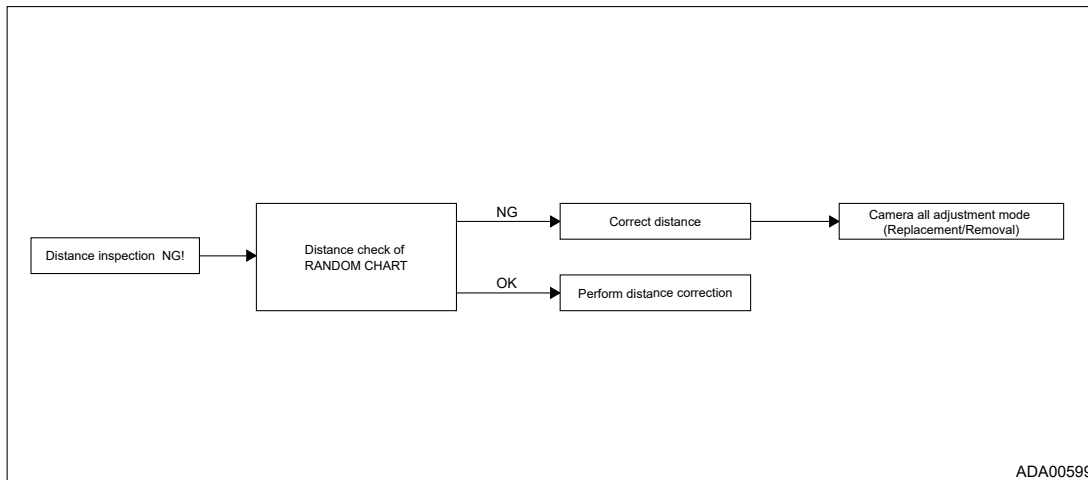
3. CAMERA ALL ADJUSTMENT MODE (REPLACEMENT/REMOVAL)

Perform this procedure when the stereo camera is replaced or re-adjustment is necessary (when stereo camera malfunctioning, when stereo camera reinstalled, when windshield glass replaced).

Caution:

- **When the stereo camera is replaced, be sure to perform the [Clear adjustment value] first. When {Clear adjustment value} was skipped, restart the procedure from {Clear adjustment value} again.**  [Ref. to EyeSight>Camera Adjustment, Inspection>PROCEDURE > ADJUSTMENT VALUE CLEAR.](#)
- **Perform the camera adjustment and inspection at curb weight without passengers.**
- **When the camera all adjustment mode is performed, if the procedures are not completed correctly to the end, the warning light may illuminate, when the vehicle moves.**

1. On the work support item list, select [Camera all adjustment mode (replacement/removal)].
2. When [Make the following adjustment/inspection. Please push OK if ready. CAUTION! - Please confirm because the chart position height differs according to the model (vehicle height). - Set the ignition switch to OFF after press Cancel at the end of adjustment/inspection mode.] is displayed, select [OK] if preparation is ready.
3. When [In process...] is displayed, wait until it finishes.
4. When the accuracy rate inspection is finished correctly, and [Accuracy rate &INT03% OK! Camera inspection has been completed normally. To save and apply adjustment, inspection results, turn OFF ignition SW more than 5 seconds.] is displayed, select [OK] to go to step 9).
5. When [Distance inspection NG! Distance inspection abnormal. Reconfirm distance from vehicle to chart. If distance is OK, press "OK" to continue. Perform distance correction & accuracy rate check If distance is NG, press "Cancel". Correct distance installation and start over again (CODE 03-2)] is displayed, refer to the NOTE below.



ADA00599

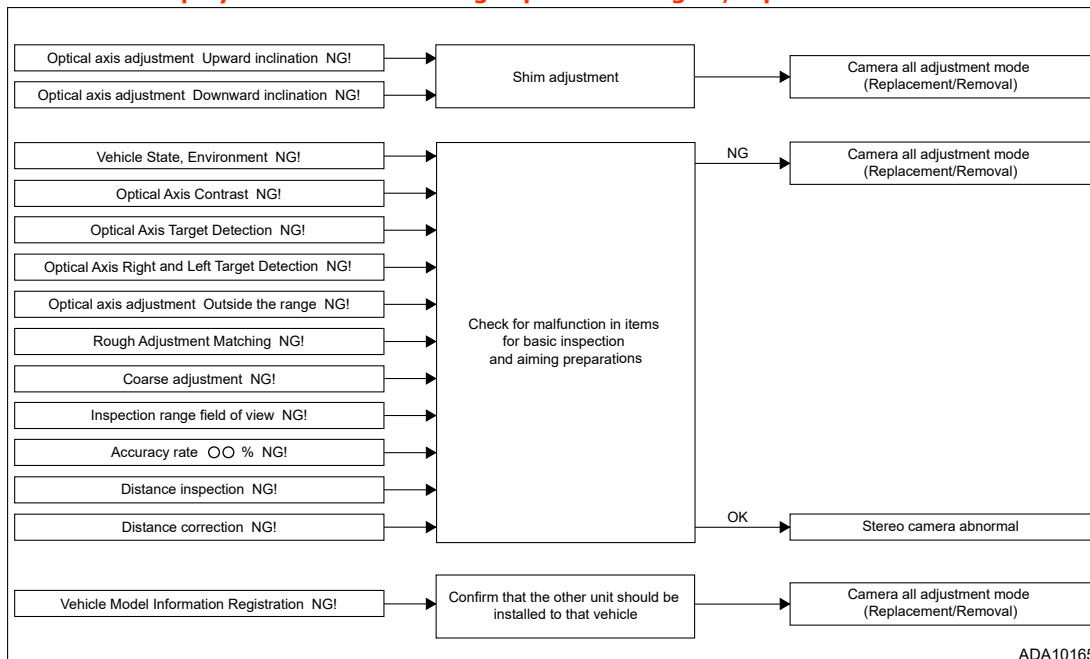
Note:

Distance check and adjustment of RANDOM CHART **Ref. to EyeSight>Camera Adjustment, Inspection>PROCEDURE > AUTOMATIC ADJUSTMENT AND FUNCTION CHECK BY DRIVING.**

6. After [Perform distance correction. CAUTION! Perform only at the time of distance inspection NG (CODE 03-2).] is displayed, select [OK]. When the distance correction is finished correctly, and [Distance correction OK! Distance correction has been completed normally. Perform accuracy rate inspection again.] is displayed, select [OK] and go to the accuracy rate inspection.
7. After [Perform accuracy rate inspection.] is displayed, select [OK]. When the accuracy rate inspection is finished correctly, and [Accuracy rate &INT03% OK! Camera inspection has been completed normally. To save and apply adjustment, inspection results, turn OFF ignition SW more than 5 seconds.] is displayed, select [OK] to go to the next step.
8. When [∅ NG!] is displayed during adjustment, refer to the NOTE below.

Caution:

For details on the displayed items, refer to the following list. Check the list items, and if the same NG item is displayed even when aiming is performed again, replace the stereo camera.



ADA10165

LIST




Error code	Display	Check items on error	Remarks
1401	[Vehicle State • Environment NG!]	Check body integrated unit.	—
1402	[Vehicle Model	Confirm the part numbers of EyeSight	—

	Information Registration NG!]	system components, and reconfirm that the unit should be installed to that vehicle. To confirm the components, check each item.	
1403	[Optical Axis Contrast NG!]	1. Make sure that the stereo camera cover assembly is installed correctly. 2. There should be no obstacles that blocks the stereo camera.	Highly relevant with the check items 1 to 12.
1404	[Optical Axis Target Detection NG!]	3. Stereo camera and camera plate are assembled with no gap. 4. Random chart for ver. 3 must be used. 5. There should be no obstacles that blocks the random chart. 6. Random chart must be set correctly for the vehicle. 7. Grid pattern of random chart should not be dirty or damaged.	Highly relevant with the check items 4, 6, 7, 8, 9, 10, 11 and 12.
1405	[Optical Axis Target Detection NG!]	8. Lighting circumstance for random chart should be normal. 9. Make sure that the headlight is off. 10. There should be no objects (reflection) on the instrument panel. 11. Dirt should not adhere to the windshield or the lens filter of the stereo camera.	Highly relevant with the check items 4, 6, 7, 8, 9, 10, 11 and 12.
1406	[Optical Axis Right and Left Target Detection NG!]	12. There should be no crack on the windshield. Note:	Highly relevant with the check items 1 to 12.
1407	[Out of the Optical Axis Adjustment Range NG!]	Detecting measures for the error codes 1403, 1404, 1405, 1406 and 1407 are different. Check items on error with high relevance are shown in the remarks.	Highly relevant with the check items 3 and 6.
1408	[Optical axis adjustment Upward inclination NG!]	1. Random chart must be set correctly for the vehicle. 2. Aiming is performed with the vehicle at curb weight. 3. There should be no malfunction in the suspension. If there are no problems above, perform shim adjustment so that optical axis turns downward.	—
1409	[Optical axis adjustment Downward inclination NG!]	1. Random chart must be set correctly for the vehicle. 2. Aiming is performed with the vehicle at curb weight. 3. There should be no malfunction in the suspension. If there are no problems above, perform shim adjustment so that optical axis turns upward.	—
140A	[Rough Adjustment Matching NG!]	1. Make sure that the stereo camera cover assembly is installed correctly. 2. There should be no obstacles that blocks the stereo camera.	Highly relevant with the check items 1 to 9.
140B	[Coarse adjustment NG!]		Highly relevant with the check

		<ul style="list-style-type: none"> 3. Stereo camera and camera plate are assembled with no gap. 	items 3, 5, 7 and 9.
140C	[Coarse adjustment NG!]	<ul style="list-style-type: none"> 4. There should be no obstacles that blocks the random chart. 5. Random pattern of random chart should not be dirty or damaged. 6. Lighting circumstance for random chart should be normal. 7. There should be no objects (reflection) on the instrument panel. 8. Dirt should not adhere to the windshield or the lens filter of the stereo camera. 9. There should be no crack on the windshield. <p>Note: Detecting measures for the error codes 140A, 140B and 140C are different. Check items on error with high relevance are shown in the remarks.</p>	Highly relevant with the check items 3, 5, 7 and 9.
140E	[Inspection range field of view NG!]	<ul style="list-style-type: none"> 1. Make sure that the stereo camera cover assembly is installed correctly. 2. There should be no obstacles that blocks the random chart. 3. Random pattern of random chart should not be dirty or damaged. 4. Lighting circumstance for random chart should be normal. 5. There should be no objects (reflection) on the instrument panel. 6. Dirt should not adhere to the windshield or the lens filter of the stereo camera. 7. There should be no crack on the windshield. 8. Windshield for EyeSight should be assembled. 	—
140F	[Distance inspection NG!]	<ul style="list-style-type: none"> 1. Distance from random chart to wheel center of the vehicle should be 4,000 mm (13.12 ft). 2. Lighting circumstance for random chart should be normal. 	—
1410	[Accuracy rate 00% NG!]	<ul style="list-style-type: none"> 1. Lighting circumstance for random chart should be normal. 2. Random pattern of random chart should not be dirty or damaged. 3. There should be no objects (reflection) on the instrument panel. 4. Dirt should not adhere to the windshield or the lens filter of the stereo camera. 5. There should be no crack on the windshield. 	—
1501	[Distance correction NG!]	When [Distance inspection NG!] is displayed and distance correction is	—

		<p>performed without inspection, check the following.</p> <ol style="list-style-type: none"> 1. Distance from random chart to wheel center of the vehicle should be 4,000 mm (13.12 ft). 2. Lighting circumstance for random chart should be normal. 	
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Note:

- **Shim adjustment:**  [Ref. to EyeSight>Camera Adjustment, Inspection>PROCEDURE > SHIM ADJUSTMENT.](#)
- **Basic inspection items:**  [Ref. to EyeSight \(DIAGNOSTICS\)>General Description>INSPECTION.](#)
- **Aiming preparation items:**  [Ref. to EyeSight>Camera Adjustment, Inspection>PROCEDURE > PREPARATIONS.](#)


9. Turn the ignition switch to OFF and wait for 10 seconds. (time necessary to save adjustment and inspection result)

Caution:

- **If the ignition switch OFF period after adjustment and inspection finished is short, the adjustment and inspection result cannot be saved correctly. The warning is displayed on the meter LCD, when the vehicle moves.**
- **When aiming begins, normal recognition process stops and the warning is displayed on the meter LCD. The warning display will be cleared by turning the ignition switch OFF → ON.**
- **If the steering wheel is operated many times during adjustment and inspection preparation, the power steering control module is overheated. Therefore, you may have to wait for at least 10 seconds after turning the ignition switch to OFF.**

10. Turn the ignition switch to ON. Make sure the [Aiming Completion Status] of [Data monitor] is [Exit] using Subaru Select Monitor. (This is different from [Initial Aiming Completion Status].)

11. Perform the [Clear memory], and turn the ignition switch to OFF.

12. Next, perform the automatic adjustment and function check by driving.  [Ref. to EyeSight>Camera Adjustment, Inspection>PROCEDURE > AUTOMATIC ADJUSTMENT AND FUNCTION CHECK BY DRIVING.](#)

4. AUTOMATIC ADJUSTMENT AND FUNCTION CHECK BY DRIVING

Note:

- **Perform the automatic adjustment and function check by driving to improve the recognition accuracy of stereo camera, when the stereo camera is replaced or re-adjusted, or the EyeSight function does not operate correctly.**
- **The automatic adjustment and function check by driving adjust the stereo camera more in detail, based on the stereo camera adjustment using RANDOM CHART.**

1. Perform this procedure after finishing stereo camera adjustment and inspection.

2. Connect the Subaru Select Monitor.

Note:

- **Use the Subaru Select Monitor equipped with the latest version of the software.**
- **For detailed operation procedures, refer to "Application help".**

3. On [Start] display, select [Diagnosis].

4. On [Vehicle selection] display, enter vehicle information and select [OK].

5. On [Main Menu] display, select [Each System].

6. On [Select System] display, select [EyeSight], and then select [Enter].

7. On [Select Function] display, select [Data monitor].

8. From the data monitor item list, display [Automatic adjustment status].

9. Drive the vehicle until [Automatic adjustment status] displays [0F], [1F], [2F] or [3F].

Caution:

- **For the automatic adjustment, drive the vehicle on straight road with white lines on both sides at a speed of 40 km/h (25 MPH) or more for at least five minutes, while maintaining distance from the preceding vehicle 40 m (132 ft) or more.**
- **Maintain the following conditions until [Automatic adjustment status] displays [0F], [1F], [2F] or [3F].**
 - **Turn the active lane keep and cruise main to OFF.**

– Hold down the pre-collision brake OFF switch for two seconds to turn OFF the pre-collision brake function.

Display	Content	Unit of measure	Note (at idling)
[Automatic adjustment status]	Index for automatic adjustment operation performed by the driving test after the completion of the optical axis adjustment	—	[0F], [1F], [2F] or [3F] is displayed when completed.

Note:

- It may takes long until [0F], [1F], [2F] or [3F] is displayed depending on the road condition etc.
- For new vehicles, [00] may be displayed. It is not necessary to drive the vehicle before delivery because high-accuracy aiming has been performed at vehicle shipment.

10. From the data monitor item list, display [Lane recognition status] to check if any of the following appears.

Note:


When driving does not continue until [0F], [1F], [2F] or [3F] is displayed, it may take long before recognition completes.

- Recognizing white lines on both sides during driving at 40 km/h (25 MPH) or more: [03]
- Recognizing white lines on both sides with lane width 3 m (10 ft) or more during driving at 65 km/h (40 MPH) or more: [05]

Display	Contents	Unit of measure	Note (at idling)
[Lane recognition status]	Display of lane recognition status	—	Recognized when vehicle lane can be seen by 20 m (66 ft) or more.

11. From the data monitor item list, display [Preceding vehicle distance] to check if the distance from the preceding vehicle is approximately the same.

5. SHIM ADJUSTMENT

1. Turn the ignition switch to OFF.
2. Detach the stereo camera cover assembly, and remove the stereo camera.  [Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
3. Remove the stereo camera plate, and insert the shim into the vehicle body and camera plate.

Preparation items:

Shim (washer): Part No. 031105000



Note:

- Inserting the shim into the vehicle front side makes camera downward.
- Inserting the shim into the vehicle rear side makes camera upward.
- There is a case that the shim may be inserted at the production line, but it is not abnormal.

4. Install the stereo camera plate.

Tightening torque:

5.5±1N·m (0.56±0.1 kgf-m, 4.1±0.7 ft-lb)

5. Install the stereo camera and stereo camera cover assembly.  [Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)
6. Perform the camera all adjustment mode (replacement/removal).  [Ref. to EyeSight>Camera Adjustment, Inspection>PROCEDURE > CAMERA ALL ADJUSTMENT MODE \(REPLACEMENT/REMOVAL\).](#)

6. CAMERA INITIALIZATION

This is a recovery measures prepared for the data failure caused by the low battery voltage during data storage to inside the stereo camera.

Caution:


Do not usually perform camera initialization because it will clear the aiming data and/or DTCs.

Perform the procedure only when the aiming result is NG even if the vehicle is placed correctly as shown in the flowchart described in "A: Procedure". After camera initialization, perform the aiming in the same procedure as for camera replacement.

1. Connect the Subaru Select Monitor.


Note:

- Use the Subaru Select Monitor equipped with the latest version of the software.
- For detailed operation procedures, refer to "Application help".

2. Turn the ignition switch to ON.
3. Wait for 10 seconds.
4. On [Start] display, select [Diagnosis].
5. On [Vehicle selection] display, enter vehicle information and select [OK].
6. On [Main Menu] display, select [Each System].
7. On [Select System] display, select [EyeSight], and then select [Enter].
8. On [Select Function] display, select [DTC].
9. Select [Clear memory] while pressing the pre-collision brake OFF switch and the lane departure warning OFF switch mounted on the stereo camera cover assembly at the same time.
10. Turn the ignition switch to OFF.
11. Wait for 5 seconds.
12. Next, perform the [Clear adjustment value].  [Ref. to EyeSight>Camera Adjustment, Inspection>PROCEDURE > ADJUSTMENT VALUE CLEAR.](#)

EyeSight > Combination Meter






NOTE

For the operation procedures for combination meter, refer to "INSTRUMENTATION/DRIVER INFO" section.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)

EyeSight > Control Unit


NOTE

System control of the EyeSight is performed by the following modules. For procedure of each module, refer to the respective sections.

- Engine control module (ECM)
 - Non-turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\)>Engine Control Module \(ECM\).](#)
 - Turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DOTC\)>Engine Control Module \(ECM\).](#)
- Transmission control module (TCM)
 - Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Transmission Control Module \(TCM\).](#)
 - Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Transmission Control Module \(TCM\).](#)
- VDC control module (VDCCM):  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\).](#)
- Stereo camera:  [Ref. to EyeSight>Stereo Camera.](#)
- Power steering control module:  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Power Steering Control Module.](#)
- Body integrated unit:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)


EyeSight > Diagnostics with Phenomenon

INSPECTION

Refer to "Diagnostics with Phenomenon" of "EyeSight (DIAGNOSTICS)" section.  [Ref. to EyeSight \(DIAGNOSTICS\)>Diagnostics with Phenomenon.](#)

EyeSight > EyeSight System

INSPECTION

Refer to "Basic Diagnostic Procedure" of "EyeSight (DIAGNOSTICS)" section.  [Ref. to EyeSight \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

EyeSight > EyeSight System

NOTE

For procedure of each component in the EyeSight system, refer to the respective section.

- Control module:

Note:

System control of the EyeSight is performed by each module. For procedure, refer to the following sections.

– Engine control module (ECM)

Non-turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\)>Engine Control Module \(ECM\).](#)

Turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DOTC\)>Engine Control Module \(ECM\).](#)

– Transmission control module (TCM)

Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Transmission Control Module \(TCM\).](#)






Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Transmission Control Module \(TCM\).](#)

– VDC control module (VDCCM):  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\).](#)

– Stereo camera:  [Ref. to EyeSight>Stereo Camera.](#)

– Power steering control module:  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Power Steering Control Module.](#)



– Body integrated unit:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

- Combination meter:  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)
- Stop light and brake switch:  [Ref. to BRAKE>Stop Light Switch.](#)
- Multi-function display (MFD):  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display \(MFD\).](#)
- Switches and harness:  [Ref. to EyeSight>Switches and Harness.](#)
- Roll connector (steering angle sensor):  [Ref. to AIRBAG SYSTEM>Roll Connector.](#)

EyeSight > EyeSight System

WIRING DIAGRAM

Refer to "EyeSight System" in the wiring diagram.

- Non-turbo model:  [Ref. to WIRING SYSTEM>EyeSight System>WIRING DIAGRAM > NON-TURBO MODEL.](#)
- Turbo model:  [Ref. to WIRING SYSTEM>EyeSight System>WIRING DIAGRAM > TURBO MODEL.](#)

EyeSight > General Description

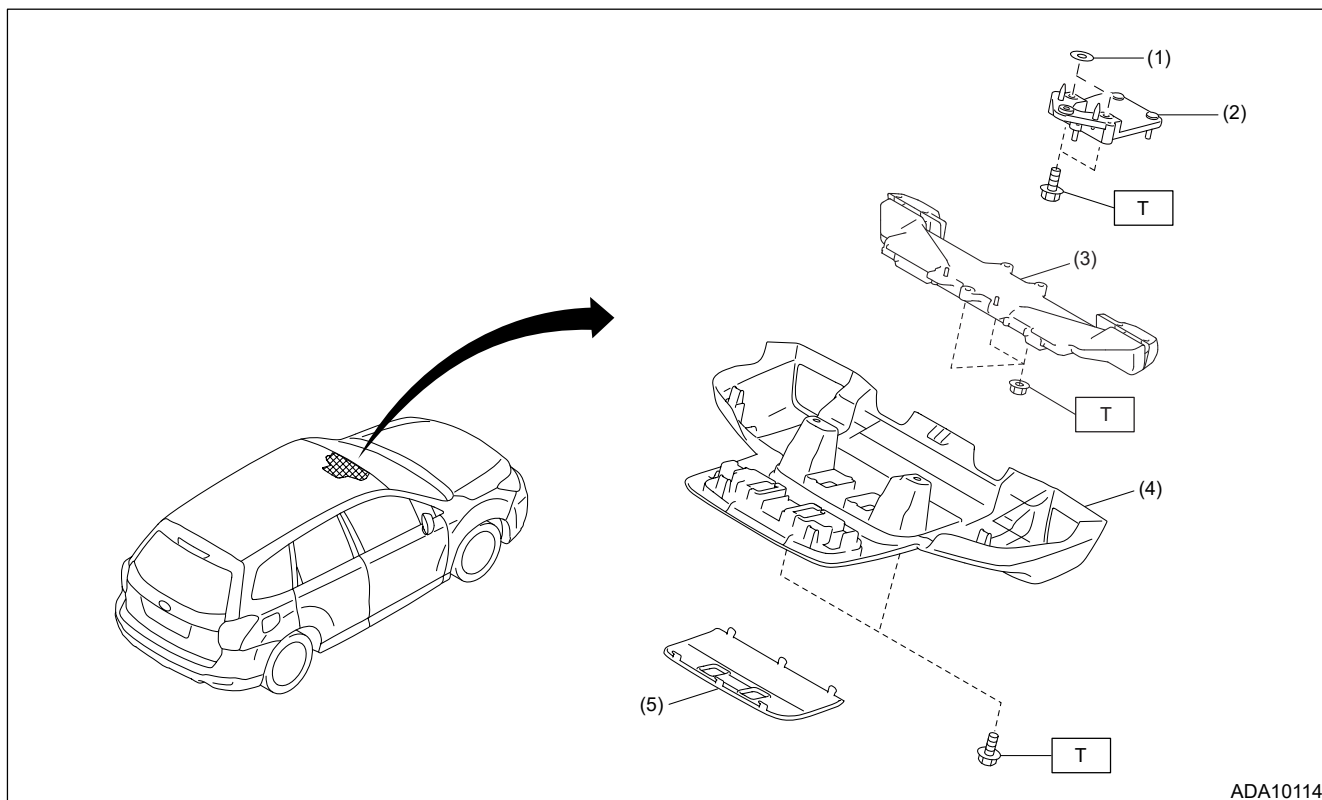
CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Adjust parts to the given specifications.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that the functional parts operate normally.
- Be careful of the following items. Failing to do so may cause the airbag system malfunction.
 - Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. When using a tester on these circuits, follow the cautions of "AIRBAG SYSTEM". [🔗 Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
 - Be careful not to damage the airbag system wiring harness when servicing the electrical parts around the steering column.
- When removing, installing or replacing the VDCCM&H/U, VDCCM&H/U bracket, steering wheel or steering angle sensor (steering roll connector), perform "VSC(VDC) Centering Mode" of the VDC. [🔗 Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT.](#)
- If the damage is found in the glass repair prohibited area, always replace the glass. [🔗 Ref. to EyeSight \(DIAGNOSTICS\)>General Description>INSPECTION > WINDSHIELD GLASS AND DASHBOARD.](#)

Damage in the prohibited area can affect the recognition of the stereo camera even if it is repaired, and thereby EyeSight function may not operate properly.
- When the suspension-related components have been removed, installed or replaced, or the wheel alignment is adjusted, perform "Clear Active Lane Keep System Learning Value". [🔗 Ref. to EyeSight \(DIAGNOSTICS\)>Clear Active Lane Keep System Learning Value>OPERATION.](#)

COMPONENT

1. STEREO CAMERA



(1) Shim (washer)

(4) Stereo camera cover ASSY

Tightening torque: N·m (kgf·m, ft·lb)

(2) Camera plate


(5) Cap

T: 5.5±1 (0.56±0.1, 4.1±0.7)

(3) Stereo camera



EyeSight > General Description

LOCATION

Refer to "LOCATION" of "EyeSight (DIAGNOSTICS)" section.  [Ref. to EyeSight \(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)

PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>STSSM4</p>	<p>- (Newly adopted tool)</p>	<p>SUBARU SELECT MONITOR 4</p>	<p>Used for setting of each function and troubleshooting for electrical system. Note: For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".</p>
 <p>ST87599VA000</p>	<p>87599VA000 (Newly adopted tool)</p>	<p>RANDOM CHART</p>	<p>Used for adjusting stereo camera.</p>

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
DST-i	Used together with Subaru Select Monitor 4.
Measure (5 m (16.4 ft) or more)	Used for adjusting stereo camera.
Leveling line	
Plumb bob	
Packing tape	


EyeSight > Multi-function Display (MFD)

NOTE

For the operation procedures for Multi-Function Display (MFD), refer to "INSTRUMENTATION/DRIVER INFO" section.  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display \(MFD\).](#)

EyeSight > Power Steering Control Module

NOTE

For the operation procedures for power steering control module, refer to "POWER ASSISTED SYSTEM (POWER STEERING)" section.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Power Steering Control Module.](#)

INSPECTION

1. CHECK FUSE

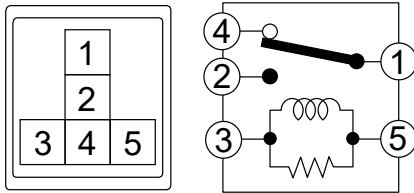
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:

If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY

1. Measure the resistance between relay terminals.

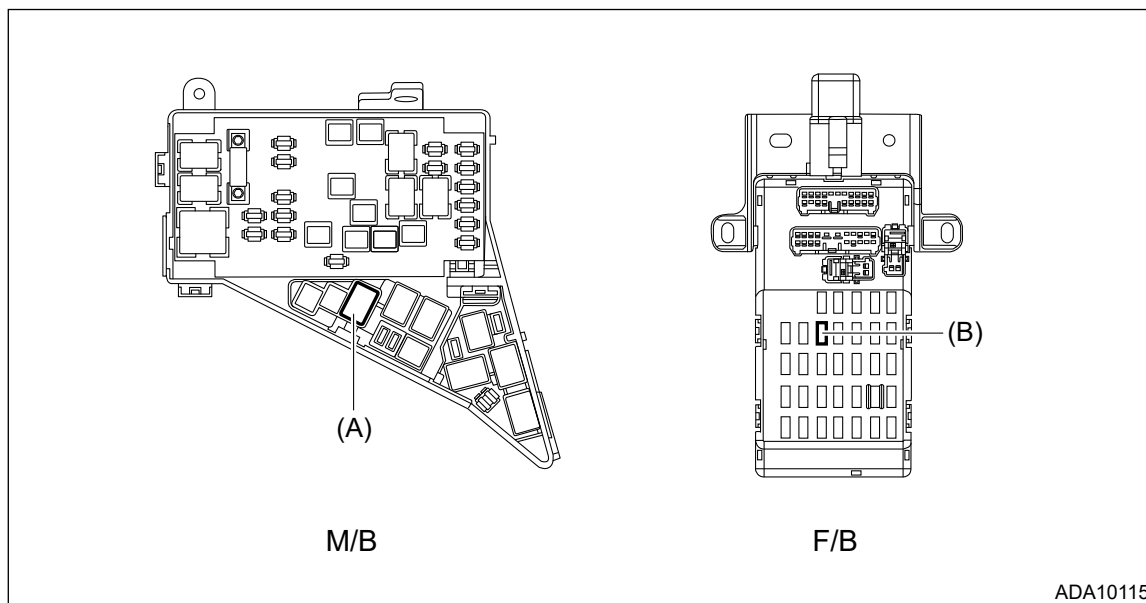
Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 MΩ or more	
1 – 4	Always	Less than 1 Ω	
1 – 2	Apply battery voltage between terminals 3 and 5.	Less than 1 Ω	

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2. Replace the relay if the inspection result is not within the standard value.

EyeSight > Relay and Fuse

LOCATION




Main fuse box	Brake light relay	(A)
Relay & fuse box	Fuse 10 A (stop light and brake switch, brake light relay)	(B)

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)


EyeSight > Roll Connector

NOTE

For the operation procedures for roll connector (steering angle sensor), refer to "AIRBAG SYSTEM" section.  [Ref. to AIRBAG SYSTEM>Roll Connector.](#)

INSTALLATION

Caution:

- Do not remove the protective cover until just before installing the stereo camera cover assembly. Using the bolt and nut, install the stereo camera with the protective cover attached, connect the connectors, and then remove the protective cover.
- Do not apply any impact to the stereo camera. (Even the slightest shock will deviate the optical axis of the camera, resulting in the loss of normal operation of the camera.)
- During installation, do not hold at the left and right cameras.
- Do not change the installation position of the stereo camera or do not modify the surrounding structure.
- Remove the protective cover, install the stereo camera cover assembly, and then perform adjustment and inspection of the stereo camera.  [Ref. to EyeSight>Camera Adjustment, Inspection.](#)
- Do not touch the lens filter on the stereo camera. If touched, replace the stereo camera.
- When installing the stereo camera cover assembly, cover with dust-free paper such as copy paper to avoid interference with the camera lens, and attach the paper using tape while being careful not to let the adhesive surface contact the glass surface. Be sure to remove the paper after the procedure. Also, do not put your hand on the polyurethane section of the windshield contact surface. Doing so may cause the polyurethane section to be removed, which may interfere with the normal operation if it hangs down in front of the lens filter section.
- When installing the stereo camera cover assembly, take care so that the harness does not interfere with the stereo camera or does not get caught.
- Do not allow the stereo camera cover assembly to come in contact with the stereo camera. Install the stereo camera cover assembly precisely so that it will not block the visibility of the camera.
- Because the stereo camera is incompatible, be sure to check the part number before installation.

1. Attach the camera plate.

Tightening torque:

5.5±1N·m (0.56±0.1 kgf-m, 4.1±0.7 ft-lb)

Note:

Align the positioning pins of camera plate to the positioning holes of front rail.

2. Install the stereo camera.

Tightening torque:

5.5±1N·m (0.56±0.1 kgf-m, 4.1±0.7 ft-lb)



Note:

Align the positioning holes of stereo camera to the positioning pins of camera plate.

3. Install the stereo camera cover assembly.

Tightening torque:

5.5±1N·m (0.56±0.1 kgf-m, 4.1±0.7 ft-lb)

4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
5. Perform the adjustment or inspection of the stereo camera.  [Ref. to EyeSight>Camera Adjustment, Inspection.](#)

REMOVAL

Caution:

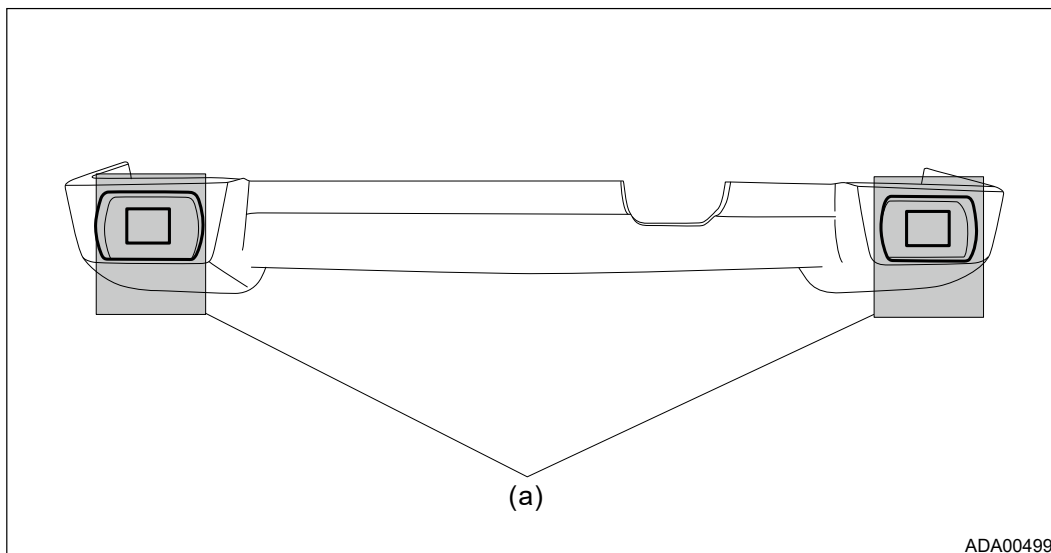
- When the stereo camera or windshield glass has been replaced, removed or installed, always perform the adjustment and inspection of the camera. (When the stereo camera has been replaced with a new part, the camera remains in a failed state until adjustment and inspection are performed.)
- Since the stereo camera is a precision equipment, install the protective cover before handling it. (New stereo camera is equipped with a protective cover as a service part.)
- During removal, do not hold at the left and right cameras.
- Do not apply any impact to the stereo camera. (Even the slightest shock will deviate the optical axis of the camera, resulting in the loss of normal operation of the camera.)
- Do not disassemble the stereo camera.
- Attach the protective cover to the replacement part, put it into the box in the same way as the other parts and return it. Cover the replaced stereo camera with a protective cover.
- Do not touch the lens filter on the stereo camera. If touched, replace the lens hood.
- When removing the stereo camera cover assembly, cover with dust-free paper such as copy paper to avoid interference with the camera lens, and attach the paper using tape while being careful not to let the adhesive surface contact the glass surface. Be sure to remove the paper after the procedure.
Also, do not put your hand on the polyurethane section of the windshield contact surface. Doing so may cause the polyurethane section to be removed, which may interfere with the normal operation if it hangs down in front of the lens filter section.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

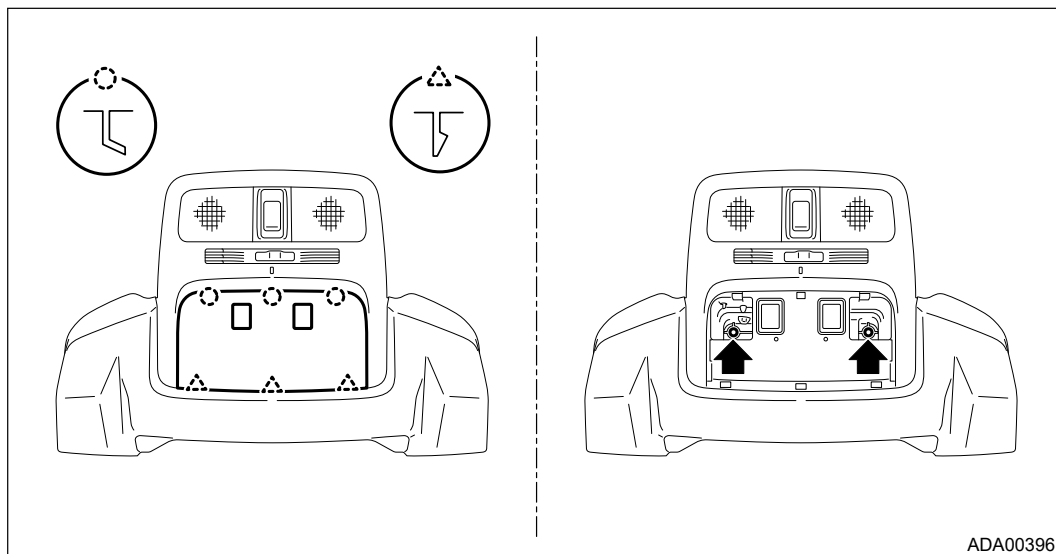
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

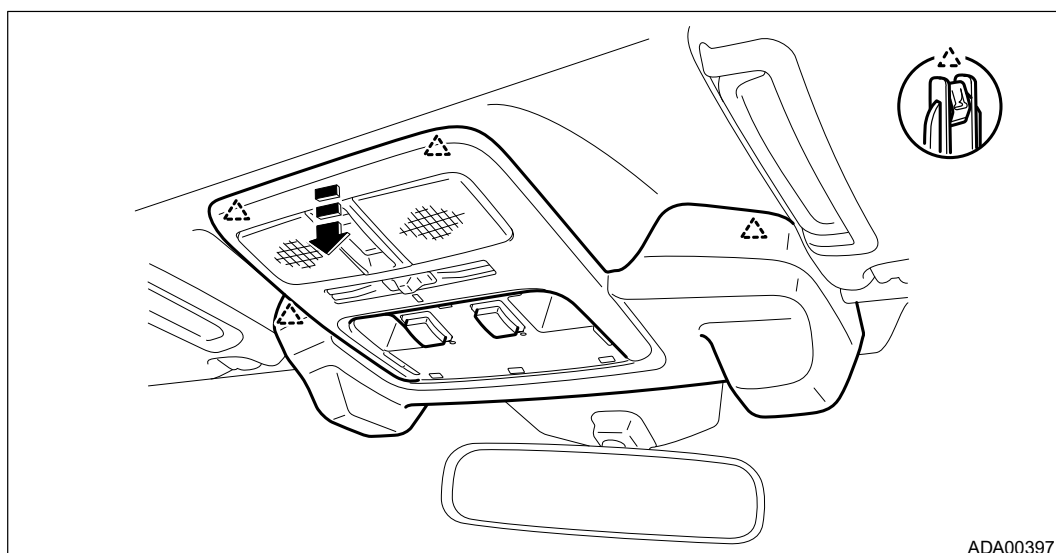
2. Attach dust-free paper (a) such as copy paper to the stereo camera cover assembly.



3. Remove the stereo camera cover assembly.
 - (1) Disconnect the claws and hooks and remove the cap.
 - (2) Remove the mounting bolt of stereo camera cover assembly.



- (3) Pull down the rear of the stereo camera cover assembly, and then release the clips.

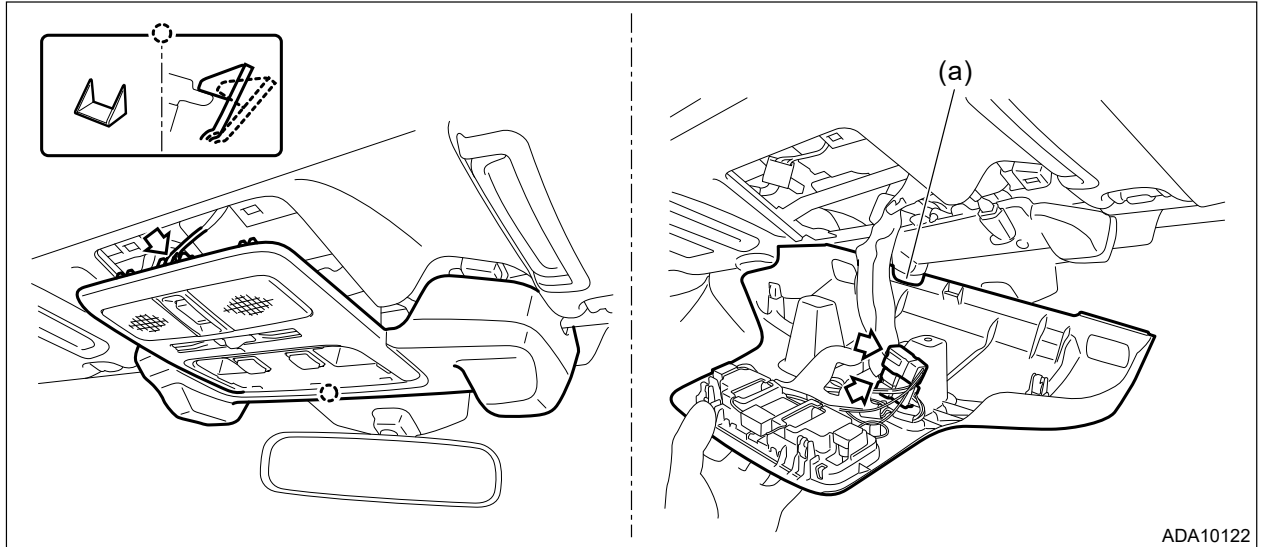


- (4) Disconnect the sunroof switch connector from the gap through the rear of the stereo camera cover assembly.
- (5) Release the hook on the front side of stereo camera cover assembly.

Note:

If it is hard to release, insert a finger from the portion (a) and then release the hook.

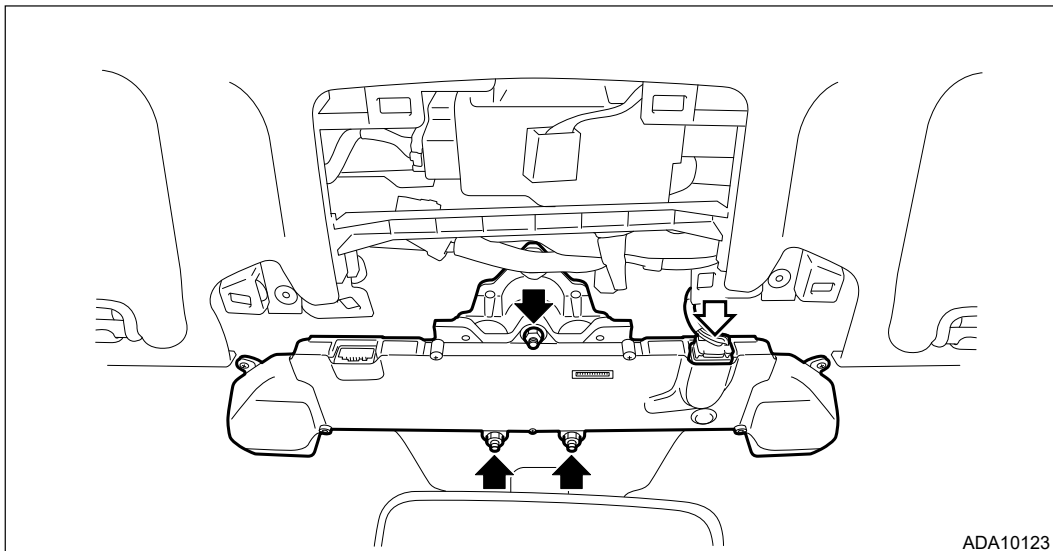
- (6) Disconnect the connectors, and remove the stereo camera cover assembly.



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4. Remove the stereo camera.

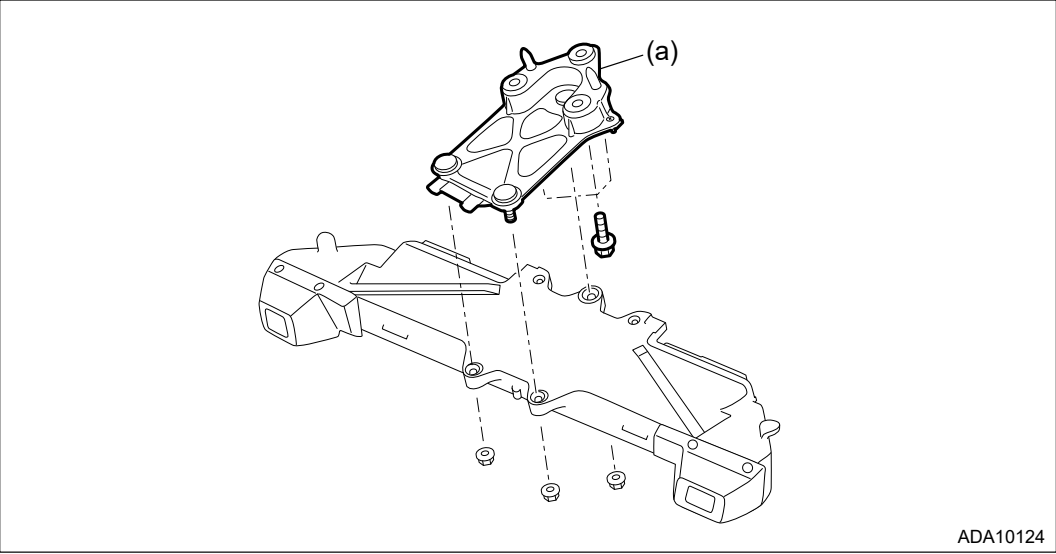
- (1) Disconnect the stereo camera connector.
- (2) Remove the nuts, and then remove the stereo camera.



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Note:

Remove the camera plate (a) as required.



EyeSight > Stop Light & Brake Switch

NOTE

For the operation procedures for stop light and brake switch, refer to "BRAKE" section.  [Ref. to BRAKE>Stop Light Switch.](#)

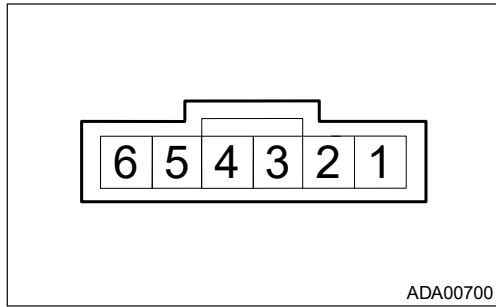
INSPECTION

1. PRE-COLLISION BRAKE OFF SWITCH AND LANE DEPARTURE WARNING OFF SWITCH

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



- Pre-Collision OFF Switch

Terminal No.	Inspection conditions	Standard
3 – 5	OFF	Approx. 1 kΩ
	ON	Less than 1 Ω

- LDP OFF Switch

Terminal No.	Inspection conditions	Standard
4 – 5	OFF	Approx. 1 kΩ
	ON	Less than 1 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Terminal No.	Inspection conditions	Specification
1 (+) – 2 (-)	Apply battery voltage.	Light ON

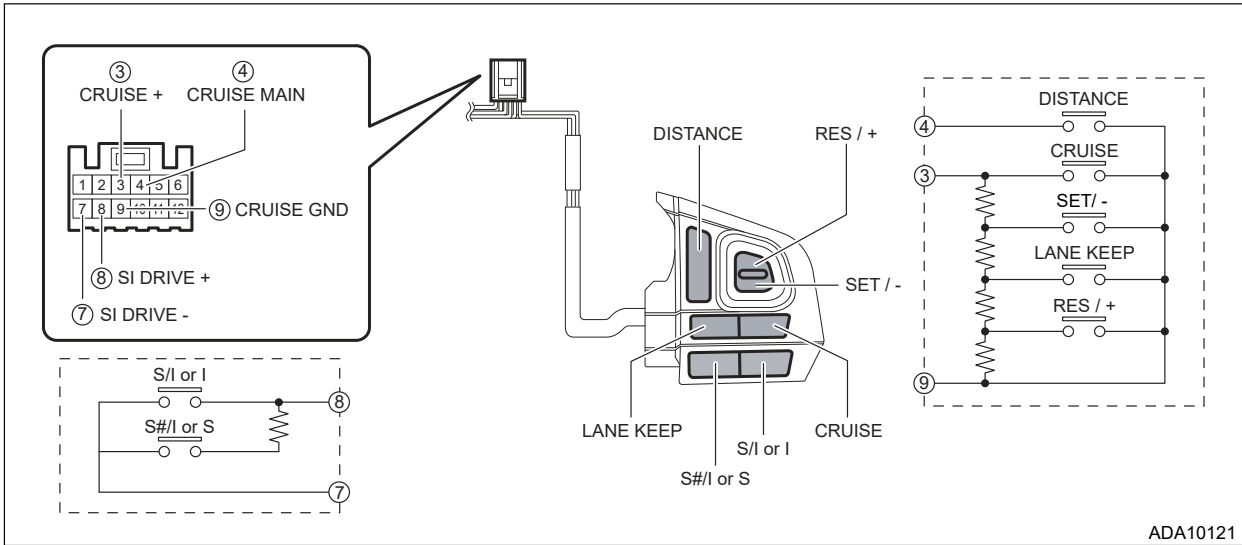
3. Replace the stereo camera cover assembly if faulty is found in the inspection.

2. EyeSight STEERING SWITCH

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



ADA10121

Terminal No.	Inspection conditions		Standard
3 – 9	{CRUISE}	All OFF	Approx. 4,020 Ω
	SET/-		
	LANE KEEP		
	RES/+		
4 – 9	{CRUISE}	ON	Less than 1 Ω
		ON	Approx. 250 Ω
8 – 7	S/I or I	ON	Approx. 680 Ω
	S#/I or S	ON	Approx. 1,470 Ω
4 – 9	{DISTANCE}	OFF	1 MΩ or more
		ON	Less than 1 Ω
8 – 7	S/I or I	All OFF	1 MΩ or more
	S#/I or S	ON	Less than 1 Ω
		ON	Approx. 1,800 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.


Terminal No.	Inspection conditions	Specification
10 (+) – 11 (-)	Apply battery voltage.	Light ON

3. Replace the EyeSight steering switch if it is found defective.


EyeSight > Switches and Harness

NOTE

1. PRE-COLLISION BRAKE OFF & LANE DEPARTURE WARNING OFF SWITCH

The pre-collision brake OFF & lane departure warning OFF switch is integrated in the stereo camera cover assembly. If the pre-collision brake OFF & lane departure warning OFF switch is faulty, replace the stereo camera cover assembly.  [Ref. to EyeSight>Stereo Camera.](#)



2. EyeSight STEERING SWITCH

For the removal and installation operation procedures for the EyeSight steering switch, refer to "CRUISE CONTROL SYSTEM" section.  [Ref. to CRUISE CONTROL SYSTEM>Cruise Control Command Switch.](#)

EyeSight > Transmission Control Module (TCM)


NOTE

For the operation procedures for transmission control module (TCM), refer to “CONTINUOUSLY VARIABLE TRANSMISSION” section.

- Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Transmission Control Module \(TCM\).](#)
- Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Transmission Control Module \(TCM\).](#)

EyeSight > VDC Control Module and Hydraulic Control Unit (VDCCM&H/U)

NOTE

For the operation procedures for VDC control module & hydraulic control module (VDCCM&H/U), refer to "VEHICLE DYNAMICS CONTROL (VDC)" section.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\).](#)

GLASS/WINDOWS/MIRRORS > Front Door Glass

INSTALLATION


1. Install each part in the reverse order of removal.

Caution:

Check that the running channel - front door is securely fixed to the panel assembly - front door and to the sash COMPL - partition.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to GLASS/WINDOWS/MIRRORS>General Description>COMPONENT > FRONT DOOR GLASS.](#)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

GLASS/WINDOWS/MIRRORS > Front Door Glass

REMOVAL



Caution:

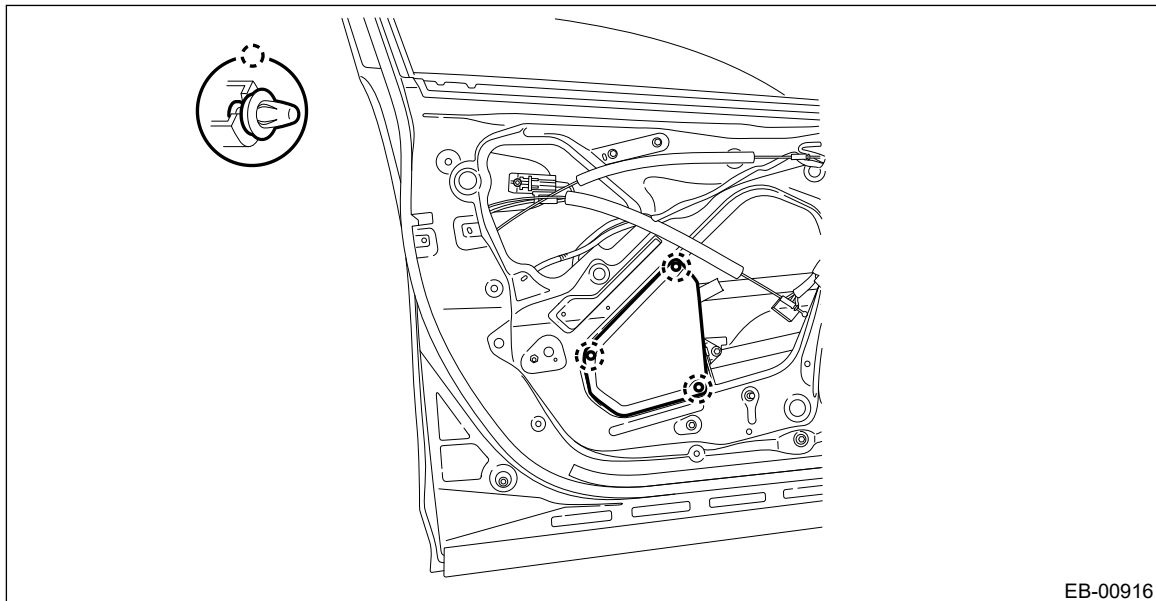
Refer to "CAUTION" of "General Description" before handling the airbag system components.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

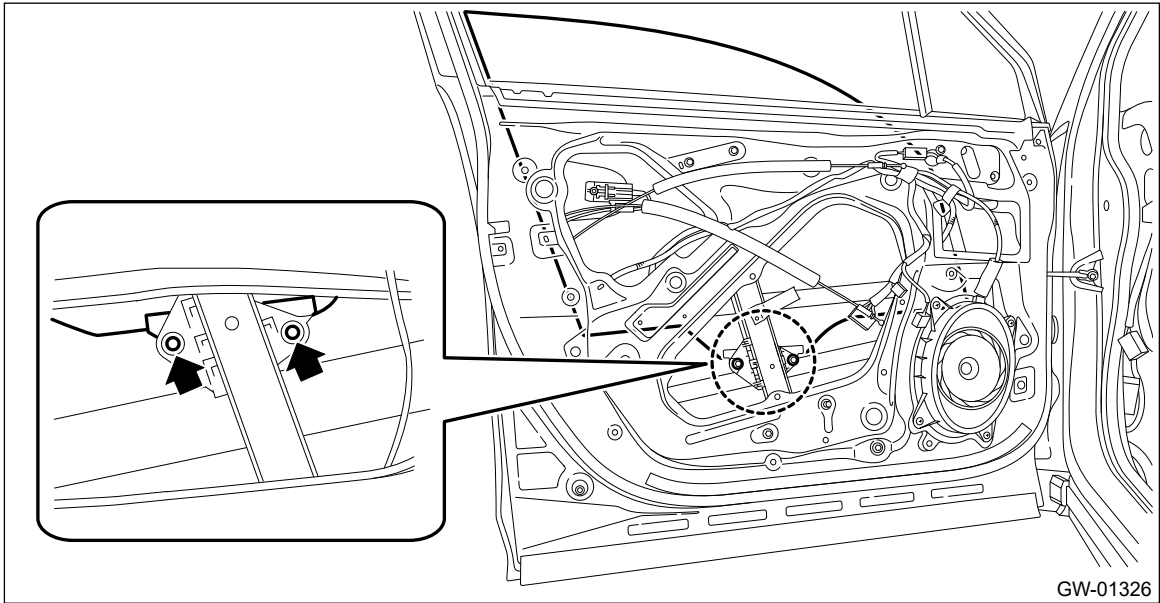
2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Remove the sealing cover - front door.  [Ref. to EXTERIOR BODY PANELS>Front Sealing Cover>REMOVAL.](#)
4. Remove the front door inner pad.



Caution:

If the clip is damaged, replace it with a new part because the panel assembly - front door may be deformed.

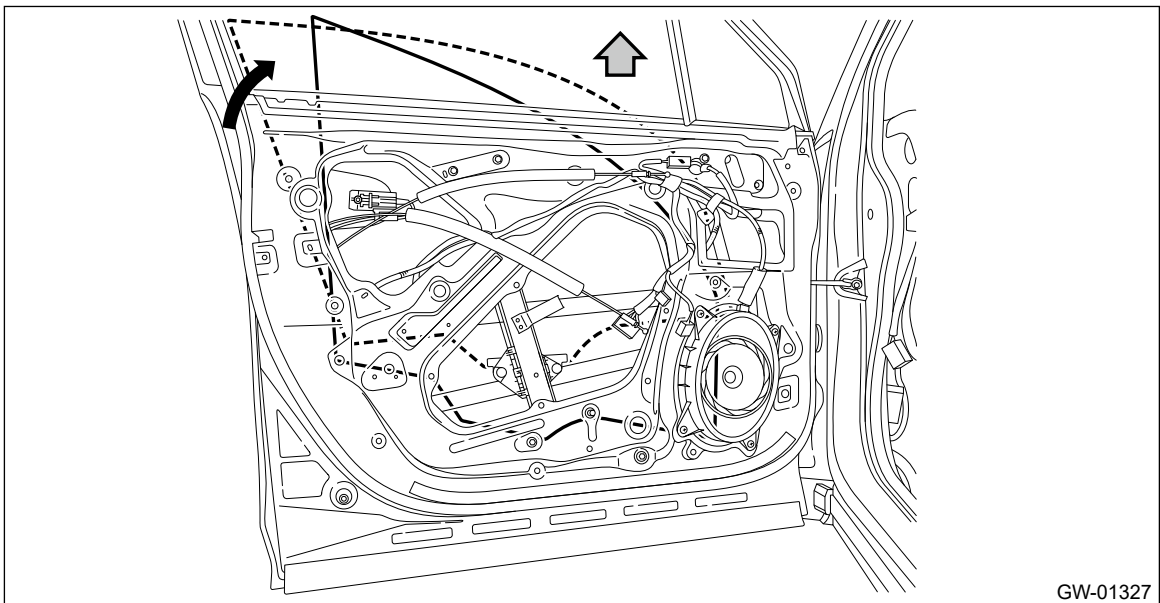
5. Attach the battery ground cable and the switch - power window, and turn the ignition to ON.
6. Remove the glass assembly - front door.
 - (1) Operate the switch - power window to move the glass assembly - front door to the position where the mounting bolts can be seen.
 - (2) Remove the running channel - front door.
 - (3) Remove the mounting bolts from the glass assembly - front door.



(4) While tilting the glass, remove the glass assembly - front door.

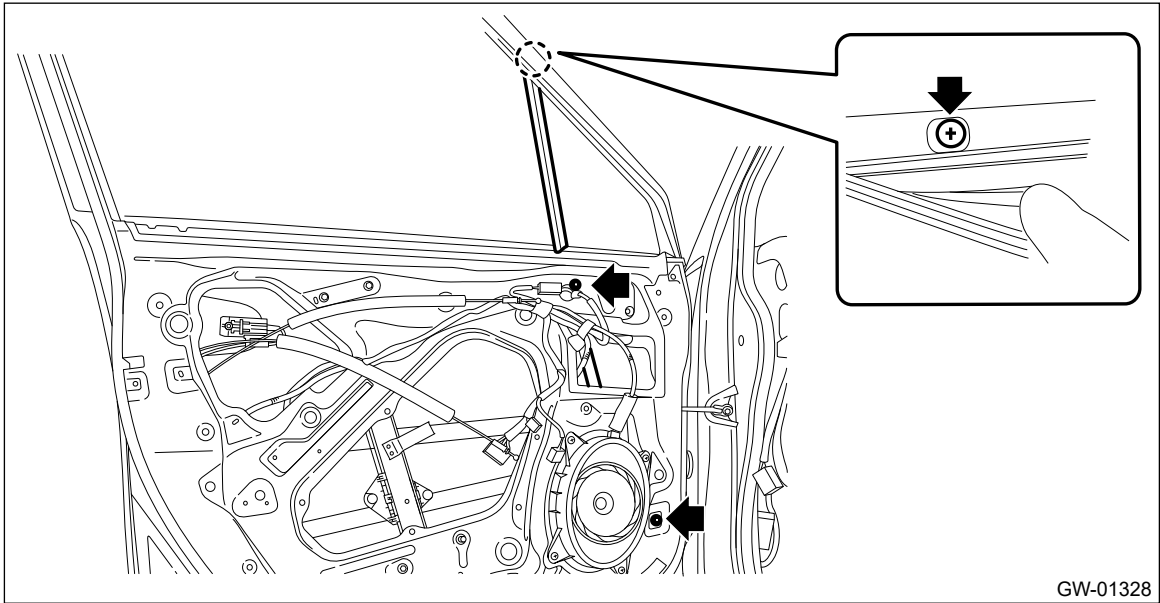
Caution:

Avoid impact and damage to the glass assembly - front door.



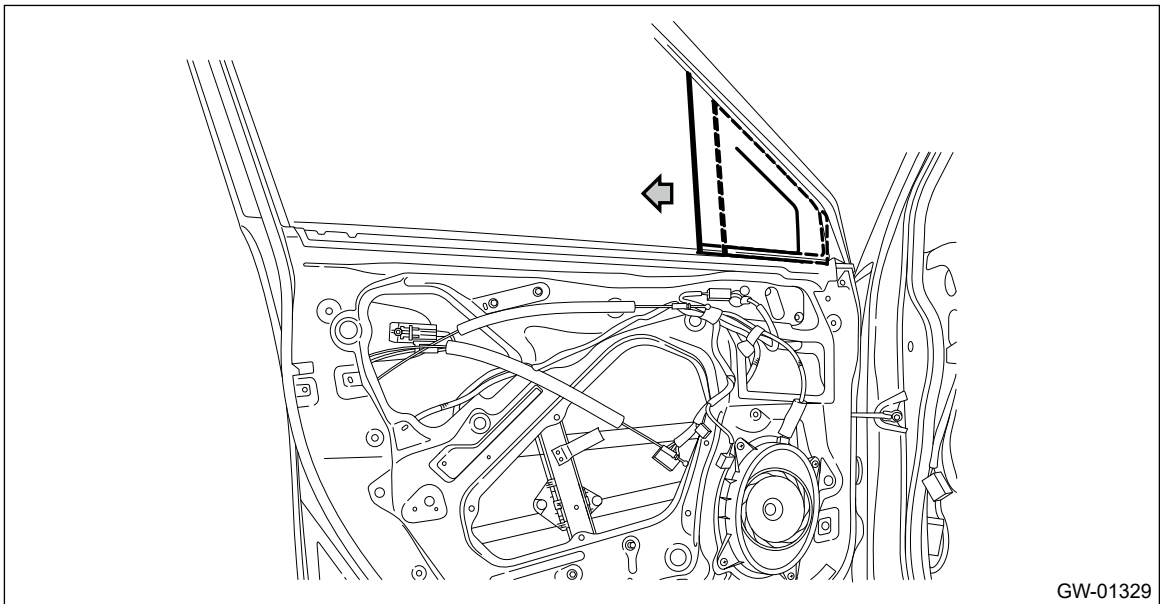
7. Remove the glass - front door partition.

(1) Remove the bolts and screws, and then remove the sash COMPL - partition.



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(2) Remove the glass - front door partition.

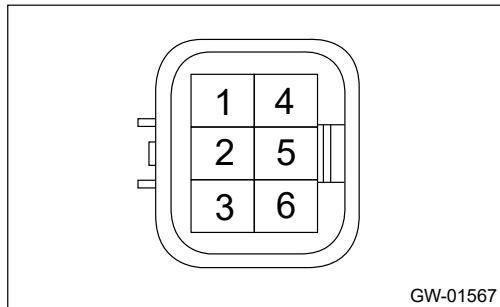


GW-01329

GLASS/WINDOWS/MIRRORS > Front Regulator and Motor Assembly

INSPECTION

1. Disconnect the connector of the motor - front.
2. Check the motor operation when battery voltage is applied between terminals of the motor - front connector.



- LH

Terminal No.	Inspection conditions	Standard
4 (+) – 1 (–)	Apply battery voltage between terminals.	Increase
1 (+) – 4 (–)	Apply battery voltage between terminals.	Decrease

- RH

Terminal No.	Inspection conditions	Standard
3 (+) – 6 (–)	Apply battery voltage between terminals.	Increase
6 (+) – 3 (–)	Apply battery voltage between terminals.	Decrease

3. If it does not operate properly as a result of inspection, replace the regulator and motor assembly - front.

GLASS/WINDOWS/MIRRORS > Front Regulator and Motor Assembly


INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to](#)

[GLASS/WINDOWS/MIRRORS>General Description>COMPONENT > FRONT DOOR GLASS.](#)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

GLASS/WINDOWS/MIRRORS > Front Regulator and Motor Assembly

REMOVAL




Caution:

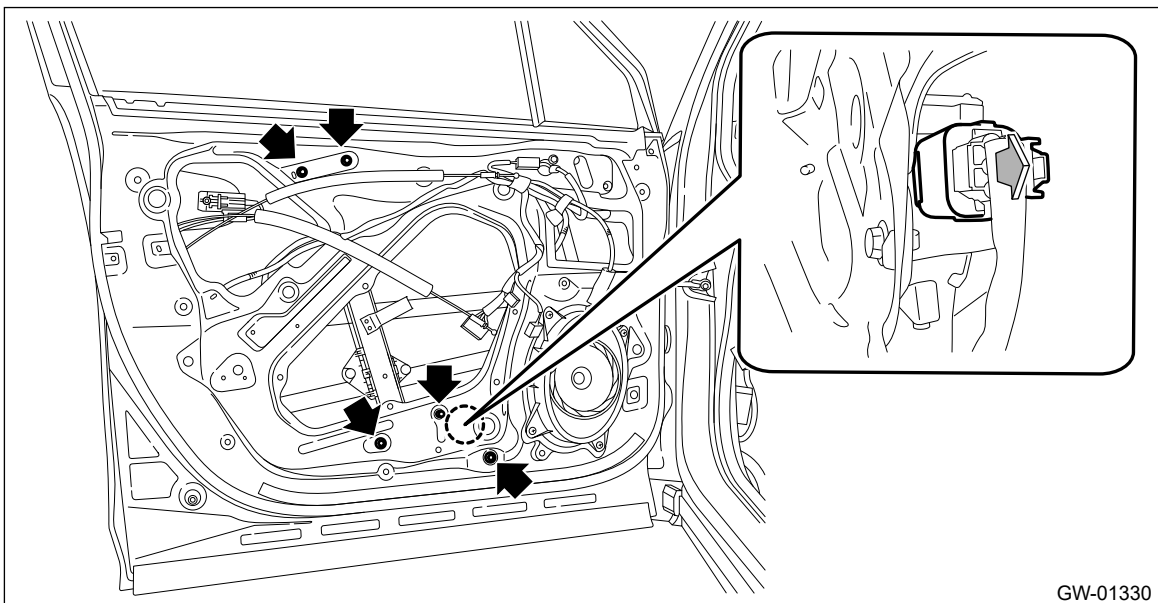
Refer to "CAUTION" of "General Description" before handling the airbag system components.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Operate the power window switch to close the front door glass.
2. Turn the ignition to OFF.
3. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

4. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
5. Remove the sealing cover - front door.  [Ref. to EXTERIOR BODY PANELS>Front Sealing Cover>REMOVAL.](#)
6. Remove the glass assembly - front door.  [Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL.](#)
7. Remove the regulator and motor assembly - front.
 - (1) Disconnect the motor - front connector.
 - (2) Remove the bolts, and then remove the regulator and motor assembly - front.



GW-01330

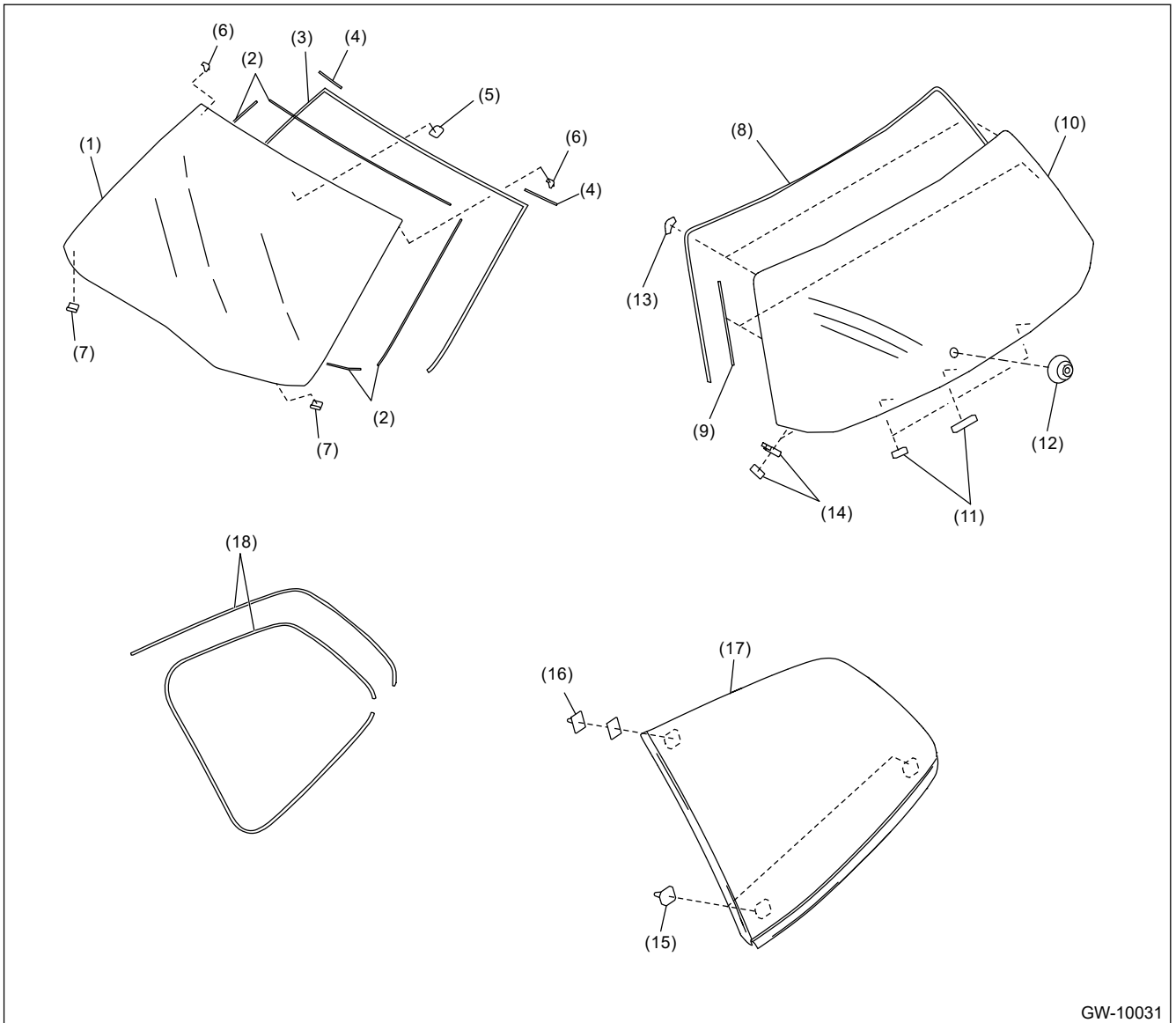
GLASS/WINDOWS/MIRRORS > General Description

CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Avoid impact and damage to the glass.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that the each component operates normally.

COMPONENT

1. FIXED GLASS

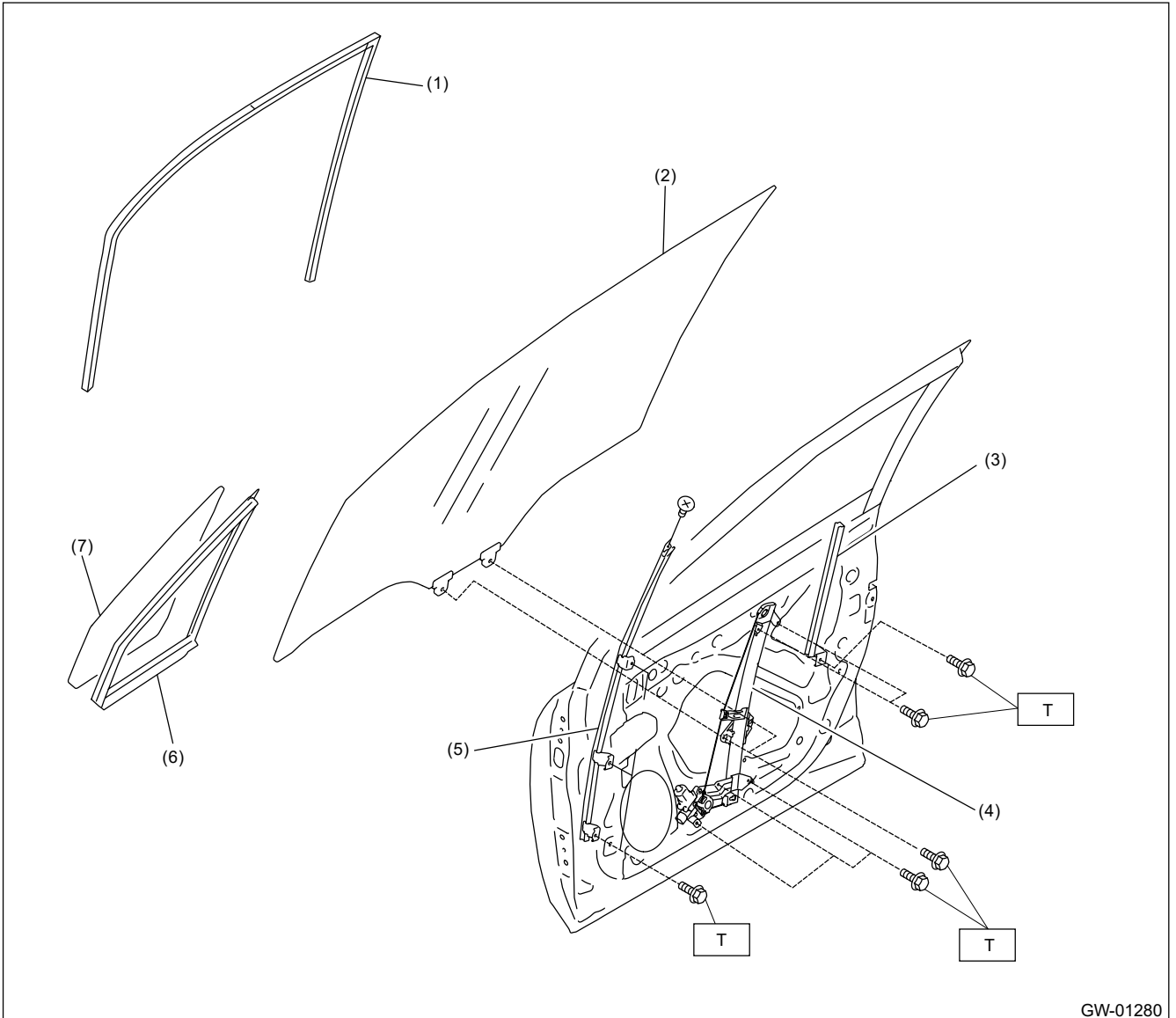


- | | | |
|---------------------------------|----------------------------|----------------------------------|
| (1) Glass - front window | (7) Seal - lower | (13) Locating pin - rear gate |
| (2) Dam rubber - front | (8) Rubber - rear gate | (14) Fastener - rear gate |
| (3) Molding - front window | (9) Dam rubber - rear gate | (15) Locating pin - rear quarter |
| (4) Seal - upper | (10) Glass - rear gate | (16) Fastener - rear quarter |
| (5) Base - inner mirror | (11) Spacer - rear gate | (17) Glass - rear quarter |
| (6) Locating pin - front window | (12) Cap - pivot | (18) Dam rubber - rear quarter |

Note:

Base - inner mirror cannot be removed from the glass - front window.

2. FRONT DOOR GLASS

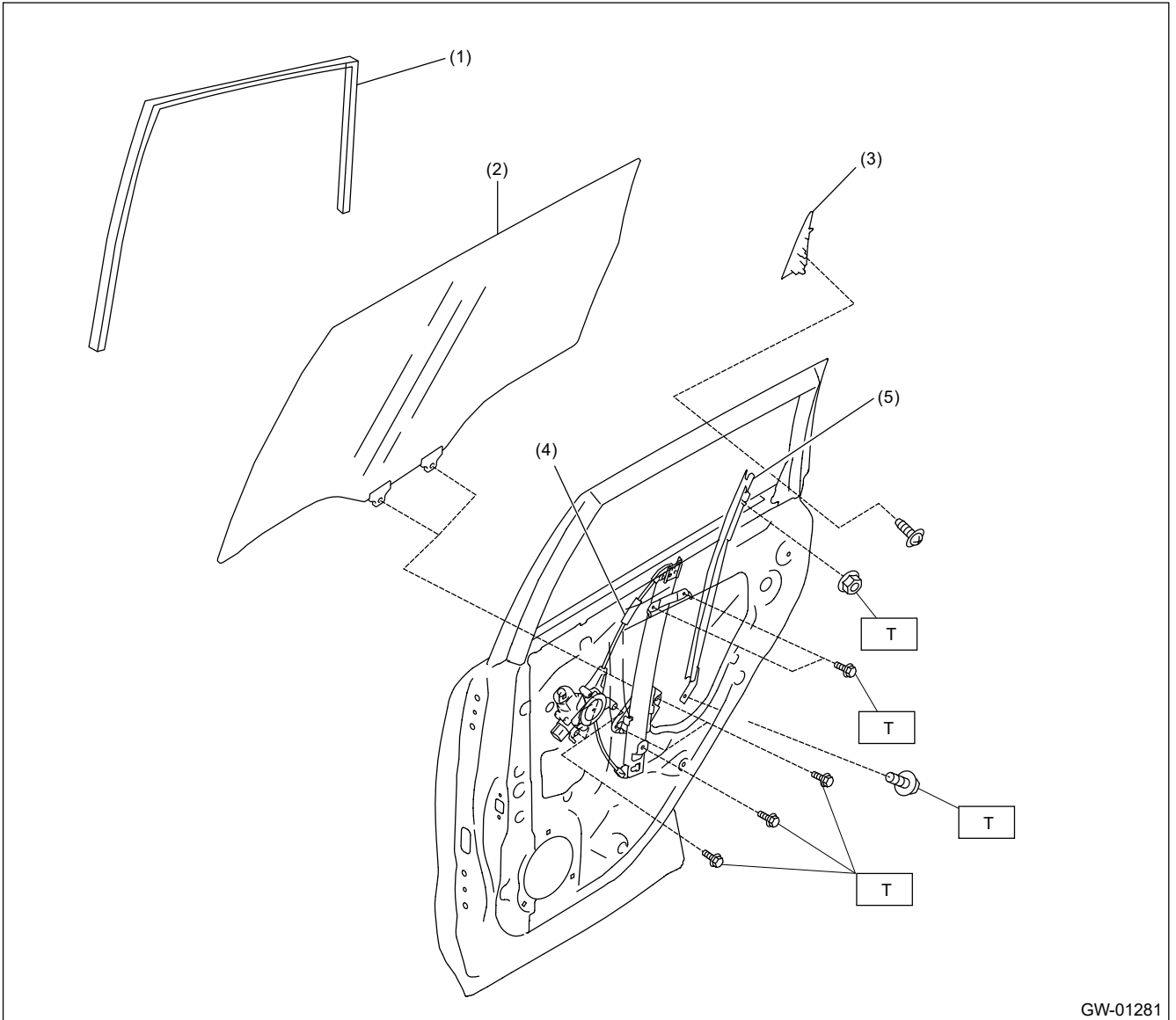


- | | |
|------------------------------------|--|
| (1) Running channel - front door | (5) Sash COMPL - partition |
| (2) Glass ASSY - front door | (6) Weather strip - front door partition |
| (3) Sash COMPL - lower | (7) Glass - front door partition |
| (4) Regulator & motor ASSY - front | |

Tightening torque: N·m (kgf·m, ft·lb)

T: 7.5 (0.76, 5.5)

3. REAR DOOR GLASS



GW-01281

(1) Running channel - rear door

(4) Regulator & motor ASSY - rear

Tightening torque: N·m (kgf·m, ft·lb)

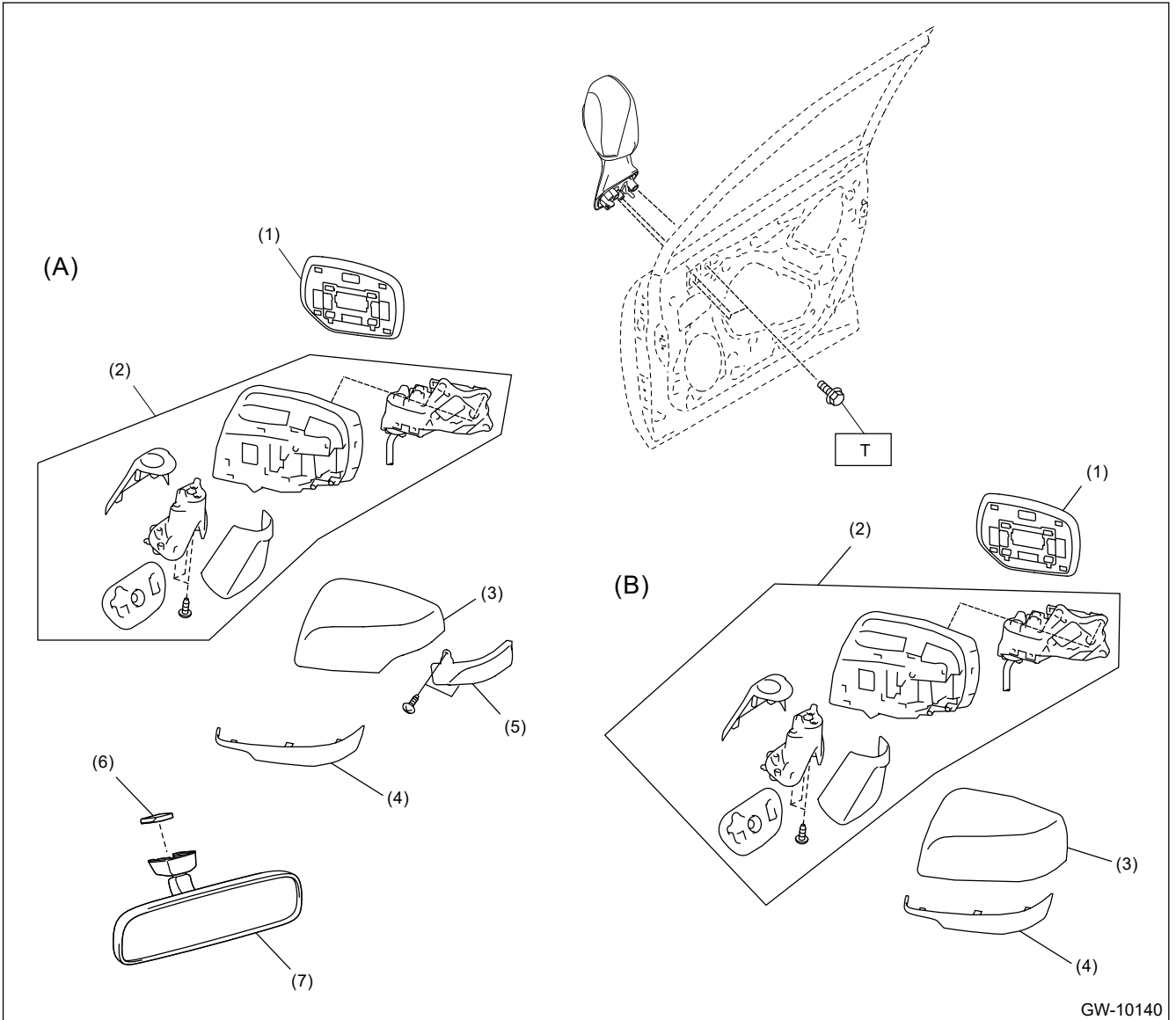
(2) Glass ASSY - rear door

(5) Sash ASSY - rear door lower

T: 7.5 (0.76, 5.5)

(3) Rear outer gusset cover

4. MIRROR



(A) Model with side turn

(B) Model without side turn

(1) Mirror - repair

(5) Light ASSY - side turn mirror

Tightening torque: N-m (kgf-m, ft-lb)

(2) Mirror unit - door

(6) Base - inner mirror

T: 7.5 (0.76, 5.5)

(3) Cover - cap outer mirror

(7) Mirror ASSY - inner rearview

(4) Cover - cap outer mirror lower


Note:

Base - inner mirror cannot be removed from the glass - front window.

GLASS/WINDOWS/MIRRORS > General Description

PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 STSSM4	— (Newly adopted tool)	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. Note: For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
DST-i	Used together with Subaru Select Monitor 4.
Piano wire	Used for removing the window glass.
Cutter knife	Used for removing the window glass.
Windshield glass knife	Used for removing the window glass.

GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

ASSEMBLY

Caution:

- **Be sure to insert the connector and clips securely.**
- **Be careful not to catch the harness in between the parts.**


- 1.** Install the light assembly - side turn mirror.
- 2.** Install the cover - cap outer mirror.
- 3.** Install the cover - cap outer mirror lower.
- 4.** Check that all the claws are securely engaged.
- 5.** Install the mirror - repair.

GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

DISASSEMBLY

Caution:

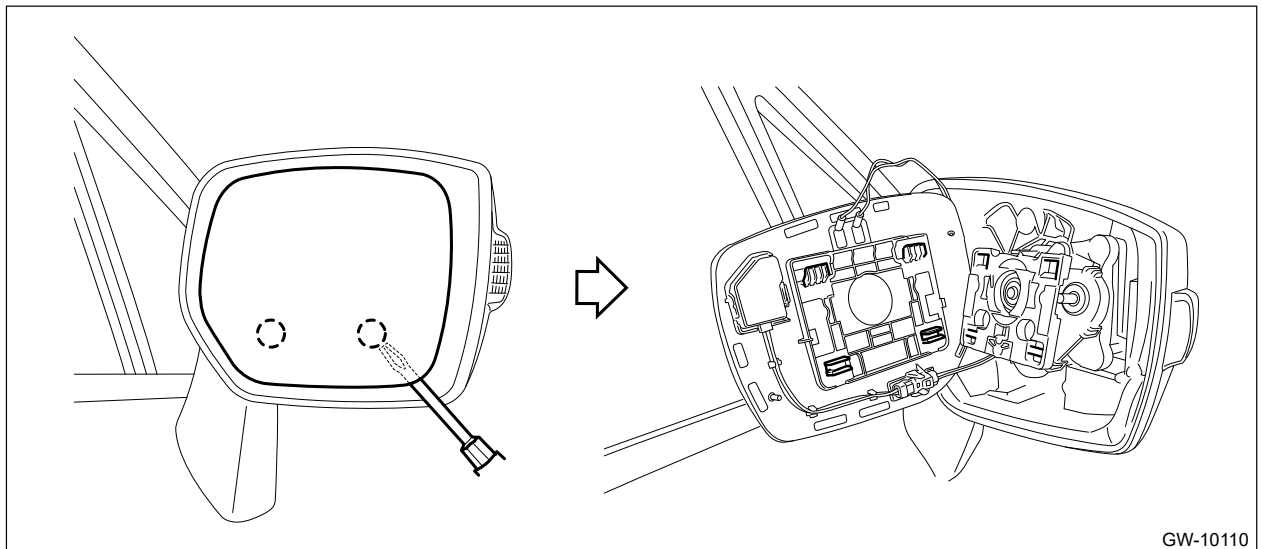
- When removing the mirror - repair, be careful not to damage the back surface of mirror - repair with a flat tip screwdriver.
- When installing the mirror - repair, insert the connector and clip securely.

1. Operate the remote control mirror switch to face the mirror - repair upward.
2. Disconnect the ground cable from battery.
3. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

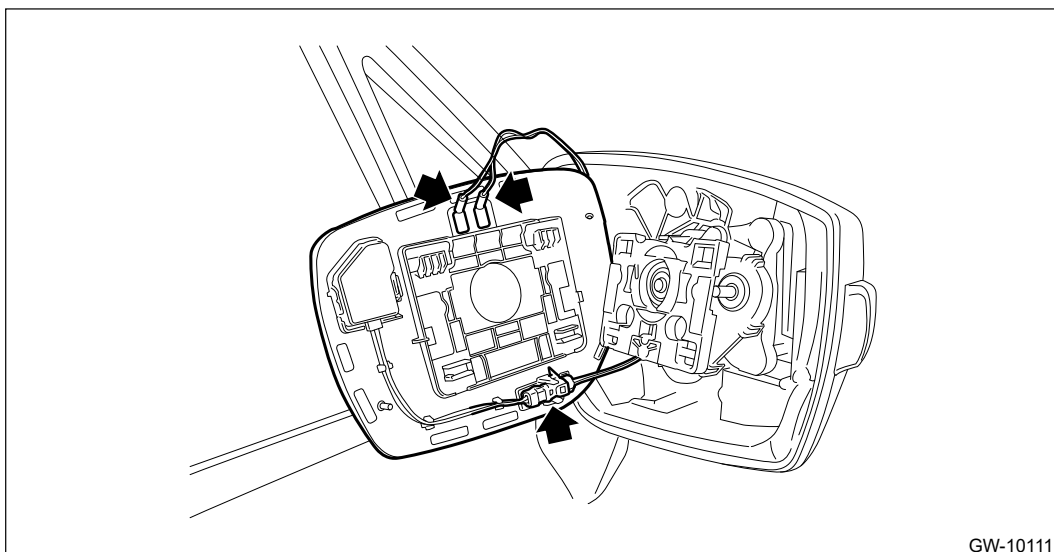
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

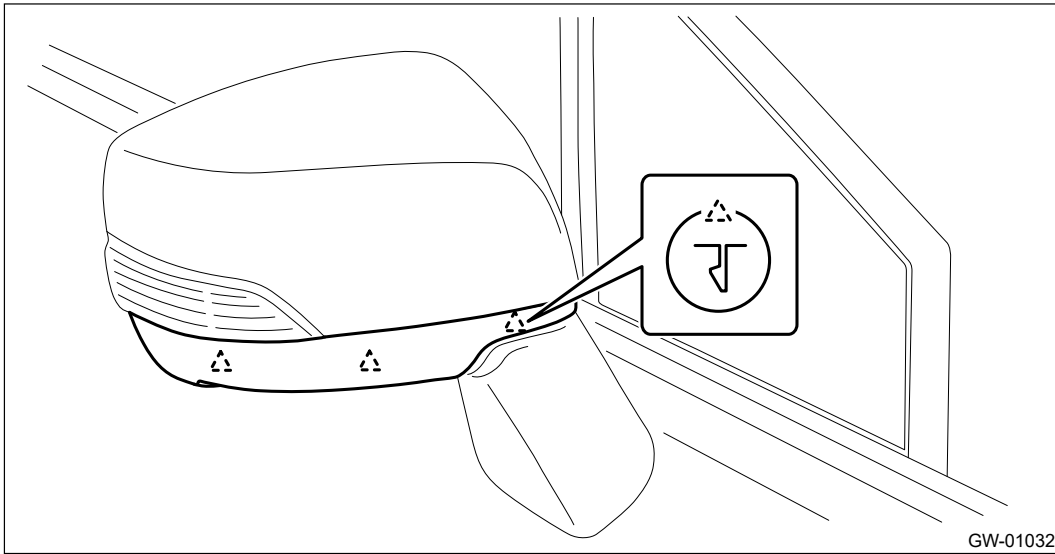
4. Remove the mirror - repair.
 - (1) Using a flat tip screwdriver, release the clip, and slide the mirror - repair downward to remove.



- (2) Disconnect the mirror heater connector. (Model with mirror heater and Blind Spot Detection/Rear Cross Traffic Alert system)



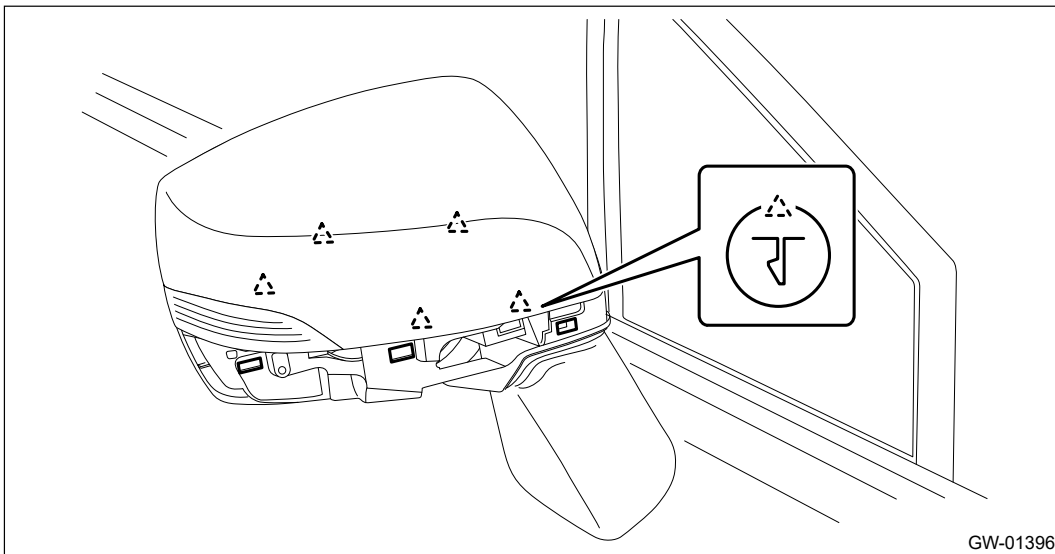
5. Release the claws, and then remove the cover - cap outer mirror lower.



6. Release the claws, and then remove the cover - cap outer mirror.

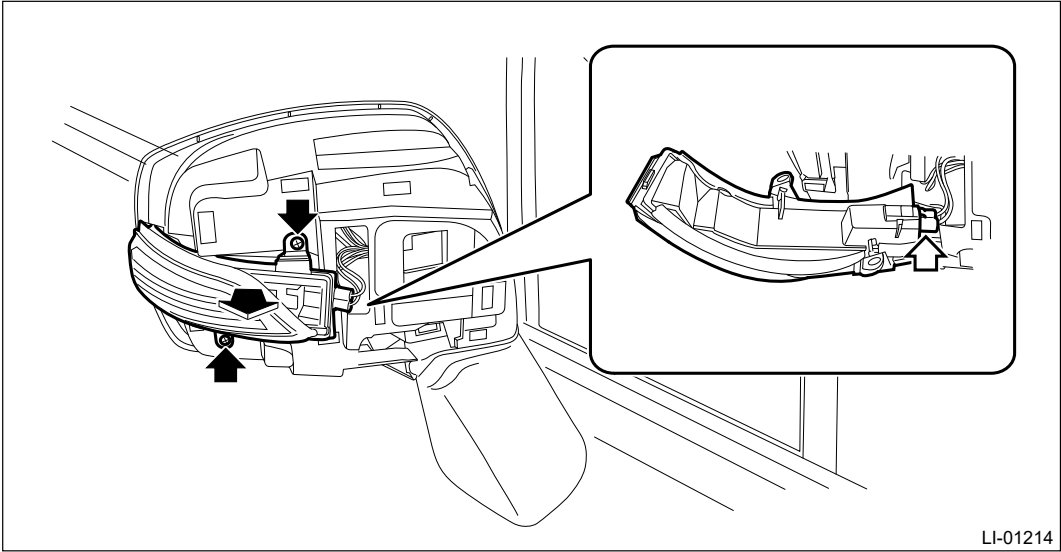
Caution:

Be careful not to apply excessive force when removing the cover - cap outer mirror, as the lower hooks may become damaged.



7. Remove the light assembly - side turn mirror.

- (1) Remove the screws and pull out the light assembly - side turn mirror to the front of the vehicle.
- (2) Disconnect the connector and remove the light assembly - side turn mirror.

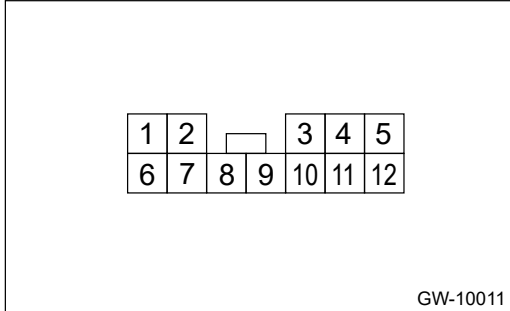


LI-01214

INSPECTION

1. CHECK MOTOR OPERATION


1. Disconnect the outer mirror connector.
2. Apply battery voltage between the outer mirror connector terminals and check the mirror operation.



Terminal No.	Inspection conditions	Switch position
—	—	OFF
3 (+) — 9 (-)	Apply battery voltage between terminals.	UP
9 (+) — 3 (-)	Apply battery voltage between terminals.	DOWN
8 (+) — 3 (-)	Apply battery voltage between terminals.	LEFT
3 (+) — 8 (-)	Apply battery voltage between terminals.	RIGHT

3. If it does not operate normally, replace the outer mirror assembly.

2. CHECK Blind Spot Detection/Rear Cross Traffic Alert INDICATOR

1. Check the Blind Spot Detection/Rear Cross Traffic Alert system.  [Ref. to Blind Spot Detection/Rear Cross Traffic Alert \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
2. Check the outer mirror assembly.
 - (1) Check that the BSD/RCTA indicator on the mirror surface illuminates normally when the BSD/RCTA OFF switch is turned ON while it is installed to the vehicle.
 - (2) If it does not illuminate normally, replace the mirror - repair.
 - (3) Check that it illuminates normally again. If it does not illuminate normally, replace the outer mirror assembly.

GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

INSTALLATION


1. Install each part in the reverse order of removal.

Tightening torque:

Outer mirror assembly: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

Caution:


Be careful not to catch the harness in between the parts.


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

REMOVAL


Caution:

Refer to "CAUTION" of "General Description" before handling the airbag system components.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Operate the power window switch to close the front door glass.
2. Turn the ignition to OFF.
3. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

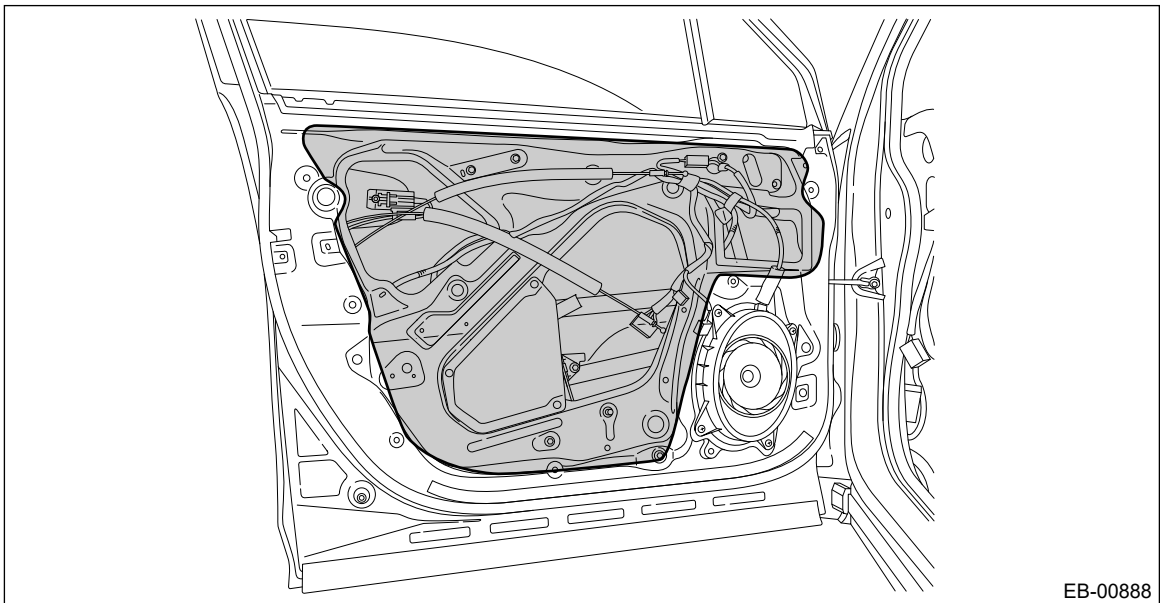
For model with battery sensor, disconnect the ground terminal from battery sensor.

4. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
5. Turn over the sealing cover - front door.

Caution:

- Carefully remove the butyl tape. Excessive force will easily break the sealing cover - front door.
- If the sealing cover - front door gets broken, replace it with a new part.
- Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.

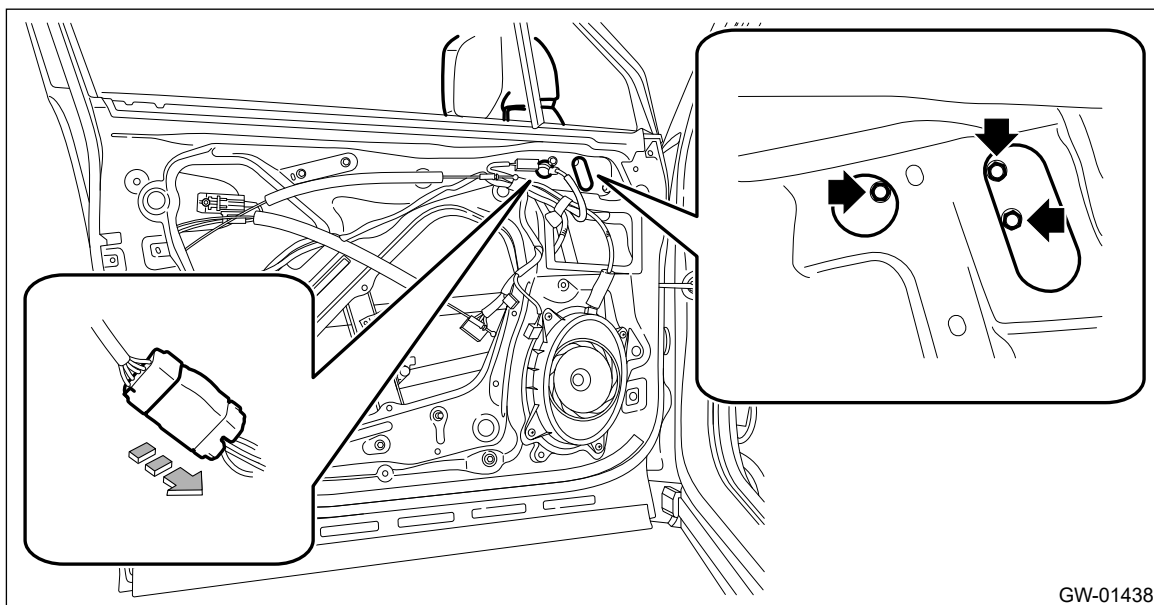
- (1) Disconnect each connector.
- (2) Carefully remove the butyl tape and turn over the sealing cover - front door within the area where the operation can be performed.



EB-00888

6. Remove the outer mirror assembly.
 - (1) Disconnect the connector.

(2) Remove the bolts to remove outer mirror assembly.



INSPECTION

1. MAIN SWITCH

• **DRIVER'S SEAT**

Caution:

- Since the switch - power window main is controlled by CPU, do not check continuity for switch alone with the circuit tester. Performing continuity check with circuit tester can damage the switch - power window main circuit.
- Since the passenger's seat switch cannot be checked by using the switch - power window main, use the switch - power window sub.

Check output from the switch - power window main to the driver's side motor using the oscilloscope function in the Subaru Select Monitor.

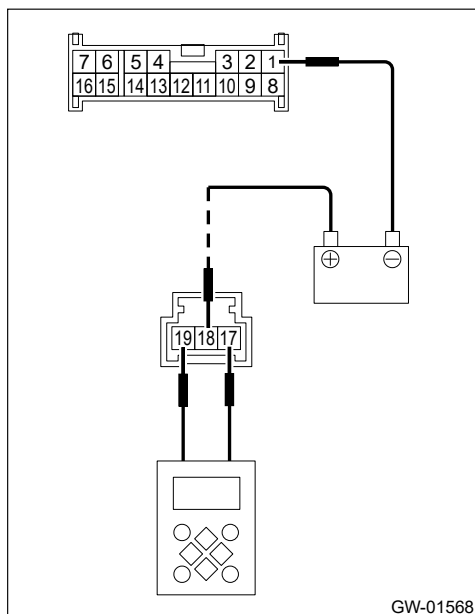
1. Remove the switch - power window main.
2. Connect the battery and the Subaru Select Monitor to the switch - power window main terminal.

Caution:

Never mix up the terminals when connecting the harness connector of the switch - power window main and the battery. If the connection is wrong, the switch - power window main may be damaged.

Note:

- When the battery is connected to the switch - power window main terminal, the letters "AUTO" on the driver's side knob illuminates.
- For detailed procedures, refer to "Subaru Select Monitor Operation Manual".



3. Operate the switch - power window main and check the output.

Note:

Since output time during window UP operation is extremely short, it cannot be checked without using a measuring instrument such as oscilloscope.

Output is constantly produced while the switch is operated for window DOWN operation.

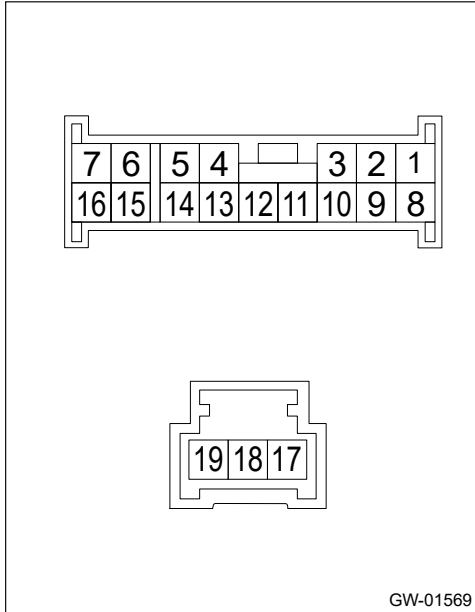
Inspection conditions	Output time	Standard
AUTO UP	Approx. 130 ms	Battery voltage
UP		
OFF	—	0 V

DOWN	During switch operation	Battery voltage
AUTO DOWN	Approx. 300 ms	

4. If the inspection result is not within the standard, replace the switch - power window main.

● **PASSENGER'S SEAT (MODEL WITHOUT AUTO) AND REAR SEAT**

1. Check the resistance between terminals of the switch - power window main.



	Terminal No.	Inspection conditions	Standard
Passenger's seat (model without AUTO)	14 - 8 1 - 2	UP	Less than 1 Ω
	14 - 2 14 - 8	OFF	1 MΩ or more
	1 - 8 1 - 2 8 - 2		Less than 1 Ω
	14 - 2 1 - 8	DOWN	Less than 1 Ω
Rear LH	14 - 15 1 - 16	UP	Less than 1 Ω
	14 - 15 14 - 16	OFF	1 MΩ or more
	1 - 15 1 - 16 15 - 16		Less than 1 Ω
	14 - 16 1 - 15	DOWN	Less than 1 Ω
Rear RH	14 - 7 1 - 6	UP	Less than 1 Ω
	14 - 7 14 - 6	OFF	1 MΩ or more
	1 - 6 1 - 7 6 - 7		Less than 1 Ω

	14 – 6 1 – 7	DOWN	Less than 1 Ω
--	-----------------	------	---------------

2. If the inspection result is not within the standard, replace the switch - power window main.

2. SUB-SWITCH

PASSENGER'S SEAT (MODEL WITH AUTO)

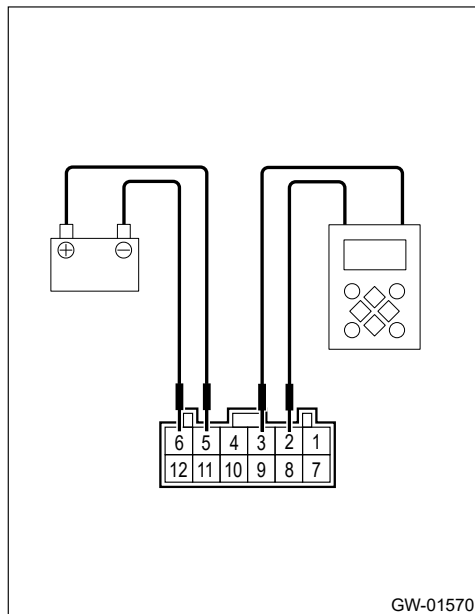
Caution:

Since the switch - power window sub is controlled by CPU, do not check continuity for switch alone with the circuit tester. Performing continuity check with circuit tester can damage the switch - power window sub circuit.

1. Check output from the switch - power window sub to the passenger's side motor using the oscilloscope function in the Subaru Select Monitor.
 - (1) Remove the switch - power window sub.
 - (2) Connect the battery and the Subaru Select Monitor to the switch - power window sub terminal.

Note:

For detailed procedures, refer to "Subaru Select Monitor Operation Manual".



- (3) Operate the switch - power window sub and check the output.

Note:

Since output time during window UP operation is extremely short, it cannot be checked without using a measuring instrument such as oscilloscope.

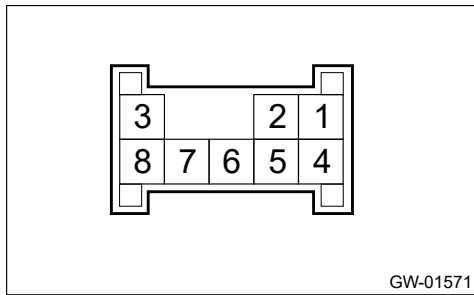
Output is constantly produced while the switch is operated for window DOWN operation.

Inspection conditions	Output time	Standard
AUTO UP	Approx. 130 ms	Battery voltage
UP		
OFF	—	0 V
DOWN	During switch operation	Battery voltage
AUTO DOWN	Approx. 300 ms	

- (4) If the inspection result is not within the standard, replace the switch - power window sub.

PASSENGER'S SEAT (MODEL WITHOUT AUTO) AND REAR SEAT

1. Remove the switch - power window sub.
2. Check the resistance between terminals of the switch - power window sub.



	Terminal No.	Inspection conditions	Standard
Passenger's seat (model without AUTO), rear	6 – 5 8 – 7	UP	Less than 1 Ω
	7 – 6 4 – 6	OFF	1 MΩ or more
	5 – 4 8 – 7		Less than 1 Ω
	6 – 8 5 – 4	DOWN	Less than 1 Ω



3. If the inspection result is not within the standard, replace the switch - power window sub.

GLASS/WINDOWS/MIRRORS > Power Window Control Switch

INSTALLATION


Caution:

- **After installing the switch - power window main, always perform the initial setting.**
Failure to do so may cause the improper activation of auto-reverse operation for pinching hazard prevention.
- **Use protective paper to avoid damage to the trim panel.**

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
3. Perform initial setting operation (reset operation A).  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION > RESET OPERATION A.](#)


REMOVAL

1. MAIN SWITCH

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

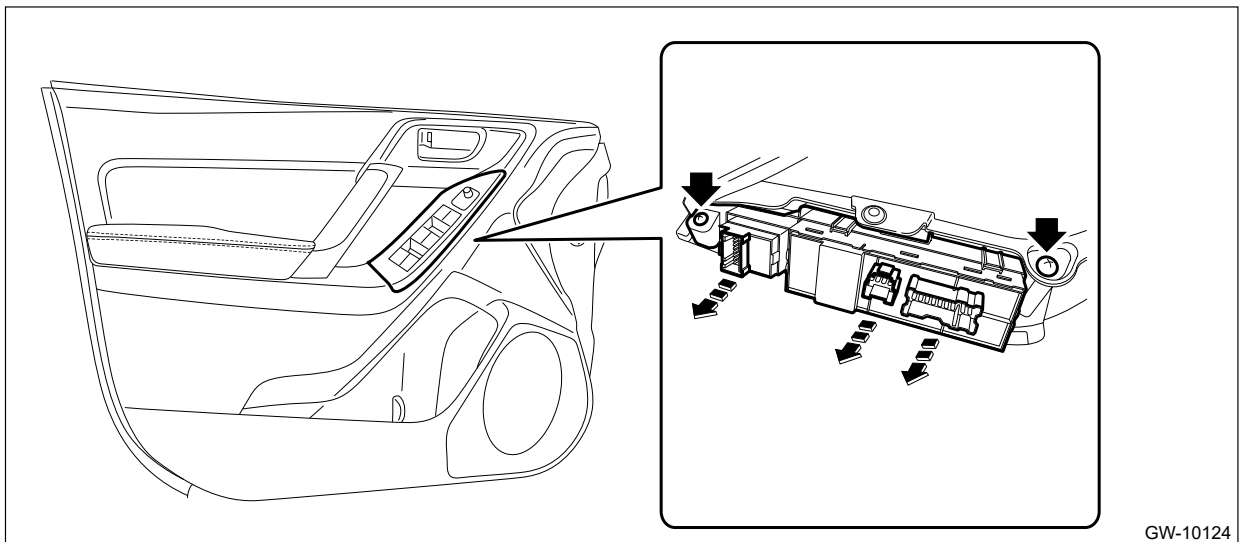
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Remove the panel - power window main switch.

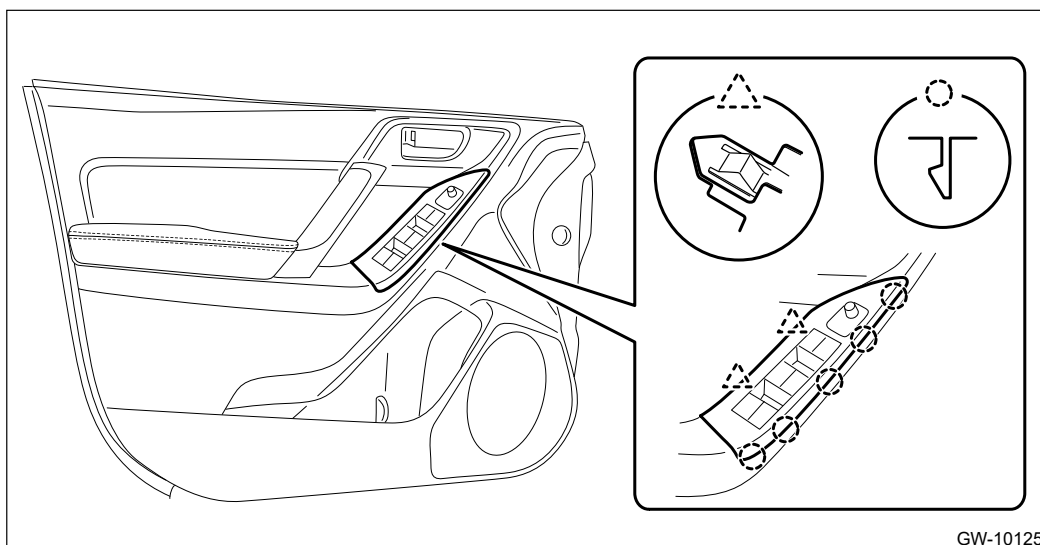
Caution:

Be careful not to damage the trim panel - front door with the panel - power window main switch.

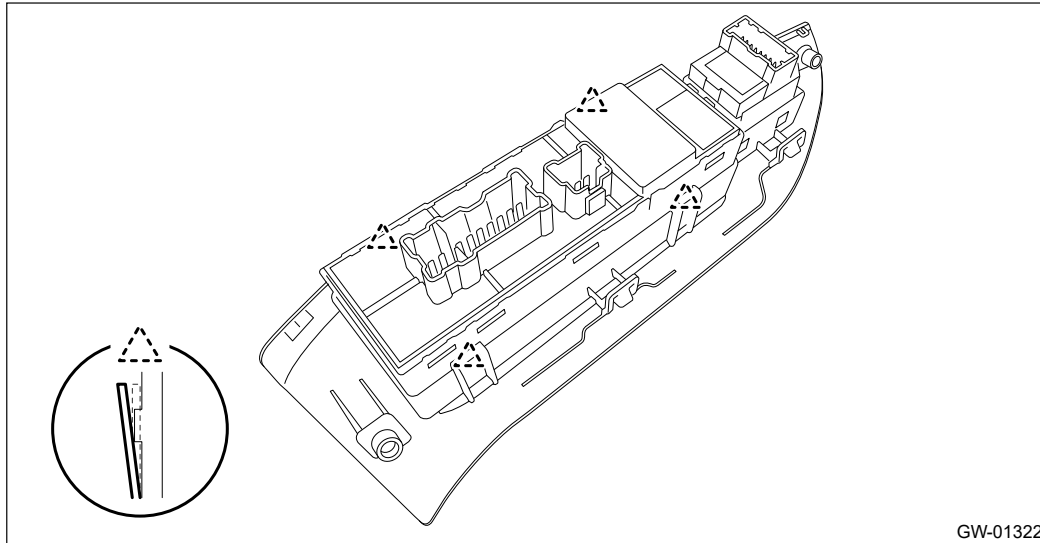
- (1) Remove the screws and disconnect the connector.



- (2) Release the claws, and then remove the panel - power window main switch.




- (3) Release the claws, and then remove the switch - power window main.



GW-01322

2. SUB-SWITCH

SWITCH - POWER WINDOW SUB FRONT


For removal of the switch - power window sub front on the passenger's seat, refer to the removal procedure of the switch - power window main.  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > MAIN SWITCH.](#)

SWITCH - POWER WINDOW SUB REAR

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

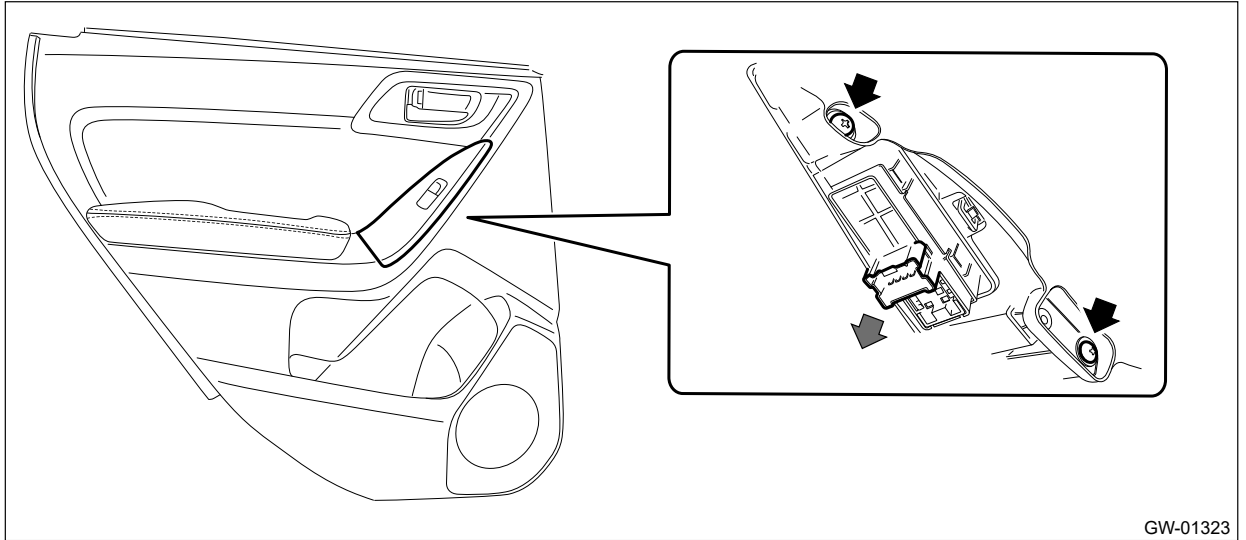
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the panel - power window sub switch rear.

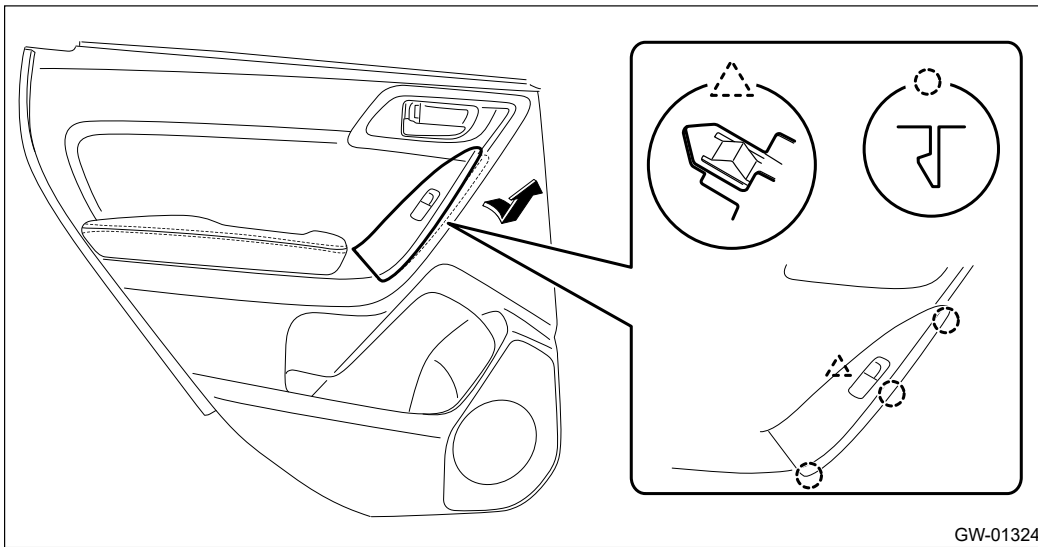
Caution:

Be careful not to damage the trim panel - rear door with the panel - power window sub switch rear.

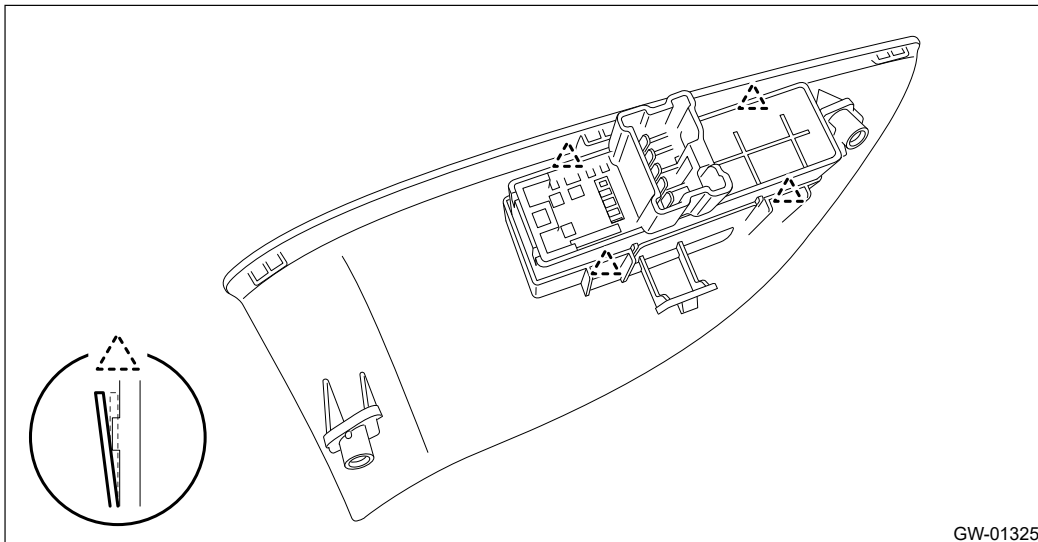
- (1) Insert a sheet of protective paper (a) between panel - power window sub switch rear and trim panel - rear door.
- (2) Remove the screws and disconnect the connector.



(3) Release the claws, and then remove the panel - power window sub switch rear.





4. Release the claws, and then remove the switch - power window sub rear.



GLASS/WINDOWS/MIRRORS > Power Window System






INSPECTION

Symptoms	Inspection order
All power windows do not operate.	<ol style="list-style-type: none"> 1. Check the fuse. 2. Check the power window relay. 3. Check the wiring harness.
Particular window does not operate.	<ol style="list-style-type: none"> 1. Check the fuse. 2. Check the switch - power window main. 3. Check the switch - power window sub. 4. Check the power window motor. 5. Check the wiring harness.
"Window Lock" does not operate.	Check the switch - power window main.
Driver's side window moves slightly (approx. 20 mm (0.79 in)).	<ol style="list-style-type: none"> 1. Check the motor - front. 2. Check the switch - power window main. 3. Check the wiring harness.
Driver's side window moves slightly (approx. 50 mm (1.97 in)). (This status is not a failure.)	Perform reset operation A.  Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION > RESET OPERATION A.
Driver's side window does not close completely. (Using AUTO UP allows the window to fully close first and then move in reverse resulting in slightly opening.)	Perform reset operation B.  Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION > RESET OPERATION B.

GLASS/WINDOWS/MIRRORS > Power Window System

NOTE

For operation procedures of each component of the power window system, refer to the respective sections.

- Power window control switch:  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.](#)
- Front door glass:  [Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass.](#)
- Front regulator and motor assembly:  [Ref. to GLASS/WINDOWS/MIRRORS>Front Regulator and Motor Assembly.](#)
- Rear door glass:  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass.](#)
- Rear regulator and motor assembly:  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Regulator and Motor Assembly.](#)

GLASS/WINDOWS/MIRRORS > Power Window System

OPERATION

1. RESET OPERATION A

1. Sit in the driver's seat and close the door.
2. Turn the ignition switch to ON.
3. Operate the switch - power window main to open the glass assembly - front door halfway.
4. Operate the switch - power window main in "UP" direction to fully close the glass assembly - front door on the driver's side.
5. While the glass assembly - front door is fully closed, hold down the switch - power window main in "UP" direction for one second.
6. Operate the switch - power window main in "AUTO DOWN" direction to check whether the window fully opens properly.

Note:

If the window does not fully open properly, repeat steps 1) to 6).

2. RESET OPERATION B


1. Sit in the driver's seat and close the door.
2. Turn the ignition switch to ON.
3. On the glass assembly - front door of the driver's side, operate the "AUTO UP" function (fully pull up the switch) using the switch - power window main, and perform auto-reverse operations 10 times in a row (after the window fully closes, it slightly opens).
4. Check that the "AUTO UP" function no longer operates.
5. Perform reset operation A.
6. Check that the window operates properly by operating the "AUTO UP" and "AUTO DOWN" switch.

Note:

If the window does not fully open/close properly, repeat steps 1) to 6).

GLASS/WINDOWS/MIRRORS > Power Window System

WIRING DIAGRAM

Refer to "Power Window System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Power Window System>WIRING DIAGRAM.](#)

GLASS/WINDOWS/MIRRORS > Rear Door Glass

INSTALLATION

Caution:

- Check that the running channel - rear door is securely fixed to the panel assembly - rear door and to the sash COMPL - lower.
- When installing the glass assembly - rear door, check the running channel - rear door on the lip for peel-off or roll.

Note:


Applying parts cleaner, etc. to the sash section will contribute to smooth movement and help install the running channel - rear door.

1. Install each part in the reverse order of removal.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to](#)

[GLASS/WINDOWS/MIRRORS>General Description>COMPONENT > REAR DOOR GLASS.](#)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)



GLASS/WINDOWS/MIRRORS > Rear Door Glass

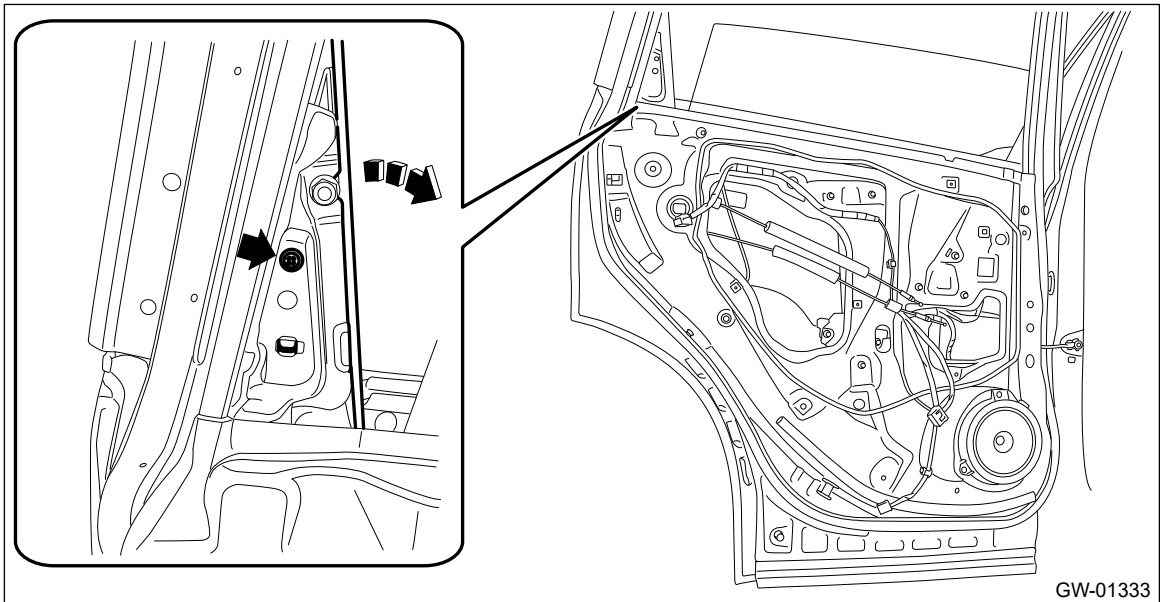
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

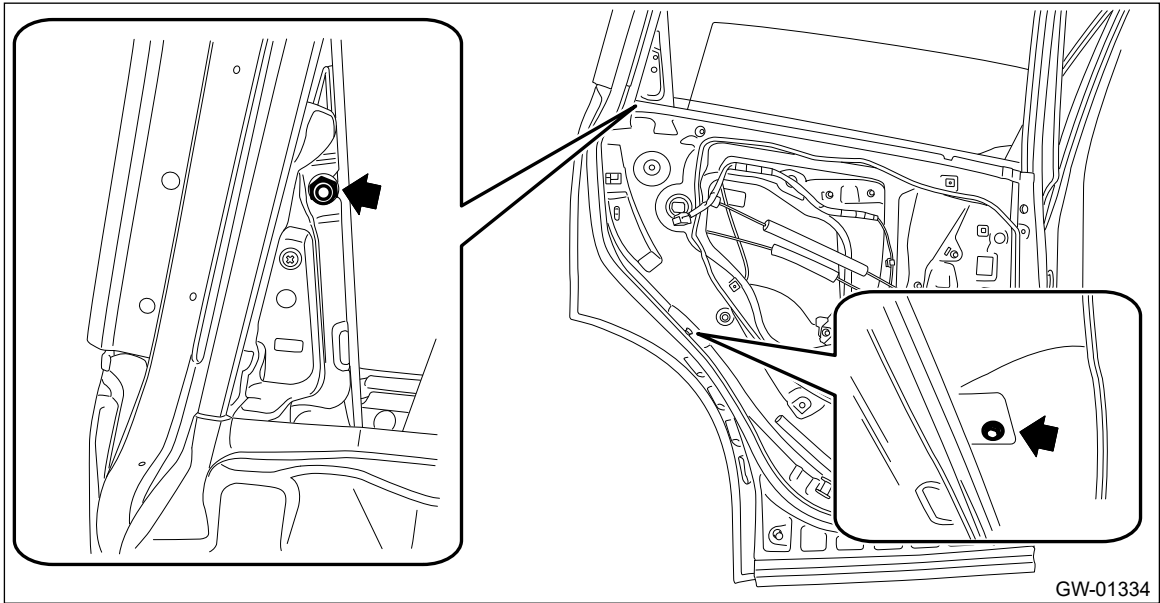
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the sealing cover - rear door.  [Ref. to EXTERIOR BODY PANELS>Rear Sealing Cover>REMOVAL.](#)
4. Attach the battery ground cable and the switch - power window, and turn the ignition switch to ON.
5. Remove the glass assembly - rear door.
 - (1) Operate the switch - power window sub rear to move the glass assembly - rear door to the position where the mounting bolts can be seen.
 - (2) Pull out the running channel - rear door.
 - (3) Remove the screws and remove the rear outer gusset cover.



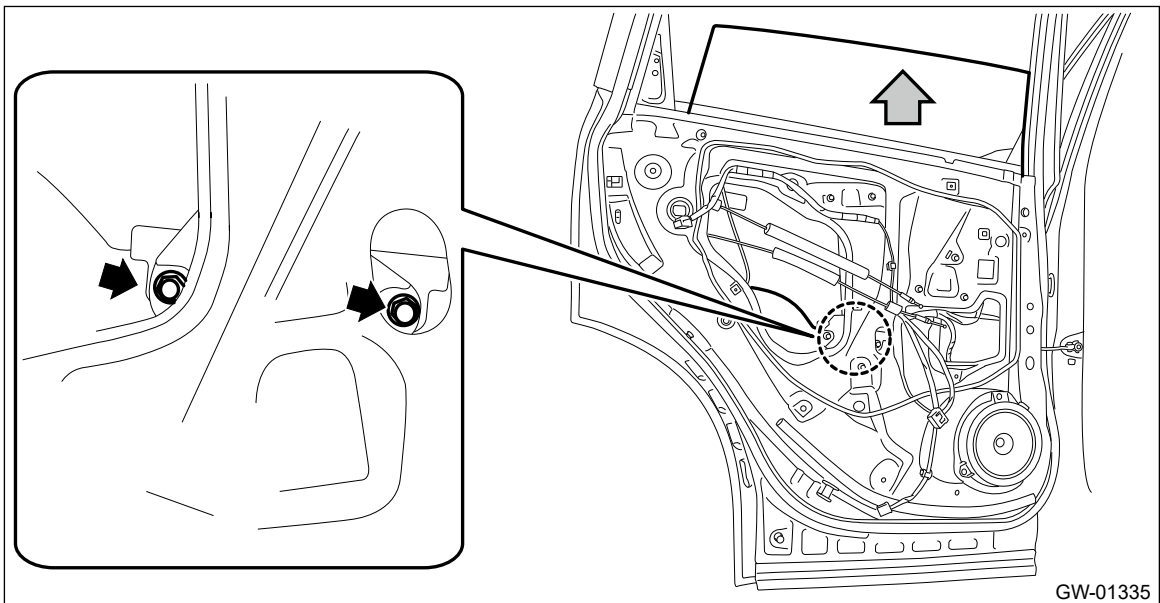
- (4) Remove the bolts and nuts, and remove the sash COMPL - lower.



(5) Remove the bolts, and remove the glass assembly - rear door.

Caution:

Avoid impact and damage to the glass assembly - rear door.

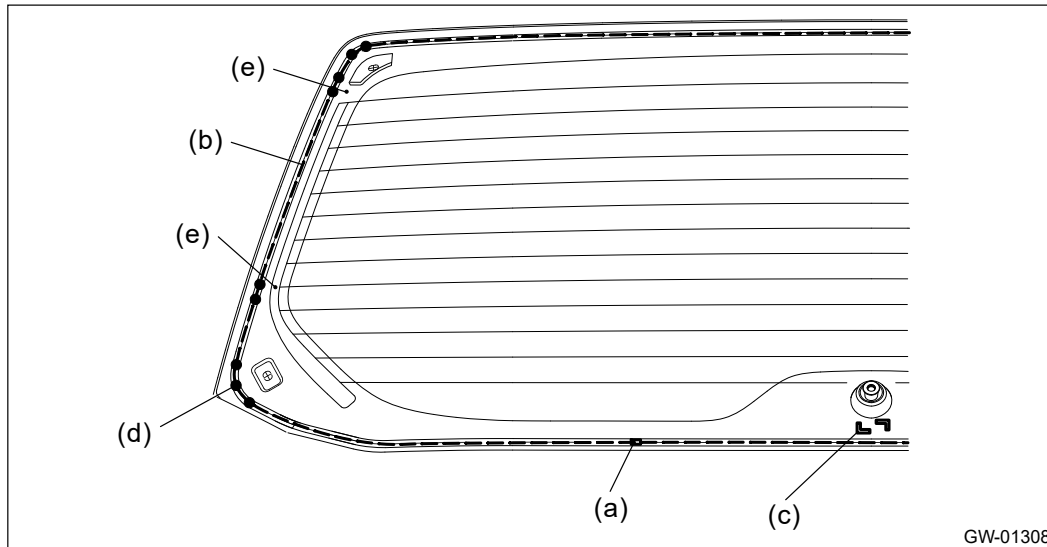


GLASS/WINDOWS/MIRRORS > Rear Gate Glass

INSTALLATION

Note:

Use the markings on the glass to apply adhesive and primer, and to install the dam rubber - rear gate and the spacer - rear gate.



(a) Marking for dam rubber - rear gate application (Ag print)

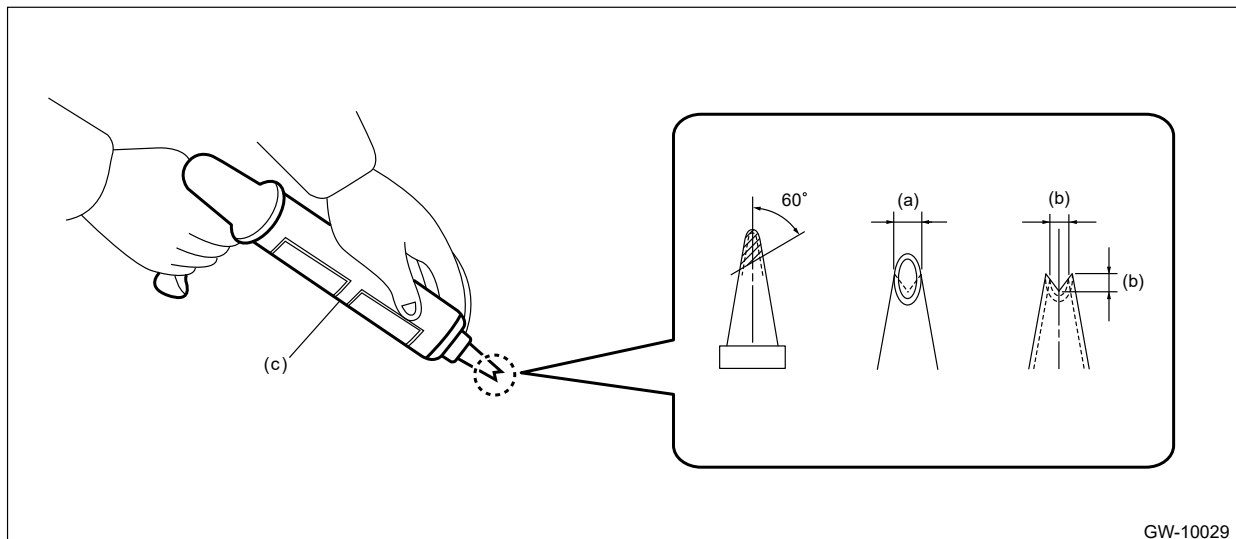
(c) Marking for spacer - rear gate application (Ag print)

(e) Marking for dam rubber - rear gate set application (ceramic through hole)

(b) Center line for adhesive

(d) Marking for primer application

1. Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.



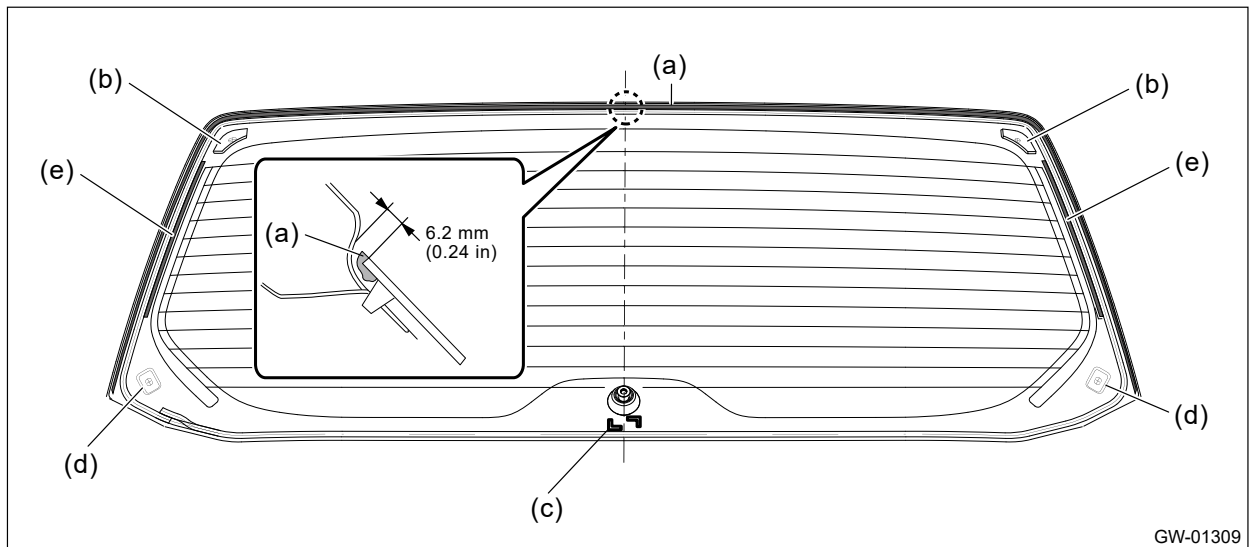
(a) 10 mm (0.39 in)

(b) 8 mm (0.31 in)

(c) Sealant gun

2. Smoothen and clean the adhesive surfaces of the glass - rear gate and body using the same procedures as for the glass - front window. [Ref. to GLASS/WINDOWS/MIRRORS>Windshield Glass>INSTALLATION.](#)
3. Attach the rubber - rear gate to the glass - rear gate.

4. Attach the dam rubber - rear gate to the glass - rear gate.



- (a) Rubber - rear gate (c) Spacer - rear gate (e) Dam rubber - rear gate
 (b) Locating pin - rear gate (d) Fastener - rear gate

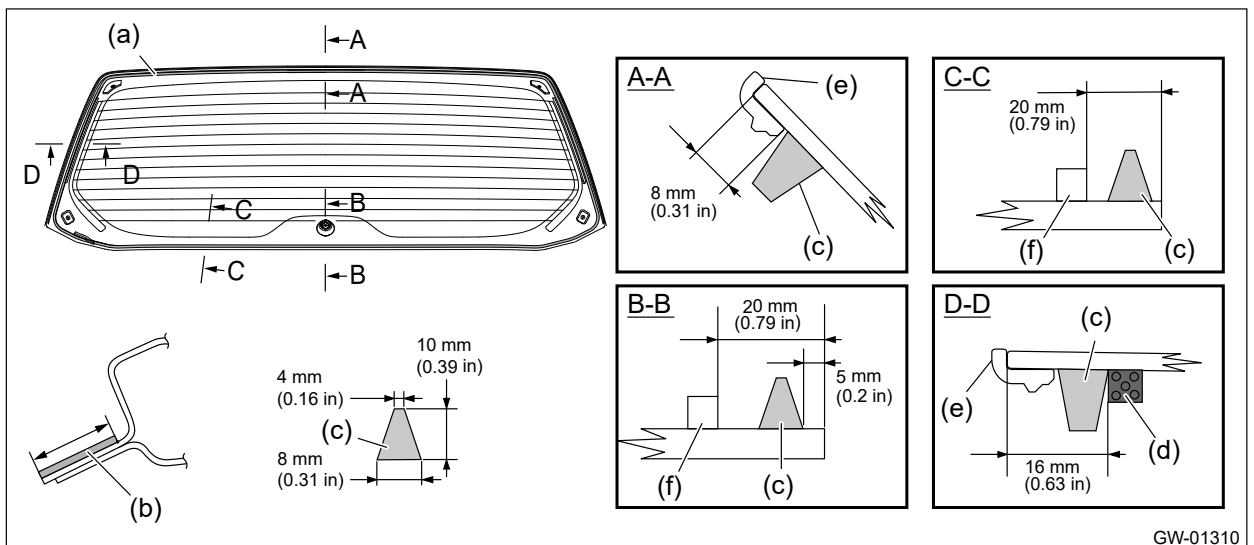
5. Install the glass - rear gate.

(1) Apply the primer to the adhesive surface of glass - rear gate side and body side using sponge.

Caution:

Do not apply primer to adhesive.

(2) Apply adhesive to the glass - rear gate end back surface.



- (a) Application of primer (glass side) (c) Adhesive (e) Rubber - rear gate
 (b) Application of primer (body side) (d) Dam rubber - rear gate (f) Spacer - rear gate

(3) Attach the dam rubber - rear gate to the glass - rear gate.

(4) Insert the locating pins - rear gate into the rear gate panel holes, and install the fastener - rear gate to the fastener on the body side, and then install the glass - rear gate.

(5) Lightly press the entire perimeter of the glass - rear gate for tight fit.

(6) Make flush the adhesive surface juttred out using spatula.

6. After completion of all work, allow the vehicle to stand for about 24 hours.


Note:

- **When opening/closing the door after the glass - rear gate was bonded, always lower the glass assembly - door first, and then open/close it carefully.**
- **Move the vehicle slowly.**
- **For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.**


7. Connect the rear defogger connector.

8. Install the motor assembly - rear wiper and the arm assembly - rear wiper.

Tightening torque:

Motor assembly - rear wiper and arm assembly - rear wiper:  [Ref. to WIPER AND WASHER SYSTEMS>General Description>COMPONENT > REAR WIPER.](#)

9. Install the trim panel - rear gate.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Trim>INSTALLATION.](#)

10. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

11. After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

Note:

When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.




GLASS/WINDOWS/MIRRORS > Rear Gate Glass

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

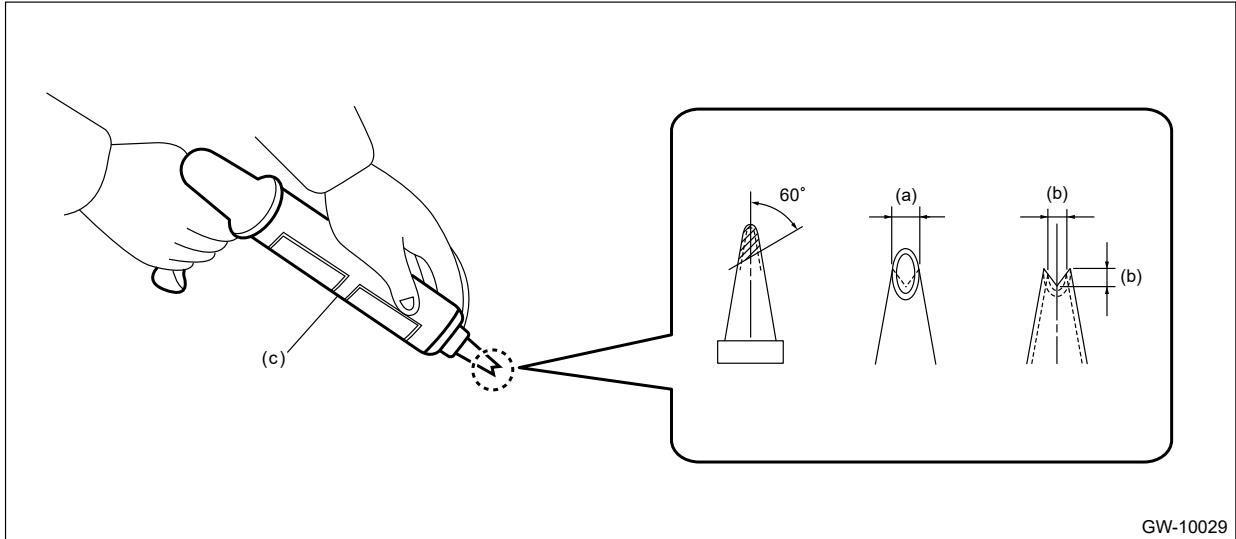
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear gate.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Trim>REMOVAL.](#)
3. Remove the motor assembly - rear wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Rear Wiper Motor>REMOVAL.](#)
4. Disconnect the rear defogger connector.
5. Remove the glass - rear gate in the same procedure as for the glass - front window.  [Ref. to GLASS/WINDOWS/MIRRORS>Windshield Glass>REMOVAL.](#)

GLASS/WINDOWS/MIRRORS > Rear Quarter Glass

INSTALLATION

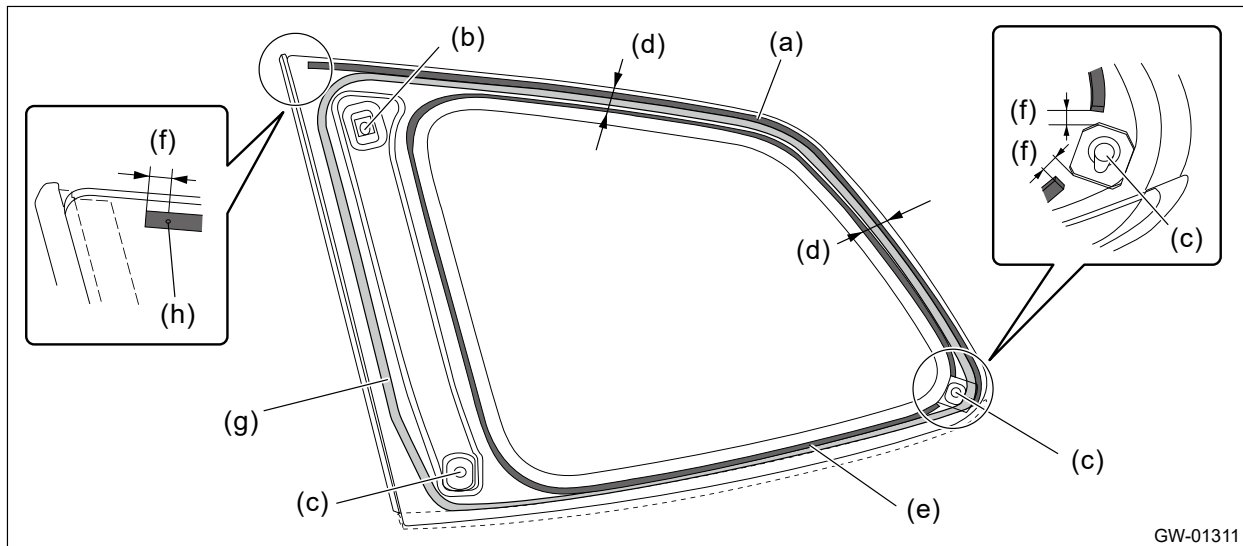
1. Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.



GW-10029

- (a) 10 mm (0.39 in) (b) 8 mm (0.31 in) (c) Sealant gun

2. Smoothen and clean the adhesive surfaces of the glass - rear quarter and body using the same procedures as for the glass - front window. [Ref. to GLASS/WINDOWS/MIRRORS>Windshield Glass>INSTALLATION.](#)
3. Install the dam rubber - rear and the seal - rear quarter to the glass - rear quarter.



GW-01311

- (a) Dam rubber - rear quarter (d) 21.8 mm (0.86 in) (g) Adhesive
 (b) Fastener - rear quarter (e) Dam rubber - rear quarter (h) Marking for dam rubber - rear quarter attachment
 (c) Locating pin - rear quarter (f) 5 mm (0.2 in)

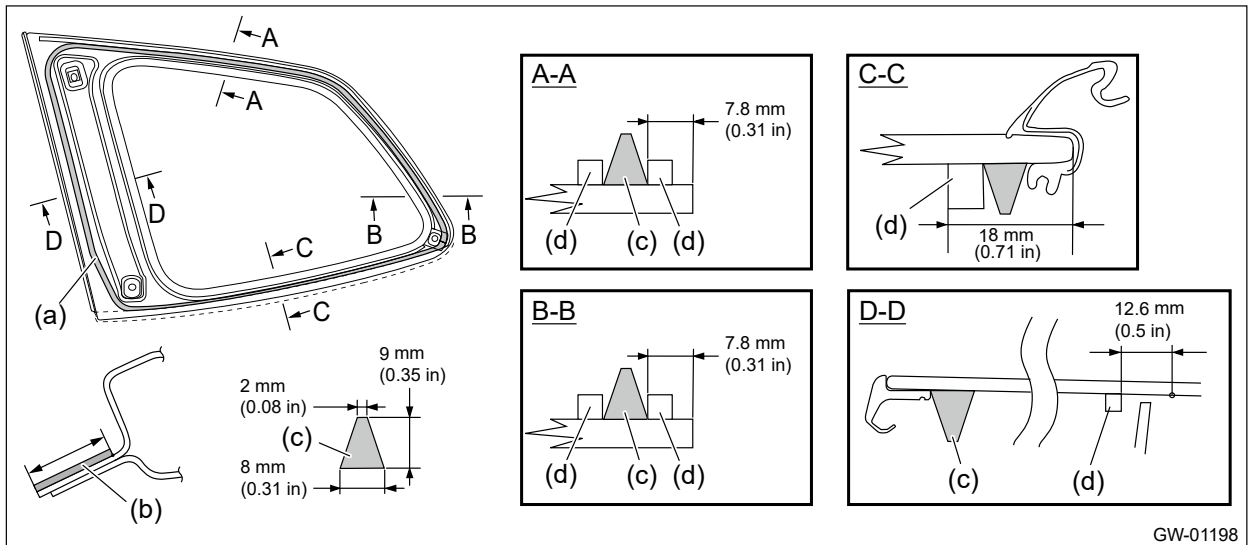
4. Install the glass - rear quarter in the same procedure as for the glass - front window. [Ref. to GLASS/WINDOWS/MIRRORS>Windshield Glass>INSTALLATION.](#)

(1) Apply the primer to the adhesive surface of glass - rear quarter side and body side using sponge.

Caution:

Do not apply primer to adhesive remaining on the body side.

- (2) Apply adhesive to the glass - rear quarter end back surface.



GW-01198

- (a) Application of primer (glass side) (c) Adhesive
(b) Application of primer (body side) (d) Dam rubber - rear quarter

- (3) Mount the fastener - rear quarter on the vehicle body.
(4) Insert the locating pins - rear quarter into the side panel holes, and install the glass - rear quarter.
(5) Lightly press the entire perimeter of the glass - rear quarter for tight fit.
(6) Make flush the adhesive surface jugged out using spatula.

5. After completion of all work, allow the vehicle to stand for about 24 hours.

Note:

- When opening/closing the door after the glass - rear quarter was bonded, always lower the glass assembly - door first, and then open/close it carefully.
- Move the vehicle slowly.
- For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.

6. Install the trim panel - rear pillar UPR.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.](#)

7. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

8. After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

Note:

When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.



GLASS/WINDOWS/MIRRORS > Rear Quarter Glass

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

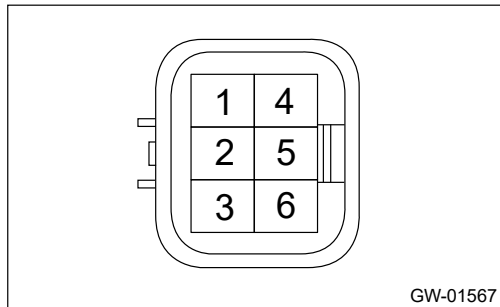
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear pillar UPR.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)
3. Remove the glass - rear quarter in the same procedure as for the glass - front window.  [Ref. to GLASS/WINDOWS/MIRRORS>Windshield Glass>REMOVAL.](#)

GLASS/WINDOWS/MIRRORS > Rear Regulator and Motor Assembly

INSPECTION

1. Disconnect the connector of the motor - rear.
2. Check the motor operation when battery voltage is applied between terminals of the motor - rear connector.



- LH

Terminal No.	Inspection conditions	Standard
3 (+) – 6 (-)	Apply battery voltage between terminals.	Increase
6 (+) – 3 (-)	Apply battery voltage between terminals.	Decrease

- RH

Terminal No.	Inspection conditions	Standard
1 (+) – 4 (-)	Apply battery voltage between terminals.	Increase
4 (+) – 1 (-)	Apply battery voltage between terminals.	Decrease

3. If it does not operate properly as a result of inspection, replace the regulator and motor assembly - rear.

GLASS/WINDOWS/MIRRORS > Rear Regulator and Motor Assembly


INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to](#)

[GLASS/WINDOWS/MIRRORS>General Description>COMPONENT > REAR DOOR GLASS.](#)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)




GLASS/WINDOWS/MIRRORS > Rear Regulator and Motor Assembly

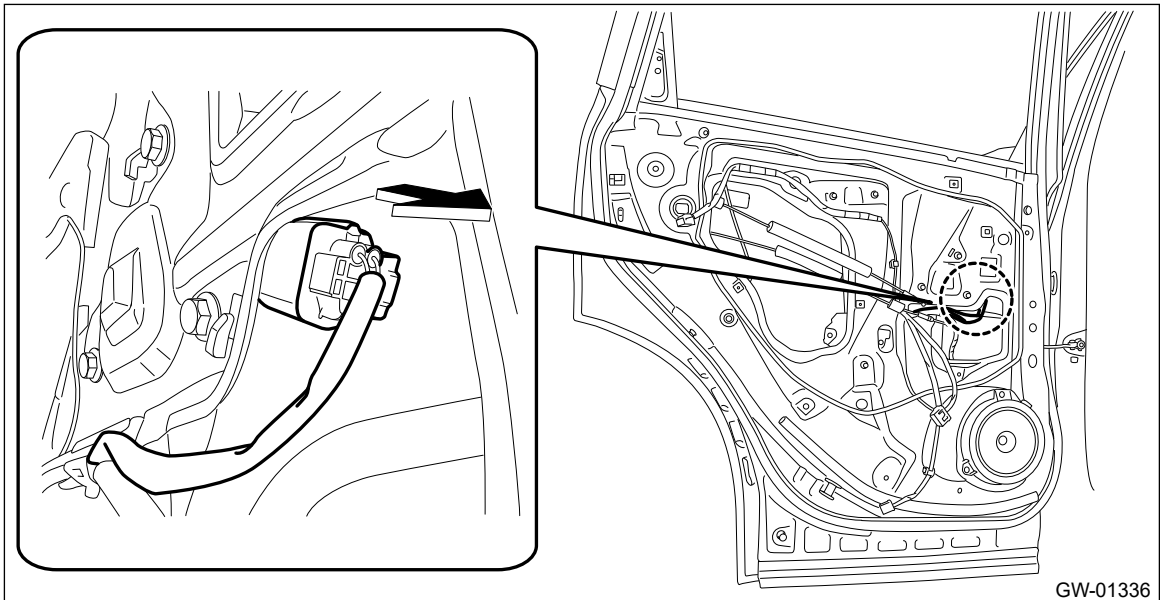
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

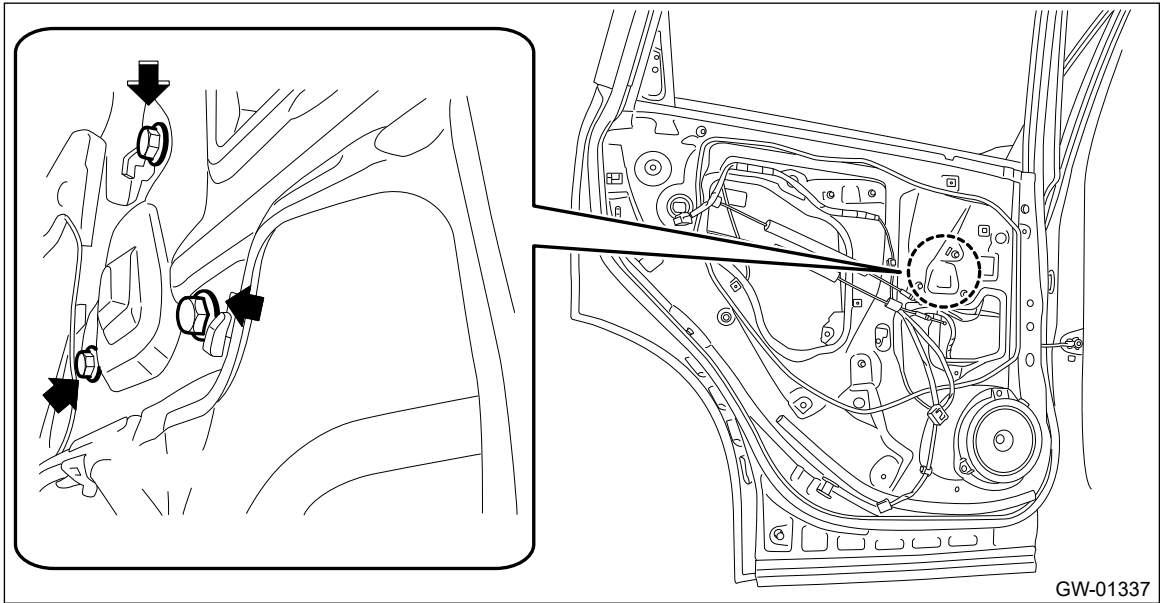
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the sealing cover - rear door.  [Ref. to EXTERIOR BODY PANELS>Rear Sealing Cover>REMOVAL.](#)
4. Remove the glass assembly - rear door.  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>REMOVAL.](#)
5. Remove the regulator and motor assembly - rear.
 - (1) Disconnect the motor - rear connector.



- (2) Remove the bolts, and then remove the regulator and motor assembly - rear.



GW-01337

INSPECTION

1. SYSTEM INSPECTION

Symptoms	Inspection order
Rear window defogger does not operate.	1. Check the fuse. 2. Check the rear defogger relay. 3. Check the rear window defogger switch. 4. Check the heat wire. 5. Check the wiring harness. 6. Check body integrated unit.

Note:

Rear window defogger system can be customized using the Subaru Select Monitor, when the customize setting [Auto A/C Setting] of the body integrated unit is set to With.

System name	Initial setting	Customize setting
[Rr Defogger op. mode]	[Normal]	[Continuous]

2. CHECK WITH SUBARU SELECT MONITOR

Caution:

Check whether the Rr Defogger op. mode setting is in initial setting or customize setting before performing inspection.

1. Check the input signal when the rear window defogger switch is operated using Subaru Select Monitor.
 - (1) Connect the Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

- (2) Turn the ignition switch to ON.
 - (3) On [Start] display, select [Diagnosis].
 - (4) On [Vehicle selection] display, input the target vehicle information and select [OK].
 - (5) On [Main Menu] display, select [Each System].
 - (6) On [Select System] display, select [Body Control], and then select [Next].
 - (7) On [Select Function] display, select [Data Monitor].
 - (8) From the data monitor item list, select [Auto A/C Setting].
 - (9) Check the vehicle equipment and the settings of body integrated unit.
 - Model with manual A/C: Without auto A/C ECM setting
 - Model with auto A/C: With auto A/C ECM setting
 If correct, go to (10).
 If not correct, go to (13).
 - (10) From the data monitor item list, select [Rr Defogger output].
 - (11) Check the displayed data (ON/OFF) by operating the rear window defogger switch.
 - (12) On [Select Function] display, select [Customize].
 - (13) From the Customize item list, select [Auto A/C Setting] and match the auto A/C ECM setting to the actual vehicle equipment.
2. Check the operation with rear window defogger switch ON.
 - When customize setting is set as "Continuous", it is normal if the 15-minute operation and 2-minute stop repeats.

- When customize setting is "Normal", it is normal if the operation lasts for 15 minutes and then turns OFF.

3. When the operation in 2) above fails, replace the body integrated unit.

3. HEAT WIRE INSPECTION

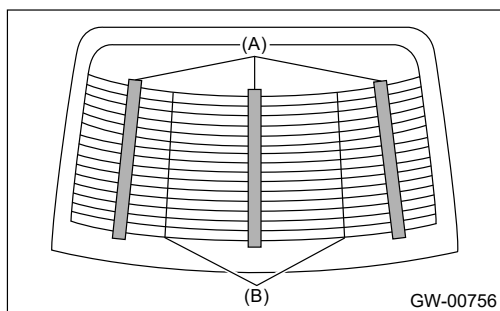
Caution:

Use a dry soft cloth to wipe off dirt on the glass along the heat wires with care not to damage the heat wires.

1. Prepare the following checking items.
 - Liquid crystal thermograph sheet (approximate Size: 300 × 300 mm (11.8 × 11.8 in) and thermal temperature: 35 — 40°C (95 — 104°F))
 - Aluminum foil
2. Turn the ignition switch to ON.
3. Turn the defogger switch to ON.
4. Push the liquid crystal thermograph sheet from the outside of the glass.

Note:

Use the liquid crystal thermograph sheet every range it is separated with the separate line.



(A) Liquid crystal thermograph sheet
(B) Separate line

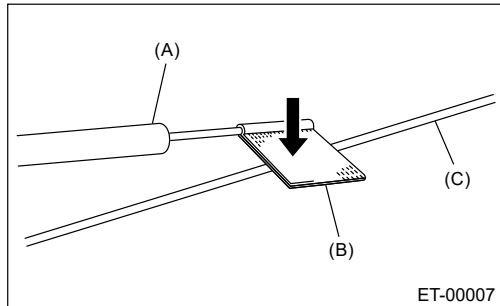
5. Determine the faulty heat wire by checking the color of the liquid crystal thermograph sheet.

Liquid crystal thermograph sheet	[Judgment]
Change occurred (red → blue)	[Normal]
No change (black)	[Open Load]

Note:

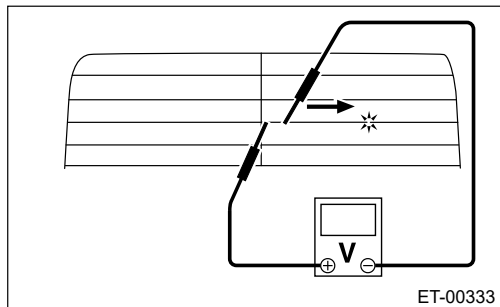
- **Check from the inside of the glass - rear window if the liquid crystal thermograph sheet does not change.**
- **The time for the color change may differ depends on the surface temperature of the glass.**


6. Wrap a piece of aluminum foil around the tip of tester probe and press it against the heat wire with your finger.



- (A) Tester probe
- (B) Aluminum foil
- (C) Heat wire

7. To both ends of the section that has been found to include an open in the step 5), apply the tester positive (+) probe and the negative (-) probe.
8. Move the tester probe on the negative (-) side slowly along the heat wire. If voltage changes from zero while moving the tester probe, heat wire is open at the voltage change point.



9. Repair the heat wire that determines the place of the open circuit.  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Window Defogger System>REPAIR.](#)

GLASS/WINDOWS/MIRRORS > Rear Window Defogger System

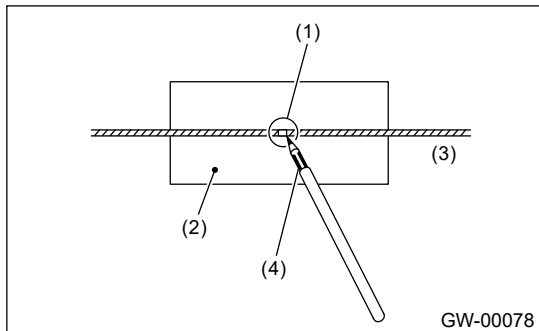
REPAIR

1. Clean the broken portion with alcohol or appropriate cleaning solvent.
2. Mask both side of wire with masking tape.
3. Apply the conductive silver composition to the broken portion.

Conductive silver composition:

By Permatex

QUICK GRID




- (1) Broken portion
- (2) Masking tape
- (3) Broken wire
- (4) Conductive silver composition

4. Dry using a dryer after applying the composition.
5. After repair, check the wire.

GLASS/WINDOWS/MIRRORS > Rear Window Defogger System

WIRING DIAGRAM

Refer to "Rear Defogger System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Rear Defogger System>WIRING DIAGRAM.](#)

GLASS/WINDOWS/MIRRORS > Rearview Mirror

INSPECTION

Check that the mirror assembly - inner rearview and base - inner mirror for damage.

GLASS/WINDOWS/MIRRORS > Rearview Mirror

INSTALLATION

Install each part in the reverse order of removal.

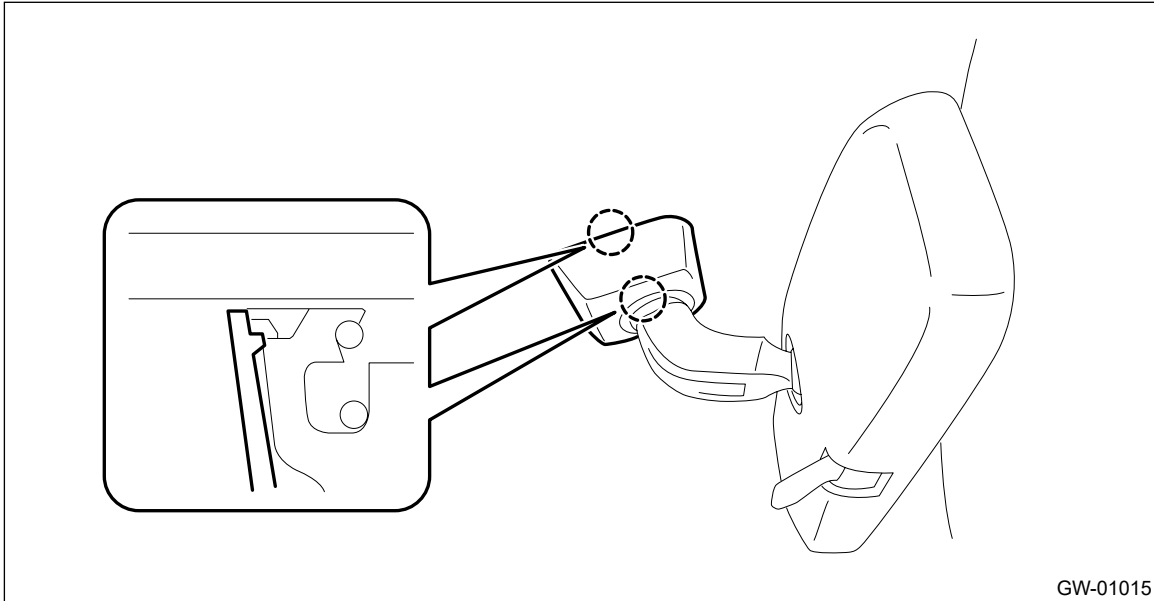
GLASS/WINDOWS/MIRRORS > Rearview Mirror

REMOVAL

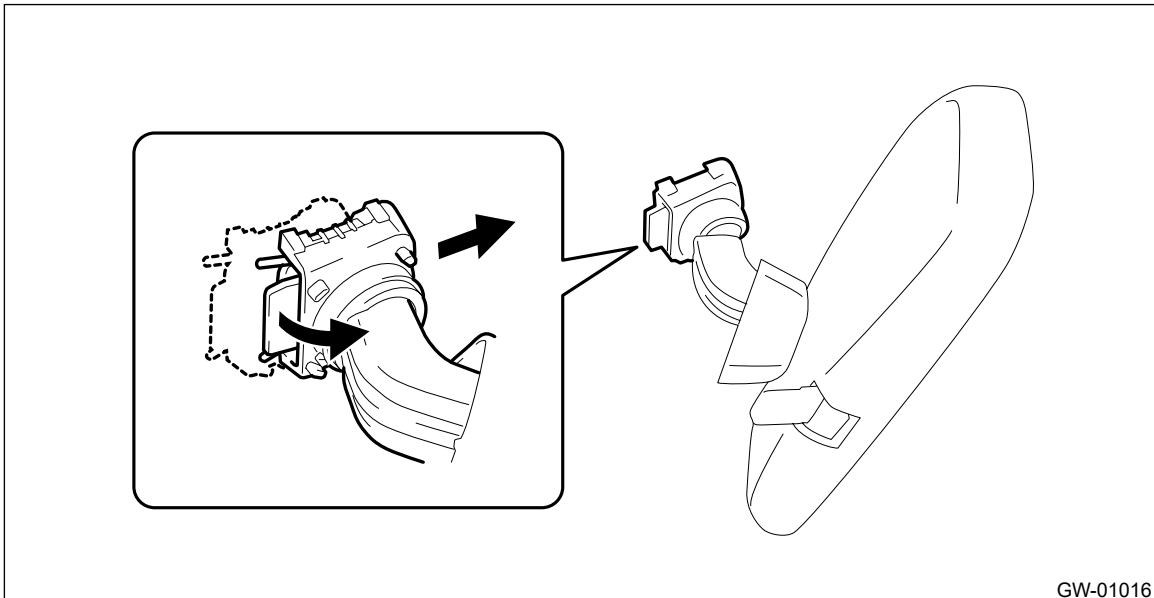
Caution:

- **Be careful not to damage the mirror surface and the glass - front window.**
- **Do not remove the base - inner mirror from the glass - front window.**

- 1.** Release the claws, and then remove the cover.



- 2.** Release the lock lever, and slide the mirror assembly - inner rearview to remove.



- 3.** Replace the glass - front window if the base - inner mirror is damaged.

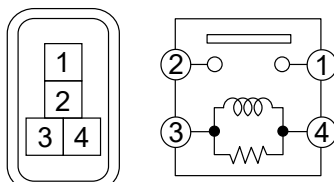
INSPECTION

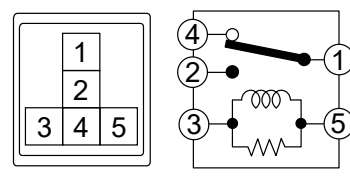
1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

2. CHECK RELAY

1. Check the resistance between relay terminals.

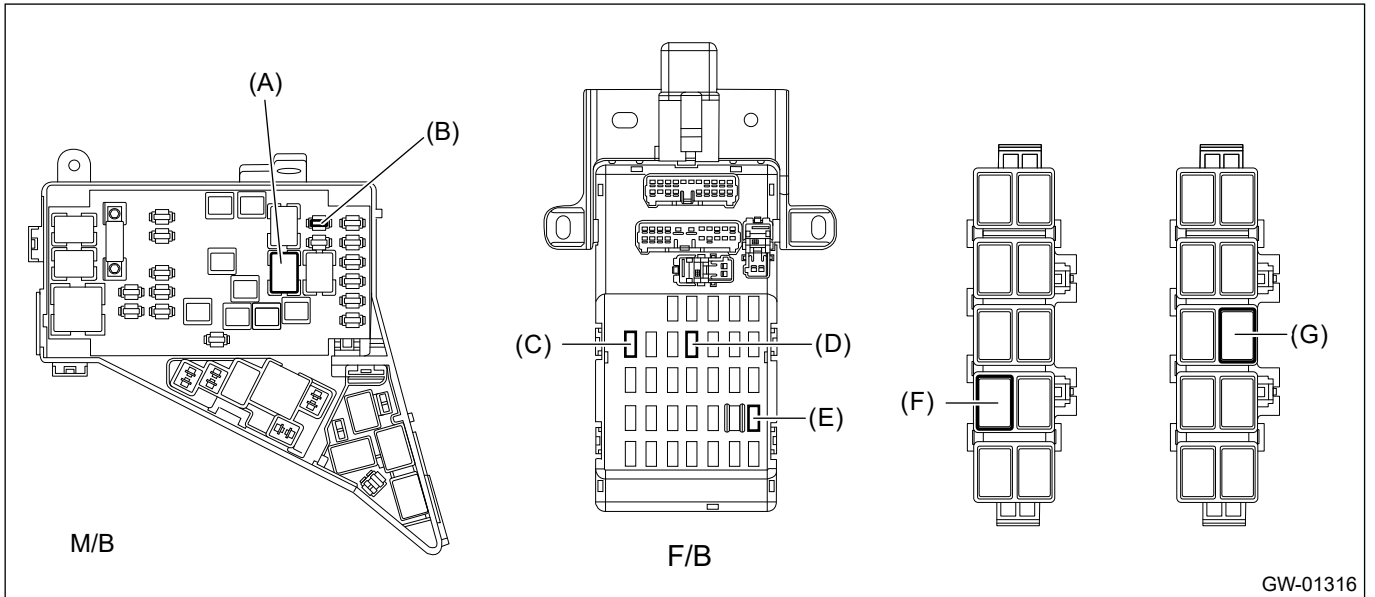
Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 MΩ or more	 <p style="text-align: right;">SR-00180</p>
1 – 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 MΩ or more	 <p style="text-align: right;">SL-01085</p>
1 – 4	Always	Less than 1 Ω	
1 – 2	Apply battery voltage between terminals 3 and 5.	Less than 1 Ω	

2. Replace the relay if the inspection result is not within the standard value.

GLASS/WINDOWS/MIRRORS > Relay and Fuse

LOCATION



GW-01316

Main fuse box	Rear defogger relay	(A)
	Fuse 25 A (rear defogger)	(B)
Relay & fuse box	Fuse 7.5 A (remote control mirror)	(C)
	Fuse 15 A (wiper deicer)	(D)
	Fuse 7.5 A (power window)	(E)
Relay holder	Power window relay	(F)
	Wiper deicer relay	(G)

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

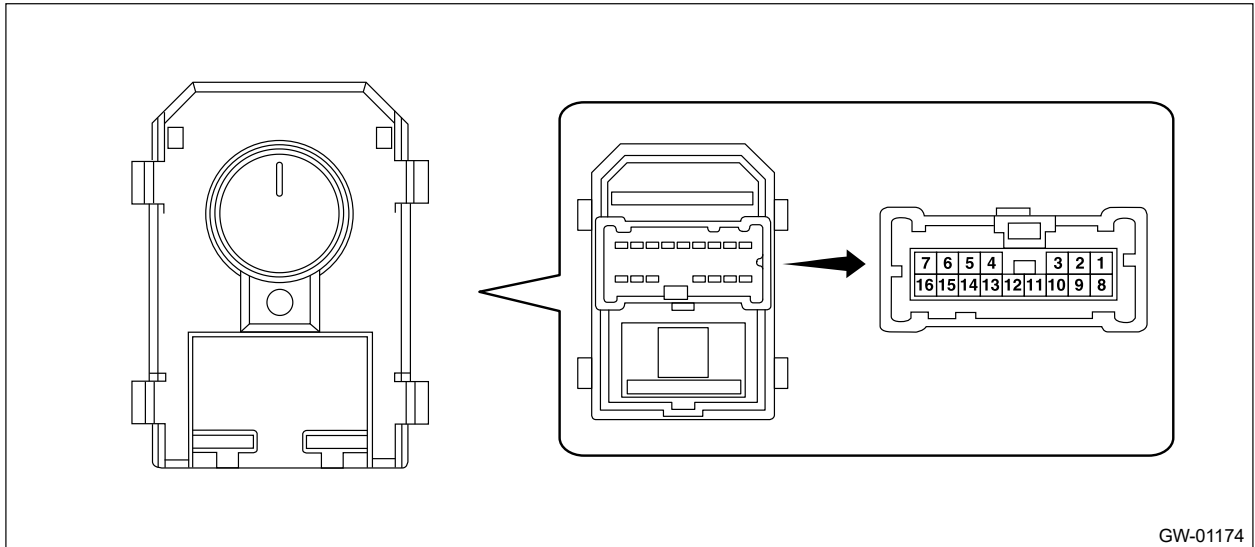
GLASS/WINDOWS/MIRRORS > Remote Control Mirror Switch

INSPECTION

1. Disconnect the connector of the switch - door mirror.
2. Check the resistance between switch - door mirror terminals.

Preparation tool:

Circuit tester



GW-01174

- Changeover switch RH

Terminal No.	Inspection conditions	Standard
—	{OFF}	1 MΩ or more
1 – 12 9 – 7	UP	Less than 1 Ω
1 – 9 12 – 7	DOWN	Less than 1 Ω
1 – 11 12 – 7	LEFT	Less than 1 Ω
1 – 12 11 – 7	RIGHT	Less than 1 Ω


- Changeover switch LH

Terminal No.	Inspection conditions	Standard
—	{OFF}	1 MΩ or more
1 – 14 8 – 7	UP	Less than 1 Ω
1 – 8 14 – 7	DOWN	Less than 1 Ω
1 – 10 14 – 7	LEFT	Less than 1 Ω
1 – 14 10 – 7	RIGHT	Less than 1 Ω

3. If the inspection result is not within the standard, replace the switch - door mirror.


GLASS/WINDOWS/MIRRORS > Remote Control Mirror Switch

INSTALLATION

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)



GLASS/WINDOWS/MIRRORS > Remote Control Mirror Switch

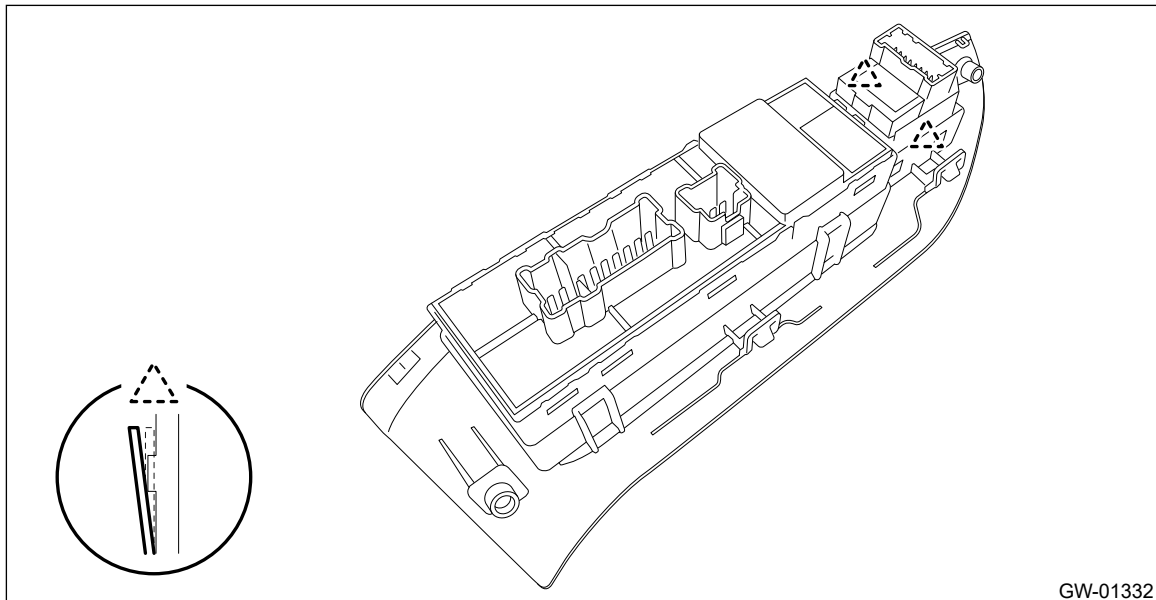
REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Remove the panel - power window main switch.  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > MAIN SWITCH.](#)
4. Release the claws, and then remove the switch - door mirror.



GW-01332

GLASS/WINDOWS/MIRRORS > Remote Control Mirror System

INSPECTION

1. SYMPTOM CHART

Symptoms	Inspection order
All function does not operate.	<ol style="list-style-type: none">1. Check the fuse.2. Check the remote control mirror switch.3. Check the wiring harness.
One side of the mirror motor does not operate.	<ol style="list-style-type: none">1. Check the remote control mirror switch.2. Check the mirror motor.3. Check the wiring harness.
Mirror heater does not operate.	<ol style="list-style-type: none">1. Check the rear defogger switch.2. Check the rear defogger relay.3. Check the mirror heater.4. Check the wiring harness.5. Check body integrated unit.



Note:

The mirror heater operates with the rear window defogger at the same time. Refer to "INSPECTION" of "Rear Window Defogger System" for details.  Ref. to [GLASS/WINDOWS/MIRRORS>Rear Window Defogger System>INSPECTION.](#)

GLASS/WINDOWS/MIRRORS > Remote Control Mirror System


NOTE

For procedure of each component in the remote control mirror system, refer to the respective section.

- Outer mirror assembly:  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly.](#)
- Remote control mirror switch:  [Ref. to GLASS/WINDOWS/MIRRORS>Remote Control Mirror Switch.](#)



GLASS/WINDOWS/MIRRORS > Remote Control Mirror System

WIRING DIAGRAM

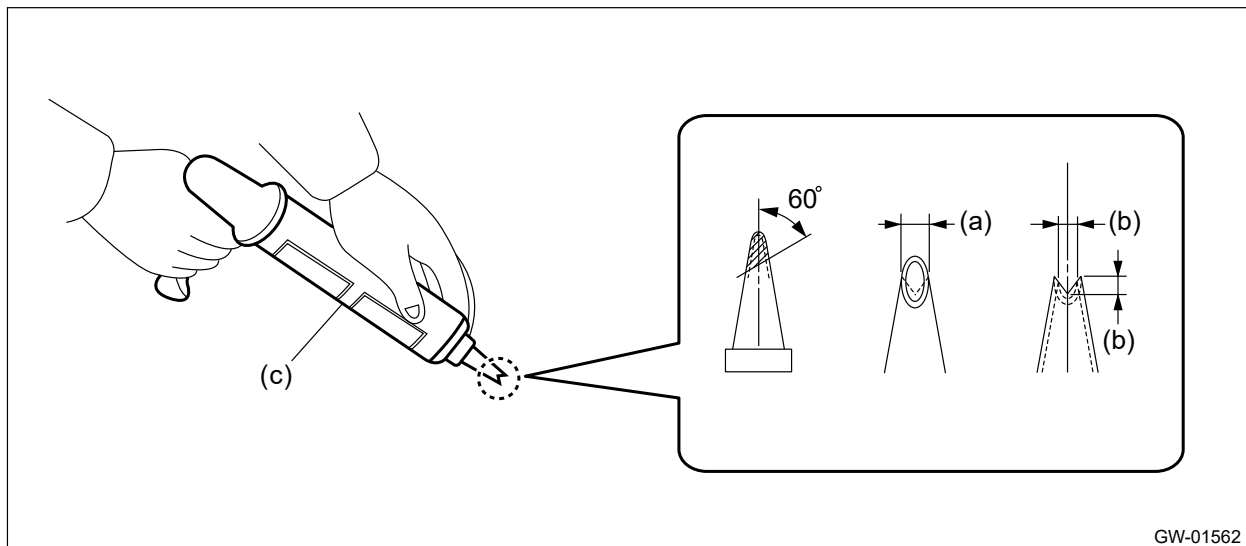
Refer to "Remote Control Mirror System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Remote Control Mirror System>WIRING DIAGRAM.](#)

INSTALLATION

Caution:

- For model with EyeSight, always use Subaru genuine windshield glass specially designed for EyeSight. (If the windshield glass other than the glass specially designed for EyeSight is used, the visibility of the camera is blocked or the distortion of the glass prevents the correct measurement of the object, resulting in the EyeSight abnormal operation.)
- For model with EyeSight, if the windshield glass is installed after removal or replaced, always perform the "Inspection" and "Adjustment and check" of the stereo camera.
Inspection:  [Ref. to EyeSight \(DIAGNOSTICS\)>General Description>INSPECTION.](#)
Adjustment and check:  [Ref. to EyeSight>Camera Adjustment, Inspection.](#)
- For model with EyeSight, if the damage is found in the glass repair prohibited area, always replace the glass. Damage in the prohibited area can affect the recognition of the stereo camera even if it is repaired, and thereby EyeSight function may not operate properly.

1. Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.



(a) 10 mm (0.39 in)

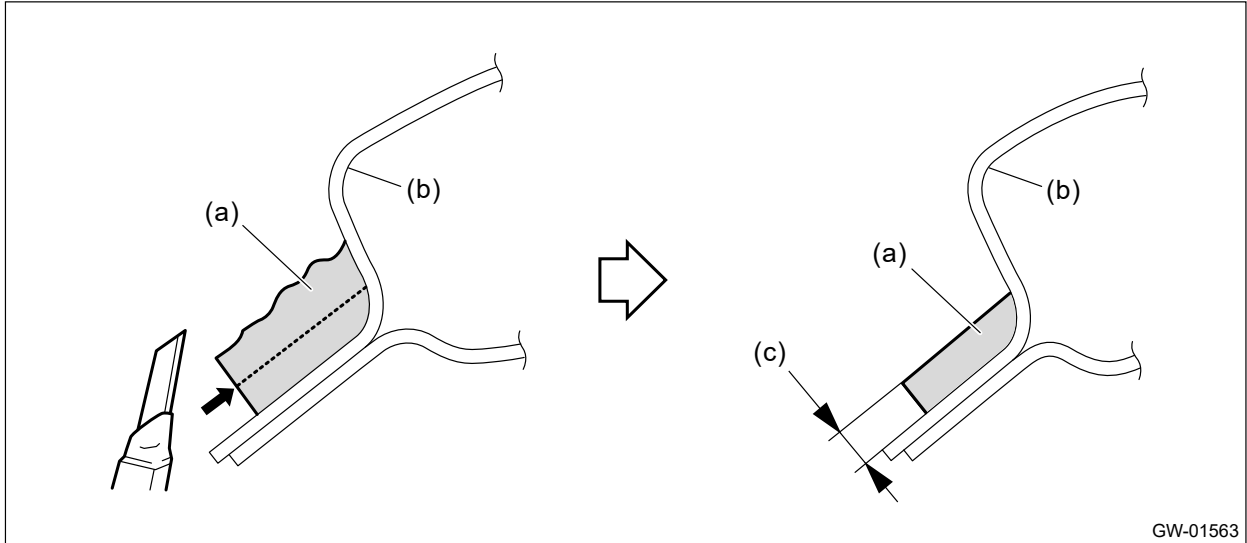
(b) 8 mm (0.31 in)

(c) Sealant gun

2. Remove the adhesive layer on the body using cutter knife to obtain smooth face of 2 mm (0.08 in) thick.

Caution:

- Be careful not to damage the body and paint surface.
- Be sure to keep some amount of old adhesive.



GW-01563

(a) Adhesive

(b) Body panel

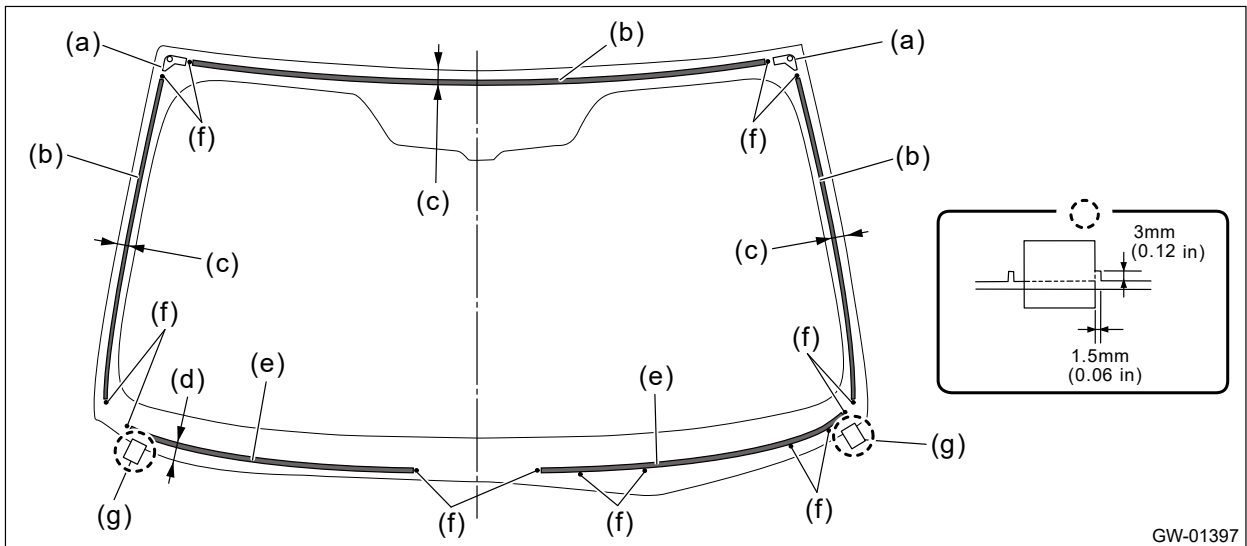
(c) 2 mm (0.08 in)

3. Clean the glass - front window and the body with appropriate cleaning solvent to completely eliminate cutting powder, dust and dirt.

4. Attach the dam rubber - front to the glass - front window.

Caution:

- **Attach the driver's side dam rubber - front lower to the constant distance of 18.5 mm (0.73 in) from the glass end.**
- **Attach the passenger's side dam rubber - front lower straight between the dam rubber set marks while aligning with the dam rubber set mark.**



GW-01397

(a) Locating pin - front window

(d) 18.5 mm (0.73 in)

(g) Seal - lower

(b) Dam rubber - front upper

(e) Dam rubber - front lower

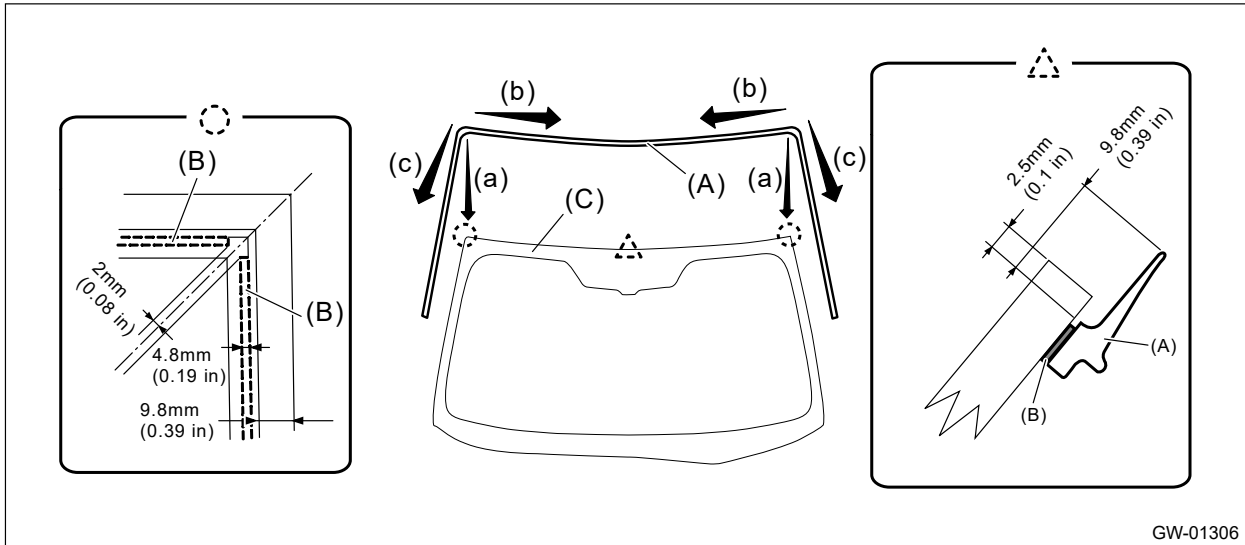
(c) 19.8 mm (0.78 in)

(f) Dam rubber set mark

5. Attach the molding - front window to the glass - front window.

Caution:

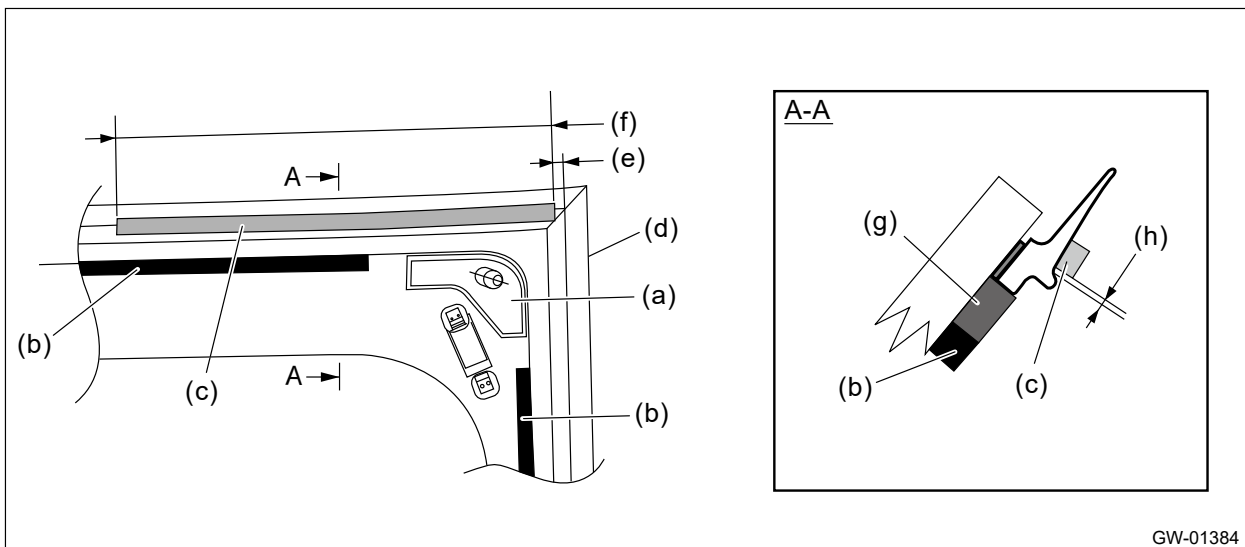
Be careful to attach the molding - front window so that the molding has no loose or undulating part.



GW-01306

- (1) Align the molding - front window (A) to the upper ends (a) of the glass - front window (C).
- (2) Install the molding - front window from both corners of the upper edge toward the center (b).
- (3) Install the molding - front window from both corners of the upper edge toward the lower side (c).
- (4) Firmly apply the double sided tape (B) of the molding - front window evenly to the surface of the glass - front window.

6. Attach the seal - upper to the molding - front window.



GW-01384

- | | | |
|---------------------------------|----------------------------|----------------------|
| (a) Locating pin - front window | (d) Molding - front window | (g) Adhesive |
| (b) Dam rubber - front upper | (e) 4 mm (0.16 in) | (h) 0.5 mm (0.02 in) |
| (c) Seal - upper | (f) 165 mm (6.50 in) | |

7. Install the glass - front window.

- (1) Apply the primer to the adhesive surface of glass - front window side and body side using sponge.

Caution:

Do not apply primer to adhesive remaining on the body side.

Glass primer:

Dow Automotive's

ESSEX U-401, U-402 or equivalent

Painted surface primer:

Dow Automotive's

ESSEX U-413 or equivalent

Note:

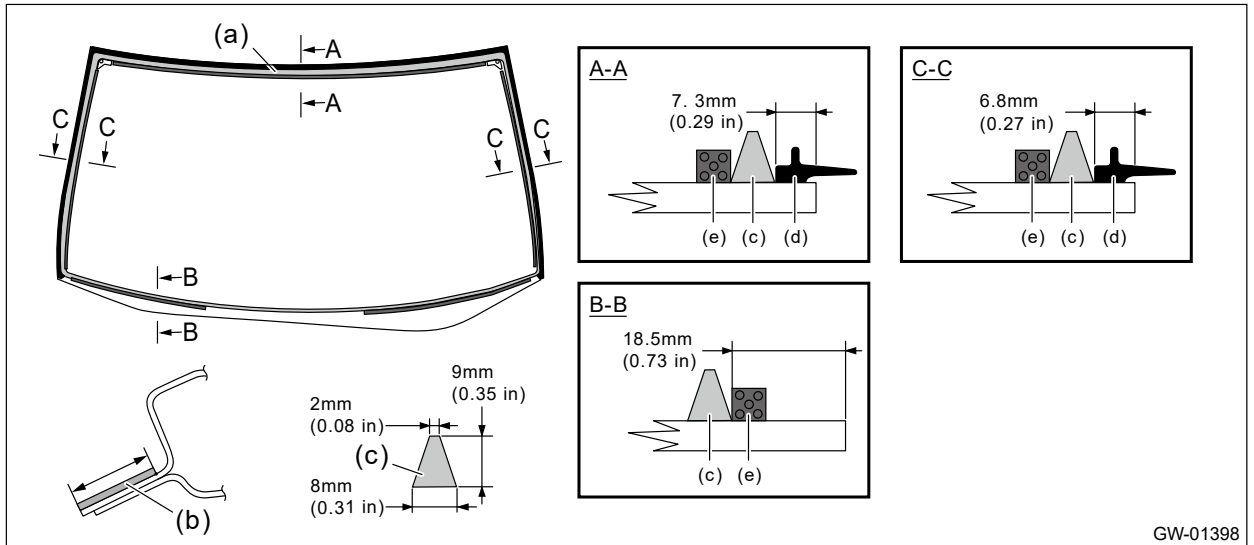
- **Primer once attached to the painted surface of the body and internal trim is hard to wipe off. Mask the circumference of such area.**
- **Let primer dry for about ten minutes before installing the glass - front window.**
- **Do not touch the surface coated with primer.**

(2) Apply adhesive to the end back surface of the glass - front window.

Adhesive:

Dow Automotive's

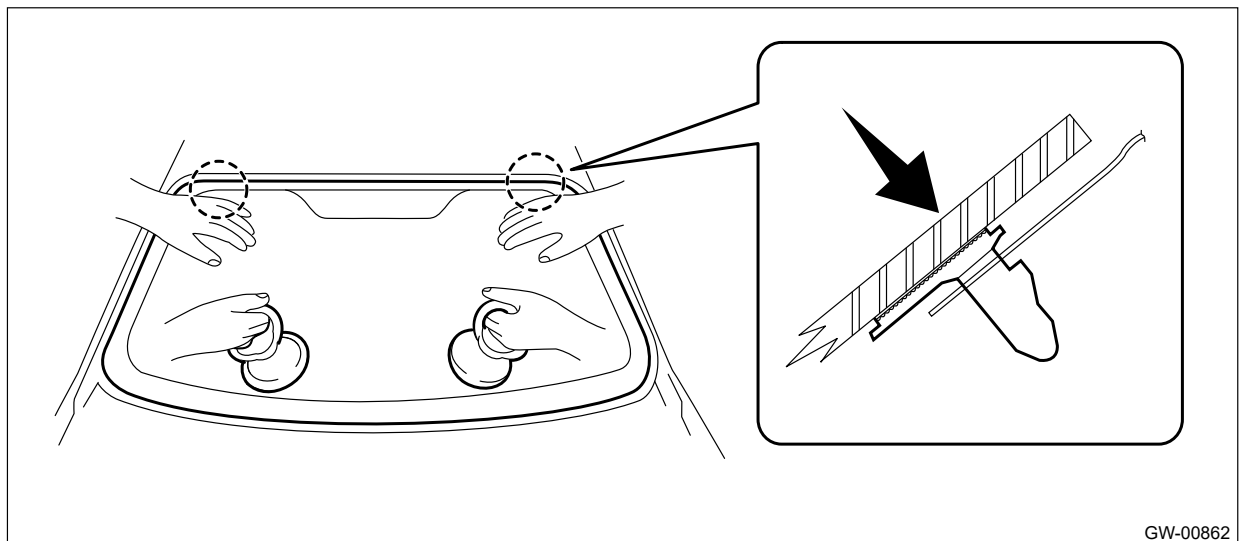
ESSEX U-400HV or equivalent



GW-01398

- (a) Application of primer (glass side) (c) Adhesive (e) Dam rubber - front side
- (b) Application of primer (body side) (d) Molding - front window side

(3) Fit the locating pins - front window to the vehicle body using suction rubber cups to install the windshield glass.



GW-00862

- (4) Lightly press the entire perimeter of the glass - front window for tight fit.
- (5) Make flush the adhesive surface juttred out using spatula.


8. After completion of all work, allow the vehicle to stand for about 24 hours.


Note:


- **When opening/closing the door after the glass - front window was bonded, always lower the glass assembly - door first, and then open/close it carefully.**
- **Move the vehicle slowly.**
- **For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.**

9. Connect the wiper deicer connector. (Models with wiper deicer)

10. Install the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.](#)

11. Install the stereo camera cover and stereo camera. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)

12. Install the trim panel - front pillar UPR.  [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>INSTALLATION.](#)

13. Connect the battery ground terminal. (Models with wiper deicer)  [Ref. to NOTE>NOTE > BATTERY.](#)

14. After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

Note:

- **When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.**

GLASS/WINDOWS/MIRRORS > Windshield Glass

REMOVAL

Caution:

- For model with EyeSight, always remove the glass - front window after the stereo camera is removed.
For model with EyeSight, always use Subaru genuine windshield glass specially designed for EyeSight. (If the windshield glass other than the glass specially designed for EyeSight is used, the visibility of the camera is blocked or the distortion of the glass prevents the correct measurement of the object, resulting in the EyeSight abnormal operation.)
- For model with EyeSight, if the windshield glass is installed after removal or replaced, always perform the "Inspection" and "Adjustment and check" of the stereo camera.
Inspection: [🔗 Ref. to EyeSight \(DIAGNOSTICS\)>General Description>INSPECTION.](#)
Adjustment and check: [🔗 Ref. to EyeSight>Camera Adjustment, Inspection.](#)
- For model with EyeSight, if the damage is found in the glass repair prohibited area, always replace the glass. Damage in the prohibited area can affect the recognition of the stereo camera even if it is repaired, and thereby EyeSight function may not operate properly.

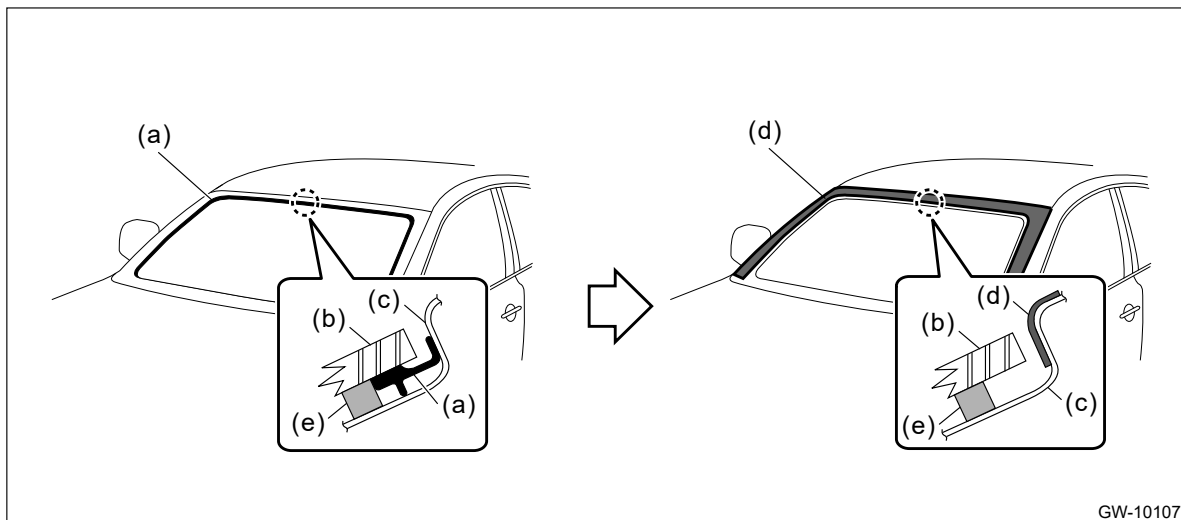
1. WHEN USING WINDSHIELD GLASS KNIFE

1. Disconnect the ground cable from battery. (Models with wiper deicer) [🔗 Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front pillar UPR. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL.](#)
3. Remove the cowl panel assembly. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.](#)
4. Disconnect the wiper deicer connector. (Models with wiper deicer)
5. Remove the stereo camera cover and stereo camera. (Models with EyeSight) [🔗 Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
6. Remove the molding - front window from the glass - front window, and attach protective tape on the body side of the circumference of the glass - front window.



(a) Molding - front window

(c) Body panel

(e) Adhesive

(b) Glass - front window

(d) Protective tape

7. Remove the glass - front window.

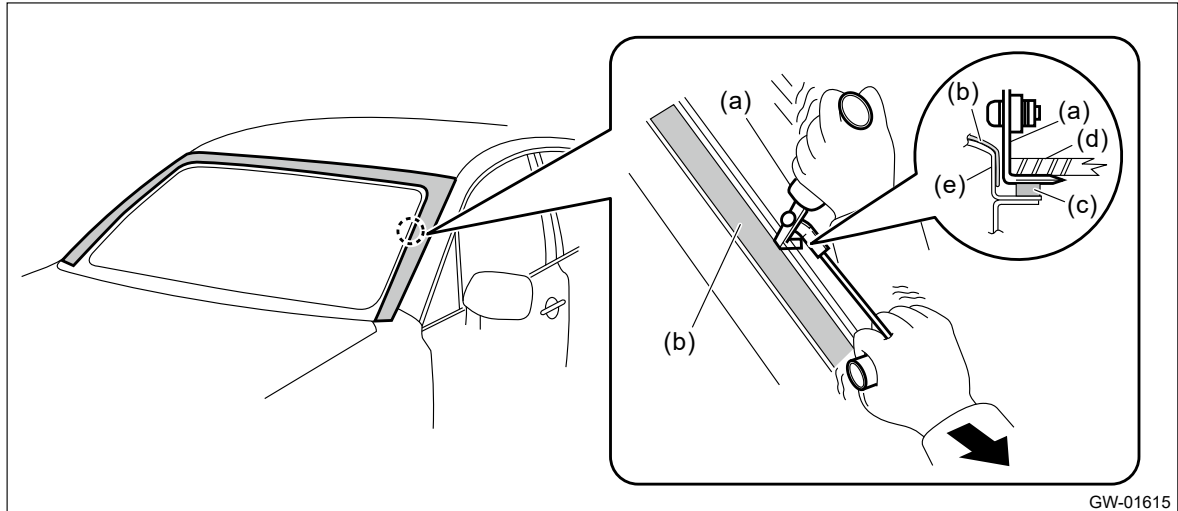
(1) Apply sufficient amount of soapy water to the adhesive part and insert the windshield glass knife.

(2) While holding the edges of the knife and the glass - front window at a right angle, move the windshield glass knife parallel to the edge of the glass - front window, and cut the adhesive along the surface and the

edge of the glass - front window.

Caution:

- **Cutting of adhesive part should be started from an area with wider gap between the glass - front window and the body.**
- **Never twist the windshield glass knife.**



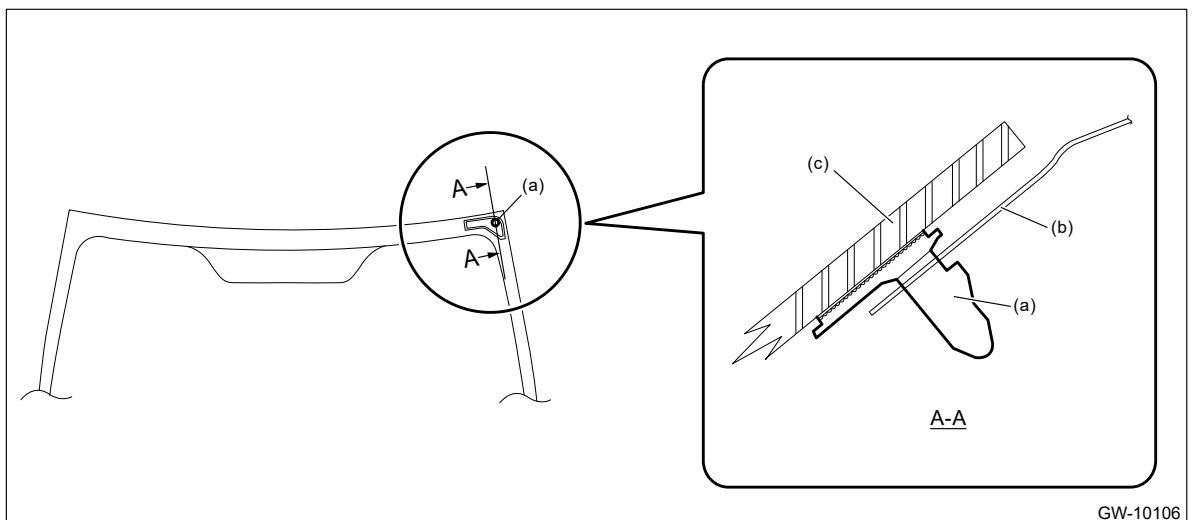
GW-01615

- (a) Windshield glass knife (c) Adhesive (e) Body panel
(b) Protective tape (d) Glass - front window

(3) Disconnect the locating pin - front window, and remove the glass - front window.

Note:

The locating pin - front window are bonded to the corners of the glass - front window. Use piano wire to disconnect the pins.



GW-10106

- (a) Locating pin - front window (b) Body panel (c) Glass - front window

2. WHEN USING PIANO WIRE




Caution:

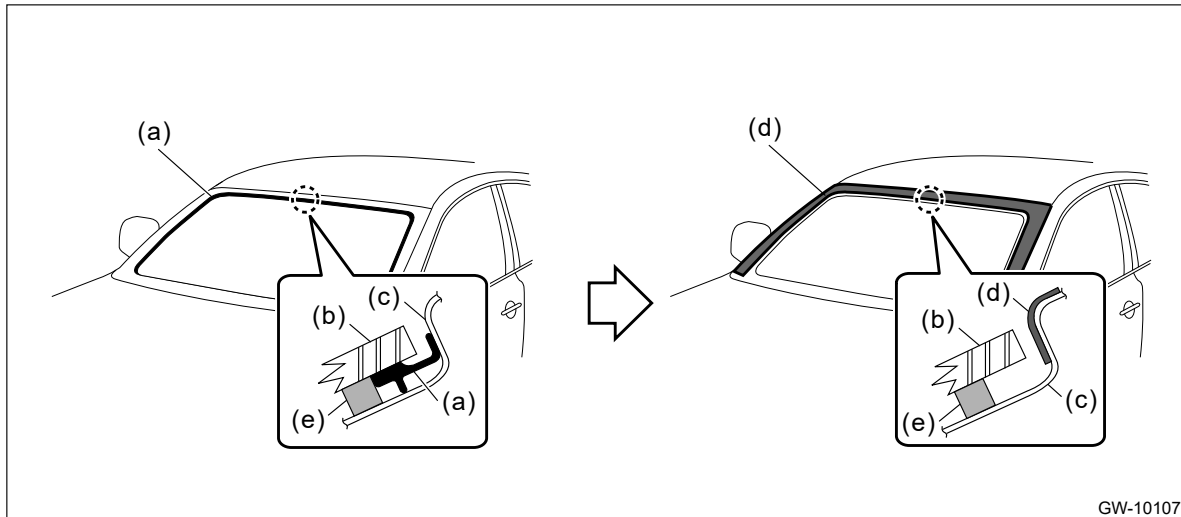
- **Do not tightly pull the piano wire against the glass - front window edge.**
- **Apply protective tape, etc, and be careful that the inner and outer components of the vehicle are not damaged.**
- **Do not cross piano wires. Otherwise they may be cut.**

1. Disconnect the ground cable from battery. (Models with wiper deicer)  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front pillar UPR.  [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL.](#)
3. Remove the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.](#)
4. Disconnect the wiper deicer connector. (Models with wiper deicer)
5. Remove the stereo camera cover and stereo camera. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
6. Remove the molding - front window from the glass - front window, and attach protective tape on the body side of the circumference of the glass - front window.

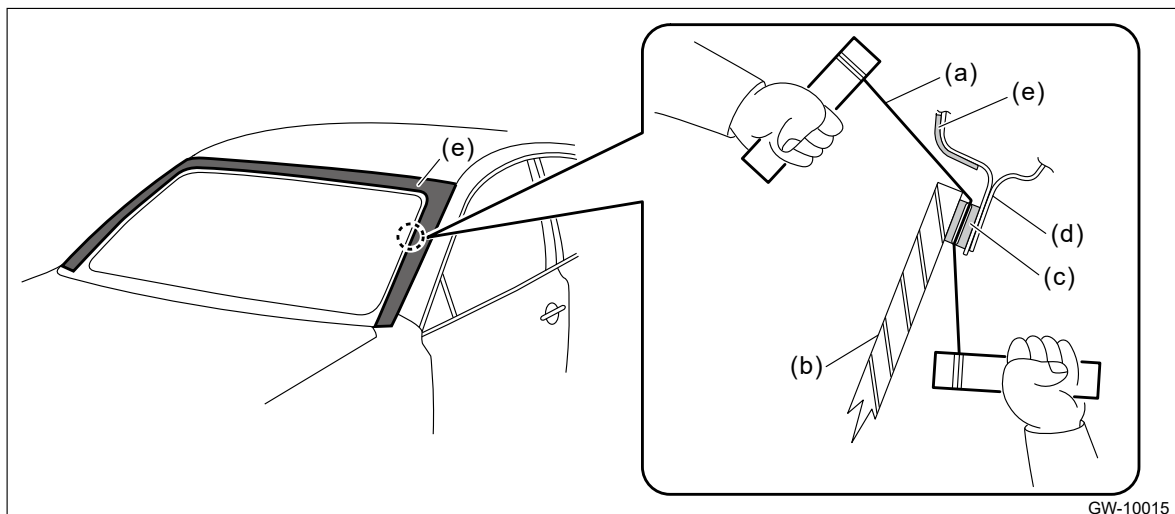


- | | | |
|----------------------------|---------------------|--------------|
| (a) Molding - front window | (c) Body panel | (e) Adhesive |
| (b) Glass - front window | (d) Protective tape | |

7. Remove the glass - front window.
 - (1) Using a drill, make a hole in the adhesive part.
 - (2) Pass the piano wire through the hole, and pull the wire ends alternately to cut off the adhesive part and the locating pin - front window.

Caution:

Attach a piece of wood to both piano wire ends.



- | | | |
|--------------------------|----------------|---------------------|
| (a) Piano wire | (c) Adhesive | (e) Protective tape |
| (b) Glass - front window | (d) Body panel | |

INSPECTION

1. SYSTEM INSPECTION

Note:

- The wiper deicer does not operate when the ambient temperature becomes 5°C (41°F) or more.
- The wiper deicer operates with the rear window defogger at the same time.
- It is possible to perform a forced operation if you keep holding the rear window defogger switch for 3 seconds or more.

Symptoms	Inspection order
Wiper deicer does not operate.	1. Check the fuse. 2. Check the wiper deicer relay. 3. Check the wiper deicer switch. 4. Check the heat wire. 5. Check the wiring harness. 6. Check body integrated unit.

Note:

- Wiper deicer system can be customized using the Subaru Select Monitor, when the customize setting [Auto A/C Setting] of the body integrated unit is set to With.
- Set the system using the Rr Defogger op. mode, and setting will be the same as rear defogger system setting.

System name	Initial setting	Customize setting
[Rr Defogger op. mode]	[Normal]	[Continuous]*

*: When one of the following conditions occurs, continuous operation is suspended and turned off after 15 minutes.

- Ambient temperature at 5°C (41°F) or more continues for 10 seconds.
- Malfunction occurs on ambient sensor.
- Vehicle speed of 15 km/h (9 MPH) or less continues 15 minutes (OFF when conditions are met)
- Malfunction occurs in CAN communication.
- Battery voltage remains at 10 V or less for 30 seconds.
- SI-DRIVE [I] mode driving continues for 10 seconds.

2. CHECK WITH SUBARU SELECT MONITOR

Caution:

Before performing the inspection, check the following settings.

- Wiper deicer setting → "support". If "no support", set to "support" using customize setting.
- Rr Defogger op. mode setting → Initial setting or customize setting.

1. Check the input signal when the rear window defogger switch is operated using Subaru Select Monitor.
 - (1) Connect the Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

- (2) Turn the ignition switch to ON.

- (3) On [Start] display, select [Diagnosis].
- (4) On [Vehicle selection] display, input the target vehicle information and select [OK].
- (5) On [Main Menu] display, select [Each System].
- (6) On [Select System] display, select «Body Control» and then select «Enter».
- (7) On «Select Function» display, select [Body Control].
- (8) From the data monitor item list, select [Auto A/C Setting].
- (9) Check the vehicle equipment and the settings of body integrated unit.
If correct, go to (10).
If not correct, go to (13).
- (10) From the data monitor item list, select [Rr Defogger output].
- (11) Check the displayed data (ON/OFF) by operating the rear window defogger switch.
- (12) On [Select Function] display, select [Customize].
- (13) From the Customize item list, select [Auto A/C Setting] and match the auto A/C ECM setting to the actual vehicle equipment.

2. Check the operation with rear window defogger switch ON.

- When customize setting is set as "Continuous", it is normal if the 15-minute operation and 2-minute stop repeats.
- When customize setting is "Normal", it is normal if the operation lasts for 15 minutes and then turns OFF.

3. When the operation in 2) above fails, replace the body integrated unit.

3. HEAT WIRE INSPECTION


Refer to "HEAT WIRE INSPECTION" of "Rear Window Defogger System".  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Window Defogger System>INSPECTION > HEAT WIRE INSPECTION.](#)

Note:

Heat wire inspection needs removing/installing procedure of instrument panel assembly.

GLASS/WINDOWS/MIRRORS > Wiper Deicer System

REPAIR


Refer to "REPAIR" of "Rear Window Defogger System".  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Window Defogger System>REPAIR.](#)

Note:

Heat wire repair needs removing/installing procedure of instrument panel assembly.

GLASS/WINDOWS/MIRRORS > Wiper Deicer System


WIRING DIAGRAM

Refer to "Wiper Deicer System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Wiper Deicer System.](#)

INSTRUMENTATION/DRIVER INFO > Combination Meter System


ELECTRICAL SPECIFICATION

1. COMBINATION METER ASSEMBLY

Refer to "Control Module I/O Signal" of "COMBINATION METER (DIAGNOSTICS)" section.  [Ref. to COMBINATION METER \(DIAGNOSTICS\)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)

INSTRUMENTATION/DRIVER INFO > Combination Meter System






INSPECTION

Refer to "Basic Diagnostic Procedure" of "COMBINATION METER (DIAGNOSTICS)" section.  [Ref. to COMBINATION METER \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

INSTRUMENTATION/DRIVER INFO > Combination Meter System

NOTE

For procedure of each component in the combination meter system, refer to the respective section.

- Combination meter assembly:  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)
- Speedometer:  [Ref. to INSTRUMENTATION/DRIVER INFO>Speedometer.](#)
- Tachometer:  [Ref. to INSTRUMENTATION/DRIVER INFO>Tachometer.](#)
- FUEL meter:  [Ref. to INSTRUMENTATION/DRIVER INFO>Fuel Gauge.](#)
- ECO gauge:  [Ref. to INSTRUMENTATION/DRIVER INFO>ECO Gauge.](#)

OPERATION

1. SELF-DIAGNOSIS DISPLAY MODE

The self-diagnosis (checking of each meter, warning light, indicator light, illumination, LCD/TFT) of combination meter can be performed in the following procedure.

1. Procedure

Caution:

Perform the steps described in (1) through (4) within 10 seconds.

- (1) Unfasten → fasten the driver’s seat belt within 3 seconds after the ignition switch is turned to ON.
- (2) With the driver’s seat belt fastened, press the trip meter knob three times.
- (3) Unfasten the driver’s seat belt, and then press the trip meter knob three times.
- (4) Fasten the driver’s seat belt again, and then press the trip meter knob three times.

Note:

- **When the self-diagnosis function operates, the warning light, indicator light, and LCD/TFT display checks are performed. After that, the buzzer will sound for 0.5 seconds every time the trip meter knob is pressed, and operation checks are performed in the order of meter indicator needle operation, meter indicator needle indication, and LCD/TFT. Turn the ignition switch to OFF to cancel the self-diagnosis function.**
- **When the engine starts during diagnosis, the self-diagnosis function is not cancelled, however, once the vehicle starts driving, the self-diagnosis function is deactivated automatically.**


2. Go to “Check meter indicator operation”.


Check meter operation, warning light, indicator light, illumination and LCD/TFT procedure.

Note:

- **After “_S_1” is displayed on the LCD/TFT, the meter indicator operation check mode is initiated.**
- **Each of the meter indicator operation display and LCD/TFT display switches every 6 seconds.**

Meter indicator	LCD/TFT display, illumination	Warning light/ indicator light
MIN indication ↓ MAX indication	ILL1 (Min. brightness) ↓*4 ILL6 (Max. brightness)	*1, *2, *3
MAX indication ↓ MIN indication	ILL6 (Max. brightness) ↓*4 ILL1 (Min. brightness)	

*1: Warning lights and indicator lights controlled by the meter drive circuit are illuminated.  [Ref. to INSTRUMENTATION/DRIVER INFO>General Description>SPECIFICATION.](#)

*2: Warning lights and indicator lights controlled by other module are turned on/off according to the module control.  [Ref. to INSTRUMENTATION/DRIVER INFO>General Description>SPECIFICATION.](#)

*3: Engine coolant temperature warning light illuminates in red.

*4: Display for one second for each level.

3. Press the trip meter knob once.


4. Go to “Meter Indicator Needle Indication Check”.


Check meter operation, warning light, indicator light, and LCD/TFT.

Note:

- Meter indicator switches every 1.5 seconds for each indication.
- ILL indication illuminates at the same brightness as when entering "Meter Indicator Needle Indication Check".
- During operation, "_S_2" is displayed on the LCD/TFT.

Speedometer (km/h)	Tachometer (r/min)	ECO gauge	Warning light/indicator light
0	0	Lowest point	*1, *2, *3
0	0	-Max	
40	1,000	0	
100	4,000	+Max	
40	1,000	0	
0	0	-Max	

*1: Warning lights and indicator lights controlled by the meter drive circuit go off.  Ref. to [INSTRUMENTATION/DRIVER INFO>General Description>SPECIFICATION](#).

*2: Warning lights and indicator lights controlled by other module are turned on/off according to the module control.  Ref. to [INSTRUMENTATION/DRIVER INFO>General Description>SPECIFICATION](#).



*3: Engine coolant temperature indicator light illuminates in blue.

5. Press the trip meter knob once.

6. Go to "Check LCD/TFT display".

Check the LCD/TFT display.

Note:

- After "_S_3" is displayed on the LCD/TFT, the LCD/TFT display check mode is initiated.
- LCD/TFT display switches every 1 second.
- Warning lights and indicator lights controlled by the meter drive circuit go off.  Ref. to [INSTRUMENTATION/DRIVER INFO>General Description>SPECIFICATION](#).
- Warning lights and indicator lights controlled by other module are turned on/off according to the module control.  Ref. to [INSTRUMENTATION/DRIVER INFO>General Description>SPECIFICATION](#).
- The meter indication remains at the same level as "Meter Indicator Needle Indication Check".
- ILL indication illuminates at ILL6 level (max. brightness).
- After No. 14 is displayed in the illumination order, display is repeated from No. 1 again. (Except for color TFT type)
- After No. 8 is displayed in the illumination order, display is repeated from No. 1 again. (Color TFT type)
- The version display contents of the illumination order No. 1 varies depending on the vehicle. (Color TFT type)

– Except for color TFT type

ORDER	AT/SS	CRUISE/SET	X/S//S#	TRIP/ODO	FUEL METER	LFW
1				A 888.8 B 888888 km		OFF
2		OFF	OFF	111.1 111111		ON
3		OFF	OFF	A 222.2 222222 km		ON
4		OFF		333.3 333333		OFF
5		OFF	OFF	B 444.4 444444 km		OFF
6		OFF	OFF	555.5 555555		OFF
7			[S]	A 666.6 666666 km		OFF
8		OFF	OFF	777.7 777777		OFF
9			OFF	B 888.8 888888 km		OFF
10		OFF	[I]	999.9 999999		OFF
11		OFF	OFF	A 000.0 000000 km		OFF
12		OFF	OFF	888.8 888888		OFF
13			S#	B 888.8 888888 km		ON
14		OFF	OFF	888.8 888888		OFF

IDI00667

- Color TFT type

Order	TFT display
1	Version display & color gradation
2	Black
3	Red
4	Green
5	Blue
6	White
7	Color gradation

2. DEMONSTRATION MODE (ONLY FOR COLOR TFT TYPE)

The demonstration mode screen of the combination meter can be displayed according to the following procedure.

Caution:

- Perform the steps while the ignition switch is OFF (ACC OFF) and the odo/trip meter is not displayed.
- To avoid battery discharge, perform the operation under the following condition.
 - Perform the operation while the battery is being charged.
 - While performing the operation and displaying the demonstration mode, close all doors and do not operate any electrical parts.
- If the battery voltage is low, the demonstration mode is not initiated.
- To display the demonstration mode, set the "Demonstration mode permission / fault permission" of the user customize mode to "permission". For detailed operation procedures, refer to "Application help".

Caution:

If the procedure is not performed properly, stop the operation and wait until the odo/trip meter display disappears (for approx. 10 seconds), and then perform the procedure from (1) to (4) again after confirming that the display disappeared.

- When the demonstration mode display is completed, make sure to set "Demonstration mode permission / fault permission" of the user customize mode to "fault permission". Do not deliver the vehicle to the customer with "Demonstration mode permission / fault permission" set to "permission".
- Even if the backup fuse is removed, the demonstration mode can be initiated.

1. Procedure

Caution:

Perform the steps described in (1) through (4) within 10 seconds.

- (1) Press the trip meter knob twice.

Note:

When the trip meter knob is pressed once, the odo/trip meter is displayed.

- (2) Press the MID (i/SET) switch three times within three seconds after the operation (1) above is performed.
- (3) Press the trip meter knob once, and press the MID (i/SET) switch three times.
- (4) Press the trip meter knob once, and press the MID (i/SET) switch three times.

2. The "demonstration mode" is initiated.

Note:

The demonstration mode will be cancelled in the following condition. When resuming the operation after cancellation, the demonstration mode is displayed, however, for the model with keyless access with push button start, the resuming can only be accepted after approx. 1 minute.



- At the completion of the "goodbye screen" display that is shown 60 minutes after the demonstration mode is initiated
- When the ignition switch is turned to ON
- When the MID (i/SET) switch is turned to ON for two seconds
- When the battery voltage is low
- When the push button ignition switch is pressed with the access key out of the passenger room (model with keyless access with push button start)

- When any request switch is pressed with the access key in the passenger room (model with keyless access with push button start)

INSTRUMENTATION/DRIVER INFO > Combination Meter System

WIRING DIAGRAM

Refer to "Combination Meter System" in the wiring diagram.

- Models with normal meters:  [Ref. to WIRING SYSTEM>Combination Meter System>WIRING DIAGRAM > MODEL WITH NORMAL METER.](#)
- Model with luminescent meter:  [Ref. to WIRING SYSTEM>Combination Meter System>WIRING DIAGRAM > MODEL WITH LUMINESCENT METER.](#)

INSTRUMENTATION/DRIVER INFO > Combination Meter

ASSEMBLY

Assemble each part in the reverse order of disassembly.

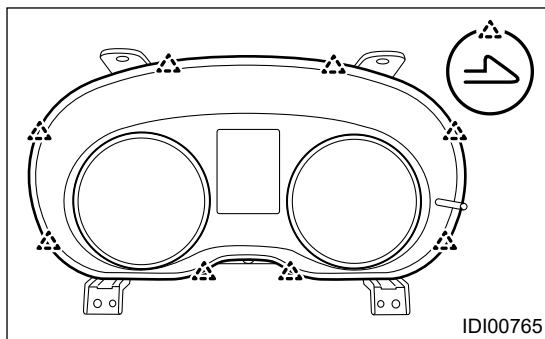
DISASSEMBLY

1. DISASSEMBLY OF COMBINATION METER ASSEMBLY

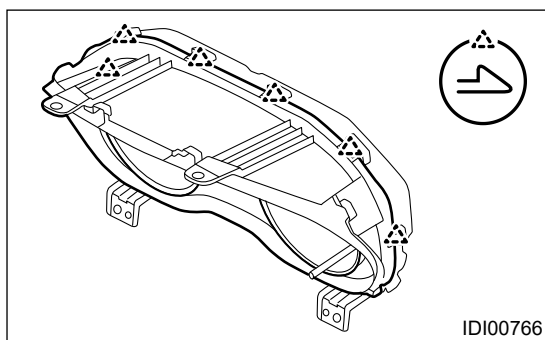
Caution:

- Use gloves to avoid damage and getting fingerprints on the glass surface and meter surfaces.
- Be careful not to apply excessive force to the trip knob.
- Be sure not to touch the meter indicator needle.
- Because LEDs are used for all of warning lights and indicator lights, they are not removable from the meter - main assembly.

1. Release the claws, and then remove the glass - combination meter.





2. Release the claws, and then remove the visor - combination meter.



INSTALLATION

Caution:

- **Make sure the electrical connector is connected securely.**
- **Make sure that each meter operates normally.**
- **When the combination meter assembly has been replaced, be sure to perform the following operations.**
 - **For models without the keyless access with push button start except for C0 and C5, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to “Type B” described in “REGISTRATION MANUAL FOR IMMOBILIZER”.**
 - **Be sure to reset the ODO fuel economy value of the multi-function display (MFD). (High grade type)  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display \(MFD\) System>OPERATION > ODO FUEL ECONOMY VALUE RESET \(HIGH GRADE TYPE ONLY\).](#)**

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

INSTRUMENTATION/DRIVER INFO > Combination Meter

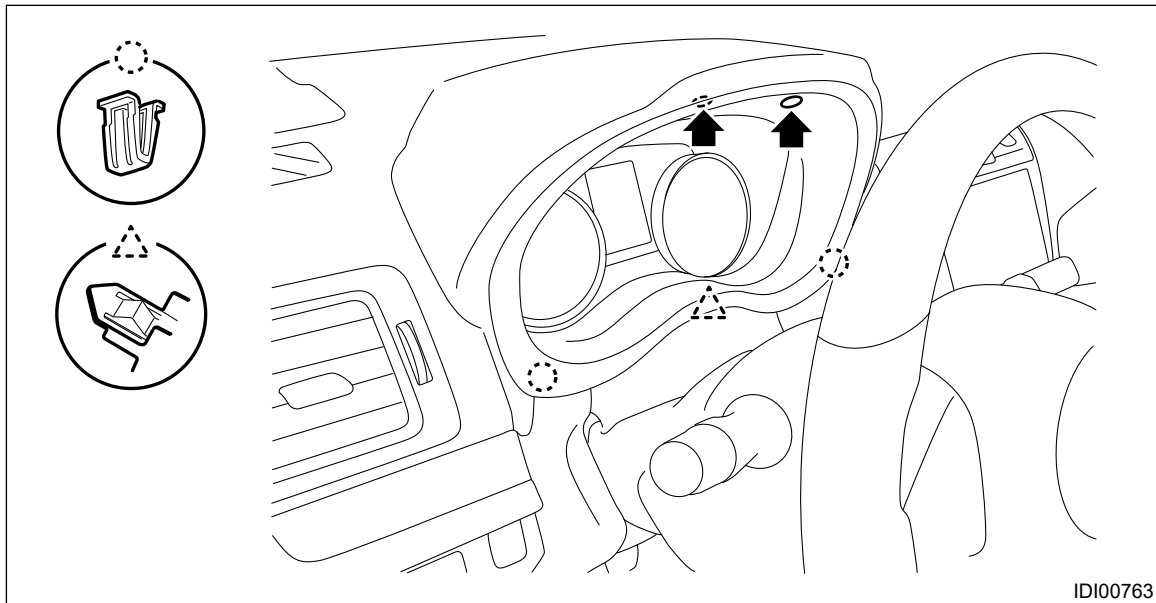
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Release the lock, tilt the steering column to the lowest end and fully extend the column by the telescopic system.
3. Release the screws, clips and claws, and remove the visor - combination meter assembly.

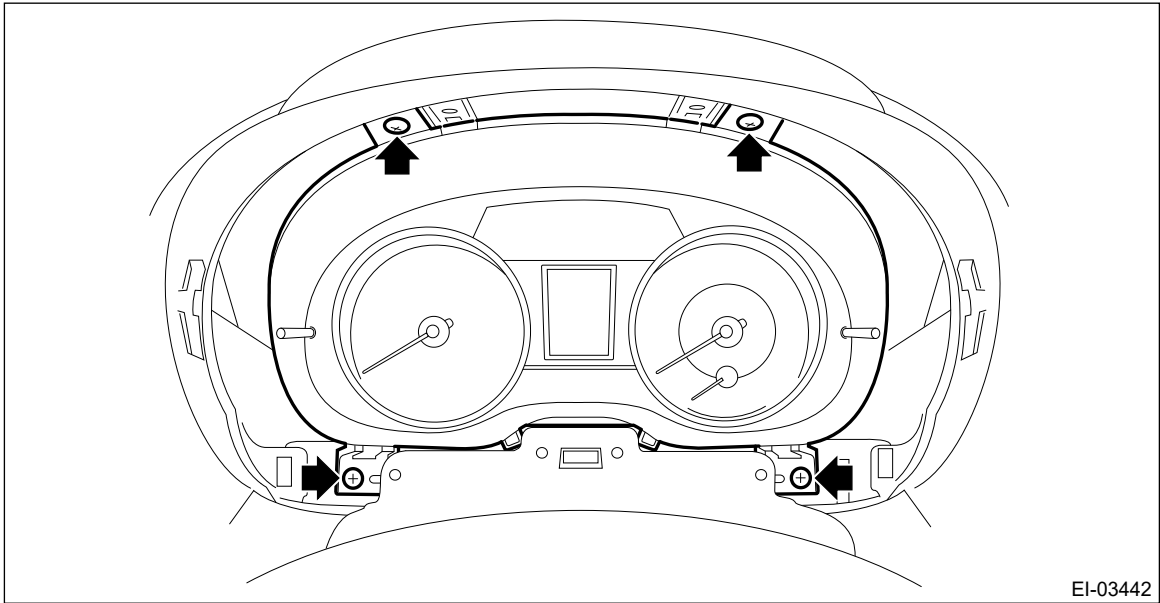


4. Remove the combination meter assembly.

Caution:

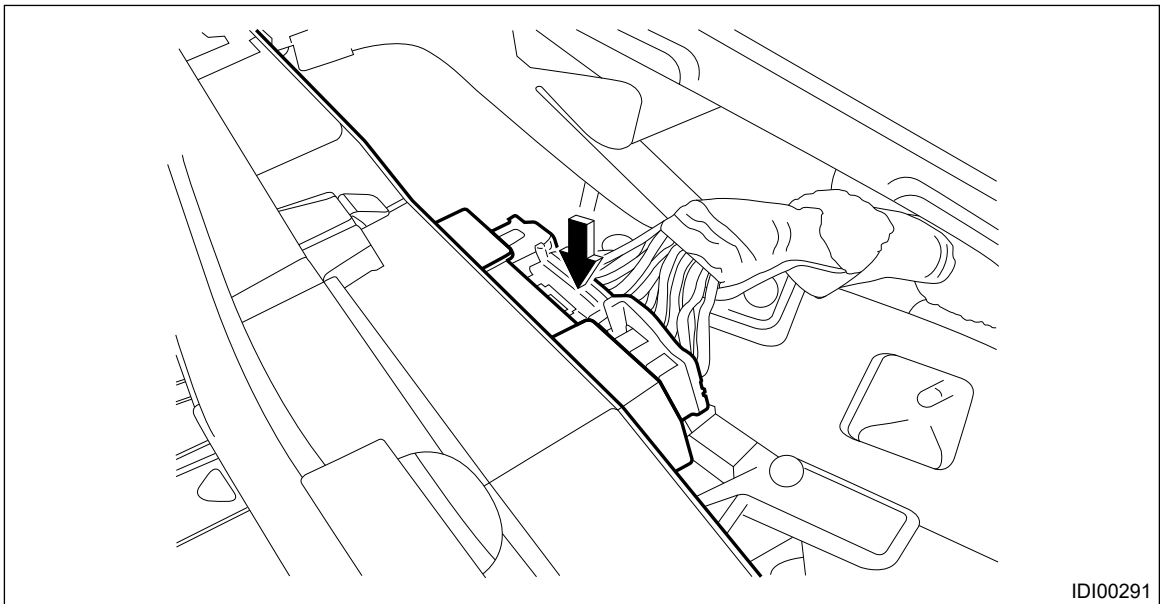
- **Be careful not to damage the meter or instrument panel.**
- **Pay particular attention to avoid damaging the meter glass.**

- (1) Remove the screws.



EI-03442

(2) Pull the combination meter assembly toward you and disconnect the connector.



ID100291

INSTRUMENTATION/DRIVER INFO > ECO Gauge

SPECIFICATION

Since the meter - main assembly cannot be disassembled, do not remove or inspect the ECO gauge alone. (Do not remove the cover on the back surface.)




INSTRUMENTATION/DRIVER INFO > Fuel Gauge

SPECIFICATION

Since the meter - main assembly cannot be disassembled, do not remove or inspect the fuel gauge alone. (Do not remove the cover on the back surface.)

INSTRUMENTATION/DRIVER INFO > General Description



CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Use gloves to avoid damage and getting fingerprints on the glass surface and meter surfaces.
- Do not apply an excessive force on the printed circuit.
- Do not drop or otherwise apply impact.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that each component operates normally.
- When the combination meter assembly has been replaced, be sure to perform the following operations.
 - For models without the keyless access with push button start except for C0 and C5, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type B" described in "REGISTRATION MANUAL FOR IMMOBILIZER".
 - Be sure to reset the ODO fuel economy value of the multi-function display (MFD).  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display \(MFD\) System>OPERATION > ODO FUEL ECONOMY VALUE RESET \(HIGH GRADE TYPE ONLY\).](#)
- Be careful of the following items. Failing to do so may cause the airbag system malfunction.
 - Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. When using a tester on these circuits, follow the cautions of "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
 - Be careful not to damage the airbag system wiring harness when servicing the electrical parts around the steering column.
- When removing, installing or replacing the VDCCM&H/U, VDCCM&H/U bracket, steering wheel or steering angle sensor (steering roll connector), perform "VSC(VDC) Centering Mode" of the VDC.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT.](#)

INSTRUMENTATION/DRIVER INFO > General Description

LOCATION


Refer to "LOCATION" of each diagnosis section.

- Combination meter:  [Ref. to COMBINATION METER \(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)
- Multi-function display (MFD):  [Ref. to MULTI-FUNCTION DISPLAY\(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)

INSTRUMENTATION/DRIVER INFO > General Description

PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">STSSM4</p>	<p style="text-align: center;">-</p> <p style="text-align: center;">(Newly adopted tool)</p>	<p>SUBARU SELECT MONITOR 4</p>	<p>Used for setting of each function and troubleshooting for electrical system.</p> <p>Note: For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".</p>

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
DST-i	Used together with Subaru Select Monitor 4.

SPECIFICATION

1. COMBINATION METER ASSEMBLY

Note:

Specifications of the combination meter vary depending on the market and the grade.

● **MODEL WITH NORMAL METER**

Meter, display	Operation method, display method	Drive control	When checking the indicator needle operation/needle reading operation
Speedometer	Stepping motor type	Combination meter	—
Tachometer			
ECO gauge			
ABS warning light	LED	Combination meter	On/Off
STEERING warning light			
AT oil temperature warning light			
Driver's seat belt warning light			
Door warning light			
Tire pressure warning light			
Access key warning light (model with keyless access with push button start)			
AWD warning light			
Hill start assist warning light			
VDC warning light / VDC operation indicator light			
VDC OFF indicator light			
High beam indicator light			
Front fog light indicator light			
Lighting indicator light			
Fuel level warning light			
Malfunction indicator light			
Airbag warning light			
Engine oil level warning light			
Washer fluid level warning light			
Hill descent indicator light			
BSD/RCTA warning light			
BSD/RCTA OFF indicator light			
SRH warning / SRH OFF indicator light			
Auto leveler warning light			

Meter illumination back light			
LCD back light			
Engine coolant temperature warning light (red)			On (red)/Off
Engine coolant temperature indicator light (blue)			Off/On (blue)
Oil pressure warning light		Oil pressure switch	Turns on or off according to module control
Charge warning light		Generator	
Turn signal indicator light		Turn signal and hazard unit	
Security indicator light		Body integrated unit	
Parking brake/brake fluid level/brake vacuum pump warning light		Combination meter/brake fluid level switch/ECM	On/Turns on or off according to module control
ODO indicator	LCD	Combination meter	—
Trip indicator			
Shift indicator			
Select lever / shift position indicator			
FUEL meter			
SI-DRIVE mode indicator			
X mode indicator			
Cruise control system indicator			
<ul style="list-style-type: none"> • Constant speed cruise • {SET} 			

● **MODEL WITH LUMINESCENT METER**

Meter, display	Operation method, display method	Drive control	When checking the indicator needle operation/needle reading operation
Speedometer	Stepping motor type	Combination meter	—
Tachometer			
ABS warning light	LED	Combination meter	On/Off
STEERING warning light			
AT oil temperature warning light			
Driver's seat belt warning light			
Door warning light			
Tire pressure warning light			
AWD warning light			

Hill start assist warning light / hill start assist OFF indicator light			
VDC warning light / VDC operation indicator light			
VDC OFF indicator light			
High beam indicator light			
Front fog light indicator light			
Lighting indicator light			
Fuel level warning light			
Malfunction indicator light			
Airbag warning light			
Rear differential oil temperature warning light			
Lane departure warning OFF indicator light			
Pre-collision brake OFF indicator light			
High beam assist indicator light			
Auto leveler warning light			
Meter illumination back light			Light ON
TFT back-up light			On (red)/Off
Engine coolant temperature warning light (red)			Off/On (blue)
Engine coolant temperature indicator light (blue)			
Oil pressure warning light		Oil pressure switch	Turns on or off according to module control
Charge warning light		Generator	
Turn signal indicator light		Turn signal and hazard unit	
Security indicator light		Body integrated unit	
Parking brake/brake fluid level/brake vacuum pump warning light		Combination meter/brake fluid level switch/ECM	On/Turns on or off according to module control
ODO indicator	TFT	Combination meter	—
Trip indicator			
Shift indicator			
Select lever / shift position indicator			
Information (intervention) display & indicator			
FUEL meter			
SI-DRIVE mode indicator			
X mode indicator			
Cruise control system indicator <ul style="list-style-type: none"> • Constant speed cruise • {SET} 			

EyeSight system indicator <ul style="list-style-type: none"> • Adaptive cruise • Constant speed cruise • {SET} • READY • Preceding vehicle • Following distance setting • Set speed • Traffic lane • HANDLE 			
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2. MULTI FUNCTION DISPLAY

Note:

Specifications of the multi-function display vary depending on the market and the grade.

● STANDARD TYPE

Display	Display method
Average/instantaneous fuel economy, cruising distance, ambient temperature, current time, continuous driving time, average vehicle speed	LCD
Passenger's seat airbag indicator light	LED
Passenger's airbag ON indicator light	
Passenger's airbag OFF indicator light	
Passenger's seat belt warning light	

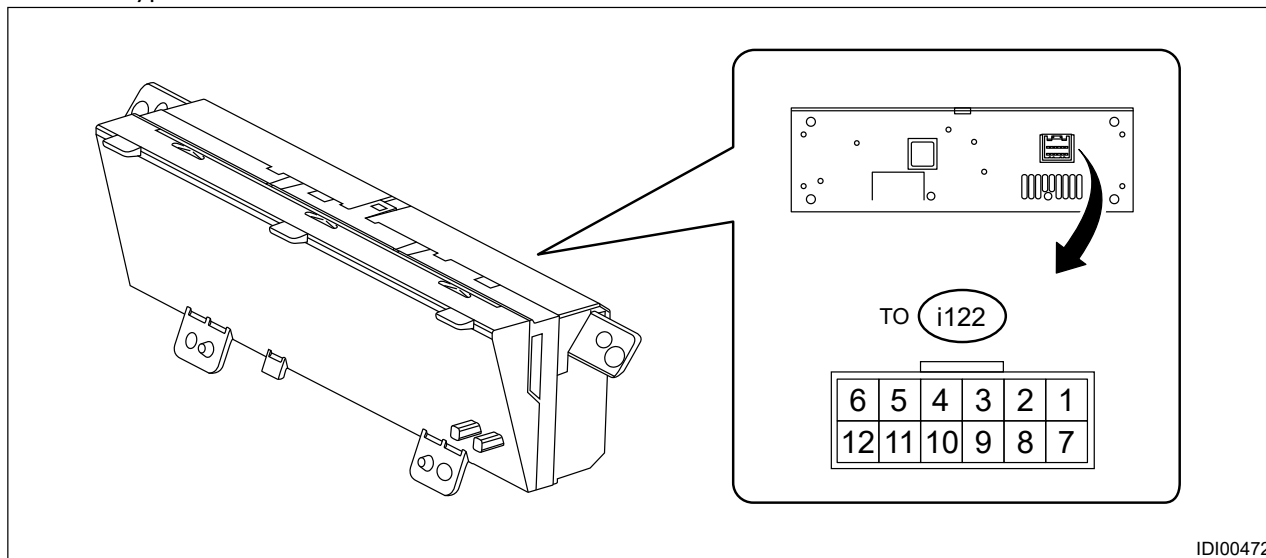
● HIGH GRADE TYPE

Display	Display method
Fuel economy screen, economy gauge (instantaneous) screen, economy gauge (history) screen, preventive safety screen, triple meter screen, clock and outside temperature screen, setting screen, self-check screen, information screen, EyeSight screen, boost/accelerator opening angle screen, diagnostic mode screen	TFT
Air conditioner display	LCD
Passenger's seat airbag indicator light	LED
Passenger's airbag ON indicator light	
Passenger's airbag OFF indicator light	
Passenger's seat belt warning light	


ELECTRICAL SPECIFICATION

1. MULTI FUNCTION DISPLAY

- Standard type





Terminal No.	Item	Measuring condition	Standard
1 (+B) ↔ Chassis ground	Voltage	Always	10 – 14 V
2 (GND) ↔ Chassis ground	Resistance	Always	Less than 1 Ω
3 (IG) ↔ Chassis ground	Voltage	IG OFF → ON	0 V → 10 – 14 V
9 (U-ART com.)	—	Cannot be measured	—
10 ↔ Chassis ground	Voltage	Passenger's airbag ON indicator light OFF → ON	0 V → 1.5 V
11 ↔ Chassis ground	Voltage	Passenger's airbag OFF indicator light OFF → ON	0 V → 1.5 V





- High grade type
Refer to the "Control Module I/O Signal" of the "MULTI-FUNCTION DISPLAY(DIAGNOSTICS)" section.
 [Ref. to MULTI-FUNCTION DISPLAY\(DIAGNOSTICS\)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)

INSTRUMENTATION/DRIVER INFO > Multi-function Display (MFD) System


INSPECTION

- Standard type
Refer to the following inspection steps.  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display \(MFD\) System>INSPECTION > SYMPTOM CHART.](#)
- High grade type
Refer to "Basic Diagnostic Procedure" of "MULTI-FUNCTION DISPLAY (DIAGNOSTICS)" section.  [Ref. to MULTI-FUNCTION DISPLAY\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

1. SYMPTOM CHART

Symptoms	Repair order	Note
No display is shown.	<ol style="list-style-type: none"> 1. Power supply 2. Ground circuit 3. Communication circuit harness 4. MFD 	 Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display (MFD) System>INSPECTION > CHECK POWER SUPPLY AND GROUND CIRCUIT AND COMMUNICATION CIRCUIT.
Ambient air temperature/fuel economy displays do not appear.	<ol style="list-style-type: none"> 1. Power supply 2. Ground circuit 3. MFD 	 Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display (MFD) System>INSPECTION > CHECK CLOCK SYSTEM COMMUNICATION CIRCUIT.
Only ambient air temperature display is not displayed.	<ol style="list-style-type: none"> 1. Power supply 2. Harness 3. Ambient sensor 4. Communication circuit 5. MFD 	 Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display (MFD) System>INSPECTION > CHECK AMBIENT TEMPERATURE METER SYSTEM COMMUNICATION CIRCUIT.
Only fuel economy display is not displayed.	<ol style="list-style-type: none"> 1. {Set} 2. MFD 	 Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display (MFD) System>INSPECTION > CHECK COMMUNICATION CIRCUIT OF FUEL ECONOMY SYSTEM.


2. CHECK POWER SUPPLY AND GROUND CIRCUIT AND COMMUNICATION CIRCUIT

1. CHECK POWER SUPPLY. 

1. Disconnect the MFD connector.
2. Measure the voltage between MFD connector and chassis ground.

Connector & terminal
(i122) No. 1 (+) — Chassis ground (-):

Is the voltage 10 V or more?

 [Go to 2.](#)

No

Check the harness for open or short between the fuse and MFD.

2. CHECK GROUND CIRCUIT.



Measure the resistance between MFD connector and chassis ground.

Connector & terminal

(i122) No. 2 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes



[Go to 3.](#)

No

Repair or replace the harness.

3. CHECK HARNESS BETWEEN MFD AND COMBINATION METER ASSEMBLY.



1. Disconnect the connector of combination meter assembly.
2. Check the harness between MFD and combination meter assembly.

Connector & terminal

(i122) No. 9 — (i10) No. 28:

Is harness normal?

Yes



[Go to 4.](#)

No

Repair or replace the harness.


4. CHECK MFD.



1. Remove the MFD.
2. Attach the clock to another vehicle on which the clock display operates normally, and check its operation.

Is MFD normal?

Yes

Replace the meter - main assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)

No

Replace the MFD.

3. CHECK CLOCK SYSTEM COMMUNICATION CIRCUIT

1. CHECK POWER SUPPLY.


1. Disconnect the MFD connector.
2. Turn the ignition switch to ON.
3. Measure the voltage between MFD connector and chassis ground.

Connector & terminal

(i122) No. 3 (+) — Chassis ground (-):

Is the voltage 10 V or more?

Yes

 [Go to 2.](#)

No

Repair or replace the harness.

2. CHECK GROUND CIRCUIT.

Measure the resistance between MFD connector and chassis ground.

Connector & terminal

(i122) No. 2 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

 [Go to 3.](#)

No

Repair or replace the harness.

3. CHECK MFD.

1. Remove the MFD.
2. Attach the clock to another vehicle on which the clock display operates normally, and check its operation.

Is MFD normal?

Yes

Repair the poor contact of connector.

No

Replace the MFD.

4. CHECK AMBIENT TEMPERATURE METER SYSTEM COMMUNICATION CIRCUIT

1. CHECK AMBIENT SENSOR POWER SUPPLY.

1. Disconnect the ambient sensor connector.
2. Turn the ignition switch to ON.
3. Measure the voltage between the ambient sensor connector and chassis ground.

Connector & terminal

(F78) No. 2 (+) — Chassis ground (–):

Is the voltage 4 V or more?

Yes

 [Go to 2.](#)

No

Check the harness for open or short between the fuse and MFD.

2. CHECK HARNESS BETWEEN AMBIENT SENSOR AND COMBINATION METER ASSEMBLY.

1. Disconnect the connector of combination meter assembly.
2. Check harness between ambient sensor and combination meter assembly.

Connector & terminal

(F78) No. 1 — (i10) No. 36:

(F78) No. 2 — (i10) No. 27:

Is harness normal?


Yes

 [Go to 3.](#)

No

Repair or replace the harness.

3. CHECK AMBIENT SENSOR.

Check the ambient sensor.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Ambient Sensor>INSPECTION.](#)

Is the ambient sensor operating properly?

Yes

 [Go to 4.](#)

No

Replace the ambient sensor.

4. CHECK AMBIENT TEMPERATURE DISPLAY.

1. Connect the combination meter assembly connector.
2. Install the 3 kΩ resistance between connector terminals of the ambient sensor.
3. Turn the ignition switch to ON.

Connector & terminal

(F78) No. 1 —No. 2:

Does the ambient temperature display 25°C (77°F)?

Yes

Repair the poor contact between the ambient sensor and harness connector.

No

 [Go to 5.](#)

5. CHECK CURRENT DATA.

Display the [Ambient Air Temperature] data using Subaru Select Monitor.

Note:


For detailed operation procedures, refer to "Application help".

Is the ambient temperature of 25°C (77°F) output?

Yes

 [Go to 6.](#)

No

Replace the meter - main assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)

6. CHECK MFD.


1. Remove the MFD.
2. Attach the ambient temperature display to another vehicle on which the ambient temperature display operates normally to check its operation.

Does the ambient temperature display 25°C (77°F)?

Yes

Replace the MFD.

No

Replace the meter - main assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)

5. CHECK COMMUNICATION CIRCUIT OF FUEL ECONOMY SYSTEM

1. CHECK FUEL ECONOMY DISPLAY OFF MODE.


Check that the mode display changes when the MFD changeover knob is operated.
(Display changes in the following order: cruising distance → average fuel economy → instantaneous fuel economy → continuous driving time → average vehicle speed → blank display)

Is fuel economy displayed?

Yes

MFD is normal.

No


 [Go to 2.](#)

2. CHECK MFD.

1. Remove the MFD.
2. Attach the fuel economy display to another vehicle on which the fuel economy display operates normally to check its operation.

Is the fuel economy display correct?

Yes

Replace the meter - main assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)



No

Replace the MFD.

INSTRUMENTATION/DRIVER INFO > Multi-function Display (MFD) System

NOTE

For procedure of each component in the Multi-Function Display (MFD), refer to the respective section.

- Multi-function display (MFD):  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display_\(MFD\)>REMOVAL > MULTI FUNCTION DISPLAY.](#)
- Multi-function display switch:  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display_\(MFD\)>REMOVAL > MULTI-FUNCTION DISPLAY SWITCH.](#)

OPERATION

1. DIAGNOSTIC MODE (HIGH GRADE TYPE ONLY)

The settings of the multi-function display can be changed by performing the following procedures to display the diagnostic mode. To show the demonstration display only, refer to "DEMONSTRATION DISPLAY".

Caution:

- To avoid battery discharge, perform the procedure while charging the battery.
- While performing the work, close the front hood and all doors, and do not operate any electrical parts.
- Display can not be switched to diagnostic mode if the illumination control dial is set to the position for the dimming cancel function (maximum brightness).

1. Procedure

Caution:

Perform the steps described in (2) through (4) within 10 seconds.

- (1) Turn the ignition switch to ON, and within 3 seconds, turn the lighting switch to Switch 1 (PARKING) or Switch 2 (HEAD).
- (2) While keeping the lighting switch to Switch 1 (PARKING) or Switch 2 (HEAD) position, press the MFD (ENTER) switch three times.
- (3) Turn the lighting switch to OFF, and press the MFD (ENTER) switch three times.
- (4) Turn the lighting switch to Switch 1 (PARKING) or Switch 2 (HEAD) position again, and press the MFD (ENTER) switch three times.

Note:

- Except for the demonstration display setting of the diagnostic mode, the display will terminate by turning the ignition switch to OFF (ACC OFF) or by selecting "Back" from the menu screen.
- The demonstration display setting of the diagnostic mode will terminate by starting the engine or removing the battery. Even if the ignition switch is turned to OFF (ACC OFF), then to ON again, the diagnostic mode will not terminate.
- To select other menus from the demonstration display setting, terminate the diagnostic mode by starting the engine or removing the battery, then access to the diagnostic mode again.

2. Display menu

Change the display and settings from each menu.

{Menu}	Item	Content
Demonstration display setting	—	Shows demonstration display.
Vehicle status confirmation	• CAN communication	Displays the connection status of input signals.
	• U-ART communication	
	• Camera connection	
Customize	• Key operation sound	Select "ON" or "OFF", then select "Set" to determine.
	• Correction of lifetime fuel economy value*	Adjust the fuel economy value within the range of -10 — +10 km/l, then determine the value with

		MFD (ENTER) switch.
Back	—	Finish the diagnostic mode.

*: Correction of lifetime fuel economy value is used only when the multi-function display has been replaced. This function is provided as a compensation feature to bring the current lifetime fuel economy value to the one before the replacement of multi-function display.

2. DEMONSTRATION DISPLAY (HIGH GRADE TYPE)

The demonstration screen can be displayed according to the following procedure.

Caution:

- Perform the steps while the ignition switch is OFF (ACC OFF).
- To avoid battery discharge, perform the operation under the following condition.
 - Perform the operation while the battery is being charged.
 - While performing the operation and displaying the demonstration mode, do not operate any electrical parts.

1. Procedure

Caution:

Perform the steps described in (2) through (5) within 10 seconds.

- (1) Sit in the driver's seat and close the door.
- (2) Open the driver's door, and within 5 seconds, press the MFD (ENTER) switch three times.
- (3) Close the driver's door, and press the MFD (ENTER) switch three times.
- (4) Open the driver's door, and press the MFD (ENTER) switch three times.
- (5) Close the driver's door, and press the MFD (ENTER) switch three times.

2. Go to "Demonstration screen display".

Note:

The demonstration display will be cancelled in any of the following conditions.

- When 60 minutes elapsed since the demonstration mode started
- When the ignition switch is turned to ON
- When the MFD (ENTER) switch is turned to ON for two seconds
- When the battery voltage is low

3. ODO FUEL ECONOMY VALUE RESET (HIGH GRADE TYPE ONLY)

Follow the procedure below to initialize the ODO setting value.

1. Procedure


- (1) Turn the ignition switch to ON, and pull the MFD (ENTER) switch toward you for two seconds to display the setting screen.
- (2) Select "Factory delivery setting" from "Setting screen".
- (3) Select "ODO setting reset" and determine with "Yes".
- (4) The screen that indicates the completion of the setting is displayed for three seconds. This is the end of operation.

Note:

- The resetting operation is confirmed twice. Select confirmation according to the screen.
- The display will terminate by turning the ignition switch to OFF (ACC OFF) or by selecting "Back" from the menu screen.

INSTRUMENTATION/DRIVER INFO > Multi-function Display (MFD) System

WIRING DIAGRAM

Refer to "Multi-function Display (MFD) System" in WI section.  [Ref. to WIRING SYSTEM>Multi-function Display_\(MFD\)_System>WIRING DIAGRAM.](#)

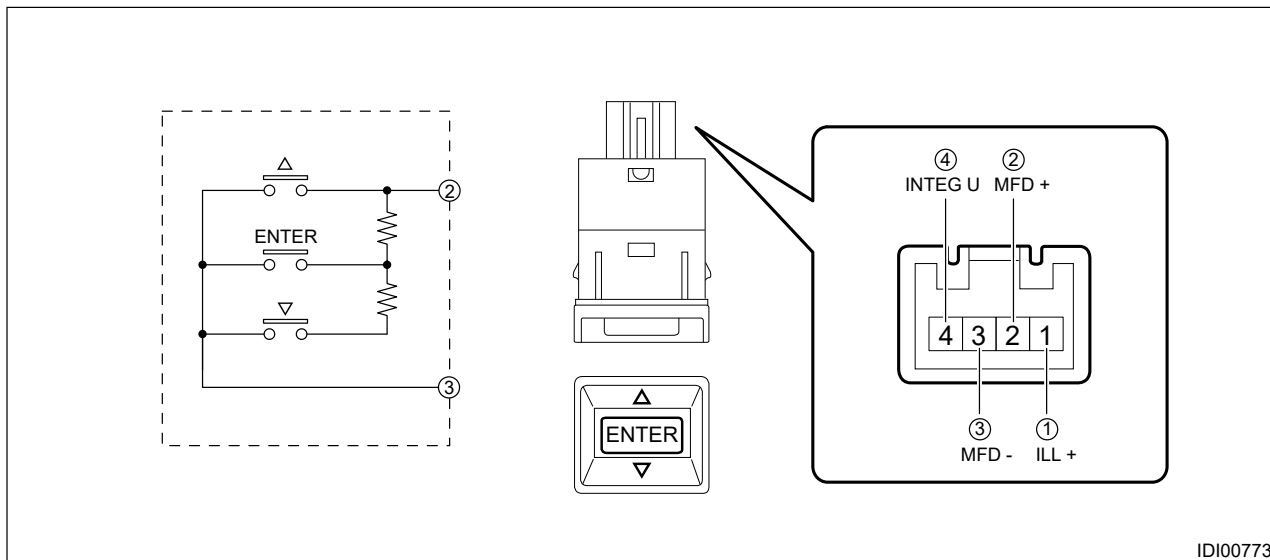
INSPECTION

1. MULTI-FUNCTION DISPLAY SWITCH

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



IDI00773

Terminal No.	Inspection conditions		Standard
2 – 3	△ (UP) ENTER ▽ (DOWN)	All OFF	1 MΩ or more
	△ (UP)	ON	Less than 1 Ω
	ENTER	ON	Approx. 1,000 Ω
	▽ (DOWN)	ON	Approx. 3,670 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.




Terminal No.	Inspection conditions	Specification
4 (+) – 1 (-)	Apply battery voltage.	Light ON

3. Replace the switch - multi-function display if it is found defective.

INSTRUMENTATION/DRIVER INFO > Multi-function Display (MFD)

INSTALLATION

Caution:

- Make sure the electrical connector is connected securely.
 - Make sure that the multi-function display (MFD) operates normally.
 - After installing the center grille assembly, check that the air vent grille is inserted correctly into the air vent duct.
 - When the multi-function display (MFD) has been replaced, perform the following operations.
 - Be sure to reset the ODO fuel economy value of the multi-function display (MFD).  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display \(MFD\) System>OPERATION > ODO FUEL ECONOMY VALUE RESET \(HIGH GRADE TYPE ONLY\).](#)
 - Be sure to correction the lifetime fuel economy value of the multi-function display (MFD).  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display \(MFD\) System>OPERATION > DIAGNOSTIC MODE \(HIGH GRADE TYPE ONLY\).](#)
1. Install each part in the reverse order of removal.
 2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


REMOVAL

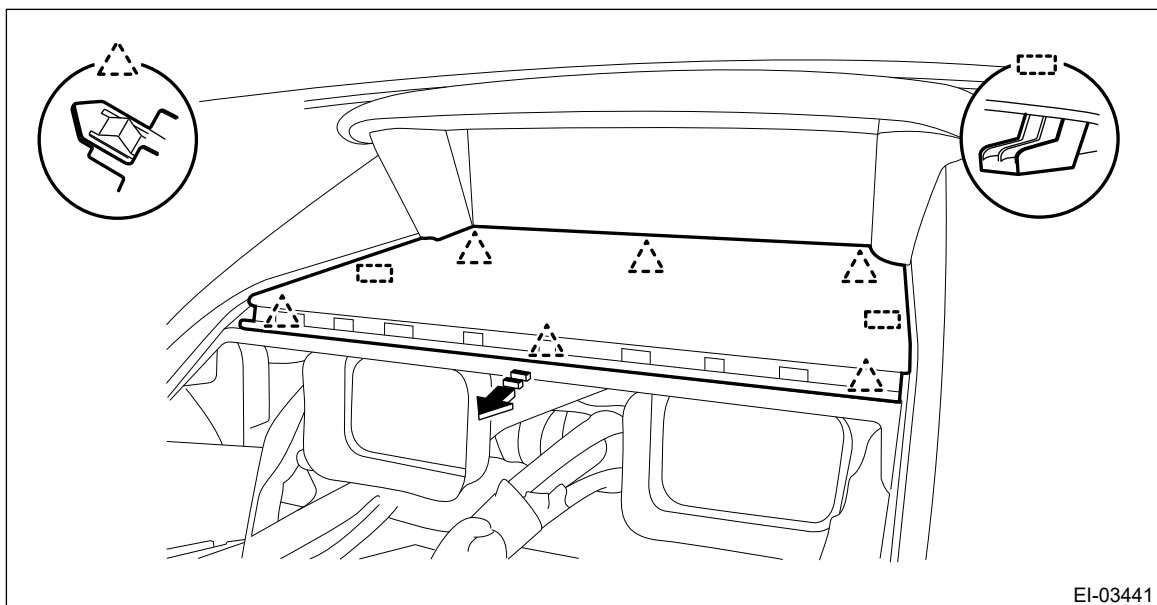
1. MULTI FUNCTION DISPLAY

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
3. Release the claw and hook, and then remove the cover center UPR.



Note:

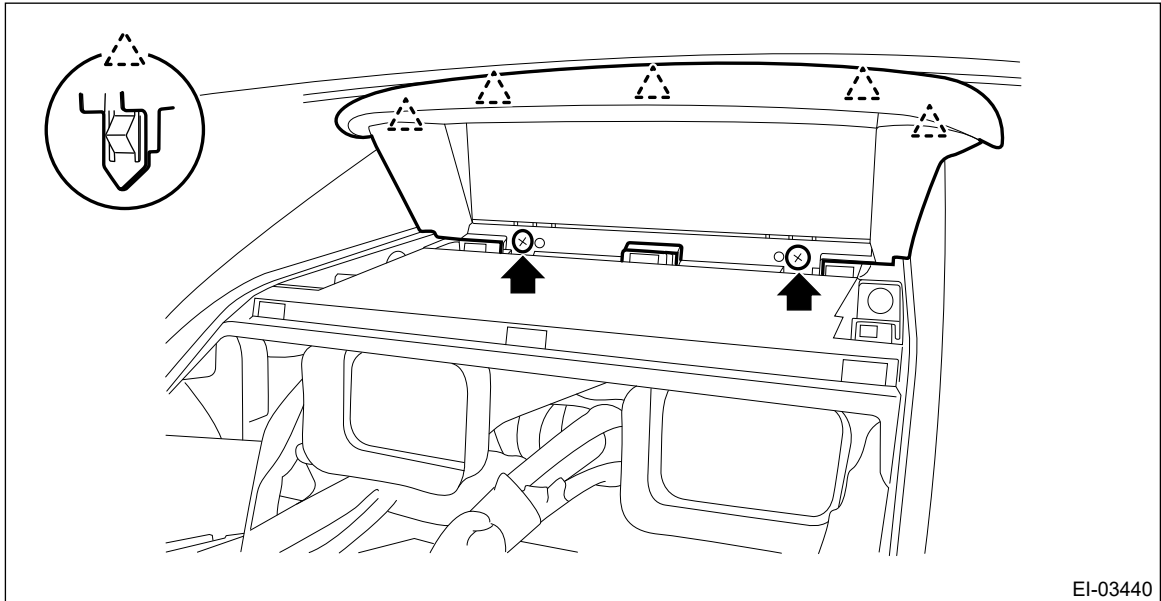
Lightly push up the back of the cover center UPR, hook the finger to the end portion and pull it toward you to remove it.

4. Remove the multi-function display.

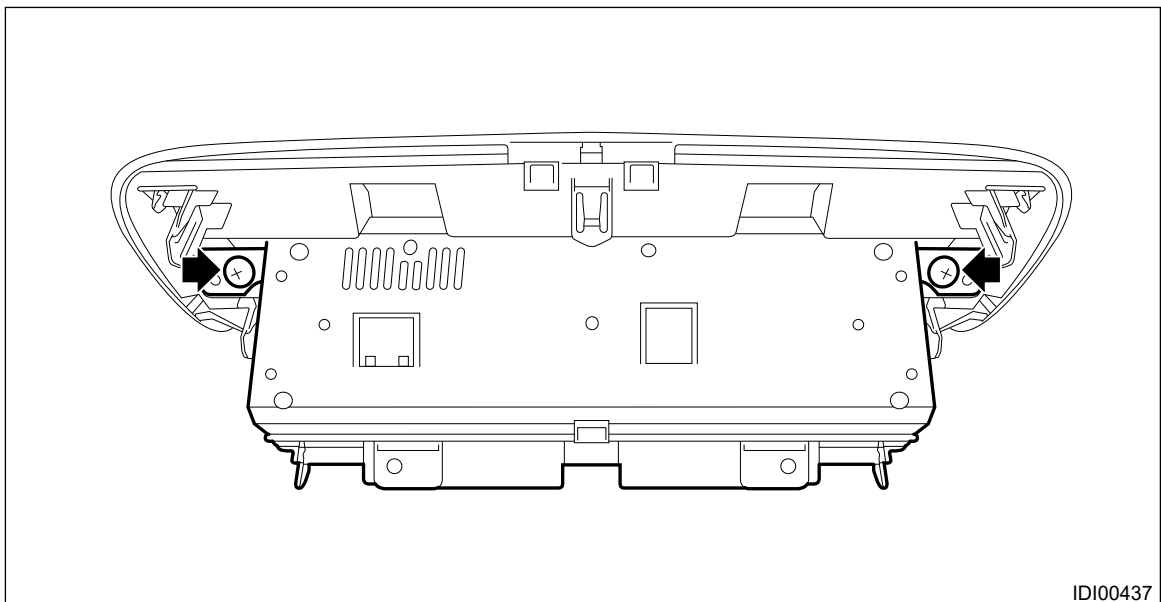
Caution:

Be careful not to damage the multi-function display or instrument panel.

- (1) Release the screws and claws.
- (2) Pull the multi-function display assembly toward you, and disconnect the connector.



(3) Remove the screw, and remove the multi-function display from the panel - display.




2. MULTI-FUNCTION DISPLAY SWITCH

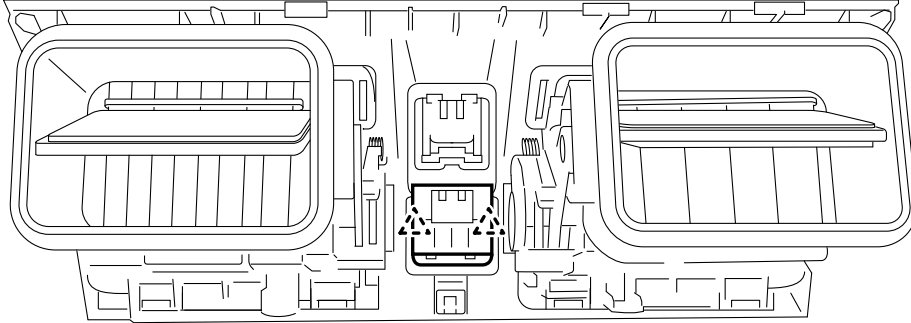
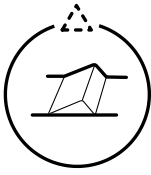
1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)

3. Release the claws and remove the switch - multi-function display.



IDIO1034

INSPECTION

1. CHECK FUSE

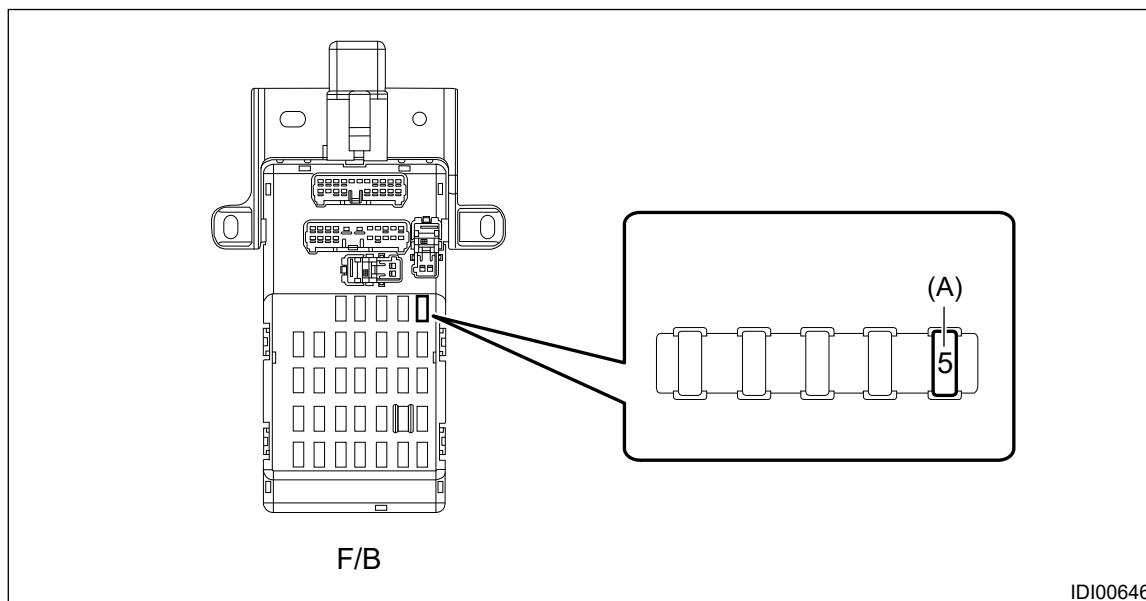
- 1.** Remove the fuse and inspect visually.
- 2.** If the fuse is blown out, replace the fuse.

Note:

If the fuse is blown again, check the system wiring harness.

INSTRUMENTATION/DRIVER INFO > Relay and Fuse

LOCATION



Relay & fuse box	Fuse 10 A (combination meter, MFD)	(A)
------------------	------------------------------------	-----

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

INSTRUMENTATION/DRIVER INFO > Speedometer

SPECIFICATION

Since the meter - main assembly cannot be disassembled, do not remove or inspect the speedometer alone. (Do not remove the cover on the back surface.)

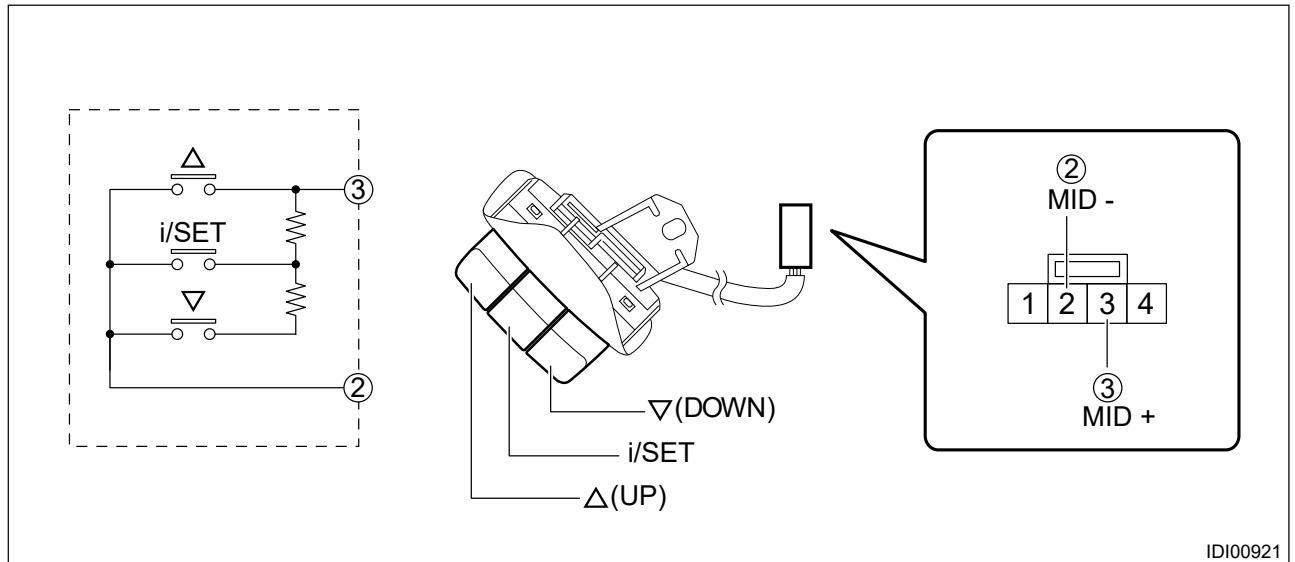
INSTRUMENTATION/DRIVER INFO > Steering Switch

INSPECTION

1. Check the resistance between connector terminals.

Preparation tool:

Circuit tester



IDI00921

Terminal No.	Inspection conditions		Standard
3 – 2	Δ (UP) i/SET ∇ (DOWN)	All OFF	1 MΩ or more
	Δ (UP)	ON	Less than 1 Ω
	i/SET	ON	Approx. 1,000 Ω
	∇ (DOWN)	ON	Approx. 3,670 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.



Terminal No.	Inspection conditions	Specification
4 (+) – 1 (-)	Apply battery voltage.	Light ON


3. Replace the MID switch if it is found defective.

INSTRUMENTATION/DRIVER INFO > Steering Switch

INSTALLATION

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- If the steering wheel has been removed, make sure that the steering roll connector is not turned from the original position.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT.](#)
- Securely install the switch. Improper insertion of the pin or claw of the switch may cause improper installation.

1. Align the center position of the steering roll connector.  [Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.](#)

2. Install each part in the reverse order of removal.

Note:


Align the alignment marks on the steering wheel and the column assembly - steering.

Tightening torque:

Steering wheel: 39 N·m (3.98 kgf-m, 28.8 ft-lb)

Clearance:


Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)


3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

INSTRUMENTATION/DRIVER INFO > Steering Switch

REMOVAL




Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Set the tire to the straight-ahead position.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the driver's airbag module.  [Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
4. Remove the steering wheel.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>REMOVAL.](#)
5. Remove the MID switch.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>DISASSEMBLY.](#)

INSTRUMENTATION/DRIVER INFO > Tachometer


SPECIFICATION

Since the meter - main assembly cannot be disassembled, do not remove or inspect the tachometer alone. (Do not remove the cover on the back surface.)

LIGHTING SYSTEM > Auto Headlight Beam Leveler Control Module

INSTALLATION


Caution:

Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:

Relay & fuse box: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


Note:


When the auto headlight beam leveler CM is removed, perform initialization or reinitialization.  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE.](#)

LIGHTING SYSTEM > Auto Headlight Beam Leveler Control Module

REMOVAL



Caution:

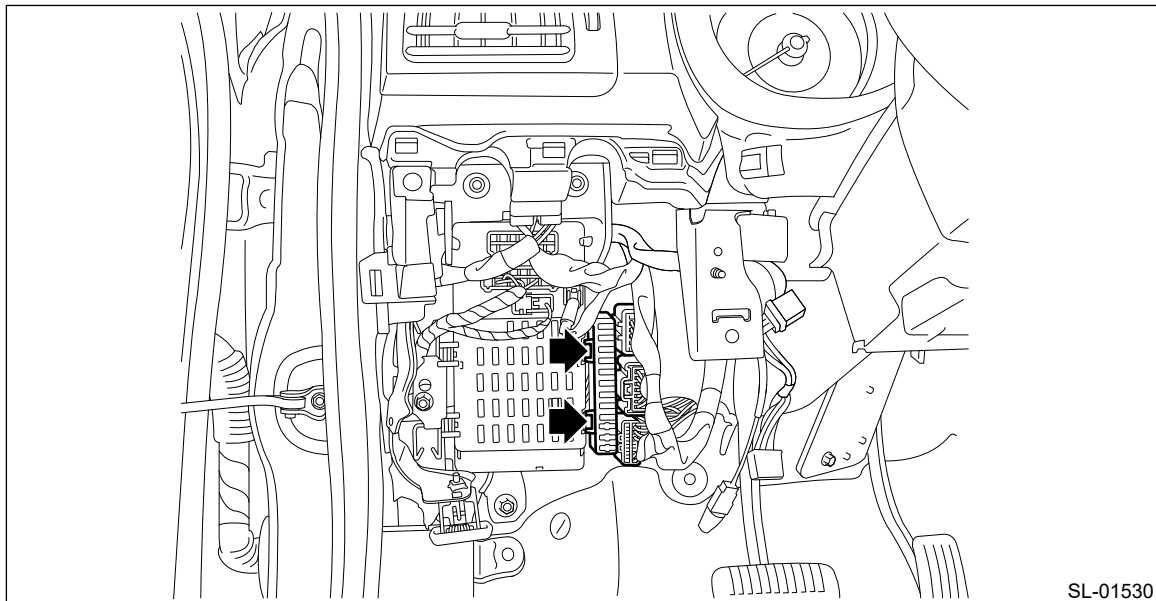
Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

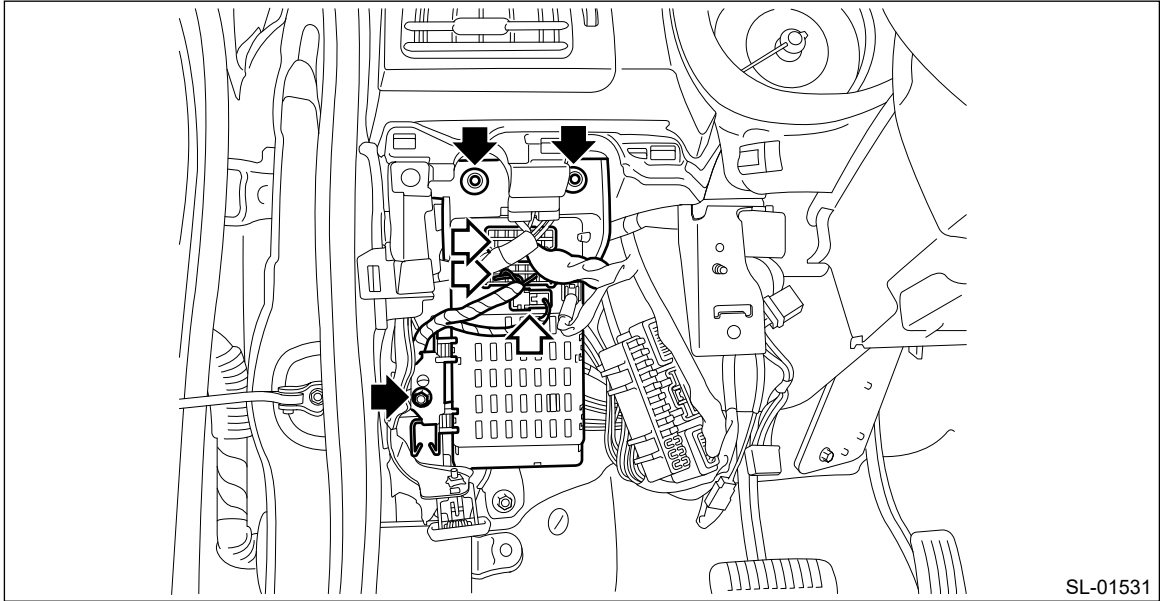
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

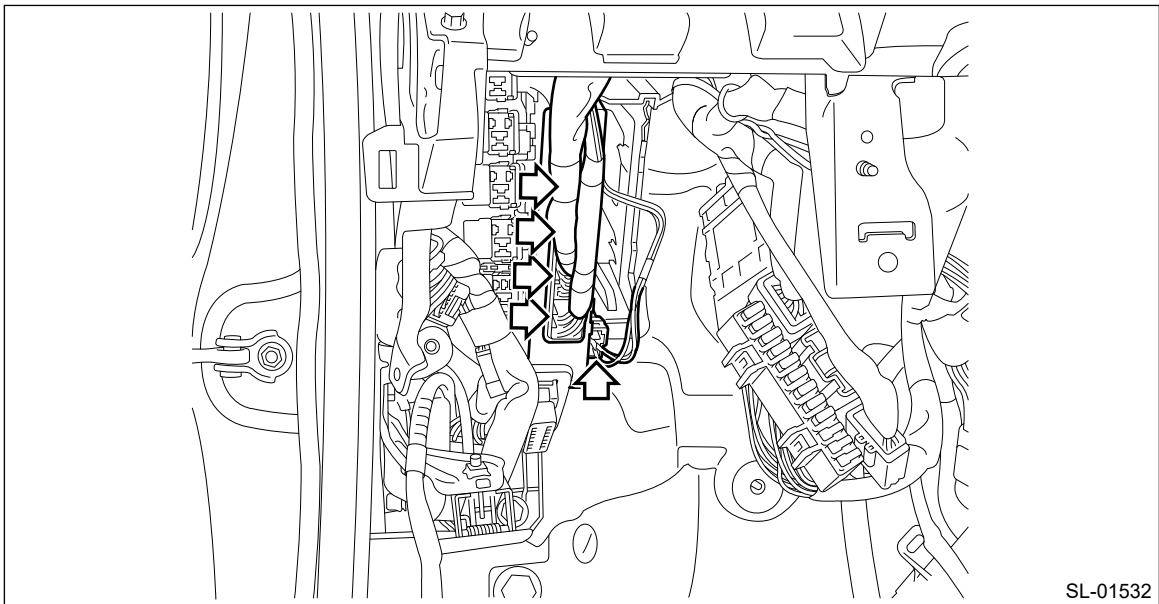
2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Release the lock and remove the fuse holder.



5. Remove the relay & fuse box.
 - (1) Disconnect the connector.
 - (2) Remove the bolts and nuts, and remove the relay & fuse box.



6. Disconnect the connector of body integrated unit.

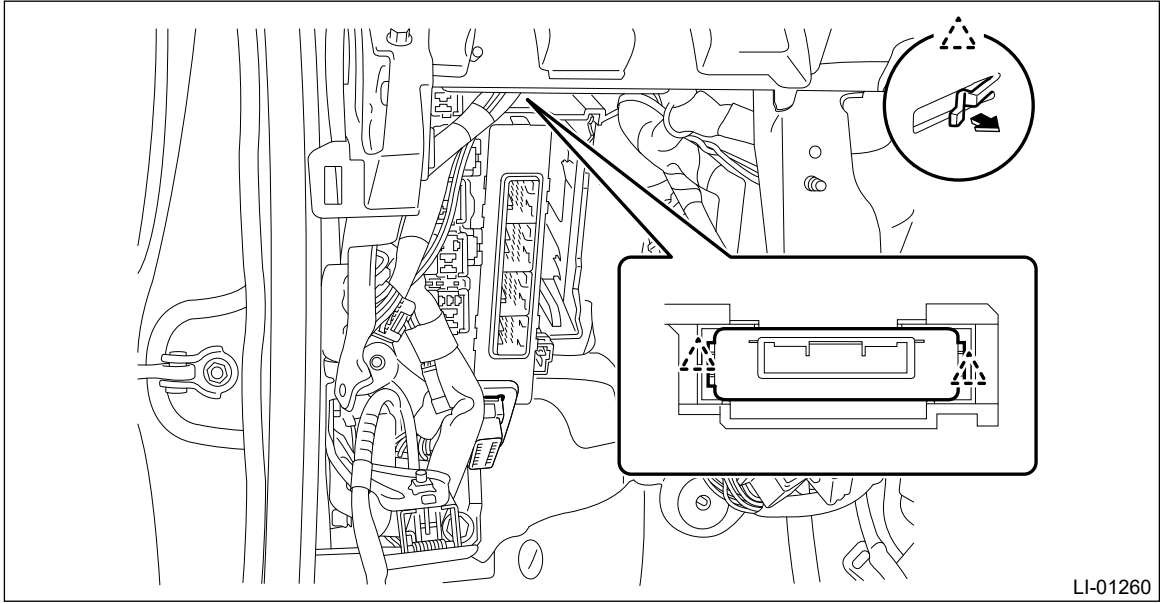


Note:

On model with keyless access with push button start, disconnect the keyless access CM connector.

7. Remove the auto headlight beam leveler CM.


- (1) Disconnect the connector.
- (2) Release the claws and pull out the auto headlight beam leveler CM.



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LIGHTING SYSTEM > Auto Headlight Beam Leveler System



INSPECTION

Refer to "Basic Diagnostic Procedure" of "AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)" section.  [Ref. to HEADLIGHT / FOGLIGHT\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

LIGHTING SYSTEM > Auto Headlight Beam Leveler System

NOTE

For operation procedures of each component of the auto headlight beam leveler system, refer to the respective section.

- Auto headlight beam leveler CM:  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler Control Module.](#)
- Vehicle height sensor:  [Ref. to LIGHTING SYSTEM>Rear Height Sensor.](#)

LIGHTING SYSTEM > Auto Headlight Beam Leveler System

PROCEDURE

When parts related to the auto headlight beam leveler system are removed or replaced, perform the following procedures to initialize or reinitialize.

Note:



Before performing initialization or reinitialization, check the following:

- **The vehicle is parked on a level surface.**
- **The inflation pressure of tires is correct.**
- **The vehicle does not have load.**
- **Vehicle's fuel tank is fully filled.**
- **Refer to the following chart to determine whether to initialize or reinitialize.**


Initialization	When the auto headlight beam leveler CM was replaced with a new module.
Reinitialization	<ul style="list-style-type: none">• When the auto headlight beam leveler CM was replaced with a part from another vehicle.• When suspension parts have been removed or replaced. (Crossmember, front arm, sub frame, lateral link, housing, strut etc.)• When the vehicle height sensor has been replaced or removed.

Caution:


If the indicator does not flash three times or the headlight beam does not operate, it can be assumed that there is an open circuit or faulty wiring in the harness of the auto headlight beam leveler CM, vehicle height sensors or headlight assembly. Perform inspection and repair according to the inspection results, then perform initialization/reinitialization again.

- **Initialization:**  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > INITIALIZATION.](#)
- **Reinitialization:**  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > REINITIALIZATION.](#)

1. INITIALIZATION

- 1.** Check that the indicator in the meter is flashing twice repeatedly.
- 2.** Bounce the vehicle several times to normalize the suspension.
- 3.** Make certain that someone is seated in the driver's seat.
- 4.** Turn the ignition switch to ON, and within 1.5 to 20 seconds, turn the headlight switch OFF → ON three times.
- 5.** Make sure that the indicator in the meter flashes three times and then turns OFF, indicating that initialization has been successfully completed. (At this time, the headlight beam drops once, and then returns to the original position.)
- 6.** After checking step 5, turn the ignition switch to OFF.
- 7.** Turn the ignition switch to ON again, and within 1.5 to 10 seconds, turn the headlight switch OFF → ON five or more successive times.
- 8.** Check that the headlight beam drops once, then returns to normal.
- 9.** After checking step 8, turn the ignition switch to OFF.
- 10.** Turn the headlight switch to ON.
- 11.** Start the engine.
- 12.** Check that the headlight beam moves to the right and left and then returns to the center position.
- 13.** Perform beam adjustment for the headlight.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT.](#)


2. REINITIALIZATION

1. Bounce the vehicle several times to normalize the suspension.
2. Make certain that someone is seated in the driver's seat.
3. Turn the ignition switch to ON, and within 1.5 to 10 seconds, turn the headlight switch OFF → ON five or more successive times.
4. Check that the headlight beam drops once, then returns to normal.
5. After confirming step 4, turn the ignition switch to OFF within 30 seconds.
6. Turn the ignition switch to ON again, and within 1.5 to 10 seconds, turn the headlight switch OFF → ON five or more successive times.
7. Make sure that the indicator in the meter flashes three times and then turns OFF, indicating that reinitialization has been successfully completed. (At this time, the headlight beam drops once, and then returns to the original position.)
8. Perform beam adjustment for the headlight.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT.](#)

LIGHTING SYSTEM > Auto Headlight Beam Leveler System


SPECIFICATION

1. AUTO HEADLIGHT BEAM LEVELER CM

Refer to "Control Module I/O Signal" of "AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)" section.  [Ref. to HEADLIGHT / FOGLIGHT\(DIAGNOSTICS\)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)


LIGHTING SYSTEM > Auto Headlight Beam Leveler System

WIRING DIAGRAM

Refer to "Headlight Beam Leveler System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Headlight Beam Leveler System>WIRING DIAGRAM.](#)


LIGHTING SYSTEM > Back-up Light Bulb

INSPECTION

- 1.** Visually check the bulb for blow out.
- 2.** Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
- 3.** Replace the bulb if it is found defective.

LIGHTING SYSTEM > Back-up Light Bulb

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


LIGHTING SYSTEM > Back-up Light Bulb

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

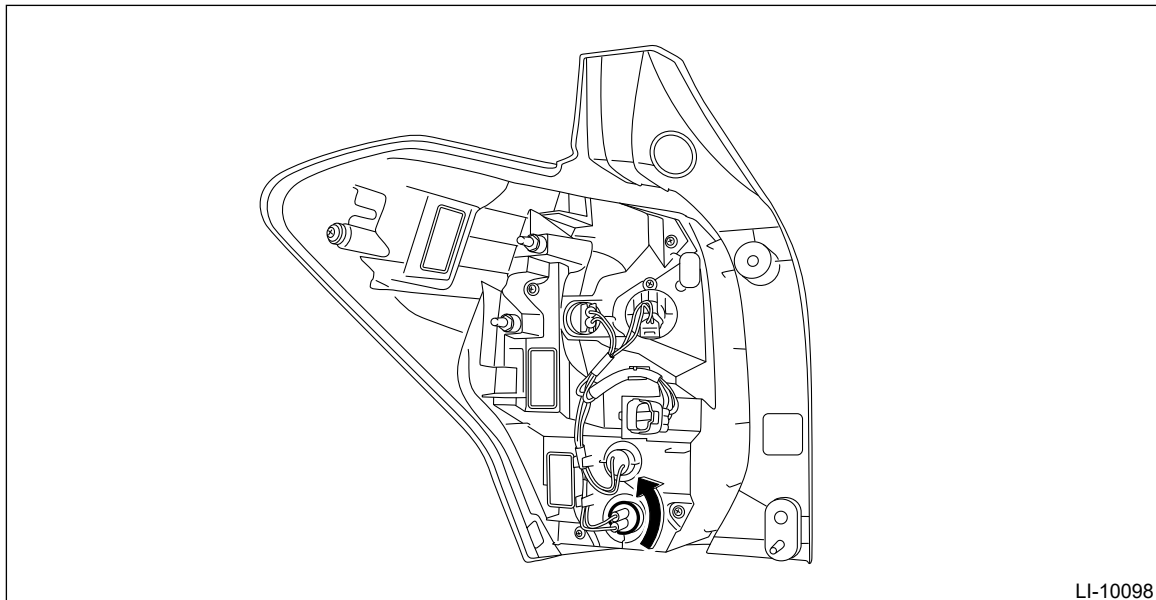
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - rear combination.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>REMOVAL.](#)
3. Remove the bulb socket and back-up light bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.




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LIGHTING SYSTEM > Back-up Light System



INSPECTION

1. CHECK BACK-UP LIGHT SWITCH (MT MODEL)

Refer to "INSPECTION" of the "Switches and Harness" in "MANUAL TRANSMISSION AND DIFFERENTIAL" section.  [Ref. to MANUAL TRANSMISSION AND DIFFERENTIAL\(6MT\)>Switches and Harness>INSPECTION > BACK-UP LIGHT SWITCH.](#)

2. CHECK INHIBITOR SWITCH (CVT MODEL)



Refer to "INSPECTION" of the "Inhibitor Switch" in "CONTINUOUSLY VARIABLE TRANSMISSION" section.

- Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Inhibitor Switch>INSPECTION.](#)
- Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Inhibitor Switch>INSPECTION.](#)

LIGHTING SYSTEM > Back-up Light System

NOTE



For operation procedures of each component of the back-up light system, refer to the respective section.

- Rear combination light assembly:  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.](#)
- Back-up light bulb:  [Ref. to LIGHTING SYSTEM>Back-up Light Bulb.](#)

LIGHTING SYSTEM > Back-up Light System

WIRING DIAGRAM

Refer to "Back-up Light System" in the wiring diagram.

- Non-turbo model:  [Ref. to WIRING SYSTEM>Back-up Light System>WIRING DIAGRAM > NON-TURBO MODEL.](#)
- Turbo model:  [Ref. to WIRING SYSTEM>Back-up Light System>WIRING DIAGRAM > TURBO MODEL.](#)

LIGHTING SYSTEM > Clearance Light and Illumination Light System

INSPECTION









1. CHECK LIGHTING SWITCH

Refer to the "INSPECTION" of the "Combination Switch (Light)".  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

LIGHTING SYSTEM > Clearance Light and Illumination Light System

NOTE



For operation procedures of each component of the clearance light & illumination light system, refer to the respective sections.

- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Parking light bulb:  [Ref. to LIGHTING SYSTEM>Clearance/Parking Light Bulb.](#)
- Front side marker light bulb:  [Ref. to LIGHTING SYSTEM>Front Side Marker Light Bulb.](#)
- Rear combination light assembly:  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.](#)
- Tail light/stop light bulb:  [Ref. to LIGHTING SYSTEM>Tail/Stop Light Bulb.](#)
- Rear side marker light bulb:  [Ref. to LIGHTING SYSTEM>Rear Side Marker Light Bulb.](#)
- License plate light:  [Ref. to LIGHTING SYSTEM>License Plate Light.](#)
- Ignition switch illumination:  [Ref. to LIGHTING SYSTEM>Ignition Switch Illumination.](#)

LIGHTING SYSTEM > Clearance Light and Illumination Light System


WIRING DIAGRAM

Refer to "Clearance Light and Illumination Light System" in the wiring diagram.

- Halogen type:  [Ref. to WIRING SYSTEM>Clearance Light and Illumination Light System>WIRING DIAGRAM > FRONT COMBINATION LIGHT HALOGEN MODEL.](#)
- LED type:  [Ref. to WIRING SYSTEM>Clearance Light and Illumination Light System>WIRING DIAGRAM > FRONT COMBINATION LIGHT LED MODEL.](#)

LIGHTING SYSTEM > Clearance/Parking Light Bulb

INSPECTION


1. Visually check the bulb for blow out.
2. Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
3. Replace the bulb if it is found defective.

Note:

If the LED type parking light does not operate normally, replace the light assembly - head.

LIGHTING SYSTEM > Clearance/Parking Light Bulb

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Clearance/Parking Light Bulb

REMOVAL

Note:

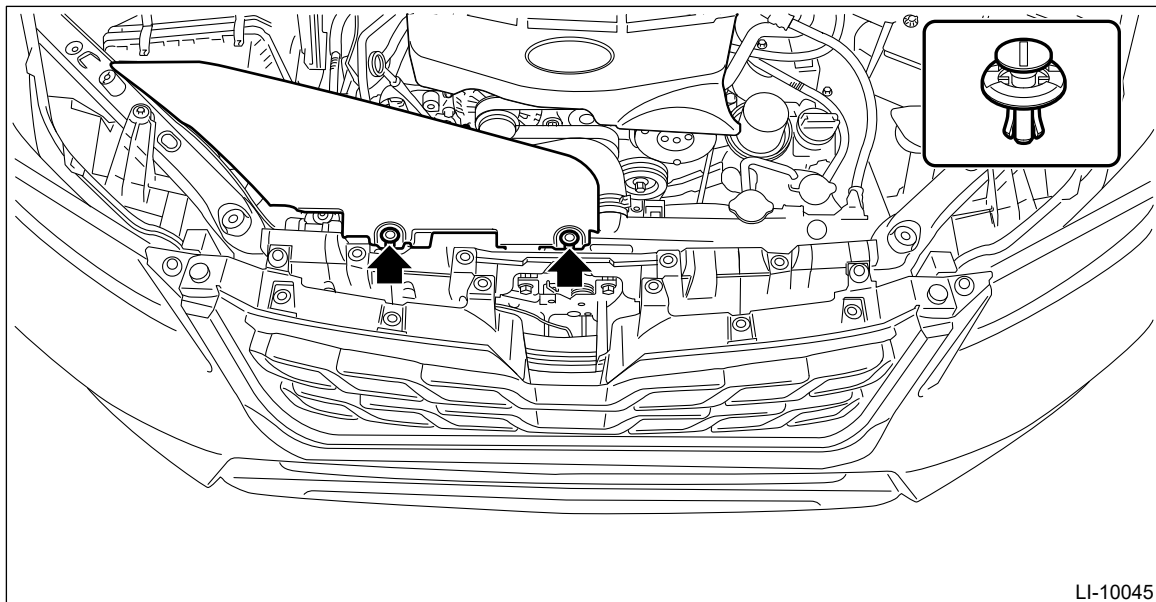
Since the LED type parking light is integrated into the headlight assembly, it cannot be removed.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

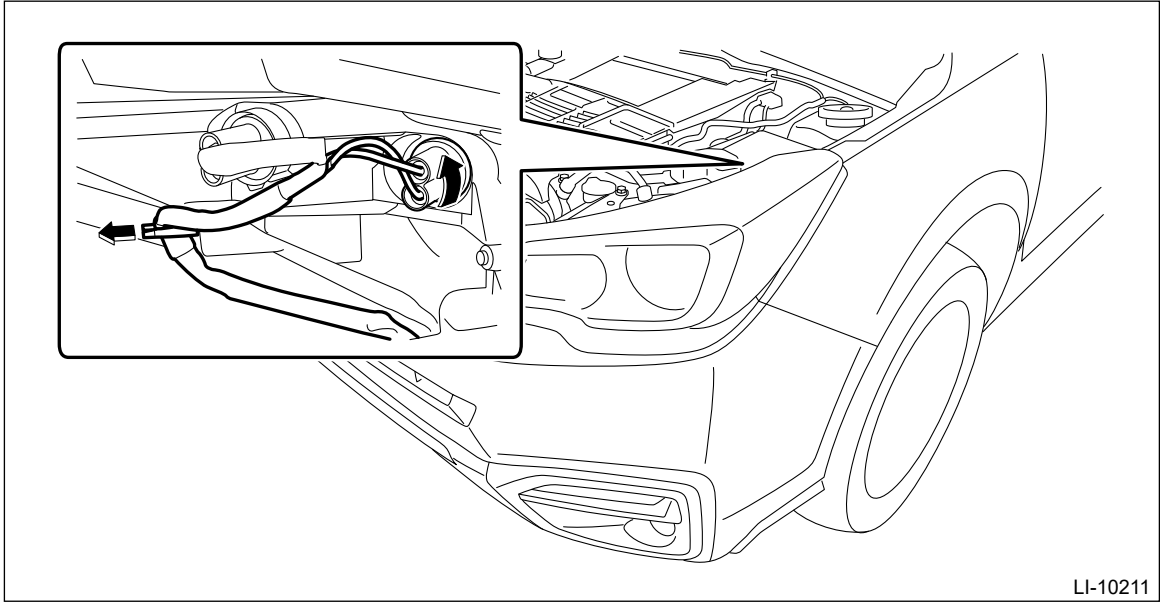
2. Remove the clips and remove the air intake duct (rear). (When removing the parking light bulb RH)



3. Remove the parking light bulb.
 - (1) Remove the harness clip.
 - (2) Remove the bulb socket and parking light bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



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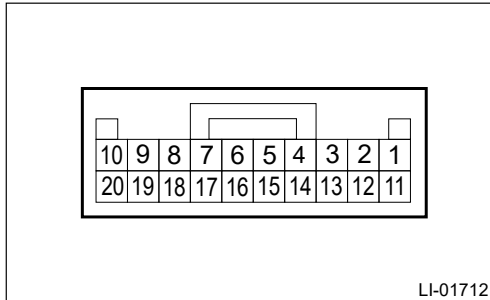
LIGHTING SYSTEM > Combination Switch (Light)

INSPECTION

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



- Lighting switch

Terminal No.	Inspection conditions	Standard
18 – 12 19 – 12 20 – 12	Switch OFF	1 MΩ or more
19 – 12	Switch AUTO	Less than 1 Ω
18 – 12	Switch 1 (TAIL/PARKING)	Less than 1 Ω
18 – 12 20 – 12	Switch 2 (HEAD)	Less than 1 Ω

- Dimmer & passing switch

Terminal No.	Inspection conditions	Standard
11 – 12 17 – 12	Switch PASS	Less than 1 Ω
11 – 12	Switch UP	Less than 1 Ω

- Turn signal switch

Terminal No.	Inspection conditions	Standard
13 – 12	Switch TURN (RH)	Less than 1 Ω
15 – 12	Switch TURN (LH)	Less than 1 Ω

- Front fog light switch



Terminal No.	Inspection conditions	Standard
4 – 3	Switch OFF	1 MΩ or more
	Switch ON	Less than 1 Ω


2. Replace the switch assembly - combination turn dimmer if the inspection result is not within the standard value.

LIGHTING SYSTEM > Combination Switch (Light)

INSTALLATION

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- If the steering wheel has been removed, make sure that the steering roll connector is not turned from the original position.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT.](#)

1. Align the center position of the steering roll connector.  [Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.](#)

2. Install each part in the reverse order of removal.

Note:


Align the alignment marks on the steering wheel and the column assembly - steering.

Tightening torque:

Steering wheel: 39 N·m (3.98 kgf-m, 28.8 ft-lb)

Clearance:

Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)


3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Combination Switch (Light)

REMOVAL



Caution:

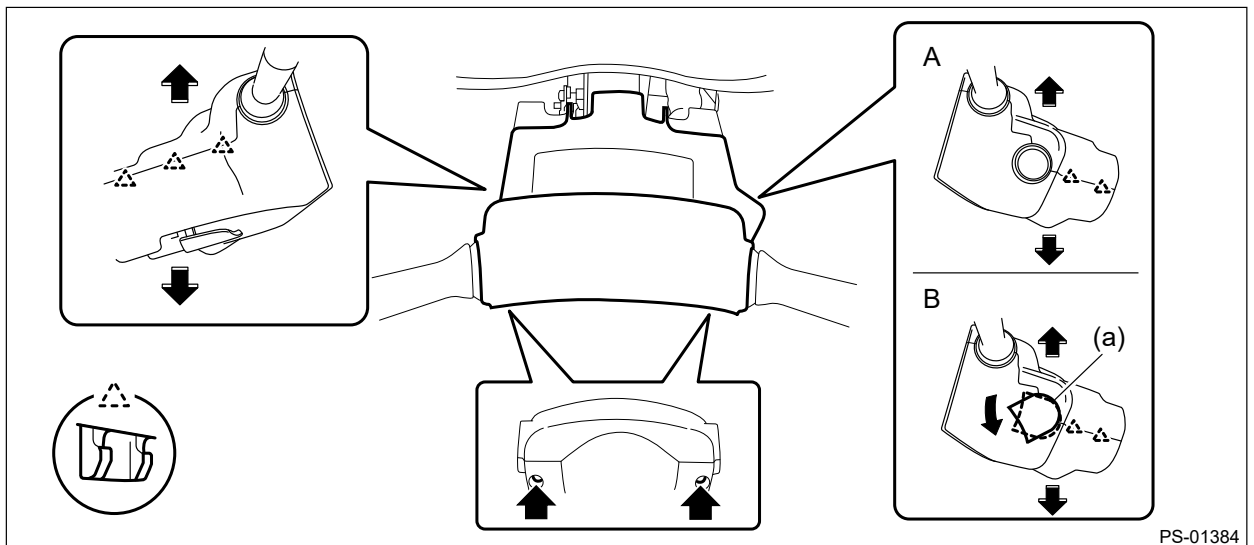
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Set the tire to the straight-ahead position.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:



For model with battery sensor, disconnect the ground terminal from battery sensor.

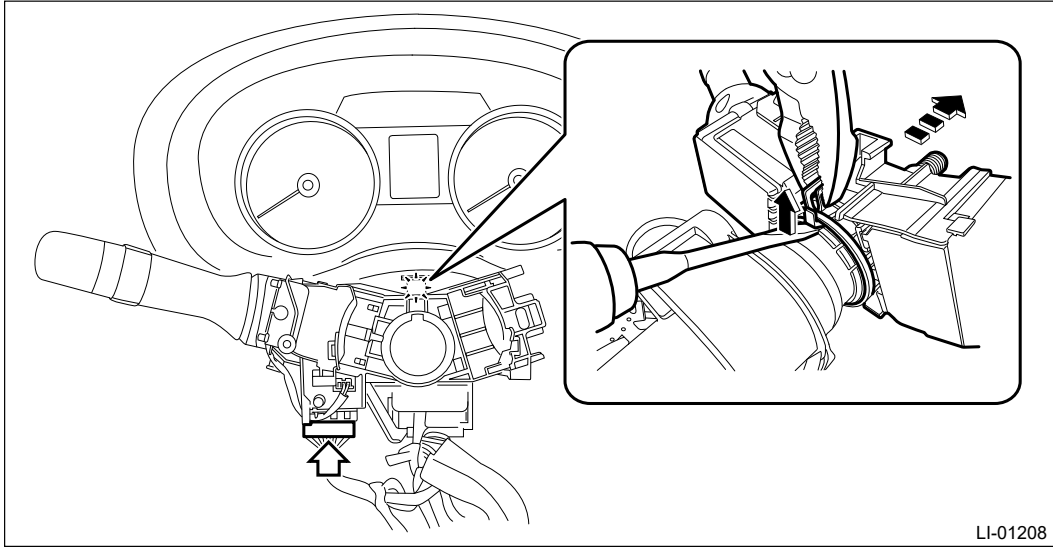
3. Remove the driver's airbag module.  [Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
4. Remove the steering wheel.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>REMOVAL.](#)
5. Remove the cover assembly - column.
 - (1) Release the screws and claws.
 - (2) Remove the cap - key cylinder (a).
 - (3) Remove the cover assembly - column UPR and the cover assembly - column LWR.



Model without keyless
A access with push button
start

Model with keyless access
B with push button start

6. Remove the steering roll connector.  [Ref. to AIRBAG SYSTEM>Roll Connector>REMOVAL.](#)
7. Remove the switch assembly - combination wiper select.  [Ref. to WIPER AND WASHER SYSTEMS>Combination Switch \(Wiper\)>REMOVAL.](#)
8. Remove the switch assembly - combination turn dimmer.
 - (1) Disconnect the connector, and loosen the clamp to release the claws.
 - (2) Pull out the switch assembly - combination turn dimmer from the column assembly - steering.




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LIGHTING SYSTEM > Day Time Running Light Assembly


NOTE

Since the LED daytime running light is integrated into the light assembly - head, it cannot be removed.

For operation procedures, refer to "Headlight Assembly".  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)


INSPECTION

1. CHECK DAYTIME RUNNING LIGHT SYSTEM (HALOGEN HEADLIGHT MODEL)


1. CHECK FUSE. 


1. Turn the ignition switch to OFF.
2. Check the headlight HI fuse.

Is the fuse OK?


 [Go to 2.](#)

Replace the fuse.


2. CHECK RELAY. 

Check the headlight HI relay inside the main fuse box.  [Ref. to LIGHTING SYSTEM>Relay and Fuse>INSPECTION.](#)


Is the relay OK?


 [Go to 3.](#)

Replace the relay.

3. CHECK HEADLIGHT ILLUMINATION. 

1. Turn the ignition switch to ON.
2. Turn the lighting switch to the switch II (HEAD) position.
3. Turn the dimmer & passing switch to the switch UP position.

Does the headlight (high beam) illuminate?  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

 [Go to 4.](#)

Check the combination switch (light) and headlight bulb.

No

4. CHECK BODY INTEGRATED UNIT.


Read the DTC of body integrated unit using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is DTC displayed?

Yes

Perform the diagnosis according to DTC.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>List of Diagnostic Trouble Code \(DTC\)>LIST.](#)

No

 [Go to 5.](#)

5. CHECK BODY INTEGRATED UNIT.

Display the [Daytime Running Light(DRL) Setting for North America] data using Subaru Select Monitor.

Is the setting in the [High Beam Dimming System]?

Yes

 [Go to 6.](#)

No

Set the setting to the [High Beam Dimming System].

6. CHECK CURRENT DATA.

Display the following items using Subaru Select Monitor.

- [Parking Position Switch]
- [Shift Position]
- [Lighting II Switch Input]

Is the input signal normal?

Yes

 [Go to 7.](#)

No

Check the defective part.

7. CHECK CURRENT DATA.



1. Start the engine.
2. Release the parking brake, and set the shift position in any ranges other than P.
3. Using the Subaru Select Monitor, display the data of [DRL Cancel Output].

Does the [DRL Cancel Output] switch between OFF ↔ ON when the lighting switch is switched between OFF position ↔ II (HEAD) position?

Yes

[Go to 8.](#)

No

Replace the body integrated unit. [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

8. CHECK RELAY (HEADLIGHT RELAY UNIT).



Check the faulty daytime running light & high beam relay units. [Ref. to LIGHTING SYSTEM>Relay and Fuse>INSPECTION > CHECK DAYTIME RUNNING LIGHT & HIGH BEAM RELAY.](#)

Is the relay OK?

Yes

[Go to 9.](#)

No

Remove the headlight and replace the daytime running light relay unit.

9. CHECK DAYTIME RUNNING LIGHT RESISTOR.



1. Turn the ignition switch to OFF.
2. Check the daytime running light resistor. [Ref. to LIGHTING SYSTEM>Day Time Running Resistor>INSPECTION.](#)

Does the daytime running light resistor normal?

Yes

[Go to 10.](#)

No

Replace the daytime running light resistor.


10. CHECK HARNESS.



1. Disconnect the connectors of body integrated unit, daytime running light relay unit, daytime running light resistor, and headlight.
2. Check each harness.

Is harness normal?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

2. CHECK DAYTIME RUNNING LIGHT SYSTEM (LED HEADLIGHT MODEL)

1. CHECK FUSE.



1. Turn the ignition switch to OFF.
2. Check the fuse on the upstream of the daytime running light relay.

Is the fuse OK?

Yes


 [Go to 2.](#)

No

Replace the fuse.

2. CHECK RELAY.



Check the daytime running light relay.  [Ref. to LIGHTING SYSTEM>Relay and Fuse>INSPECTION.](#)

Is the relay OK?

Yes

 [Go to 3.](#)

No

Replace the relay.

3. CHECK BODY INTEGRATED UNIT.




Read the DTC of body integrated unit using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is DTC displayed?

Yes

Perform the diagnosis according to DTC.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>List of Diagnostic Trouble Code \(DTC\)>LIST.](#)

No

 [Go to 4.](#)

4. CHECK BODY INTEGRATED UNIT.



Display the [Daytime Running Light(DRL) Setting for North America] data using Subaru Select Monitor.

Is the setting in the [Alternate DRL System]?

Yes

 [Go to 5.](#)

No

Set the setting to the [Alternate DRL System].

5. CHECK CURRENT DATA.



Display the following items using Subaru Select Monitor.

- [Parking Position Switch]
- [Shift Position]
- [Lighting II Switch Input]

Is the input signal normal?

Yes

 [Go to 6.](#)

No

Check the defective part.


6. CHECK CURRENT DATA.




- 1.** Start the engine.
- 2.** Release the parking brake, and set the shift position in any ranges other than P.
- 3.** Display the data of [Daytime Running Light (Alternate System) Output for North America] using Subaru Select Monitor.

Does the [Daytime Running Light (Alternate System) Output for North America] switch between OFF ↔ ON when the lighting switch is switched between OFF position ↔ II (HEAD) position?

Yes

 [Go to 7.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

7. CHECK DAYTIME RUNNING LIGHT ILLUMINATION.

1. Disconnect the headlight connector (gray).
2. Apply battery voltage to the DRL terminal input of the headlight unit.

Terminals

NO. 1 (+) – NO. 5 (–):

Does the daytime running light illuminate?

Yes

 [Go to 8.](#)

No

Replace the headlight.

8. CHECK HARNESS.

1. Disconnect the connectors of body integrated unit, daytime running light relay and headlight.
2. Check each harness.

Is harness normal?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)





No

Repair or replace the harness.

LIGHTING SYSTEM > Day Time Running Light System

NOTE

For operation procedures of each component of the daytime running light system, refer to the respective section.

- Headlight Assembly:  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)
- Headlight bulb:  [Ref. to LIGHTING SYSTEM>Headlight Bulb.](#)
- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Daytime running resistor:  [Ref. to LIGHTING SYSTEM>Day Time Running Resistor.](#)

LIGHTING SYSTEM > Day Time Running Light System

WIRING DIAGRAM

Refer to "Headlight System" in the wiring diagram.

- Halogen type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > HALOGEN MODEL.](#)
- LED type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > LED MODEL.](#)

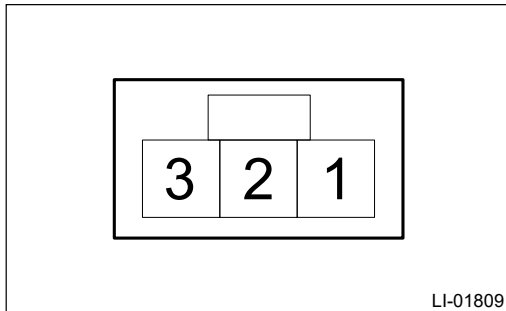
LIGHTING SYSTEM > Day Time Running Resistor

INSPECTION

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
1 – 2, 2 – 3	Always	1.82±0.07 Ω

2. Replace the resistor assembly - daytime running light if the inspection result is not within the standard.


LIGHTING SYSTEM > Day Time Running Resistor

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Resistor assembly - daytime running light: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Day Time Running Resistor

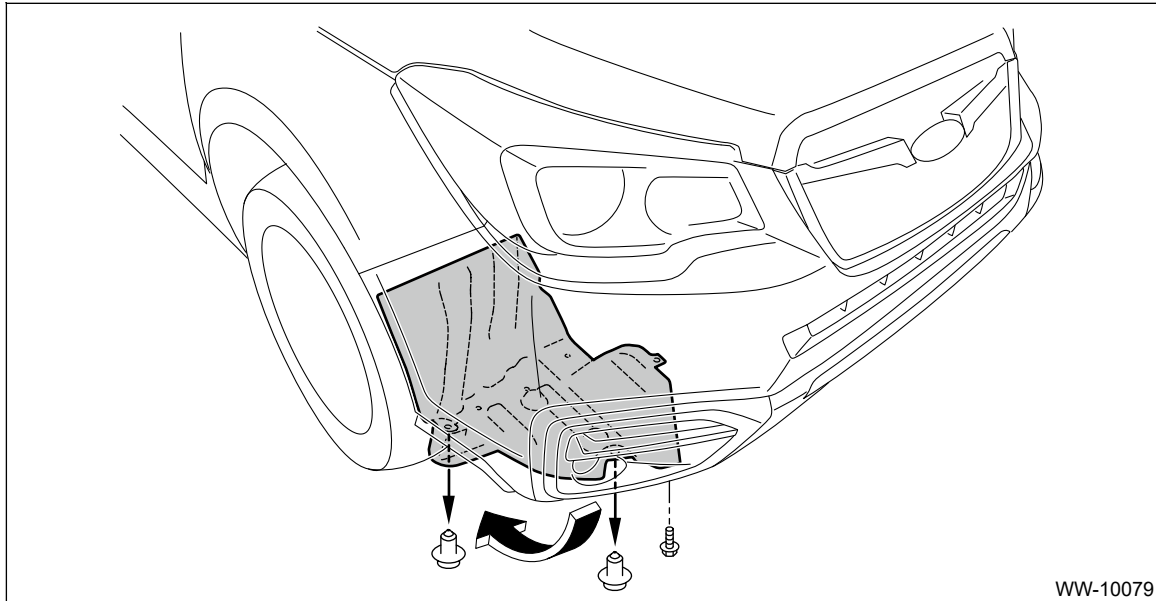
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Lift up the vehicle.
3. Remove the bolts and clips, and turn over the front side of the mud guard - front.

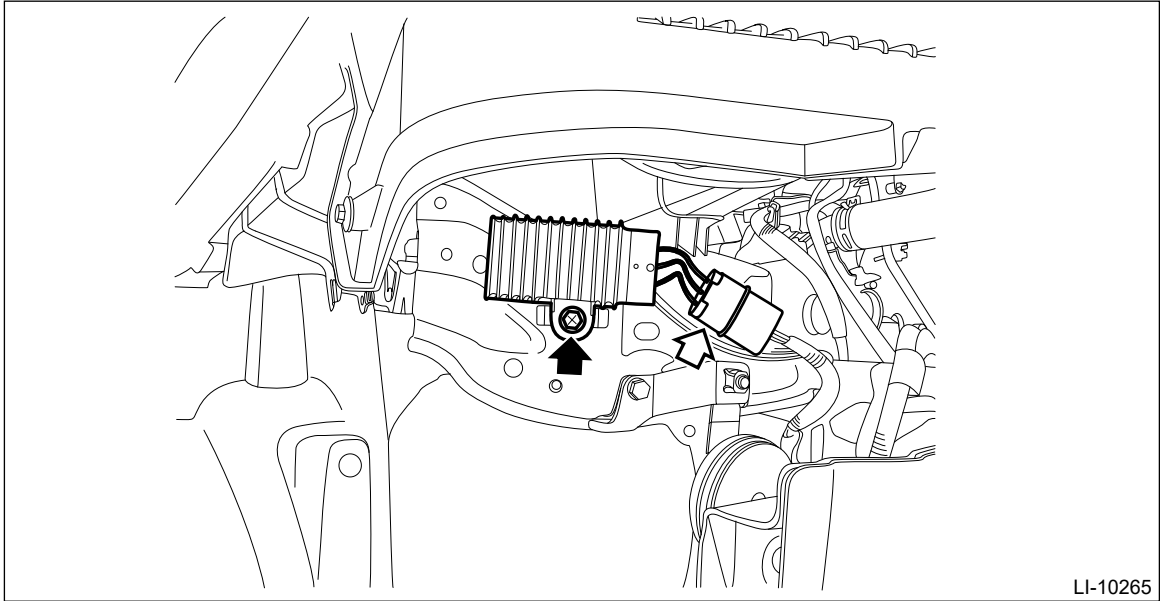


4. Remove the resistor assembly - daytime running light.

Caution:

The resistor may become hot. Be careful not to burn yourself when removing it.


- (1) Disconnect the connector.
- (2) Remove the bolts, then remove the resistor assembly - daytime running light.



LI-10265


LIGHTING SYSTEM > Door Step Light

INSPECTION

- 1.** Visually check the bulb for blow out.
- 2.** Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
- 3.** Replace the bulb if it is found defective.

LIGHTING SYSTEM > Door Step Light

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Door Step Light

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the door step light.

(1) Insert a flat tip screwdriver into the slit of the door step light to release the claw.

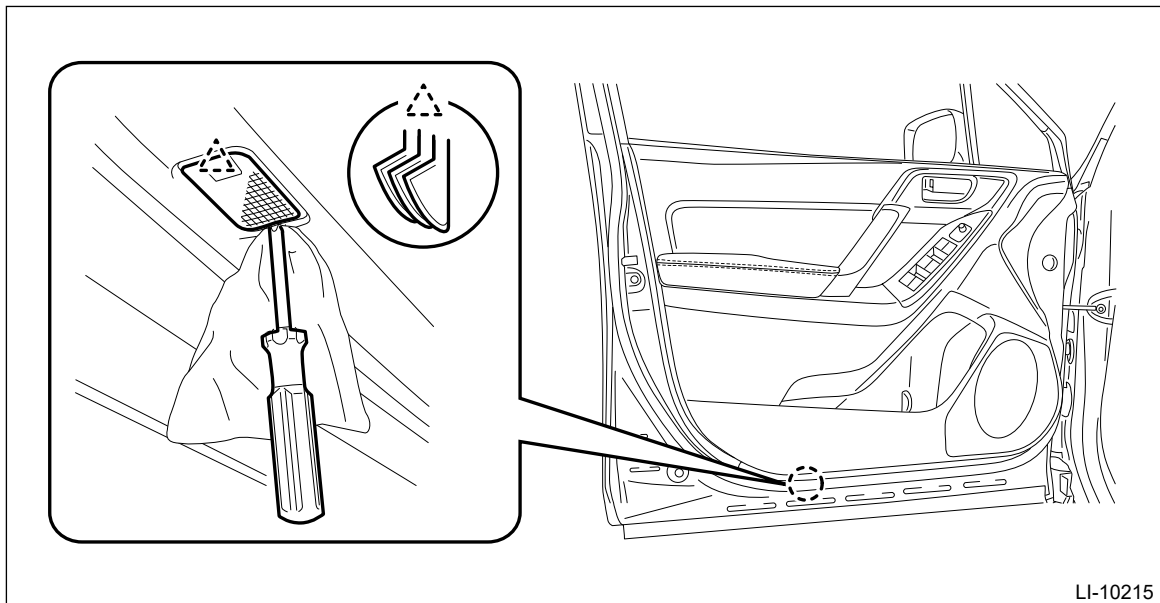
Caution:

When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.

(2) Disconnect the connector and remove the door step light and bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



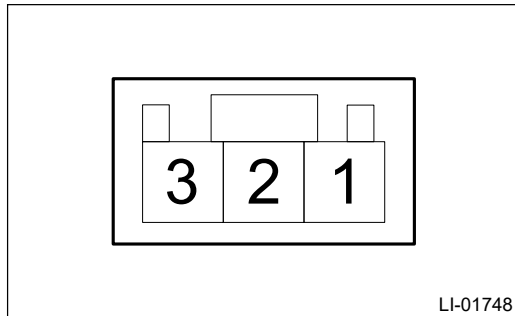
LIGHTING SYSTEM > Door Switch

INSPECTION

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester




Terminal No.	Inspection conditions	Standard
1 – 3	When door is opened	Less than 1 Ω
	When door is closed	1 M Ω or more

2. Replace the switch assembly - door if the inspection result is not within the standard value.

LIGHTING SYSTEM > Door Switch

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Door Switch

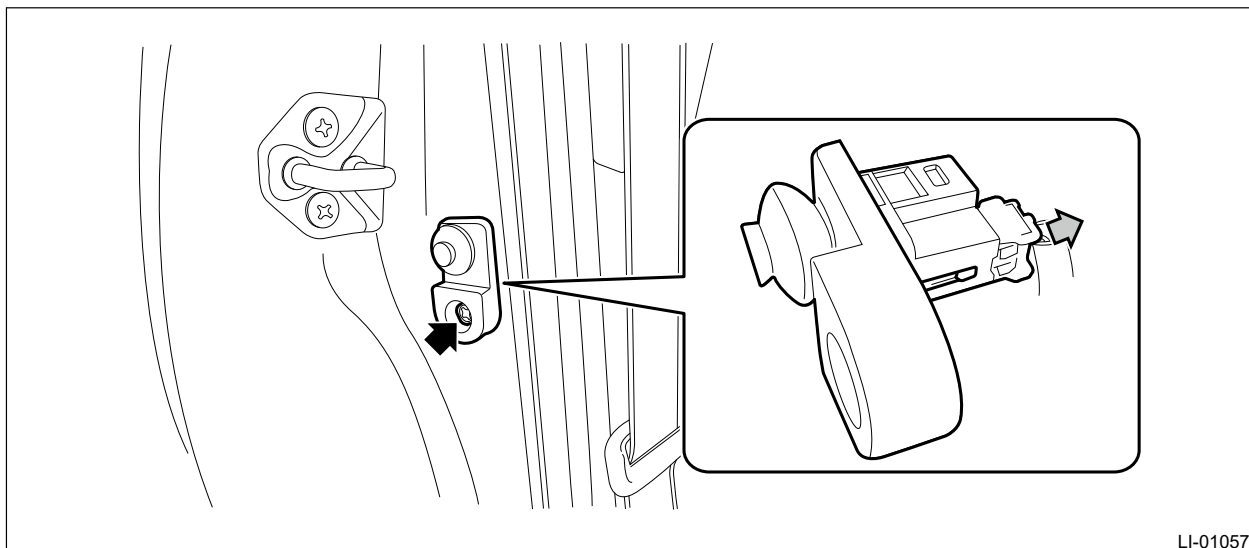
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the switch assembly - door.
 - (1) Remove the screws, and pull out the switch assembly - door toward you.
 - (2) Disconnect the connector and remove the switch assembly - door.



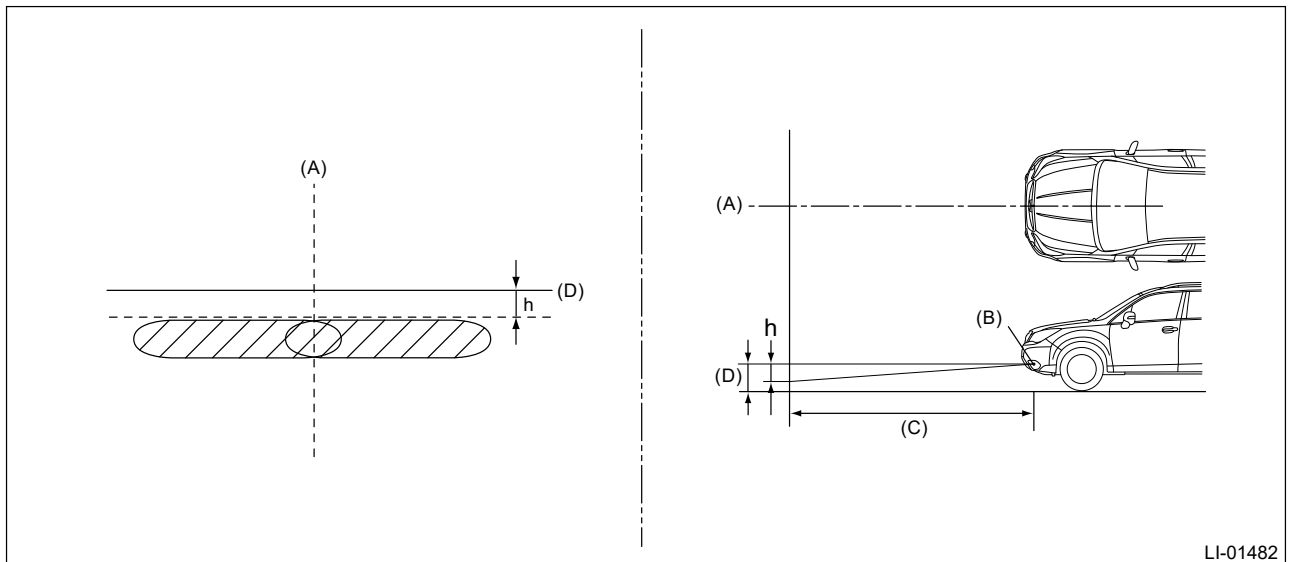
LI-01057

LIGHTING SYSTEM > Front Fog Light Assembly

ADJUSTMENT

1. FOG LIGHT AIMING

1. Before checking the fog light assembly - front beam level, be sure of the following:
 - The area around the fog light assembly - front has not sustained any scratches, damage or other type of deformation.
 - The vehicle is parked on a level surface.
 - The inflation pressure of tires is correct.
 - The vehicle does not have load.
 - Vehicle's fuel tank is fully filled.
2. Bounce the vehicle several times to normalize the suspension.
3. Make certain that someone is seated in the driver's seat.
4. Place the vehicle with the front end facing to the measurement panel.



(A) Vehicle center

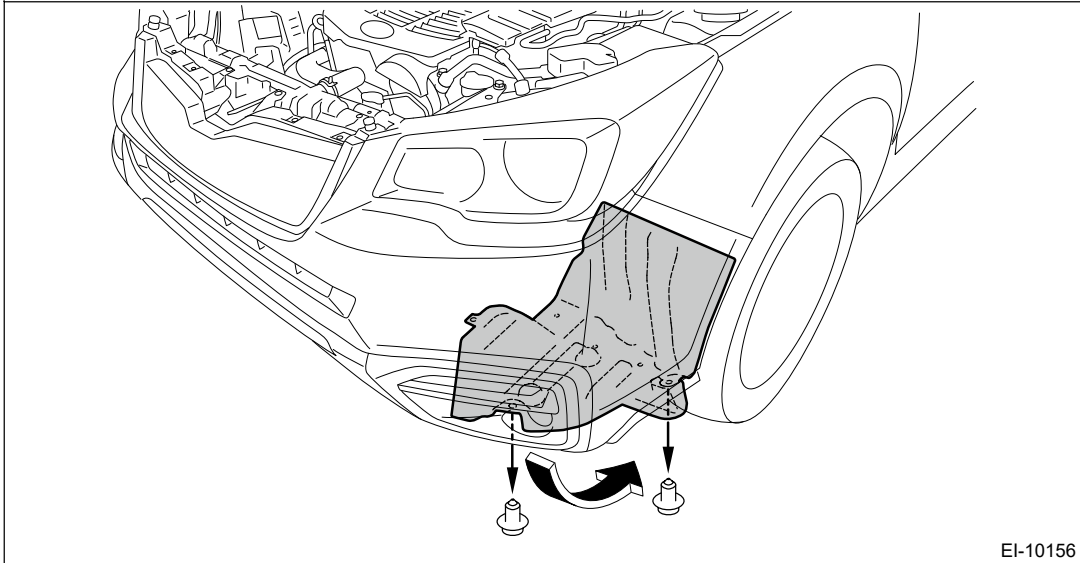
(C) 3 m (10 ft)

(D) Height of fog light center

(B) Bulb center marking

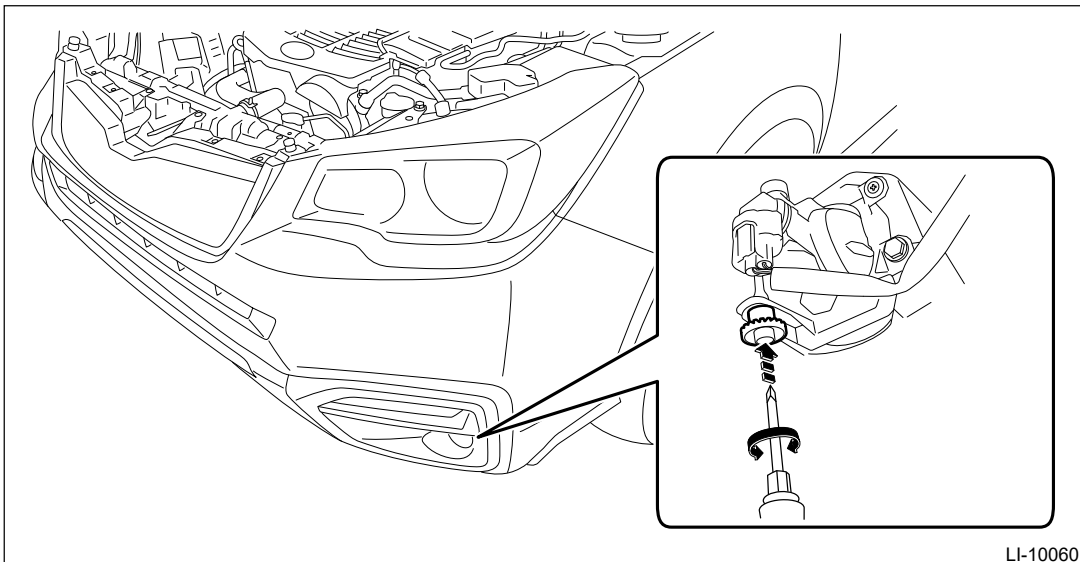
h mm (in) at 3 m (10 ft)
40 (1.77)

5. Adjust the fog light assembly - front beam.
 - (1) Remove the screw and clips, and turn over the front side of the mud guard - front.



EI-10156

- (2) Adjust the beam direction by turning the aiming screw from the bottom of the bumper face - front.



LI-10060

LIGHTING SYSTEM > Front Fog Light Assembly



INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Fog light assembly - front: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

Bracket - front fog assembly: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
3. Adjust the fog light beam.  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)

LIGHTING SYSTEM > Front Fog Light Assembly

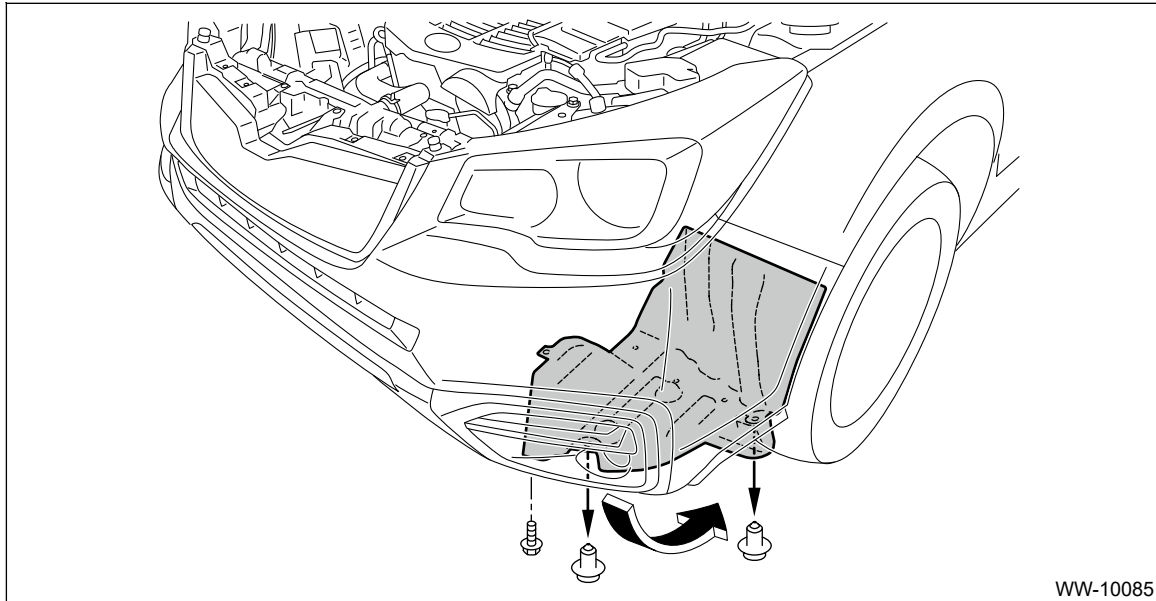
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

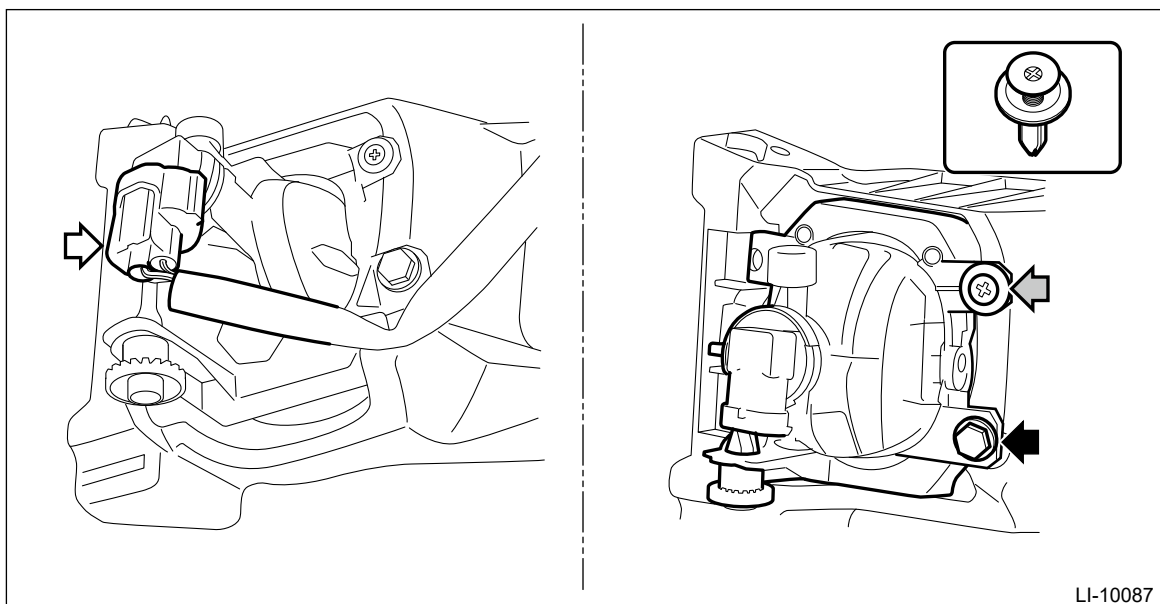
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Lift up the vehicle.
3. Remove the bolts and clips, and turn over the front side of the mud guard - front.



4. From the bottom of the bumper face - front, remove the fog light assembly - front.
 - (1) Disconnect the connector.
 - (2) Remove the bolts and clips, and remove the fog light assembly - front.



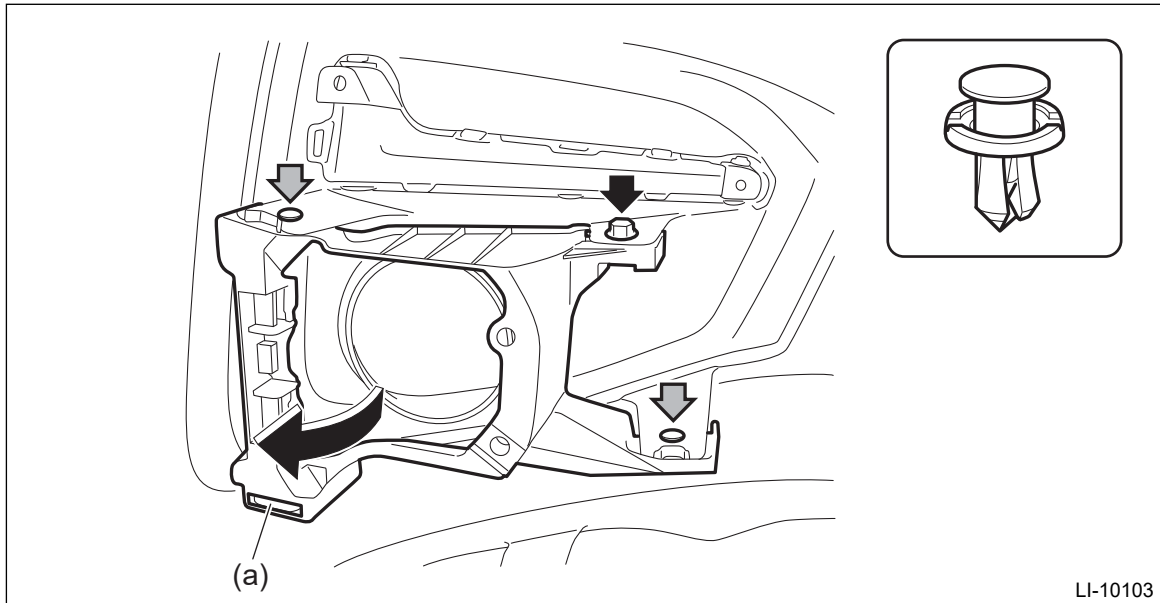
Note:

Detach in the same manner for the model with SRF.

- 5.** Remove the bracket - front fog assembly as required. (Model with bracket)
 - (1) Remove the bolt and clip.
 - (2) Turn the bracket around the (a) portion as an axis to remove the bracket - front fog assembly.

Caution:


Do not insert any tools into the bracket (a) section. Otherwise, the claws of bracket and bumper installation holes may be damaged.



LI-10103

LIGHTING SYSTEM > Front Fog Light Bulb

INSPECTION


- 1.** Visually check the bulb for blow out.
- 2.** Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
- 3.** Replace the bulb if it is found defective.

LIGHTING SYSTEM > Front Fog Light Bulb

INSTALLATION

Caution:

After connecting the connector, make sure that the bulb is locked securely.

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Front Fog Light Bulb

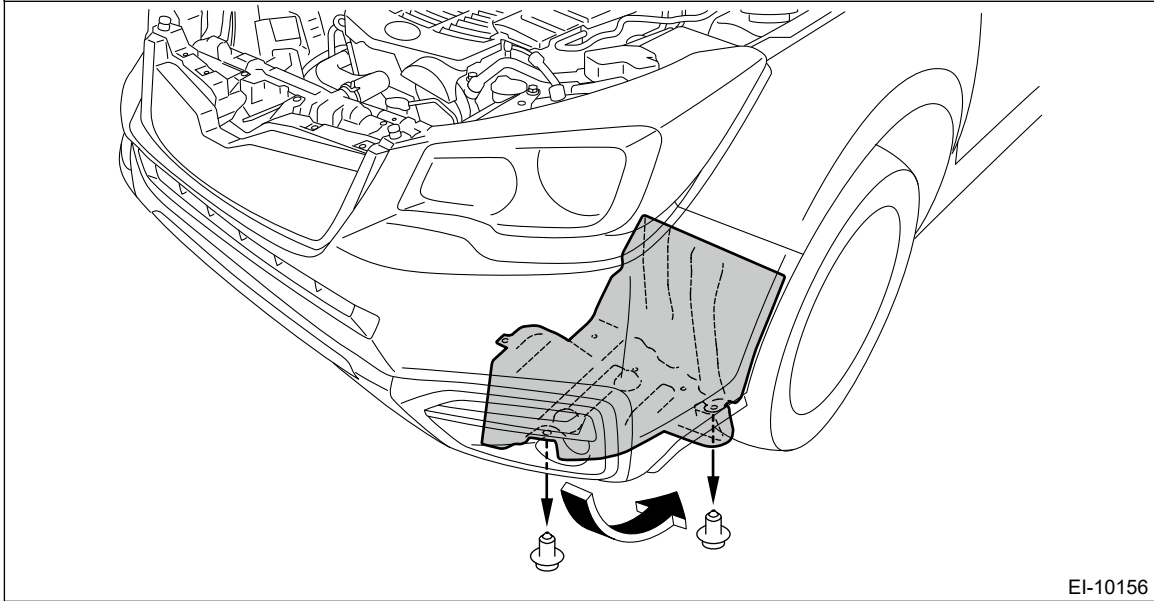
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

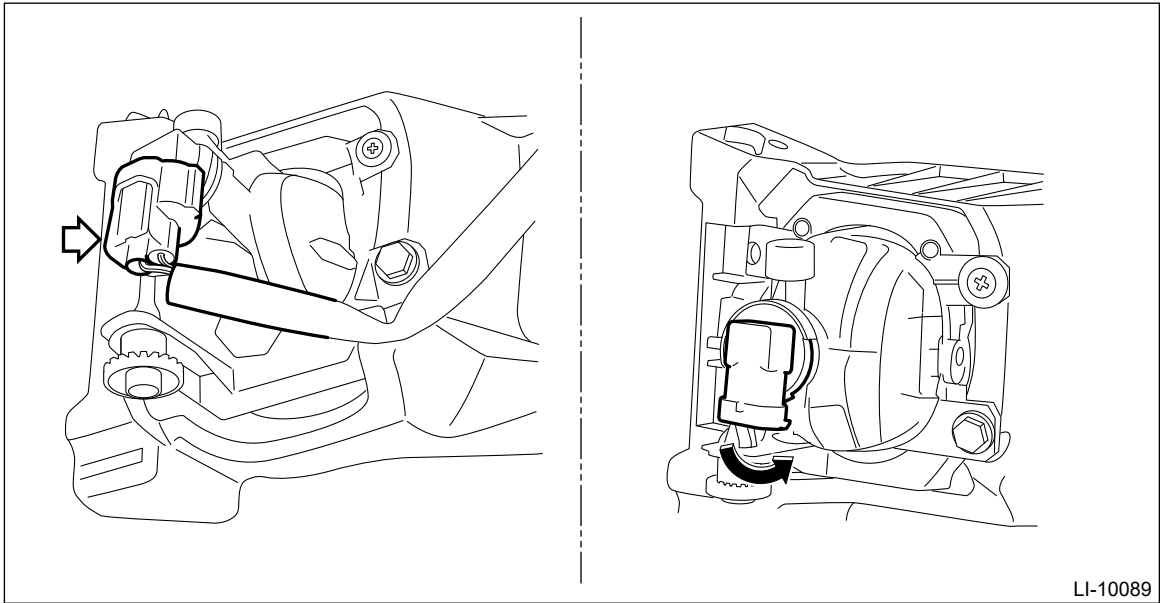
2. Remove the clips, and turn over the front side of the mud guard - front.



3. From the bottom of the bumper face - front, remove the front fog light bulb.
 - (1) Disconnect the connector.
 - (2) Remove the bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



Note:

Detach in the same manner for the model with SRF.

LIGHTING SYSTEM > Front Fog Light System

INSPECTION




1. CHECK FRONT FOG LIGHT SWITCH

Refer to the "INSPECTION" of the "Combination Switch (Light)".  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

LIGHTING SYSTEM > Front Fog Light System

NOTE



For operation procedures of each component of the front fog light system, refer to the respective section.

- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Front fog light assembly:  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly.](#)
- Front fog light bulb:  [Ref. to LIGHTING SYSTEM>Front Fog Light Bulb.](#)

LIGHTING SYSTEM > Front Fog Light System


WIRING DIAGRAM

Refer to "Front Fog Light System" in the wiring diagram.

- Model without SRF:  [Ref. to WIRING SYSTEM>Front Fog Light System>WIRING DIAGRAM > WITHOUT SRF.](#)
- Model with SRF:  [Ref. to WIRING SYSTEM>Front Fog Light System>WIRING DIAGRAM > WITH SRF.](#)


LIGHTING SYSTEM > Front Side Marker Light Bulb

INSPECTION

- 1.** Visually check the bulb for blow out.
- 2.** Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
- 3.** Replace the bulb if it is found defective.

LIGHTING SYSTEM > Front Side Marker Light Bulb

INSTALLATION

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Front Side Marker Light Bulb

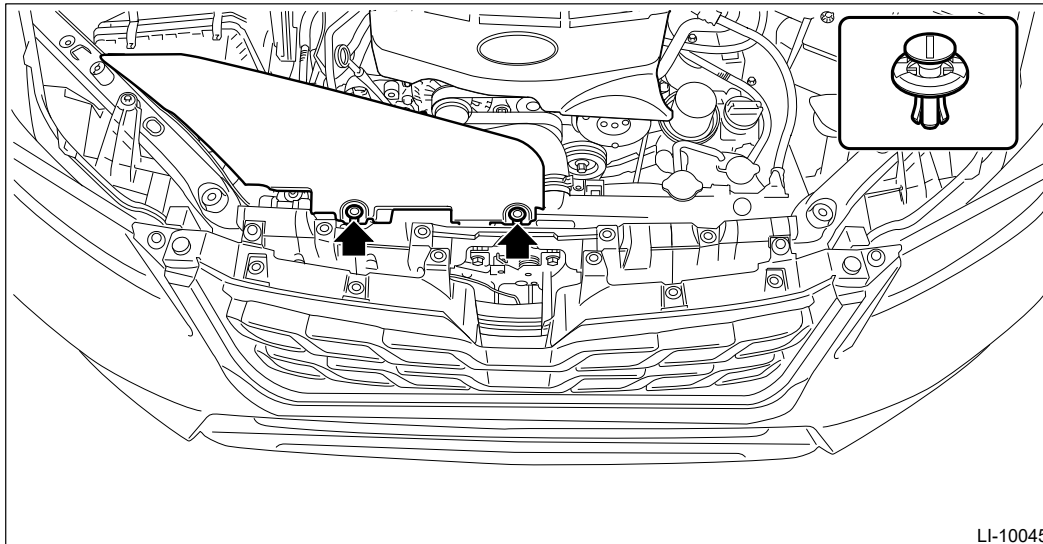
REMOVAL

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

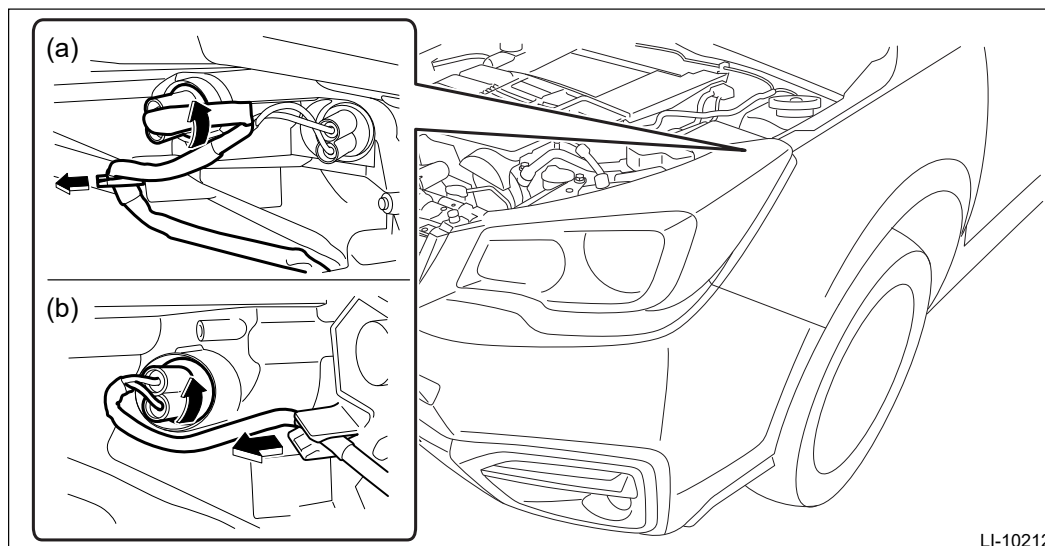
2. Remove the clips and remove the air intake duct (rear). (When removing the front side marker light bulb RH)



3. Remove the front side marker light bulb.
 - (1) Remove the harness clip.
 - (2) Remove the bulb socket and front side marker light bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.




(a) Halogen type

(b) LED type


LIGHTING SYSTEM > Front Turn Signal Light Bulb

INSPECTION

- 1.** Visually check the bulb for blow out.
- 2.** Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
- 3.** Replace the bulb if it is found defective.

LIGHTING SYSTEM > Front Turn Signal Light Bulb

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Front Turn Signal Light Bulb

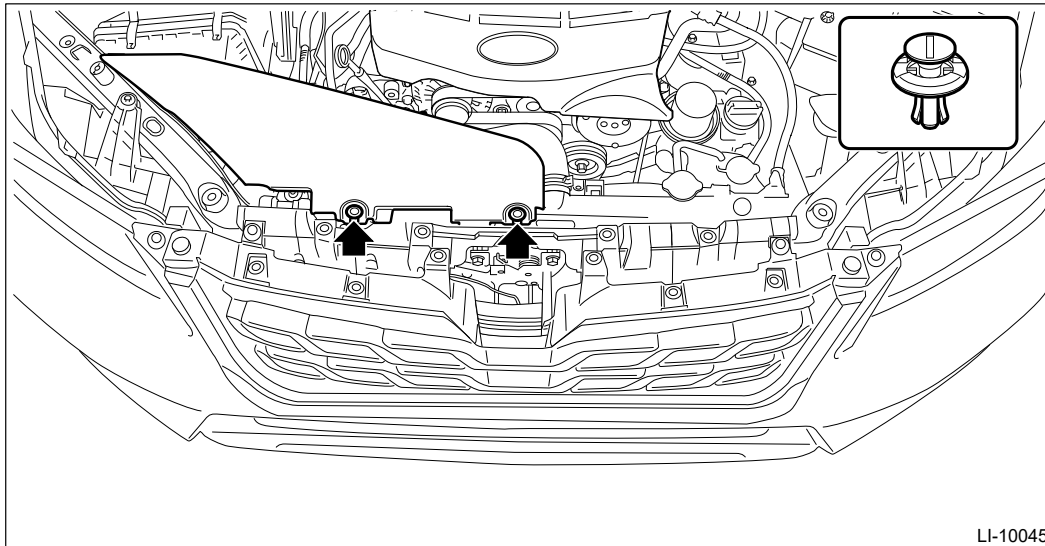
REMOVAL

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

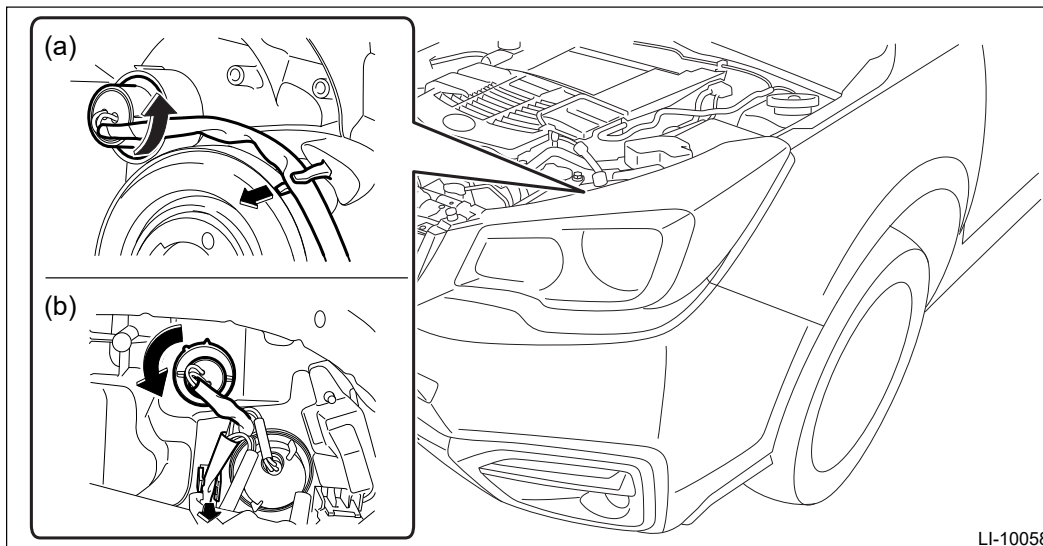
2. Remove the clips and remove the air intake duct (rear). (When removing the front turn signal light bulb RH)



3. Remove the front turn signal light bulb.
 - (1) Remove the harness clip.
 - (2) Remove the bulb socket and front turn signal light bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.





(a) Halogen type

(b) LED type

LIGHTING SYSTEM > General Description


CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that the each component operates normally.
- Be careful of the following items. Failing to do so may cause the airbag system malfunction.
 - Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. When using a tester on these circuits, follow the cautions of "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
 - Be careful not to damage the airbag system wiring harness when servicing the electrical parts around the steering column.
- When removing, installing or replacing the VDCCM&H/U, VDCCM&H/U bracket, steering wheel or steering angle sensor (steering roll connector), perform "VSC(VDC) Centering Mode" of the VDC.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT.](#)
- When removing and installing the bulb, use a dry and clean cloth so that no grease or water adheres to the glass portion.
- Always replace with a bulb that is the same model and wattage as those of the old one.

LIGHTING SYSTEM > General Description

PREPARATION TOOL

1. SPECIAL TOOL

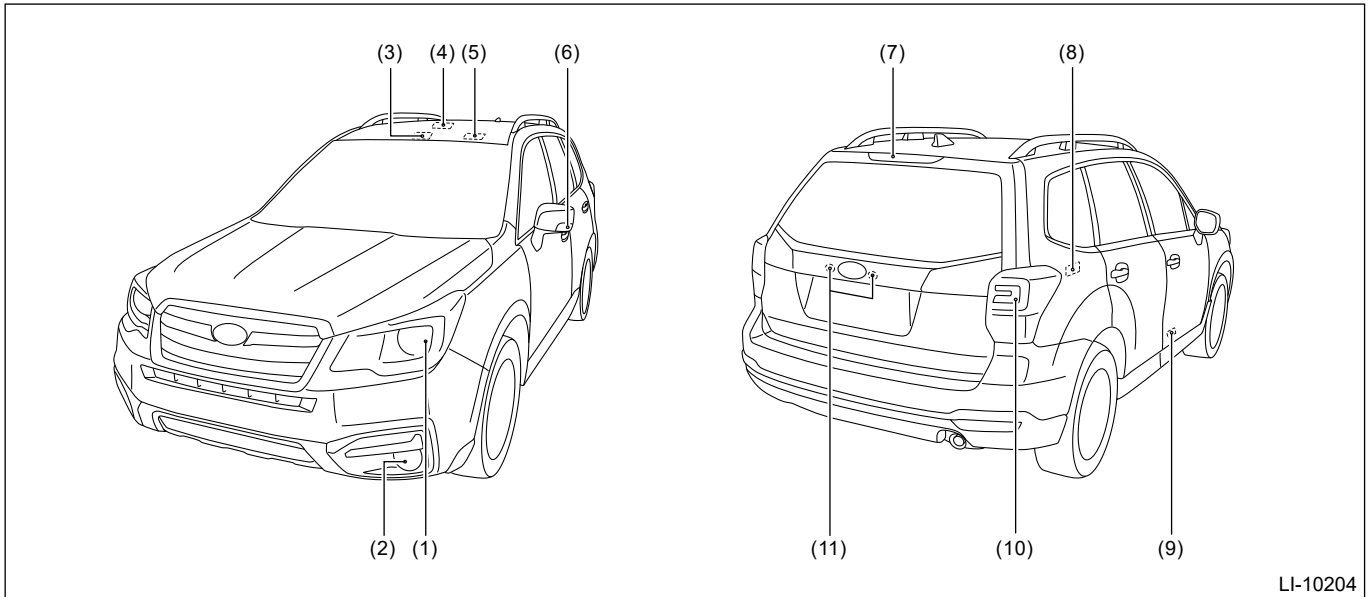
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 STSSM4	— (Newly adopted tool)	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. Note: For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
DST-i	Used together with Subaru Select Monitor 4.
TORX® T20	Used for removing and installing the stop light bulb.

LIGHTING SYSTEM > General Description

SPECIFICATION



LI-10204

No.	Description	Capacity and wattage	Type	
(1)	Headlight	Halogen type (low beam)	12 V – 55 W	H11
		Halogen type (high beam)	12 V – 60 W	HB3
		LED type (high/low beam)	12 V – 34/29 W (LED)	*1
		Front turn signal light	12 V – 21 W	7444NA
		Parking light (halogen type)	12 V – 5 W	W5W*2
		DRL/parking light (LED type)	12 V – 12/1.2 W (LED)	*1
		Side marker light	12 V – 5 W	W5W
(2)	Front fog light	Model without SRF	12 V – 19 W	H16
		Model with SRF	12 V – 55 W	H11
(3)	Spot map light	12 V – 8 W	—	
(4)	Room light	12 V – 8 W	—	
(5)	Vanity mirror light	12 V – 2 W	—	
(6)	Side turn signal light	12 V – 1.1 W (LED)	*1	
(7)	High-mounted stop light	13.5 V – 1.2 W (LED)	*1	
(8)	Luggage room light	12 V – 5 W	W5W	
(9)	Door step light	12 V – 5 W	W5W	
(10)	Rear combination light	Tail & side marker light	12 V – 5 W	W5W
		Stop light	12 V – 1.1 W (LED)	—

		Back-up light	12 V — 16 W	W16W
		Turn signal light	12 V — 21 W	WY21W
(11)	License plate light		12 V — 5 W	W5W

*1: Non-disassembly type

*2: Light of the parking light (halogen type) bulb is whiter than that of a normal bulb.

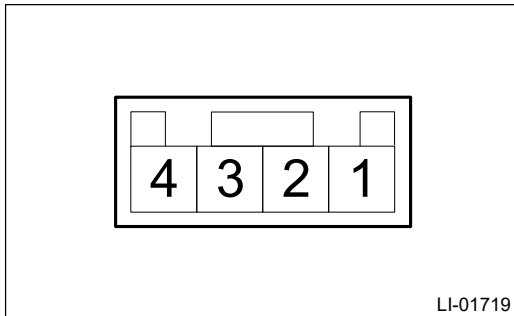
LIGHTING SYSTEM > Hazard Switch

INSPECTION

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
2 – 3	Switch OFF	1 M Ω or more
	Switch ON	Less than 1 Ω

2. Apply battery voltage between the connector terminals to check the lighting condition of the light.

Terminal No.	Inspection conditions	Specification
4 (+) – 1 (-)	Apply battery voltage.	Light ON


3. Replace the switch - hazard if it is found defective.

LIGHTING SYSTEM > Hazard Switch

INSTALLATION

Caution:

After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


LIGHTING SYSTEM > Hazard Switch

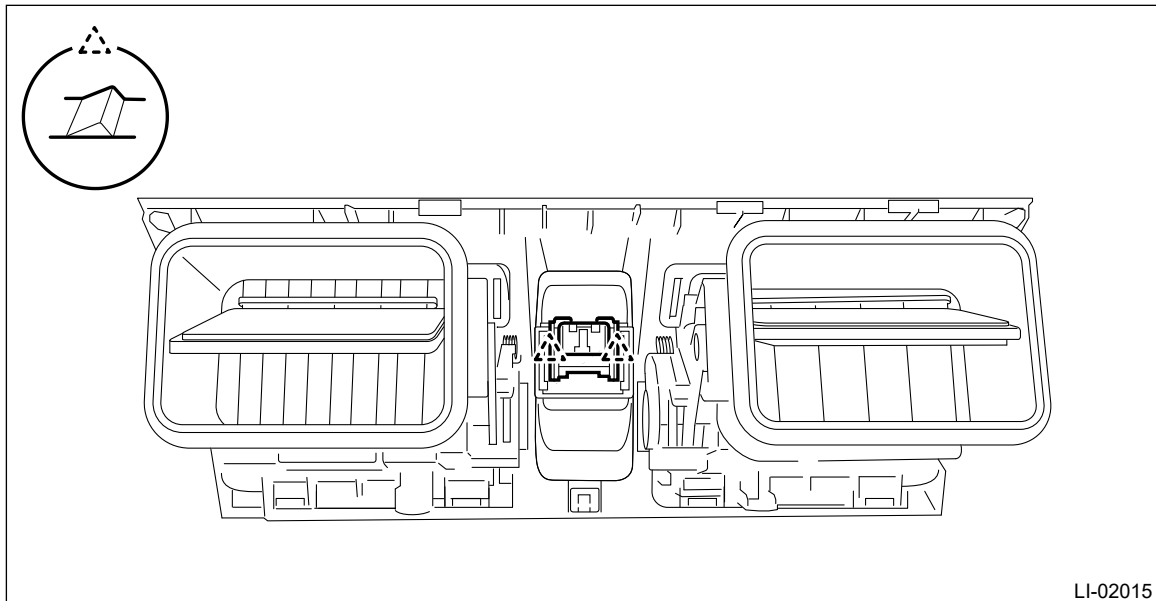
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
3. Release the claws, and then remove the switch - hazard.



LI-02015

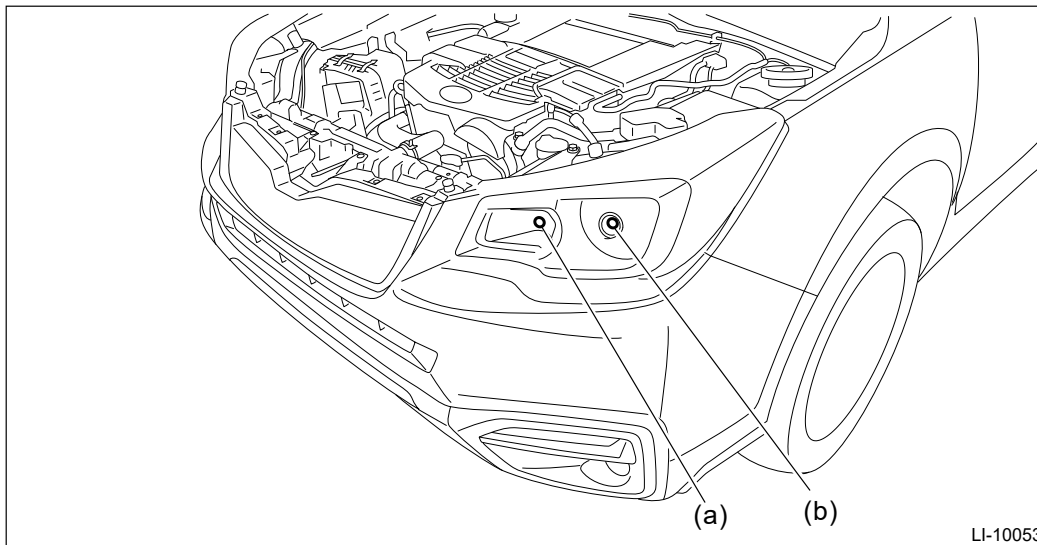
ADJUSTMENT

1. HEADLIGHT BEAM ADJUSTMENT

Caution:

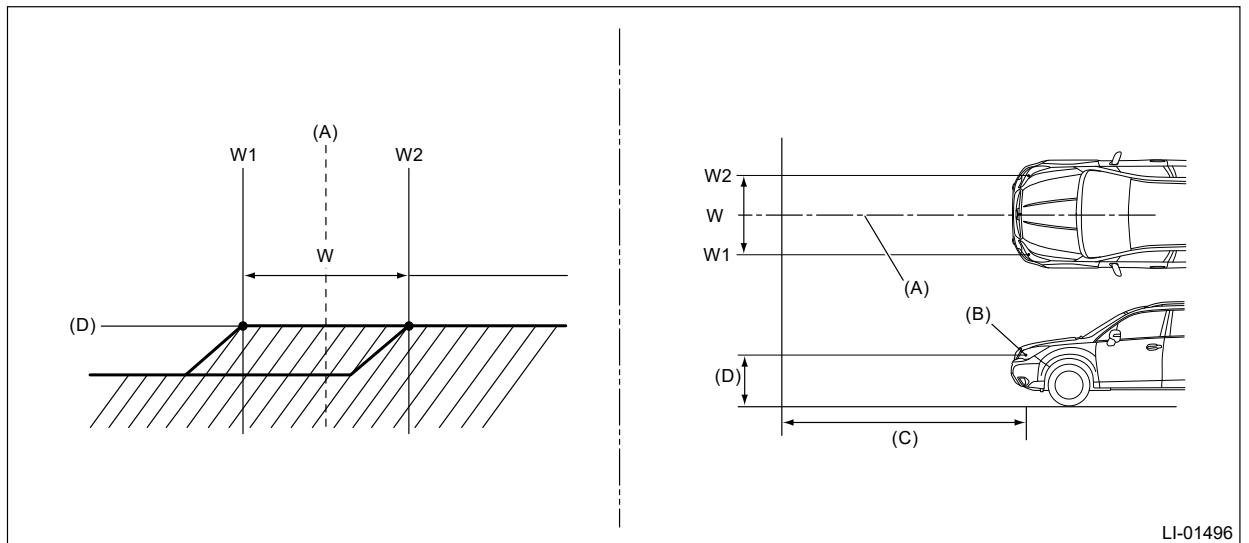
- Turn off the light before adjusting the beam level of the light assembly - head. If it is necessary to inspect the beam level, do not keep the light on for two minutes or more.
- When blocking the light emitted from the headlight, use a light shield or equivalent. Do not apply the tape on the lens or place the cloth over it. It may raise the temperature in the light and cause deformation/bubble formations of the plastic lens.

1. Before checking the beam level of the light assembly - head, be sure of the following:
 - The area around the light assembly - head has not sustained any scratches, damage or other type of deformation.
 - The vehicle is parked on a level surface.
 - The inflation pressure of tires is correct.
 - The vehicle does not have load.
 - Vehicle's fuel tank is fully filled.
2. Set the headlight beam leveler switch to "0" position. (Model with manual leveler)
3. Bounce the vehicle several times to normalize the suspension.
4. Make certain that someone is seated in the driver's seat.
5. Measure the distance of the light source centers and the height of the light source centers for the low beam.



(a) High beam (halogen type only) (b) Low beam (halogen type)
High/low beam (LED type)

6. Adjust the beam level of the light assembly - head (low beam).
 - (1) Place the vehicle with the front end facing to the measurement panel, then illuminate the low beam.



LI-01496

(A) Vehicle center

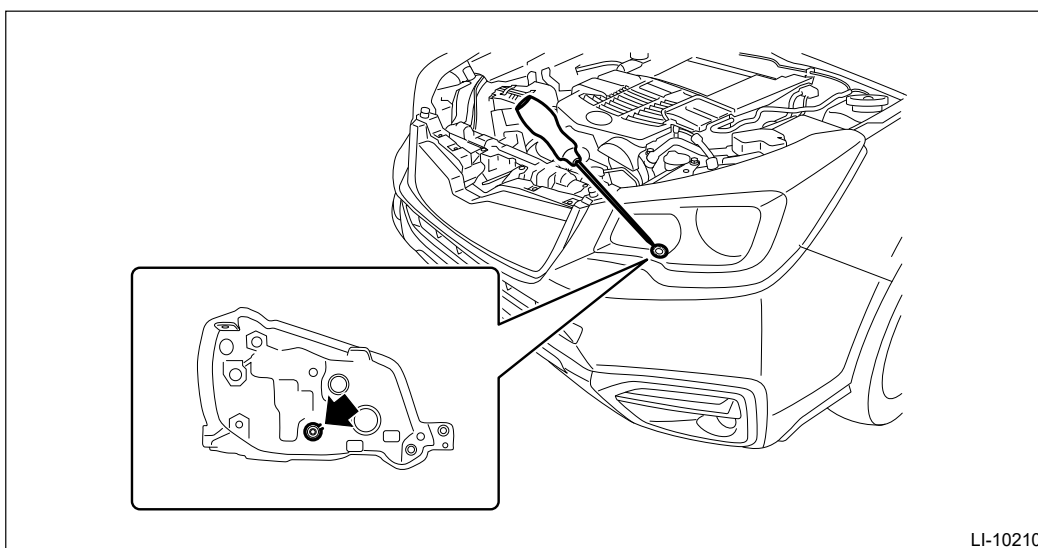
(C) 3 m (10 ft)

(D) Height of headlight center

(B) Light source center

W mm (in)
Halogen type: 1,347 (53.03)
LED type: 1,342 (52.83)

(2) Adjust the low beam by turning the aiming screw.



LI-10210

LIGHTING SYSTEM > Headlight Assembly

INSTALLATION





1. Install each part in the reverse order of removal.

Note:

Secure the flange section of the bumper face - front to the bracket - front bumper side.

Tightening torque:

Light assembly - head: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

2. Check and adjust the clearance between the hood COMPL - front and the light assembly - head.  [Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.](#)
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
4. Adjust the headlight beam and fog light beam.
 - Adjust the headlight beam.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT > HEADLIGHT BEAM ADJUSTMENT.](#)
 - Adjust the fog light beam. (Model with fog light)  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)

LIGHTING SYSTEM > Headlight Assembly

REMOVAL

Caution:

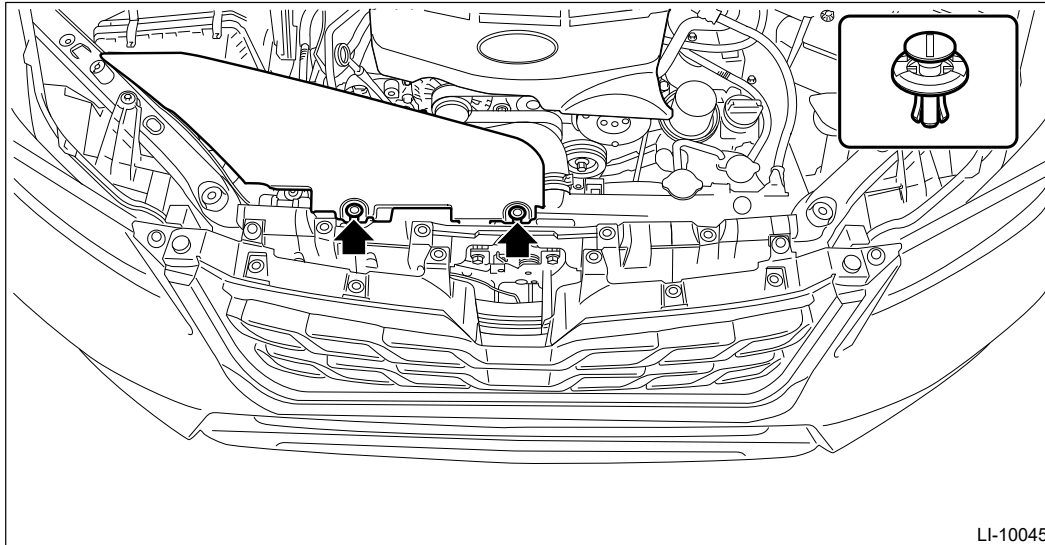
Do not perform work with wet hands, because there is a possibility of electrical shock.


1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

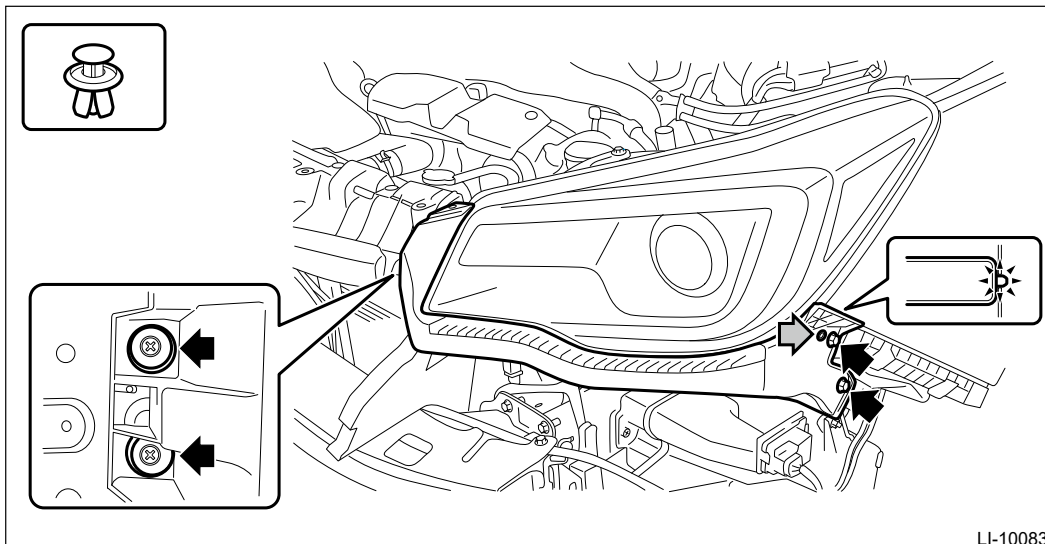
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the clips and remove the air intake duct (rear). (When removing the headlight assembly RH)



3. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)
4. Remove the bolts and clips, and remove the bracket - front bumper corner.

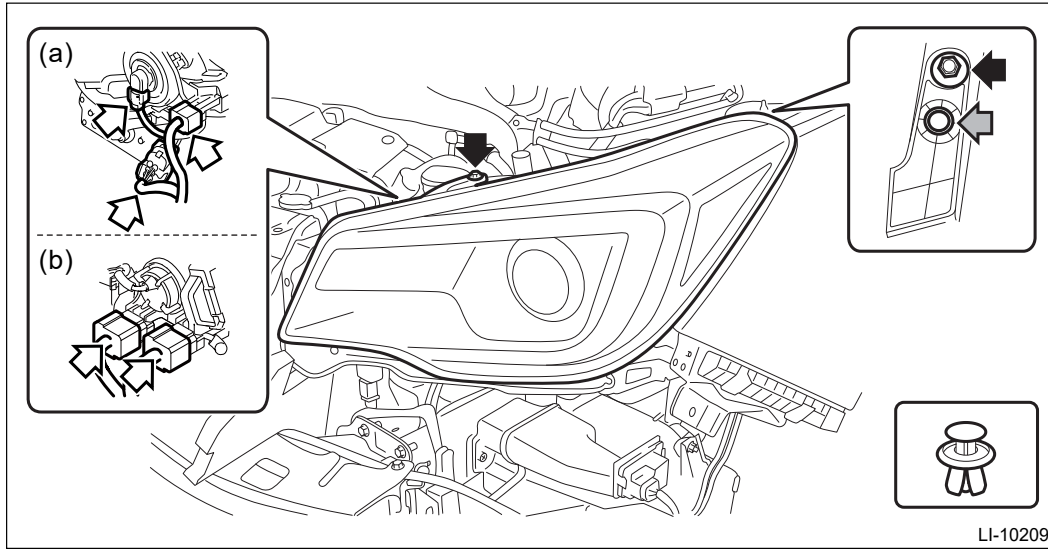


5. Remove the light assembly - head.

Caution:

Be careful not to damage the light assembly - head and the fender COMPL - front.

- (1) Disconnect connectors.
- (2) Remove the bolts and clips, and remove the light assembly - head.




LI-10209

(a) Halogen type

(b) LED type

LIGHTING SYSTEM > Headlight Bulb

INSPECTION


1. Visually check the bulb for blow out.
2. Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
3. Replace the bulb if it is found defective.

Note:

If the LED type headlight does not operate normally, replace the light assembly - head.

LIGHTING SYSTEM > Headlight Bulb

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

REMOVAL

1. HALOGEN TYPE

• HIGH BEAM

Caution:

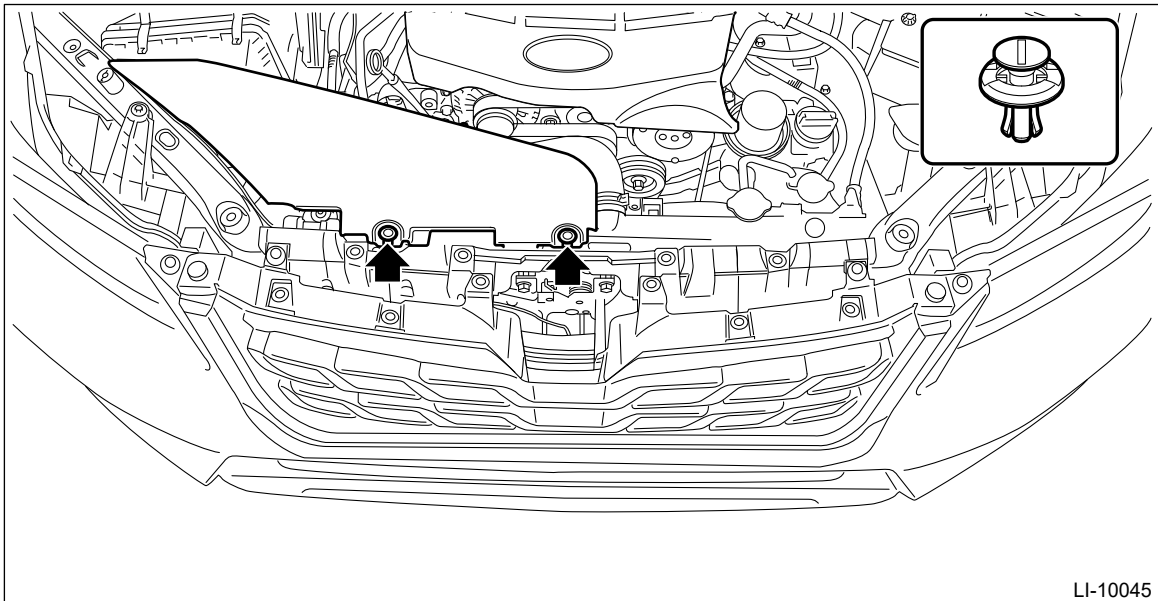
- Because the halogen bulb operates at a high temperature, dirt and oil on the bulb surface reduces the bulb's service life. Hold the flange portion when replacing the bulb. Never touch the glass portion.
- Do not perform work with wet hands, because there is a possibility of electrical shock.
- Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

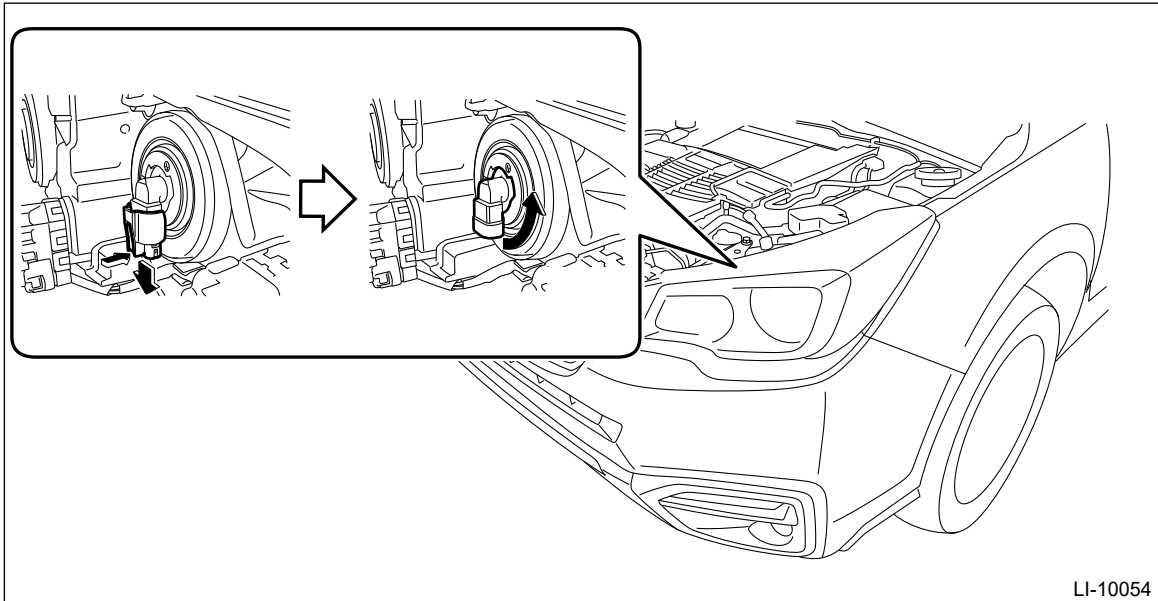
2. Remove the clips and remove the air intake duct (rear). (When removing the high beam bulb RH)



3. Disconnect the connector and remove the high beam bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



• LOW BEAM

Caution:

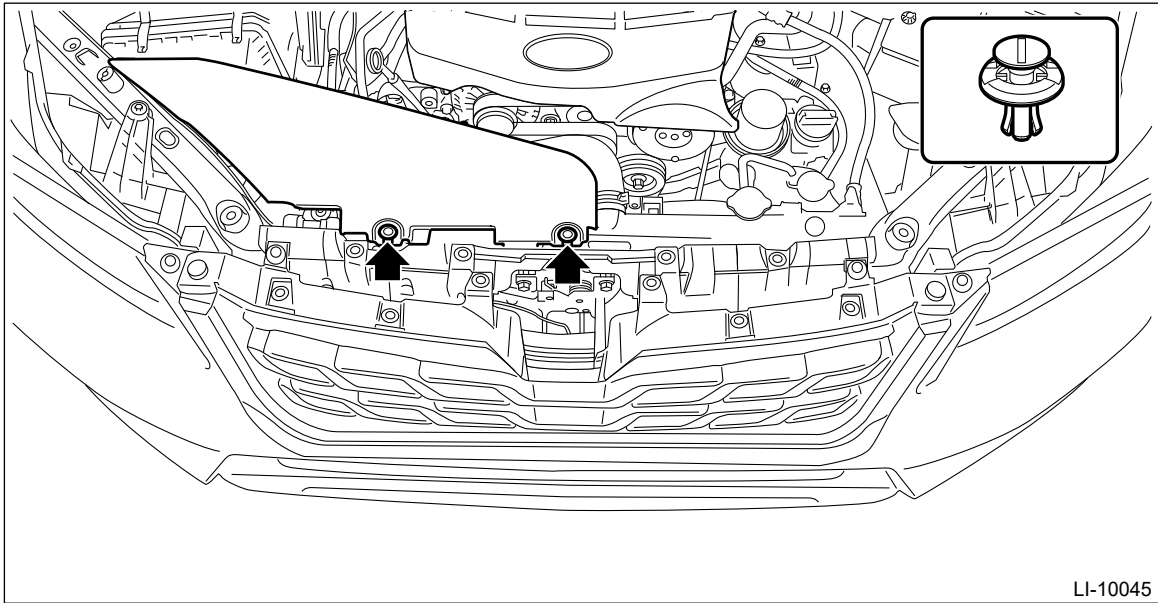
- Because the halogen bulb operates at a high temperature, dirt and oil on the bulb surface reduces the bulb's service life. Hold the flange portion when replacing the bulb. Never touch the glass portion.
- Do not perform work with wet hands, because there is a possibility of electrical shock.
- Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

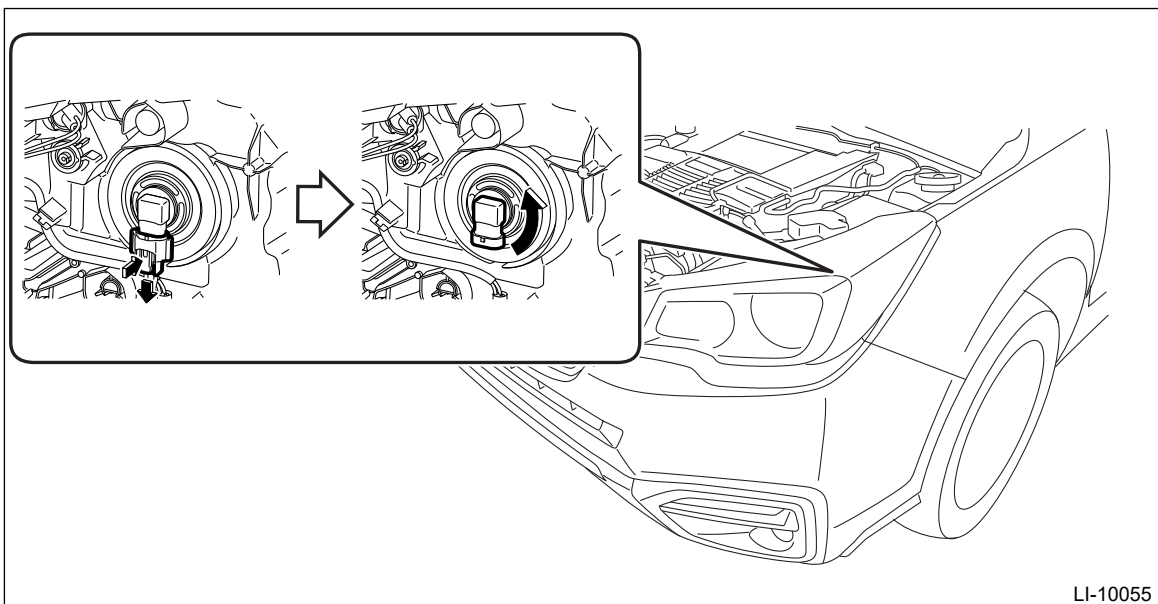
2. Remove the clips and remove the air intake duct (rear). (When removing the low beam bulb RH)



3. Disconnect the connector and remove the low beam bulb.

Caution:

- **Make sure to check if any bulb O-ring is remained on the housing side as this may sometimes happen.**
- **Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.**



2. LED TYPE

Since it is a non-disassembled part, it cannot be removed.

INSPECTION

1. CHECK HALOGEN HEADLIGHT SYSTEM


Trouble symptom:

Headlight does not illuminate.

1. CHECK HEADLIGHT AND TAIL LIGHT ILLUMINATION.

1. Turn the ignition switch to ON.
2. Set the lighting switch to the switch 1 (TAIL/PARKING) and switch 2 (HEAD).


Do the headlight and tail light illuminate?

- The headlight system is normal.
-  [Go to 2.](#)

2. CHECK BULB.

Check the headlight bulb.

Is the bulb normal?

-  [Go to 3.](#)
- Replace the headlight bulb.


3. CHECK CURRENT DATA.

Display the data of [Lighting I Switch Input] and [Lighting II Switch Input] using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".


Does the display switch between [OFF]↔[ON] when the lighting switch is moved to the switch 1 (TAIL/PARKING) and switch 2 (HEAD) positions?

-  [Go to 6.](#)

No

 [Go to 4.](#)

4. CHECK COMBINATION SWITCH (LIGHT).

1. Turn the ignition switch to OFF.
2. Check the combination switch (light).  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

Is the combination switch (light) normal?

Yes

 [Go to 5.](#)

No

Replace the combination switch (light).



5. CHECK HARNESS.

1. Disconnect the connector of body integrated unit.
2. Check the harness between body integrated unit and combination switch (light).

Is harness normal?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No


Repair or replace the harness.

6. CHECK CURRENT DATA.


1. Turn the ignition switch to ON.
2. Display the data of [Lighting I Lamp Output] and [Lighting II Lamp Output] using Subaru Select Monitor.

Does the display switch between [OFF]↔[ON] when the lighting switch is moved to the switch 1 (TAIL/PARKING) and switch 2 (HEAD) positions?

Yes

Check the body integrated unit and replace it if defective.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

No

 [Go to 7.](#)



7. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the body integrated unit connector and the headlight and tail light connectors.
3. Check the harness between body integrated unit and headlight and between body integrated unit and tail light.

Is harness normal?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

2. CHECK LED HEADLIGHT SYSTEM

Trouble symptom:

Headlight does not illuminate, or headlight is weak.

1. CHECK HEADLIGHT AND TAIL LENS ILLUMINATION.

1. Turn the ignition switch to ON.
2. Set the lighting switch to the switch 1 (TAIL/PARKING) and switch 2 (HEAD).

Do the headlight and tail light illuminate?

Yes

The headlight system is normal.

No

 [Go to 2.](#)

2. CHECK CURRENT DATA.


Display the data of [LED HEADLAMP(RH) error Signal] and [LED HEADLAMP(LH) error Signal] using Subaru Select Monitor.

Note:


For detailed operation procedures, refer to "Application help".

Is [Light up] displayed?

Yes

 [Go to 5.](#)

No

 [Go to 3.](#)

3. CHECK CONNECTOR CONNECTION.



Check that the headlight connector is connected.


Is the connector connected?

Yes

 [Go to 4.](#)

No

Connect the connector.

When it does not illuminate even though the switch is turned to ON: 

[Go to 4.](#)

4. CHECK HARNESS.



1. Disconnect the headlight connector.
2. Turn the ignition switch to ON.
3. Measure the voltage between the headlight connector and chassis ground.

Connector & terminal

LH side

(F81) No. 3 (+) — Chassis ground (-):

(F81) No. 4 (+) — Chassis ground (-):

RH side

(F83) No. 3 (+) — Chassis ground (-):

(F83) No. 4 (+) — Chassis ground (-):

Is the voltage 10 — 13.5 V?

Yes

 [Go to 5.](#)

No

 [Go to 6.](#)

5. CHECK HEADLIGHT.



Apply battery voltage between headlight unit connector terminals.

Terminals

Low beam

No. 4 (+) — No. 1 (–):

High beam

No. 3 (+) — No. 1 (–):

Does the headlight (low beam and high beam) come on at normal brightness?

Yes

 [Go to 6.](#)

No

Replace the headlight.

Perform inspection for the malfunction signal line if the [LED HEADLAMP(RH) error Signal] and [LED HEADLAMP(LH) error Signal] do not illuminate in step 2. If short circuit to power supply occurs, repair or replace the harness.

6. CHECK CURRENT DATA.



Display the data of [Lighting I Switch Input] and [Lighting II Switch Input] using Subaru Select Monitor.

Does the display switch between [OFF]↔[ON] when the lighting switch is moved to the switch 1 (TAIL/PARKING) and switch 2 (HEAD) positions?

Yes


 [Go to 9.](#)

No

 [Go to 7.](#)

7. CHECK COMBINATION SWITCH (LIGHT).



1. Turn the ignition switch to OFF.
2. Check the combination switch (light).  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

Is the combination switch (light) normal?

Yes

 [Go to 8.](#)

No

Replace the combination switch (light).

8. CHECK HARNESS.





1. Disconnect the connector of body integrated unit.
2. Check the harness between body integrated unit and combination switch (light).

Is harness normal?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

9. CHECK CURRENT DATA.





1. Turn the ignition switch to ON.
2. Display the data of [Lighting I Lamp Output] and [Lighting II Lamp Output] using Subaru Select Monitor.

Does the display switch between [OFF]↔[ON] when the lighting switch is moved to the switch 1 (TAIL/PARKING) and switch 2 (HEAD) positions?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No


 [Go to 10.](#)

10. CHECK HARNESS.





1. Turn the ignition switch to OFF.
2. Disconnect the body integrated unit connector and the headlight and tail light connectors.
3. Check the harness between body integrated unit and headlight and between body integrated unit and tail light.

Is harness normal?

 Check the body integrated unit and replace it if defective.

Yes

- Inspection:  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

3. AUTO HEADLIGHT SYSTEM CHECK

1. CHECK HEADLIGHT ILLUMINATION.

Set the lighting switch to the switch 1 (TAIL/PARKING) and switch 2 (HEAD).

Do the tail and headlight illuminate?

Yes

 [Go to 2.](#)

No

Check the combination switch (light) and headlight bulb.

2. CHECK CURRENT DATA.

Display the [Lighting AUTO input] data using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Does the display switch between [OFF]↔[ON] when the lighting switch is moved to AUTO position?

Yes

 [Go to 3.](#)

No

 [Go to 8.](#)

3. CHECK CURRENT DATA.

1. Display the [Illumination Sensor Output] data using Subaru Select Monitor.
2. Measure the voltage when the area around the light control sensor, which was dark, becomes bright.

[Illumination Sensor Output]



Dark condition: Approx. 0.6 V or less

Bright condition: Approx. 3 V or more

Is the voltage output according to the brightness?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

 [Go to 4.](#)

4. CHECK HARNESS.

1. Disconnect the connectors from body integrated unit and light control sensor.
2. Check the harness between body integrated unit and light control sensor.

Connector & terminal


(B280) No. 19 — (i89) No. 2:

(B280) No. 29 — (i89) No. 1:

(B281) No. 1 — (i89) No. 3:

Is harness normal?

Yes

 [Go to 5.](#)

No

Repair or replace the harness.

5. CHECK HARNESS.


1. Connect the connector of body integrated unit.
2. Turn the ignition switch to ON.
3. Measure the voltage between light control sensor connector and chassis ground.

Connector & terminal


(i89) No. 3 (+) — Chassis ground (-):

Is the voltage 4.5 — 5.5 V?

Yes

 [Go to 6.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

6. CHECK BODY INTEGRATED UNIT.


Measure the resistance between the body integrated unit and chassis ground.

Connector & terminal


(B280) No. 29 — Chassis ground:

Is the resistance less than 10 Ω?

Yes


 [Go to 7.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

7. CHECK LIGHT CONTROL SENSOR.



1. Connect the light control sensor connector.
2. Check the light control sensor.  [Ref. to LIGHTING SYSTEM>Light Control Sensor>INSPECTION.](#)

Is the light control sensor normal?

Yes


 [Go to 8.](#)

No

Replace the light control sensor.

8. CHECK COMBINATION SWITCH (LIGHT).



Check the combination switch (light).  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

Is the combination switch (light) normal?

Yes

 [Go to 9.](#)

No

Replace the combination switch (light).

9. CHECK HARNESS.



1. Disconnect the connectors of body integrated unit and combination switch (light).
2. Check the harness between body integrated unit and combination switch (light).



Connector & terminal

(B71) No. 19 — (B281) No. 16:

Is harness normal?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

4. CHECK OF WELCOME LIGHTING SYSTEM

Trouble symptom:

Welcome lighting does not illuminate.

1. CHECK BODY INTEGRATED UNIT SETTING.

Display the data of [Welcome Light Off Delay Time(Approaching)] or [Welcome Light Off Delay Time(Exiting)] using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is the setting in the [ON]?

Yes

 [Go to 2.](#)

No

Turn the setting to [ON].

2. CHECK BODY INTEGRATED UNIT SETTING.

Display the [Illumination Sensor Setting] data using Subaru Select Monitor.

Is the setting in the [ON]?

Yes

 [Go to 3.](#)

No


Turn the setting to [ON].

3. CHECK AUTO HEADLIGHT.

1. Set the lighting switch to AUTO position.
2. Make the light control sensor vicinity dark.
3. Turn the ignition switch to ON.

Do the parking light, tail and headlight illuminate?

Yes

 [Go to 4.](#)

No


Check the auto headlight system.  [Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > AUTO HEADLIGHT SYSTEM CHECK.](#)

4. CHECK DOOR LOCK.



Operate the door lock using the keyless transmitter or the access key.

Do the lock and unlock operate properly?

Yes

 [Go to 5.](#)

No


- Check keyless entry system.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION.](#)
- Check the keyless access with push button start system.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

5. CHECK BODY INTEGRATED UNIT.

1. Display the [Ignition power] data using Subaru Select Monitor.
2. Turn the ignition switch to ON.

Is the voltage 10 – 15 V?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

5. CHECK OF WELCOME LIGHTING SYSTEM

Trouble symptom:

Welcome lighting does not go off.


1. CHECK BODY INTEGRATED UNIT SETTING.

Display the data of [Welcome Light Off Delay Time(Approaching)] or [Welcome Light Off Delay Time(Exiting)] using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is the illumination time setting correct?

 [Go to 2.](#)

Set the illumination time.

2. CHECK THE LIGHTS.

Set the lighting switch to the switch 1 (TAIL/PARKING) and switch 2 (HEAD).

Do the parking light, tail light and headlight illuminate?

 [Go to 3.](#)


Check the combination switch (light) and each light circuit.

3. CHECK BODY INTEGRATED UNIT.

Display the [Driver's door SW input] data using Subaru Select Monitor.

Does the display switch between [OFF]↔[ON] when driver's door is opened/closed?

 [Go to 4.](#)

Check the door switch.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK DOOR SWITCH.](#)

4. CHECK DOOR LOCK.



Operate the door lock using the keyless transmitter or the access key.

Do the lock and unlock operate properly?


Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)


No

- Check keyless entry system.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION.](#)
- Check the keyless access with push button start system.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)


6. STEERING RESPONSIVE HEADLIGHT SYSTEM

Refer to "Basic Diagnostic Procedure" of "HEADLIGHT / FOGLIGHT (DIAGNOSTICS)" section.  [Ref. to HEADLIGHT / FOGLIGHT\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

7. CHECK LIGHTING SWITCH

Refer to the "INSPECTION" of the "Combination Switch (Light)".  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)





8. CHECK DIMMER & PASSING SWITCH

Refer to the "INSPECTION" of the "Combination Switch (Light)".  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

LIGHTING SYSTEM > Headlight System

NOTE

For operation procedures of each component of the headlight system, refer to the respective section.

- Headlight Assembly:  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)
- Headlight bulb:  [Ref. to LIGHTING SYSTEM>Headlight Bulb.](#)
- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Light control sensor:  [Ref. to LIGHTING SYSTEM>Light Control Sensor.](#)

LIGHTING SYSTEM > Headlight System

WIRING DIAGRAM


Refer to "Headlight System" in the wiring diagram.

- Halogen type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > HALOGEN MODEL.](#)
- LED type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > LED MODEL.](#)

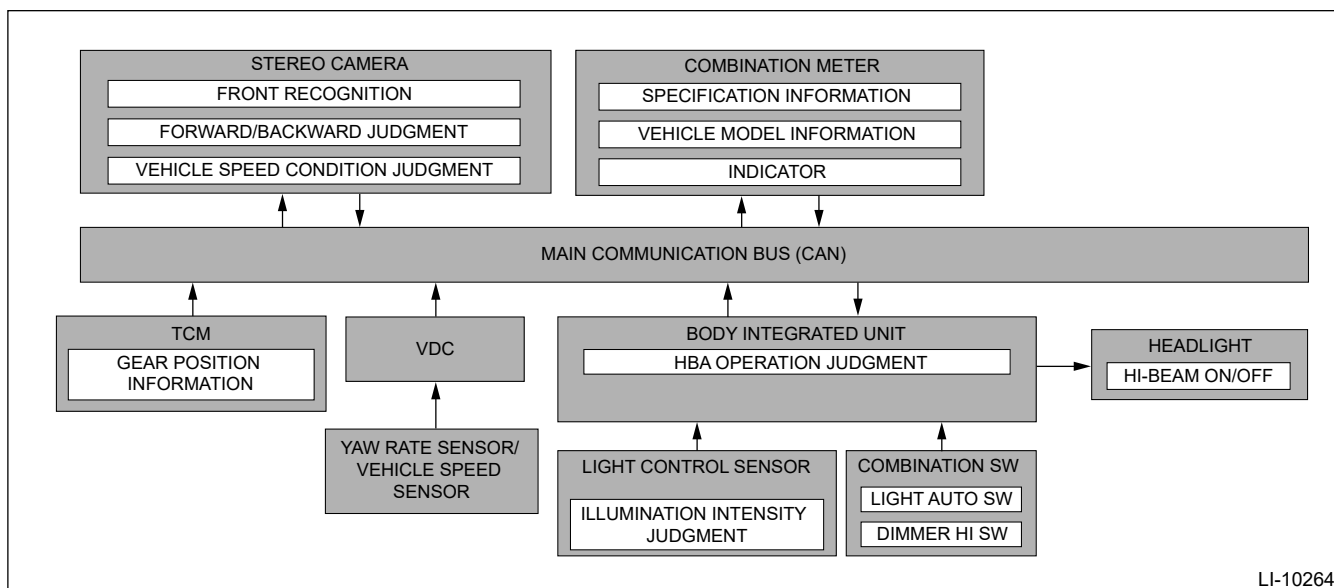
LIGHTING SYSTEM > High Beam Assist System

INSPECTION

1. BASIC INSPECTION

Refer to "Diagnostics with Phenomenon" of "BODY CONTROL (DIAGNOSTICS)".  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Diagnostics with Phenomenon.](#)







2. SYSTEM BLOCK DIAGRAM



LIGHTING SYSTEM > High Beam Assist System

NOTE

For procedure of each component in the high beam assist system, refer to the respective section.

- Headlight assembly:  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)
- Headlight bulb:  [Ref. to LIGHTING SYSTEM>Headlight Bulb.](#)
- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Light control sensor:  [Ref. to LIGHTING SYSTEM>Light Control Sensor.](#)
- Body integrated unit:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)
- Stereo camera:  [Ref. to EyeSight>Stereo Camera.](#)

LIGHTING SYSTEM > High Beam Assist System

WIRING DIAGRAM

Refer to "Headlight System" in the wiring diagram.

- Halogen type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > HALOGEN MODEL.](#)
- LED type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > LED MODEL.](#)

LIGHTING SYSTEM > High-mounted Stop Light

INSPECTION

- 1.** Install the light to test if it illuminates normally.
- 2.** If it fails to illuminate normally, replace the light assembly - high-mounted with a new part.

Note:

Since LED (Light Emitting Diode) is used for the light, replace the light assembly - high-mounted if it does not illuminate normally after installation.


LIGHTING SYSTEM > High-mounted Stop Light

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Light assembly - high-mounted: 4.5 N•m (0.46 kgf-m, 3.3 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > High-mounted Stop Light


REMOVAL

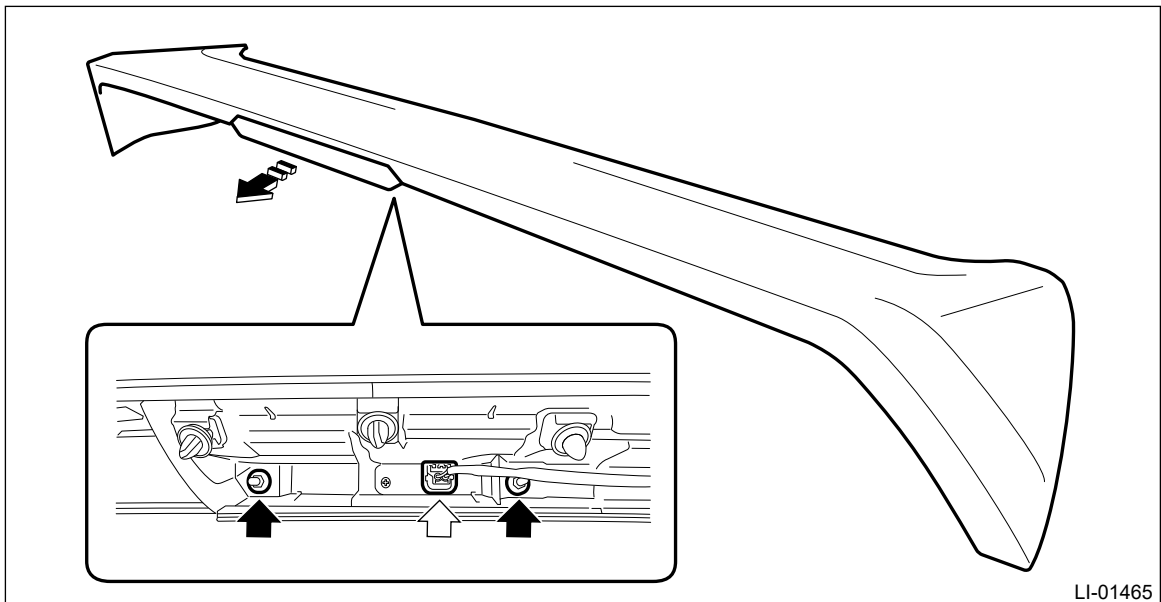
1. ROOF SPOILER TYPE

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the roof spoiler.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Spoiler>REMOVAL.](#)
3. Remove the light assembly - high-mounted.
 - (1) Disconnect the connector.
 - (2) Remove the nuts and remove the light assembly - high-mounted.




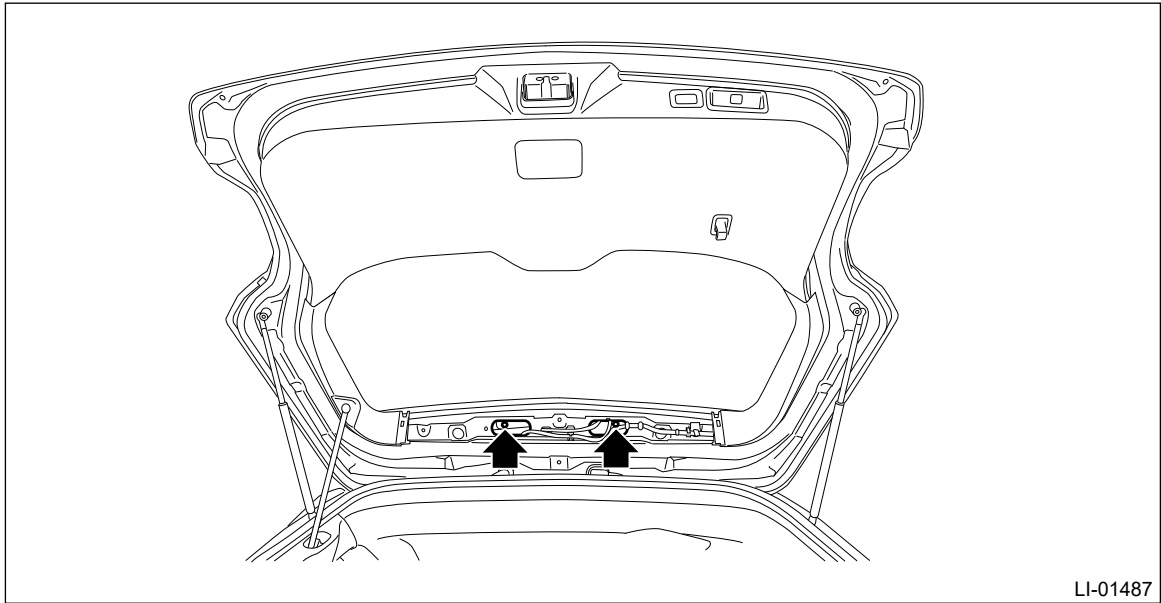
2. REAR GATE TYPE

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

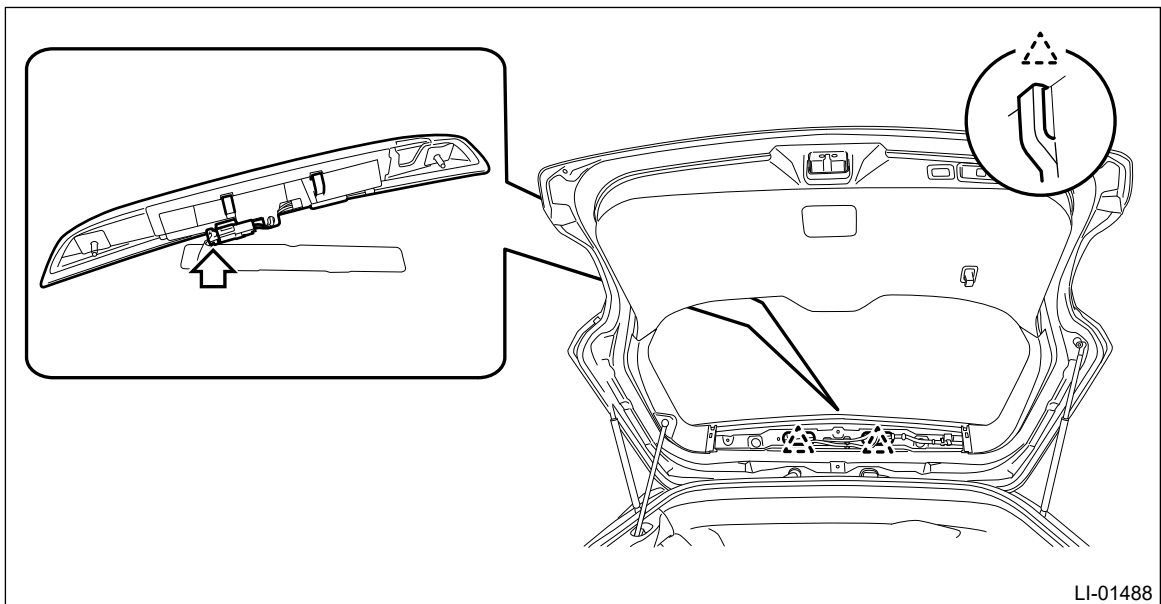
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear gate UPR.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Trim>REMOVAL.](#)
3. Remove the light assembly - high-mounted.
 - (1) Remove the nut.



- (2) Release the claws, and pull out the light assembly - high-mounted to the rear side of the vehicle.
- (3) Disconnect the connector and remove the light assembly - high-mounted.



INSPECTION

1. CHECK THE IGNITION SWITCH ILLUMINATION.




Make sure the ignition switch illumination illuminates when driver's side door is open.

Does the ignition switch illumination illuminate?

Yes

Ignition switch illumination is normal.

No

 [Go to 2.](#)


2. CHECK THE IGNITION SWITCH ILLUMINATION.




Make sure the ignition switch illumination blinks when the ignition switch is turned to ON.

Does the ignition switch illumination blink?

Yes


Check the function setting of body integrated unit.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

No

Check the ignition switch illumination circuit.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK IGNITION SWITCH ILLUMINATION.](#)

LIGHTING SYSTEM > Ignition Switch Illumination

INSTALLATION


- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Ignition Switch Illumination

REMOVAL

Note:

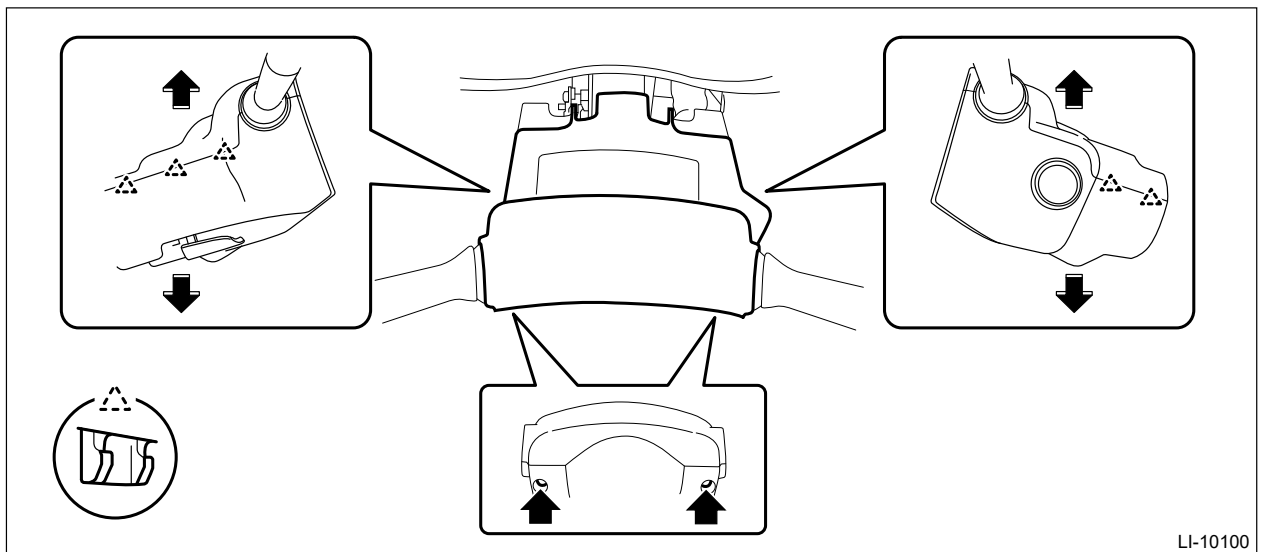
The ignition switch illumination is integrated into the immobilizer antenna assembly.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - column.
 - (1) Remove the screws by turning the steering wheel to right and left.
 - (2) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.

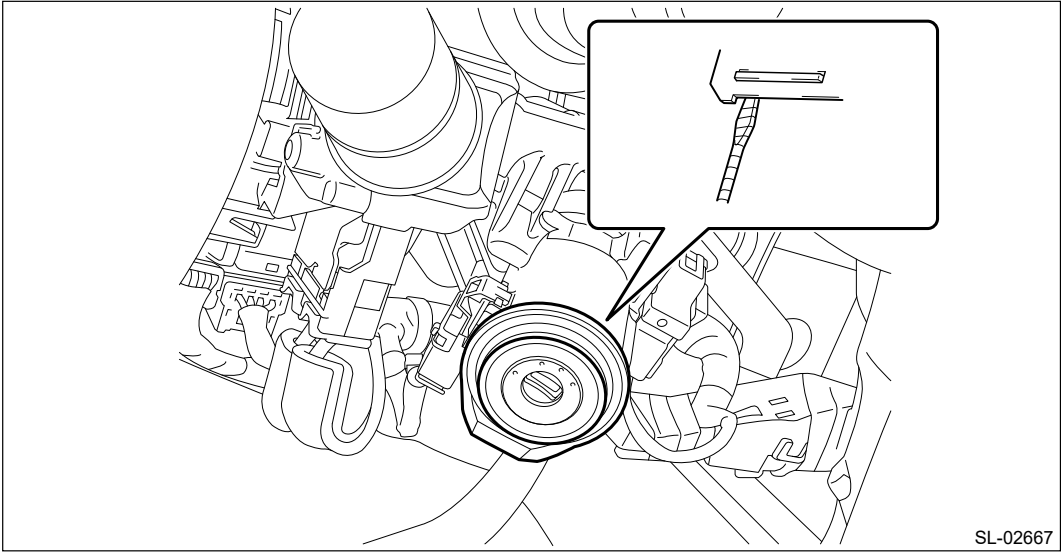


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3. Remove the ignition switch illumination.
 - (1) Disconnect the connector.
 - (2) Release the claw using a flat tip screwdriver or similar tool wrapped with a protection tape, and remove the ignition switch illumination.

Caution:

Do not apply excessive force to remove the ignition switch illumination lock. Otherwise they may be broken because those parts are the products made of a plastic.




SL-02667



LIGHTING SYSTEM > Interior Light System

INSPECTION

1. CHECK DOOR SWITCH

Refer to the "INSPECTION" of the "Door Switch".  [Ref. to LIGHTING SYSTEM>Door Switch>INSPECTION.](#)







2. CHECK REAR GATE LATCH SWITCH

- Model without power rear gate: refer to "INSPECTION" of the "Rear Gate Latch and Actuator Assembly" in "SECURITY AND LOCKS" section.  [Ref. to SECURITY AND LOCKS>Rear Gate Latch and Actuator Assembly>INSPECTION > ACTUATOR.](#)
- Model with power rear gate: refer to "INSPECTION" of the "Power Rear Gate Auto Closer" in "POWER REAR GATE SYSTEM" section.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Auto Closer>INSPECTION.](#)

LIGHTING SYSTEM > Interior Light System


NOTE

For operation procedures of each component of the interior light system, refer to the respective section.

- Spot map light:  [Ref. to LIGHTING SYSTEM>Spot Map Light.](#)
- Room light:  [Ref. to LIGHTING SYSTEM>Room Light.](#)
- Luggage room light:  [Ref. to LIGHTING SYSTEM>Luggage Room Light.](#)
- Vanity mirror light:  [Ref. to LIGHTING SYSTEM>Vanity Mirror Light.](#)
- Door step light:  [Ref. to LIGHTING SYSTEM>Door Step Light.](#)
- Door switch:  [Ref. to LIGHTING SYSTEM>Door Switch.](#)


LIGHTING SYSTEM > Interior Light System

WIRING DIAGRAM

Refer to "Interior Light System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Interior Light System>WIRING DIAGRAM.](#)


LIGHTING SYSTEM > License Plate Light

INSPECTION

- 1.** Visually check the bulb for blow out.
- 2.** Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
- 3.** Replace the bulb if it is found defective.

LIGHTING SYSTEM > License Plate Light

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > License Plate Light

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

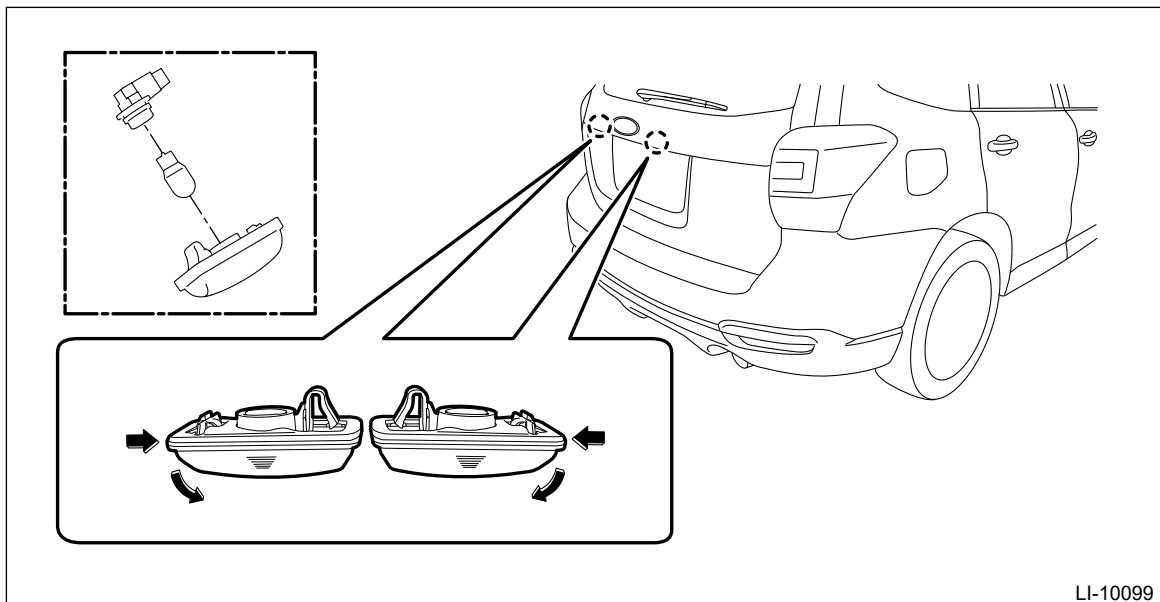
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the license plate light.
 - (1) Release the claws and pull out the license plate light.
 - (2) Disconnect the connector and remove the bulb socket and bulb from the license plate light.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



LI-10099

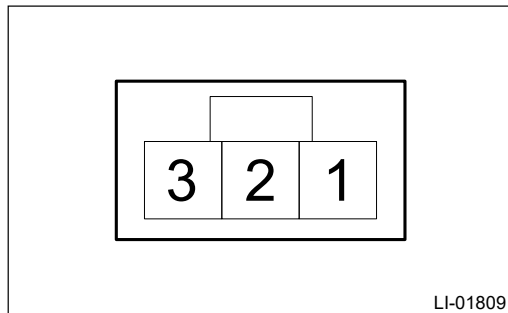
LIGHTING SYSTEM > Light Control Sensor

INSPECTION

1. Turn the ignition switch to ON.
2. Set the lighting switch to AUTO position.
3. Measure the voltage between connector terminals.

Preparation tool:

Circuit tester




Terminal No.	Inspection conditions	Standard
2 (+) – 1 (-)	Measure the voltage when the area around the sensor - automatic light, which was dark, becomes bright.	Dark condition: Approx. 0.6 V or less
		Bright condition: Approx. 3 V or more

4. Replace the sensor - automatic light if the inspection result is not within the standard value.

LIGHTING SYSTEM > Light Control Sensor

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Light Control Sensor

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

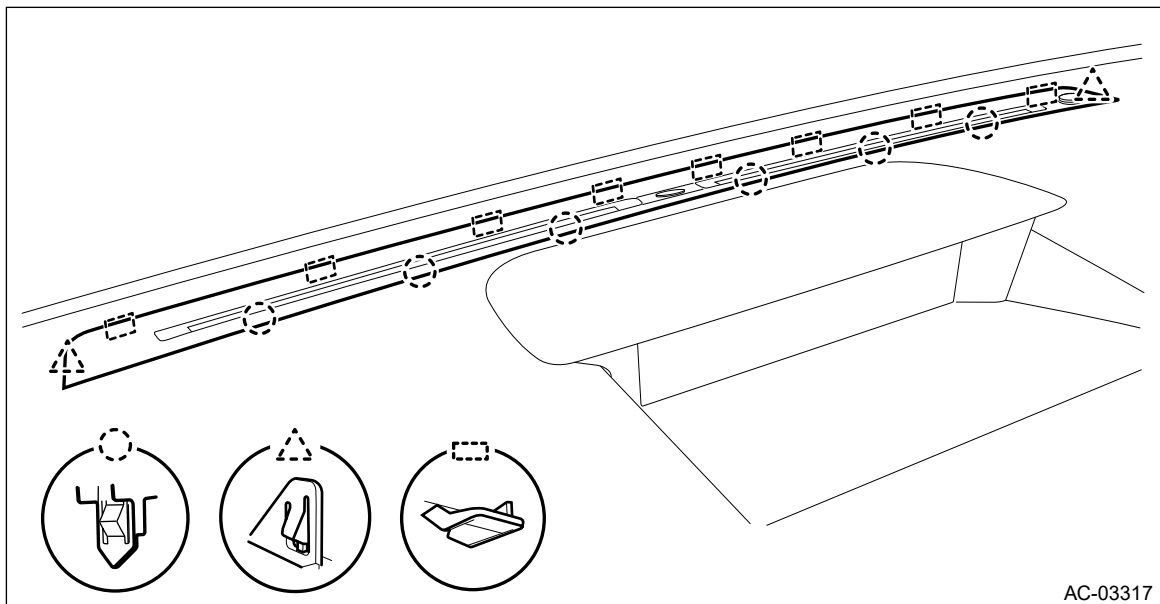
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the sensor - automatic light.

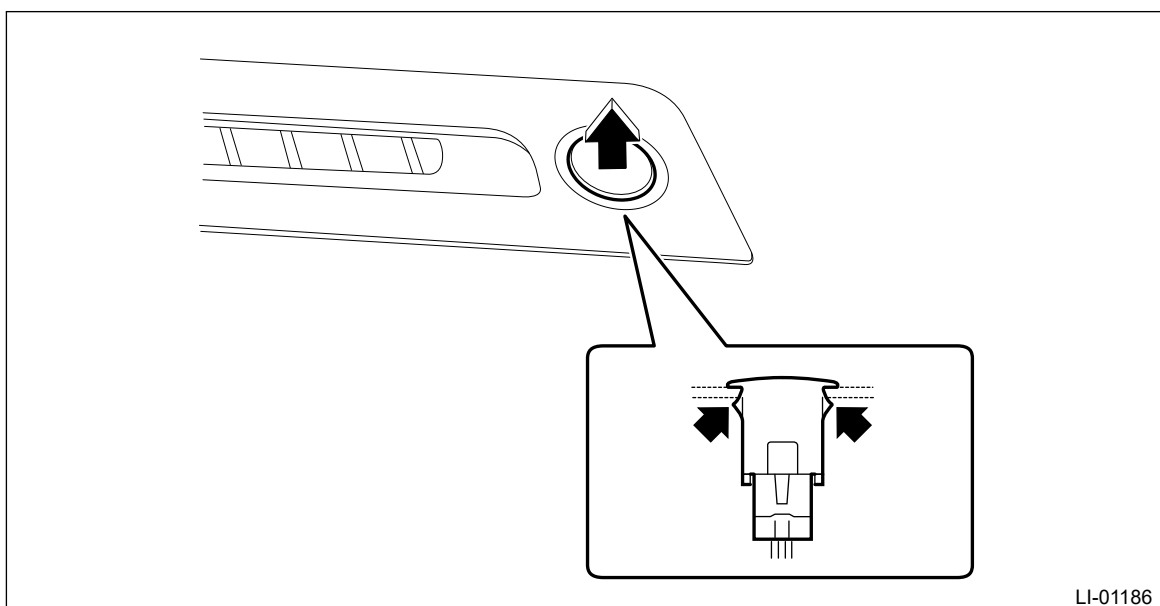
Caution:

Be careful not to damage the sensors and interior trims when removing.

- (1) Release the connector and claws, and remove the grille - front defroster.



- (2) Release the claws, and remove the sensor - automatic light from the grille - front defroster.



LIGHTING SYSTEM > Luggage Room Light

INSPECTION

1. LUGGAGE ROOM LIGHT BULB

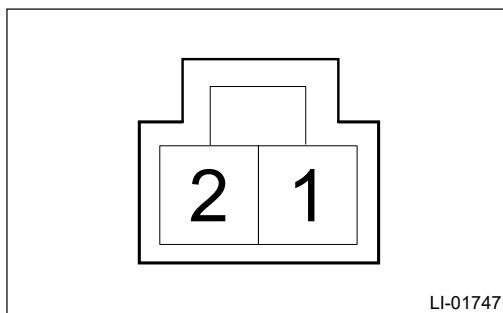
1. Visually check the bulb for blow out.
2. Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
3. Replace the bulb if it is found defective.

2. LUGGAGE ROOM LIGHT SWITCH

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester




Terminal No.	Inspection conditions	Standard
1 – 2	Switch OFF	1 MΩ or more
	Switch ON	Less than 1 Ω

2. Replace the light assembly - luggage room if the inspection result is not within the standard value.

LIGHTING SYSTEM > Luggage Room Light

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Luggage Room Light

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - luggage room.

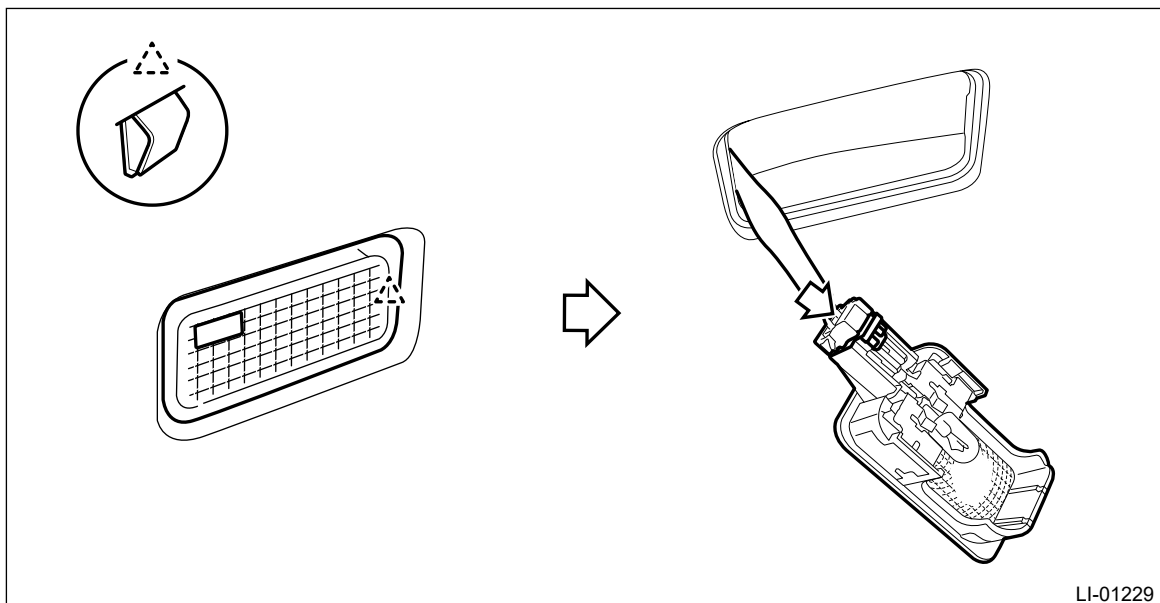
Caution:

When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.

- (1) Release the claws and remove the main body of the light assembly - luggage room.
- (2) Disconnect the connector and remove the light assembly - luggage room and the bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

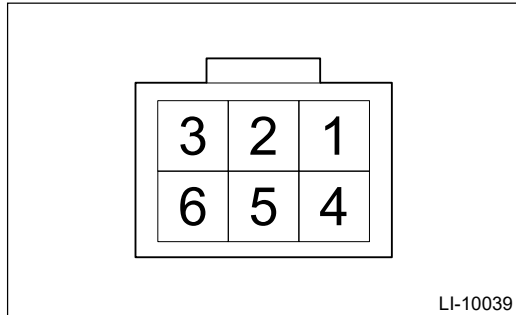


LI-01229

LIGHTING SYSTEM > Rear Combination Light Assembly

INSPECTION

1. Apply battery voltage between the connector terminals to check the lighting condition of the light.



Terminal No.	Inspection conditions	Specification
5 (+) – 6 (-)	Apply battery voltage.	Stop light on
1 (+) – 6 (-)		Tail (parking) light on
2 (+) – 6 (-)		Turn signal light on
3 (+) – 6 (-)		Back-up light on

2. Replace the harness and bulb if it is found defective.


LIGHTING SYSTEM > Rear Combination Light Assembly

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Light assembly - rear combination: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Rear Combination Light Assembly

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

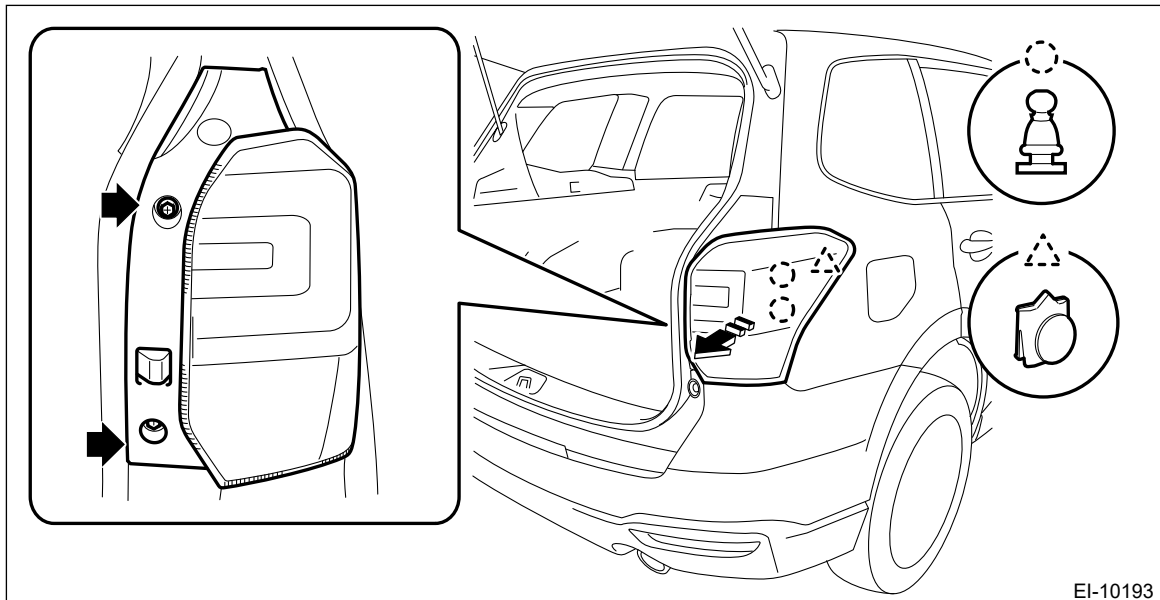
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - rear combination.

Caution:

Be careful not to damage the clips.

- (1) Release the bolts and clips, then pull out the light assembly - rear combination to the vehicle rear.
- (2) Disconnect the connector and remove the light assembly - rear combination.



EI-10193

LIGHTING SYSTEM > Rear Height Sensor

INSPECTION

1. Connect three dry cell batteries (1.5 V) in series.

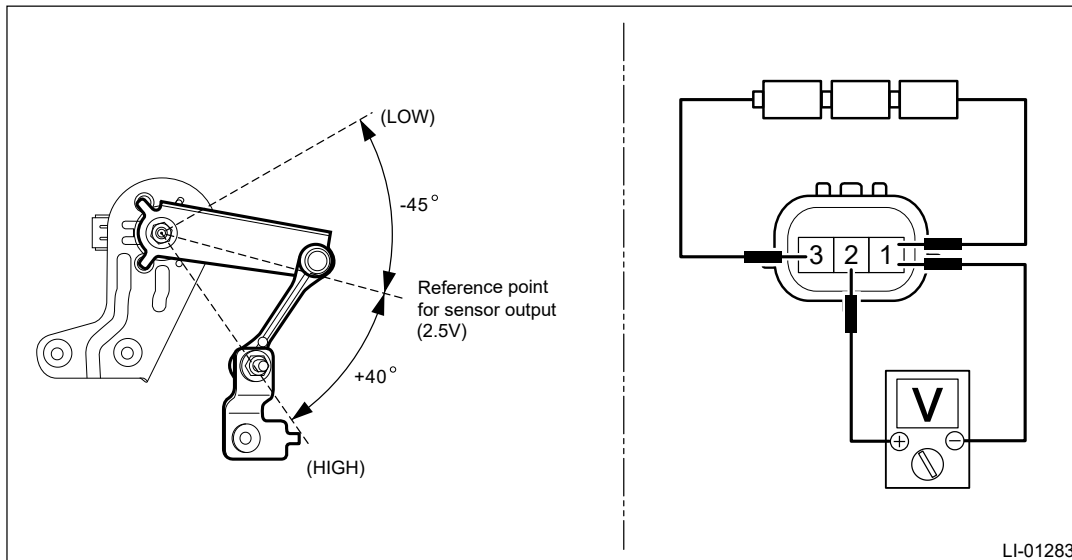
Note:

- Use new dry-cell batteries.
- Using a circuit tester, check that the initial voltage of each dry-cell battery is 1.6 V or more. And also check that the voltage of three batteries in series is between 4.8 – 5.2 V.
- For power supply, 5 V DC constant voltage power source can also be used.

2. Connect the (+) side of the battery to terminal No. 3 of the sensor, and the (-) side of the battery to terminal No. 1, and apply a voltage of 4.5 V between terminals No. 3 – No. 1.
3. With voltage applied, measure the voltage between connector terminals when the sensor link is moved slowly up and down.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
2 (+) – 1 (-)	Move the link within the operation range.	Approx. 0.5 – 4.1 V

Note:

When the link is moved upward from the standard output position, the sensor output varies to the 0.5 V side. When the link is moved downward, the sensor output varies to the 4.1 V side.

4. Replace the sensor assembly - headlight beam leveler if the inspection result is not within the standard value.

LIGHTING SYSTEM > Rear Height Sensor

INSTALLATION

Caution:



Do not apply impact to the sensor assembly - headlight beam leveler or forcibly move the arm. Doing so may cause sensor damage and malfunction.

1. Install each part in the reverse order of removal.


Tightening torque:

Sensor assembly - headlight beam leveler: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

Rear wheel: 120 N•m (12.24 kgf-m, 88.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
3. Perform reinitialization of the sensor assembly - headlight beam leveler.  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > REINITIALIZATION.](#)

Note:

When replacing the sensor assembly - headlight beam leveler with a new part, perform the initialization.  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > INITIALIZATION.](#)

LIGHTING SYSTEM > Rear Height Sensor

REMOVAL

Caution:

- Always remove the sensor assembly - headlight beam leveler before removing any parts related to the suspension.
- Do not apply impact to the sensor assembly - headlight beam leveler or forcibly move the arm. Doing so may cause sensor damage and malfunction.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

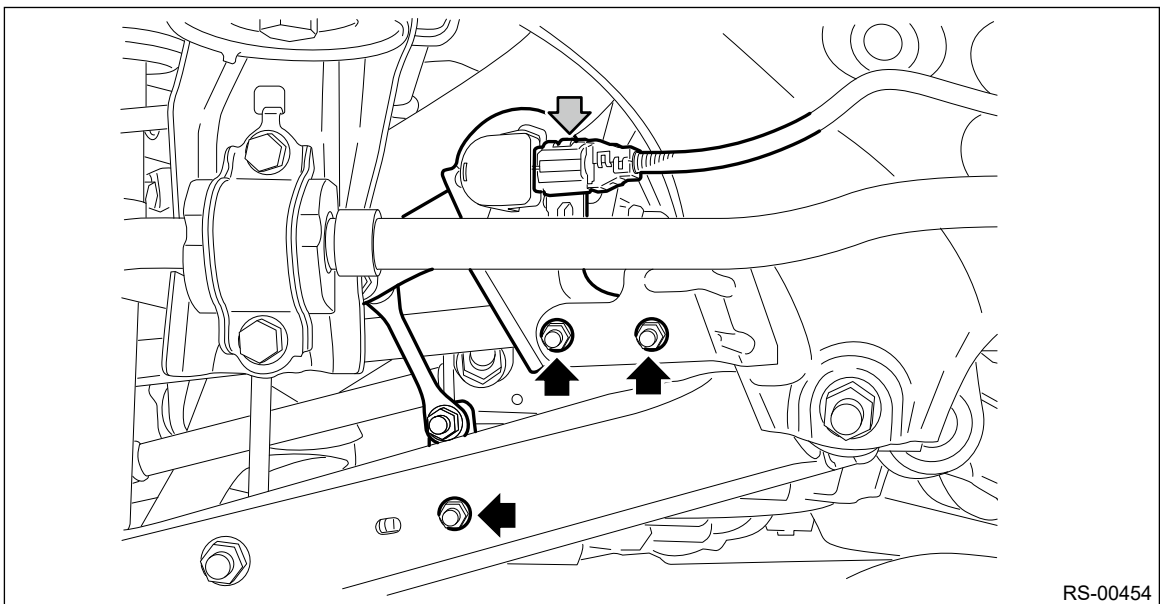
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Lift up the vehicle, and remove the left rear wheel.
3. Remove the sensor assembly - headlight beam leveler.

Caution:

Do not disassemble the sensor and lever.


- (1) Disconnect the connector.
- (2) Remove the nuts, and remove the sensor assembly - headlight beam leveler.



RS-00454


LIGHTING SYSTEM > Rear Side Marker Light Bulb

NOTE

The rear side marker light bulb is integrated with the tail light bulb. For details concerning operation procedures, refer to "Tail/Stop Light Bulb".  [Ref. to LIGHTING SYSTEM>Tail/Stop Light Bulb.](#)


LIGHTING SYSTEM > Rear Turn Signal Light Bulb

INSPECTION

- 1.** Visually check the bulb for blow out.
- 2.** Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
- 3.** Replace the bulb if it is found defective.

LIGHTING SYSTEM > Rear Turn Signal Light Bulb

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


LIGHTING SYSTEM > Rear Turn Signal Light Bulb

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

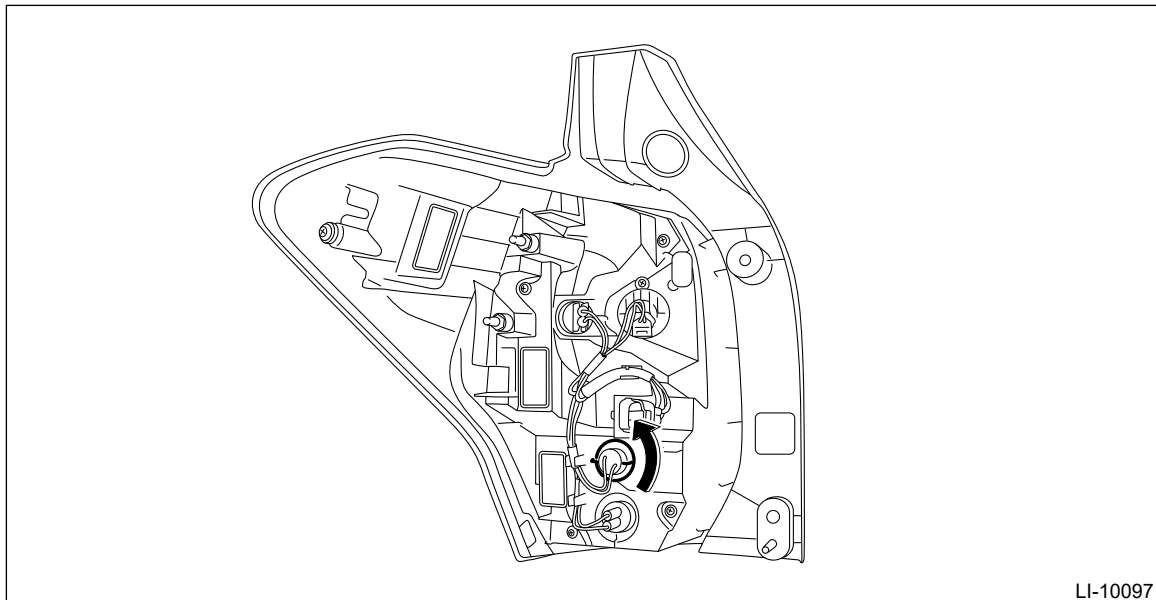
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - rear combination.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>REMOVAL.](#)
3. Remove the bulb socket and rear turn signal light bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



LI-10097

LIGHTING SYSTEM > Reflex Reflector

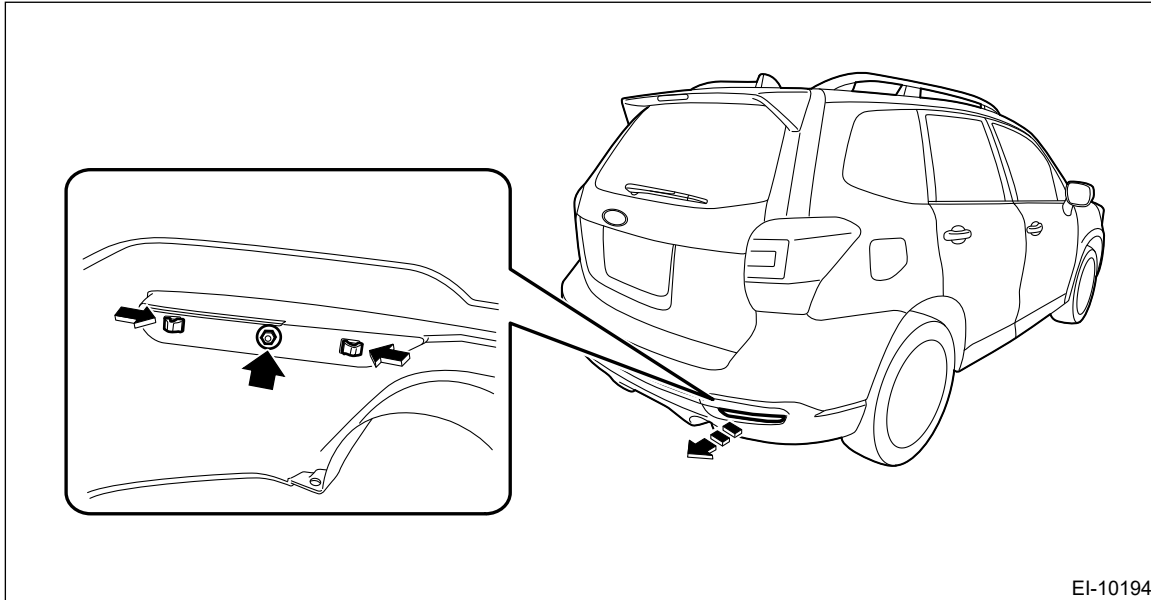
INSTALLATION

Install each part in the reverse order of removal.

LIGHTING SYSTEM > Reflex Reflector

REMOVAL

From behind the bumper face - rear, release the nuts and claws and remove the reflex reflector assembly.



EI-10194

LIGHTING SYSTEM > Relay and Fuse

INSPECTION

1. CHECK FUSE

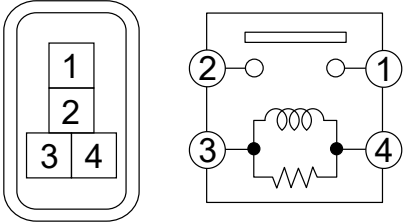
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:

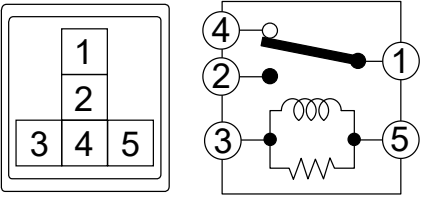
If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY UNIT

1. Check the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 MΩ or more	
1 – 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

LI-01273

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 MΩ or more	
1 – 4	Always	Less than 1 Ω	
1 – 2	Apply battery voltage between terminals 3 and 5.	Less than 1 Ω	

LI-01274

2. Replace the relay if the inspection result is not within the standard value.

3. CHECK DAYTIME RUNNING LIGHT & HIGH BEAM RELAY

1. Check the resistance between unit connector terminals.

Terminal No.	Inspection conditions	Standard	Connector & circuit
3 – 4	Always	1 MΩ or more	
3 – 4	Apply battery voltage between terminals 1 and 2.	Less than 1 Ω	
7 – 8	Always	1 MΩ or	

		more	
7 – 9	Always	Less than 1 Ω	
7 – 8	Apply battery voltage between terminals 5 and 6.	Less than 1 Ω	

LI-10267


2. Replace the daytime running light relay unit if the inspection result is not within the standard value.

INSTALLATION

1. DAYTIME RUNNING LIGHT & HIGH BEAM RELAY (HALOGEN TYPE ONLY)

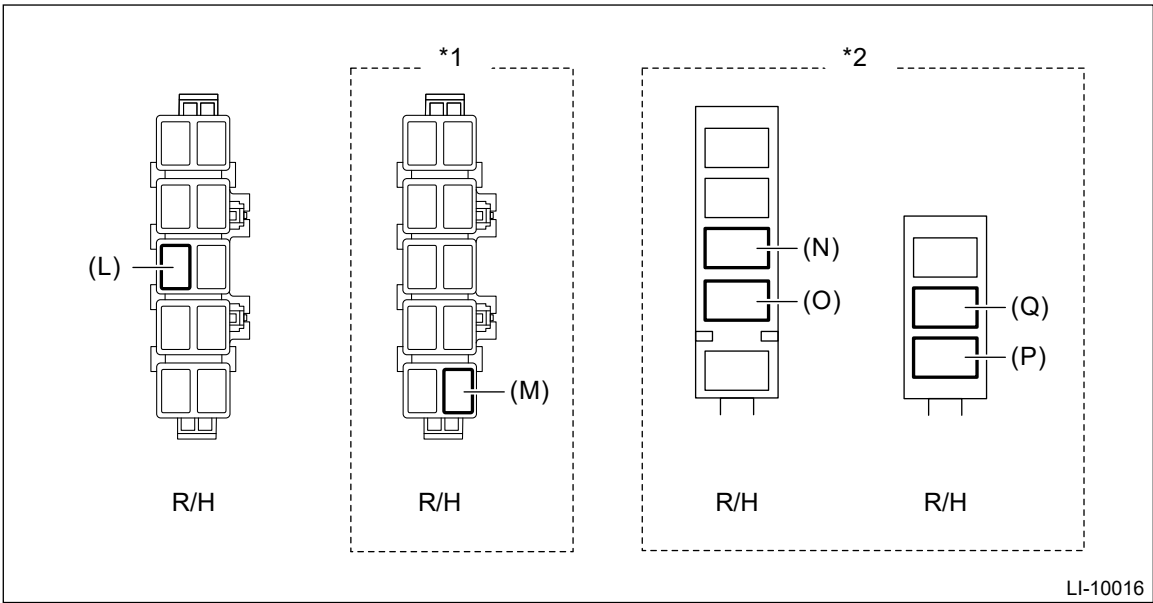
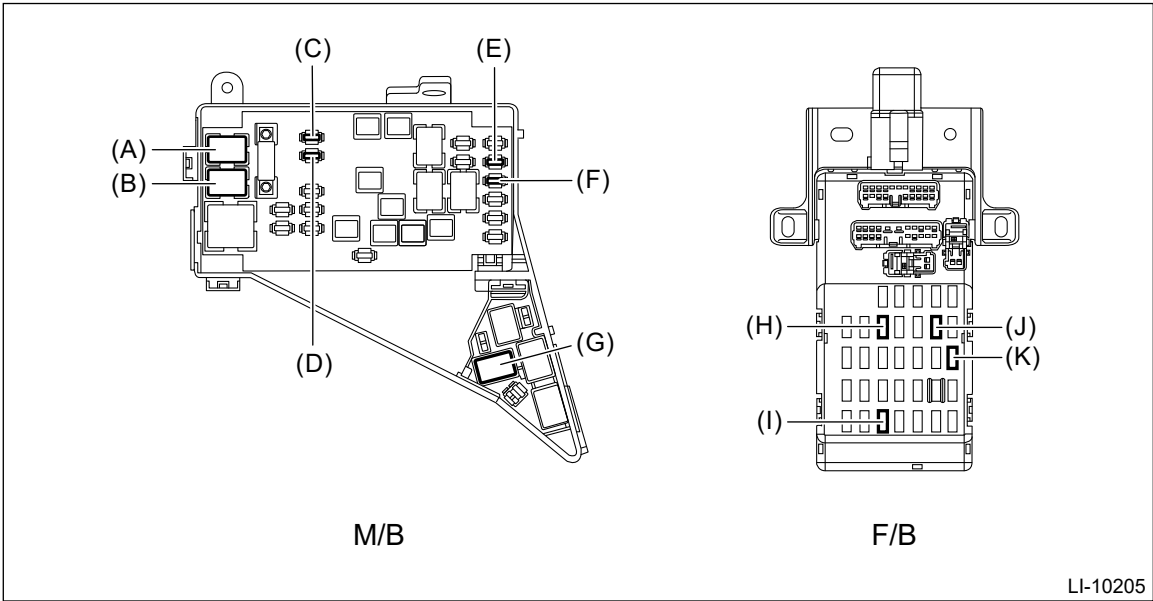
Caution:

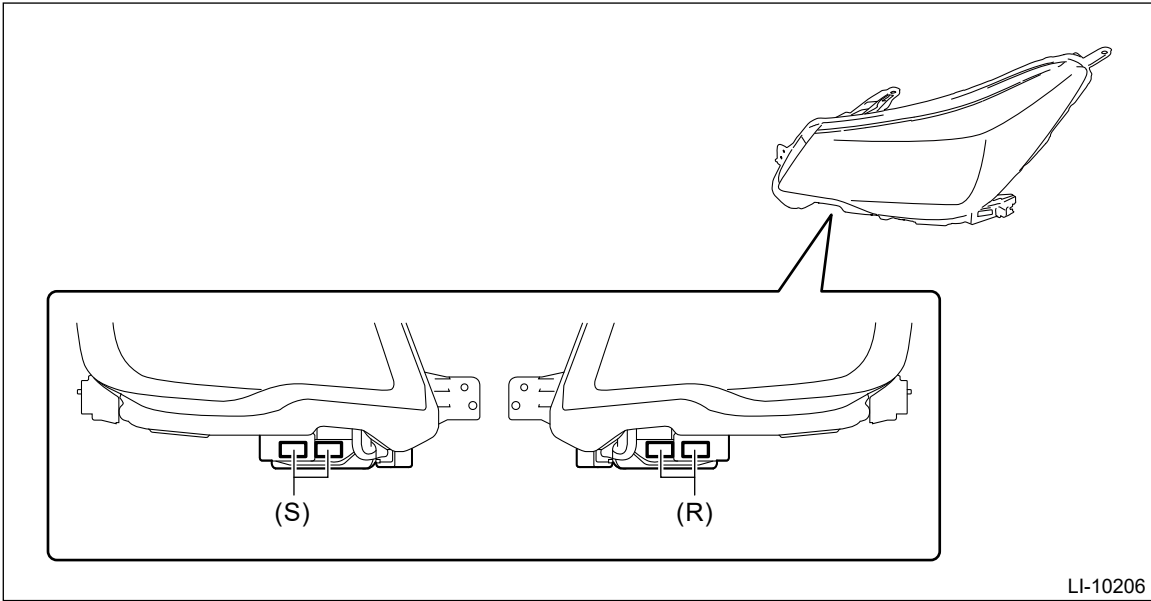
When installing the daytime running light relay unit to the case of the light assembly - head, be sure to install the gasket.

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Relay and Fuse

LOCATION





LI-10206

Main fuse box		Headlight relay (HI)	(A)
		Headlight relay (LO)	(B)
		Fuse 15 A (high beam LH/RH)	(C)
		Fuse 30 A (combination light LH/RH)	(D)
		Fuse 15 A (tail and illumination relay, daytime running light relay)	(E)
		Fuse 15 A (turn signal & hazard unit, key illumination)	(F)
		Daytime running light relay*4	(G)
Relay & fuse box		Fuse 10 A (stop light and brake switch)	(H)
		Fuse 15 A (front fog light relay*1, front fog light relay LH/RH*2)	(I)
		Fuse 7.5 A (turn signal & hazard unit)	(J)
		Fuse 7.5 A (inhibitor switch, back-up light switch, auto headlight beam leveler CM)	(K)
Relay holder	Passenger room (LH)	Tail & illumination relay	(L)
	Passenger room (RH)*1	Front fog light relay	(M)
	Engine room (non-turbo model)*2	Front fog light relay RH	(N)
		Front fog light relay LH	(O)

	Engine room (turbo model)*2	Front fog light relay LH	(P)
		Front fog light relay RH	(Q)
Headlight (daytime running light relay unit)*3		Daytime running light & high beam relay LH	(R)
		Daytime running light & high beam relay RH	(S)

*1: Model without SRF

*2: Model with SRF

*3: Halogen type

*4: LED type

Note:

For other related fuses, refer to the wiring diagram.  Ref. to WIRING SYSTEM>Power Supply Circuit.

REMOVAL

1. DAYTIME RUNNING LIGHT & HIGH BEAM RELAY (HALOGEN TYPE ONLY)



Note:

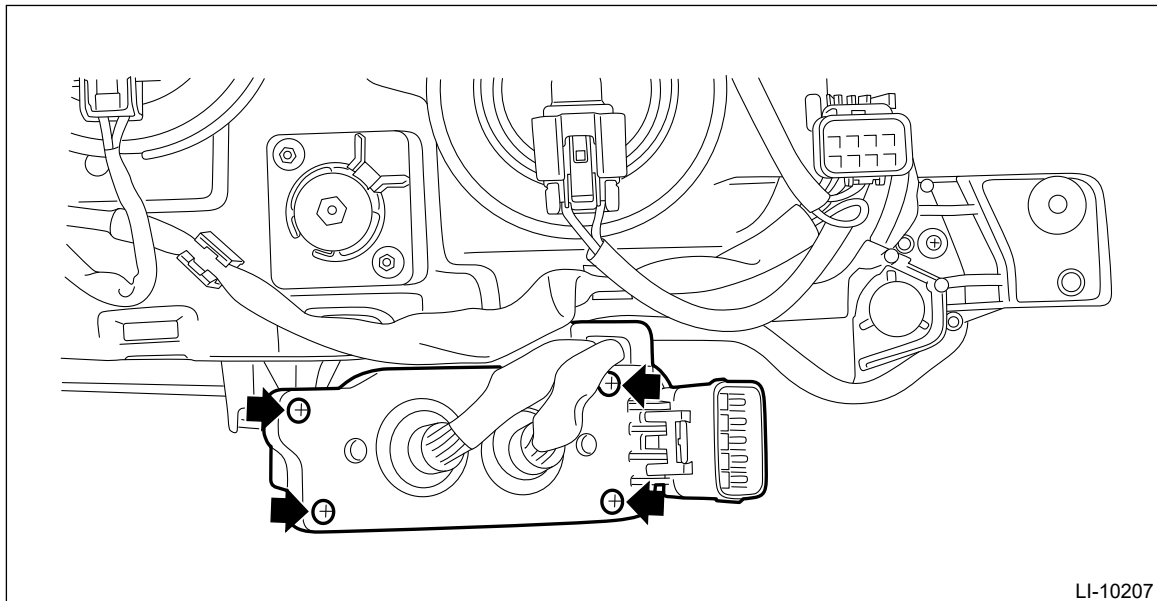
The daytime running light & high beam relay is integrated into the daytime running light relay unit.

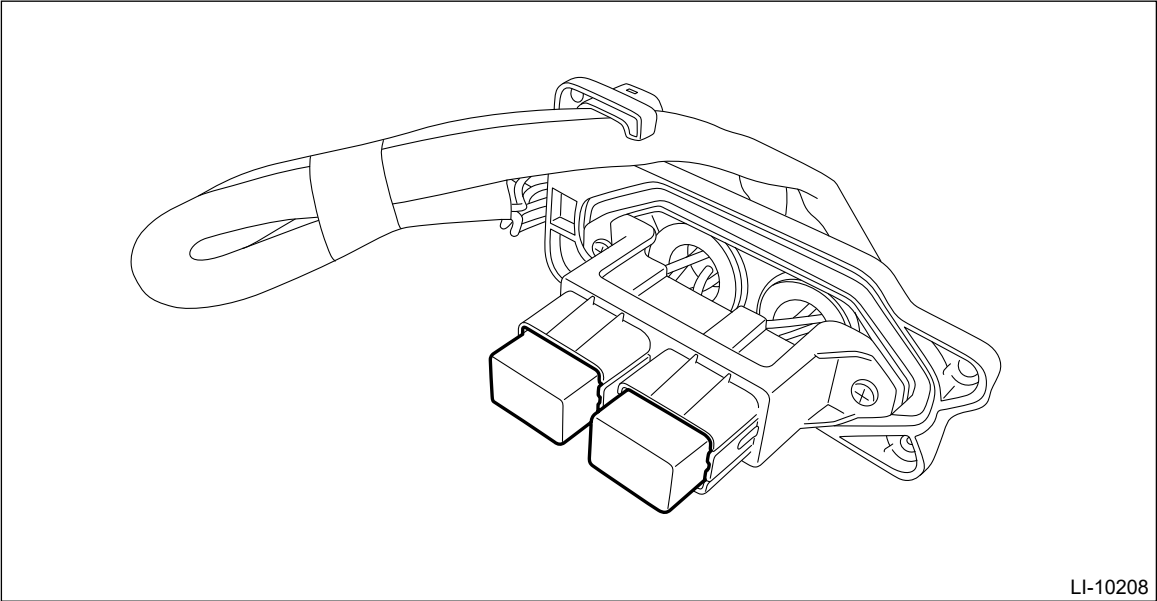
1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)
3. Remove the light assembly - head.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>REMOVAL.](#)
4. Remove the screws, and remove the daytime running light relay unit.





LI-10208

LIGHTING SYSTEM > Room Light

INSPECTION

1. ROOM LIGHT BULB

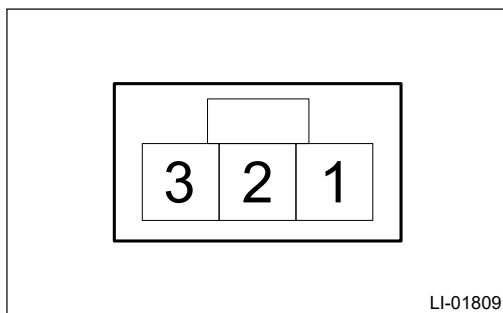
1. Visually check the bulb for blow out.
2. Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
3. Replace the bulb if it is found defective.

2. ROOM LIGHT SWITCH

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
1 – 3	Switch OFF	1 MΩ or more
	Switch ON	Less than 1 Ω
2 – 3	Switch door	Less than 1 Ω


2. Apply battery voltage between the connector terminals to check the lighting condition of the light.

Terminal No.	Inspection conditions	Specification
3 (+) – 1 (-) 3 (+) – 2 (-)	Switch OFF	Light OFF
	Switch ON	Light ON
	Switch door	Light ON

3. Replace the light assembly - room if faulty is found in the inspection.

LIGHTING SYSTEM > Room Light

INSTALLATION


1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Room Light

REMOVAL

Note:

Do not remove the room light if removing the bulb only.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

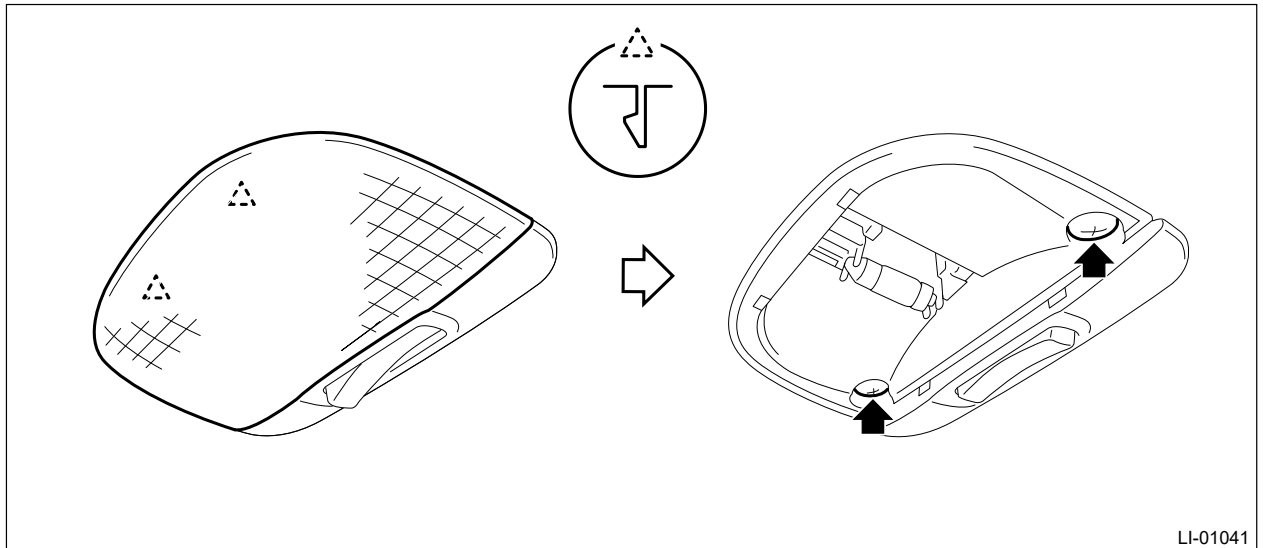
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - room.

Caution:

When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.

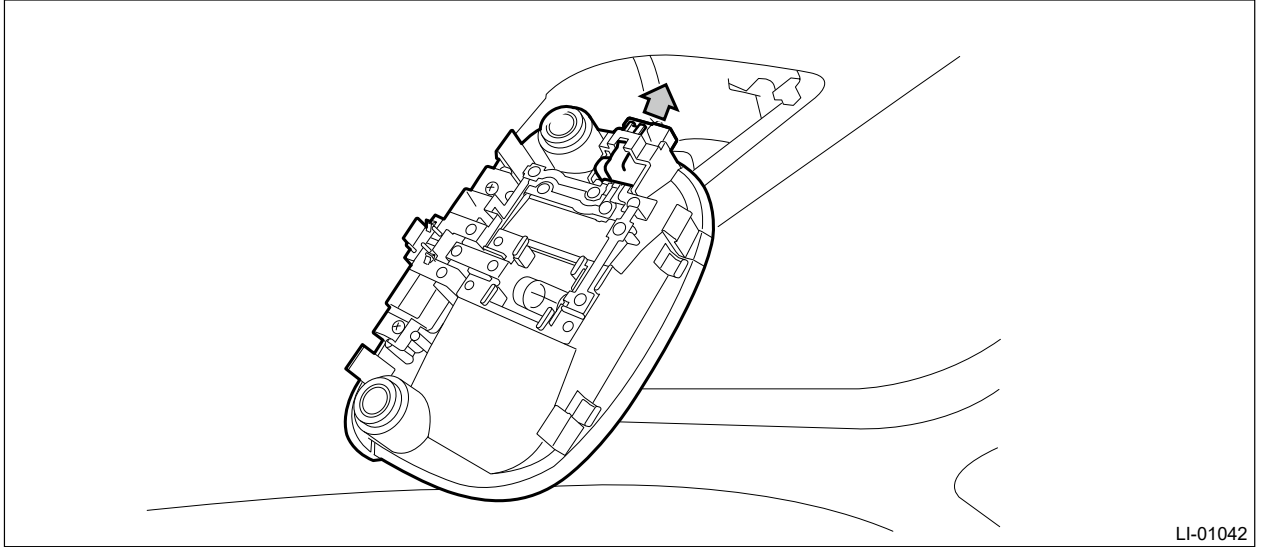
- (1) Release the claws and remove the lens.
- (2) Remove the screws and pull out the light assembly - room.



- (3) Disconnect the connector and remove the light assembly - room and the bulb.

Note:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



LI-01042

LIGHTING SYSTEM > Side Turn Signal Light Assembly

INSPECTION


- 1.** Install the light to check if it blinks normally.
- 2.** If it fails to blink normally, replace the light assembly - side turn mirror with a new part.

Note:

Since LED (Light Emitting Diode) is used for the light, replace the light assembly - side turn mirror if it does not illuminate normally after installation.

LIGHTING SYSTEM > Side Turn Signal Light Assembly

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


LIGHTING SYSTEM > Side Turn Signal Light Assembly

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - side turn mirror.  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>DISASSEMBLY.](#)

LIGHTING SYSTEM > Spot Map Light

INSPECTION

1. SPOT MAP LIGHT BULB

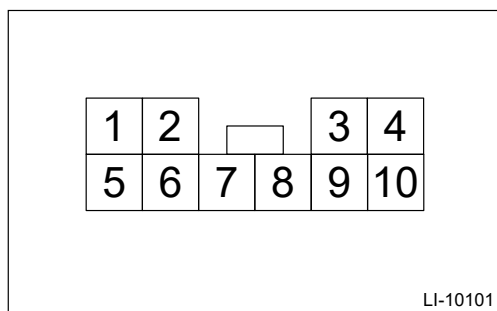
1. Visually check the bulb for blow out.
2. Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
3. Replace the bulb if it is found defective.

2. SPOT MAP LIGHT SWITCH

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



- Models without EyeSight

Terminal No.	Inspection conditions	Standard
6 – 5	Switch OFF	1 MΩ or more
	Switch ON	Approx. 18 Ω


- Models with EyeSight

Terminal No.	Inspection conditions	Standard
7 – 8	Switch OFF	1 MΩ or more
	Switch ON	Approx. 18 Ω

2. Replace the light assembly - map if the inspection result is not within the standard value.

LIGHTING SYSTEM > Spot Map Light

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

REMOVAL

1. MODELS WITHOUT EyeSight

Note:

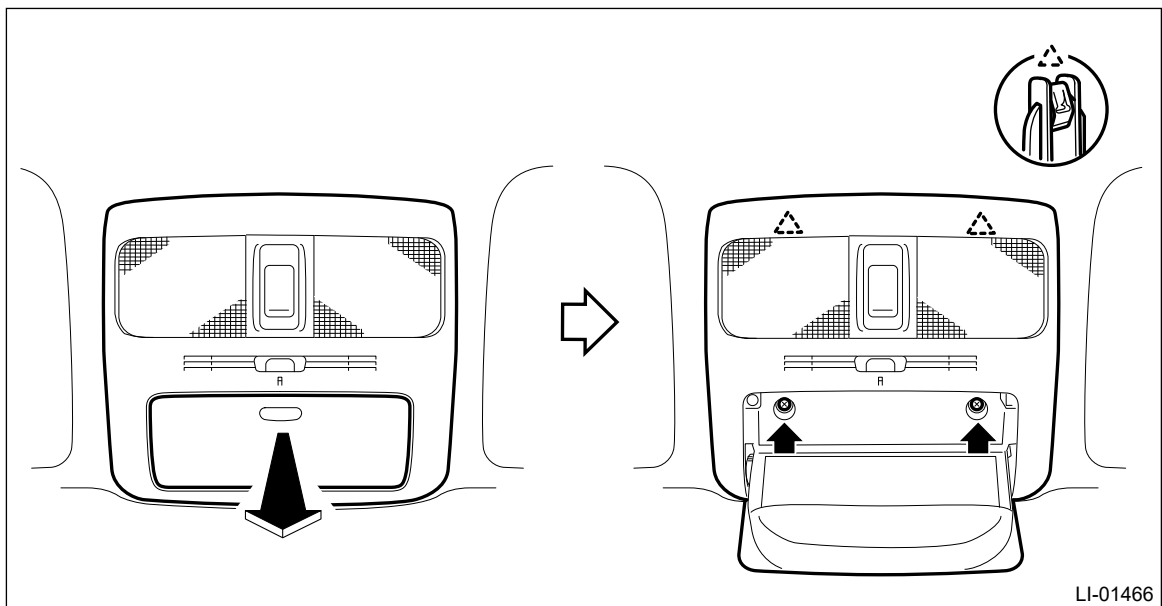
- The spot map light is a single unit with the overhead console. Replace the overhead console if faulty.
- Do not remove the overhead console if removing the bulb only.

- 1.** Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

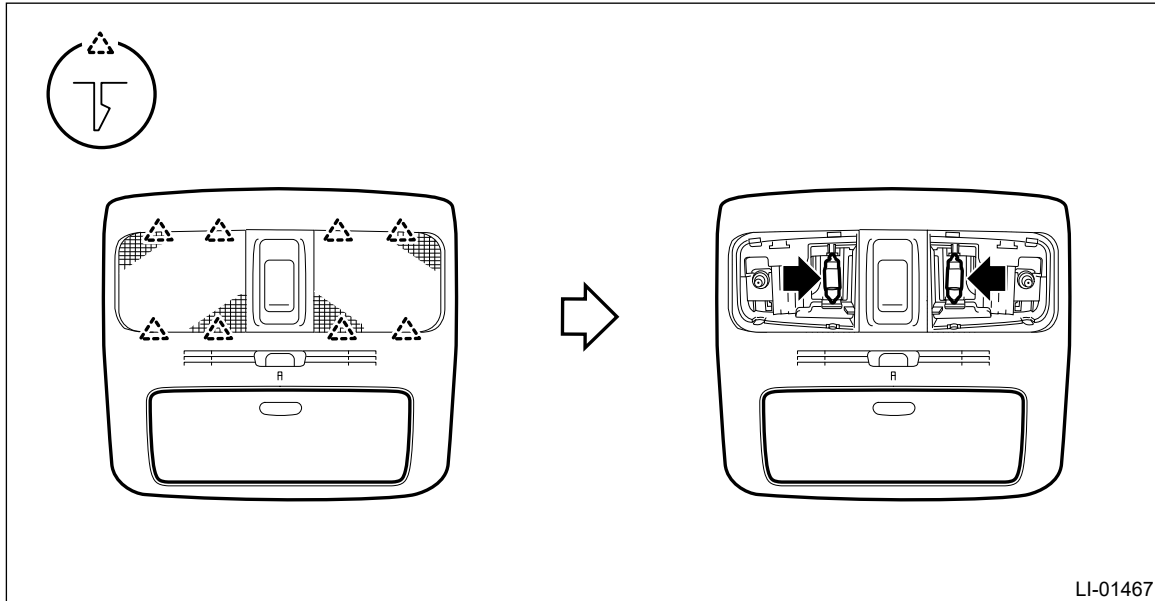
- 2.** Remove the overhead console assembly.
(1) Push and open the rear end of the overhead console lid, and remove the screws.
(2) Remove the clips and pull out the overhead console to disconnect the connectors.



- 3.** Release the claws, then detach the spot map light cover and bulb.

Caution:


- When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.
- Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



2. MODELS WITH EyeSight

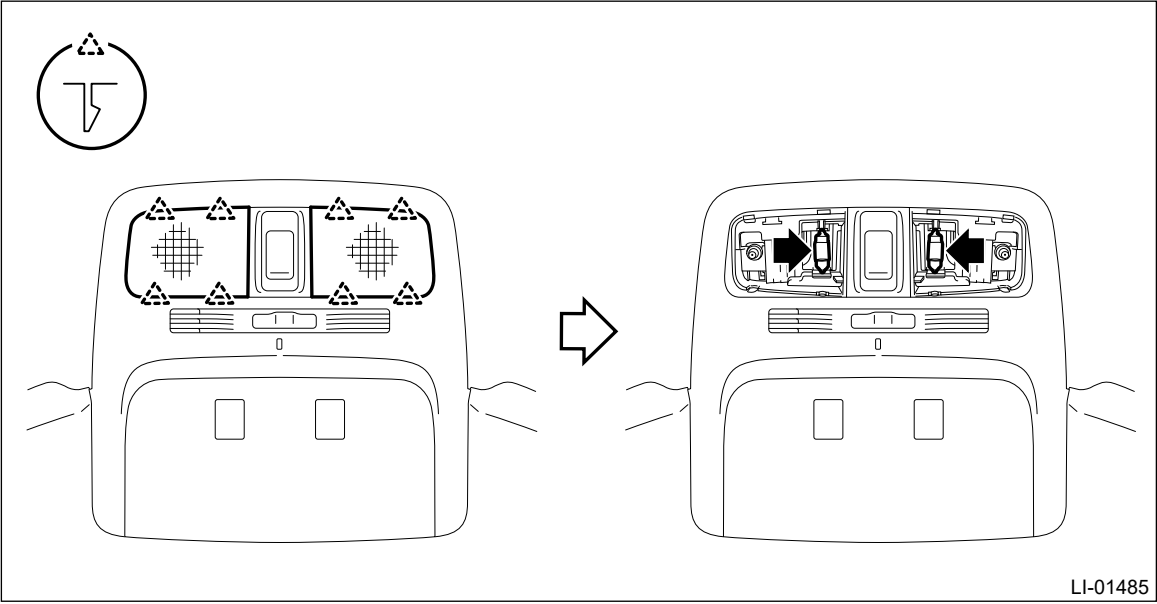
Note:

- The spot map light is a single unit with the stereo camera cover. If defective, replace the stereo camera cover.
- Do not remove the stereo camera cover if removing the bulb only.

1. Remove the stereo camera cover.  [Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
2. Release the claws, then detach the spot map light cover and bulb.

Caution:

- When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.
- Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



LI-01485

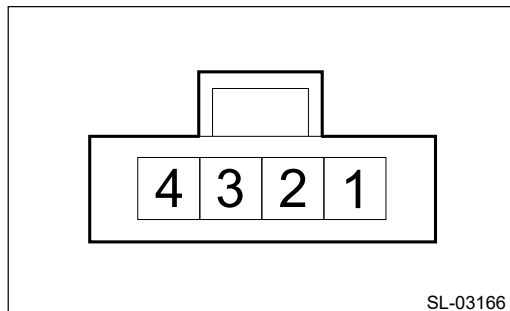
LIGHTING SYSTEM > SRF OFF Switch

INSPECTION

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
2 – 3	OFF	1 MΩ or more
	ON	Less than 1 Ω


2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Terminal No.	Inspection conditions	Specification
1 (+) – 4 (-)	Apply battery voltage.	Light ON

3. Replace the SRF OFF switch if it is found defective.


LIGHTING SYSTEM > SRF OFF Switch

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


LIGHTING SYSTEM > SRF OFF Switch

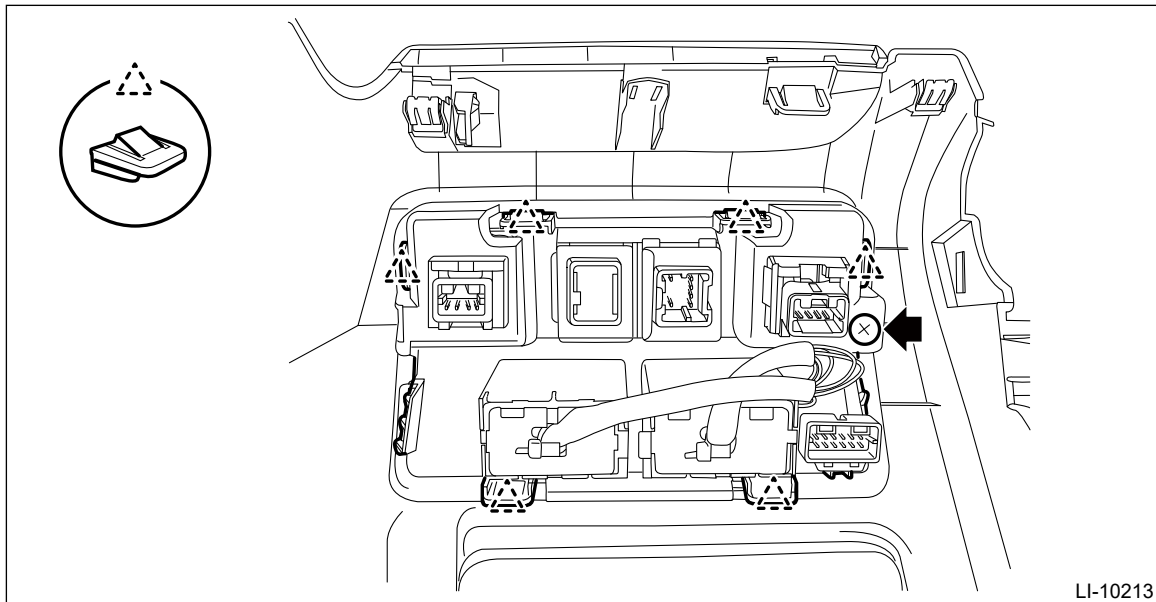
REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

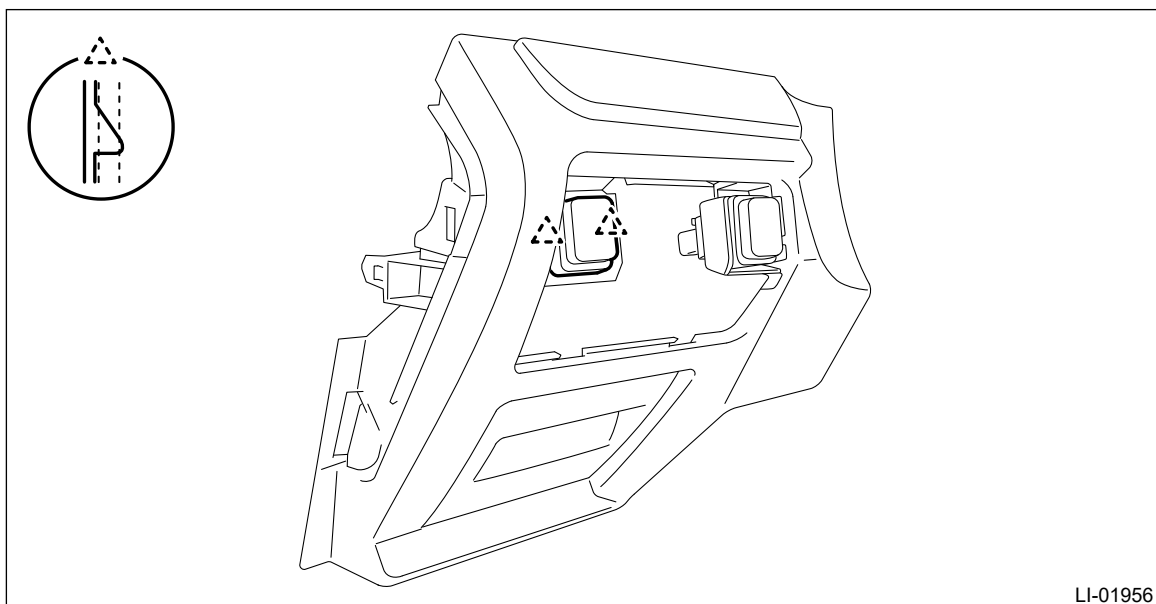
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
3. Remove the screws and release the claws, then detach the cover.



4. Release the claws and remove the SRF OFF switch.



LIGHTING SYSTEM > SRH OFF Switch


NOTE

Refer to "SRF OFF Switch" for the removal, installation and inspection procedures for the SRH OFF switch.  [Ref. to LIGHTING SYSTEM>SRF OFF Switch.](#)

LIGHTING SYSTEM > Stop Light System

INSPECTION




1. CHECK STOP LIGHT SWITCH

Refer to "INSPECTION" of the "Stop Light Switch" in "BRAKE" section.  [Ref. to BRAKE>Stop Light Switch>INSPECTION.](#)

LIGHTING SYSTEM > Stop Light System

NOTE



For operation procedures of each component of the stop light system, refer to the respective section.

- Rear combination light assembly:  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.](#)
- Tail light/stop light bulb:  [Ref. to LIGHTING SYSTEM>Tail/Stop Light Bulb.](#)
- High-mounted stop light:  [Ref. to LIGHTING SYSTEM>High-mounted Stop Light.](#)

LIGHTING SYSTEM > Stop Light System


WIRING DIAGRAM

Refer to "Stop Light System" in the wiring diagram.

- Model without EyeSight and X mode:  [Ref. to WIRING SYSTEM>Stop Light System>WIRING DIAGRAM > WITHOUT EyeSight AND X MODE.](#)
- Except for model without EyeSight and X mode:  [Ref. to WIRING SYSTEM>Stop Light System>WIRING DIAGRAM > EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE.](#)

LIGHTING SYSTEM > Tail/Stop Light Bulb

INSPECTION

1. Visually check the bulb for blow out.
2. Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
3. Replace the bulb if it is found defective.


Note:

Since LED (Light Emitting Diode) is used for the stop light, replace the LED module if it does not illuminate normally after installation.

LIGHTING SYSTEM > Tail/Stop Light Bulb

INSTALLATION


1. TAIL LIGHT

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

2. STOP LIGHT

Caution:

- **If the screws cannot be fastened tightly, replace the light assembly - rear combination with a new one.**
- **Check the LED module for adhesion of moisture, dirt, dust or other foreign matter.**
- **Check the LED module with lens for adhesion of oil or dirt on the lens.**
- **Make sure there is no damage on the gasket. Replace the LED module if damage is found.**
- **Do not touch the LED light emitting section, boards and elements to prevent static electricity from being applied to the LED module.**

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Tail/Stop Light Bulb


REMOVAL

1. TAIL LIGHT

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

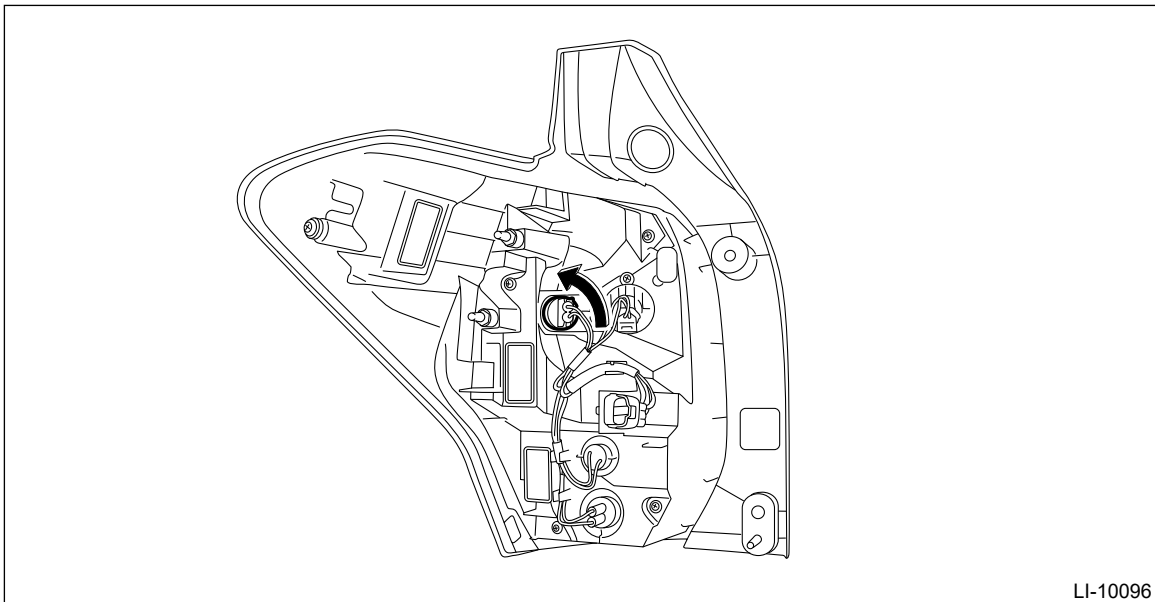
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - rear combination.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>REMOVAL.](#)
3. Remove the bulb socket, and remove the tail (parking) light bulb.

Caution:

Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



2. STOP LIGHT


Caution:

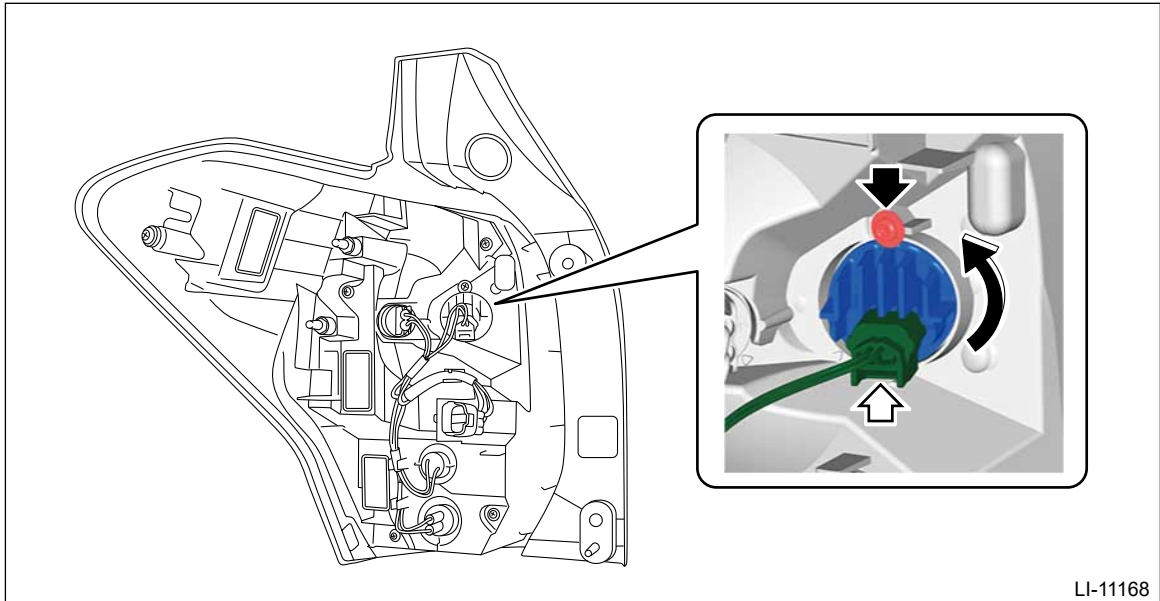
- Do not leave the light assembly - rear combination without the LED module for a long time. Dust, moisture, etc. entering the light may affect its performance.
- If the screws cannot be fastened tightly, replace the light assembly - rear combination with a new one.
- Replace the LED module while it is completely cool.
- Do not touch the LED light emitting section, boards and elements to prevent static electricity from being applied to the LED module.

1. Disconnect the ground terminal from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


- 2.** Remove the light assembly - rear combination.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>REMOVAL.](#)
- 3.** Remove the LED module.
 - (1) Disconnect the connector.
 - (2) Remove the TORX® screw, and rotate the LED module in the direction of the arrow shown in the figure to remove it.




LIGHTING SYSTEM > Turn Signal Light and Hazard Light System

INSPECTION


1. CHECK TURN SIGNAL SWITCH

Refer to the "INSPECTION" of the "Combination Switch (Light)".  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

2. CHECK HAZARD SWITCH

Refer to the "INSPECTION" of the "Hazard Switch".  [Ref. to LIGHTING SYSTEM>Hazard Switch>INSPECTION.](#)

3. CHECK TURN SIGNAL & HAZARD UNIT

Refer to "INSPECTION" of the "Turn Signal Light & Hazard Light Unit".  [Ref. to LIGHTING SYSTEM>Turn Signal Light & Hazard Light Unit>INSPECTION.](#)

4. CHECK ONE-TOUCH TURN SIGNAL SYSTEM

1. CHECK POWER SUPPLY.

Display the data of [Lane change signal setting] and [One-touch Turn Signal System Setup] using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is the setting in the [Exist] and [ON]?

 [Go to 2.](#)

Change the setting to [Exist] and [ON].

2. CHECK CURRENT DATA.


1. Turn the ignition switch to ON.

2. Display the data of [Left turn signal input] and [Right turn signal input] using Subaru Select Monitor.

Does the display switch between [OFF]↔[ON], when the combination switch is operated?

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

 [Go to 3.](#)

3. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connectors of the body integrated unit and turn signal & hazard unit.
3. Check the harness between body integrated unit and turn signal & hazard unit.


Connector & terminal

(B281) No. 21 — (B32) No. 5:

(B281) No. 9 — (B32) No. 6:

Is the resistance less than 1 Ω ?

Yes

 [Go to 4.](#)

No

Repair or replace the harness.

4. CHECK HARNESS.

Measure the resistance between the body integrated unit connector and chassis ground.

Connector & terminal

(B281) No. 21 — Chassis ground:

(B281) No. 9 — Chassis ground:

Note:

Check with the combination switch in the OFF position.

Is the resistance 1 M Ω or more?

Yes

 [Go to 5.](#)

No

Repair or replace the harness.

5. CHECK HARNESS.


1. Disconnect the connector of the combination switch.
2. Measure the resistance between the combination switch connector and chassis ground.

Connector & terminal

(B71) No. 12 — Chassis ground:

Is the resistance less than 1 Ω ?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)








No

Repair or replace the harness.

LIGHTING SYSTEM > Turn Signal Light and Hazard Light System

NOTE



For operation procedures of each component of the turn signal and hazard light system, refer to the respective sections.

- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Front turn signal light bulb:  [Ref. to LIGHTING SYSTEM>Front Turn Signal Light Bulb.](#)
- Side turn signal light assembly:  [Ref. to LIGHTING SYSTEM>Side Turn Signal Light Assembly.](#)
- Rear combination light assembly:  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.](#)
- Rear turn signal light bulb:  [Ref. to LIGHTING SYSTEM>Rear Turn Signal Light Bulb.](#)
- Hazard switch:  [Ref. to LIGHTING SYSTEM>Hazard Switch.](#)
- Turn signal & hazard unit:  [Ref. to LIGHTING SYSTEM>Turn Signal Light & Hazard Light Unit.](#)

LIGHTING SYSTEM > Turn Signal Light and Hazard Light System

WIRING DIAGRAM

Refer to "Turn Signal Light and Hazard Light System" in the wiring diagram.

- Halogen type:  [Ref. to WIRING SYSTEM>Turn Signal Light and Hazard Light System>WIRING DIAGRAM > FRONT COMBINATION LIGHT HALOGEN MODEL.](#)
- LED type:  [Ref. to WIRING SYSTEM>Turn Signal Light and Hazard Light System>WIRING DIAGRAM > FRONT COMBINATION LIGHT LED MODEL.](#)

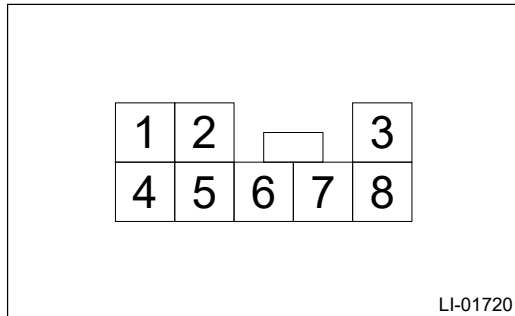
LIGHTING SYSTEM > Turn Signal Light & Hazard Light Unit

INSPECTION

1. Disconnect the connector.
2. Measure the voltage between connector terminal and chassis ground.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
4 (+) — chassis ground (—)	Always	10 — 14 V
1 (+) — chassis ground (—)	IG OFF → ON	Less than 1 V → 10 — 14 V

Repair or replace the harness if the inspection result is not within the standard value.

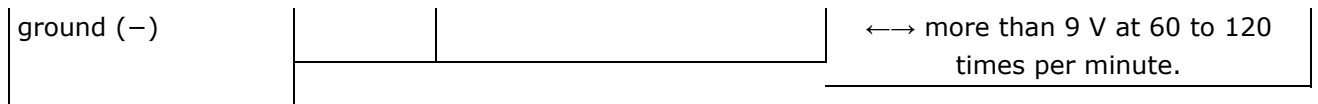
3. Measure the resistance between connector terminal and chassis ground.

Terminal No.	Inspection conditions	Standard
7 — Chassis ground	Always	Less than 1 Ω

Repair or replace the harness if the inspection result is not within the standard value.

4. Connect the connector.
5. Measure the voltage between connector terminal and chassis ground.

Terminal No.	Input/O utput	Inspection conditions	Standard
6 (+) — chassis ground (—)	Input	Turn signal switch (right) OFF → ON	9 V or more → less than 1 V
5 (+) — chassis ground (—)	Input	Turn signal switch (left) OFF → ON	9 V or more → less than 1 V
8 (+) — chassis ground (—)	Input	Hazard switch OFF → ON	9 V or more → less than 1 V
2 (+) — chassis ground (—)	Output	Turn signal switch (right) OFF → ON	Repeat less than 1 V → less than 1 V ↔ more than 9 V at 60 to 120 times per minute.
3 (+) — chassis ground (—)	Output	Turn signal switch (left) OFF → ON	Repeat less than 1 V → less than 1 V ↔ more than 9 V at 60 to 120 times per minute.
2 (+) — chassis ground (—)	Output	Hazard switch OFF → ON	Repeat less than 1 V → less than 1 V ↔ more than 9 V at 60 to 120 times per minute.
3 (+) — chassis	Output	Hazard switch OFF → ON	Repeat less than 1 V → less than 1 V





Replace the turn signal & hazard unit if the inspection result is not within the standard value.

LIGHTING SYSTEM > Turn Signal Light & Hazard Light Unit

INSTALLATION

Caution:


Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)


1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Turn Signal Light & Hazard Light Unit

REMOVAL



Caution:

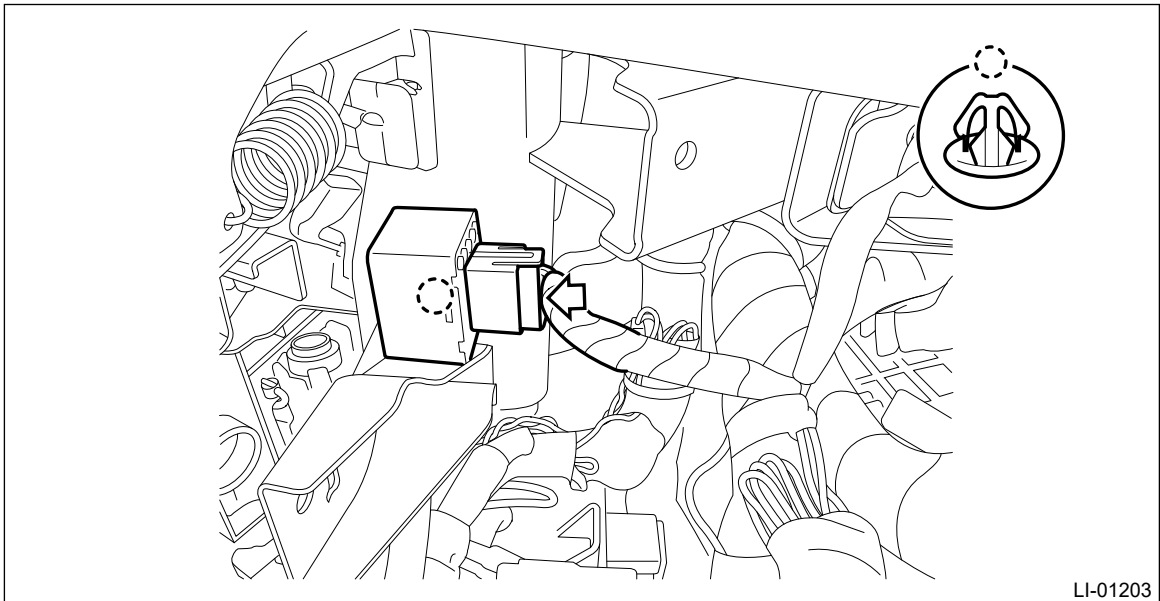
Before handling the airbag system components, always refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:


For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the turn signal & hazard unit.
 - (1) Disconnect the connector.
 - (2) Release the claws and remove the turn signal & hazard unit from the beam COMPL - steering.




LIGHTING SYSTEM > Vanity Mirror Light

INSPECTION

- 1.** Visually check the bulb for blow out.
- 2.** Check the bulb specification.  [Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.](#)
- 3.** Replace the bulb if it is found defective.

LIGHTING SYSTEM > Vanity Mirror Light

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

LIGHTING SYSTEM > Vanity Mirror Light

REMOVAL


Note:

- The vanity mirror light is integrated into the sun visor assembly. Replace the sun visor assembly if faulty.
- Do not remove the sun visor assembly if removing the bulb only.

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

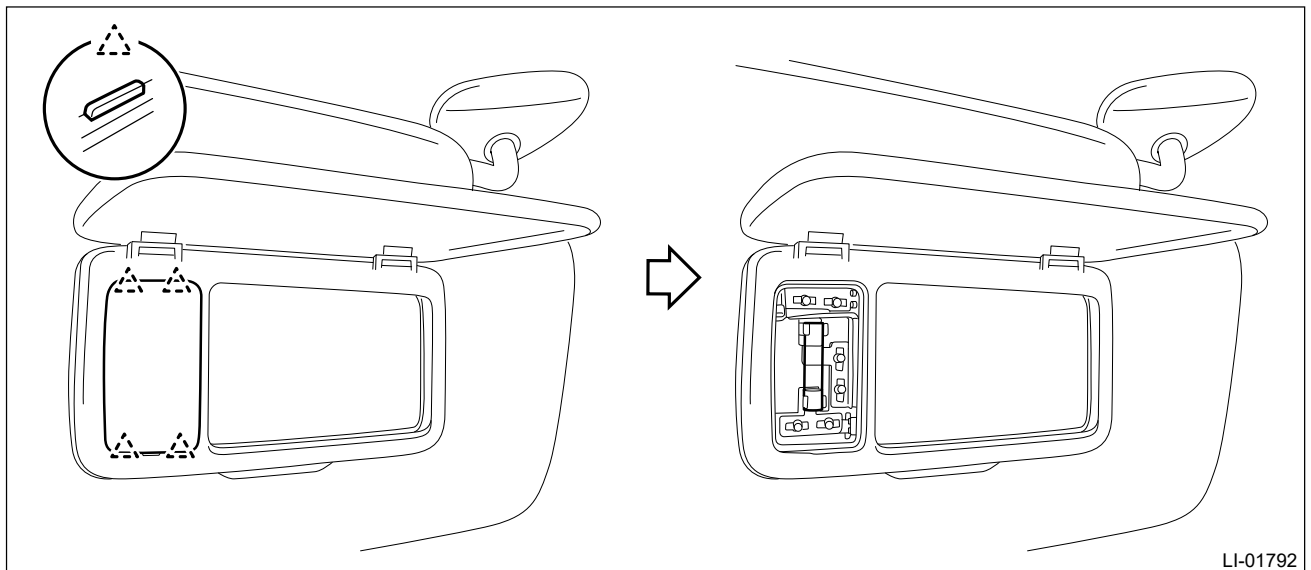
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the sun visor assembly.  Ref. to [EXTERIOR/INTERIOR TRIM>Sun Visor>REMOVAL](#).
3. Release the claws and remove the lens and vanity mirror light bulb.

Caution:

- When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.
- Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.



LI-01792

POWER REAR GATE SYSTEM > Body Integrated Unit


NOTE

Refer to the "SECURITY AND LOCKS" section for operation procedures of the body integrated unit.

 [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)



POWER REAR GATE SYSTEM > Diagnostics with Phenomenon

INSPECTION

Refer to "Diagnostics with Phenomenon" in the "POWER REAR GATE SYSTEM (DIAGNOSTICS)" section.  [Ref. to POWER REAR GATE\(DIAGNOSTICS\)>Diagnostics with Phenomenon.](#)

POWER REAR GATE SYSTEM > General Description

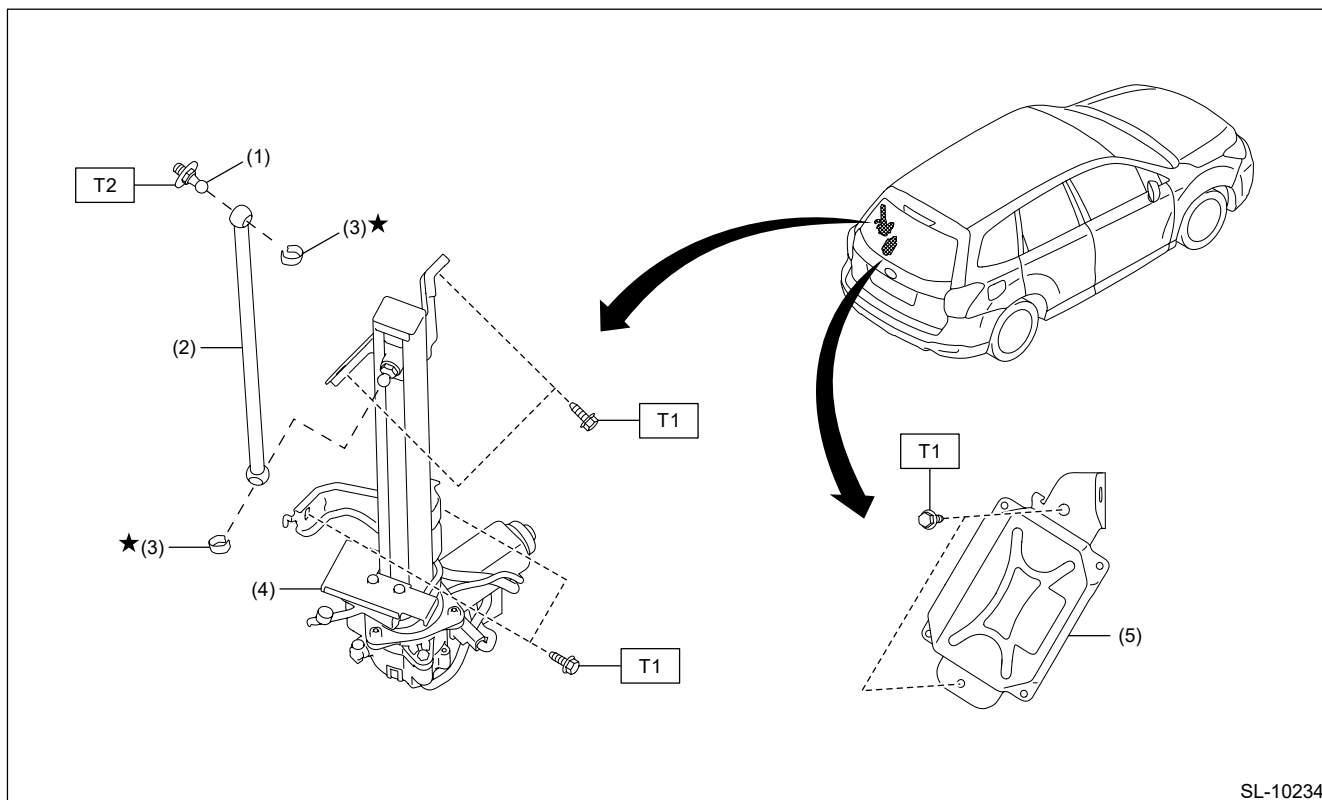
CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
 - Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
 - Adjust parts to the given specifications.
 - Connect the connectors securely during reassembly.
 - After reassembly, close the rear gate and then connect the battery ground cable.  [Ref. to NOTE>NOTE > BATTERY.](#)
- Initialization of the power rear gate auto closer is necessary, when connection is performed with the rear gate open.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate System>PROCEDURE > INITIALIZATION.](#)
- After reassembly, make sure that the each component operates normally.

POWER REAR GATE SYSTEM > General Description

COMPONENT

1. UNIT AND REAR GATE



SL-10234

(1) Ball stud bolt

(2) Rod - power rear gate

(3) Stop ring

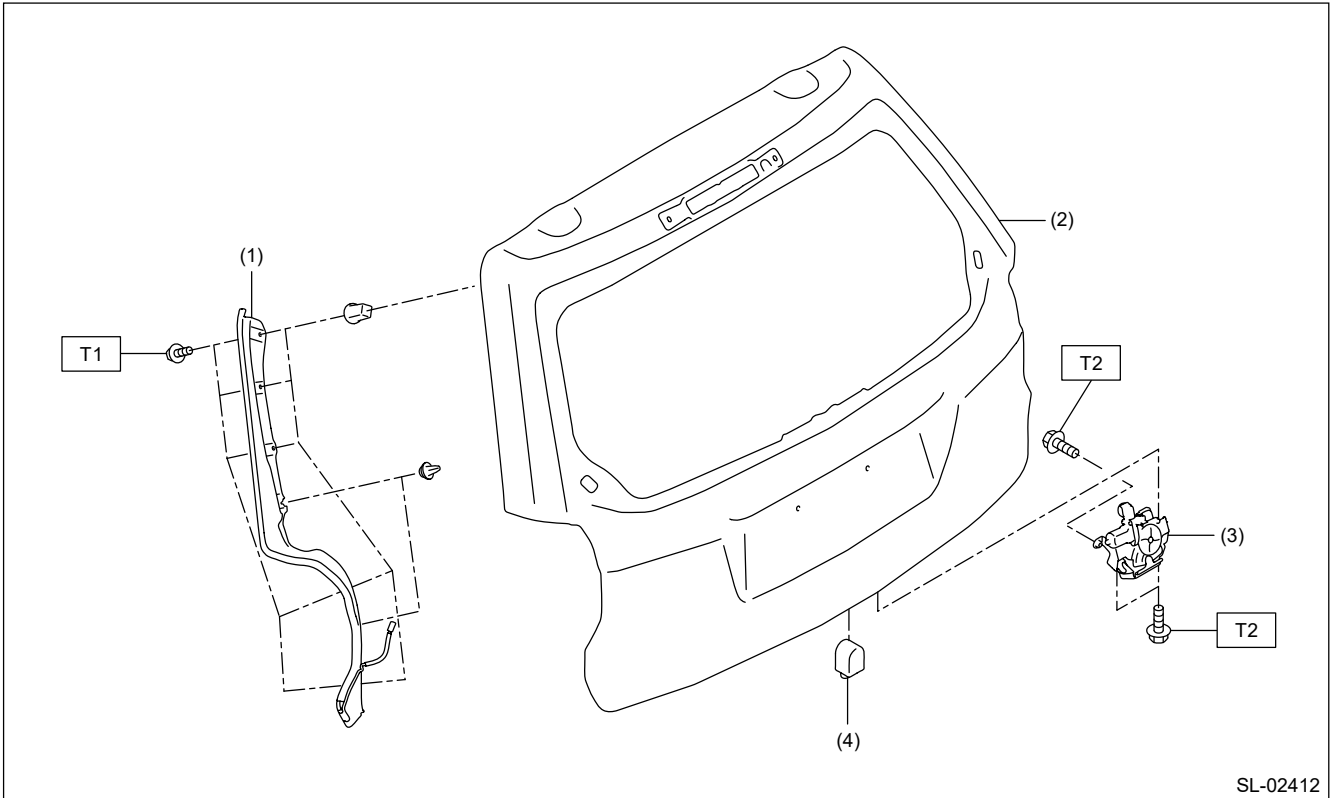
(4) Power rear gate drive unit
(PRG D/U)

(5) Power rear gate control
module (PRG CM)

**Tightening torque: N·m (kgf·m,
ft·lb)**

T1: 10 (1.02, 7.4)

T2: 20 (2.04, 14.8)



SL-02412

(1) Power rear gate touch sensor

(3) Power rear gate auto closer

Tightening torque: N·m (kgf-m, ft-lb)

(2) Reargate open


(4) Power rear gate buzzer

T1: 1.5 (0.15, 1.1)

T2: 25 (2.55, 18.4)

POWER REAR GATE SYSTEM > General Description

LOCATION

Refer to "LOCATION" in the "POWER REAR GATE SYSTEM (DIAGNOSTICS)" section.  [Ref. to POWER REAR GATE\(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)

POWER REAR GATE SYSTEM > General Description

PREPARATION TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

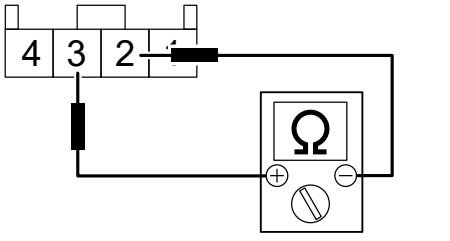
POWER REAR GATE SYSTEM > Memory Height Switch

INSPECTION

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester

Terminal No.	Inspection conditions	Standard	Connection diagram
2 – 3	Switch OFF	1 MΩ or more	
	Switch ON	Less than 1 Ω	


2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Terminal No.	Inspection conditions	Specification
4 (+) – 1 (-)	Apply battery voltage.	Light ON

3. Replace the memory height switch if it is found defective.


POWER REAR GATE SYSTEM > Memory Height Switch

INSTALLATION

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


POWER REAR GATE SYSTEM > Memory Height Switch

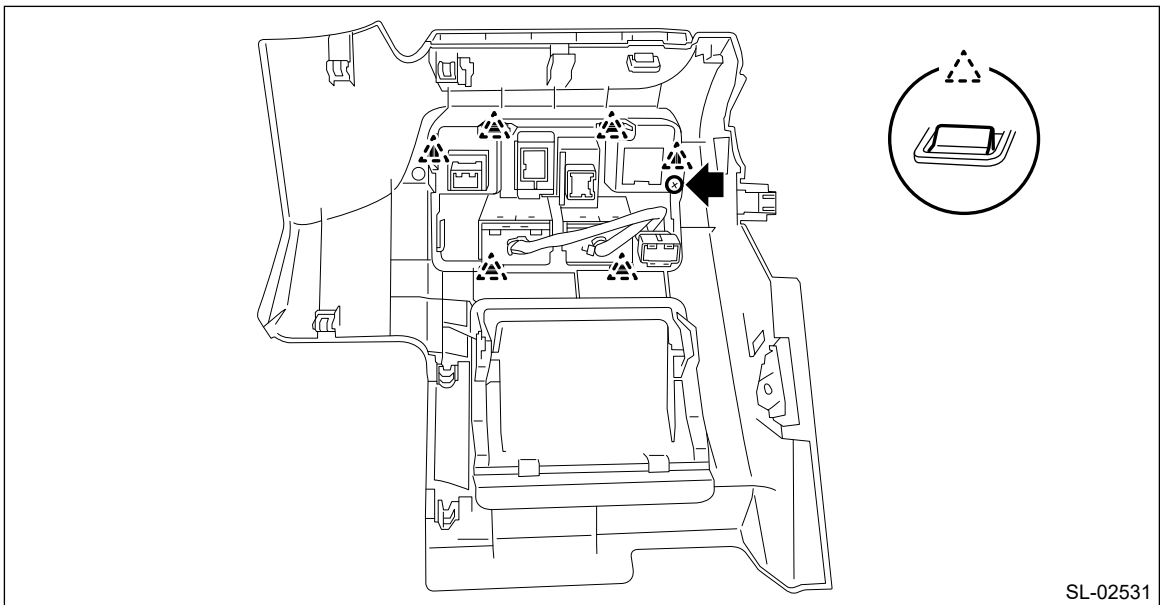
REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

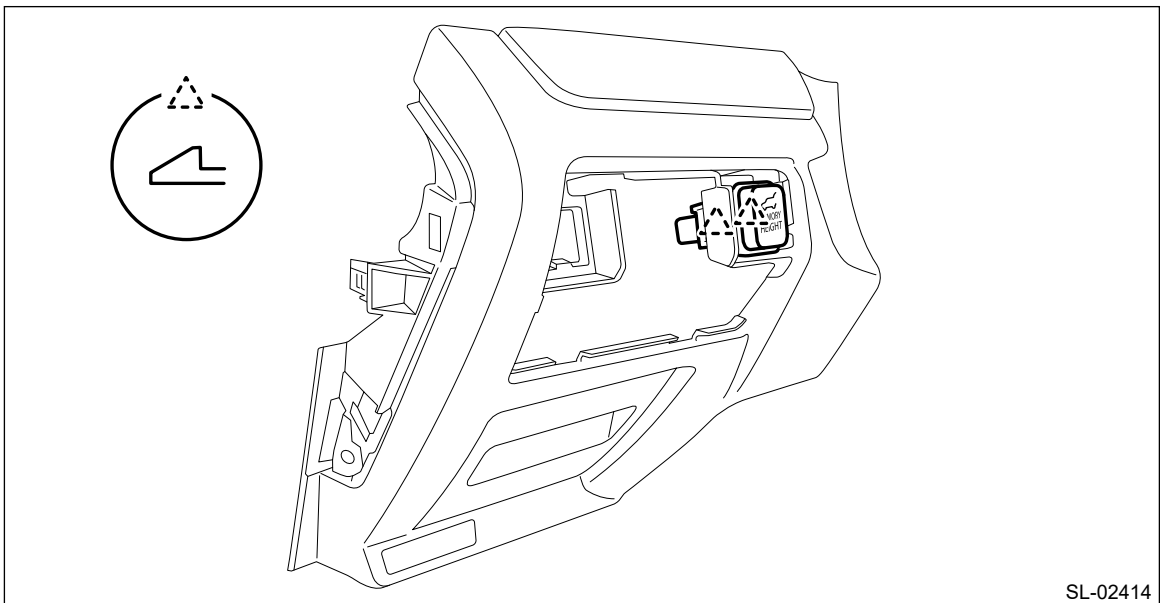
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the memory height switch.
 - (1) Remove the screw, release the claws, and then remove the panel - switch.



- (2) Release the claws and remove the memory height switch.



POWER REAR GATE SYSTEM > Power Rear Gate Auto Closer

INSPECTION

1. LATCH

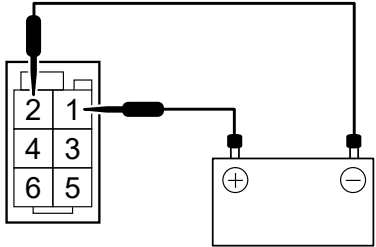
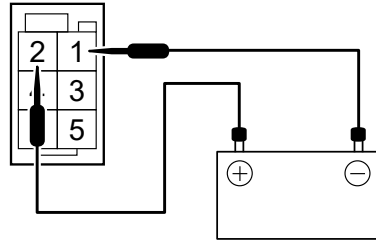
Pull the emergency lever to check that the latch operates properly.

If latch deformation, abnormal wear, or unsmooth lock operation is observed, replace the power rear gate auto closer.


2. ACTUATOR

1. Check motor operation

(1) Check the motor operation when battery voltage is applied between the connector terminals.

Terminal No.	Inspection conditions	Specification	Connection diagram
1 (+) – 2 (-)	Connect battery to the terminals	CLOSE rotation	 <p style="text-align: right;">SL-02432</p>
2 (+) – 1 (-)		OPEN rotation	 <p style="text-align: right;">SL-02431</p>

(2) After the motor operation check is completed, perform initialization of the sector switch in the following procedures.

1. Operate the motor in the OPEN direction for approximately 2 seconds.
2. Connect the connector of power rear gate auto closer.
3. Connect the ground terminal to the battery ground cable or the battery sensor with the rear gate fully open.  [Ref. to NOTE>NOTE > BATTERY.](#)

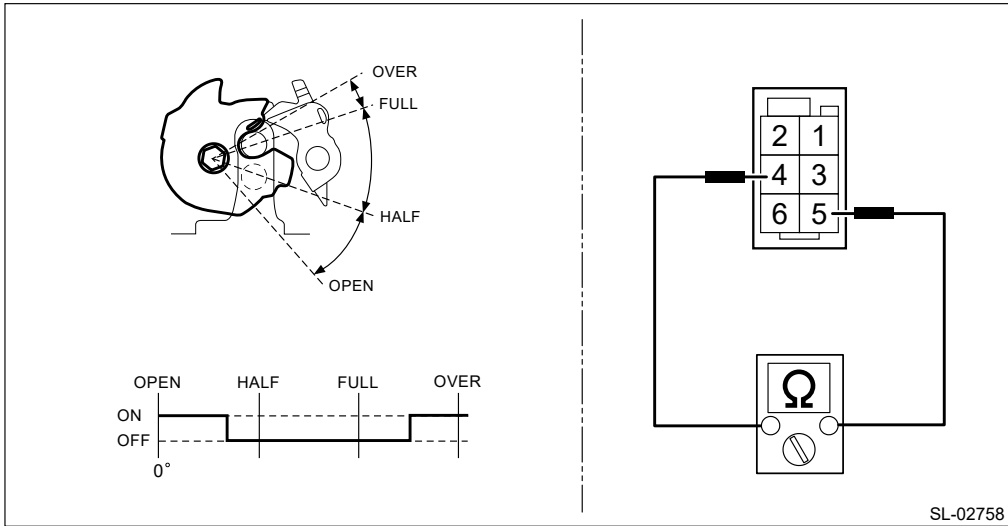
2. Check switch

(1) Measure the resistance between connector terminals.

Preparation tool:

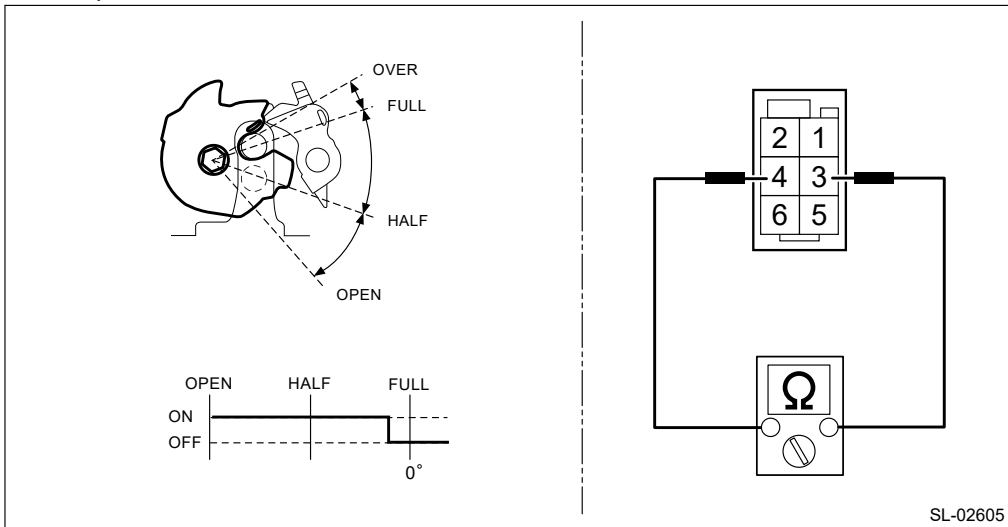
Circuit tester

- Latch switch



Terminal No.	Inspection conditions	Standard
5 – 4	OPEN	Less than 1 Ω
	HALF	10 kΩ or more
	FULL	10 kΩ or more
	OVER	Less than 1 Ω

- Courtesy switch

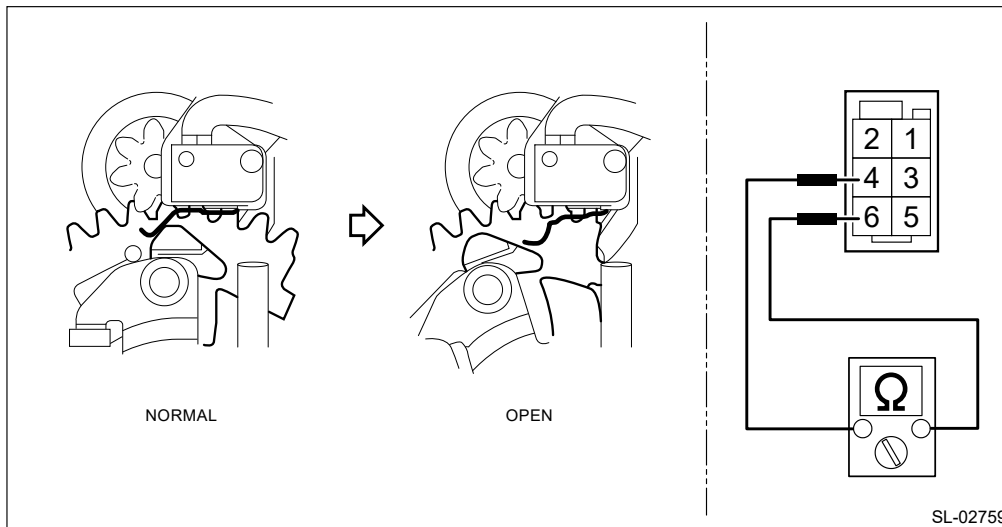


Terminal No.	Inspection conditions	Standard
3 – 4	OPEN	Less than 1 Ω
	HALF	Less than 1 Ω
	FULL	10 kΩ or more

- Sector switch


Caution:

Perform the check while operating the motor in the OPEN direction with the battery voltage applied between the terminals of motor. For detailed procedures, refer to step 1 "Check motor operation".



Terminal No.	Inspection conditions	Standard
4 – 6	Switch ON (NORMAL)	Less than 1 Ω
	Switch OFF (OPEN)	10 k Ω or more

(2) After the switch check is completed, perform initialization of the sector switch in the following procedures.

1. Operate the motor in the OPEN direction for approximately 2 seconds.
2. Connect the connector of power rear gate auto closer.
3. Connect the ground terminal to the battery ground cable or the battery sensor with the rear gate fully open.  [Ref. to NOTE>NOTE > BATTERY.](#)

3. Replace the power rear gate auto closer if it is found defective.


POWER REAR GATE SYSTEM > Power Rear Gate Auto Closer

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Power rear gate auto closer: 25 N•m (2.55 kgf-m, 18.4 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


POWER REAR GATE SYSTEM > Power Rear Gate Auto Closer

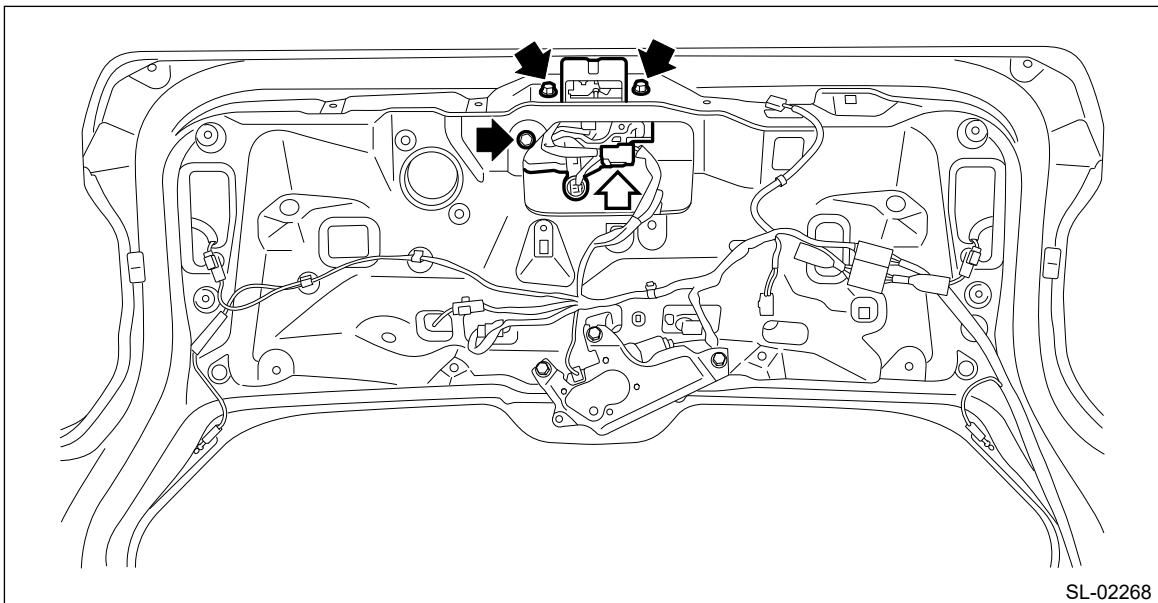
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear gate LWR.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Trim>REMOVAL.](#)
3. Remove the power rear gate auto closer.
 - (1) Disconnect the connector.
 - (2) Remove the bolts, and then remove the power rear gate auto closer.




POWER REAR GATE SYSTEM > Power Rear Gate Buzzer

INSPECTION

- 1.** Use the following procedures to check that the buzzer sounds.
 - (1) Turn the ignition switch to OFF.
 - (2) Fully close the rear gate.
 - (3) Turn the memory height switch to OFF.
 - (4) Press and hold the power rear gate driver's switch to open the power rear gate.
 - (5) Repeat tapping the power rear gate driver's switch to reverse the power rear gate three times so that the door free condition can be achieved.
 - (6) Did the buzzer sound during the operation in step (5)?
- 2.** If the buzzer does not operate properly, replace the power rear gate buzzer.

POWER REAR GATE SYSTEM > Power Rear Gate Buzzer

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


POWER REAR GATE SYSTEM > Power Rear Gate Buzzer

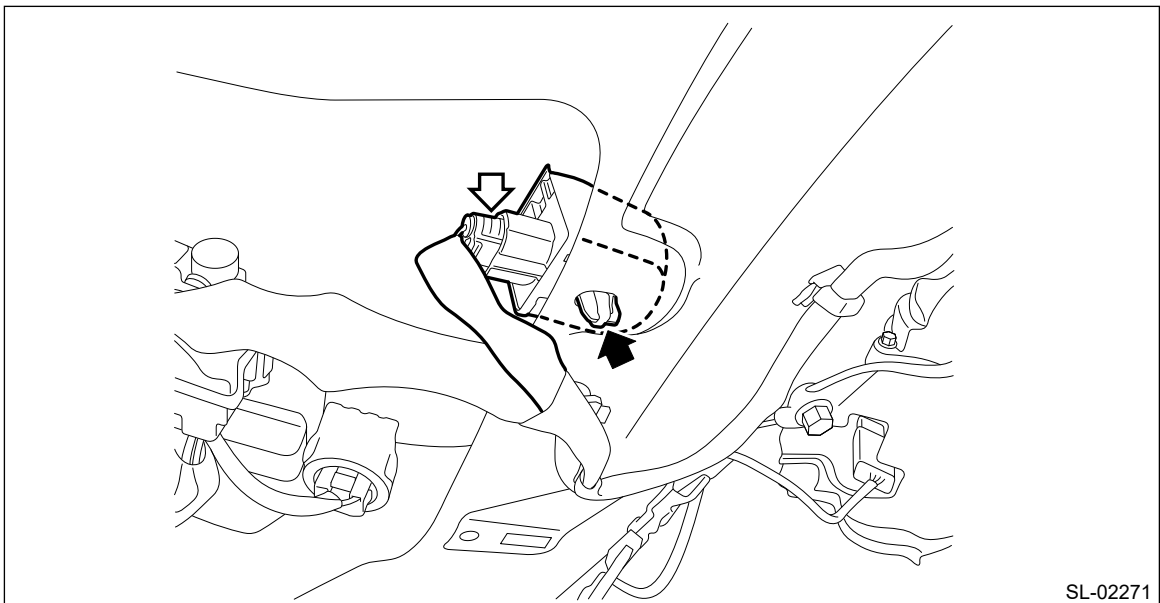
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear gate LWR.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Trim>REMOVAL.](#)
3. Remove the power rear gate buzzer.
 - (1) Disconnect the connector.
 - (2) Release the claws, and then remove the power rear gate buzzer.



POWER REAR GATE SYSTEM > Power Rear Gate Control Module

INSTALLATION


Caution:

When the power rear gate control module (PRG CM) is replaced, set the memory height function again. (Refer to owner's manual for details.)

1. Install each part in the reverse order of removal.

Tightening torque:

Power rear gate control module (PRG CM): 10 N•m (1.02 kgf-m, 7.4 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

POWER REAR GATE SYSTEM > Power Rear Gate Control Module

REMOVAL

Caution:

When the power rear gate control module (PRG CM) is replaced, the memory height function is initialized. Be sure to measure the power rear gate height before starting the operation and set the memory height function again after the operation.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear apron LH.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)

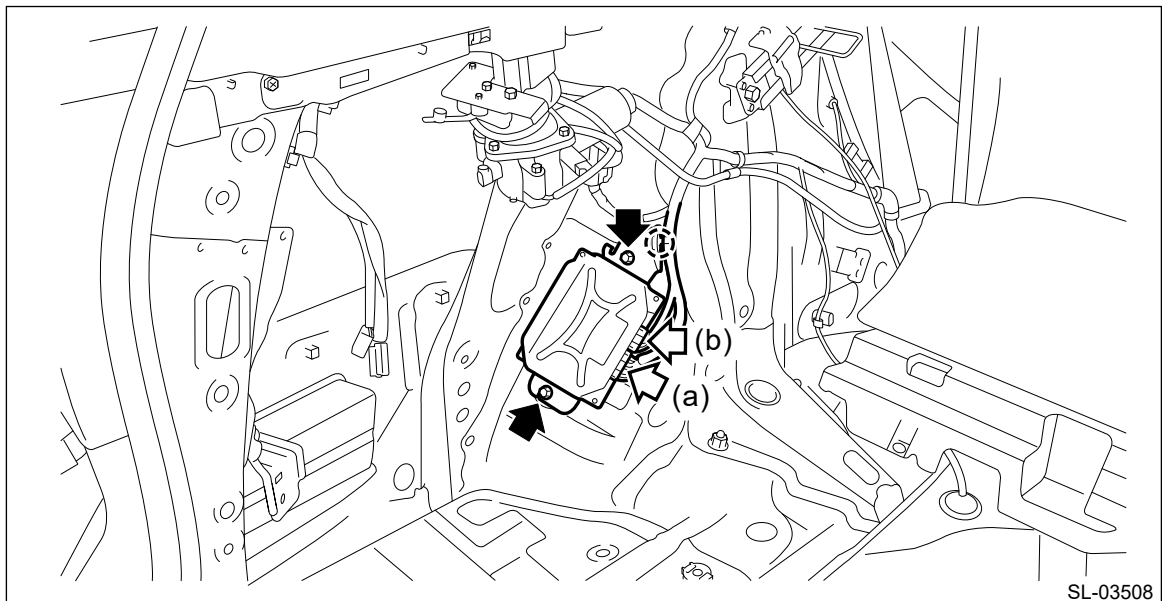
3. Remove the power rear gate control module (PRG CM).

- (1) Disconnect the connector (a).
- (2) Disconnect the connector (b).

Note:

When the connectors are not disconnected in the sequence, a diagnosis code (DTC) may be detected.

- (3) Remove the bolts and harness clips and remove the power rear gate control module (PRG CM).



POWER REAR GATE SYSTEM > Power Rear Gate Drive Unit

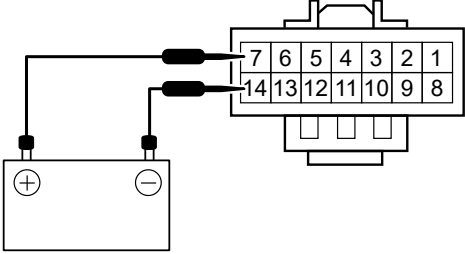
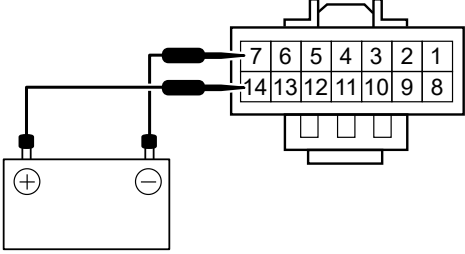
INSPECTION

1. RAIL AND SLIDER

Pull the emergency lever to check that the temporary stop lock mechanism operates properly.
 Move the ball stud bolt along the rail to check for play or stuck.
 Replace the power rear gate drive unit (PRG D/U), if it is found defective.

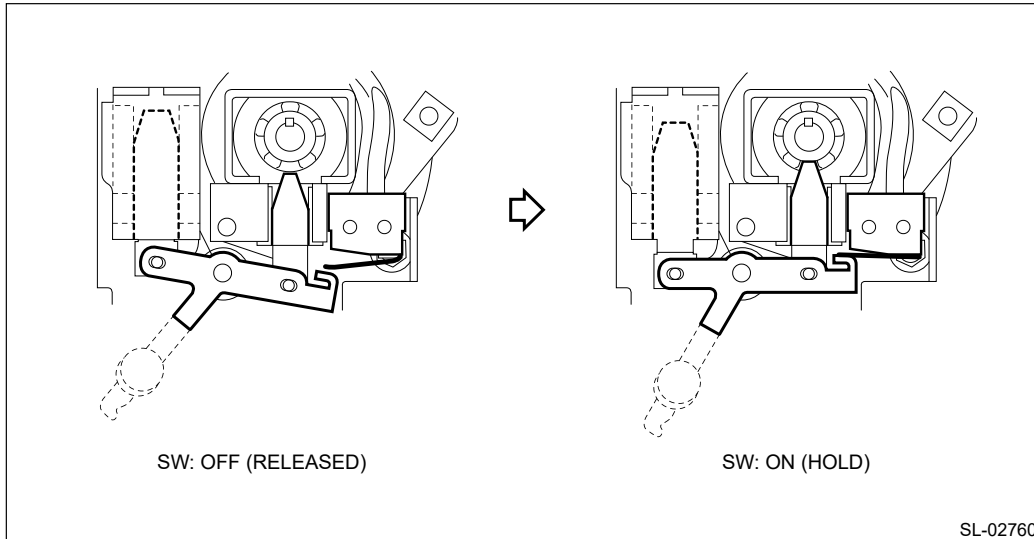
2. ACTUATOR

1. Check motor operation
 - (1) Move the slider to the center of rail manually.
 - (2) Check the motor operation when battery voltage is applied between the connector terminals.

Terminal No.	Inspection conditions	Specification	Connection diagram
7 (+) – 14 (-)	Connect battery to the terminals	OPEN rotation	 <p style="text-align: right;">SL-02435</p>
14 (+) – 7 (-)		CLOSE rotation	 <p style="text-align: right;">SL-02436</p>

2. Check solenoid
 - (1) Measure the resistance between connector terminals.

Preparation tool:
Circuit tester
 - (2) Check the solenoid operation when battery voltage is applied between the connector terminals.

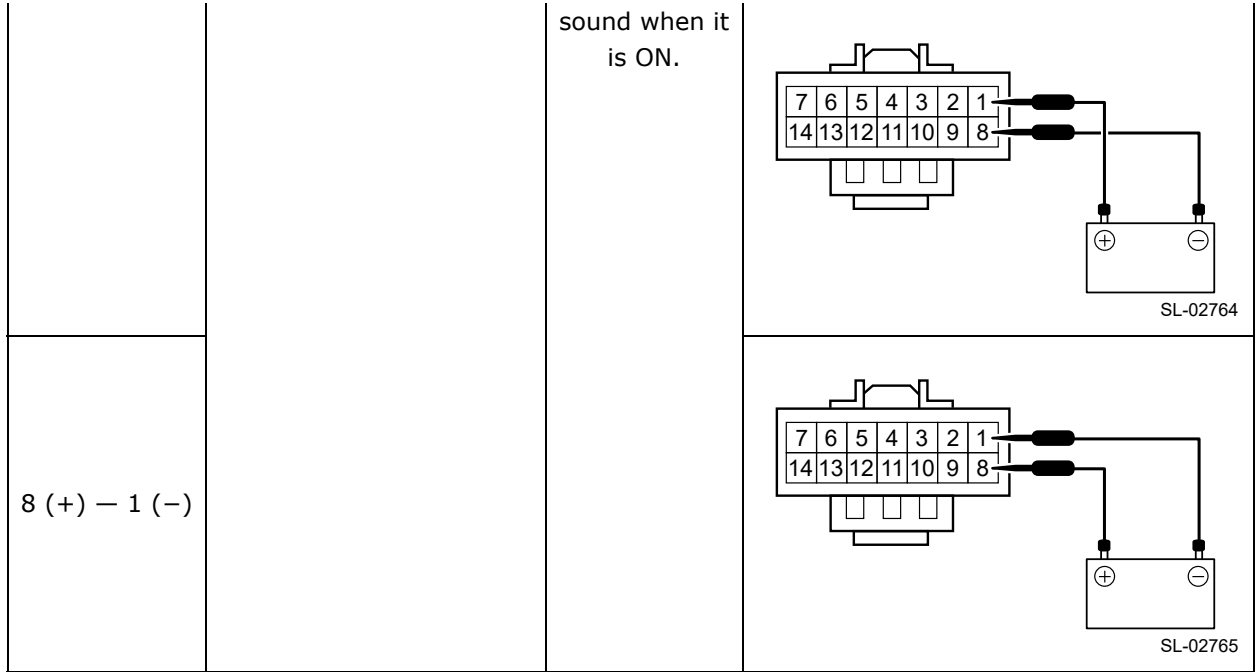


Terminal No.	Inspection conditions	Specification	Connection diagram
6 – 13	Switch OFF	1 M Ω or more	 SL-02761
	Switch ON	Less than 1 Ω	
2 (+) – 10 (-)	Connect battery to the terminals	Released	 SL-02762
2 (+) – 9 (-)		Hold	 SL-02763

3. Check clutch

Check the clutch operation when battery voltage is applied between the connector terminals.

Terminal No.	Inspection conditions	Specification	Connection diagram
1 (+) – 8 (-)	Connect battery to the terminals	Check the operating	



4. Replace the power rear gate drive unit (PRG DU), if it is found defective.

POWER REAR GATE SYSTEM > Power Rear Gate Drive Unit

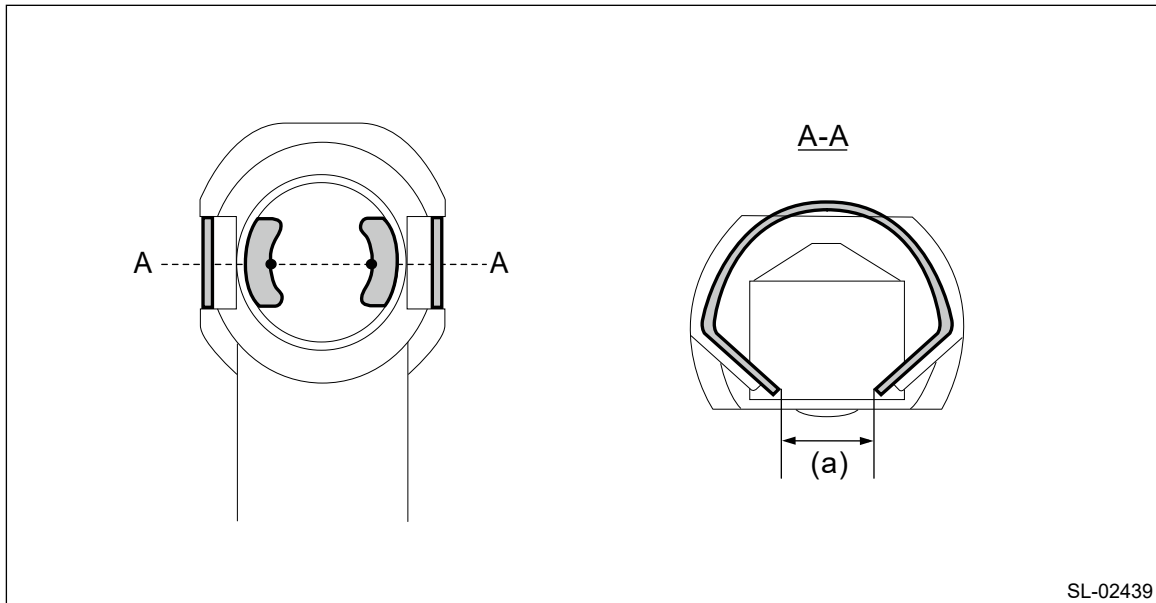
INSTALLATION

1. Install the new stop ring to the rod - power rear gate.

Caution:

- Do not reuse the stop ring.
- Align a new stop ring to the ball housing groove, and attach the ring by gradually applying force, while paying attention not to deform it.

2. With the stop ring installed, check the clearance (a) of the stop ring.



Specification:

6.4 – 7.2 mm (0.25 – 0.28 in)

Replace the stop ring if the inspection result is not within the standard value.


3. Install each part in the reverse order of removal.

Caution:

- After installing the power rear gate drive unit (PRG D/U), check that the temporary stop lock mechanism is unlocked, and then move the ball stud bolt to the top position.
- When installing the rod, check that the stop ring and ball stud bolt are vertically placed, and then slowly press in the rod.

Tightening torque:

Power rear gate drive unit (PRG D/U): 10 N•m (1.02 kgf-m, 7.4 ft-lb)

4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)



POWER REAR GATE SYSTEM > Power Rear Gate Drive Unit

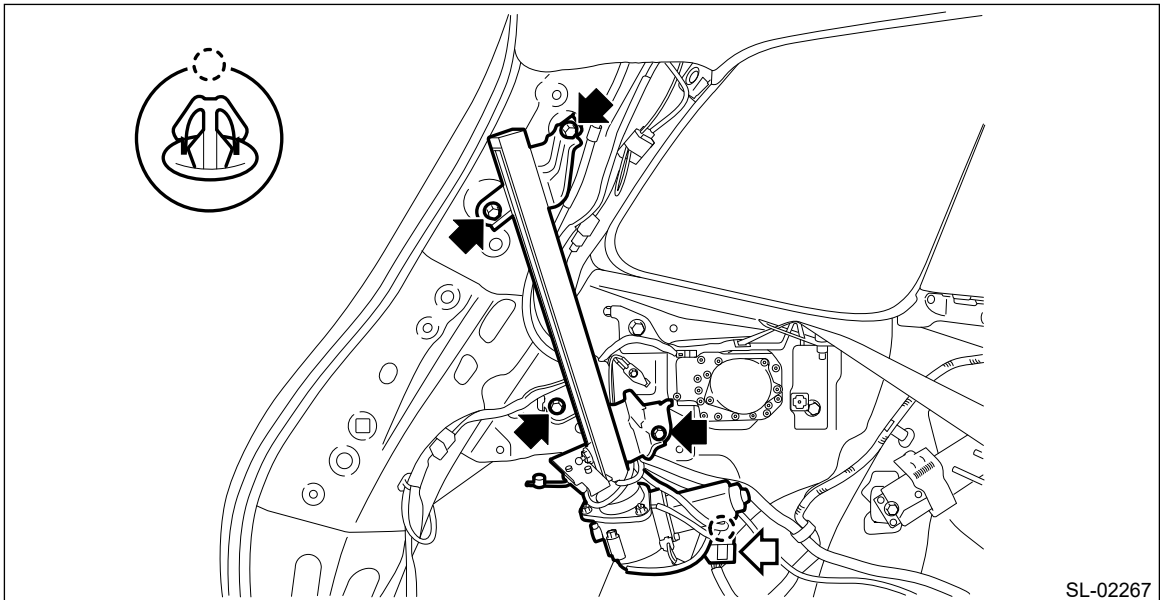
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the rod - power rear gate.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>REMOVAL.](#)
3. Remove the trim panel - rear apron LH and the trim panel - rear quarter pillar UPR LH.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)
4. Remove the power rear gate drive unit (PRG D/U).
 - (1) Disconnect the connector.
 - (2) Remove the bolts and connector clips and remove the power rear gate drive unit (PRG D/U).



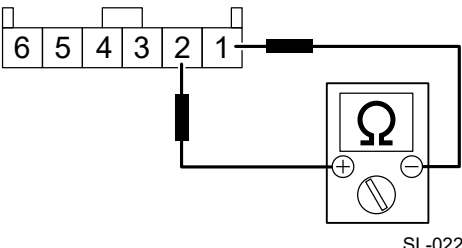
POWER REAR GATE SYSTEM > Power Rear Gate Driver's Switch

INSPECTION

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester

Terminal No.	Inspection conditions	Standard	Connection diagram
1 – 2	Switch OFF	1 MΩ or more	
	Switch ON	Less than 1 Ω	


2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Terminal No.	Inspection conditions	Specification
4 (+) – 3 (-)	Apply battery voltage.	Light ON

3. Replace the VDC OFF & power rear gate driver's switch, if it is found defective.

POWER REAR GATE SYSTEM > Power Rear Gate Driver's Switch

INSTALLATION


1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

POWER REAR GATE SYSTEM > Power Rear Gate Driver's Switch

REMOVAL


Note:

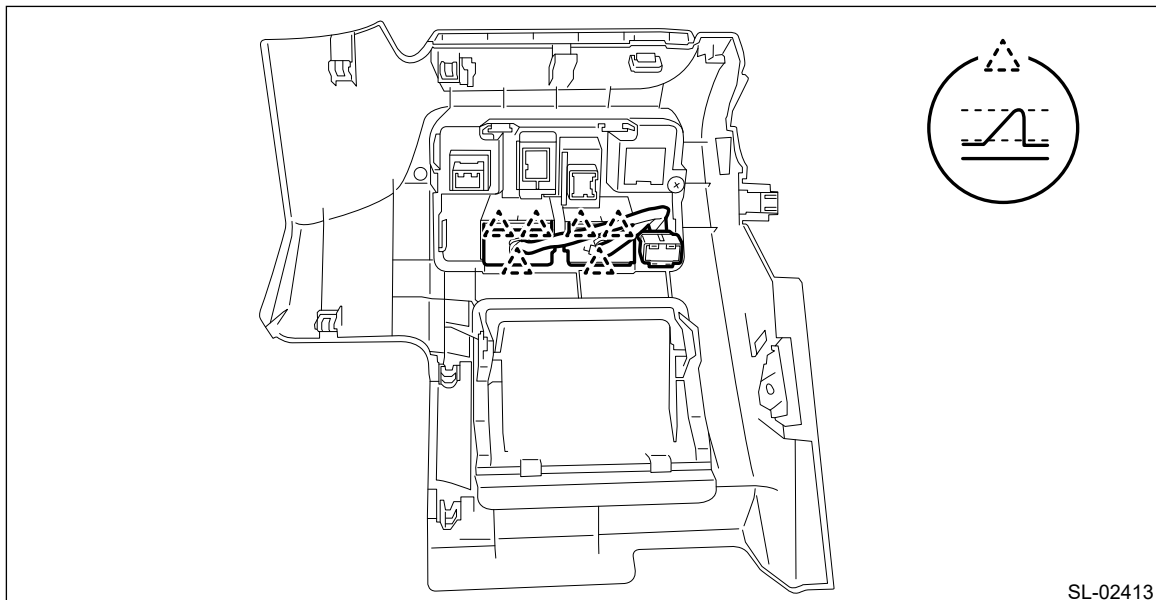
The power rear gate driver's switch is integrated with the VDC OFF switch.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Release the connector lock and claws, and remove the VDC OFF & power rear gate driver's switch.



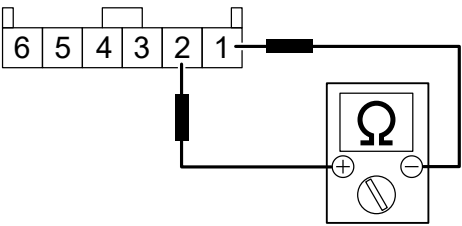
POWER REAR GATE SYSTEM > Power Rear Gate Inner Switch

INSPECTION

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester

Terminal No.	Inspection conditions	Standard	Connection diagram
1 – 2	Switch OFF	1 MΩ or more	
	Switch ON	Less than 1 Ω	


2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Terminal No.	Inspection conditions	Specification
3 (+) – 4 (-)	Apply battery voltage.	Light ON

3. Replace the power rear gate inner switch if it is found defective.

POWER REAR GATE SYSTEM > Power Rear Gate Inner Switch

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

POWER REAR GATE SYSTEM > Power Rear Gate Inner Switch

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

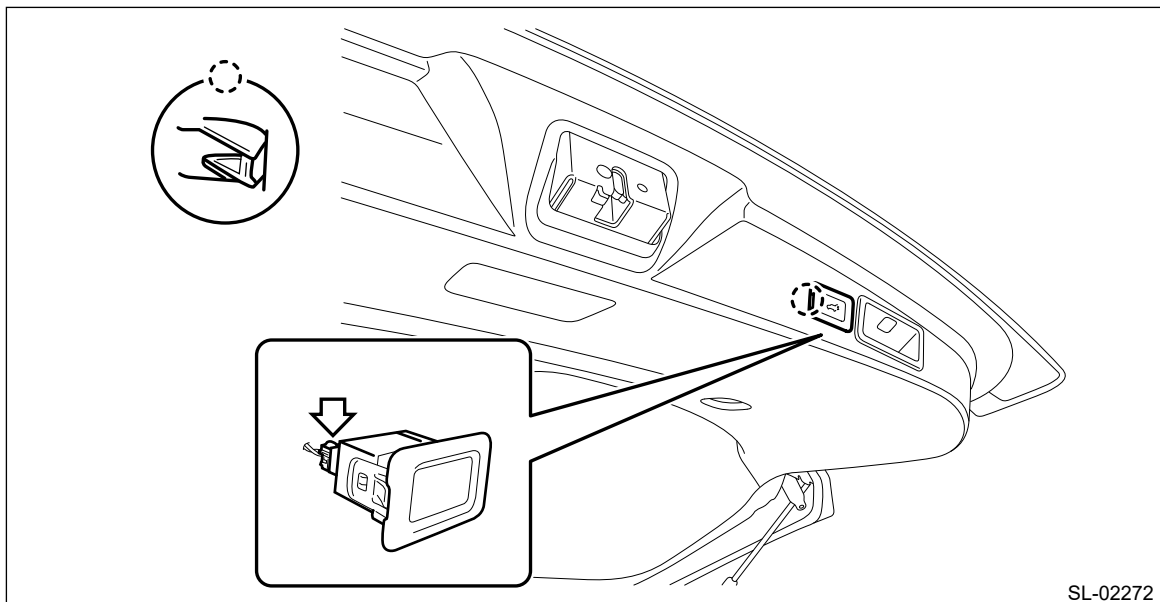
2. Remove the power rear gate inner switch.

(1) Release the claws and pull out the power rear gate inner switch rearward.

Note:

- **Insert a flat tip screwdriver wrapped with protective tape into the slit on the left.**
- **Use a flat tip screwdriver appropriate for the insertion opening.**

(2) Disconnect the connector and remove the power rear gate inner switch.



SL-02272

POWER REAR GATE SYSTEM > Power Rear Gate Rod

INSPECTION

- 1.** Check the ball housing and ball stud bolt of the rod - power rear gate for abnormal play, wear or bent.
- 2.** Replace the rod - power rear gate if defective.

POWER REAR GATE SYSTEM > Power Rear Gate Rod

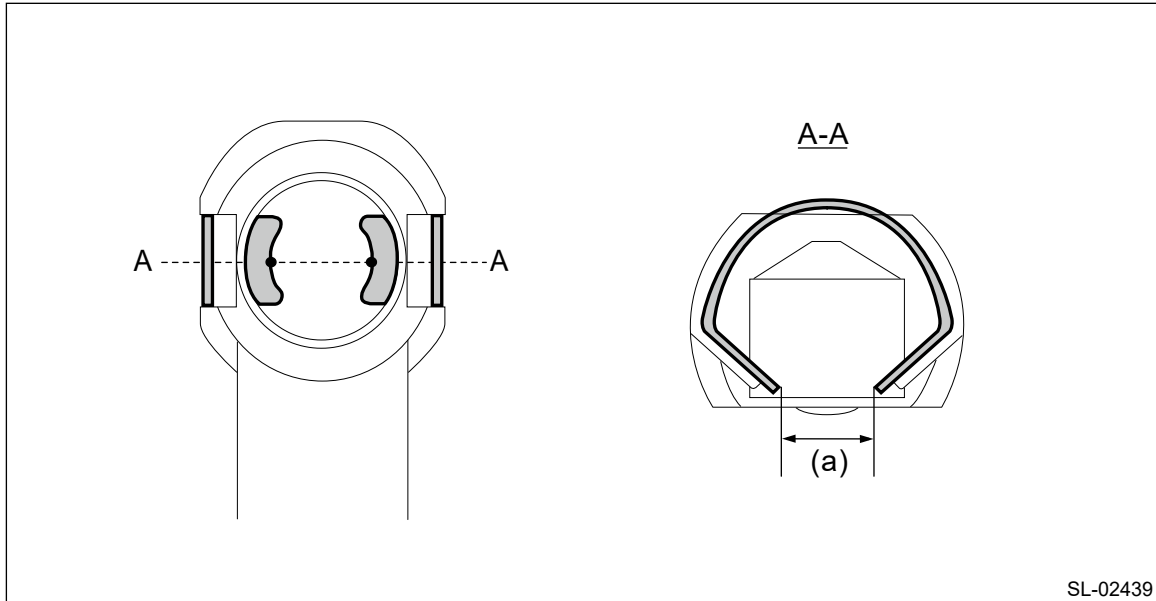
INSTALLATION

1. Install the new stop ring to the rod - power rear gate.

Caution:

- Do not reuse the stop ring.
- Align a new stop ring to the ball housing groove, and attach the ring by gradually applying force, while paying attention not to deform it.

2. With the stop ring installed, check the clearance (a) of the stop ring.



Specification:


6.4 – 7.2 mm (0.25 – 0.28 in)

Replace the stop ring if the inspection result is not within the standard value.

3. Install each part in the reverse order of removal.

Caution:

- Do not install the battery sensor ground terminal before installing the rod. If the power rear gate drive unit moves by wrong operation of the switch, the installation of the rod may be no longer possible.
- Check that the stop ring and ball stud bolt are vertically placed, and then slowly press in the rod.

4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

POWER REAR GATE SYSTEM > Power Rear Gate Rod

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)


Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the rod - power rear gate.

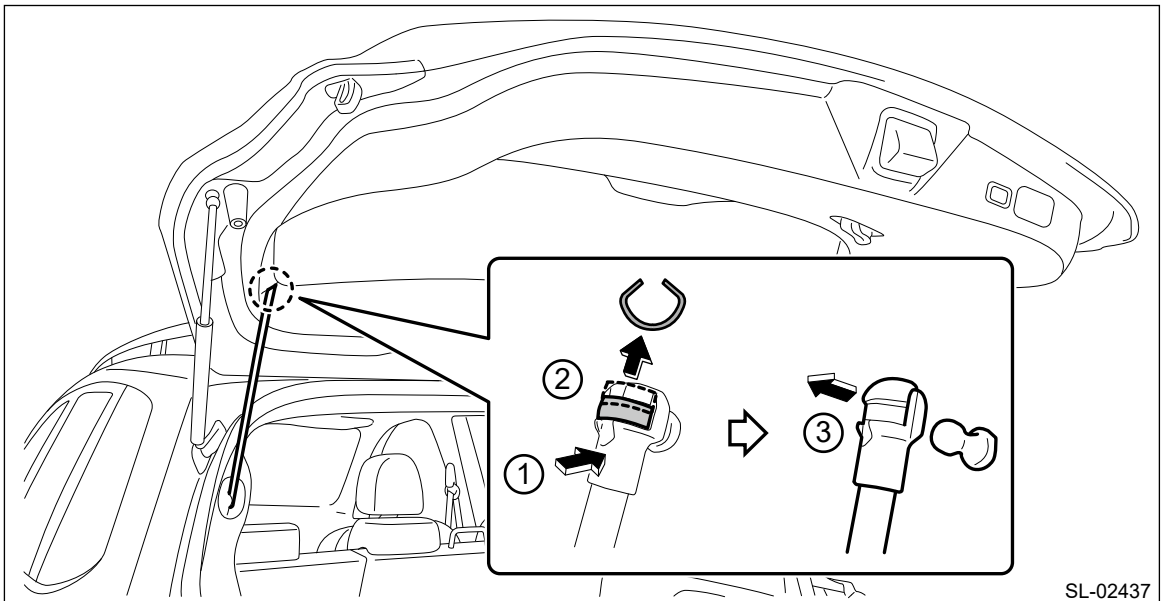
(1) Disconnect the upper part of the rod - power rear gate from the rear gate.

Caution:

- **Using a small flat tip screwdriver wrapped with protective tape, remove the part by gradually applying force.**
- **When the rod - power rear gate is removed, it could lead to abnormal play or noise. Therefore, always replace the stop ring with a new part. Also, be sure to check the clearance of the stop ring before installing. **

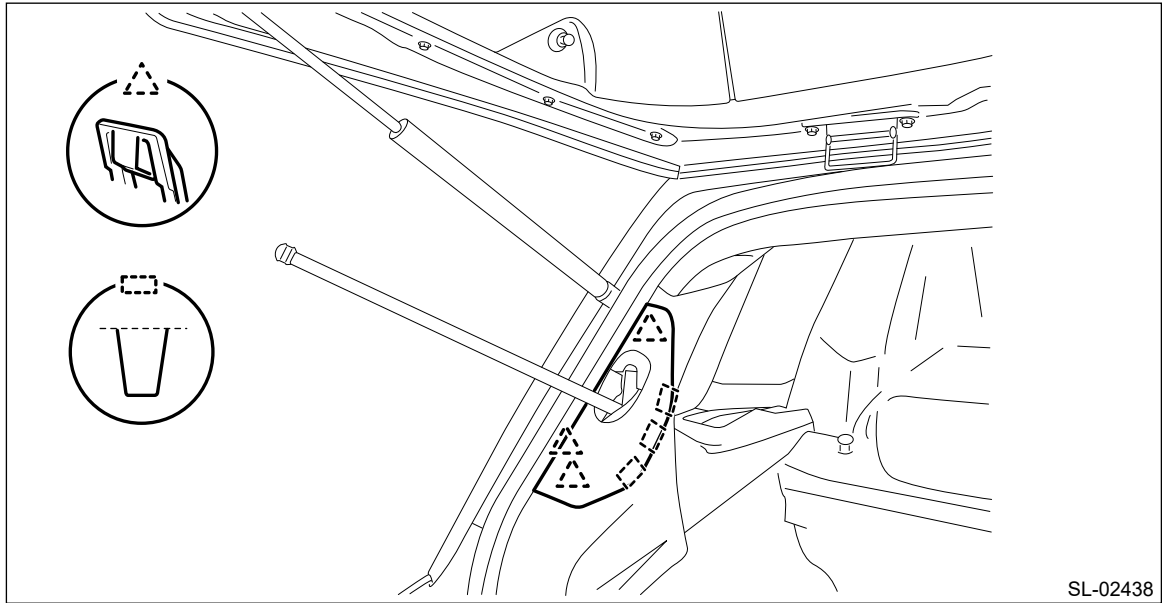
[Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>INSTALLATION.](#)

1. Press the rod against the ball stud bolt.
2. With the rod pressed, remove the stop ring while sliding along the ball housing groove.
3. Disconnect the rod from ball stud bolt.



SL-02437

- (2) Release the claws and then remove the cap - rear quarter pillar UPR.




- (3) Disconnect the lower part of the rod - power rear gate from the power rear gate drive unit (PRG D/U), and then remove the rod - power rear gate.

Note:

Perform the same procedures as for the upper part of rod - power rear gate.

POWER REAR GATE SYSTEM > Power Rear Gate System











INSPECTION

Refer to "Basic Diagnostic Procedure" of "POWER REAR GATE (DIAGNOSTICS)".  [Ref. to POWER REAR GATE\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

POWER REAR GATE SYSTEM > Power Rear Gate System

NOTE

For procedure of each component in the power rear gate system, refer to the respective section.


- Power rear gate control module (PRG CM):  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Control Module.](#)
- Power rear gate drive unit (PRG D/U):  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Drive Unit.](#)
- Rod - power rear gate:  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod.](#)
- Power rear gate auto closer:  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Auto Closer.](#)
- Power rear gate touch sensor:  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Touch Sensor.](#)
- Power rear gate buzzer:  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Buzzer.](#)
- Power rear gate inner switch:  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Inner Switch.](#)
- Power rear gate driver's switch:  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Driver's Switch.](#)
- Memory height switch:  [Ref. to POWER REAR GATE SYSTEM>Memory Height Switch.](#)
- Power rear gate opener button (PRG):  [Ref. to POWER REAR GATE SYSTEM>Rear Gate Opener Button.](#)

PROCEDURE

1. INITIALIZATION


Note:

Perform the initialization of the power rear gate auto closer, when the battery ground cable is connected with the rear gate open. Initialization is not required when the battery ground cable is connected with the rear gate closed.

- 1.** Turn the ignition switch to OFF and open the rear gate by hand.
- 2.** Close the rear gate slowly, and release the hold of rear gate after a clicking sound is heard when the latch is engaged halfway.
- 3.** The auto closer function then operates and pulls the rear gate to engage fully.
- 4.** Operate the power rear gate switches after the rear gate is closed fully to check that automatic open/close of the power rear gate operates normally. If the power rear gate still does not operate properly, perform the following diagnostic procedures.  [Ref. to POWER REAR GATE\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

POWER REAR GATE SYSTEM > Power Rear Gate System

WIRING DIAGRAM

Refer to "Power Rear Gate System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Power Rear Gate System>WIRING DIAGRAM.](#)

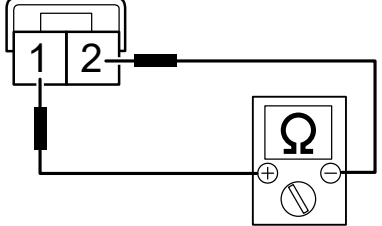
POWER REAR GATE SYSTEM > Power Rear Gate Touch Sensor

INSPECTION

1. Visually check the touch sensor for cracks or damages, and replace as necessary.
2. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester

Terminal No.	Inspection conditions	Standard	Connection diagram
1 – 2	ON (with the switch pressed)	Less than 100 Ω	 SL-02430
	OFF (always)	1 k Ω	

3. Replace the power rear gate touch sensor if the inspection result is not within the standard value.


POWER REAR GATE SYSTEM > Power Rear Gate Touch Sensor

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Power rear gate touch sensor: 1.5 N•m (0.15 kgf-m, 1.1 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


POWER REAR GATE SYSTEM > Power Rear Gate Touch Sensor

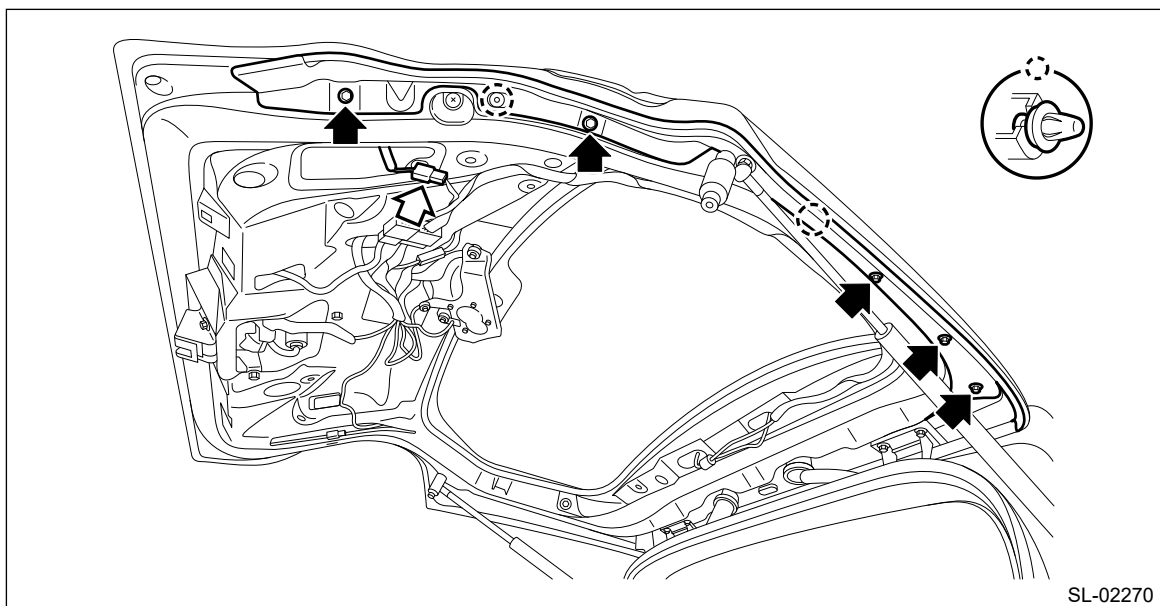
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:


For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear gate LWR.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Trim>REMOVAL.](#)
3. Remove the power rear gate touch sensor.
 - (1) Disconnect the connector.
 - (2) Remove the bolts, release the clips, and then remove the power rear gate touch sensor.



POWER REAR GATE SYSTEM > Rear Gate Opener Button

NOTE

Refer to the "SECURITY AND LOCKS" section for operation procedures of the rear gate opener button (PRG).  [Ref. to SECURITY AND LOCKS>Rear Gate Opener Button.](#)

POWER REAR GATE SYSTEM > Relay and Fuse

INSPECTION

1. CHECK FUSE

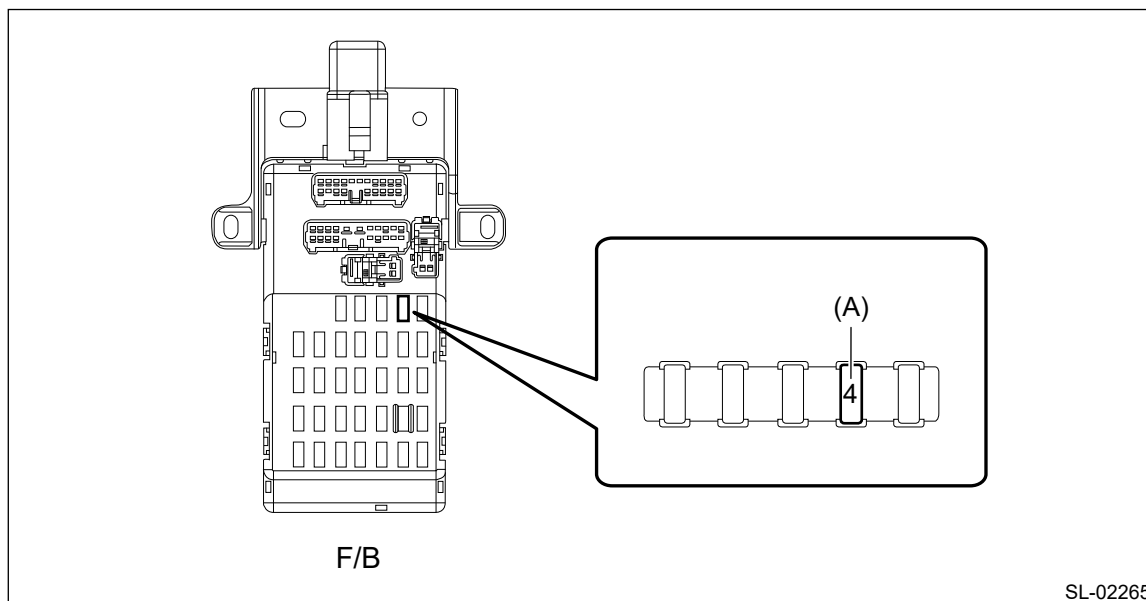
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:

If the fuse is blown again, check the system wiring harness.

POWER REAR GATE SYSTEM > Relay and Fuse

LOCATION



Relay & fuse box	Fuse 10 A (power rear gate control module)	(A)
------------------	--	-----

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

POWER REAR GATE SYSTEM > Turn Signal Light & Hazard Light Unit

NOTE

For the operation procedures for turn signal and hazard unit, refer to "LIGHTING SYSTEM" section.

 [Ref. to LIGHTING SYSTEM>Turn Signal Light & Hazard Light Unit.](#)

REVERSE AUTOMATIC BRAKING > Combination Meter








NOTE

For the combination meter, refer to "INSTRUMENTATION/DRIVER INFO" section.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)

REVERSE AUTOMATIC BRAKING > Control Unit


NOTE

System control of the Reverse Automatic Braking is performed by each module. For procedure, refer to the following sections.

- Engine control module (ECM)
 - Non-turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\)>Engine Control Module \(ECM\).](#)
 - Turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DOTC\)>Engine Control Module \(ECM\).](#)
- Transmission control module (TCM)
 - Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Transmission Control Module \(TCM\).](#)
 - Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Transmission Control Module \(TCM\).](#)
- VDC control module (VDCCM):  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\).](#)
- Body integrated unit:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)
- Reverse Automatic Braking CM:  [Ref. to REVERSE AUTOMATIC BRAKING>Reverse Automatic Braking_CM.](#)

REVERSE AUTOMATIC BRAKING > General Description

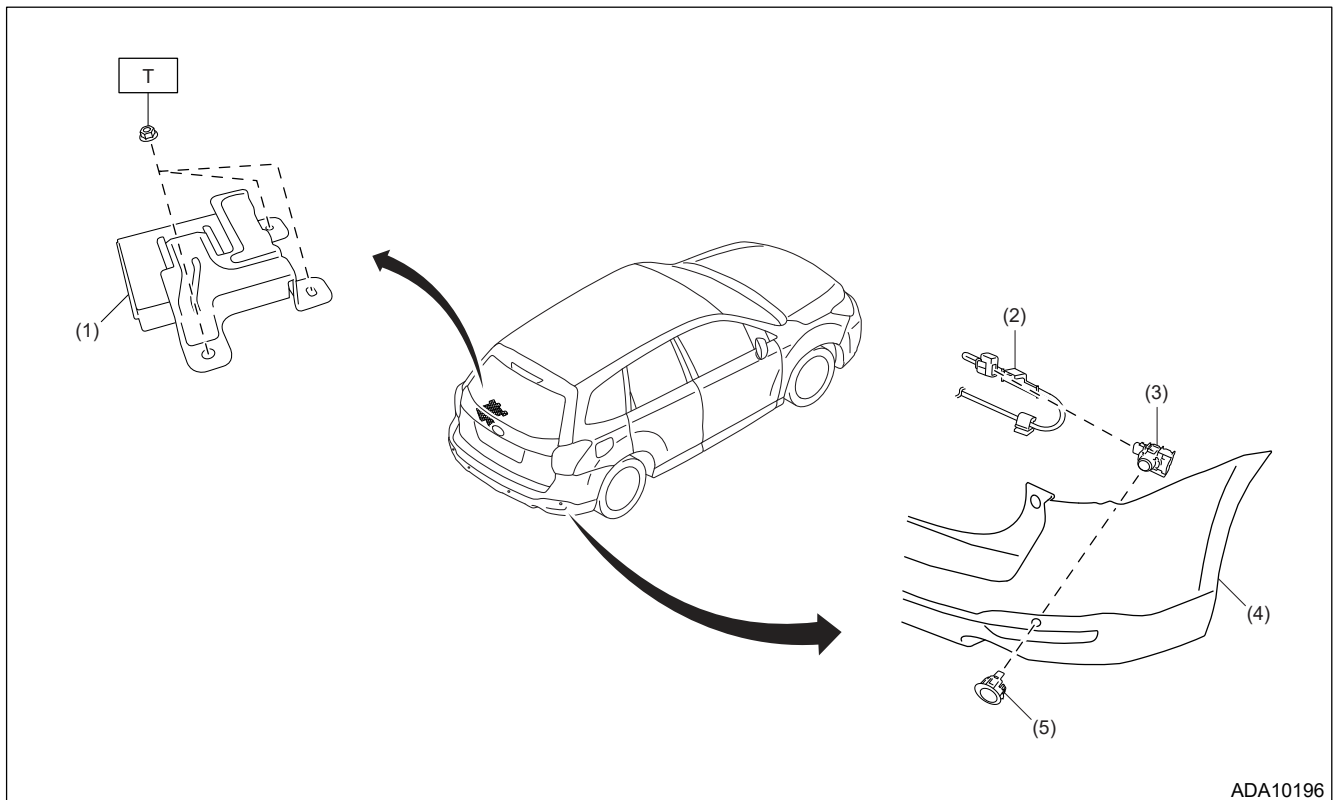
CAUTION

- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery. When replacing the electrical parts provided with memory functions that store contents specified by a customer, record the memory contents before disconnecting the battery ground cable.
- For precautions for Reverse Automatic Braking, refer to "CAUTION" in "Reverse Automatic Braking (DIAGNOSTICS)" section.  [Ref. to REVERSE AUTOMATIC BRAKING \(DIAGNOSTICS\)>General Description>CAUTION.](#)

REVERSE AUTOMATIC BRAKING > General Description

COMPONENT

1. Reverse Automatic Braking CM AND SONAR SENSOR



ADA10196

(1) Reverse Automatic Braking
CM

(4) Bumper face - rear

(2) Cord ASSY - sonar

(5) Bezel - sonar


(3) Sonar sensor

**Tightening torque: N·m (kgf·m,
ft·lb)**

T: 7.5(0.8,5.5)

REVERSE AUTOMATIC BRAKING > General Description

LOCATION

Refer to "LOCATION" in the "Reverse Automatic Braking (DIAGNOSTICS)" section.  [Ref. to REVERSE AUTOMATIC BRAKING \(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)

REVERSE AUTOMATIC BRAKING > General Description

NOTE

Using the EyeSight brake control, the Reverse Automatic Braking detects obstacles with the Reverse Automatic Braking CM and sonar sensor to operate the system.

REVERSE AUTOMATIC BRAKING > General Description


PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	REMARKS
Angle gauge	Used for inspecting height and angle of the sonar sensor.
Try square	
Measure	
Leveling line	
Plumb bob	
Packing tape	

REVERSE AUTOMATIC BRAKING > Multi-function Display (MFD)

NOTE

For the multi-function display (MFD), refer to "INSTRUMENTATION/DRIVER INFO" section.  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display_\(MFD\).](#)

REVERSE AUTOMATIC BRAKING > Relay and Fuse

INSPECTION

1. CHECK FUSE

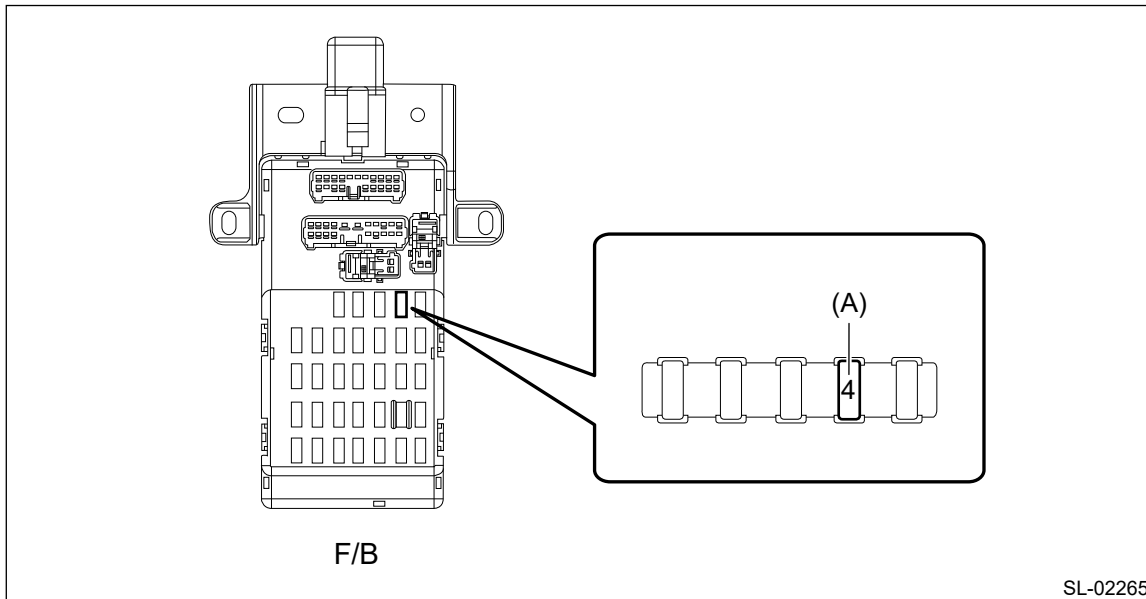
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:

If the fuse is blown again, check the system wiring harness.



REVERSE AUTOMATIC BRAKING > Relay and Fuse

LOCATION



Fuse & Relay Box	Fuse 10 A (RAB CM)	(A)
------------------	--------------------	-----

Note:

- Refer to "LOCATION" of the "EyeSight" section because the EyeSight system control is used.  [Ref. to EyeSight>Relay and Fuse>LOCATION.](#)
- For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)


REVERSE AUTOMATIC BRAKING > Reverse Automatic Braking CM

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Reverse Automatic Braking CM: 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

REVERSE AUTOMATIC BRAKING > Reverse Automatic Braking CM

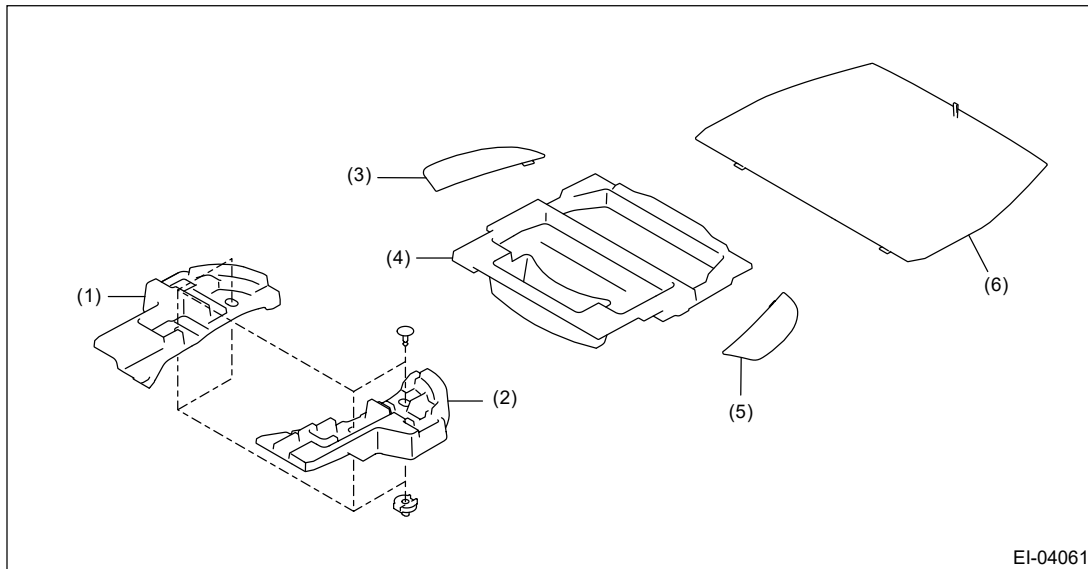
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

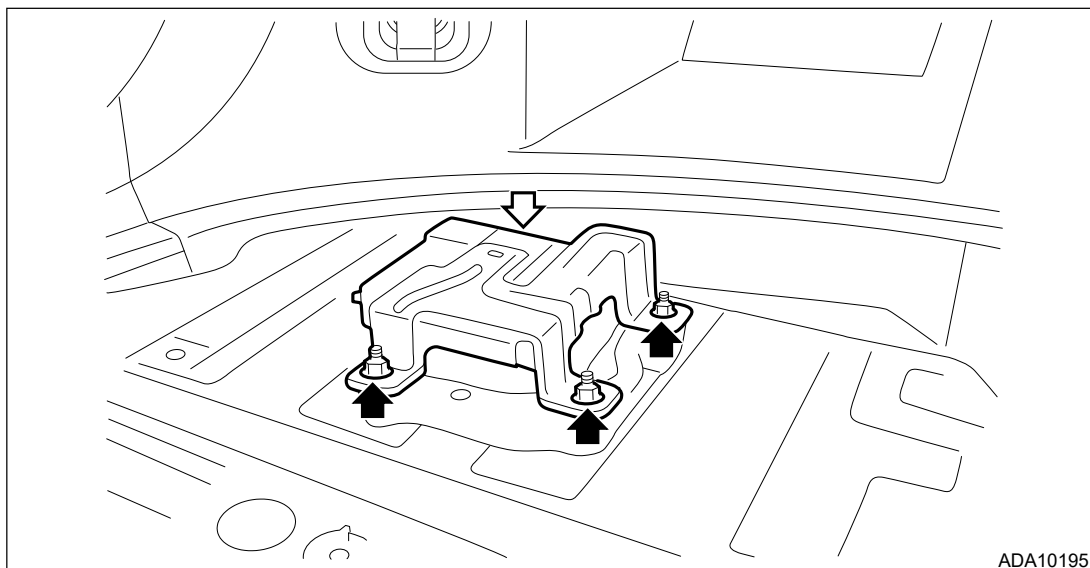
2. Remove the mat - rear floor CTR and LH, cover - trunk and spacer - rear floor side LH.



- | | | |
|---------------------------------|-------------------------|--------------------------|
| (1) Spacer - rear floor side RH | (3) Mat - rear floor RH | (5) Mat - rear floor LH |
| (2) Spacer - rear floor side LH | (4) Cover - trunk | (6) Mat - rear floor CTR |

3. Remove the Reverse Automatic Braking CM.


- (1) Remove the nut.
- (2) Disconnect the connector and remove the Reverse Automatic Braking CM.



ADA10195

REVERSE AUTOMATIC BRAKING > Reverse Automatic Braking

INSPECTION




Refer to "Basic Diagnostic Procedure" of "Reverse Automatic Braking (DIAGNOSTICS)" section. 

[Ref. to REVERSE AUTOMATIC BRAKING \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

REVERSE AUTOMATIC BRAKING > Reverse Automatic Braking

NOTE

For procedure of each component in the Reverse Automatic Braking, refer to the respective section.

- Reverse Automatic Braking CM:  [Ref. to REVERSE AUTOMATIC BRAKING>Reverse Automatic Braking_CM.](#)
- Sensor and harness:  [Ref. to REVERSE AUTOMATIC BRAKING>Sensor and Harness.](#)
- Control module:  [Ref. to REVERSE AUTOMATIC BRAKING>Control Unit.](#)

Note:

**System control of the Reverse Automatic Braking is performed by each module.
For procedure, refer to the following sections.**

– Engine control module (ECM)

Non-turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\)>Engine Control Module \(ECM\).](#)

Turbo model:  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DOTC\)>Engine Control Module \(ECM\).](#)




– Transmission control module (TCM)

Non-turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR580\)>Transmission Control Module \(TCM\).](#)

Turbo model:  [Ref. to CONTINUOUSLY VARIABLE TRANSMISSION\(TR690\)>Transmission Control Module \(TCM\).](#)


– VDC control module (VDC CM):  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\).](#)

– Body integrated unit:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

- Stereo camera:  [Ref. to EyeSight>Stereo Camera.](#)
- Combination meter:  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.](#)
- Multi-function display (MFD):  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display_\(MFD\).](#)

REVERSE AUTOMATIC BRAKING > Reverse Automatic Braking

WIRING DIAGRAM

Refer to "Reverse Automatic Braking" in the wiring diagram.  [Ref. to WIRING SYSTEM>Reverse Automatic Braking>WIRING DIAGRAM.](#)

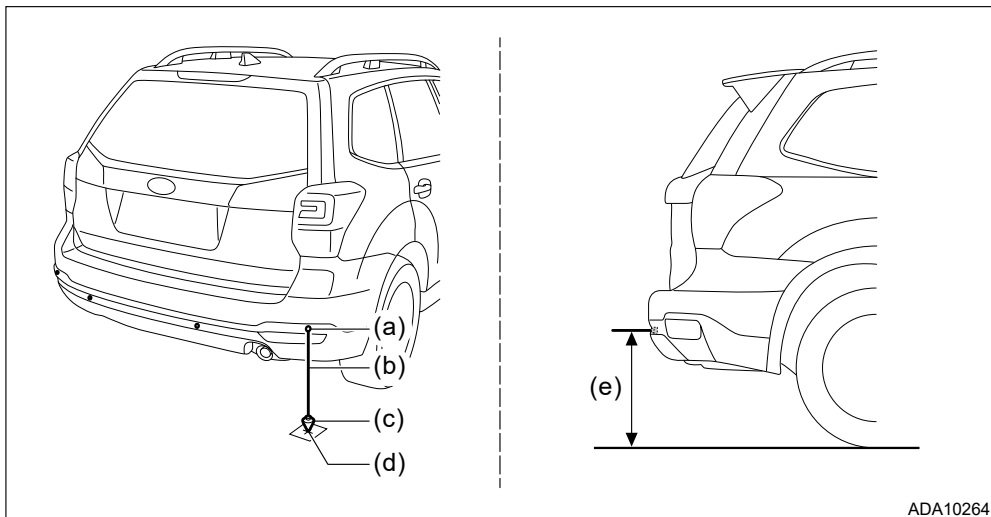
INSPECTION

1. SONAR SENSOR

• **HEIGHT AND ANGLE INSPECTION**

1. Before performing measurement, check the following items.
 - (1) The vehicle is parked on a level surface.
 - (2) The inflation pressure of tires is correct.
 - (3) The vehicle does not have load.
 - (4) Check the area around the sensor and rear bumper for any scratches or other type of deformation.
2. Prepare the measure, plumb bob, leveling line, angle gauge and try square.
3. Measure installation height of the sonar sensor.
 - (1) Suspend the plumb bob with leveling line from the sensor, and mark the position where the plumb bob touches the ground. (Point A)

Note:
Stick the packing tape etc. on the floor, then make a marking on the tape.
 - (2) Measure the height from the sensor to the marked Point A.



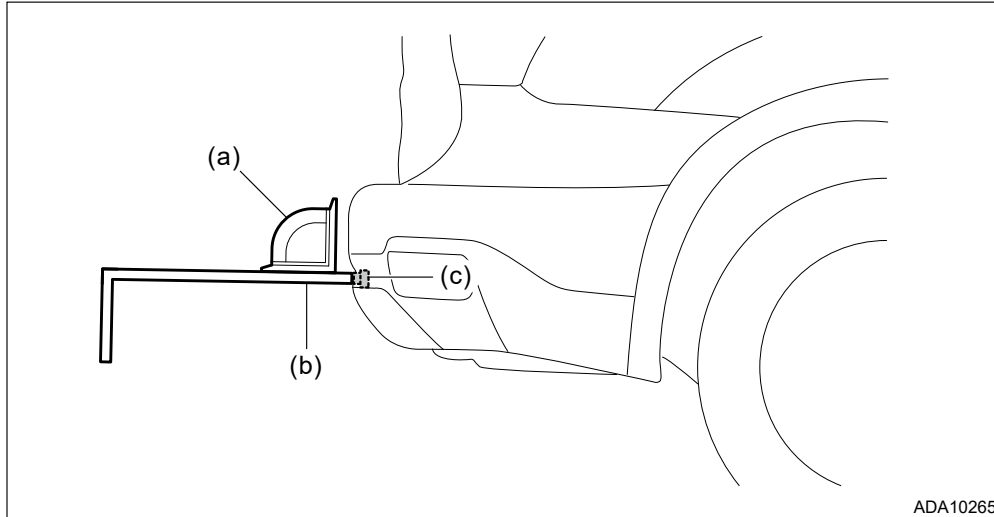
- | | | |
|-------------------|---------------|------------|
| (a) Sonar sensor | (c) Plumb bob | (e) Height |
| (b) Leveling line | (d) Point A | |

- (3) Confirm that sensor installation height is within the acceptable limit.

Specification:

480 — 520 mm (18.9 — 20.47 in)

4. Measure the installation angle of the sonar sensor.
 - (1) Using an angle gauge and try square, measure the installation angle as shown in the figure.



(a) Angle gauge

(b) Try square

(c) Sonar sensor

Note:

Use the measurement tools while placing them perpendicularly to the sonar sensor.

(2) Confirm that sensor installation angle is within the acceptable limit.

Specification:

$3^{\circ} - 8^{\circ}$

- 5.** If the inspection result is not within the standard value, the rear bumper, bezel - sonar or sonar sensor may be improperly installed or deformed. Check the installation status of each part, and perform inspection again.

REVERSE AUTOMATIC BRAKING > Sensor and Harness

INSTALLATION

1. SONAR SENSOR

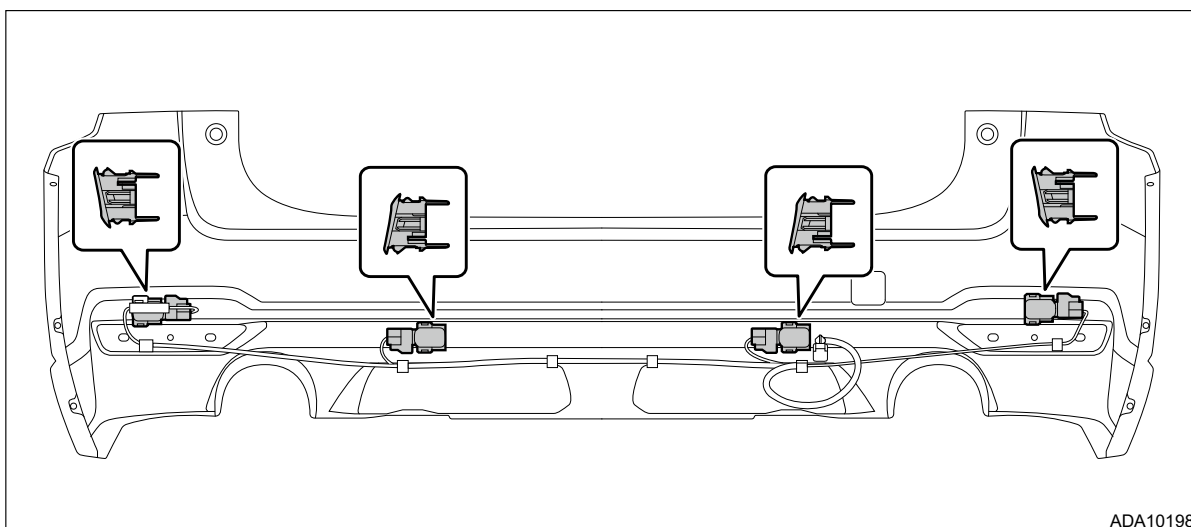
Caution:

When reusing the sensor, make sure to align the mark on the sensor and the bumper face - rear or others, and surely return each sensor to the original position before removed.



1. Install each part in the reverse order of removal.

Note:

- **Align the bezel - sonar and the sonar sensor in the direction shown in the figure below to install.**



- **Do not damage the bumper face - rear.**

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
3. When the bumper face - rear and the sonar sensor are replaced, check the installation height and angle.  [Ref. to REVERSE AUTOMATIC BRAKING>Sensor and Harness>INSPECTION.](#)


REMOVAL

1. SONAR SENSOR

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

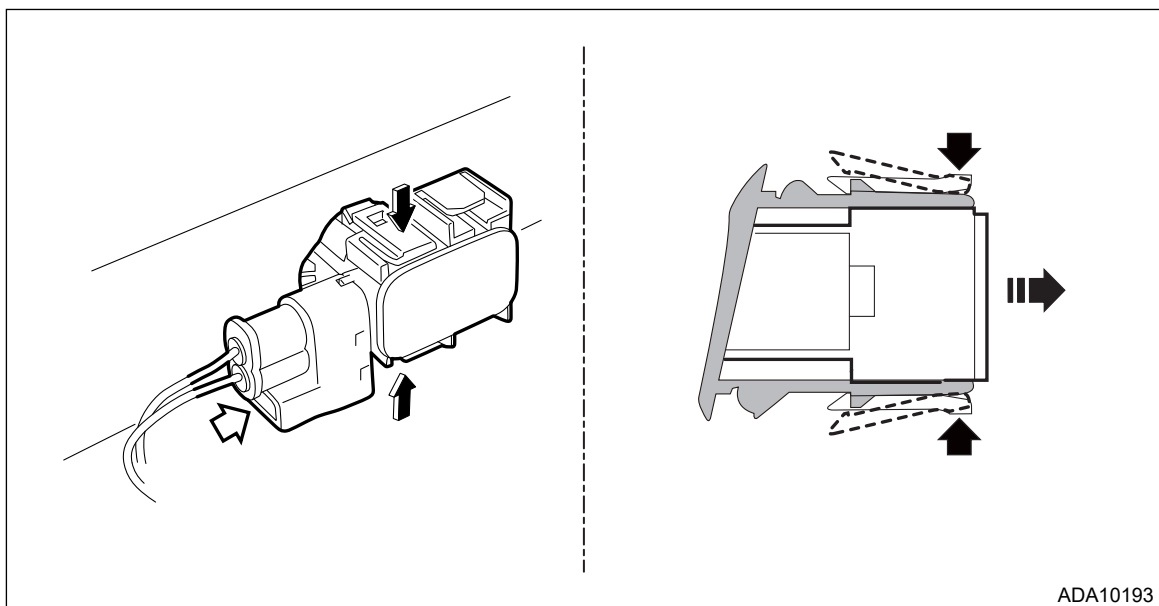
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the bumper face - rear.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>REMOVAL.](#)
3. Remove the sonar sensor.

Caution:

When reusing the sensor, make sure to place a mark on the sensor and the bumper face - rear or others, and surely return each sensor to the original position before removed.

- (1) Disconnect the connector.
- (2) Release the claws and then remove the sonar sensor.

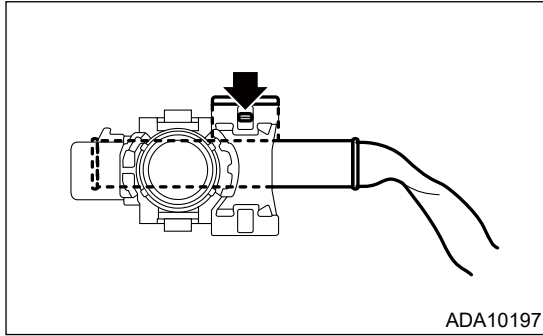


ADA10193

Note:

- **The sonar sensors are equipped at four portions on the bumper face - rear.**
- **The figure indicates the sonar sensor (right inner). Remove the rest of the sensors in the same manner.**

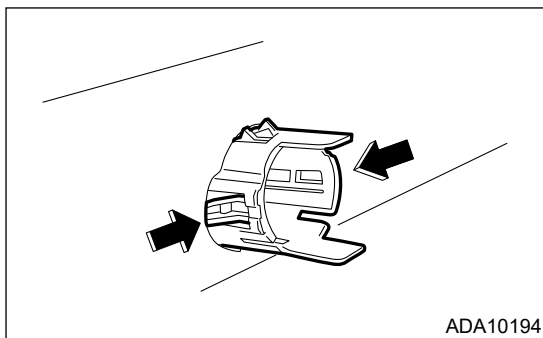
- (3) Using a flat tip screwdriver wrapped with a protection tape or cloth, release the lock from the front side of the sonar sensor to remove the cord assembly - sonar.



Note:


Use a flat tip screwdriver with an appropriate size for the insertion opening.

(4) Release the claws, and then remove the bezel - sonar.



REVERSE AUTOMATIC BRAKING > Stereo Camera

NOTE

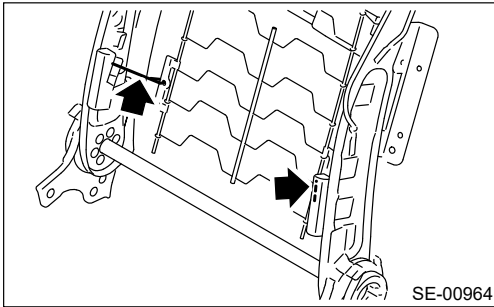
For the operation procedures for the stereo camera, refer to "EyeSight" section.  [Ref. to EyeSight>Stereo Camera.](#)

SEATS > Front Seat

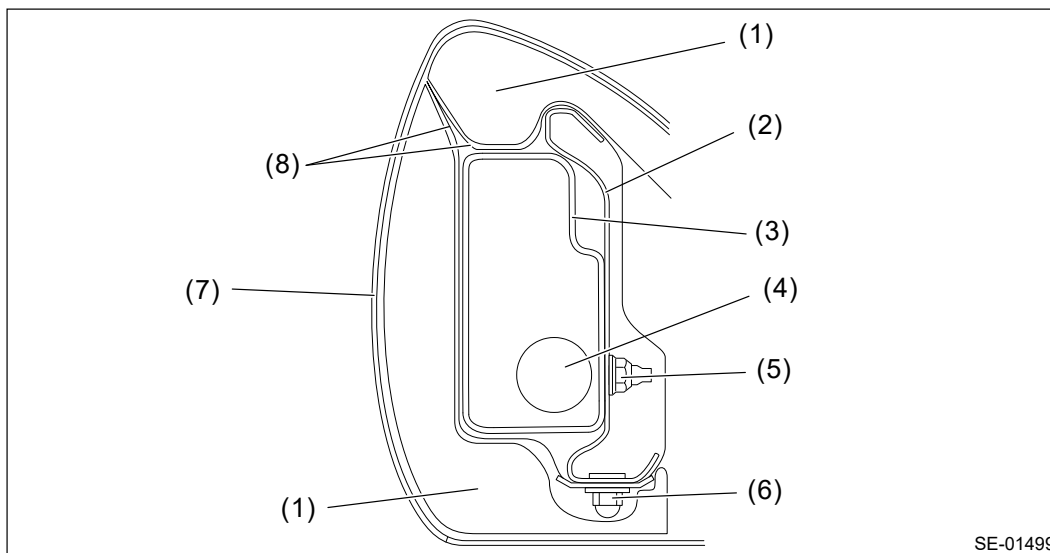
ASSEMBLY

Caution:

- Do not confuse the harness routing of the side airbag harness and the seat belt inner - front harness, etc. Assembling with harnesses improperly routed may cause the harness to get caught and short out.
- If the flat mat hook of the frame assembly - front backrest is deformed or comes off due to the deformation, replace the hook with a new part.



- Make sure that the side airbag module is installed as shown in the figure.



- | | | |
|---|---------------------------------|----------------------------------|
| (1) Pad ASSY - front seat backrest | (4) Side airbag module inflator | (7) Cover COMPL - front backrest |
| (2) Frame ASSY - front backrest | (5) Nut | (8) Side airbag guide cloth |
| (3) Side airbag module protective cover | (6) Hexagon cap nut cover | |

Besides, if the cover COMPL - front backrest is not installed securely, the side airbag may not be activated properly, therefore keep strictly to the following procedures.

- Be careful not to stain or damage the cover COMPL - front backrest during assembly.
- Do not reuse hog rings.
- Secure the hog ring using hog ring pliers.
- Install the hog rings to the specified points securely and make sure that there is no wrinkle or twisting on the cover COMPL - front backrest.

1. Install the seat heater module.

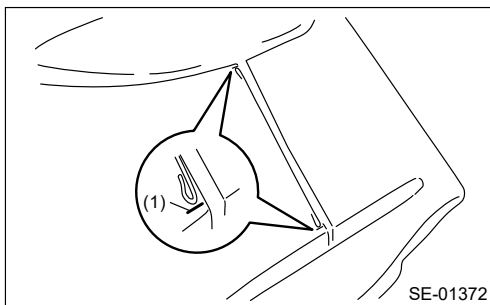
Caution:

- If the seat heater module is removed, replace the pad assembly with a new part. (Driver's seat)
- If the seat heater module is removed, replace the seat cushion pad - frame assembly with a new part. (Passenger's seat)
- If the seat heater module is reused, remove the polyurethane section from the reverse side completely and attach a new pad assembly with a double-sided tape.

Preparation items:

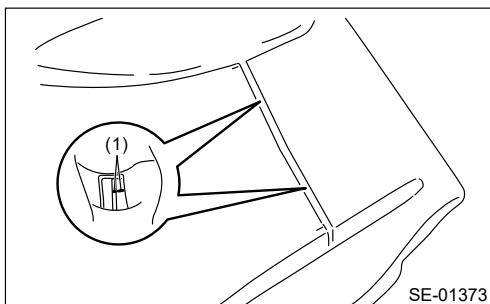
Double-sided tape: NITTO DENKO 501L or equivalent

2. Make sure that there is no foreign matter on side airbag module.
3. Assemble the seat cover.
 - (1) Adjust so that the left and right clearances between wire and seat pad become equal, and mark the seat pad.



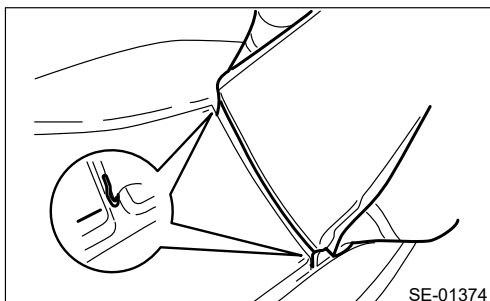
(1) Marking

- (2) Mark the center of the wire on the pad side to which the hog ring is attached.

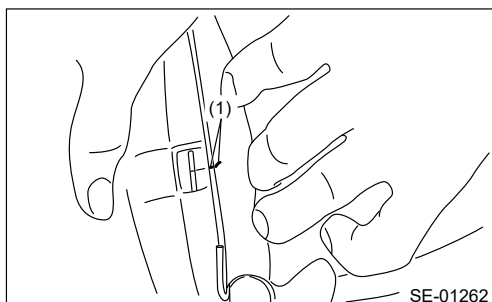


(1) Marking

- (3) Insert the wire into the seat cover, and align the wire with the position marked in step 1).

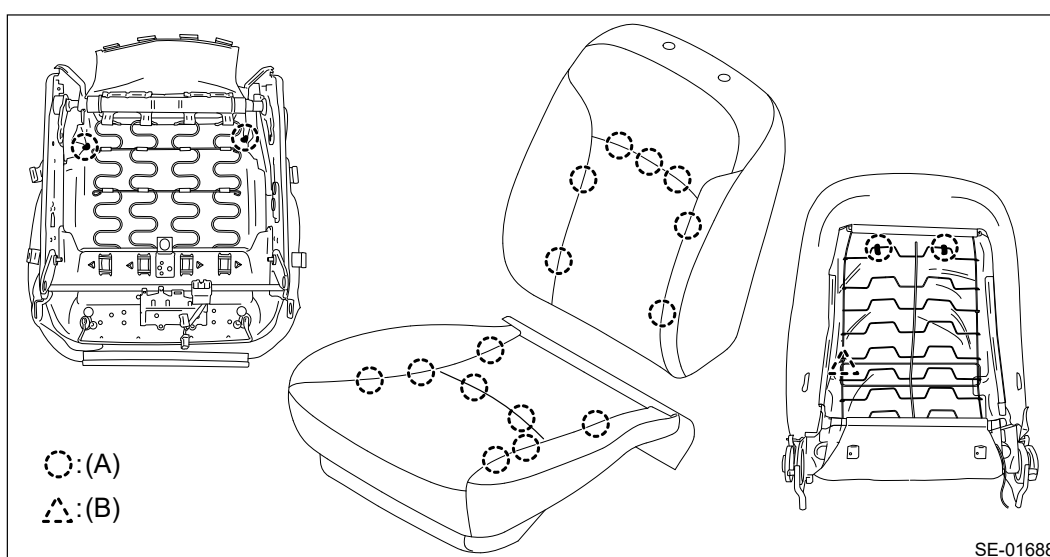


- (4) Mark the wire on the seat cover side according to the markings on the seat pad.




(1) Marking

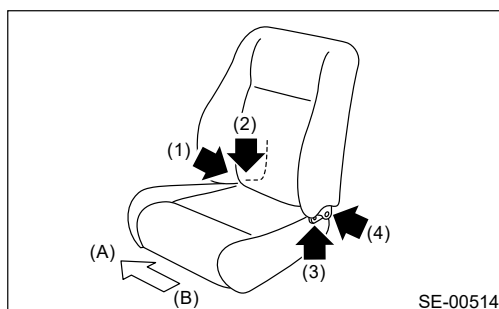
- (5) Perform steps 1) — 4) to all sections to which the hog rings are attached.
- (6) Make sure that all hog rings (A) are attached securely.
- (7) Make sure that the hog ring (B) (10-WAY model) is attached securely.



4. Assemble remaining parts in the reverse order of disassemble.

Note:


- When installing the seat belt inner - front, follow the procedures described in the seat belt section.  Ref. to SEAT BELT SYSTEM>Front Seat Belt>INSTALLATION.
- Install the backrest assembly and seat cushion assembly in the following procedure.
 1. Temporarily tighten the four reclining hinge bolts.
 2. Place the backrest in the most upright position.
 3. Tighten the reclining hinge bolts in order from (1) to (4) two or three times, until they reach the specified torque.



(A) Vehicle inside

(B) Vehicle outside

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to SEATS>General Description>COMPONENT > FRONT SEAT.](#)

5. If any wrinkles are found after the assembly of the seat cover, finish the seat cover with iron.

(1) Place the wet towel on wrinkles.



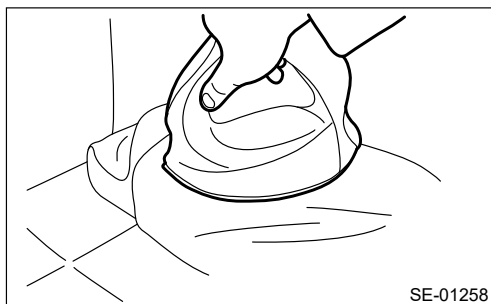
(2) Touch up with warm iron.

Caution:

Keep moving the iron, otherwise the seat cover surface can be damaged.

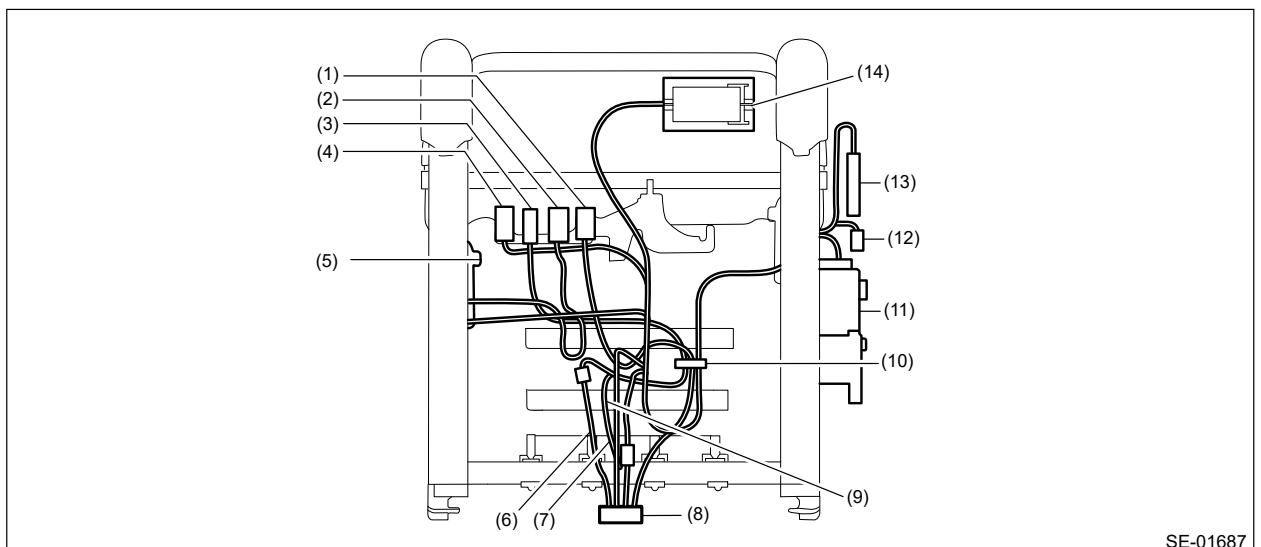
Note:

This method is available for genuine leather, synthetic leather, cloth, etc.



6. Install connectors located under the front seat.

- Power seat

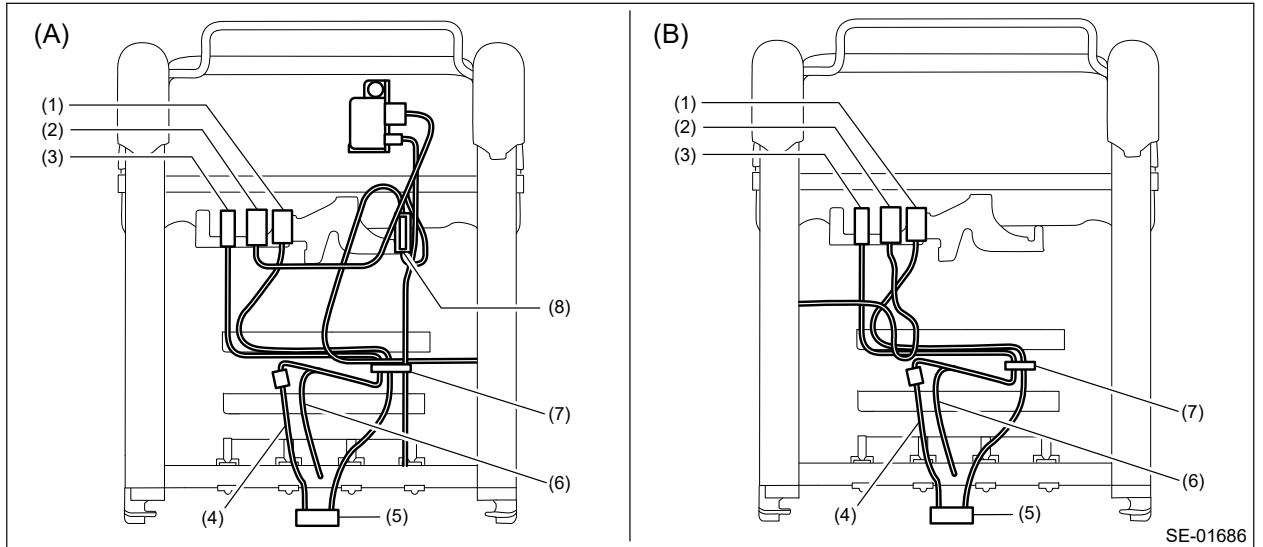


- | | | |
|-----------------------------------|-----------------------------------|-----------------------------|
| (1) Side airbag connector | (6) Backrest heater harness | (11) Lifter motor |
| (2) Seat belt switch connector | (7) Reclining motor harness | (12) Lumbar switch |
| (3) Seat cushion heater connector | (8) Velcro | (13) Power seat switch ASSY |
| (4) Power seat connector | (9) Seat cushion - heater harness | (14) Slide motor |

(5) Tilt motor

(10) Band

• Manual seat



SE-01686

(A) RH

(B) LH

(1) Side airbag connector

(4) Backrest heater harness

(7) Band

(2) Occupant detection control

(5) Velcro

(8) Seat belt switch connector module

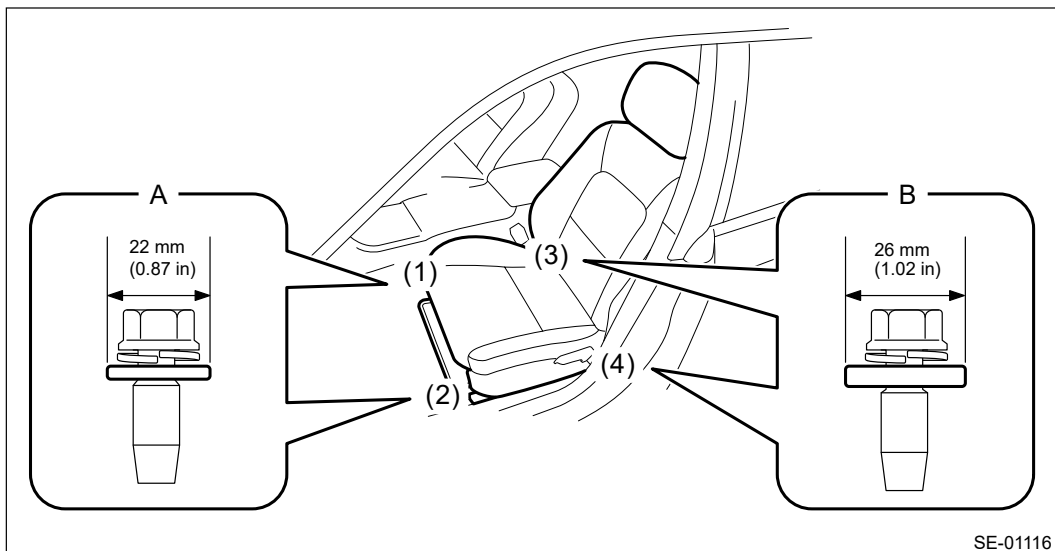
(3) Seat cushion heater connector

(6) Seat cushion - heater harness

7. Install the seat assembly.

Caution:

- The seat mounting bolts differ between the front mounting points and the rear mounting points. Make sure that you are using correct bolts at correct positions.
- Tighten the slide rail installing bolts in the order as shown in the figure, in several steps by gradually increasing the torque until they reach the specified torque.



SE-01116


• Front (bolt A): Washer diameter 22 mm (0.87 in)


• Rear (bolt B): Washer diameter 26 mm (1.02 in)

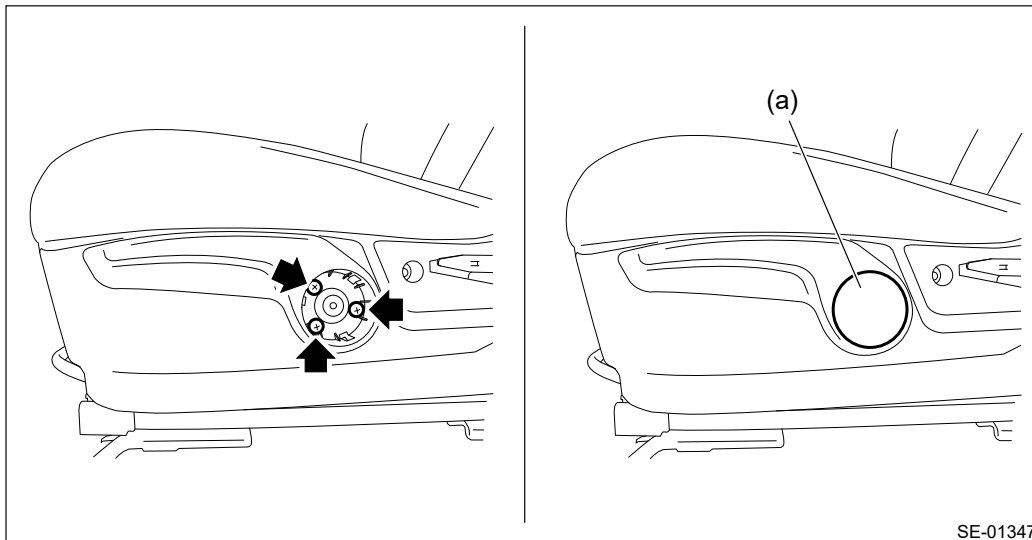
Tightening torque: 53 N-m (5.4 kgf-m, 39.1 ft-lb)

1. MANUAL SEAT

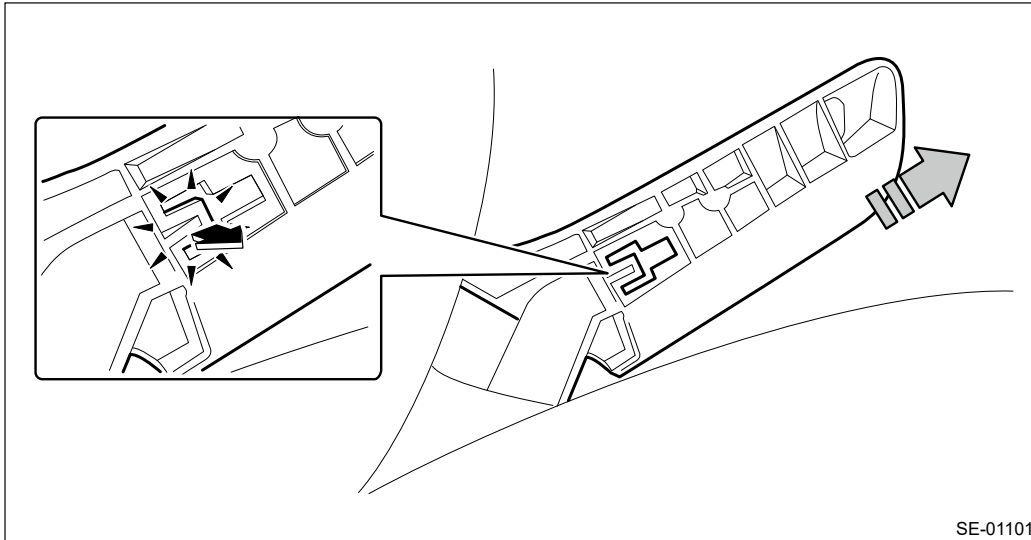
Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- If the seat heater module is removed, replace the pad assembly with a new part.
- If the seat heater module is reused, remove the polyurethane section from the reverse side completely.
- Before assembling, make sure how the harnesses such as the side airbag harness and the seat belt inner - front harness are routed in order to avoid misarranging. Assembling with harnesses improperly routed may cause the harness to get caught and short out.

1. Remove the front seat from vehicle.  [Ref. to SEATS>Front Seat>REMOVAL.](#)
2. Remove the knob - lifter. (Driver's side only)
 - (1) Using a flat tip screwdriver, remove the cap - lifter lever (a).
 - (2) Remove the screws and remove the knob - lifter.

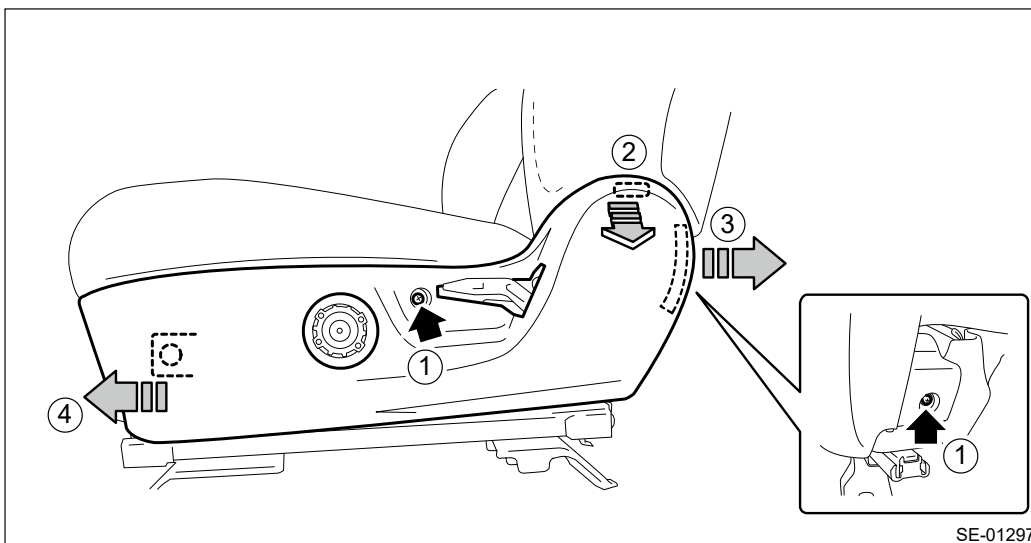


3. Remove the lever - reclining.
 - (1) Pull up the lever - reclining and release the claws on the back.
 - (2) Pull out the lever - reclining.

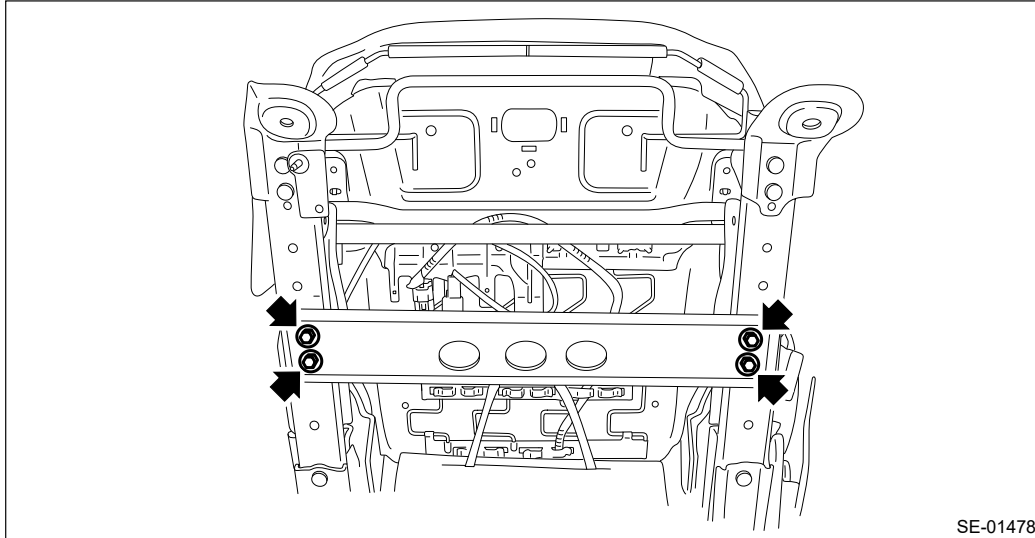


4. Remove the cover - hinge front seat OUT.

- (1) Remove the screws.
- (2) Release the claw in the upper section of the cover - hinge front seat OUT.
- (3) Release the claw in the rear section of the cover - hinge front seat OUT.
- (4) Release the claw in the front section of the cover - hinge front seat OUT, then remove the cover - hinge front seat OUT.

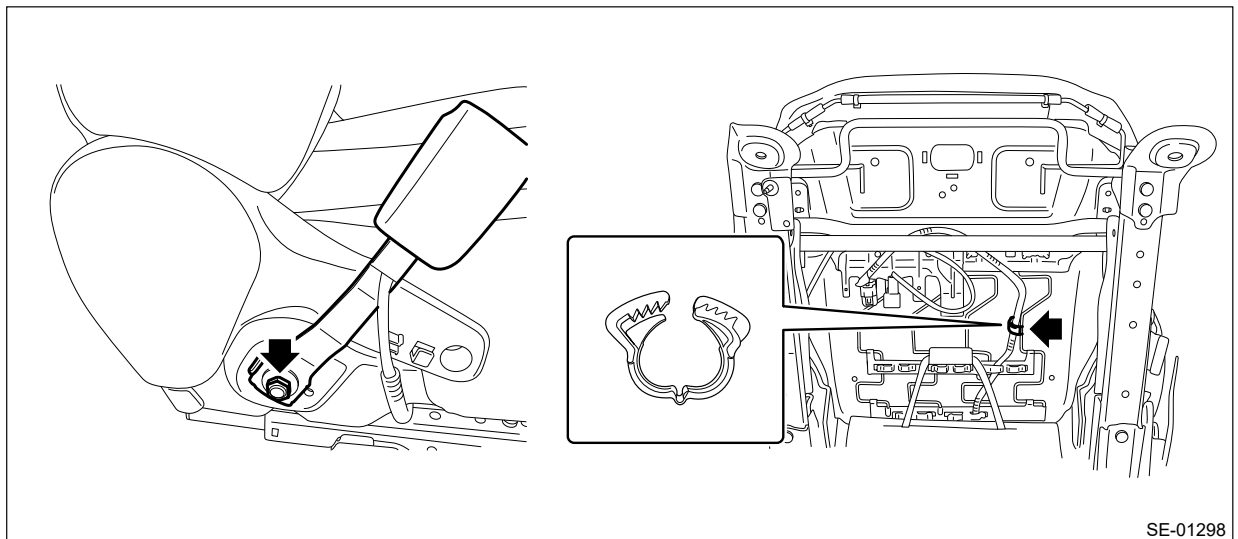


5. Remove the nuts, and remove the member - bracket.



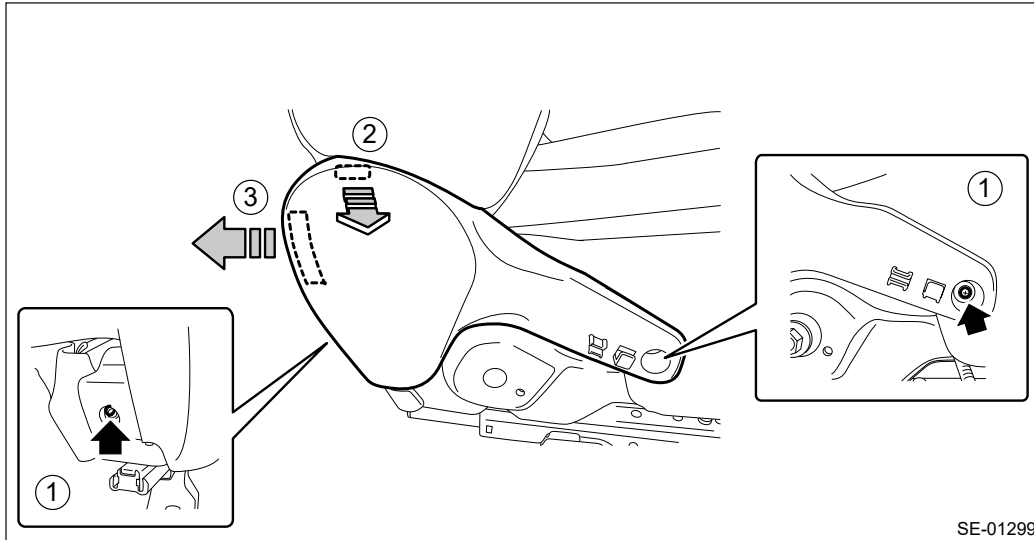
6. Remove the seat belt inner - front.

- (1) Remove the nut, and remove the seat belt inner - front.
- (2) Remove the clip for the seat belt inner - front located under the seat cushion assembly.

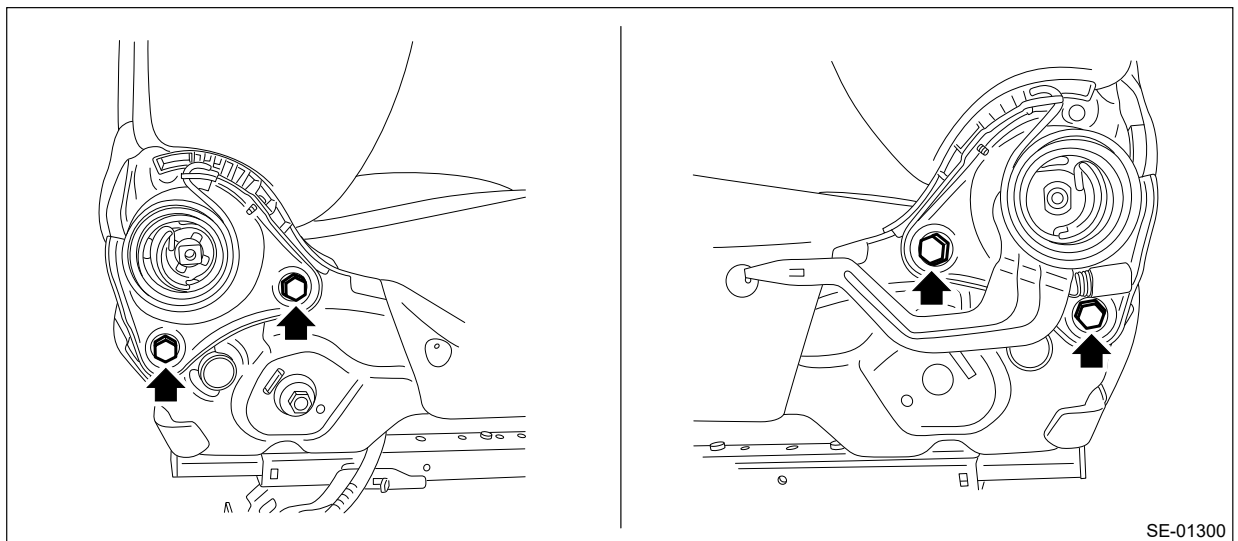


7. Remove the cover - hinge front seat INN.

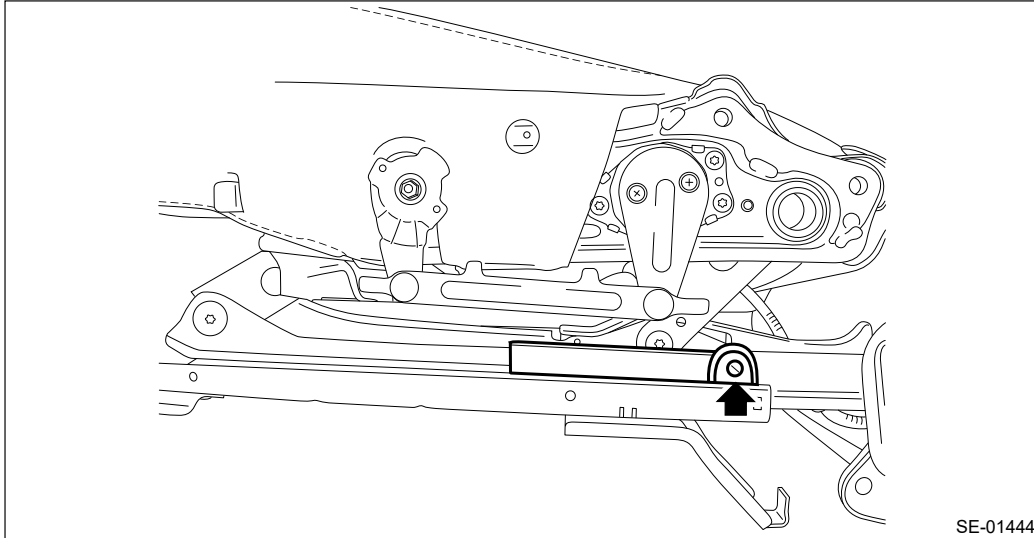
- (1) Remove the screws.
- (2) Release the claw in the upper section of the cover - hinge front seat INN.
- (3) Release the claw in the rear section of the cover - hinge front seat INN, then remove the cover - hinge front seat INN.



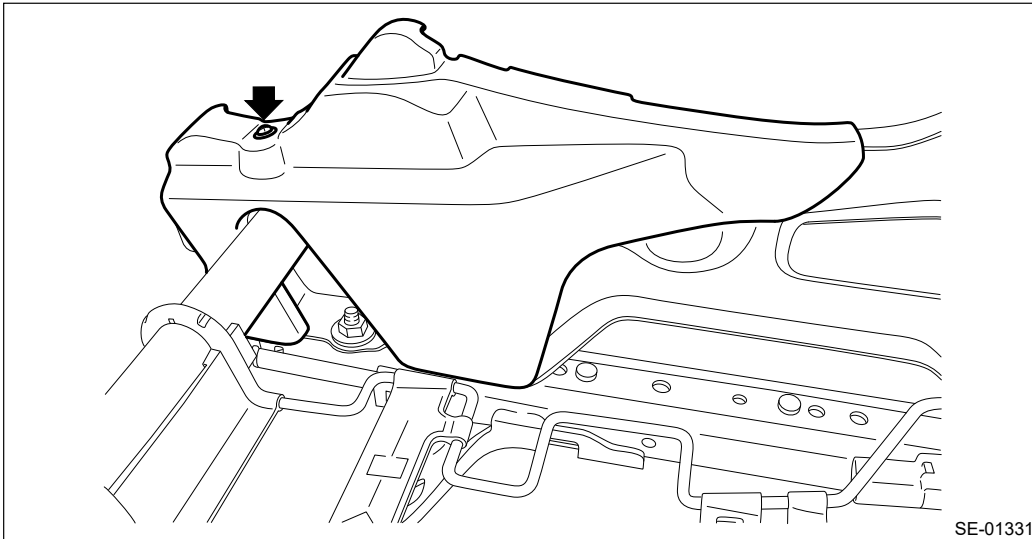
- 8.** Separate the backrest assembly and the seat cushion assembly.
- (1) Remove the clip for the side airbag harness located under the seat cushion assembly.
 - (2) Disconnect the seat heater harness. (Seat with seat heater)
 - (3) Remove the bolts from reclining hinge of both sides.
 - (4) While taking care not to damage the harness, separate the backrest assembly and the seat cushion assembly.



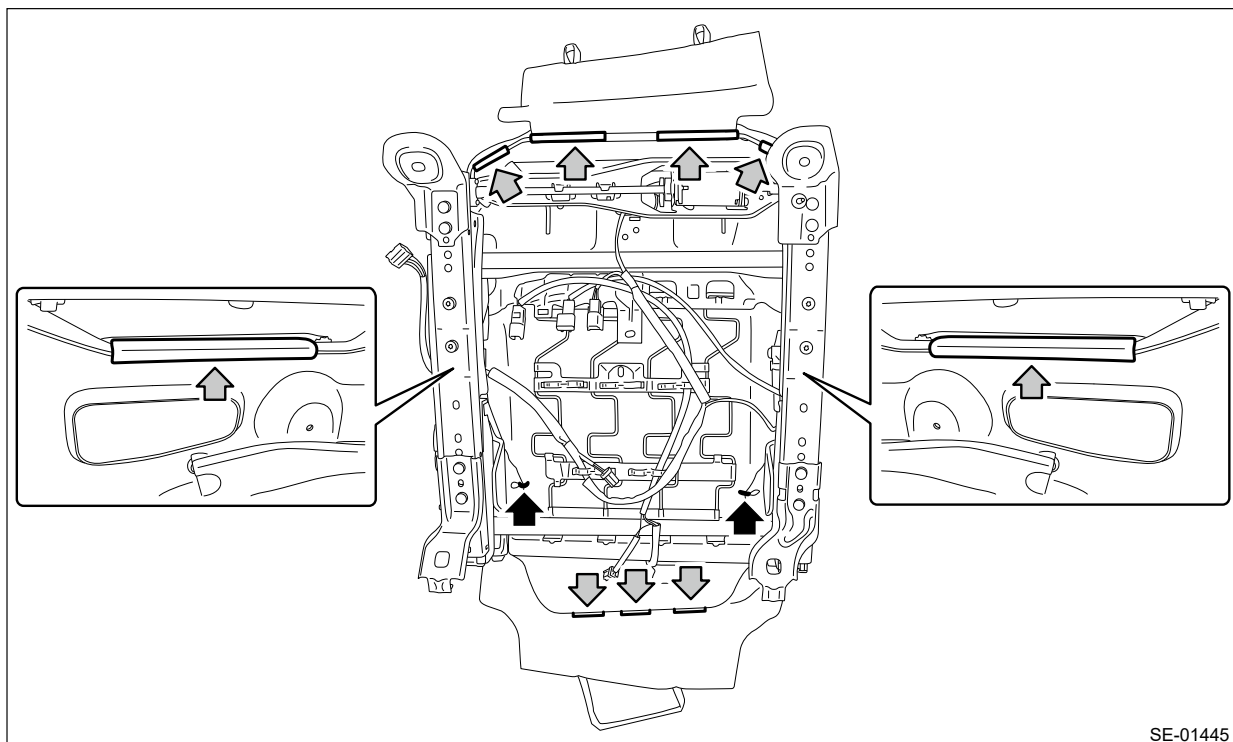
- 9.** Remove the cover - slide rail OUT.
- (1) Remove the clip.
 - (2) Remove the hook, and detach the cover - slide rail OUT.



10. Remove the screws and detach the cover - slide rail INN.



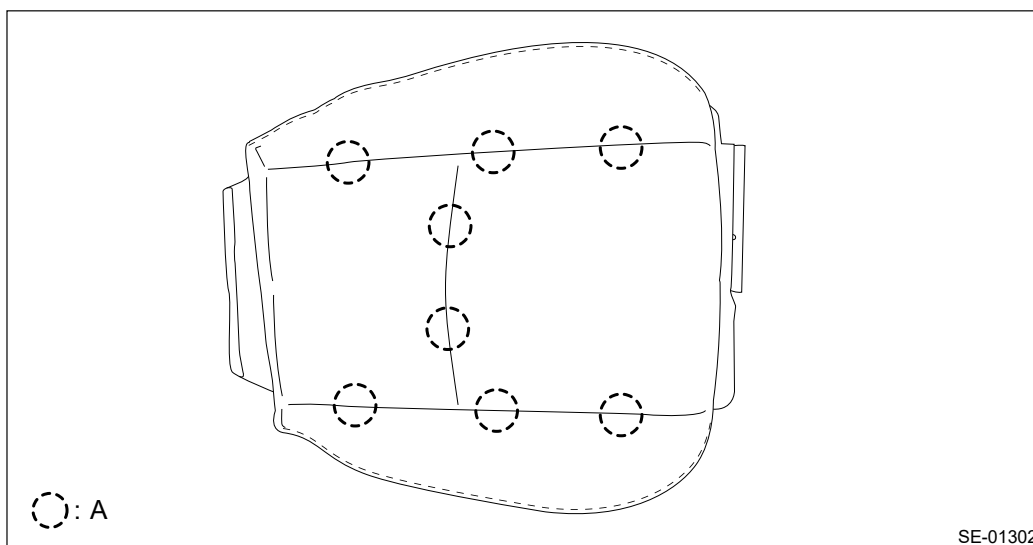
11. Remove the pad assembly - front seat cushion and the cover - front cushion.
(1) Remove the hooks and hog rings.
(2) Remove the pad assembly - front seat cushion and the cover - front cushion from the seat cushion assembly.



SE-01445

12. Remove the cover - front cushion.

- (1) Remove the hog ring (A).



SE-01302

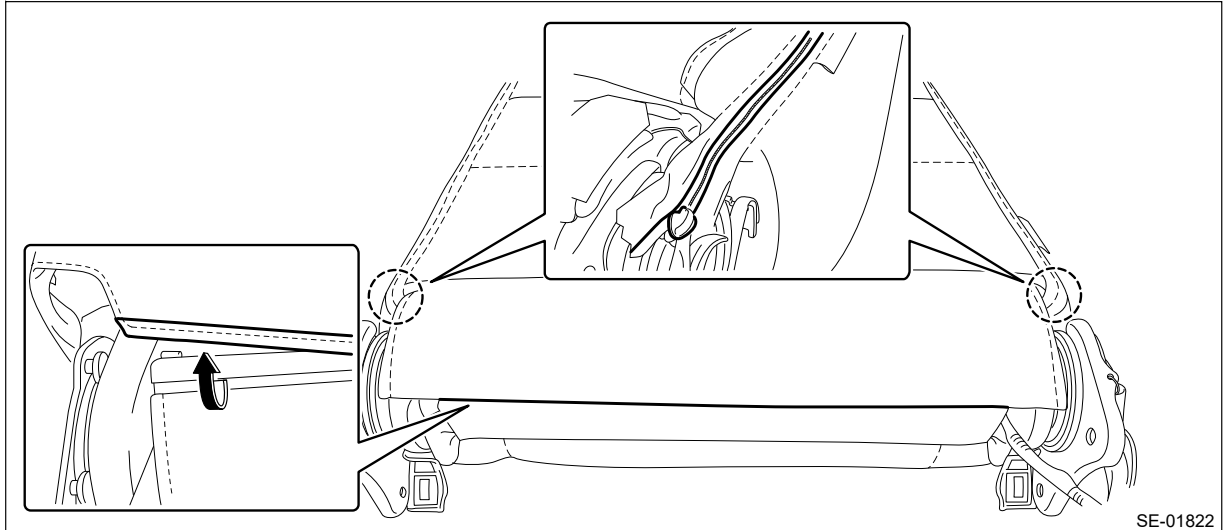
- (2) Pull out the pad assembly - front seat cushion from the cover - front cushion.
- (3) Remove the seat heater module from the pad assembly as necessary.

Caution:

- **If the seat heater module is removed, replace the pad assembly with a new part. (Driver's seat)**
- **If the seat heater module is reused, remove the polyurethane section from the reverse side completely.**

13. Remove the pad assembly - front seat backrest and the cover COMPL - front backrest.

- (1) Remove the plastic fastener at the back side (bottom) of backrest assembly.
- (2) Open the fastener at the rear side of backrest assembly.



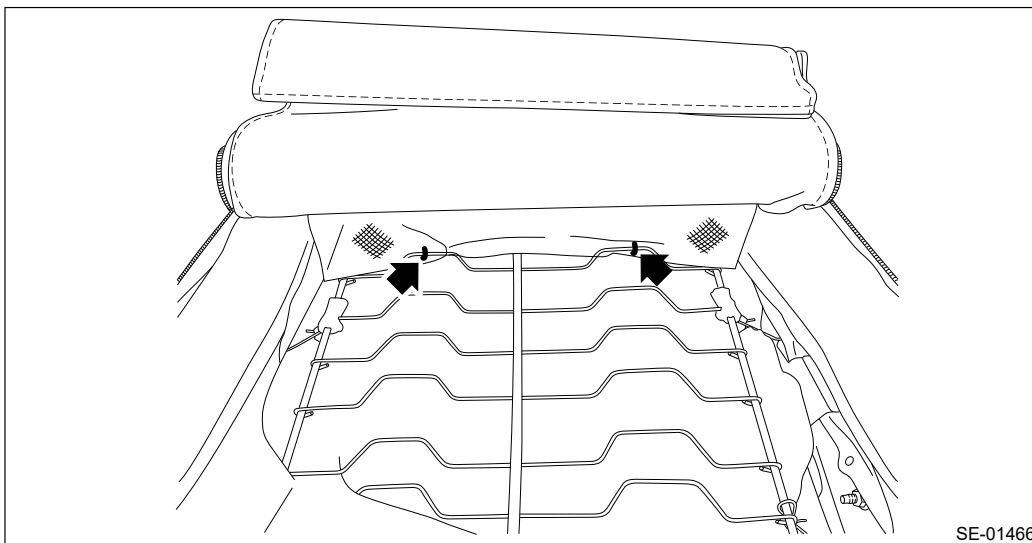
Note:

If it is hard to open, use a metal clip, etc.

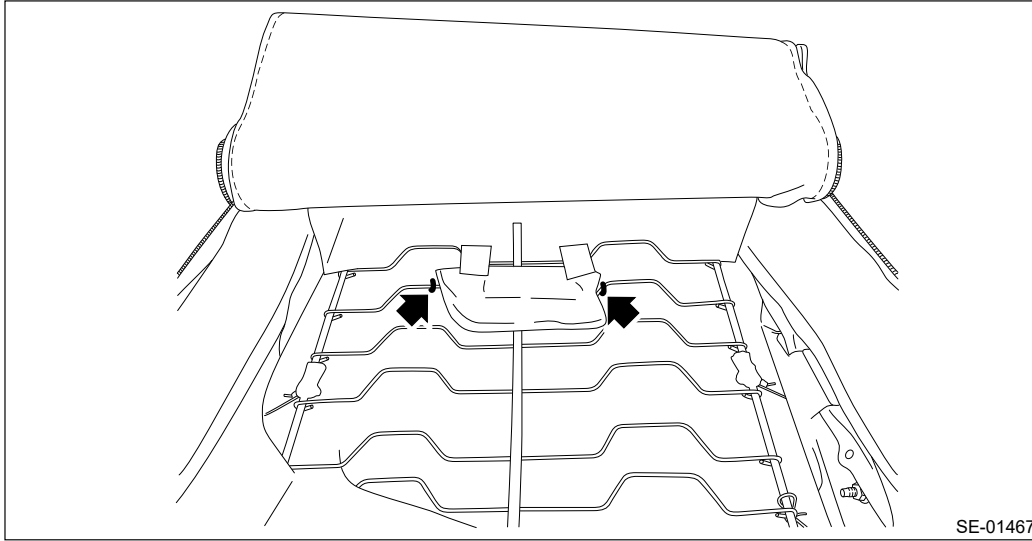
- (3) Remove the hog ring.

Caution:

**Be careful not to tear the vinyl inside the seat when removing the hog rings.
If torn, replace with a new part.**



- (4) Turn over the backrest pad & cover, and remove the hog rings.

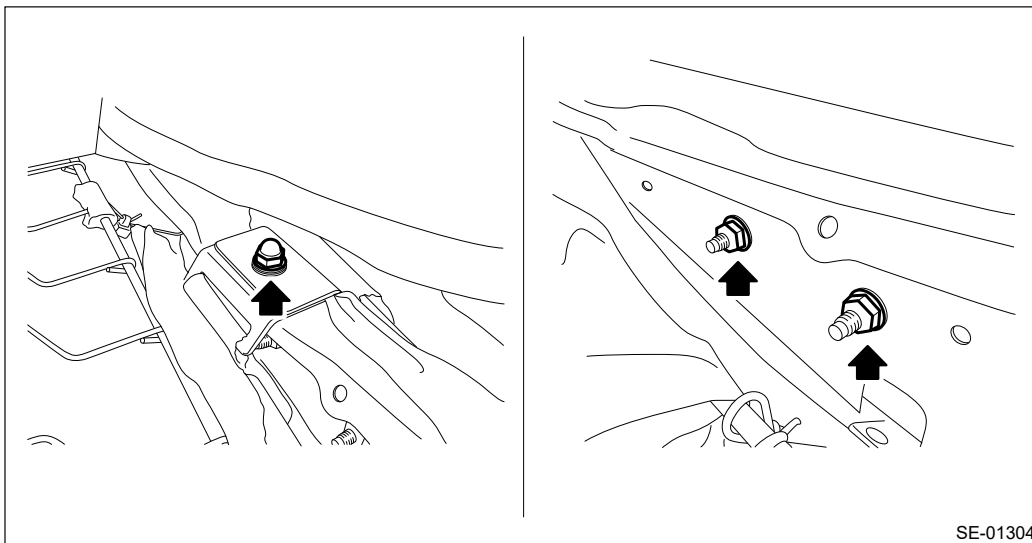


14. Remove the side airbag module.

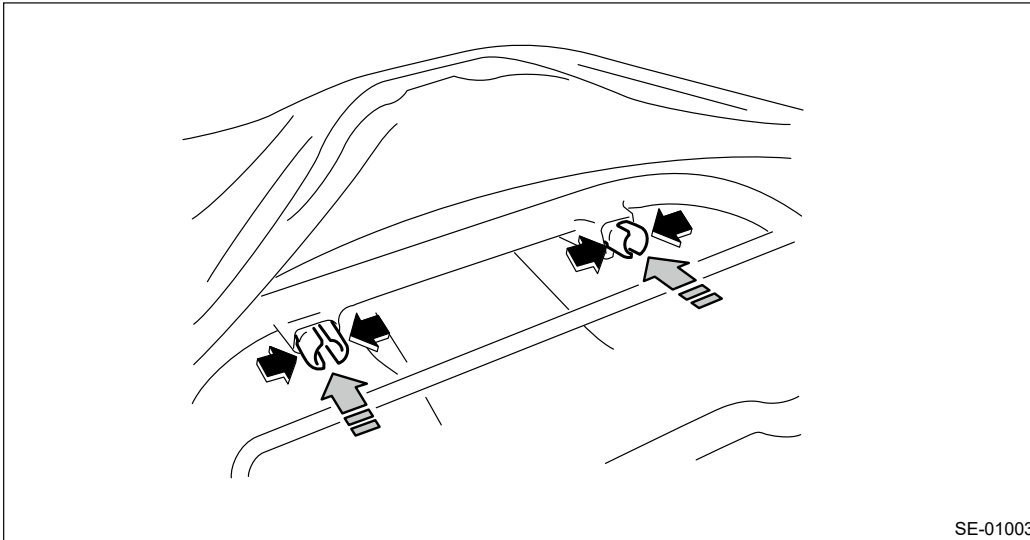
Caution:

Do not open the protective cover of the side airbag. If any damage is present in the protective cover or the cloth of side airbag module comes out from the protective cover slit, replace the side airbag module with a new part.

- (1) Remove the hexagon cap nut and nuts.
- (2) While taking care not to damage the airbag protective cover, remove the side airbag module.



15. Remove the bushing - headrest.



SE-01003

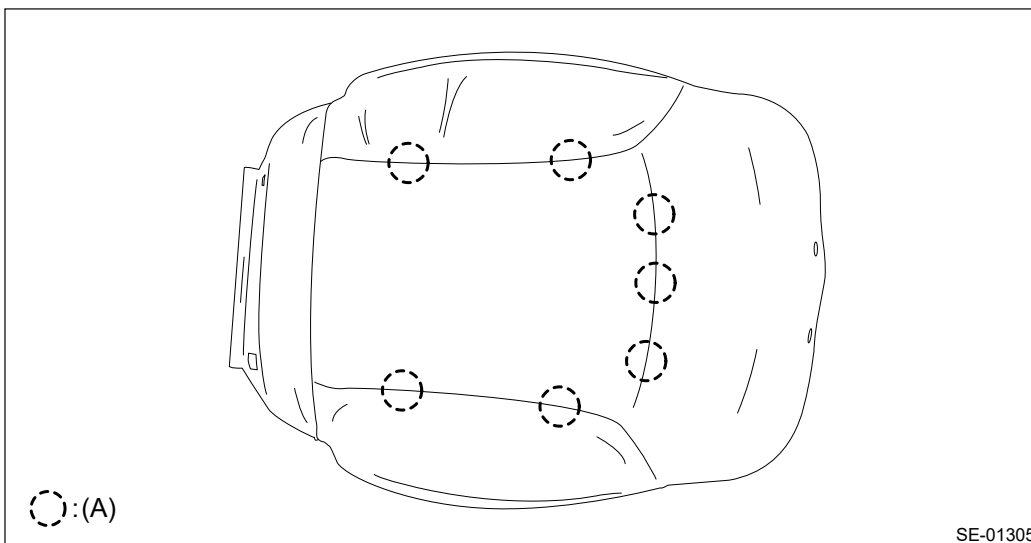
Note:

Catch the tip of the bushing - headrest with pliers and push it outward from the inside of seat to remove it.

16. Pull out the frame assembly - front backrest.

17. Remove the cover COMPL - front backrest.

(1) Remove the hog ring (A).



(2) Pull out the pad assembly - front seat backrest from the cover COMPL - front backrest.

(3) Remove the seat heater module from the pad assembly as necessary.

Caution:

- **If the seat heater module is removed, replace the pad assembly with a new part.**
- **If the seat heater module is reused, remove the polyurethane section from the reverse side completely.**

2. POWER SEAT (DRIVER'S SEAT)

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

- Before assembling, make sure how the harnesses such as the side airbag harness and the seat belt inner - front harness are routed in order to avoid misarranging. Assembling with harnesses improperly routed may cause the harness to get caught and short out.
- Do not disassemble the backrest assembly and seat cushion frame and slide rail assembly.

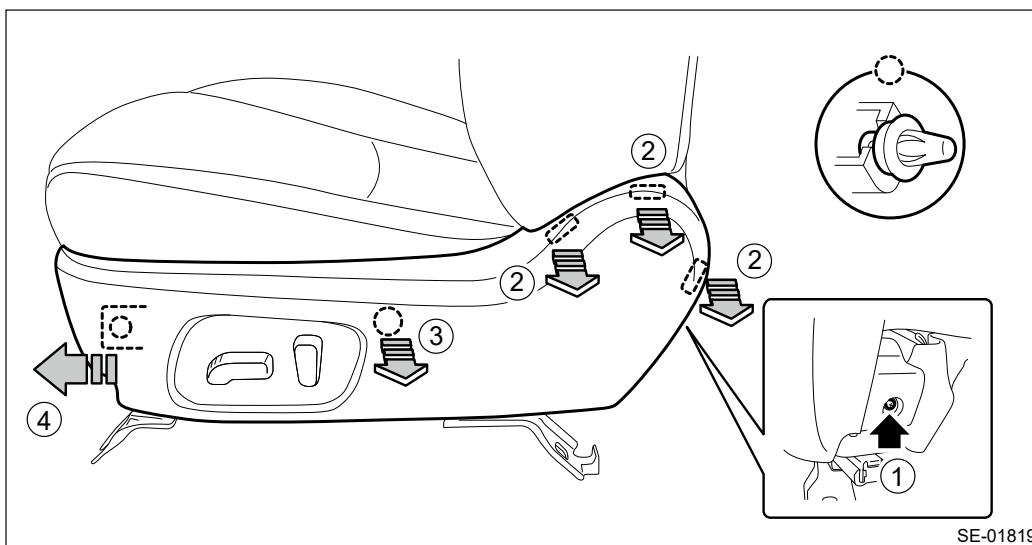
1. Remove the seat from vehicle.  [Ref. to SEATS>Front Seat>REMOVAL.](#)

Note:

Before removing the seat, raise the seating face.

2. Remove the cover - hinge front seat OUT.

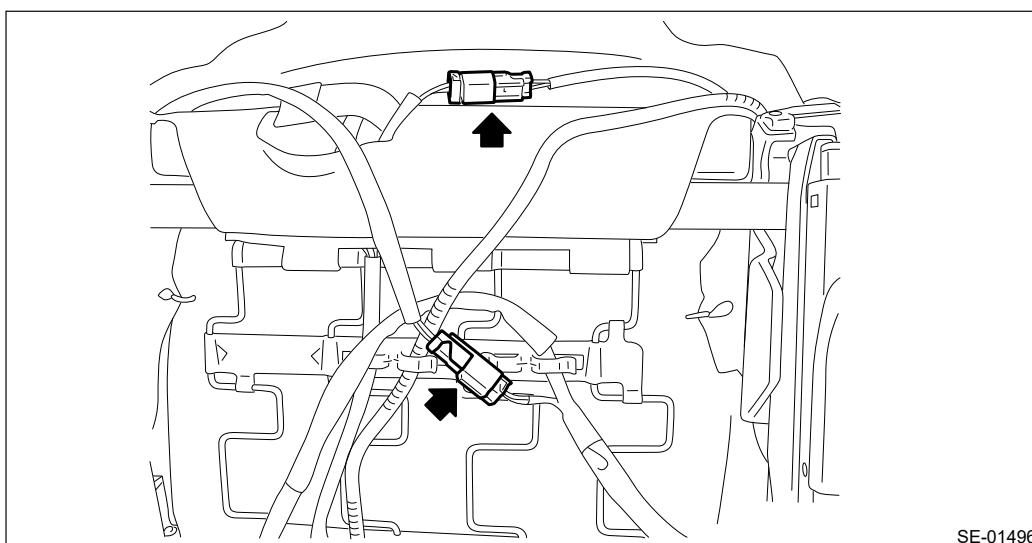
- (1) Remove the screws in the rear section of the cover - hinge front seat OUT.
- (2) Release the claw in the upper section of the cover - hinge front seat OUT.
- (3) Remove the clip, and release the claws in the front section of the cover - hinge front seat OUT.
- (4) Disconnect the power seat switch and lumbar switch connector and remove the cover - hinge front seat OUT.



SE-01819

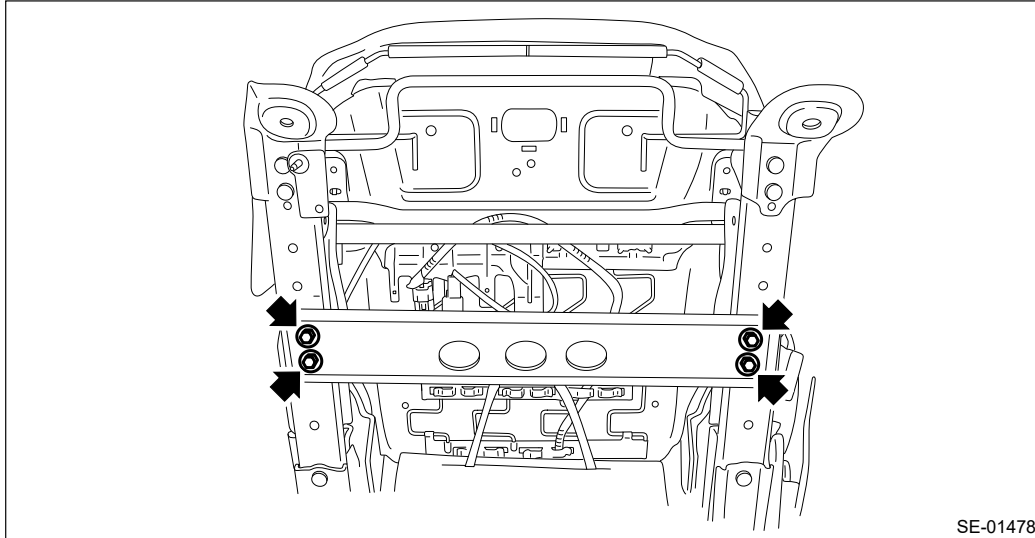
3. Disconnect the connectors from the backside of seat cushion.

- (1) Disconnect the connector for reclining motor.
- (2) Disconnect the connector of seat heater harness. (Seat with seat heater)



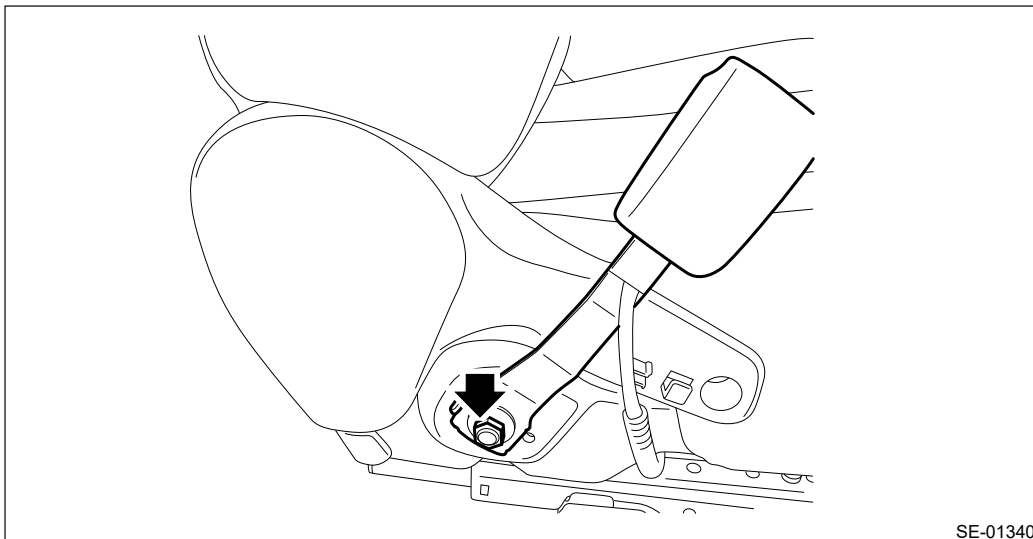
SE-01496

4. Remove the nuts, and remove the member - bracket.



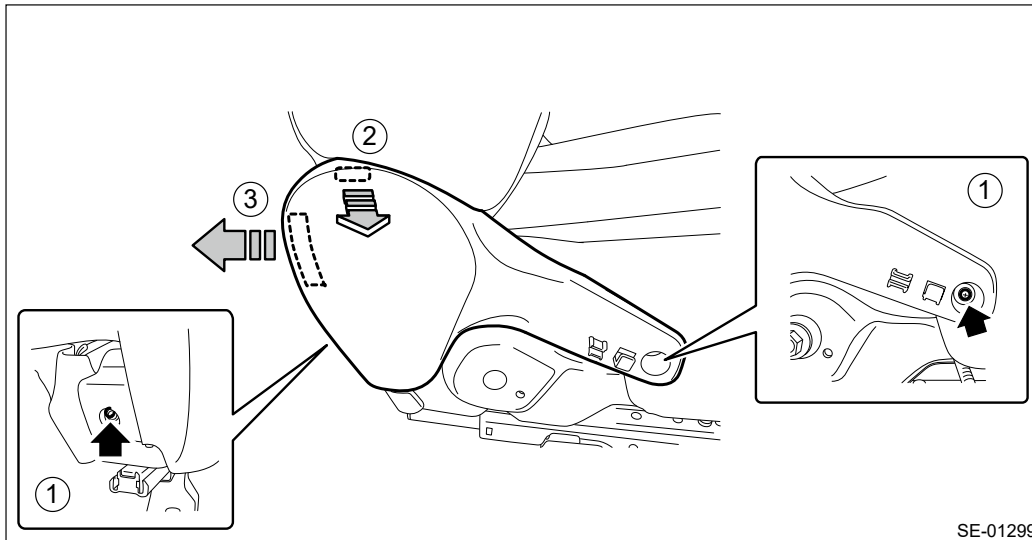
5. Remove the seat belt inner - front.

- (1) Remove the nut, and remove the seat belt inner - front.
- (2) Disconnect the connector for the seat belt inner - front harness located under the seat cushion assembly.



6. Remove the cover - hinge front seat INN.

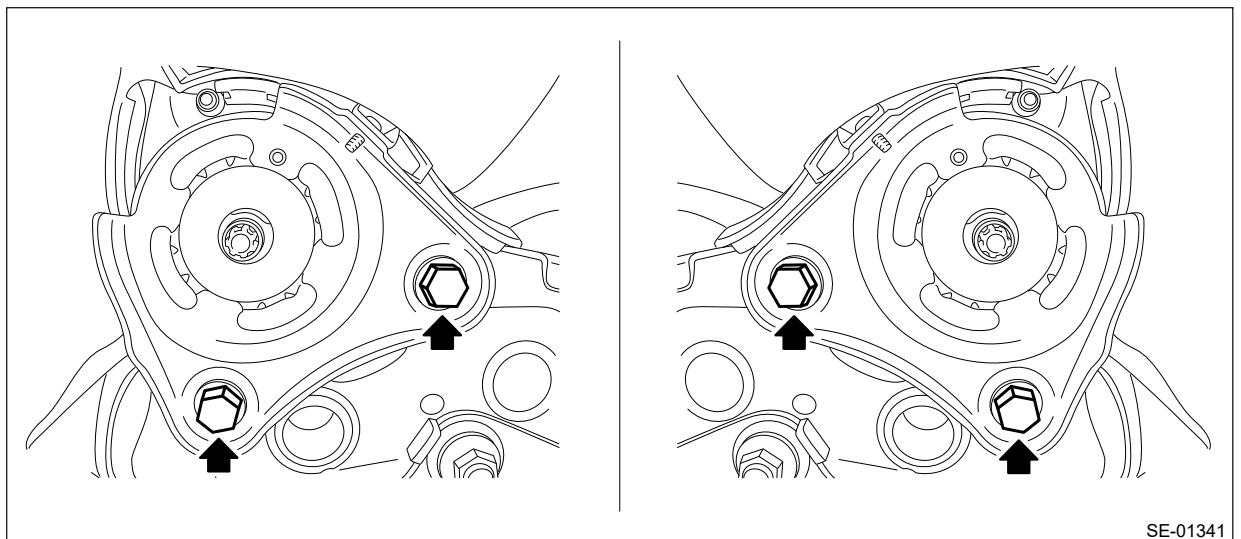
- (1) Remove the screws.
- (2) Release the claw in the upper section of the cover - hinge front seat INN.
- (3) Release the claw in the rear section of the cover - hinge front seat INN, then remove the cover - hinge front seat INN.



SE-01299

7. Separate the backrest assembly and the seat cushion assembly.

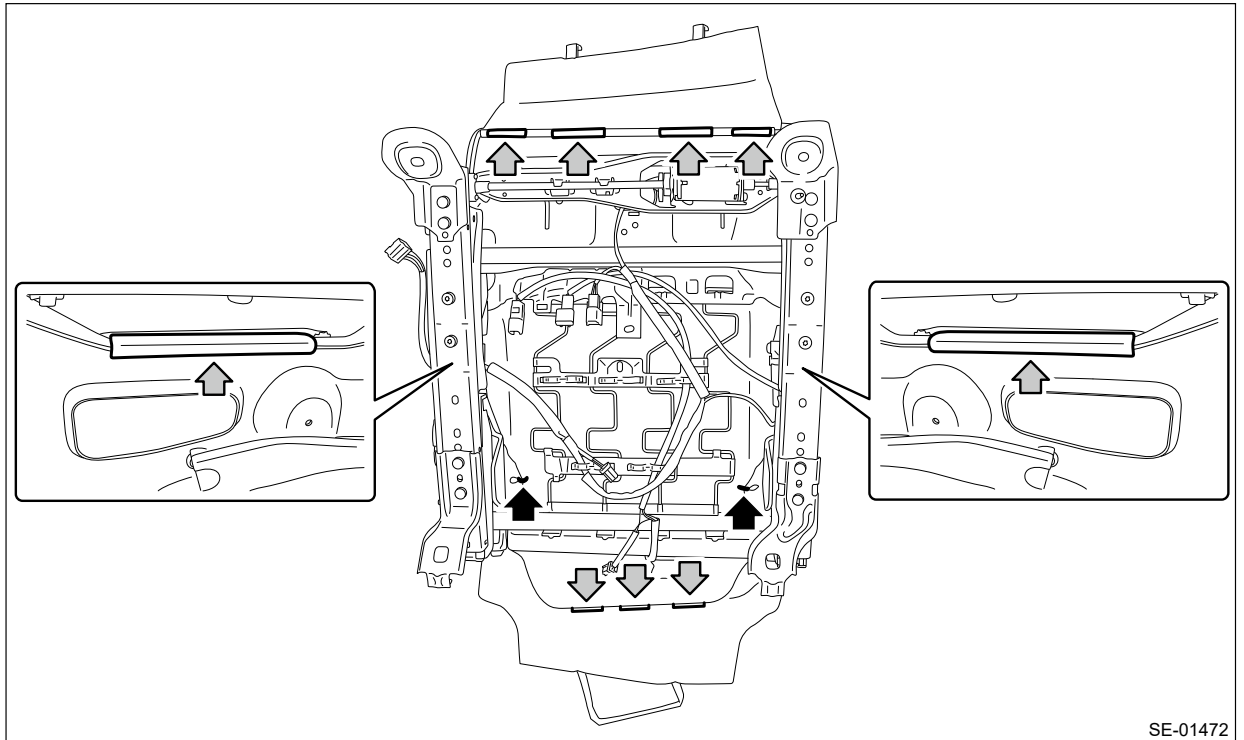
- (1) Remove the clip for the side airbag harness located under the seat cushion assembly.
- (2) Remove the bolts from reclining hinge of both sides.
- (3) While taking care not to damage the harness, separate the backrest assembly and the seat cushion assembly.



SE-01341

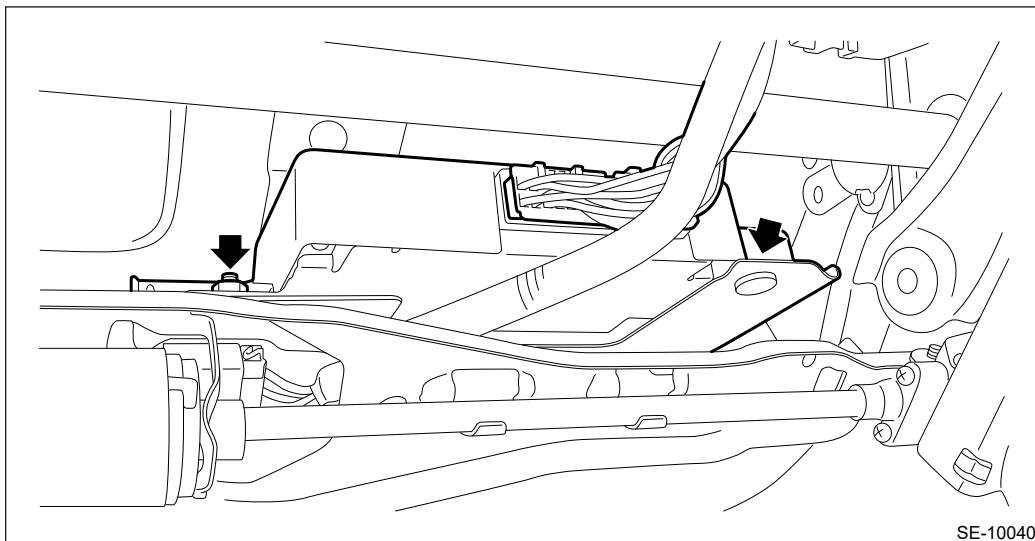
8. Remove the pad assembly - front seat cushion and the cover - front cushion.

- (1) Remove the hooks and hog rings.
- (2) Remove the pad assembly - front seat cushion and the cover - front cushion from the seat cushion assembly.



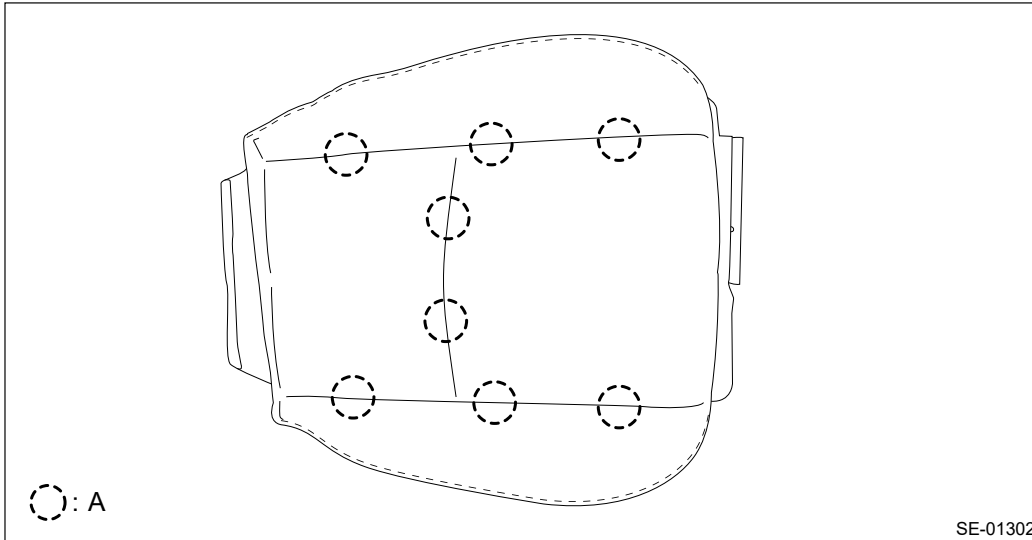
SE-01472

- 9.** Remove the hexagon cap nuts, and remove the power seat control module. (Model with memory function)



SE-10040

- 10.** Remove the cover - front cushion.
(1) Remove the hog ring (A).



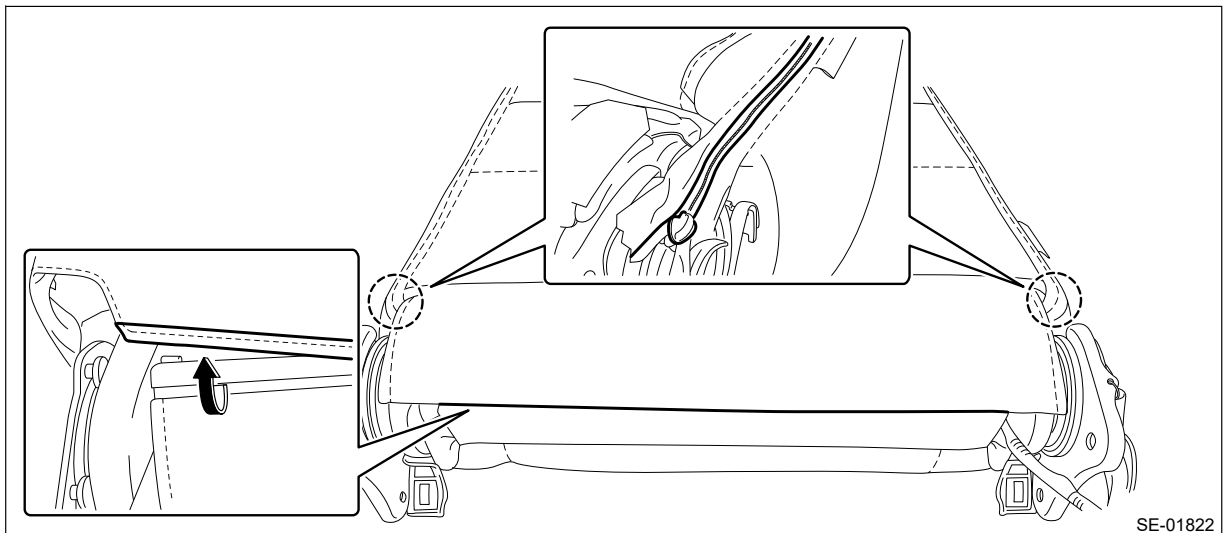
- (2) Pull out the pad assembly - front seat cushion from the cover - front cushion.
- (3) Remove the seat heater module from the pad assembly as necessary.

Caution:

- **If the seat heater module is removed, replace the pad assembly with a new part. (Driver's seat)**
- **If the seat heater module is reused, remove the polyurethane section from the reverse side completely.**

11. Remove the pad assembly - front seat backrest and the cover COMPL - front backrest.

- (1) Remove the plastic fastener at the back side (bottom) of backrest assembly.
- (2) Open the fastener at the rear side of backrest assembly.



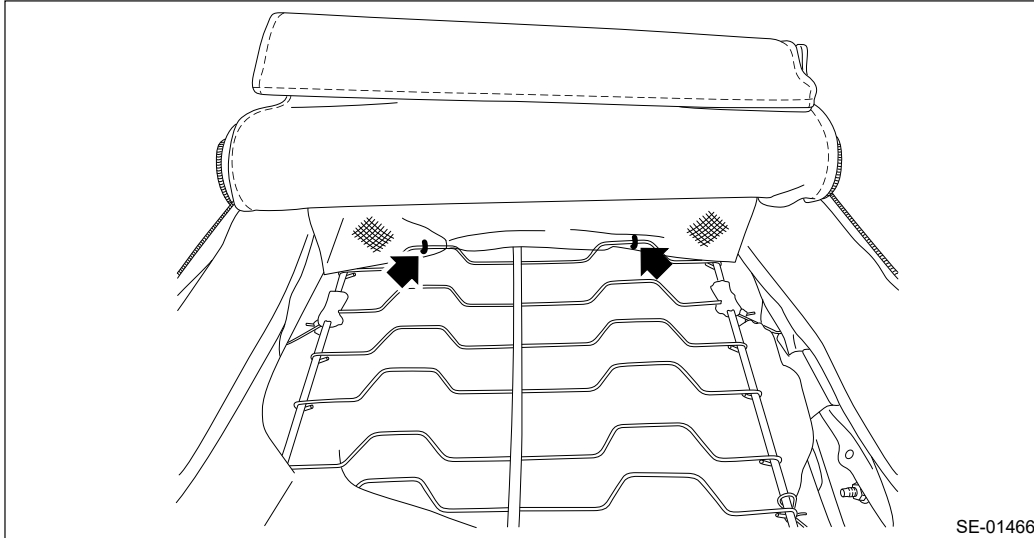
Note:

If it is hard to open, use a metal clip, etc.

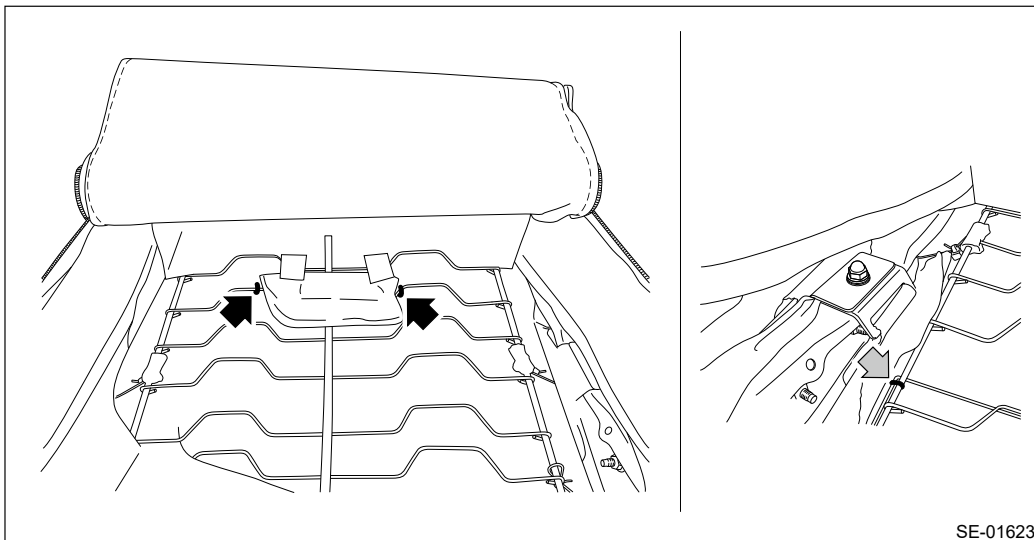
- (3) Remove the hog ring.

Caution:

Be careful not to tear the vinyl inside the seat when removing the hog rings. If torn, replace with a new part.



(4) Turn over the backrest pad & cover, and remove the hog rings.



Note:

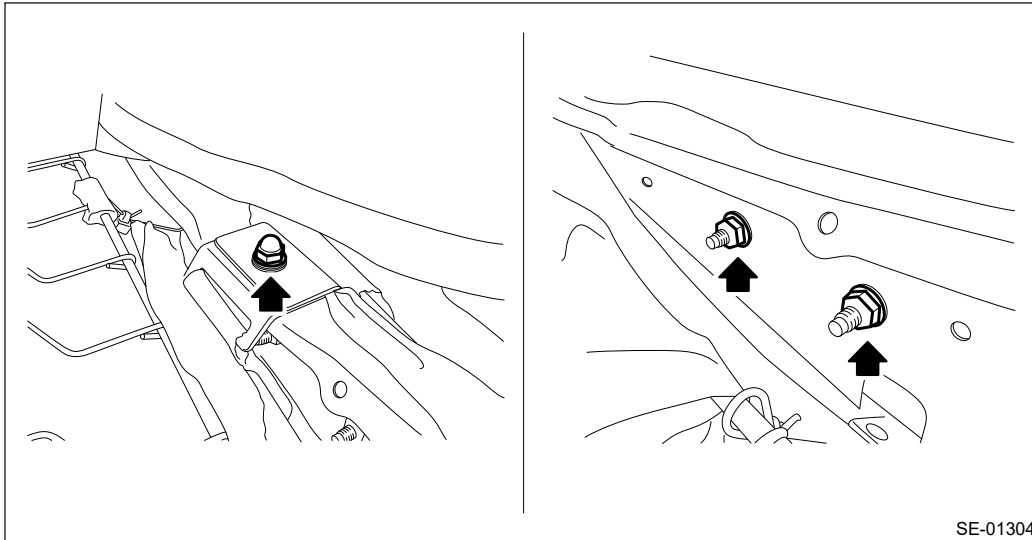
The part with an arrow (gray) is only for 10-WAY model.

12. Remove the side airbag module.

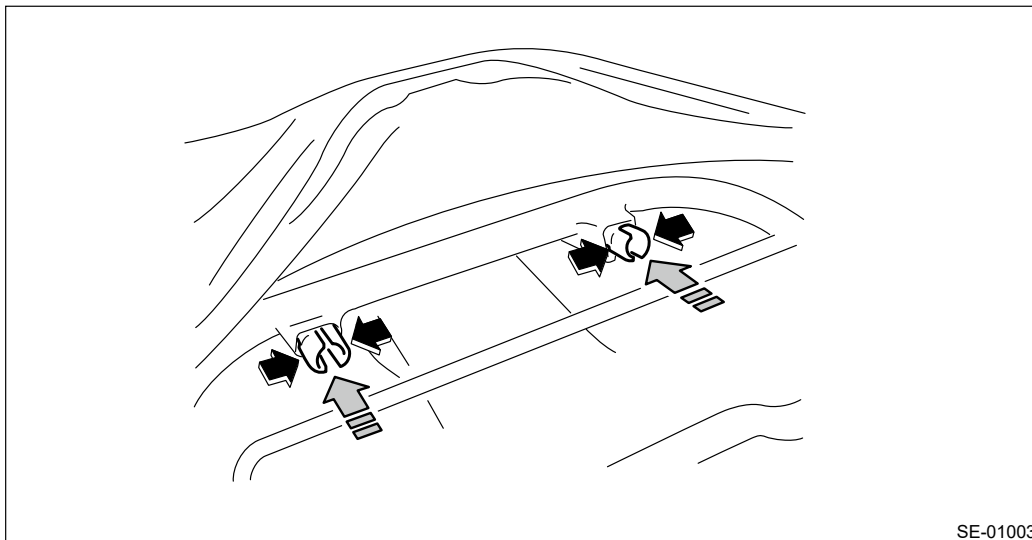
Caution:

Do not open the protective cover of the side airbag. If any damage is present in the protective cover or the cloth of side airbag module comes out from the protective cover slit, replace the side airbag module with a new part.

- (1) Remove the hexagon cap nut and nuts.
- (2) While taking care not to damage the airbag protective cover, remove the side airbag module.



13. Remove the headrest bushing.



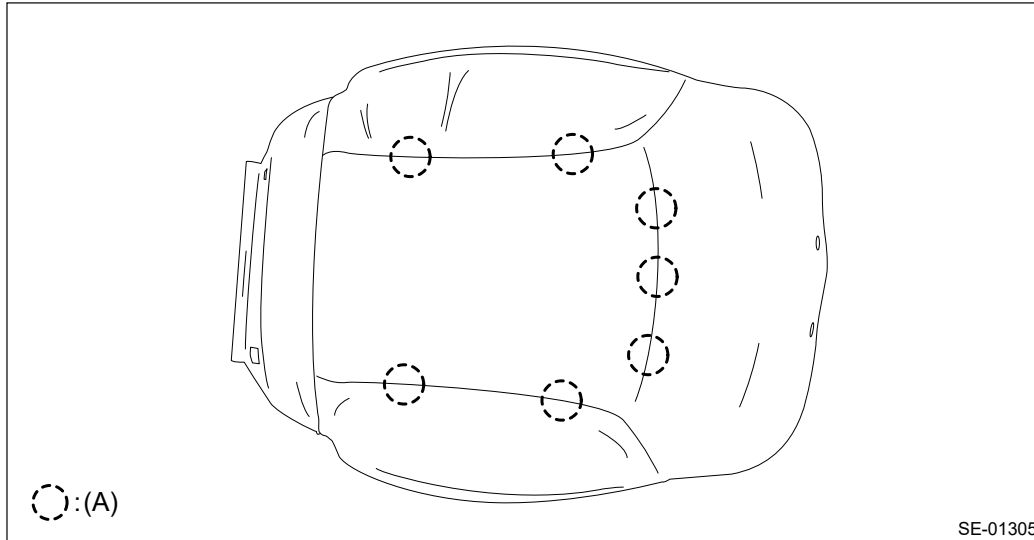
Note:

Catch the tip of headrest bushing with pliers and push it from inside seat to outside to remove it.

14. Pull out the frame assembly - front backrest.

15. Remove the cover COMPL - front backrest.

(1) Remove the hog ring (A).



- (2) Pull out the pad assembly - front seat backrest from the cover COMPL - front backrest.
- (3) Remove the seat heater module from the pad assembly as necessary.

Caution:

- If the seat heater module is removed, replace the pad assembly with a new part.
- If the seat heater module is reused, remove the polyurethane section from the reverse side completely.

3. PASSENGER'S SEAT

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- The passenger's seat is integrated in the seat cushion pad and frame assembly. Never remove the following parts.
 - Occupant detection control module
 - Occupant detection sensor
 - Frame assembly - front seat cushion
 - Pad assembly - front seat cushion
- If the cover - front cushion is removed, make sure to replace the hang wire on the cover - front cushion side with a new wire.
- Never remove the occupant detection sensor connector from the occupant detection control module.
- When replacing the seat cover, be careful not to damage the occupant detection sensor while installing the hog ring.
- When removing or replacing the seat cover, perform "Occupant Detection System Inspection" after installing the seat to check if the occupant detection system operates normally. [Ref. to PRE-DELIVERY INSPECTION>PRE-DELIVERY INSPECTION \(PDI\) PROCEDURE > SEAT.](#)
- If the seat heater module is removed, replace the seat cushion pad & frame assembly with a new part.
- If the seat heater module is reused, remove the polyurethane section from the reverse side completely.

1. Remove the front seat (passenger's side) from vehicle. [Ref. to SEATS>Front Seat>REMOVAL.](#)
2. Refer to the disassembly procedures for the driver's seat. [Ref. to SEATS>Front Seat>DISASSEMBLY >](#)

MANUAL SEAT.

SEATS > Front Seat

INSPECTION

1. SEAT COVER

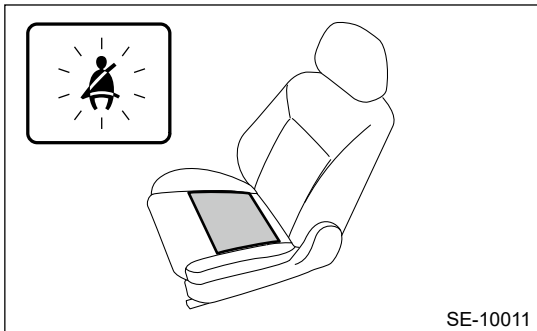
Check that there is no tear or fray on the cover COMPL - front backrest and the cover - front cushion.

Note:

If the door side of the cover COMPL - front backrest is torn or frayed, the side airbag may not be deployed properly. In this case, replace the cover COMPL - front backrest with a new part.

2. CHECK ILLUMINATION OF PASSENGER'S SEAT BELT WARNING LIGHT

Check that the passenger's seat belt warning light illuminates when the passenger's seat is occupied.

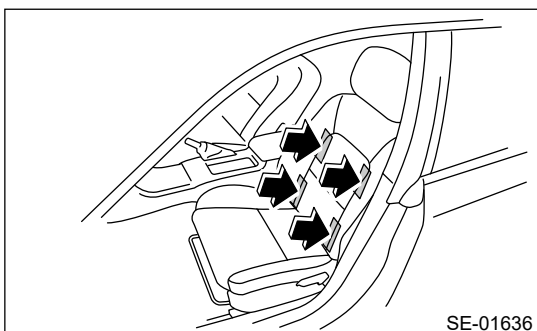


If it does not illuminate, check the seat belt warning system and the occupant detection system.

- Seat belt warning system:  [Ref. to SEAT BELT SYSTEM>Seat Belt Warning System.](#)
- Occupant detection system:  [Ref. to OCCUPANT DETECTION\(DIAGNOSTICS\)>Passenger's Airbag ON/OFF Indicator Light Illumination Pattern.](#)

3. FLAT MAT HOOK

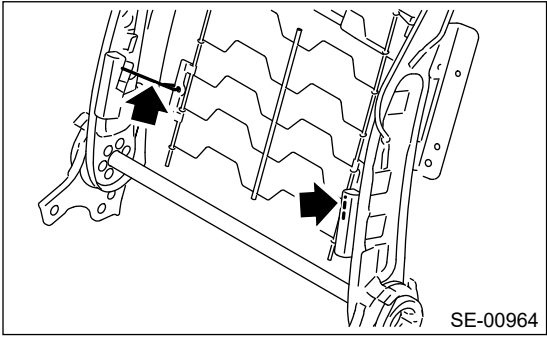
Check the flat mat hook by applying weight to the backrest assembly.



Note:

If the appropriate stiffness is not obtained by applying weight to the backrest assembly, the hook may be disengaged.

If it is due to the deformation of the hook, replace the hook with a new part.



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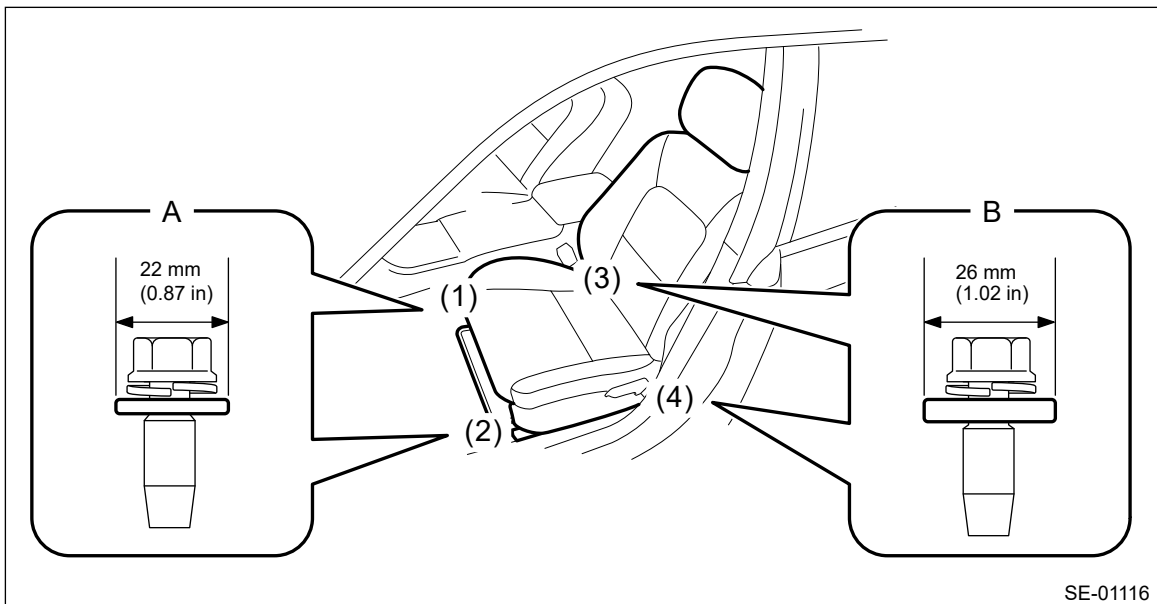
SEATS > Front Seat

INSTALLATION

Install each part in the reverse order of removal.

Caution:

- The front seat mounting bolts differ between the front mounting points and the rear mounting points. When installing the front seat, make sure that you are using correct bolts at correct positions.
- Tighten the slide rail assembly installing bolts in the order as shown in the figure, in several steps by gradually increasing the torque until they reach the specified torque.



- Front (bolt A): Washer diameter 22 mm (0.87 in)
- Rear (bolt B): Washer diameter 26 mm (1.02 in)


Tightening torque:


Front seat assembly: 53 N•m (5.4 kgf-m, 39.1 ft-lb)

SEATS > Front Seat

REMOVAL

Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

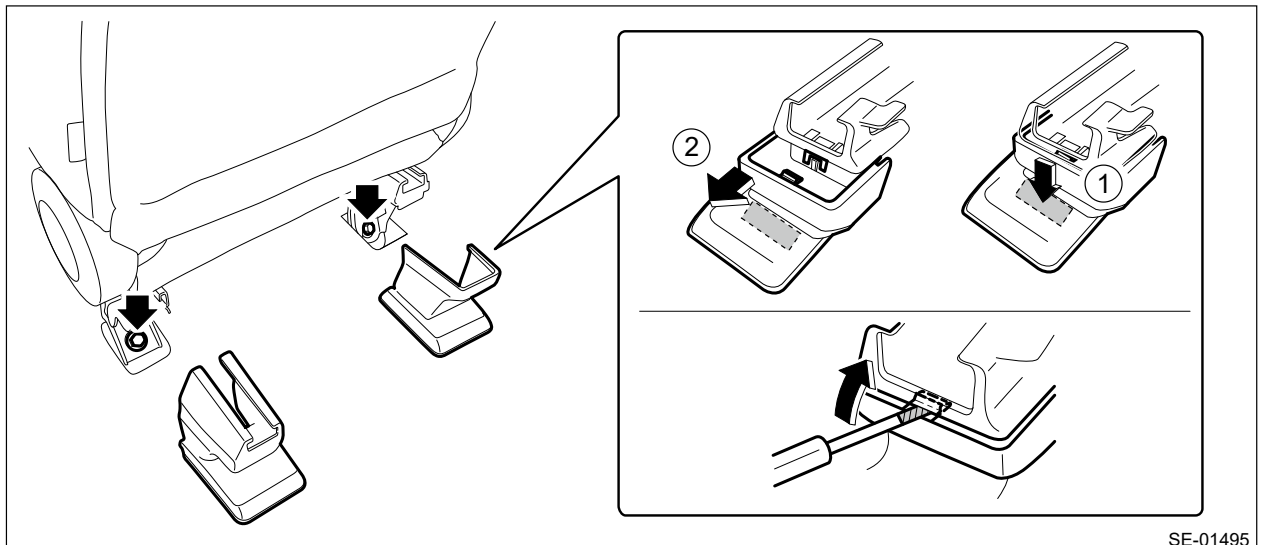
- For model with battery sensor, disconnect the ground terminal from battery sensor.
- For models with power seat, lift the seating face before removing the seat.
- For the power seat, remove the slide rail installing bolt before removing the battery ground.

3. Remove the headrest assembly - front.
4. Remove the slide rail assembly installing bolt.
 - (1) Tilt the backrest assembly forward and move the front seat to the mid point on the slide rail.
 - (2) Remove the bolts on the front side of the front seat.
 - (3) Remove the cover - bolt rear.
 1. While spreading the tip of the cover - bolt rear OUT side to side, pull it out toward you to remove.
 2. Remove the cover - bolt rear INN.

Note:

- Firmly push in the cover - bolt rear INN at the point shown in the figure until a clicking sound is heard and remove it.
- If it is difficult to remove, release the claw using a flat tip screwdriver wrapped with protection tape while pushing the point shown in the figure to remove.

- (4) Remove the bolts on the rear side of the front seat.





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- (5) Disconnect the connector under the front seat.

Caution:

For the power seat, check that the battery ground cable is disconnected. If not, disconnect the battery ground cable and wait for 60 seconds or more.

- Seat belt warning light connector

- Occupant detection system harness connector (passenger's seat)  [Ref. to OCCUPANT DETECTION\(DIAGNOSTICS\)>Airbag_Connector>PROCEDURE > OCCUPANT DETECTION SYSTEM \(BETWEEN AIRBAG REAR HARNESS AND SEAT HARNESS\).](#)
- Side airbag connector  [Ref. to AIRBAG SYSTEM>Airbag_Connector>PROCEDURE > SIDE AIRBAG MODULE.](#)
- Seat heater connector (model with seat heater)
- Power seat connector (model with power seats)


5. Take out the front seat from the vehicle.

Caution:

Be careful not to damage the body.

SEATS > General Description

CAUTION

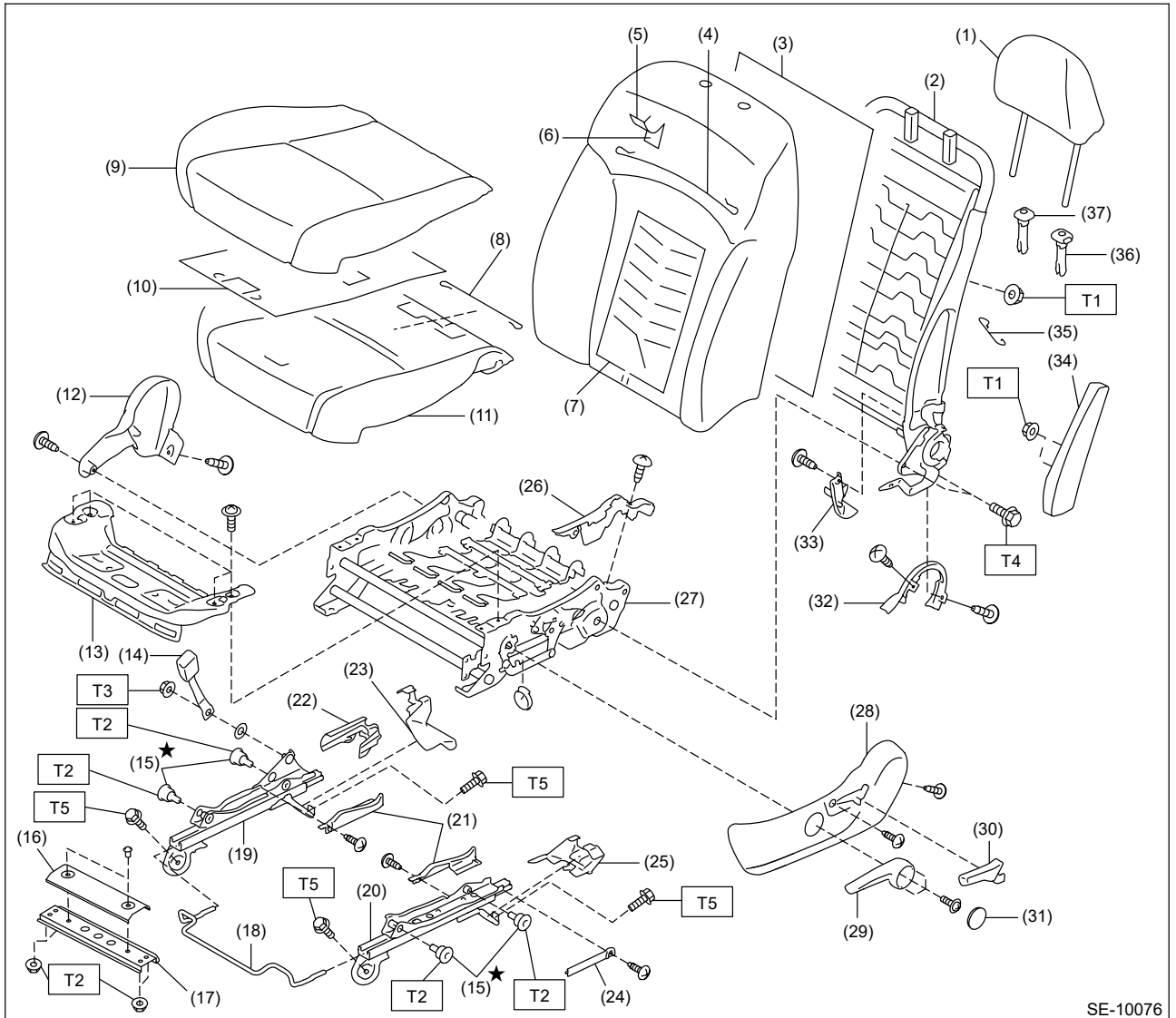
When removing the front seat from the vehicle, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

SEATS > General Description

COMPONENT

1. FRONT SEAT

- Manual seat LH

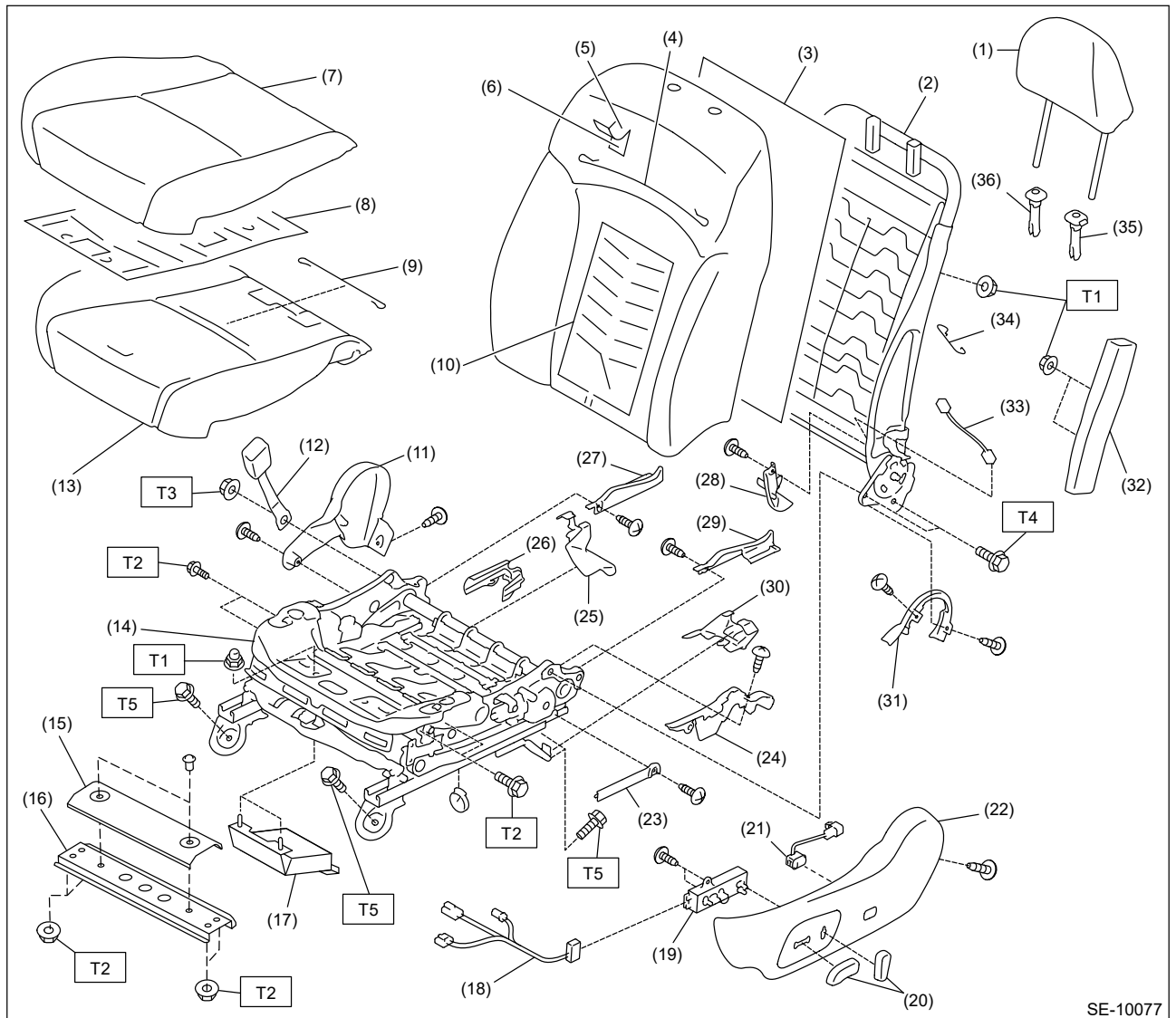


- | | | |
|--|-----------------------------|------------------------------------|
| (1) Headrest ASSY - front | (16) Member - cover | (31) Cap - lifter lever |
| (2) Frame ASSY - front backrest | (17) Member - bracket | (32) Cover - hinge base front seat |
| (3) Cover - silencer front seat backrest | (18) Lever - towel bar | (33) Cover - inner front |
| (4) Wire set - front seat backrest | (19) Slide rail ASSY - INN | (34) Side airbag module |
| (5) Cover COMPL - front backrest | (20) Slide rail ASSY - OUT | (35) Hook - backrest front |
| (6) Pad ASSY - front seat backrest | (21) Cover - slide rail INN | (36) Bushing - free headrest |
| (7) Heater unit - front seat backrest | (22) Leg cover UPR | (37) Bushing - lock headrest |
| (8) Wire set - front seat cushion | (23) Cover - bolt rear INN | |
| (9) Cover - front cushion | (24) Cover - slide rail OUT | |
- Tightening torque: N·m (kgf·m,**

ft-lb)

- | | | |
|---------------------------------------|-----------------------------------|----------------------------|
| (10) Heater unit - front seat cushion | (25) Cover - bolt rear OUT | T1: 6 (0.61, 4.4) |
| (11) Pad ASSY - front seat cushion | (26) Cover - frame front cushion | T2: 18 (1.84, 13.3) |
| (12) Cover - hinge front seat INN | (27) Frame ASSY - front cushion | T3: 38 (3.87, 28) |
| (13) Panel - front seat | (28) Cover - hinge front seat OUT | T4: 52 (5.3, 38.4) |
| (14) Seat belt inner - front | (29) Knob - lifter | T5: 53 (5.4, 39.1) |
| (15) TORX® bolt | (30) Lever - reclining | |

• Power seat LH



- | | | |
|--|--|---|
| (1) Headrest ASSY - front | (16) Member - bracket | (31) Cover - hinge base front seat |
| (2) Frame ASSY - front backrest | (17) Seat memory unit (model with memory function) | (32) Side airbag module |
| (3) Cover - silencer front seat backrest | (18) Harness ASSY - power seat | (33) Harness ASSY - power seat backrest |
| (4) Wire set - front seat backrest | (19) Switch ASSY - power seat | (34) Hook - backrest front |
| (5) Cover COMPL - front backrest | (20) Knob - power seat | (35) Bushing - lock headrest |

- (6) Pad ASSY - front seat backrest
- (7) Cover - front cushion
- (8) Heater unit - front cushion
- (9) Wire set - front seat cushion
- (10) Heater unit - front seat backrest
- (11) Cover - hinge front seat INN
- (12) Seat belt inner - front
- (13) Pad ASSY - front seat cushion
- (14) Frame ASSY - front cushion
- (15) Member - cover
- (21) Switch ASSY - lumbar
- (22) Cover - hinge front seat OUT
- (23) Cover - slide rail OUT
- (24) Cover - frame front seat cushion
- (25) Cover - bolt rear INN
- (26) Leg cover UPR
- (27) Cover - slide rail INN
- (28) Cover - inner front
- (29) Cover - slide rail OUT
- (30) Cover - bolt rear OUT

- (36) Bushing - free headrest

Tightening torque: N·m (kgf·m, ft·lb)

T1: 6 (0.61, 4.4)

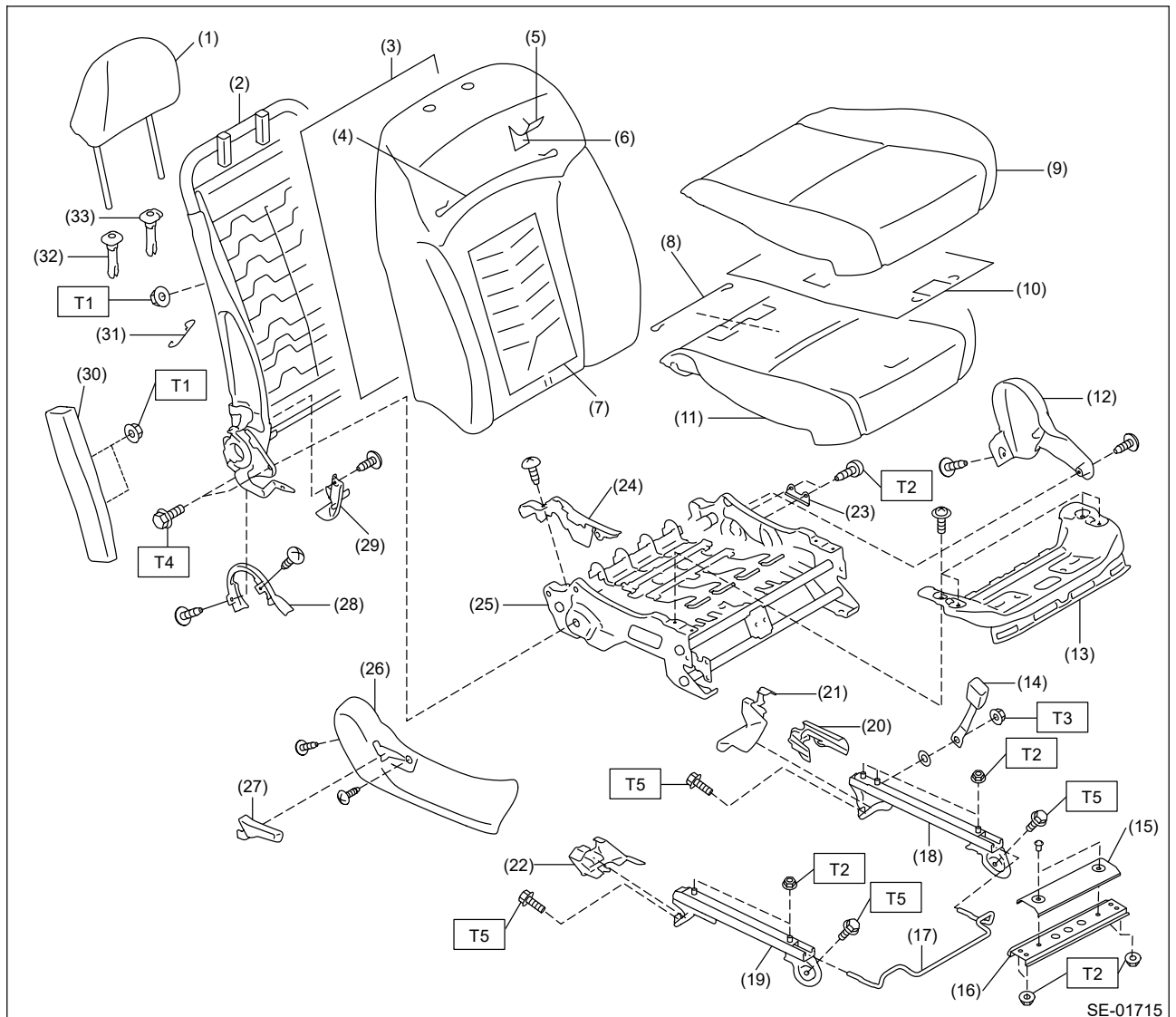
T2: 18 (1.84, 13.3)

T3: 38 (3.87, 28)

T4: 52 (5.3, 38.4)

T5: 53 (5.4, 39.1)

• Manual seat RH



SE-01715

- (1) Headrest ASSY - front
- (2) Frame ASSY - front backrest
- (15) Member - cover
- (16) Member - bracket
- (29) Cover - inner front
- (30) Side airbag module

- | | | |
|--|--|------------------------------|
| (3) Cover - silencer front seat backrest | (17) Lever - towel bar | (31) Hook - backrest front |
| (4) Wire set - front seat backrest | (18) Slide rail ASSY - INN | (32) Bushing - free headrest |
| (5) Cover COMPL - front backrest | (19) Slide rail ASSY - OUT | (33) Bushing - lock headrest |
| (6) Pad ASSY - front seat backrest | (20) Leg cover UPR | |
| (7) Heater unit - front seat backrest | (21) Cover - bolt rear INN | |
| (8) Wire set - front seat cushion | (22) Cover - bolt rear OUT | |
| (9) Cover - front cushion | (23) J hook | |
| (10) Heater unit - front seat cushion | (24) Cover - frame front cushion cushion | |
| (11) Pad ASSY - front seat cushion | (25) Frame ASSY - front cushion | |
| (12) Cover - hinge front seat INN | (26) Cover - hinge front seat OUT | |
| (13) Panel - front seat | (27) Lever - reclining | |
| (14) Seat belt inner - front | (28) Cover - hinge base front seat | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 6 (0.61, 4.4)

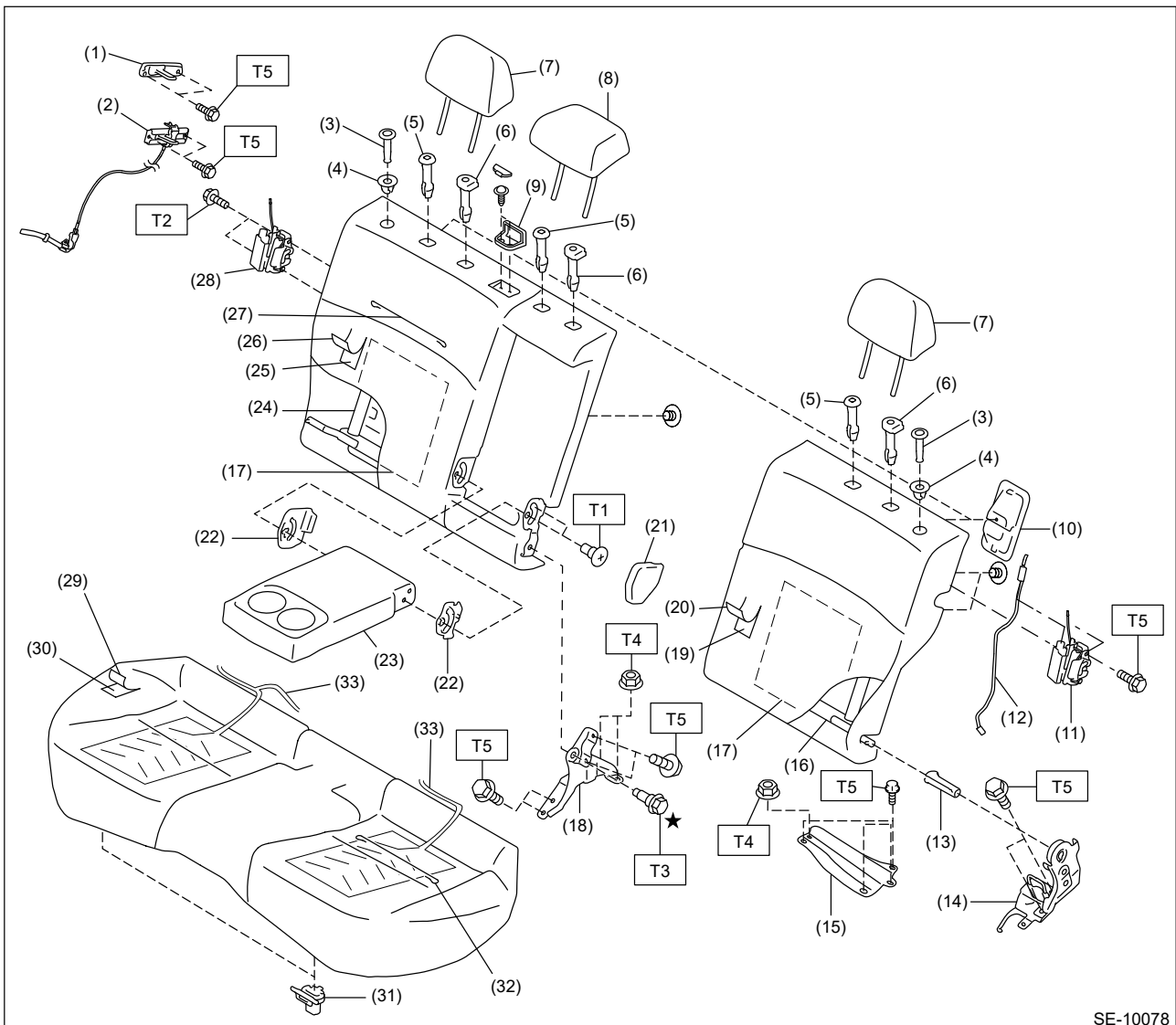
T2: 18 (1.84, 13.3)

T3: 38 (3.87, 28)

T4: 52 (5.3, 38.4)

T5: 53 (5.4, 39.1)

2. REAR SEAT



(1) Striker - backrest rear RH (except for reclining type)	(15) Hinge ASSY - rear backrest stay	(29) Cover - rear cushion
(2) Striker - backrest rear RH (reclining type)	(16) Frame ASSY - rear backrest LH	(30) Pad and frame ASSY - rear cushion
(3) Knob - backrest rear	(17) Seat heater module - backrest	(31) Hook - seat cushion rear
(4) Knob - guide	(18) Hinge ASSY - backrest center	(32) Wire set - rear cushion
(5) Bushing - headrest	(19) Pad ASSY - rear seat backrest LH	(33) Seat heater module - seat cushion
(6) Bushing - lock ASSY	(20) Cover COMPL - rear backrest LH	
(7) Pillow ASSY - rear backrest	(21) Cover - armrest	Tightening torque: N·m (kgf-m, ft-lb)
(8) Pillow ASSY - rear center	(22) Bushing - rear armrest	T1: 9.8 (1, 7.2)
(9) Belt guide - rear seat	(23) Armrest ASSY - rear center	T2: 17.6 (1.79, 13)
(10) Tether anchor cover	(24) Frame ASSY - rear backrest RH	T3: 22.5 (2.29, 16.6)
(11) Lock ASSY - backrest rear LH	(25) Pad ASSY - rear seat backrest RH	T4: 24.5 (2.5, 18.1)
(12) Remote control back rest actuator ASSY	(26) Cover COMPL - rear backrest RH	T5: 33 (3.36, 24.3)
(13) Bushing - backrest hinge	(27) Wire set - rear backrest	
(14) Hinge ASSY - rear backrest	(28) Lock ASSY - backrest rear RH	

SEATS > General Description

PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	[Note]
Long nose pliers	Used for removing the hog ring.
Hog ring pliers	Used for installing the hog ring.
Clip remover	Used for removing rear seat cushion. – KTC AP20L-10B Or equivalent.
Circuit tester	Used for measuring resistance and voltage.

ADJUSTMENT

Note:

System calibration is necessary for driver's side seat with memory function only.

1. CONDITIONS FOR INITIALIZATION

The power seat control module must be initialized if the following conditions are met.

- The seat is removed from vehicle.
- Power seat control module is replaced.
- Slide rail assembly or backrest frame assembly is removed or replaced.
- Pulse generated when seat is moved do not match with the amount of actual travel. (When memory is not correctly reloaded.)

2. INITIALIZATION PROCEDURES

Note:

- **Initialize the records inside the module by performing all the following steps regardless the item order.**
- **With each seat locked*, operating switches for 3 seconds make the buzzer sound once.**
- **If initialization is done after completing all items, the buzzer sounds three times when the last operation is completed and the switch is turned on then off.**

- 1.** Move the seat rearward using the slide switch, and keep the seat lock* status for three seconds or more.
- 2.** Move the seat downward using tilt switch, and keep the seat lock* status for three seconds or more.
- 3.** Move the seat downward using lifter switch, and keep the seat lock* status for three seconds or more.
- 4.** Move the seat forward using reclining switch, and keep the seat lock* status for three seconds or more.

*: Seat lock is the status that there is no pulse output from the encoder within the specified period of time with the switch operated though the seat reaches the movable position end.

Note:


When the following conditions are met, the initializing operation is cancelled even though the procedure is carried out halfway.

- **Interval between each initialization procedure of 1) to 4) exceeds 10 seconds.**
- **If any of initialization procedures 1) to 4) are not performed.**
- **The battery runs out or the voltage to the power seat control module falls out of the operation range during initialization.**

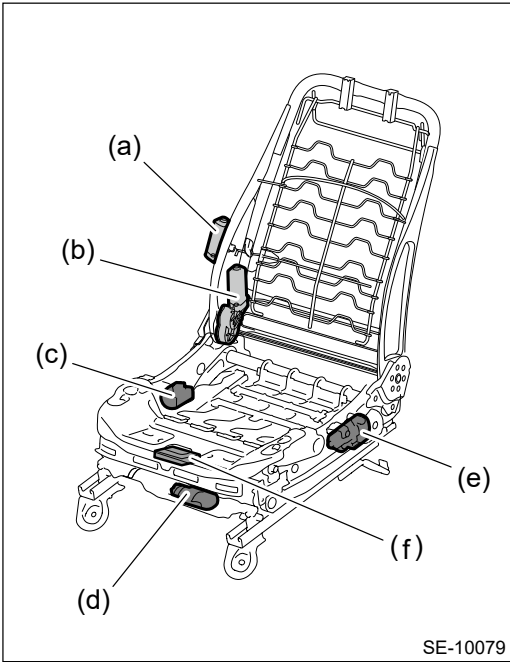
SEATS > Power Seat System

INSPECTION

1. WIRING DIAGRAM

Refer to "Power Seat" in WI section.  [Ref. to WIRING SYSTEM>Power Seat System>WIRING DIAGRAM.](#)



2. LAYOUT DRAWING



- (a) Lumbar motor (10-WAY model)
- (b) Reclining motor
- (c) Tilt motor
- (d) Slide motor
- (e) Lifter motor
- (f) POWER SEAT CONTROL MODULE (SEAT WITH MEMORY FUNCTION)







3. TROUBLE SYMPTOM

- Without memory function

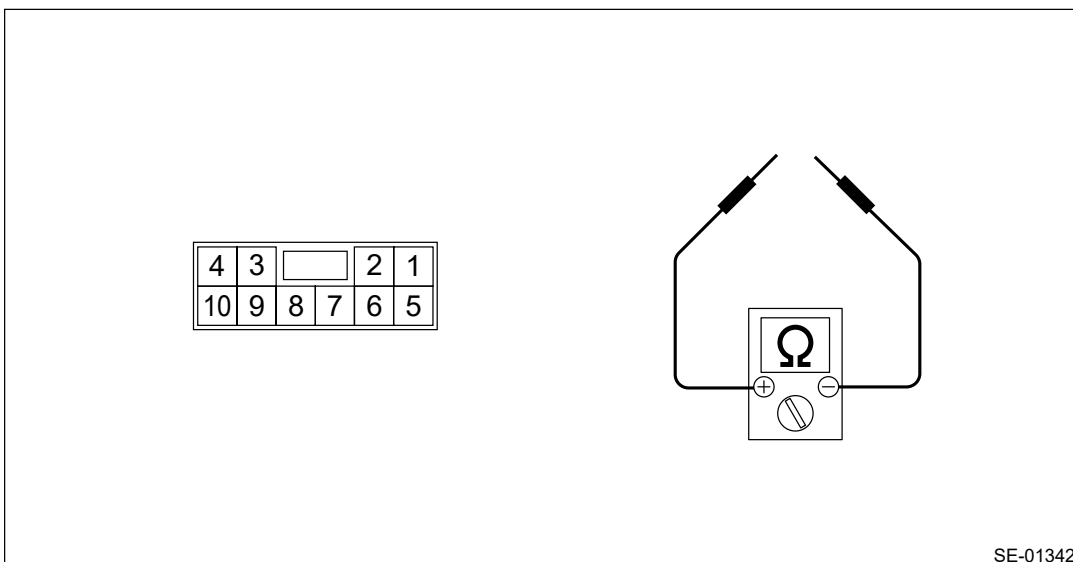
Symptoms	Criteria
All functions do not operate.  Ref. to SEATS>Power Seat System>INSPECTION > ALL FUNCTIONS DO NOT OPERATE (WITHOUT MEMORY FUNCTION).	<ul style="list-style-type: none"> Power seat switch Lumbar switch(10-WAY model) Power seat harness Body harness
A part of function does not operate.  Ref. to SEATS>Power Seat System>INSPECTION > SOME MOTORS DO NOT OPERATE. (WITHOUT MEMORY).	<ul style="list-style-type: none"> Power seat switch Lumbar switch(10-WAY model) Power seat harness Relevant motor

- With memory function

Symptoms	Criteria

Does not operate by manual operation.  Ref. to SEATS>Power Seat System>INSPECTION > IT DOES NOT FUNCTION WITH MANUAL OPERATION. (WITH MEMORY).	<ul style="list-style-type: none"> • Power seat switch • Lumbar switch(10-WAY model) • Power seat harness • Body harness • Relevant motor and encoder
A part of function does not operate.  Ref. to SEATS>Power Seat System>INSPECTION > SOME MOTORS DO NOT OPERATE. (WITH MEMORY).	<ul style="list-style-type: none"> • Power seat switch • Lumbar switch(10-WAY model) • Power seat harness • Relevant motor and encoder • Power seat control module
Fails to store the location to the memory  Ref. to SEATS>Power Seat System>INSPECTION > UNABLE TO SET POSITIONS INTO MEMORY (WITH MEMORY FUNCTION).	<ul style="list-style-type: none"> • Memory switch • Power seat harness • Power seat control module
Restoring operation is impossible  Ref. to SEATS>Power Seat System>INSPECTION > UNABLE TO PERFORM THE RELOADING OPERATION (WITH MEMORY FUNCTION).	<ul style="list-style-type: none"> • Memory switch • Power seat control module • Motor and encoder • Power seat harness
No interlock with smart keyless  Ref. to SEATS>Power Seat System>INSPECTION > NO INTERLOCK WITH SMART KEYLESS (WITH MEMORY FUNCTION).	<ul style="list-style-type: none"> • Body integrated unit • Power seat control module • Motor and encoder • Power seat harness
Initial setting is impossible  Ref. to SEATS>Power Seat System>INSPECTION > UNABLE TO PERFORM INITIALIZATION (WITH MEMORY FUNCTION).	<ul style="list-style-type: none"> • Power seat harness • Power seat control module

4. CHECK POWER SEAT SWITCH



Measure resistance between terminals while operating each switch.

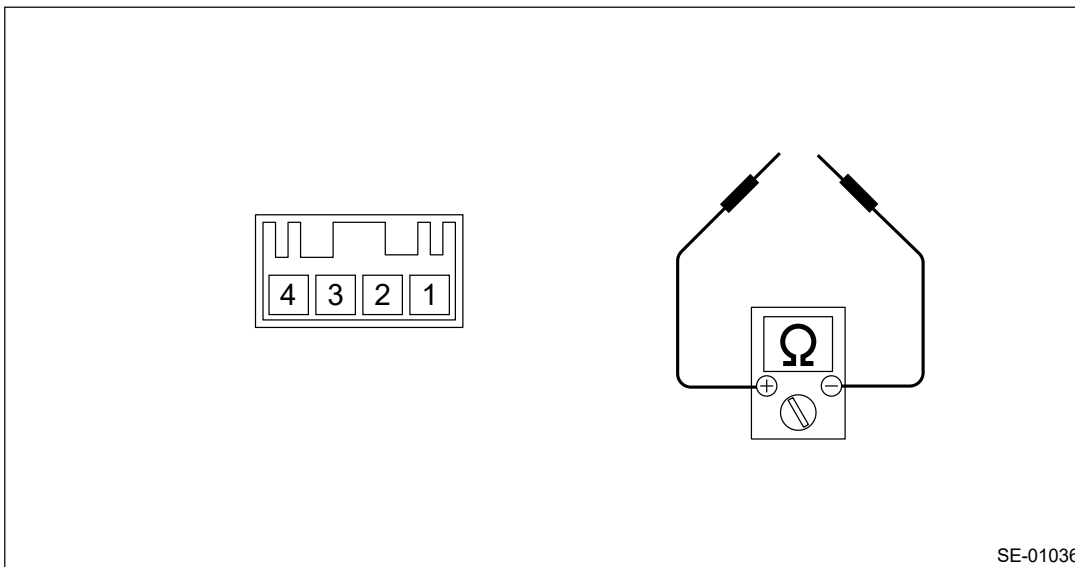
Switch position	Terminal No.	Standard
Slide forward	1 and 8 4 and 7	Less than 10 Ω

Slide rearward	1 and 7 4 and 8	Less than 10 Ω
Tilt up	1 and 2 3 and 4	Less than 10 Ω
Tilt down	1 and 3 2 and 4	Less than 10 Ω
Lifter up	1 and 9 4 and 6	Less than 10 Ω
Lifter down	1 and 6 4 and 9	Less than 10 Ω
Reclining forward	1 and 10 4 and 5	Less than 10 Ω
Reclining rearward	1 and 5 4 and 10	Less than 10 Ω

Replace the power seat switch if the inspection result is not within the standard value.

5. CHECK LUMBAR SWITCH

Measure resistance between terminals while operating the switch.

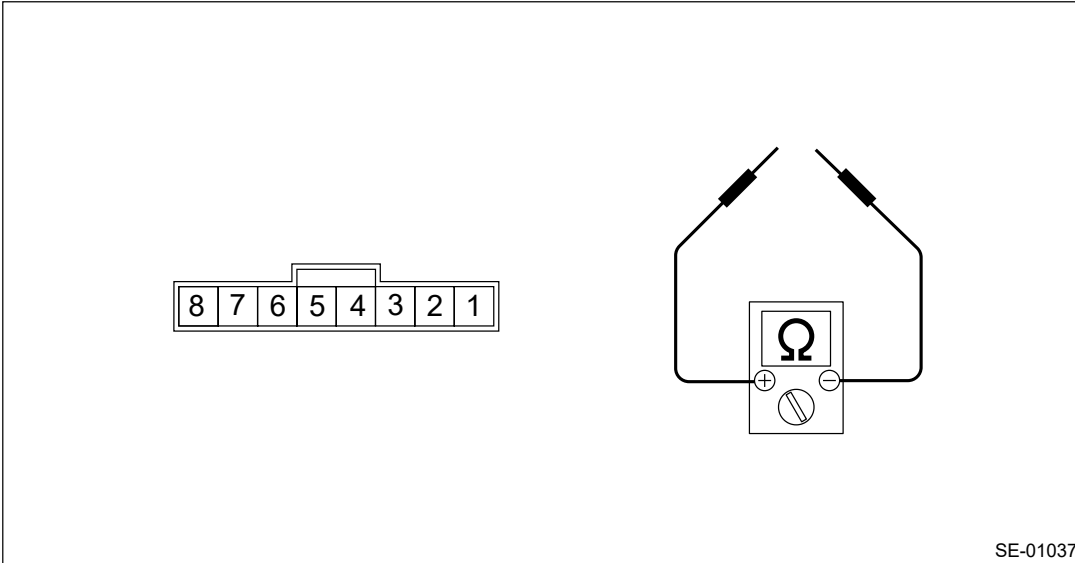


Switch position	Terminal No.	Standard
Lumbar forward	1 and 4 2 and 3	Less than 10 Ω
Lumbar backward	1 and 3 2 and 4	Less than 10 Ω

Replace the switch if the inspection result is not within the standard value.

6. CHECK MEMORY SWITCH (WITH MEMORY FUNCTION)

Measure resistance between terminals while operating each switch.



Switch position	Terminal No.	Standard
Memory 1	2 and 3	Less than 10 Ω
Memory 2	2 and 3	Less than 10 Ω
Set	3 and 1	Less than 10 Ω

Replace the switch if the inspection result is not within the standard value.

7. ALL FUNCTIONS DO NOT OPERATE (WITHOUT MEMORY FUNCTION)

1. CHECK SEAT FUNCTIONS. ▼

Operate each power seat switch and check that each power seat function operates normally.

Does all function fail to operate?

Yes [Go to 2.](#)

No Check the motor which does not operate. [Ref. to SEATS>Power Seat System>INSPECTION > SOME MOTORS DO NOT OPERATE. \(WITHOUT MEMORY\).](#)

2. CHECK FUSE. ▼

Check the power seat fuse inside the fuse box.

Is the fuse blown out?

Yes Replace the appropriate fuse.

No [Go to 3.](#)

3. CHECK POWER SUPPLY CIRCUIT.




1. Disconnect the connector of power seat switch assembly.
2. Measure the voltage between harness connector and chassis ground.

Connector & terminal

(R200) No. 1 (+) — Chassis ground (-):

Is the voltage 10 V or more?

Yes

 [Go to 4.](#)

No

Check body harness.

4. CHECK POWER SUPPLY CIRCUIT.



Measure the resistance between power seat switch harness connector and chassis ground.

Connector & terminal

(R200) No. 1 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

Replace the power seat switch assembly.

No


Check body harness.

8. SOME MOTORS DO NOT OPERATE. (WITHOUT MEMORY)

- Slide operation failure

1. CHECK SWITCH.



1. Disconnect the connector of power seat switch assembly.
2. Measure the resistance between connector terminals when moving the switch to slide forward and slide backward.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 2.](#)

No

Replace the power seat switch assembly.

2. CHECK HARNESS.



1. Disconnect the power seat switch connector and slide motor connector.
2. Measure the resistance between power seat switch connector and slide motor connector.


Connector & terminal

(R200) No. 8 — (R202) No. 5:

(R200) No. 7 — (R202) No. 1:

Is the resistance less than 10 Ω?

Yes

 [Go to 3.](#)

No

Check power seat harness.

3. CHECK SLIDE MOTOR.



1. Connect the power seat switch connector and slide motor connector.
2. Apply 12 V to the slide motor and check the motor rotation.

Connector & terminal

(R202) No. 5 (+) — (R202) No. 1 (-):

(R202) No. 1 (+) — (R202) No. 5 (-):

Does the motor rotate normally?

Yes

Check for temporary poor contact or mechanical trouble in slide rail.


No

Slide motor problem. Replace the seat cushion frame assembly.

• Malfunction of tilt operation

1. CHECK SWITCH.



1. Disconnect the connector of power seat switch assembly.
2. Measure the resistance between connector terminals when moving the switch to tilt up and tilt down.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 2.](#)

No

Replace the power seat switch assembly.

2. CHECK HARNESS.



1. Disconnect the power seat switch connector and tilt motor connector.
2. Measure the resistance between power seat switch connector and tilt motor connector.


Connector & terminal

(R200) No. 3 — (R203) No. 4:

(R200) No. 2 — (R203) No. 6:

Is the resistance less than 10 Ω?

Yes

 [Go to 3.](#)

No

Check power seat harness.

3. CHECK TILT MOTOR.



1. Connect the power seat switch connector and tilt motor connector.
2. Apply 12 V to the tilt motor and check the motor rotation.

Connector & terminal

(R203) No. 4 (+) — (R203) No. 6 (-):

(R203) No. 6 (+) — (R203) No. 4 (-):

Does the motor rotate normally?

Yes

Check for temporary poor contact or mechanical trouble in tilt mechanism.


No

Tilt motor problem. Replace the seat cushion frame assembly.

• Malfunction of lifter operation

1. CHECK SWITCH.



1. Disconnect the connector of power seat switch assembly.
2. Measure the resistance between connector terminals when moving the switch to lifter up and lifter down.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 2.](#)

No

Replace the power seat switch assembly.

2. CHECK HARNESS.



1. Disconnect the power seat switch connector and lifter motor connector.
2. Measure the resistance between power seat switch connector and lifter motor connector.


Connector & terminal

(R200) No. 6 — (R204) No. 6:

(R200) No. 9 — (R204) No. 4:

Is the resistance less than 10 Ω?

Yes

 [Go to 3.](#)

No

Check power seat harness.

3. CHECK LIFTER MOTOR.



1. Connect the power seat switch connector and lifter motor connector.
2. Apply 12 V to the lifter motor and check the motor rotation.

Connector & terminal

(R204) No. 6 (+) — (R204) No. 4 (-):

(R204) No. 4 (+) — (R204) No. 6 (-):

Does the motor rotate normally?

Yes

Check for temporary poor contact or mechanical trouble in lifter mechanism.


No

Lifter motor problem. Replace the seat cushion frame assembly.

• Malfunction of reclining operation

1. CHECK SWITCH.



1. Disconnect the connector of power seat switch assembly.
2. Measure the resistance between connector terminals when moving the switch to reclining forward and reclining backward.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 2.](#)

No

Replace the power seat switch assembly.

2. CHECK HARNESS.



1. Disconnect the power seat switch connector and reclining motor connector.
2. Measure the resistance between power seat switch connector and reclining motor connector.


Connector & terminal

(R200) No. 10 — (R201) No. 6:

(R200) No. 5 — (R201) No. 4:

Is the resistance less than 10 Ω?

Yes

 [Go to 3.](#)

No

Check power seat harness.

3. CHECK RECLINING MOTOR.



1. Connect the power seat switch connector and reclining motor connector.
2. Apply 12 V to the reclining motor and check the motor rotation.

Connector & terminal

(R201) No. 6 (+) — (R201) No. 4 (-):

(R201) No. 4 (+) — (R201) No. 6 (-):

Does the motor rotate normally?

Yes

Check for temporary poor contact or mechanical trouble in reclining hinge.


No

Reclining motor problem. Replace the backrest frame assembly.

• Malfunction of lumbar operation

1. CHECK SWITCH.



1. Disconnect the connector of lumbar switch assembly.
2. Measure the resistance between connector terminals when moving the switch to lumbar forward and lumbar backward.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK LUMBAR SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 2.](#)

No

Replace the lumbar switch assembly.

2. CHECK HARNESS.



1. Disconnect the lumbar switch connector and lumbar motor connector.
2. Measure the resistance between lumbar switch connector and lumbar motor connector.

Connector & terminal

(R195) No. 3 — (R198) No. 1:

(R195) No. 4 — (R198) No. 2:

Is the resistance less than 10 Ω?

Yes

 [Go to 3.](#)

No

Check power seat harness.

3. CHECK LUMBAR MOTOR.



1. Connect the lumbar switch connector and lumbar motor connector.
2. Apply 12 V to the lumbar motor and check the motor rotation.

Connector & terminal

(R198) No. 1 (+) — (R198) No. 2 (-):

(R198) No. 2 (+) — (R198) No. 1 (-):

Does the motor rotate normally?

Yes

Check for temporary poor contact or mechanical trouble in lumbar mechanism.

No

Lumbar motor problem. Replace the backrest frame assembly.

9. IT DOES NOT FUNCTION WITH MANUAL OPERATION. (WITH MEMORY)

1. CHECK SEAT FUNCTIONS.




Operate each power seat switch and check that each power seat function operates normally.

Does all function fail to operate?

Yes

 [Go to 2.](#)

No

Check the motor which does not operate.  [Ref. to SEATS>Power Seat System>INSPECTION > SOME MOTORS DO NOT OPERATE. \(WITHOUT MEMORY\).](#)

2. CHECK FUSE.




Check the power seat fuse inside the fuse box.

Is the fuse blown out?

Yes

Replace the appropriate fuse.

No

 [Go to 3.](#)

3. CHECK POWER SUPPLY CIRCUIT.

1. Disconnect the connector of power seat switch assembly.
2. Measure the voltage between harness connector and chassis ground.

Connector & terminal


(R155) No. 10 (+) — Chassis ground (–):

(R156) No. 3 (+) — Chassis ground (–):

(R156) No. 8 (+) — Chassis ground (–):

Is the voltage 10 V or more?

Yes

 [Go to 4.](#)

No

Check body harness.

4. CHECK POWER SUPPLY CIRCUIT.

Measure the resistance between power seat switch harness connector and chassis ground.


Connector & terminal

(R156) No. 12 — Chassis ground:

(R156) No. 14 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

 [Go to 5.](#)

No

Check body harness.

5. CHECK IGNITION CIRCUIT.

Measure the voltage between harness connector and chassis ground while turning the ignition switch to ON.

Connector & terminal

(R155) No. 11 (+) — Chassis ground (–):

Is the resistance 10 V or more?

Yes

 [Go to 6.](#)

No

Check body harness.

6. CHECK BODY INTEGRATED UNIT CIRCUIT.


Measure the resistance between harness connector and chassis ground with the select lever in the "P" position.

Connector & terminal

(R155) No. 12 – Chassis ground:

Is the resistance less than 10 Ω?


Yes

 [Go to 7.](#)

No

Check body harness.

7. CHECK SWITCH.

1. Disconnect the connector of power seat switch assembly.
2. Measure the resistance between terminals when operating each switch.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes

Replace the power seat control module.

No

Replace the power seat switch assembly.

10. SOME MOTORS DO NOT OPERATE. (WITH MEMORY)

- Slide operation failure

1. CHECK OPERATION.

Check the slide motor rotation while moving the switch to slide forward and slide backward.

Does the motor operate at least 1 second when the switch is operated?


Yes

 [Go to 2.](#)

No

Encoder defection. Replace the seat cushion frame assembly.

2. CHECK SWITCH.

1. Disconnect the power seat switch connector.
2. Measure the resistance between connector terminals when moving the switch to slide forward and slide backward.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 3.](#)

No

Replace the power seat switch assembly.

3. CHECK HARNESS.

1. Disconnect the power seat control module connector.
2. Measure the resistance between the power seat control module connector and power seat switch connector.

Connector & terminal

(R155) No. 7 – (R190) No. 13:

(R155) No. 6 – (R190) No. 14:

Is the resistance less than 10 Ω ?

Yes

 [Go to 4.](#)

No

Check power seat harness.

4. CHECK HARNESS.

1. Disconnect the slide motor connector.
2. Measure the resistance between power seat control module connector and slide motor.

Connector & terminal

(R156) No. 15 – (R202) No. 1:

(R156) No. 16 – (R202) No. 5:

Is the resistance less than 10 Ω ?

Yes

 [Go to 5.](#)

Check power seat harness.

No

5. CHECK SLIDE MOTOR.

1. Connect the slide motor connector.
2. Apply battery voltage to the power seat control module connector and check the motor rotation.

Connector & terminal

(R156) No. 15 (+) – (R156) No. 16 (–):

(R156) No. 16 (+) – (R156) No. 15 (–):

Does the motor rotate normally?

Yes

Replace the power seat control module.

No

Slide motor problem. Replace the seat cushion frame assembly.

• Malfunction of tilt operation

1. CHECK OPERATION.

Check the tilt motor rotation while moving the switch to tilt up and tilt down.

Does the motor operate at least 1 second when the switch is operated?


Yes

 [Go to 2.](#)

No

Encoder defection. Replace the seat cushion frame assembly.

2. CHECK SWITCH.

1. Disconnect the power seat switch connector.
2. Measure the resistance between connector terminals when moving the switch to tilt up and tilt down.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 3.](#)

No

Replace the power seat switch assembly.

3. CHECK HARNESS.



1. Disconnect the power seat control module connector.
2. Measure the resistance between the power seat control module connector and power seat switch connector.

Connector & terminal

(R155) No. 3 – (R190) No. 5:

(R155) No. 2 – (R190) No. 6:

Is the resistance less than 10 Ω ?

Yes

 [Go to 4.](#)

No

Check power seat harness.

4. CHECK HARNESS.



1. Disconnect the tilt motor connector.
2. Measure the resistance between power seat control module connector and tilt motor.

Connector & terminal

(R156) No. 5 – (R203) No. 6:

(R156) No. 4 – (R203) No. 4:

Is the resistance less than 10 Ω ?

Yes

 [Go to 5.](#)

No

Check power seat harness.

5. CHECK TILT MOTOR.



1. Connect the tilt motor connector.
2. Apply battery voltage to the power seat control module connector and check the motor rotation.

Connector & terminal

(R156) No. 5 (+) – (R156) No. 4 (-):

(R156) No. 4 (+) – (R156) No. 5 (-):

Does the motor rotate normally?

Yes

Check for temporary poor contact or mechanical trouble in tilt mechanism.

No

Tilt motor problem. Replace the seat cushion frame assembly.


• **Malfunction of lifter operation**

1. CHECK OPERATION.

Check the lifter motor rotation while turning the switch to lifter up and lifter down.

Does the motor operate at least 1 second when the switch is operated?


Yes

 [Go to 2.](#)

No


Encoder defection. Replace the seat cushion frame assembly.

2. CHECK SWITCH.

1. Disconnect the power seat switch connector.
2. Measure the resistance between connector terminals when moving the switch to lifter up and lifter down.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 3.](#)

No

Replace the power seat switch assembly.

3. CHECK HARNESS.

1. Disconnect the power seat control module connector.
2. Measure the resistance between the power seat control module connector and power seat switch connector.

Connector & terminal

(R155) No. 5 — (R190) No. 2:

(R155) No. 4 — (R190) No. 1:

Is the resistance less than 10 Ω?

Yes

 [Go to 4.](#)

No

Check power seat harness.

4. CHECK HARNESS.

1. Disconnect the lifter motor connector.
2. Measure the resistance between power seat control module connector and lifter motor.


Connector & terminal

(R156) No. 2 – (R204) No. 4:

(R156) No. 1 – (R204) No. 6:

Is the resistance less than 10 Ω?

Yes

 [Go to 5.](#)

No

Check power seat harness.

5. CHECK LIFTER MOTOR.

1. Connect the lifter motor connector.
2. Apply battery voltage to the power seat control module connector and check the motor rotation.

Connector & terminal

(R156) No. 2 (+) – (R156) No. 1 (-):

(R156) No. 1 (+) – (R156) No. 2 (-):

Does the motor rotate normally?

Yes

Check for temporary poor contact or mechanical trouble in lifter mechanism.

No

Lifter motor problem. Replace the seat cushion frame assembly.

• Malfunction of reclining operation

1. CHECK OPERATION.

Check the reclining motor rotation while moving the switch to reclining forward and reclining backward.

Does the motor operate at least 1 second when the switch is operated?


Yes

 [Go to 2.](#)

No

Encoder deflection. Replace the backrest frame assembly.

2. CHECK SWITCH.

1. Disconnect the power seat switch connector.
2. Measure the resistance between connector terminals when moving the switch to reclining forward and reclining backward.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 3.](#)

No

Replace the power seat switch assembly.

3. CHECK HARNESS.

1. Disconnect the power seat control module connector.
2. Measure the resistance between the power seat control module connector and power seat switch connector.

Connector & terminal

(R155) No. 9 – (R190) No. 4:

(R155) No. 8 – (R190) No. 3:

Is the resistance less than 10 Ω?

Yes

 [Go to 4.](#)

No

Check power seat harness.

4. CHECK HARNESS.

1. Disconnect the reclining motor connector.
2. Measure the resistance between power seat control module connector and reclining motor.

Connector & terminal

(R156) No. 7 – (R201) No. 4:

(R156) No. 6 – (R201) No. 6:

Is the resistance less than 10 Ω?

Yes

 [Go to 5.](#)

No

Check power seat harness.

5. CHECK RECLINING MOTOR.

1. Connect the reclining motor connector.
2. Apply battery voltage to the power seat control module connector and check the motor rotation.

Connector & terminal

(R156) No. 7 (+) – (R156) No. 6 (–):

(R156) No. 6 (+) – (R156) No. 7 (–):

Does the motor rotate normally?

Yes


Check for temporary poor contact or mechanical trouble in reclining hinge.

No

Reclining motor problem. Replace the backrest frame assembly.

• Malfunction of lumbar operation

1. CHECK SWITCH.

1. Disconnect the lumbar switch connector.
2. Measure the resistance between connector terminals when moving the switch to lumbar forward and lumbar backward.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK LUMBAR SWITCH.](#)

Is the inspection result normal?

Yes

 [Go to 2.](#)

No

Replace the lumbar switch assembly.

2. CHECK HARNESS.

1. Disconnect the lumbar motor connector.
2. Measure the resistance between lumbar switch connector and lumbar motor connector.

Connector & terminal

(R199) No. 1 – (R198) No. 2:

(R199) No. 2 – (R198) No. 1:

Is the resistance less than 10 Ω?

Yes

 [Go to 3.](#)

No

Check power seat harness.

3. CHECK LUMBAR MOTOR.

1. Connect the lumbar motor connector.
2. Apply battery voltage to the lumbar motor and check the motor rotation.

Connector & terminal

(R199) No. 1 (+) — (R199) No. 2 (–):

(R199) No. 2 (+) — (R199) No. 1 (–):

Does the motor rotate normally?

Yes


Check for temporary poor contact or mechanical trouble in lumbar mechanism.

No

Lumbar motor problem. Replace the backrest frame assembly.

11. UNABLE TO SET POSITIONS INTO MEMORY (WITH MEMORY FUNCTION)

1. CHECK SWITCH.

1. Disconnect the connector of memory switch.
2. Check memory switch.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK MEMORY SWITCH \(WITH MEMORY FUNCTION\).](#)

Is the inspection result normal?

Yes

 [Go to 2.](#)

No

Replace the memory switch assembly.

2. CHECK HARNESS.

Measure the resistance between the memory switch connector and power seat control module.

Connector & terminal

(D143) No. 3 — (R155) No. 14:

(D143) No. 2 — (R155) No. 13:

(D143) No. 8 — (R155) No. 15:

Is the resistance less than 10 Ω?

Yes

 [Go to 3.](#)

No


Check power seat harness.

3. CHECK COMBINATION METER.

Turn the ignition switch to ON and check the indicator light inside the meter.

Does the indicator display "P"?

Yes

 [Go to 4.](#)

No

Check the combination meter.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter System>INSPECTION.](#)

4. SYSTEM INITIALIZATION.

Measure the resistance between power seat switch harness connector and chassis ground.

Is the initialization completed successfully?

Yes

Replace the power seat control module.

No

Perform the check item for "UNABLE TO PERFORM INITIALIZATION".

12. UNABLE TO PERFORM THE RELOADING OPERATION (WITH MEMORY FUNCTION)

1. CHECK MEMORY FUNCTIONS.

Perform the memory operation of the seat position, and check the memory replay operation.

Does the seat position memory replay correctly?

Yes

Memory function is normal. It is considered that the memory was cleared because the voltage falls below the operation-ensured voltage temporarily during memory restoration or manual operation. It operates normally by registering a memory.

No

 [Go to 2.](#)

2. CHECK MEMORY FUNCTIONS.


At the memory operation of step 1, check the beep sound (once).

Was it possible to confirm the beep sound?

Yes


 [Go to 3.](#)

No

Perform the check item for "UNABLE TO SET POSITIONS INTO MEMORY".  [Ref.](#)

[to SEATS>Power Seat System>INSPECTION > UNABLE TO SET POSITIONS INTO MEMORY \(WITH MEMORY FUNCTION\).](#)

3. CHECK SWITCH.

1. Disconnect the connector of memory switch.
2. Check memory switch.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK MEMORY SWITCH \(WITH MEMORY FUNCTION\).](#)

Is the inspection result normal?

 [Go to 4.](#)

Replace the memory switch assembly.

4. CHECK HARNESS.

1. Disconnect the power seat control module connector.
2. Measure the resistance between the memory switch connector and power seat control module.

Connector & terminal

(D143) No. 3 — (R155) No. 14:

(D143) No. 2 — (R155) No. 13:

(D143) No. 8 — (R155) No. 15:

Is the resistance less than 10 Ω?

 [Go to 5.](#)


Check power seat harness.

5. CHECK COMBINATION METER.

Turn the ignition switch to ON and check the indicator light inside the meter.

Does the indicator display "P"?

 [Go to 6.](#)

Check the combination meter.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter System>INSPECTION.](#)

6. CHECK OPERATION.



Operate all power seat switches to check operation of each motor.

Does each motor rotate for one second or more when operating each switch?

Yes

Replace the power seat control module.

No

Encoder deflection. Replace the appropriate motor as a frame assembly.

13. NO INTERLOCK WITH SMART KEYLESS (WITH MEMORY FUNCTION)

1. CHECK DTC.



Read the DTC of body integrated unit using Subaru Select Monitor 4.

Is DTC detected?

Yes

Perform a check according to the DTC.

No

 [Go to 2.](#)

2. CHECK MEMORY FUNCTIONS.



Perform the memory operation of the seat position, and check the memory replay operation.

Does the seat position memory replay correctly?

Yes

Memory function is normal. It is considered that the memory was cleared because the voltage falls below the operation-ensured voltage temporarily during memory restoration or manual operation. It operates normally by registering a memory.

No

Perform the check item for "UNABLE TO PERFORM THE RELOADING OPERATION (DRIVER'S SEAT WITH MEMORY FUNCTION)".

14. UNABLE TO PERFORM INITIALIZATION (WITH MEMORY FUNCTION)


1. CHECK OPERATION.



Operate all power seat switches to check operation of each motor.

Does each motor rotate for one second or more when operating each switch?

Yes


 [Go to 2.](#)

No

Encoder defection. Replace the appropriate motor as a frame assembly.

2. CHECK SWITCH.



1. Disconnect the power seat switch connector.
2. Measure resistance between all terminals of power seat switch assembly.  [Ref. to SEATS>Power Seat System>INSPECTION > CHECK POWER SEAT SWITCH.](#)

Is the inspection result normal?

Yes



Replace the power seat control module.

No



Replace the power seat switch assembly.

INSTALLATION



1. POWER SEAT SWITCH

1. Install the switch assembly - power seat.
2. Install the cover - hinge front seat OUT.
3. Install the knob - power seat.
4. Install the seat assembly.  [Ref. to SEATS>Front Seat>INSTALLATION.](#)
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

2. LUMBAR SWITCH

1. Install the switch assembly - lumbar.
2. Install the cover - hinge front seat OUT.
3. Install the seat assembly.  [Ref. to SEATS>Front Seat>INSTALLATION.](#)
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

3. SEAT MEMORY SWITCH (ONLY WITH MEMORY FUNCTION)

1. Install the seat memory switch assembly.
2. Install the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.](#)
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

4. POWER SEAT CONTROL MODULE (ONLY WITH MEMORY FUNCTION)

1. Install the power seat control module.

Tightening torque:

5.9 N·m (0.61kgf-m, 4.4 ft-lb)

2. Install the seat assembly.  [Ref. to SEATS>Front Seat>INSTALLATION.](#)

Note:

- **The seat with memory function must be initialized after installed.**
- **After replacing a seat with memory function and the power seat control module, check the following items.**
 1. **Memory is reloaded by pressing the seat memory switch, when the ignition is ON and the select lever is set to the "P" range.**
 2. **Memory is not reloaded even if the seat memory switch is pressed, when the ignition is ON and the select lever is set to other than "P" range.**
 3. **Memory is reloaded when the ignition is OFF and the seat memory switch located inside the driver's door is pressed within 45 seconds after the door is opened.**
 4. **Memory is reloaded automatically when the ignition is OFF and the driver's door is opened after unlocked by access key. (Model with smart key interlock function)**


3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

REMOVAL

Caution:


When removing the front seat, disconnect the ground cable from the battery before disconnecting the side airbag module harness connector, and wait for 60 seconds before starting the operation.

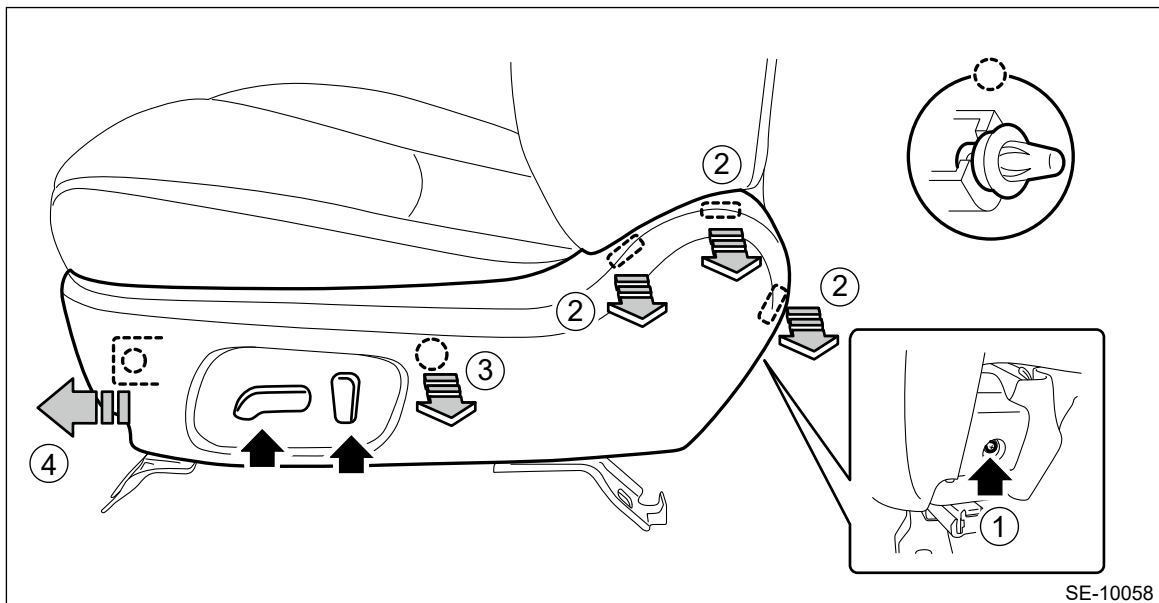
1. POWER SEAT SWITCH

- 1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

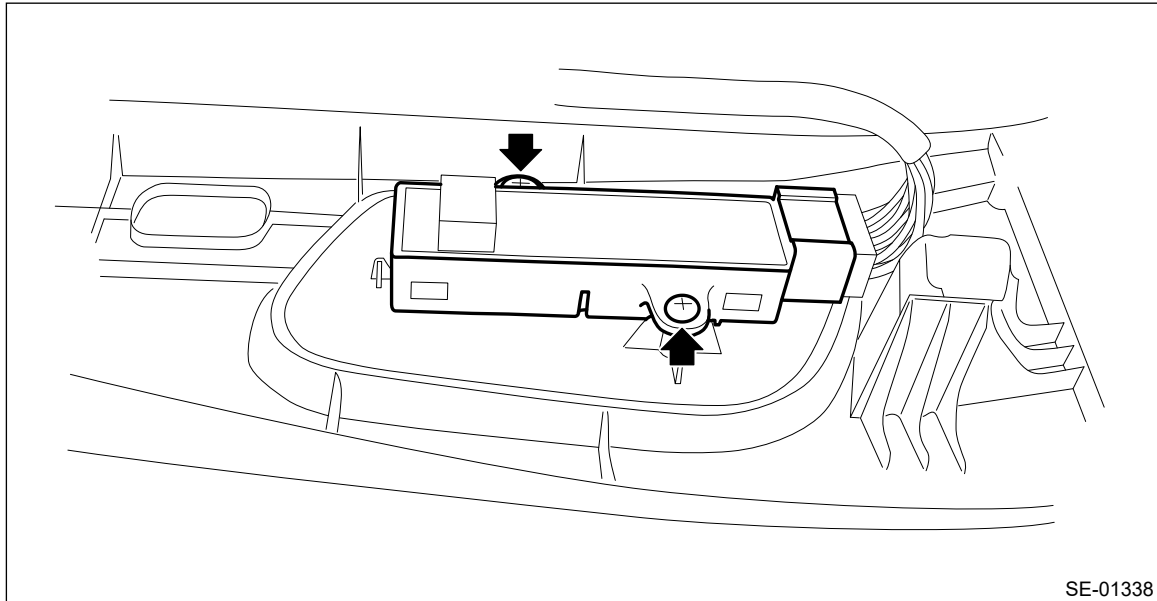
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

- 2. Remove the front seat from the vehicle.  [Ref. to SEATS>Front Seat>REMOVAL.](#)
- 3. Remove the cover - hinge front seat OUT.
 - (1) Remove the screws in the rear section of the cover - hinge front seat OUT.
 - (2) Release the claw in the upper section of the cover - hinge front seat OUT.
 - (3) Remove the clip, and release the claws in the front section of the cover - hinge front seat OUT.
 - (4) Disconnect the power seat switch and lumbar switch connector and remove the cover - hinge front seat OUT.
 - (5) Remove the knob - power seat.




- 4. Remove the screws to remove the switch assembly - power seat.




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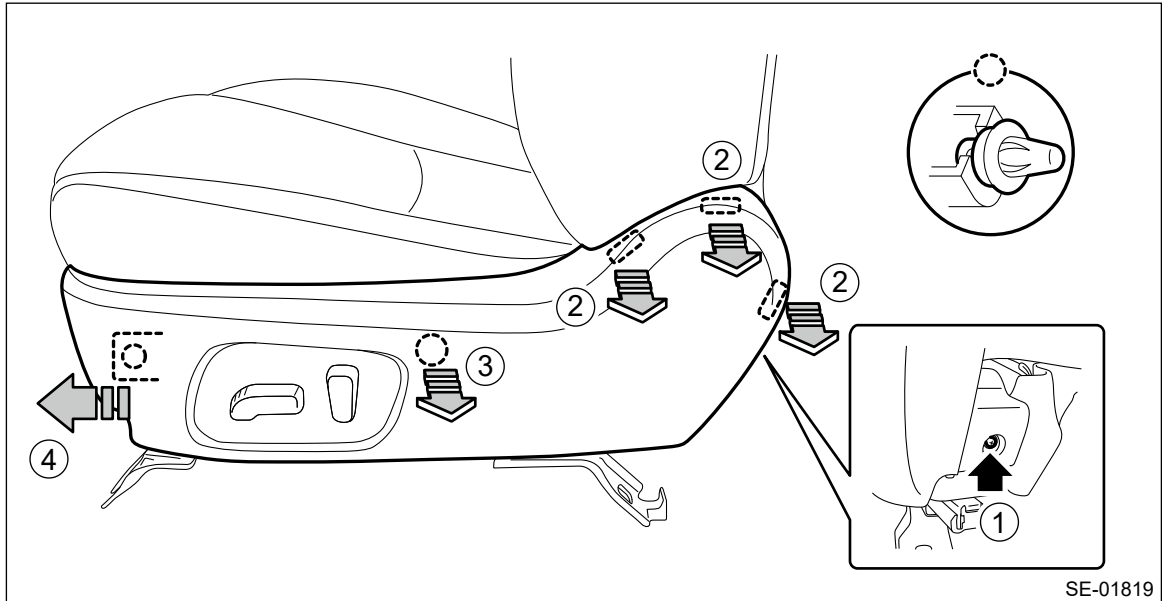
2. LUMBAR SWITCH

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

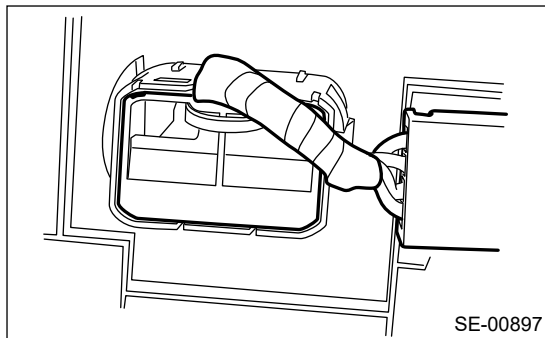
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the seat from vehicle.  [Ref. to SEATS>Front Seat>REMOVAL.](#)
3. Remove the cover - hinge front seat OUT.
 - (1) Remove the screws in the rear section of the cover - hinge front seat OUT.
 - (2) Release the claw in the upper section of the cover - hinge front seat OUT.
 - (3) Remove the clip, and release the claws in the front section of the cover - hinge front seat OUT.
 - (4) Disconnect the power seat switch and lumbar switch connector and remove the cover - hinge front seat OUT.



4. Disconnect the lumbar switch connector and remove the switch assembly - lumbar.




3. SEAT MEMORY SWITCH (ONLY WITH MEMORY FUNCTION)


1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Release the claws, and remove the seat memory switch assembly.

4. POWER SEAT CONTROL MODULE (ONLY WITH MEMORY FUNCTION)

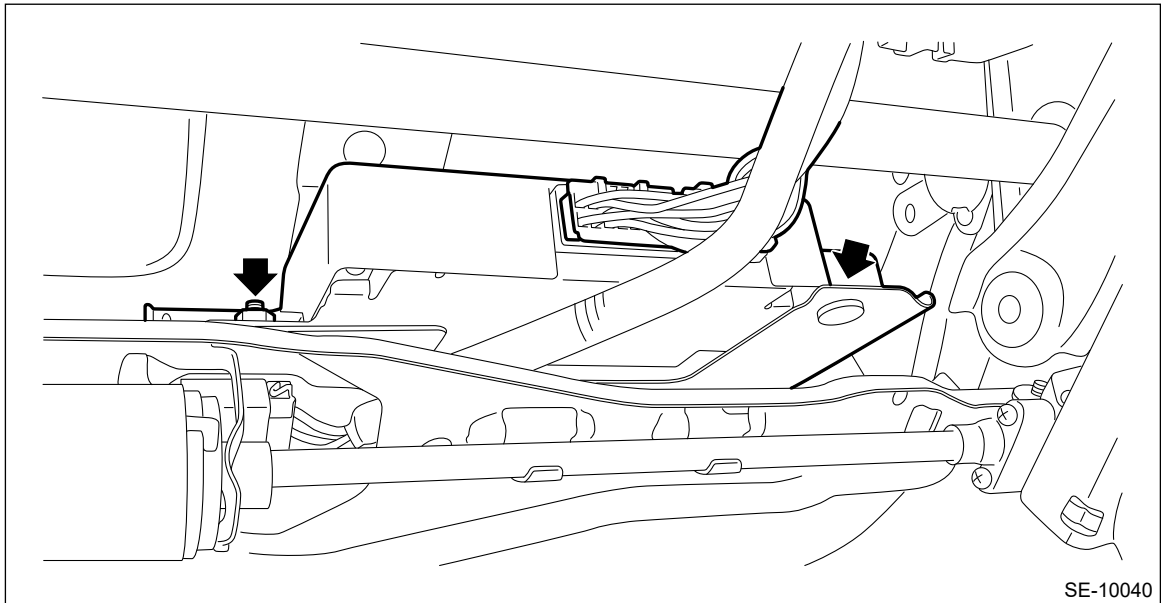
1. Raise the seat cushion by operating the switch.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the front seat from the vehicle.  [Ref. to SEATS>Front Seat>REMOVAL.](#)

- 4.** Remove the power seat control module.
- (1) Release the hooks on seat front and turn over the cushion cover.
 - (2) Remove the nuts, and remove the power seat control module.



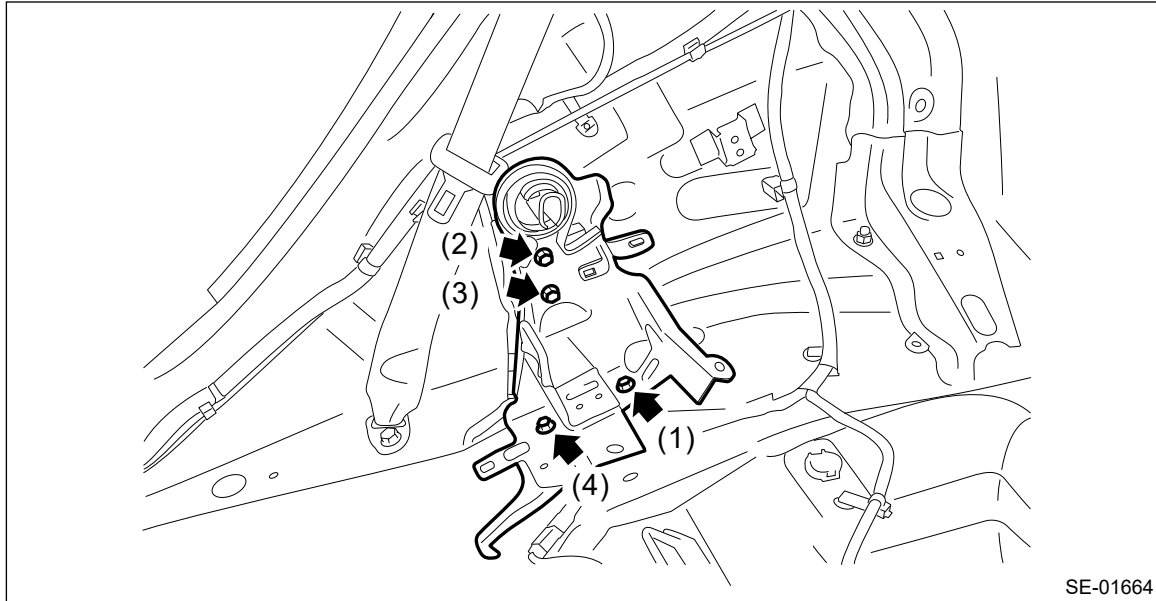
SEATS > Rear Seat Reclining System

INSTALLATION

1. Install the hinge assembly - rear backrest according to the following procedure.

Caution:

When tightening the bolt (2), do not hold the hinge by hand. Doing so results in misalignment of the hinge installation position and may cause heavy lock force of rear seat back.




Note:

To install the hinge assembly - rear backrest, follow the procedure below.

1. Temporarily tighten the bolt (1).
2. Tighten in the order of (2) → (3) → (4) → (1).


Tightening torque:

33 N·m (3.36 kgf-m, 24.3 ft-lb)

2. Install the remaining parts in the reverse order of removal.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)



SEATS > Rear Seat Reclining System

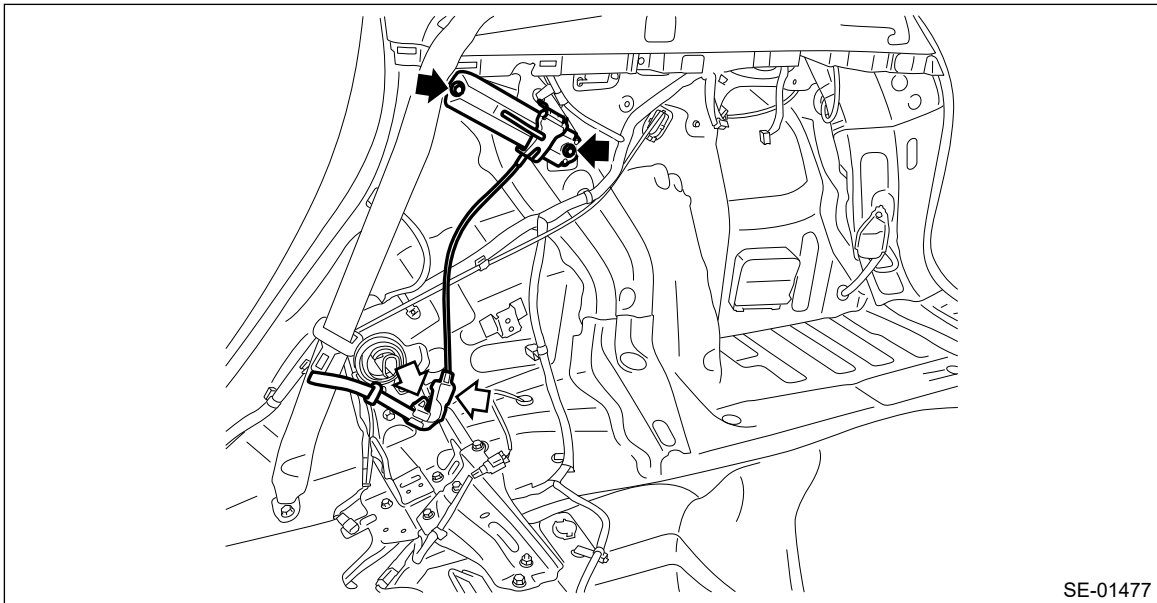
REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

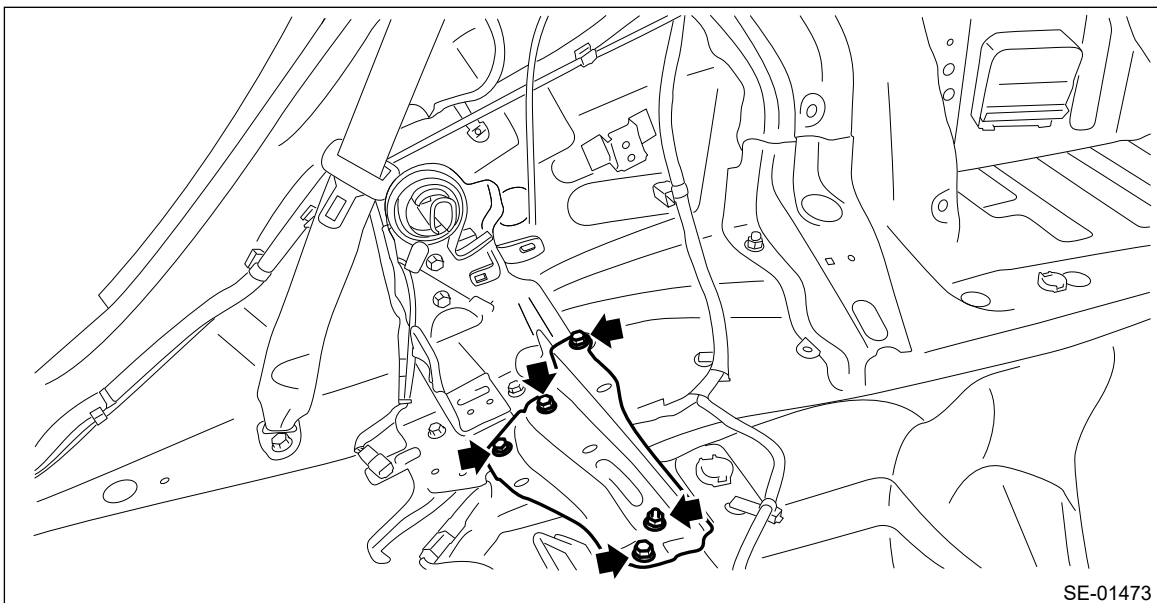
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

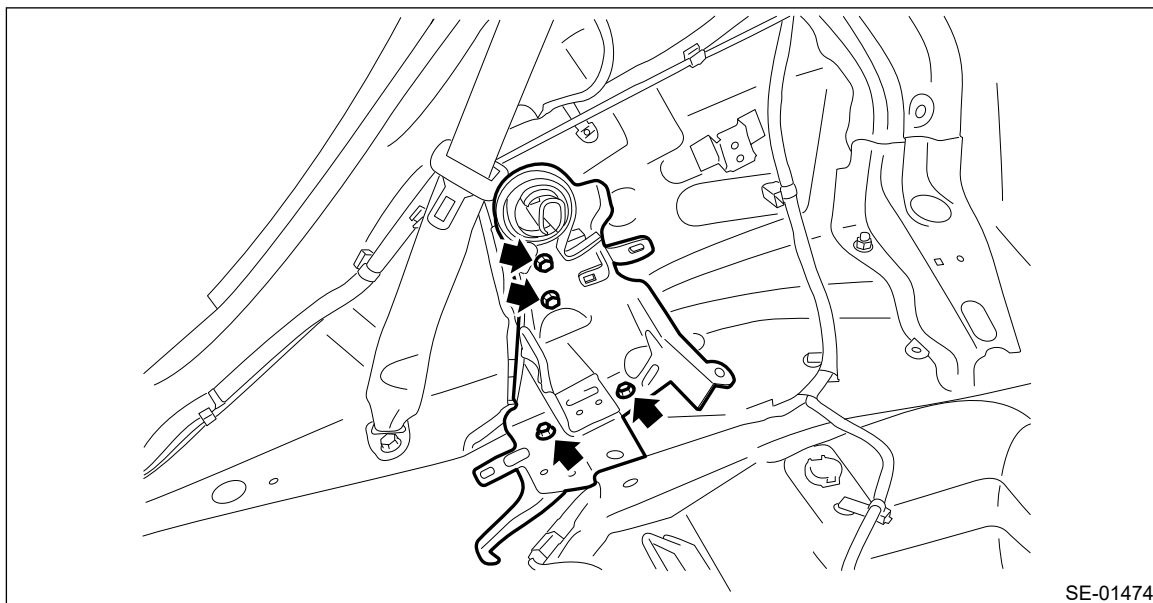
2. Remove the rear seat.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
3. Remove the trim panel - rear apron.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)
4. Remove the clips and bolts, then remove the striker - backrest rear.



5. Remove the bolts and nuts, and remove the hinge assembly - rear backrest stay.



6. Remove the bolts, and remove the hinge assembly - rear backrest.



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SEATS > Rear Seat

ASSEMBLY

Caution:

- Do not reuse hog rings.
- Secure the hog ring using hog ring pliers.
- Install the hog rings to the specified points securely and make sure that there is no wrinkle or twisting on the cover COMPL - rear backrest.

1. Install the seat heater module.

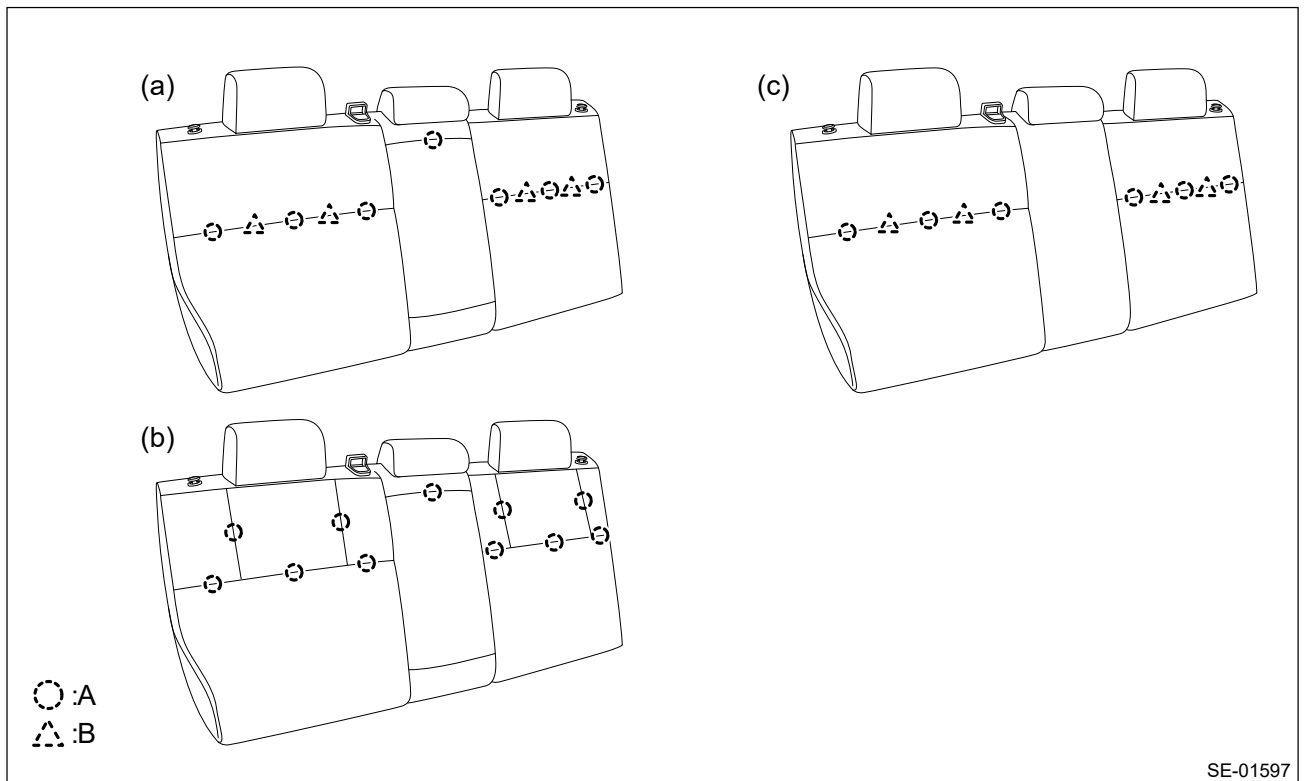
Caution:

- If the seat heater module and seating sensor are removed, replace the pad assembly with a new part.
- If the seat heater module is reused, remove the polyurethane section from the reverse side completely and attach a new pad assembly with a double-sided tape.

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

2. Assemble the cover COMPL - rear backrest and the cover - rear cushion in the same manner as for the front seat. [Ref. to SEATS>Front Seat>ASSEMBLY.](#)
3. Make sure that all hog rings (A) and wire clips (B) are attached securely.

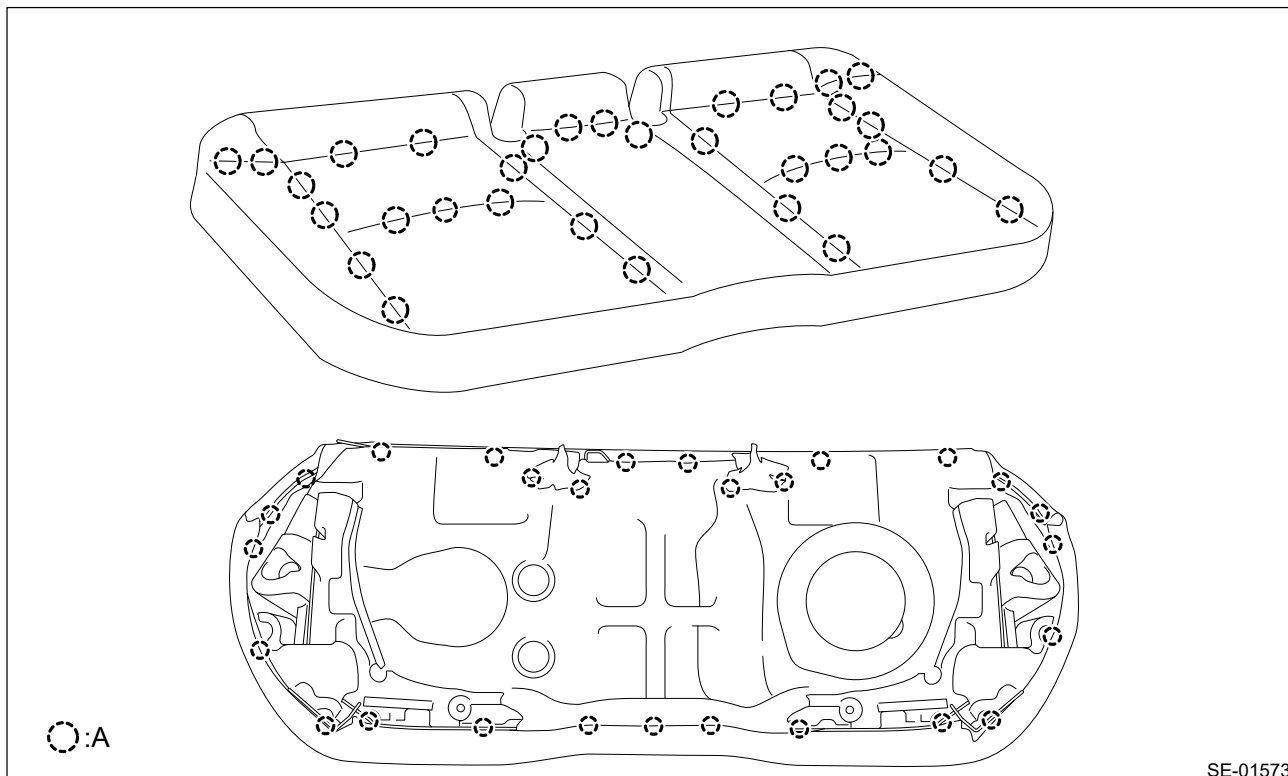


(a) Model with armrest ASSY - rear center (normal seat type)

(b) Model with armrest ASSY - rear center (leather seat type)

(c) Model without armrest ASSY - rear center

4. Make sure that all hog rings (A) are attached securely.



- 5.** Before installation, check the following items.
- No tear and fray on the cover COMPL - rear backrest and the cover - rear cushion.
 - No fray or deformation on each wire cable.


Tightening torque:

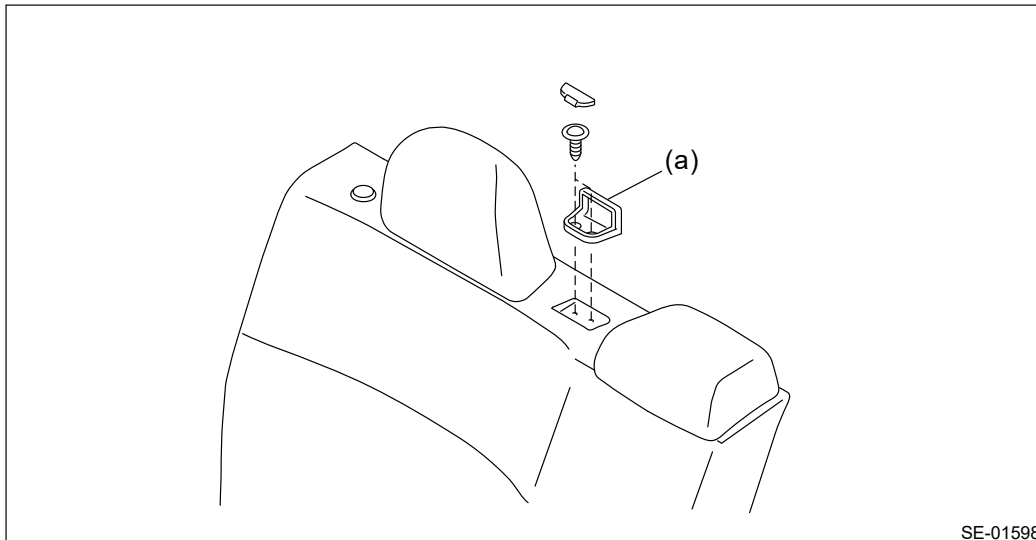
Refer to "COMPONENT" of "General Description".  [Ref. to SEATS>General Description>COMPONENT > REAR SEAT.](#)

- 6.** Install each part in the reverse order of removal.

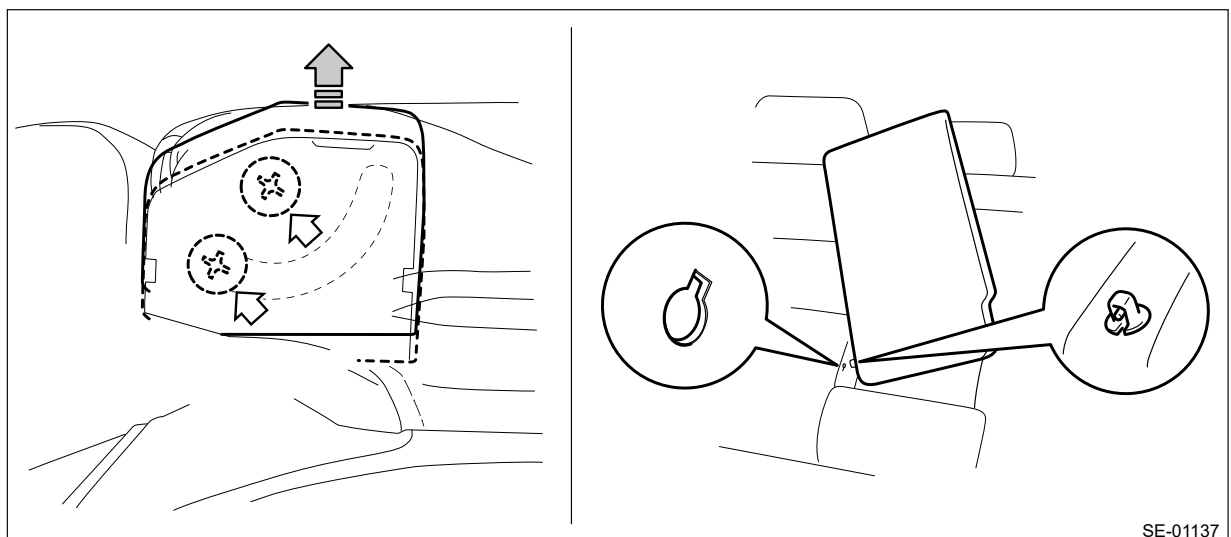
SEATS > Rear Seat

DISASSEMBLY

1. Remove the rear seat.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
2. Remove the pillow assembly - rear center.
3. Remove the caps and screws, then remove the belt guide - rear seat (a).



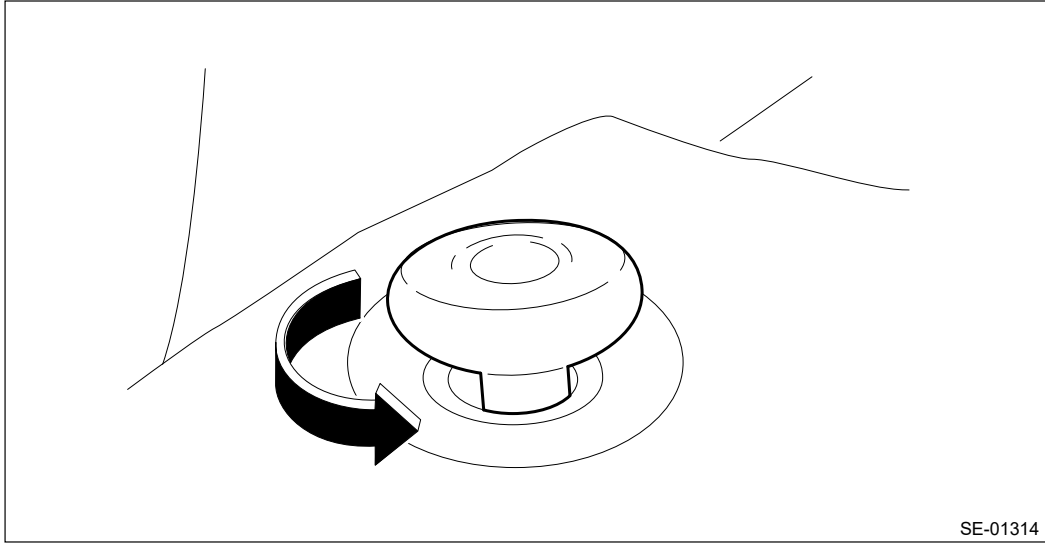
4. Remove the pillow assembly - rear backrest.
5. Remove the armrest assembly - rear center. (Models with armrest)
 - (1) Remove the cover - armrest by pulling it in the direction of the arrow (black).
 - (2) Remove the screws and remove the armrest assembly - rear center.



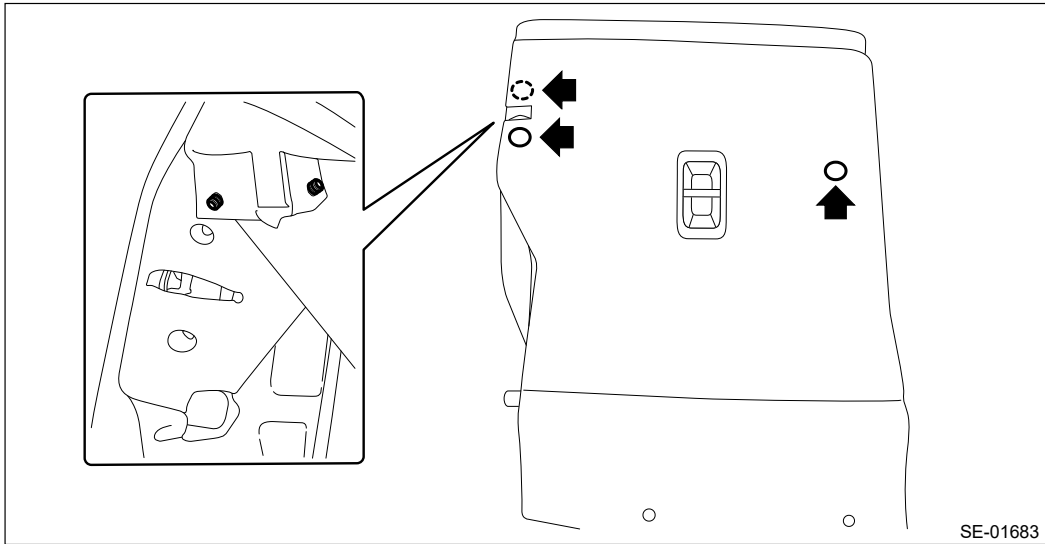
Note:

The armrest assembly - rear center cannot be detached unless pin positions on the RH side of the backrest assembly and on the center side of the armrest assembly - rear are aligned.

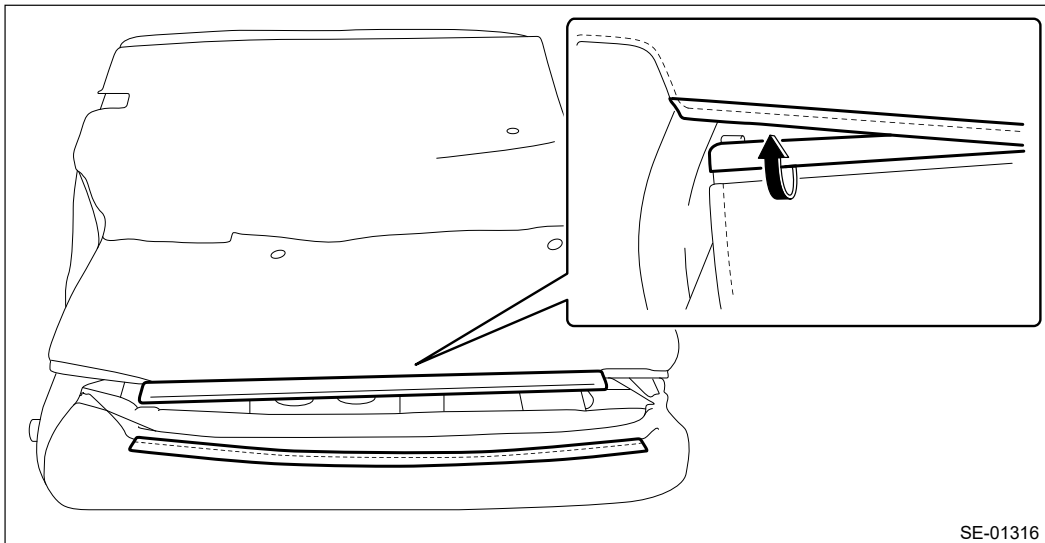
6. Remove the knob - backrest. (Screw-in type)



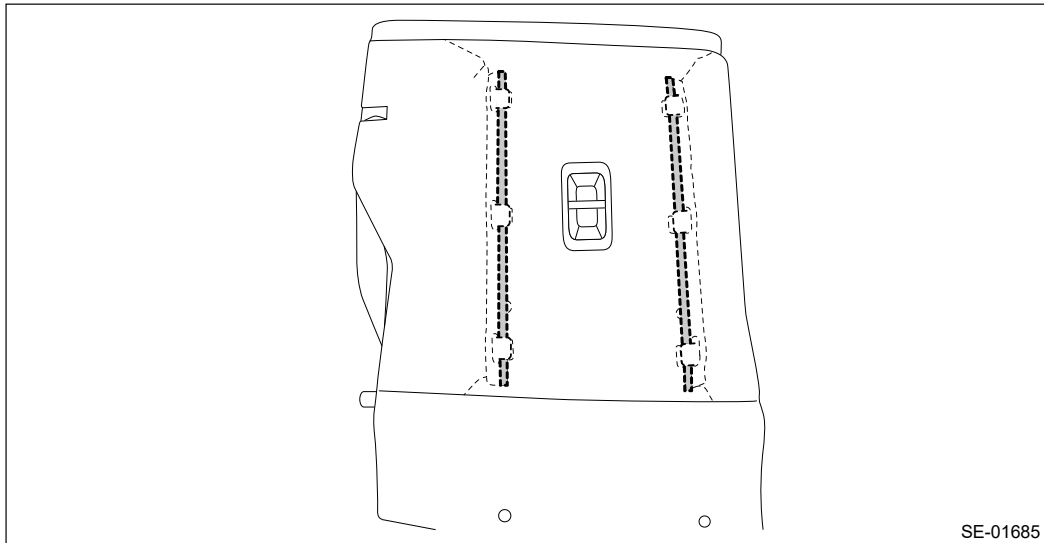
7. Remove the clips on the backside of the cover COMPL - rear backrest LH.



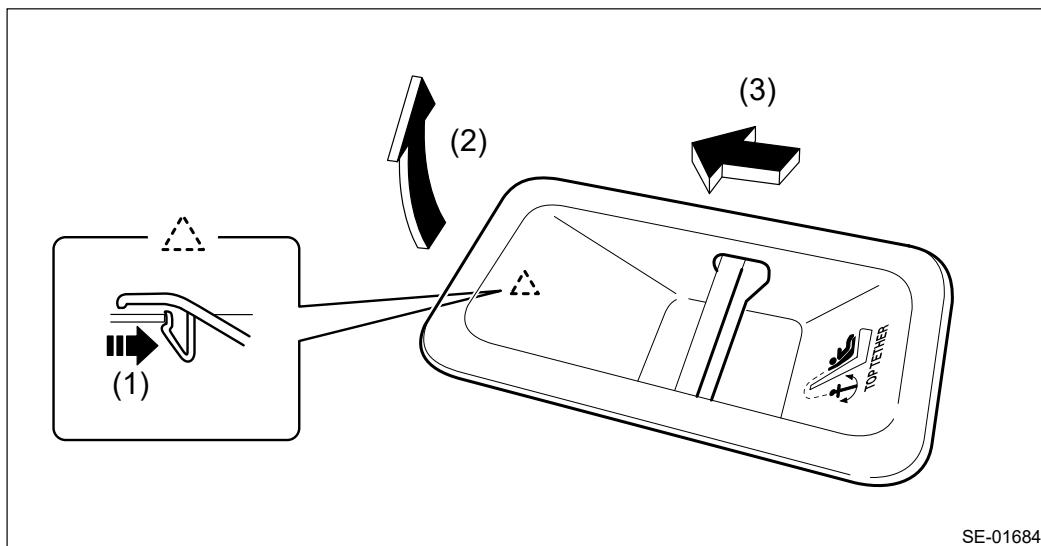
8. Detach the plastic fastener at the bottom of backrest assembly LH and turn over the cover COMPL - rear backrest LH.



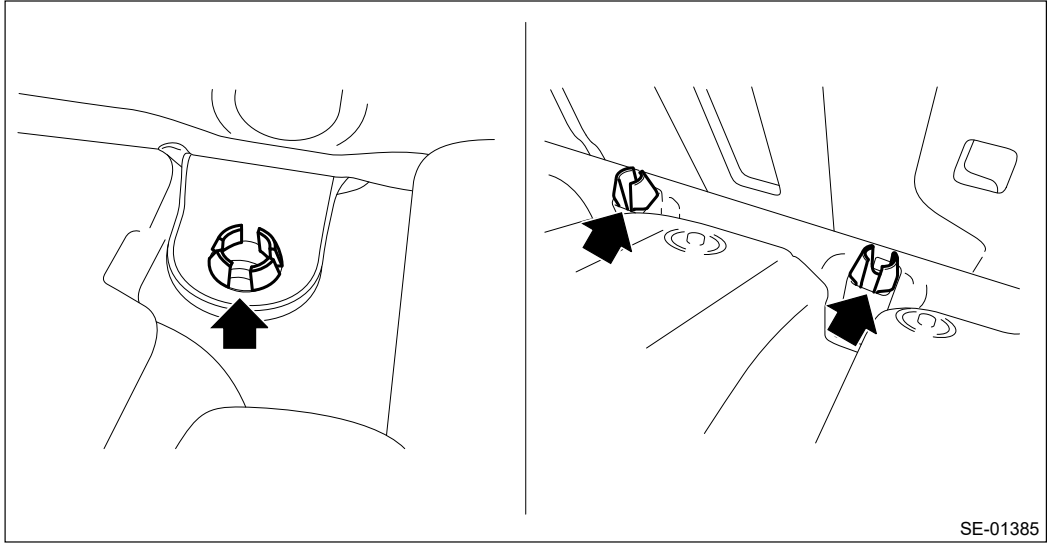
- 9.** Remove the plastic hooks on the back side of the backrest assembly LH, and turn over the backrest assembly.



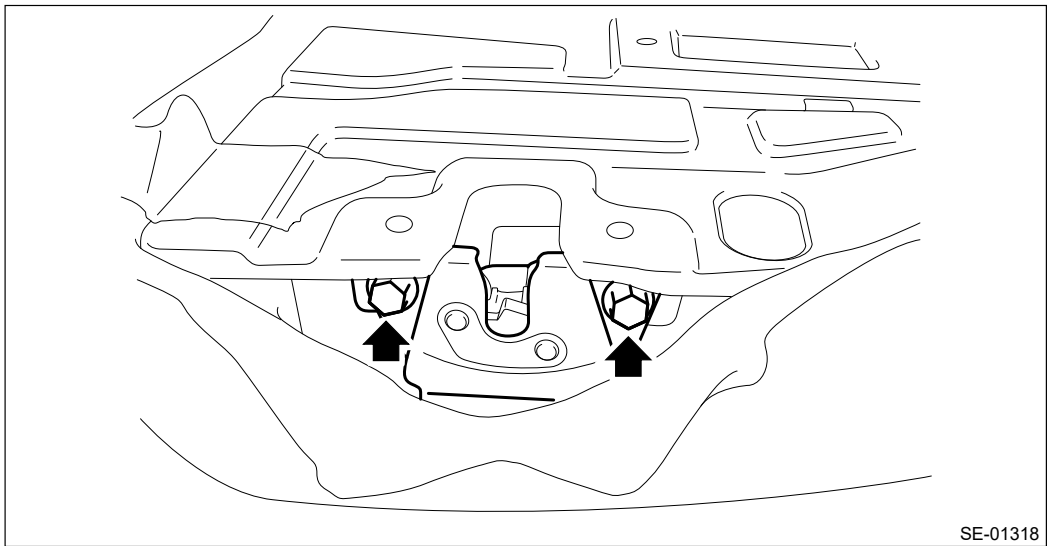
- 10.** Pull up the pad and cover, and remove the tether anchor cover from the inside of back board.



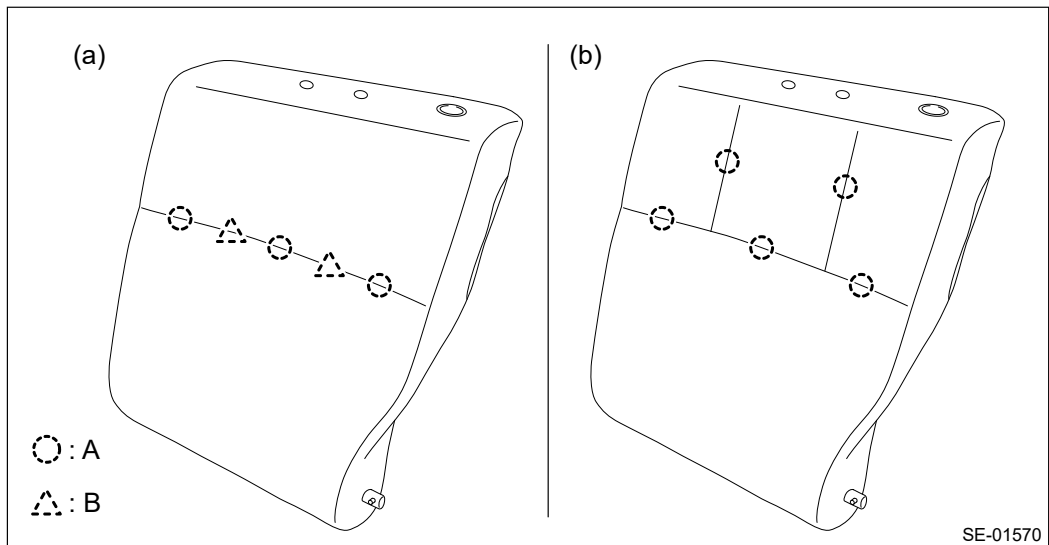
- 11.** Detach the bushing - headrest and the bushing - lock assembly, and remove the frame assembly - rear backrest LH from the pad assembly - main LH.



12. Remove the lock assembly - rear backrest rear LH.



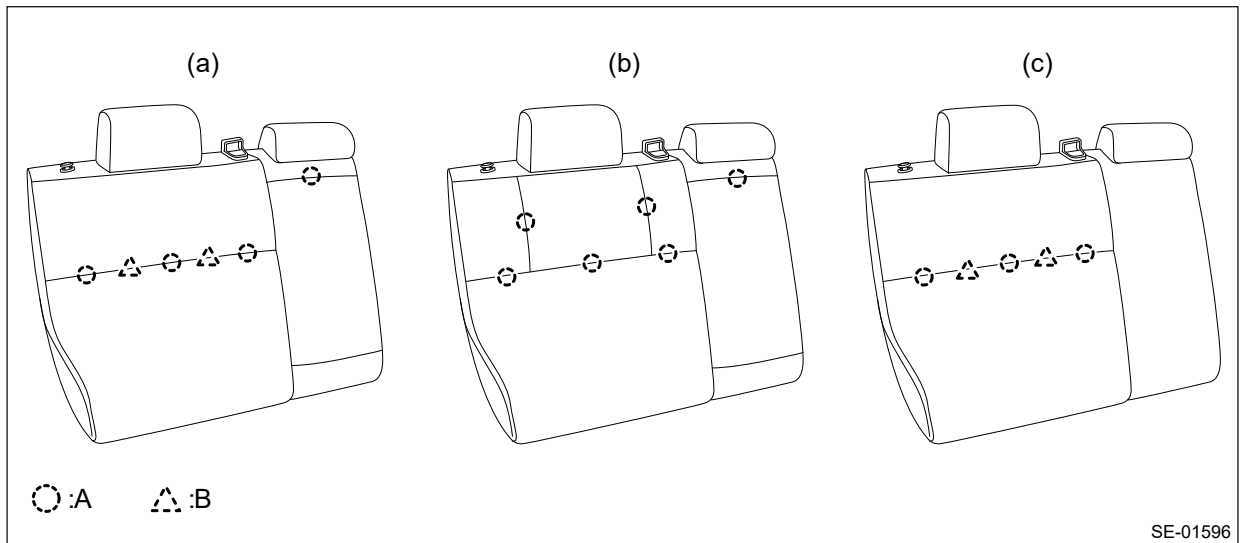
13. Remove the hog rings (A) and wire clip (B), then remove the cover COMPL - rear backrest.
 • LH side



(a) Normal seat type

(b) Leather seat type

- RH side



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(a) Model with armrest ASSY - rear center (normal seat type)

(b) Model with armrest ASSY - rear center (leather seat type)

(c) Model without armrest ASSY - rear center

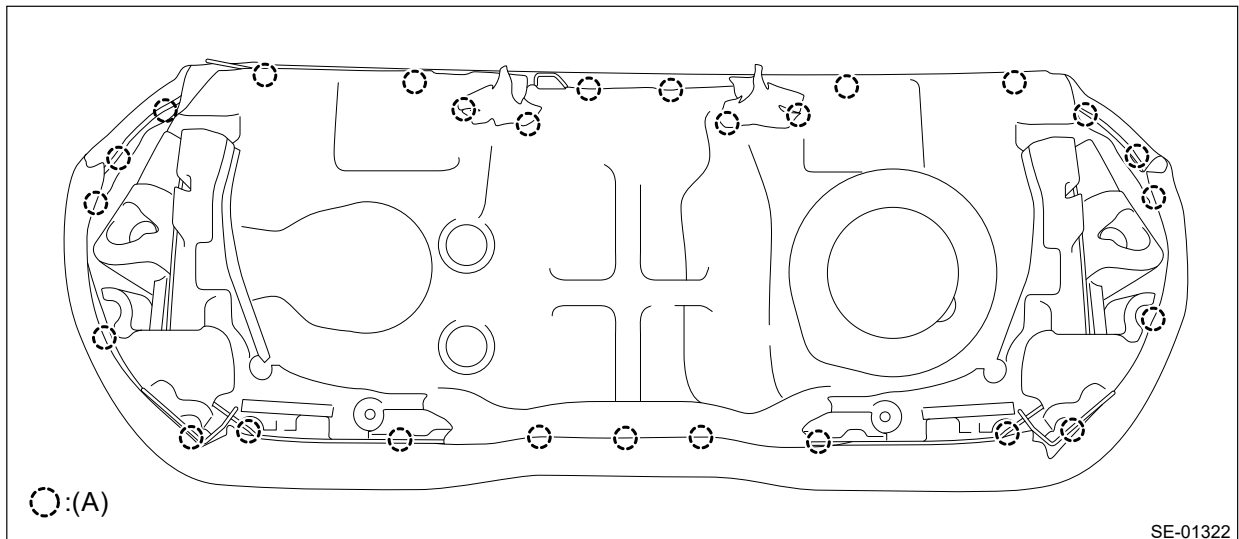
- 14.** Remove the seat heater module from the pad assembly as necessary.

Caution:

- If the seat heater module is removed, replace the pad assembly with a new part.
- If the seat heater module is reused, remove the polyurethane section from the reverse side completely.

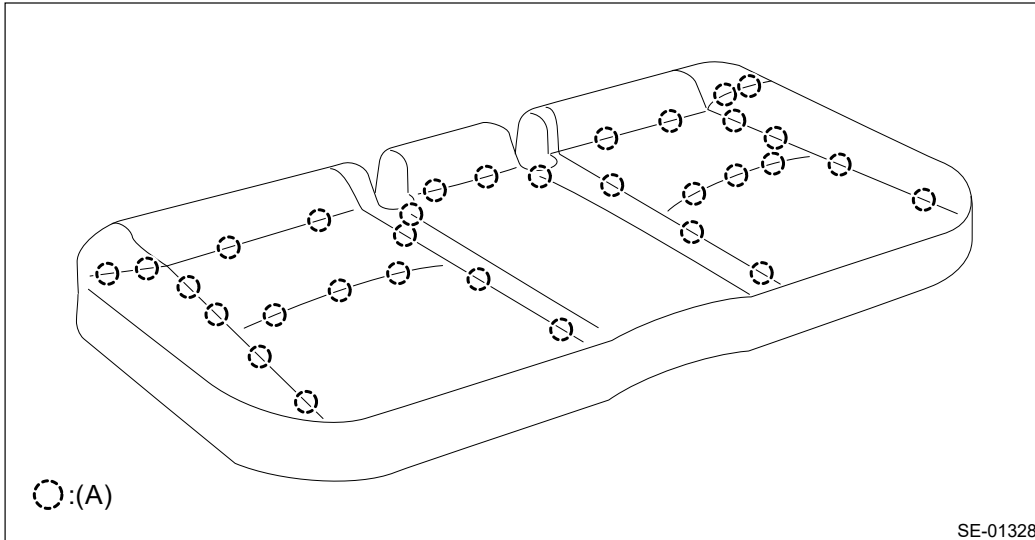
- 15.** Referring to the procedures after step 2), disassemble the backrest assembly RH.

- 16.** Remove the hog rings (A) on the back side of the seat cushion assembly.



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- 17.** Remove the hog rings (A), then remove the cover - rear cushion.



18. Remove the seat heater module from the pad assembly as necessary.

Caution:

- **If the seat heater module is removed, replace the pad assembly with a new part.**
- **If the seat heater module is reused, remove the polyurethane section from the reverse side completely.**

SEATS > Rear Seat


INSTALLATION

1. Install each part in the reverse order of removal.

Note:

- **After installing the backrest assembly, make sure that each seat belt operates normally.**
- **Make sure that they are properly secured on each hook on the vehicle side.**

Tightening torque:


Refer to "COMPONENT" of "General Description".  [Ref. to SEATS>General Description>COMPONENT > REAR SEAT.](#)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SEATS > Rear Seat

REMOVAL

Caution:

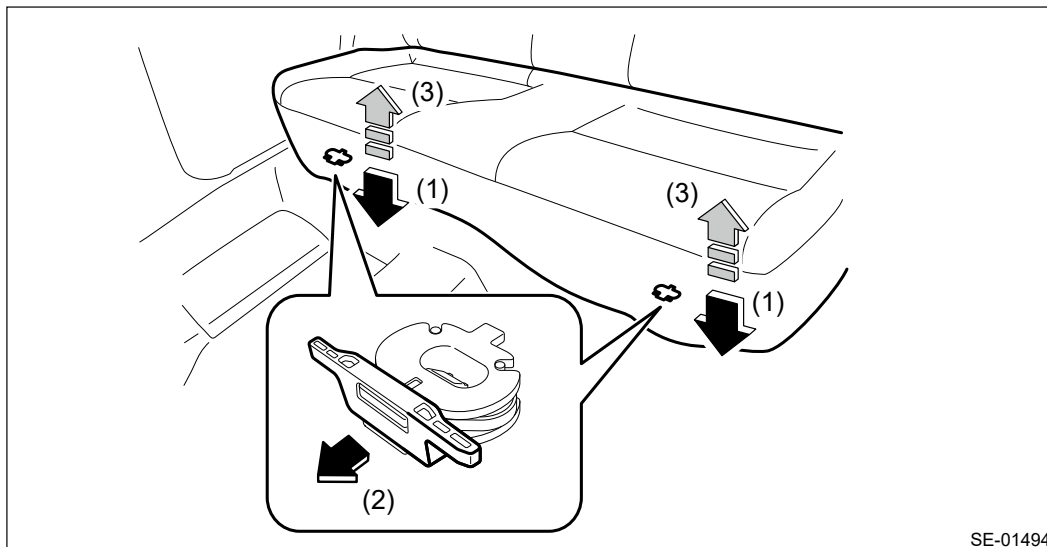
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

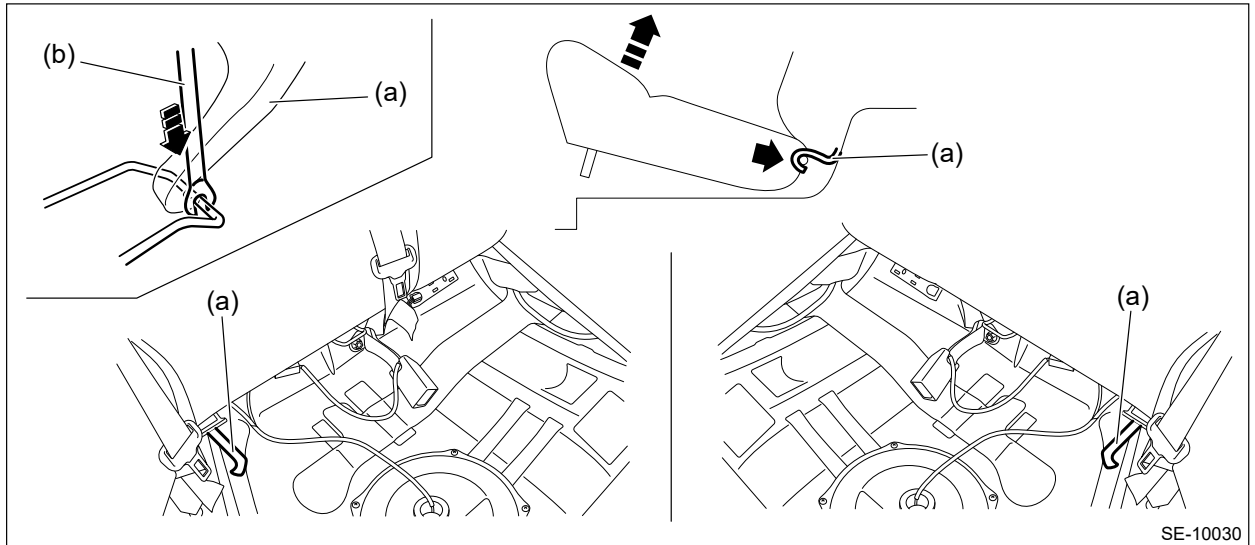
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the rear seat cushion assembly.
 - (1) Push the corners of the rear seat cushion from above.
 - (2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
 - (3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.



- (4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



Note:

Using the clip remover (b) facilitates the operation.

Preparation tool:

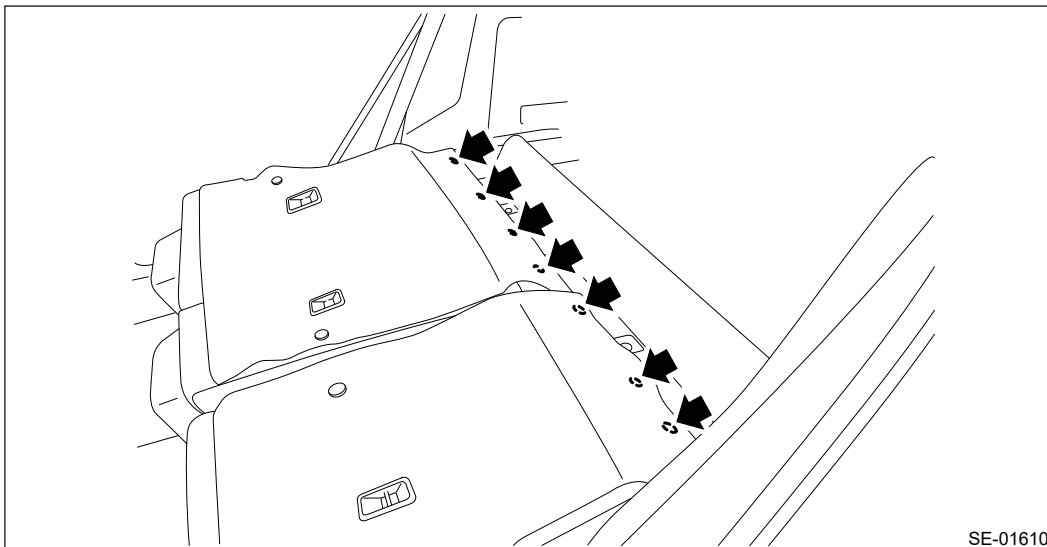
KTC AP20L-10B or equivalent

(5) For models with seat heater, disconnect the connector.

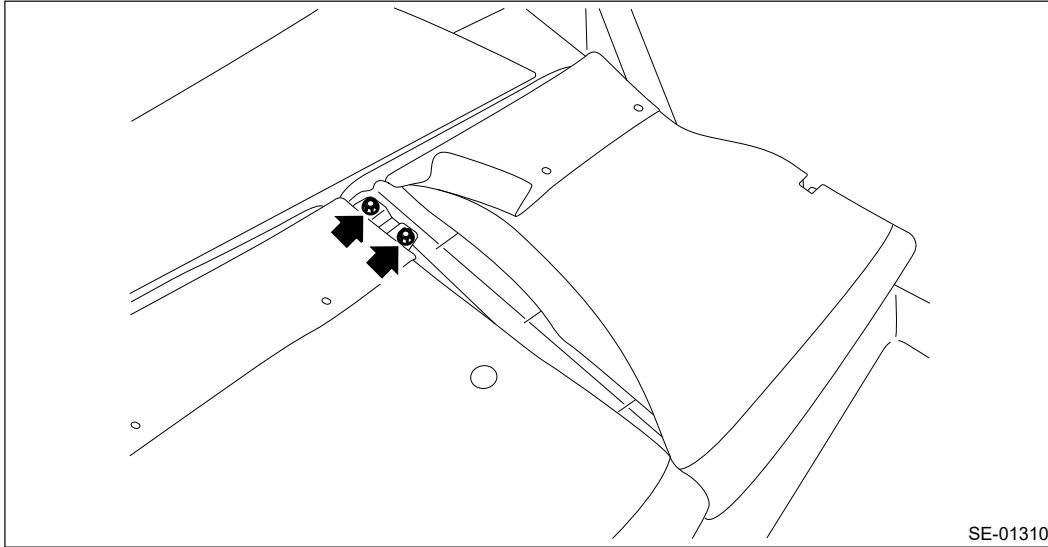
3. Remove the backrest assembly LH.

(1) Tilt the backrest assembly LH forward.

(2) Remove the clips located at the bottom of the cover COMPL - rear backrest LH and RH of the rear seat back.



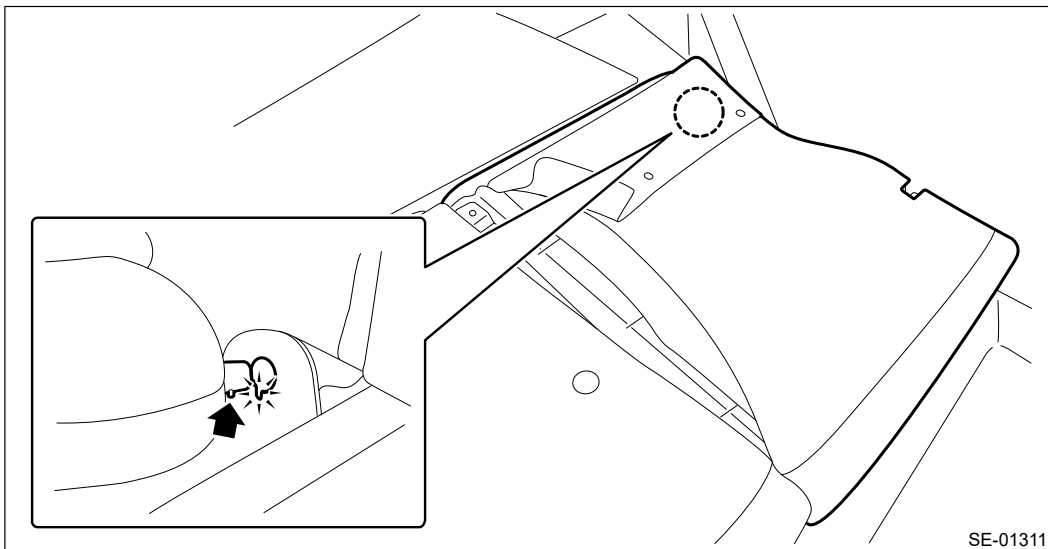
(3) Turn over the cover COMPL - rear backrest LH to remove the bolts.



(4) Remove the backrest assembly LH from the hinge assembly.

Note:

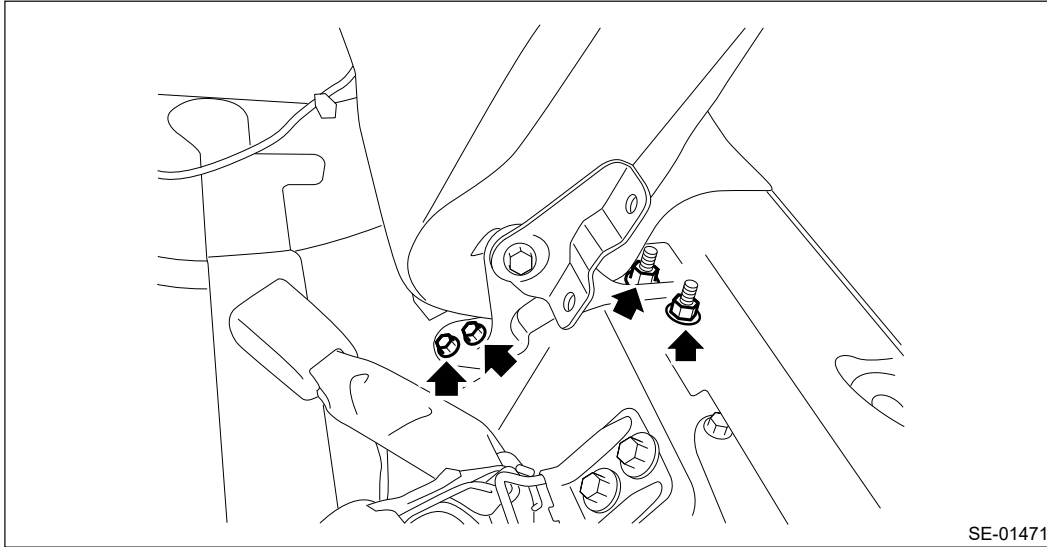
The backrest assembly cannot be removed unless pin positions on the hinge assembly side and backrest assembly side are aligned.



(5) For models with seat heater, disconnect the connector.

4. Remove the backrest assembly RH.

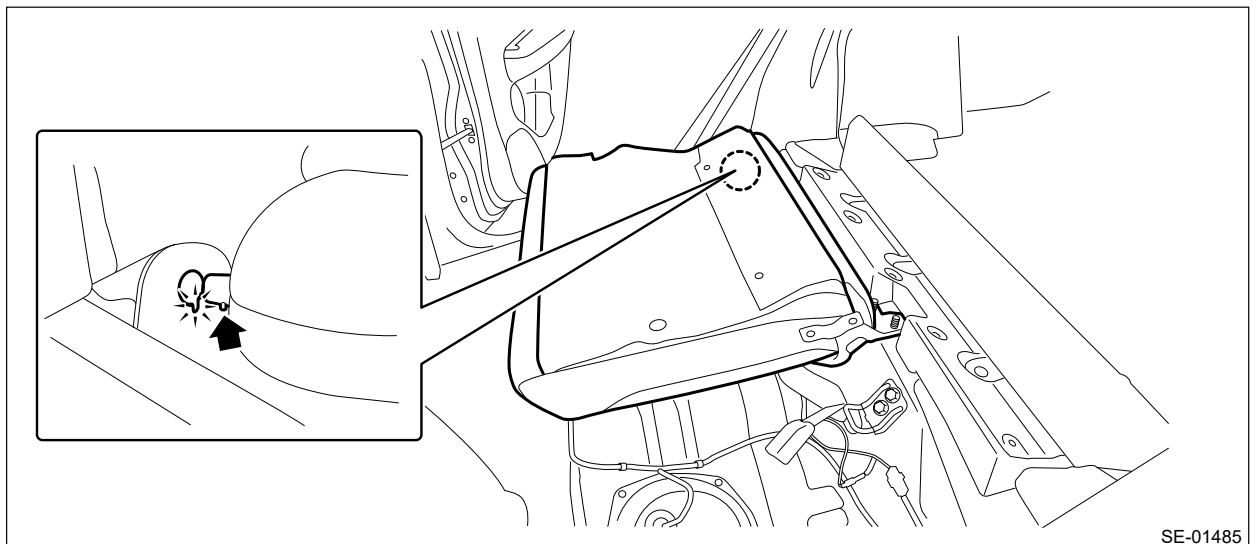
(1) Remove the bolts and nuts.



(2) Remove the backrest assembly RH from the hinge assembly.

Note:

The backrest assembly cannot be removed unless pin positions on the hinge assembly side and backrest assembly side are aligned.




(3) For models with seat heater, disconnect the connector.





SEATS > Remote Control Back Rest System

INSPECTION

1. WIRING DIAGRAM

Refer to "Remote Control Back Rest System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Remote Control Back Rest System.](#)

2. DIAGNOSTIC CHART

Symptoms	Repair order
Remote control back rest system does not operate.	1. Check the fuse.  Ref. to SEATS>Remote Control Back Rest System>INSPECTION > CHECK REMOTE CONTROL BACK REST SYSTEM FUSE.
	2. Check the power supply and ground circuit for the remote control back rest system.  Ref. to SEATS>Remote Control Back Rest System>INSPECTION > CHECK POWER SUPPLY AND GROUND CIRCUIT.
	3. Perform the inspection of switch unit.  Ref. to SEATS>Remote Control Back Rest System>INSPECTION > INSPECTION OF SWITCH UNIT.
	4. Perform the inspection of actuator unit.  Ref. to SEATS>Remote Control Back Rest System>INSPECTION > INSPECTION OF ACTUATOR UNIT.

3. CHECK REMOTE CONTROL BACK REST SYSTEM FUSE

1. CHECK FUSE.

Remove the fuse (FB-6) of remote control back rest system, and visually check.

Is the fuse blown out?

Replace the fuse.

Check the power supply and ground circuit.

4. CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK POWER SUPPLY CIRCUIT.

1. Disconnect the remote control back rest switch.
2. Turn the ignition switch to ON.
3. Measure the voltage between harness connector terminal and chassis ground.

Connector & terminal

RH side:


(R172) No. 5 (+) — Chassis ground (—):

LH side:

(R173) No. 5 (+) — Chassis ground (—):

Is the voltage 12 V or more?

Yes

 [Go to 2.](#)

No

Check the harness between the remote control back rest switch and fuse.

2. CHECK GROUND CIRCUIT.



Measure the resistance between harness connector terminal and chassis ground.

Connector & terminal

RH side:

(R172) No. 1 — Chassis ground:

LH side:

(R173) No. 1 — Chassis ground:

Is the resistance less than 10 Ω when the switch is ON?

Yes

 [Go to 3.](#)

No

Check the switch.

3. CHECK POWER SUPPLY CIRCUIT.



1. Connect the remote control back rest switch.
2. Disconnect the remote control back rest actuator.
3. Turn the ignition switch to ON.
4. Measure the voltage between harness connector terminal and chassis ground.

Connector & terminal

RH side:

(R170) No. 1 (+) — Chassis ground (—):

LH side:

(R171) No. 1 (+) — Chassis ground (—):

Is the voltage 12 V or more when the switch is ON?

Yes

 [Go to 4.](#)

No

Check the harness between the remote control back rest switch and actuator.

4. CHECK GROUND CIRCUIT.



Measure the resistance between harness connector terminal and chassis ground.

Connector & terminal

RH side:

(R170) No. 2 — Chassis ground:

LH side:

(R171) No. 2 — Chassis ground:

Is the resistance 1 M Ω or more when the switch is ON?

Yes

Perform the inspection of actuator unit.

No

Repair the harness of ground circuit.

5. INSPECTION OF SWITCH UNIT

1. CHECK SWITCH.



1. Disconnect the remote control back rest switch connector.
2. Measure the resistance between terminals of remote control back rest switch connector.

Connector & terminal

RH side:

(R172) No. 5 — (R172) No. 1:

LH side:

(R173) No. 5 — (R173) No. 1:

Is the resistance less than 10 Ω when the switch is ON?

Yes

The switch is normal.

No

Replace the switch.

6. INSPECTION OF ACTUATOR UNIT

1. CHECK ACTUATOR.



1. Disconnect the connector of actuator.
2. Connect the battery to the actuator connector.

Connector & terminal

RH side:

(R170) No. 1 (+) – (R170) No. 2 (-):

LH side:

(R171) No. 1 (+) – (R171) No. 2 (-):

Does the actuator operate?

Yes


The actuator is normal.

No

Replace the actuator.

SEATS > Remote Control Back Rest System


INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SEATS > Remote Control Back Rest System

REMOVAL

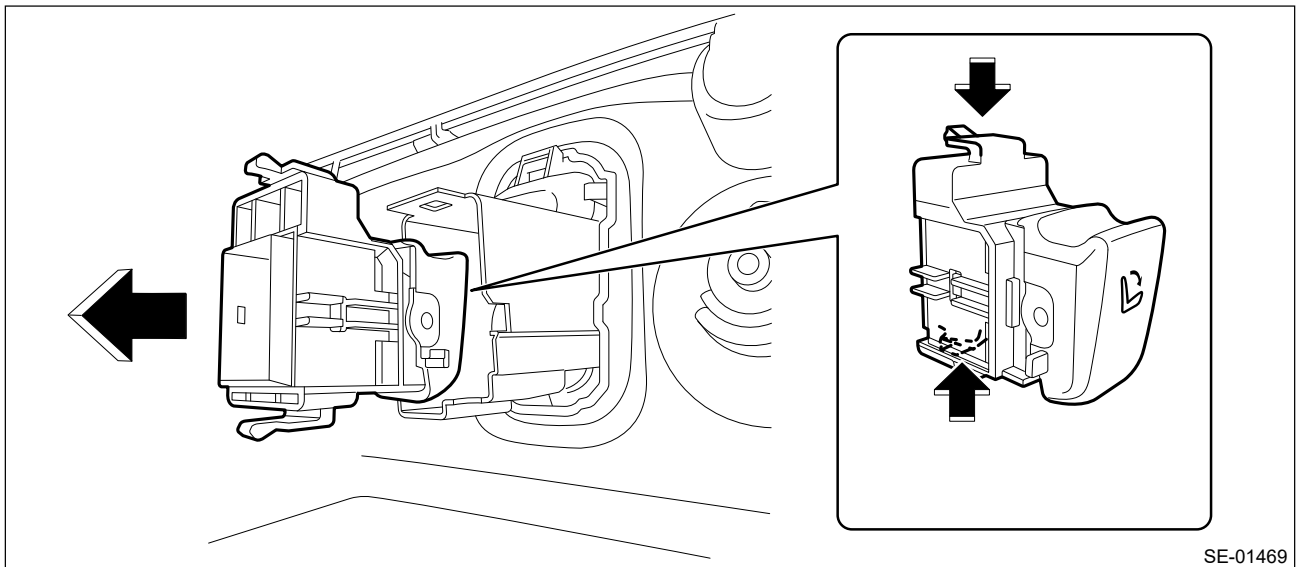
1. REMOTE CONTROL BACK REST SWITCH

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. 
[Ref. to NOTE>NOTE > BATTERY.](#)


Note:

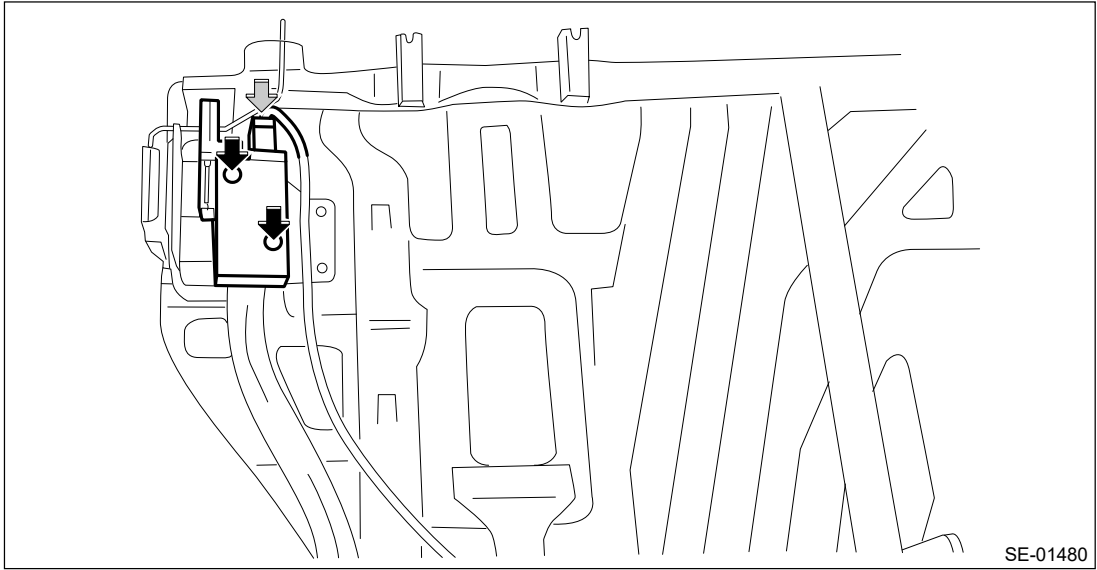
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the rear quarter lower trim.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)
3. Remove the remote control back rest switch from the rear quarter lower trim.



2. REMOTE CONTROL BACK REST ACTUATOR

1. Remove the rear seat backrest.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
2. Remove the remote control back rest actuator from the rear seat backrest.
 - (1) Disconnect the connector.
 - (2) Remove the screws to remove the remote control back rest actuator.



SE-01480

SEATS > Seat Heater System









INSPECTION

1. WIRING DIAGRAM

Refer to "Seat Heater System" in the wiring diagram.

- Front:  [Ref. to WIRING SYSTEM>Seat Heater System>WIRING DIAGRAM > FRONT SEAT.](#)
- Rear:  [Ref. to WIRING SYSTEM>Seat Heater System>WIRING DIAGRAM > REAR SEAT.](#)

2. DIAGNOSTIC CHART

Symptoms	Repair order
Front seat heater does not operate.	1. Check the fuse.  Ref. to SEATS>Seat Heater System>INSPECTION > CHECK FUSE.
	2. Check the seat heater relay.  Ref. to SEATS>Seat Heater System>INSPECTION > CHECK SEAT HEATER RELAY.
	3. Check the seat heater system power supply and ground circuit.  Ref. to SEATS>Seat Heater System>INSPECTION > CHECK POWER SUPPLY AND GROUND CIRCUIT (FRONT).
	4. Check the seat heater module.  Ref. to SEATS>Seat Heater System>INSPECTION > SEAT HEATER MODULE (FRONT).
	5. Check the seat heater switch circuit.  Ref. to SEATS>Seat Heater System>INSPECTION > SEAT HEATER SWITCH (FRONT).
Rear seat heater does not operate.	1. Check the fuse.  Ref. to SEATS>Seat Heater System>INSPECTION > CHECK FUSE.
	2. Check the seat heater system power supply and ground circuit.  Ref. to SEATS>Seat Heater System>INSPECTION > CHECK POWER SUPPLY AND GROUND CIRCUIT (REAR).
	3. Check the seat heater module.  Ref. to SEATS>Seat Heater System>INSPECTION > SEAT HEATER MODULE (REAR).

3. CHECK FUSE

1. CHECK SEAT HEATER FUSE.

Remove the seat heater fuse, and then visually check.

Is the fuse blown out?

Yes

Replace the fuse.

No

Check the power supply and ground circuit.

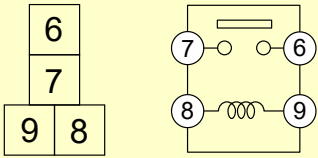
4. CHECK SEAT HEATER RELAY

1. CHECK SEAT HEATER RELAY.

1. Remove the seat heater relay from the relay holder.
2. Measure the resistance between seat heater relay terminals.

Preparation tool:

Circuit tester

Terminal No.	Inspection conditions	Standard	Circuit
6 – 7	Always	1 M Ω or more	
6 – 7	Apply battery voltage between terminals 8 and 9.	Less than 1 Ω	

SE-01387

Does the resistance indicate the standard value?

Yes

The relay is normal.

No

Replace the seat heater relay if the result is not within the standard value. [Ref. to SEATS>Seat Heater System>REMOVAL > SEAT HEATER RELAY AND FUSE.](#)

5. CHECK POWER SUPPLY AND GROUND CIRCUIT (FRONT)

1. CHECK POWER SUPPLY CIRCUIT.

1. Disconnect the harness connector of seat heater switch.
2. Turn the ignition switch to ON.
3. Measure the voltage between harness connector terminal and chassis ground.

Connector & terminal

Driver's seat: (R42) No. 4 (+) – Chassis ground (–):

Passenger's seat: (R45) No. 4 (+) – Chassis ground (–):

Is the voltage 12 V or more?

Yes

[Go to 2.](#)

No

Check the harness between the seat heater switch and fuse.

2. CHECK GROUND CIRCUIT.

Measure the resistance between harness connector terminal and chassis ground.


Connector & terminal

Driver's seat: (R42) No. 6 – Chassis ground:

Passenger's seat: (R45) No. 6 – Chassis ground:

Is the resistance less than 10 Ω ?

Yes

 [Go to 3.](#)

No

Repair the harness.

3. CHECK GROUND CIRCUIT.

Measure the resistance between seat heater switch terminals.

Connector & terminal

Driver's seat: (R42) No. 4 — (R42) No. 6:


Passenger's seat: (R45) No. 4 — (R45) No. 6:

Is the resistance less than 10 Ω ?

Yes

The power supply and ground circuit are OK.

No

Replace the seat heater switch.  [Ref. to SEATS>Seat Heater System>REMOVAL > SEAT HEATER SWITCH - FRONT.](#)

6. SEAT HEATER MODULE (FRONT)

1. CHECK SEAT HEATER MODULE.

Disconnect the seat heater unit connector, and check the continuity between terminals of connector.

Connector & terminal

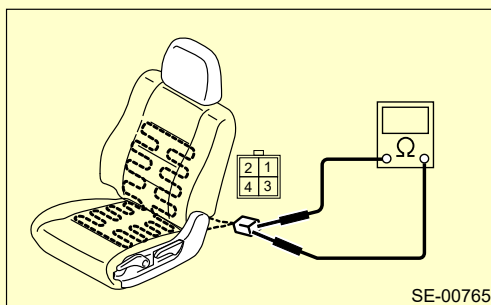
HI

No. 1 — No. 3:

No. 3 — No. 4:

LOW

No. 1 — No. 4:




Is there continuity between the terminals?

Yes

Seat heater module is normal.

No

If no continuity exists, replace the seat heater module with a new part.  [Ref. to SEATS>Front Seat>DISASSEMBLY.](#)

7. SEAT HEATER SWITCH (FRONT)

1. CHECK SEAT HEATER SWITCH.

Inspect the continuity between the seat heater switch terminals.

Connector & terminal

HI

No. 4 — No. 5:

No. 4 — No. 3:

No. 4 — No. 6:

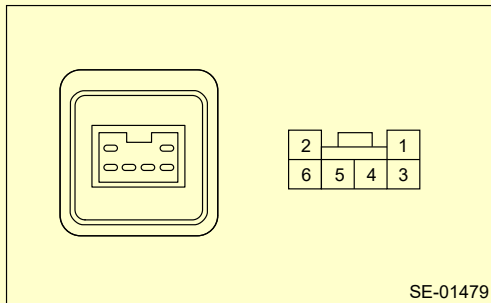
LOW

Driver's seat: No. 4 —No. 3:

Driver's seat: No. 4 —No. 6:

Passenger's seat: No. 4 —No. 5:

Passenger's seat: No. 4 —No. 6:




Is there continuity between the terminals?

Yes

The seat heater switch is normal.

No

If no continuity exists, replace the seat heater switch with a new part.  [Ref. to SEATS>Seat Heater System>REMOVAL > SEAT HEATER SWITCH - FRONT.](#)

8. CHECK POWER SUPPLY AND GROUND CIRCUIT (REAR)

1. CHECK POWER SUPPLY CIRCUIT.

1. Disconnect the seat heater control module harness connector.
2. Measure the voltage between harness connector terminal and chassis ground.

Connector & terminal

(R49) No. 14 (+) — Chassis ground (—):

Is the voltage 10 V or more?

Yes

 [Go to 2.](#)

No

Repair or replace the harness.

2. CHECK POWER SUPPLY CIRCUIT.




1. Turn the ignition switch to ON.
2. Measure the voltage between harness connector terminal and chassis ground.

Connector & terminal

(R49) No. 5 (+) — Chassis ground (-):

Is the voltage 10 V or more?

Yes

 [Go to 3.](#)

No

Repair or replace the harness.

3. CHECK GROUND CIRCUIT.



Measure the resistance between harness connector terminal and chassis ground.


Connector & terminal

(R49) No. 7 — Chassis ground:

(R138) No. 9 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

 [Go to 4.](#)

No

Repair the harness.

4. CHECK HARNESS.



Measure the resistance between seat heater control module terminal and seat heater switch - rear terminal.

Connector & terminal

(R53) No. 14 — (R138) No. 1:

(R53) No. 16 — (R138) No. 6:

(R53) No. 6 — (R138) No. 2:

(R53) No. 4 — (R138) No. 6:

(R53) No. 2 — (R138) No. 13:

(R53) No. 8 — (R138) No. 4:

Is the resistance less than 10 Ω ?

Yes

 [Go to 5.](#)

No

Repair the harness.

5. CHECK SEAT HEATER MODULE (REAR).



Check the seat heater module (rear) as a single part. [Go to 5.](#)

Is the inspection result normal?

Yes

Replace the seat heater switch - rear or seat heater control module.

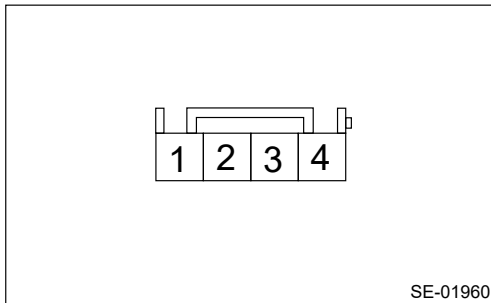
No

Replace the seat heater module (rear).

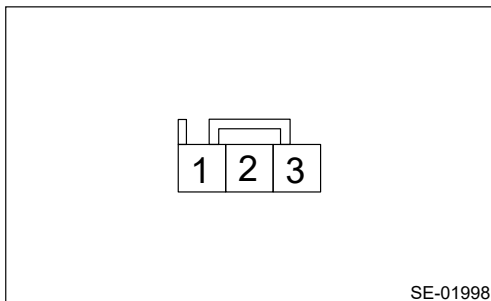
9. SEAT HEATER MODULE (REAR)

1. Disconnect the seat heater unit connector, and check the continuity between terminals of connector.

- Seat cushion



- Backrest



Connector & terminal

Seat cushion:

LH side: No. 4 —No. 3:

RH side: No. 2 —No. 1:

Backrest LH:

No. 1 — No. 2:

Backrest RH:

No. 1 — No. 2:

Inspection conditions	Part	Standard
Heater temperature 20°C (68°F)	Seat cushion	Approx. 4.44 Ω
	Backrest	Approx. 6.78 Ω


2. If no continuity exists, replace the seat heater module with a new part.

INSTALLATION

1. SEAT HEATER MODULE - FRONT




1. Affix the seat heater module - front to the pad assembly.

Caution:



- If the cover - front cushion is removed, make sure to replace the hang wire on the cover front cushion side with a new wire.
- When replacing the seat cover, be careful not to damage the occupant detection sensor while installing the hog ring.
- When removing or replacing the seat cover, perform "Occupant Detection System Inspection" after installing the seat to check if the occupant detection system operates normally.  [Ref. to PRE-DELIVERY INSPECTION>PRE-DELIVERY INSPECTION \(PDI\) PROCEDURE > SEAT.](#)
- If the seat heater module is removed, replace the seat cushion pad & frame assembly with a new part. (Passenger's seat)
- If the seat heater module is reused, remove the polyurethane section from the reverse side completely.

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

2. Assemble the front seat.  [Ref. to SEATS>Front Seat>ASSEMBLY.](#)
3. Install the front seat assembly.  [Ref. to SEATS>Front Seat>INSTALLATION.](#)
4. Install the battery sensor to the ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

2. SEAT HEATER SWITCH - FRONT




1. Install the seat heater switch - front.
2. Install the console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.](#)
3. Install the battery sensor to the ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

3. SEAT HEATER MODULE - REAR


1. Affix the seat heater module - front to the pad assembly.

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

2. Assemble the rear seat.  [Ref. to SEATS>Rear Seat>ASSEMBLY.](#)
3. Install the rear seat assembly.  [Ref. to SEATS>Rear Seat>INSTALLATION.](#)
4. Install the battery sensor to the ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

4. SEAT HEATER SWITCH - REAR



1. Install the seat heater switch - rear.
2. Install the end cover - console box.
3. Install the battery sensor to the ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

5. SEAT HEATER UNIT - REAR

1. Install the seat heater module - rear.

Tightening torque:

13 N·m (1.34 kgf-m, 9.6 ft-lb)


2. Install the trim panel - rear apron RH.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.](#)
3. Install the battery sensor to the ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

6. SEAT HEATER RELAY AND FUSE

1. Install the seat heater relay & fuse.

Tightening torque:



7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

2. Install the cover assembly - instrument panel LWR driver.
3. Install the battery sensor to the ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SEATS > Seat Heater System

REMOVAL

1. SEAT HEATER MODULE - FRONT

1. Remove the front seat assembly.  [Ref. to SEATS>Front Seat>REMOVAL.](#)
2. Remove the backrest cover of front seat and seat cushion cover.  [Ref. to SEATS>Front Seat>DISASSEMBLY.](#)
3. Remove the seat heater module - front from the pad assembly.

Caution:


If the seat heater module is removed, replace the pad assembly and seating sensor with new parts.

2. SEAT HEATER SWITCH - FRONT



1. Disconnect the ground cable from battery.

Note:

- **For model with battery sensor, disconnect the ground terminal from battery sensor.**
- **On CVT models, shift the select lever into "N" before disconnecting the battery ground cable.**

2. Remove the console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
3. Remove the screws and remove the seat heater switch from the backside of the console box assembly.

3. SEAT HEATER MODULE - REAR

1. Remove the rear seat assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
2. Remove the backrest cover of rear seat and seat cushion cover.  [Ref. to SEATS>Rear Seat>DISASSEMBLY.](#)
3. Remove the seat heater module - rear from the pad assembly.

Caution:

If the seat heater module is removed, replace the pad assembly and seating sensor with new parts.

4. SEAT HEATER SWITCH - REAR


1. Disconnect the ground cable from battery.

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the end cover - console box.
3. Release the claws, and remove the seat heater switch - rear.

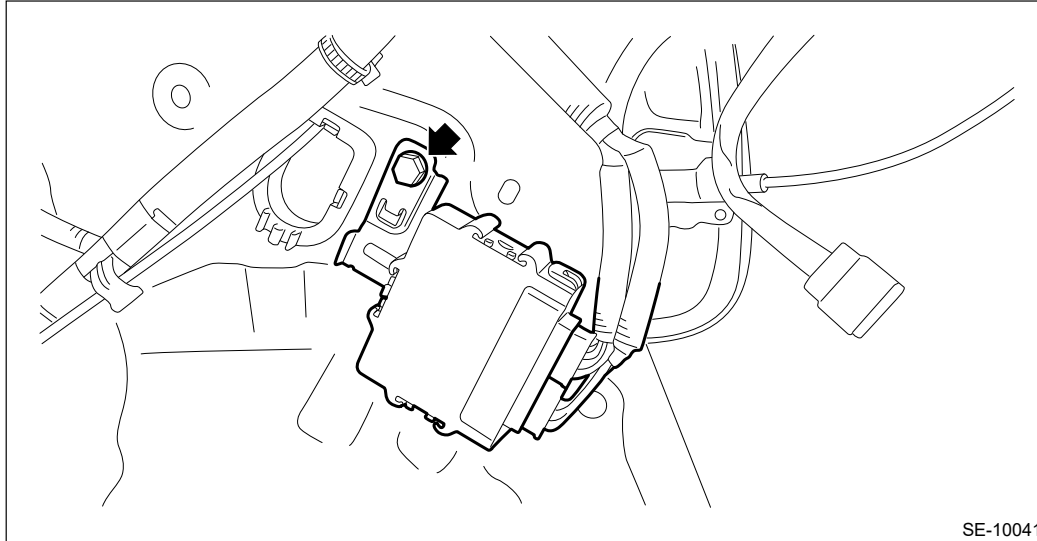
5. SEAT HEATER UNIT - REAR

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear apron RH.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)
3. Remove the bolt, disconnect the connector and remove the seat heater unit - rear.





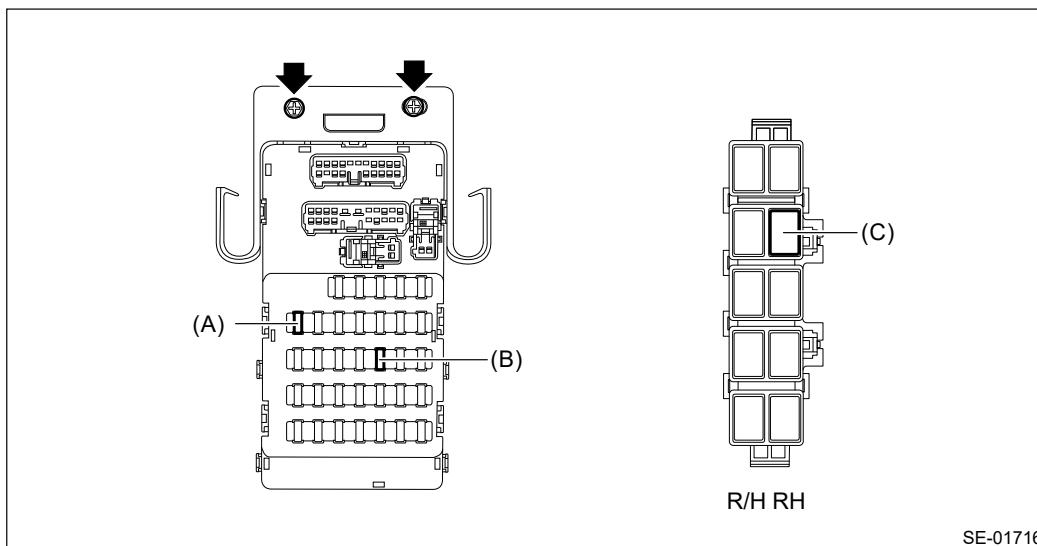
6. SEAT HEATER RELAY AND FUSE

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the glove box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
4. Remove the seat heater relay and fuse.
 - (1) Remove the relay & fuse box bolts.
 - (2) Remove the seat heater relay from the relay holder.




Relay & fuse box	Fuse 7.5 A (remote control mirror)	(A)
	Fuse 15 A (seat heater)	(B)
Relay holder RH	Seat heater relay	(C)

SECURITY AND LOCKS > Access Buzzer


INSPECTION

Using the Subaru Select Monitor, perform forced operation of the keyless buzzer.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Active Test.](#)

If a buzzer does not sound, refer to "Diagnostics with Phenomenon" of "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Diagnostics with Phenomenon>INSPECTION > KEYLESS ACCESS EXTERNAL BUZZER DOES NOT BEEP.](#)

SECURITY AND LOCKS > Access Buzzer

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Access Buzzer

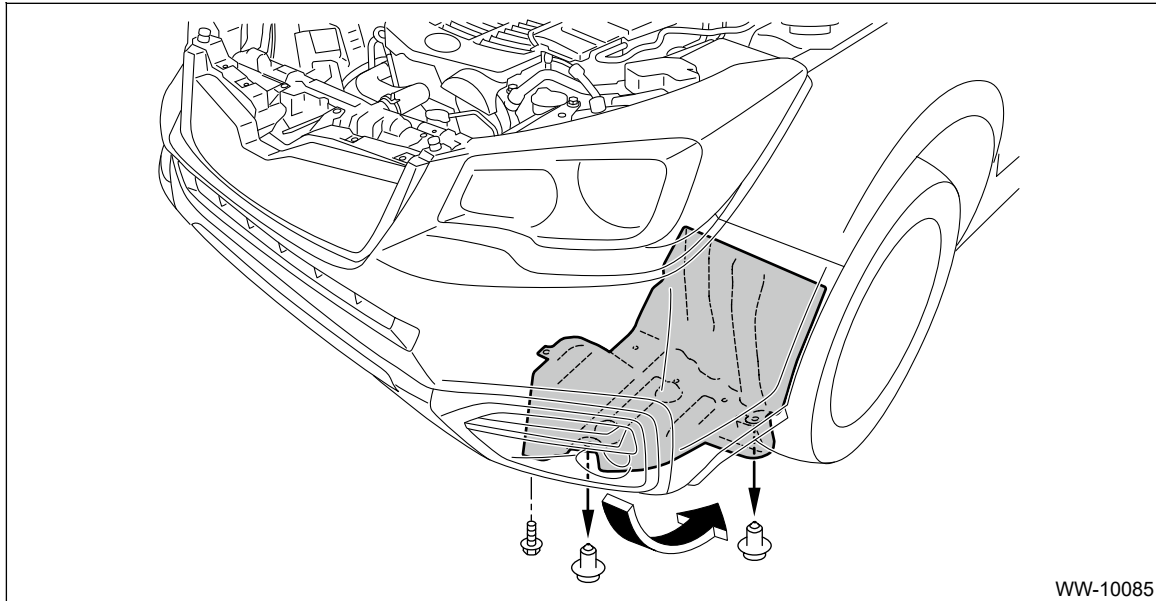
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

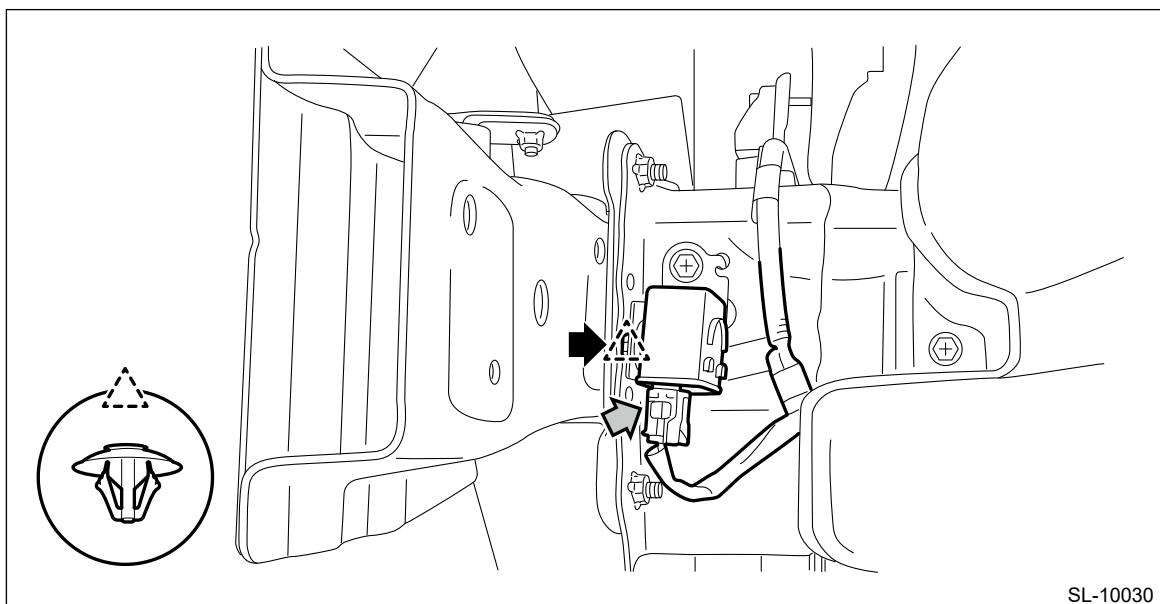
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Lift up the vehicle.
3. Remove the bolts and clips, and turn over the front side of the mud guard - front.



4. Remove the access buzzer.
 - (1) Disconnect the connector.
 - (2) Remove the clip and detach the access buzzer.



INSPECTION

1. ACCESS KEY BATTERY

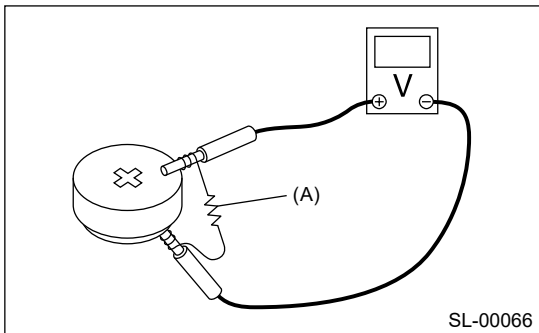
Check the access key battery voltage.

Preparation tool:

Circuit tester

Note:

Complete the measurement within 5 seconds because the battery discharges during measurement.



Battery terminal	Inspection conditions	Standard
(+) – (-)	Connect resistor (A) 47 Ω	2.5 – 3 V

Replace the battery if the inspection result is not within the standard value. (Use CR2032 V or equivalent.)

SECURITY AND LOCKS > Access Key

INSTALLATION

1. ACCESS KEY BATTERY

Install each part in the reverse order of removal.

REMOVAL

Note:

Refer to keyless transmitter for model without keyless access with push button start.

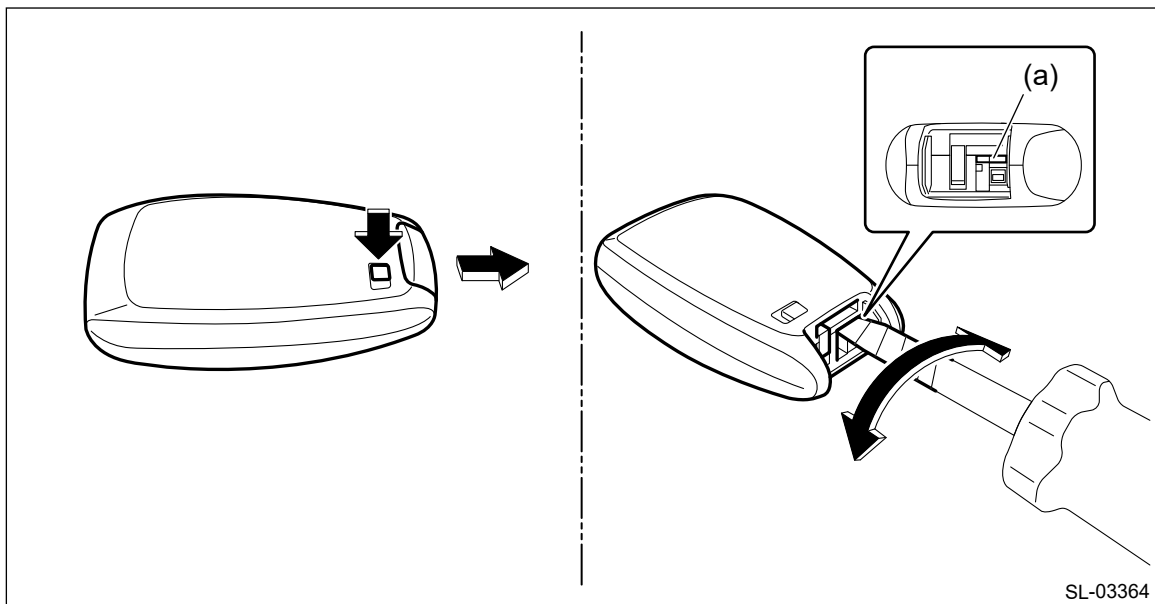
 Ref. to [SECURITY AND LOCKS>Keyless Transmitter>REMOVAL > KEYLESS TRANSMITTER BATTERY.](#)

1. ACCESS KEY BATTERY

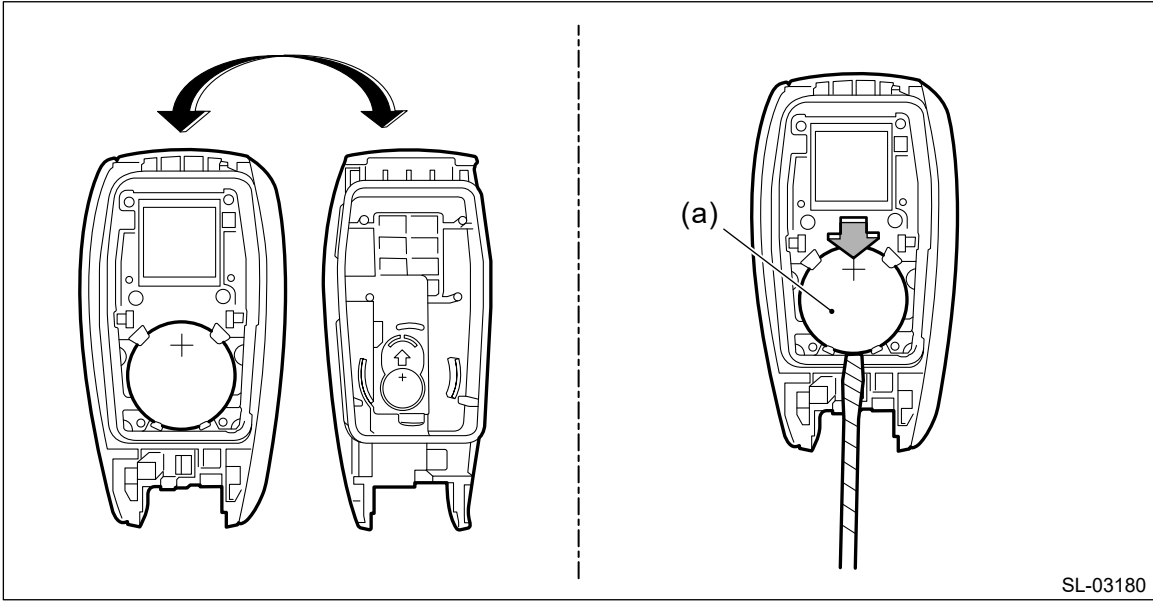
Caution:

To prevent static electricity damage to the access key printed circuit board, touch the steel area of building with hand to discharge static electricity carried on body or clothes before disassembling the access key.

1. Push the lock button and remove the mechanical key from the access key.
2. Insert a flat tip screwdriver end wrapped with insulating tape etc. into the slit (a) of the access key to open the case.



3. Insert a flat tip screwdriver wrapped with insulating tape, and while holding the upper side of the battery (a), remove the battery (a) from the case.



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REPLACEMENT

1. ACCESS KEY REGISTRATION

Note:


- A maximum of seven access keys can be registered for each individual vehicle.
- When replacing or adding an access key, new registration of the access key is necessary.
- When the access key has been newly added, it is registered to the immobilizer system at the same time.

2. CLEARING ACCESS KEY REGISTRATION

Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER" for clearing access key registration.

SECURITY AND LOCKS > Accessory Relay (Push Button Start)

INSPECTION


Refer to "CHECK RELAY" in "Relay and Fuse".  [Ref. to SECURITY AND LOCKS>Relay and Fuse>INSPECTION > CHECK RELAY.](#)

SECURITY AND LOCKS > Accessory Relay (Push Button Start)

INSTALLATION

Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)


1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Accessory Relay (Push Button Start)

REMOVAL



Caution:

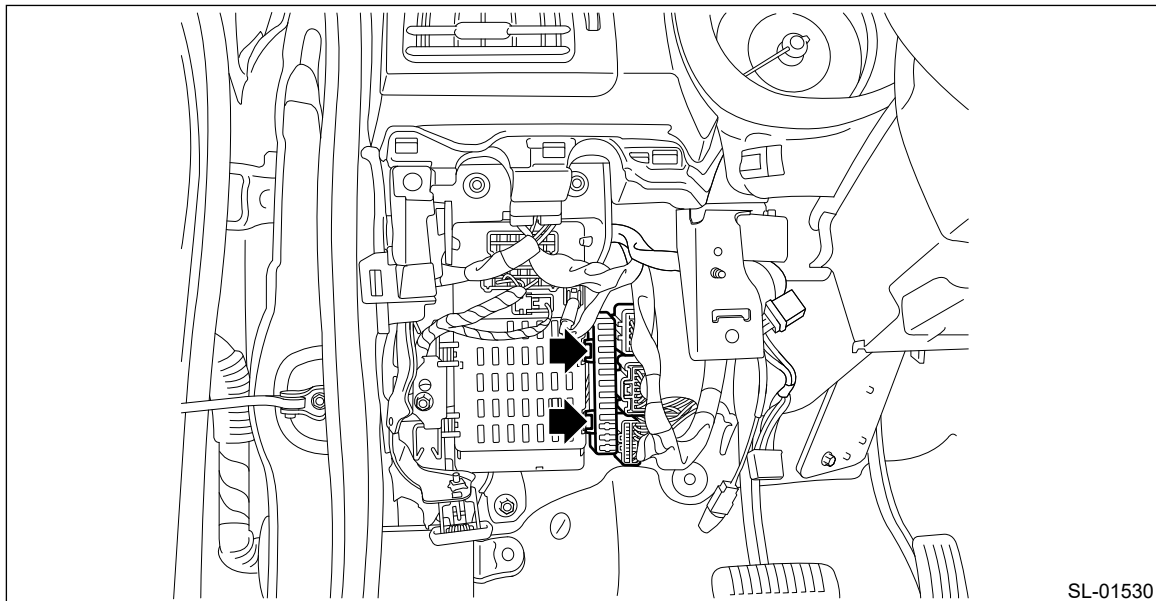
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

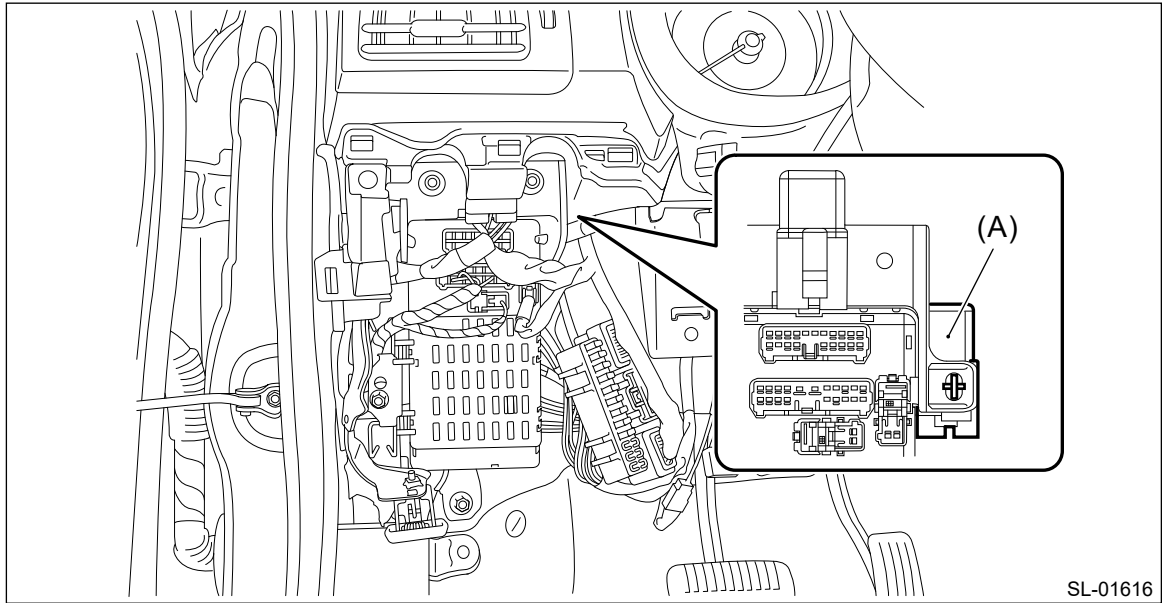
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Release the lock and remove the fuse holder.



5. Remove the accessory relay (push button start) (A) from the relay and fuse box.




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SECURITY AND LOCKS > Body Integrated Unit

INSTALLATION


Caution:

- When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type B" described in "REGISTRATION MANUAL FOR IMMOBILIZER".
- Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:



Relay & fuse box: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Body Integrated Unit


NOTE

1. REPLACE BODY INTEGRATED UNIT

1. Check and record the current setting.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Registration Body Integrated Unit>OPERATION > CONFIRM CURRENT SETTING.](#)
2. Prepare all immobilizer keys already registered. (Models without the keyless access with push button start)
3. Replace the body integrated unit with a new part.
4. Set the current settings as recorded.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Registration Body Integrated Unit>OPERATION > REGISTRATION BODY INTEGRATED UNIT \(FUNCTION SETTING\).](#)
5. Register the immobilizer. For detailed operation procedure, refer to "Type B" described in "REGISTRATION MANUAL FOR IMMOBILIZER".



SECURITY AND LOCKS > Body Integrated Unit

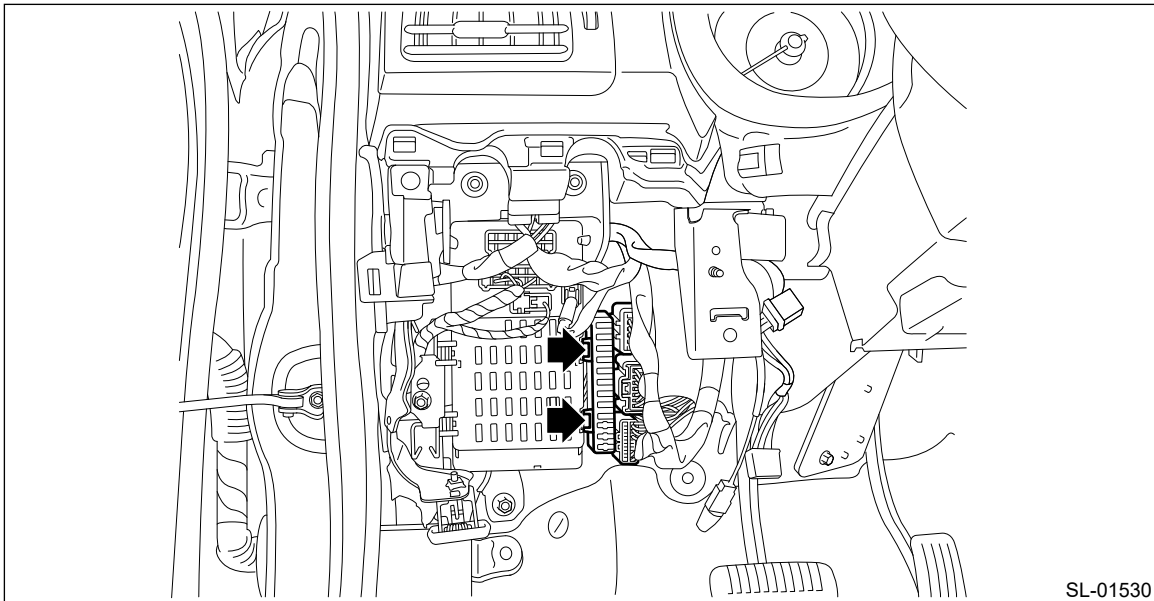
REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

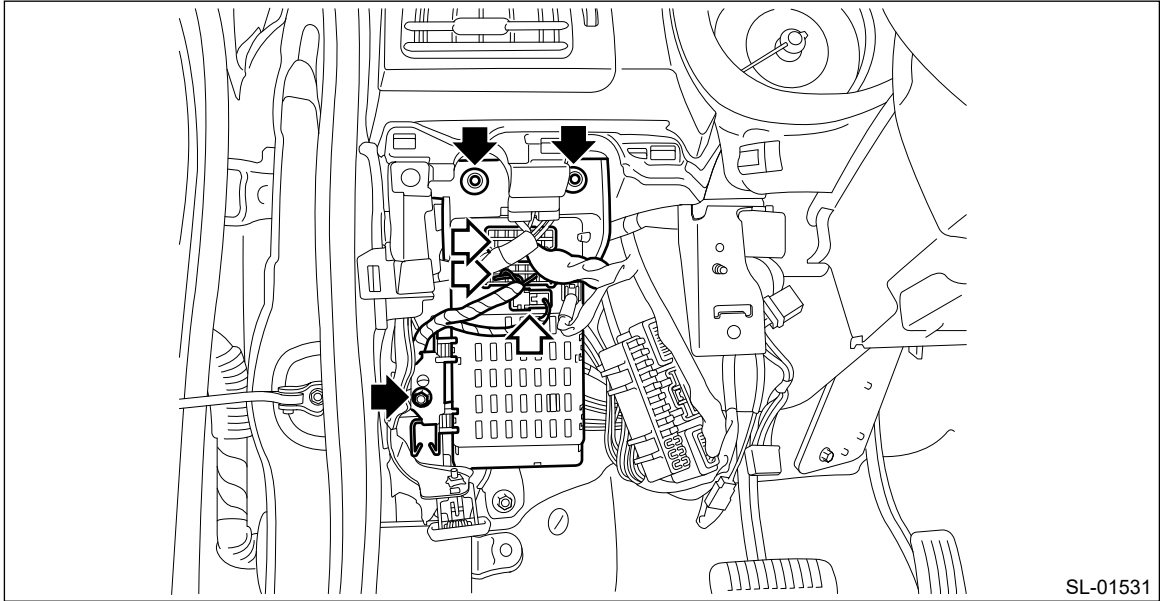
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Release the lock and remove the fuse holder.



5. Remove the relay & fuse box.
 - (1) Disconnect the connector.
 - (2) Remove the bolts and nuts, and remove the relay & fuse box.

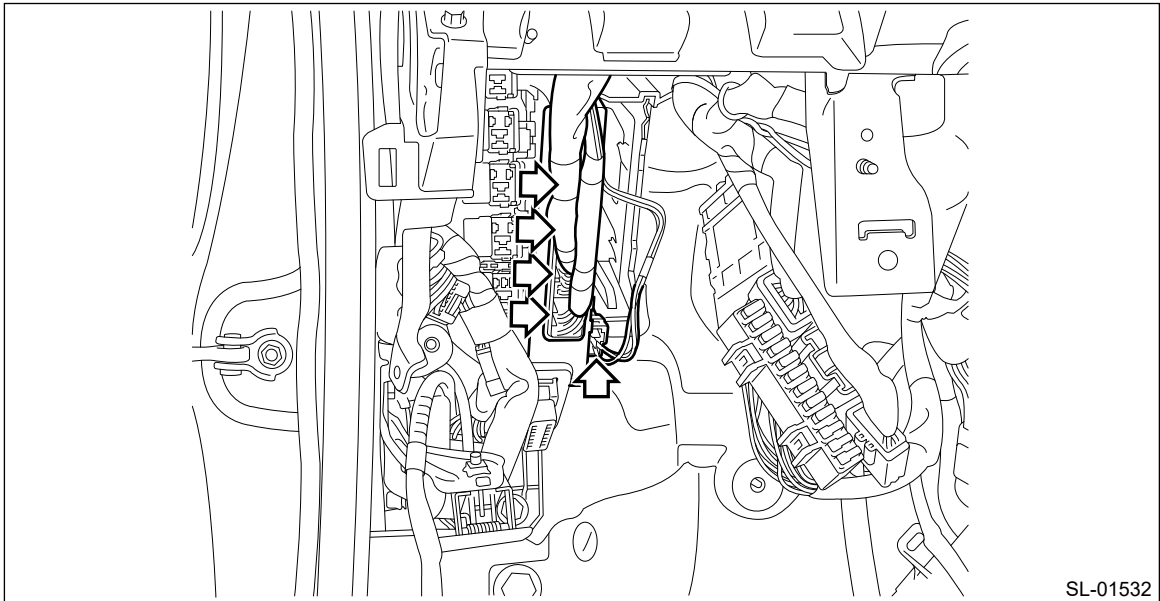


6. Remove the body integrated unit.

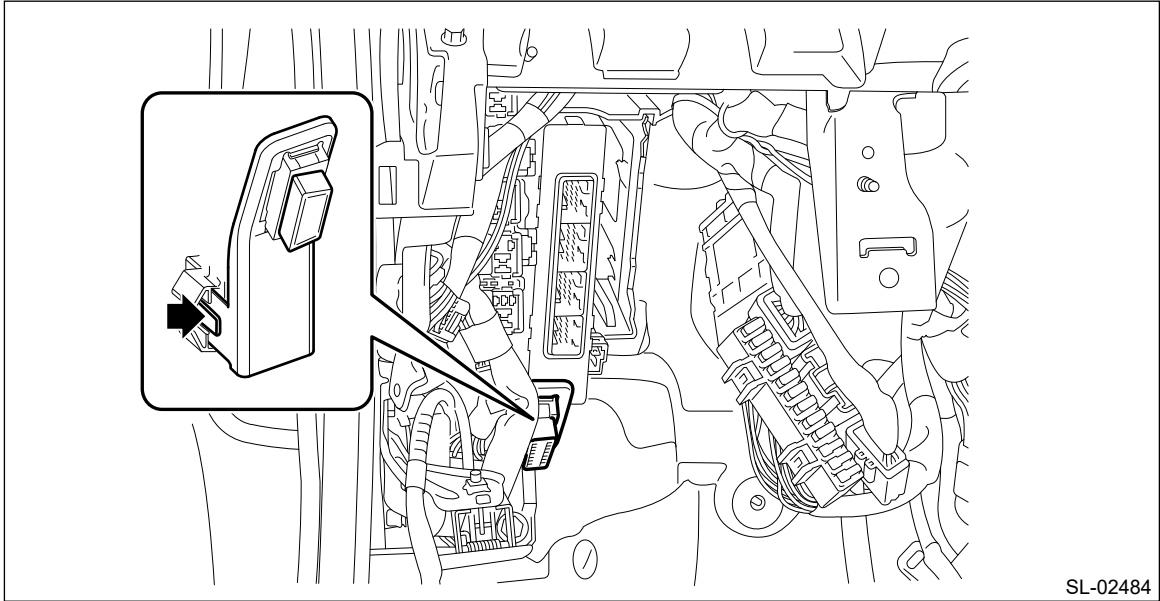
Caution:

Be careful to keep water and other foreign materials away from body integrated unit terminals.

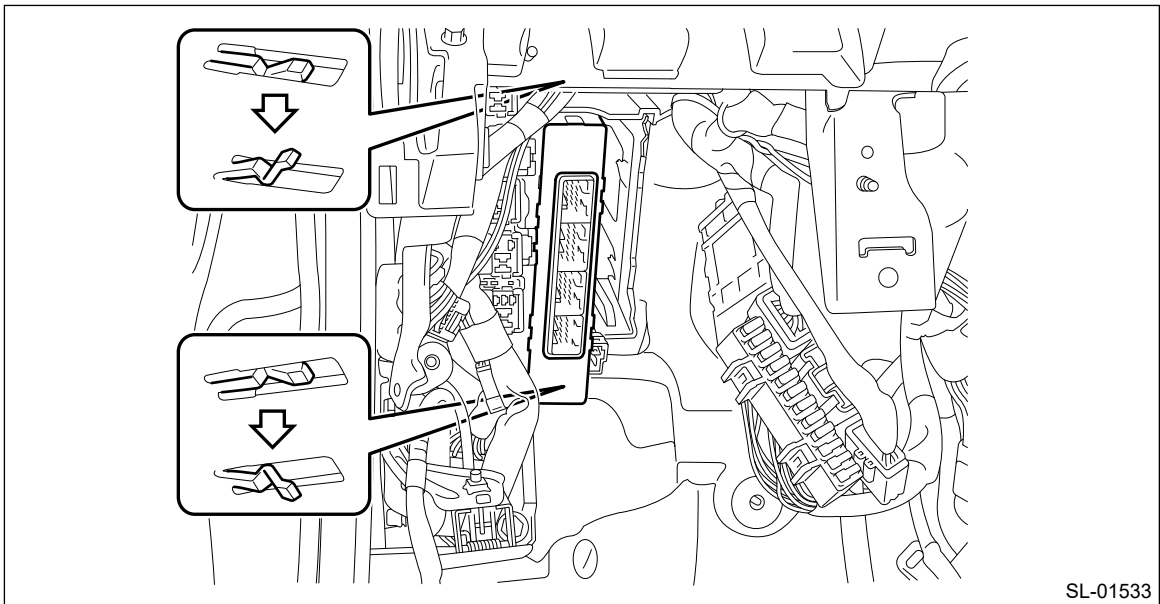
- (1) Disconnect the connector.



- (2) Release the lock, and remove the data link connector bracket from the bracket.




(3) Release the claws, and pull out the body integrated unit from the bracket.



SECURITY AND LOCKS > Door Lock Control System

ELECTRICAL SPECIFICATION







1. BODY INTEGRATED UNIT

Refer to "Control Module I/O Signal" of "BODY CONTROL SYSTEM (DIAGNOSTICS)" section. 
[Ref. to BODY CONTROL\(DIAGNOSTICS\)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)

SECURITY AND LOCKS > Door Lock Control System

INSPECTION

1. SYMPTOM CHART

Symptoms	Repair order	[Reference]
The door lock control system does not operate.	1. Remove and visually inspect the following fuses. <ul style="list-style-type: none"> No. 3 (in fuse & relay box) No. 7 (in fuse & relay box) No. 15 (in fuse & relay box) (model without keyless access with push button start) 	If the fuse is blown out, replace the fuse with a new part. When there is no defective with the fuse, check the power supply and ground circuit.  Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK POWER SUPPLY AND GROUND CIRCUIT.
	2. Check the power supply and ground circuit for body integrated unit.	 Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK POWER SUPPLY AND GROUND CIRCUIT.
	3. Check the door lock switch and the circuit.	 Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK SWITCH.
	4. Check the rear gate opener button and the circuit.	 Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK REAR GATE OPENER BUTTON CIRCUIT.
	5. Check the door lock actuator and the circuit.	 Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK ACTUATOR AND CIRCUIT.
A specific door lock actuator does not operate.	Check the door lock actuator and circuit.	 Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK ACTUATOR AND CIRCUIT.

2. CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK POWER SUPPLY.



1. Disconnect the connector of body integrated unit.
2. Measure the voltage between the body integrated unit connector and chassis ground.

Connector & terminal

- (i84) No. 6 (+) — Chassis ground (-):
- (i171) No. 1 (+) — Chassis ground (-):
- (B281) No. 7 (+) — Chassis ground (-): (K/L)

Is the voltage 9 V or more?

Yes

 [Go to 2.](#)

No

Check the harness for open or short circuit between body integrated unit and fuse.

2. CHECK GROUND CIRCUIT.



Measure the resistance between the body integrated unit connector and chassis ground.

Connector & terminal

- (i84) No. 1 — Chassis ground:
- (B280) No. 1 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

The power supply and ground circuit are OK.

No

Repair or replace the harness.

3. CHECK DOOR LOCK SWITCH

1. CHECK DATA MONITOR.



Using the Subaru Select Monitor, display the data of Manual lock SW input.

Note:

For detailed operation procedures, refer to "Application help".

Does the display switch between OFF \longleftrightarrow ON when each door lock switch is moved to LOCK?

Yes

 [Go to 2.](#)

 [Go to 3.](#)

No

2. CHECK DOOR LOCK SWITCH.

From the condition in step 1), operate each door lock switch (driver's and passenger's) in the UNLOCK direction.

Does the display switch between OFF ↔ ON?

Yes

The door lock switch is OK.

No

 [Go to 4.](#)

3. CHECK POWER WINDOW MAIN SWITCH (DOOR LOCK SWITCH).

1. Disconnect the power window main switch (door lock switch) connector.
2. Measure the continuity between terminals when moving the power window main switch (door lock switch) in LOCK direction.

Connector & terminal

Driver's seat

(D7) No. 3 — (D7) No. 1:

Passenger's seat


(D125) No. 4 — (D125) No. 5:

Did the indicator change from "No continuity" (1 MΩ or more) to "Continuity exists" (less than 10 Ω)?

Yes

 [Go to 4.](#)

No

Replace the power window main switch.  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.](#)

4. CHECK POWER WINDOW MAIN SWITCH (DOOR LOCK SWITCH).

Measure the continuity between terminals when moving the power window main switch (door lock switch) in UNLOCK direction.

Connector & terminal

Driver's seat

(D7) No. 9 — (D7) No. 1:

Passenger's seat


(D125) No. 2 — (D125) No. 5:

Did the indicator change from "No continuity" (1 M Ω or more) to "Continuity exists" (less than 10 Ω)?

Yes

 [Go to 5.](#)

No

Replace the power window main switch.  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.](#)

5. CHECK HARNESS.



Measure the resistance between the power window main switch (door lock switch) connector and chassis ground.

Connector & terminal

Driver's seat

(D7) No. 1 — Chassis ground:

Passenger's seat

(D125) No. 5 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

 [Go to 6.](#)

No

Repair or replace the harness.

6. CHECK HARNESS.



Check the harness between body integrated unit and power window switch (door lock switch).

Connector & terminal

Driver's seat

(D7) No. 3 — (i84) No. 9:

(D7) No. 9 — (i84) No. 20:

Passenger's seat

(D125) No. 4 — (i84) No. 9:

(D125) No. 2 — (i84) No. 20:

Is harness normal?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

4. CHECK REAR GATE OPENER BUTTON CIRCUIT

1. CHECK DATA MONITOR.

Using the Subaru Select Monitor, display the data of R Gate Release SW input.

Note:

For detailed operation procedures, refer to "Application help".

Does the display change to OFF ↔ ON, when the rear gate opener button is operated?

Yes

Rear gate opener button is normal.

No

 [Go to 2.](#)

2. CHECK HARNESS.

1. Disconnect the connectors of body integrated unit and rear gate opener button.
2. Check the harness between the body integrated unit and rear gate opener button.

Connector & terminal

Model with keyless access with push button start

(i84) No. 10 — (D77) No. 5:

Model without keyless access with push button start

(i84) No. 10 — (D47) No. 1:

Is harness normal?

Yes

 [Go to 3.](#)

No

Repair or replace the harness.

3. CHECK HARNESS.

Measure the resistance between the rear gate opener button connector and chassis ground.

Connector & terminal

Model with keyless access with push button start


(D77) No. 6 — Chassis ground:

Model without keyless access with push button start

(D47) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes

 [Go to 4.](#)

No

Repair or replace the harness.

4. CHECK REAR GATE OPENER BUTTON.

Measure the resistance between terminals both when the rear gate opener button is pressed and when not pressed.

Terminals

Model with keyless access with push button start

No. 5 — No. 6:

Model without keyless access with push button start

No. 1 — No. 2:

Is the resistance less than 10 Ω when the switch is pressed and 1 M Ω or more when not pressed?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Replace the rear gate opener button.

5. CHECK DOOR LOCK ACTUATOR AND CIRCUIT

1. CHECK HARNESS (DOOR LOCK).

1. Disconnect the body integrated unit and each door lock actuator connector.
2. Check the harness between body integrated unit and each door lock actuator.

Connector & terminal

Front door LH

(i171) No. 2 — (D72) No. 4:

Front door RH

(i171) No. 2 — (D18) No. 4:

Rear door LH

(i171) No. 2 — (D26) No. 4:

Rear door RH

(i171) No. 2 — (D32) No. 4:

Is harness normal?

Yes

 [Go to 2.](#)

No

Repair or replace the harness.

2. CHECK HARNESS (DOOR UNLOCK).



Check the harness between body integrated unit and each door lock actuator.

Connector & terminal

Front door LH

(i171) No. 4 — (D72) No. 1:

Front door RH

(i171) No. 3 — (D18) No. 1:

Rear door LH

(i171) No. 3 — (D26) No. 1:

Rear door RH

(i171) No. 3 — (D32) No. 1:

Is harness normal?

Yes

 [Go to 3.](#)

No

Repair or replace the harness.

3. CHECK HARNESS (REAR GATE UNLOCK).



Check the harness between the body integrated unit and rear gate lock actuator.

Connector & terminal

(i171) No. 7 — (D46) No. 1:

Is harness normal?

Yes

 [Go to 4.](#)

No

Repair or replace the harness.

4. CHECK HARNESS (REAR GATE UNLOCK).



Measure the resistance between the rear gate lock actuator connector and chassis ground.

Connector & terminal

(D46) No. 2 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

 [Go to 5.](#)

No

Repair or replace the harness.

5. CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.

1. Connect the body integrated unit connector.
2. Measure the voltage between terminals of the body integrated unit when operating the door lock switch to LOCK direction.

Connector & terminal

Except for front door LH


(i171) No. 2 (+) – (i171) No. 3 (–):

Front door LH


(i171) No. 2 (+) – (i171) No. 4 (–):

Does the voltage change from less than 1 V → 9 V or more? (During lock output)

Yes

 [Go to 6.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

6. CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.

Measure the voltage between terminals of the body integrated unit when operating the door lock switch to UNLOCK direction.

Connector & terminal

Except for front door LH

(i171) No. 3 (+) – (i171) No. 2 (–):

Front door LH

(i171) No. 4 (+) – (i171) No. 2 (–):

Does the voltage change from less than 1 V → 9 V or more? (During unlock output)

Yes

 [Go to 7.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

7. CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.


Measure the voltage between body integrated unit and chassis ground when operating the rear gate opener button.

Connector & terminal


(i171) No. 7 (+) – Chassis ground (–):

Does the voltage change from less than 1 V → 9 V or more? (During unlock output)

Yes



 [Go to 8.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)


8. CHECK DOOR LOCK ACTUATOR.

Check the door lock actuator.

- Front door lock actuator:  [Ref. to SECURITY AND LOCKS>Front Door Latch and Door Lock Actuator Assembly>INSPECTION.](#)
- Rear door lock actuator:  [Ref. to SECURITY AND LOCKS>Rear Door Latch and Door Lock Actuator Assembly>INSPECTION.](#)

Is the door lock actuator OK?


Yes

 [Go to 9.](#)

No

Replace the door latch and door lock actuator assembly.

9. CHECK REAR GATE LOCK ACTUATOR.

Check the rear gate lock actuator.  [Ref. to SECURITY AND LOCKS>Rear Gate Latch and Actuator Assembly>INSPECTION.](#)

Is the rear gate lock actuator normal?

Yes


Check the connection status of the harness and connector that may have a temporary poor contact.

No

Replace the rear gate latch and actuator assembly.

SECURITY AND LOCKS > Door Lock Control System

WIRING DIAGRAM

Refer to "Keyless Entry System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Keyless Entry System>WIRING DIAGRAM.](#)

SECURITY AND LOCKS > Front Door Latch and Door Lock Actuator Assembly

INSPECTION

1. LATCH

Check if the latch operates normally.

If the cable or rod is faulty, replace the latch & actuator assembly - front.

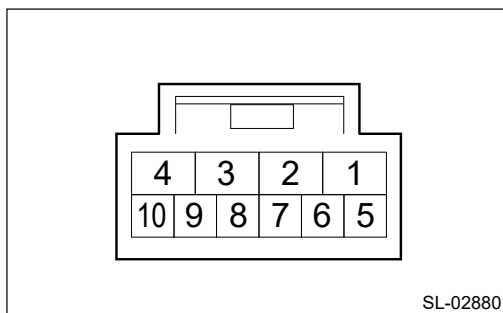
2. LOCK ACTUATOR

Preparation tool:

Circuit tester

1. Check door lock operation

Check the door lock operation when battery voltage is applied between the terminals of actuator.



Terminal No.	Inspection conditions	Specification
4 (+) – 1 (-)	Apply battery voltage.	LOCK
1 (+) – 4 (-)		UNLOCK

2. Check position switch

Check the resistance between actuator terminals.

Terminal No.	Inspection conditions	Standard
8 – 7	LOCK	1 M Ω or more
	UNLOCK	Less than 1 Ω

3. Replace the latch & actuator assembly - front if it is found defective.

SECURITY AND LOCKS > Front Door Latch and Door Lock Actuator Assembly

INSTALLATION

1. Before installation, check the following items.
 - Cable and rod are free from deformation.
 - Grease is applied sufficiently to rod joints.
 - If grease is insufficient, add it as necessary before assembling the rod.
 - If the rod is deformed, replace the latch & actuator assembly - front.
2. Install each part in the reverse order of removal.

Caution:

Do not reuse the screws of latch & actuator assembly - front. Always replace with a new part.


Tightening torque:

Door lock assembly:  [Ref. to SECURITY AND LOCKS>General Description>COMPONENT > DOOR LOCK ASSEMBLY.](#)

Sash COMPL - D3: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)


SECURITY AND LOCKS > Front Door Latch and Door Lock Actuator Assembly

REMOVAL

1. Raise the glass assembly - front door to the top position.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

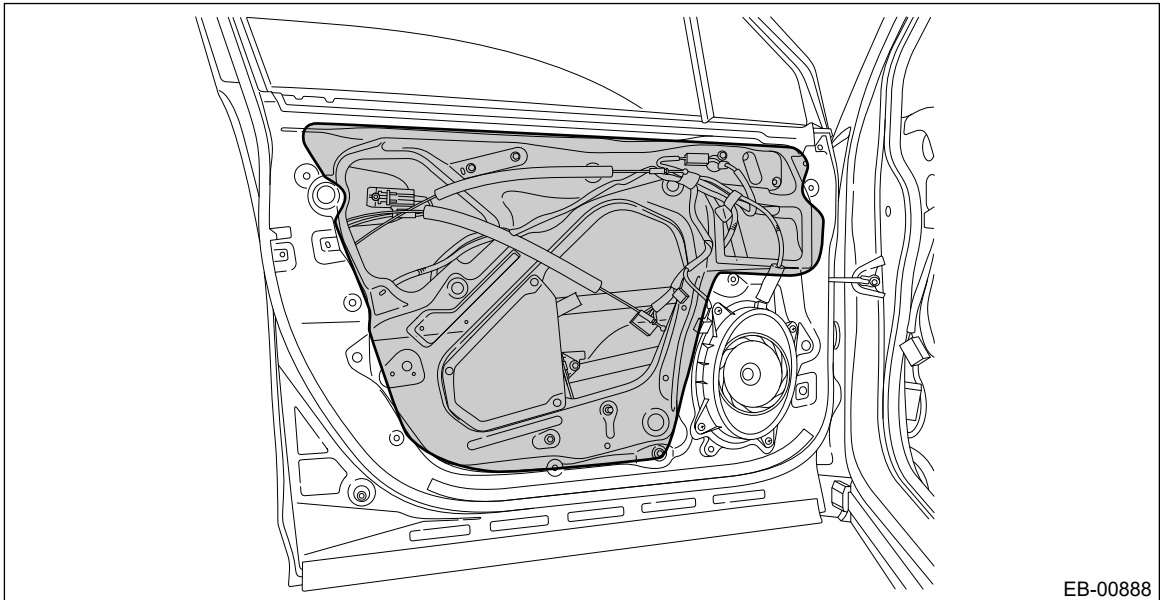
For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
4. Turn over the sealing cover - front door.

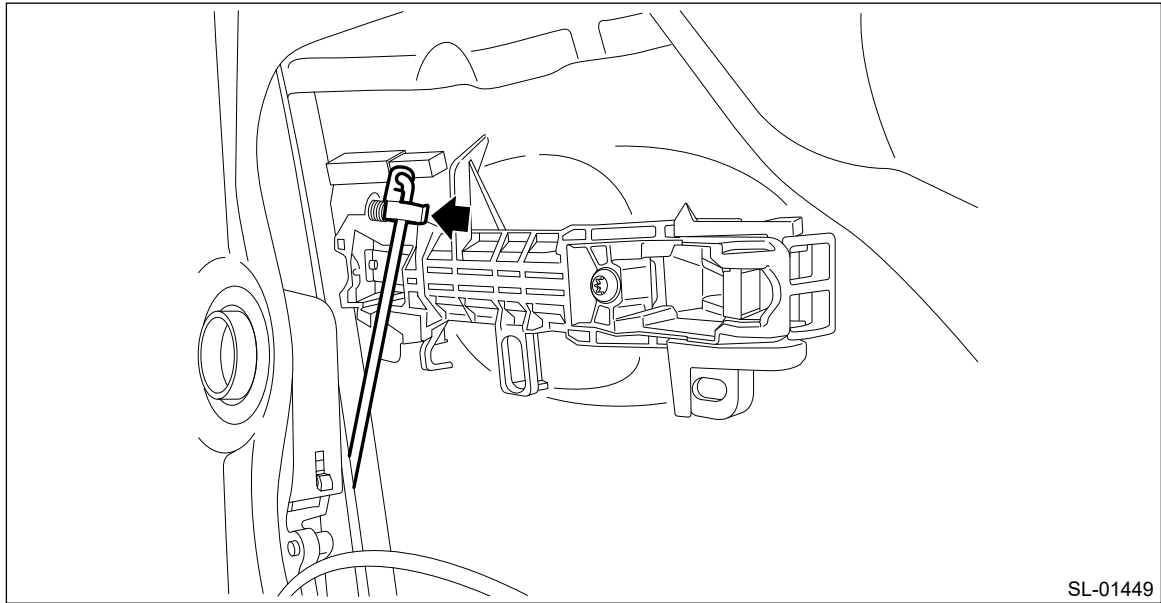
Caution:

- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - front door.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

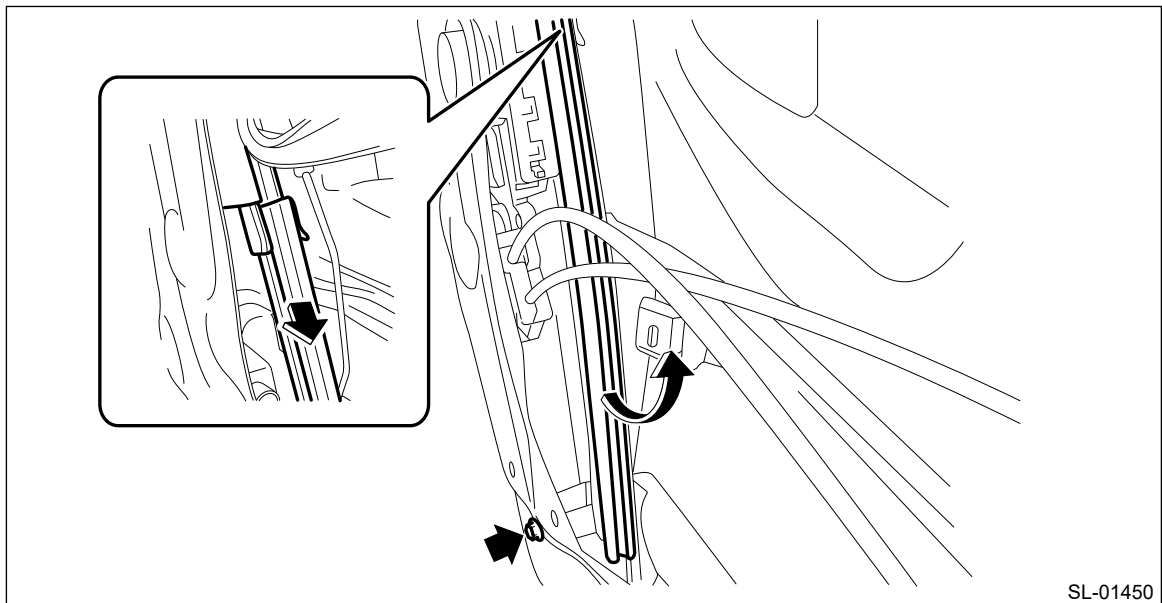
- (1) Disconnect connectors.
- (2) Carefully remove the butyl tape and turn over the sealing cover - front door within the area where the operation can be performed.



5. Remove the rod from the rod clamp of the frame assembly - front door outer.



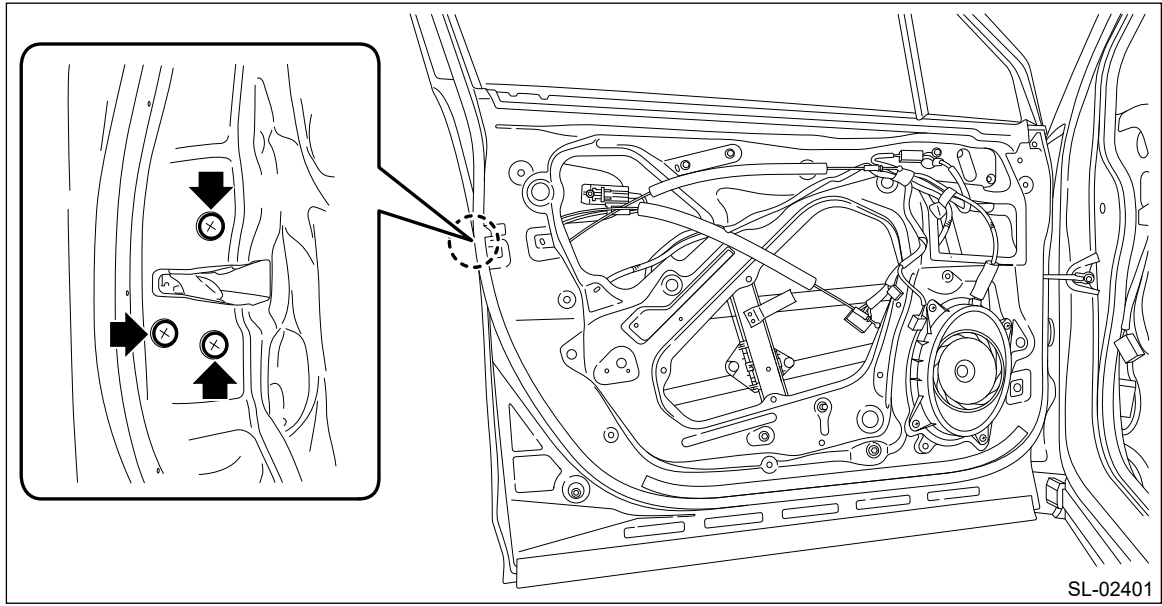
- 6.** Remove the sash COMPL - lower.
- (1) Remove the lower side of the running channel - front door.
 - (2) Remove the bolts, and remove the sash COMPL - lower.



- 7.** Remove the screws to remove the latch & actuator assembly - front.

Caution:

Do not re-use the screws. Always replace with a new part.

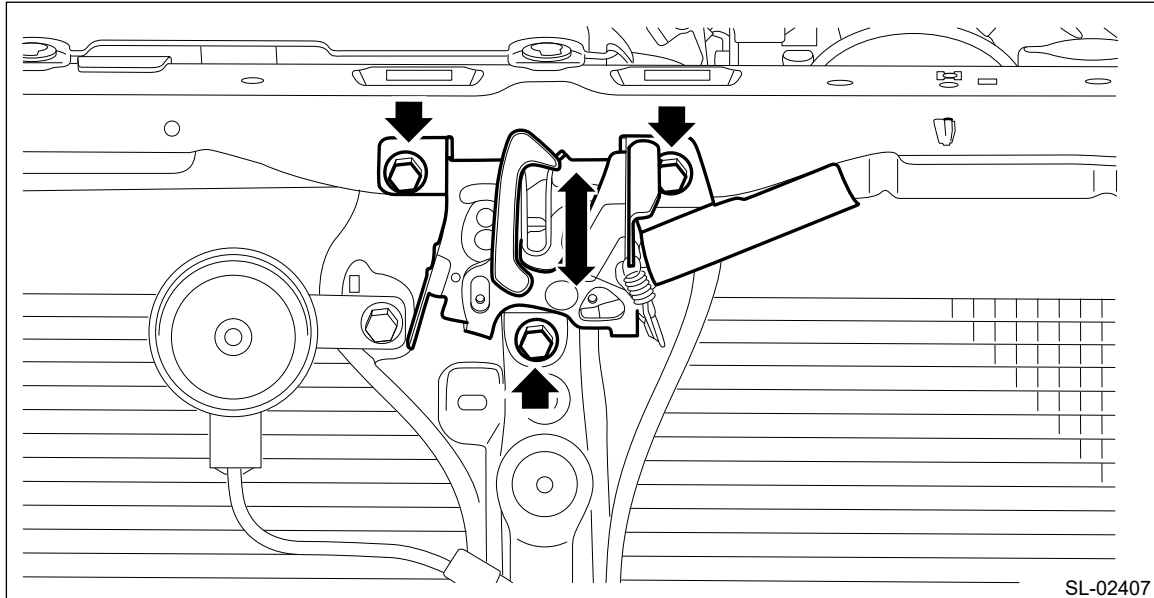


SL-02401

SECURITY AND LOCKS > Front Hood Lock Assembly

ADJUSTMENT

1. Loosen the bolt, and adjust the lock assembly - front hood while moving it up and down.



2. After adjustment, tighten the bolts securely.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to SECURITY AND LOCKS>General Description>COMPONENT > FRONT HOOD LOCK.](#)

SECURITY AND LOCKS > Front Hood Lock Assembly

INSPECTION

Check if the lock assembly operates normally.

If lever deformation, abnormal wear, or unsmooth lock operation is observed, replace the lock assembly - front hood.


SECURITY AND LOCKS > Front Hood Lock Assembly

INSTALLATION

1. Before installation, check the following items.
 - Is the cable deformed?
 - Grease is applied sufficiently to cable joints.
If grease is insufficient, add it as necessary before assembling the cable.
2. Install each part in the reverse order of removal.

Tightening torque:

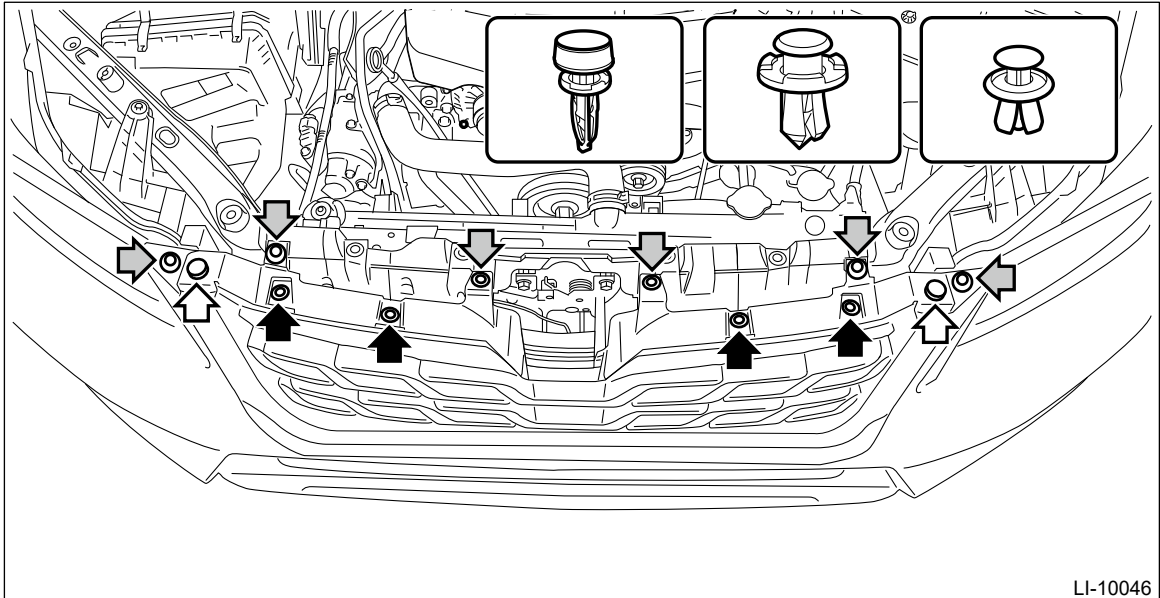
Refer to "COMPONENT" of "General Description".  [Ref. to SECURITY AND LOCKS>General Description>COMPONENT > FRONT HOOD LOCK.](#)

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Front Hood Lock Assembly

REMOVAL

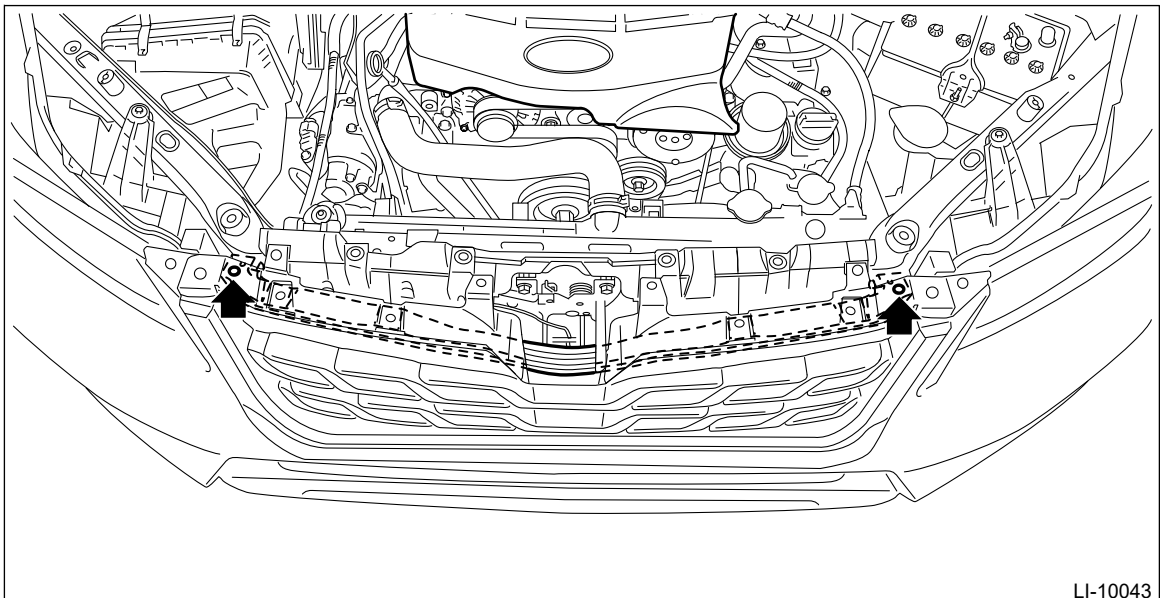
1. Open the front hood.
2. Remove the beam COMPL - front UPR.
 - (1) Remove each bumper clip.



- (2) Remove the bolts, and remove the beam COMPL - front UPR.

Caution:

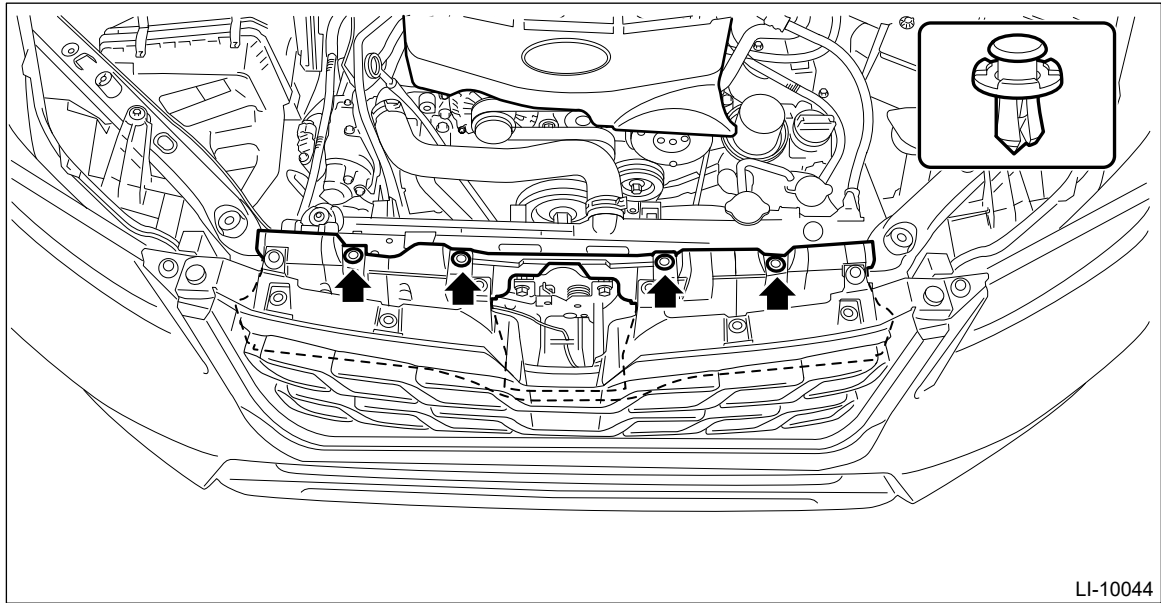
Be careful not to damage the front grille assembly, bracket - grille, etc.



3. Remove the clip, and remove the bracket - grille.

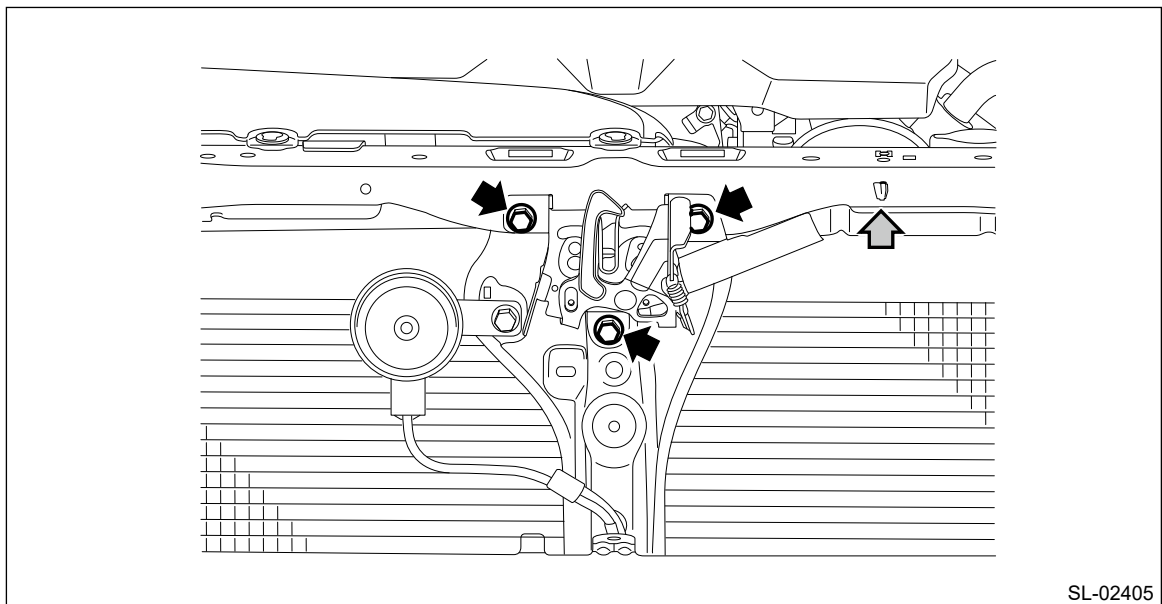
Caution:

- To prevent damage to the bracket - grille, make sure to remove all clips.
- Be careful not to damage the front grille assembly, etc.

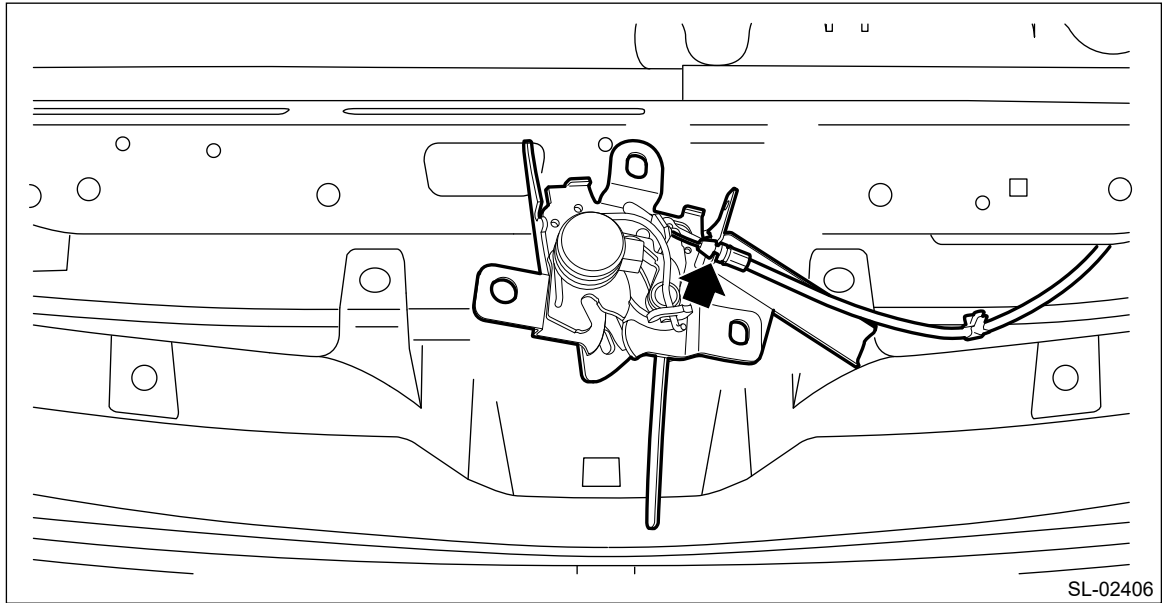


4. Remove the lock assembly - front hood.

(1) Remove the bolt and clip.



(2) Disconnect the release cable, and detach the lock assembly - front hood.



SL-02406

Note:

When disconnecting the release cable, refer to "FRONT HOOD OPENER" of "Remote Openers".  Ref. to SECURITY AND LOCKS>Remote Openers>REMOVAL > FRONT HOOD OPENER.

SECURITY AND LOCKS > Front Inner Remote

INSPECTION

Check if the remote handle operates normally.

- If the lever is faulty, replace the remote handle.
- If the cable is deformed, replace the latch & actuator assembly - front.

SECURITY AND LOCKS > Front Inner Remote


INSTALLATION

1. Before installation, check the following items.
 - Cable is free from deformation such as fray.
 - Grease is applied sufficiently to cable joints.
 - If grease is insufficient, add it as necessary before assembling the cable.
 - If the lever is faulty, replace the front inner remote handle.

2. Install each part in the reverse order of removal.


Caution:

Securely install the plate.

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


SECURITY AND LOCKS > Front Inner Remote

REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

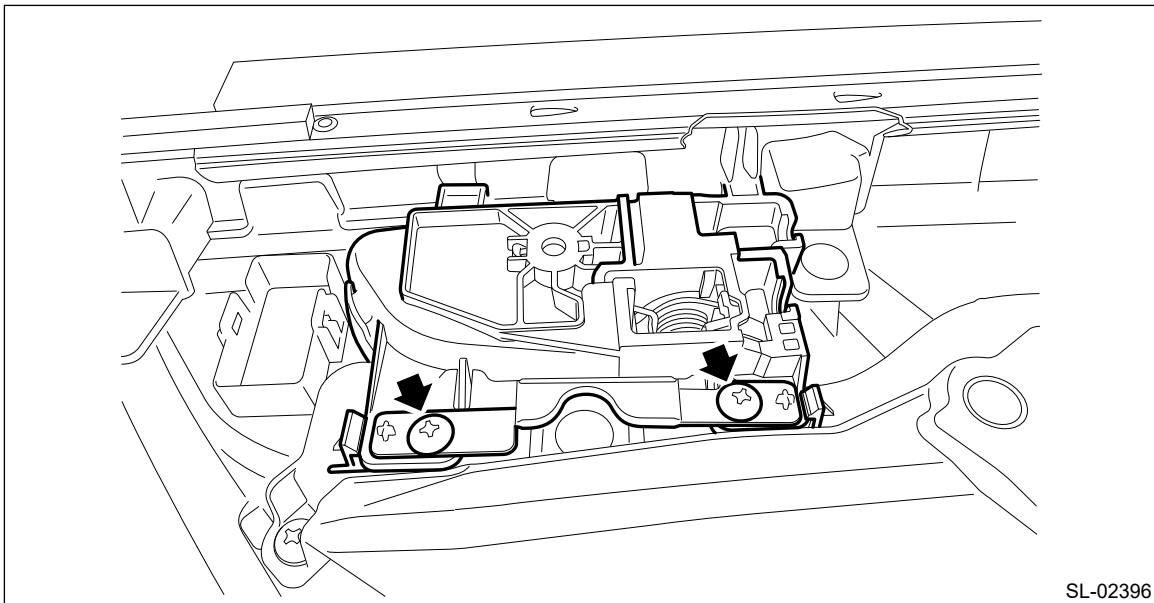
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Remove the screw, and remove the remote assembly - door.

Caution:

The remote assembly - door is tightened with the plate. Be careful not to drop or damage the part.



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SECURITY AND LOCKS > Front Outer Handle

INSPECTION

Check if the outer handle operates normally.

- If the lever is faulty, replace the handle - door outer.
- If the rod is deformed, replace the latch & actuator assembly - front.


SECURITY AND LOCKS > Front Outer Handle


INSTALLATION

1. Before installation, check the following items.
 - Rod is free from deformation.
 - Grease is applied sufficiently to rod joints.
 - If grease is insufficient, add it as necessary before assembling the rod.
 - If the rod is deformed, replace the latch & actuator assembly - front.

2. Install each part in the reverse order of removal.


Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to SECURITY AND LOCKS>General Description>COMPONENT > DOOR LOCK ASSEMBLY.](#)

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


SECURITY AND LOCKS > Front Outer Handle

REMOVAL

1. Raise the glass assembly - front door to the top position.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

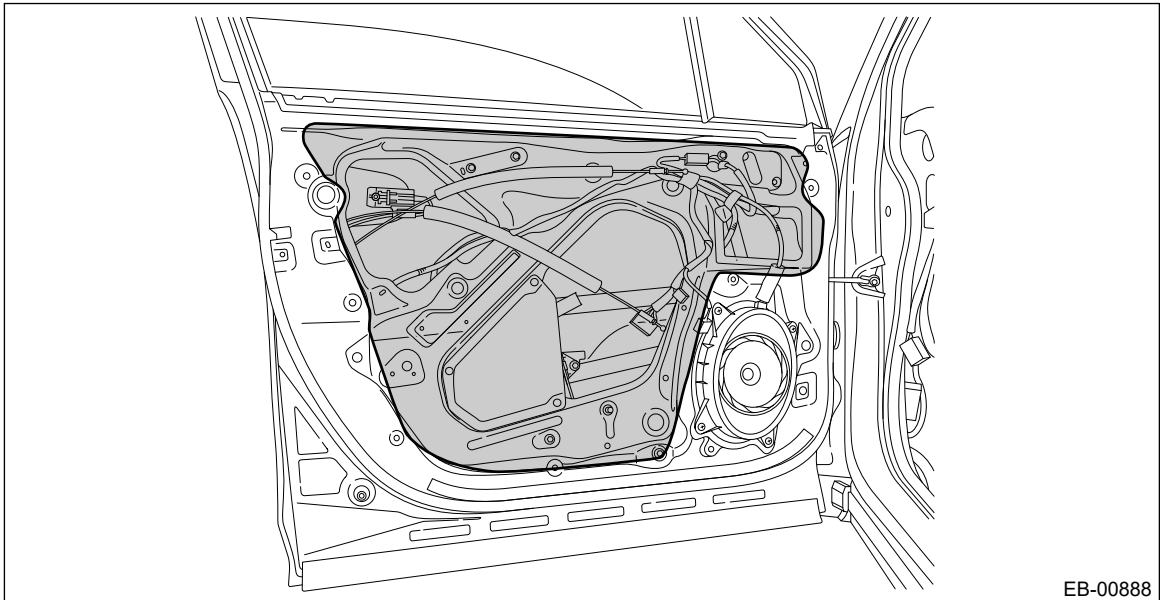
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
4. Turn over the sealing cover - front door.

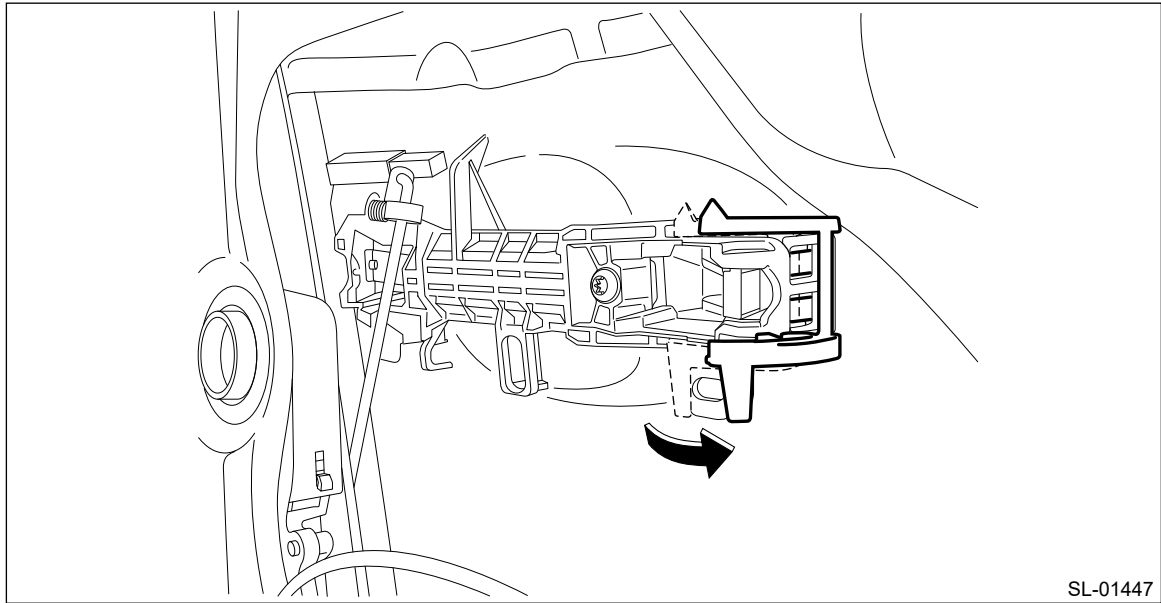
Caution:

- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - front door.**
 - **If the sealing cover - front door gets broken, replace it with a new part.**
 - **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**
- (1) Disconnect connectors.
 - (2) Carefully remove the butyl tape and turn over the sealing cover - front door within the area where the operation can be performed.



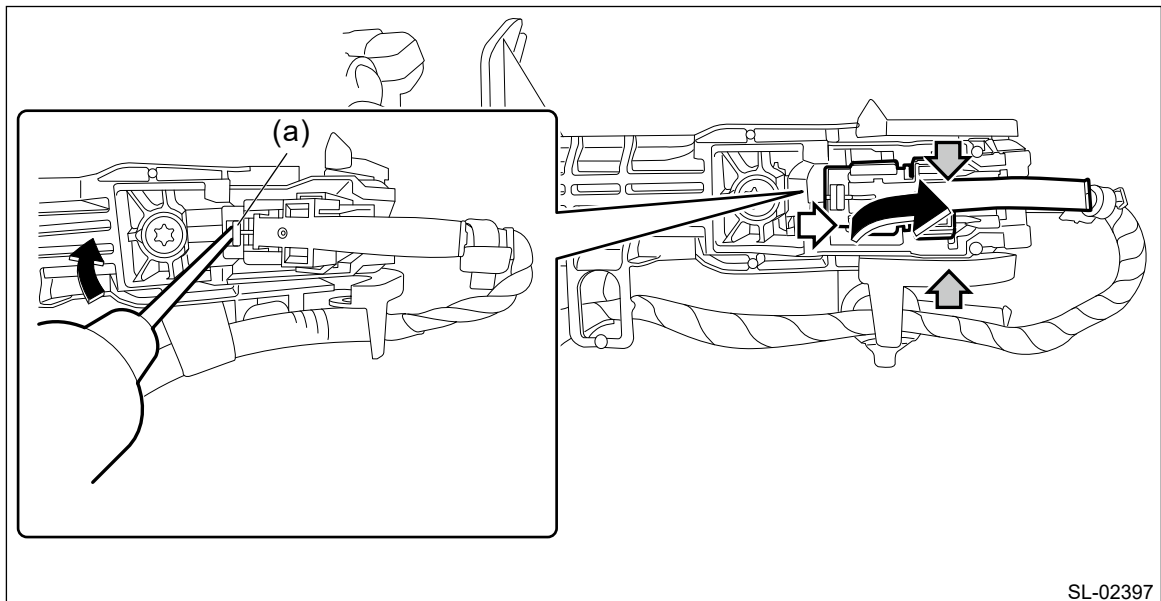
EB-00888

5. Remove the holder of the frame assembly - front door outer.



Note:

- For model with keyless access with push button start, disconnect the harness clip and exterior antenna (touch sensor) connector.
- Using (a) shown in the figure as a supporting point, pry it with a flat tip screwdriver to remove.

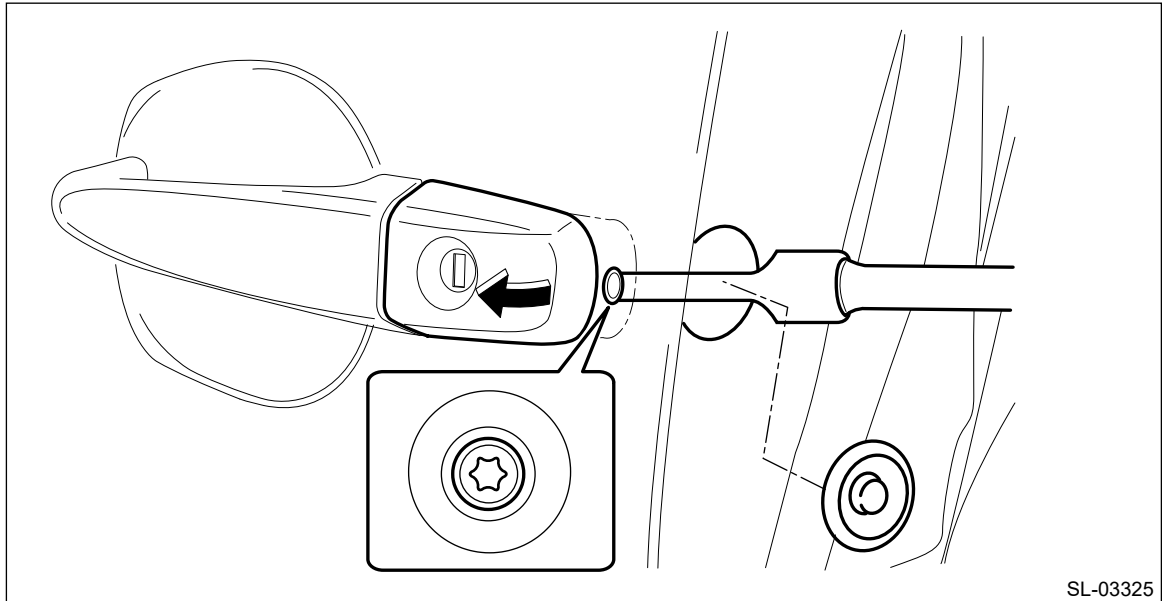


6. Remove the cover - handle front outer.

Preparation tool:

TORX® T30

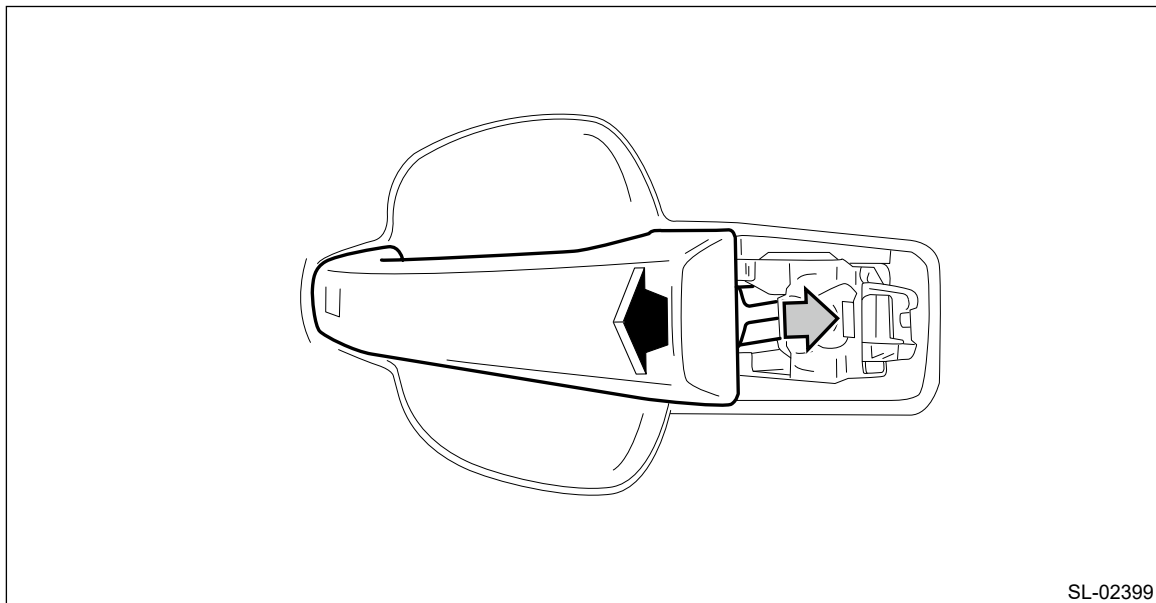
- (1) Remove the plug at the rear end of the panel assembly - front door.
- (2) Loosen the TORX® bolt and remove the cover - handle front outer.



7. Remove the handle - door outer by moving it rearward.

Caution:

Do not apply excessive force to remove the handle - door outer from the panel assembly - front door. The panel assembly - front door may be deformed.

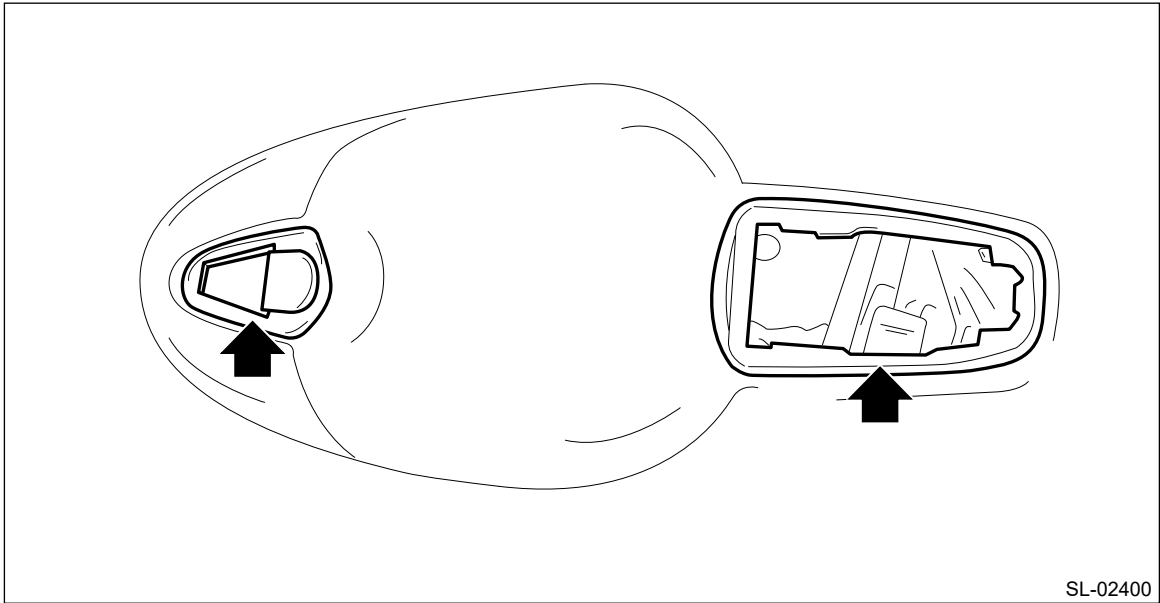


8. Remove the frame assembly - front door outer.

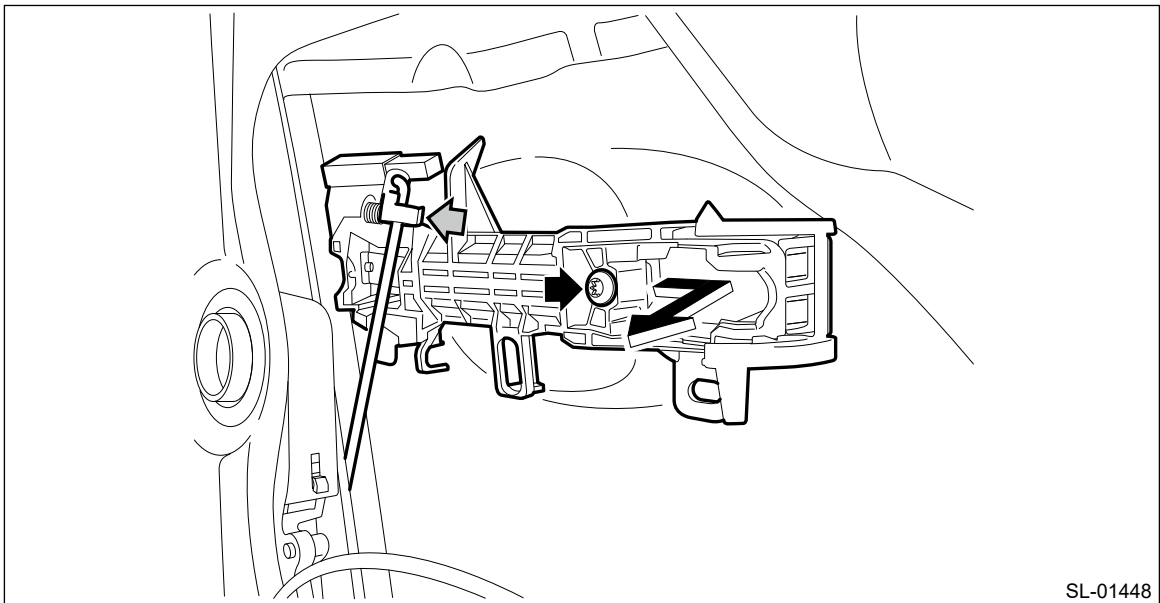
Preparation tool:

TORX® T30

- (1) Remove the spacer - door handle outer.



- (2) Remove the rod from the rod clamp of the frame assembly - front door outer.
- (3) Loosen the TORX® bolt and remove the frame assembly - front door outer from inside the panel assembly - front door.



SECURITY AND LOCKS > Function Setting (Customize)

OPERATION

Disabling/Activating the keyless access system

The following functions are disabled when the keyless access system functions are disabled:

- LOCK function performed by the operation of touch sensor on the door outer handle
- Rear gate LOCK function by rear lock button operation
- UNLOCK function by holding the door handle
- Rear gate open function by rear gate opener button operation in the rear gate lock condition
- Lockout prevention feature
- Warning function
- Engine starting control using keyless access collation

PROCEDURE

1. STOPPING KEYLESS ACCESS SYSTEM FUNCTION BY DOOR OPEN/CLOSE PROCEDURE

- 1.** Check that the vehicle status is as follows:
 - Ignition switch OFF
 - One window is completely open
 - Keyless access system is activated (or disabled if re-activating)
- 2.** Sit in the driver's seat with the door closed and press the door lock switch to UNLOCK once.
- 3.** Open the driver's door within five seconds.
- 4.** Within 5 seconds, with the driver's door opened, slowly press the door lock switch to UNLOCK twice.
- 5.** Within 10 seconds after finishing step 4), perform the closing → opening operation of the driver's door twice.
- 6.** Within 10 seconds after finishing step 5), with the driver's door opened, slowly press the door lock switch to UNLOCK twice.
- 7.** Within 10 seconds after finishing step 6), perform the closing → opening operation of the driver's door once.
- 8.** Within 5 seconds after finishing step 7, close the driver's door.

Note:

- **Perform the same procedures to re-activate the keyless access system from the disabled condition.**
- **On step 4) and step 6), be sure to press the door lock switch. If pressing interval of the switch is short, the function may not stop.**

2. STOPPING KEYLESS ACCESS SYSTEM FUNCTION BY USING ACCESS KEY

- 1.** Open the driver's door, and then push the door lock knob forward (LOCK direction).
- 2.** Press the lock button of access key and trunk/rear gate button simultaneously for five seconds or more.
- 3.** The buzzer sounds for two seconds, and the function stops.

Note:

- **For stopping the keyless access system function by using access key, it is necessary to ask the customer to register the secret code of the secret code keyless entry. (Refer to owner's manual for details.)**
- **Perform the same procedures to re-activate the keyless access system from the disabled condition.**

SECURITY AND LOCKS > General Description

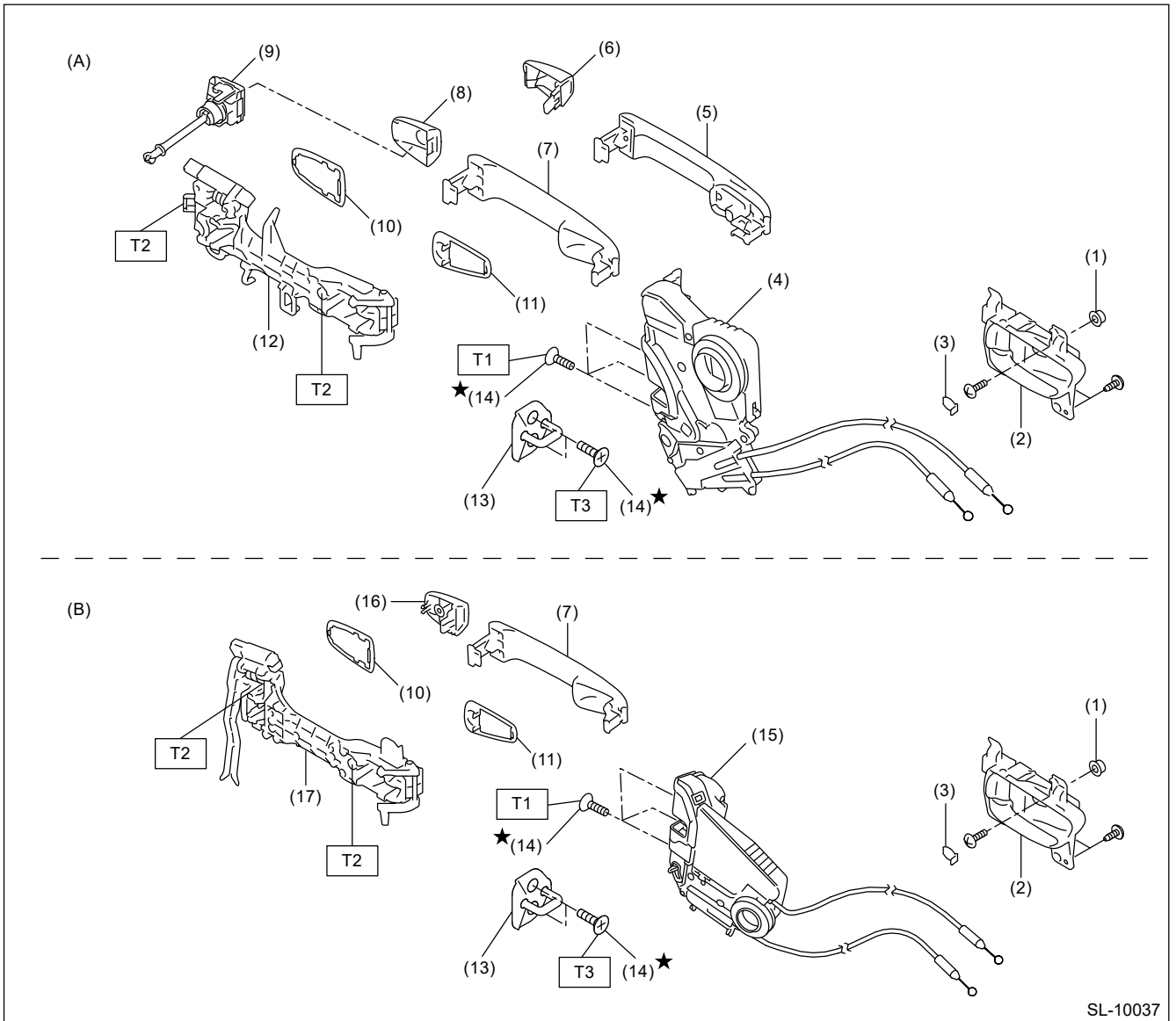
CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that the each component operates normally.
- If any immobilizer related part has been replaced, make sure to register the immobilizer.
- Be careful of the following items. Failing to do so may cause the airbag system malfunction.
 - Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. When using a tester on these circuits, follow the cautions of "AIRBAG SYSTEM". [🔍 Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
 - Be careful not to damage the airbag system wiring harness when servicing the electrical parts around the steering column.
- Be careful not to damage the airbag system wiring harness when servicing the ignition key cylinder.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC. [🔍 Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.](#)

SECURITY AND LOCKS > General Description

COMPONENT

1. DOOR LOCK ASSEMBLY



(A) Front

(B) Rear

(1) Grommet - screw

(8) Cover - handle front outer
(15) Latch & actuator ASSY - rear
(driver's seat)

(16) Cover - handle rear outer

(2) Remote ASSY - door

(9) Key lock - door (driver's seat
only)

(17) Frame ASSY - rear door outer

(3) Cap remote

(10) Spacer - door handle outer B

(11) Spacer - door handle outer A

(4) Latch & actuator ASSY - front

(12) Frame ASSY - front door outer

**Tightening torque: N·m (kgf·m,
ft·lb)**

(5) Handle - door outer (model
with keyless access with push

(13) Torque callout T3

T1: 6.5 (0.7, 4.8)

button start)

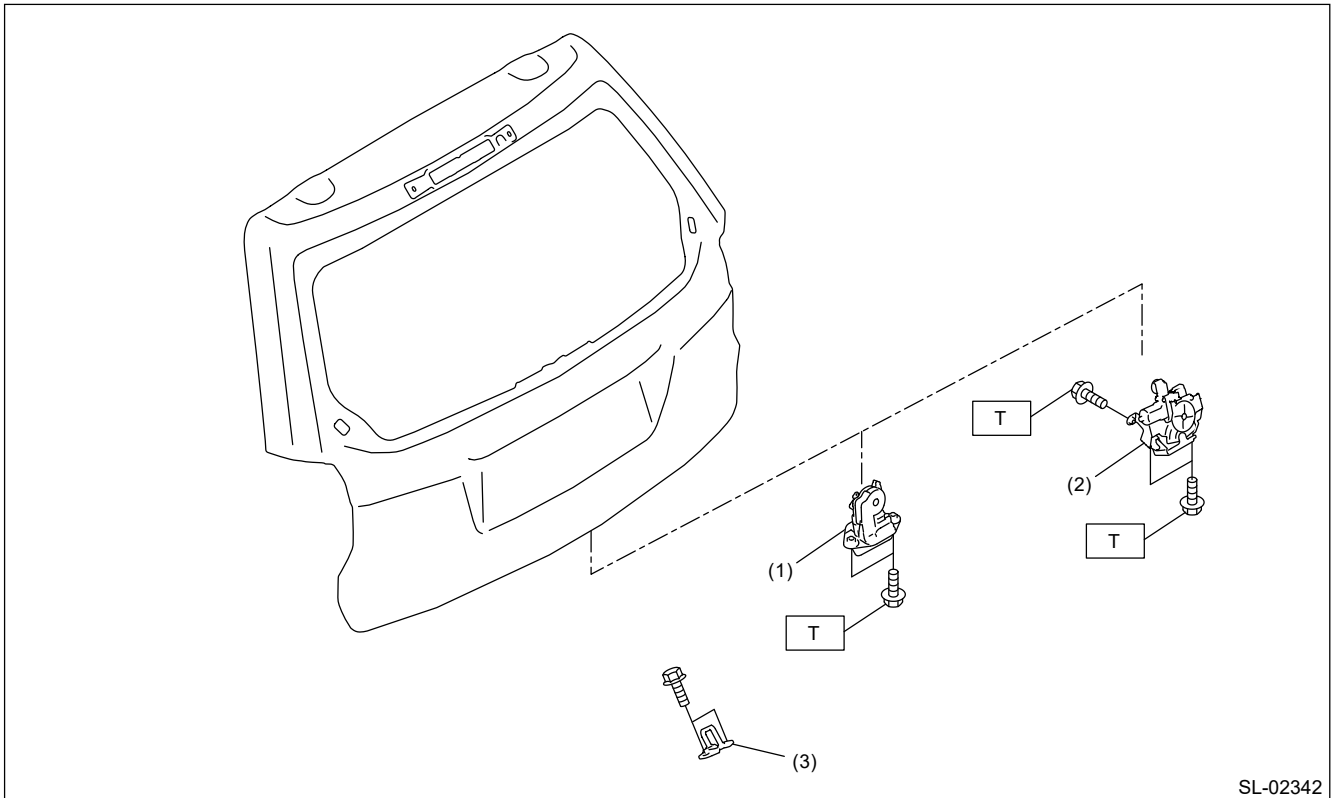
(6) Cover - handle front outer (passenger's seat) (13) Striker - door

T2: 7.5 (0.8, 5.5)

(7) Handle - door outer (model without keyless access with push button start) (14) Screw

T3: 18 (1.8, 13.3)

2. REAR GATE LOCK



SL-02342

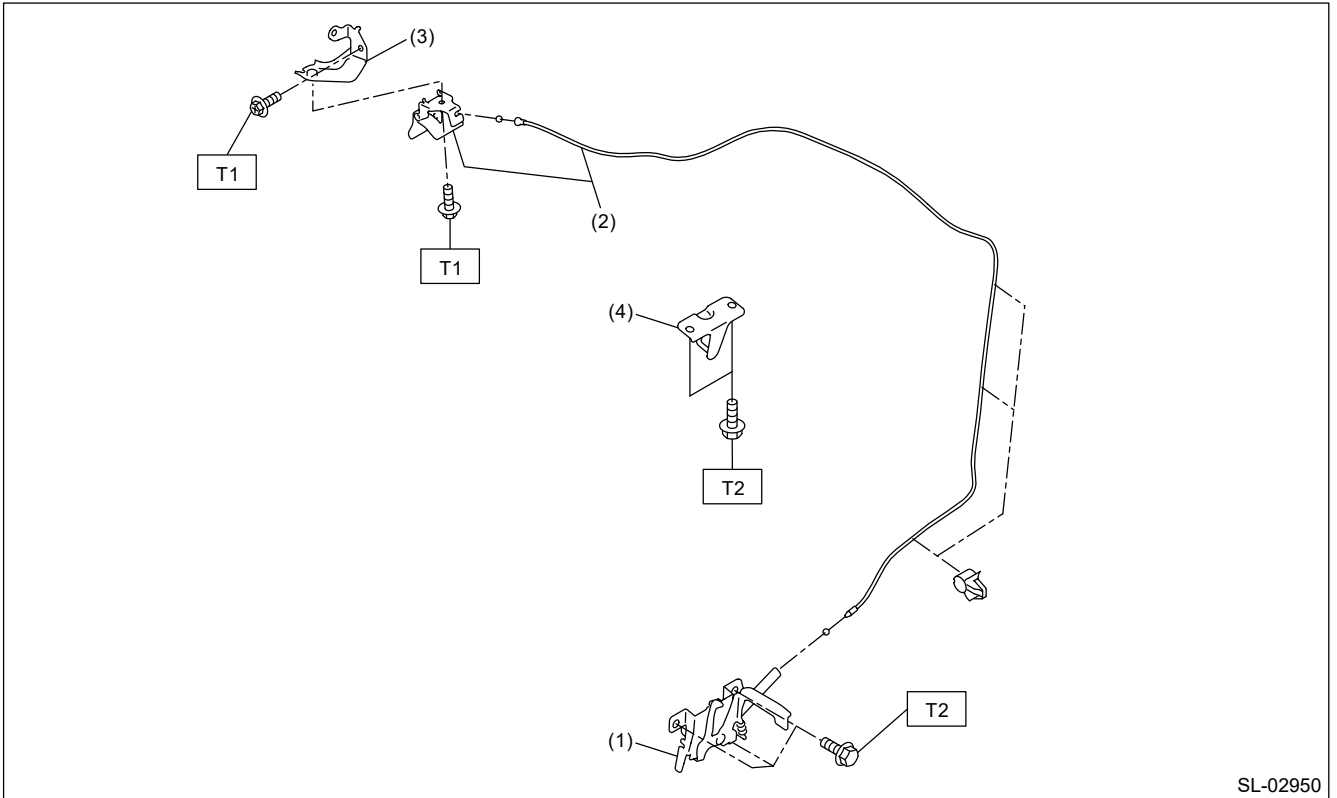
(1) Latch & actuator - rear gate (3) Striker - rear gate

Tightening torque: N·m (kgf·m, ft·lb)

(2) Power rear gate auto closer

T: 25 (2.55, 18.4)

3. FRONT HOOD LOCK



SL-02950

(1) Lock ASSY - front hood

(3) Bracket - opener handle

Tightening torque: N·m (kgf-m, ft-lb)

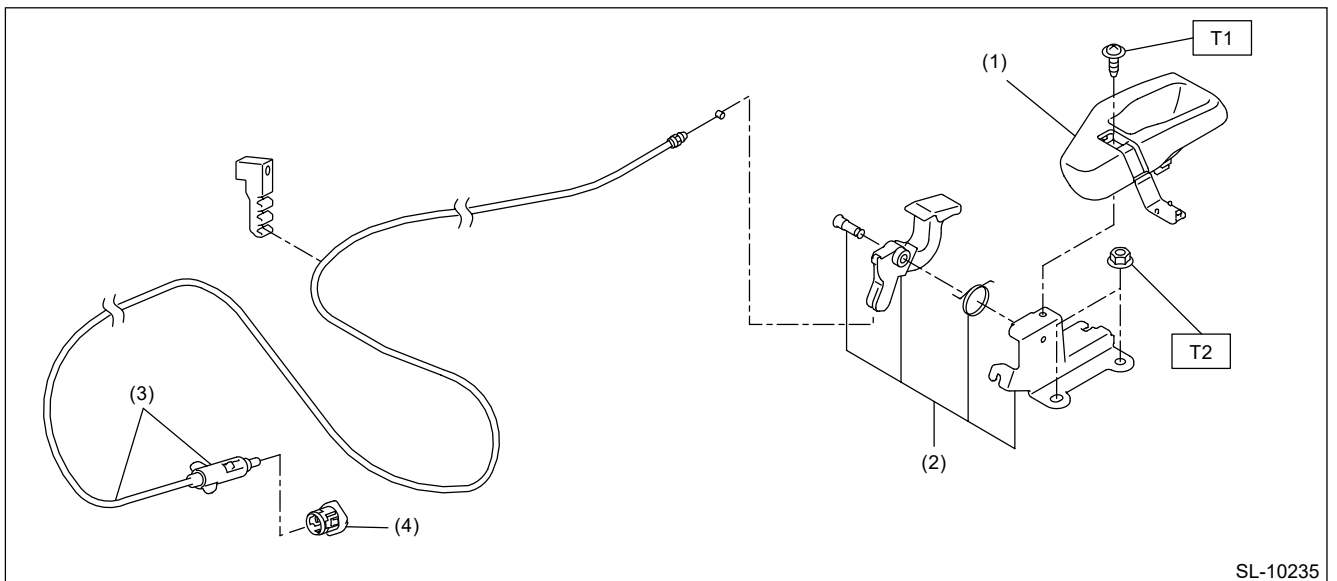
(2) Cable - front hood

(4) Striker - front hood

T1: 7.5 (0.76, 5.5)

T2: 33 (3.36, 24.3)

4. FUEL FLAP OPENER



SL-10235

(1) Cover - handle

(3) Cable ASSY - fuel

Tightening torque: N·m (kgf-m, ft-lb)

(2) Pull handle - opener

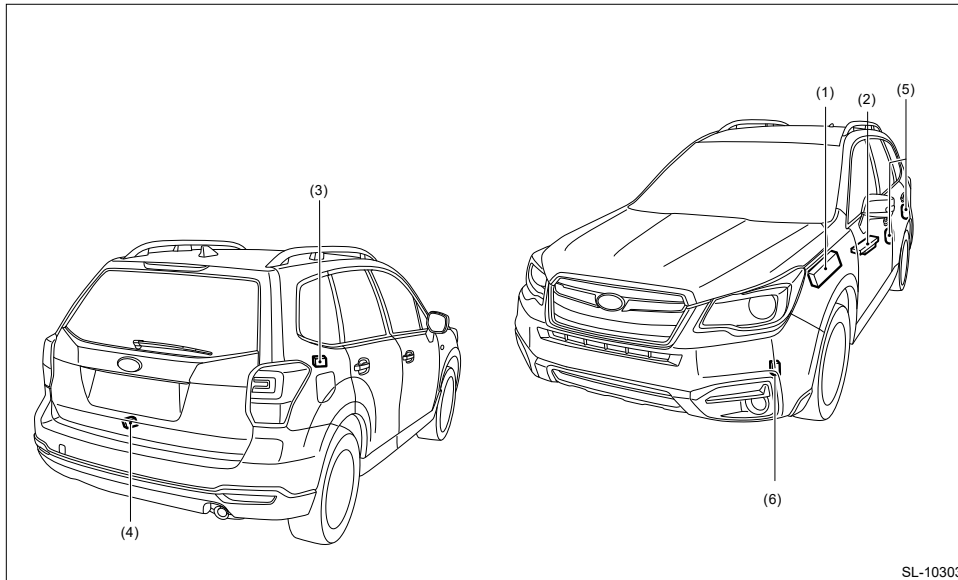
(4) Holder

T1: 4.5 (0.45, 3.3)

5. KEYLESS ENTRY SYSTEM

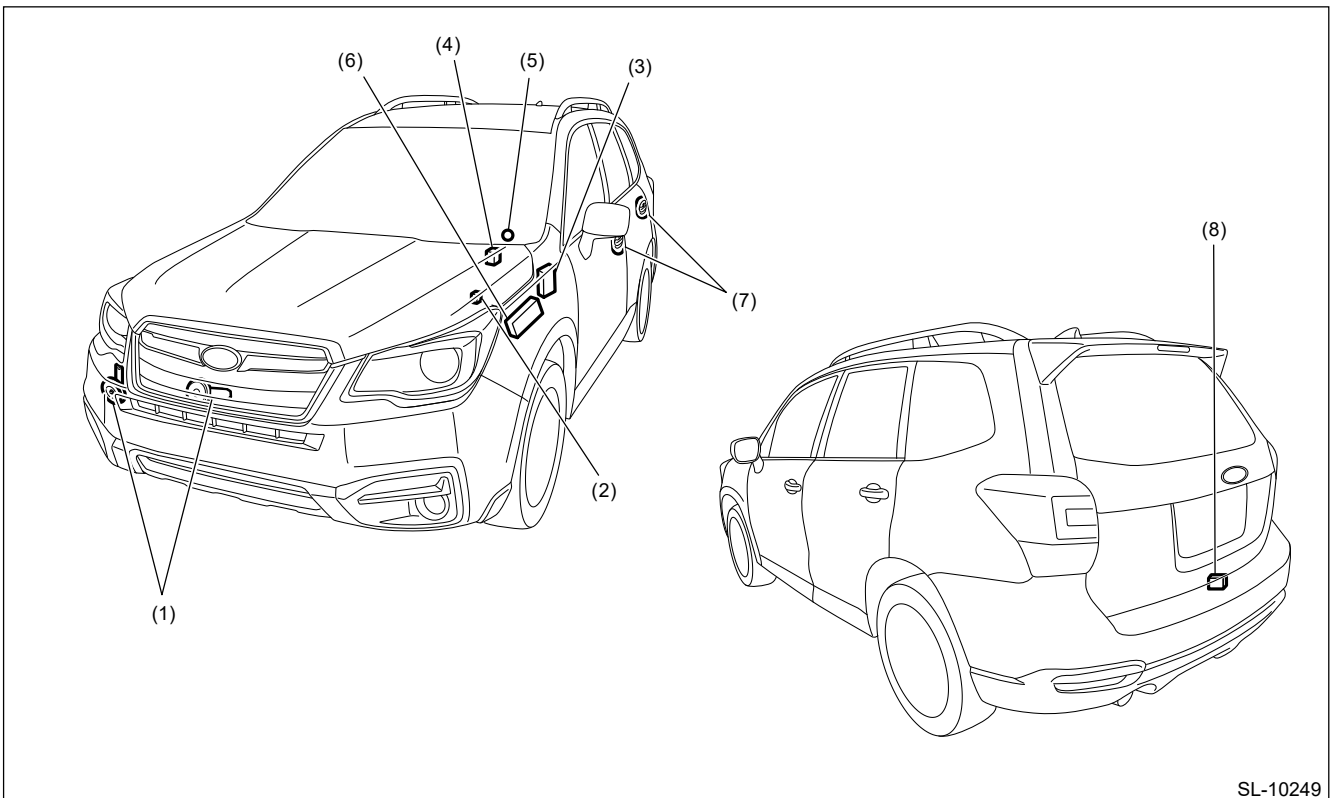
Note:

Except for model with keyless access with push button start.



- | | | |
|------------------------------|----------------------------------|--------------------|
| (1) Body integrated unit | (3) Keyless entry control module | (5) Door switch |
| (2) Power window main switch | (4) Rear gate latch switch | (6) Keyless buzzer |

6. SECURITY SYSTEM



- | | | |
|---|---|----------------------------|
| (1) Horn | (4) Turn signal and hazard module | (7) Door switch |
| (2) Horn relay (in main fuse box) | (5) Security indicator light (in combination meter) | (8) Rear gate latch switch |
| (3) Impact sensor (driver's seat instrument panel side) (dealer option) | (6) Body integrated unit | |

7. KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM


Note:

Refer to "Electrical Component Location" of "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Electrical Component Location>LOCATION.

SECURITY AND LOCKS > General Description

PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>STSSM4</p>	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. Note: For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
DST-i	Used together with Subaru Select Monitor 4.
Drill	Used for replacing ignition key lock.
Reverse tap	Used for replacing ignition key lock.
TORX® T30	Used for removing and installing door outer handle cover and frame assembly.
Clip remover	Used for removing trim clip.


SECURITY AND LOCKS > ID Code Box

NOTE

Caution:


When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type D" described in "REGISTRATION MANUAL FOR IMMOBILIZER".

Note:

- Equipped on C0 and C5 models without keyless access with push button start.
- The ID code box is located at the place of security control module. Refer to "Security Control Module" for operation procedures on ID code box.  [Ref. to SECURITY AND LOCKS>Security Control Module.](#)

SECURITY AND LOCKS > IG Relay1 (Push Button Start)

INSPECTION

Refer to "CHECK RELAY" in "Relay and Fuse".  [Ref. to SECURITY AND LOCKS>Relay and Fuse>INSPECTION > CHECK RELAY.](#)

SECURITY AND LOCKS > IG Relay1 (Push Button Start)

INSTALLATION


Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:

Relay & fuse box: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > IG Relay1 (Push Button Start)

REMOVAL



Caution:

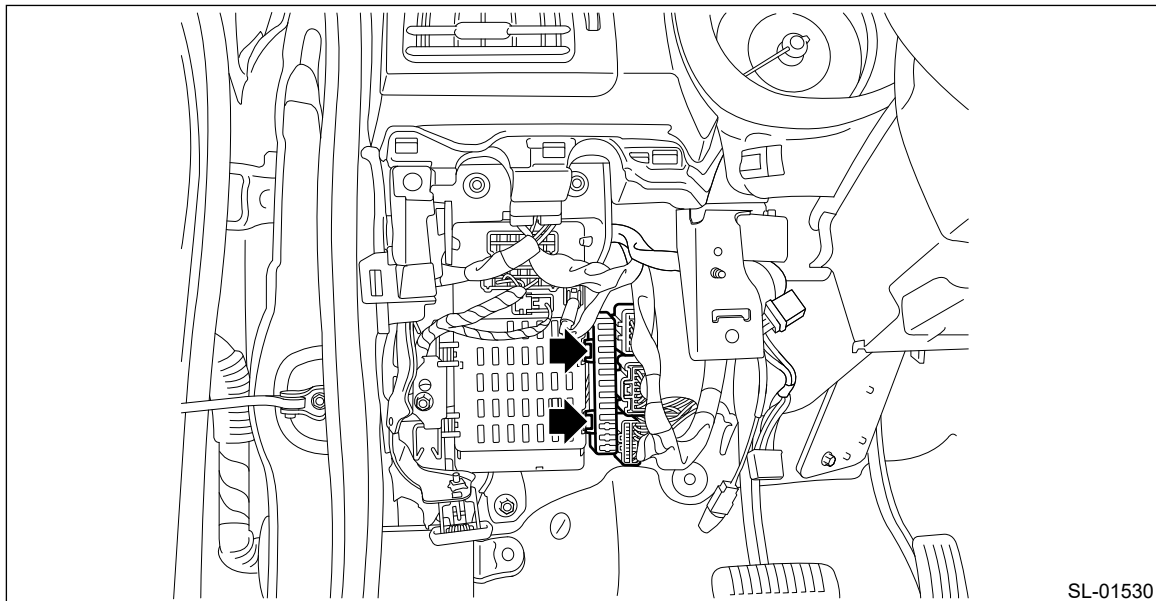
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

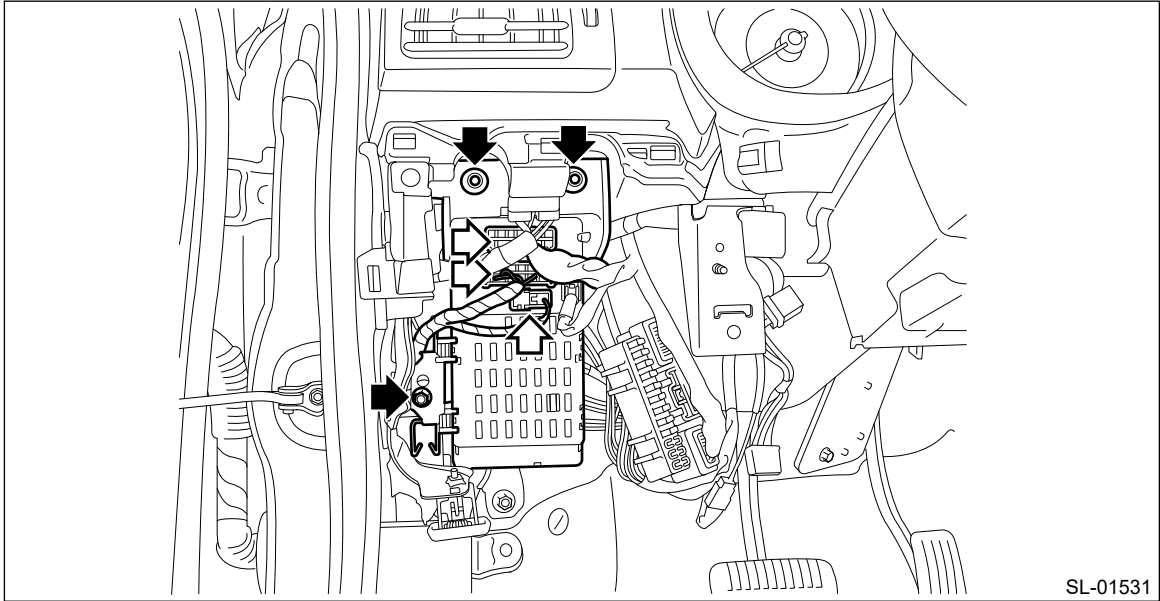
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Release the lock and remove the fuse holder.

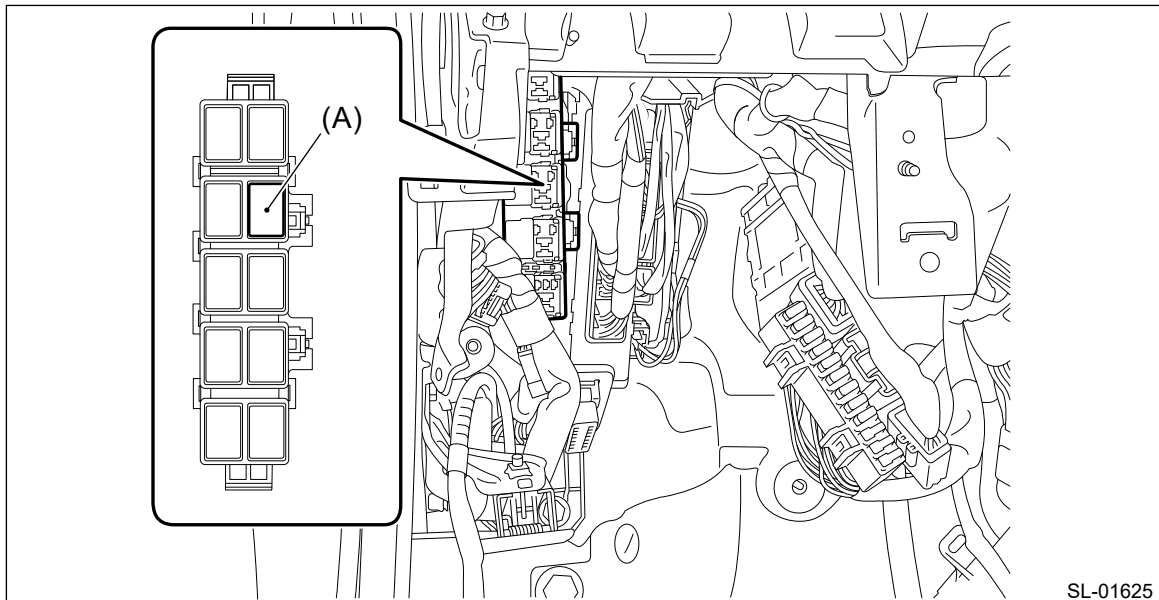


5. Remove the relay & fuse box.
 - (1) Disconnect the connector.
 - (2) Remove the bolts and nuts, and remove the relay & fuse box.



SL-01531


6. Remove IG relay 1 (push button start) (A) from the relay holder.



SL-01625

SECURITY AND LOCKS > IG Relay2 (Push Button Start)

INSPECTION

Refer to "CHECK RELAY" in "Relay and Fuse".  [Ref. to SECURITY AND LOCKS>Relay and Fuse>INSPECTION > CHECK RELAY.](#)

SECURITY AND LOCKS > IG Relay2 (Push Button Start)

INSTALLATION


Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:

Relay & fuse box: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > IG Relay2 (Push Button Start)

REMOVAL



Caution:

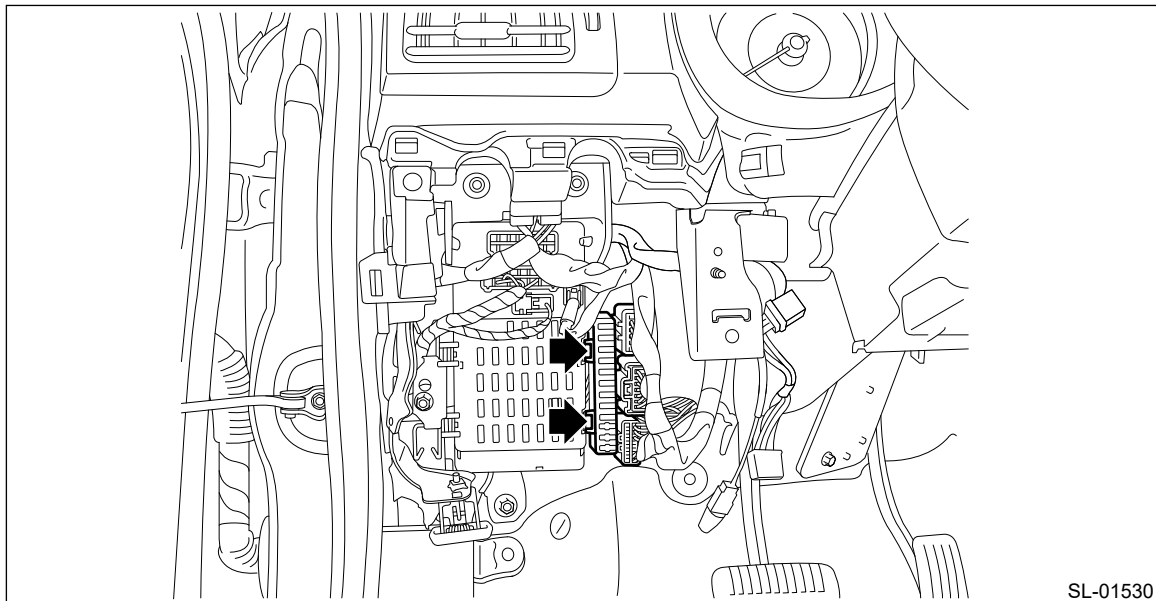
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

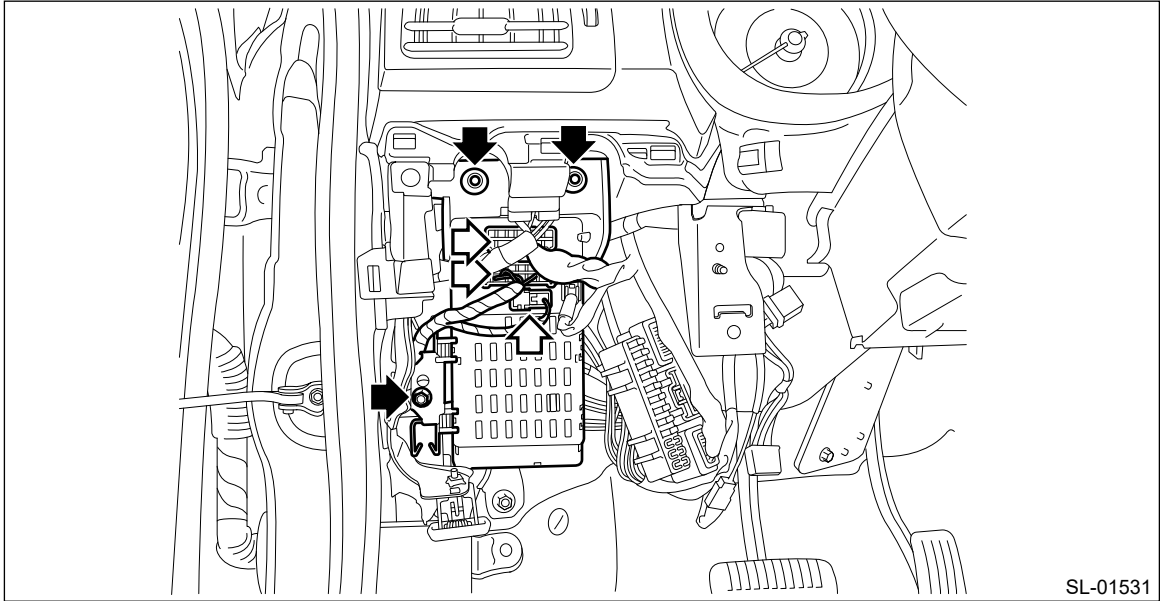
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Release the lock and remove the fuse holder.

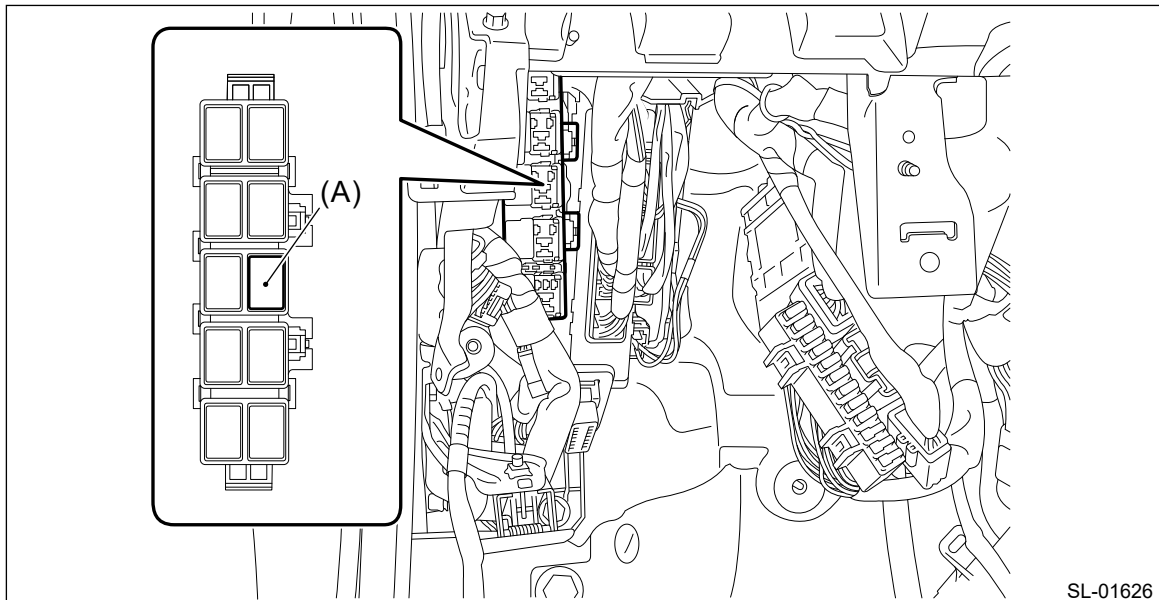


5. Remove the relay & fuse box.
 - (1) Disconnect the connector.
 - (2) Remove the bolts and nuts, and remove the relay & fuse box.



SL-01531

6. Remove IG relay 2 (push button start) (A) from the relay holder.



SL-01626

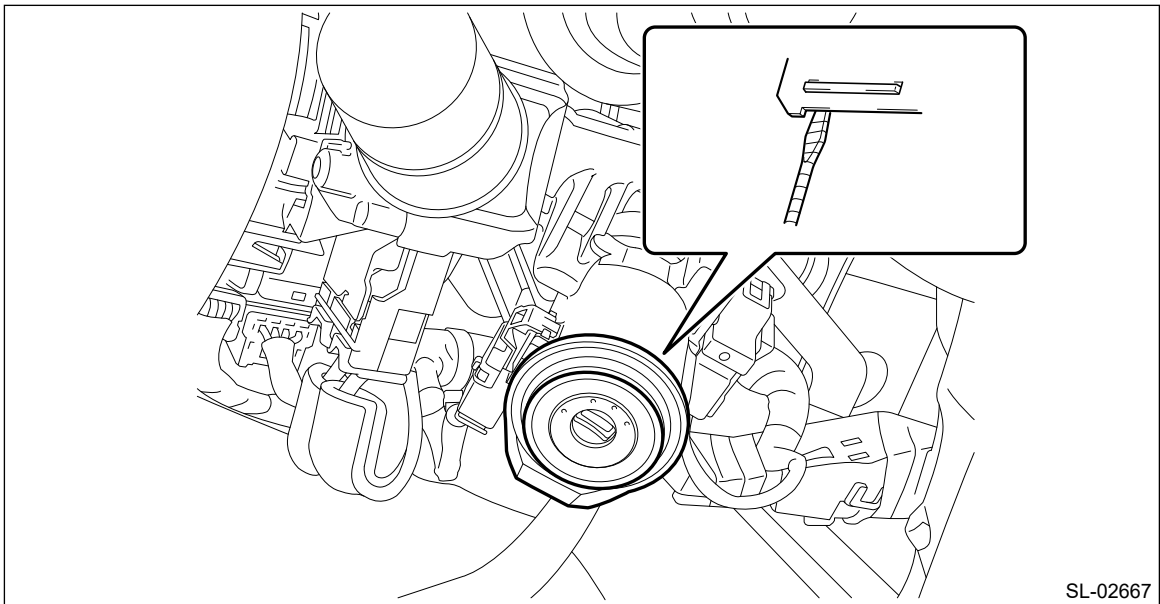
SECURITY AND LOCKS > Ignition Key Lock

DISASSEMBLY

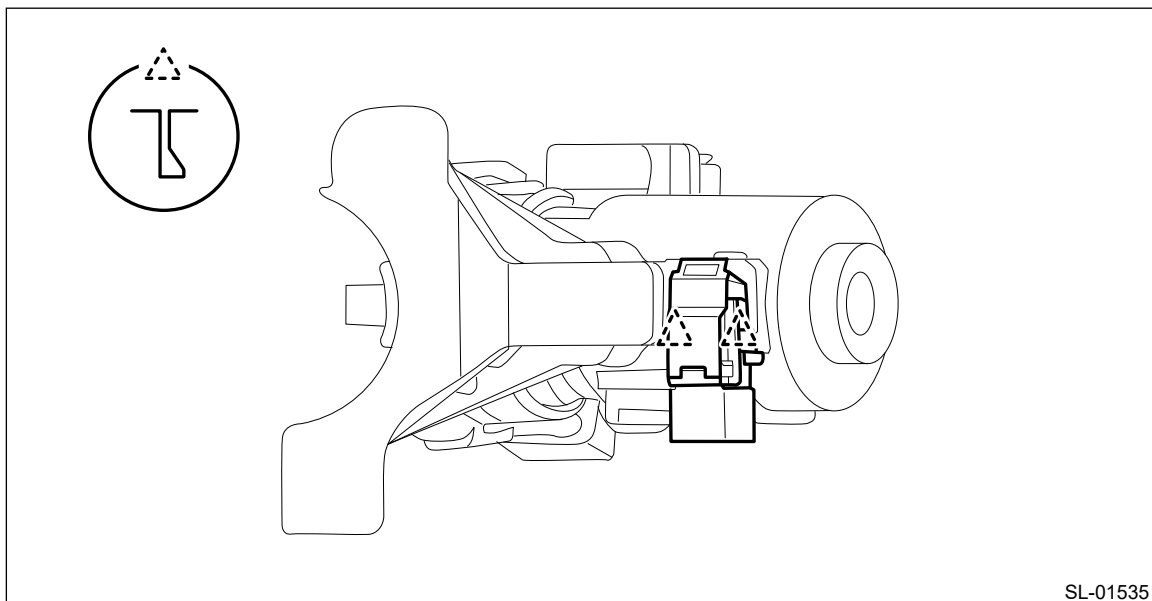
1. Remove the immobilizer antenna assembly or the ignition switch illumination.
 - (1) Disconnect the connector.
 - (2) Release two claws using a flat tip screwdriver or similar tool wrapped with a protection tape, and remove the immobilizer antenna assembly or the ignition switch illumination.

Caution:

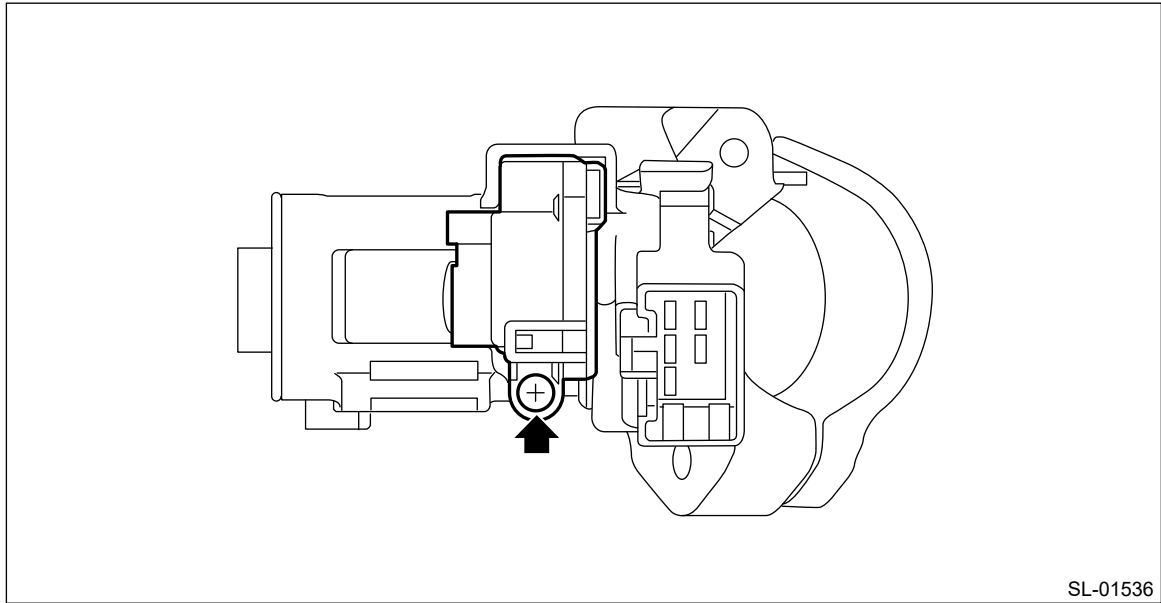
Do not apply excessive force to disengage the lock of immobilizer antenna assembly. Otherwise they may be broken because those parts are the products made of a plastic.



2. Release the claws, and pull the key warning switch downwards to remove.

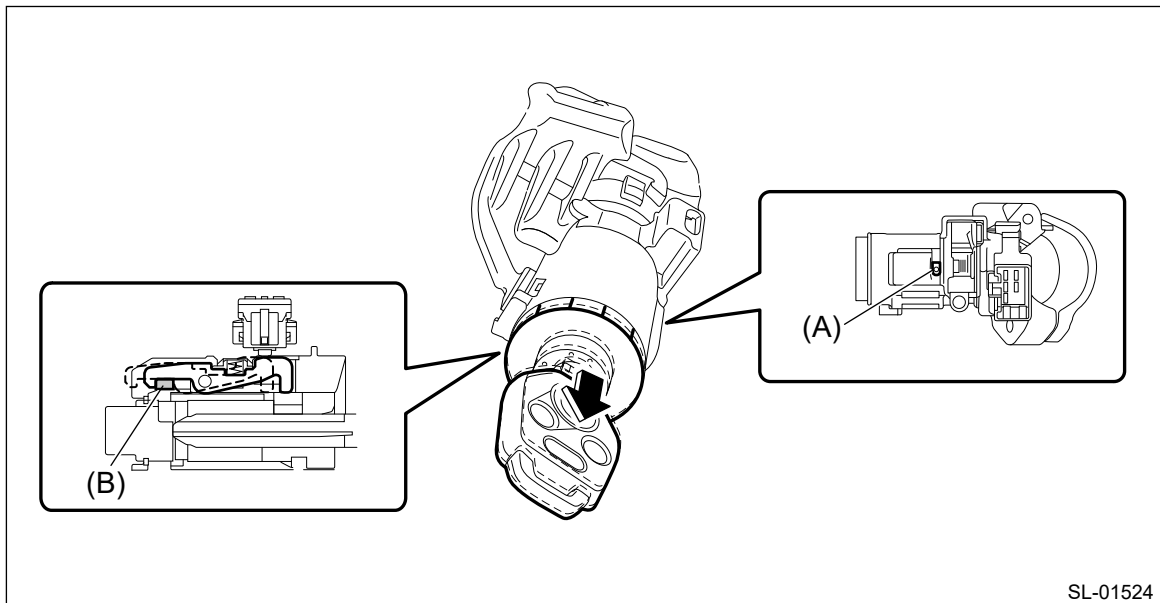


3. Remove the screws and remove the key lock solenoid.

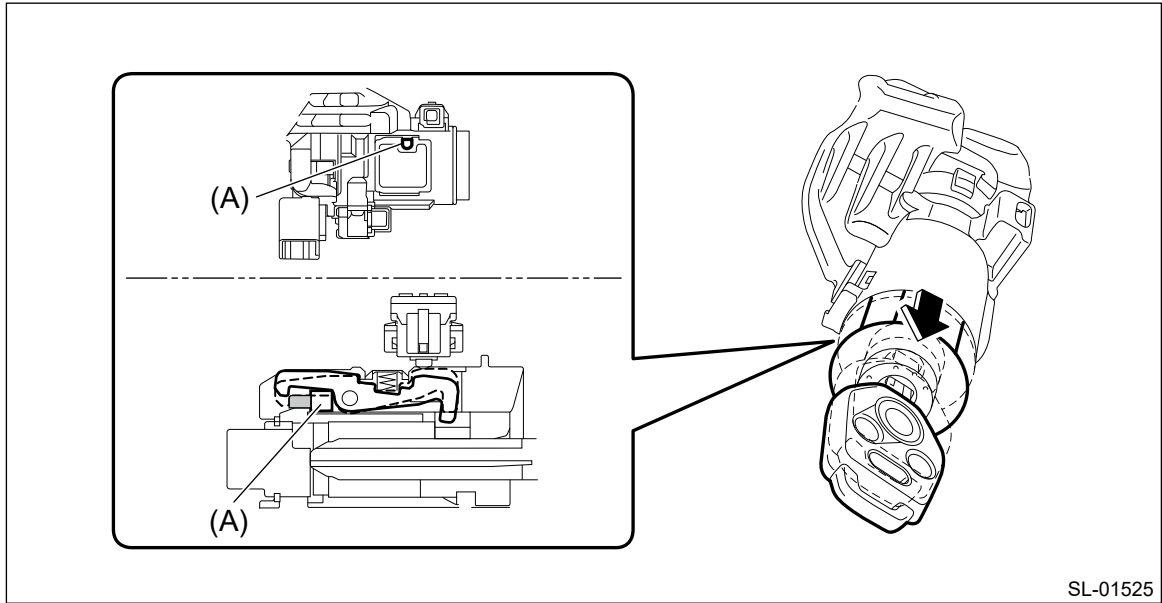


4. Replace the key cylinder.

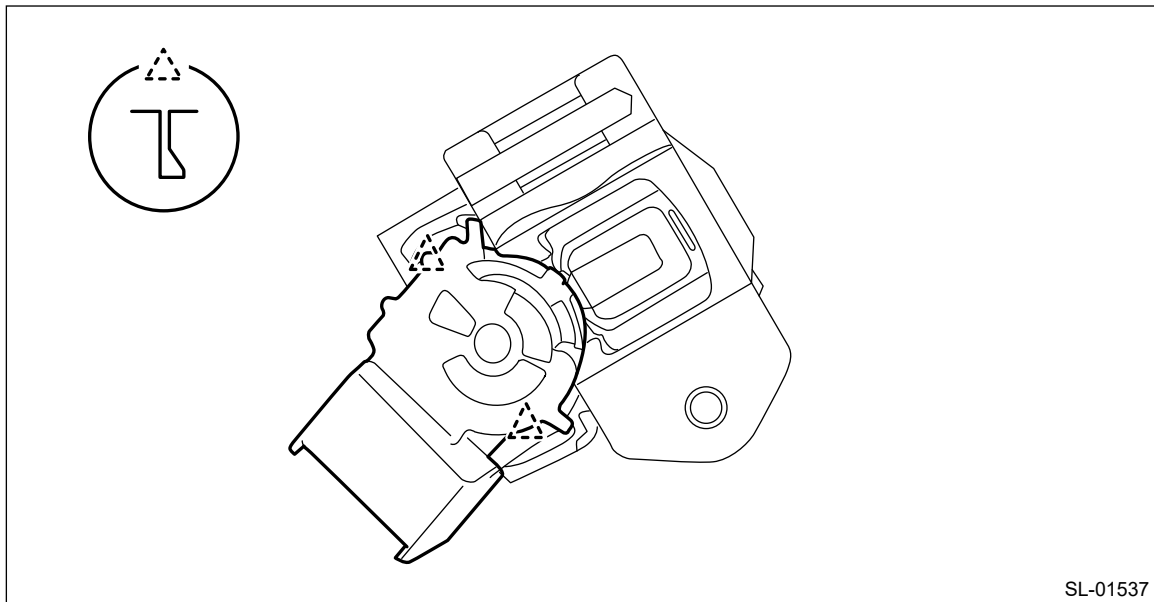
- (1) Insert the key into the key cylinder, and turn the key to the ACC position.
- (2) Insert a flat tip screwdriver from the steering lock frame hole (A), and pull the key cylinder until the key cylinder claws touch the steering lock frame stopper (B).



- (3) Insert a flat tip screwdriver from the steering lock frame hole (A), and release the claws to pull out the key cylinder.



5. Release the claws and remove the ignition switch assembly.



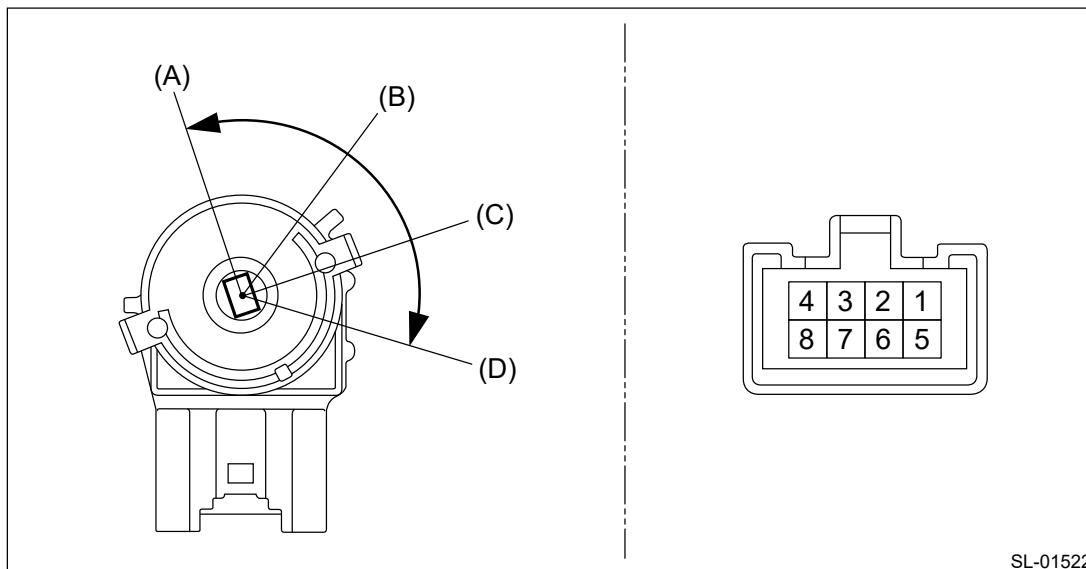
SECURITY AND LOCKS > Ignition Key Lock

INSPECTION

Preparation tool:

Circuit tester

1. Check the resistance between switch terminals.



Terminal No.	Inspection conditions		Standard
Between all terminals	(A)	LOCK	1 M Ω or more
2 – 4	(B)	ACC	Less than 1 Ω
1 – 2 – 4 5 – 6	(C)	{ON}	Less than 1 Ω
1 – 3 – 4 5 – 6 – 7	(D)	ST	Less than 1 Ω

2. Replace the ignition switch assembly if the inspection result is not within the standard.

SECURITY AND LOCKS > Ignition Key Lock

REPLACEMENT

Caution:

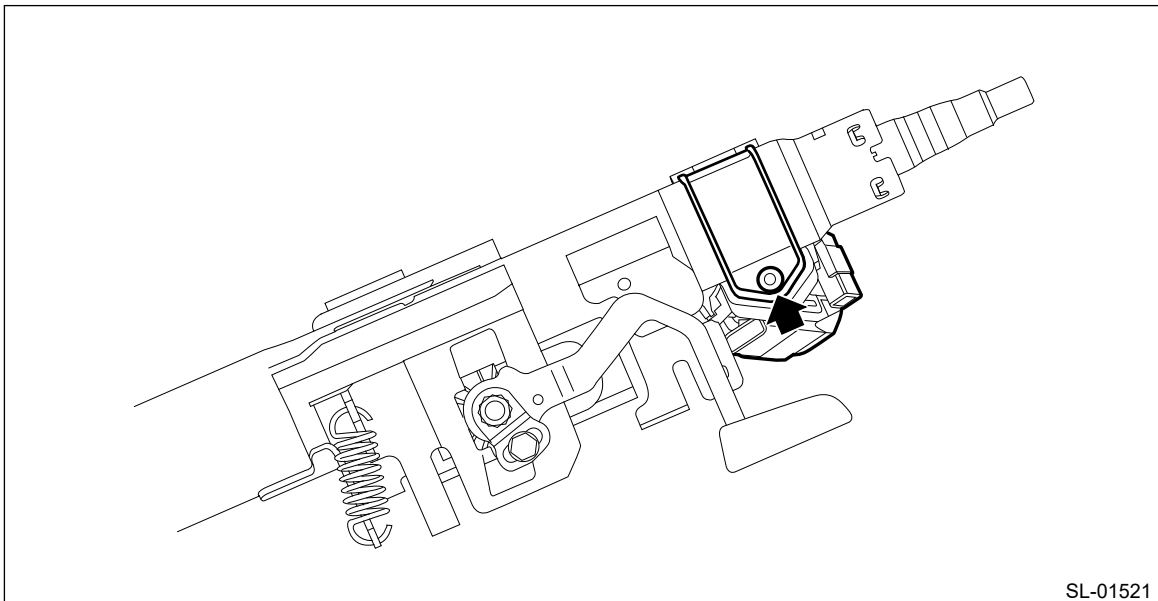
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [🔗 Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC. [🔗 Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the cover assembly - instrument panel LWR driver. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module. [🔗 Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the universal joint assembly - steering. [🔗 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Universal Joint>REMOVAL.](#)
5. Remove the column assembly - steering. [🔗 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Column>REMOVAL.](#)
6. Remove the ignition key lock.
 - (1) Secure the column assembly - steering in a vise.
 - (2) Use the reverse tap or drill to remove the set bolt and remove the ignition key lock.



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7. Install the ignition key lock.
 - (1) Secure the ignition key lock to the column assembly - steering.

(2) Use new set bolts. Tighten the bolt until the bolt head is broken (bolt head wrenched off).

8. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


SECURITY AND LOCKS > Immobilizer Antenna

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

REMOVAL

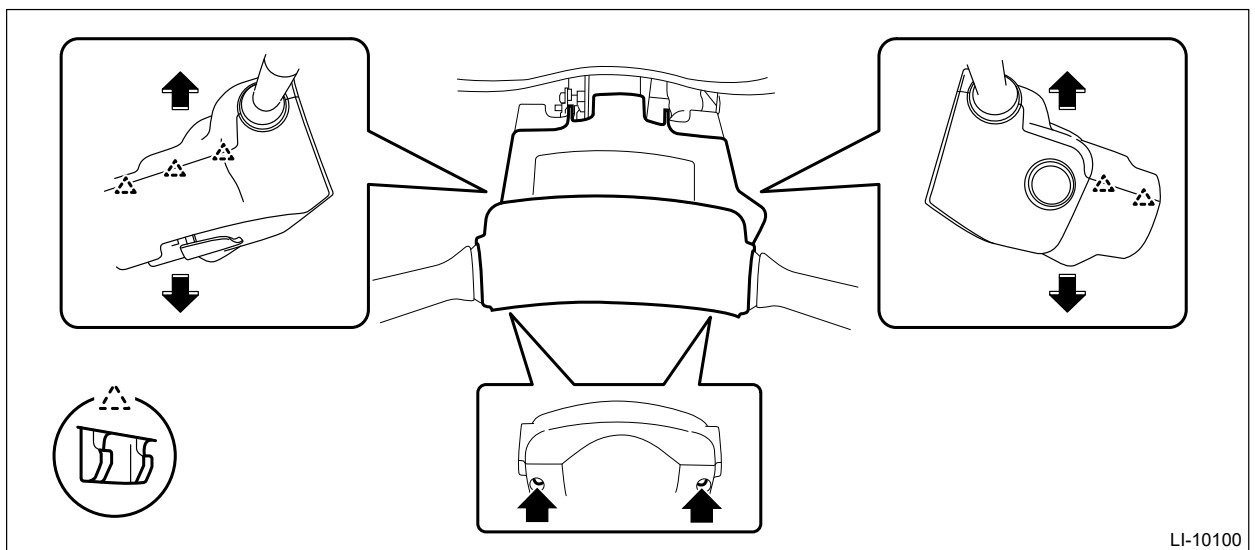
1. MODEL WITHOUT KEYLESS ACCESS WITH PUSH BUTTON START

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

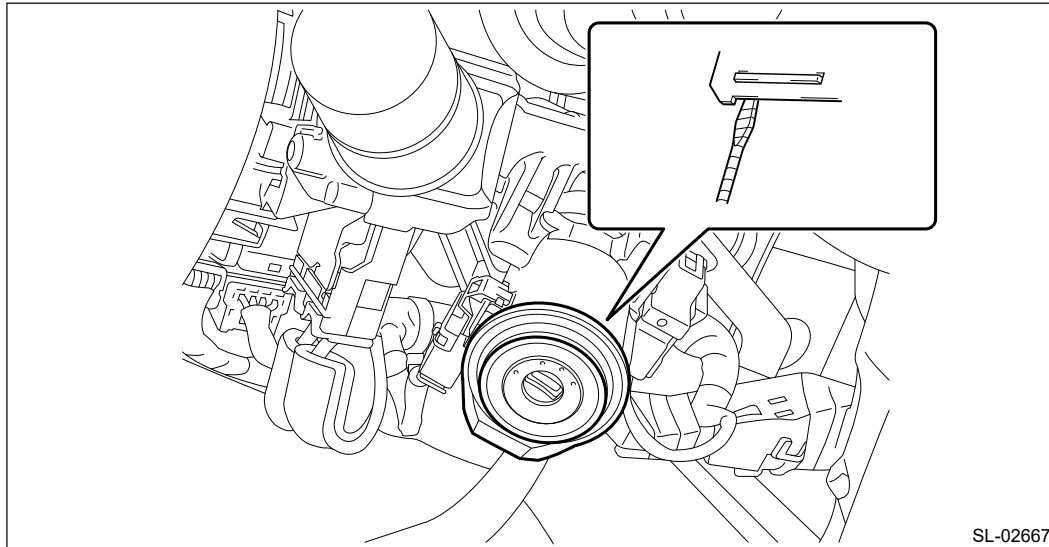
2. Remove the cover assembly - column.
 - (1) Remove the screws by turning the steering wheel to right and left.
 - (2) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.



3. Remove the immobilizer antenna assembly.
 - (1) Disconnect the connector.
 - (2) Release two claws using a flat tip screwdriver or similar tool wrapped with a protection tape, and remove the immobilizer antenna assembly.

Caution:


Do not apply excessive force to disengage the lock of immobilizer antenna assembly. Otherwise they may be broken because those parts are the products made of a plastic.



2. MODEL WITH KEYLESS ACCESS WITH PUSH BUTTON START


Note:

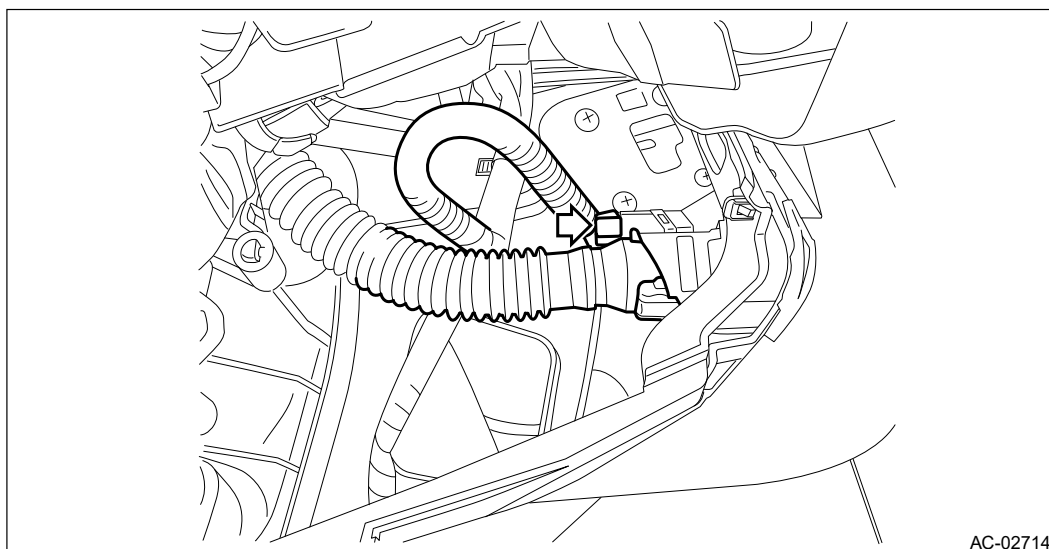
Immobilizer antenna is integrated with the push button ignition switch.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

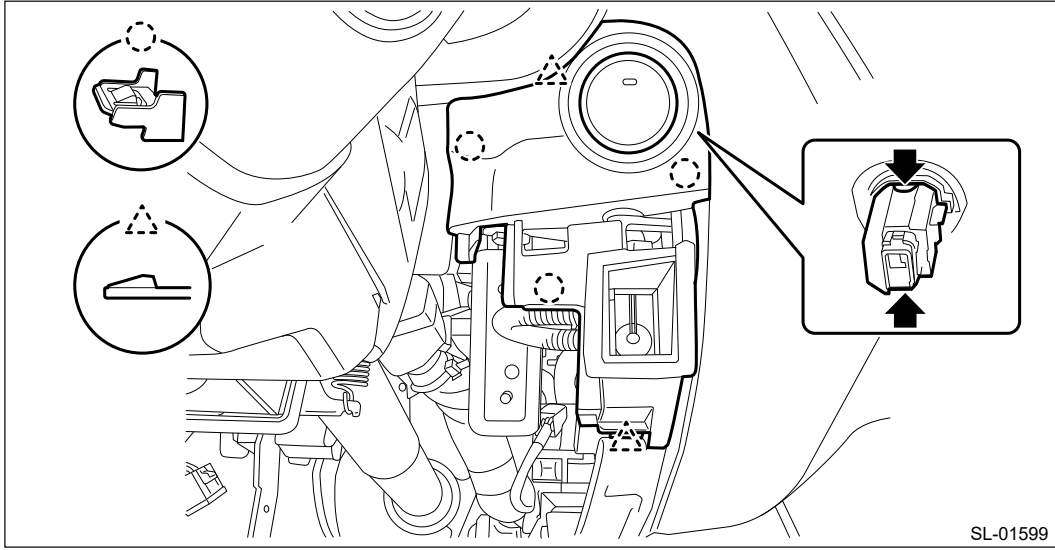
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the push button ignition switch.
 - (1) Disconnect the connector, and remove the aspirator hose.



- (2) Release the claws, and then remove the panel - switch.
- (3) Release the claws, and then remove the push button ignition switch from the panel - switch.





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SECURITY AND LOCKS > Immobilizer Control Module

NOTE

The control of immobilizer system is carried out in body integrated unit. For the detailed procedure, refer to the section of body integrated unit.

- Removal:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit>REMOVAL.](#)
- Installation:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit>INSTALLATION.](#)

ADJUSTMENT

1. CHECK IMPACT SENSOR

1. Pull out the key from the ignition switch, or turn the ignition to OFF.
2. Close all the windows.
3. Close all the doors and rear gate. Leave open the front hood.
4. Press the LOCK button of the keyless transmitter or access key from outside of vehicle.
5. Check that the security indicator light blinks twice within 0.5 seconds in 2 second intervals after 30 seconds.
6. Hit all windows with the palm with force repeatedly, to check for whether the security alarm operates. Lift up the front hood approx. 12 cm (4.7 in) or more, and then drop it off to check the operation of security alarm.
7. If NG, adjust the impact sensitivity.

2. IMPACT SENSITIVITY ADJUSTMENT

1. Connect the Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

2. Turn the ignition switch to ON.
3. On [Start] display, select [Diagnosis].
4. On [Vehicle selection] display, enter vehicle information and select [OK].
5. On [Main Menu] display, select [Each System].
6. On [Select System] display, select [Impact Sensor], and then select [Enter].
7. On [Select Function] display, select [Work Support].
8. On the work support item list, perform [Sensitivity Adjustment Mode].
 - Sensitivity can be adjusted in 11 levels (0 to 10).
 - Initial setting is 5.
 - Smaller number means more sensitive.
 - Larger number means less sensitive.
9. Turn the ignition switch to OFF, and then remove the Subaru Select Monitor.

Note:


- **Set the sensor so that it is not triggered by normal vibrations (someone reclining on the door, hit by a ball, etc.).**
- **Set the sensor to operate the alarm when the windshield glass or door is hit hard repeatedly, etc, where it can be assumed that there is an attempt to damage the car by a burglar, etc.**
- **Even if there is no burglary attempt, if there is vibration (road construction, elevated parking lots, passage of trains or boarding of ferries), the alarm can be triggered. Because of this, ask the customer about their parking conditions, and set an appropriate sensitivity level after discussion.**
- **The impact sensitivity can also be adjusted on the manufacturer's optional display, and it can be set in 11 levels from 0 to 10. The sensitivity is set to 5 by default. (Unlike the specification of the Subaru Select Monitor, the setting**

becomes duller as the setting value becomes smaller, and more sensitive as the number becomes larger.)

- **If the sensitivity setting was not performed properly, a buzzer will sound four times. In this case, check the following:**
 - **Is there an error in CAN communication?**
 - **Is there an open circuit in the harness between the body integrated unit and the impact sensor?**
 - **Is there a malfunction in the display, body integrated unit or impact sensor?**

SECURITY AND LOCKS > Impact Sensor

INSTALLATION

- 1.** Pull out the key from the ignition switch, or turn the ignition to OFF.
- 2.** Close all the doors and rear gate.
- 3.** Press the UNLOCK button of the keyless transmitter or access key.
- 4.** Install the impact sensor.
- 5.** Change the setting of impact sensor using Subaru Select Monitor.
- 6.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

OPERATION

1. IMPACT SENSOR SETTING USING SUBARU SELECT MONITOR

1. Prepare the Subaru Select Monitor kit.


Note:

For detailed operation procedures, refer to "Application help".

2. Turn the ignition switch to ON.
3. On [Start] display, select [Diagnosis].
4. On [Vehicle selection] display, enter vehicle information and select [OK].
5. On [Main Menu] display, select [Each System].
6. On [Select System] display, select [Body Control], and then select [Enter].
7. On [Select Function] display, select [Customize].
8. From the Customize item list, select [Impact sensor] or [Impact Sensor Setup].
9. Make an impact sensor setting.
 - When installing: ON
 - When removing: OFF
10. Make an impact sensor ON/OFF setting.
 - When installing: ON
 - When removing: OFF
11. Turn the ignition switch to OFF, and then remove the Subaru Select Monitor.

SECURITY AND LOCKS > Impact Sensor

REMOVAL

1. Pull out the key from the ignition switch, or turn the ignition to OFF.
2. Close all the doors and rear gate.
3. Press the UNLOCK button of the keyless transmitter or access key.
4. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:


For model with battery sensor, disconnect the ground terminal from battery sensor.

5. Remove the impact sensor.
6. Change the setting of impact sensor using Subaru Select Monitor.

SECURITY AND LOCKS > Key Lock Cylinders

REPLACEMENT

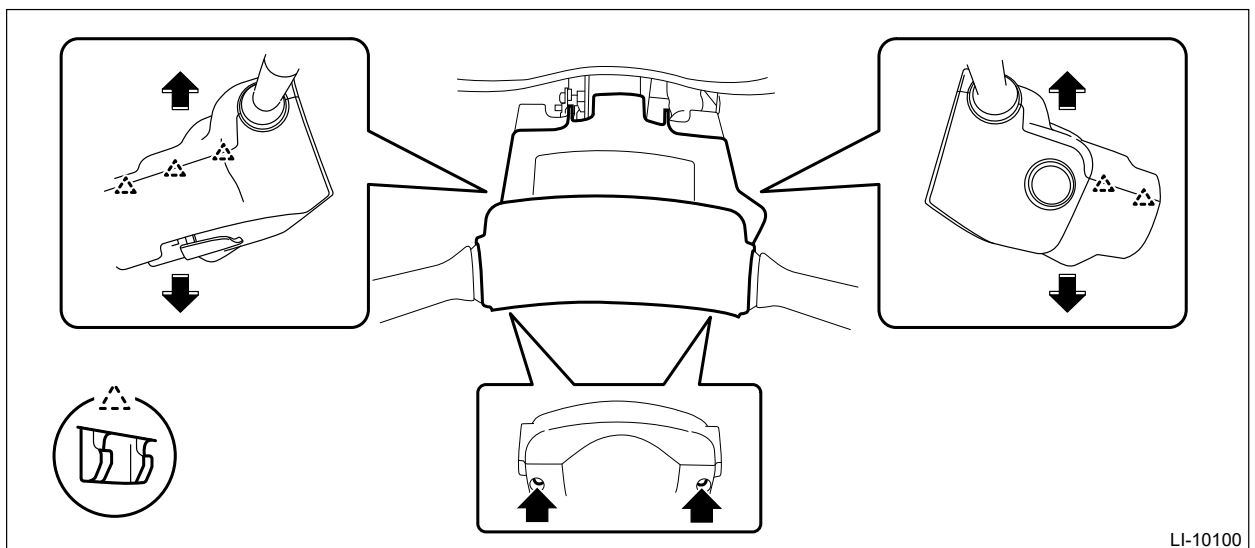
1. STEERING LOCK


1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

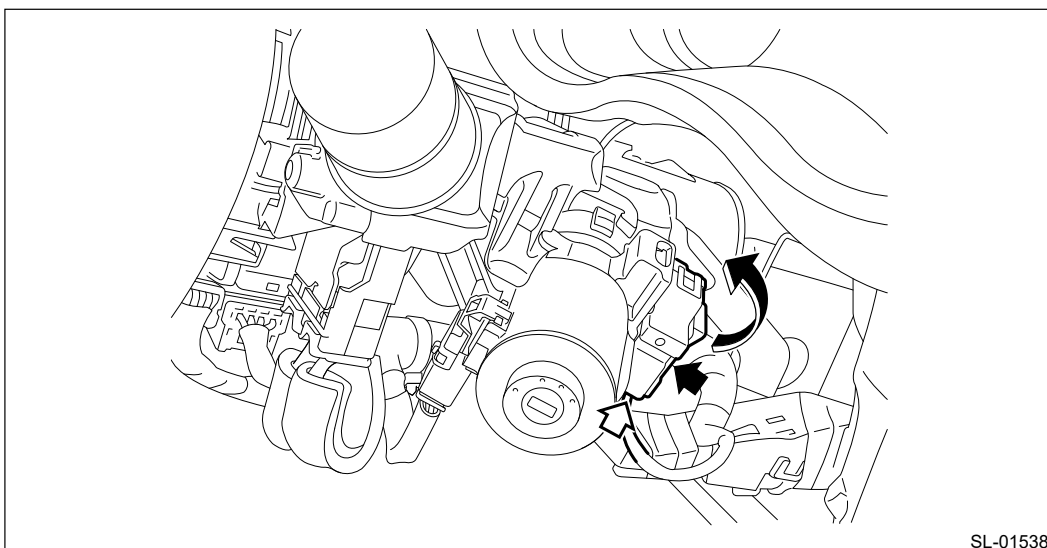
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - column.
 - (1) Remove the screws by turning the steering wheel to right and left.
 - (2) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.

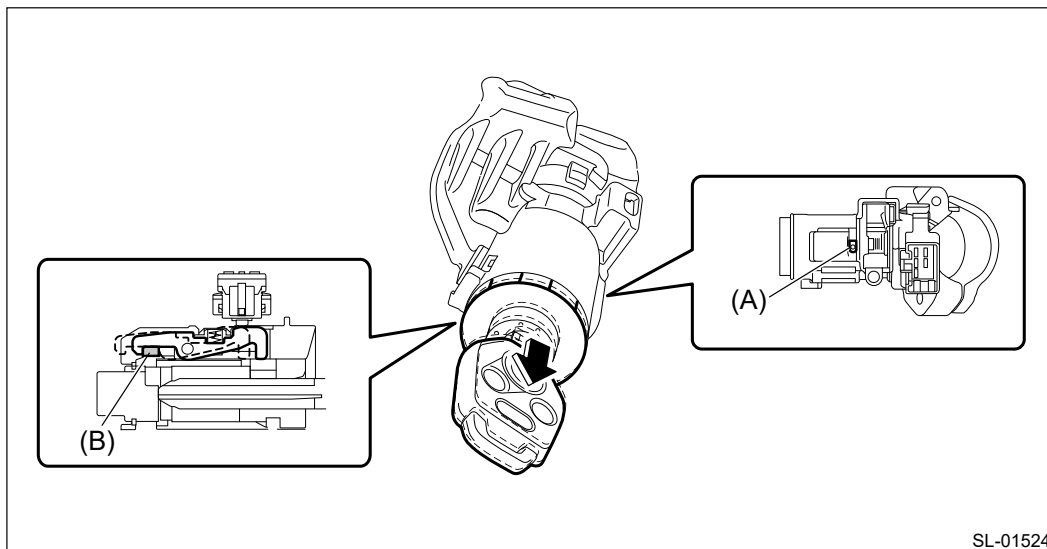


3. Remove the immobilizer antenna assembly.  [Ref. to SECURITY AND LOCKS>Immobilizer Antenna>REMOVAL.](#)
4. Remove the key lock solenoid.
 - (1) Disconnect the connector.
 - (2) Remove the screws and remove the key lock solenoid.

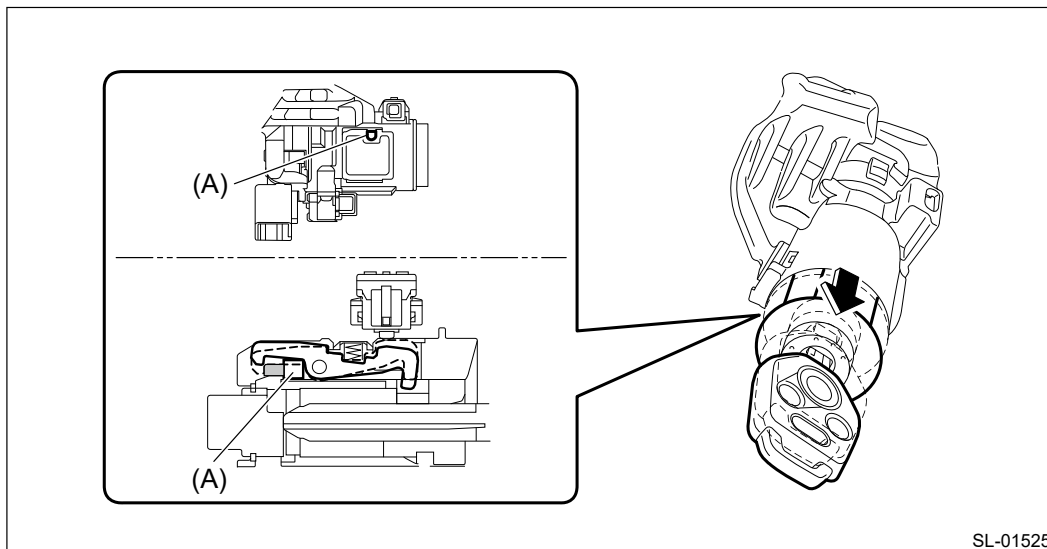


5. Replace the key cylinder.

- (1) Insert the key into the key cylinder, and turn the key to the ACC position.
- (2) Insert a flat tip screwdriver from the steering lock frame hole (A), and pull the key cylinder until the key cylinder claws touch the steering lock frame stopper (B).



- (3) Insert a flat tip screwdriver from the steering lock frame hole (A), and release the claws to pull out the key cylinder.



6. Install each part in the reverse order of removal.

- 7.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

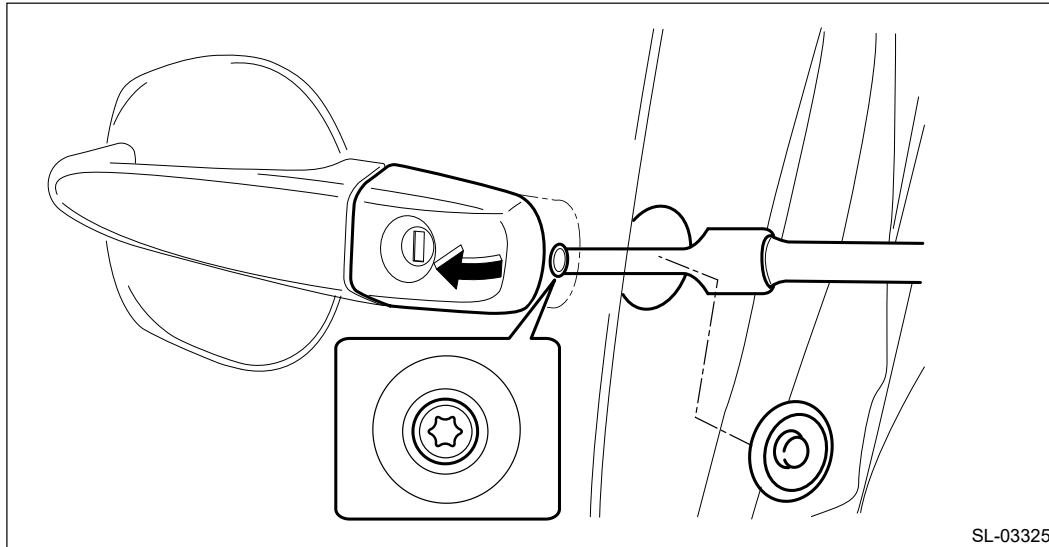
2. FRONT DOOR

- 1.** Remove the cover - handle front outer.

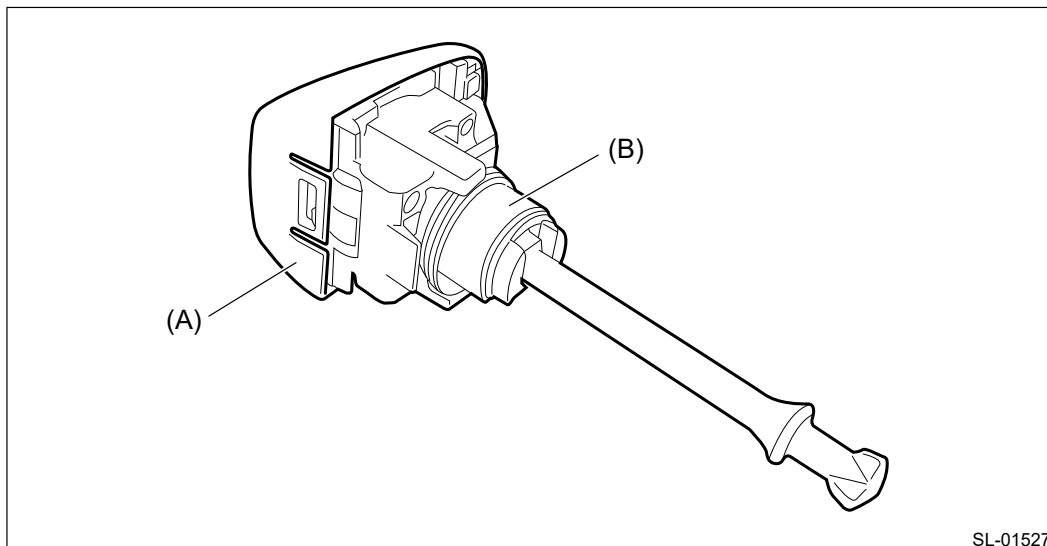
Preparation tool:

TORX® T30

- (1) Remove the plug at the rear end of the panel assembly - front door.
- (2) Loosen the TORX® bolt and remove the cover - handle front outer.



2. Remove the key cylinder (B) from the cover - handle front outer (A), and replace the key cylinder.




3. Install each part in the reverse order of removal.

Caution:

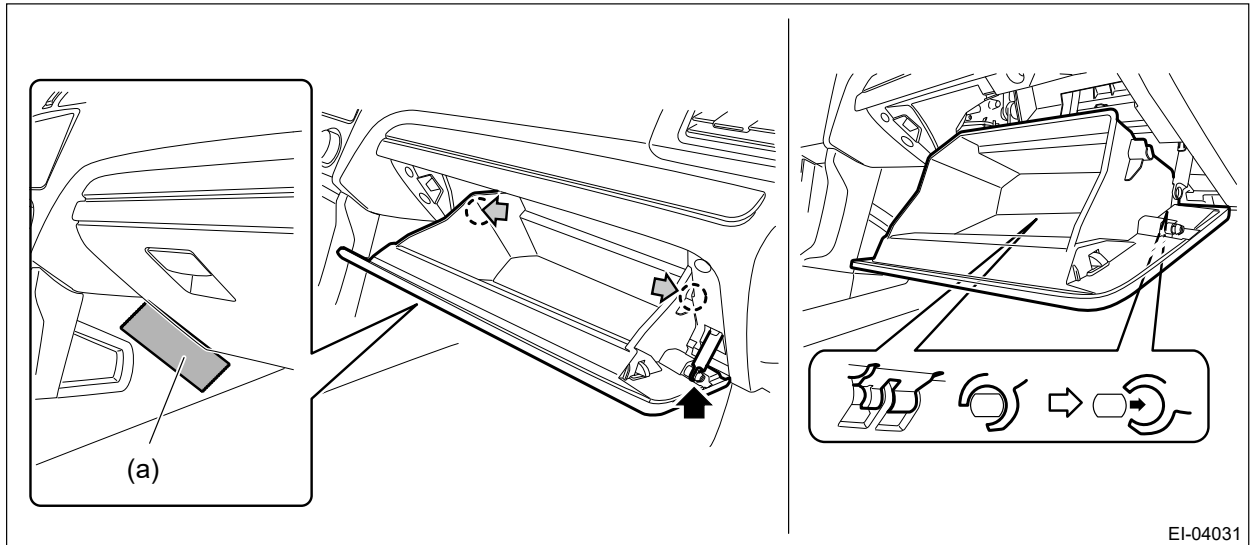
When installing the cover - handle front outer on driver's side, make sure that the key cylinder shaft is correctly inserted into the latch & actuator assembly - front.

Tightening torque:

Refer to "COMPONENT" of "General Description".  Ref. to [SECURITY AND LOCKS>General Description>COMPONENT > DOOR LOCK ASSEMBLY.](#)

3. GLOVE BOX LID

1. Remove the pocket assembly.
 - (1) Attach the protective tape (a) to the panel center LWR.
 - (2) Remove the damper COMPL - pocket.
 - (3) Release the stoppers and remove the pocket assembly by pulling it toward you.

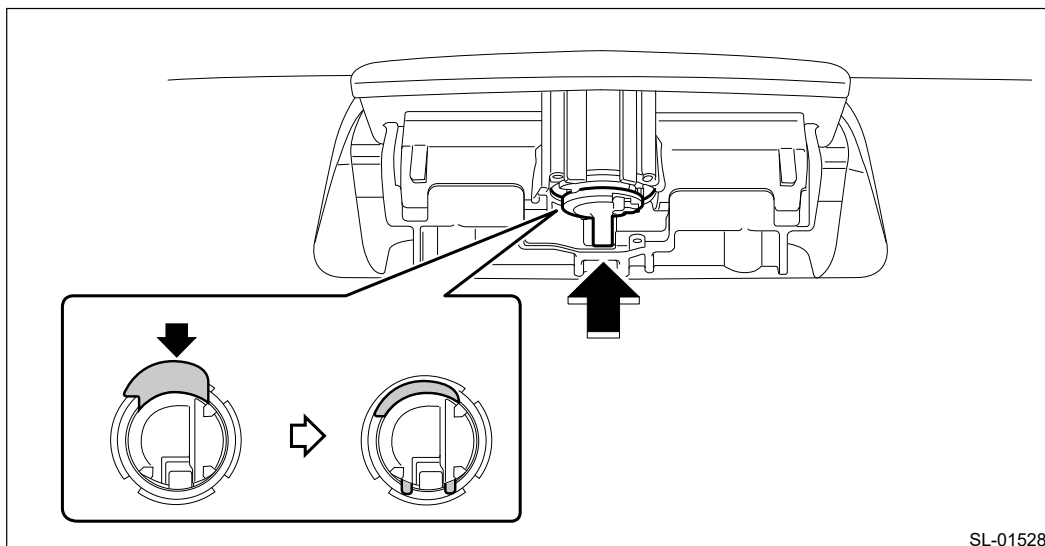


EI-04031

2. Replace the key cylinder.

(1) Pull up the lock knob.

(2) Push out the key cylinder from the pocket assembly while pressing in the metal plate.




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3. Install each part in the reverse order of removal.

SECURITY AND LOCKS > Keyless Access CM

INSTALLATION


Caution:

- When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type D" described in "REGISTRATION MANUAL FOR IMMOBILIZER".
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:

Relay & fuse box: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Keyless Access CM

REMOVAL



Caution:

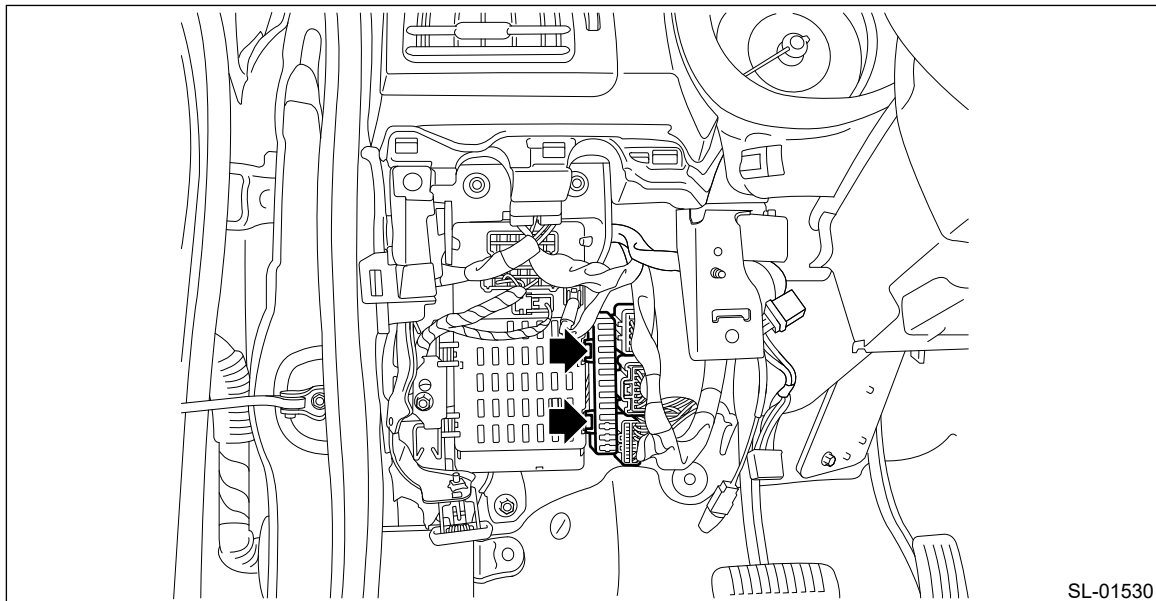
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

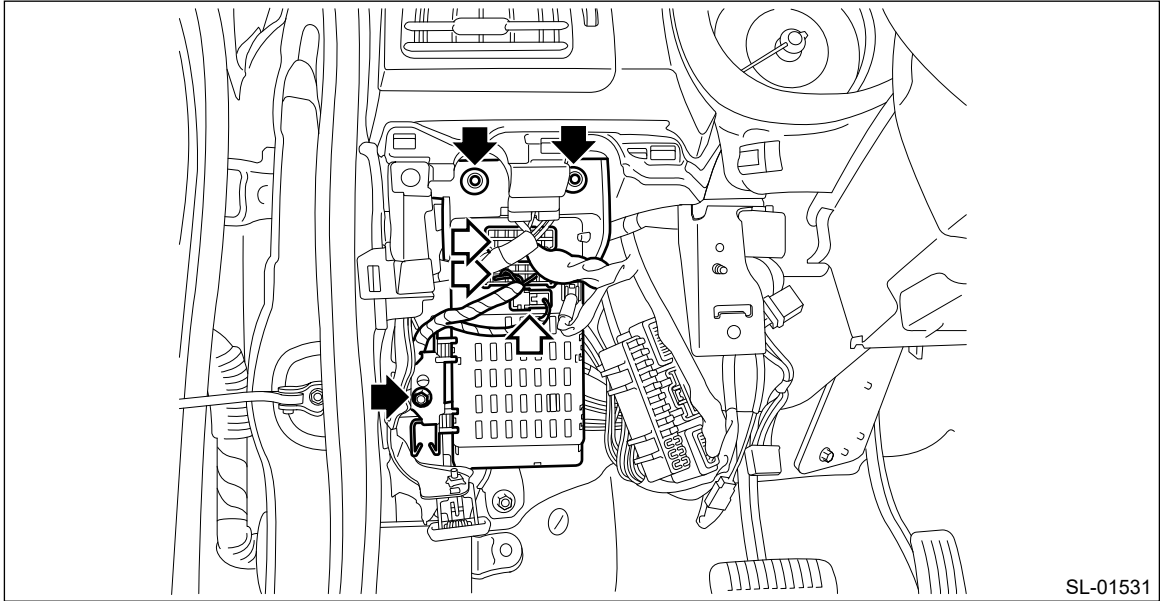
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Release the lock and remove the fuse holder.



5. Remove the relay & fuse box.
 - (1) Disconnect the connector.
 - (2) Remove the bolts and nuts, and remove the relay & fuse box.

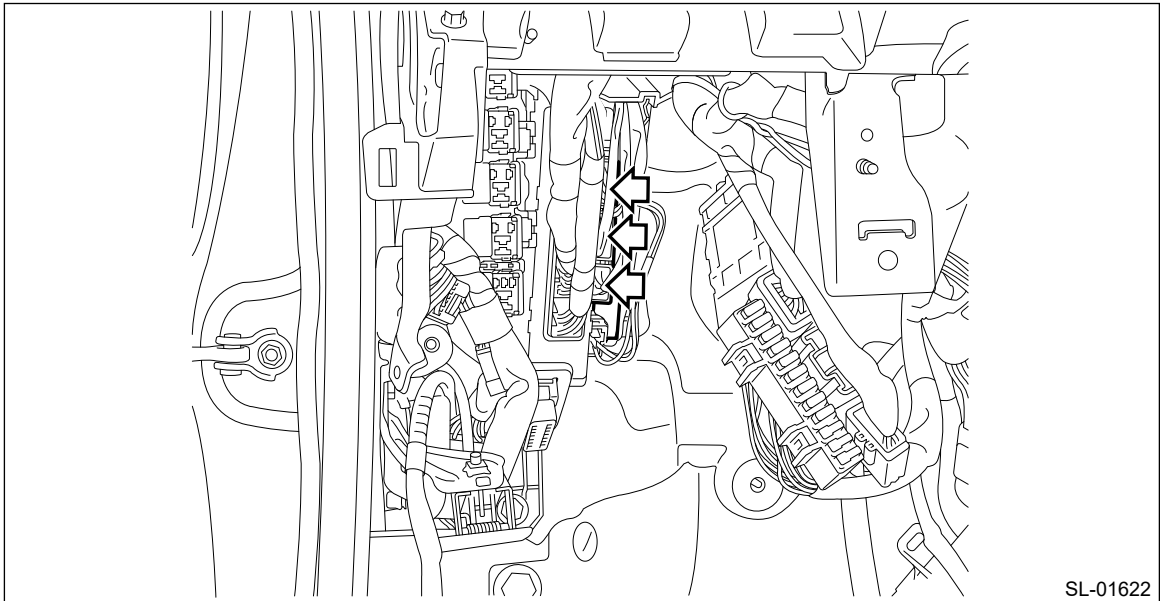


6. Remove the keyless access CM.

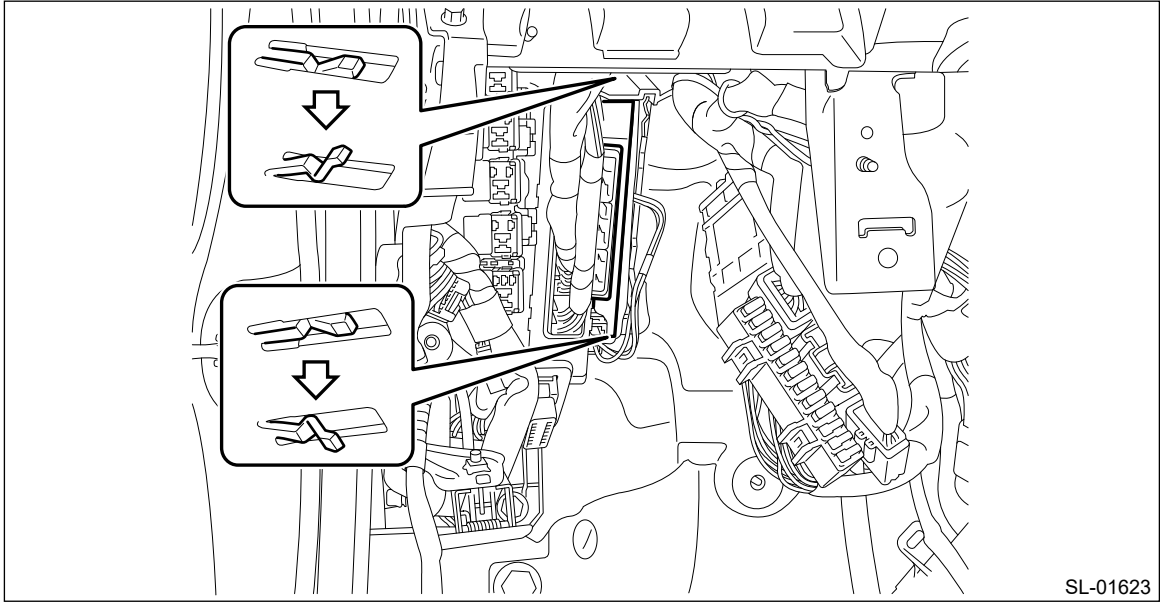
Caution:

Be careful to keep water and other foreign materials away from body integrated unit terminals.

- (1) Disconnect the connector.





- (2) Release the claws, and pull out the keyless access CM from the bracket.



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SECURITY AND LOCKS > Keyless Access Indoor Antenna

INSPECTION

- 1.** Check the setting by performing Keyless access system check using the Subaru Select Monitor.
 [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Keyless Access System Check>OPERATION.](#)
- 2.** Disconnect the Subaru Select Monitor. After placing the access key near the changed antenna, operate the push button ignition switch to check that the power can be switched.
- 3.** If the system does not operate normally as the result of inspection, refer to "General Diagnostic Table" of the "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>General Diagnostic Table>INSPECTION > KEYLESS ACCESS SYSTEM.](#)


SECURITY AND LOCKS > Keyless Access Indoor Antenna

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


REMOVAL

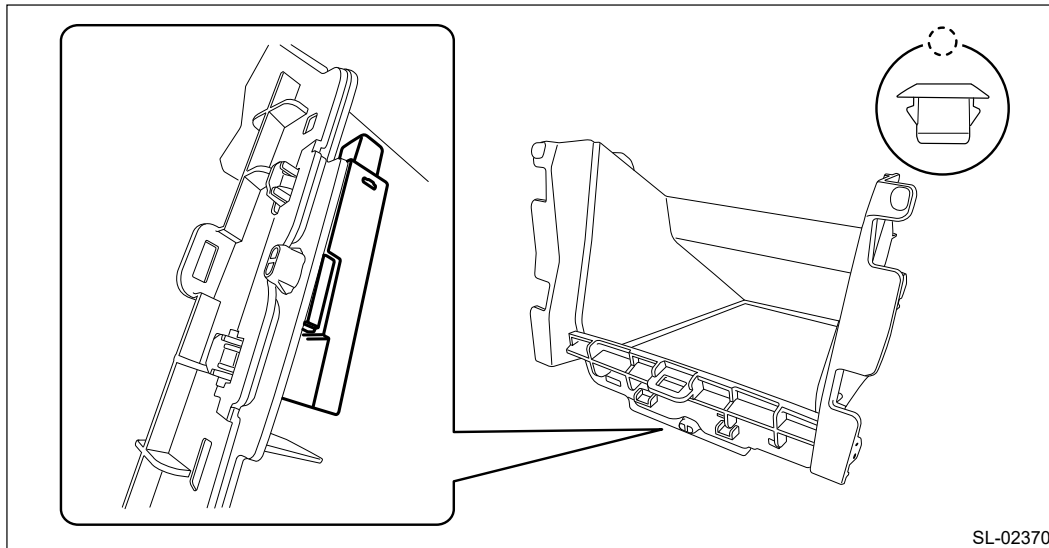
1. FRONT ANTENNA

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the tray assembly - CTR.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
3. Disconnect the connector and remove the front antenna assembly - interior.




2. CENTER ANTENNA

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

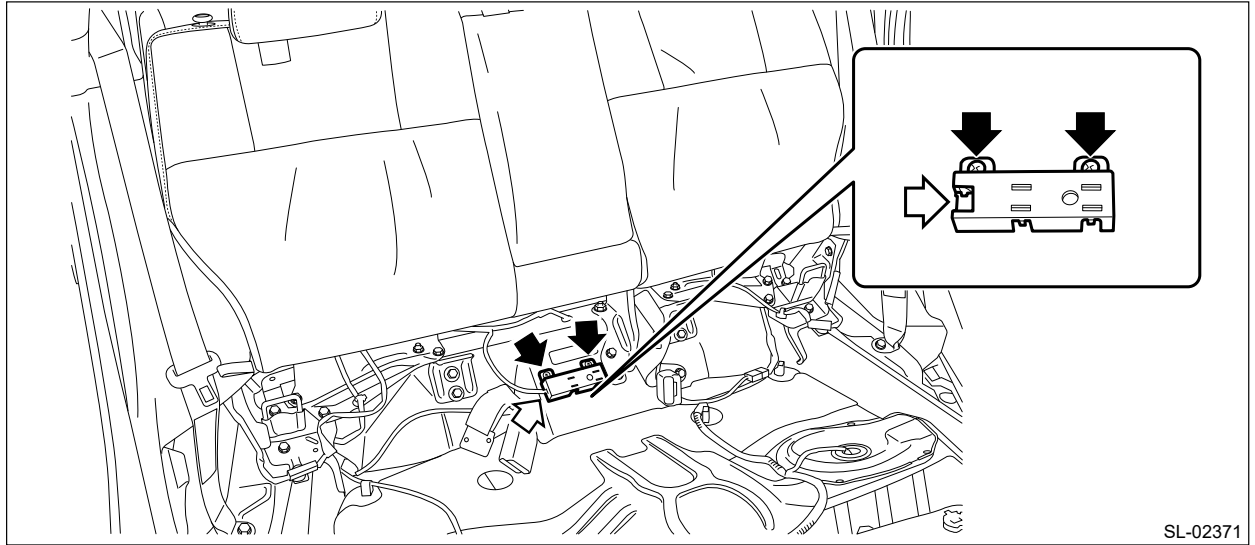
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
3. Remove the center antenna assembly - interior.

Note:


Do not remove the antenna assembly from the cover. If removed, the antenna assembly and cover mounting becomes loose, causing abnormal noises.

- (1) Disconnect the connector.
- (2) Remove the screw, and remove the center antenna assembly - interior.




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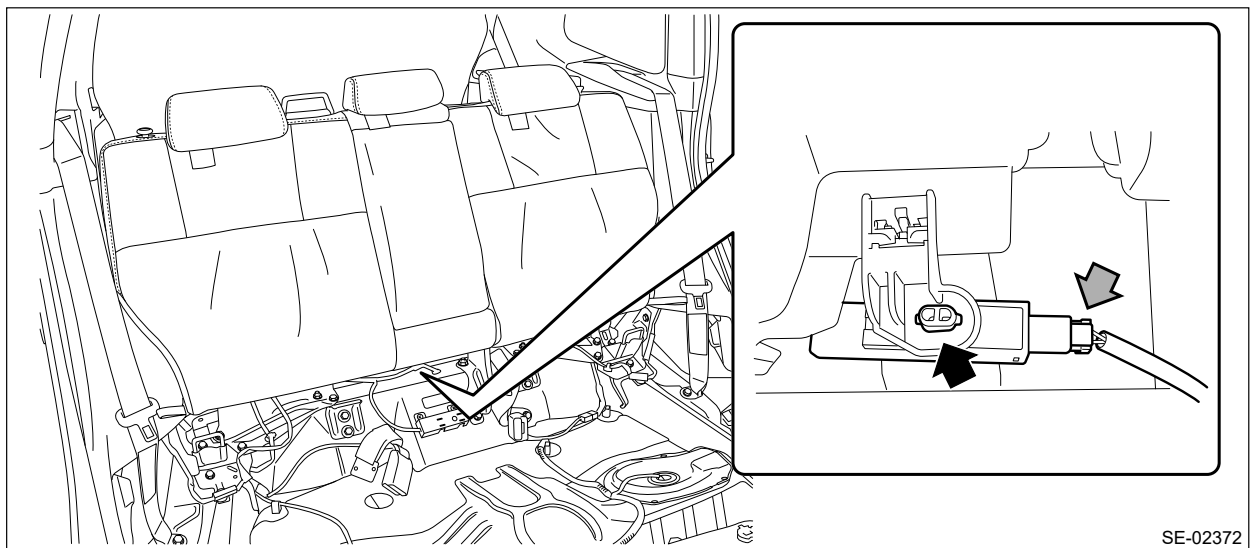
3. REAR ANTENNA

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.



2. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
3. Disconnect the connector and remove the rear antenna assembly - interior.



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SECURITY AND LOCKS > Keyless Access Outdoor Antenna

INSPECTION

- 1.** Check the setting by performing Keyless access system check using the Subaru Select Monitor.
 [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Keyless Access System Check>OPERATION.](#)
- 2.** Disconnect the Subaru Select Monitor. While bringing the access key, operate the touch sensor on door handle to check if door lock or unlock operates.
- 3.** Disconnect the Subaru Select Monitor. While bringing the access key, operate the opener switch on the rear gate and the lock request switch to check if the door lock or lock operates.
- 4.** If the system does not operate normally as the result of inspection, refer to "General Diagnostic Table" of the "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>General Diagnostic Table>INSPECTION > KEYLESS ACCESS SYSTEM.](#)


SECURITY AND LOCKS > Keyless Access Outdoor Antenna

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Rear antenna assembly - exterior: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

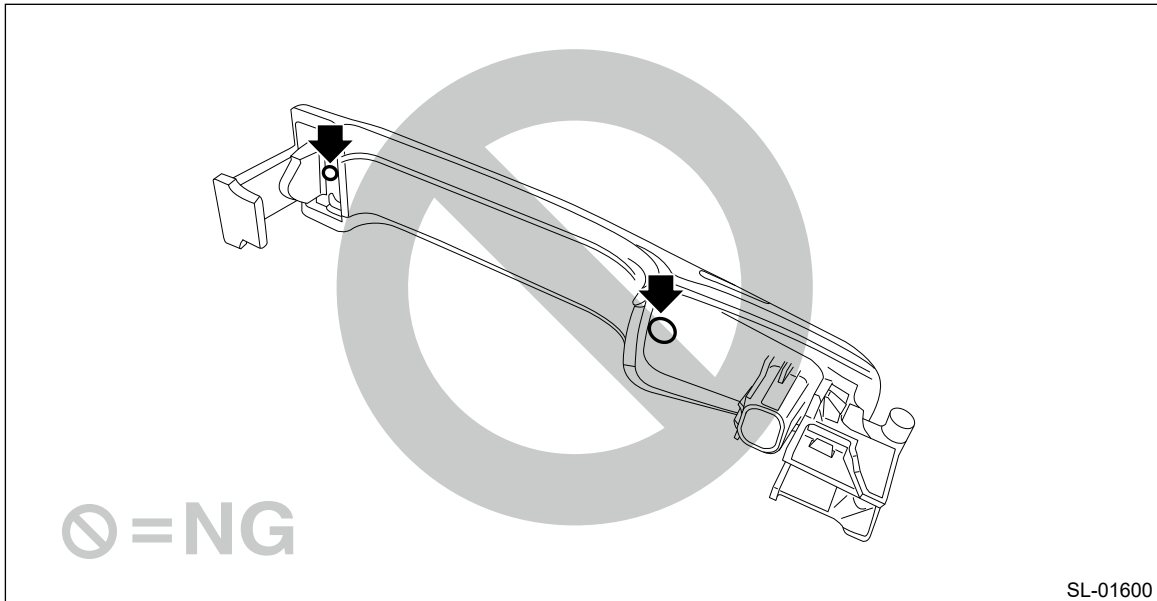
REMOVAL


1. FRONT ANTENNA

Caution:

Do not detach the antenna from the front door outer handle.

If replacement is required, replace the front outer handle assembly as a whole.



1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:


For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the handle - door outer.  [Ref. to SECURITY AND LOCKS>Front Outer Handle>REMOVAL.](#)

2. REAR ANTENNA

Caution:

- **Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.**
- **When replacing the antenna, do not reuse the tapping screw. Always replace with new tapping screws.**

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

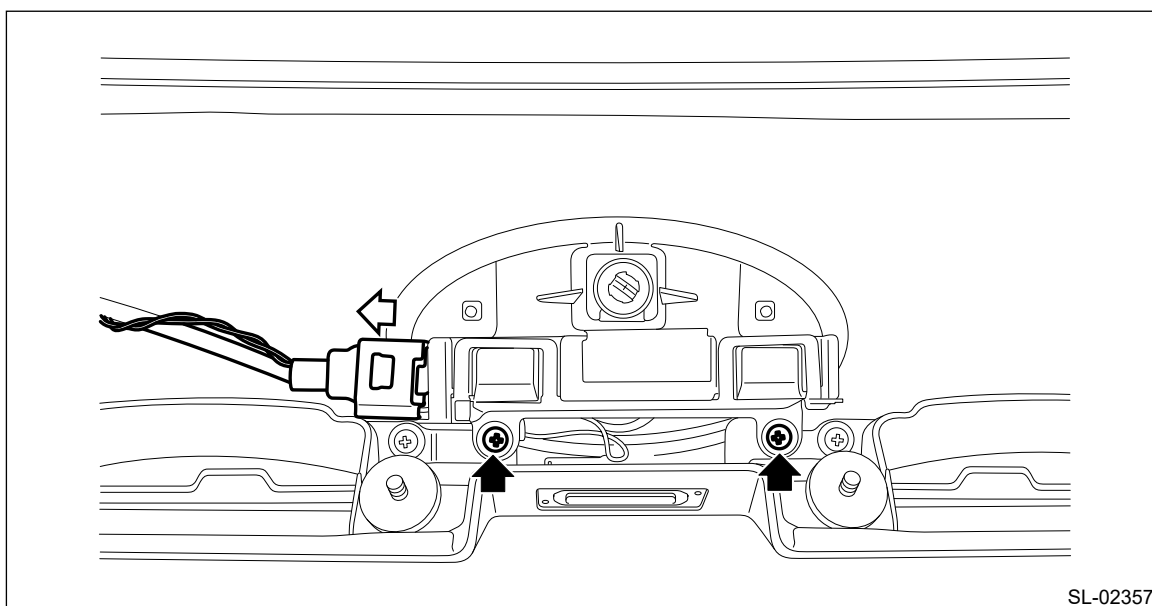
2. Remove the garnish assembly - rear gate.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate](#)

Garnish>REMOVAL.

3. Remove the rear antenna assembly - exterior.

(1) Disconnect the connector.


(2) Remove the screws, and remove the rear antenna assembly - exterior.



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SECURITY AND LOCKS > Keyless Access System


ELECTRICAL SPECIFICATION

Refer to "Control Module I/O Signal" of "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)

SECURITY AND LOCKS > Keyless Access System

INSPECTION




1. KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

Refer to "Basic Diagnostic Procedure" of "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

SECURITY AND LOCKS > Keyless Access System


WIRING DIAGRAM

For wiring diagrams related to the keyless access system, refer to the following items.

- Keyless access system:  [Ref. to WIRING SYSTEM>Keyless Access System>WIRING DIAGRAM.](#)
- Push button start system
 - Non-turbo model:  [Ref. to WIRING SYSTEM>Push Button Start System>WIRING DIAGRAM > NON-TURBO MODEL.](#)
 - Turbo model:  [Ref. to WIRING SYSTEM>Push Button Start System>WIRING DIAGRAM > TURBO MODEL.](#)


SECURITY AND LOCKS > Keyless Access With Push Button Start System

DIAGNOSTIC PROCEDURE WITH PHENOMENON

Refer to "Diagnostics with Phenomenon" of "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Diagnostics with Phenomenon.](#)

SECURITY AND LOCKS > Keyless Buzzer


INSPECTION

Using the Subaru Select Monitor, perform forced operation of the keyless buzzer.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEYLESS BUZZER.](#)

If the buzzer does not sound, replace the keyless buzzer.

SECURITY AND LOCKS > Keyless Buzzer

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Keyless Buzzer

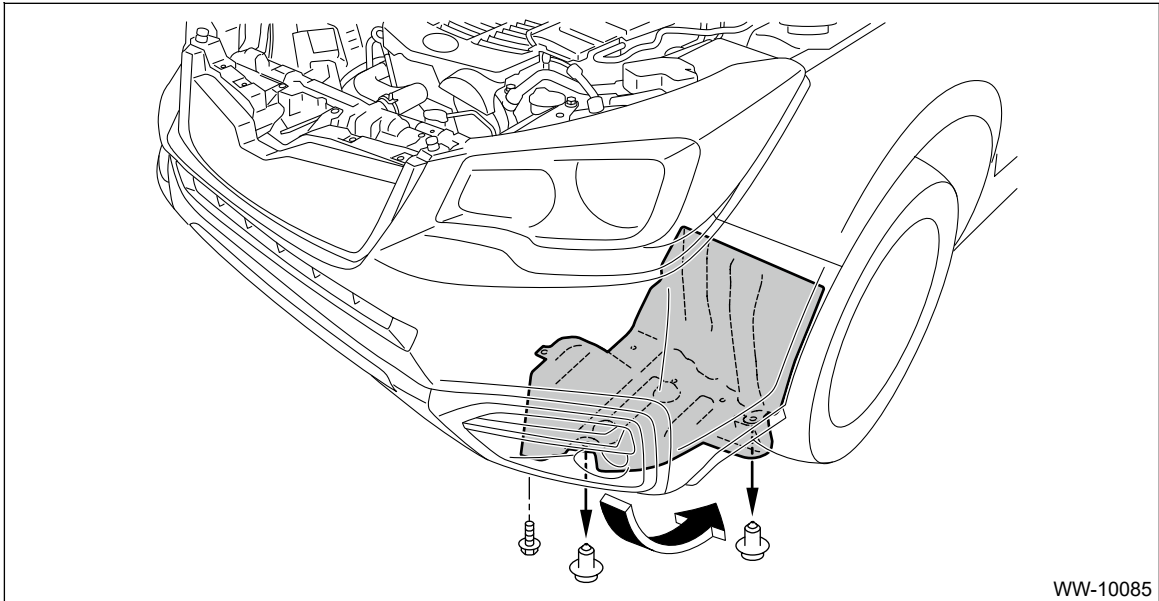
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

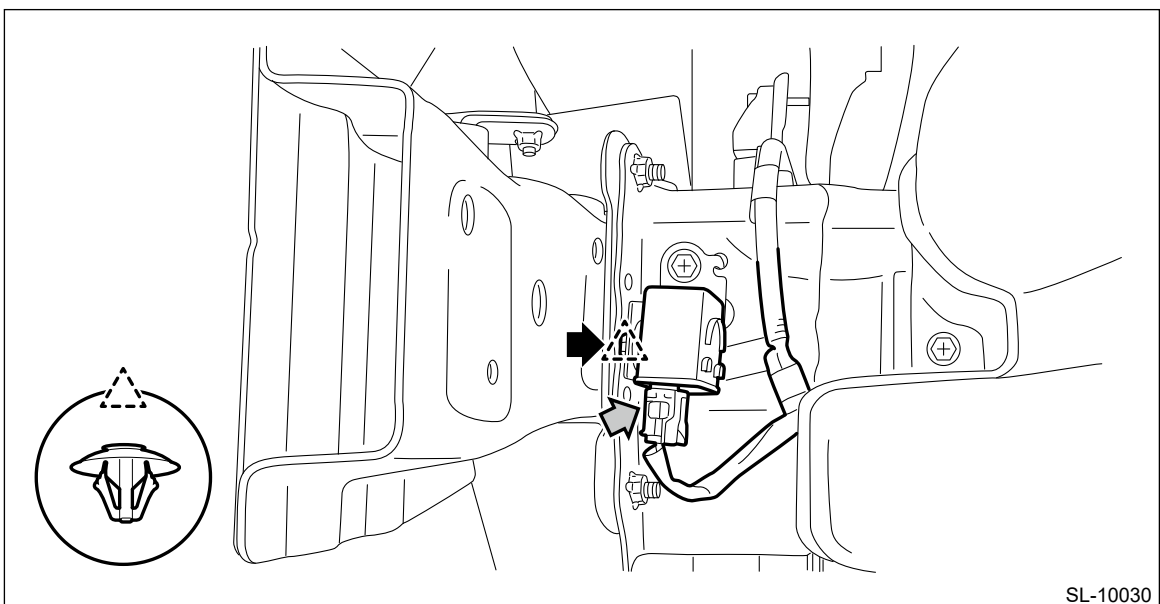
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Lift up the vehicle.
3. Remove the screw and clips, and turn over the front side of the mud guard - front.



4. Remove the keyless buzzer.
 - (1) Disconnect the connector.
 - (2) Remove the clip and detach the keyless buzzer.




SECURITY AND LOCKS > Keyless Entry Control Module

INSTALLATION

1. Install each part in the reverse order of removal.


Tightening torque:

Keyless entry control module: 13 N•m (1.33 kgf-m, 9.6 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


SECURITY AND LOCKS > Keyless Entry Control Module

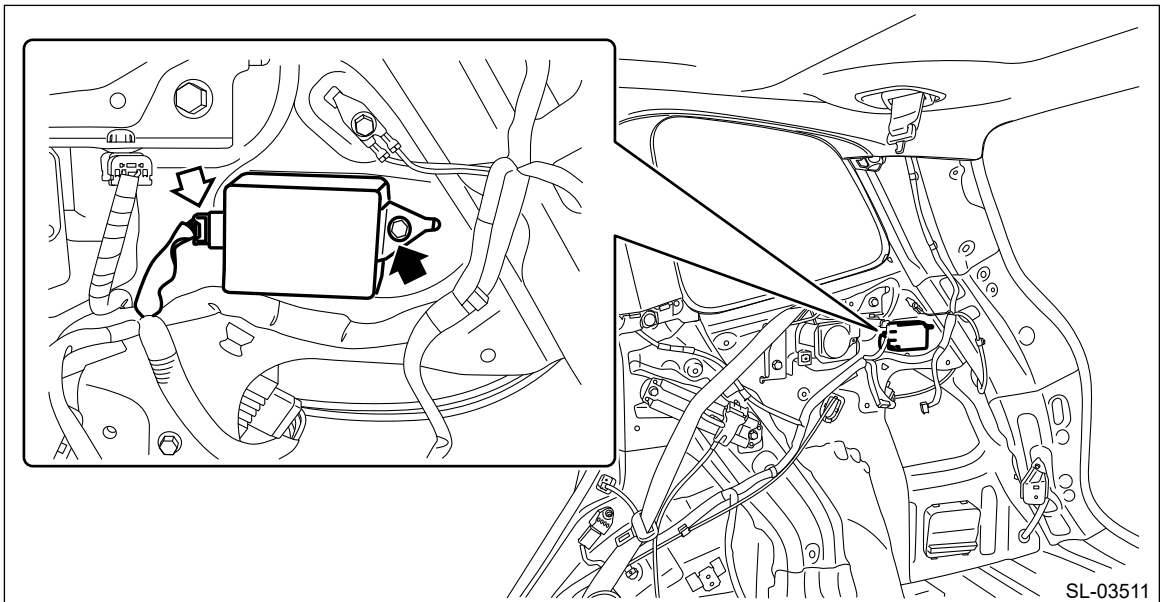
REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

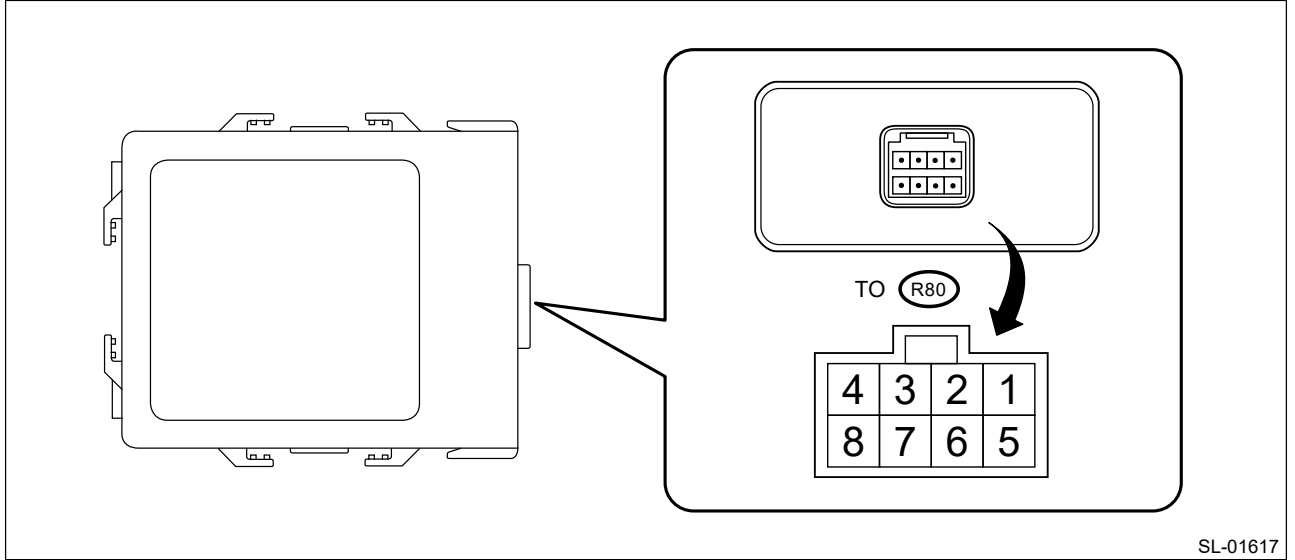
2. Remove the trim panel - rear apron RH and trim panel - rear quarter pillar UPR RH.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)
3. Remove the keyless entry control module.
 - (1) Disconnect the connector.
 - (2) Remove the bolt and then remove the keyless entry control module.



ELECTRICAL SPECIFICATION

1. KEYLESS ENTRY CONTROL MODULE

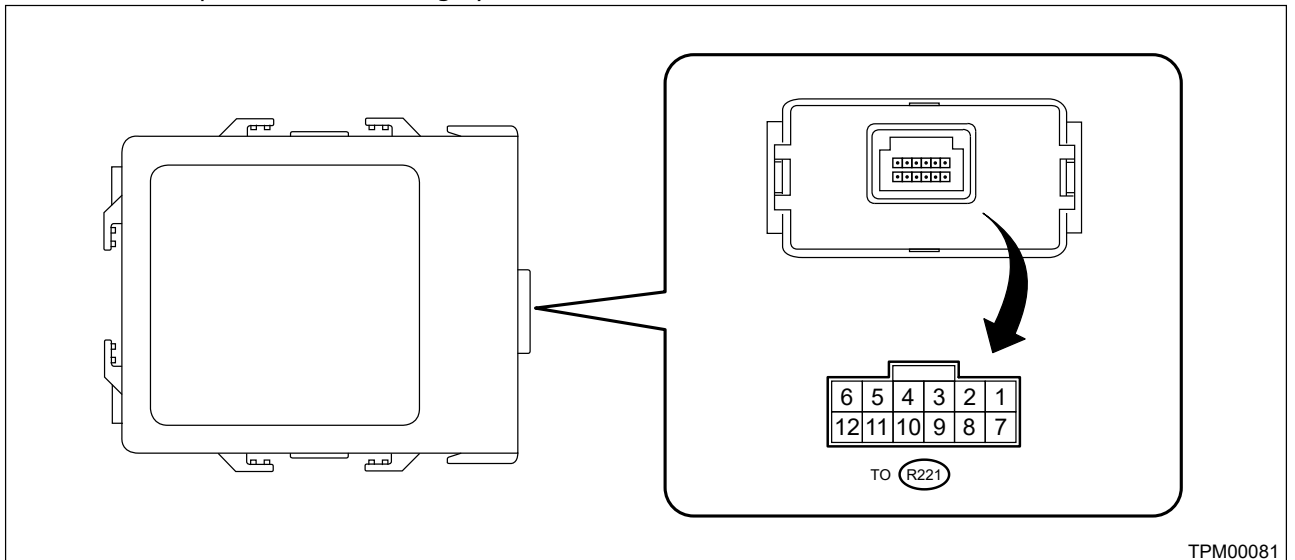
- Model without tire pressure monitoring system



SL-01617

Terminal No.	Item	Measuring condition	Standard
3 (U-ART com.)	—	Cannot be measured	—
4 (+B) ↔ Chassis ground	Voltage	Always	10 – 14 V
7 (GND) ↔ Chassis ground	Resistance	Always	Less than 1 Ω

- Model with tire pressure monitoring system



TPM00081

Terminal No.	Item	Measuring condition	Standard
4 (IG) ↔ Chassis ground	Voltage	IG OFF → ON	0 V → 10 – 14 V
5 (GND) ↔ Chassis ground	Resistance	Always	Less than 1 Ω

6 (+B) ↔ Chassis ground	Voltage	Always	10 – 14 V
11 (U-ART com.)	—	Cannot be measured	—








2. BODY INTEGRATED UNIT

Refer to "Control Module I/O Signal" of "BODY CONTROL SYSTEM (DIAGNOSTICS)" section.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)






SECURITY AND LOCKS > Keyless Entry System

INSPECTION

1. SYMPTOM CHART

Symptoms	Repair order	Reference
None of the functions of the keyless entry system operate.	1. Check the keyless transmitter battery.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION.
	2. Remove and visually inspect the following fuses. <ul style="list-style-type: none"> • No. 3 (in fuse & relay box) • No. 7 (in fuse & relay box) • No. 15 (in fuse & relay box) 	If the fuse is blown out, replace the fuse with a new part. When there is no defective with the fuse, check the power supply and ground circuit.  Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK POWER SUPPLY AND GROUND CIRCUIT.
	3. Check the keyless entry control module.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEYLESS ENTRY CONTROL MODULE.
	4. Check the power supply and ground circuit for body integrated unit.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT.
	5. Check the key warning switch.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEY WARNING SWITCH.
	6. Check the door switch signal.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK DOOR SWITCH.
	7. Check the body integrated unit.	 Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.

The keyless transmitter cannot be registered.	1. Check the keyless transmitter battery.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION.
	2. Check the key warning switch.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEY WARNING SWITCH.
	3. Check the keyless entry control module.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEYLESS ENTRY CONTROL MODULE.
	4. Check the body integrated unit.	 Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
Door lock or unlock does not operate. Note: If the door lock control system does not operate when using the door lock switch, check the door lock control system.  Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION.	1. Check the keyless transmitter battery.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION.
	2. Check the key warning switch.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEY WARNING SWITCH.
	3. Check the keyless entry control module.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEYLESS ENTRY CONTROL MODULE.
	4. Check the body integrated unit.	 Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
The keyless buzzer and hazard light do not operate.	1. Check the keyless buzzer operation.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK KEYLESS BUZZER.
	2. Check the hazard light operation.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION >



		CHECK HAZARD LIGHT OPERATION.
	3. Check the body integrated unit.	 Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
Room light does not operate.	1. Check the room light operation.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION >CHECK ROOM LIGHT OPERATION.
	2. Check the body integrated unit.	 Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
Ignition switch illumination does not operate.	1. Check the ignition switch illumination.	 Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION >CHECK IGNITION SWITCH ILLUMINATION.
	2. Check the body integrated unit.	 Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.

2. CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION

Caution:

Be sure to reset keyless transmitter of other vehicles registered to the inspection target vehicle, and vehicles to which keyless transmitters were registered for inspection, to the condition before performing the inspection. (Re-register the keyless transmitters.)

1. CHECK KEYLESS TRANSMITTER BATTERY.


1. Remove the battery from the keyless transmitter.  [Ref. to SECURITY AND LOCKS>Keyless Transmitter>REMOVAL.](#)
2. Check the battery voltage.  [Ref. to SECURITY AND LOCKS>Keyless Transmitter>INSPECTION.](#)

Is the voltage 2.5 V or more?

 [Go to 2.](#)

Replace the keyless transmitter battery.


2. CHECK KEYLESS TRANSMITTER.

Register the keyless transmitter which operates normally on other vehicles to the inspection target vehicle.  [Ref. to SECURITY AND LOCKS>Keyless Transmitter>REPLACEMENT > REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR.](#)

1. Close all the doors and rear gate of inspection target vehicle.
2. Using the keyless transmitter, lock and unlock the doors and rear gate of vehicle.

Can the check vehicle be locked and unlocked properly?


Yes

 [Go to 3.](#)

No


Due to vehicle malfunction, continue the keyless entry system diagnosis.

3. CHECK KEYLESS TRANSMITTER.

Register the keyless transmitter of the inspected vehicle to another vehicle whose keyless system operates normally.  [Ref. to SECURITY AND LOCKS>Keyless Transmitter>REPLACEMENT > REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR.](#)

Is the keyless transmitter registered correctly?

Yes

 [Go to 4.](#)

No

Replace the keyless transmitter and perform registration.

4. CHECK KEYLESS TRANSMITTER.

Check the registered keyless transmitter.

1. Close all the doors and rear gate of the vehicle which keyless system operates normally.
2. Using the keyless transmitter, lock and unlock the doors and rear gate of vehicle.

Does the vehicle operate lock and unlock normally?

Yes

Keyless transmitter is OK.

No

Replace the keyless transmitter and perform registration.

3. CHECK KEYLESS ENTRY CONTROL MODULE

1. CHECK BODY INTEGRATED UNIT.

Read the DTC using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is DTC U1500 "KEYLESS UART COM. MALFUNCTION" displayed?

Yes

 [Go to 2.](#)

No

Keyless entry control module is normal.

2. CHECK POWER SUPPLY.



1. Disconnect the keyless entry control module connector.
2. Measure the voltage between keyless entry control module connector and chassis ground.

Connector & terminal

Model without tire pressure monitoring system

(R80) No. 4 (+) — Chassis ground (-):

Model with tire pressure monitoring system

(R221) No. 6 (+) — Chassis ground (-):

Is the voltage 10 V or more?

Yes

 [Go to 3.](#)

No

Check the harness for open or short circuits between the keyless entry control module and the fuse.

3. CHECK POWER SUPPLY (MODEL WITH TPMS ONLY).



Measure the voltage between connector and chassis ground.

Connector & terminal

(R221) No. 4 (+) — Chassis ground (-):

IGN OFF: 0 V

IGN ON: 10 V or more?

Yes

 [Go to 4.](#)

No

Check the harness for open or short circuits between the keyless entry control module and the fuse.

4. CHECK GROUND CIRCUIT.

Measure the resistance between keyless entry control module connector and chassis ground.

Connector & terminal

Model without tire pressure monitoring system

(R80) No. 7 — Chassis ground:

Model with tire pressure monitoring system

(R221) No. 5 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

 [Go to 5.](#)

No

Repair or replace the harness.

5. CHECK KEYLESS ENTRY CONTROL MODULE CIRCUIT.

1. Disconnect the body integrated unit connector.
2. Check the harness between keyless entry control module and body integrated unit.

Connector & terminal

Model without tire pressure monitoring system

(i171) No. 11 — (R80) No. 3:

Model with tire pressure monitoring system

(i171) No. 11 — (R221) No. 11:

Is harness normal?


Yes

Replace the keyless entry control module.

No

Repair or replace the harness.

4. CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT

Refer to the "CHECK POWER SUPPLY AND GROUND CIRCUIT" of "Door Lock Control System" for detailed procedures.  [Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION >CHECK POWER SUPPLY AND GROUND CIRCUIT.](#)

5. CHECK DOOR SWITCH

1. CHECK CURRENT DATA.

Display the following items using Subaru Select Monitor.

- [Driver's door SW input]

- [P-door SW input]
- [Rear right door SW input]
- [Rear left door SW input]
- [R Gate SW input]

Note:


For detailed operation procedures, refer to "Application help".

Does the display switch between OFF ↔ ON when each door or rear gate is opened/closed?

Yes

The door switch or the rear gate latch switch is normal.

No

 [Go to 2.](#)

2. CHECK HARNESS.



1. Disconnect the connector of body integrated unit.
2. Disconnect the connector of the door switch or the rear gate latch switch that the display does not change.
3. Check the harness between body integrated unit and defective switch.

Connector & terminal

Front door LH

(i84) No. 14 — (R9) No. 1:

Front door RH

(i84) No. 13 — (R12) No. 1:

Rear door LH

(i84) No. 24 — (R22) No. 1:

Rear door RH


(i84) No. 25 — (R16) No. 1:

Rear gate

(i84) No. 33 — (D46) No. 3:

Is harness normal?

Yes

 [Go to 3.](#)

No

Repair or replace the harness.

3. CHECK HARNESS.



Measure the resistance between the faulty switch connector and chassis ground.

Connector & terminal

Front door LH

(R9) No. 3 — Chassis ground:

Front door RH

(R12) No. 3 — Chassis ground:

Rear door LH

(R22) No. 3 — Chassis ground:

Rear door RH

(R16) No. 3 — Chassis ground:

Rear gate

(D46) No. 4 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

 [Go to 4.](#)

No

Repair or replace the harness.

4. CHECK DOOR SWITCH.

Measure the resistance between faulty switch terminals.

Terminals

Front LH door switch

No. 1 — No. 3:

Front RH door switch

No. 1 — No. 3:

Rear LH door switch

No. 1 — No. 3:

Rear RH door switch

No. 1 — No. 3:

Rear gate latch switch

No. 3 — No. 4:

Is the resistance 1 M Ω or more when the door switch is pushed and the rear gate is closed?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Replace the faulty parts.

- Door switches
- Rear gate latch and actuator assembly

6. CHECK KEY WARNING SWITCH

1. CHECK CURRENT DATA.

Display the [Key-lock Warning SW] data using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is the normal input signal displayed when the key is inserted in/removed from the ignition switch?

Yes

The key warning switch is OK.

No

 [Go to 2.](#)

2. CHECK FUSE.



Remove and visually check fuse No. 14 (in the main fuse box).

Is the fuse blown out?

Yes

Replace the fuse with a new part.

No

 [Go to 3.](#)

3. CHECK KEY WARNING SWITCH CIRCUIT.



1. Disconnect the connector of body integrated unit.
2. Insert the key into ignition switch. (LOCK position)
3. Measure the voltage between the body integrated unit connector and chassis ground.

Connector & terminal

(B280) No. 4 (+) — Chassis ground (–):

Is the voltage 9 V or more?

Yes

 [Go to 4.](#)

No

 [Go to 5.](#)

4. CHECK KEY WARNING SWITCH CIRCUIT.



1. Remove the key from ignition switch.
2. Measure the voltage between the body integrated unit connector and chassis ground.

Connector & terminal


(B280) No. 4 (+) — Chassis ground (–):

Is the voltage less than 1.5 V?

Yes

The key warning switch is OK.

No

 [Go to 5.](#)

5. CHECK KEY WARNING SWITCH.

1. Disconnect the connector of key warning switch.
2. Insert the key into ignition switch. (LOCK position)
3. Measure the resistance between key warning switch terminals.

Terminals

No. 1 — No. 2:

Is the resistance less than 1 Ω ?

Yes

 [Go to 6.](#)

No

Replace the key warning switch.

6. CHECK KEY WARNING SWITCH.

1. Remove the key from ignition switch.
2. Measure the resistance between key warning switch terminals.

Terminals

No. 1 — No. 2:

Is the resistance 1 M Ω or more?

Yes

Check the following:

- Harness for open circuits and shorts between the key warning switch and fuse.
- Harness for open or short between the body integrated unit and key warning switch.

No

Replace the key warning switch.

7. CHECK ROOM LIGHT OPERATION

1. CHECK ROOM LIGHT OPERATION.

Make sure the room light illuminates when the room light switch is ON, and goes off when the switch is OFF.

Does the room light illuminate or go off?

Yes

 [Go to 2.](#)

No

Check the room light circuit.  [Ref. to LIGHTING SYSTEM>Room Light>INSPECTION.](#)

2. CHECK ROOM LIGHT OPERATION.

1. Turn the room light switch to the "DOOR" position.
2. Open and close any door.

Does the room light illuminate \longleftrightarrow go off (including off delay) when the door is opened and closed?

Yes

 [Go to 3.](#)

No

 [Go to 4.](#)

3. CHECK KEYLESS ENTRY OPERATION.


Press the LOCK/UNLOCK button of the keyless transmitter.

Does it operate properly?

Yes

Room light is normal.

No

Check keyless entry system.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > SYMPTOM CHART.](#)

4. CHECK ROOM LIGHT.

Check the room light.  [Ref. to LIGHTING SYSTEM>Room Light>INSPECTION.](#)

Is room light normal?

Yes

 [Go to 5.](#)

Replace the bulb or room light assembly.

No

5. CHECK HARNESS.


1. Disconnect the connectors of body integrated unit and room light.
2. Check the harness between body integrated unit and room light.

Connector & terminal

(i84) No. 4 – (R52) No. 2:

Is harness normal?

Yes

 [Go to 6.](#)

No

Repair or replace the harness.

6. CHECK HARNESS.


Measure the voltage between the room light connector and chassis ground.

Connector & terminal

(R52) No. 3 (+) – Chassis ground (-):

Is the voltage 10 V or more?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

8. CHECK HAZARD LIGHT OPERATION

1. CHECK HAZARD LIGHT OPERATION.

Make sure the hazard light blinks when hazard switch is turned to ON.

Does the hazard light blink?

Yes

 [Go to 2.](#)

No

Check the hazard light circuit.

2. CHECK BODY INTEGRATED UNIT SETTING.



Display the [Hazard answer-back setup] data using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is the setting ON?

Yes

 [Go to 3.](#)

No

Turn the setting to ON.

3. CHECK DATA MONITOR.




Display the data of Hazard Output using Subaru Select Monitor.

Is output signal present when operating the transmitter LOCK/UNLOCK button?

Yes

 [Go to 4.](#)

No

 [Go to 5.](#)

4. CHECK KEYLESS ENTRY OPERATION.




Press the LOCK/UNLOCK button of the keyless transmitter.

Does it operate properly?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Check keyless entry system.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > SYMPTOM CHART.](#)

5. CHECK HAZARD LIGHT CIRCUIT.




1. Disconnect the connectors of the body integrated unit and turn signal & hazard unit.
2. Check the harness between body integrated unit and turn signal & hazard unit.

Connector & terminal

(i171) No. 18 — (B32) No. 8:

Is harness normal?

Yes

Check body integrated unit.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

No

Repair or replace the harness.

9. CHECK KEYLESS BUZZER

1. CHECK BODY INTEGRATED UNIT SETTING.

Display the [Answer-back buzzer setup] data using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Is the setting ON?

Yes

 [Go to 2.](#)

No

Turn the setting to ON.

2. CHECK BODY INTEGRATED UNIT.

Select and perform the [Keyless Buzzer Output] using Subaru Select Monitor.

Does the keyless buzzer sound?

Yes

Check the keyless control module.

No

 [Go to 3.](#)

3. CHECK KEYLESS BUZZER CIRCUIT.

1. Turn the ignition switch to OFF.
2. Disconnect the connectors of the body integrated unit and keyless buzzer.
3. Check the harness between body integrated unit and keyless buzzer.

Connector & terminal

(B280) No. 20 — (B164) No. 1:

Is harness normal?



Yes

 [Go to 4.](#)

No

Repair or replace the harness.

4. CHECK KEYLESS BUZZER CIRCUIT.

Measure the resistance between the keyless buzzer connector and chassis ground.

Connector & terminal

(B164) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes

 [Go to 5.](#)

No

Repair or replace the harness.

5. CHECK BODY INTEGRATED UNIT.

1. Select and perform the [Keyless Buzzer Output] using Subaru Select Monitor.
2. Measure the voltage between the body integrated unit connector and chassis ground.

Connector & terminal


(B280) No. 20 (+) — Chassis ground (–):

Is the waveform with frequency 2 kHz and voltage 9 V or more being output?


Yes

Replace the keyless buzzer.

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

10. CHECK DOOR LOCK SWITCH

For procedures, refer to the "INSPECTION OF DOOR LOCK SWITCH" of the "Door Lock Control System".  [Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK SWITCH.](#)

11. CHECK IGNITION SWITCH ILLUMINATION

1. CHECK IGNITION CIRCUIT.

Check the ignition circuit.  [Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK IGNITION SWITCH CIRCUIT.](#)

Is the switch circuit normal?


Yes

 [Go to 2.](#)

No

Repair or replace.

2. CHECK DOOR SWITCH CIRCUIT.

Inspect door switch circuit.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK DOOR SWITCH.](#)

Is the switch circuit normal?

Yes

 [Go to 3.](#)

No

Repair or replace.

3. CHECK FUSE.

Remove and visually check fuse No. 14 (main fuse box).

Is the fuse blown out?

Yes

Replace the fuse with a new part.

No

 [Go to 4.](#)

4. CHECK HARNESS.

1. Disconnect the ignition switch illumination connector.

Note:

The ignition switch illumination is integrated into the immobilizer antenna.

2. Measure the voltage between ignition switch illumination connector and chassis ground.

Connector & terminal

(B415) No. 2 (+) — Chassis ground (—):

Is the voltage 10 V or more?

Yes

 [Go to 5.](#)

No

Check the harness for open or short circuits between the ignition switch

illumination and fuse.

5. CHECK IGNITION SWITCH ILLUMINATION CIRCUIT.

1. Disconnect the connector of body integrated unit.
2. Check the harness between body integrated unit and ignition switch illumination.

Connector & terminal

(B280) No. 25 — (B415) No. 6:

Is harness normal?

Yes

 [Go to 6.](#)

No

Check the harness for open circuits and shorts between the body integrated unit and ignition switch illumination.

6. CHECK IGNITION SWITCH ILLUMINATION BULB.

Apply battery voltage between terminals of the bulb.

Terminals



No. 2 (+) — No. 6 (—):

Does the bulb illuminate?

Yes


Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

- Model with immobilizer
Replace the immobilizer antenna.  [Ref. to SECURITY AND LOCKS>Immobilizer Antenna.](#)
- Model without immobilizer
Replace the ignition switch illumination.  [Ref. to LIGHTING SYSTEM>Ignition Switch Illumination.](#)

SECURITY AND LOCKS > Keyless Entry System

WIRING DIAGRAM

Refer to "Keyless Entry System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Keyless Entry System>WIRING DIAGRAM.](#)

INSPECTION

1. KEYLESS TRANSMITTER BATTERY

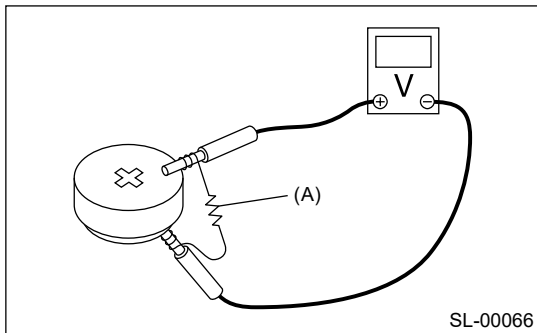
- 1. Check the keyless transmitter battery voltage.

Preparation tool:

Circuit tester

Note:

Complete the measurement within 5 seconds because the battery discharges during measurement.



Battery terminal	Inspection conditions	Standard
(+) – (-)	Connect resistor (A) 47 Ω	2.5 – 3 V

- 2. Replace the battery if the inspection result is not within the standard value. (Use CR1620 or equivalent.)

SECURITY AND LOCKS > Keyless Transmitter

INSTALLATION

1. KEYLESS TRANSMITTER BATTERY

Install each part in the reverse order of removal.

SECURITY AND LOCKS > Keyless Transmitter

REMOVAL

Note:

Refer to the access key section for model with keyless access with push button start.

 [Ref. to SECURITY AND LOCKS>Access Key>REMOVAL.](#)

1. KEYLESS TRANSMITTER BATTERY

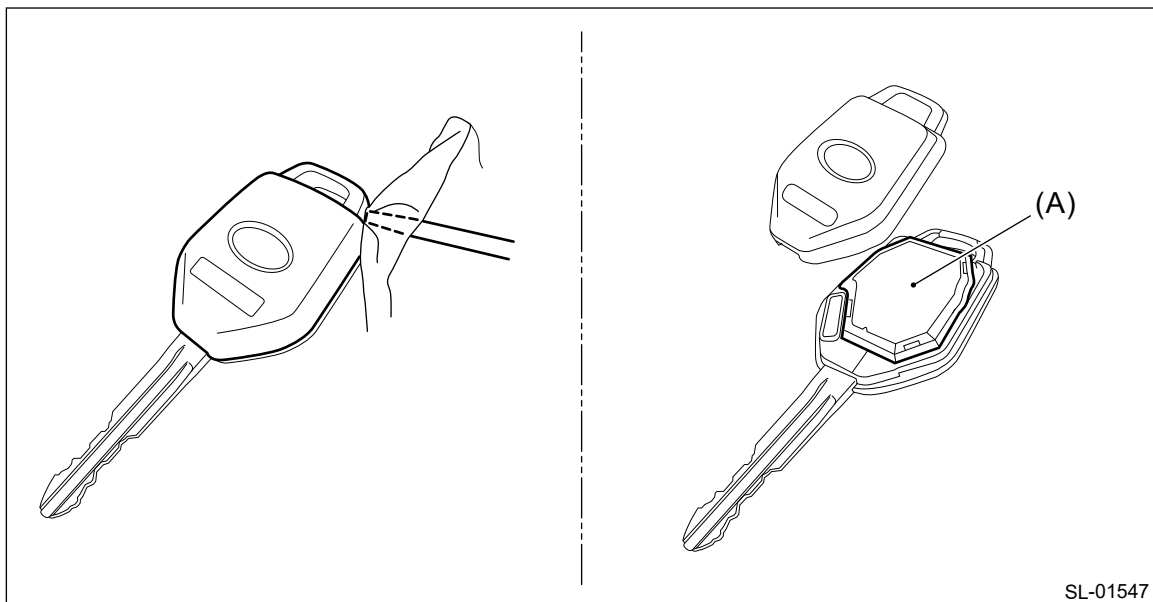
Caution:

To prevent static electricity damage to the keyless transmitter printed circuit board, touch the steel area of building with hand to discharge static electricity carried on body or clothes before disassembling the keyless transmitter.

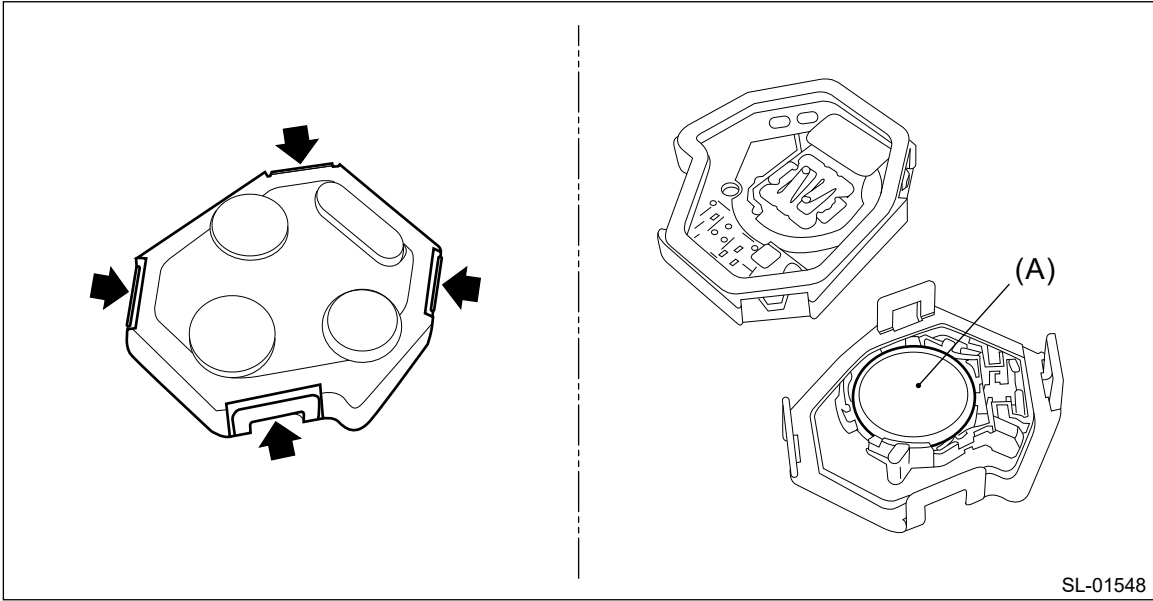
1. Remove the keyless transmitter cover, and take out the transmitter case (A).

Note:

Use a flat tip screwdriver with protective tape or cloth in order not to damage the components.



2. Release the claws to open the transmitter case, then remove the battery (A).



SL-01548

REPLACEMENT

1. REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR

Caution:

Note that the registered information for keyless transmitter will be cleared after performing registration operation.

Note:

- **A maximum of four keyless transmitters can be registered for each individual vehicle.**
- **When replacing or adding the keyless transmitter, registration of all transmitters is necessary.**

1. Register the transmitter.

- (1) Connect the Subaru Select Monitor to data link connector.

Note:

For detailed operation procedures, refer to "Application help".

- (2) Turn the ignition switch to ON.
- (3) On [Start] display, select [Diagnosis].
- (4) On [Vehicle selection] display, input the target vehicle information and select [OK].
- (5) On [Main Menu] display, select [Each System].
- (6) On [Select System] display, select [Body Control], and then select [Enter].
- (7) On [Select Function] display, select [Work Support].
- (8) On the work support item list, select [Keyless ID Registration].
- (9) According to the directions on the screen, press the button of the transmitter to be registered in order of Lock → Unlock. (When registration completed, outside buzzer sounds once.)

Note:

- **Repeat the procedure as many times as the number of transmitters to be registered.**
- **When attempting to register a key that has already been registered, the external buzzer sounds twice.**

- (10) Press the [Exit] button to finish the operations.

2. CLEAR THE REGISTRATION OF IMMOBILIZER

For detailed immobilizer registration clear, refer to "Type B" described in "REGISTRATION MANUAL FOR IMMOBILIZER".

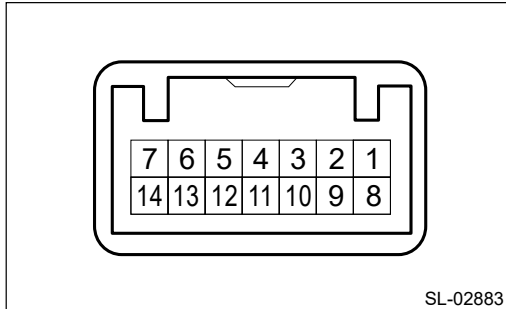
SECURITY AND LOCKS > Push Button Ignition Switch

INSPECTION

Preparation tool:

Circuit tester

1. Check the continuity between push button ignition switch terminals.



Terminal No.	Inspection conditions	Specification
4 (COM) — 5 (GND)	Always	Continuity exists
7 (SSW1) — 5 (GND)	Push button ignition switch released → pressed	Continuity exists
2 (SSW2) — 5 (GND)	Push button ignition switch released → pressed	Continuity exists

2. Check the push button ignition switch operation when battery voltage is applied between the terminals of the push button ignition switch.


Terminal No.	Inspection conditions	Specification
11 (SWIL) — 5 (GND)	Connect battery to the terminals	Goes off → Red switch illumination light
12 (INDS) — 5 (GND)		Turns off → Switch indicator lights in green
13 (INDW) — 5 (GND)		Turns off → Switch indicator lights in orange


3. Replace the push button ignition switch if the inspection result is not within the standard value.

SECURITY AND LOCKS > Push Button Ignition Switch

INSTALLATION

Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Push Button Ignition Switch

REMOVAL



Caution:

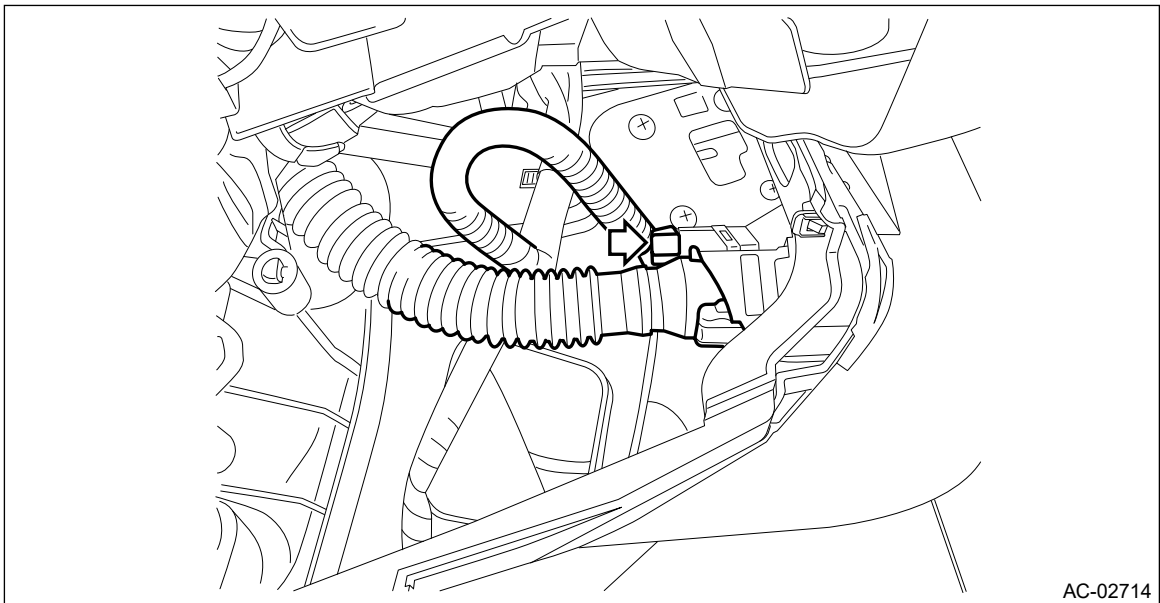
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

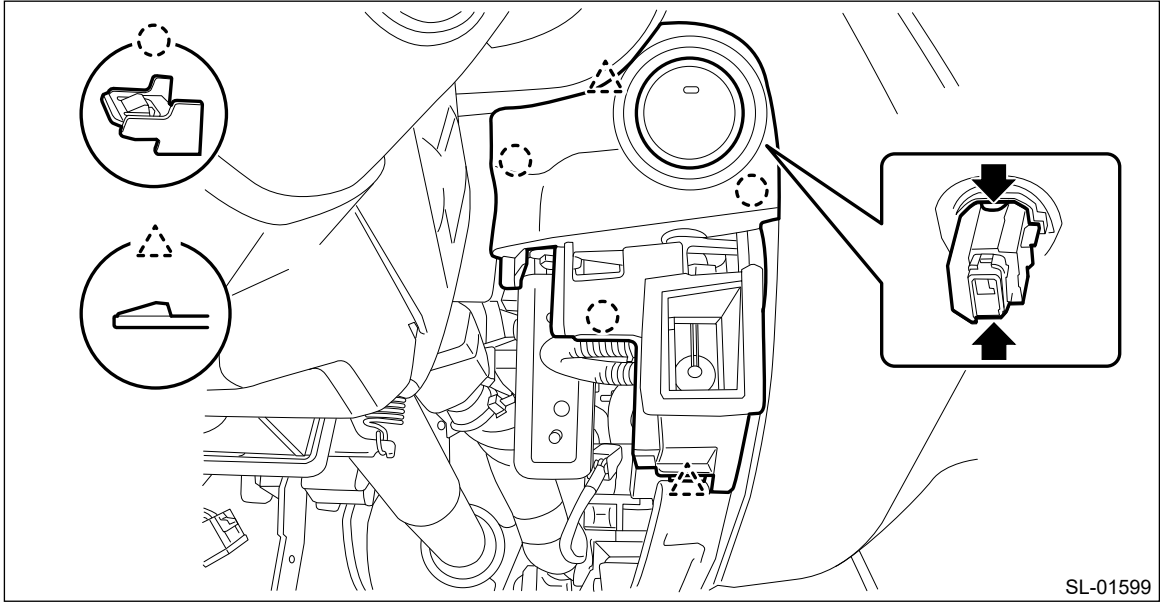
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the push button ignition switch.
 - (1) Disconnect the connector, and remove the aspirator hose.




- (2) Release the claws, and then remove the panel - switch.
- (3) Release the claws, and then remove the push button ignition switch from the panel - switch.



SL-01599

SECURITY AND LOCKS > Push Button Start System

ELECTRICAL SPECIFICATION

Refer to "Control Module I/O Signal" of "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)

SECURITY AND LOCKS > Push Button Start System

INSPECTION

1. IGNITION/ACC CHANGE FUNCTION CHECK

1. Check push button ignition switch function

(1) Check the power supply change control through push button ignition switch, brake pedal, clutch pedal operation, and shift position.

- CVT model

Shift lever position	Brake pedal operation	Push button ignition switch operation
P	Released	Repeat Ignition switch OFF → ACC ON → Ignition switch ON → Ignition switch OFF
P	Released	Switch engine running → Ignition switch OFF
P	Depressed	Ignition switch OFF → Engine started
P	Depressed	ACC ON → Engine started
P	Depressed	Ignition switch ON → Engine started
P	Depressed	Engine running → Ignition switch OFF
N	Released	Repeat Ignition switch OFF → ACC ON → Ignition switch ON → ACC ON
N	Released	Engine running → ACC ON
N	Depressed	Ignition switch OFF → Engine started
N	Depressed	ACC ON → Engine started
N	Depressed	Ignition switch ON → Engine started
N	Depressed	Engine running → ACC ON
Other than P or N	Released	Repeat Ignition switch OFF → ACC ON → Ignition switch ON → ACC ON
Other than P or N	Released	Engine running → ACC ON
Other than P or N	Depressed	Ignition switch OFF → Ignition switch ON
Other than P or N	Depressed	ACC ON → Ignition switch ON
Other than P or N	Depressed	Engine running → ACC ON

- MT model

Shift lever position	Clutch pedal operation	Push button ignition switch operation
—	Released	Repeat Ignition switch OFF → ACC ON → Ignition switch ON → Ignition switch OFF
	Released	Engine running → Ignition switch OFF
	Depressed	Ignition switch OFF → Engine started
	Depressed	ACC ON → Engine started
	Depressed	Ignition switch ON → Engine started
	Depressed	Engine running → Ignition switch OFF

2. Check power status display

(1) Check the power indicator display of the push button ignition switch.

Note:

- *1: Key collation is normal, and the stop light switch (CVT) or clutch switch (MT) is ON.
- *2: For CVT models, while the select lever button is being pressed, the indicator does not illuminate in green even if the select lever is in P range.

Indicator display

Push button ignition switch status	Indicator lighting status

Ignition switch OFF (except for condition *1)	Light OFF
ACC ON (except for condition *1)	Orange light
Ignition switch ON (except for condition *1)	Orange light
Engine start standby (*1)	Green light (*2)
After engine is started	Light OFF

Note:




The indicator blinks if any of the following malfunctions are detected.

Detected malfunction	Indicator lighting status
Steering lock stuck	Green blinking
Clutch switch failure	Orange blinking
Steering lock CM internal malfunction	Orange blinking
Keyless access CM internal malfunction	Orange blinking
Vehicle speed signal malfunction	Orange blinking

SECURITY AND LOCKS > Push Button Start System

WIRING DIAGRAM

For wiring diagrams related to the push button start system (ignition change), refer to the following items.

- Keyless access system:  [Ref. to WIRING SYSTEM>Keyless Access System>WIRING DIAGRAM.](#)
- Push button start system
 - Non-turbo model:  [Ref. to WIRING SYSTEM>Push Button Start System>WIRING DIAGRAM > NON-TURBO MODEL.](#)
 - Turbo model:  [Ref. to WIRING SYSTEM>Push Button Start System>WIRING DIAGRAM > TURBO MODEL.](#)

SECURITY AND LOCKS > Rear Door Latch and Door Lock Actuator Assembly

INSPECTION

1. LATCH

Check if the latch operates normally.

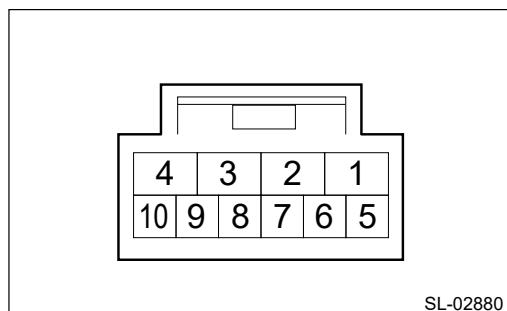
If the cable is faulty, replace the latch & actuator assembly - rear.

2. ACTUATOR

Unit inspection

1. Check door lock operation

Check the door lock operation when battery voltage is applied between the terminals of actuator.



Terminal No.	Inspection conditions	Specification
4 (+) – 1 (-)	Apply battery voltage.	LOCK
1 (+) – 4 (-)		UNLOCK

2. If it does not operate properly as a result of inspection, replace the latch & actuator assembly - rear.

SECURITY AND LOCKS > Rear Door Latch and Door Lock Actuator Assembly


INSTALLATION

1. Before installation, check the following items.
 - Cable is free from deformation.
 - Grease is applied sufficiently to lever joints.
 - If grease is insufficient, add it as necessary before assembling.
 - If the lever is deformed, replace the latch & actuator assembly - rear.
2. Install each part in the reverse order of removal.

Caution:


Do not reuse the screws of latch & actuator assembly - rear. Always replace with a new part.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to SECURITY AND LOCKS>General Description>COMPONENT > DOOR LOCK ASSEMBLY.](#)

Note:

Make sure the child safety lock works correctly after installation.

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


SECURITY AND LOCKS > Rear Door Latch and Door Lock Actuator Assembly

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

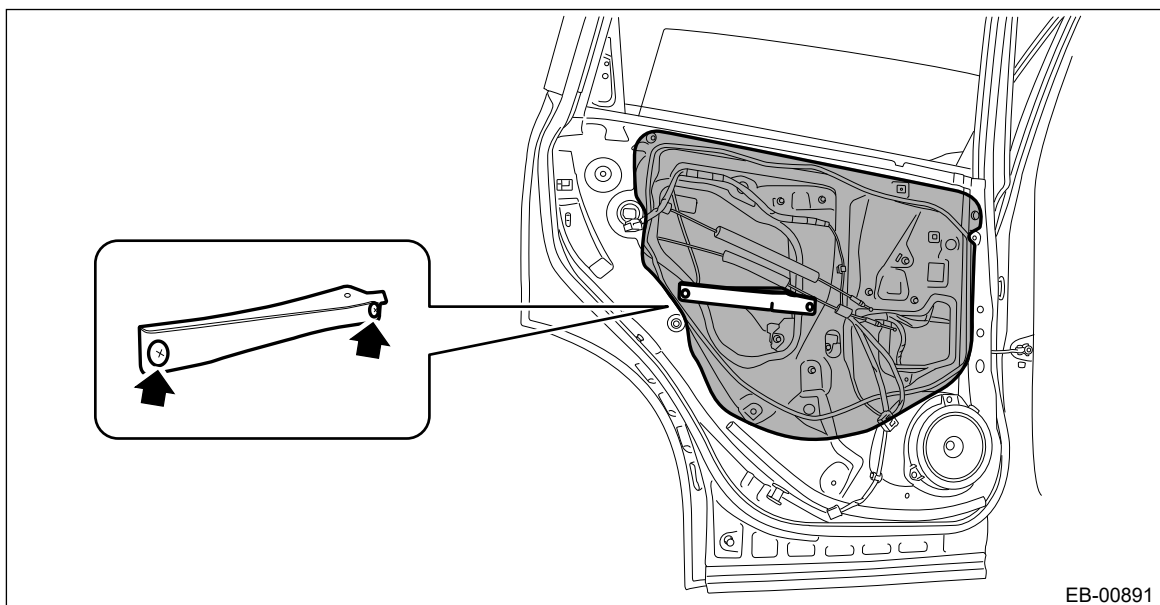
For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Turn over the sealing cover - rear door.

Caution:

- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - rear door.**
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

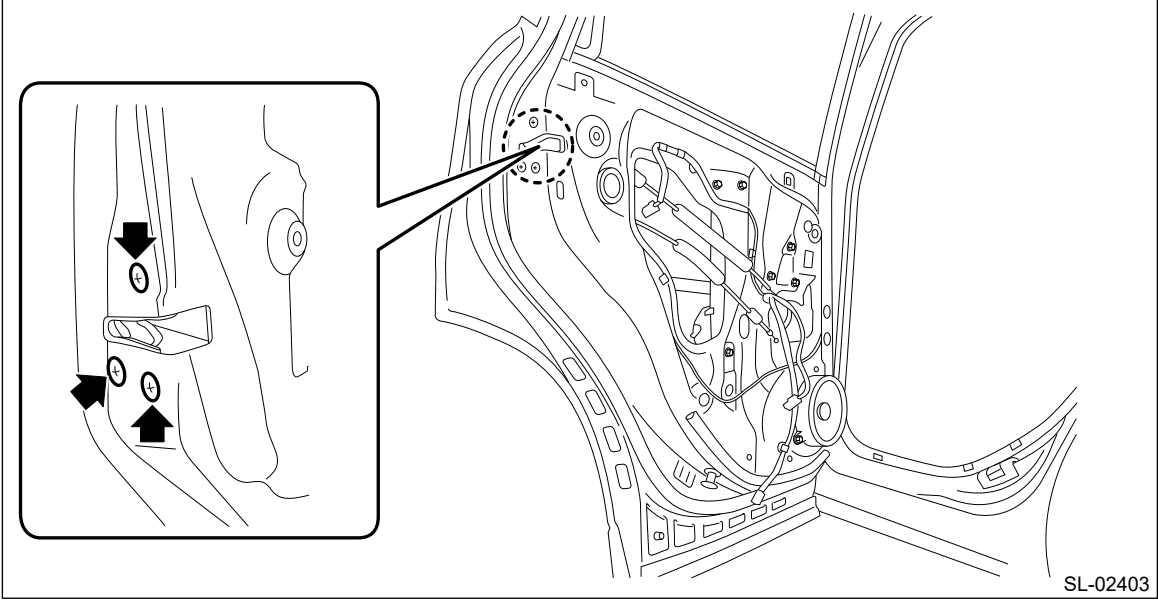
- (1) Remove the screw to remove the bracket - door trim rear.
- (2) Disconnect connectors.
- (3) Carefully remove the butyl tape and turn over the sealing cover - rear door within the area where the operation can be performed.



4. Remove the glass assembly - rear door.  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>REMOVAL.](#)
5. Remove the screws to remove the latch & actuator assembly - rear.

Caution:

Do not re-use the screws. Always replace with a new part.



SECURITY AND LOCKS > Rear Gate Latch and Actuator Assembly

INSPECTION

1. LATCH

Check if the latch operates normally.

If latch deformation, abnormal wear, or unsmooth lock operation is observed, replace the latch and actuator - rear gate.

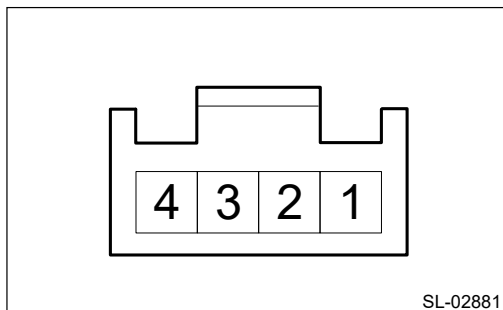
2. ACTUATOR

Preparation tool:

Circuit tester

1. Check door lock operation

Check the door lock operation when battery voltage is applied between the terminals of actuator.



Terminal No.	Inspection conditions	Specification
1 (+) – 2 (-)	Connect battery to the terminals	OPEN

2. Check switch

Check the resistance between actuator terminals.

Terminal No.	Inspection conditions	Specification
3 – 4	OPEN	Less than 1.5 Ω
	CLOSE	1 M Ω or more


3. If it does not operate properly as a result of inspection, replace the latch and actuator - rear gate.


SECURITY AND LOCKS > Rear Gate Latch and Actuator Assembly

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to SECURITY AND LOCKS>General Description>COMPONENT > REAR GATE LOCK.](#)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Rear Gate Latch and Actuator Assembly

REMOVAL


Note:

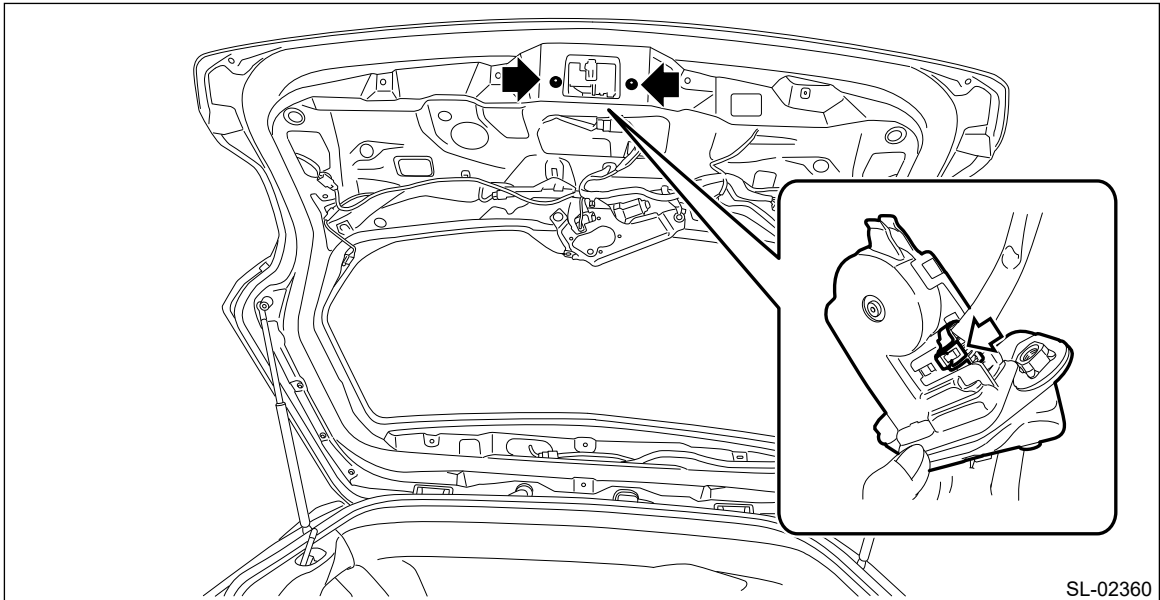
For models with power rear gate, refer to "Power Rear Gate Auto Closer".  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Auto Closer>REMOVAL.](#)

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear gate.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Trim>REMOVAL.](#)
3. Remove the latch and actuator - rear gate.
 - (1) Disconnect the connector.
 - (2) Remove the bolts, and remove the latch and actuator - rear gate.



SL-02360

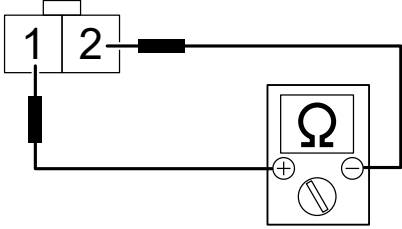
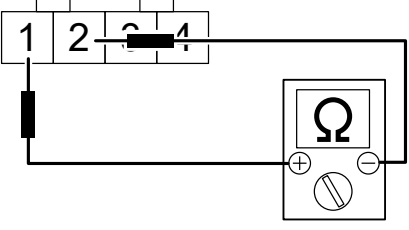
SECURITY AND LOCKS > Rear Gate Opener Button

INSPECTION

Preparation tool:

Circuit tester

1. Check the resistance between switch terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
1 – 2	OPEN	Less than 5 Ω	<ul style="list-style-type: none"> Model without keyless access with push button start  <p style="text-align: right;">SL-01476</p>
	CLOSE	1 M Ω or more	<ul style="list-style-type: none"> Model with keyless access with push button start  <p style="text-align: right;">SL-01578</p>

2. If the inspection result is not within the standard, replace the button - opener rear gate.


SECURITY AND LOCKS > Rear Gate Opener Button

INSTALLATION

Caution:

Make sure that the harness grommet is securely installed.

If not properly installed, this may cause leaks.

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Rear Gate Opener Button

REMOVAL


Note:

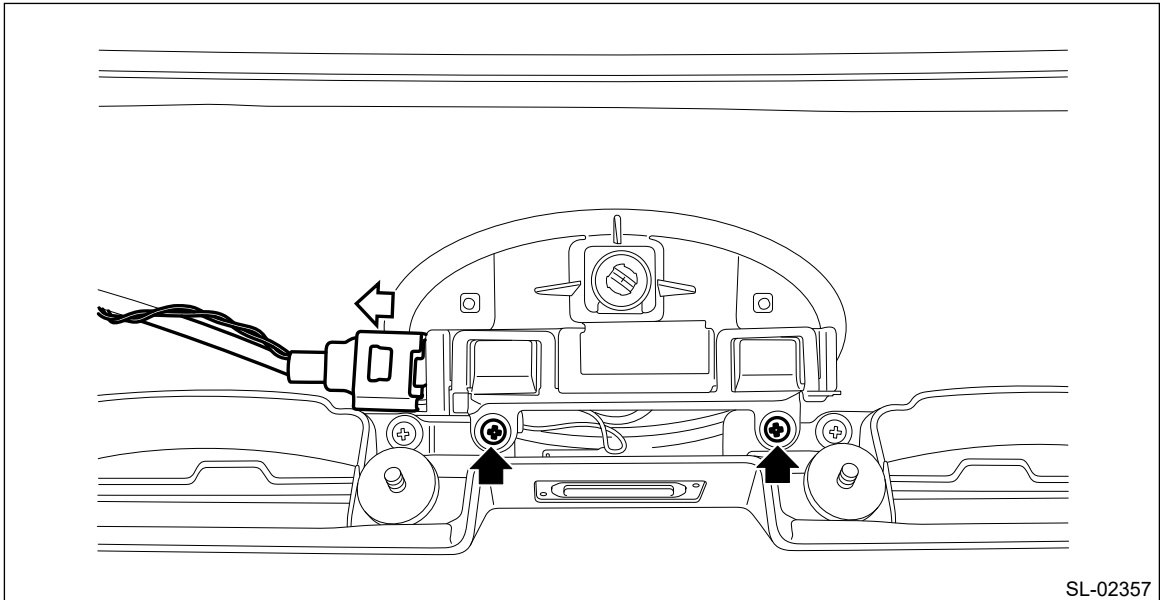
The button - opener rear gate is integrated with the rear lock button. (Model with keyless access with push button start)

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

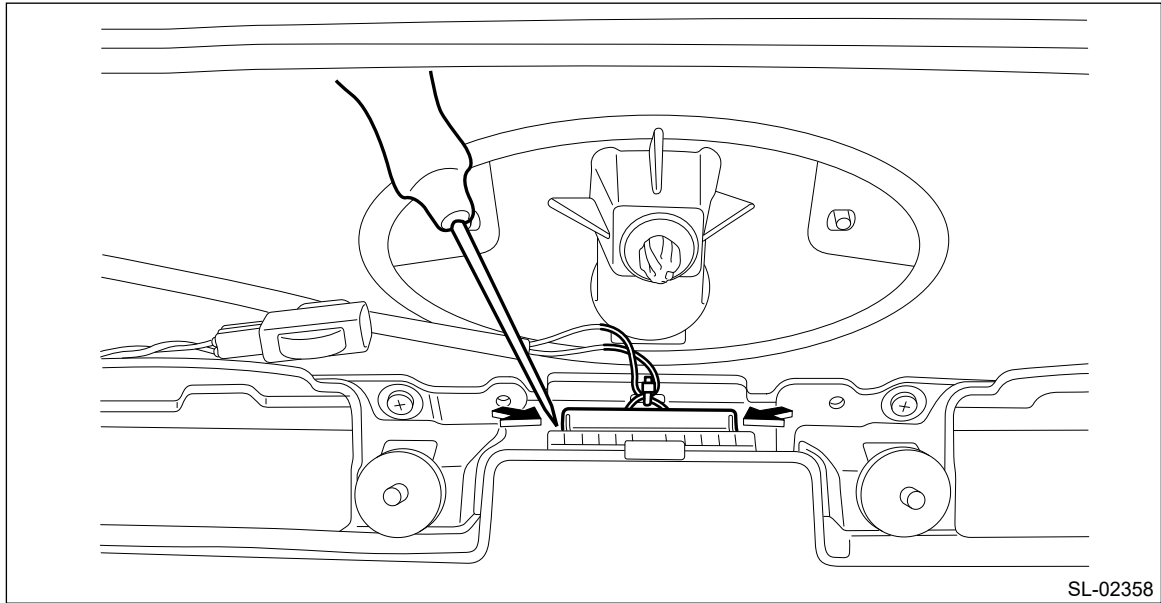
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

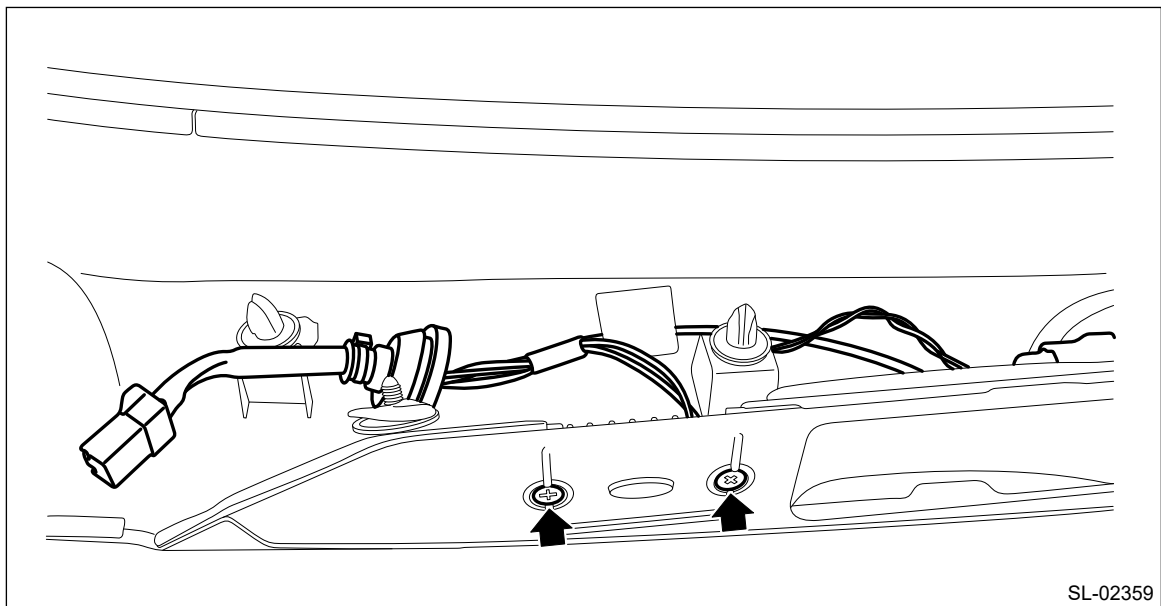
2. Remove the trim panel - rear gate and the garnish assembly - rear gate.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Garnish>REMOVAL.](#)
3. Remove the interior antenna. (Model with keyless access with push button start)
 - (1) Remove the connector.
 - (2) Remove the screws and detach the interior antenna.



4. Release the locks at both ends of the button - opener rear gate by pushing them with a flat tip screwdriver, and remove the button - opener rear gate.



- 5.** Remove the screws, and remove the rear lock button, and remove the integrated harness.
(Model with keyless access with push button start)



SECURITY AND LOCKS > Rear Inner Remote


INSPECTION

Check if the remote handle operates normally.

- If the lever is faulty, replace the remote handle.
- If the cable is deformed, replace the latch & actuator assembly - rear.

SECURITY AND LOCKS > Rear Inner Remote

INSTALLATION

- 1.** Before installation, check the following items.
 - Cable is free from deformation such as fray.
 - Grease is applied sufficiently to cable joints.
 - If grease is insufficient, add it as necessary before assembling the cable.
 - If the lever is faulty, replace the rear inner remote handle.
- 2.** Install each part in the reverse order of removal.
- 3.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


SECURITY AND LOCKS > Rear Inner Remote

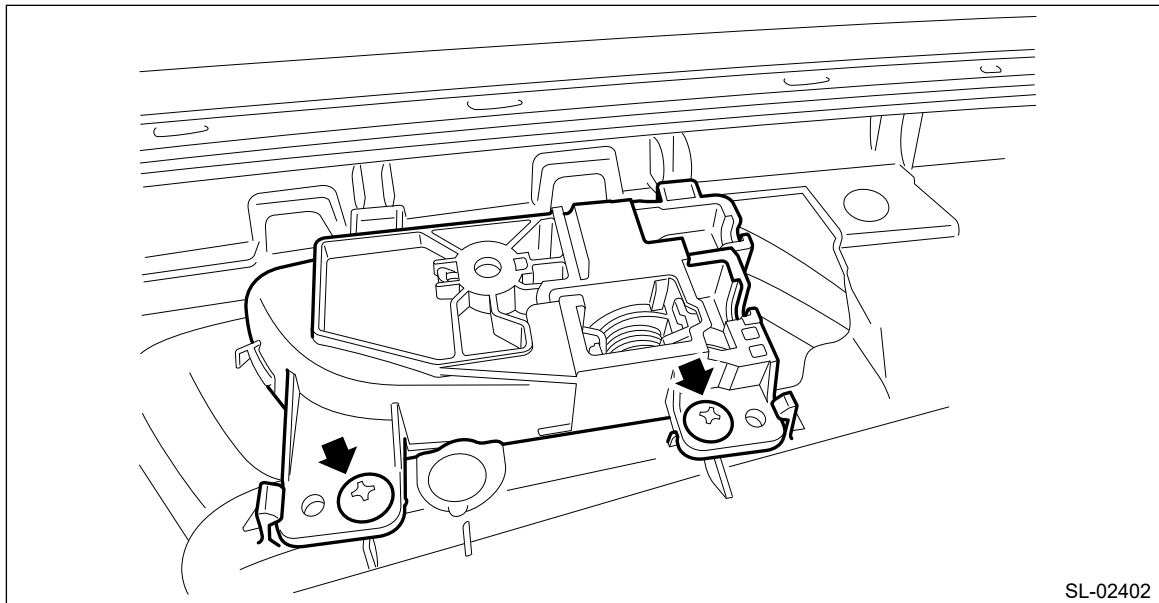
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the screw, and remove the remote assembly - door.



SL-02402

SECURITY AND LOCKS > Rear Lock Button

INSPECTION

- 1.** Connect the Subaru Select Monitor and select [Rear gate/Trunk UNLOCK output] from [Data monitor].
- 2.** Check if the display changes when the rear lock button is operated.
- 3.** If the display is not correct as the result of inspection, refer to "General Diagnostic Table" of the "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>General Diagnostic Table>INSPECTION > KEYLESS ACCESS SYSTEM.](#)


SECURITY AND LOCKS > Rear Lock Button

INSTALLATION

Caution:

Make sure that the harness grommet is securely installed.

If not properly installed, this may cause leaks.

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Rear Lock Button

REMOVAL


Note:

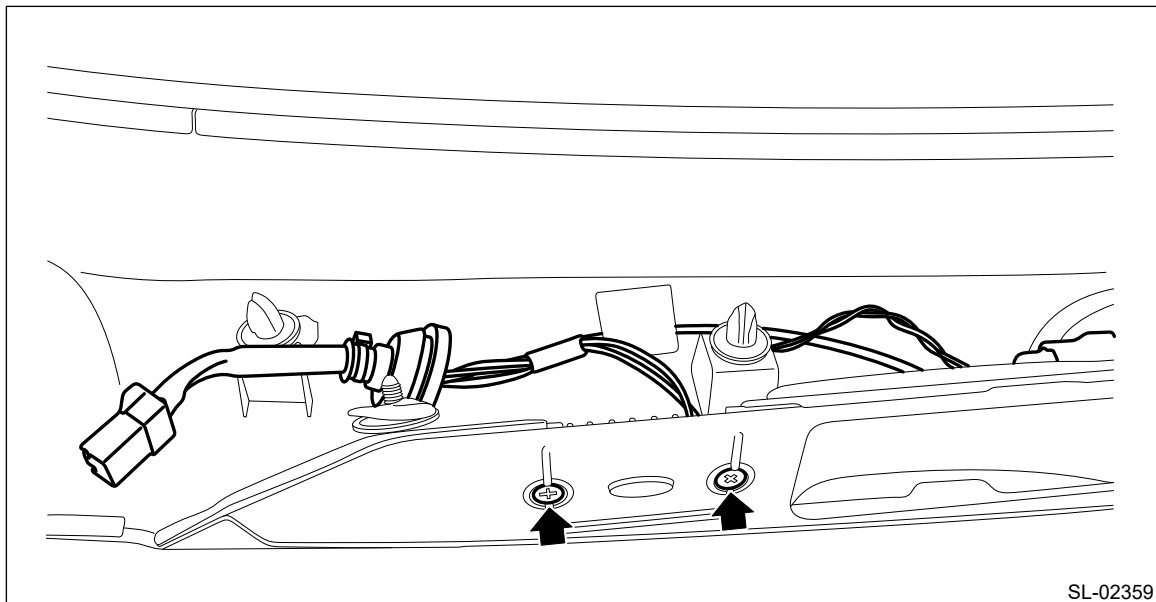
The rear lock button is integrated into the rear gate opener button.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

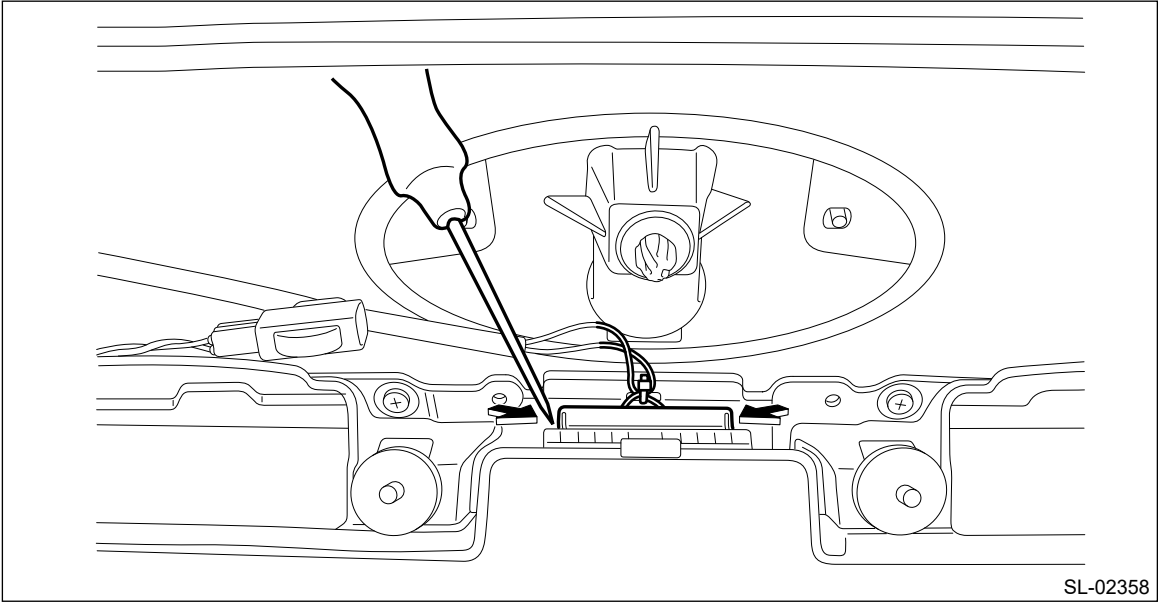
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the garnish assembly - rear gate.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Garnish>REMOVAL.](#)
3. Remove the screws and remove the rear lock button.



4. Remove the rear antenna assembly - exterior.
5. Release the locks at both ends of the button - opener rear gate by pushing them with a flat tip screwdriver, remove the button - opener rear gate and remove the integrated harness.



SL-02358

SECURITY AND LOCKS > Rear Outer Handle

INSPECTION

Check if the outer handle operates normally.

If the lever is faulty, replace the handle - door outer.

SECURITY AND LOCKS > Rear Outer Handle


INSTALLATION


1. Before installation, check the following items.
 - Lever is free from deformation.
 - Grease is applied sufficiently to lever joints.
 - If grease is insufficient, add it as necessary before assembling.
2. Install each part in the reverse order of removal.

Caution:

Do not reuse the screws of latch & actuator assembly - rear. Always replace with a new part.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to SECURITY AND LOCKS>General Description>COMPONENT > DOOR LOCK ASSEMBLY.](#)

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


SECURITY AND LOCKS > Rear Outer Handle

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

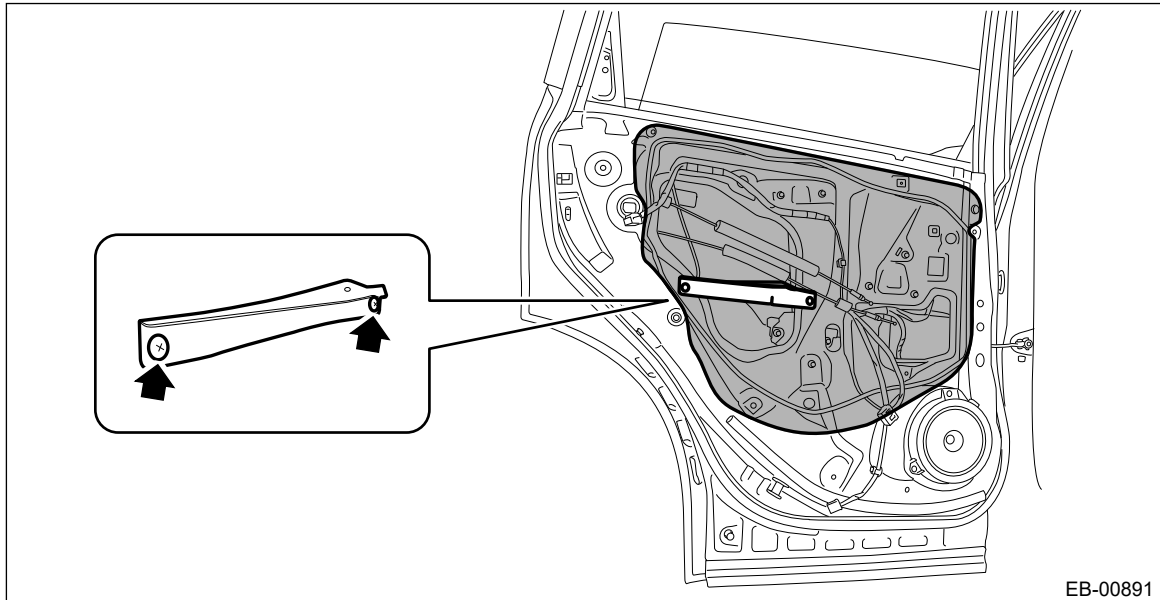
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Raise the glass assembly - rear door to the top position.
3. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
4. Turn over the sealing cover - rear door.

Caution:

- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - rear door.**
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

- (1) Remove the screw to remove the bracket - door trim rear.
- (2) Disconnect connectors.
- (3) Carefully remove the butyl tape and turn over the sealing cover - rear door within the area where the operation can be performed.

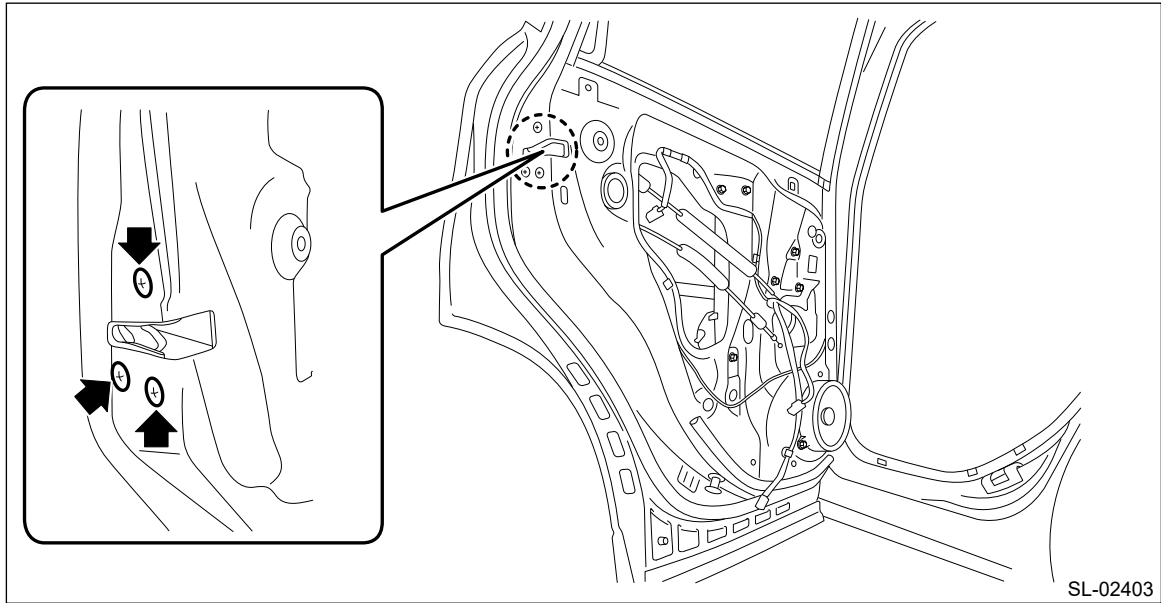


EB-00891

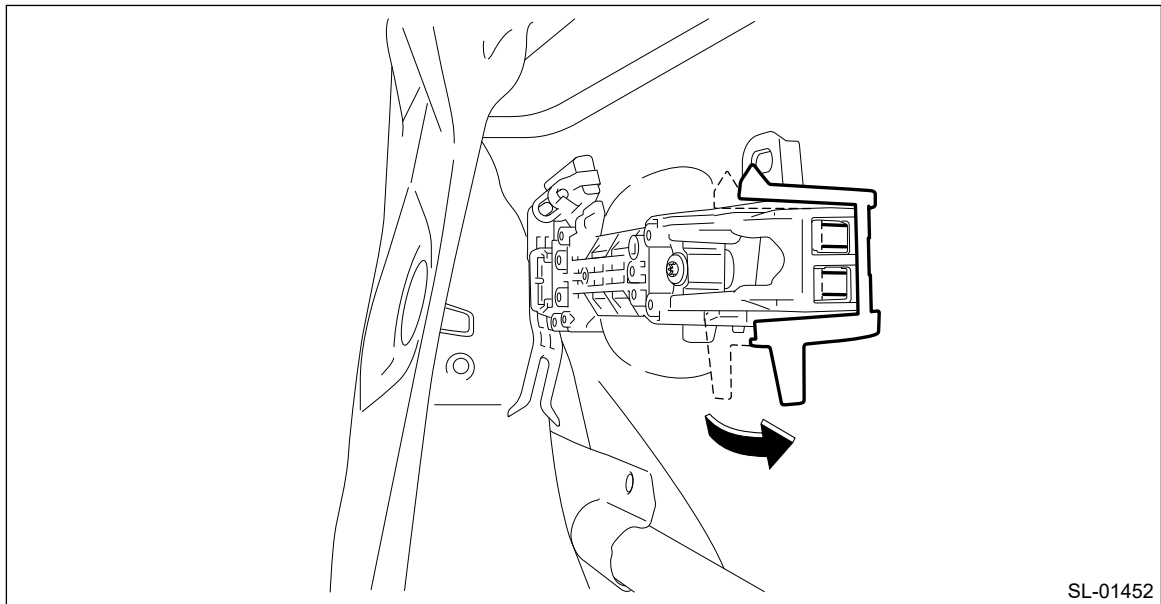
5. Remove the screws and move downward the latch & actuator assembly - rear.

Caution:

Do not re-use the screws. Always replace with a new part.



6. Remove the holder of the frame assembly - rear door outer.



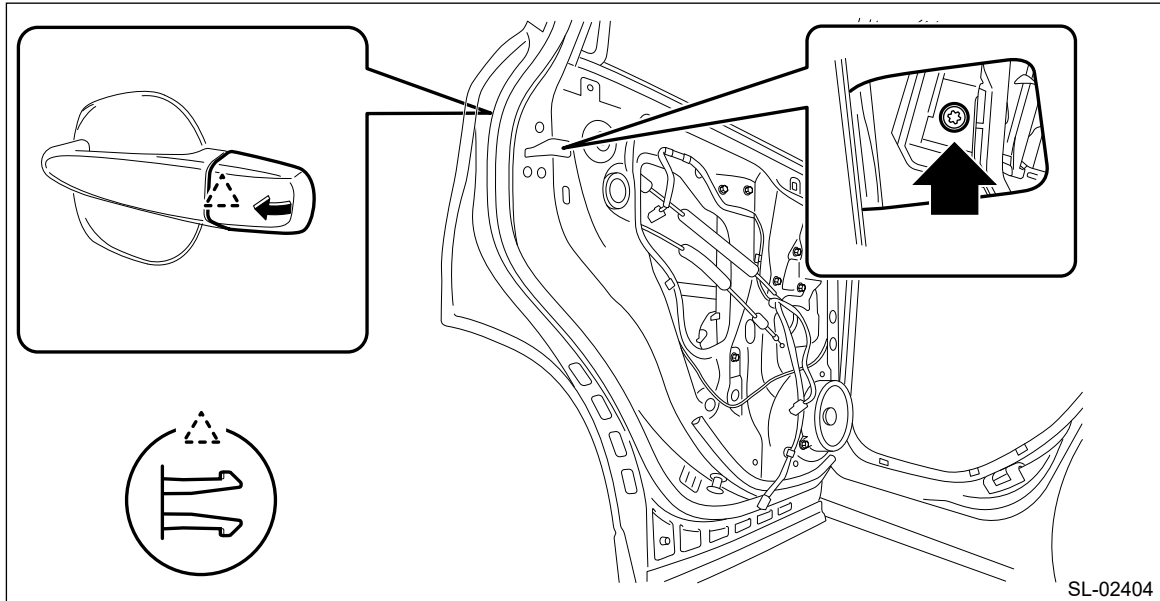
7. Remove the cover - handle rear outer.

Preparation tool:

TORX® T30

(1) Loosen the TORX® bolt.

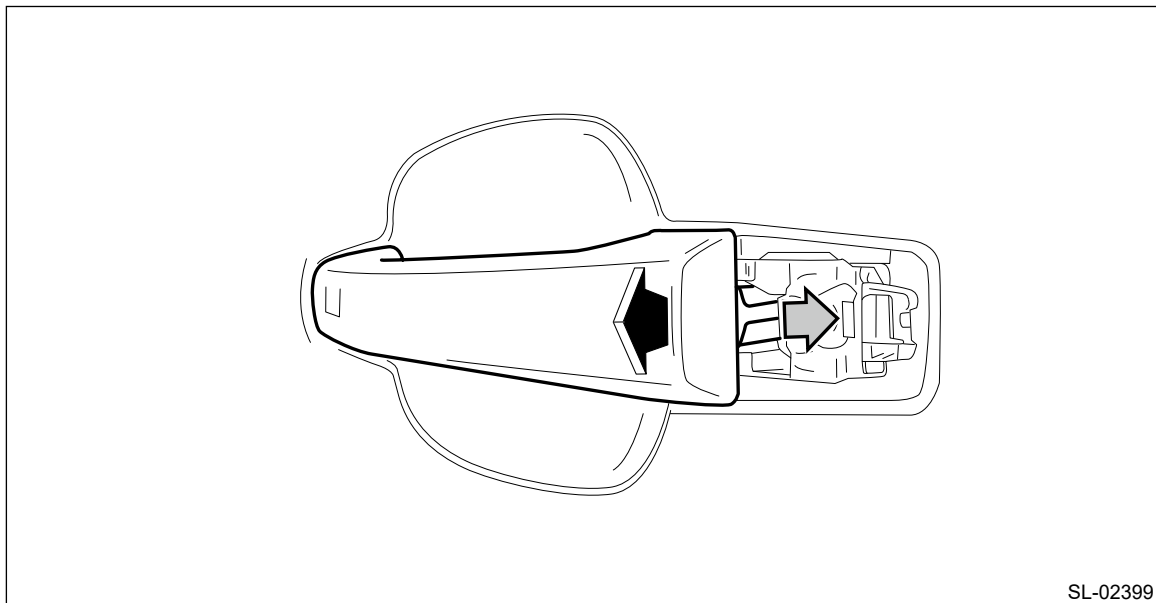
(2) Release the claws, and then remove the cover - handle rear outer.



8. Remove the handle - door outer by moving it rearward.

Caution:

Do not apply excessive force to remove the handle - door outer from the panel assembly - rear door. The panel assembly - rear door may be deformed.

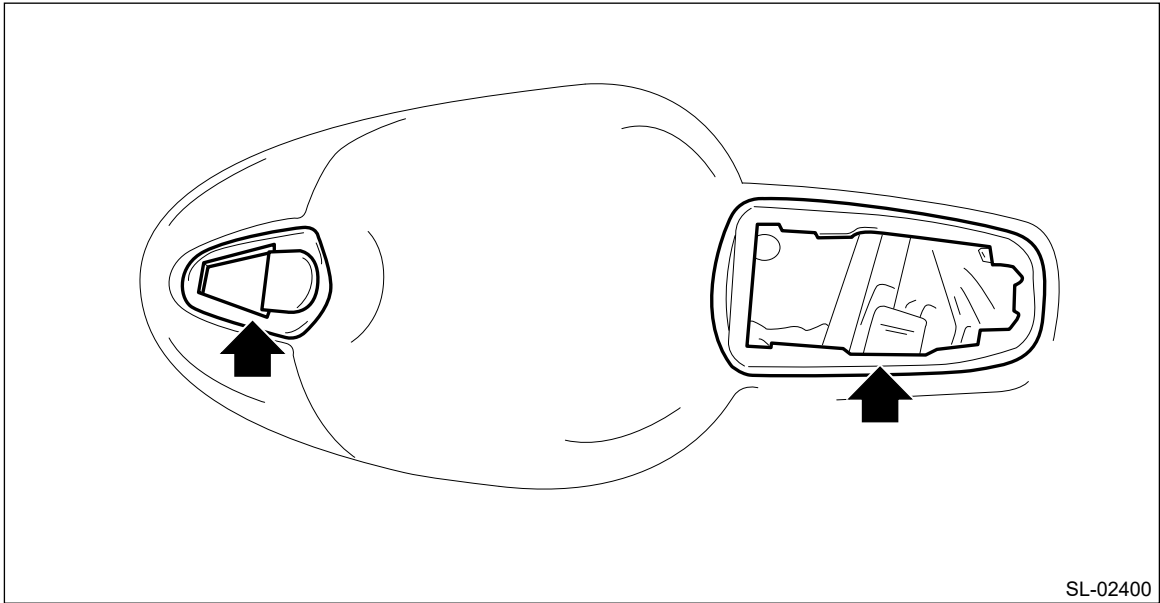


9. Remove the frame assembly - rear door outer.

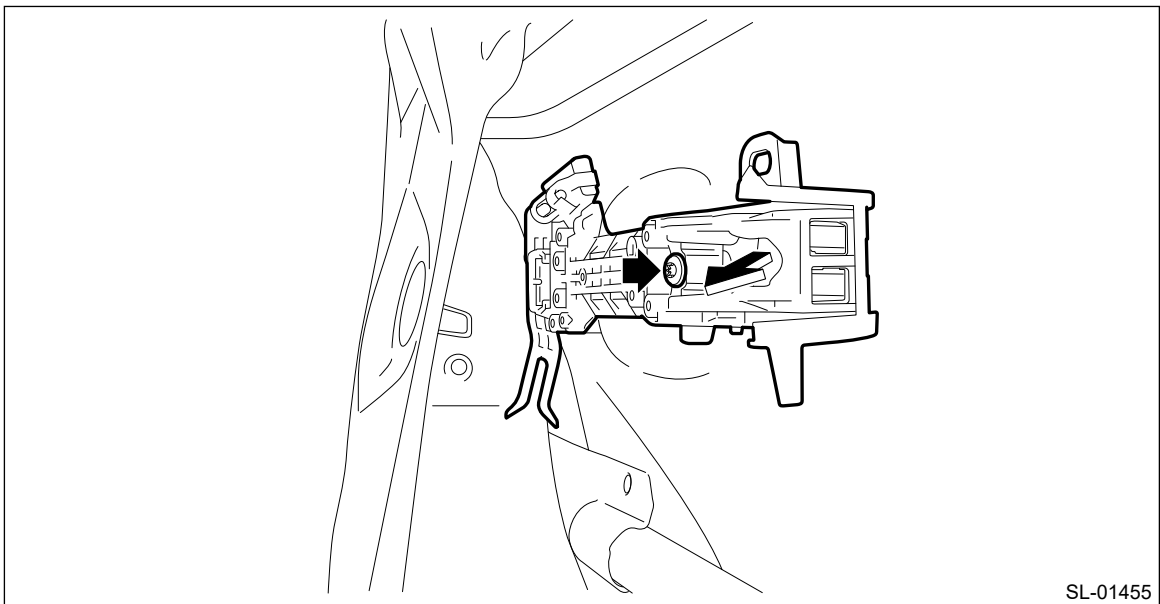
Preparation tool:

TORX® T30

- (1) Remove the spacer - door handle outer.




- (2) Loosen the TORX[®] bolt and remove the frame assembly - rear door outer from inside the panel assembly - rear door.



SECURITY AND LOCKS > Receiver

INSPECTION

1. Check if the door lock operates when the touch sensor of the door outer handle and rear lock button is operated.
2. If the system does not operate normally as the result of inspection, refer to "General Diagnostic Table" of the "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>General Diagnostic Table>INSPECTION > KEYLESS ACCESS SYSTEM.](#)

SECURITY AND LOCKS > Receiver

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Receiver assembly: 13 N•m (1.33 kgf-m, 9.6 ft-lb)

2. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Receiver

REMOVAL


Note:

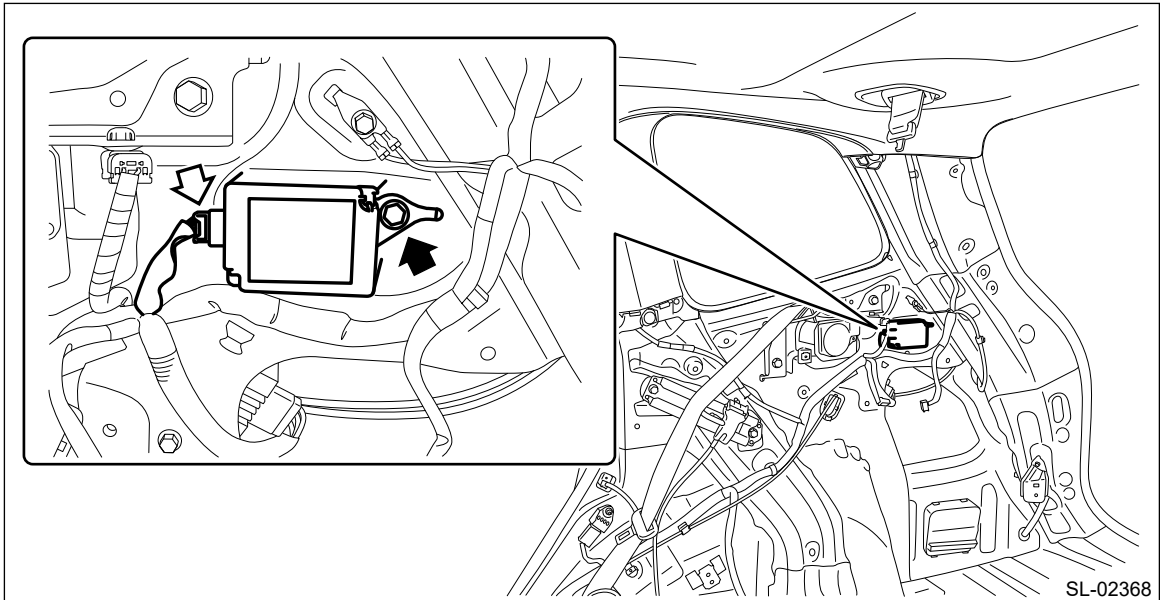
Except for models without keyless access with push button start.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear apron RH.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)
3. Remove the receiver assembly.
 - (1) Disconnect the connector.
 - (2) Remove the bolt and remove the receiver assembly.



SECURITY AND LOCKS > Relay and Fuse

INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:

If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY

1. Check the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 MΩ or more	
1 – 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

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Terminal No.	Inspection conditions	Standard	Circuit
1 – 4	Always	1 MΩ or more	
1 – 4	Apply battery voltage between terminals 2 and 3.	Less than 1 Ω	

AC-02796

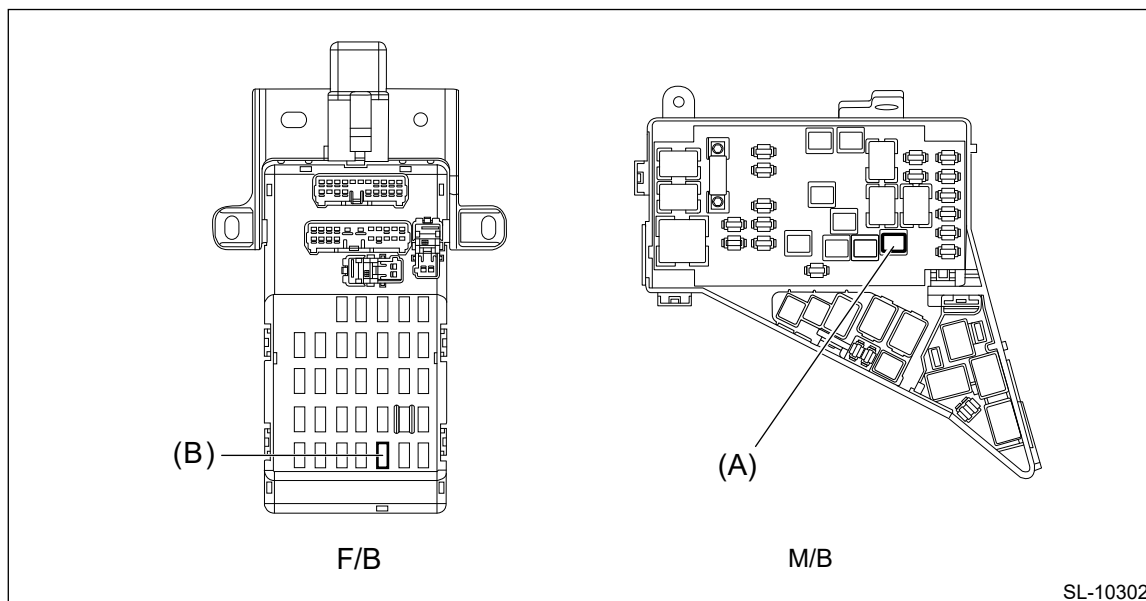
Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 MΩ or more	
1 – 4	Always	Less than 1 Ω	
1 – 2	Apply battery voltage between terminals 3 and 5.	Less than 1 Ω	

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2. Replace the relay if the inspection result is not within the standard value.

SECURITY AND LOCKS > Relay and Fuse

LOCATION



Main fuse box	Fuse 50 A (keyless access CM)	(A)
Relay & fuse box	Fuse 7.5 A (body integrated unit)	(B)

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

SECURITY AND LOCKS > Remote Openers

INSPECTION

Check if the front hood and fuel flap operate normally.

SECURITY AND LOCKS > Remote Openers

INSTALLATION

1. Before installation, check the following items.
 - Cable is free from deformation such as fray.
2. Install each part in the reverse order of removal.

Tightening torque:

Front hood lock:  [Ref. to SECURITY AND LOCKS>General Description>COMPONENT > FRONT HOOD LOCK.](#)

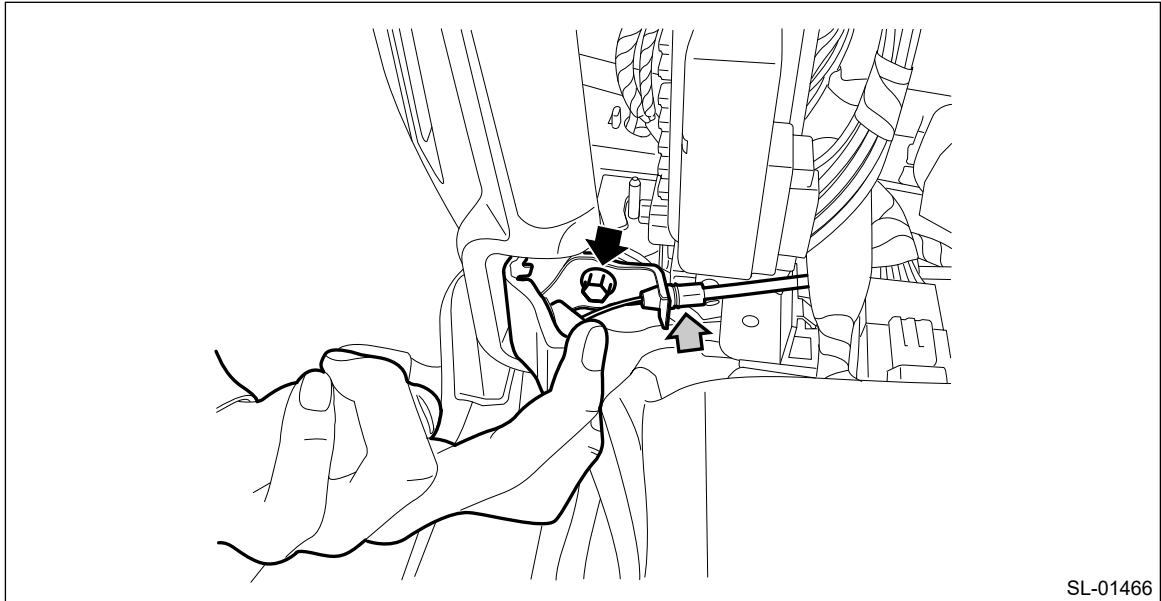
Remote opener:  [Ref. to SECURITY AND LOCKS>General Description>COMPONENT > FUEL FLAP OPENER.](#)



SECURITY AND LOCKS > Remote Openers

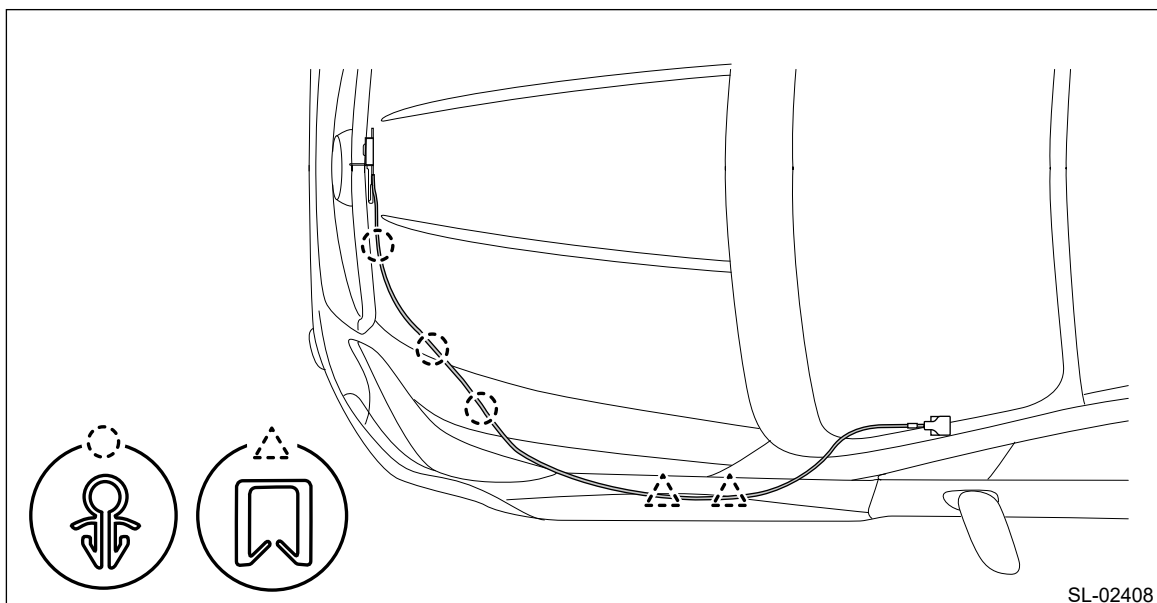
REMOVAL

1. FRONT HOOD OPENER

1. Remove the opener handle.
 - (1) Remove the cable.
 - (2) Remove the bolt, and remove the opener handle.

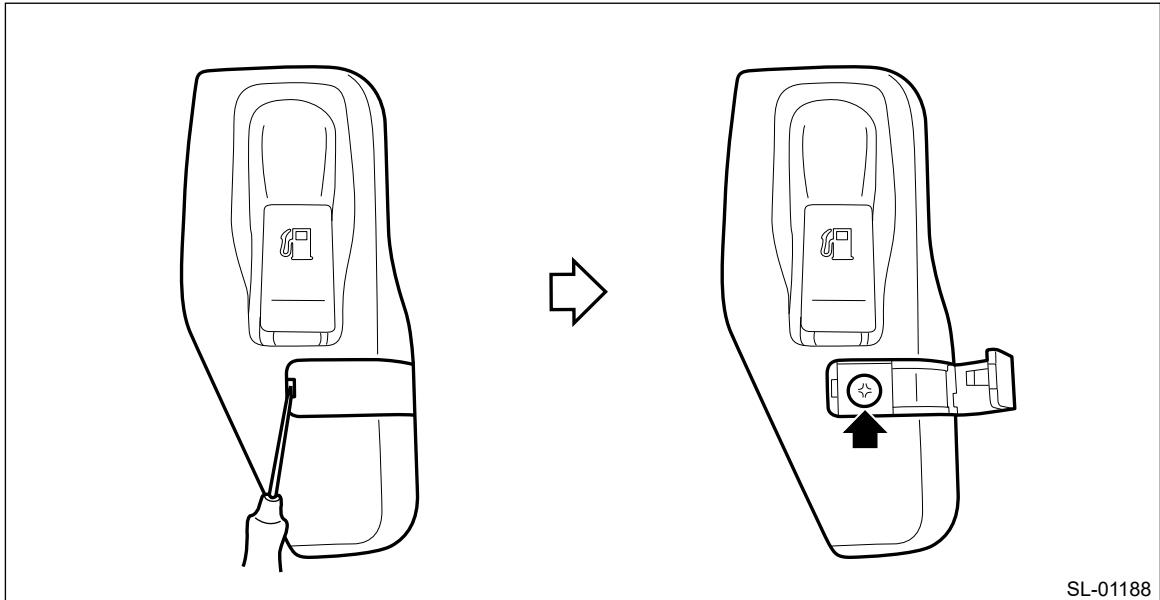


2. Remove the following parts and remove the cable clip and cable.
 - Lock assembly - front hood:  [Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>REMOVAL.](#)
 - Cover assembly - instrument panel LWR driver:  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)

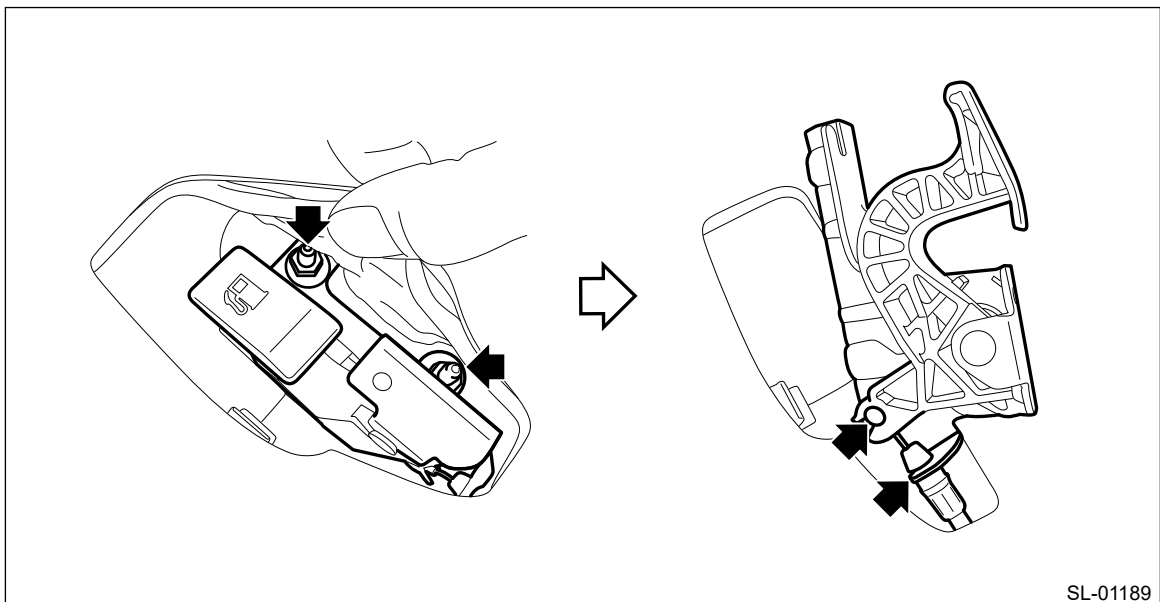



2. FUEL FLAP OPENER

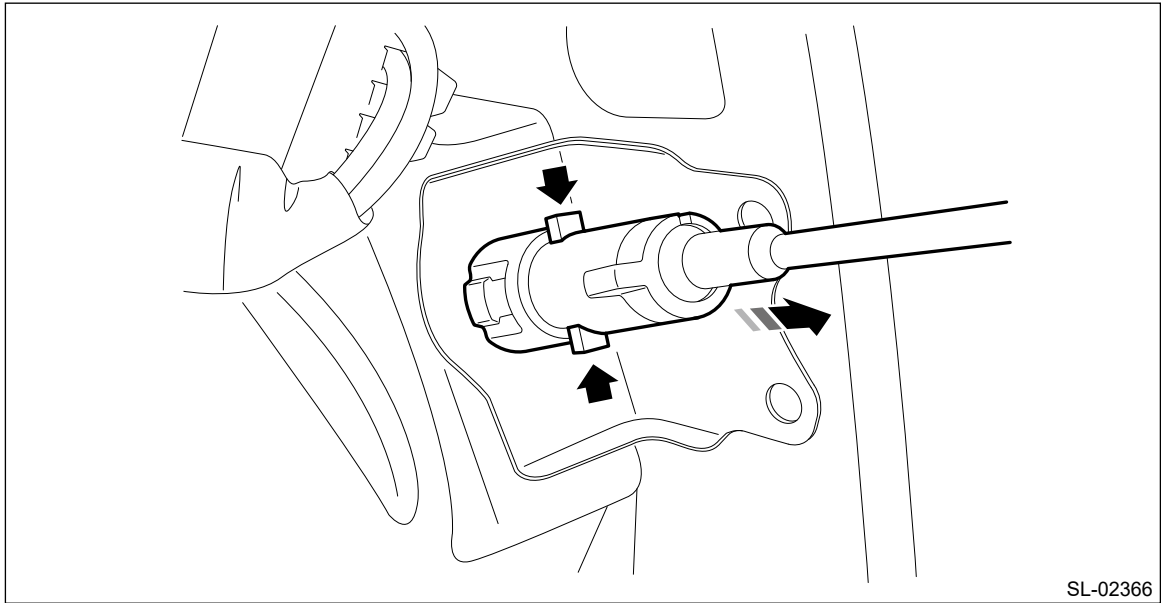
1. Remove the cover - handle.
 - (1) Open the cover by using a flat tip screwdriver.
 - (2) Remove the screws and detach the cover - handle.




2. Remove the pull handle - opener.
 - (1) Remove the nut.
 - (2) Remove the cable from pull handle - opener.

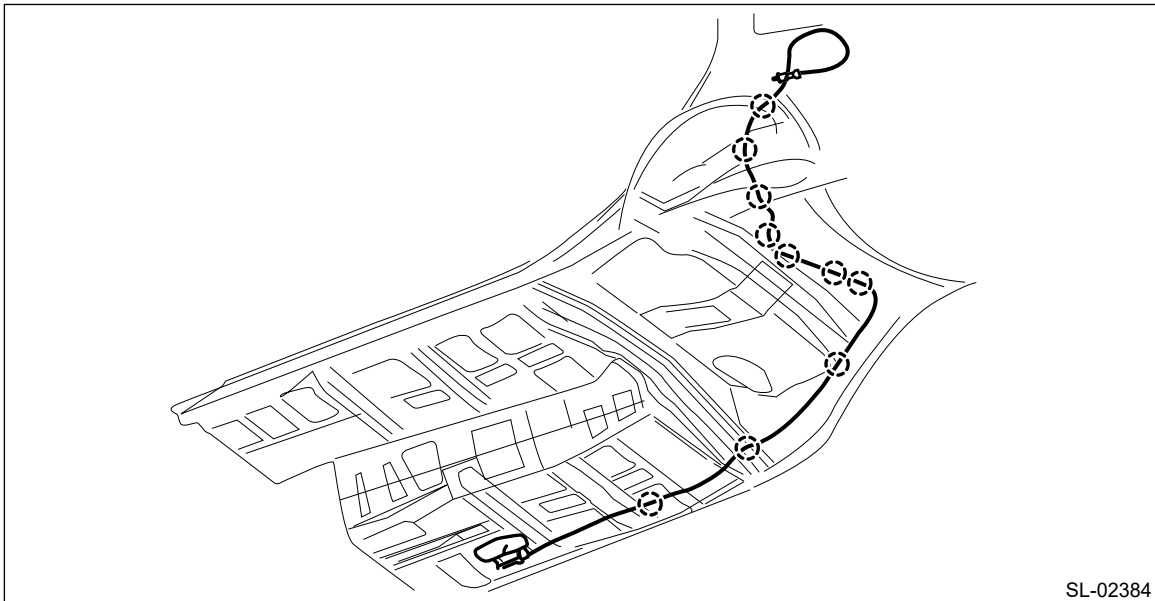


3. Remove the trim panel - rear apron RH.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.](#)
4. Remove the fuel lock inside the quarter panel.
 - (1) Press the claws of the fuel lock.
 - (2) While keeping the condition in step (1), pull the fuel lock to the rearward of the vehicle.



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5. Remove the lower inner trim.  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
6. Remove the cable clip, and remove the cable.





SL-02384

SECURITY AND LOCKS > Security Control Module

INSTALLATION


Caution:

- When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type B" described in "REGISTRATION MANUAL FOR IMMOBILIZER".
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.](#)

1. Install each part in the reverse order of removal.

Tightening torque:

Security Control Module: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)



SECURITY AND LOCKS > Security Control Module


REMOVAL

Note:

Equipped on C0 and C5 models without keyless access with push button start.





Caution:

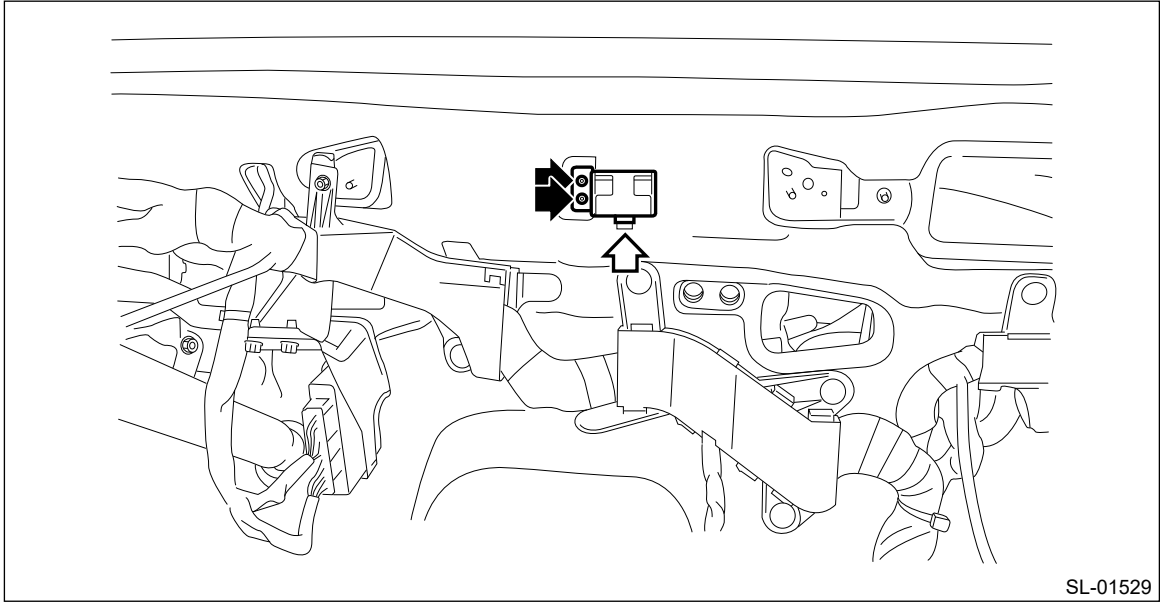
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the steering wheel.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>REMOVAL.](#)
3. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
4. Remove the knee airbag module. (Model with knee airbag)  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
5. Remove the heater and cooling unit assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Heater and Cooling Unit>REMOVAL.](#)
6. Remove the security control module.
 - (1) Disconnect the connector.
 - (2) Remove the nuts, and remove the security control module.



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SECURITY AND LOCKS > Security System

ELECTRICAL SPECIFICATION

Refer to "Control Module I/O Signal" of "BODY CONTROL SYSTEM (DIAGNOSTICS)" section.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)

INSPECTION

1. BASIC DIAGNOSTIC PROCEDURE

1. INITIAL CHECK.

Check the keyless entry system or keyless access system operation.



Does the keyless entry system or keyless access system operate normally?

Yes

 [Go to 2.](#)

No

Check the keyless entry system or keyless access system.

- Keyless entry system:  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION.](#)
- Keyless access system:  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

2. CHECK SECURITY ON/OFF SETTING.

- 1.** Remove the key from ignition switch or turn the ignition to OFF, and close all doors.
- 2.** Check the status of security indicator light.
- 3.** Press the LOCK button of the keyless transmitter or access key.
- 4.** Check the security indicator light blinking patterns.

Is the security indicator light blinking patterns as follows?

- Before pressing the LOCK button: Blinks once within 3 seconds
- After pressing the LOCK button: When monitoring lag is set to 0 second, blinks twice within 0.5 seconds in 2 second intervals / When monitoring lag is set to 30 seconds, blinks once within 0.4 seconds in 30 seconds.


Yes

 [Go to 4.](#)

No


 [Go to 3.](#)

3. CHANGE SETTING OF SECURITY SYSTEM.


Change the setting of security system to ON using Subaru Select Monitor.  [Ref. to SECURITY AND LOCKS>Security System>INSPECTION > SECURITY SYSTEM ON/OFF SETTING.](#)

Is setting change completed correctly?

Yes

 [Go to 4.](#)

No


Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

4. CHECK SECURITY SYSTEM OPERATION.


1. Remove the key from ignition switch or turn the ignition to OFF, and close all doors.
2. Press the LOCK button on the keyless transmitter or access key, then wait for 30 seconds.
3. Check the security indicator light blinking patterns.

Does the security indicator light blink twice within 0.5 seconds in 2 second intervals?

Yes

 [Go to 5.](#)

No


Check the security indicator light.  [Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK SECURITY INDICATOR LIGHT CIRCUIT.](#)

5. CHECK SECURITY ALARM OPERATION.


1. Operate the driver's door lock switch to the UNLOCK side.
2. Open any door or rear gate.

Does the security alarm operate when opening any door or rear gate?

Yes

 [Go to 6.](#)

No

Check the following parts.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK DOOR SWITCH.](#)

- Door switches
- Rear gate latch switch

6. CHECK SECURITY ALARM OPERATION.


Check the security alarm operation status.


During the operation, does the horn keep sounding and the hazard light blink?


Yes

 [Go to 7.](#)

No

Check the following parts.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK DOOR SWITCH.](#)

- Horn:  [Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK HORN.](#)

- Hazard light:  [Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK HAZARD LIGHT OPERATION.](#)

7. CHECK SECURITY ALARM CANCEL OPERATION.

Press any button of the transmitter or access key while the security alarm is operating.

Do the horn sound and the blinking of the hazard light stop?


Yes

 [Go to 8.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

8. CHECK IMPACT SENSOR (DEALER OPTION).


Check the sensibility of impact sensor.  [Ref. to SECURITY AND LOCKS>Impact Sensor>ADJUSTMENT > CHECK IMPACT SENSOR.](#)

Is the sensibility set properly?

Yes

 [Go to 9.](#)

No


Adjust the sensitivity.  [Ref. to SECURITY AND LOCKS>Impact Sensor>ADJUSTMENT > IMPACT SENSITIVITY ADJUSTMENT.](#)

9. CHECK SECURITY SYSTEM CONDITION MEMORY.

1. Remove the key from ignition switch or turn the ignition to OFF, and close all doors.
2. Open the front hood.
3. Press the LOCK button on the keyless transmitter or access key, then wait for 30 seconds.
4. Disconnect the ground cable from battery.
5. Connect the ground cable to battery.
6. Check the status of security indicator light.

Does the security indicator light blinks twice within 0.5 seconds at 2 second intervals?


Yes

 [Go to 10.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

10. CHECK SECURITY SYSTEM MANUAL ON/OFF SETTING.

1. Press the UNLOCK button of the keyless transmitter or access key.
2. Change the setting of security system.  [Ref. to SECURITY AND LOCKS>Security System>INSPECTION > SECURITY SYSTEM ON/OFF SETTING.](#)



Is setting change completed correctly?

Yes


Restore the security system settings to those before the diagnosis and finish the diagnosis.

No

Check the following parts.

- Ignition switch circuit:  [Ref. to SECURITY AND LOCKS>Ignition Key Lock>INSPECTION.](#)
- Door lock switch circuit:  [Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK SWITCH.](#)

Note:

If the horn sounds when the security is turned on (monitor condition) using the keyless transmitter, check the function setting of the body integrated unit. As a cause, it is possible that the impact sensor present (ON) / not present (OFF) setting is set to ON in the customization function though there is no impact sensor.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Customize>OPERATION.](#)

2. CHECK SECURITY SYSTEM CONDITION MEMORY

1. Pull out the key from the ignition switch, or turn the ignition to OFF.
2. Close all the doors and rear gate.
3. Open the front hood.
4. Press the LOCK button of the keyless transmitter.

Note:

Wait until the security indicator light blinks twice within 0.5 seconds at 2 second intervals.

If the 30 second monitoring lag has been set, wait for 30 seconds.

5. Disconnect the ground cable from battery.
6. Connect the battery ground terminal.
7. Check that the security indicator light blinks twice within 0.5 seconds at 2 second intervals. When it does not blink, replace the body integrated unit.

3. SECURITY SYSTEM ON/OFF SETTING

Note:

It can be set by [Security Alarm Setup] in unit customizing using Subaru Select Monitor. For detailed operation procedures, refer to "Application help".


1. Close all doors and rear gate, and sit in the driver's seat. Press the UNLOCK button of the keyless transmitter or access key.
2. Turn the ignition to ON.
3. Press the central door unlock switch and open the driver's door simultaneously. (Keep the central

door unlock switch pressed down.)


4. When the condition in step 3) continues for 10 seconds, the system switches to a mode reverse to the current mode.

Setting	Horn activation	Meter display
ON → OFF	Twice	[AL_OF] or [AL_of]
OFF → ON	Once	[AL_ON] or [AL_on]

4. CHECK DOOR SWITCH

For operation procedure, refer to "CHECK DOOR SWITCH" of "Keyless Entry System".  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK DOOR SWITCH.](#)

5. CHECK SECURITY INDICATOR LIGHT CIRCUIT

For operation procedures, refer to "CHECK SECURITY INDICATOR LIGHT CIRCUIT" of "IMMOBILIZER (DIAGNOSTICS)" section.  [Ref. to IMMOBILIZER \(DIAGNOSTICS\)>Diagnostics Chart for Security Indicator Light>INSPECTION > CHECK SECURITY INDICATOR LIGHT CIRCUIT.](#)

6. CHECK HORN

1. CHECK HORN OPERATION.

Check the horn sounds when the horn switch is pushed.

Does the horn sound?

 [Go to 2.](#)

Check the horn circuit.

2. CHECK BODY INTEGRATED UNIT.

Select and perform the [Horn Output] using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Does the horn sound?

Horn circuit is OK.

 [Go to 3.](#)

3. CHECK HORN RELAY CIRCUIT.

1. Turn the ignition switch to OFF.


2. Disconnect the connector of body integrated unit.
3. Remove the horn relay.
4. Check the harness between body integrated unit and horn relay.

Connector & terminal

(B280) No. 24 — Horn relay No. 4:

Is harness normal?


Yes

Check body integrated unit.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

No

Repair or replace the harness.

7. CHECK HAZARD LIGHT OPERATION

For operation procedure, refer to "CHECK HAZARD LIGHT OPERATION" of "Keyless Entry System".  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK HAZARD LIGHT OPERATION.](#)

8. CHECK IGNITION SWITCH CIRCUIT

1. CHECK CURRENT DATA.

Display the data of [Battery Voltage] and [Ignition Power Supply Voltage] using Subaru Select Monitor.

Note:

For detailed operation procedures, refer to "Application help".

Does the [Ignition Power Supply Voltage] indicate 0 V when the ignition is OFF, and fall within a range of ± 1 V from the [Battery Voltage] when the ignition is ON?

Yes

The ignition switch input circuit is OK.

No

 [Go to 2.](#)

2. CHECK IGNITION SWITCH CIRCUIT.


1. Turn the ignition switch to OFF.
2. Disconnect the connector of body integrated unit.
3. Turn the ignition switch to ON.
4. Measure the voltage between the body integrated unit connector and chassis ground.

Connector & terminal

(B281) No. 3 (+) — Chassis ground (-):

Is the voltage 10 V or more?

Yes

Check body integrated unit.  [Ref. to BODY CONTROL\(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)



No

Check the harness for open or short circuit between body integrated unit and fuse.

SECURITY AND LOCKS > Security System


WIRING DIAGRAM

Refer to "Security System" in the wiring diagram.

- Without push button start:  [Ref. to WIRING SYSTEM>Security_System>WIRING DIAGRAM > WITHOUT PUSH BUTTON START.](#)
- With push button start:  [Ref. to WIRING SYSTEM>Security_System>WIRING DIAGRAM > WITH PUSH BUTTON START.](#)

SECURITY AND LOCKS > Starter Cut Relay

INSPECTION

Refer to "CHECK RELAY" in "Relay and Fuse".  [Ref. to SECURITY AND LOCKS>Relay and Fuse>INSPECTION > CHECK RELAY.](#)

SECURITY AND LOCKS > Starter Cut Relay

INSTALLATION


Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:

Relay & fuse box: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Starter Cut Relay

REMOVAL



Caution:

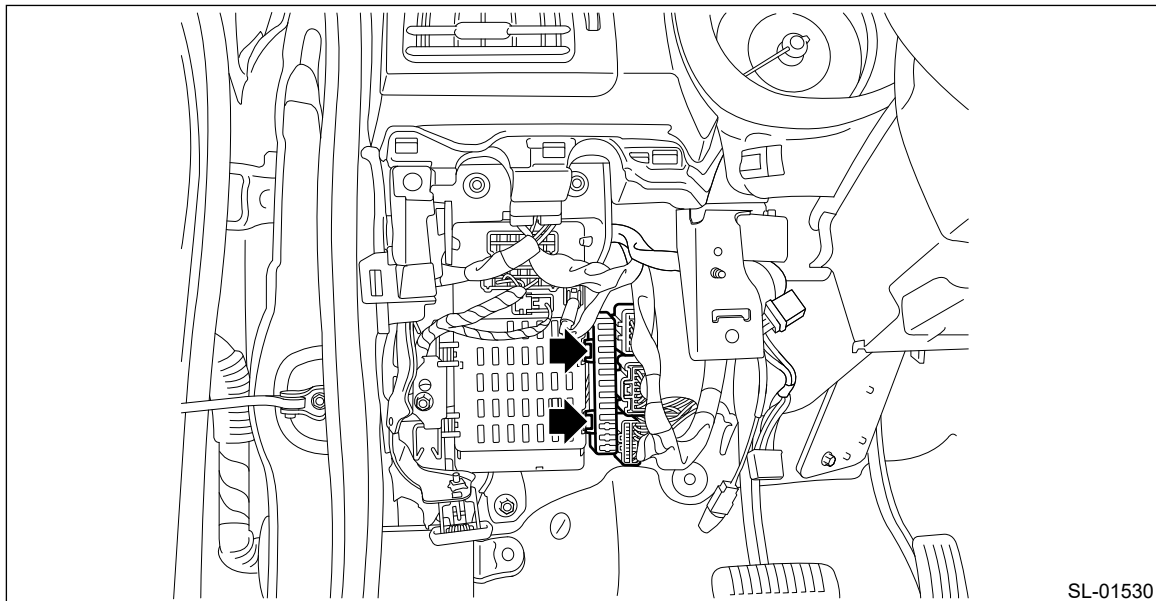
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

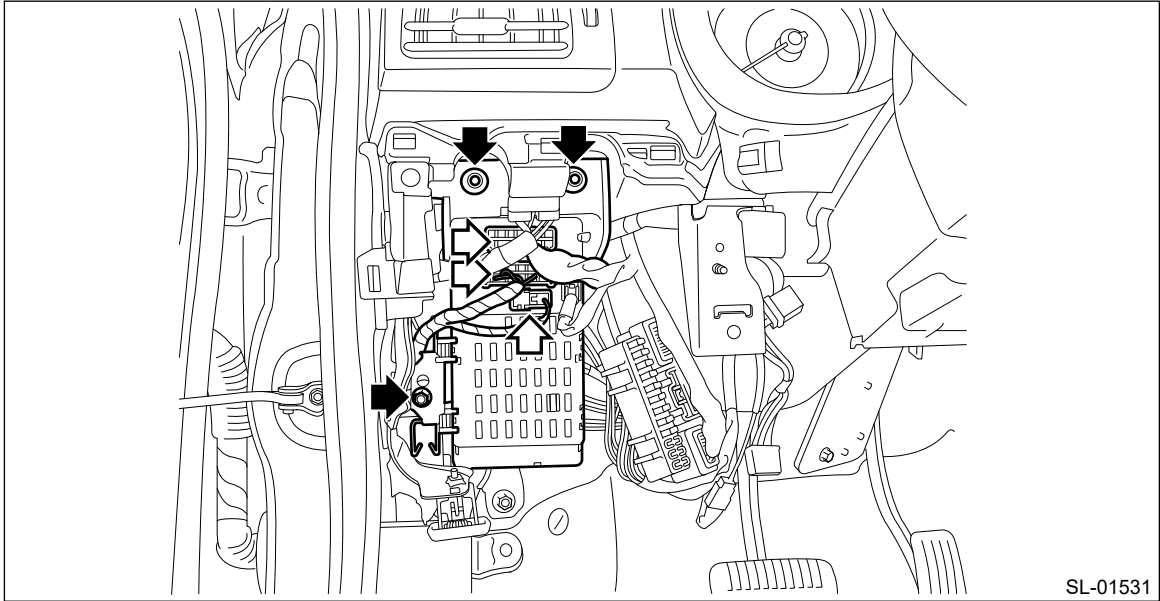
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Release the lock and remove the fuse holder.

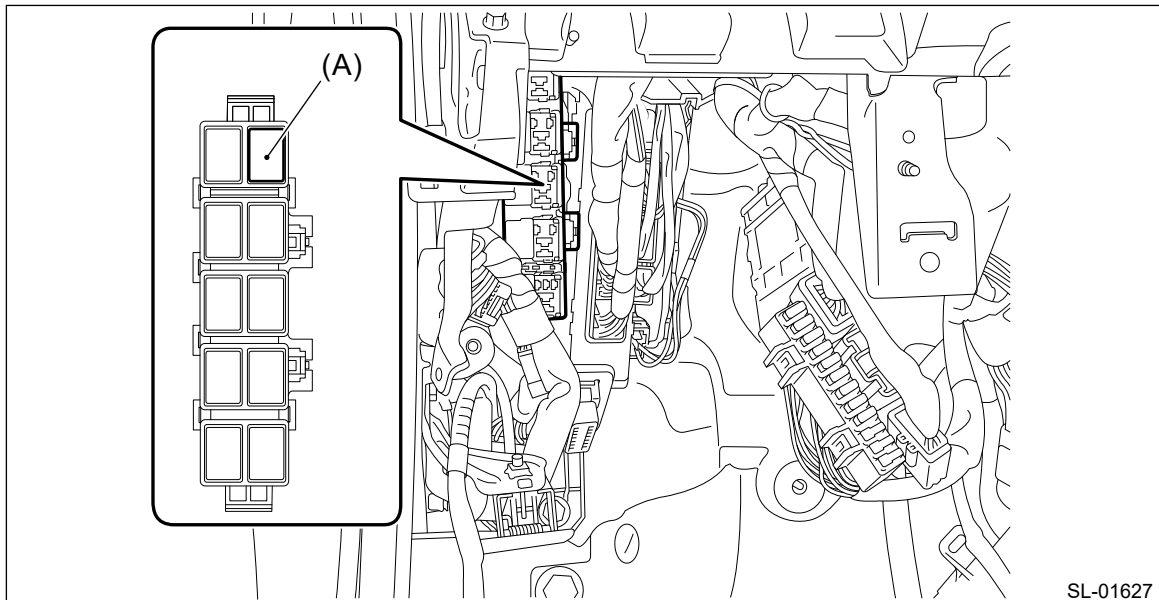


5. Remove the relay & fuse box.
 - (1) Disconnect the connector.
 - (2) Remove the bolts and nuts, and remove the relay & fuse box.



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6. Remove the starter cut relay (A) from the relay holder.



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SECURITY AND LOCKS > Starter Relay (Push Button Start)


INSPECTION

Refer to "CHECK RELAY" in "Relay and Fuse".  [Ref. to SECURITY AND LOCKS>Relay and Fuse>INSPECTION > CHECK RELAY.](#)

SECURITY AND LOCKS > Starter Relay (Push Button Start)

INSTALLATION


Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install each part in the reverse order of removal.

Tightening torque:

Relay & fuse box: 7.5 N•m (0.76 kgf-m, 5.5 ft-lb)


2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Starter Relay (Push Button Start)

REMOVAL



Caution:

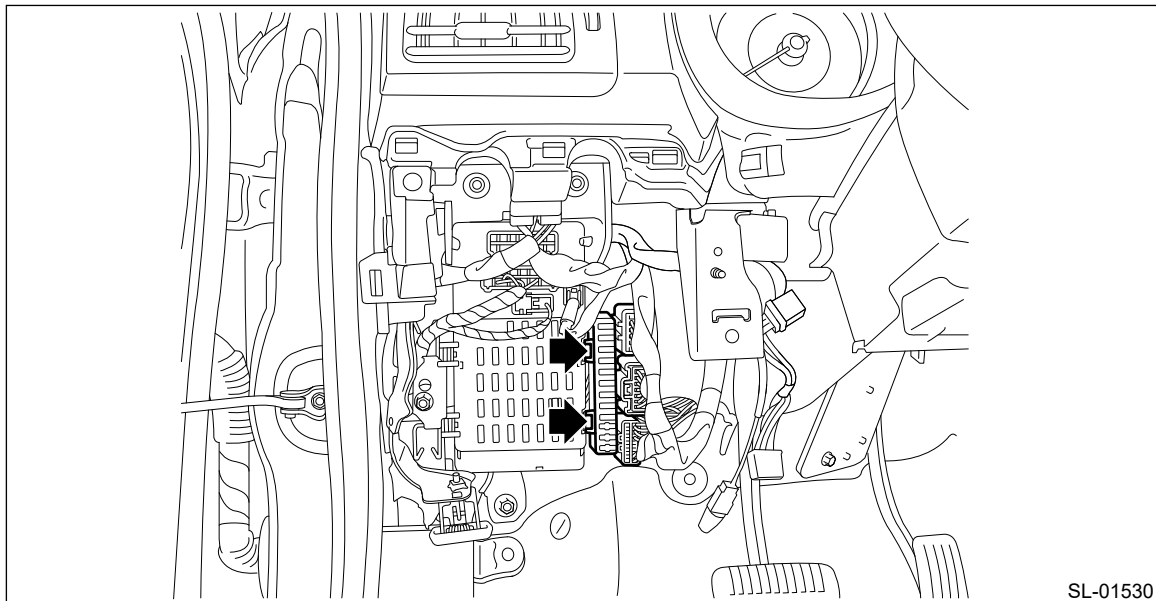
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

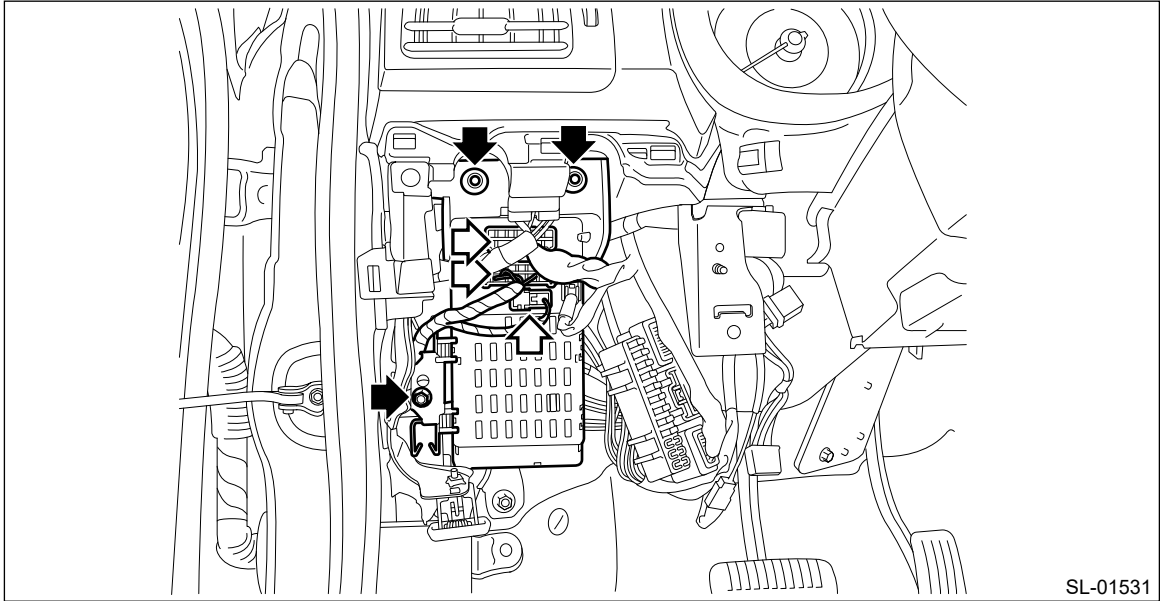
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Release the lock and remove the fuse holder.

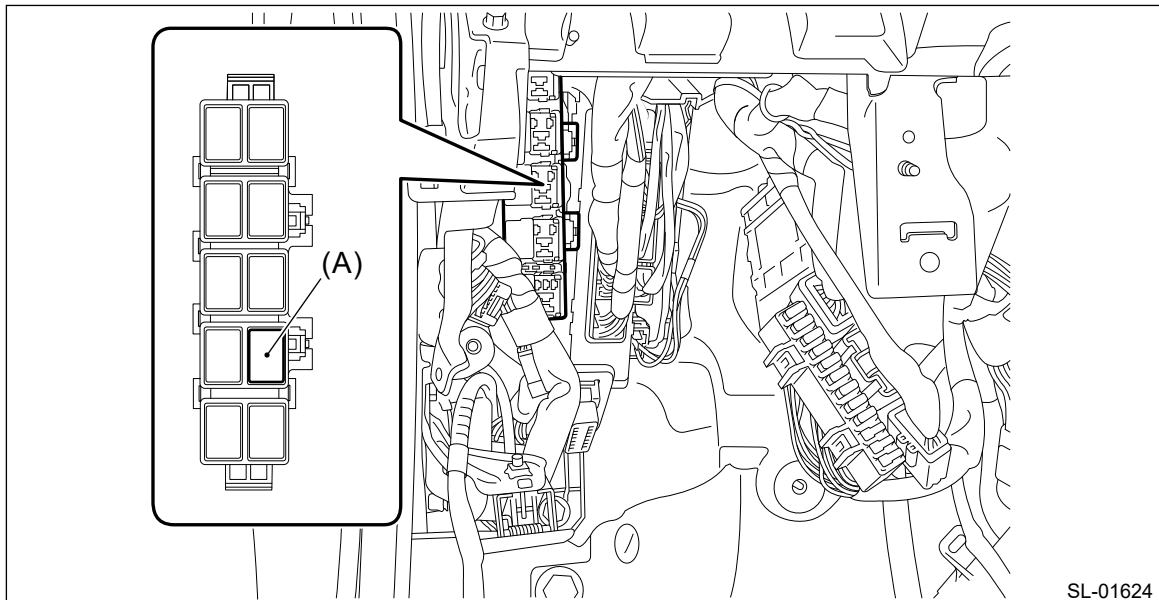


5. Remove the relay & fuse box.
 - (1) Disconnect the connector.
 - (2) Remove the bolts and nuts, and remove the relay & fuse box.



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6. Remove the starter relay (push button start) (A) from the relay holder.



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SECURITY AND LOCKS > Steering Lock CM



INSPECTION


1. Check if the steering lock is released when you start the engine using the push button ignition switch.
2. If the system does not operate normally as the result of inspection, refer to "General Diagnostic Table" of the "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START\(DIAGNOSTICS\)>General Diagnostic Table>INSPECTION > KEYLESS ACCESS SYSTEM.](#)

SECURITY AND LOCKS > Steering Lock CM

INSTALLATION

Caution:

- When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type D" described in "REGISTRATION MANUAL FOR IMMOBILIZER".
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.](#)

1. Secure the steering lock CM to the steering column.
2. Use new set bolts. Tighten the bolt until the bolt head is broken (bolt head wrenched off).
3. Install each part in the reverse order of removal.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

SECURITY AND LOCKS > Steering Lock CM

REMOVAL

Caution:

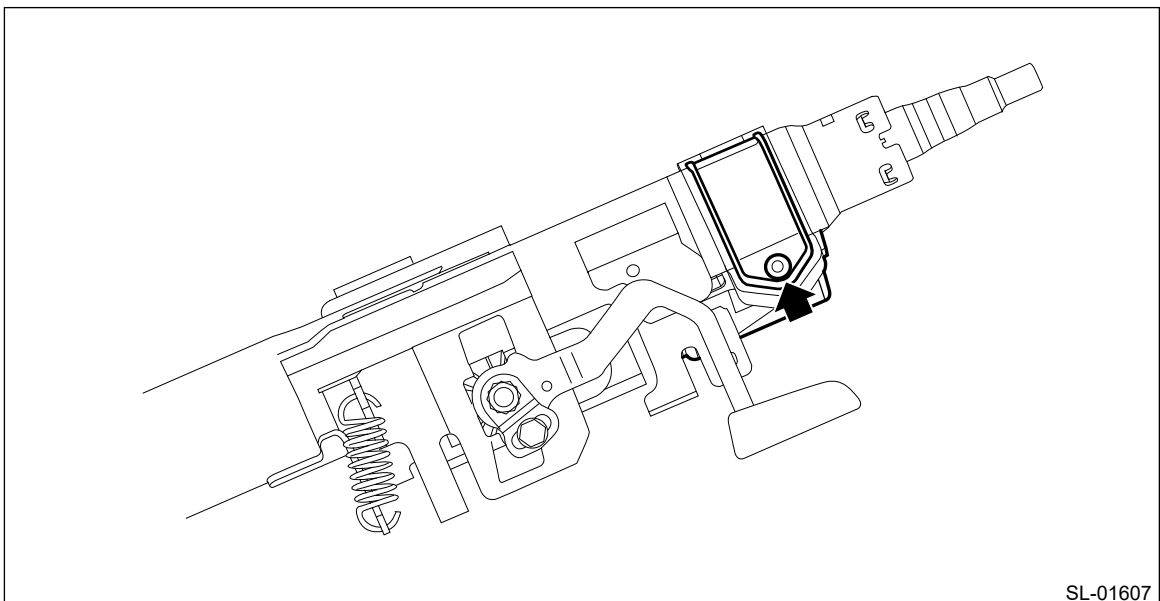
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [🔗 Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC. [🔗 Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module. (Model with knee airbag) [🔗 Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the column assembly - steering. [🔗 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Column>REMOVAL.](#)
5. Remove the steering lock CM.
 - (1) Secure the column assembly - steering in a vise.
 - (2) Use the reverse tap or drill to remove the set bolt and remove the steering lock CM.



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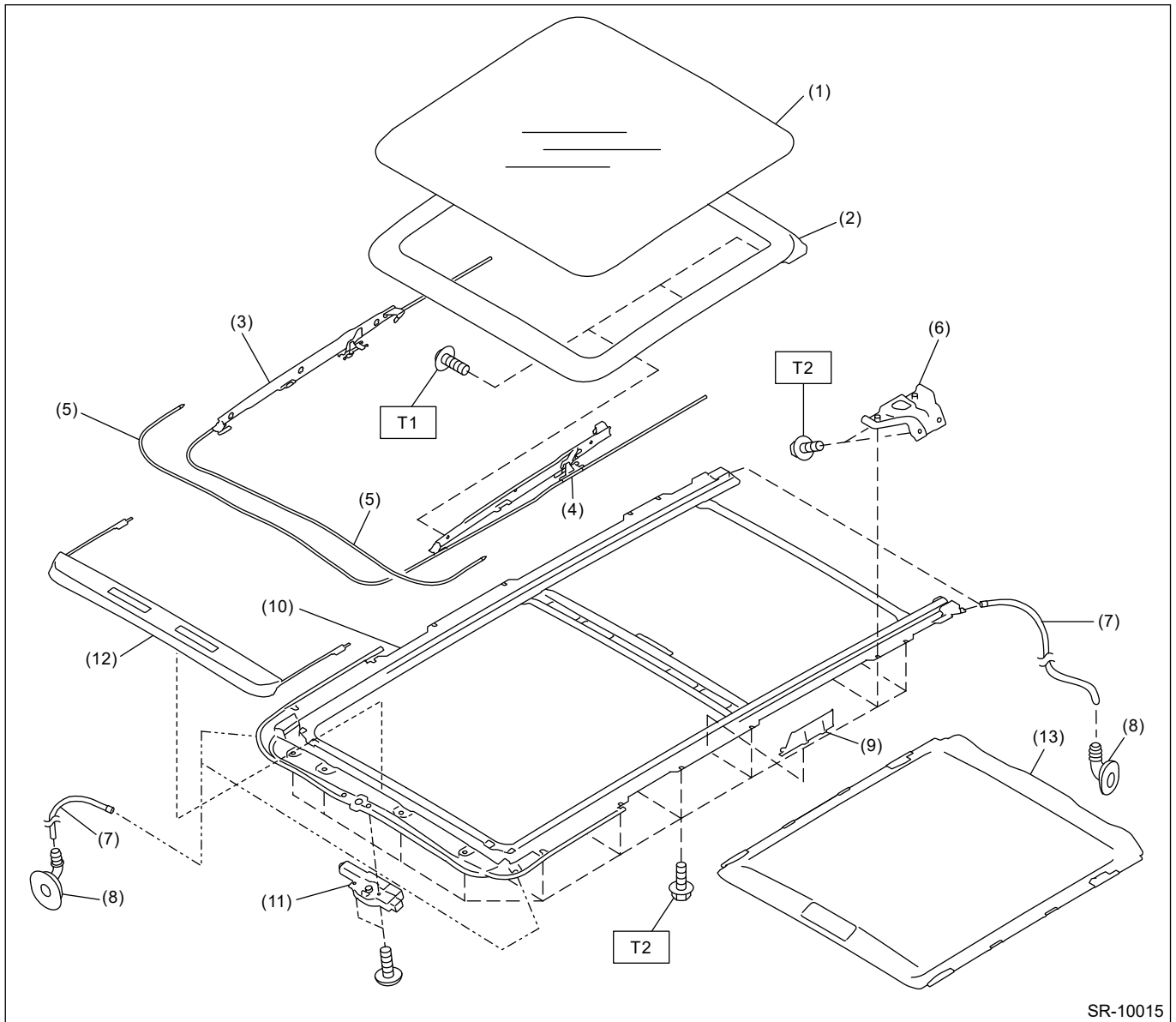
SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > General Description

CAUTION

Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery. When replacing the audio and MFD parts provided with memory functions, record the memory contents before disconnecting the battery ground cable.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > General Description

COMPONENT



SR-10015

- | | | |
|---------------------------------|-------------------------------|--------------------|
| (1) Lid ASSY - sunroof | (7) Drain tube - sunroof | (13) Sunshade ASSY |
| (2) Weather strip | (8) Grommet - drain tube | |
| (3) Mechanism ASSY - sunroof RH | (9) Cover - sunroof | |
| (4) Mechanism ASSY - sunroof LH | (10) Rail ASSY - sunroof | |
| (5) Cable ASSY | (11) Motor ASSY - sunroof | |
| (6) Bracket - sunroof | (12) Deflector ASSY - sunroof | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 4.5 (0.46, 3.3)

T2: 6 (0.61, 4.4)

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > General Description

PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
Hexagon wrench	Used for forcibly driving the motor assembly - sunroof. Width across flat 4 mm (0.16 in)
TORX® T25	Used for removing and installing the lid assembly - sunroof.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Glass Lid

ADJUSTMENT

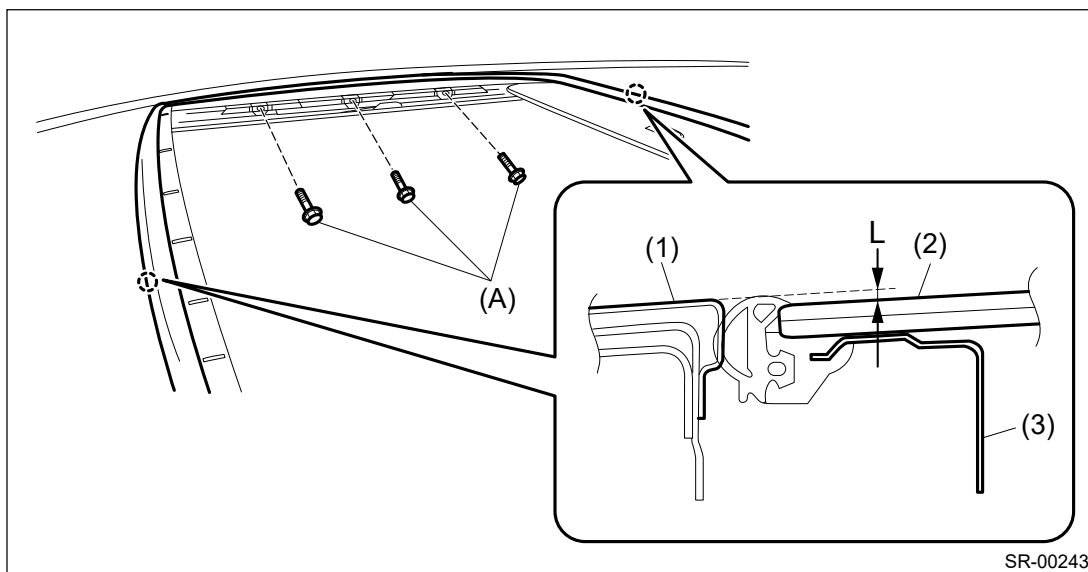
Caution:

- Tighten the lid assembly - sunroof after the surface level gap is adjusted.
- If an excessive force is applied on the glass retainer, the glass may be broken. Evenly tighten the lid assembly - sunroof mounting bolt.

1. Adjust the height of the lid assembly - sunroof and the roof panel.
2. Loosen the lid assembly - sunroof mounting bolts (A), and then adjust the height by moving the lid assembly - sunroof side.

Lid assembly - sunroof height difference L:

Lid assembly - sunroof to Roof panel: 0 ± 1 mm (0 ± 0.04 in)



(1) Roof panel

(2) Lid ASSY - sunroof

(3) Glass retainer

Tightening torque:

4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Glass Lid


FORCED DRIVE

If the lid assembly - sunroof does not operate or the motor assembly is not supplied with power, move the lid assembly - sunroof using the hexagon wrench.

Preparation tool:

Hexagon wrench: width across flat 4 mm (0.16 in)



Caution:

- **After a forced operation, make sure to perform an initialize operation.**  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Sunroof Control System>OPERATION > INITIALIZE OPERATION.](#)
- **For removal and installation of the stereo camera cover, refer to "REMOVAL" and "INSTALLATION" of "Stereo Camera" in the "EyeSight" section and observe the precautions.**

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

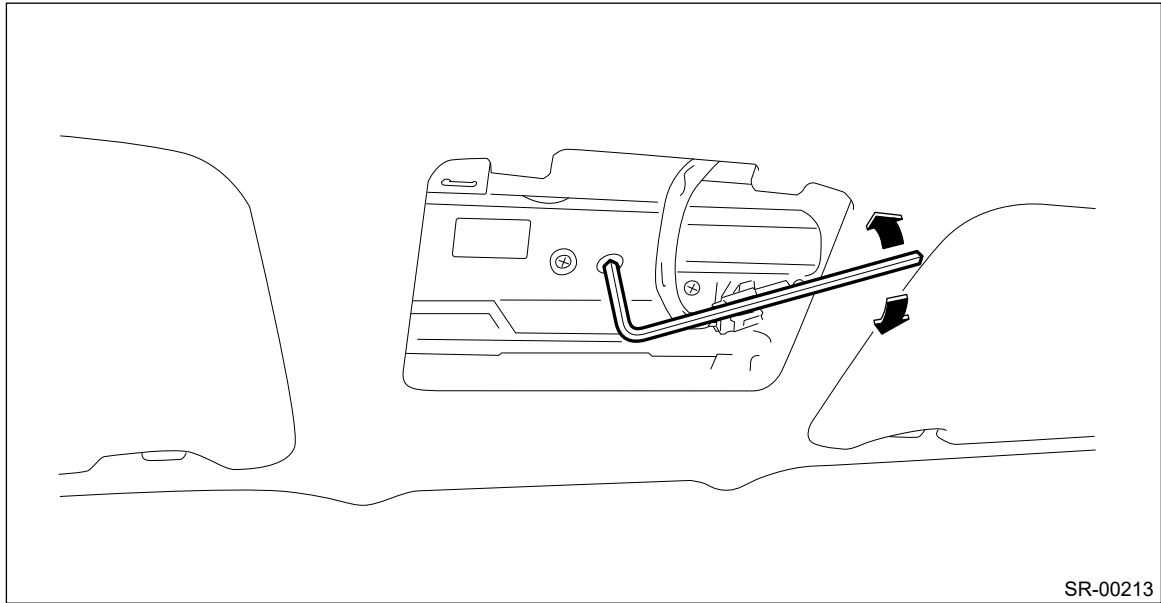
Note:



For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - map. (Models without EyeSight)  [Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.](#)
3. Remove the stereo camera cover. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
4. Insert the hexagon wrench securely until it touches the motor shaft end.
5. Turn the hexagon wrench, and move the lid assembly - sunroof.
 - Turning right, the lid assembly - sunroof opens.
 - Turning left, the lid assembly - sunroof closes.

Caution:

Be careful not to damage the adjacent parts with the rod end when moving the lid assembly - sunroof with the hexagon wrench.



- 6.** Install the light assembly - map.
- 7.** Install the stereo camera cover.  [Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)
- 8.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

INSTALLATION

1. GLASS LID


Caution:

- **Tighten the lid assembly - sunroof after the surface level gap is adjusted.**
- **If an excessive force is applied on the glass retainer, the glass may be broken. Evenly tighten the lid assembly - sunroof mounting bolt.**

1. Using a new TORX® bolt, install the lid assembly - sunroof.

Tightening torque:

4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

2. Perform the open/close operation checks for the glass lid.
3. Check the height of the lid assembly - sunroof and the roof panel, and perform adjustment when there is a difference between up and down, and left and right.  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Glass Lid>ADJUSTMENT.](#)

2. DEFLECTOR ASSEMBLY

Install each part in the reverse order of removal.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Glass Lid

REMOVAL

1. GLASS LID

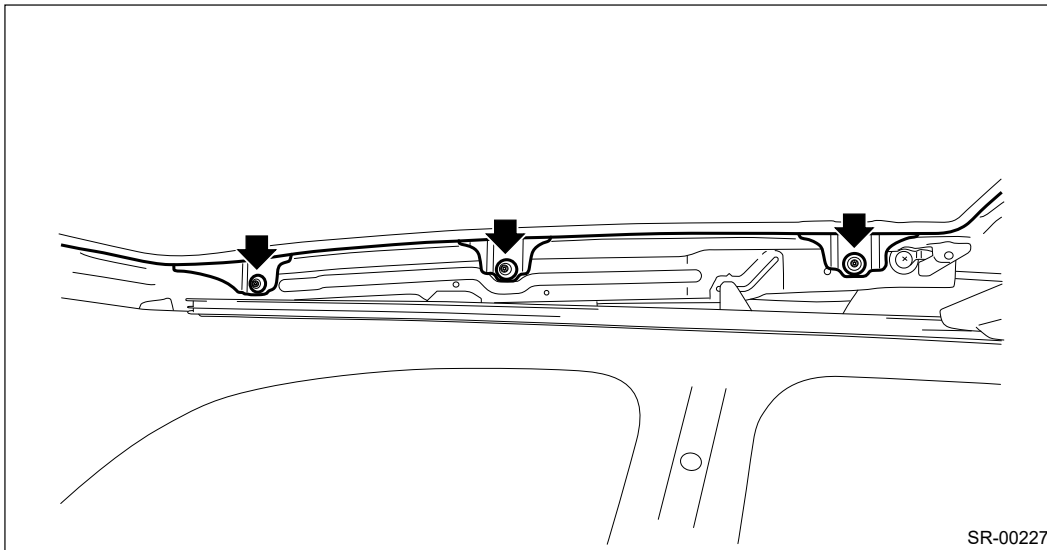
1. Completely close the lid assembly - sunroof, and open the sunshade assembly.
2. Remove the TORX® bolt, and then remove the lid assembly - sunroof.

Caution:

Be careful not to damage the lid assembly - sunroof.

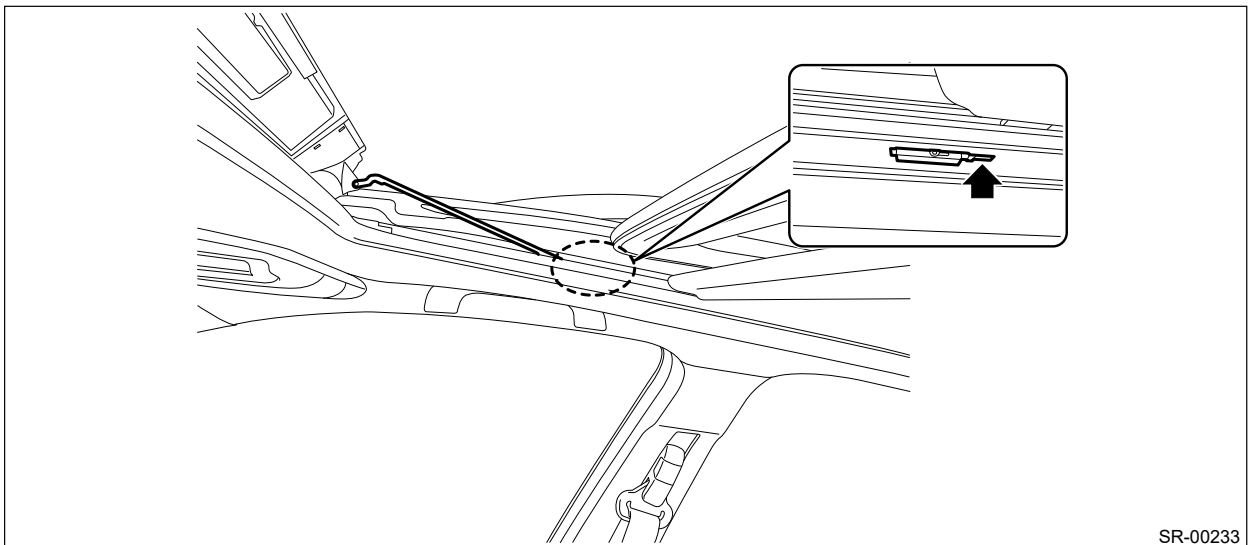
Preparation tool:

TORX® T25



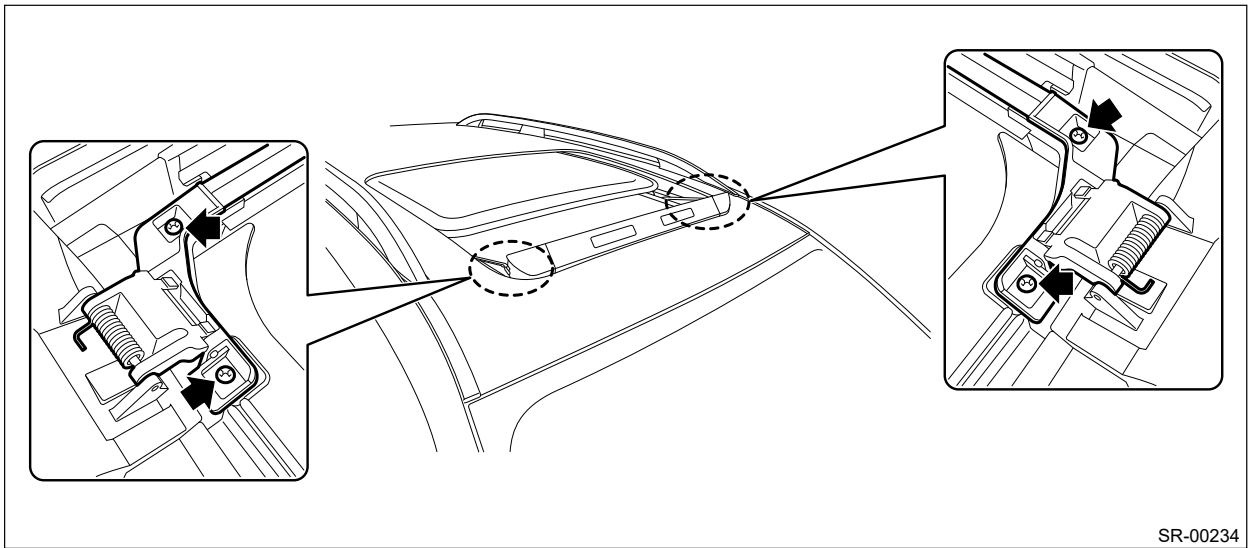
2. DEFLECTOR ASSEMBLY

1. Completely open the lid assembly - sunroof.
2. Remove the lid molding - sunroof.
3. Remove the deflector assembly - sunroof.
 - (1) Remove the clip from the rail assembly - sunroof.



- (2) Remove the screw from the rail assembly - sunroof and then remove the deflector assembly -

sunroof.



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SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Relay and Fuse

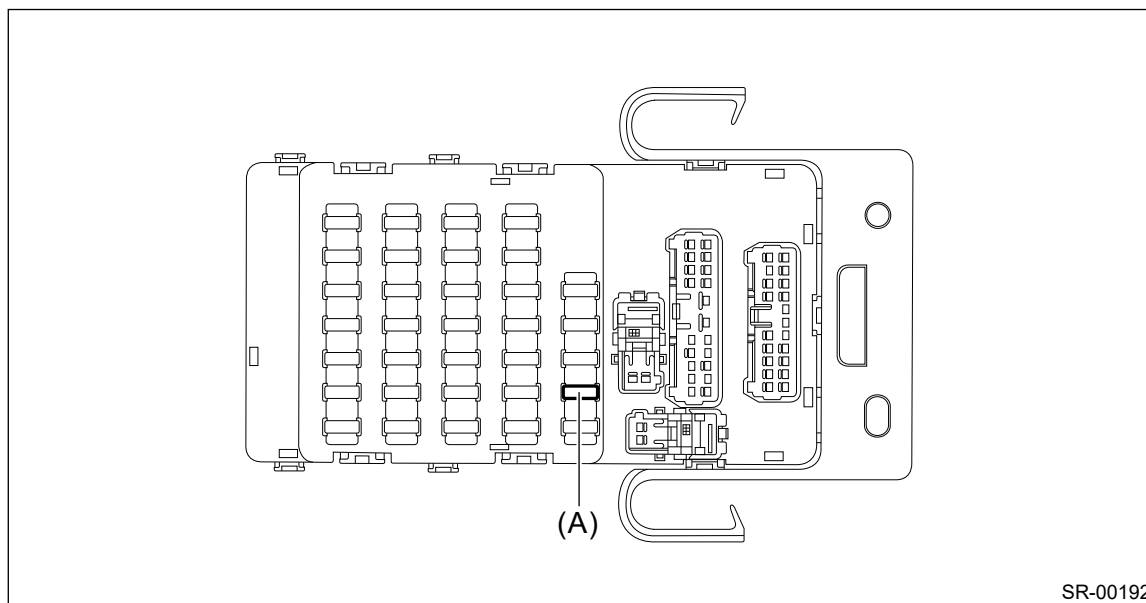
INSPECTION

1. CHECK FUSE

1. Remove the fuse and check visually.
2. If the fuse is blown out, replace the fuse.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Relay and Fuse

LOCATION



Relay & fuse box	Fuse 10A (IG 2)	(A)
------------------	-----------------	-----

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Assembly

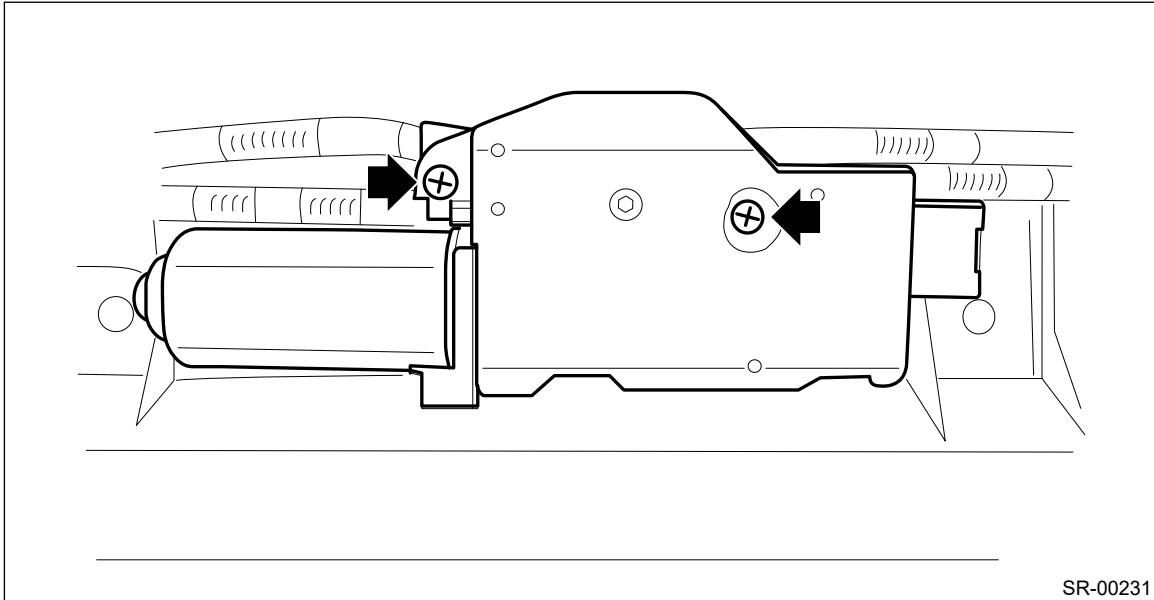
ASSEMBLY

Assemble each part in the reverse order of disassembly.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Assembly

DISASSEMBLY

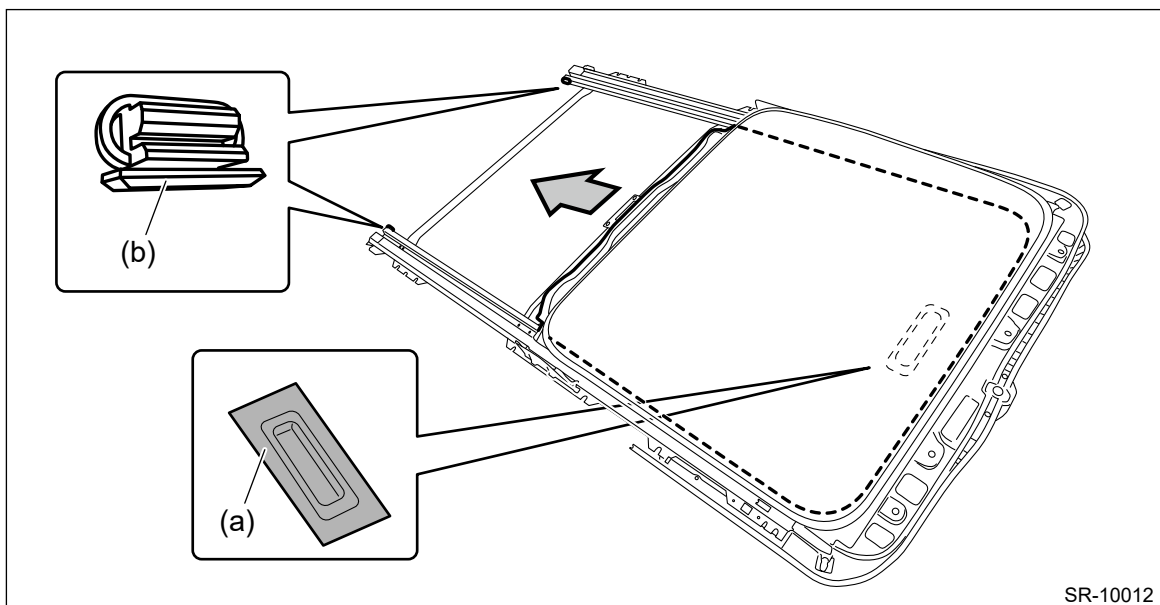
1. Remove the screw and remove the sunroof motor.



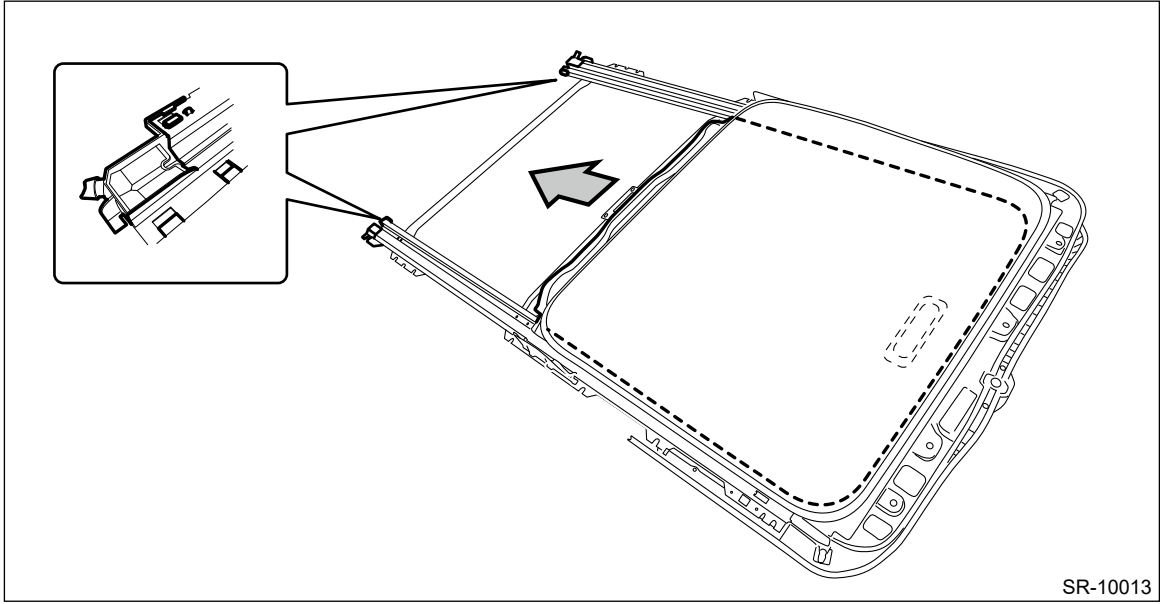
2. Remove the sunshade assembly.
 - (1) Attach protective tape (a) on the handle of sunshade assembly.
 - (2) Remove the left and right stoppers (b).
 - (3) Remove the sunshade assembly while pulling the center of the brace downward.

Caution:

Be careful not to damage the sunshade assembly.



- (4) Release the claws, and then remove the drain holder.



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SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Assembly

INSTALLATION

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [🔗 Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera" in the "EyeSight" section and observe the precautions for installation. [🔗 Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)
- Be careful not to snag the harness.
- Connect the harness connector firmly.

1. Install each connector and the drain tube - sunroof.

Tightening torque:

Connector holder: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

Ground bolt: 13N·m (1.3 kgf-m, 9.6 ft-lb)

2. Install the sunroof bracket and the rail assembly - sunroof.

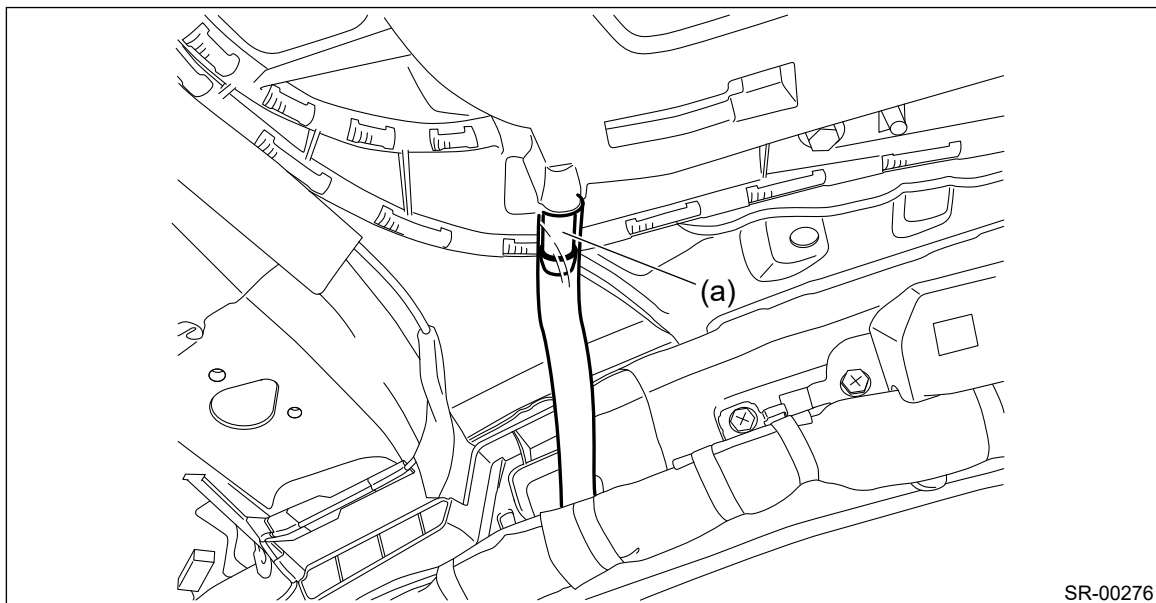
Tightening torque:

6 N·m (0.61 kgf-m, 4.4 ft-lb)

3. Connect the harness connector of the drain tube - sunroof and the motor assembly.

Caution:

Insert the four drain tubes 15 mm (0.59 in) or more into the drain pipes.



SR-00276

4. Install the bracket - assist rail.

Tightening torque:

7.5 N·m (0.76 kgf-m, 5.5 ft-lb)


5. Install the trim panel - roof assembly. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.](#)
6. Connect the battery ground terminal. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Assembly

REMOVAL




Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- When removing the clip, use great care not to damage the trim panel - roof assembly.

1. Completely close the lid assembly - sunroof, and open the sunshade assembly.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

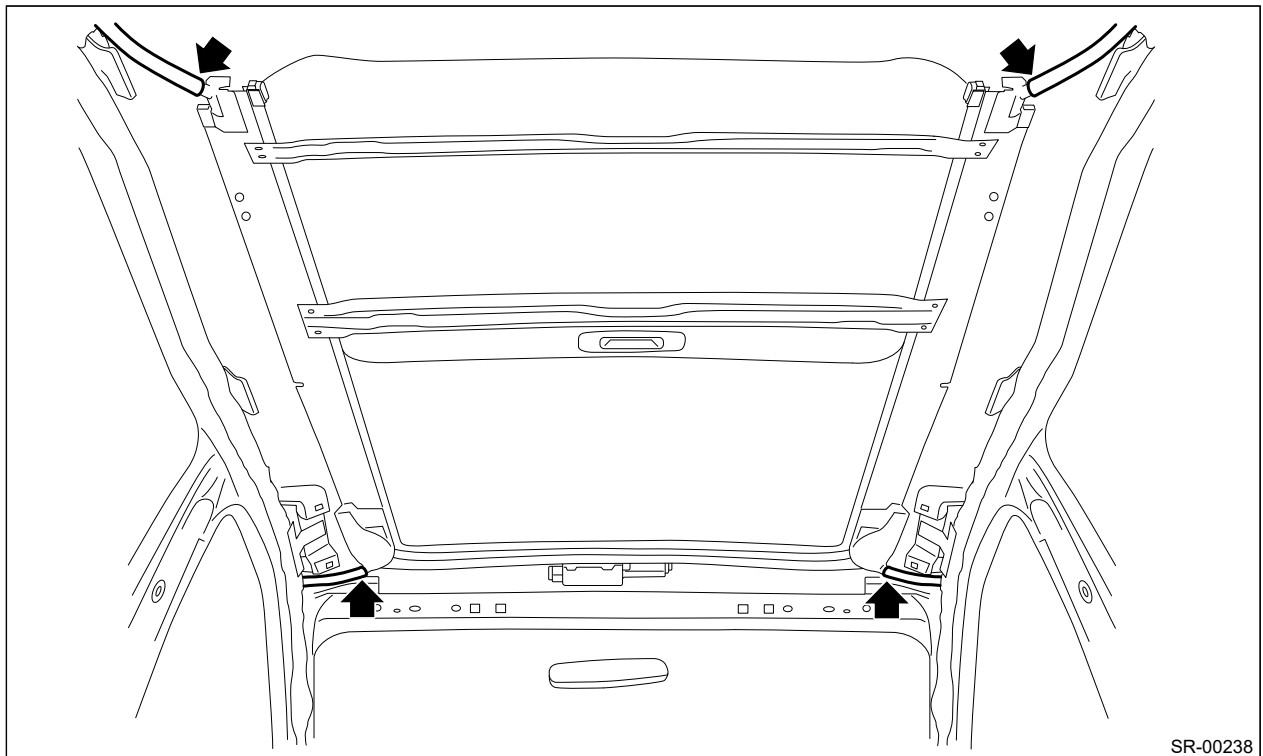
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the lid assembly - sunroof.  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Glass Lid>REMOVAL > GLASS LID.](#)
4. Remove the trim panel - roof assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
5. Disconnect the harness connector of the motor assembly.
6. Remove the curtain airbag module.  [Ref. to AIRBAG SYSTEM>Curtain Airbag Module>REMOVAL.](#)
7. Remove the drain tube - sunroof.

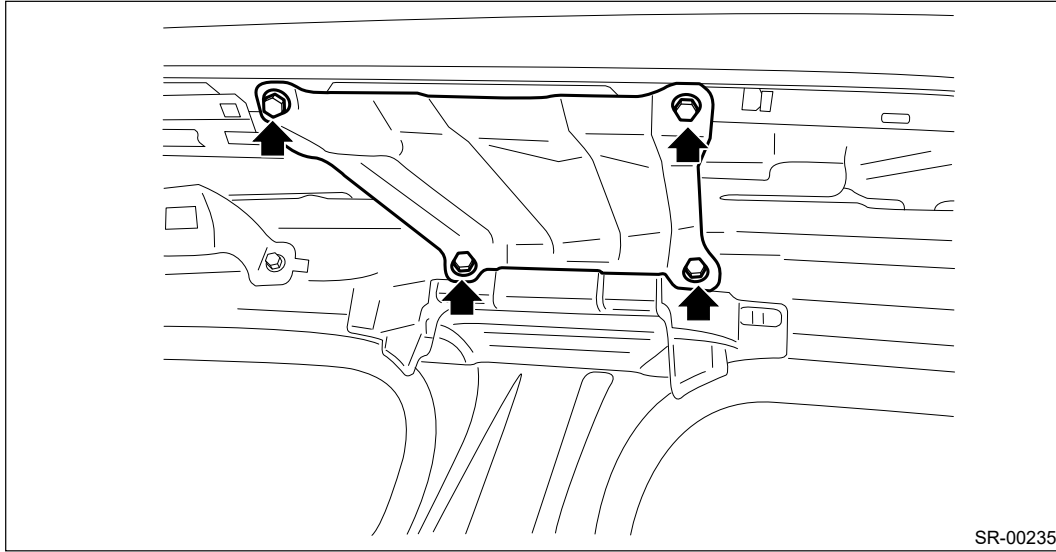
Note:

When removing the drain tube - sunroof completely, perform the step 8 or 9.

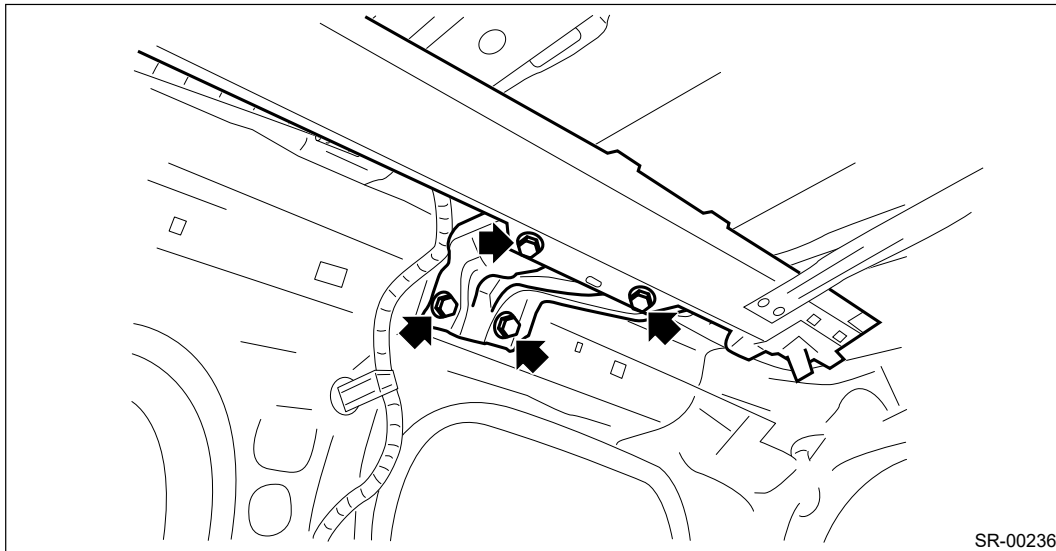


SR-00238

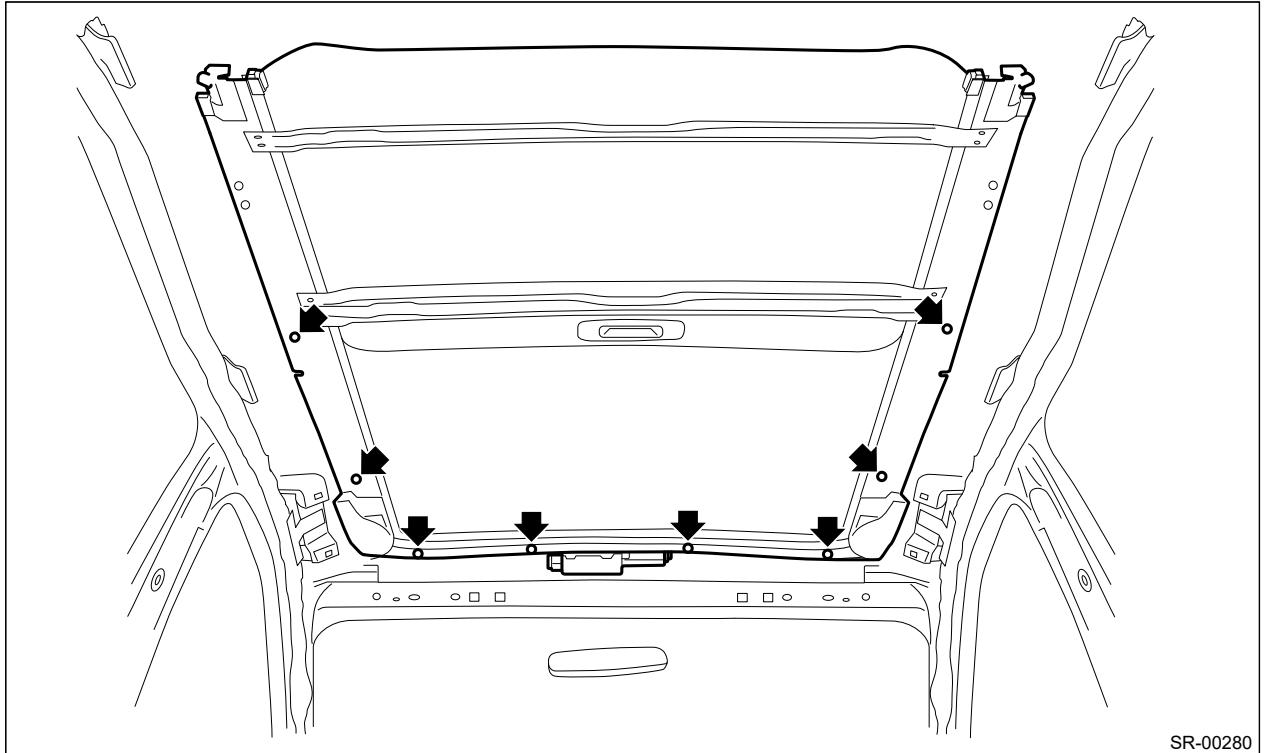
8. Remove the rail assembly.
 - (1) Remove the bolts, and then remove the cover - sunroof.



(2) Remove the bolts, and then remove the bracket - sunroof.



(3) Remove the bolts, then remove the rail assembly.



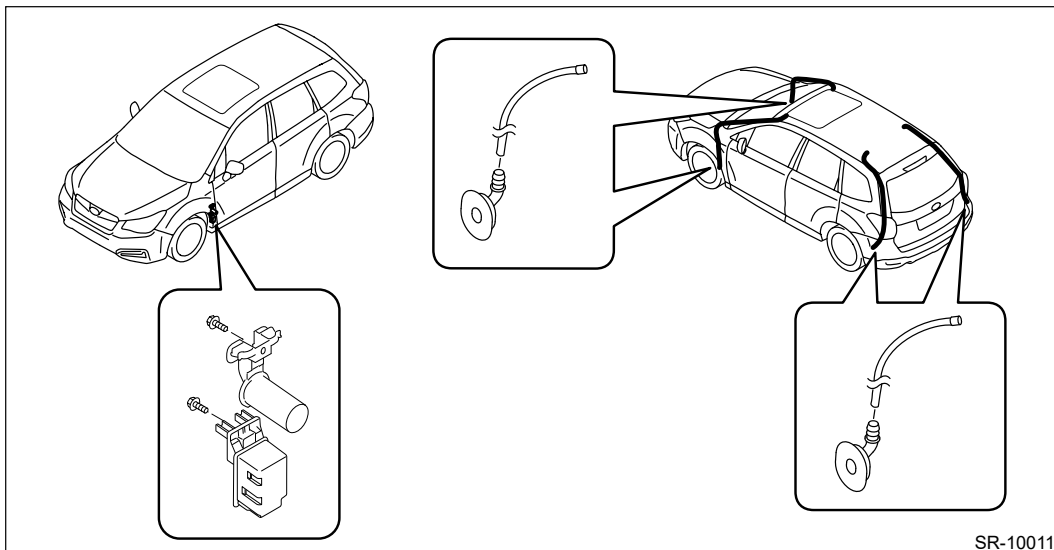
SR-00280

9. Remove the drain tube - sunroof.

Note:

For easy replacement work, attach a string when pulling the drain tube - sunroof.

- (1) Remove the cover side sill - front INN and cover side sill - front.
- (2) Disconnect each connector, bolt and clip, then remove the connector holder.
- (3) Remove the front side of drain tube - sunroof.
- (4) Remove the mat - rear floor and the spacer - rear floor.
- (5) Remove the rear side of drain tube - sunroof.



SR-10011

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Control System

INSPECTION




Symptoms	Inspection steps
Water leakage	<ol style="list-style-type: none"> 1. Check the roof panel and the lid assembly - sunroof for improper or poor sealing. 2. Check the drain tube - sunroof for clogging. 3. Check the joints of the rail assembly - sunroof for improper sealing and for proper installation to the body.
Booming noise, wind noise and other noise	<ol style="list-style-type: none"> 1. Check the lid assembly - sunroof and the roof panel for improper clearance. 2. Check the sunshade assembly and the trim panel - roof assembly for improper clearance.
Abnormal motor noise	<ol style="list-style-type: none"> 1. Check installing part of motor for looseness. 2. Check gears and bearings for wear. 3. Check cable assembly for wear. 4. Check cable pipe for deformities.
Failure of sunroof (Motor operates properly.)	<ol style="list-style-type: none"> 1. Check guide rail for foreign particles. 2. Check guide rail for improper installation. 3. Check parts for mutual interference. 4. Check cable slider for improper clinching. 5. Check cable assembly for improper installation.
Motor does not rotate or rotate improperly.	<ol style="list-style-type: none"> 1. Check fuse for blown out. 2. Check switch for improper function. 3. Check motor assembly for incorrect terminal voltage. 4. Check the relay for improper operation. 5. Check harness for open or short and terminals for poor connections.
Incorrect reverse operation of the lid assembly - sunroof	Check guide rail for foreign particles.

- Incorrect reverse operation of the lid assembly - sunroof while driving on rough road
 The lid assembly - sunroof has auto-reverse function. When the lid assembly - sunroof is pushed in the opening direction with a force of 110±10 N (11.2 kgf, 24.7 lbf±1.0 kgf, 2.2 lbf), the glass lid moves in reverse and stops.
 Therefore, if you operate (open or close) the lid assembly - sunroof while driving on rough road, the vibration may be judged as a force and the lid may incorrectly move in the reverse direction. When the incorrect reverse operation is occurred repeatedly, perform inspection around the sunroof frame. If there are no problems, perform the initialization operation with following procedure.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Control System

NOTE

For operation procedures of each component of the sunroof control system, refer to the respective section.

- Glass lid:  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Glass Lid.](#)
- Sunroof assembly:  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Sunroof Assembly.](#)
- Sunroof motor:  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Sunroof Motor.](#)
- Sunroof switch:  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Sunroof Switch.](#)
- Sunshade:  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Sunshade.](#)

OPERATION

1. INITIALIZE OPERATION

Caution:

During initialization, perform the position learning and the sliding learning. Sliding learning mode can not be initiated unless the position learning is performed.


Note:

When initialize operation is performed, it is necessary to press the switch repeatedly as it operates for only at the moment when the switch is pressed, even when the switch is held down.

- Position learning
- 1.** Position the lid assembly - sunroof at the full close position, and press and hold the close switch for ten seconds.
- 2.** The motion shifts to the inching operation when the close switch is pressed continuously to the full close position. After the lid fully opens, it returns to the full close position and then stops.
- 3.** Release the close switch to finish the position learning.
 - Sliding learning
- 4.** Within four seconds after the position learning is finished, press and hold the close switch again.
- 5.** The lid assembly - sunroof moves to the full close position, full open position, and the full close position successively, and stops at the full close position.
- 6.** Release the close switch and turn the IG to OFF to finish the initializing.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Control System

WIRING DIAGRAM

Refer to "Sunroof Control System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Sunroof Control System>WIRING DIAGRAM.](#)

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Motor

INSPECTION


Check the auto-reverse mechanism.

Caution:

Do not place objects in the way to check the auto-reverse mechanism.

1. Open the lid assembly - sunroof.
2. Push the lid assembly - sunroof in the opening direction with a force of 110 ± 10 N (11.2 kgf, 24.7 lbf \pm 1 kgf, 2.2 lbf) during the auto-closing operation, and check whether the window auto-reverse mechanism functions.


Note:




If the auto function is cancelled, perform the initialize operation.  Ref. to [SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Sunroof Control System>OPERATION > INITIALIZE OPERATION.](#)

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Motor

INSTALLATION

Caution:


- **When installing the motor assembly - sunroof, be careful not to move the cable assembly.**
- **For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera Cover" in the "EyeSight" section and observe the precautions for installation.  [Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)**

1. Install the motor assembly - sunroof.
2. Install the light assembly - map. (Models without EyeSight)
3. Install the stereo camera cover. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
5. Perform the initialize operation.  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Sunroof Control System>OPERATION > INITIALIZE OPERATION.](#)
6. Check the operation of sunroof by following the table below.

Operation	Switch position
(1) Lid assembly - sunroof closes completely.	[Close]
(2) Lid assembly - sunroof opens 507 mm (19.96 in) away from completely closed position.	[Open]
(3) Lid assembly - sunroof opens completely.	[Open]
(4) Lid assembly - sunroof closes completely.	[Close]



SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Motor

REMOVAL

1. Completely close the lid assembly - sunroof.
2. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

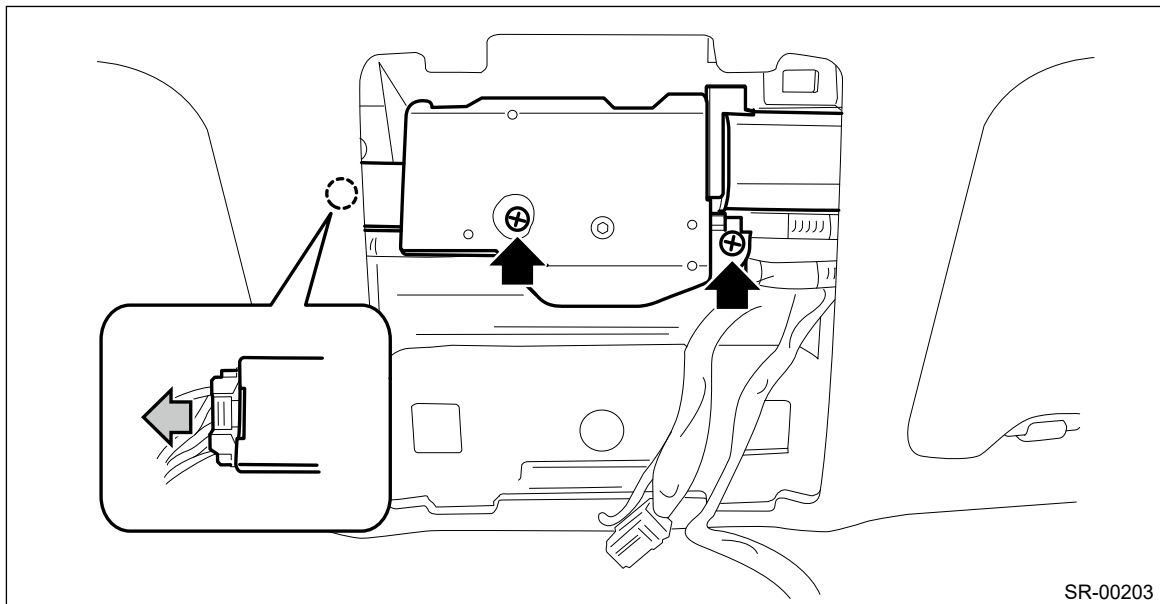
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the light assembly - map. (Models without EyeSight)  [Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL > MODELS WITHOUT EyeSight.](#)
4. Remove the stereo camera cover. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
5. Remove the motor assembly - sunroof.
 - (1) Disconnect the harness connector.
 - (2) Remove the screws and remove the motor assembly - sunroof.

Caution:


When removing the motor assembly - sunroof, secure the cable assembly so that it does not move.



SR-00203

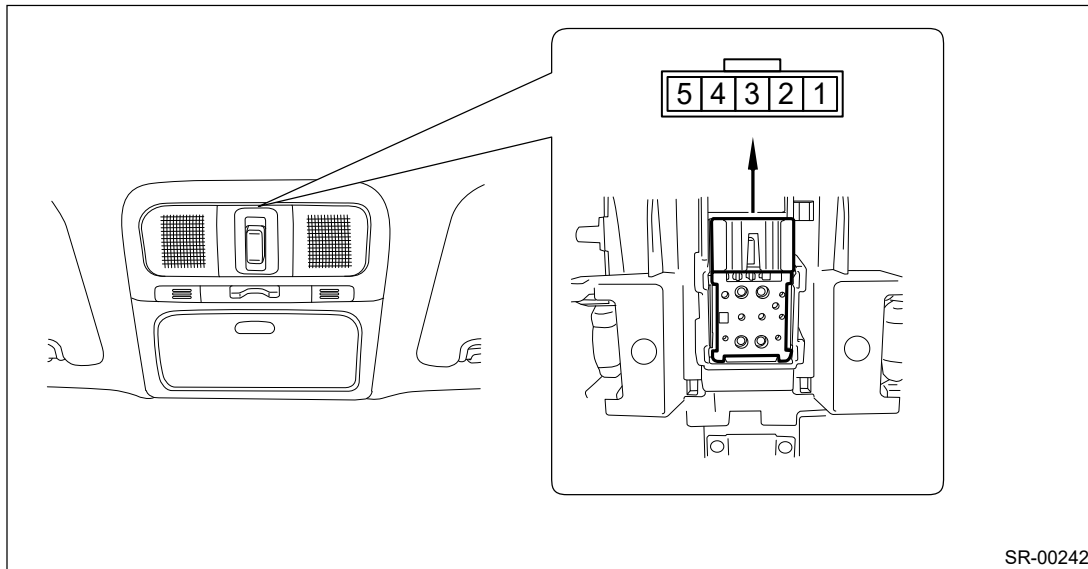
SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Switch

INSPECTION

1. Remove the sunroof switch.  [Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Sunroof Switch>INSPECTION.](#)
2. Check the resistance between sunroof switch terminals.

Preparation tool:

Circuit tester




Terminal No.	Inspection conditions	Standard	Connector No.
1 – 3	[Open]	Less than 1 Ω	R128
4 – 3	[Close]	Less than 1 Ω	


3. Replace the sunroof switch if the inspection result is not within the standard value.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Switch

INSTALLATION

Caution:

For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera Cover" in the "EyeSight" section and observe the precautions for installation.  [Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)

1. Install each part in the reverse order of removal.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)



SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Switch

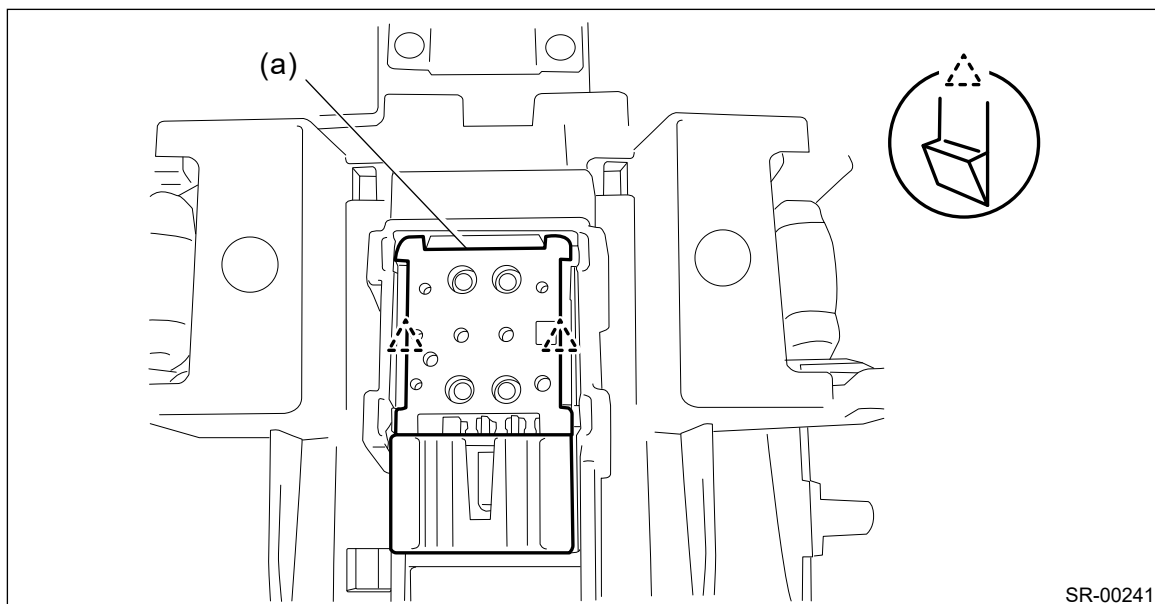
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the light assembly - map. (Models without EyeSight)  [Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL > MODELS WITHOUT EyeSight.](#)
3. Remove the stereo camera cover. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
4. Release the claws and remove the sunroof switch (a) from the light assembly - map.



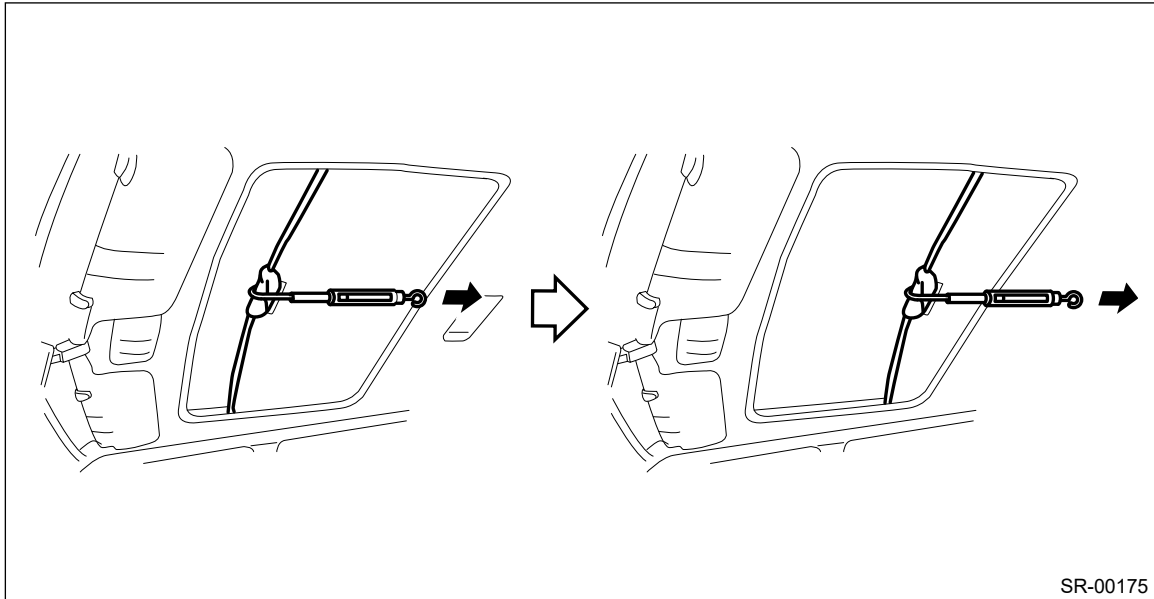
INSPECTION

1. MOVING LOAD OF SUNSHADE ASSEMBLY

- 1. Attach a spring scale together with a cloth to the edge of sunshade assembly.
- 2. Pull the spring scale to check the moving load of the sunshade assembly.

Moving load of sunshade assembly:

9.8— 25 N (1 — 2.55 kgf, 2.2 — 5.6 lbf)



Note:

Moving load is larger at the beginning of pulling a spring scale, so take a spring scale reading while the sunshade assembly is sliding smoothly.

- 3. If the inspection result exceeds the standard, check the sunshade assembly or the rail assembly - sunroof for improper installation, and replace if necessary.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunshade

INSTALLATION





Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".
- For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera" in the "EyeSight" section and observe the precautions for installation.

1. Install the sunshade assembly.
2. Install the rail assembly - sunroof.

Tightening torque:

Refer to "COMPONENT" of "General Description".  Ref. to [SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>General Description>COMPONENT.](#)

3. Install the curtain airbag module.  Ref. to [AIRBAG SYSTEM>Curtain Airbag Module>INSTALLATION.](#)
4. Install the trim panel - roof assembly.  Ref. to [EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.](#)
5. Install the lid assembly - sunroof.  Ref. to [SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Glass Lid>INSTALLATION.](#)
6. Connect the battery ground terminal.  Ref. to [NOTE>NOTE > BATTERY.](#)

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunshade

REMOVAL

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [🔗 Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- When removing the clip, use great care not to damage the trim panel - roof assembly.

1. Completely close the lid assembly - sunroof, and open the sunshade assembly.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)

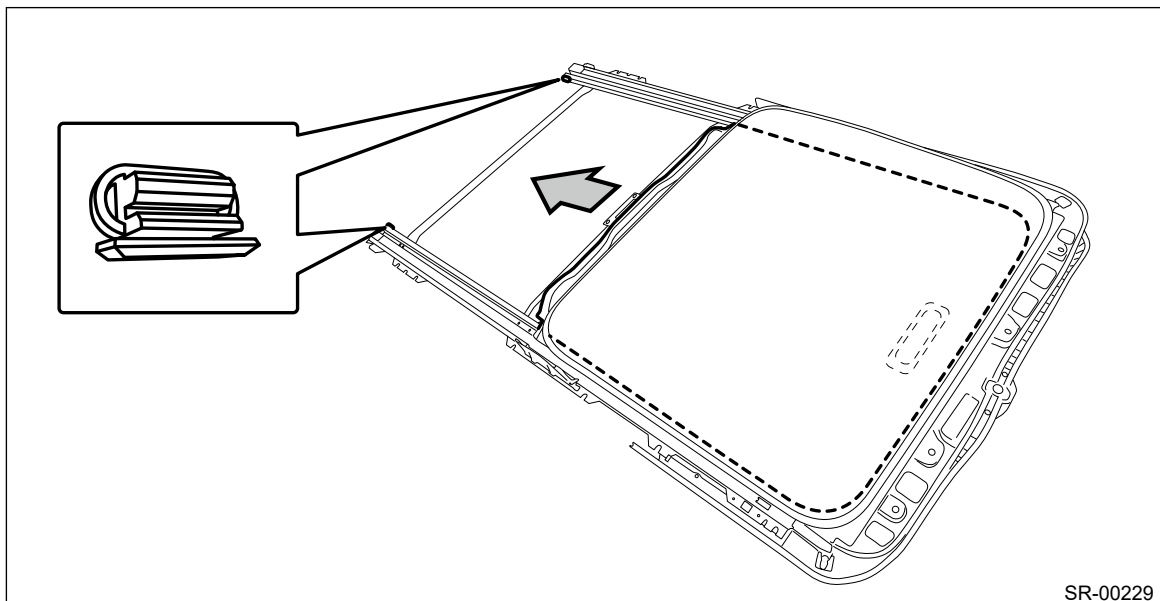
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the trim panel - roof assembly. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
4. Disconnect the harness connector of the motor assembly - sun roof.
5. Remove the curtain airbag. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
6. Remove the rail assembly - sunroof. [🔗 Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP \(SUNROOF\)>Sunroof Assembly>REMOVAL.](#)
7. Remove the sunshade assembly.
 - (1) Attach protective tape (a) on the handle of sunshade assembly.
 - (2) Remove the left and right stoppers (b).
 - (3) Remove the sunshade assembly while pulling the center of the brace downward.

Caution:

Be careful not to damage the sunshade assembly.



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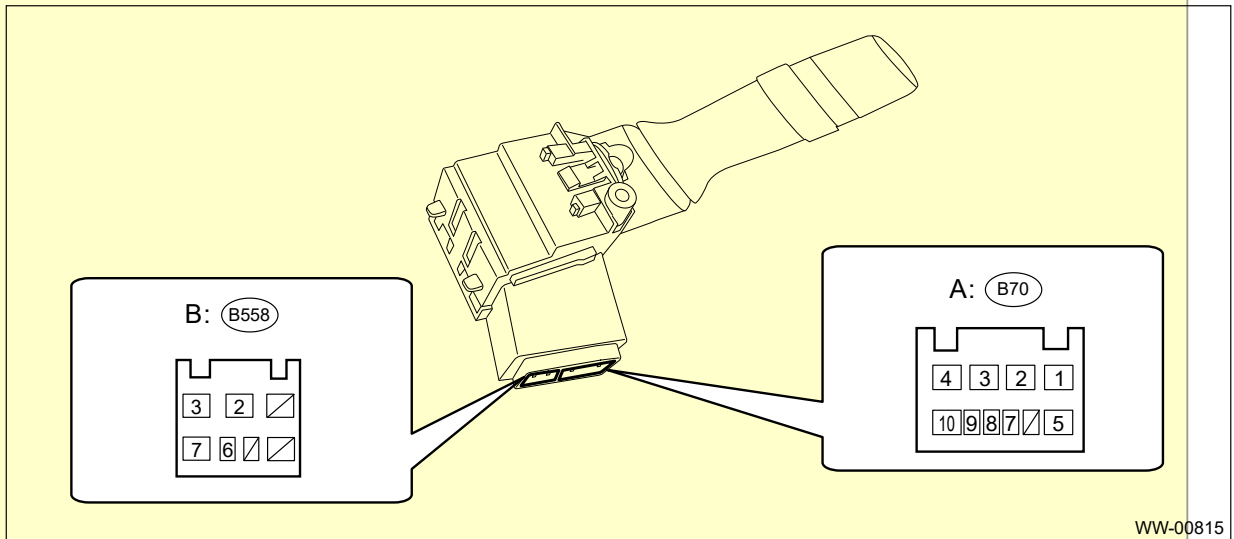
INSPECTION

1. INSPECTION OF SWITCH UNIT

1. CONTINUITY CHECK.



1. Operate the switches to check the continuity between terminals.



WW-00815

	Switch position	Terminal No.	Standard
Front	[OFF]	A1 and A3	Less than 1 Ω
	INT	A1 and A3	Less than 1 Ω
	LO	A2 and A3	Less than 1 Ω
	HI	A2 and A4	Less than 1 Ω
	Washer ON	B2 and B3	Less than 1 Ω
Rear	[OFF]	A5 and B2 B6 and B2 B7 and B2	1 MΩ or more
	LO	B6 and B2	Less than 1 Ω
	HI	B7 and B2	Less than 1 Ω
	Washer ON	A5 and B2	Less than 1 Ω

Is continuity within the standard value?

Yes

The switch is normal.

No

If continuity is out of the standard value, replace the switch.

2. FRONT WIPER

1. CHECK WITH SUBARU SELECT MONITOR.



Note:

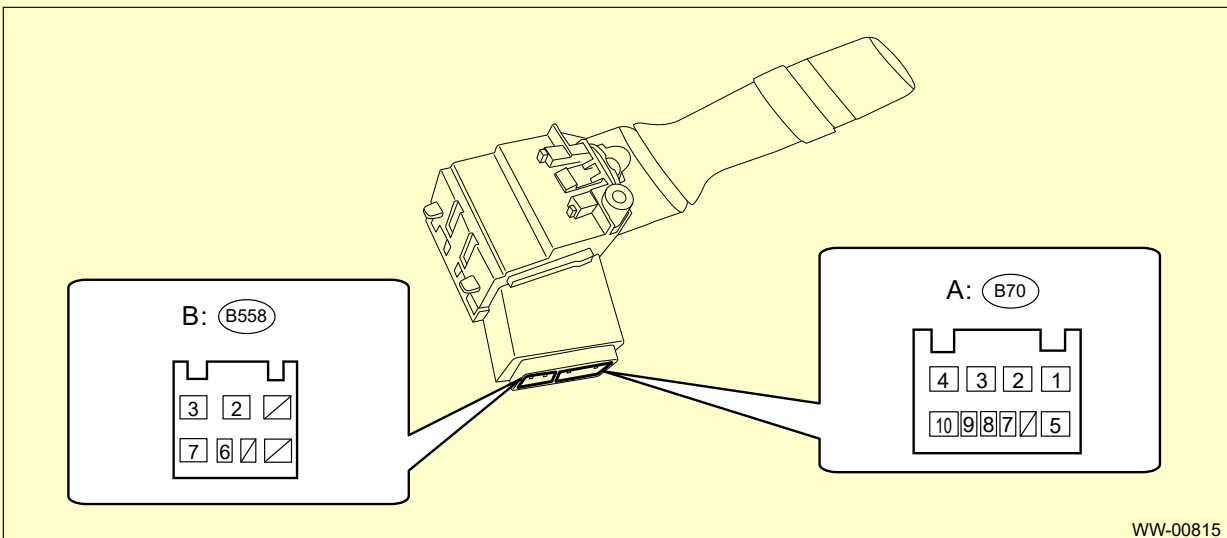
For detailed operation procedures, refer to "Application help".

1. Check the input signal when the switch assembly - combination wiper select is turned to LO or HI, using the [Data monitor] display.

Does the input signal change corresponding to the switch operation?

- Yes Finish the diagnosis.
- No Check the harness.

2. CHECK THE INTERMITTENT OPERATION (INSPECTION OF THE WIPER SWITCH ALONE).



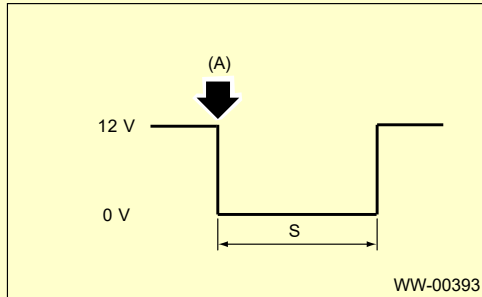
WW-00815

1. Set the voltmeter between terminal No. A2 (+) and No. B2 (-).
2. Connect the battery to connector. (Terminal No. A2 (+), terminal No. B2 and A3 (-))
3. Turn the switch assembly - combination wiper select to INT.
4. Connect the battery (+) to the terminal No. A2 for 5 seconds.
5. Connect the battery (-) to the terminal No. B2, and check the voltage between terminals No. A2 and No. A3 during intermittent operation.
6. Perform step 1 to 5 above when intermittent control switch is in MIN or MAX.

Intermittent stationary time

MIN: Approx. 2 seconds

MAX: Approx. 16 seconds



(A): Connect the battery (-) to the terminal No. B2.

S: Intermittent downtime (sec.)

Is the intermittent stopping time approx. 2 seconds (in MIN) or approx. 16 seconds (in MAX)?

Yes

Intermittent operation is normal.

No

If operation is not as specified, replace the switch.

3. REAR WIPER


1. CHECK INPUT OF BODY INTEGRATED UNIT.

Check the input signal when the rear wiper switch is operated using Subaru Select Monitor.


1. Turn the ignition switch to ON.
2. Operate the rear wiper switch to each position of ON, INT and Washer ON.

Does the input signal change corresponding to the switch operation?


Yes

 [Go to 4.](#)

No

 [Go to 2.](#)

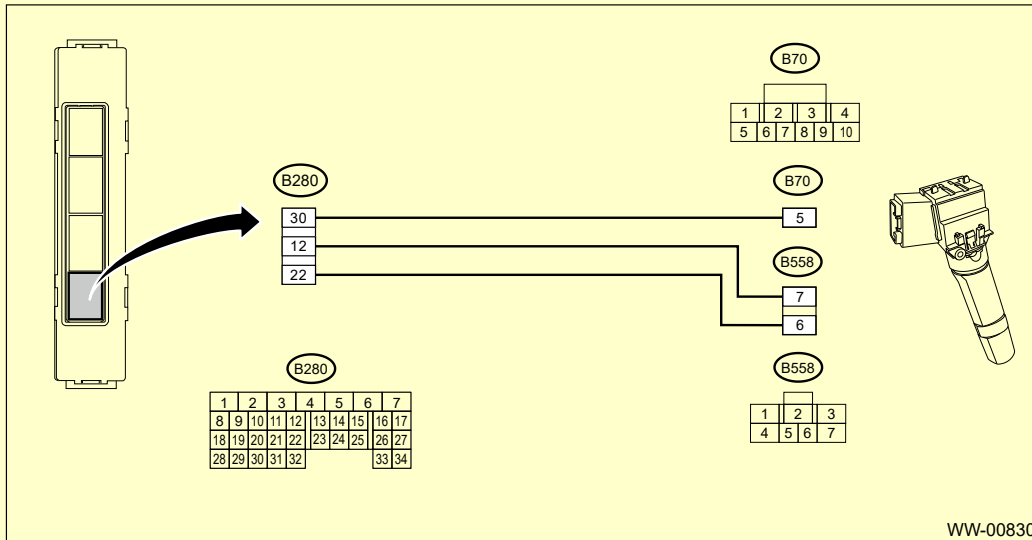
2. CHECK HARNESS.

1. Turn the ignition switch to OFF, disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Disconnect the connector of body integrated unit and wiper switch.
3. Measure the resistance between body integrated unit and wiper switch.



Connector & terminal

- (B280) No. 30 — (B70) No. 5:
- (B280) No. 22 — (B558) No. 6:
- (B280) No. 12 — (B558) No. 7:

Is the resistance less than 10 Ω?

Yes

[Go to 3.](#)

No

Repair the harness between the body integrated unit and wiper switch.

3. CHECK INPUT VOLTAGE OF BODY INTEGRATED UNIT. ▼

1. Connect the ground cable to battery. [Ref. to NOTE>NOTE > BATTERY.](#)
2. Turn the ignition switch to ON and check the input voltage of body integrated unit.

Connector & terminal

- (i84) No. 6 (+) — Chassis ground (-):
- (B281) No. 3 (+) — Chassis ground (-):

Is the voltage 10 V or more?

Yes

[Go to 4.](#)

No

Check the harness and fuse.

4. CHECK OUTPUT OF BODY INTEGRATED UNIT. ▼

Check the output signal when the rear wiper switch is operated using Subaru Select Monitor.

1. Turn the ignition switch to ON.
2. Operate the rear wiper switch to ON and Washer ON.
3. When the operation above is performed, check the output signal of body integrated unit to rear


wiper motor.

When the rear wiper switch is set to ON, is ON output continuous? Also, when the washer is set to ON, is ON output?

Yes

 [Go to 5.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

5. CHECK OUTPUT OF BODY INTEGRATED UNIT.

Check the output signal when the rear wiper switch is operated using Subaru Select Monitor.

1. Turn the ignition switch to ON.
2. Set the rear wiper switch to INT.
3. When the operation above is performed, check the output signal of body integrated unit.

When the rear wiper switch is set to INT, is ON/OFF output repeated? (INT OFF time (when vehicle parked): 12 seconds)

Yes

 [Go to 8.](#)

No

 [Go to 6.](#)

6. CHECK HARNESS BETWEEN BODY INTEGRATED UNIT AND REAR WIPER MOTOR.

1. Turn the ignition switch to OFF, disconnect the ground cable from battery.
2. Disconnect the connector of body integrated unit and wiper switch.
3. Measure the resistance between the harness connector terminals of the body integrated unit and rear wiper motor.

Connector & terminal

(B280) No. 6 – (B97) No. 11:

Is the resistance less than 10 Ω ?

Yes

 [Go to 7.](#)

No

Repair the open circuit of the harness between body integrated unit and rear wiper motor.

7. CHECK STOP POSITION CIRCUIT OF THE REAR WIPER MOTOR.


1. Disconnect the harness connector of the motor assembly - rear wiper.
2. Check the continuity of the circuit of rear wiper motor stop position.

Connector & terminal

(D43) No. 1 (+) — (D43) No. 4 (-):

Is there continuity between terminals?

Yes

 [Go to 8.](#)

No

Replace the motor assembly - rear wiper.

8. CHECK POWER SUPPLY CIRCUIT OF THE REAR WIPER MOTOR.


1. Disconnect the harness connector of the motor assembly - rear wiper.
2. Turn the ignition switch to ON.
3. Measure the voltage between the rear wiper motor harness connector terminal and chassis ground.

Connector & terminal

(D43) No. 3 (+) — Chassis ground (-):

Is the voltage 10 V or more?

Yes

 [Go to 9.](#)

No

Check the fuse (No. 27 in main fuse box).

9. CHECK GROUND CIRCUIT OF REAR WIPER MOTOR.

1. Turn the ignition switch to OFF.
2. Measure the resistance between the rear wiper motor harness connector terminal and chassis ground.

Connector & terminal

(D43) No. 4 — Chassis ground:

Is the resistance less than 10 Ω ?

Yes

 [Go to 10.](#)

No

Repair the open circuit of the rear wiper motor ground circuit.

10. CHECK HARNESS BETWEEN BODY INTEGRATED UNIT AND REAR WIPER MOTOR.

1. Turn the ignition switch to OFF.
2. Disconnect the harness connector of body integrated unit.
3. Disconnect the harness connector of the motor assembly - rear wiper.


4. Measure the resistance between the harness connector terminals of the body integrated unit and rear wiper motor.

Connector & terminal

(B280) No. 7 – (D43) No. 2:

Is the resistance less than 10 Ω?

Yes

 [Go to 11.](#)

No

Repair the open circuit of the harness between body integrated unit and rear wiper motor.

11. CHECK OUTPUT OF BODY INTEGRATED UNIT.

1. Connect the harness connector of body integrated unit.
2. Disconnect the connector of the motor assembly - rear wiper.
3. Turn the ignition switch to ON.
4. Measure the voltage between rear wiper motor connector and chassis ground.

Connector & terminal


(D43) No. 2 (+) – Chassis ground (-):

Is the voltage less than 1.5 V when the rear wiper switch is OFF, and is the voltage 10 V or more when the rear wiper switch is ON?


Yes

 [Go to 12.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

12. CHECK OPERATION OF REAR WIPER MOTOR.

1. Remove the motor assembly - rear wiper.
2. Check the rear wiper motor.  [Ref. to WIPER AND WASHER SYSTEMS>Rear Wiper Motor>INSPECTION.](#)

Does the rear wiper motor rotate normally?

Yes

Yes → Finished.

No

No → Replace the motor assembly - rear wiper.

Note:


Rear wiper intermittent time

Select lever position	Vehicle speed (km/h (MPH))	Intermittent stopping time (sec.)
Rev.	—	Continuous operation

Except for reverse mode	80 – (50 –)	3
	50 – 80 (31 – 50)	6
	20 – 50 (12 – 31)	9
	0 – 20 (0 – 12)	12

WIPER AND WASHER SYSTEMS > Combination Switch (Wiper)

INSTALLATION

- 1.** Install each part in the reverse order of removal.
- 2.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

WIPER AND WASHER SYSTEMS > Combination Switch (Wiper)

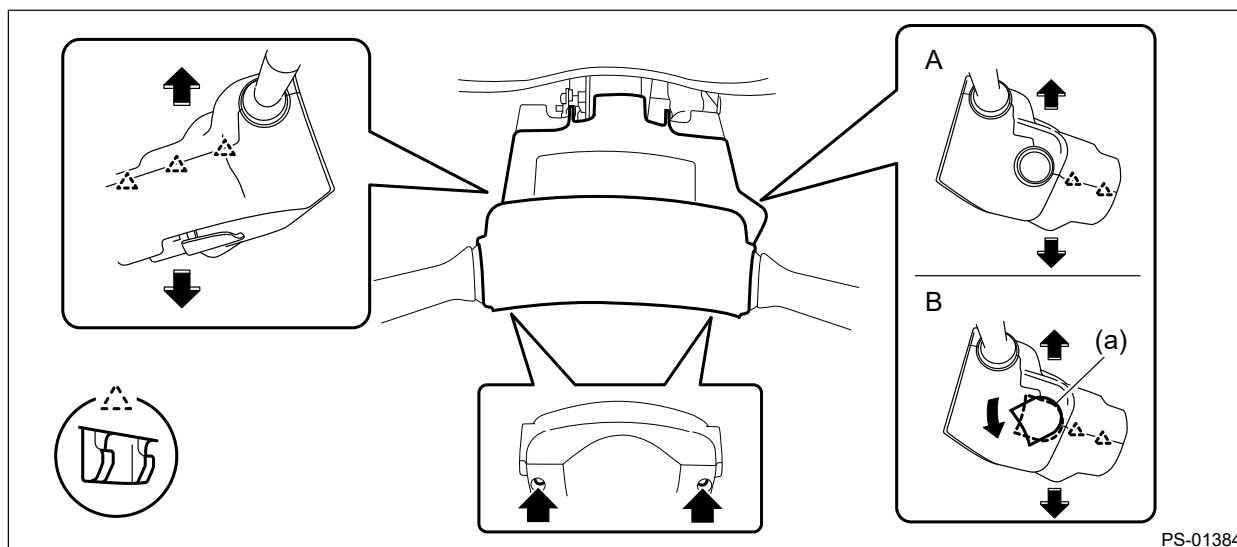
REMOVAL

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - column.
 - (1) Release the screws and claws.
 - (2) Remove the cap - key cylinder (a). (Model with keyless access with push button start)
 - (3) Remove the cover assembly - column UPR and the cover assembly - column LWR.



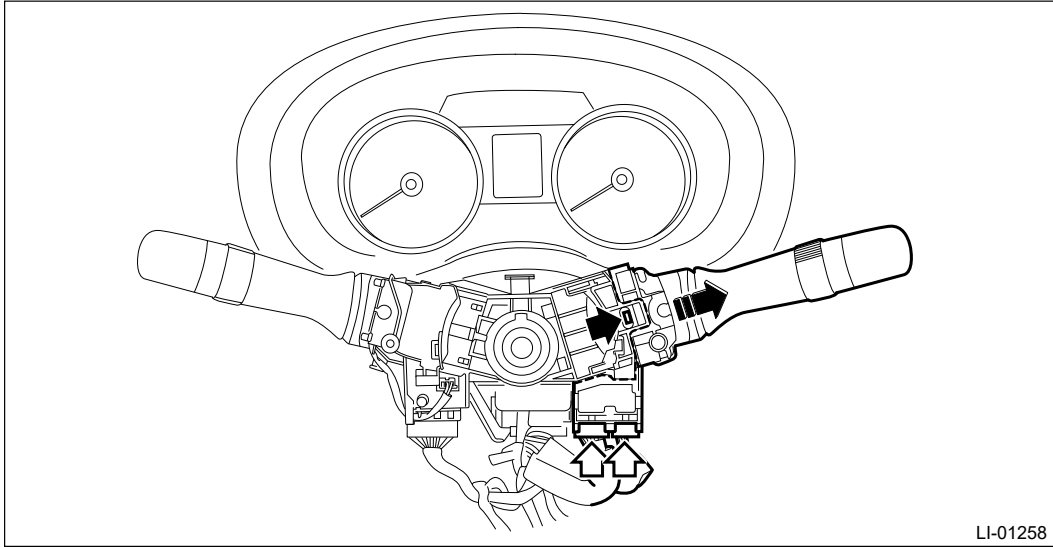
A Model without keyless access with push button start

B Model with keyless access with push button start

3. Remove the switch assembly - combination wiper select.
 - (1) Disconnect the connector.
 - (2) Release the claws, and pull out the switch assembly - combination wiper select.

Caution:

Do not press the claws with excessive force. They may be damaged.

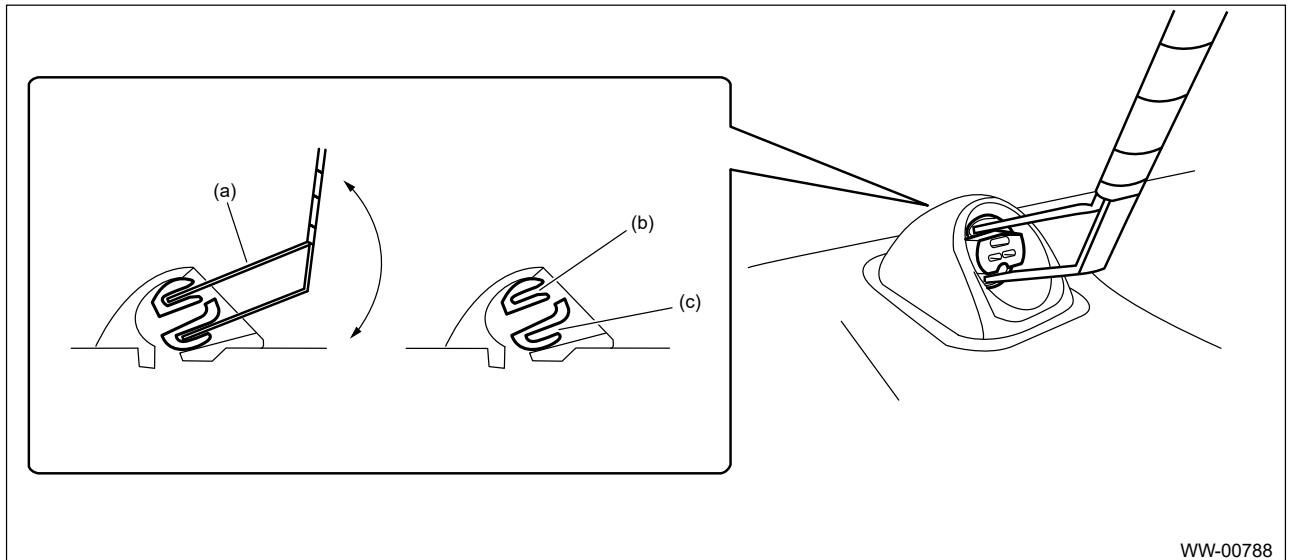


LI-01258

ADJUSTMENT

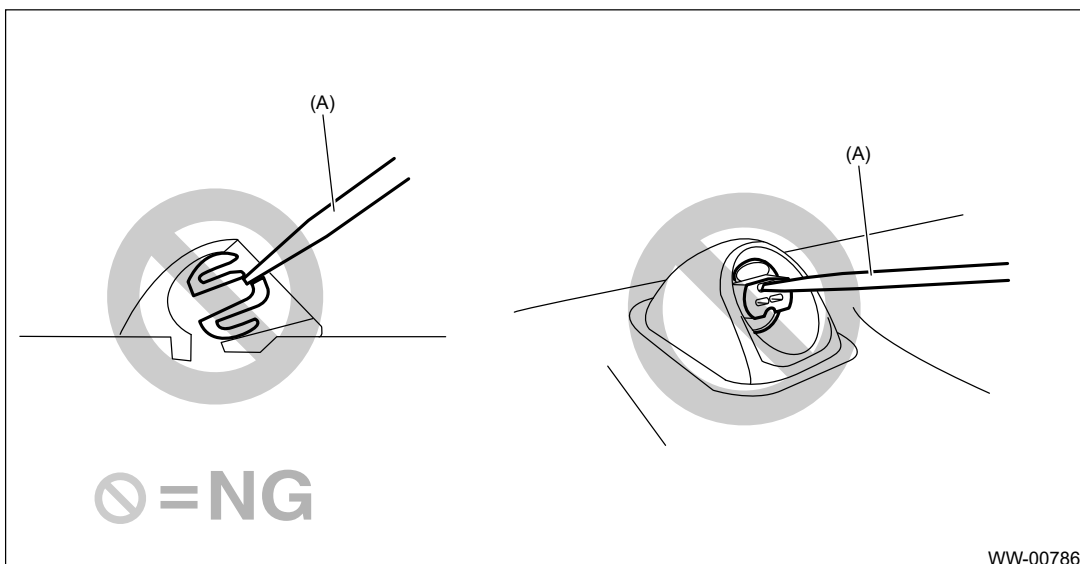
1. NOZZLE - WINDSHIELD WASHER

1. Turn the wiper switch to OFF position.
2. While the vehicle is at a standstill, insert the washer nozzle adjustment tool (a) into upper side (b) and lower side (c) of the nozzle - windshield washer to perform necessary adjustment.

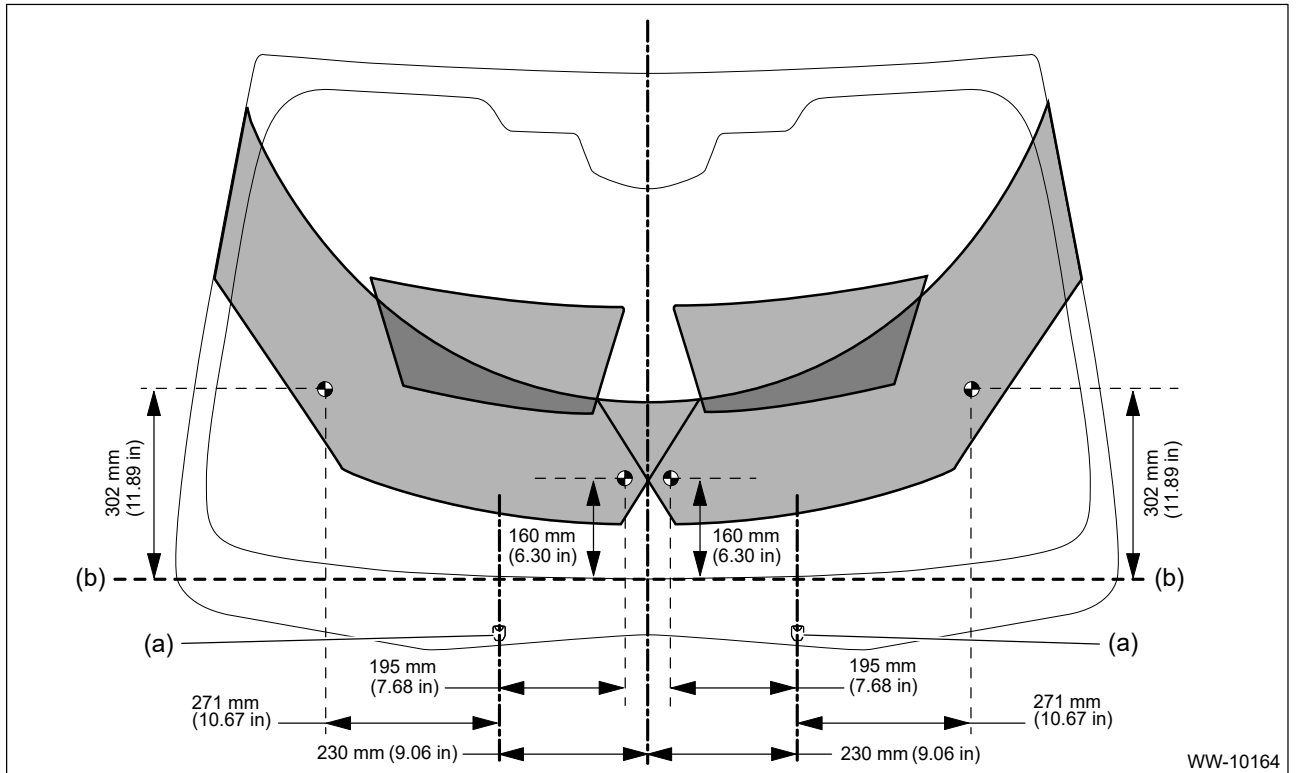


Caution:

Washer nozzle is made of resin. If precision screwdriver (A) or equivalent is inserted into discharge port for adjustment, the discharge port can be deformed, and washer fluid cannot be sprayed.



3. Adjust the washer injection position as shown in the figure.



(a) Nozzle - windshield washer (b) Ceramic line

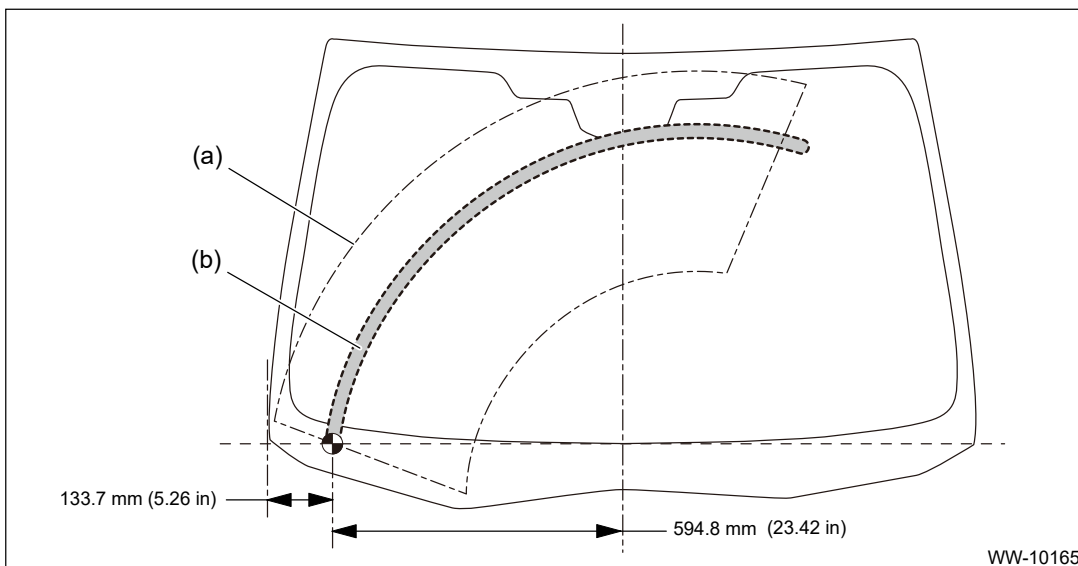
WW-10164

2. NOZZLE - WIPER ARM WASHER (MODEL WITH EyeSight ONLY)

Caution:

Check and adjust the spray position of the nozzle - wiper arm at the position where the wiper arm stops.

1. Turn the wiper switch to OFF position.
2. While the vehicle is stopped, check that the washer spray position is as shown in the figure.
3. After inspection, if the spray position is really out of the specified range, replace with a new arm assembly - windshield wiper assistor.




WW-10165

(a) Wiping area of arm ASSY -
windshield assistor

(b) Spray area

WIPER AND WASHER SYSTEMS > Front Washer Nozzle and Hose

INSPECTION

- Make sure the nozzle - windshield washer and the hose - windshield washer are not clogged.
- Make sure the hose - windshield washer is not bent or broken.
- Check the position of the nozzle - windshield washer.  [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose>ADJUSTMENT.](#)

WIPER AND WASHER SYSTEMS > Front Washer Nozzle and Hose

INSTALLATION



1. Install each part in the reverse order of removal.

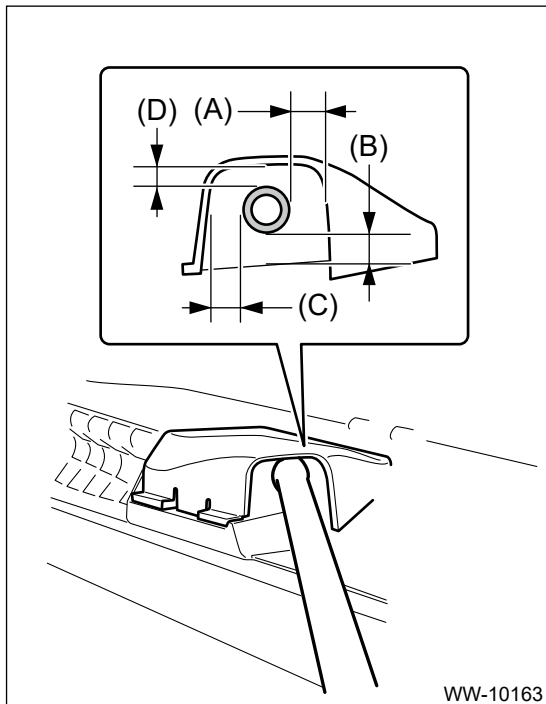
Caution:

- If the cowl panel assembly cannot be installed properly, do not hit or set it forcibly. The claws of the cowl panel or the windshield glass may be damaged.
- Before installing the windshield glass and cowl panel, make sure there are no gravel in the installing area.
- Make sure that the cushion is assembled in the joint if the joint - washer hose is removed.

Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to WIPER AND WASHER SYSTEMS>General Description>COMPONENT > FRONT WIPER.](#)

2. Install the hose to the joint - washer hose. (Models with EyeSight)
3. Adjust the position of the nozzle - windshield washer.  [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose>ADJUSTMENT.](#)
4. Operate the windshield wiper to check that the stop position is aligned with the point mark. If it is not aligned with the point mark, perform the removal and installation of the windshield wiper over again.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
5. Make sure that there is a gap of 1 mm (0.04 in) or more between the hose and the cover - joint, between the hose and the joint - washer hose and between the hose and the cowl panel during windshield wiper operation. If the gap cannot be secured, perform the installation of the hose over again.





- (A) Gap between hose and cover - joint outer side

- (B) Gap between hose and cover -
joint upper side
- (C) Gap between hose and cover -
joint inner side
- (D) Gap between hose and cover -
joint lower side

WIPER AND WASHER SYSTEMS > Front Washer Nozzle and Hose

REMOVAL

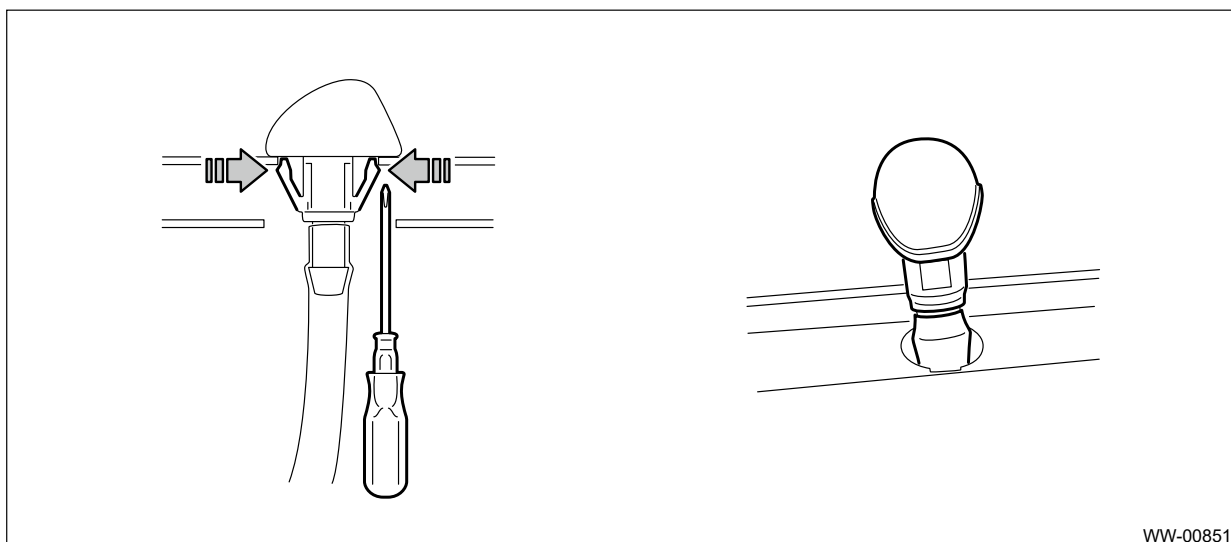
1. NOZZLE - WINDSHIELD WASHER & HOSE

1. Remove the arm assembly - windshield wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
2. Remove the cowl panel side and cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.](#)

Caution:

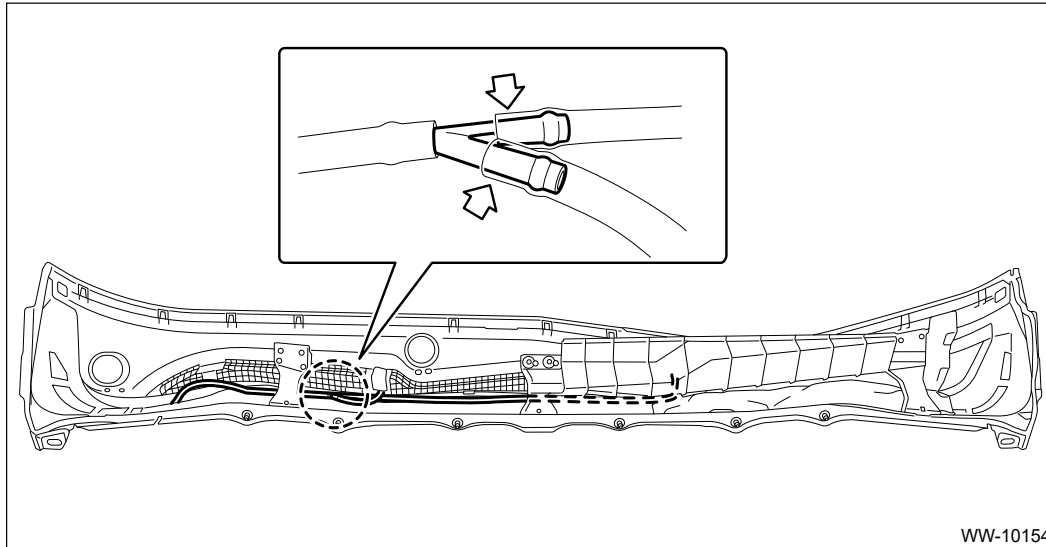
Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.

3. Remove the nozzle - windshield washer.
 - (1) Push the claw using a flat tip screwdriver, etc.
 - (2) When the nozzle - windshield washer lifts up, pull out the nozzle - windshield washer using a clip remover, etc.
 - (3) Disconnect the hose - windshield washer, and remove the nozzle - windshield washer.

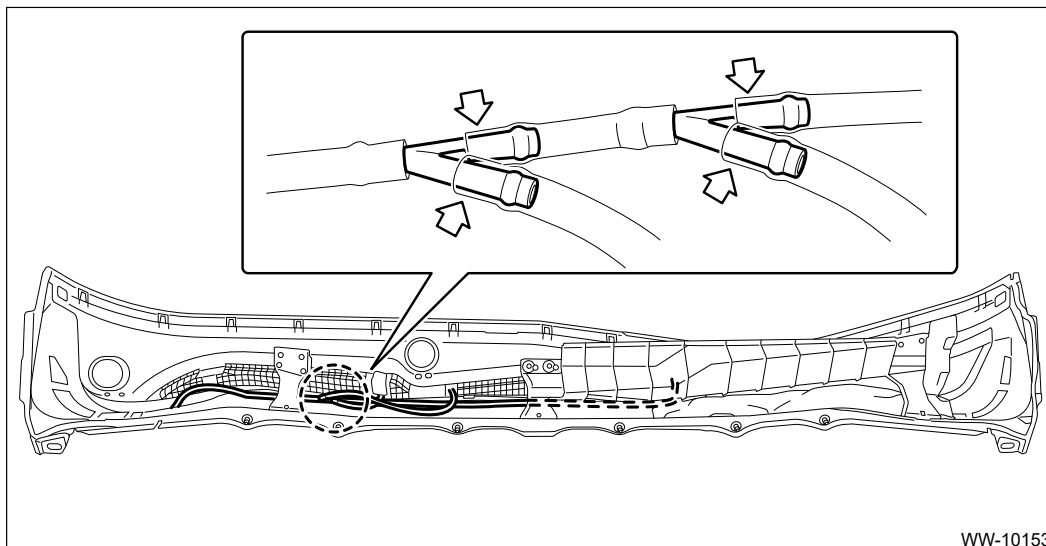


WW-00851

4. Disconnect the hose - windshield washer & hose as necessary.
 - Models without EyeSight



- Models with EyeSight





2. NOZZLE - WIPER ARM WASHER & HOSE (MODEL WITH EyeSight)

Caution:

Do not remove the nozzle - wiper arm washer & hose from the arm assembly - windshield wiper assistor.

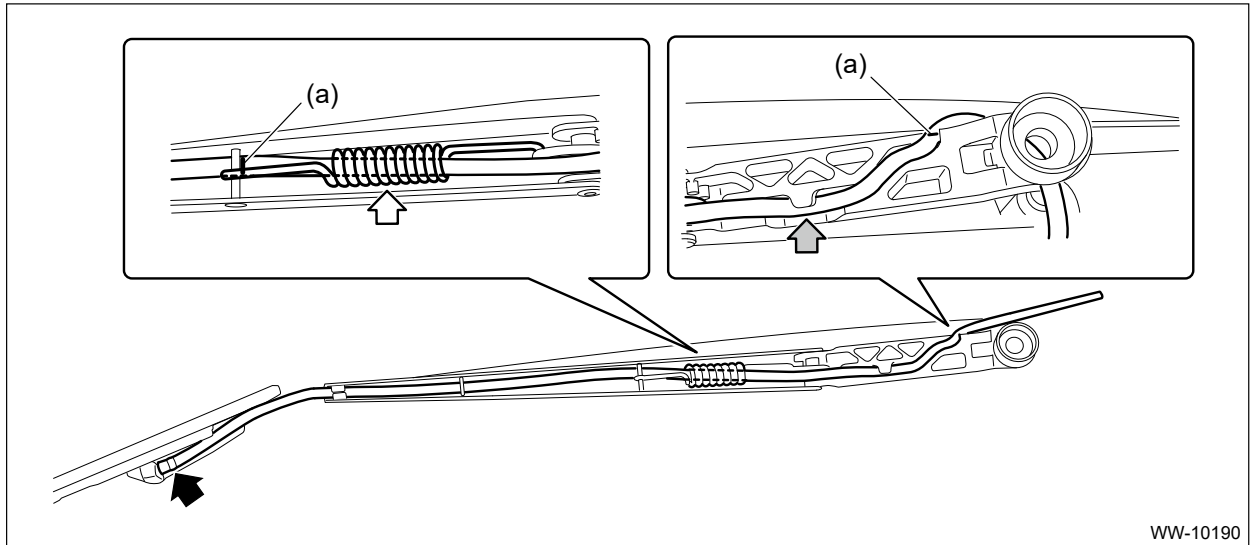
If replacement is required, replace the arm assembly - windshield wiper assistor as a unit.

1. Remove the arm assembly - windshield wiper.  Ref. to [WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL](#).
2. Remove the cowl panel side and cowl panel assembly.  Ref. to [EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL](#).

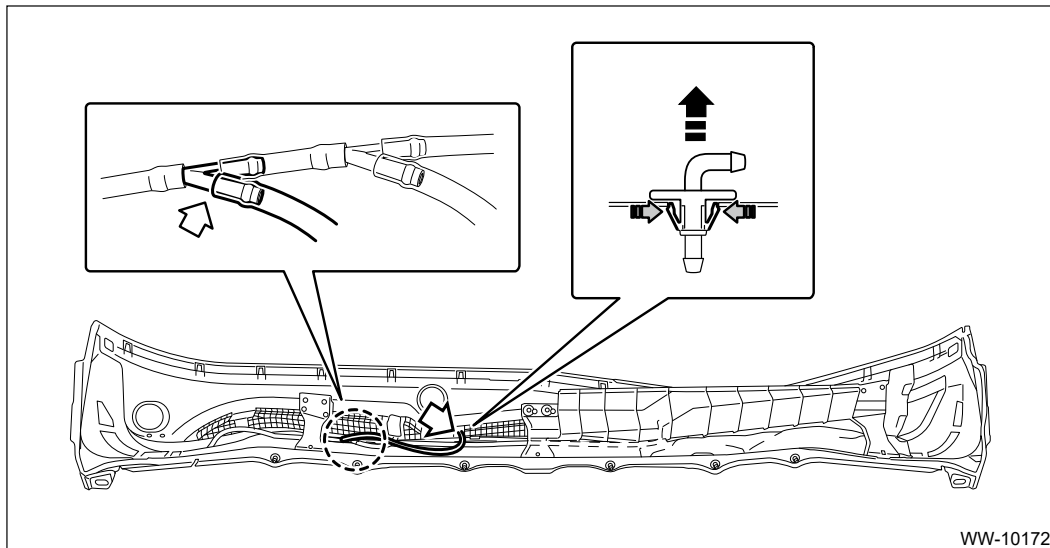
Caution:

Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.

3. Remove the hose from the wiper arm as necessary.
 - (1) Put alignment marks (a) at two places.
 - (2) Remove the hose.



4. Remove the joint - washer hose and the hose - wiper arm washer from the cowl panel as required.



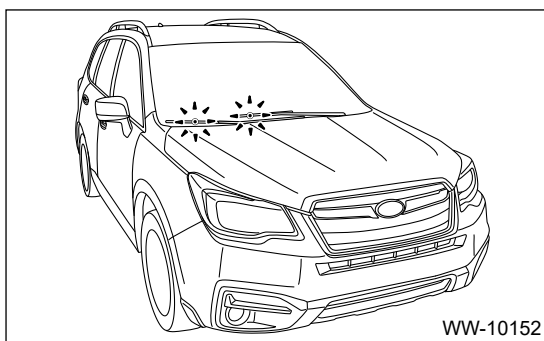
INSTALLATION

1. MODELS WITHOUT EyeSight

Note:

Since the arm assembly - windshield wiper LH and RH can interfere with each other, install the passenger's side first.


1. Install the arm assembly - windshield wiper.
 - (1) Assemble the arm assembly - windshield wiper so that the blade assembly - windshield wiper is aligned to the ceramic print point mark of the windshield glass.



- (2) Tighten the arm assembly - windshield wiper to specified torque and install the cap.

Tightening torque:

26 N·m (2.65 kgf-m, 19.2 ft-lb)

2. Operate the windshield wiper to check that the stop position is aligned with the point mark. If it is not aligned with the point mark, perform the removal and installation of the windshield wiper over again.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)


2. MODELS WITH EyeSight

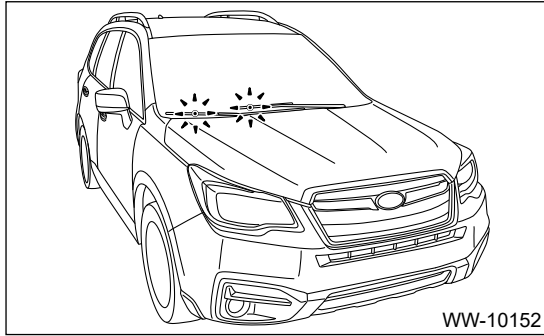
Caution:

Install firmly so that the hose is not bent, compressed or flattened.

Note:

Since the arm assembly - windshield wiper LH and RH can interfere with each other, install the passenger's side first.

1. Install the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.](#)
2. Install the arm assembly - windshield wiper.
 - (1) Assemble the arm assembly - windshield wiper so that the blade assembly - windshield wiper is aligned to the ceramic print point mark of the windshield glass.

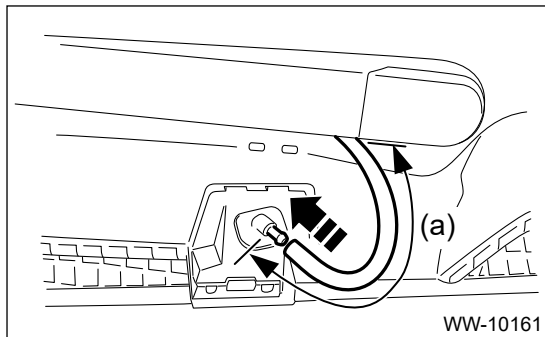



(2) Tighten the arm assembly - windshield wiper to specified torque and install the cap.

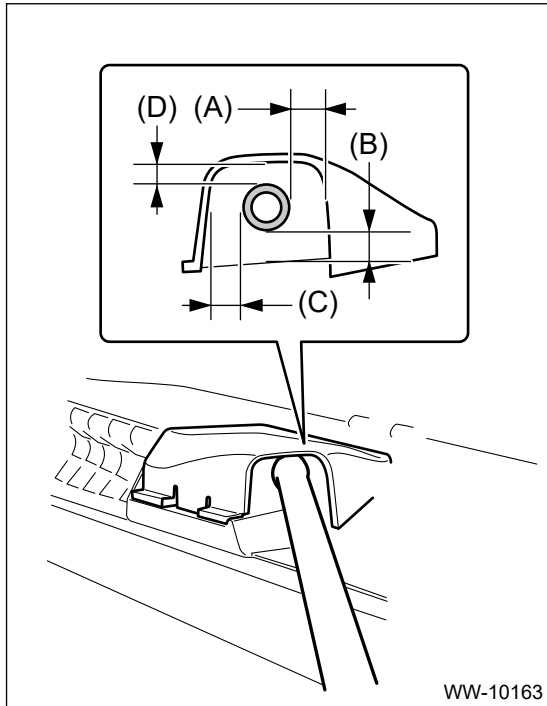
Tightening torque:

26 N·m (2.65 kgf-m, 19.2 ft-lb)

- 3.** Install the hose to the joint - washer hose so that the excess (a) of the hose from the arm end is 120 mm (4.72 in).



- 4.** Operate the windshield wiper to check that the stop position is aligned with the point mark. If it is not aligned with the point mark, perform the removal and installation of the windshield wiper over again.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
- 5.** Install the cover - joint.
- 6.** Make sure that there is a gap of 1 mm (0.04 in) or more between the hose and the cover - joint, between the hose and the joint - washer hose and between the hose and the cowl panel during windshield wiper operation. If the gap cannot be secured, perform the installation of the hose over again.



WW-10163

- (A) Gap between hose and cover - joint outer side
- (B) Gap between hose and cover - joint upper side
- (C) Gap between hose and cover - joint inner side
- (D) Gap between hose and cover - joint lower side

WIPER AND WASHER SYSTEMS > Front Wiper Arm

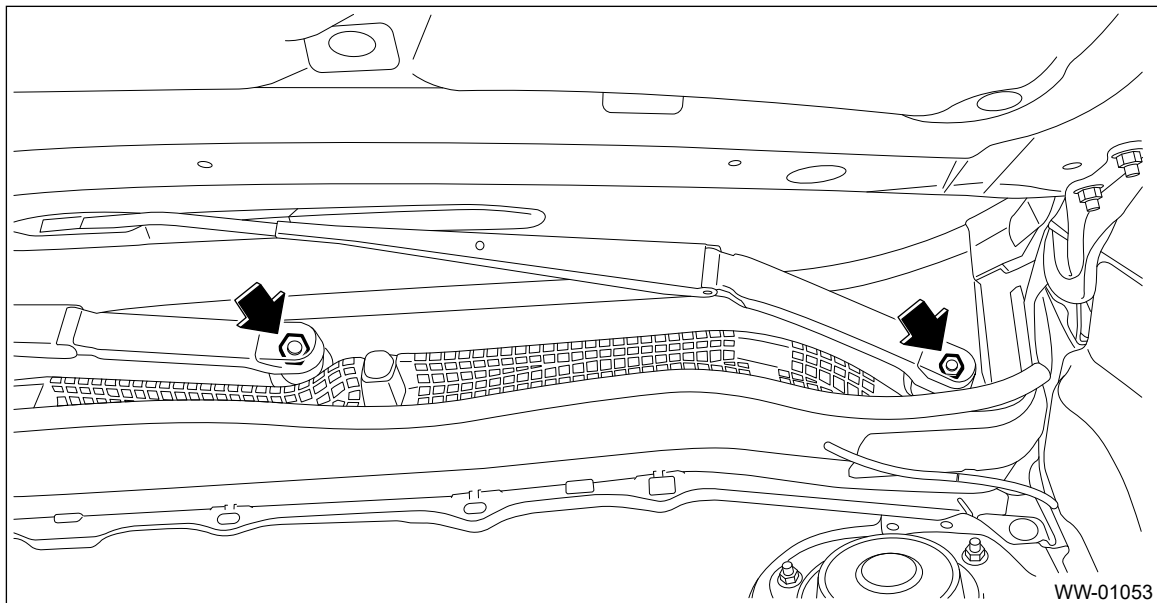
REMOVAL

1. MODELS WITHOUT EyeSight

Note:

Since the arm assembly - windshield wiper LH and RH can interfere with each other, remove the driver's side first.

1. Remove the cover - windshield wiper arm.
2. Remove the nuts, and remove the arm assembly - windshield wiper.

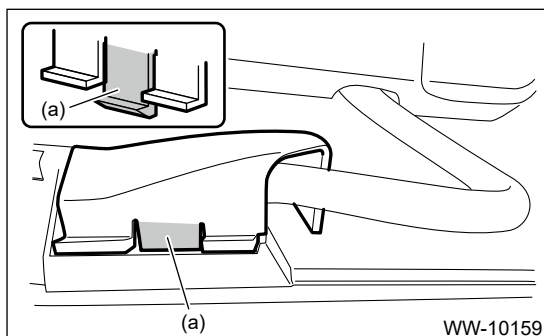


2. MODELS WITH EyeSight

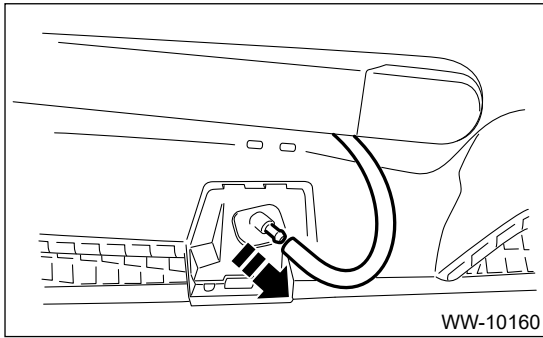
Note:

Since the arm assembly - windshield wiper LH and RH can interfere with each other, remove the driver's side first.

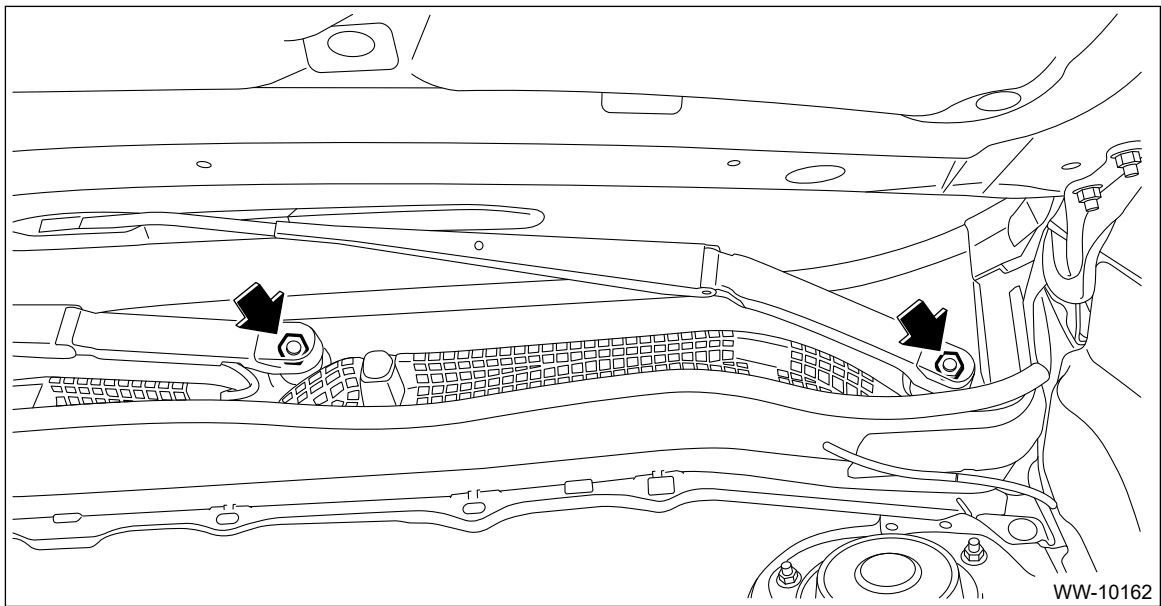
1. Remove the cover - joint from cowl panel assembly.
 - (1) Open the front hood.
 - (2) Release the claws by pressing the portion (a), and then remove the cover - joint.



- 2.** Remove the hose from the joint - washer hose.



- 3.** Remove the arm assembly - windshield wiper.
(1) Remove the cover - windshield wiper arm.
(2) Remove the nuts, and remove the arm assembly - windshield wiper.



WIPER AND WASHER SYSTEMS > Front Wiper Motor and Link

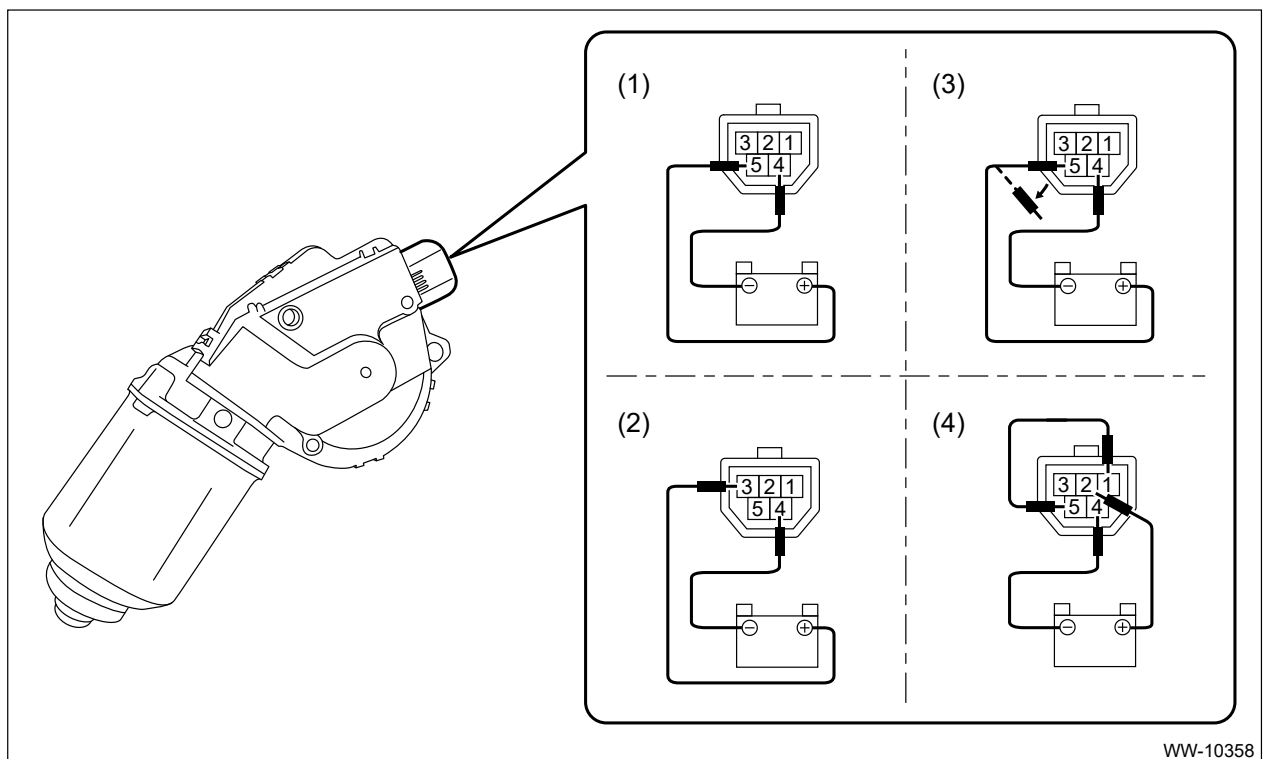
INSPECTION

1. Check that the following operations perform normally.

Caution:

Fix the motor to prevent the motor from being shorted by moving during operation.

- (1) When the battery is connected to the terminal of connectors, confirm that the motor operates at low speed.
- (2) When the battery is connected to the terminal of connectors, confirm that the motor operates at high speed.
- (3) Connect the battery to terminals of the connector, and remove the terminal connection with motor rotating at low speed, and stop the motor assembly - windshield wiper in mid-operation.
- (4) Connect the battery and check that the motor stops at the automatic stop position after the motor operates at low speed again.




2. Replace the motor assembly - windshield wiper if it is found defective.

WIPER AND WASHER SYSTEMS > Front Wiper Motor and Link

INSTALLATION


Caution:

- If the cowl panel assembly cannot be installed properly, do not hit or set it forcibly. The claws of the cowl panel or the windshield glass may be damaged.
- Before installing the windshield glass and cowl panel, make sure there are no gravel in the installing area.

1. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
2. Check that the motor assembly - windshield wiper is at the auto stop position.

Caution:

During motor operation, do not touch the movable part.

- (1) Connect the harness of front wiper to the motor assembly - windshield wiper.
- (2) Switch the wiper switch to ON/OFF once.
3. Disconnect the ground cable from battery again.  [Ref. to NOTE>NOTE > BATTERY.](#)

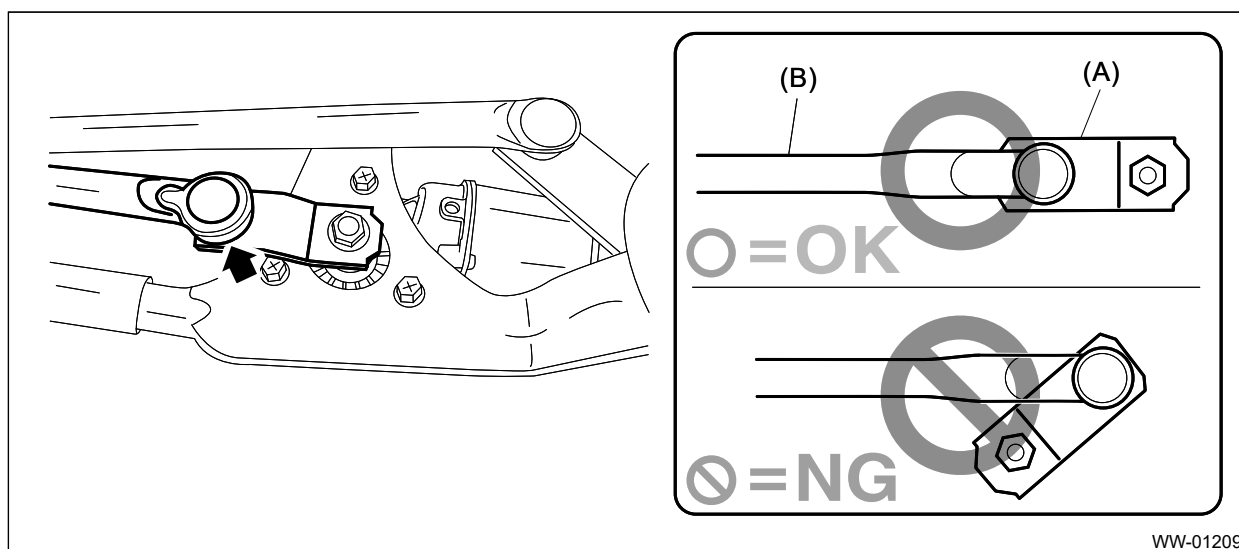
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

4. Install the motor assembly - windshield wiper.

Caution:

Set the component where the rod (B) and link plate (A) is aligned in a straight line.






Tightening torque:

5.5N·m (0.56 kgf-m, 4.1 ft-lb)

5. Install the link assembly - windshield wiper, arm assembly - windshield wiper and cowl panel assembly in the reverse order of removal.

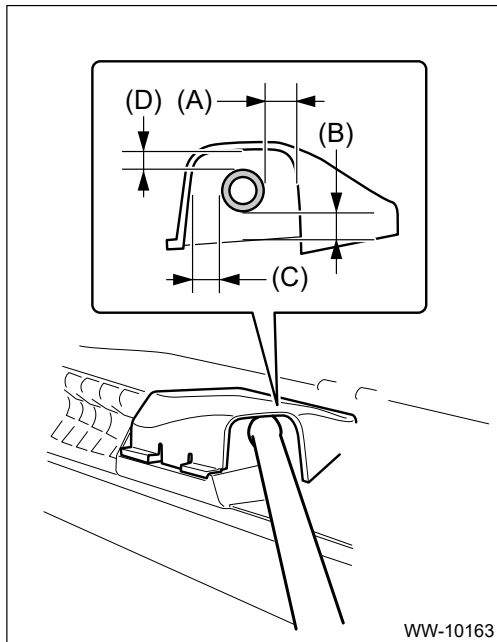
Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to WIPER AND WASHER SYSTEMS>General Description>COMPONENT > FRONT WIPER.](#)

6. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
7. Operate the windshield wiper to check that the stop position is aligned with the point mark. If it is not aligned with the point mark, perform the removal and installation of the windshield wiper over again.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
8. Make sure that there is a gap of 1 mm (0.04 in) or more between the hose and the cover - joint, between the hose and the joint - washer hose and between the hose and the cowl panel during

windshield wiper operation.

If the gap cannot be secured, perform the installation of the hose over again.



- (A) Gap between hose and cover - joint outer side
- (B) Gap between hose and cover - joint upper side
- (C) Gap between hose and cover - joint inner side
- (D) Gap between hose and cover - joint lower side



WIPER AND WASHER SYSTEMS > Front Wiper Motor and Link

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

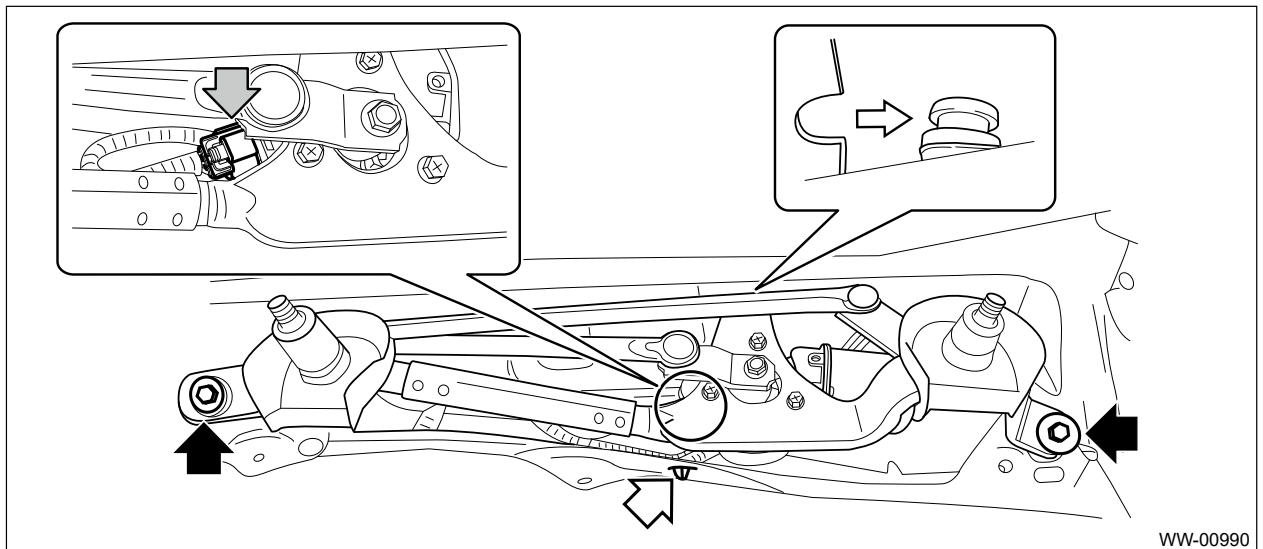
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the arm assembly - windshield wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
3. Remove the cowl panel - side and the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.](#)

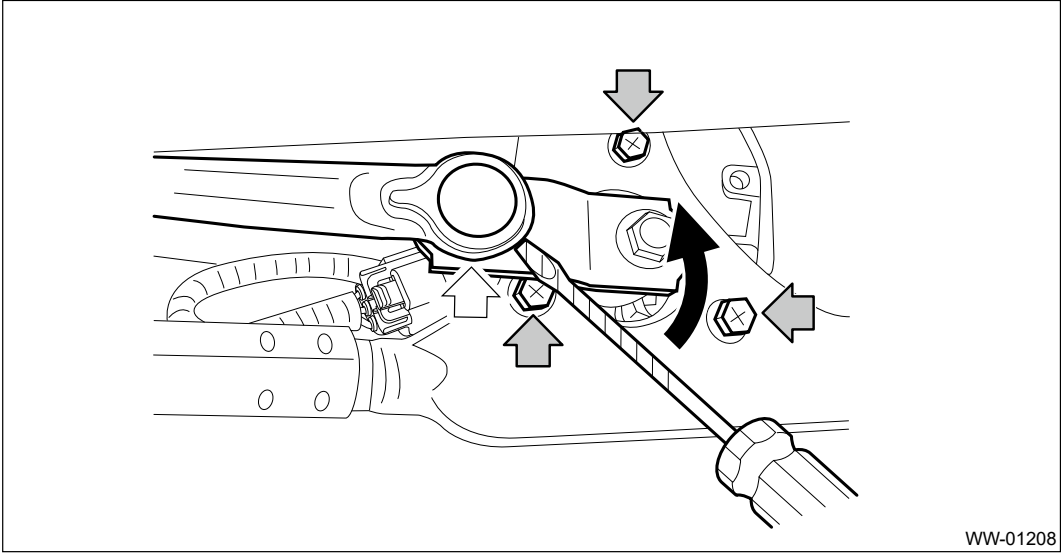
Caution:

Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.

4. Remove the link assembly - windshield wiper.
 - (1) Disconnect the connector of the motor assembly - windshield wiper.
 - (2) Remove the bolts and harness clips, and remove the link assembly - windshield wiper.




5. Remove the motor assembly - windshield wiper.
 - (1) Using a flat tip screwdriver wrapped with protective tape, disconnect the link assembly - windshield wiper from the link plate.
 - (2) Remove the bolts, and remove the motor assembly - windshield wiper.



WW-01208

WIPER AND WASHER SYSTEMS > General Description

CAUTION

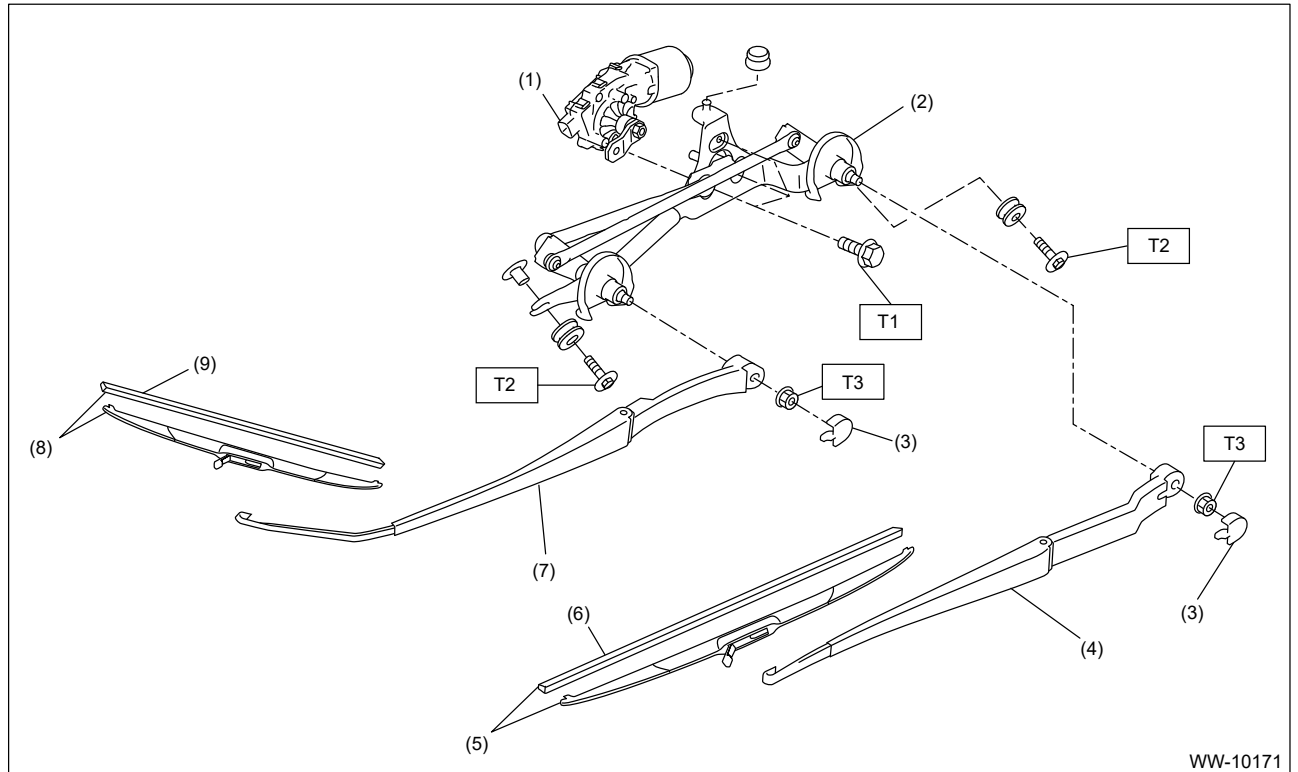
- Connect the connectors and hoses securely during reassembly.
- After reassembly, make sure that the each component or each function operates normally.
- Be careful with the airbag system wiring harness which passes near electrical parts and switches.
- Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of "AIRBAG SYSTEM" in this case.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- When connecting the pipe hoses, be careful not to cause bend or blockage.
- If even a small amount of silicon oil or grease enters the tank - washer and the washer fluid passages, an oil film will be formed on the glass and will cause the wiper to chatter and judder. Make sure that no oil comes into contact with the system.

WIPER AND WASHER SYSTEMS > General Description

COMPONENT

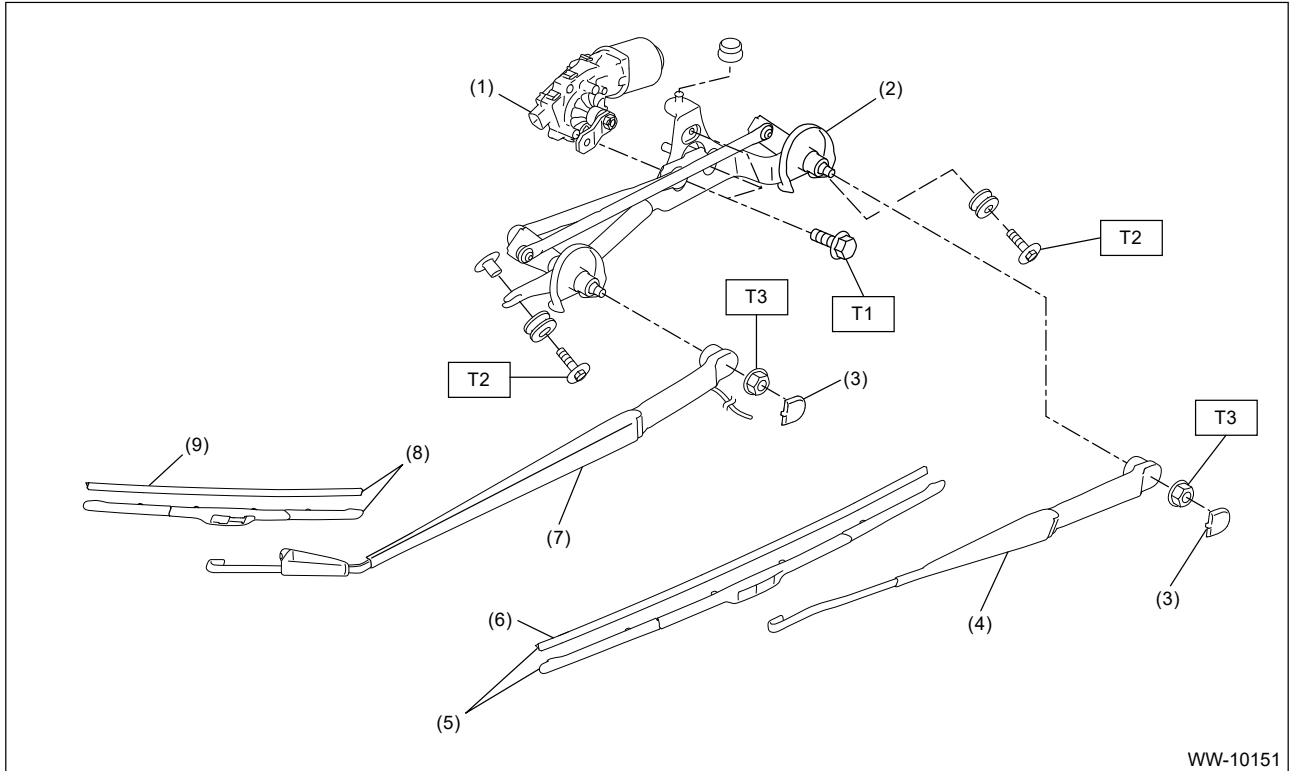
1. FRONT WIPER

- Models without EyeSight



(1) Motor ASSY - windshield wiper	(6) Rubber ASSY - windshield wiper driver	Tightening torque: N·m (kgf-m, ft-lb)
(2) Link ASSY - windshield wiper	(7) Arm ASSY - windshield wiper assistor	
(3) Cover - windshield wiper arm	(8) Blade ASSY - windshield wiper assistor	T1: 5.5 (0.56, 4.1)
(4) Arm ASSY - windshield wiper driver	(9) Rubber ASSY - windshield wiper assistor	T2: 6 (0.61, 4.4)
(5) Blade ASSY - windshield wiper driver		T3: 26 (2.65, 19.2)

- Models with EyeSight



WW-10151

- (1) Motor ASSY - windshield wiper
- (2) Link ASSY - windshield wiper
- (3) Cover - windshield wiper arm
- (4) Arm ASSY - windshield wiper driver
- (5) Blade ASSY - windshield wiper driver

- (6) Rubber ASSY - windshield wiper driver
- (7) Arm ASSY - windshield wiper assist
- (8) Blade ASSY - windshield wiper assist
- (9) Rubber ASSY - windshield wiper assist

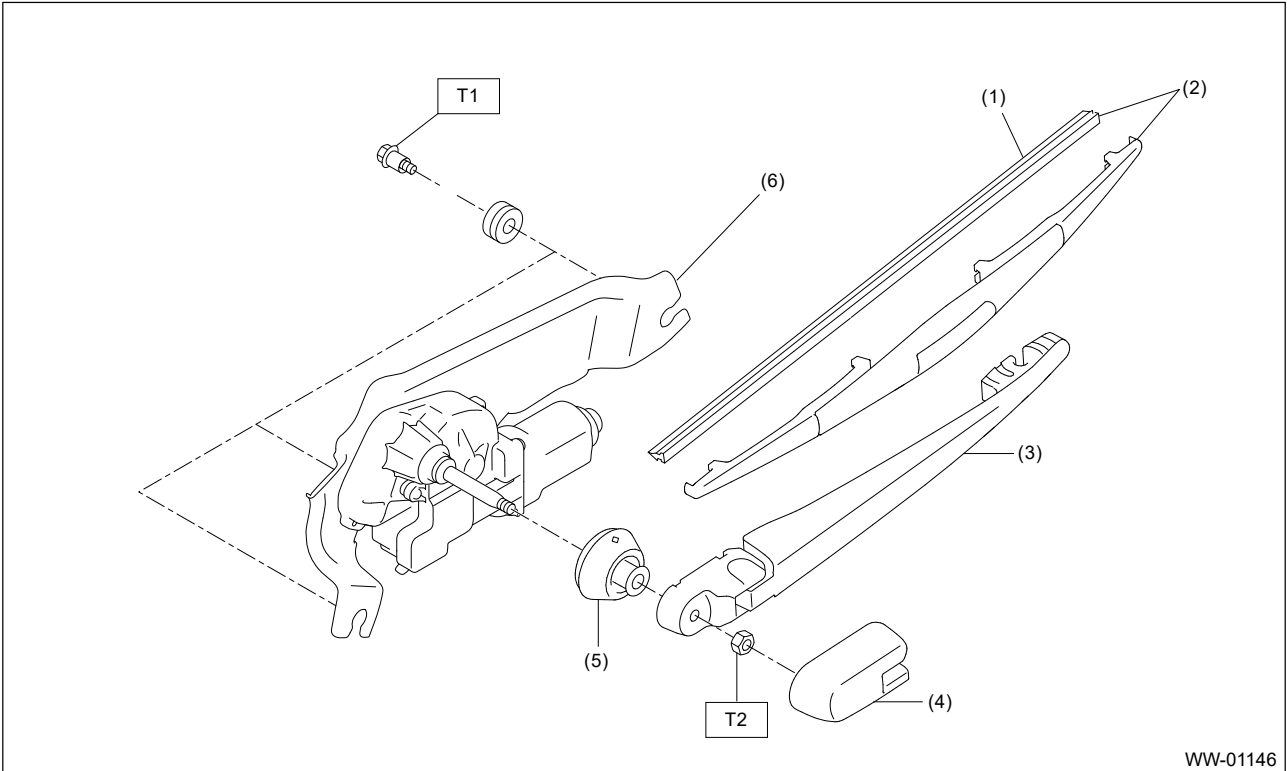
Tightening torque: N·m (kgf-m, ft-lb)

T1: 5.5 (0.56, 4.1)

T2: 6 (0.61, 4.4)

T3: 26 (2.65, 19.2)

2. REAR WIPER



WW-01146

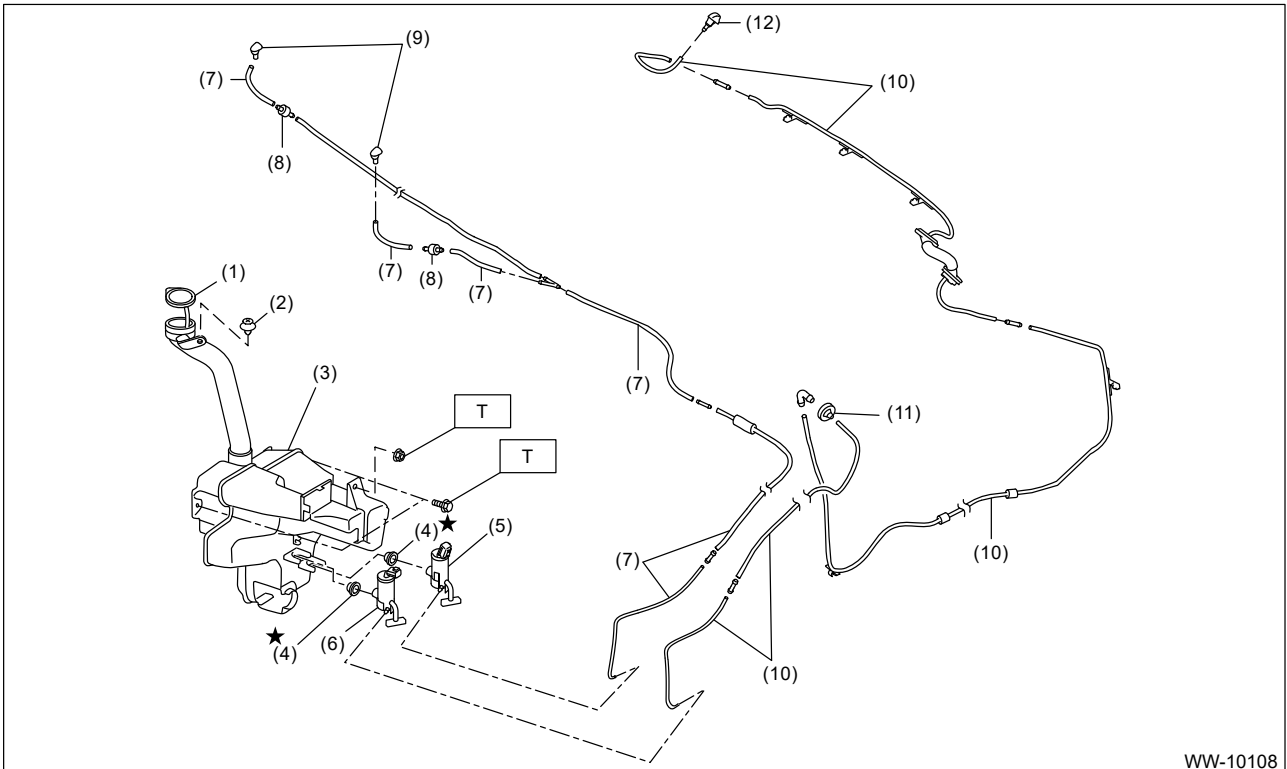
- | | |
|------------------------------|-----------------------------|
| (1) Rubber ASSY - rear wiper | (4) Cover - rear wiper arm |
| (2) Blade ASSY - rear wiper | (5) Cap - pivot wiper |
| (3) Arm ASSY - rear wiper | (6) Motor ASSY - rear wiper |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 6 (0.61, 4.4)

T2: 8 (0.82, 5.9)

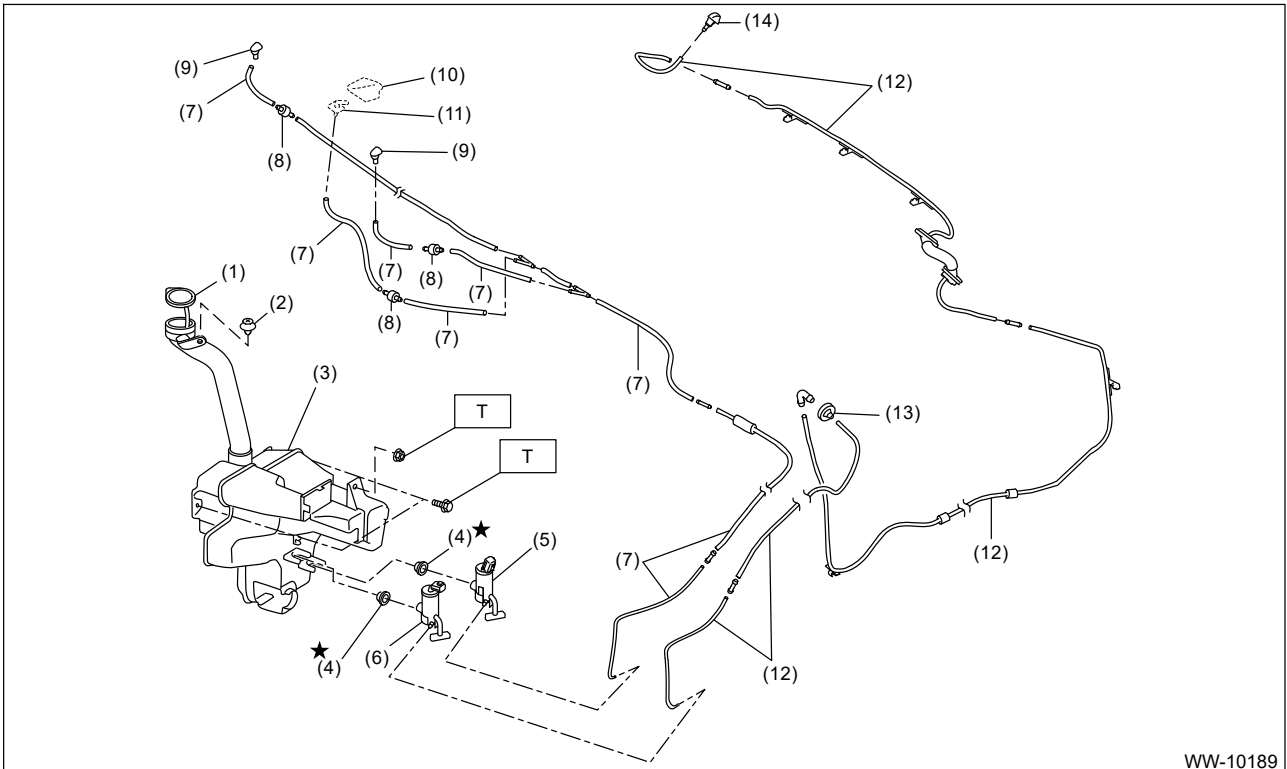
3. WASHER TANK (MODELS WITHOUT EyeSight)



WW-10108

- | | | |
|------------------------------------|------------------------------------|--|
| (1) Cap ASSY - washer tank | (6) Motor pump ASSY - washer rear | (11) Grommet - washer hose |
| (2) Clip | (7) Hose - windshield washer | (12) Nozzle - rear washer |
| (3) Tank - washer front | (8) Valve - windshield washer | |
| (4) Packing - washer motor | (9) Nozzle - windshield washer | Tightening torque: N·m (kgf-m, ft-lb) |
| (5) Motor pump ASSY - washer front | (10) Hose ASSY - rear washer front | T: 6 (0.61, 4.4) |

4. WASHER TANK (MODELS WITH EyeSight)



WW-10189

- | | | |
|------------------------------------|--------------------------------|----------------------------|
| (1) Cap ASSY - washer tank | (7) Hose - windshield washer | (13) Grommet - washer hose |
| (2) Clip | (8) Valve - windshield washer | (14) Nozzle - rear washer |
| (3) Tank - washer front | (9) Nozzle - windshield washer | |
| (4) Packing - washer motor | (10) Cover - joint | |
| (5) Motor pump ASSY - washer front | (11) Joint - washer hose | |
| (6) Motor pump ASSY - washer rear | (12) Hose ASSY - rear washer | |


Tightening torque: N·m (kgf-m, ft-lb)

T: 6 (0.61, 4.4)

WIPER AND WASHER SYSTEMS > General Description

PREPARATION TOOL

1. SPECIAL TOOL

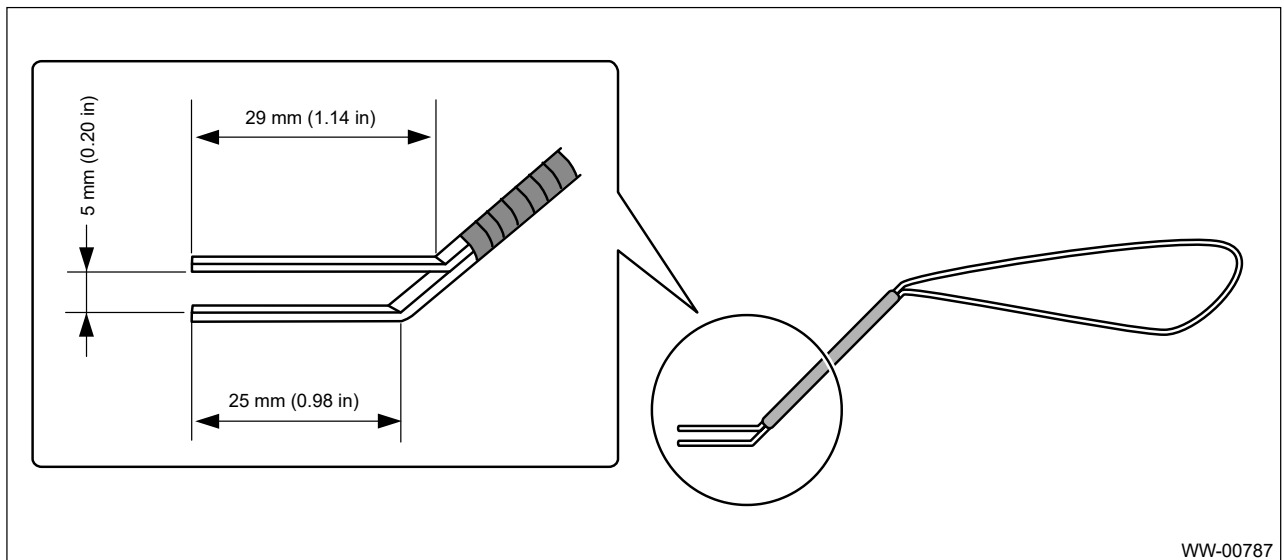
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>STSSM4</p>	— (Newly adopted tool)	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. Note: For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
DST-i	Used together with Subaru Select Monitor 4.

Note:

Referring to the data described below, prepare the materials to make a nozzle - windshield washer adjustment tool.

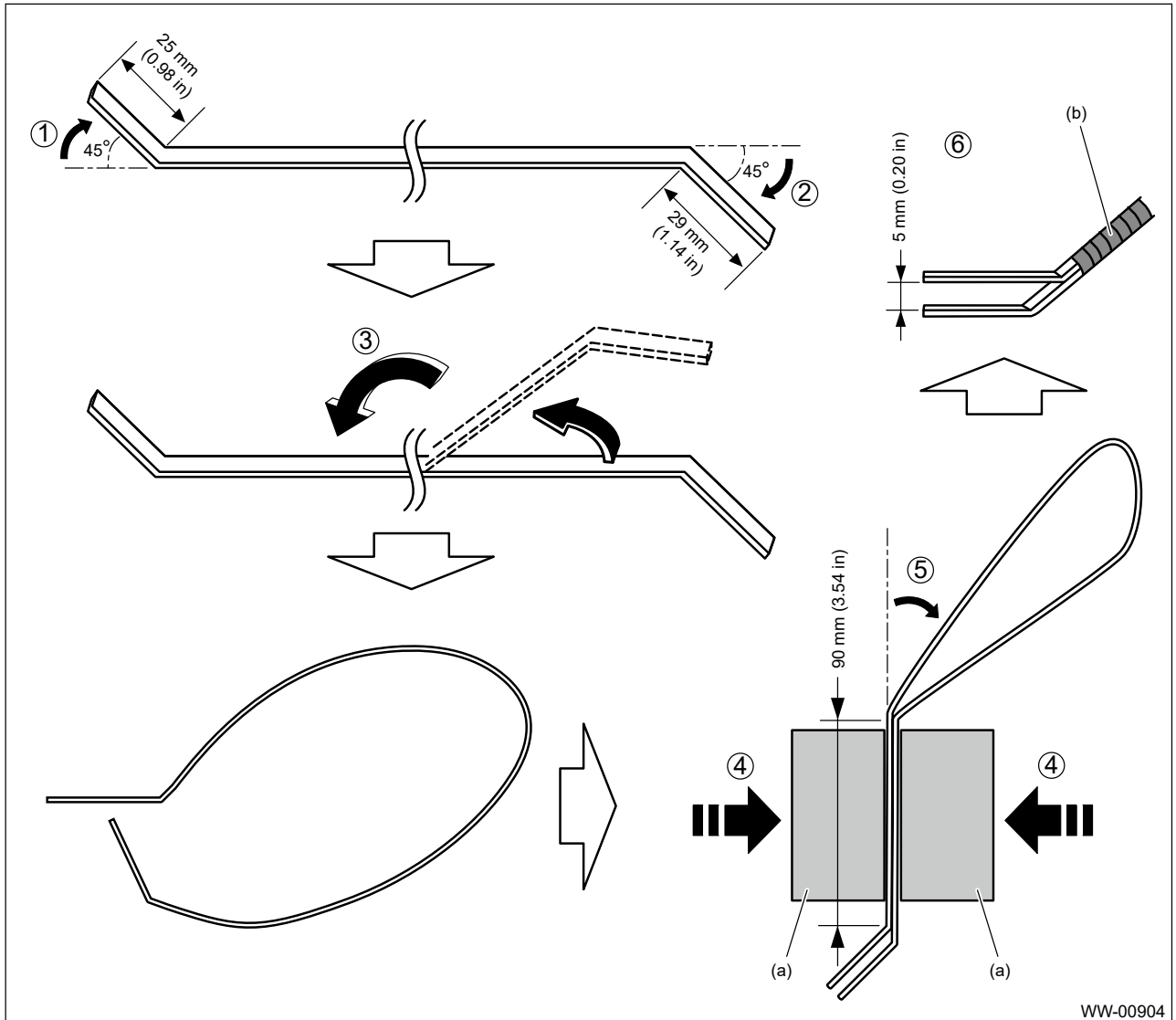


WW-00787

Materials

- Vertebra of wiper blade which is to be discarded
- Vinyl tape

Steps of making a front washer nozzle adjustment tool



WW-00904

1. Bend the vertebra at the position 25 mm (0.98 in) away from its end by 45°.
2. Bend the vertebra at the position 29 mm (1.14 in) away from the other end by 45°.
3. Double up the vertebra so that the longer end (29 mm (1.14 in)) comes upward.
4. Secure the vertebra with a vise (a) so that the tip clearance becomes 5 mm (0.2 in).
5. Bend the vertebra at the position approximately 90 mm (3.54 in) away from the bending point for the longer end.
6. Check that the tip clearance is 5 mm (0.2 in), and secure the vertebra with vinyl tape (b).

WIPER AND WASHER SYSTEMS > General Description

SPECIFICATION

Front wiper motor	Input	12 V — 72 W or less
Rear wiper motor	Input	12 V — 42 W or less
Front washer motor	Pump type	Centrifugal
	Input	12 V — 60 W or less
Rear washer motor	Pump type	Centrifugal
	Input	12 V — 60 W or less

WIPER AND WASHER SYSTEMS > Rear Washer

INSPECTION

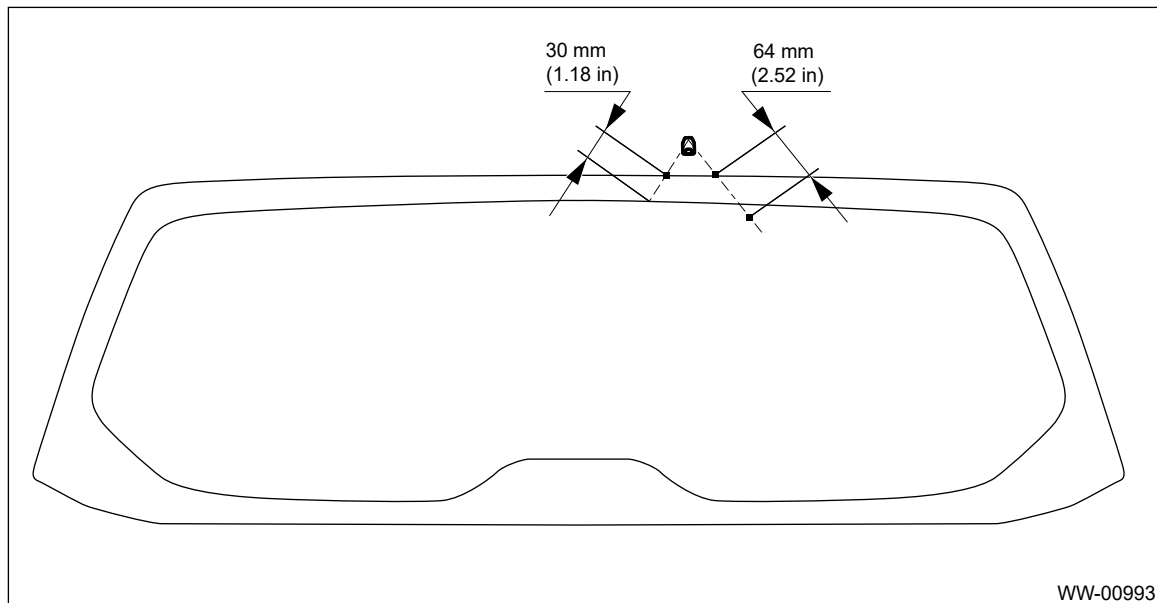
1. VISUAL INSPECTION

Check for the following items, and if any malfunction is found, replace the corresponding part.

- Make sure the nozzle - rear washer and the hose - rear washer are not clogged.
- Make sure the hose - rear washer is not bent.

2. INSPECTING THE SPRAY POSITION

1. Turn the wiper switch to OFF position.
2. While the vehicle is stopped, check that the washer spray position is as shown in the figure.
3. After inspection, if the spray position is significantly out of the specified range, replace the nozzle - rear washer with a new part.



WIPER AND WASHER SYSTEMS > Rear Washer

INSTALLATION

1. Install each part in the reverse order of removal.

Tightening torque:

Light assembly - high-mounted (model without roof spoiler): 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

Spoiler assembly - roof (model with roof spoiler): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

2. Check the nozzle - rear washer position.  [Ref. to WIPER AND WASHER SYSTEMS>Rear Washer>INSPECTION > VISUAL INSPECTION.](#)

WIPER AND WASHER SYSTEMS > Rear Washer

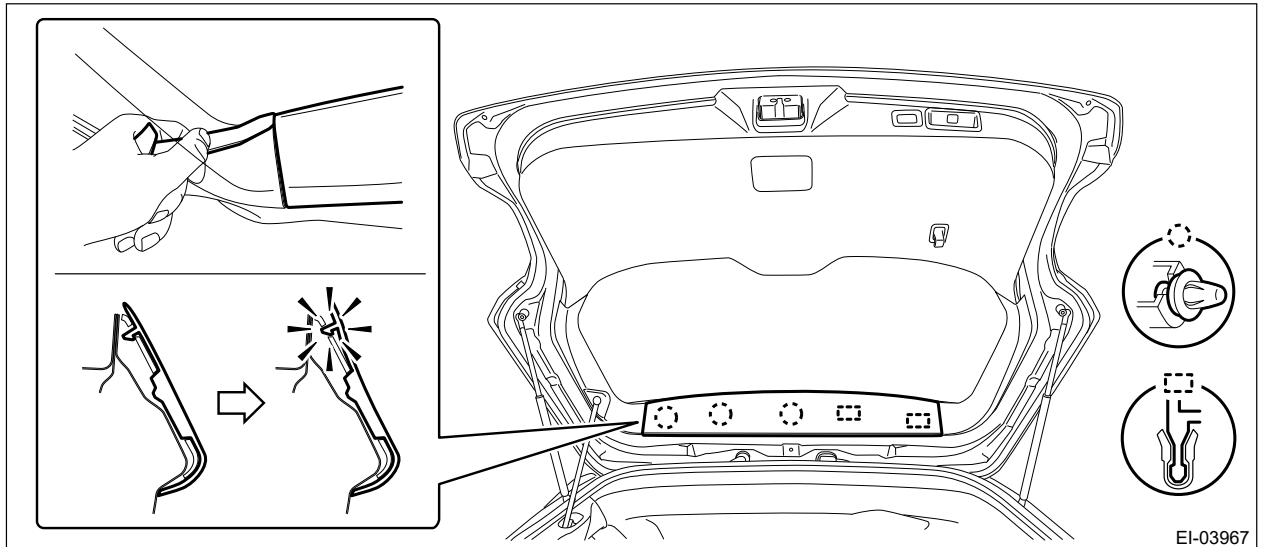
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

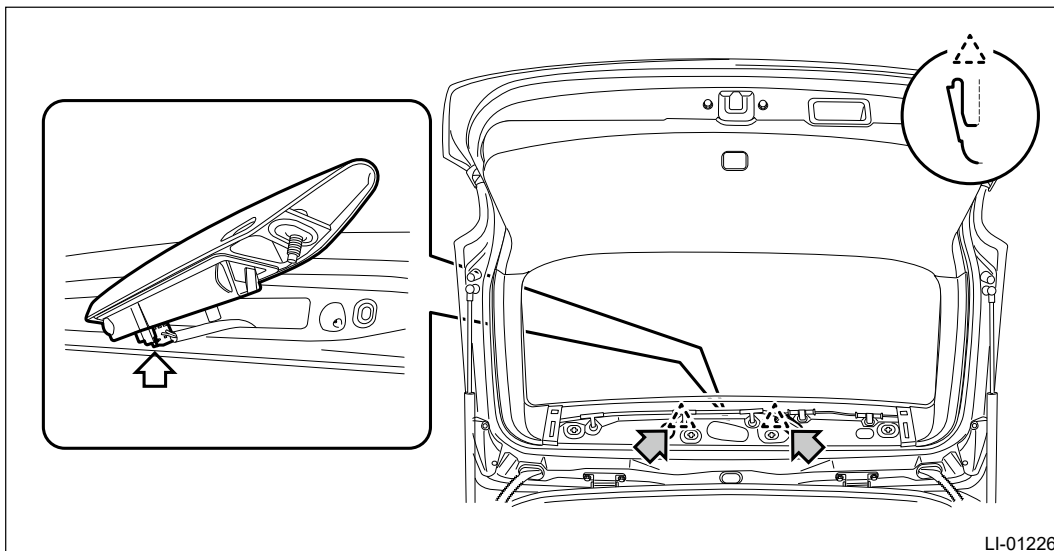
Note:


For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the trim panel - rear gate UPR.
 - (1) Remove the claws on the trim edge.
 - (2) Release the claws in the center of trim, and remove the trim panel - rear gate UPR.



3. Remove the light assembly - high-mounted. (Model without roof spoiler)
 - (1) Remove the nut.
 - (2) Disconnect the connector and remove the light assembly - high-mounted.

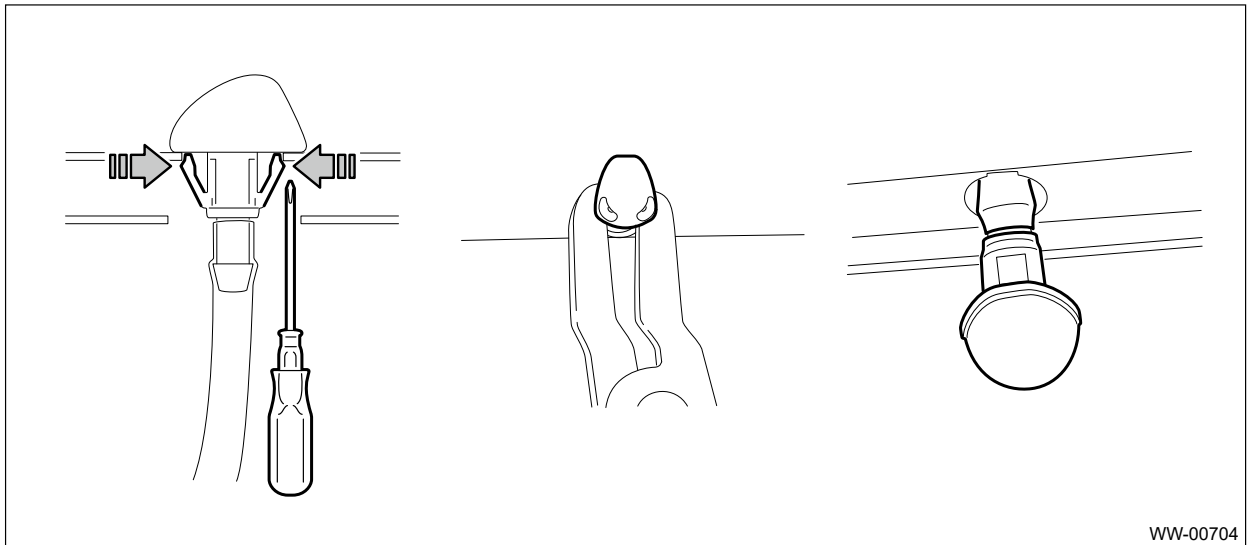


4. Remove the roof spoiler. (Model with roof spoiler)  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Spoiler>REMOVAL.](#)
5. Remove the nozzle - rear washer.

Caution:

Before removing, apply protective tape to the body panel and used tools not to damage the panel - rear gate.

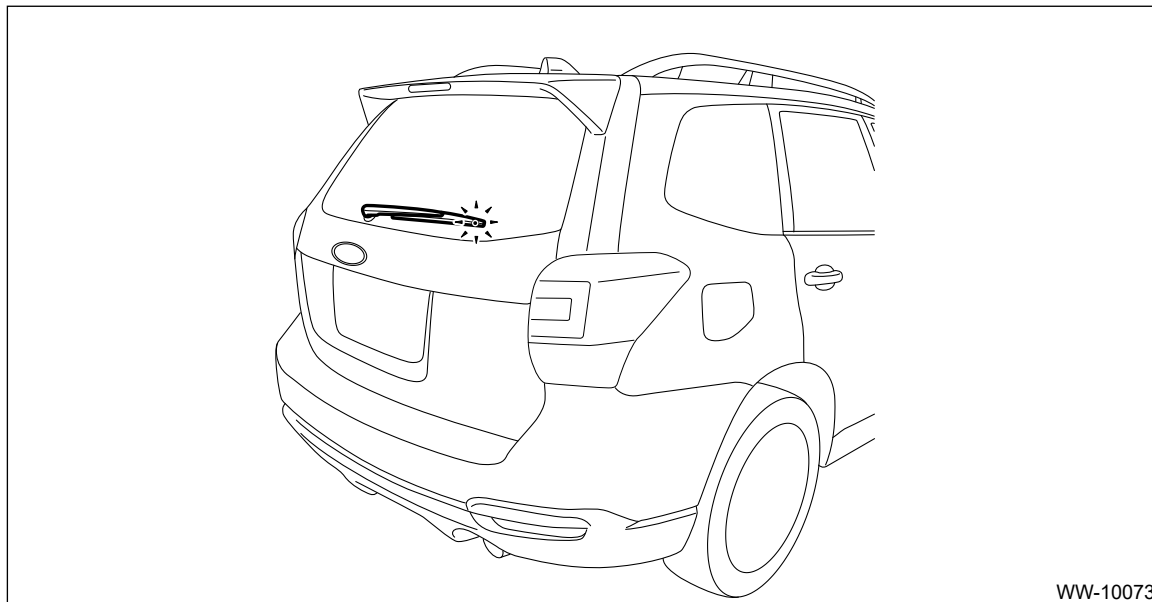
- (1) Push the claw using a flat tip screwdriver, etc.
- (2) When the nozzle - rear washer lifts up, pull out the nozzle - rear washer using a clip remover, etc.
- (3) Disconnect the hose assembly - rear washer, and remove the nozzle - rear washer.




WIPER AND WASHER SYSTEMS > Rear Wiper Arm

ADJUSTMENT

1. Operate the rear wiper once.
2. Align the blade assembly - rear wiper with the marking on the glass.

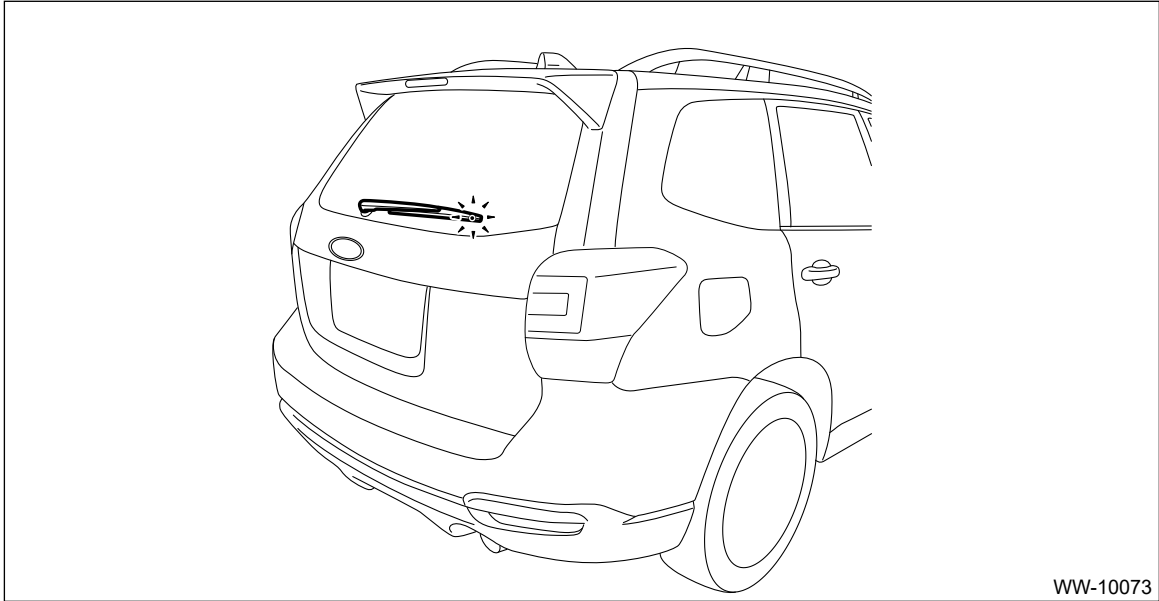


3. If the wiper blade is not aligned with the point mark, perform the removal of the rear wiper to align with the marking.  [Ref. to WIPER AND WASHER SYSTEMS>Rear Wiper Arm>REMOVAL.](#)

WIPER AND WASHER SYSTEMS > Rear Wiper Arm

INSTALLATION

1. Install each part in the reverse order of removal.
2. Operate the rear wiper once.
3. Align the blade assembly - rear wiper with the marking on the glass, and then tighten the nut to the specified torque.



WW-10073

Tightening torque:

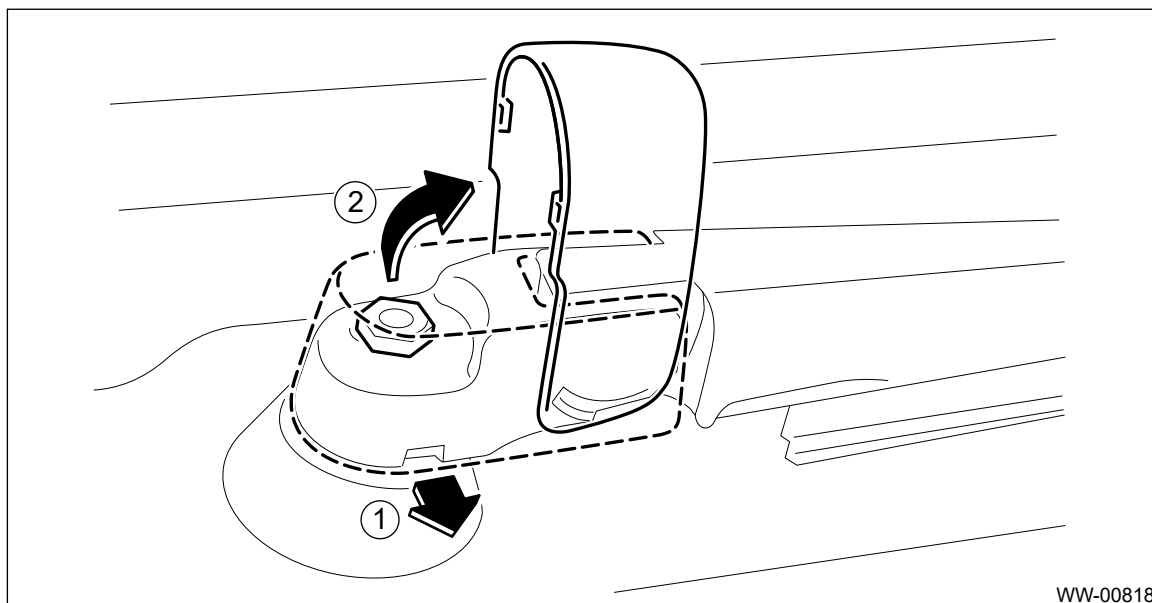
8 N•m (0.82 kgf-m, 5.9 ft-lb)

4. Operate the wiper to check whether the wiper blade aligns with the point mark. If not, perform installation over again.

WIPER AND WASHER SYSTEMS > Rear Wiper Arm

REMOVAL

1. Pull up the cover - rear wiper arm.
2. Remove the nut, and remove the arm assembly - rear wiper.



WW-00818

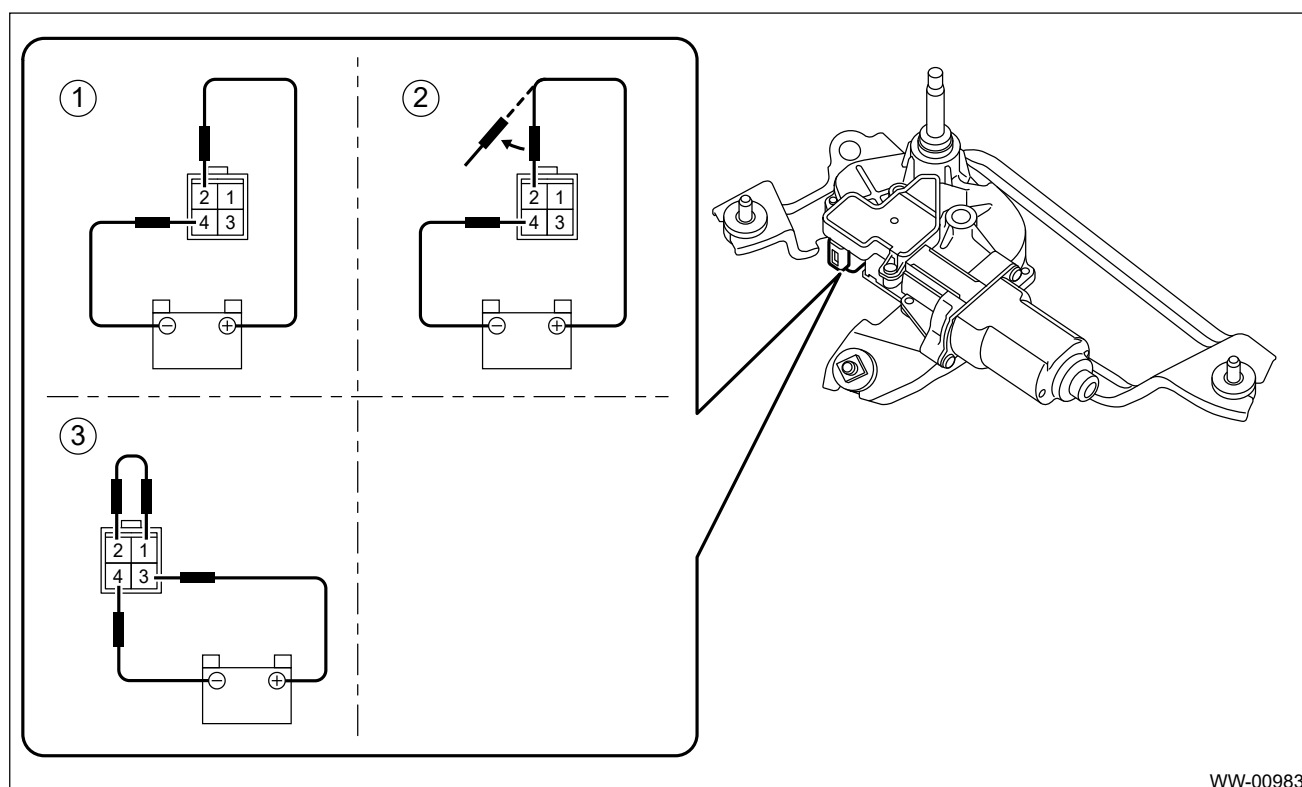
WIPER AND WASHER SYSTEMS > Rear Wiper Motor

INSPECTION

1. Connect the battery to the rear wiper motor connector, and check that the motor assembly - rear wiper operates.
2. Connect the battery to terminals of the connector, and remove the terminal connection with motor rotating, and stop the motor assembly - rear wiper in mid-operation.
3. Connect the battery and check that the motor stops at the automatic stop position after the motor operates at low speed again.

Caution:

Fix the motor to prevent the motor from being shorted by moving during operation.



WW-00983

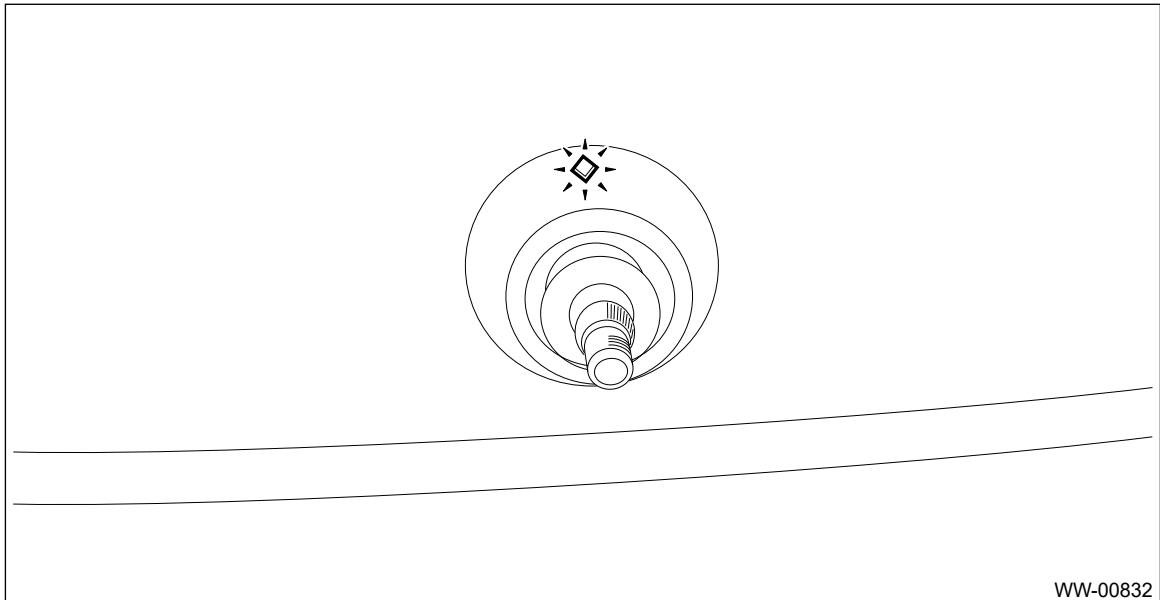
WIPER AND WASHER SYSTEMS > Rear Wiper Motor

INSTALLATION

1. Install the motor assembly - rear wiper and the arm assembly - rear wiper.

Caution:

Attach so that the mark on the cap - pivot wiper faces upward.




Tightening torque:

Refer to "COMPONENT" of "General Description".  [Ref. to WIPER AND WASHER SYSTEMS>General Description>COMPONENT > REAR WIPER.](#)

2. Install the remaining parts in the reverse order of removal.

Caution:

For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>INSTALLATION.](#)

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


WIPER AND WASHER SYSTEMS > Rear Wiper Motor

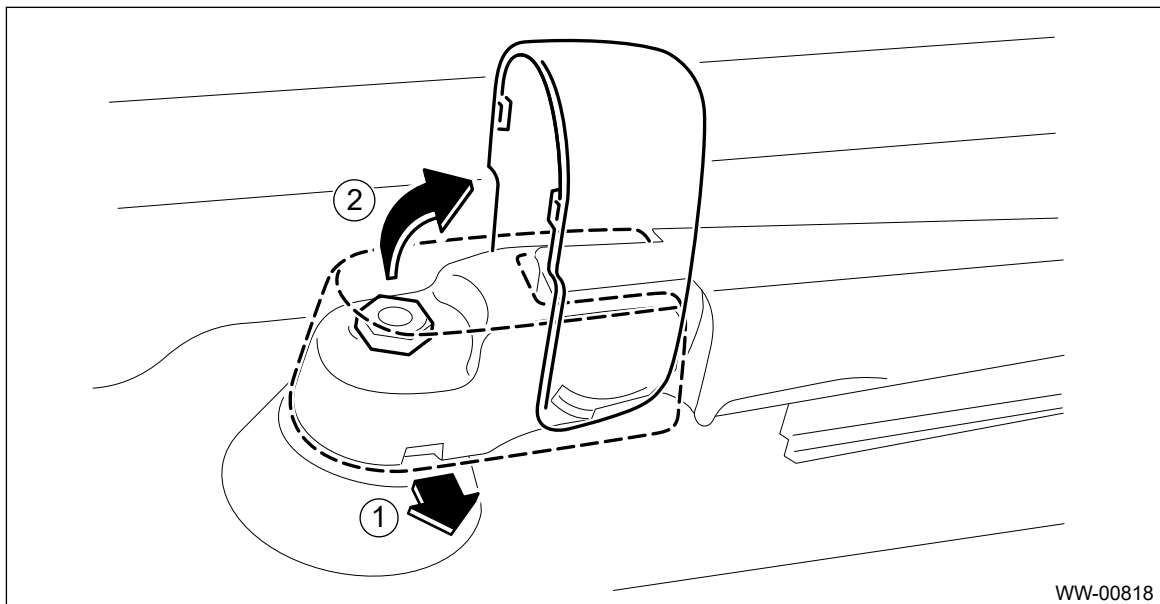
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

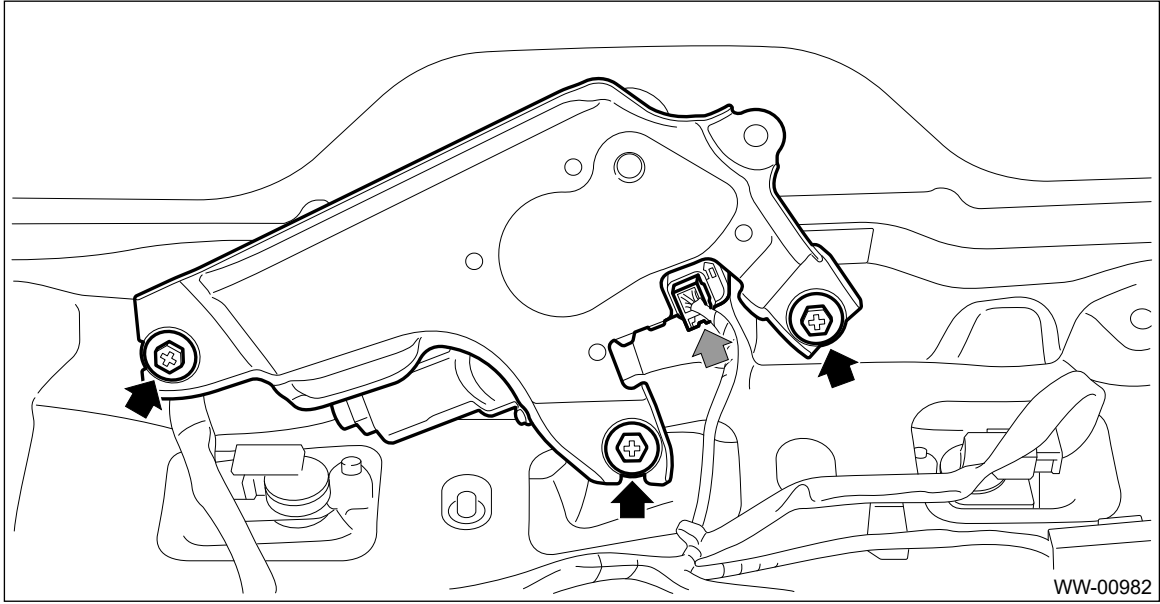
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the rear gate trim.  [Ref. to EXTERIOR/INTERIOR TRIM>Rear Gate Trim>REMOVAL.](#)
3. Remove the arm assembly - rear wiper.
 - (1) Remove the cover - rear wiper arm.
 - (2) Remove the nut, and remove the arm assembly - rear wiper.



WW-00818

4. Remove the motor assembly - rear wiper.
 - (1) Disconnect the harness connector of the motor assembly - rear wiper.
 - (2) Remove the bolts, and remove the motor assembly - rear wiper.



WW-00982

WIPER AND WASHER SYSTEMS > Relay and Fuse

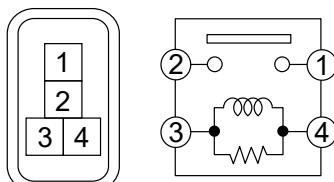
INSPECTION

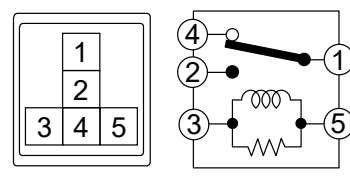
1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

2. CHECK RELAY

1. Check the resistance between relay terminals.

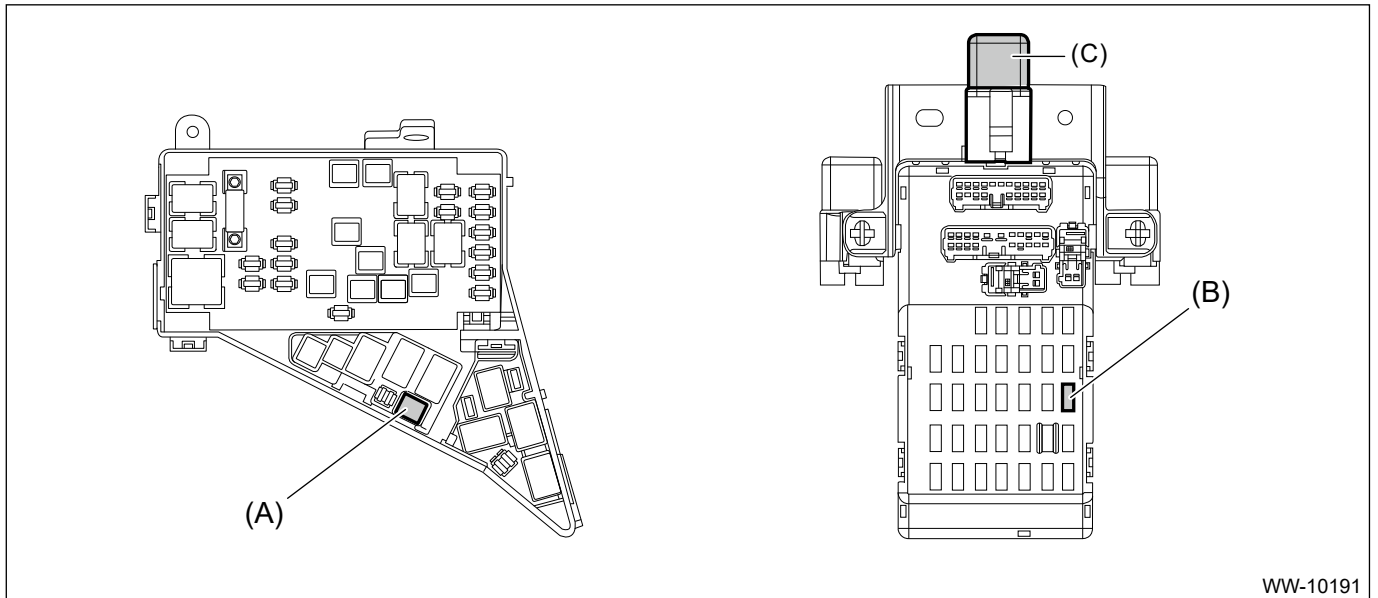
Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 M Ω or more	 <p style="text-align: right;">SR-00180</p>
1 – 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 M Ω or more	 <p style="text-align: right;">SL-01085</p>
1 – 4	Always	Less than 1 Ω	
1 – 2	Apply battery voltage between terminals 3 and 5.	Less than 1 Ω	

2. Replace the relay if the inspection result is not within the standard value.

WIPER AND WASHER SYSTEMS > Relay and Fuse

LOCATION



WW-10191

Main Fuse Box	Fuse 30 A (wiper)	(A)
Relay & fuse box	Fuse 7.5 A (wiper)	(B)
Relay holder	Wiper relay	(C)

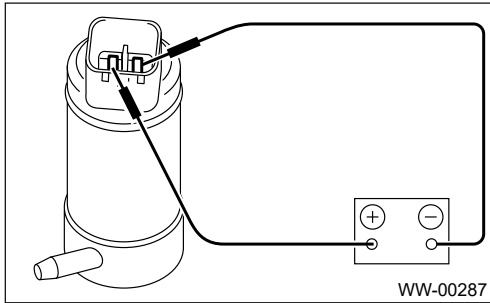
Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

INSPECTION

1. WASHER PUMP

Apply battery voltage to the connector terminal of the motor pump assembly - washer, and make sure that the motor operates.



2. WASHER FLUID LEVEL SENSOR

1. CHECK WASHER FLUID LEVEL SENSOR.

1. Check the connection status of washer fluid level sensor connector.

Does the low washer fluid warning light illuminate after draining the washer fluid? And does the low washer fluid warning light go off after refilling the washer fluid?

Avail.

[Go to 2.](#)

2. CHECK WASHER FLUID LEVEL SENSOR INPUT VOLTAGE.

1. Using a tester, measure the voltage of the washer fluid level sensor connector.

Is the voltage approx. 8.5 V or more?

[Go to 3.](#)

Check harness, meter and integrated unit, and replace if necessary.

3. CHECK LOW WASHER WARNING LIGHT.

Does the meter indicator illuminate if you short the washer fluid level sensor connector?

[Go to 4.](#)

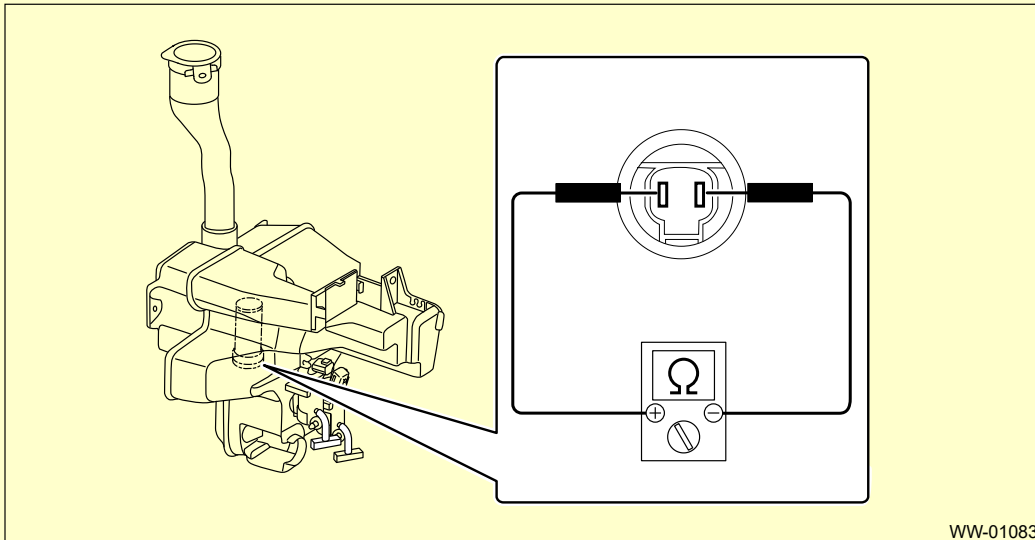
No

Check harness, meter and integrated unit, and replace if necessary.

4. CHECK RESISTANCE BETWEEN WASHER FLUID LEVEL SENSOR TERMINALS.



1. Turn over the mud guard.
2. Using a tester, measure the resistance of the washer fluid level sensor.



Amount of washer fluid in the tank	Standard
No remaining quantity (ON)	Less than 10 Ω
There is remaining quantity (OFF)	1 M Ω or more

Is the resistance within the standard?

Yes

Avail.

No

Replace the washer fluid level sensor along with the washer tank.

WIPER AND WASHER SYSTEMS > Washer Tank and Motor

INSTALLATION



Caution:

When the motor pump assembly - washer is removed, do not reuse the packing - washer motor. Always replace with a new part.

1. Install each part in the reverse order of removal.

Tightening torque:


6 N•m (0.61 kgf-m, 4.4 ft-lb)

2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
3. Add new washer fluid.
4. Adjust the fog light beam. (Model with fog light)  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)

WIPER AND WASHER SYSTEMS > Washer Tank and Motor


REMOVAL

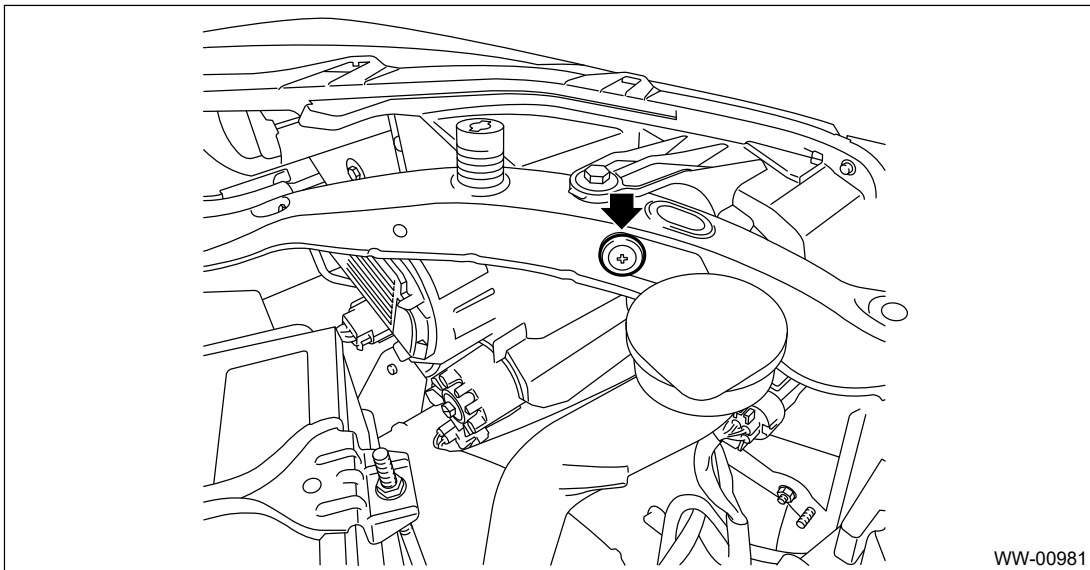
1. WASHER TANK

1. Open the hood COMPL - front.
2. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

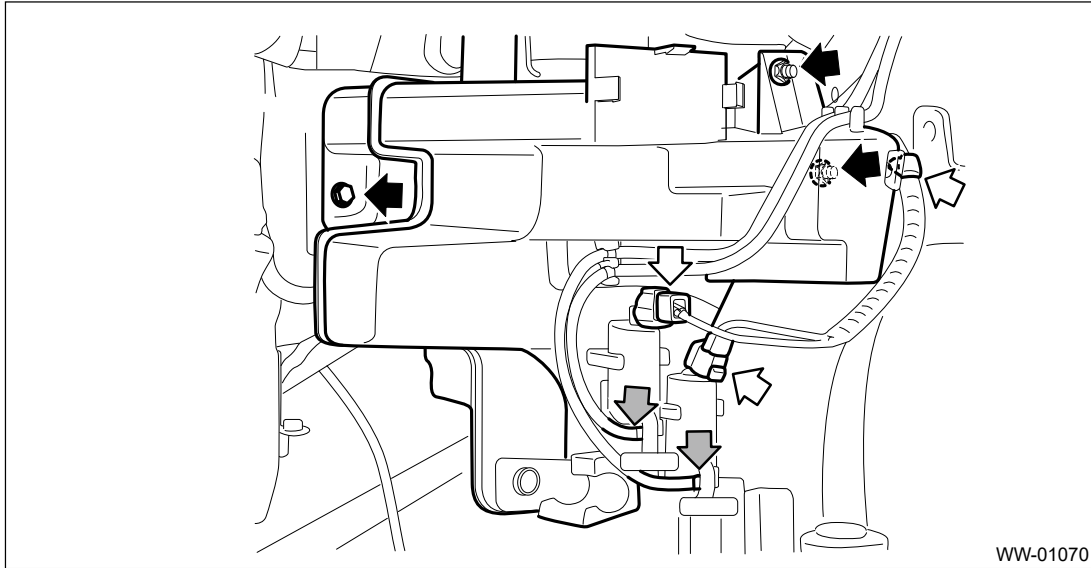
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)
4. Remove the tank - washer assembly.
 - (1) Remove the clip of the holder - windshield washer tank.



- (2) Disconnect the connector from the motor pump assembly - washer and the sensor - washer tank, and then remove the harness clip.
- (3) Prepare a container before disconnecting the hose - washer, and drain all washer fluid in the tank - washer.
- (4) Remove the bolt and nuts and remove the tank - washer assembly.



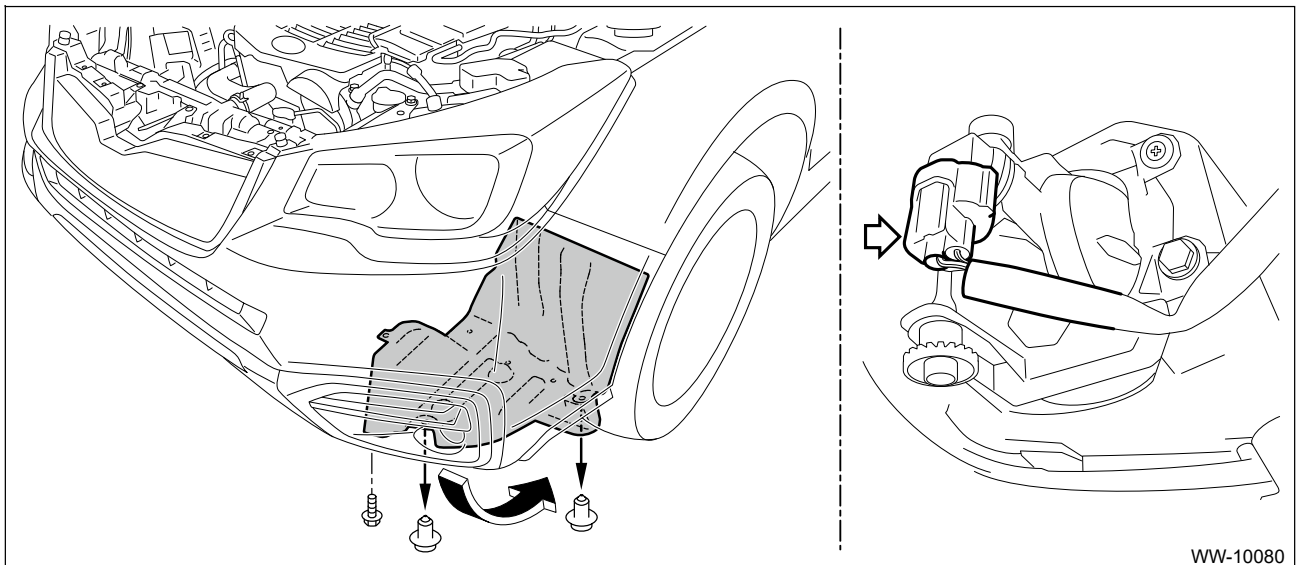
2. WASHER MOTOR

1. Open the hood COMPL - front.
2. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

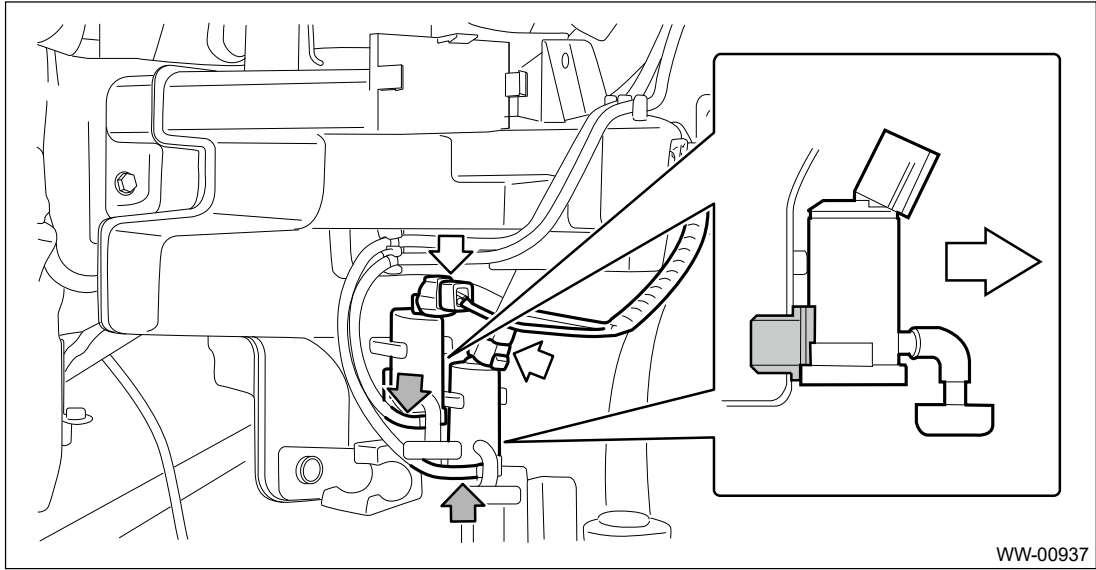
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the screw and clips, and turn over the mud guard - front LH.



4. Disconnect the connector of the fog light assembly - front LH. (Model with fog light)
5. Disconnect the connector from the motor pump assembly - washer and remove the harness clip.
6. Prepare a container before disconnecting the hose - washer, and drain all washer fluid in the tank - washer.
7. Remove the motor pump assembly - washer from the tank - washer.



WW-00937

WIPER AND WASHER SYSTEMS > Wiper and Washer System










INSPECTION

Symptoms	Repair order
Wiper and washers do not operate.	<ol style="list-style-type: none">1. Wiper fuse2. Combination switch3. Motor assembly - wiper4. Wiring Harness
Wipers do not operate in LO or HI.	<ol style="list-style-type: none">1. Combination switch2. Motor assembly - wiper3. Wiring Harness
Wipers do not operate in INT.	<ol style="list-style-type: none">1. Combination switch2. Motor assembly - wiper3. Wiring Harness
Washer motor does not operate.	<ol style="list-style-type: none">1. Combination switch2. Motor pump assembly - washer3. Wiring Harness
Wipers do not operate when washer switch is ON.	<ol style="list-style-type: none">1. Motor assembly - wiper2. Wiring Harness
Washer fluid spray does not operate properly.	<ol style="list-style-type: none">1. Motor pump assembly - washer2. Hose assembly - washer3. Nozzle - washer
Wiper chatters or judders during operation.	<ol style="list-style-type: none">1. Oil film and dirt on the glass2. Arm assembly - windshield wiper3. Motor assembly - wiper

WIPER AND WASHER SYSTEMS > Wiper and Washer System

NOTE


For procedure of each component of the wiper and washer system, refer to the respective sections.

- Combination switch (wiper):  [Ref. to WIPER AND WASHER SYSTEMS>Combination Switch \(Wiper\).](#)
- Wiper blade:  [Ref. to WIPER AND WASHER SYSTEMS>Wiper Blade.](#)
- Front wiper arm:  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm.](#)
- Front wiper motor and link:  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Motor and Link.](#)
- Rear wiper arm:  [Ref. to WIPER AND WASHER SYSTEMS>Rear Wiper Arm.](#)
- Rear wiper motor:  [Ref. to WIPER AND WASHER SYSTEMS>Rear Wiper Motor.](#)
- Washer tank and motor:  [Ref. to WIPER AND WASHER SYSTEMS>Washer Tank and Motor.](#)
- Front washer nozzle & hose:  [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose.](#)
- Rear washer nozzle:  [Ref. to WIPER AND WASHER SYSTEMS>Rear Washer.](#)


WIPER AND WASHER SYSTEMS > Wiper and Washer System

WIRING DIAGRAM

1. WIPER AND WASHER (FRONT)

Refer to "Front Wiper and Washer System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Front Wiper and Washer System>WIRING DIAGRAM.](#)

2. WIPER AND WASHER (REAR)

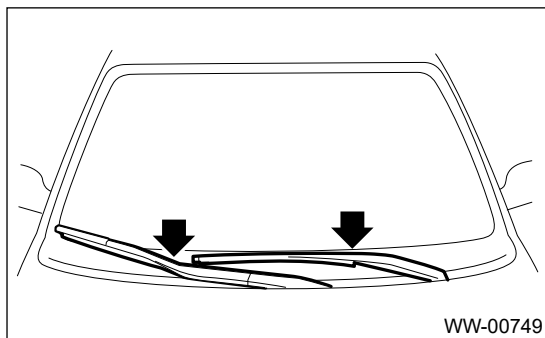
Refer to "Rear Wiper and Washer System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Rear Wiper and Washer System>WIRING DIAGRAM.](#)

WIPER AND WASHER SYSTEMS > Wiper Blade

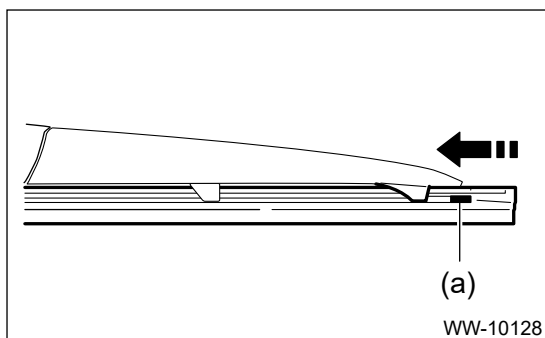
ASSEMBLY

1. FRONT

1. Insert the rubber assembly - windshield wiper onto the blade - windshield wiper so that the stopper is in the position shown in the figure.

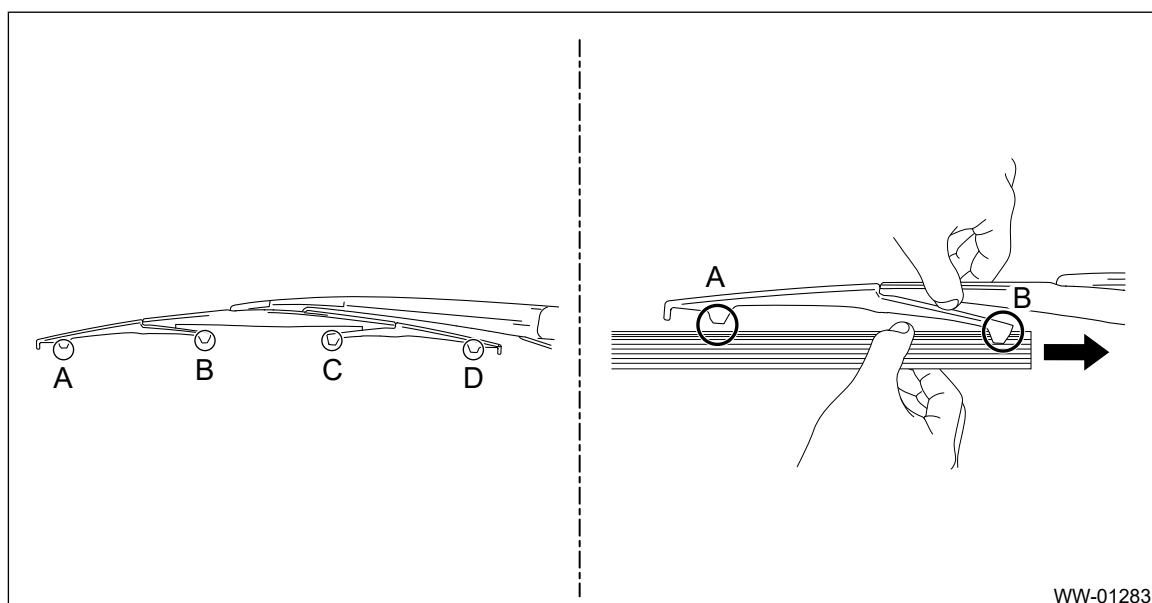


2. Make sure the rubber assembly - windshield wiper is securely fastened to the pull stopper (a).

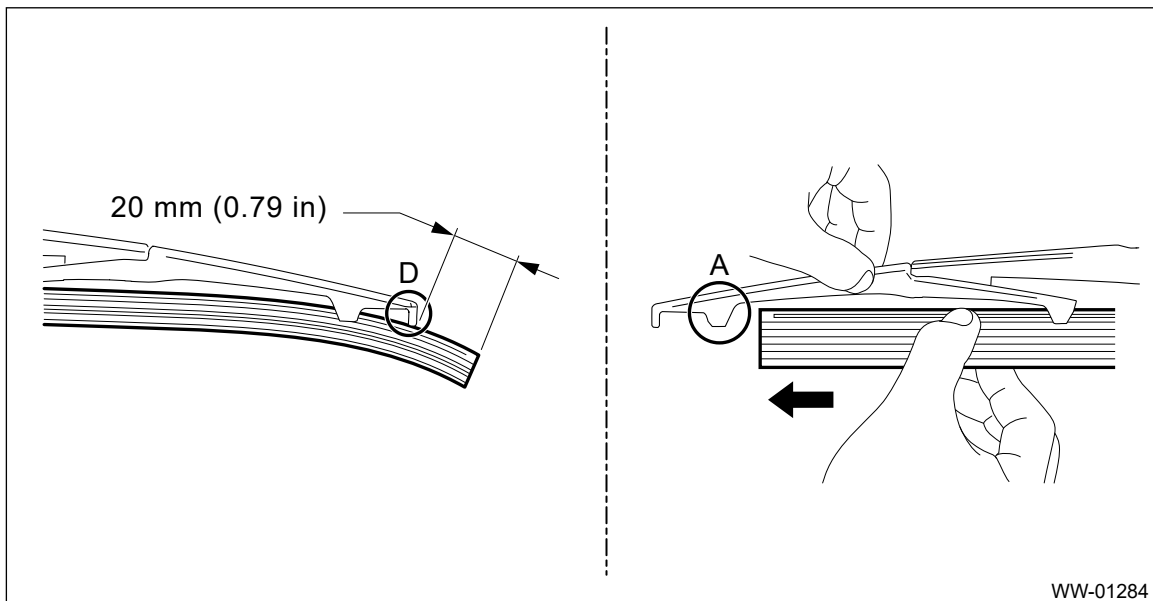


2. REAR

1. Insert the rubber assembly - rear wiper into claw (B).



2. Insert the rubber assembly - rear wiper until its top end protrudes approx. 20 mm (0.79 in) from stopper (D).
3. Insert the rubber assembly - rear wiper into claw (A).

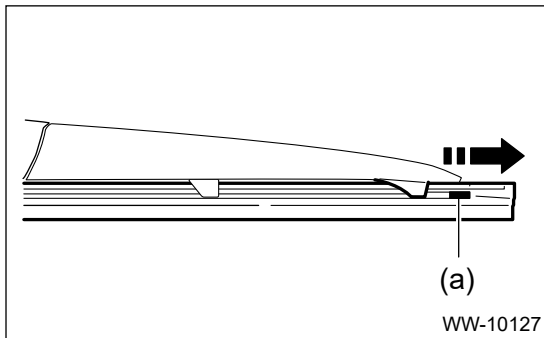


WIPER AND WASHER SYSTEMS > Wiper Blade

DISASSEMBLY

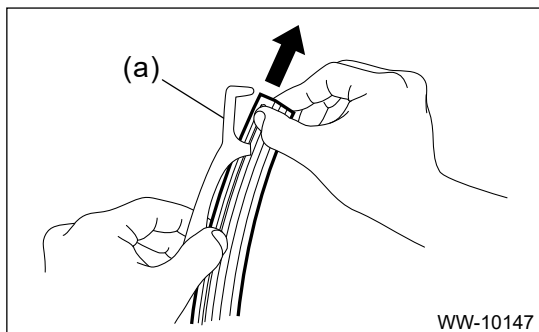
1. FRONT

Pull the side (a) of the wiper rubber stopper, and remove the rubber assembly - windshield wiper from the blade assembly - windshield wiper.



2. REAR

Slightly pull the top of the rubber assembly - rear wiper from the stopper (a), and pull out completely.



WIPER AND WASHER SYSTEMS > Wiper Blade

INSPECTION

1. Check and clean the rubber assembly - wiper.

Caution:

- **Do not use organic solvent-based cleaner when cleaning rubber parts in order to avoid rubber part deterioration.**
- **Clean rubber parts using a soft cloth or paper towel dampened with windshield washer fluid or mild synthetic detergent.**

2. Replace the rubber assembly - wiper if rubber part hardening, deformation or damage is found.
3. Operate the washer system to check if a chattering sound or insufficient wiping occurs.
4. If a chattering sound or insufficient wiping occurs, perform the following procedures.
 - (1) Make sure that the blade assembly - wiper is not deformed and the movable part moves smoothly.
 - (2) Remove oil film and dirt from the glass.

Caution:

- **When powder-type glass cleaner is used, use after having been dissolved in water sufficiently. If it is used in less water, the glass surface may be damaged.**
- **Clean the glass surface using a soft cloth or sponge with glass cleaner.**

- (3) Operate the windshield wiper again. If a chattering sound or insufficient wiping occurs, perform the procedures again.
5. If defective is not improved after performing step 1) to step 3), replace the rubber assembly - wiper with a new part.

WIPER AND WASHER SYSTEMS > Wiper Blade

INSTALLATION

Install each part in the reverse order of removal.

Caution:

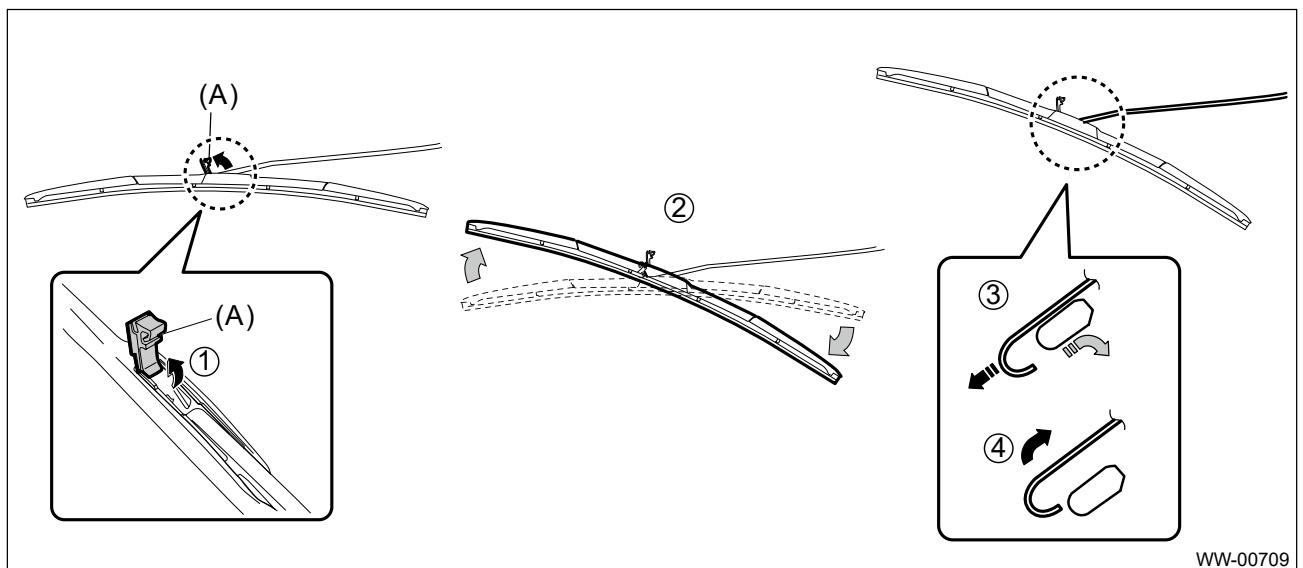
Make sure the locking clip is securely locked.

WIPER AND WASHER SYSTEMS > Wiper Blade

REMOVAL

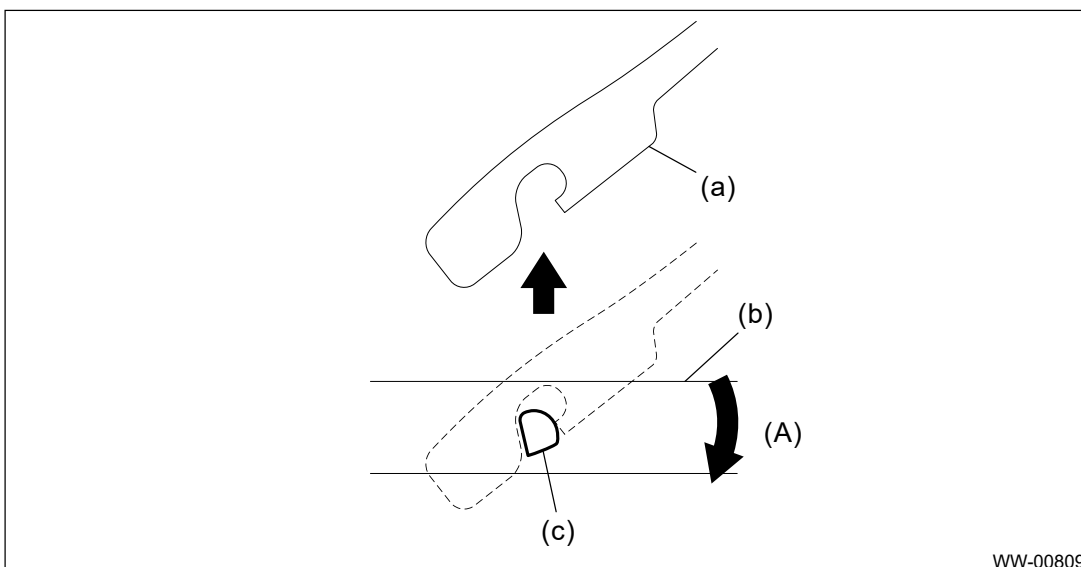
1. FRONT

1. Lift up the locking clip (A).
2. Turn the blade assembly - windshield wiper in the arrow direction.
3. Push in the arm assembly - windshield wiper.
4. Pull out the arm assembly - windshield wiper while pulling it up, and remove the blade assembly - windshield wiper from the arm assembly - windshield wiper.



2. REAR

Turn the blade assembly - rear wiper in the direction of arrow (A) and remove it from the arm assembly - rear wiper.



(A) Turn the wiper blade.

(a) Arm ASSY - rear wiper

(b) Blade ASSY - rear wiper

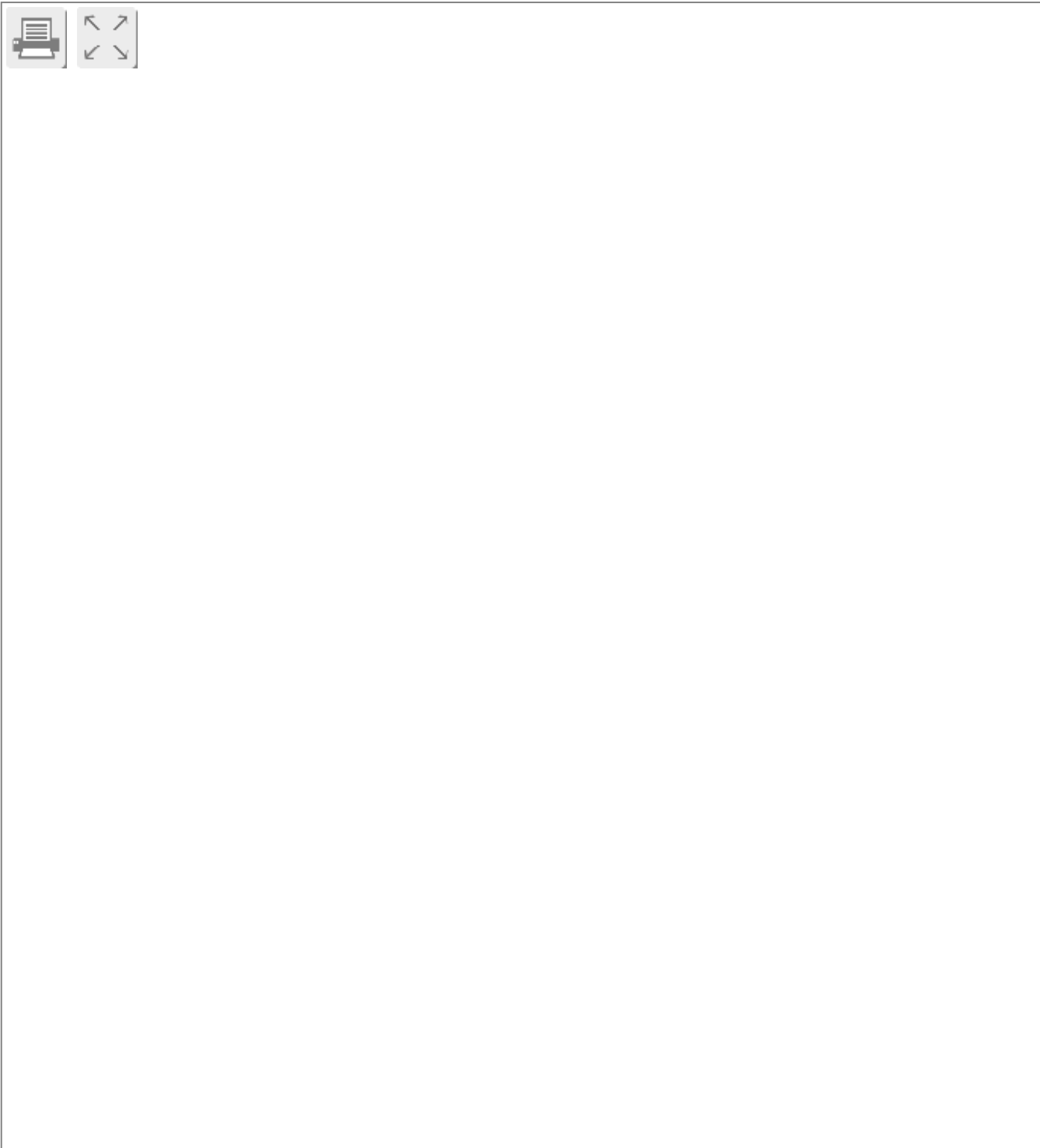
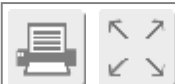
(c) Wiper blade attachment

section

WIRING DIAGRAM

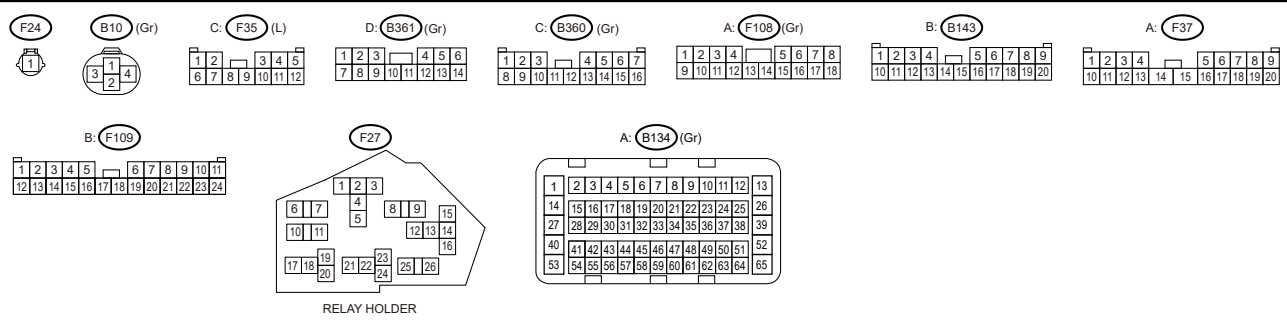
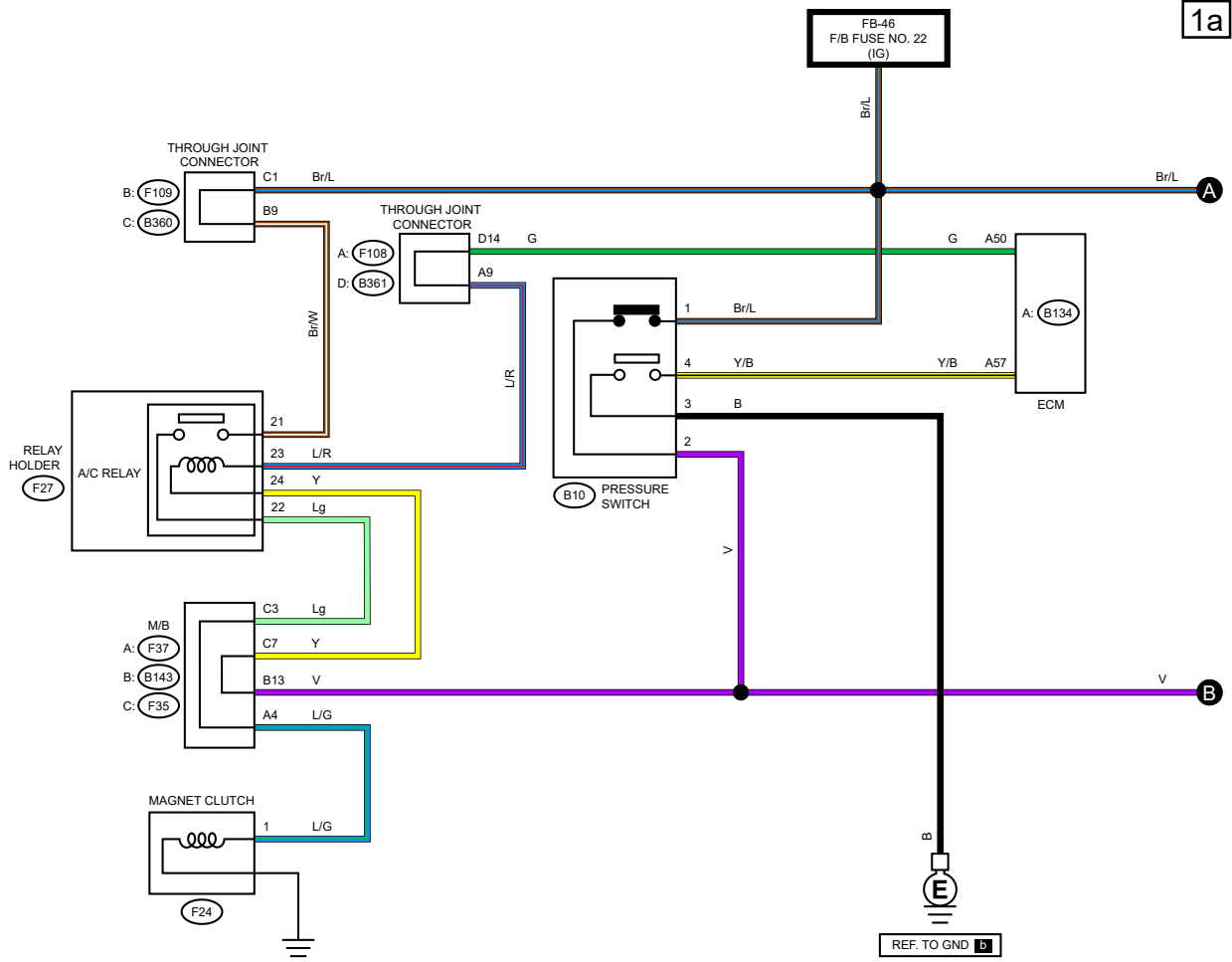
▼ Please select ▼ see

1. MANUAL A/C

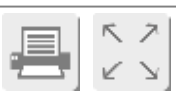


1a

1a

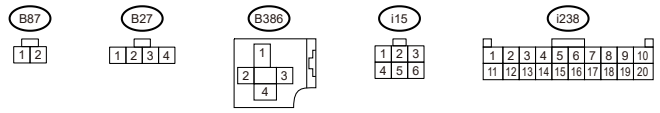
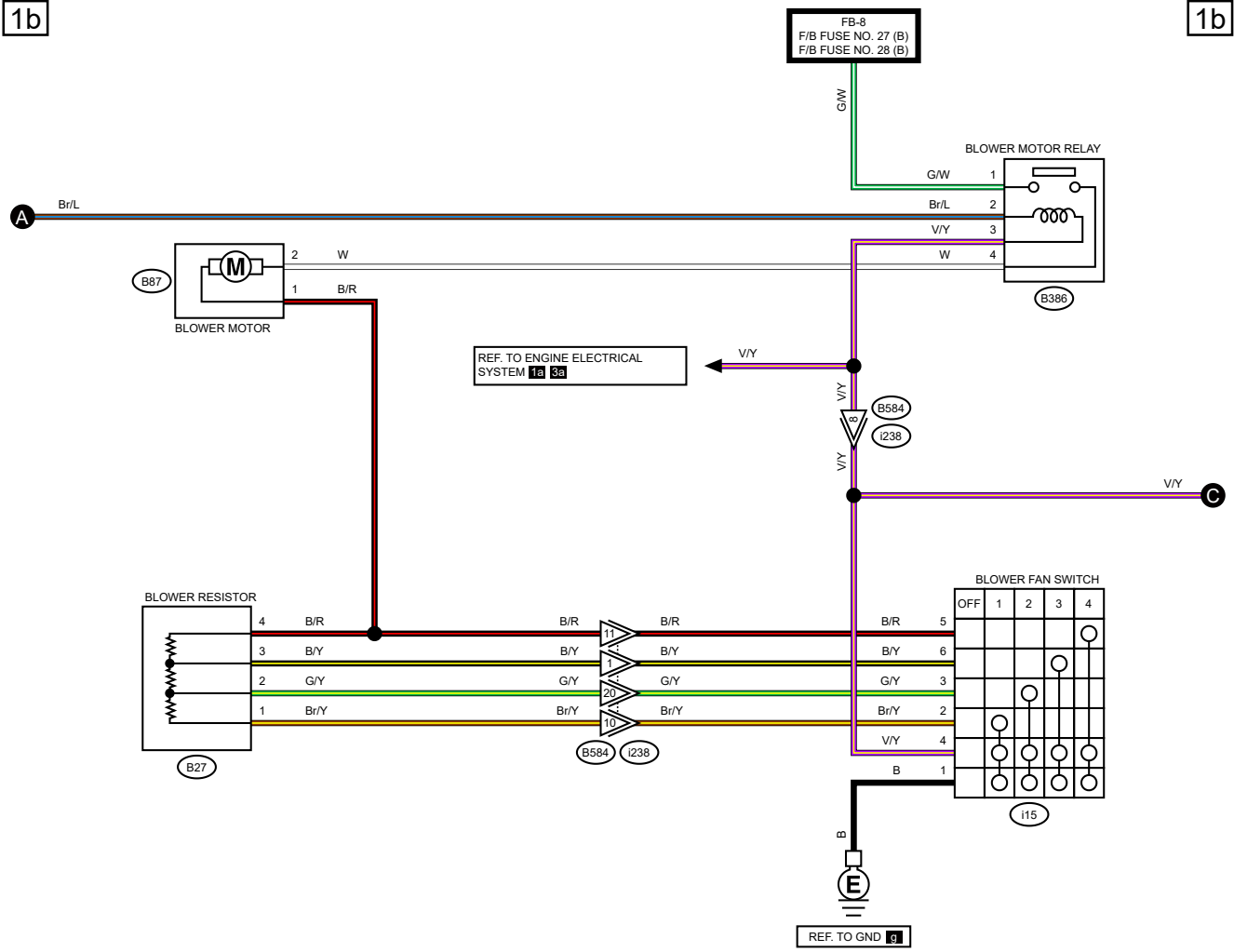


WI-65507



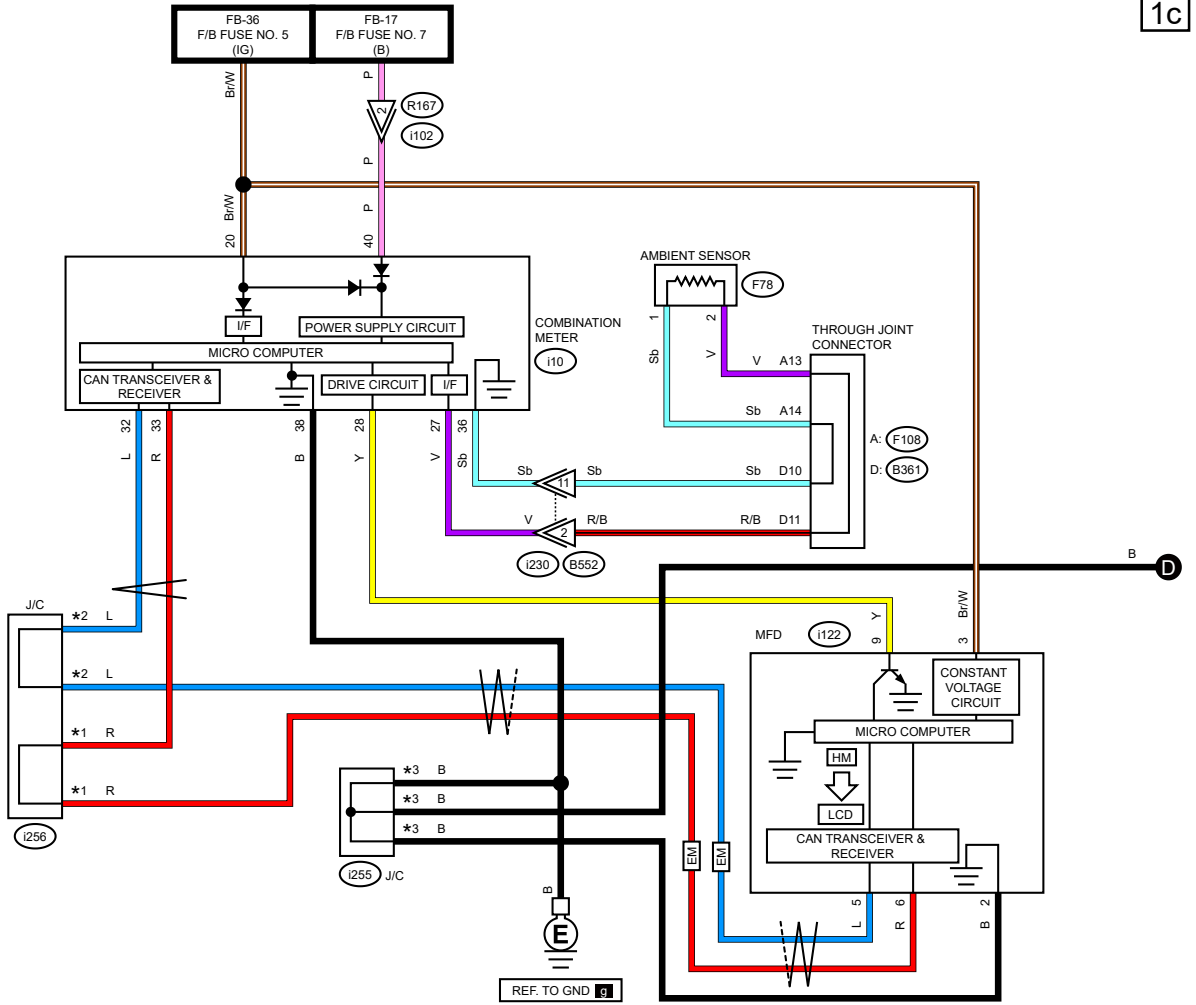
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1b



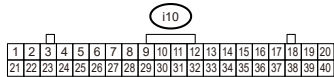
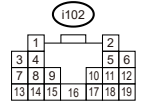
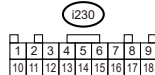
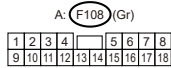
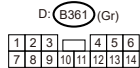
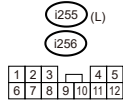
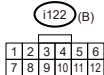
1c

1c



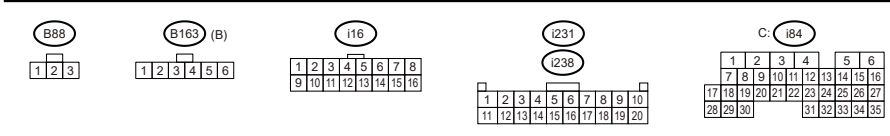
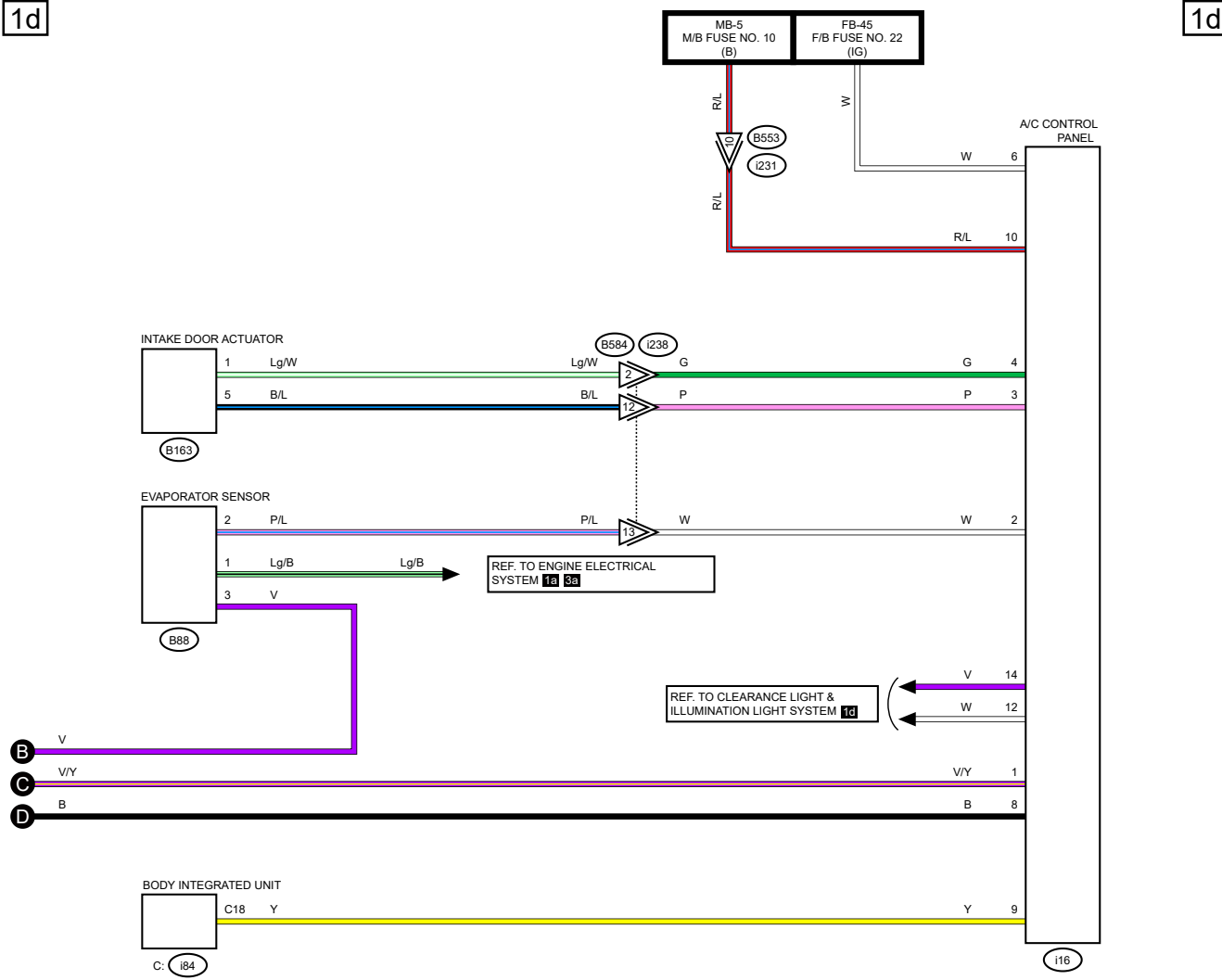
EM : EXCEPT FOR STANDARD MFD
 HM : HIGH GRADE MFD

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12
 *3 : TERMINAL No. OPTIONAL ARRANGEMENT



1d

1d



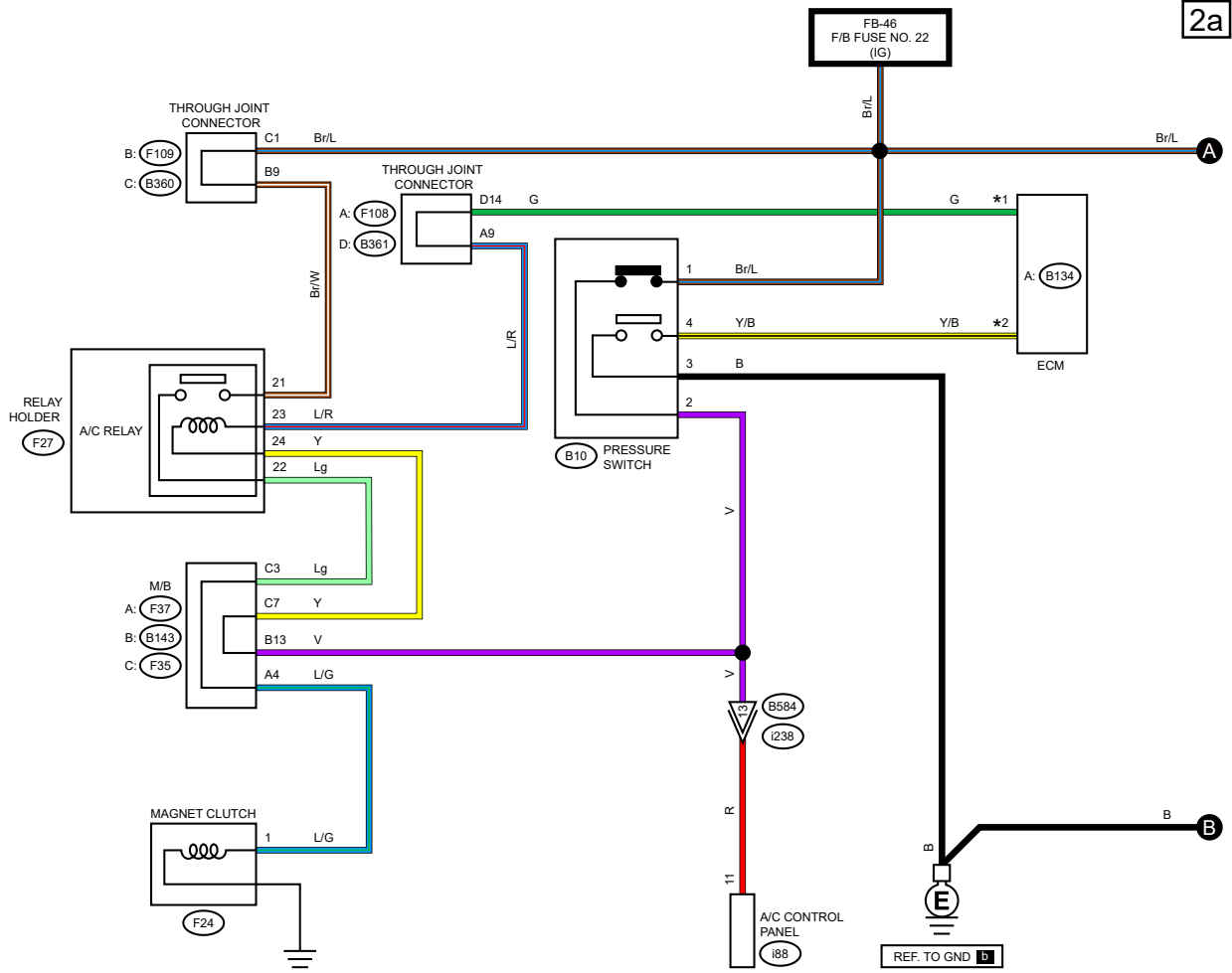
WI-65510

2. AUTO A/C



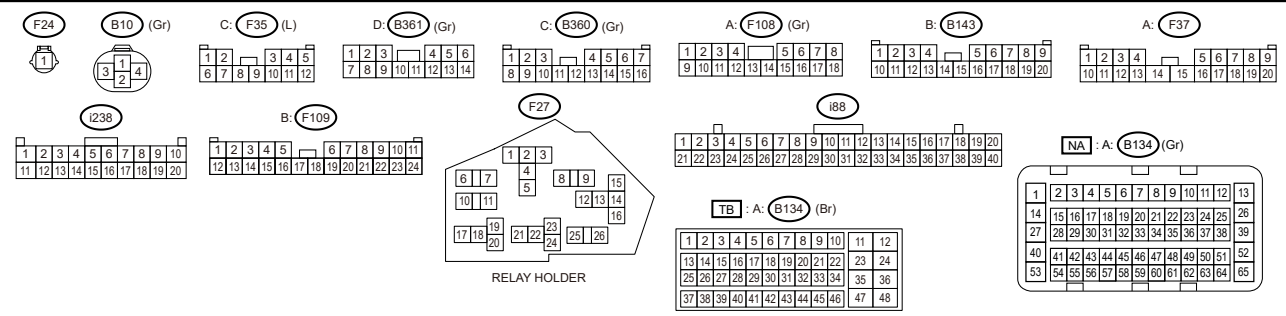
2a

2a



[NA] : NON-TURBO MODEL
 [TB] : TURBO MODEL

*1 : NON-TURBO MODEL : A50
 TURBO MODEL : A1
 *2 : NON-TURBO MODEL : A57
 TURBO MODEL : A7

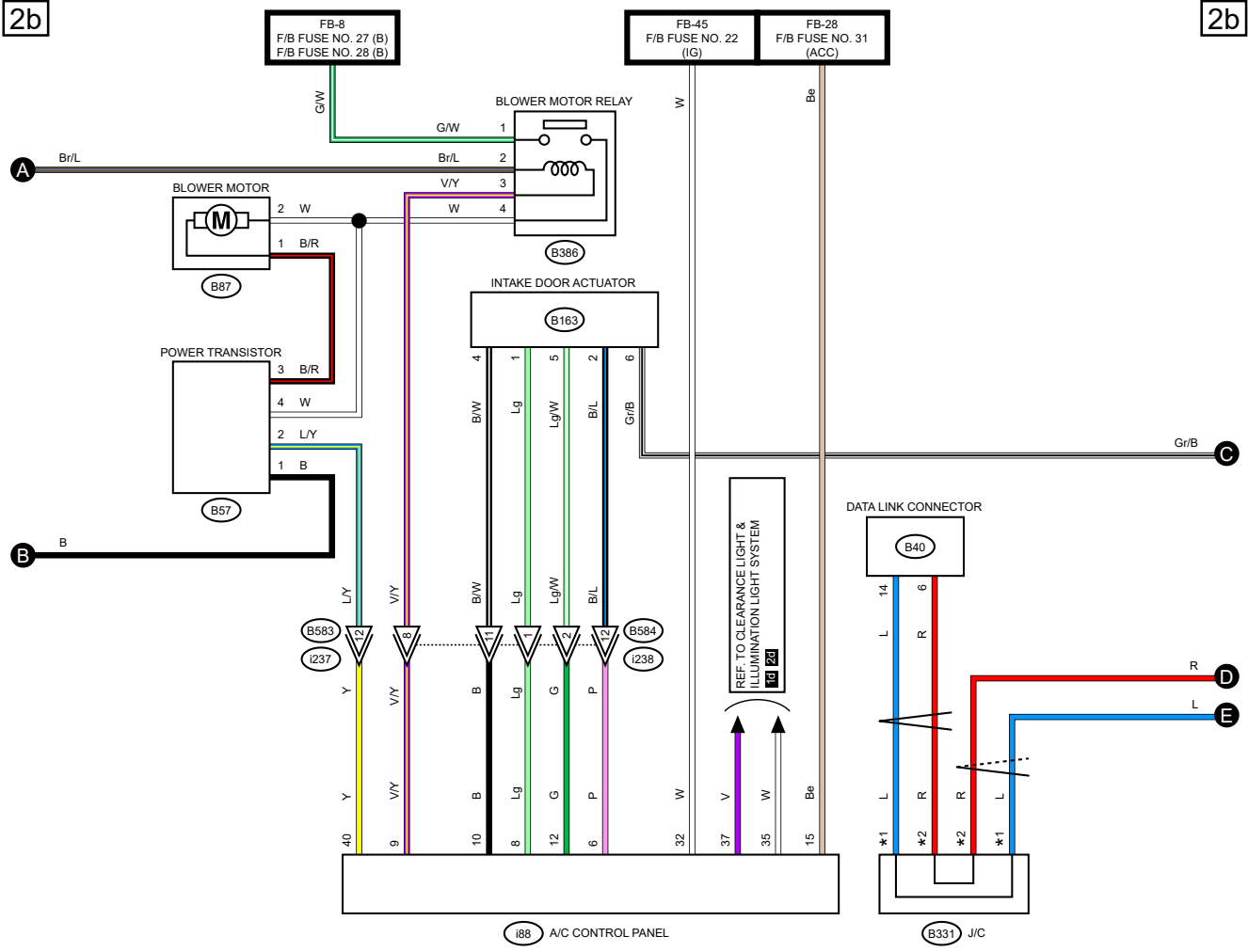


WI-65511

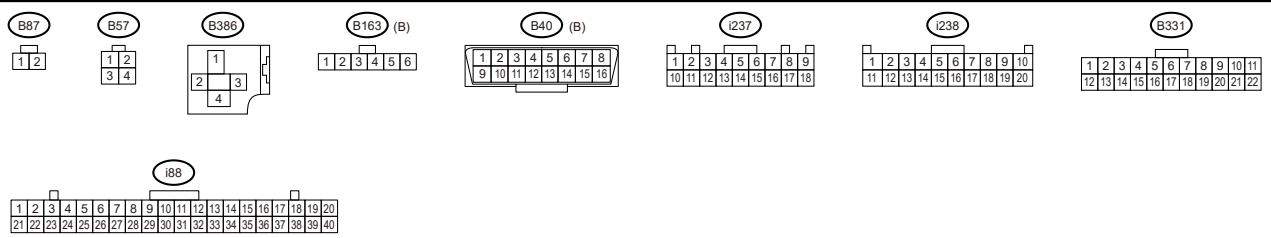


2b

2b



*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11

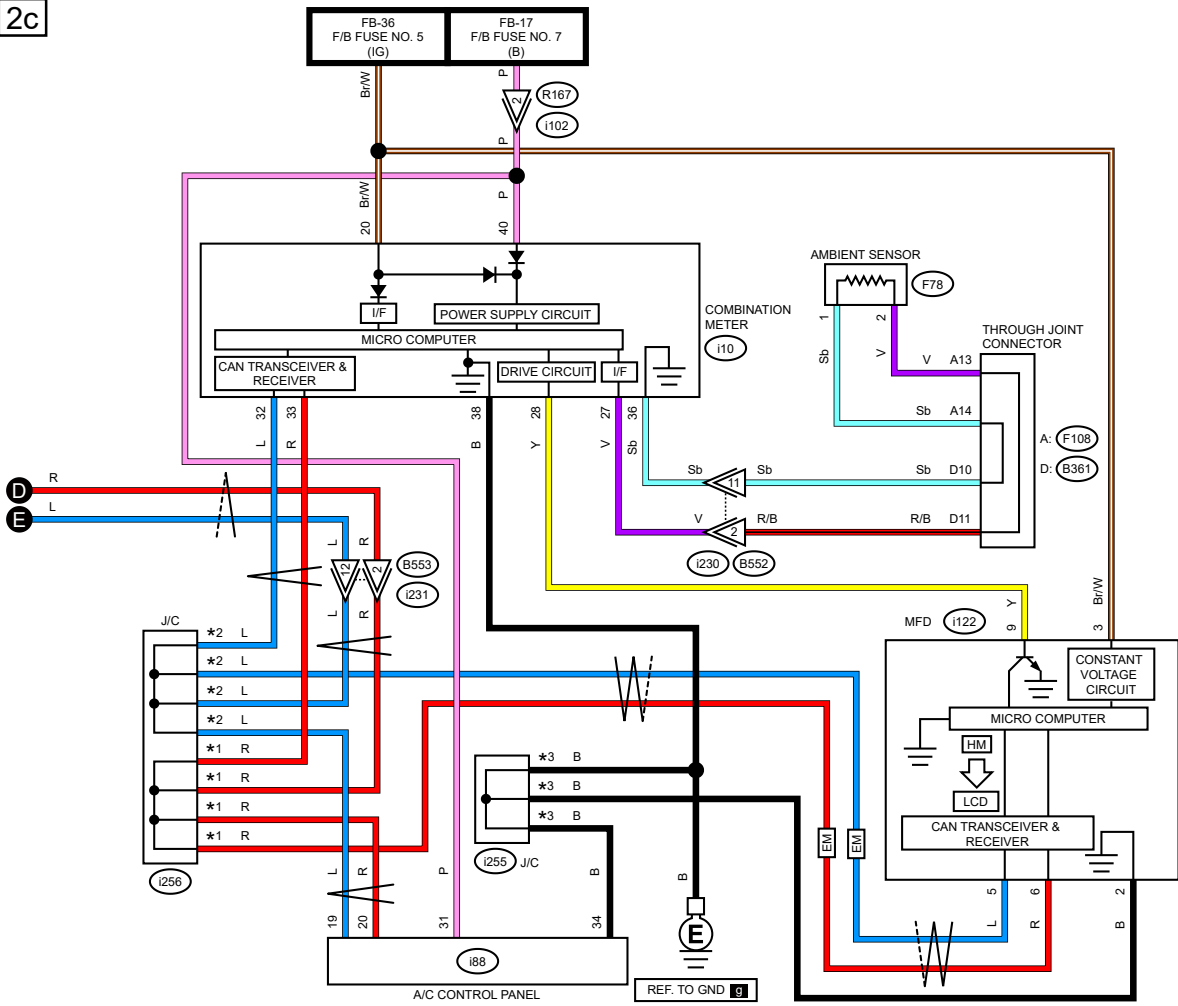


WI-65512



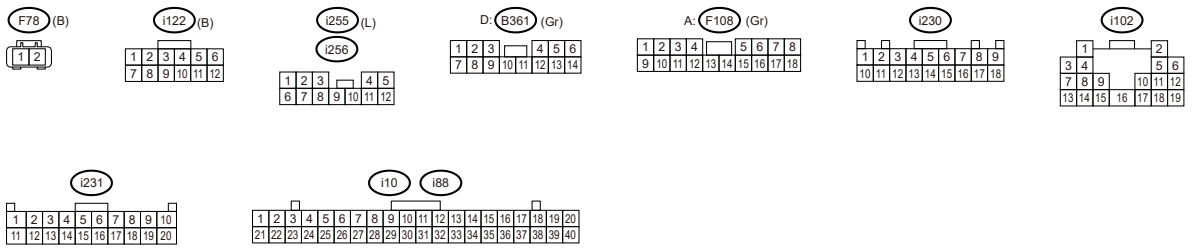
2c

2c



EM : EXCEPT FOR STANDARD MFD
HM : HIGH GRADE MFD

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12
 *3 : TERMINAL No. OPTIONAL ARRANGEMENT

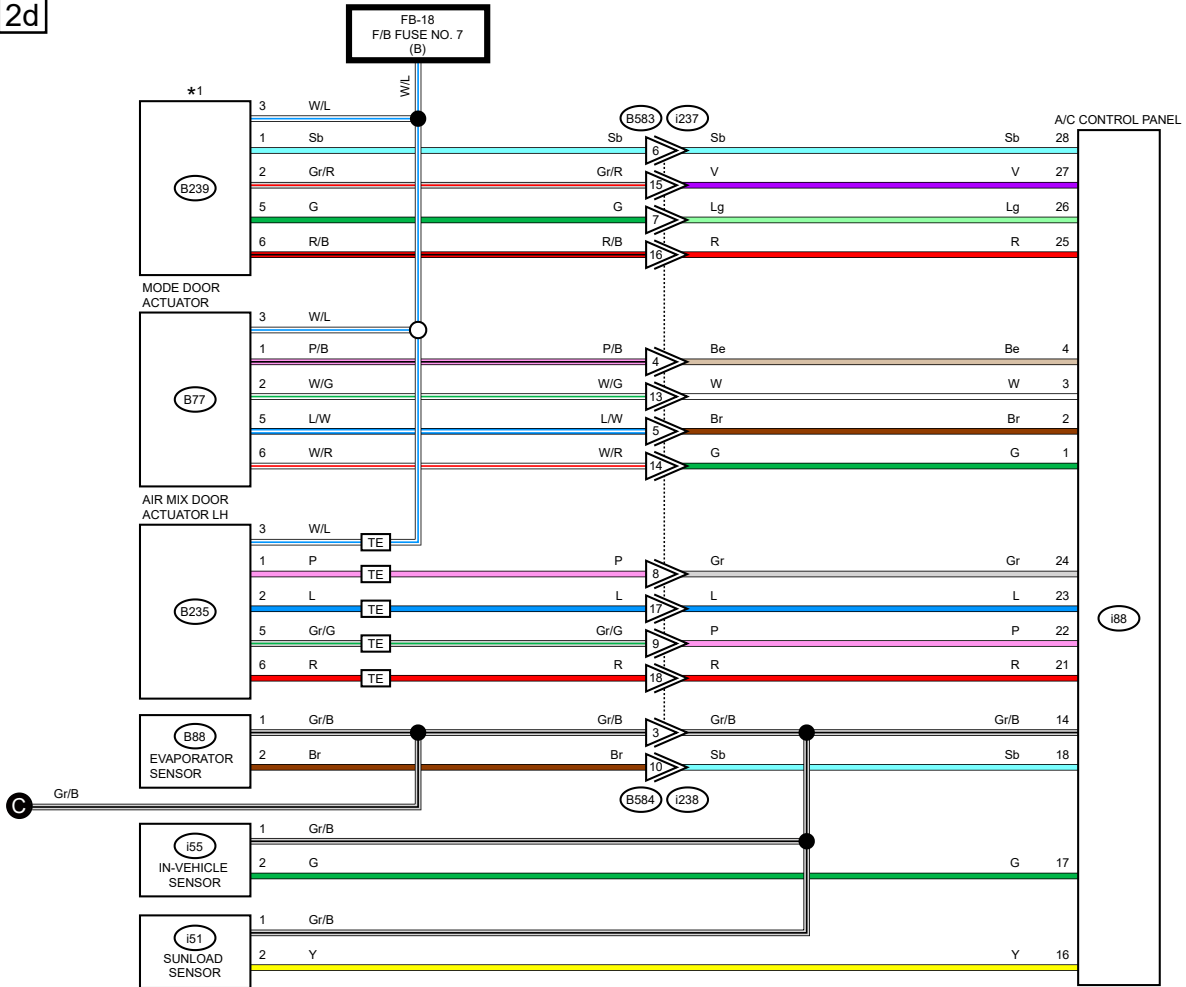


WI-65513



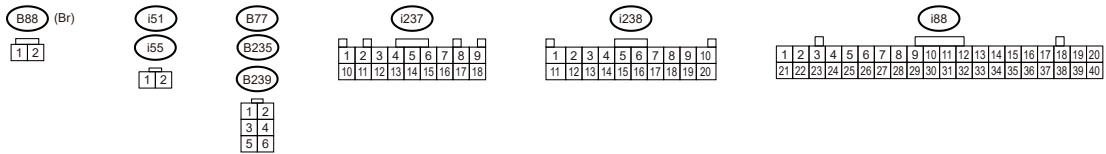
2d

2d



TE : WITH L/R INDEPENDENT AIR CONDITIONER

*1 : WITHOUT L/R INDEPENDENT AIR CONDITIONER : AIR MIX DOOR ACTUATOR
WITH L/R INDEPENDENT AIR CONDITIONER : AIR MIX DOOR ACTUATOR RH



WIRING DIAGRAM

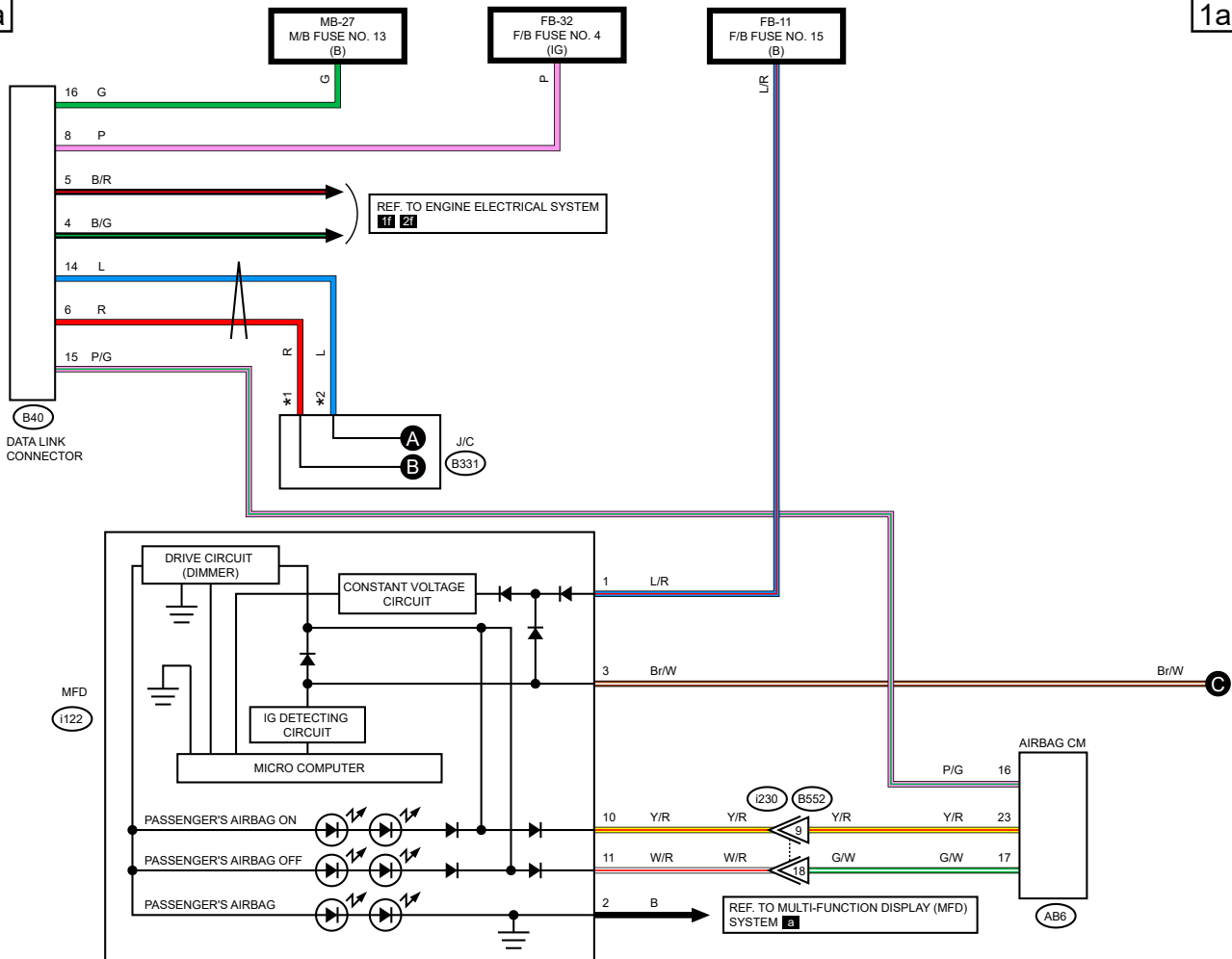
▼ Please select ▼ see

1. NON-TURBO MODEL

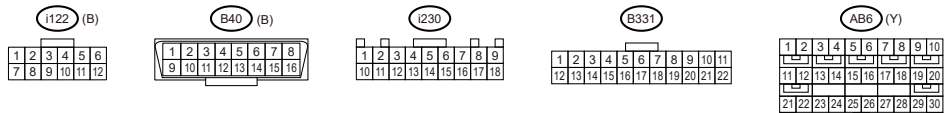


1a

1a

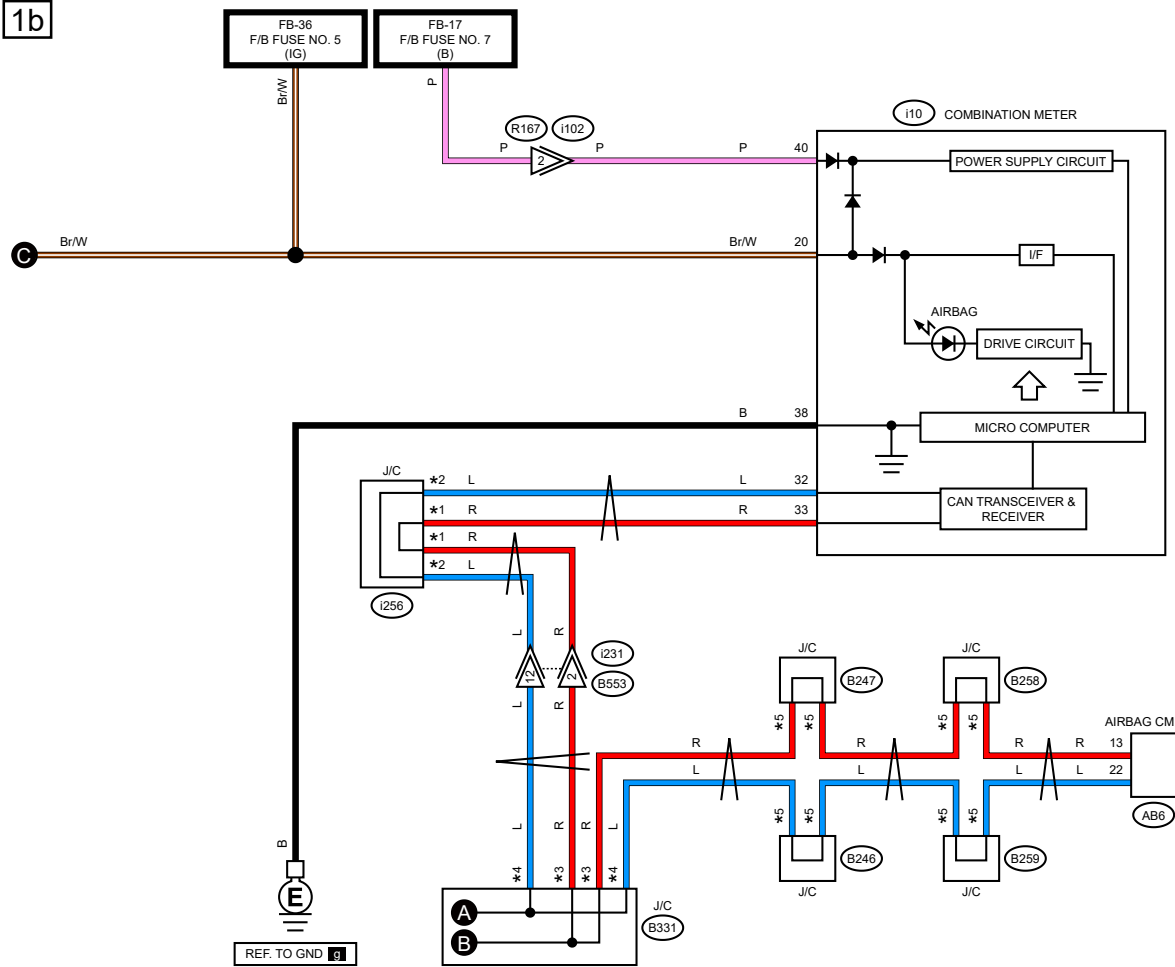


*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22



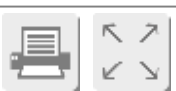
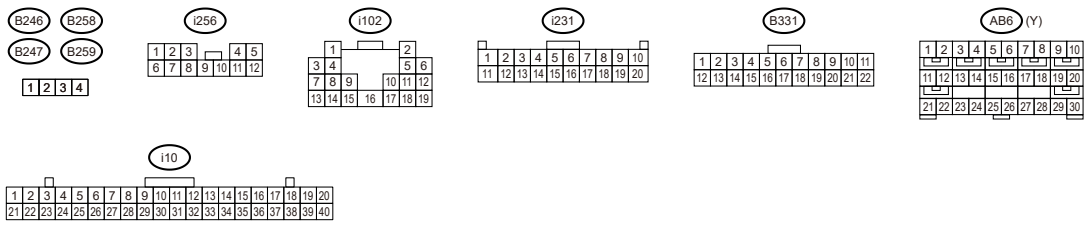
1b

1b



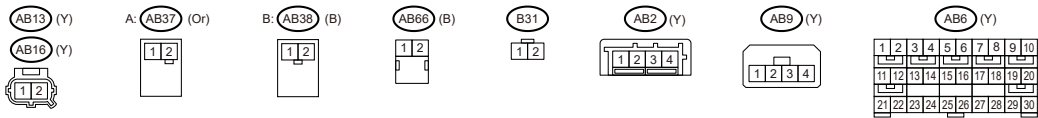
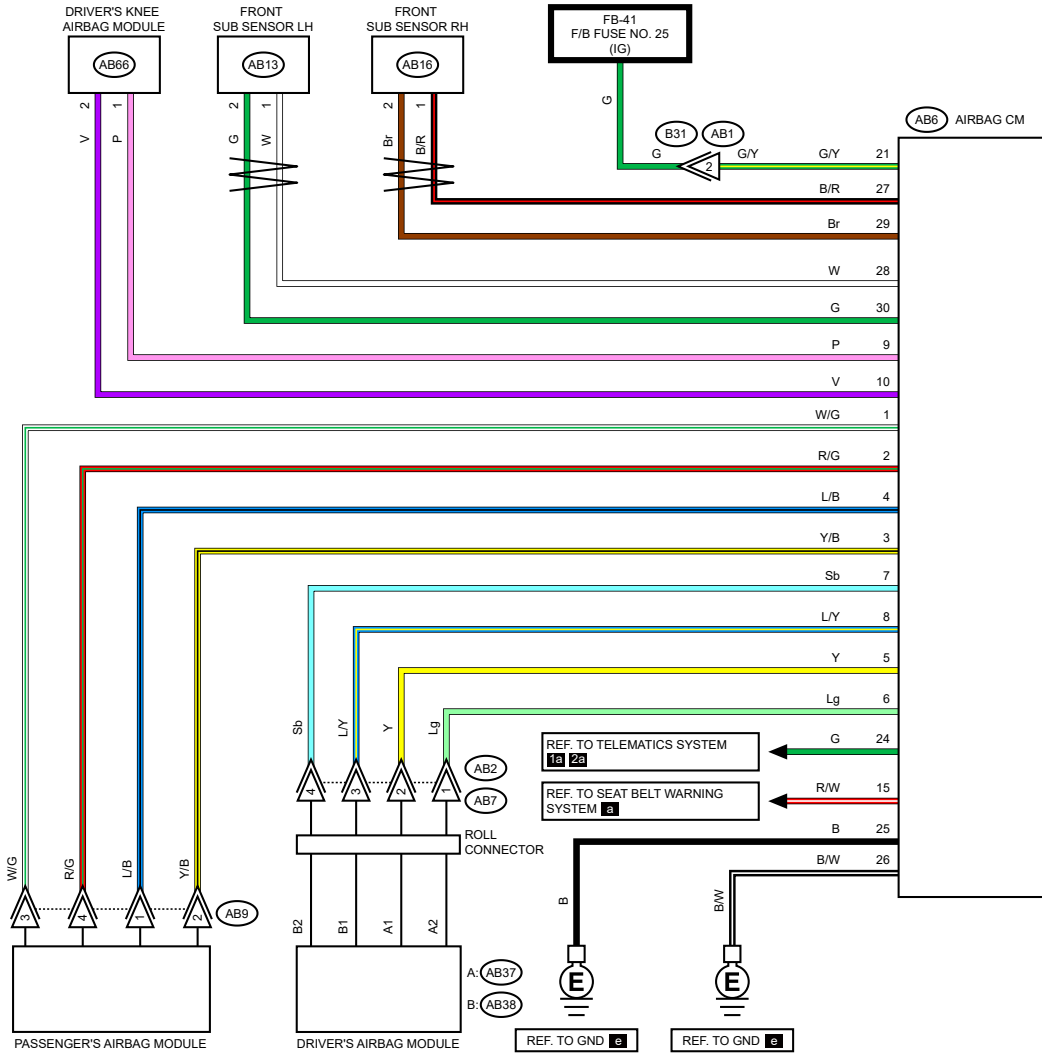
- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11

- *4 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
- *5 : TERMINAL No. OPTIONAL ARRANGEMENT

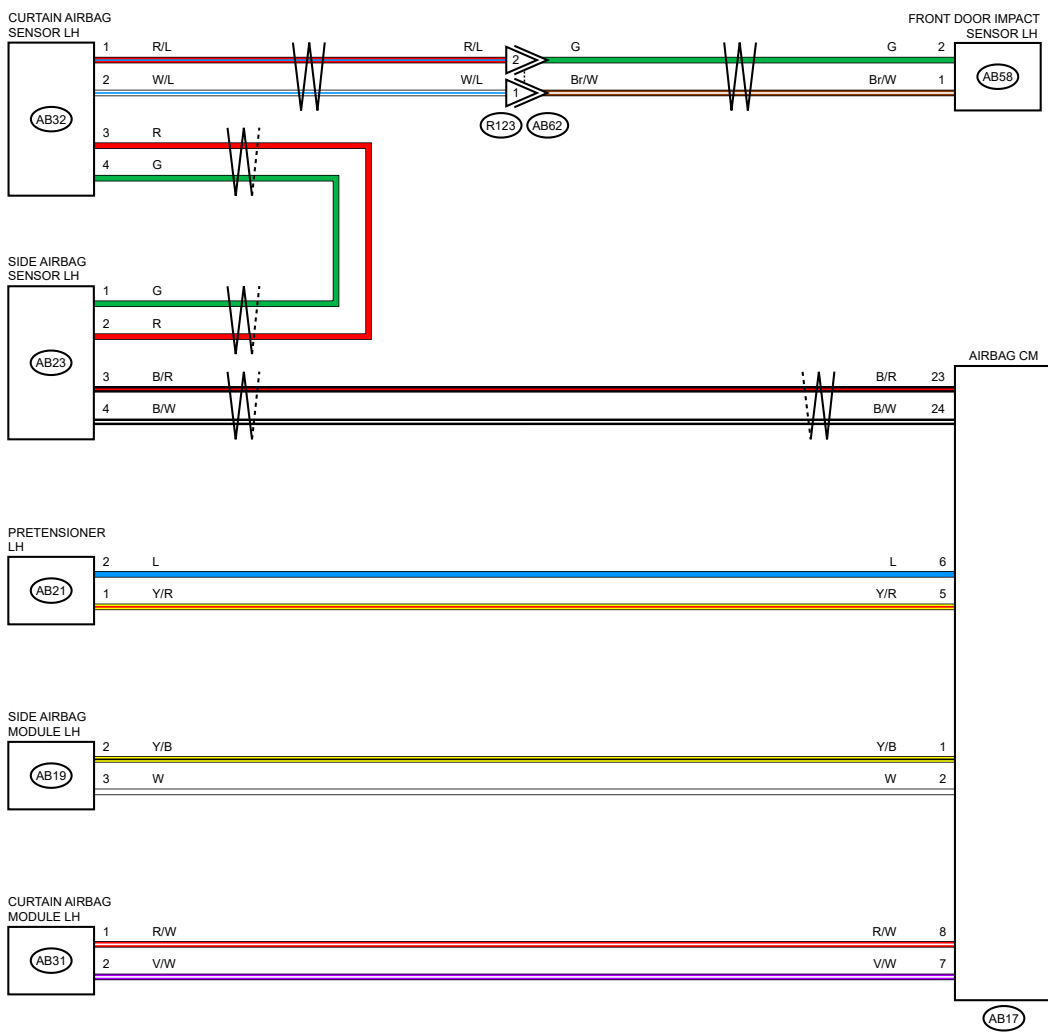


1c

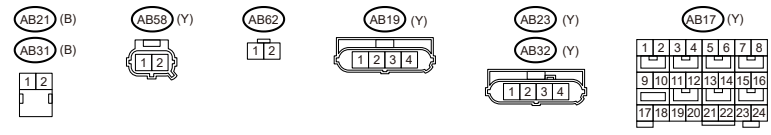
1c



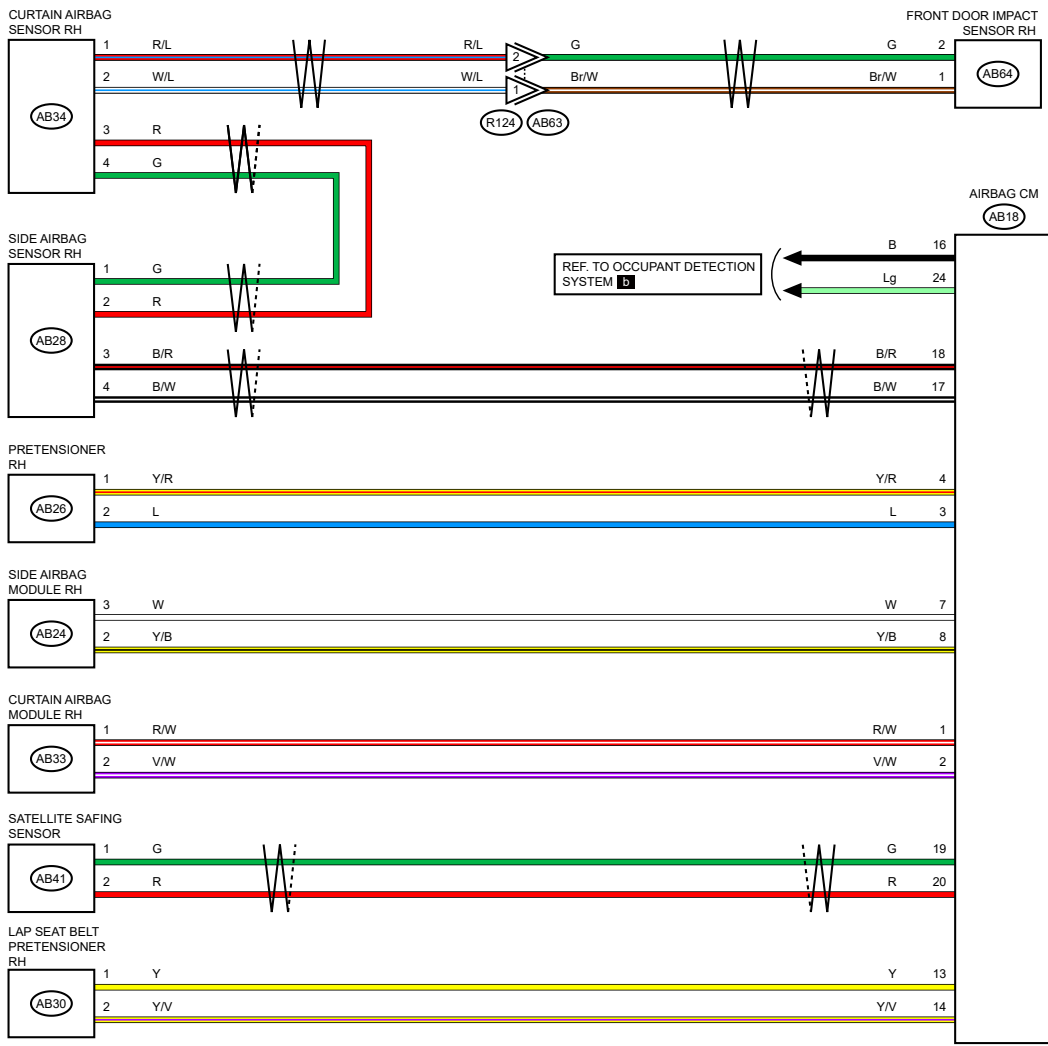
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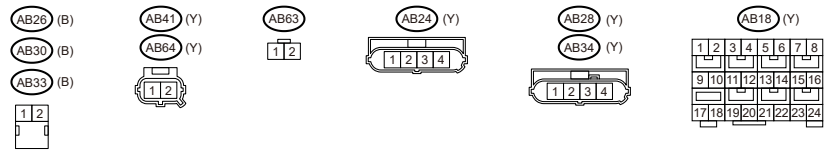
1d



1e



1e



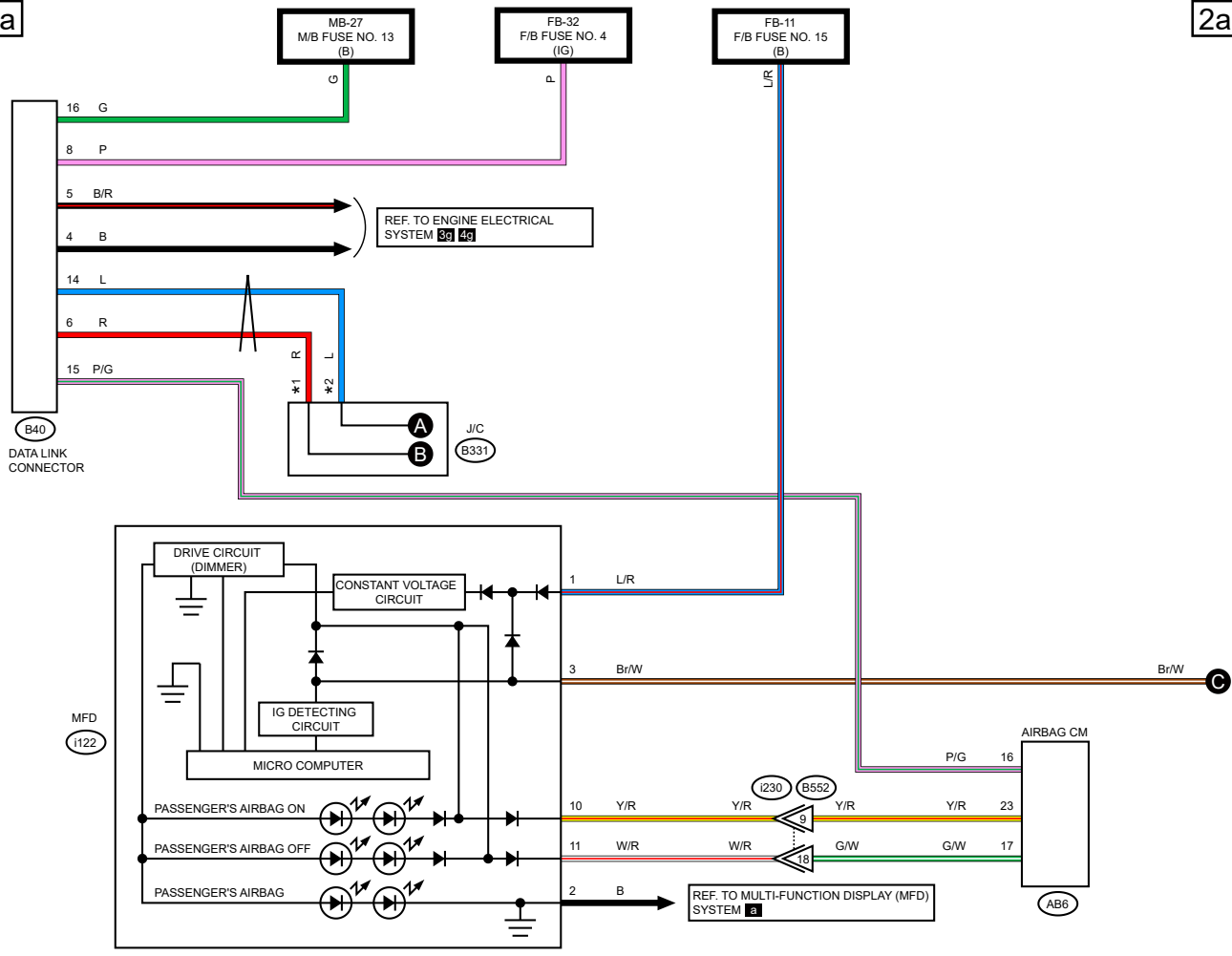
WI-65501

2. TURBO MODEL



2a

2a



- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22

I122 (B)

1	2	3	4	5	6
7	8	9	10	11	12

B40 (B)

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

I230

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

B331

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22

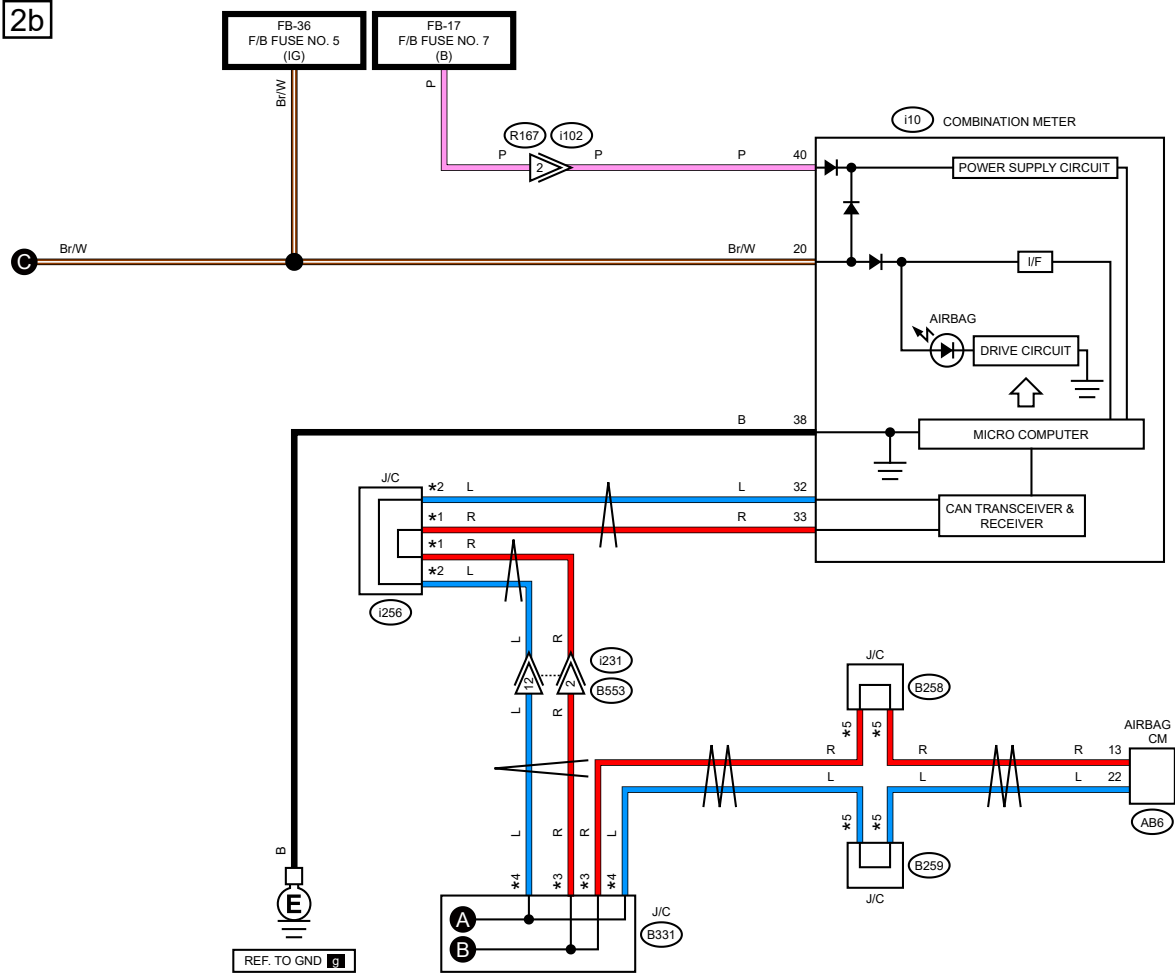
AB6 (Y)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

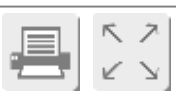
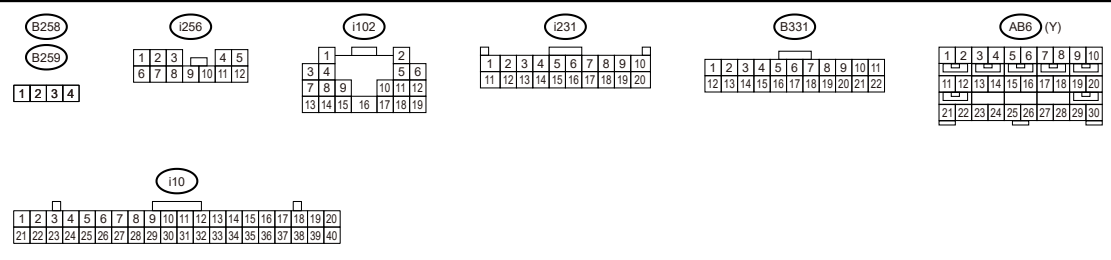


2b

2b

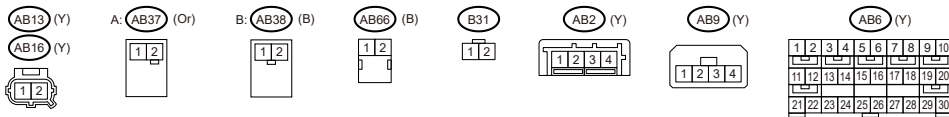
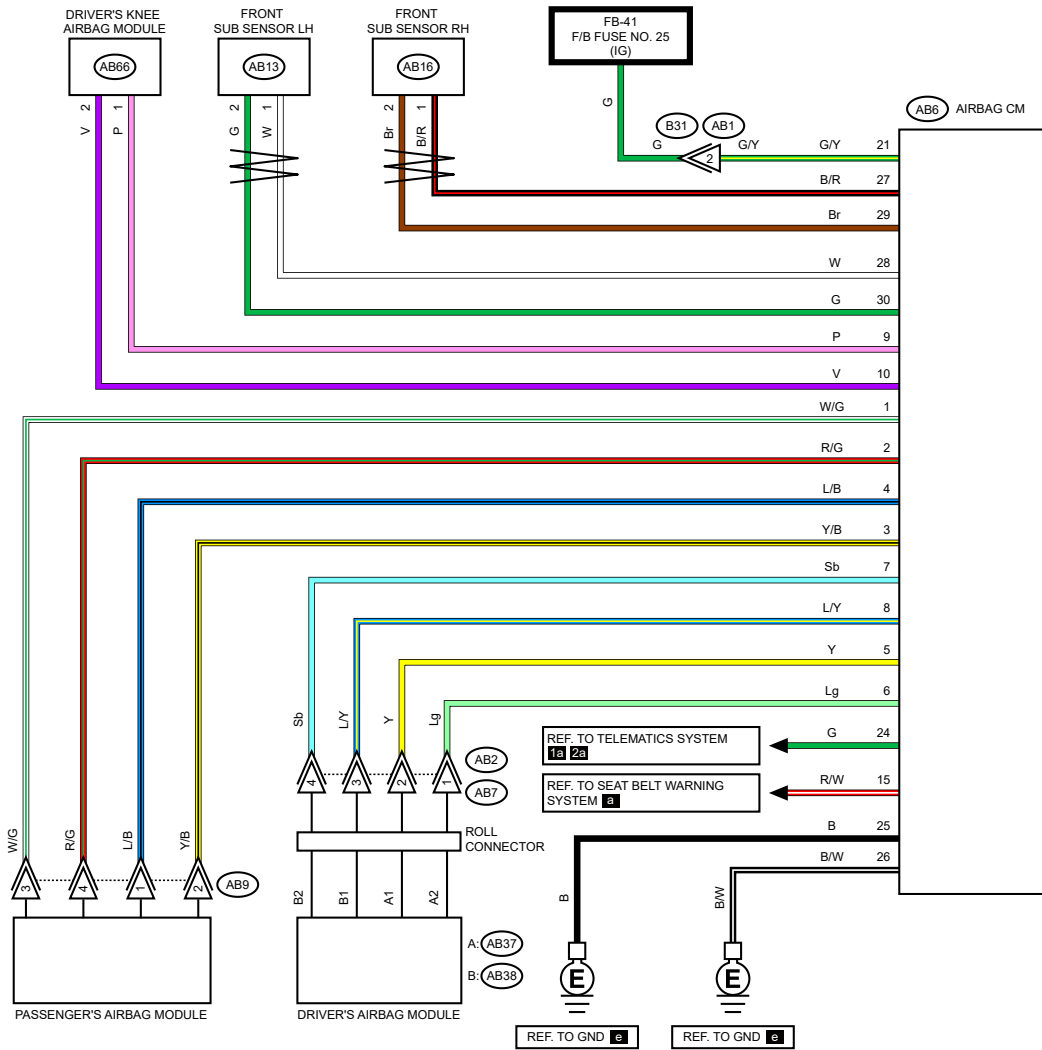


- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *4 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
- *5 : TERMINAL No. OPTIONAL ARRANGEMENT



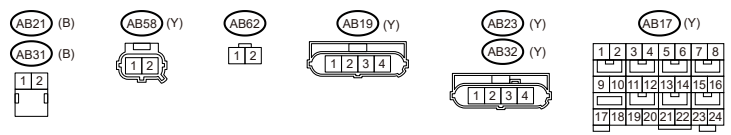
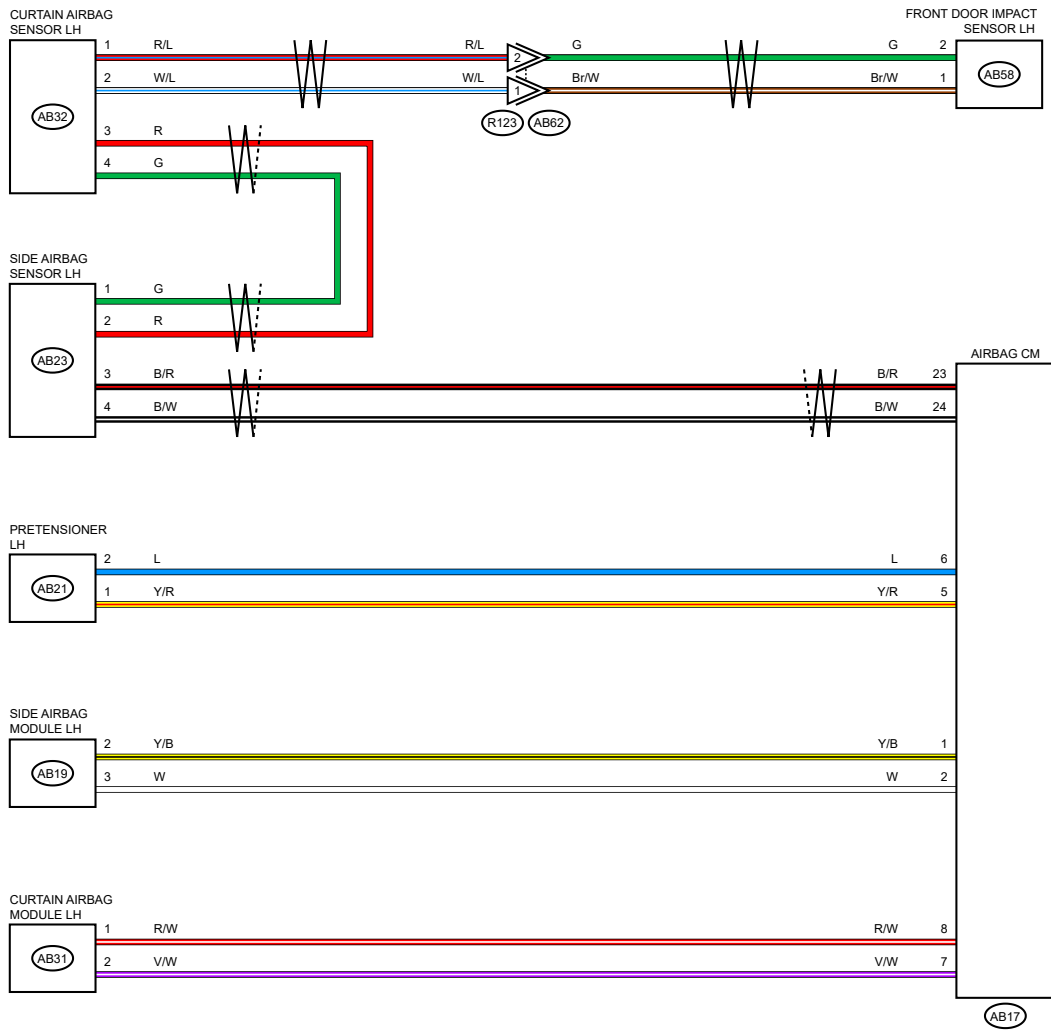
2c

2c



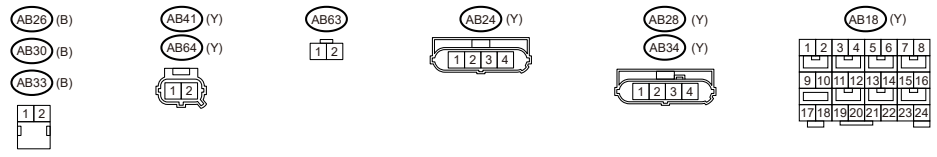
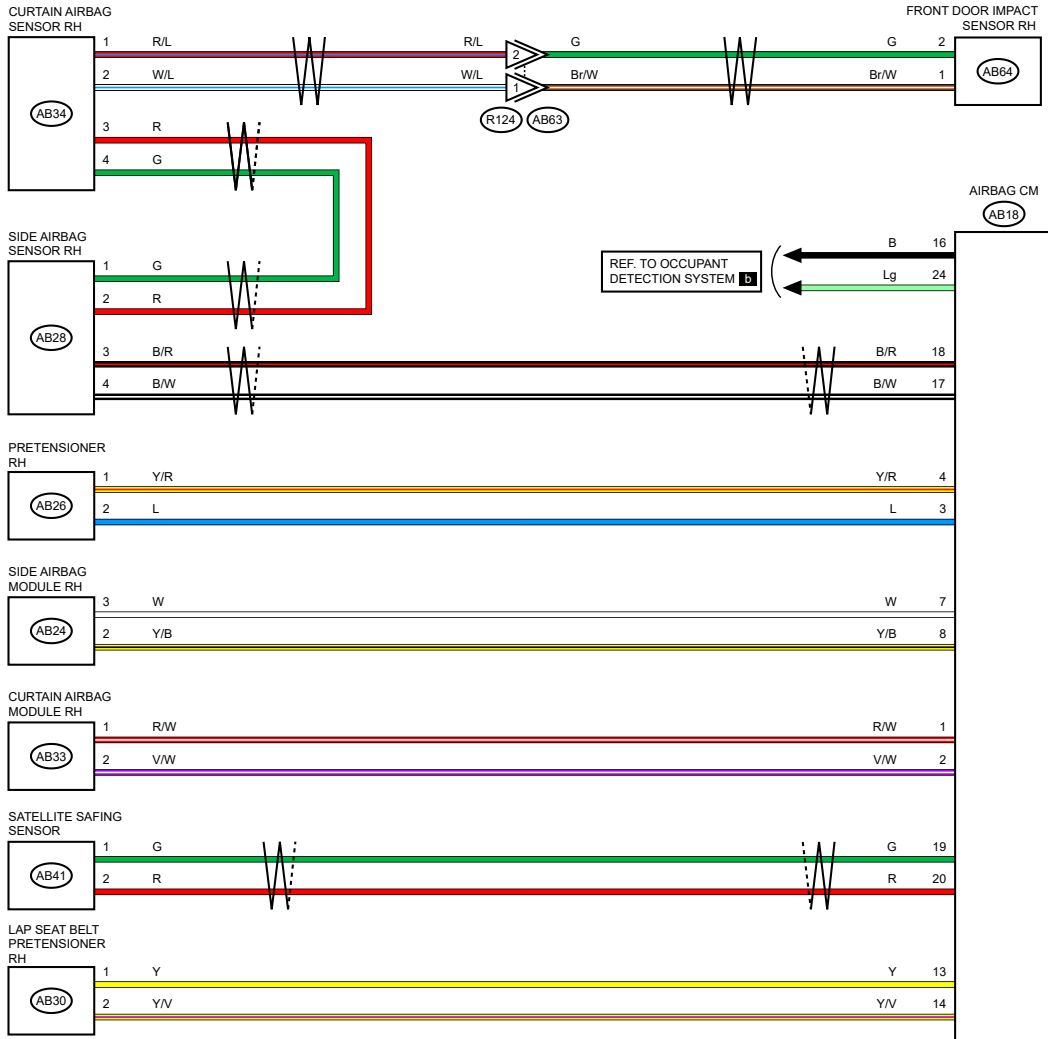
2d

2d



2e

2e

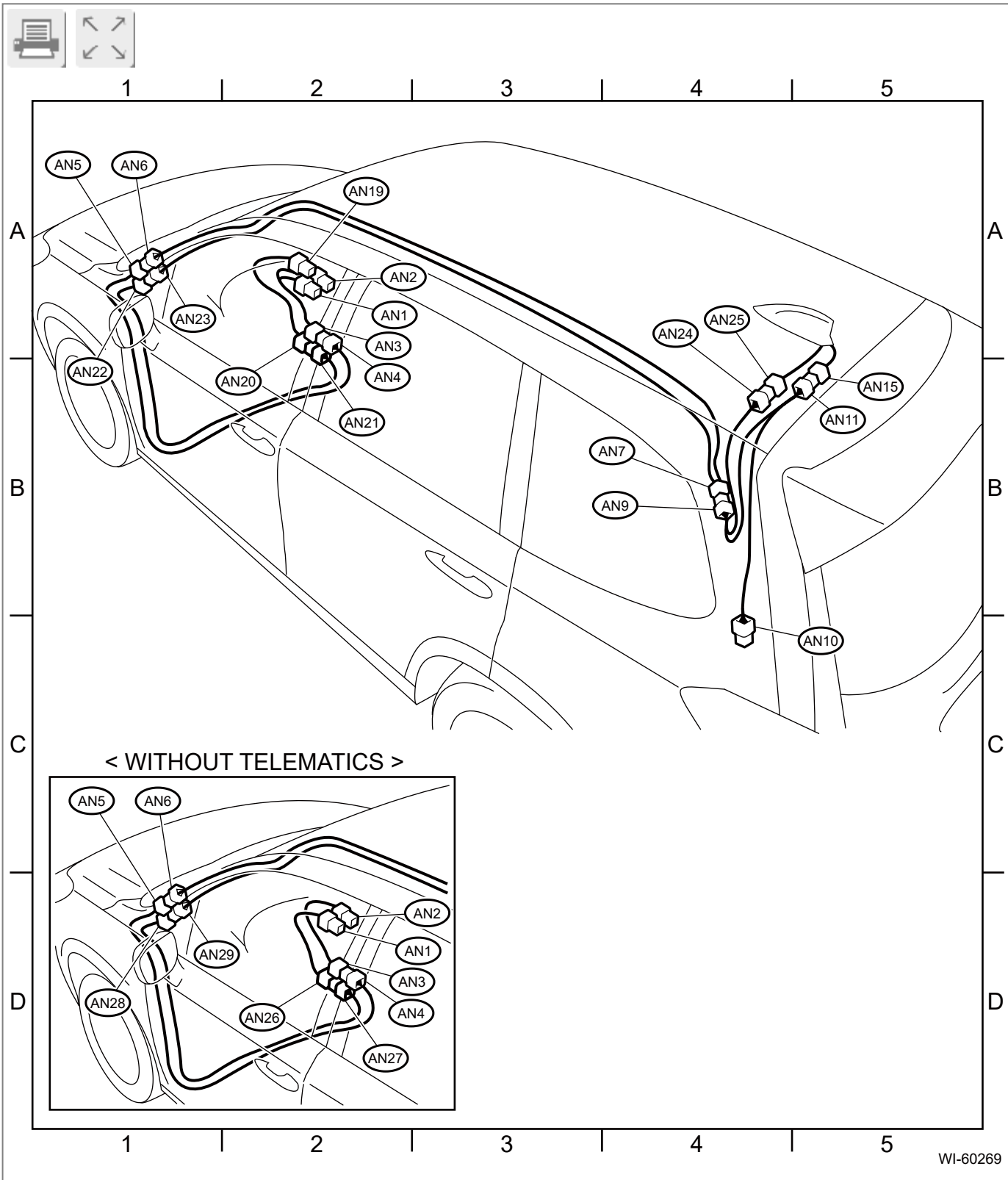


WIRING SYSTEM > Antenna Cord

LOCATION

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AN1	3	★	D-2		Audio (without navigation without telematics)
	3	★	D-2		Navigation unit (with navigation without telematics)
	3	★	A-2		Audio (without navigation with telematics)
	3	★	A-2		Navigation unit (with navigation with telematics)
AN2	1	L	D-2		Audio (without navigation without telematics)
	1	L	D-2		Navigation unit (with navigation without telematics)
	1	L	A-2		Audio (without navigation with telematics)
	1	L	A-2		Navigation unit (with navigation with telematics)
AN3	1	G	D-2	AN4	Antenna cord (without telematics)
	3	★	A-2	AN4	Antenna cord (with telematics)
AN4	1	G	D-2	AN3	Antenna cord (without telematics)
	3	★	A-2	AN3	Antenna cord (with telematics)
AN5	1	G	D-1	AN6	Antenna cord (without telematics)
	3	★	A-1	AN6	Antenna cord (with telematics)
AN6	1	G	D-1	AN5	Antenna cord (without telematics)
	3	★	A-1	AN5	Antenna cord (with telematics)
AN7	3	★	B-4	AN9	Antenna cord (without telematics)
	3	L	B-4	AN9	Antenna cord (with telematics)
AN9	3	★	B-4	AN7	Antenna cord (without telematics)
	3	L	B-4	AN7	Antenna cord (with telematics)
AN10	1	★	C-4	R97	Antenna cord
AN11	3	★	B-5	AN15	Antenna
AN15	3	★	B-5	AN11	Antenna cord
AN19	1	Br	A-2		Data communication module
AN20	1	V	A-2	AN21	Antenna cord (with telematics)
AN21	1	V	A-2	AN20	Antenna cord (with telematics)
AN22	1	V	A-1	AN23	Antenna cord (with telematics)
AN23	1	V	A-1	AN22	Antenna cord (with telematics)
AN24	1	V	B-4	AN25	Telematics antenna (with telematics)
AN25	1	V	B-4	AN24	Antenna cord (with telematics)
AN26	3	Gr	D-2	AN27	Antenna cord (without telematics)
AN27	3	Gr	D-2	AN26	Antenna cord (without telematics)
AN28	3	★	D-1	AN29	Antenna cord (without telematics)

AN29	3	★	D-1	AN28	Antenna cord (without telematics)
★:White or natural color					



WIRING DIAGRAM

▼ Please select



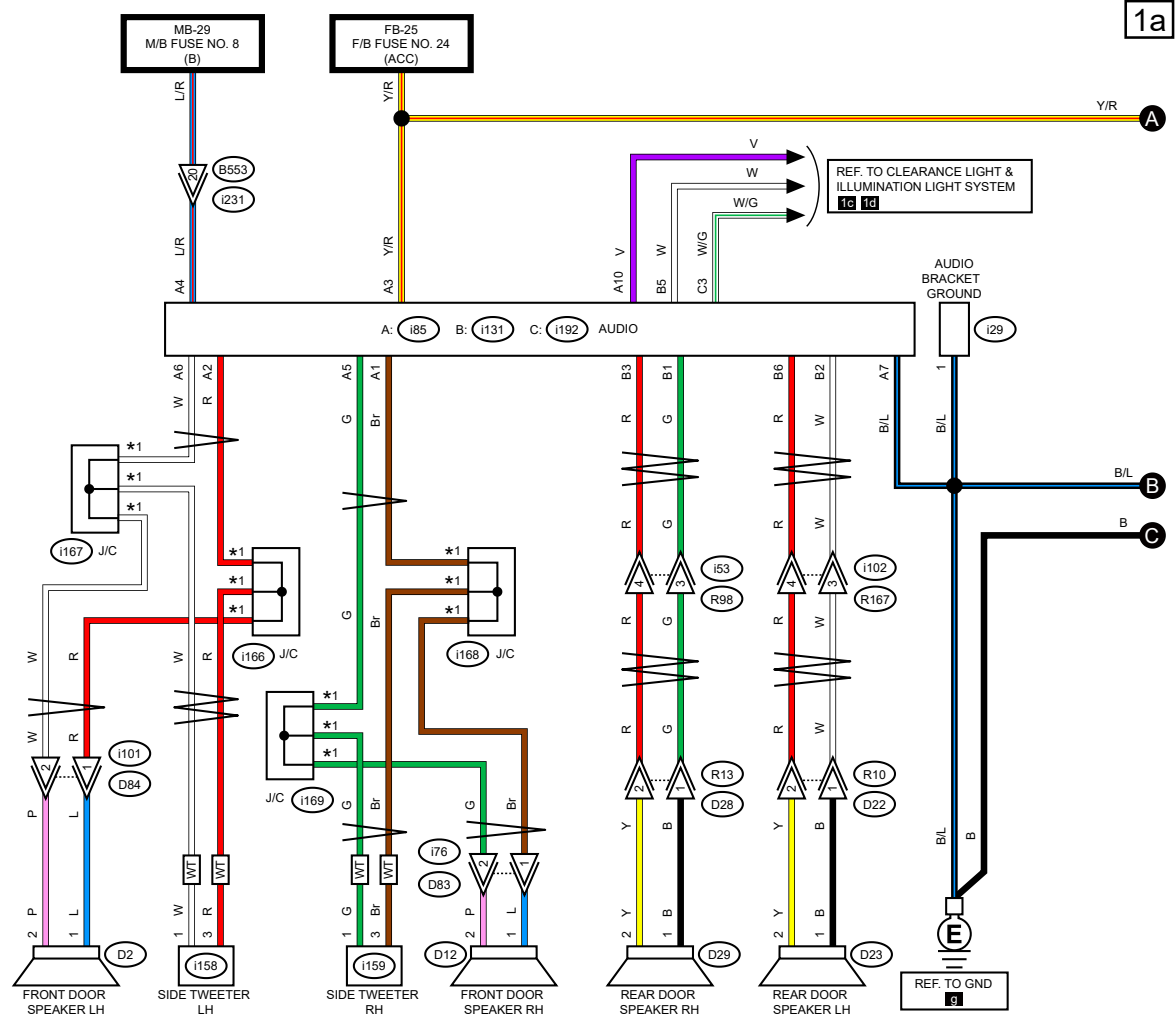
see

1. 6.2 INCH DISPLAY

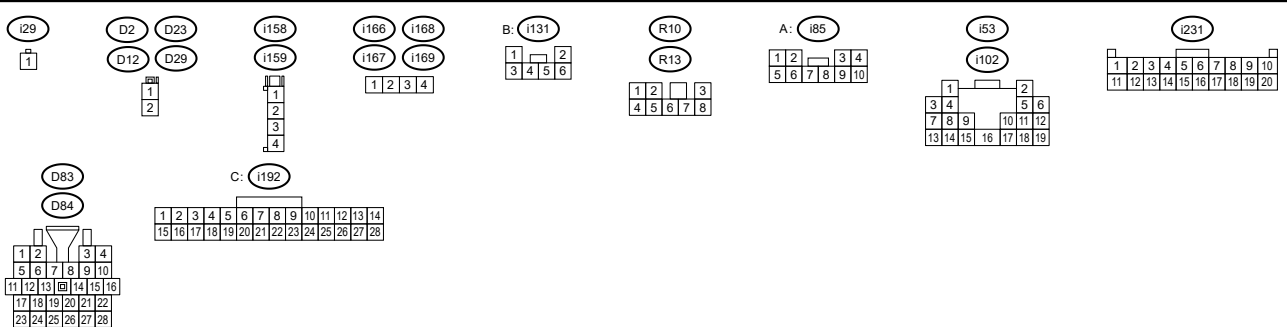


1a

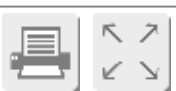
1a



WT : WITH TWEETER
 *1 : TERMINAL No. OPTIONAL ARRANGEMENT

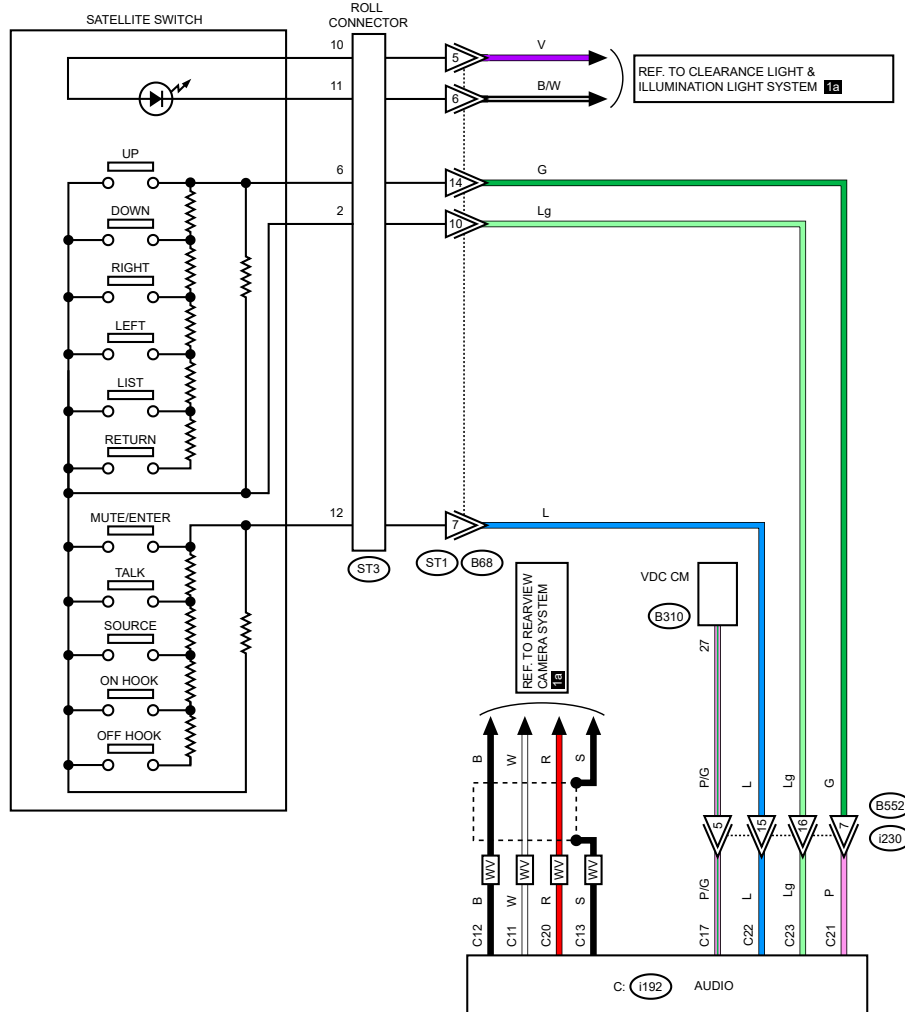


WI-65515

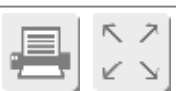
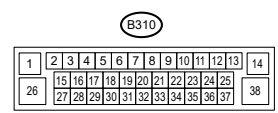
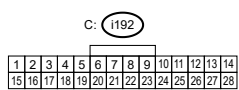
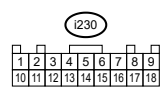
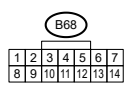
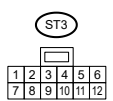


1b

1b

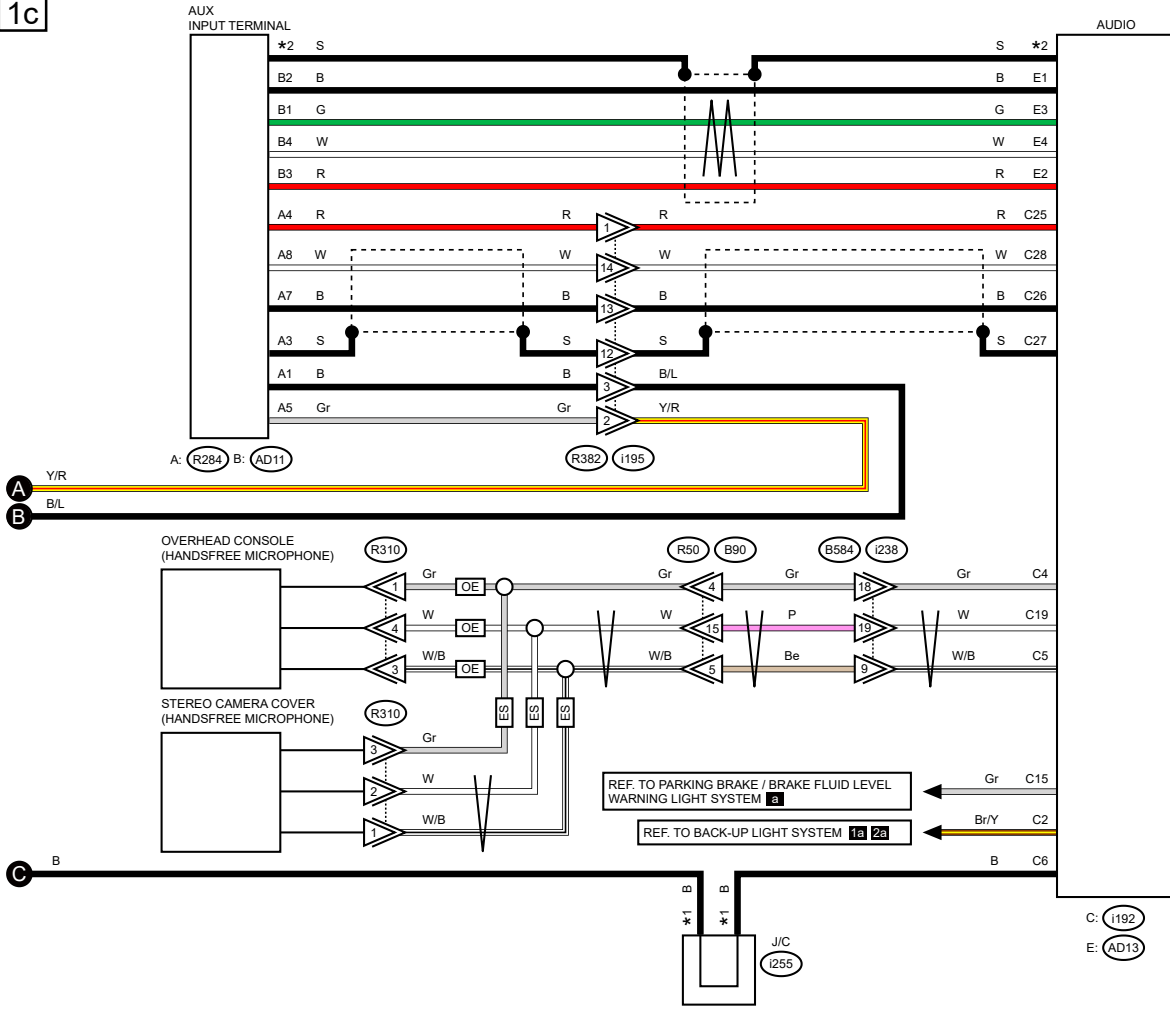


WV : WITH REARVIEW CAMERA



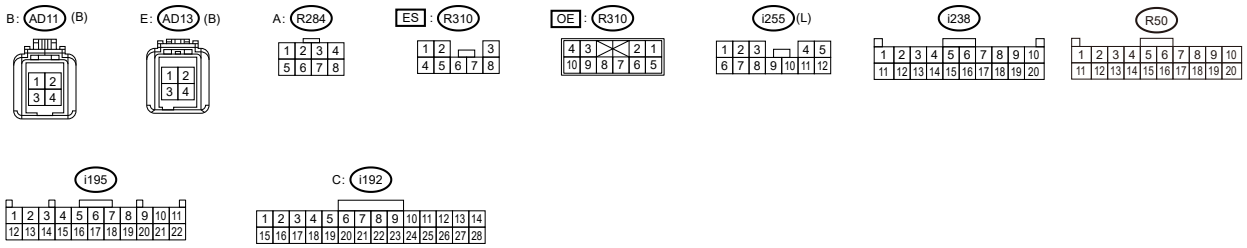
1c

1c



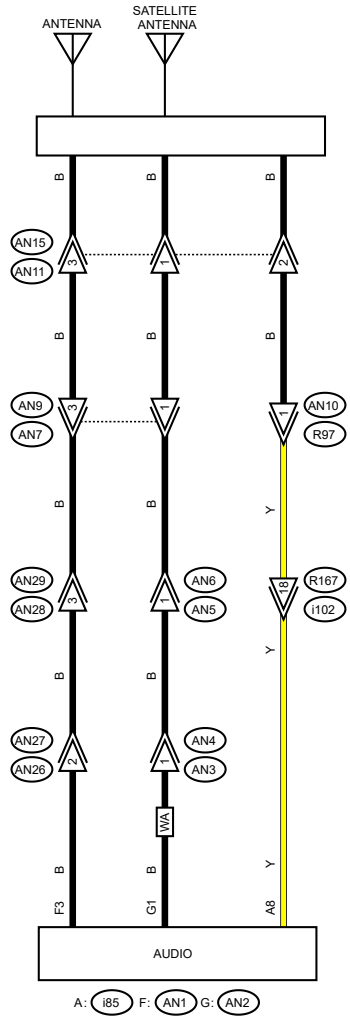
OE : WITHOUT EyeSight
 ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : SHIELD CONNECTOR

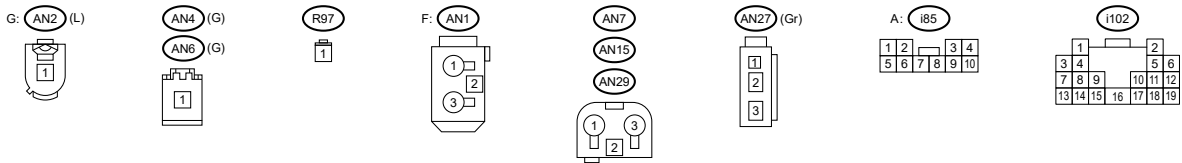


1d

1d



WA : WITH SATELLITE ANTENNA



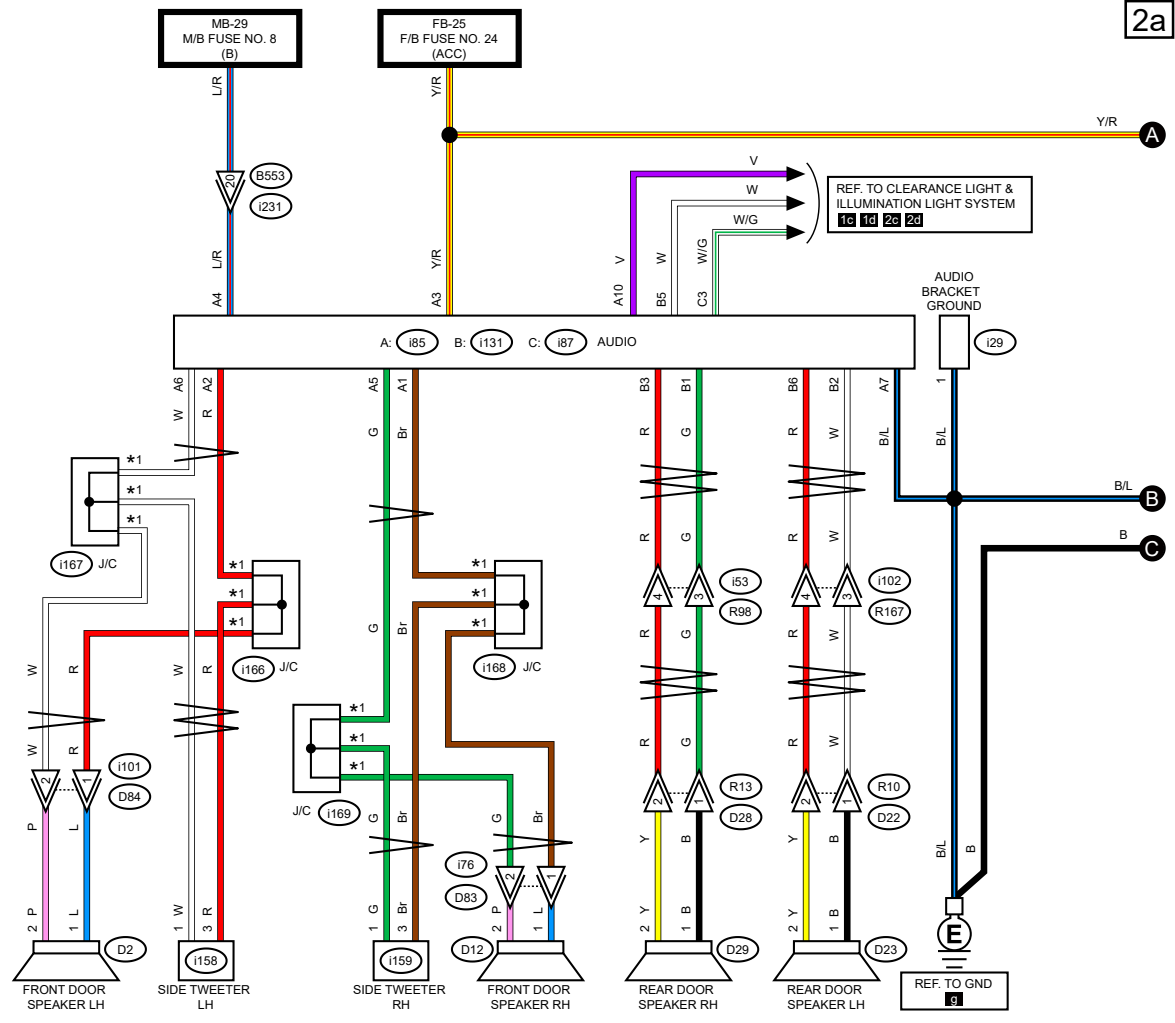
WI-65518

2. 7 INCH DISPLAY(WITHOUT AUDIO AMPLIFIER, WITHOUT TELEMATICS)

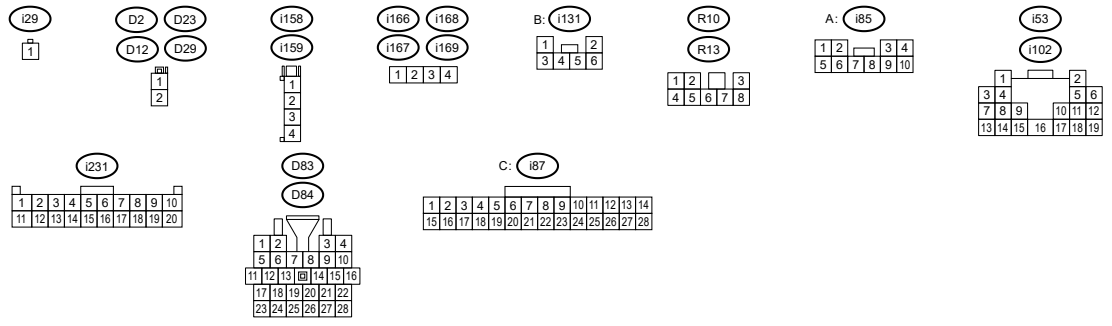


2a

2a



*1 : TERMINAL No. OPTIONAL ARRANGEMENT

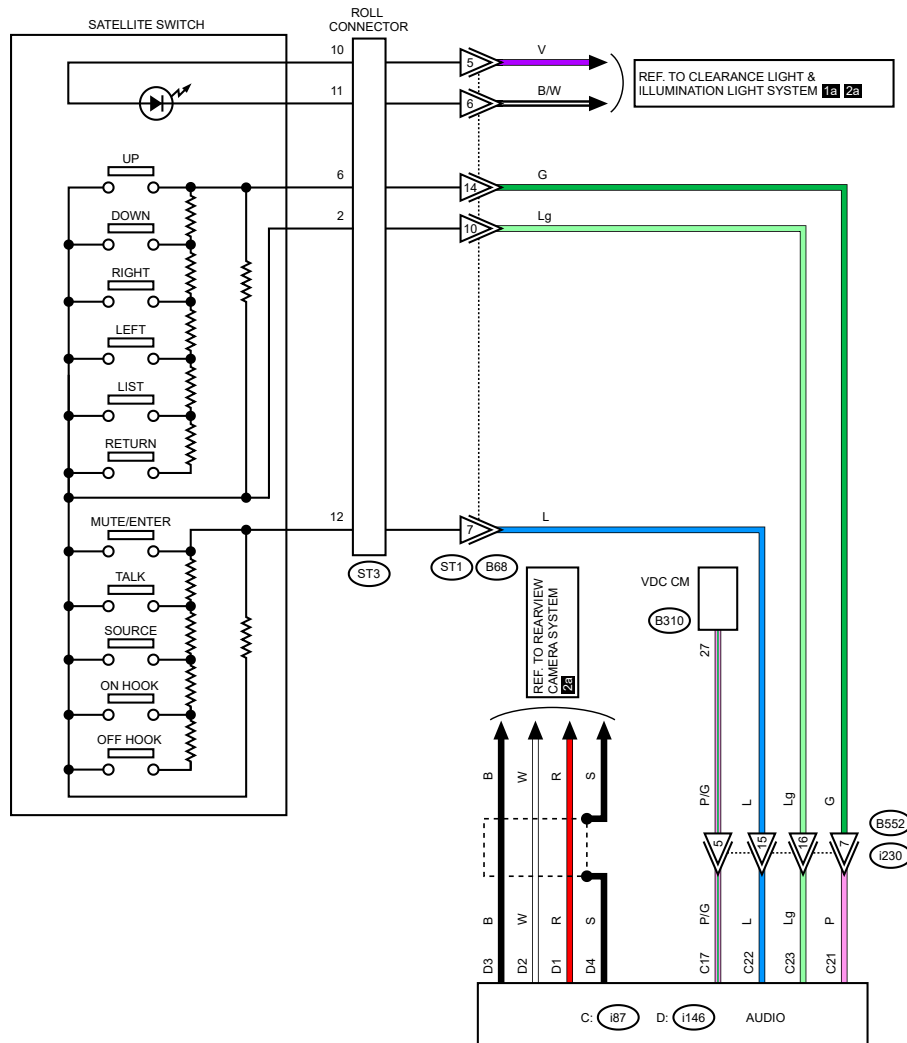


WI-65519



2b

2b



D: i146

1	2	3	4	5
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ST3

1	2	3	4	5	6
7	8	9	10	11	12

B68

1	2	3	4	5	6	7
8	9	10	11	12	13	14

i230

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

C: i87

1	2	3	4	5	6	7	8	9	10	11	12	13	14
15	16	17	18	19	20	21	22	23	24	25	26	27	28

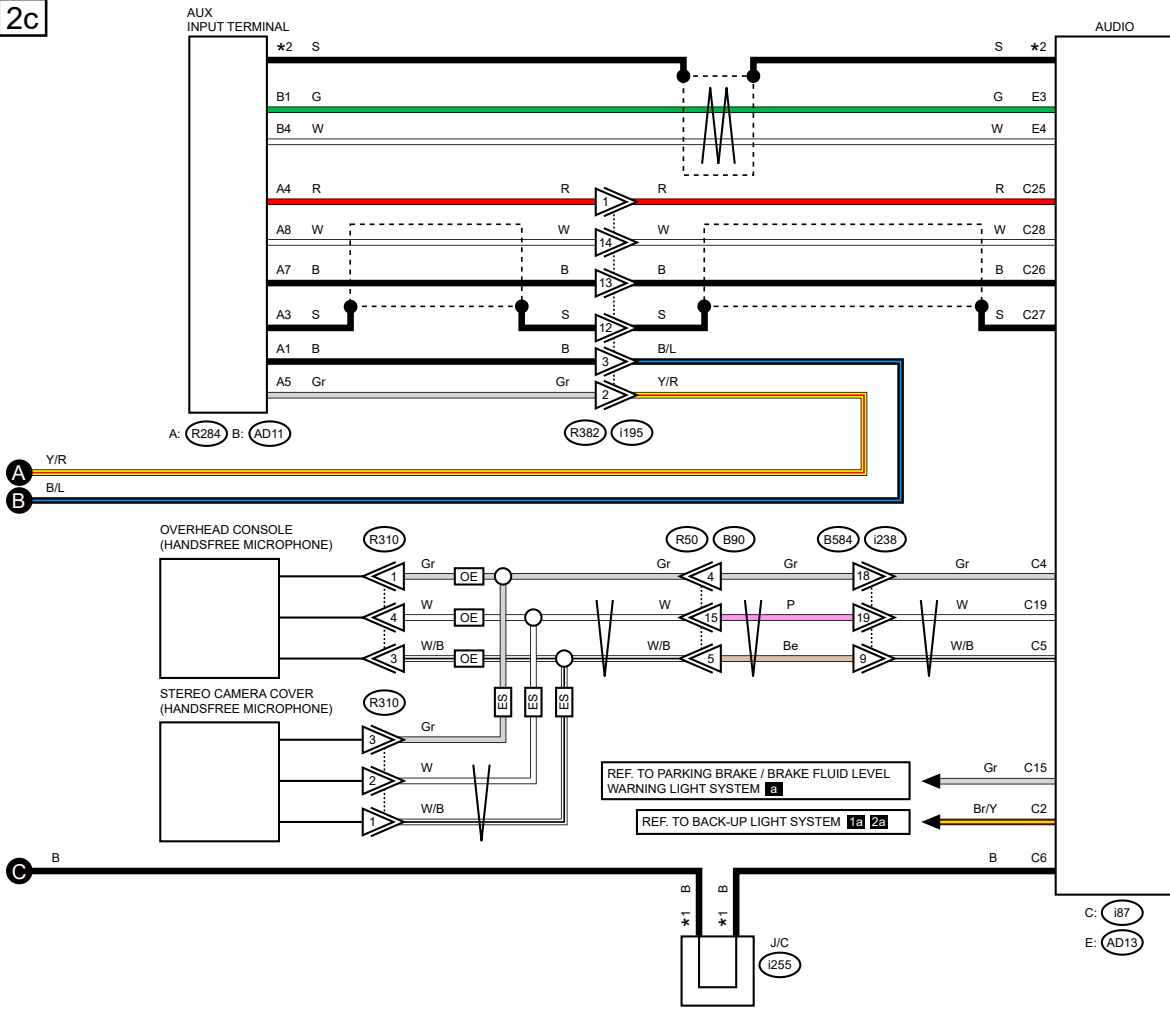
B310

1	2	3	4	5	6	7	8	9	10	11	12	13	14										
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38



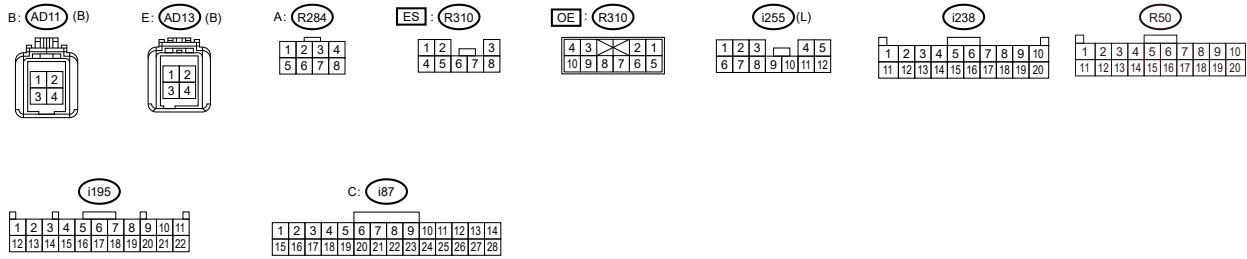
2c

2c



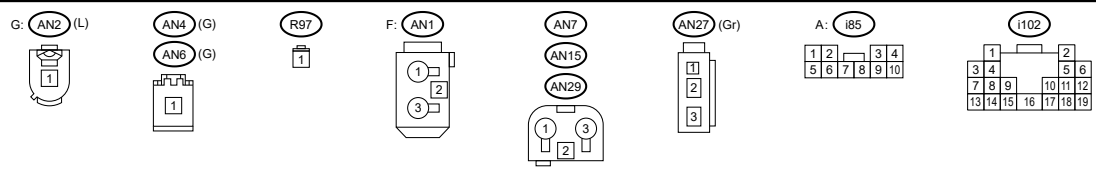
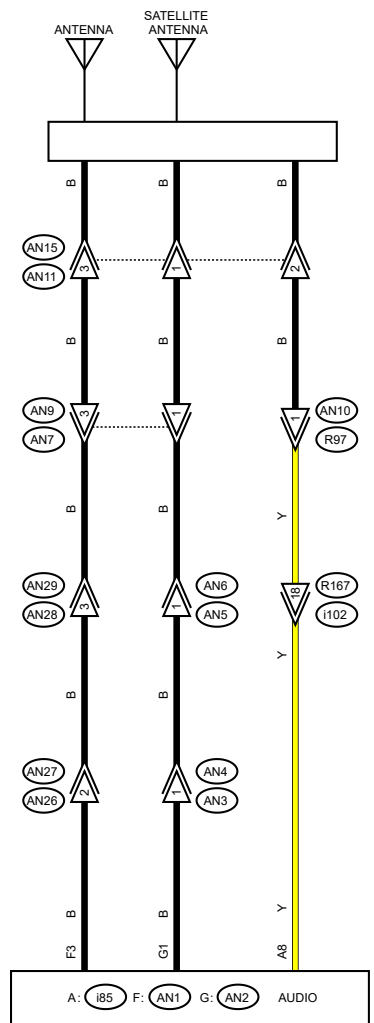
OE : WITHOUT EyeSight
 ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : SHIELD CONNECTOR



2d

2d



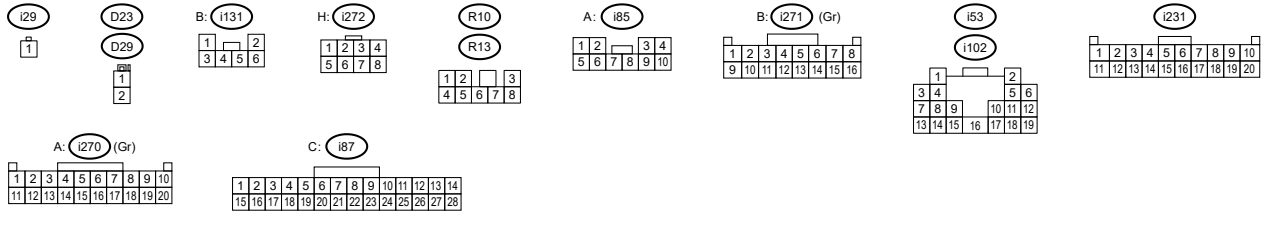
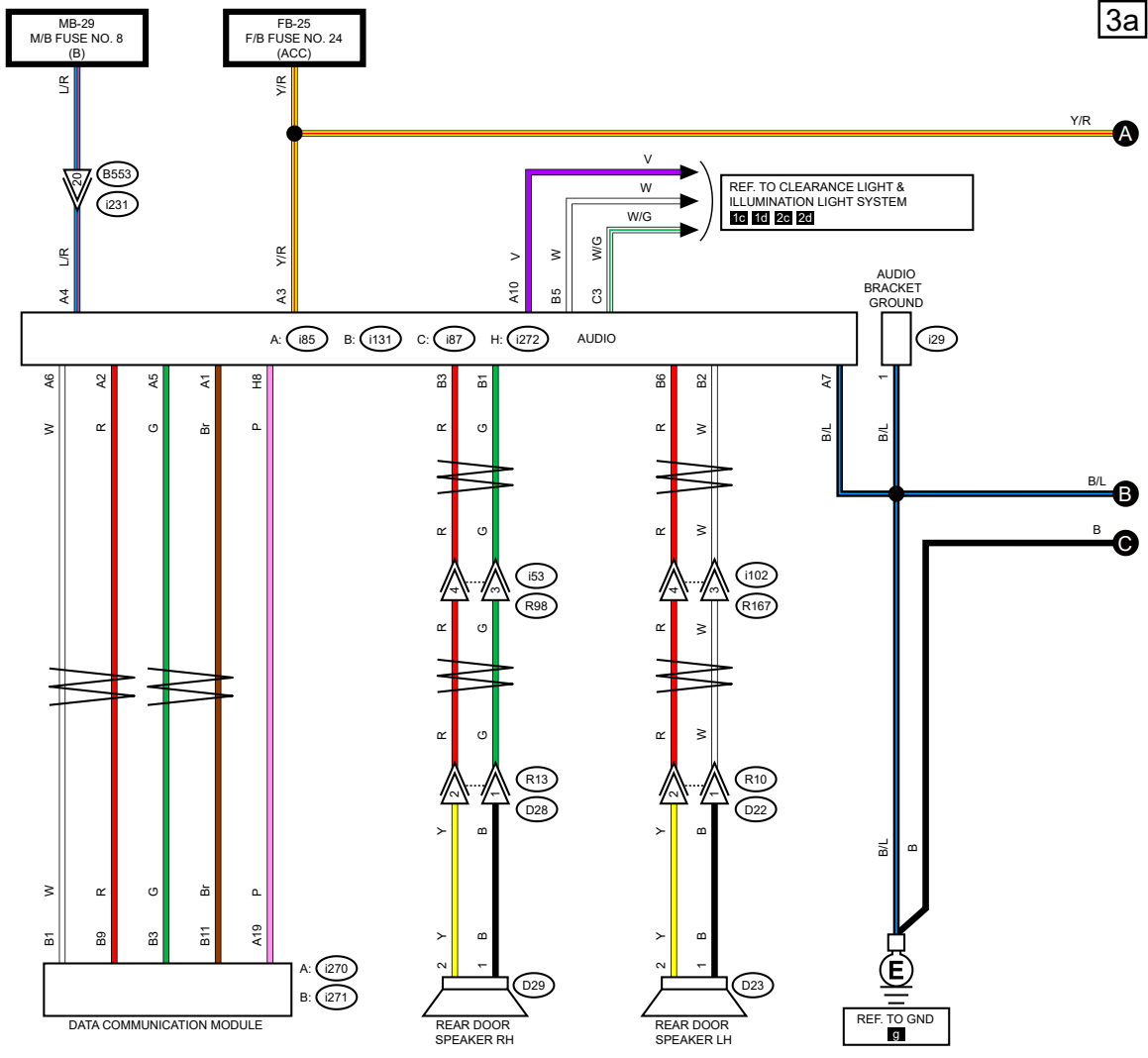
WI-65522

3. 7 INCH DISPLAY(WITHOUT AUDIO AMPLIFIER, WITH TELEMATICS)



3a

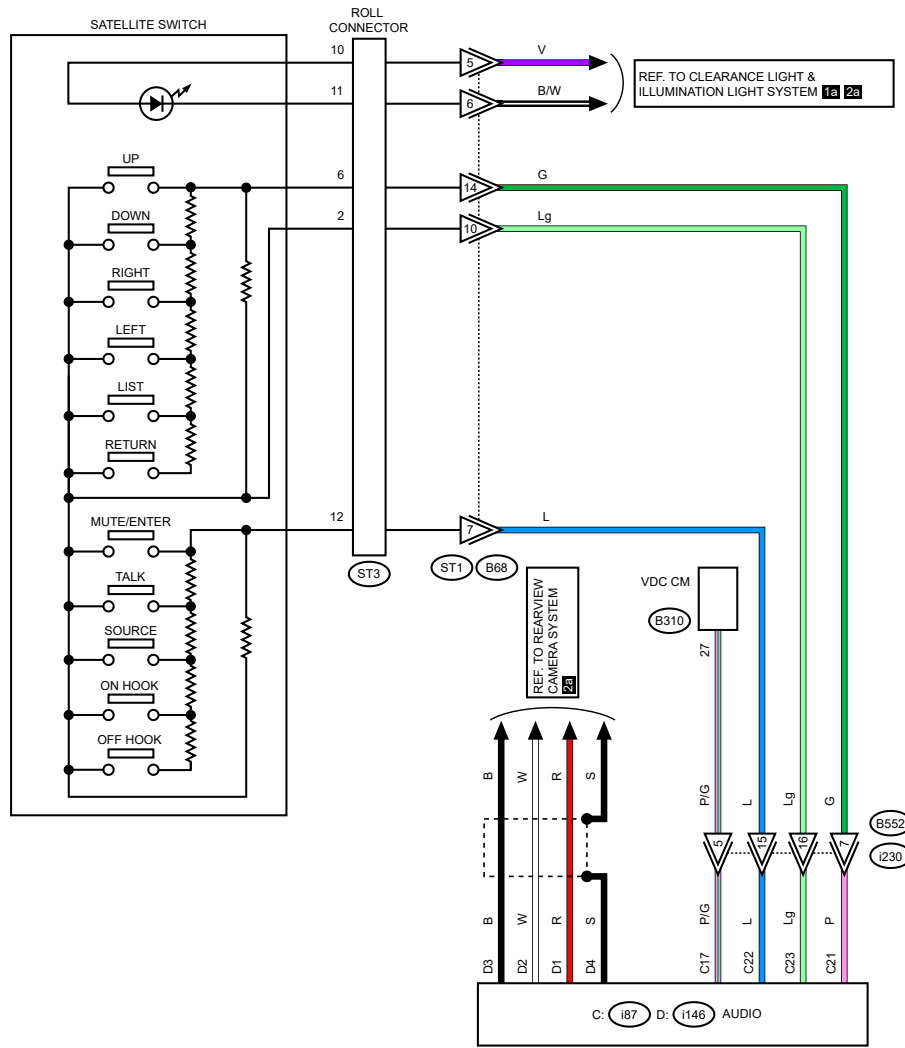
3a



WI-65523



3b



3b

D: (1146)

1	2	3	4	5
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ST3

1	2	3	4	5	6
7	8	9	10	11	12

B68

1	2	3	4	5	6	7
8	9	10	11	12	13	14

I230

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

C: (187)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
15	16	17	18	19	20	21	22	23	24	25	26	27	28

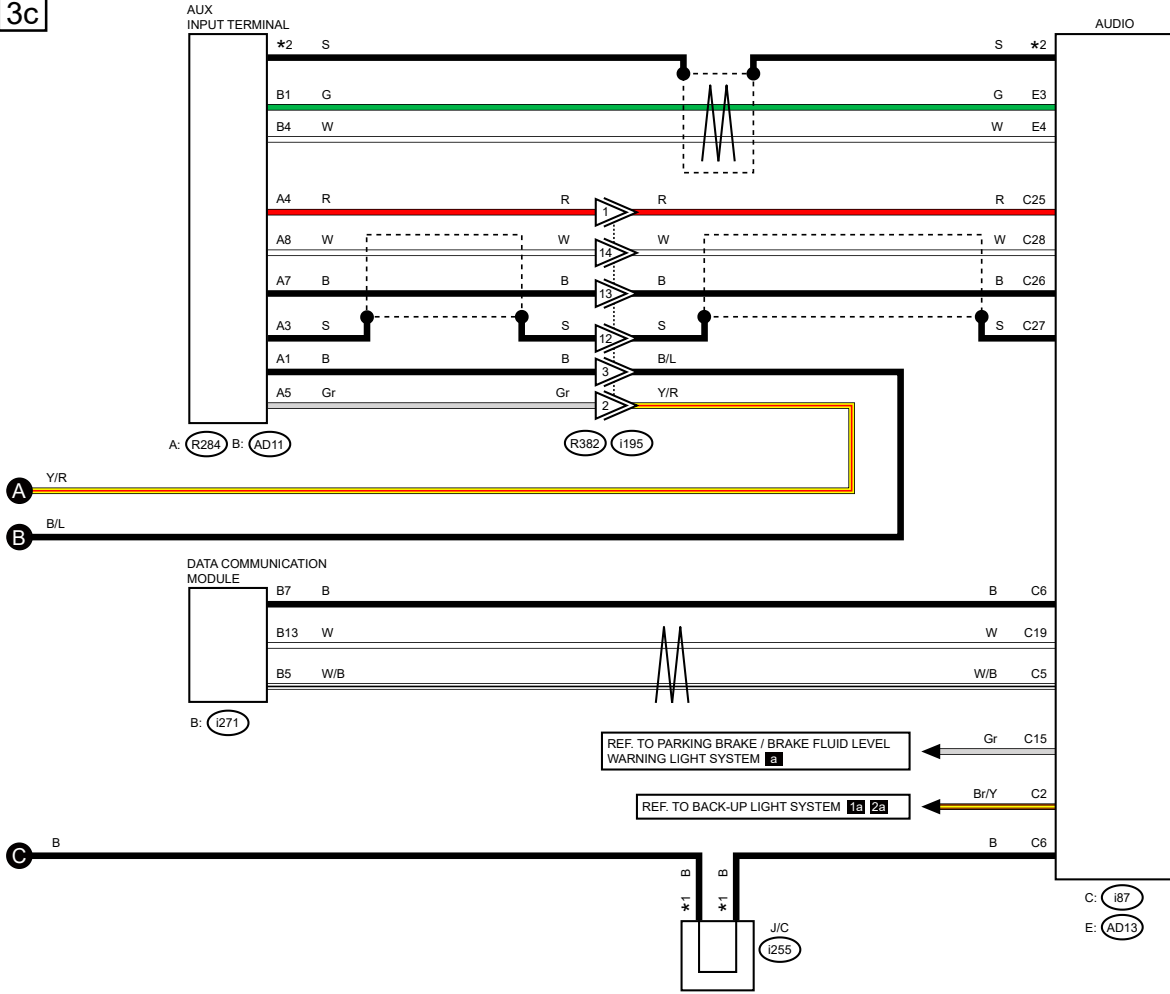
B310

1	2	3	4	5	6	7	8	9	10	11	12	13	14
15	16	17	18	19	20	21	22	23	24	25	26	27	28
29	30	31	32	33	34	35	36	37	38				

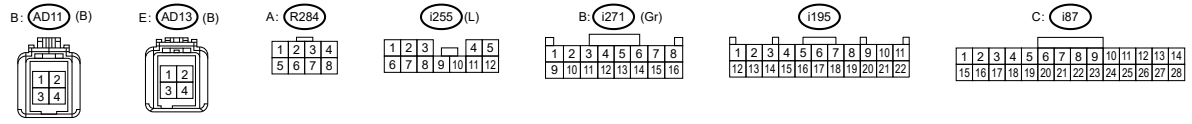


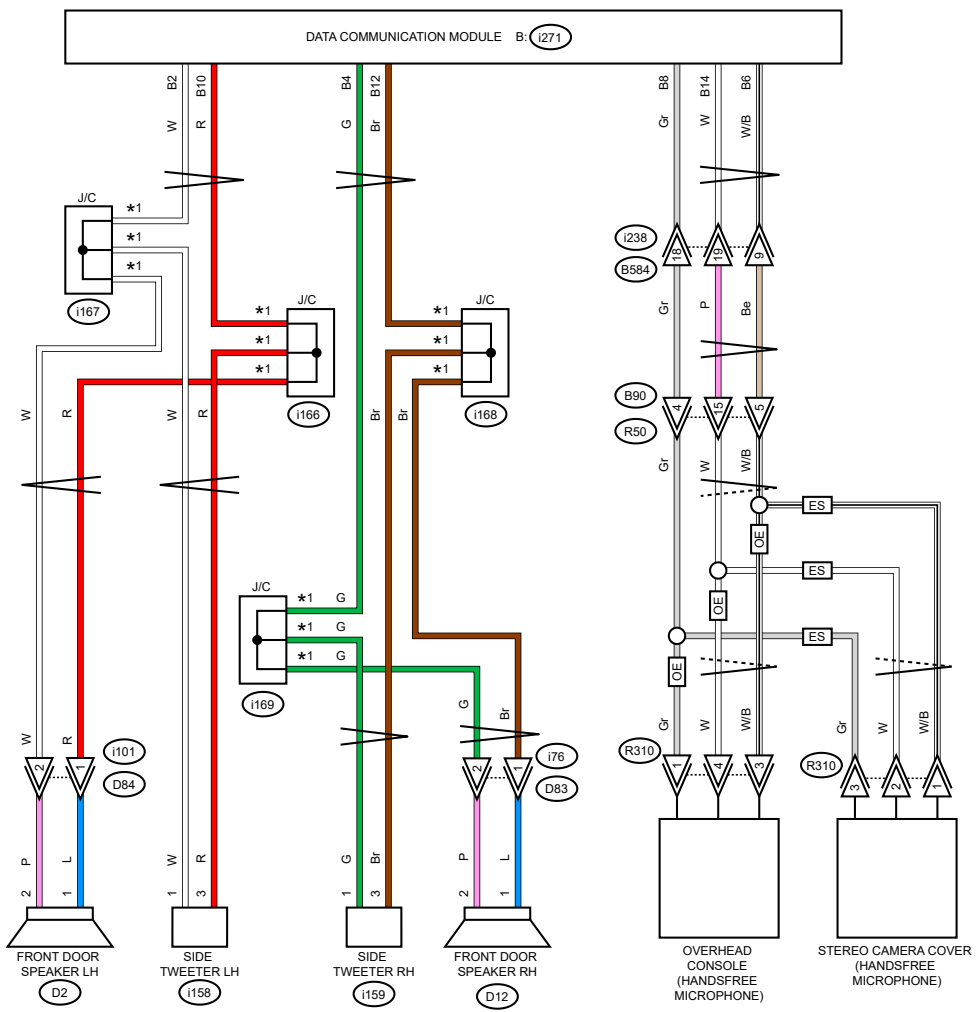
3c

3c



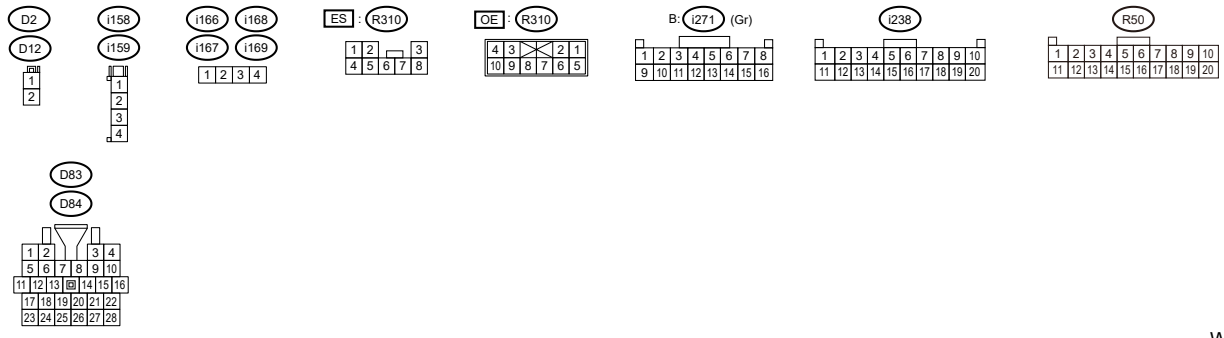
*1 : TERMINAL No. OPTIONAL ARRANGEMENT
*2 : SHIELD CONNECTOR

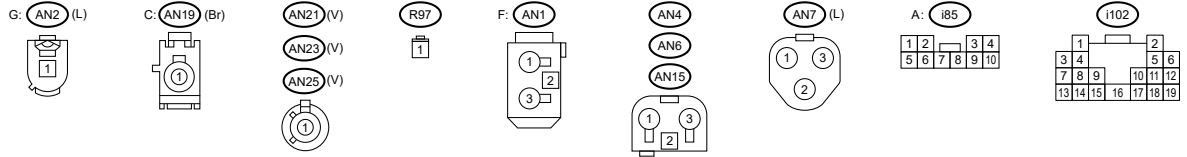
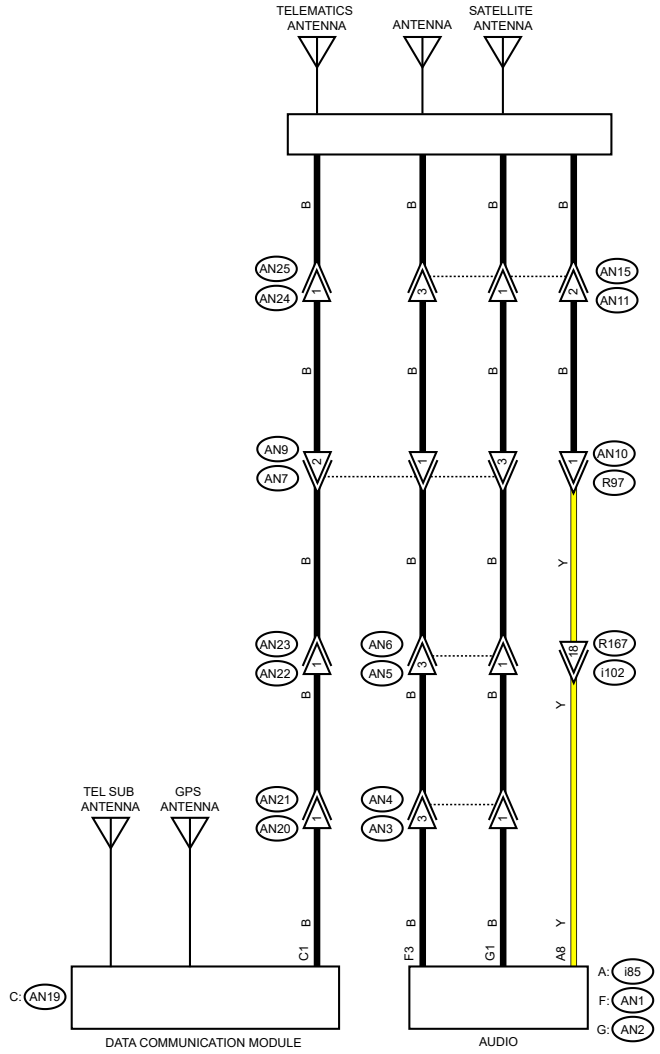




OE : WITHOUT EyeSight
 ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT



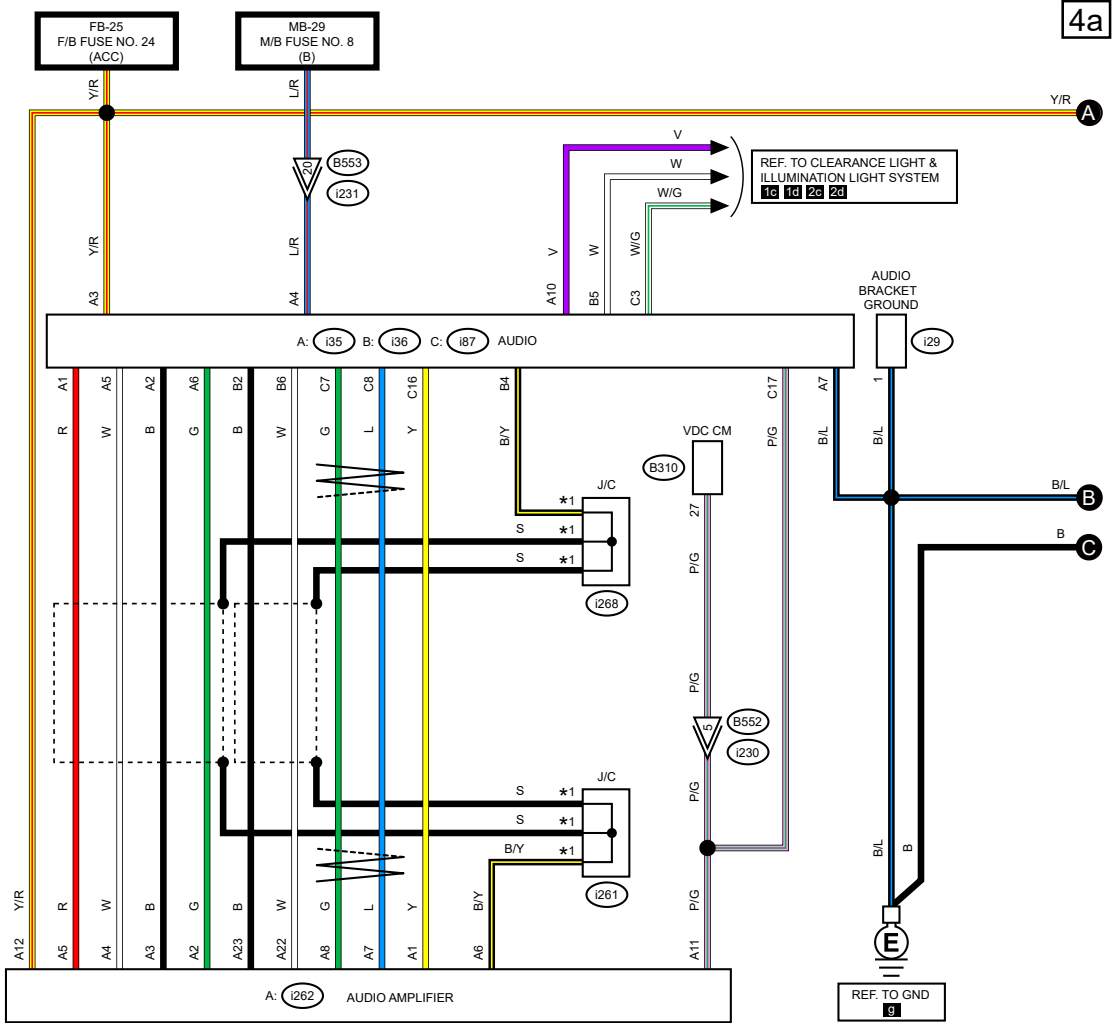


4. 7 INCH DISPLAY(WITH AUDIO AMPLIFIER, WITHOUT TELEMATICS)

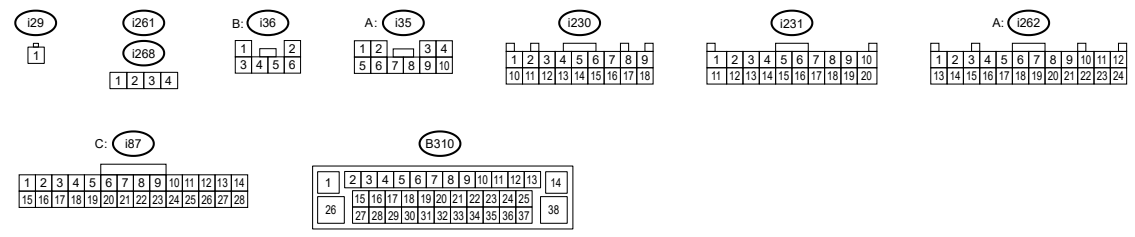


4a

4a



*1 : TERMINAL No. OPTIONAL ARRANGEMENT

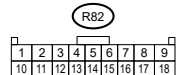
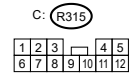
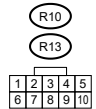
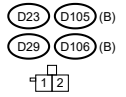
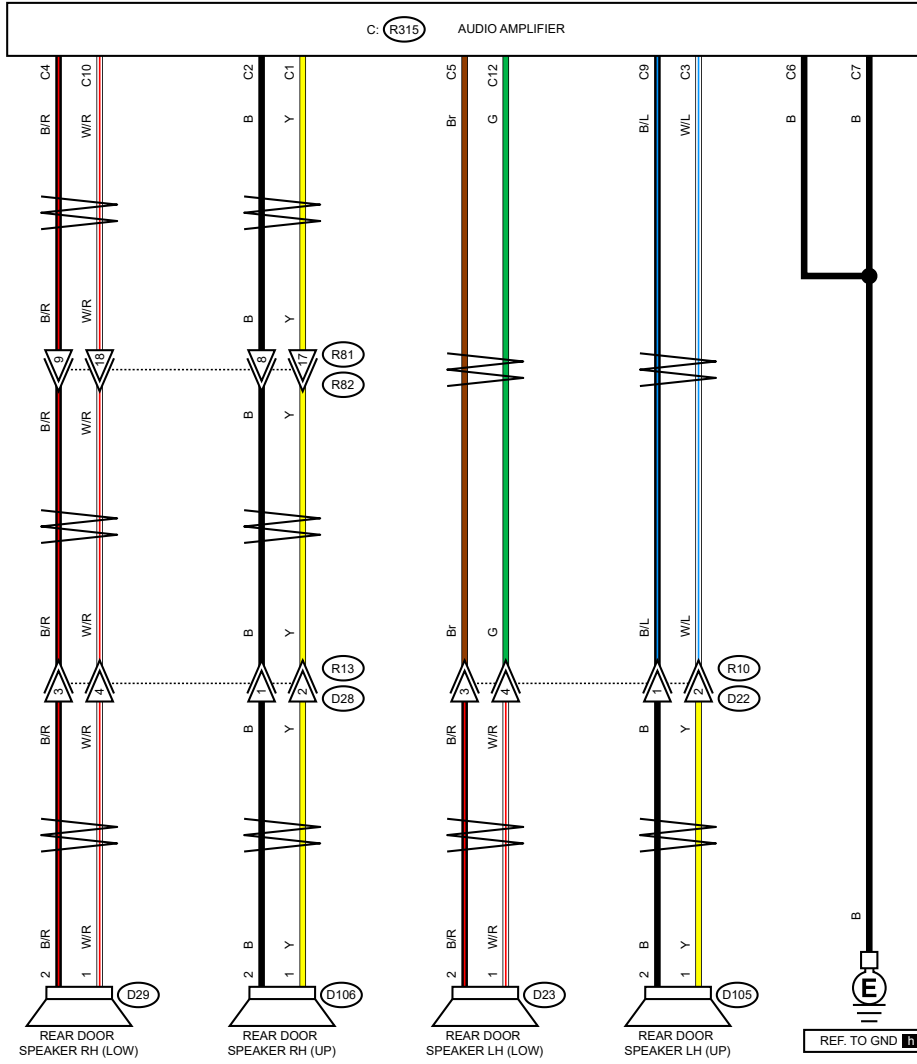


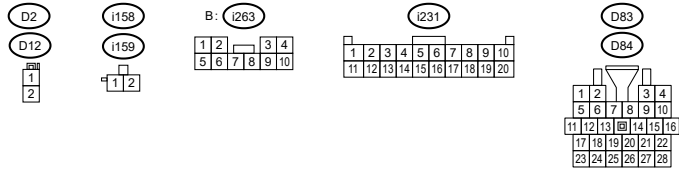
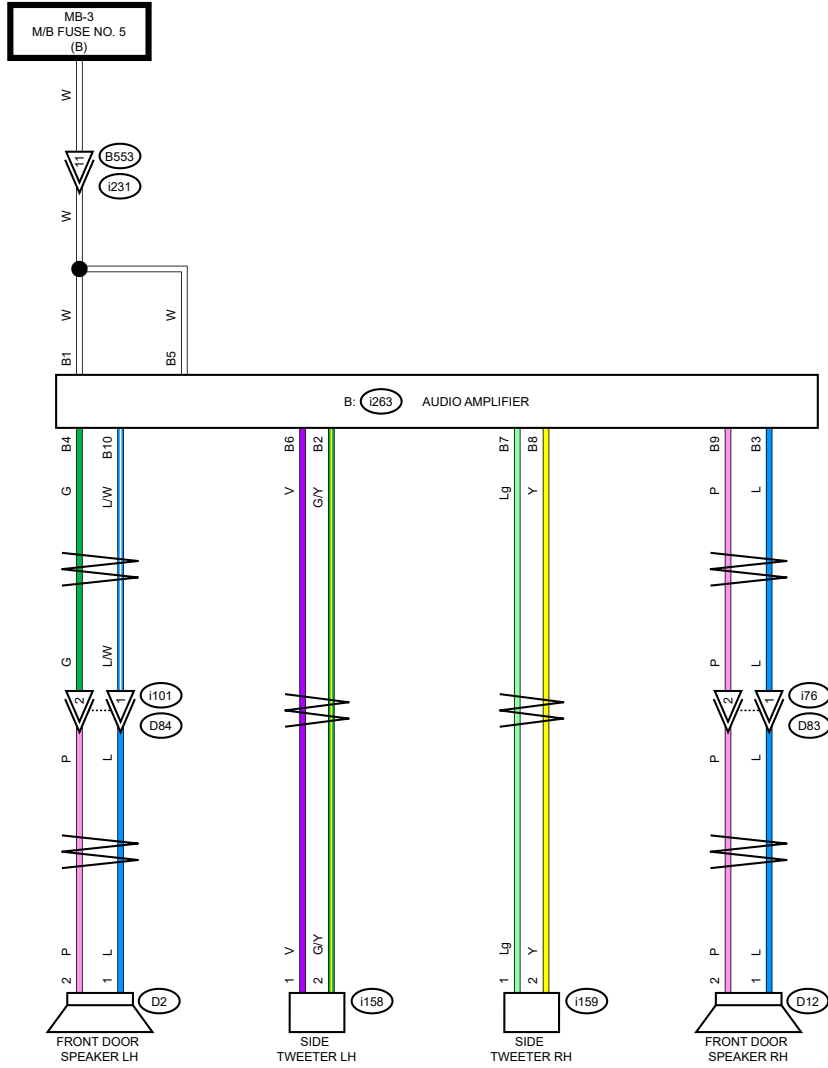
WI-65528



4b

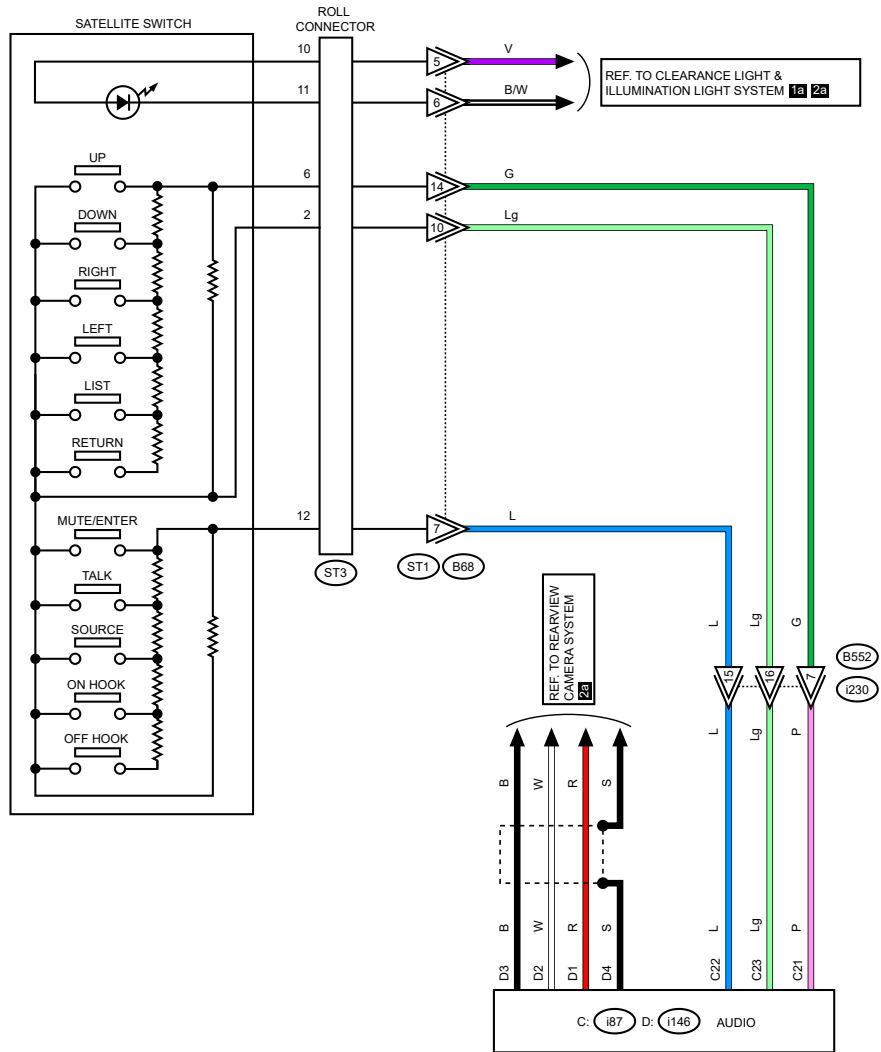
4b





4d

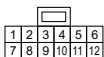
4d



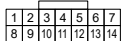
D: i146



ST3



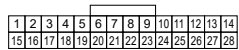
B68



1230

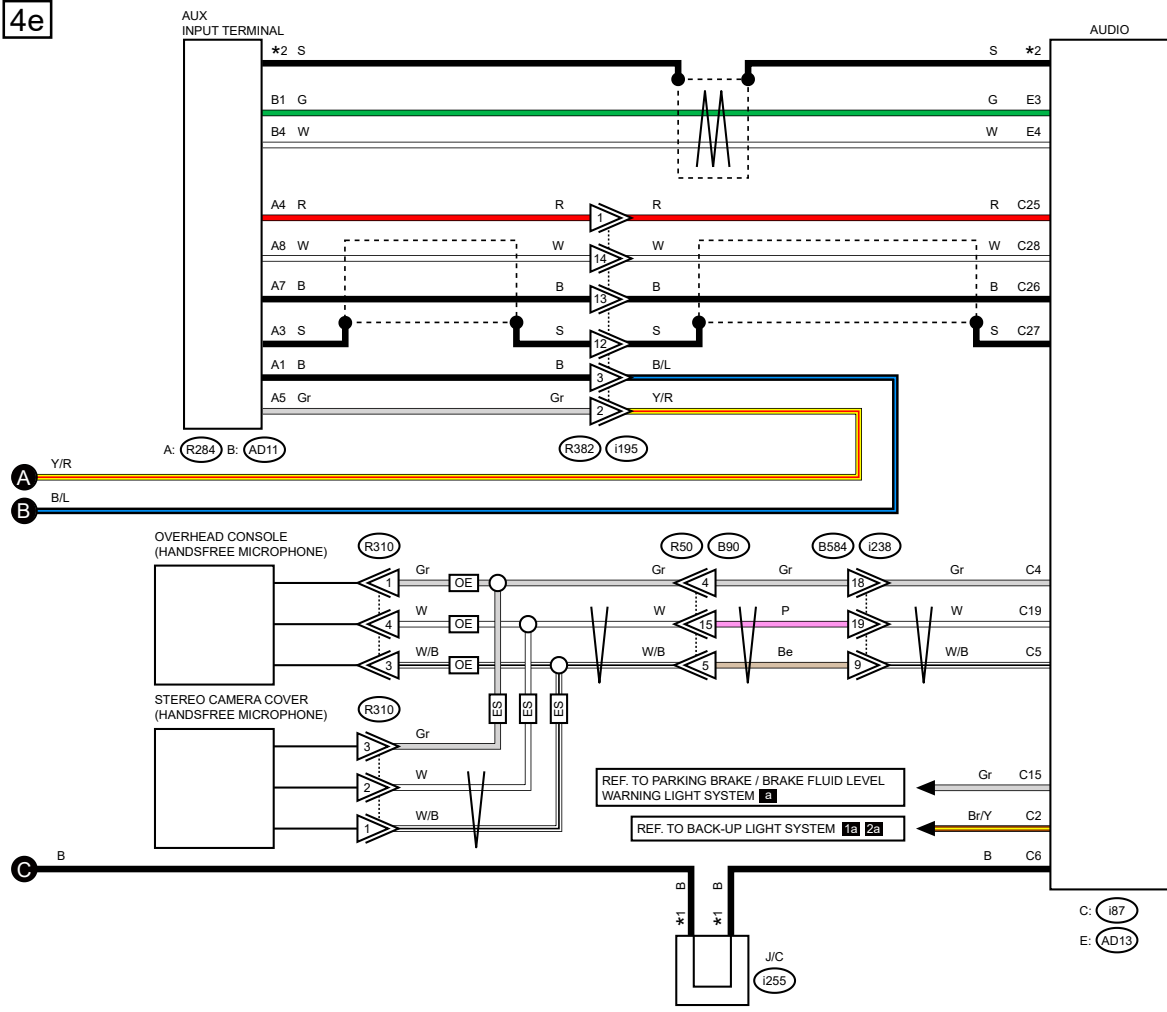


C: i87



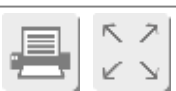
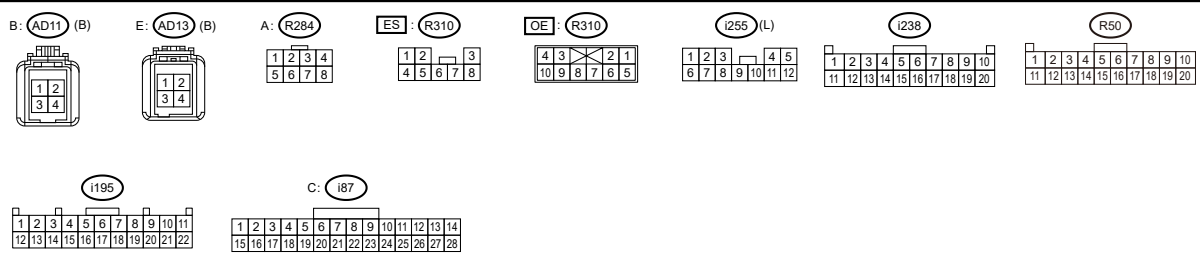
4e

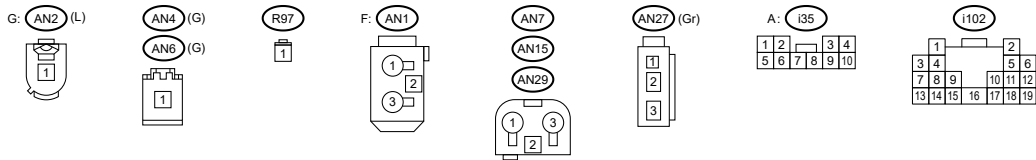
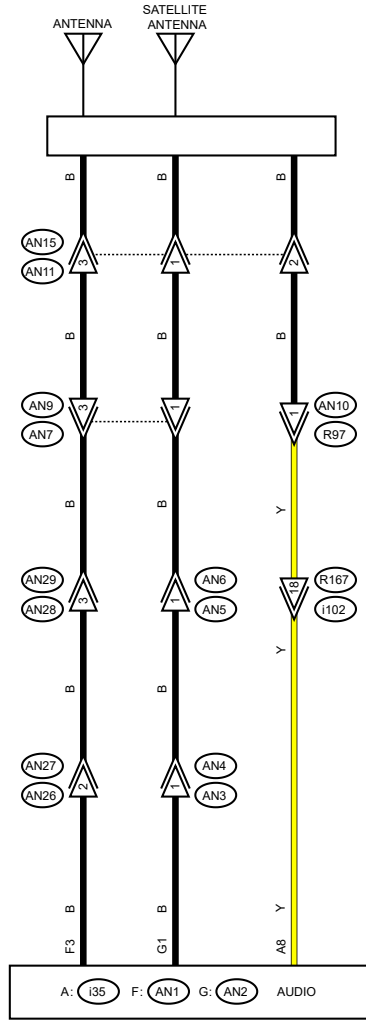
4e



OE : WITHOUT EyeSight
 ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : SHIELD CONNECTOR



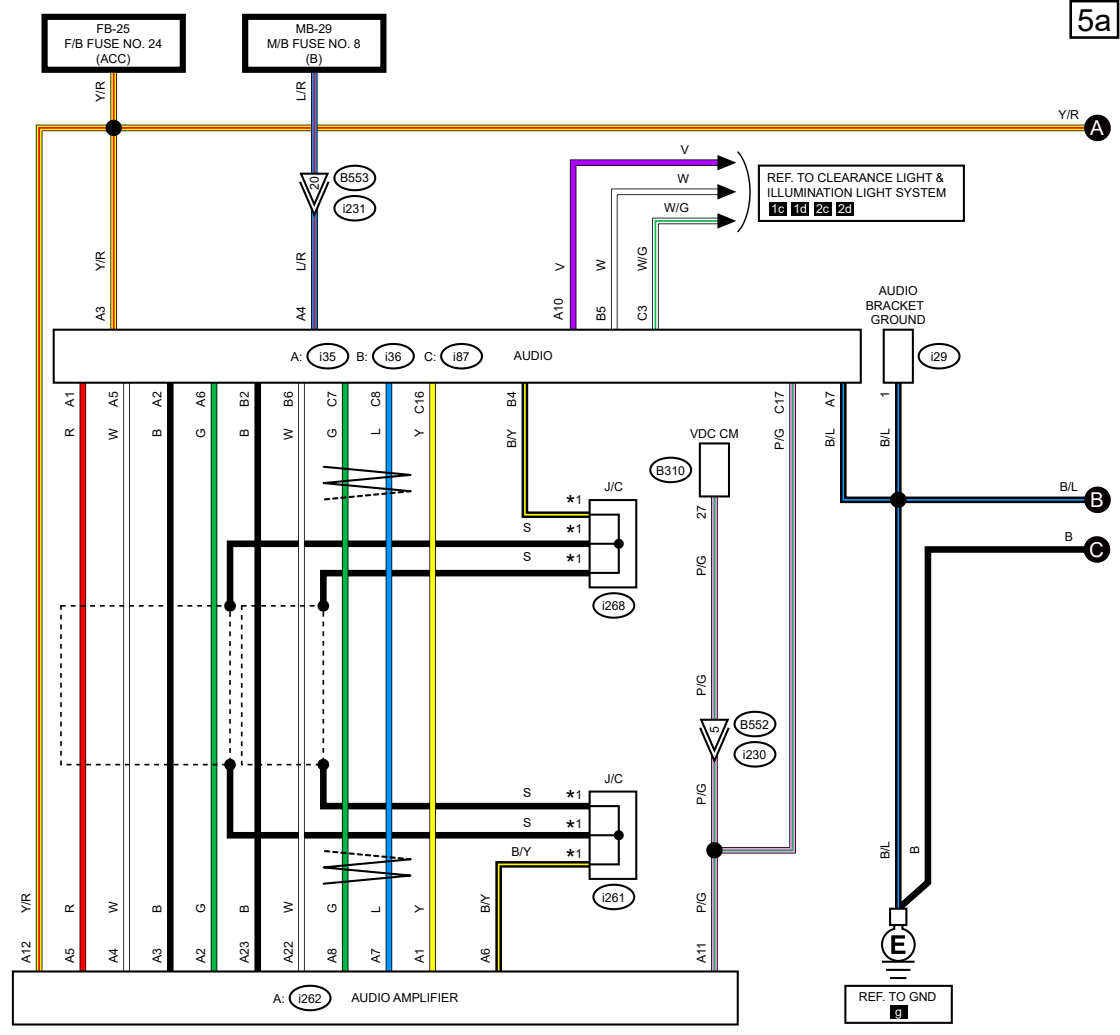


5. 7 INCH DISPLAY(WITH AUDIO AMPLIFIER, WITH TELEMATICS)

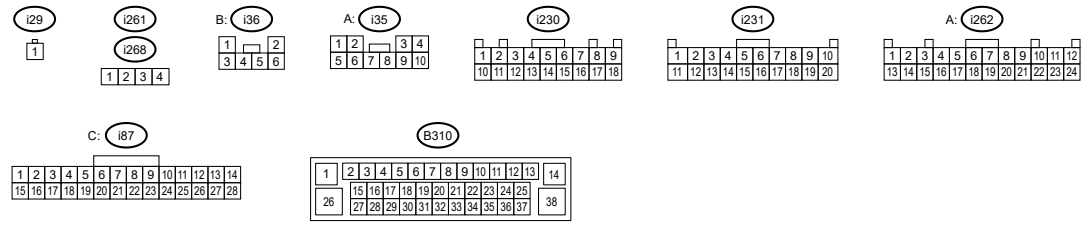


5a

5a



*1 : TERMINAL No. OPTIONAL ARRANGEMENT

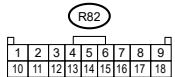
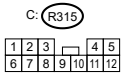
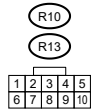
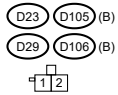
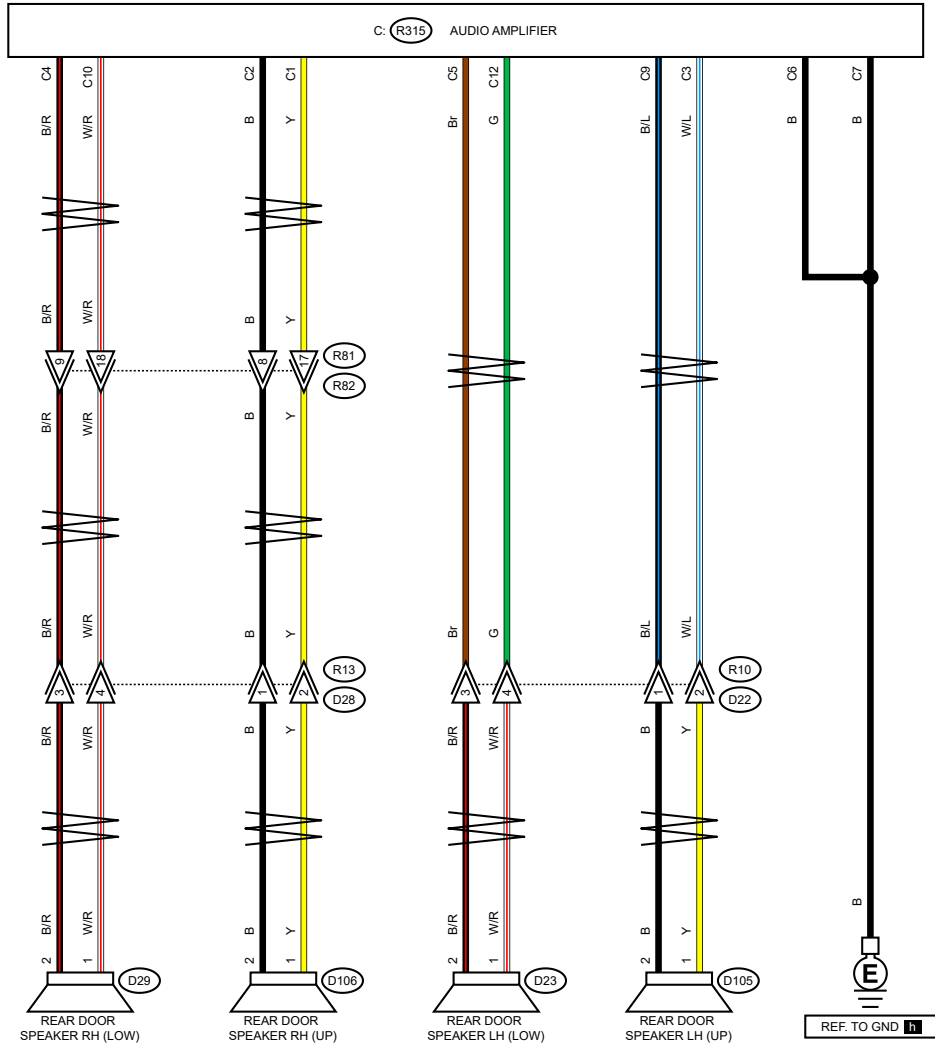


WI-65534



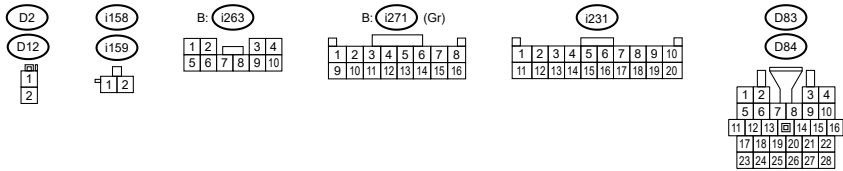
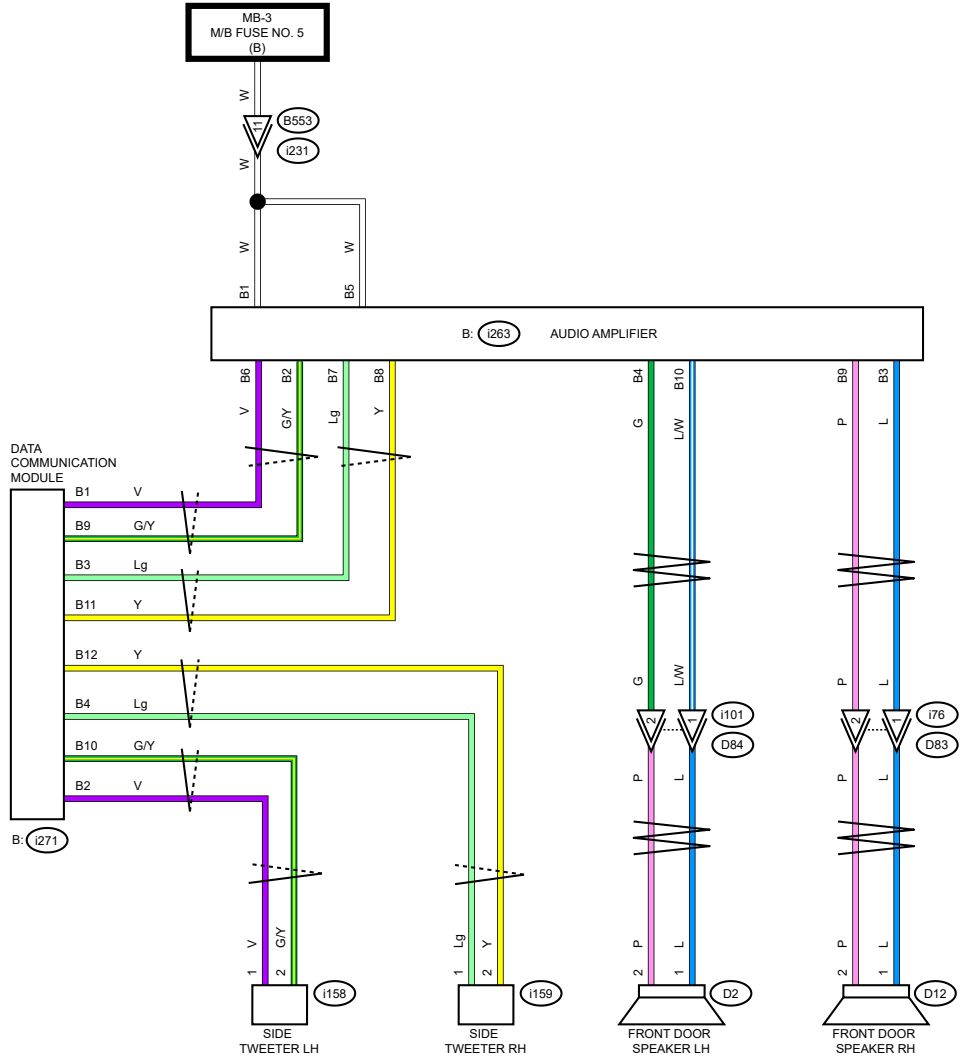
5b

5b



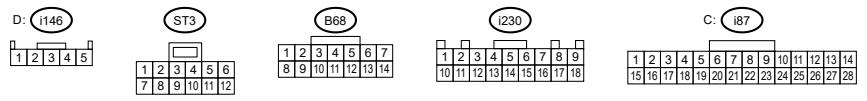
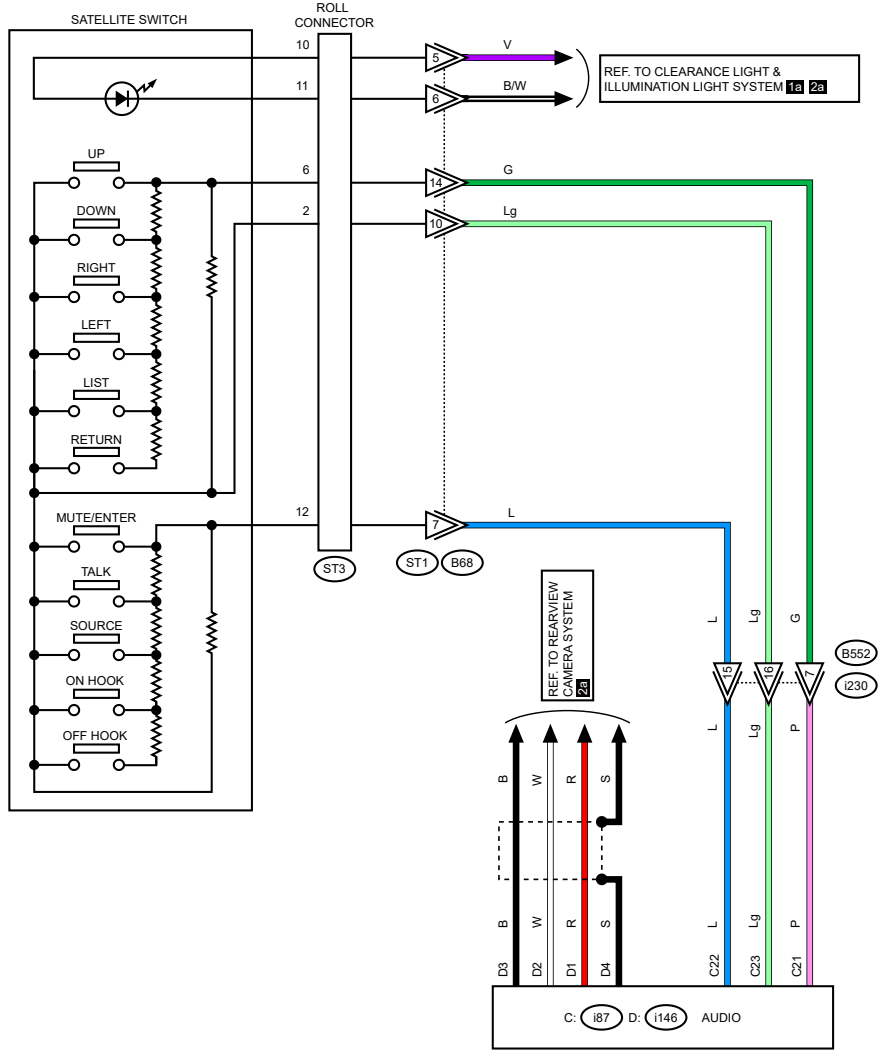
WI-65535





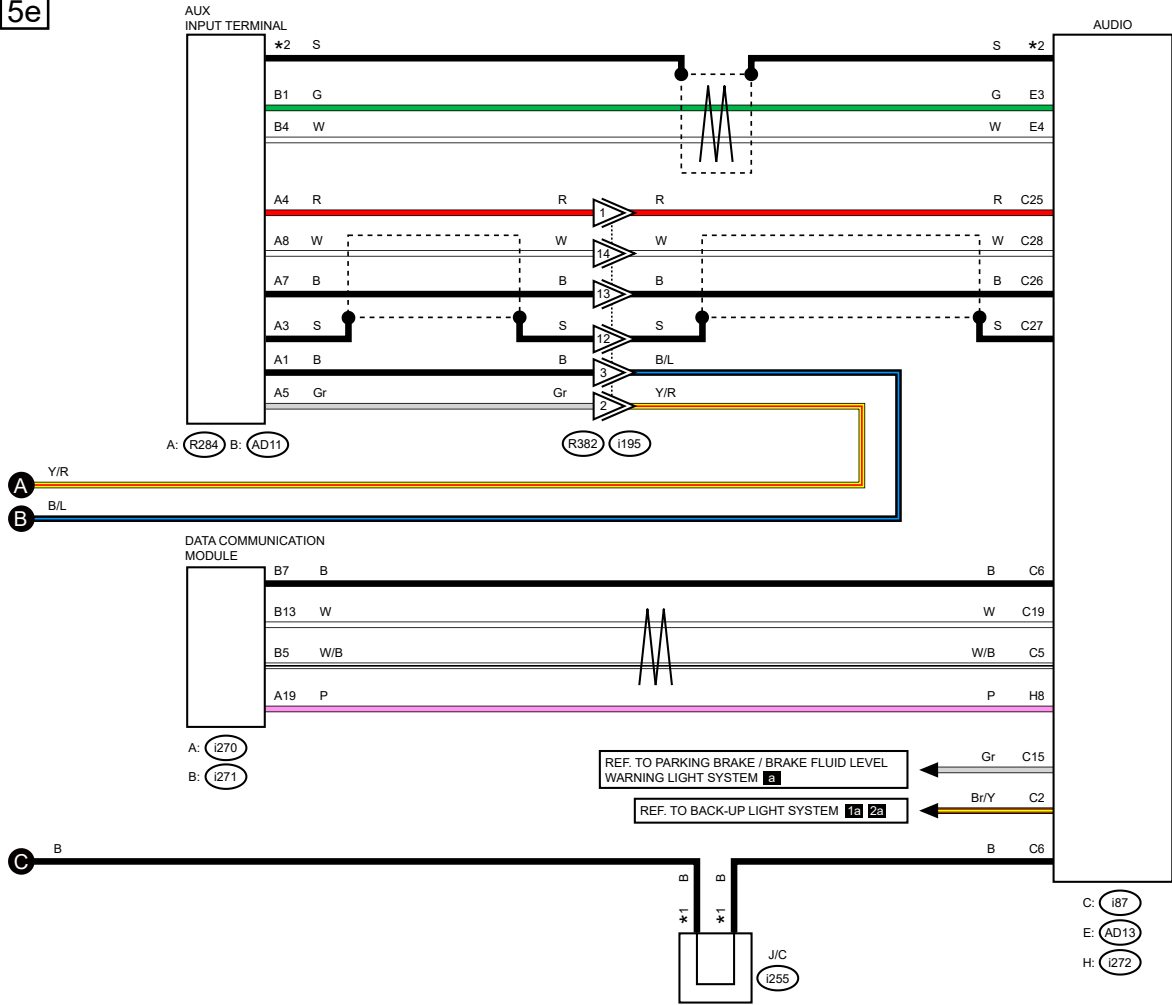
5d

5d

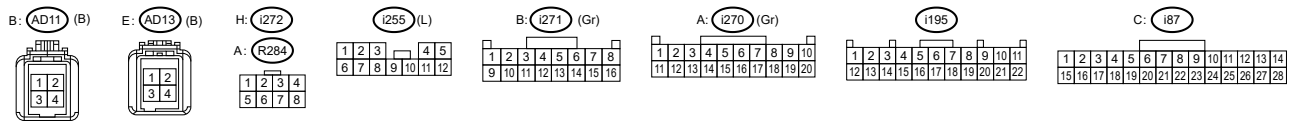


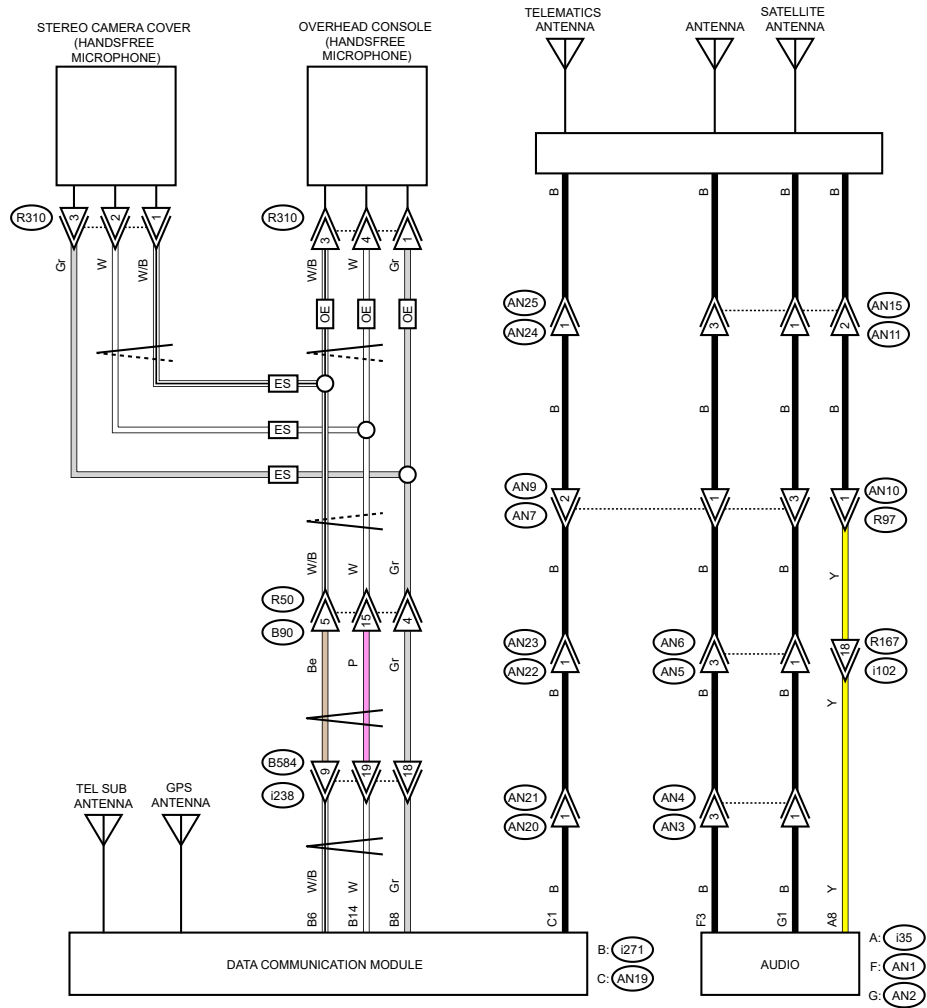
5e

5e

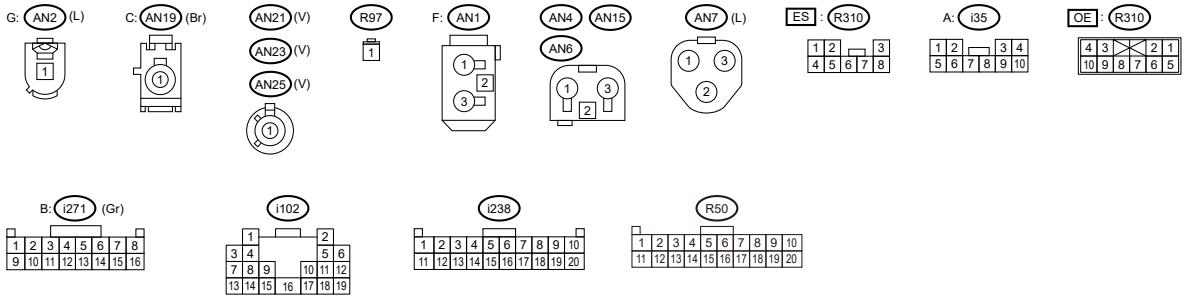


*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : SHIELD CONNECTOR





OE : WITHOUT EyeSight
 ES : WITH EyeSight



WIRING SYSTEM > Back-up Light System

WIRING DIAGRAM

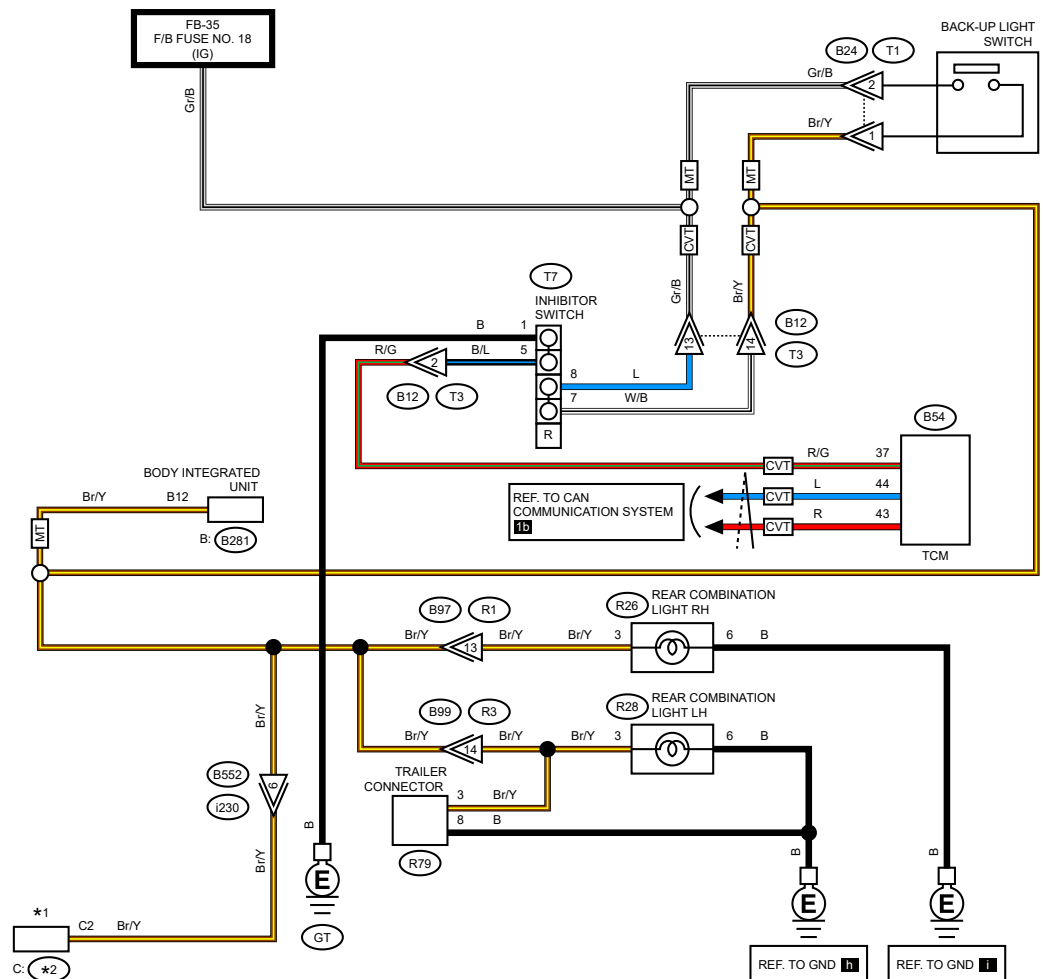
▼ Please select ▼ see

1. NON-TURBO MODEL

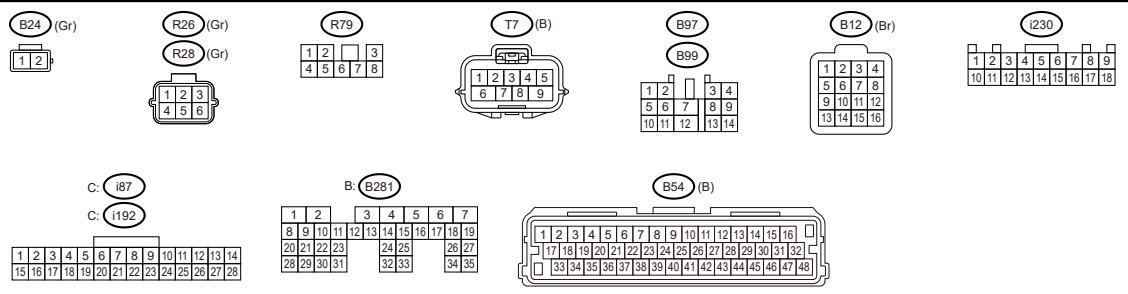


1a

1a



*1 : WITHOUT NAVIGATION : AUDIO
WITH NAVIGATION : NAVIGATION UNIT
*2 : 6.2 INCH DISPLAY : i192
7 INCH DISPLAY : i87



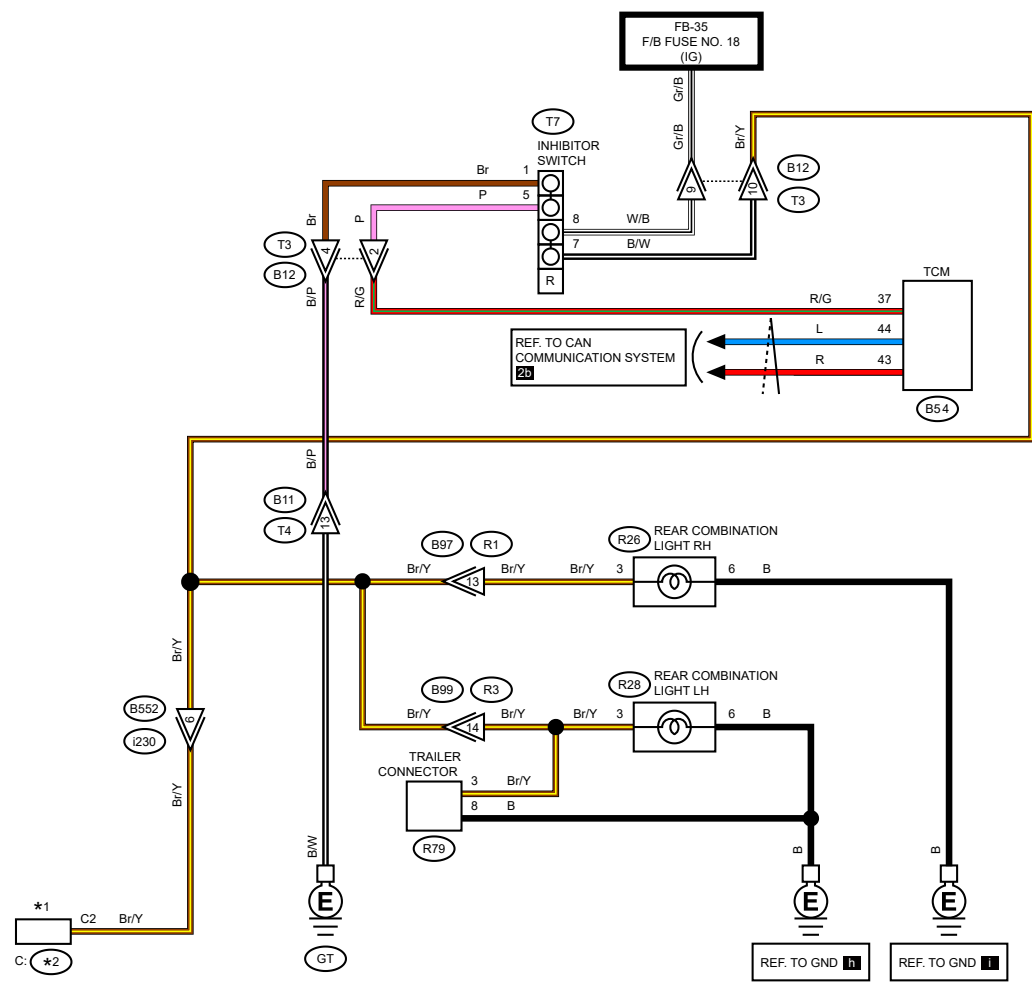
WI-65540

2. TURBO MODEL

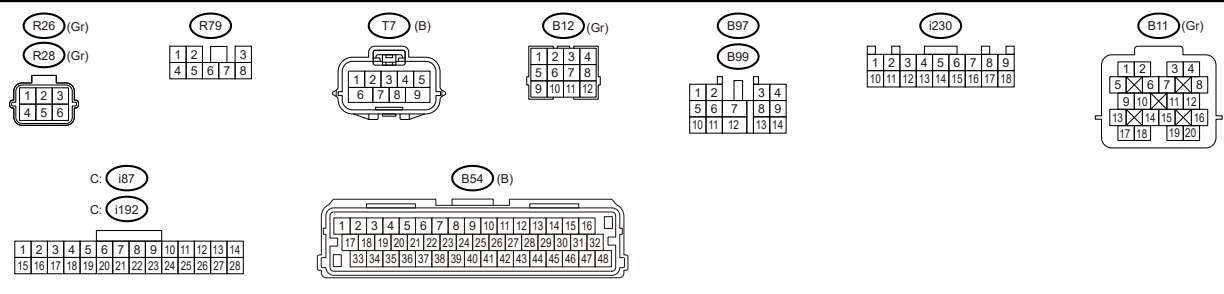


2a

2a



- *1 : WITHOUT NAVIGATION : AUDIO
WITH NAVIGATION : NAVIGATION UNIT
- *2 : 6.2 INCH DISPLAY : I192
7 INCH DISPLAY : I87



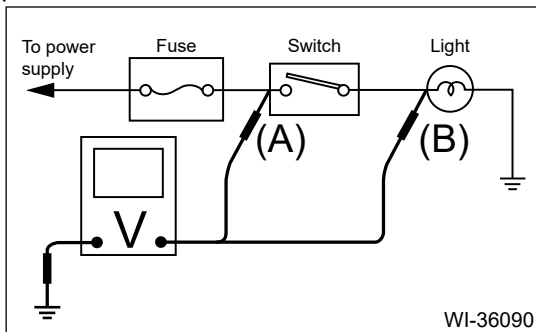
WIRING SYSTEM > Basic Diagnostic Procedure

BASIC INSPECTION

▼ Please select ▼ see

1. VOLTAGE MEASUREMENT

1. Using a voltmeter, connect the negative lead to a good ground point or negative battery terminal. Connect the positive lead to the connector or component terminal.
2. Contact the positive lead of the voltmeter on connector (A). The voltmeter will indicate a voltage.
3. Shift the positive lead contacting the connector (A) to the connector (B). The voltmeter will indicate no voltage.
4. Turn the switch to ON with the positive lead contacting the connector (B). The voltmeter will indicate a voltage and, at the same time, the light will illuminate.
5. The circuit is normal. If a problem such as a light failing to illuminate occurs, use the procedures above to track down the malfunction.

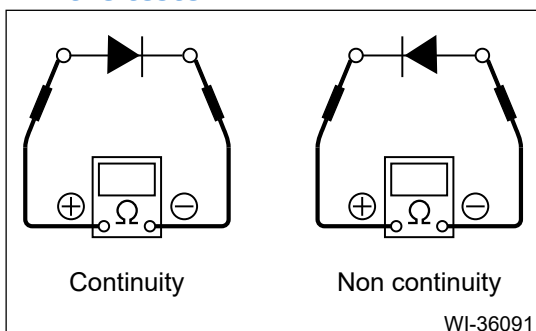


2. CONTINUITY CHECK

1. Disconnect the battery terminal or connector so there is no voltage between the check points. Contact the leads of an ohmmeter between the check points, and check that there is continuity.
2. When checking the diode continuity using an ohmmeter, allow the positive lead to contact the diode positive side and the negative lead to the negative side. At this time, there must be continuity. Also, when contacting the leads in reverse, there should be no continuity.

Note:

Some testers have reverse polarity, therefore, refer to the instruction manual of the tester.



- When checking switch continuity using an ohmmeter, perform the check while the switch operates. For example, when a switch position is at 3, continuity exists among terminals 1, 3 and 6, as shown below.

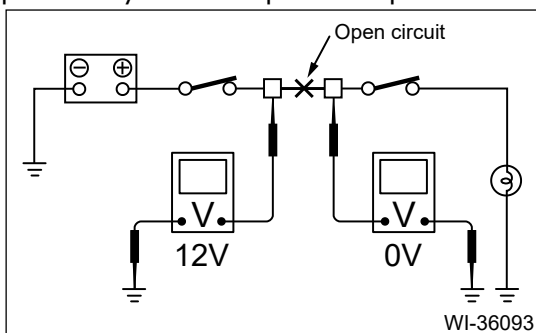
Terminal \ Switch Position	1	2	3	4	5	6
OFF						
1	○	—	—	—	○	○
2	○	—	—	○	—	○
3	○	—	○	—	—	○
4	○	○	—	—	—	○

WI-36092

3. HOW TO IDENTIFY AN OPEN CIRCUIT

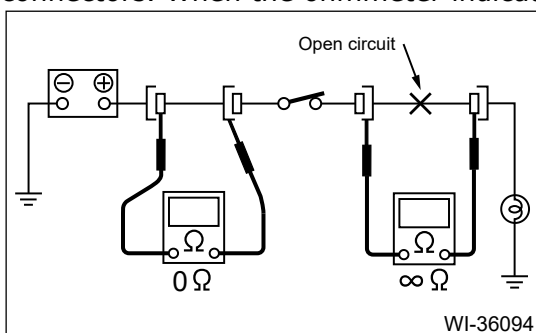
- With voltmeter:

An open circuit is determined by measuring the voltage between respective connectors and ground using a voltmeter, starting with the connector closest to the power supply. The power supply must be turned ON so that current flows in the circuit. If voltage is not present between a particular connector and ground, the circuit between that connector and the previously checked point is open.



- With ohmmeter:

Disconnect all connectors affected, and check continuity in the harness between adjacent connectors. When the ohmmeter indicates "infinite", the harness is open.

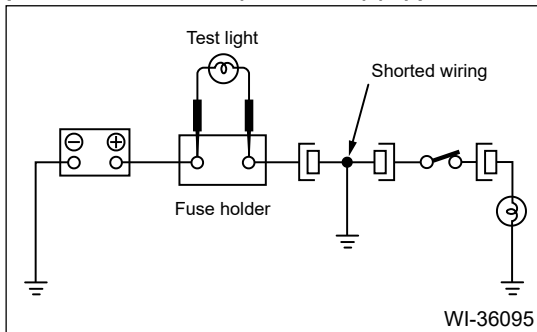


4. HOW TO DETERMINE A SHORT CIRCUIT

- With test light:

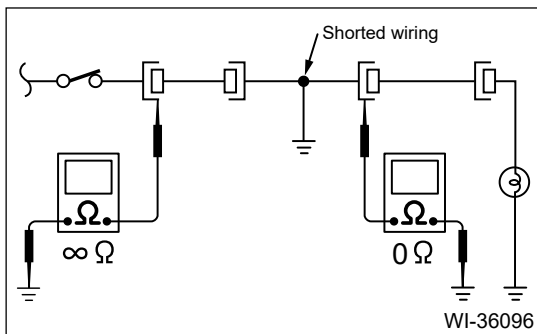
Connect a test light (rated at approx. 3 watts) in place of the blown fuse and allow current to flow through the circuit. Disconnect one connector at a time. At that time, always start with

the connector located farthest from the power supply. If the test light goes out when a connector is disconnected, the harness between that connector and the next connector (farther from the power supply) is shorted.



2. With ohmmeter:

Disconnect all affected connectors, and check continuity between each connector and ground. When the ohmmeter indicates continuity between a particular connector and a ground, that connector is shorted.



BASIC PROCEDURES

▼ Please select



see

1. GENERAL DESCRIPTION

The most important purpose of diagnostics is to quickly determine which fault is the root cause of the symptom, to save time and labor.

2. IDENTIFICATION OF TROUBLE CAUSE

1. Using the diagnostics, narrow down the causes.
2. Refer to the wiring diagram and check the system's circuit. If necessary, use a voltmeter, ohmmeter, etc.
3. Before replacing component parts, check for fuse blowout, open wiring harness on the power supply circuit and the ground circuit, and poor connectors, switches, relays, etc. If no problem is encountered, check the component parts.

3. SYSTEM OPERATION CHECK

After inspection and repair, ensure that the system operates properly.

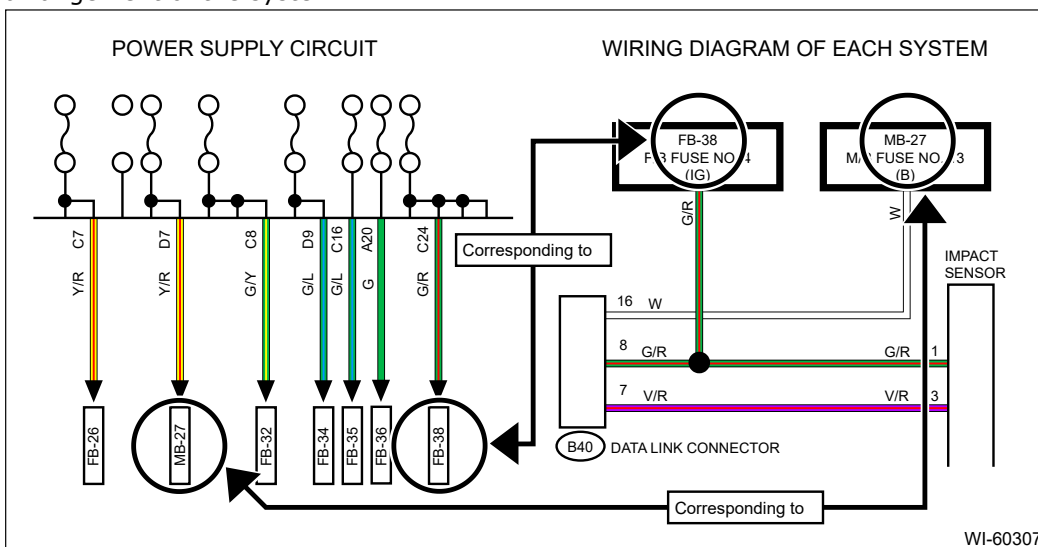
WIRING SYSTEM > Basic Diagnostic Procedure

HOW TO READ WIRING DIAGRAMS

▼ Please select see

1. POWER SUPPLY CIRCUIT

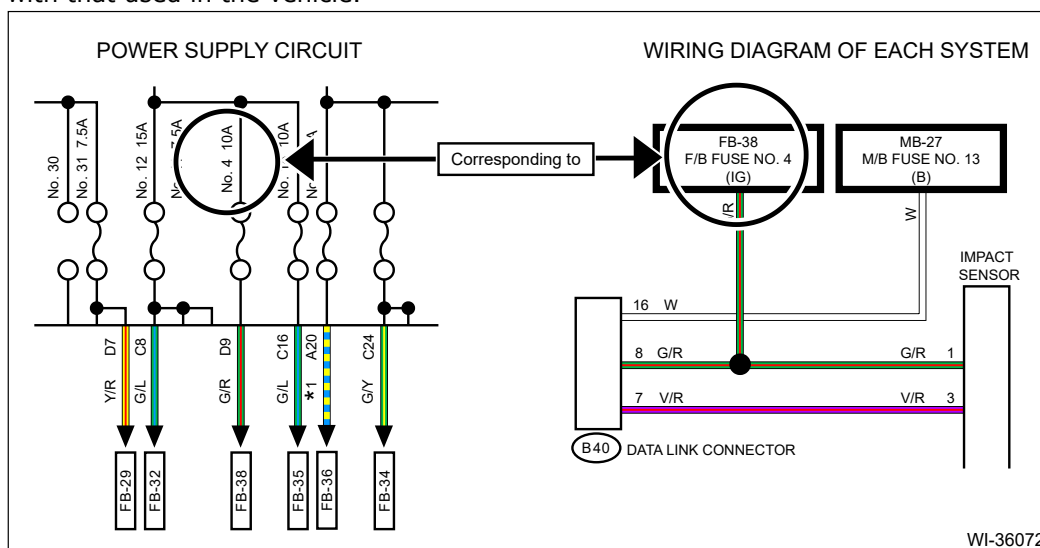
Circuits are described to indicate the power supply in the wiring diagram of each system. "MB-5", "MB-6", etc., which are used as power-supply symbols throughout the text, correspond with those shown in the "DC POWER SUPPLY CIRCUIT" in the wiring diagram of each system. Accordingly, using the DC power supply circuit and the wiring diagram of each system permits service personnel to understand the entire electrical arrangement of the system.



2. WIRING DIAGRAM OF EACH SYSTEM

1. Fuse No. & rating

The "Fuse No. & rating" is the same description as that in the DC power supply circuit, and corresponds with that used in the vehicle.

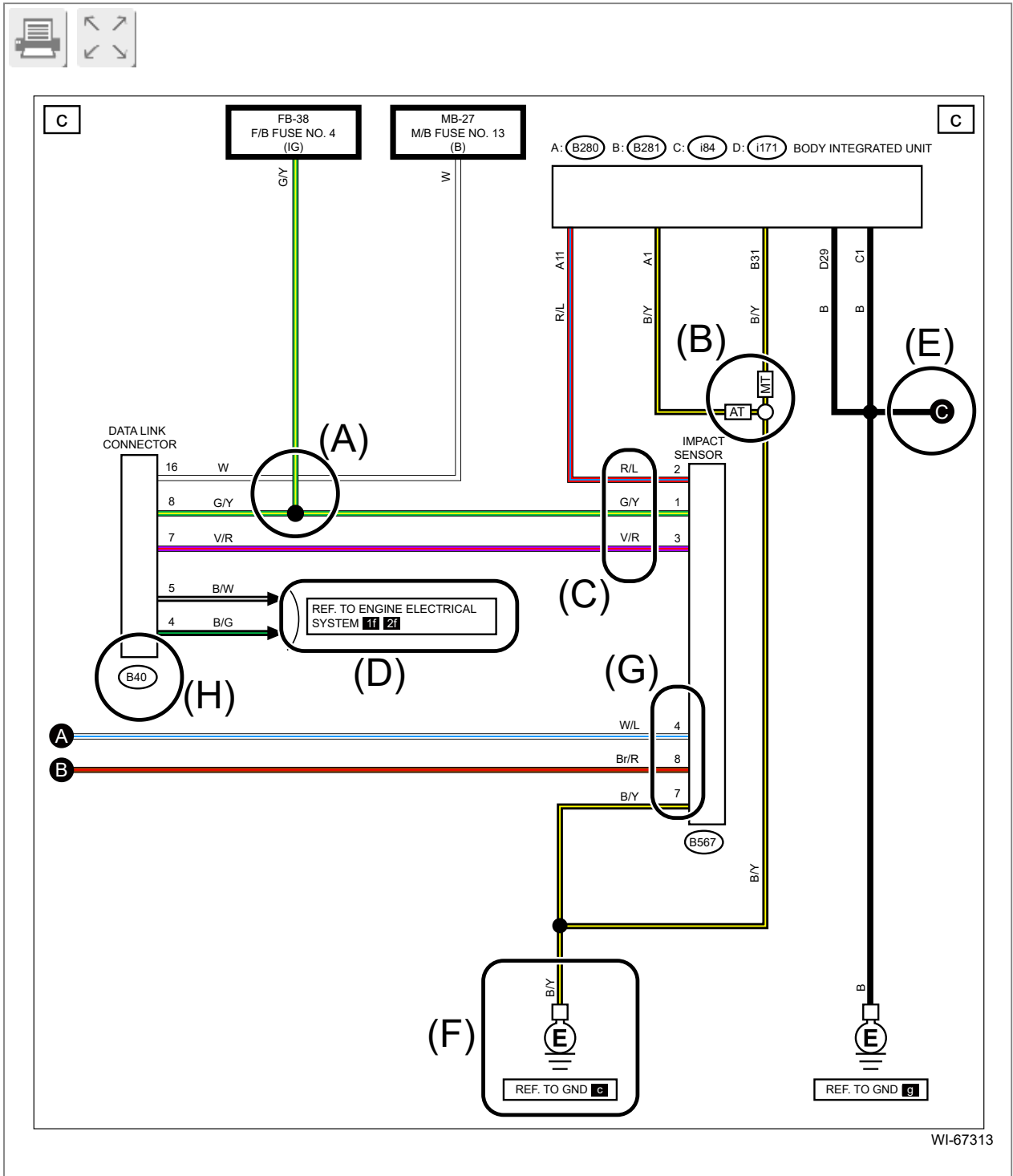


2. Wiring diagram of each system

To help figure out the route from the DC power supply circuit, wiring diagrams are classified and described in each system.

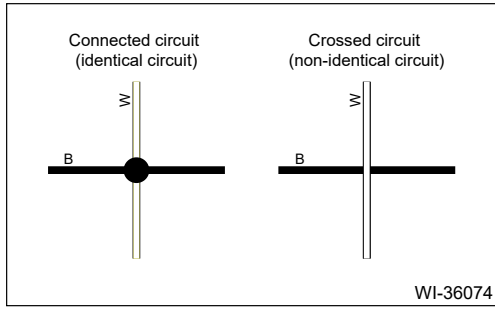
Note:

This manual includes harness information. Information of parts that are not routed via harness and adapter code is described as a reference. If no information is described in this manual, refer to each section.



WI-67313

- (A): Wire connection and crossing in a circuit



- (B): Classification by specifications

If a circuit differs from another circuit according to vehicle specifications, the specification difference is indicated with abbreviations.

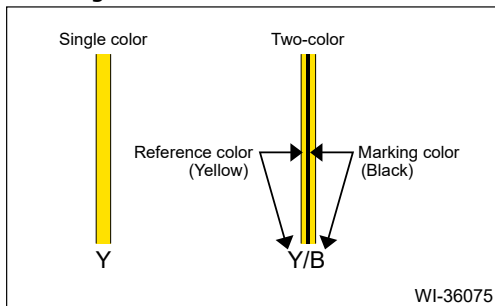
- (C): Color code

Indicates the color of harness and connector housing.

Color code	Color	Color code	Color	Color code	Color
B	Black	S	Shield line	Gr	Gray
G	Green	V	Violet	Lg	Light green
L	Blue	W	White	Sb	Light blue
Or	Orange	Y	Yellow	★	White or natural color
P	Pink	Be	Beige		
R	Red	Br	Brown		

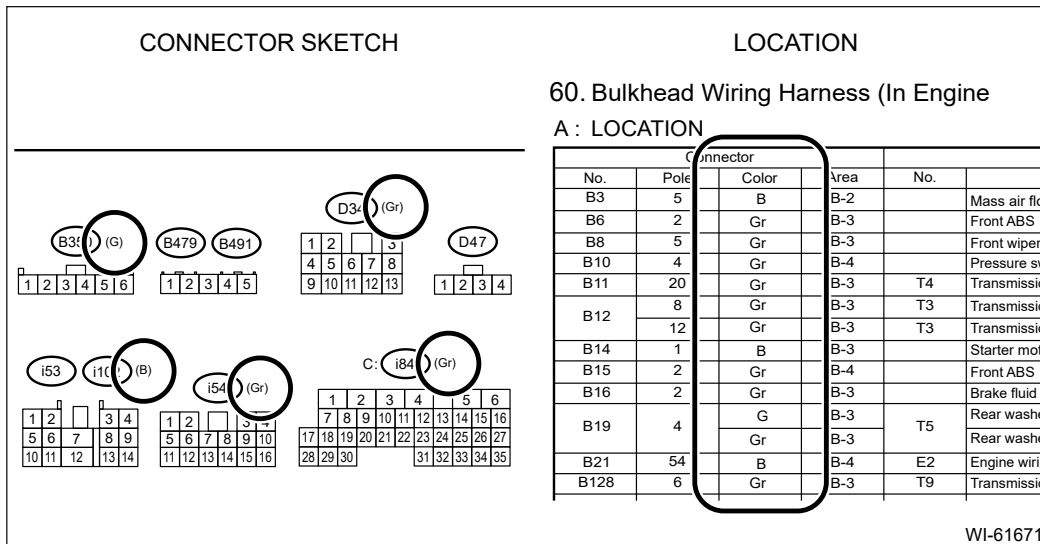
(Color code of harness)

Single color is indicated with a color code, and double colors are indicated with "standard color / marking color".

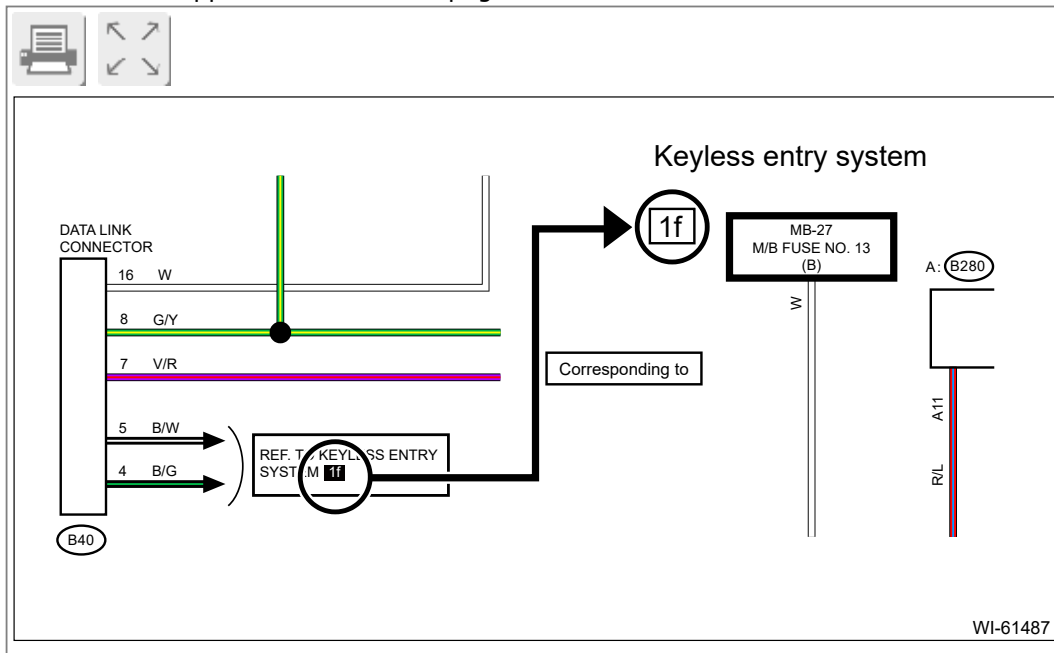


(Color code of connector housing)

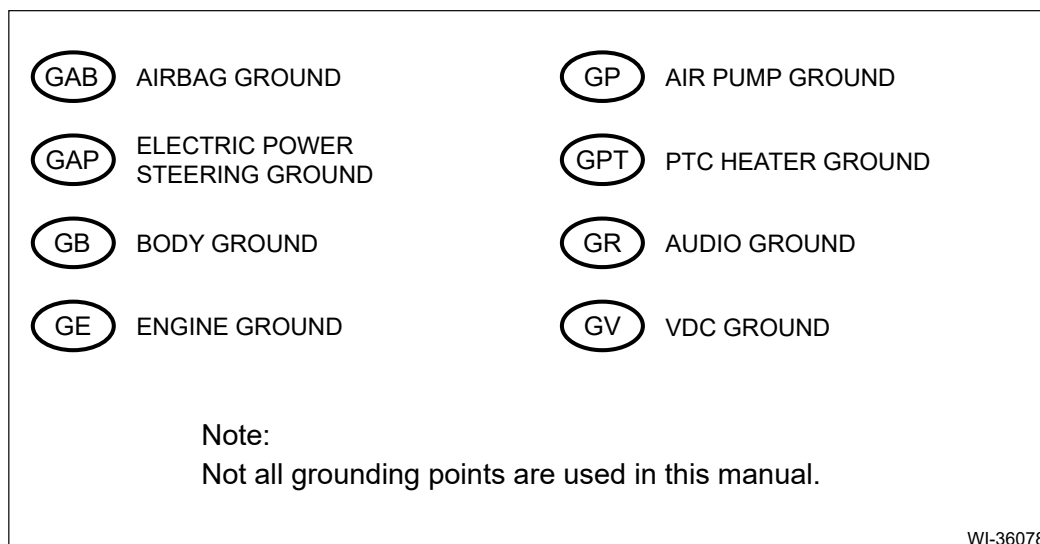
Used in the connector sketch and the locations.



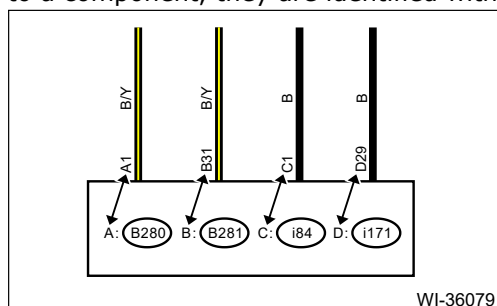
- (D):Connection to another system in the same circuit
Indicates the connecting to with alphanumeric characters, which correspond to the descriptions shown on the upper section of each page.



- (E):Connections in the system
Indicates with alphabetic characters, which correspond to the same alphabetic characters shown in the following pages.
- (F):Ground
The ground points shown in the ground circuit refer to the following, which correspond to the locations.



- **(G):Terminal No.**
Indicates the terminal number of the connector to be connected. If several connectors are connected to a component, they are identified with alphabetic characters.



- **(H):Connector No.**
The first alphabetic characters of the connector number correspond with the following symbols that indicate harnesses or systems.

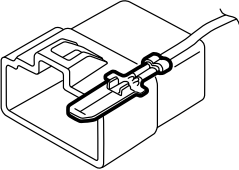
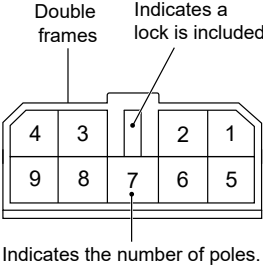

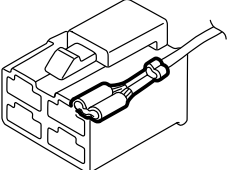
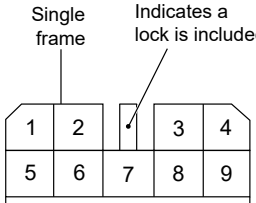

Symbol	Harness/cord	Symbol	Harness/cord
AB	Airbag wiring harness	F	Front wiring harness
AD	Adapter cord		Generator cord
AT/T	Transmission cord	i	Instrument panel Wiring harness
B	Bulkhead wiring harness		
D	Door cord / Rear gate code	R	Rear wiring harness
E	Engine wiring harness		Fuel cord / Roof cord
	Oxygen sensor cord		Rear gate cord / Trunk lid cord
ST	Steering cord		

- **(I):Connector sketch**
The connector sketch at the bottom shows connectors used in the wiring diagram.

3. Connector

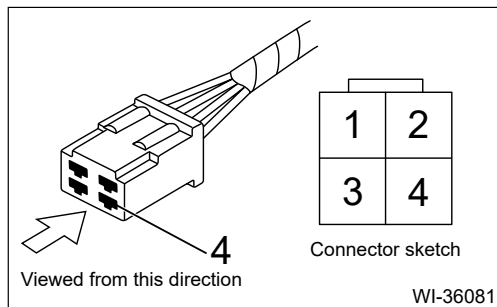
The following shows the connector shape, lock position, connection and terminal number that are used in this manual.

For connector shape, refer to the connector sketch.

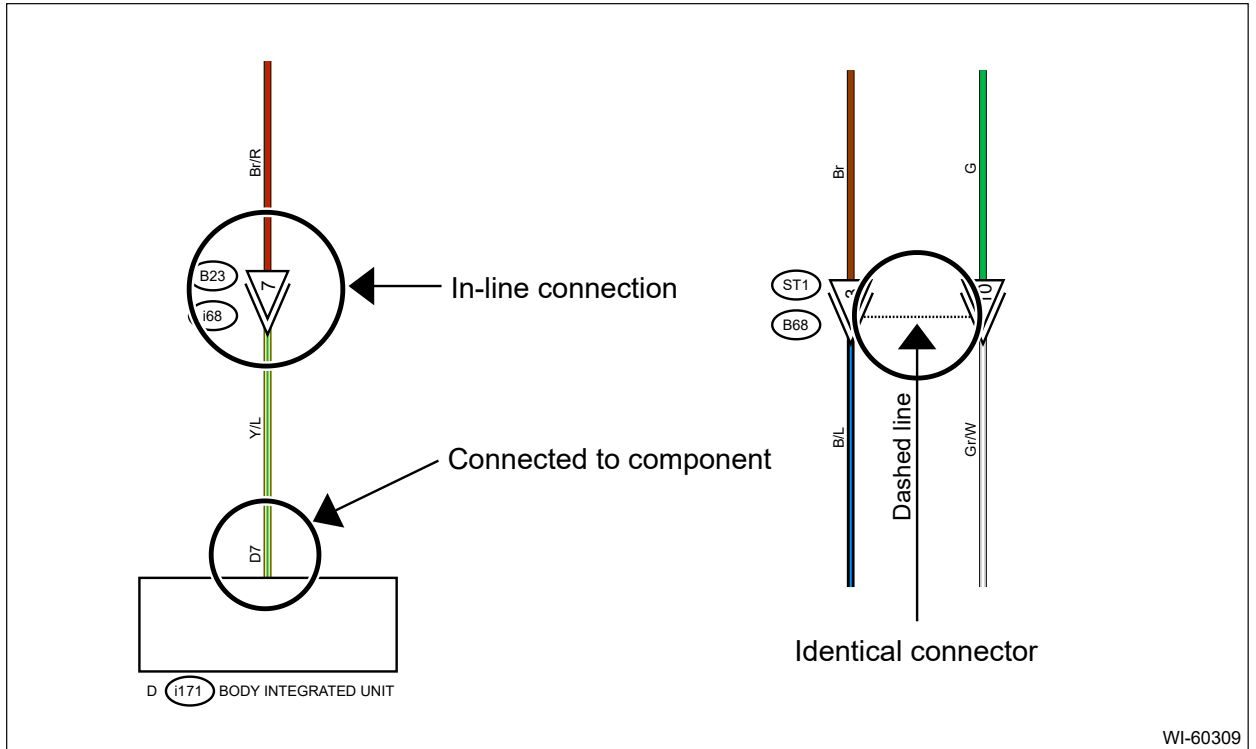
Connector used in vehicle	Connector shown in wiring diagram		
	Connector sketch	Wiring diagram symbol	Terminal arrangement order
 <p>Male connector</p>	 <p>Double frames Indicates a lock is included.</p> <p>Indicates the number of poles.</p>		<p>Numbered in order from upper right to lower left.</p>
 <p>Female connector</p>	 <p>Single frame Indicates a lock is included.</p>		<p>Numbered in order from upper left to lower right.</p>

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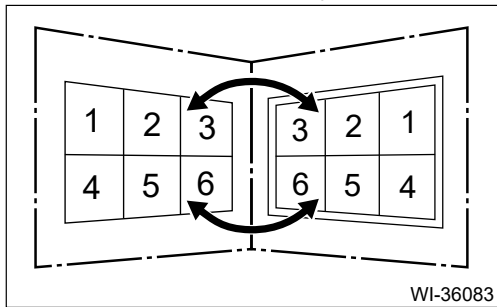
- The sketch of the connector and the terminal number are indicated in a disconnected state which is viewed from the terminal side.



- The connector sketch usually indicates a female connector.
- The connector used in the wiring diagram of the system indicates only the intermediate connection, therefore, no parts, J/Cs and grounds are described. In addition, if the different circuits are connected with the same connector, a dot line is used to indicate that these are the same.

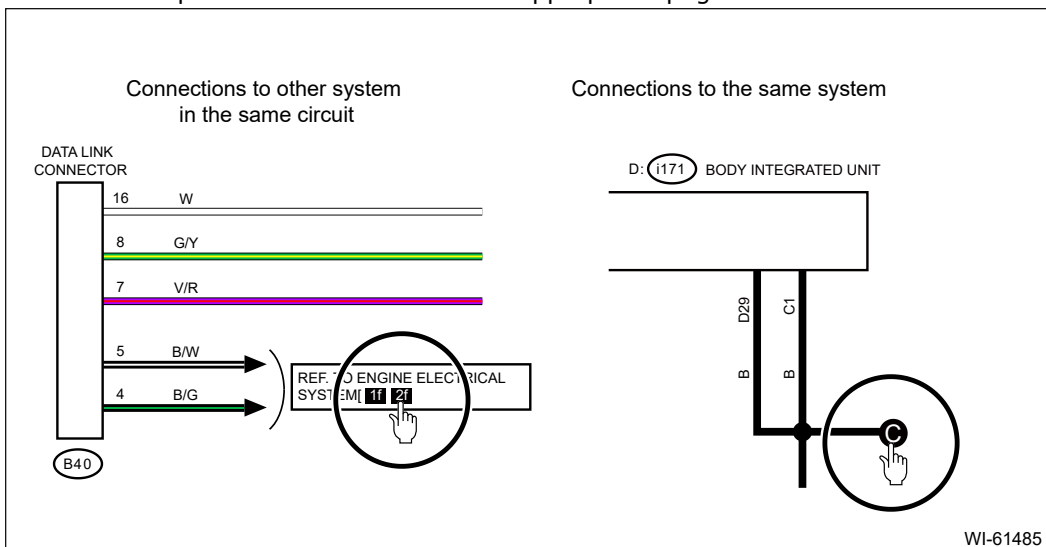


- When connecting the connector, the terminals with the same number are joined. When the connector is disconnected, the terminal location is symmetrical.



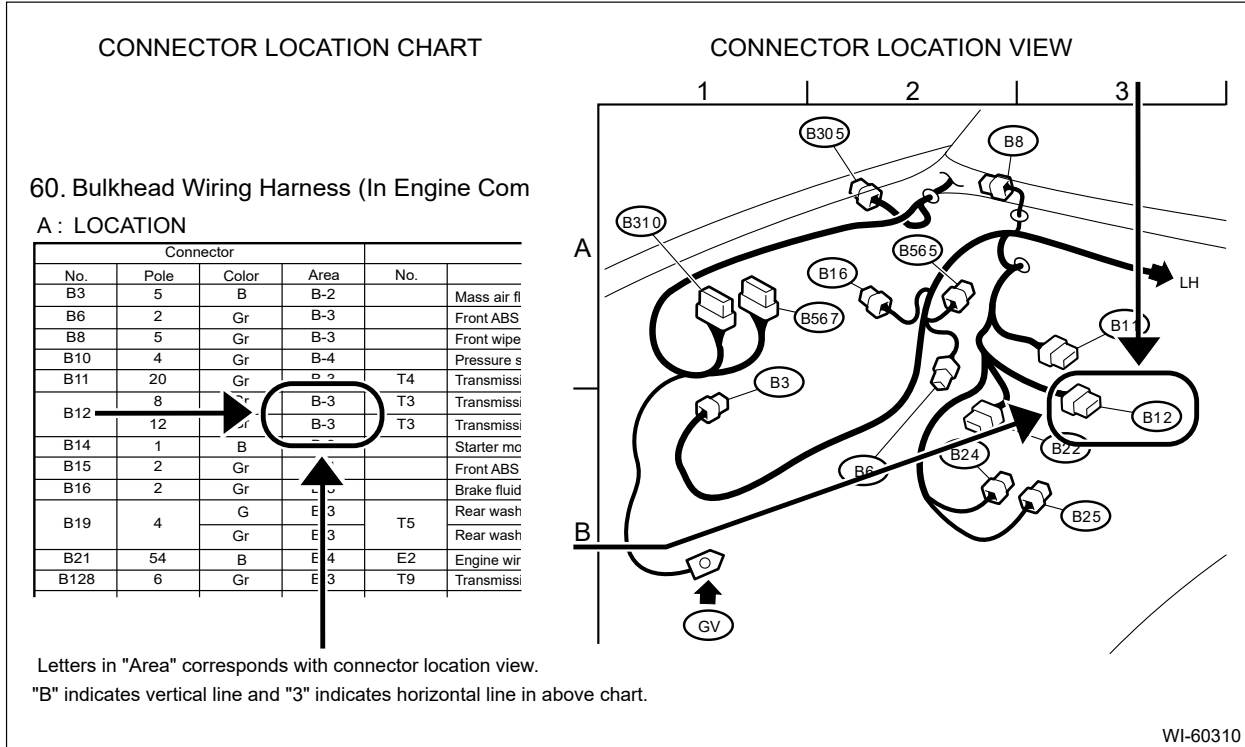
3. REFERENCE LINKS

Click on the alphanumeric to move to the appropriate page.

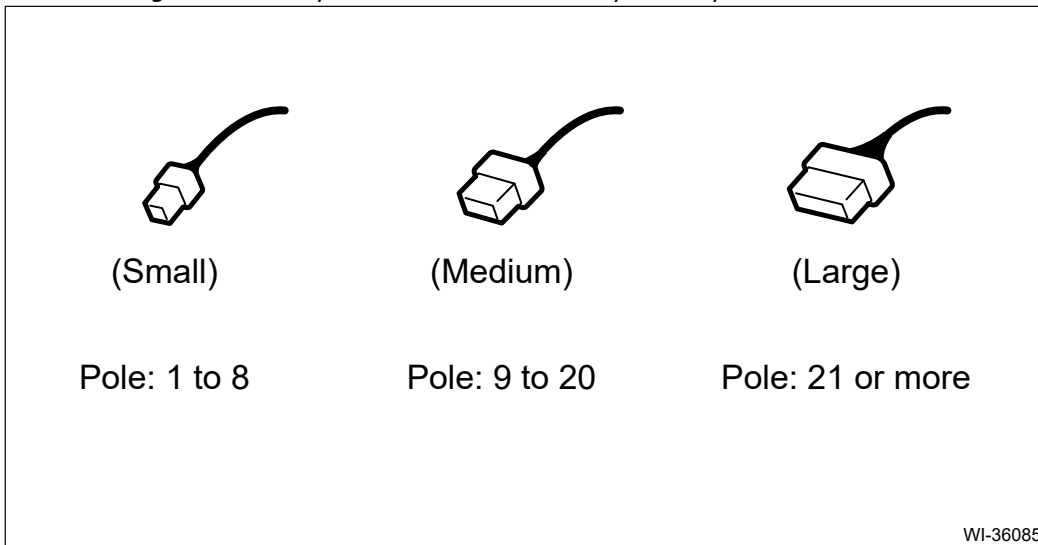


4. LOCATION

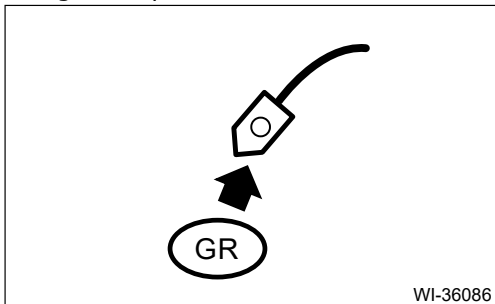
In this manual, the location is classified in each harness, and the connector location is indicated using coordinates.



- The following connector symbols are used to easily identify the connectors.



- The ground point is indicated as follows.



5. SYMBOLS IN WIRING DIAGRAMS

<p>BATTERY</p>	<p>CONDENSER</p>	<p>SLOW BLOW FUSE</p>	<p>FUSE</p>
<p>CIRCUIT BREAKER</p>	<p>BUS BAR</p>	<p>GROUND</p>	<p>WIRING HARNESS</p>
<p>CONNECTOR</p>	<p>RESISTANCE</p>	<p>VARIABLE RESISTANCE</p>	<p>VARIABLE RESISTANCE (SENSOR)</p>
<p>TRANSISTOR</p>	<p>DIODE</p>	<p>LIGHT EMITTING DIODE</p>	<p>COIL/SOLENOID</p>
<p>LIGHTING</p>	<p>MOTOR/PUMP</p>	<p>SHIELD</p>	<p>TWISTED PAIR</p>
<p>SWITCH</p>	<p>RELAY (NORMAL OPEN)</p>	<p>RELAY (NORMAL CLOSE)</p>	<p>SPDT RELAY</p>
<p>ROLL CONNECTOR</p>	<p>HORN</p>	<p>SPEAKER</p>	<p>BUZZER</p>

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6. ABBREVIATIONS IN THIS MANUAL

Abbr.	Full name
ABS	Anti-lock Brake System
ACC	Accessory
A/C	Air Conditioner
ASSY	Assembly
A/F	Air/Fuel (air fuel ratio sensor)
ATF	Automatic Transmission Fluid
AUX	Auxiliary Audio Input Terminal

AWD	All Wheel Drive
B, BAT	Battery
BSD/RCTA	Blind Spot Detection / Rear Cross Traffic Alert
CAN	Controller Area Network
CL	Close
CM	Control Module
CVT	Continuously Variable Transmission
D	Drive range or Down
DC/DC	Direct Current / Direct Current (converter)
DN	Down
E	Ground
ECM	Engine Control Module
EEPROM	Electrically Erasable Programmable Read-Only Memory
EGR	Exhaust Gas Recirculation
F	Front
F/B	Fuse & Relay Box
FL	Front Left
FR	Front Right
G	Gravity (G sensor)
H/L	Headlight
HI	High
I/F	Interface
IG	Ignition
INT	Intermittent
ISO	International Organization for Standardization
J/C	Joint Connector
LCD	Liquid Crystal Display
L, LH	Left Hand
LO	Low
LWR	Lower
M	Motor
M/B	Main Fuse Box
MFD	Multi Function Display
MIST	Wiper for mist
MT	Manual Transmission
N	Neutral Range
NA	Natural Aspiration
OP	Optional Parts or Open
P	Parking or Parking range
PASS	Passing
R	Reverse Range
RAB	Reverse Automatic Braking
RES	Reset
R, RH	Rear or Right Hand

RL	Rear Left
RR	Rear Right
SBF	Slow Blow Fuse
SRF	Steering Responsive Foglights
SRH	Steering Responsive Headlight
ST	Starter
SW	Switch
TB	Turbo
TCM	Transmission Control Module
TEL	Telephone
TFT	Thin Film Transistor
TPMS	Tire Pressure Monitor System
UP	Up
UPR	Upper
VDC	Vehicle Dynamics Control
WASH	Washer

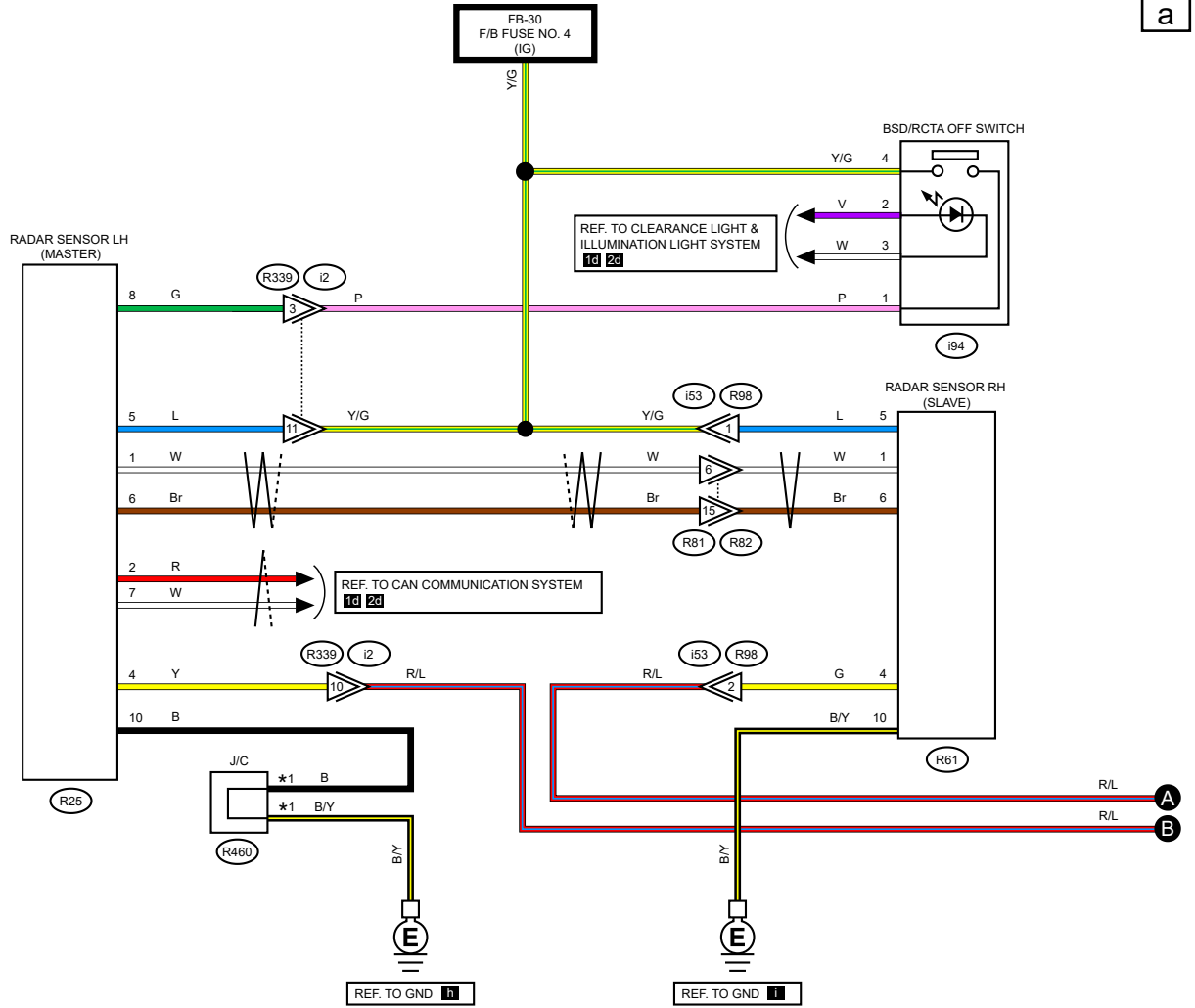
WIRING SYSTEM > Blind Spot Detection/Rear Cross Traffic Alert

WIRING DIAGRAM

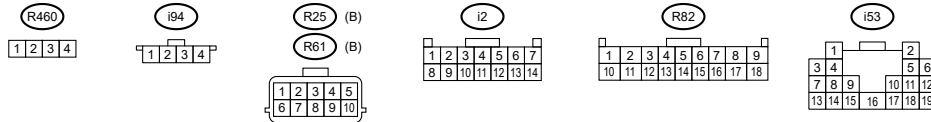


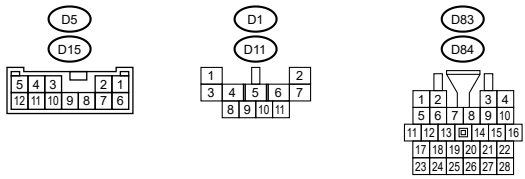
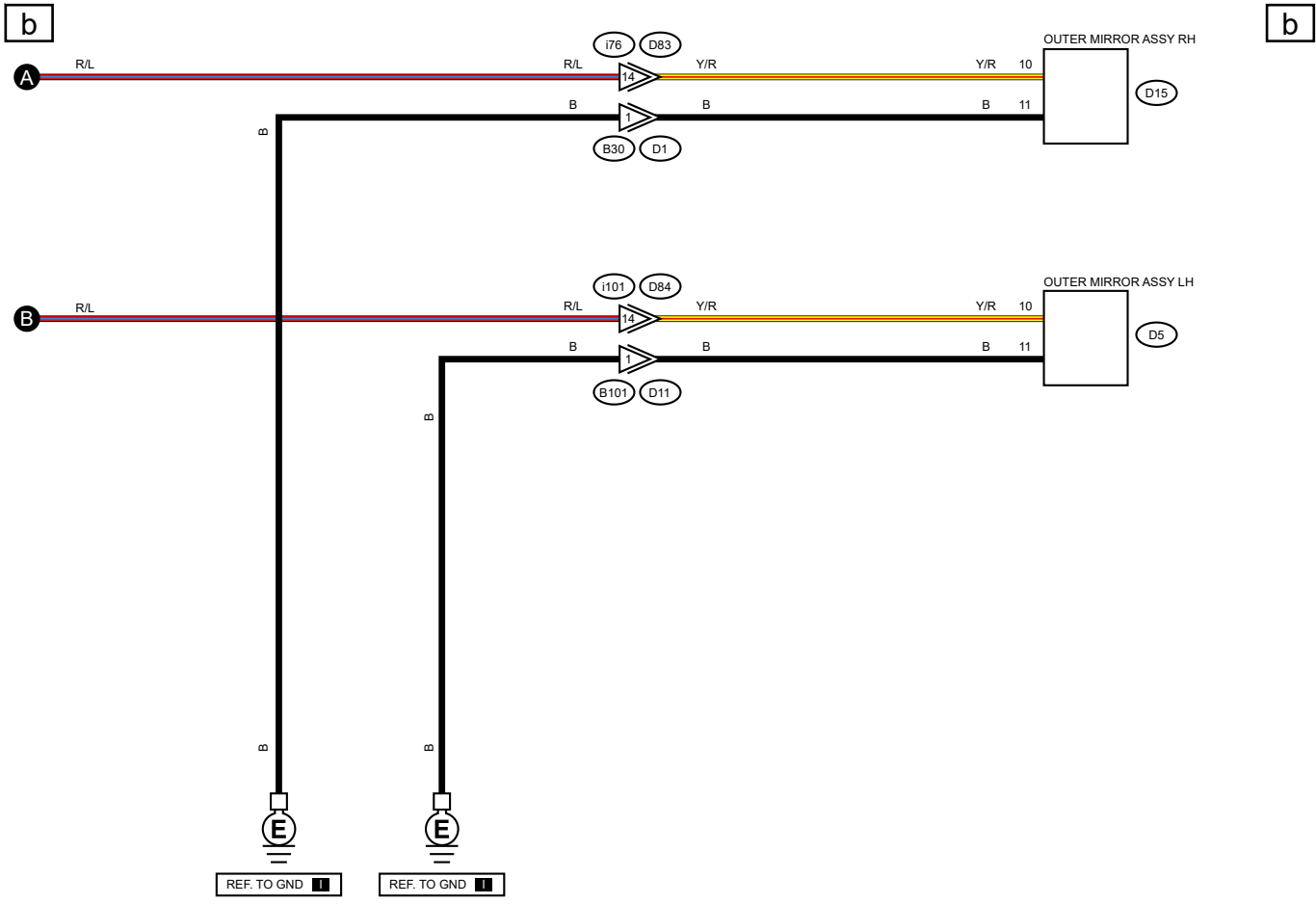
a

a



*1 : TERMINAL No. OPTIONAL ARRANGEMENT



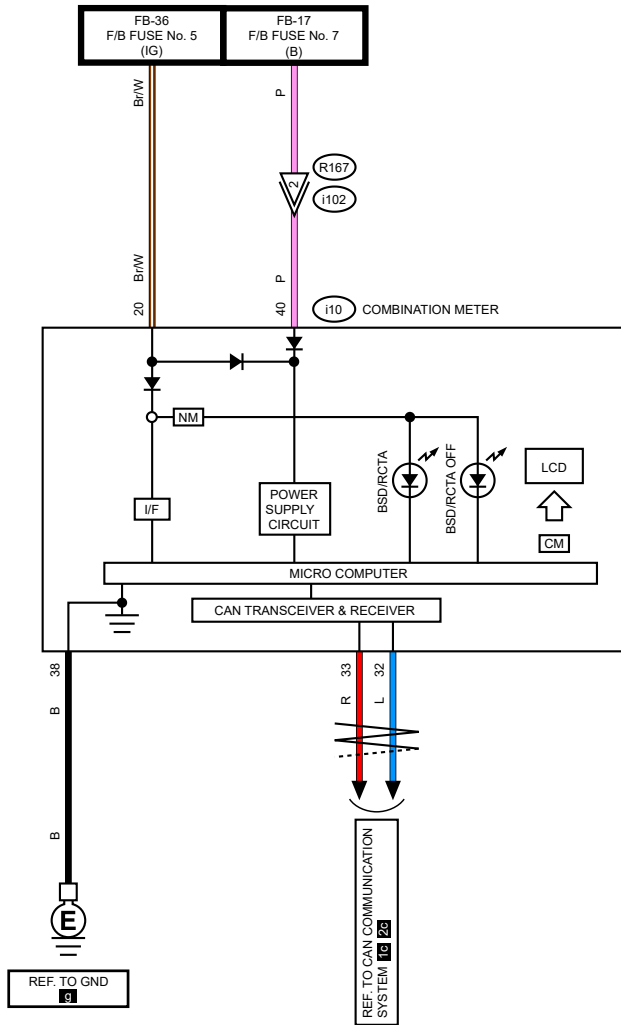


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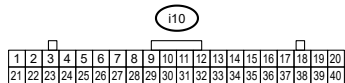
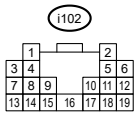


C

C



NM : NORMAL METER MODEL
CM : COLOR TFT METER MODEL



WIRING SYSTEM > Bulkhead Wiring Harness (In Compartment) LH

LOCATION

▼ Please select ▼ see

1. NON-TURBO MODEL

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
B31	2	★	B-1	AB1	Airbag wiring harness
B32	8	★	B-1		Turn signal and hazard unit
B40	16	B	A-2		Data link connector
B41	2	L	B-1		Power window circuit breaker
B52	24	★	B-2		F/B
B54	48	B	A-3		TCM
B65	4	B	B-3		Stop light and brake switch
B68	14	★	C-2		Roll connector
B70	10	★	C-2		Combination switch
B71	20	★	C-2		
B72	8	★	B-3		Ignition switch (without push button start)
B77	6	★	C-3		Mode door actuator
B99	14	★	B-1	R3	Rear wiring harness
B101	11	B	C-1	D11	Front door cord LH
B106	2	★	B-3		Clutch start switch
B107	2	L	B-3		Clutch switch
B123	2	B	B-1	B124	Key lock (without push button start)
B124	2	B	B-1	B123	
B150	24	★	B-1		Auto headlight beam leveler CM
B152	10	Gr	B-2		F/B
B158	8	★	B-2		
B159	9	Br	B-2		
B162	2	★	B-2		
B172	4	★	C-2		Steering heater switch
B180	4	★	B-2		Remote engine start CM (without push button start)
	8	★	B-2		Remote engine start CM (with push button start)
B181	2	★	B-3	B182	Bulkhead wiring harness
B182	2	★	B-3	B181	
B225	44	★	A-2		Relay holder
B229	16	★	A-1	AD1	Telematics button adapter cord
B231	5	★	C-2		Steering angle sensor
B235	6	★	B-4		Air mix door actuator LH

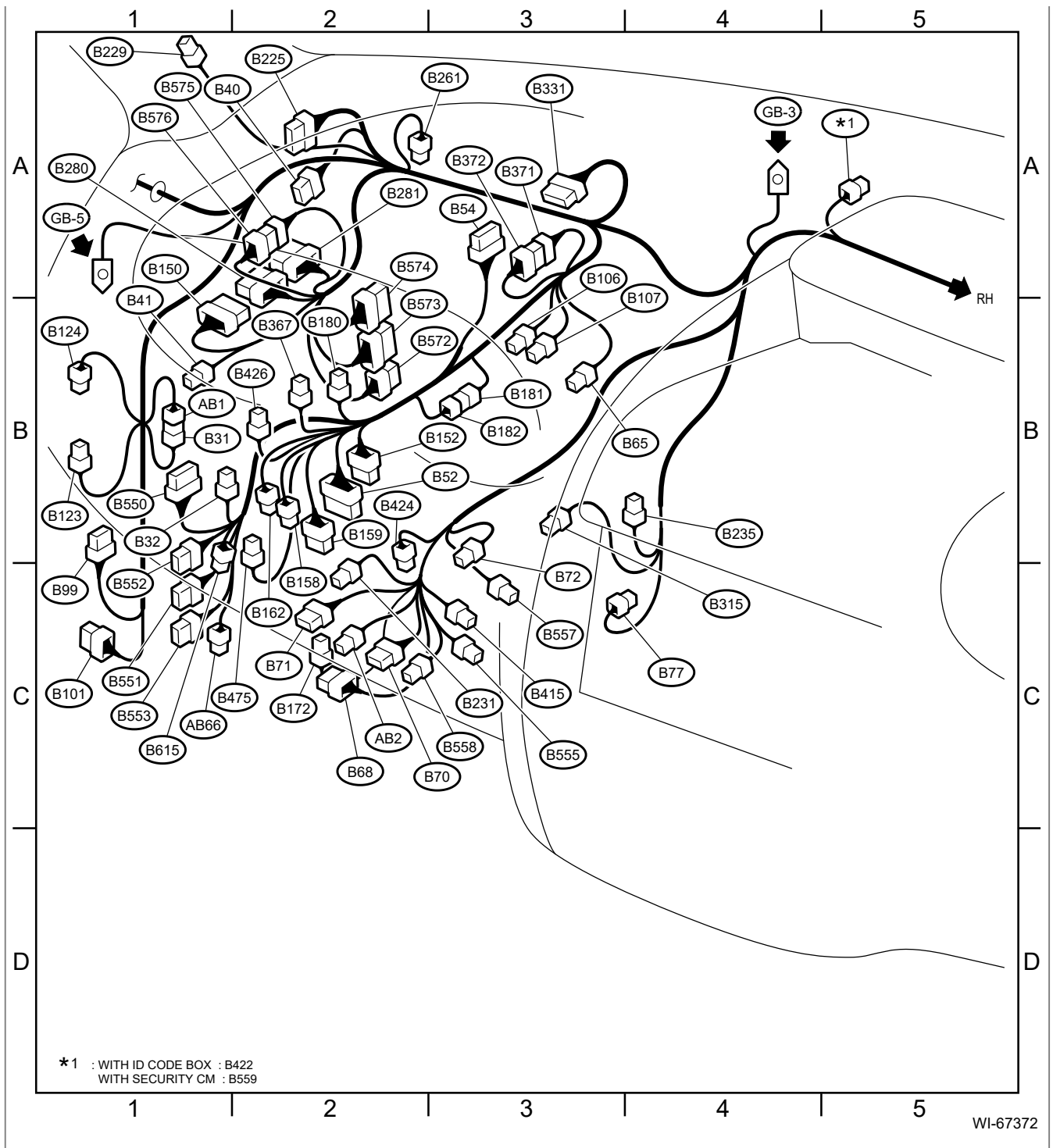
B261	4	★	A-2		J/C
B280	34	★	A-2		Body integrated unit
B281	35	★	A-2		
B315	6	B	B-3		Accelerator pedal position sensor
B331	22	★	A-3		J/C
B367	8	★	B-2		Impact sensor
B371	12	★	A-3		J/C
B372	12	★	A-3		
B415	7	B	C-3		Immobilizer antenna (without push button start)
B422	5	★	A-5		ID code box
B424	7	B	B-2		Steering lock CM (with push button start)
B426	4	B	B-2		Accessory relay (push button start)
B475	4	★	B-2		Wiper relay unit
B550	26	★	B-1		Fuse holder
B551	16	★	C-1	i229	Instrument panel wiring harness
B552	18	★	B-1	i230	
B553	20	★	C-1	i231	
B555	2	★	C-3		Key warning switch (without push button start)
B557	2	★	C-3		Key lock solenoid (without push button start)
B558	7	★	C-2		Combination switch
B559	5	★	A-5		Security CM
B572	18	★	B-2		Keyless access CM
B573	28	★	B-2		
B574	30	★	B-2		
B575	18	★	A-2	B576	Bulkhead wiring harness (with push button start)
B576	18	★	A-2	B575	
B615	2	B	C-1		Diode

★:White or natural color

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB1	2	★	B-1	B31	Bulkhead wiring harness
AB2	4	Y	C-2	AB7	Driver's airbag module
AB66	2	B	C-1		Driver's knee airbag module

★:White or natural color





2. TURBO MODEL

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
B31	2	★	B-1	AB1	Airbag wiring harness
B32	8	★	B-1		Turn signal and hazard unit
B40	16	B	A-2		Data link connector
B41	2	L	B-1		Power window circuit breaker

B52	24	★	B-2		F/B
B54	48	B	A-3		TCM
B65	4	B	B-3		Stop light and brake switch
B68	14	★	C-2		Roll connector
B70	10	★	C-2		Combination switch
B71	20	★	C-2		
B72	8	★	B-3		Ignition switch (without push button start)
B77	6	★	C-3		Mode door actuator
B99	14	★	B-1	R3	Rear wiring harness
B101	11	B	C-1	D11	Front door cord LH
B123	2	B	B-1	B124	Key lock (without push button start)
B124	2	B	B-1	B123	
B150	24	★	B-1		Auto headlight beam leveler CM
B152	10	Gr	B-2		F/B
B158	8	★	B-2		
B159	9	Br	B-2		
B162	2	★	B-2		
B172	4	★	C-2		Steering heater switch
B180	4	★	B-2		Remote engine start CM (without push button start)
	8	★	B-2		Remote engine start CM (with push button start)
B181	2	★	B-3	B182	Bulkhead wiring harness
B182	2	★	B-3	B181	
B225	44	★	A-2		Relay holder
B229	16	★	A-1	AD1	Telematics button adapter cord
B231	5	★	C-2		Steering angle sensor
B235	6	★	B-4		Air mix door actuator LH
B261	4	★	A-2		J/C
B280	34	★	A-2		Body integrated unit
B281	35	★	A-2		
B315	6	B	B-3		Accelerator pedal position sensor
B331	22	★	A-3		J/C
B367	8	★	B-2		Impact sensor
B371	12	★	A-3		J/C
B372	12	★	A-3		
B415	7	B	C-3		Immobilizer antenna (without push button start)
B422	5	★	A-5		ID code box
B424	7	B	B-2		Steering lock CM (with push button start)
B426	4	B	B-2		Accessory relay (push button start)
B475	4	★	B-2		Wiper relay unit
B550	26	★	B-1		Fuse holder

B552	18	★	B-1	i230	Instrument panel wiring harness
B553	20	★	C-1	i231	
B555	2	★	C-3		Key warning switch (without push button start)
B557	2	★	C-3		Key lock solenoid (without push button start)
B558	7	★	C-3		Combination switch
B559	5	★	A-5		Security CM
B572	18	★	B-2		Keyless access CM
B573	28	★	B-2		
B574	30	★	B-2		
B575	18	★	A-2	B576	Bulkhead wiring harness (with push button start)
B576	18	★	A-2	B575	
B615	2	B	C-1		Diode
★:White or natural color					

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB1	2	★	B-1	B31	Bulkhead wiring harness
AB2	4	Y	C-2	AB7	Driver's airbag module
AB66	2	B	C-2		Driver's knee airbag module
★:White or natural color					



WIRING SYSTEM > Bulkhead Wiring Harness (In Compartment) RH

LOCATION

▼ Please select ▼ see

1. NON-TURBO MODEL

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
B27	4	★	C-2		Resistor
B30	11	★	C-5	D1	Front door cord RH
B57	4	★	C-2		Power transistor
B87	2	★	C-4		Blower motor
B88	2	Br	B-2		Evaporator sensor (auto A/C)
	3	★	B-2		Evaporator sensor (manual A/C)
B90	20	★	B-5	R50	Roof cord
B97	14	★	D-5	R1	Rear wiring harness
B98	18	★	D-5	R2	
B116	8	★	D-1		Select lever
B120	4	★	C-3		J/C
B121	12	★	C-2		
B134	65	★	B-2		ECM
B135	65	★	B-3		
B151	6	★	B-5	R480	Roof cord (with EyeSight)
B163	6	B	C-4		Intake door actuator
B185	6	★	C-1		X MODE switch
B220	44	★	B-3		Relay holder
B230	4	★	D-1		Yaw rate & G sensor (with EyeSight)
B239	6	★	C-2		Air mix door actuator RH
B240	4	★	B-4		J/C
B241	4	★	B-5		
B246	4	★	C-3		
B247	4	★	C-3		
B258	4	★	B-2		
B259	4	★	B-2		
B260	12	★	C-3		
B358	2	★	D-1		Select lever illumination
B386	4	★	C-5		Blower motor relay
B579	3	★	D-1		Keyless access interior antenna (front)
B583	18	★	C-3	i237	Instrument panel wiring harness
B584	20	★	C-3	i238	

★:White or natural color

2. TURBO MODEL

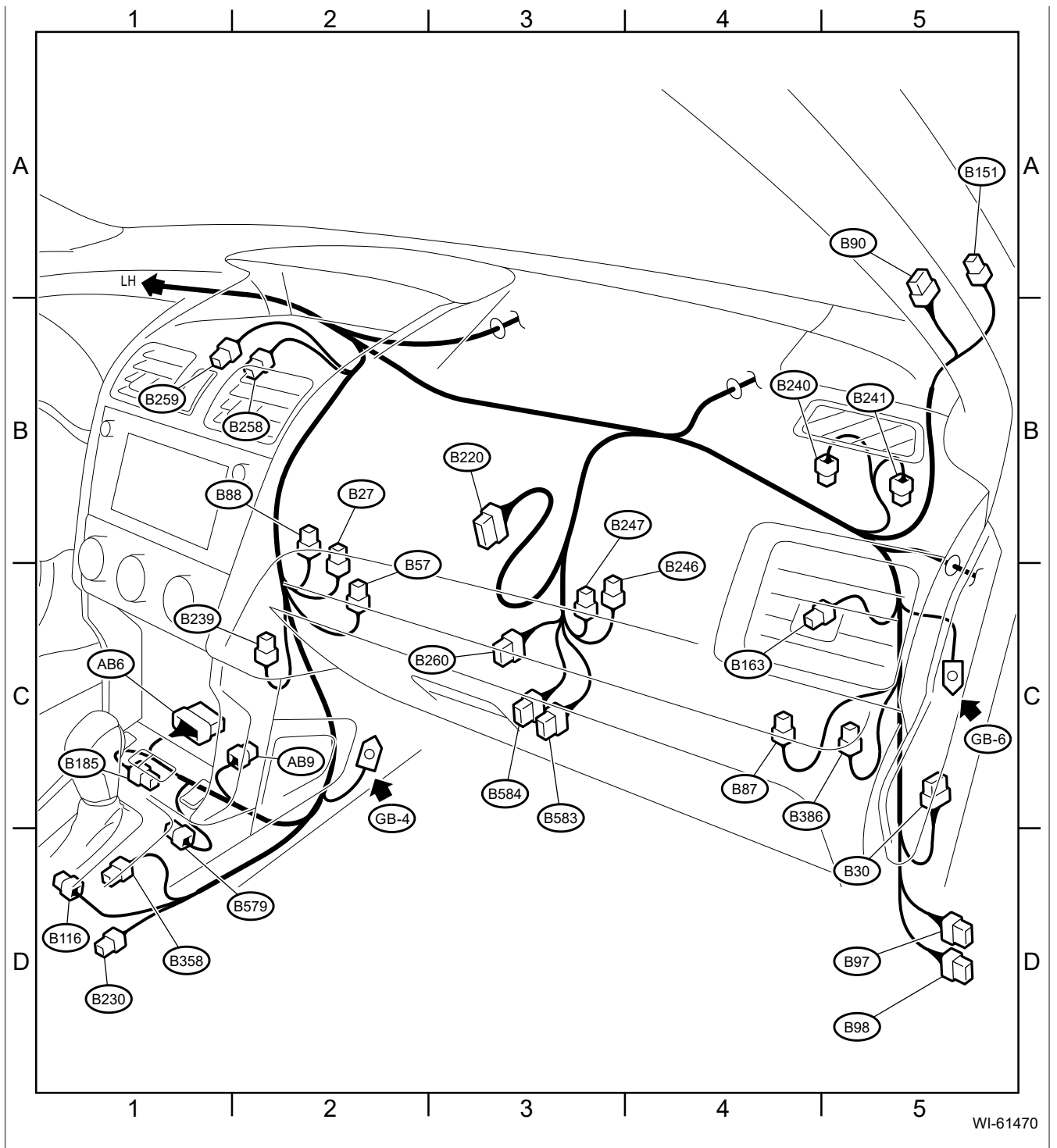
Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
B27	4	★	C-2		Resistor
B30	11	★	C-5	D1	Front door cord RH
B57	4	★	C-2		Power transistor
B87	2	★	C-4		Blower motor
B88	2	Br	B-2		Evaporator sensor (auto A/C)
	3	★	B-2		Evaporator sensor (manual A/C)
B90	20	★	A-5	R50	Roof cord
B97	14	★	D-5	R1	Rear wiring harness
B98	18	★	D-5	R2	
B116	8	★	D-1		Select lever
B151	6	★	A-5	R480	Roof cord (with EyeSight)
B163	6	B	C-4		Intake door actuator
B185	6	★	C-1		X MODE switch
B220	44	★	B-3		Relay holder
B230	4	★	D-1		Yaw rate & G sensor (with EyeSight)
B239	6	★	C-2		Air mix door actuator RH
B240	4	★	B-5		J/C
B241	4	★	B-5		
B246	4	★	C-3		
B247	4	★	C-3		
B258	4	★	B-2		
B259	4	★	B-1		
B260	12	★	C-3		
B358	2	★	D-1		
B386	4	★	C-5		Blower motor relay
B579	3	★	D-1		Keyless access interior antenna (front)
B583	18	★	C-3	i237	Instrument panel wiring harness
B584	20	★	C-3	i238	

★:White or natural color

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB6	30	Y	C-1		Airbag CM
AB9	4	Y	C-2		Passenger's airbag module

★:White or natural color





WIRING SYSTEM > Bulkhead Wiring Harness (In Engine Compartment) LH

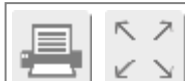
LOCATION

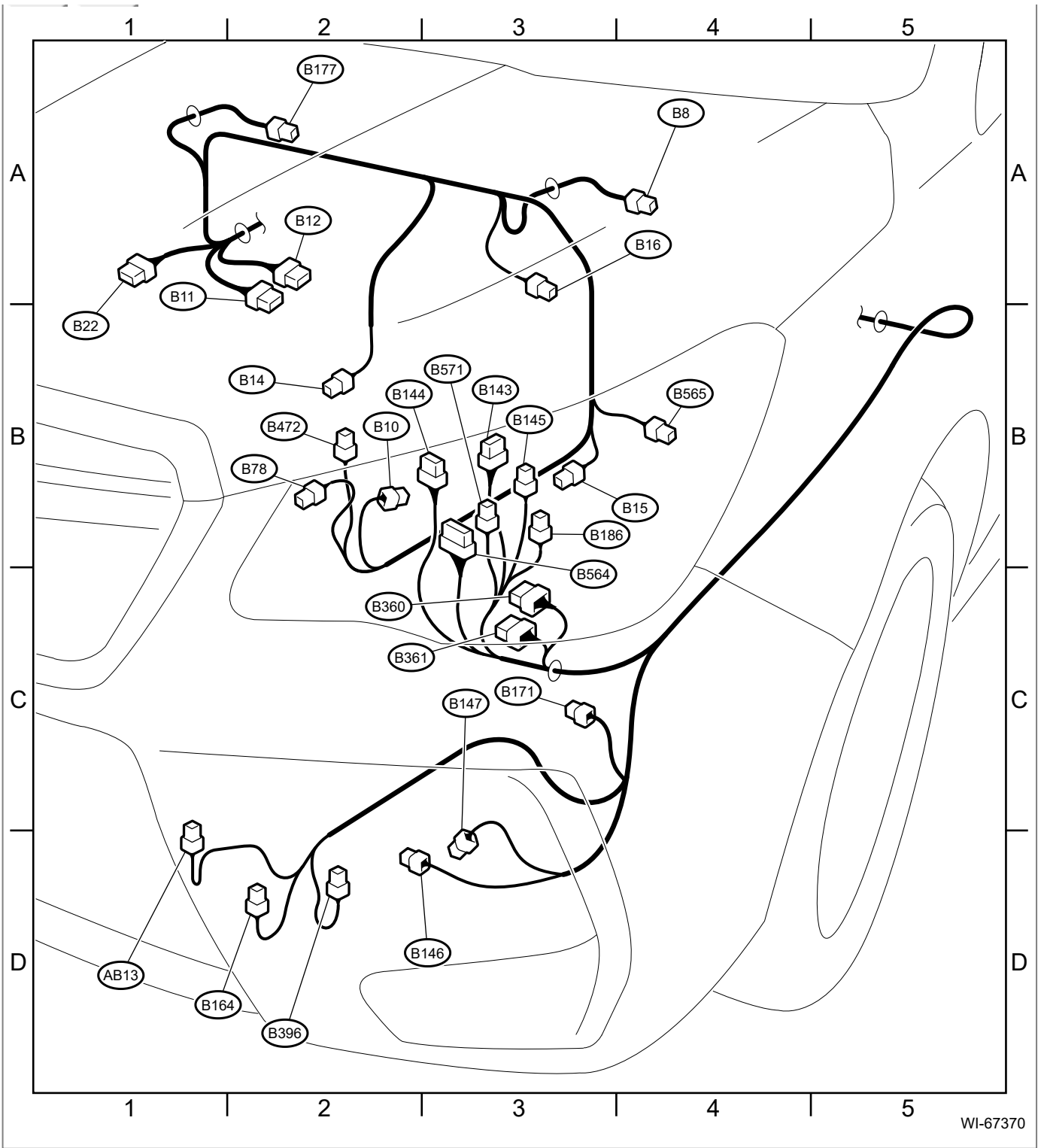
Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
B8	5	Gr	A-4		Front wiper motor
B10	4	Gr	B-2		Pressure switch
B11	12	Gr	A-2	T4	Transmission cord (non-turbo CVT model)
	20	Gr	A-2	T4	Transmission cord (turbo CVT model)
B12	16	Br	A-2	T3	Transmission cord (non-turbo CVT model)
	12	Gr	A-2	T3	Transmission cord (turbo CVT model)
B14	1	B	B-2		Starter motor
B15	2	Gr	B-3		Front ABS wheel speed sensor LH
B16	2	Gr	A-3		Brake fluid level switch
B22	16	Br	A-1	E3	Engine wiring harness (turbo model)
B78	2	B	B-2		Battery sensor
B143	20	★	B-3		M/B
B144	9	Br	B-3		
B145	7	Br	B-3		
B146	2	Gr	D-3		Front washer motor
B147	2	Gr	D-3		Rear washer motor
B164	2	Gr	D-2		Keyless buzzer
B171	6	Gr	C-3	F43	Front wiring harness
B177	2	Gr	A-2		Wiper deicer
B186	8	★	B-3		M/B
B360	16	Gr	C-3	F109	Through joint connector
B361	14	Gr	C-3	F108	
B396	2	Br	D-2		Washer fluid level sensor
B472	4	Gr	B-2		Battery current & temperature sensor
B564	22	★	B-3		Relay holder
B565	3	B	B-4		Brake booster pressure sensor (turbo model)
B571	2	★	B-3		M/B

★:White or natural color

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB13	2	Y	D-1		Front sub sensor LH

★:White or natural color





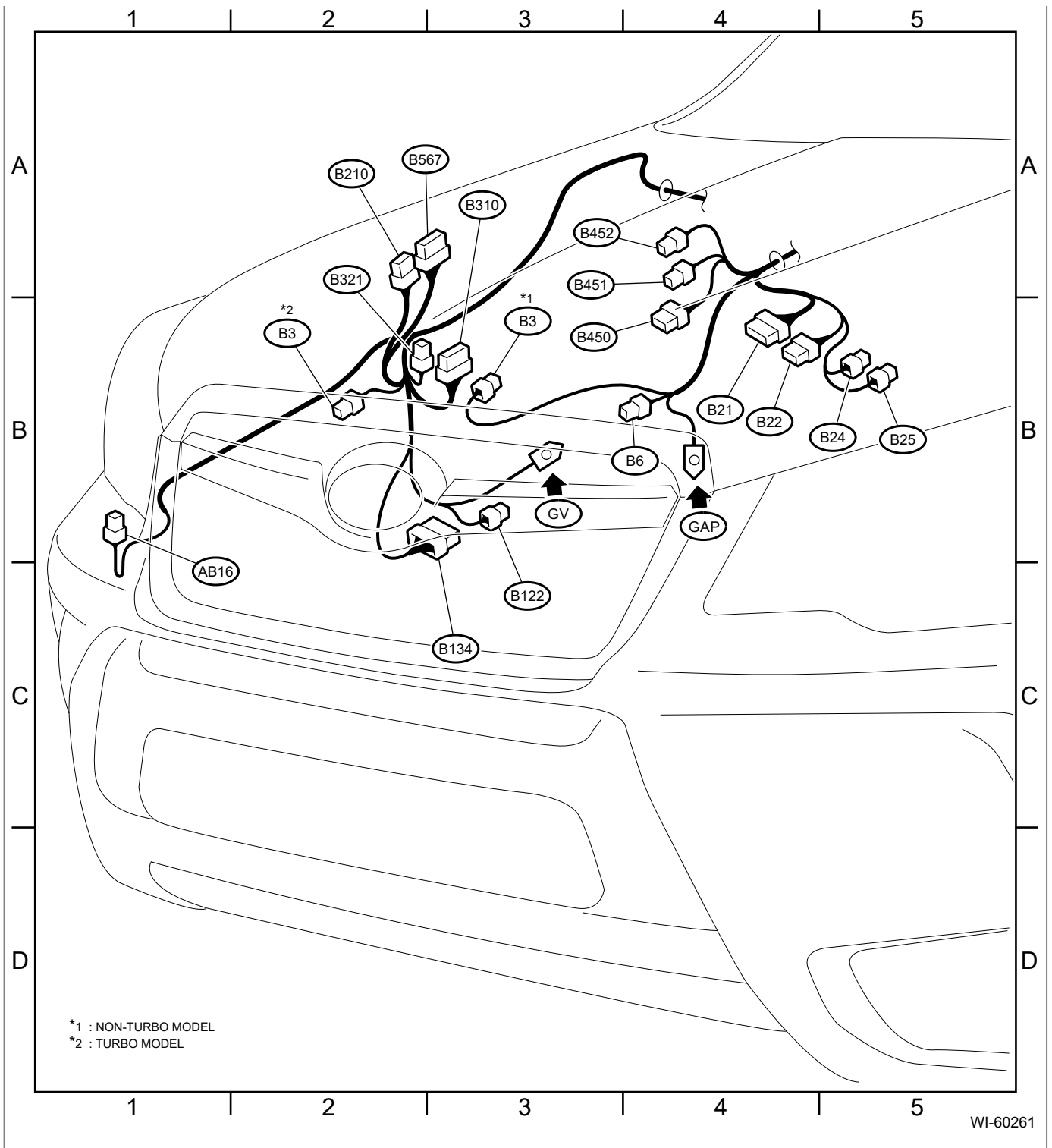
WIRING SYSTEM > Bulkhead Wiring Harness (In Engine Compartment) RH

LOCATION

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
B3	5	B	B-3		Mass air flow and intake air temperature sensor (non-turbo model)
	5	B	B-2		Mass air flow and intake air temperature sensor (turbo model)
B6	2	Gr	B-4		Front ABS wheel speed sensor RH
B21	54	B	B-4	E2	Engine wiring harness (non-turbo model)
B22	16	Br	B-4	E3	
B24	2	Gr	B-5	T1	Back-up light switch (MT model)
B25	2	Br	B-5	T2	Neutral position switch 1 (MT model)
B122	8	Gr	B-3		J/C (turbo model)
B134	48	Br	B-3		ECM (turbo model)
B210	12	★	A-2		Relay holder (turbo model)
B310	38	★	B-3		VDC CM
B321	2	B	B-2		Hood switch
B450	10	B	B-4		Power steering CM
B451	6	Gr	A-4		Torque sensor
B452	2	B	A-4		Power steering CM
B567	26	★	A-3		Relay holder
★:White or natural color					

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB16	2	Y	B-1		Front sub sensor RH
★:White or natural color					

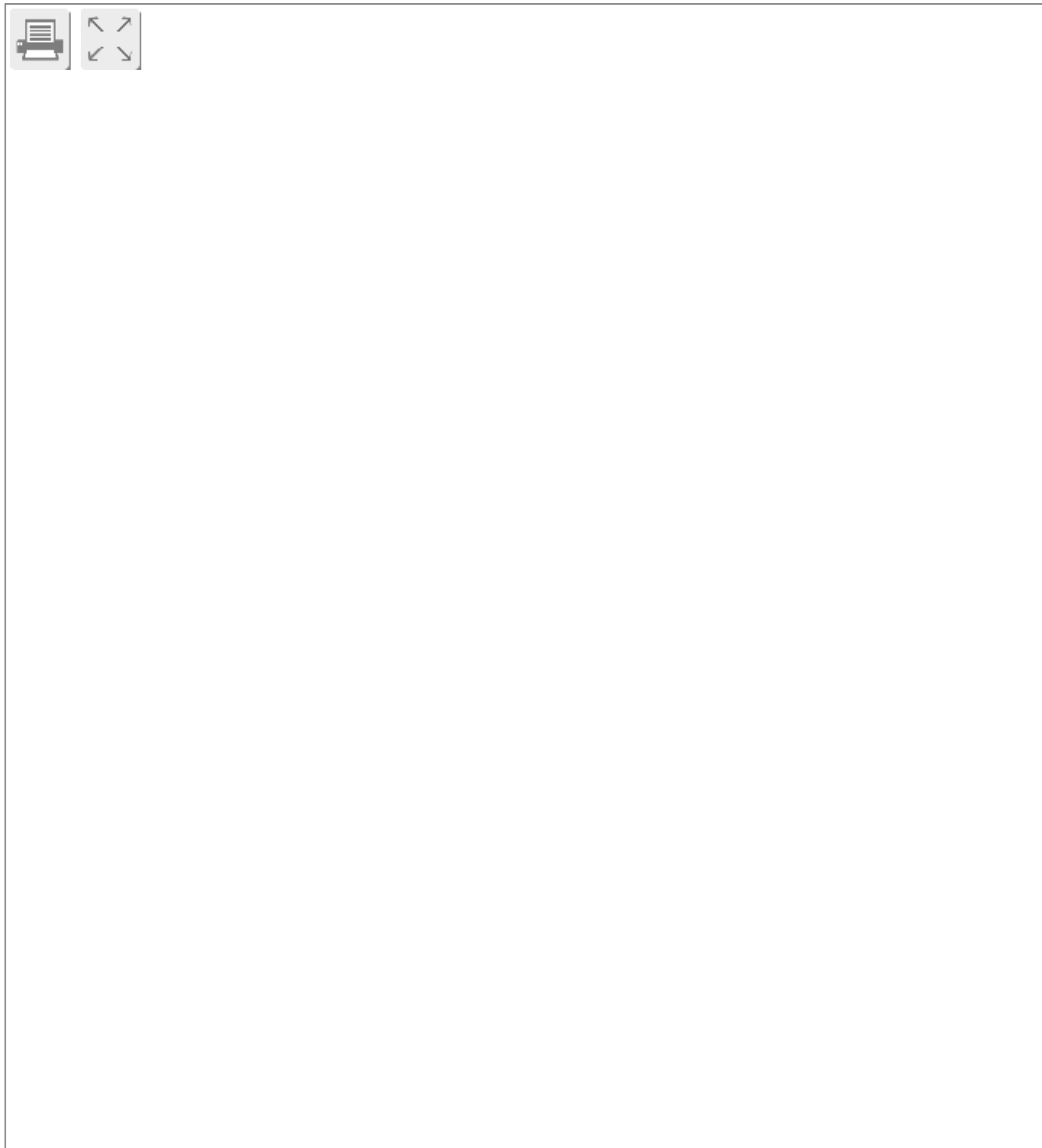




WIRING DIAGRAM

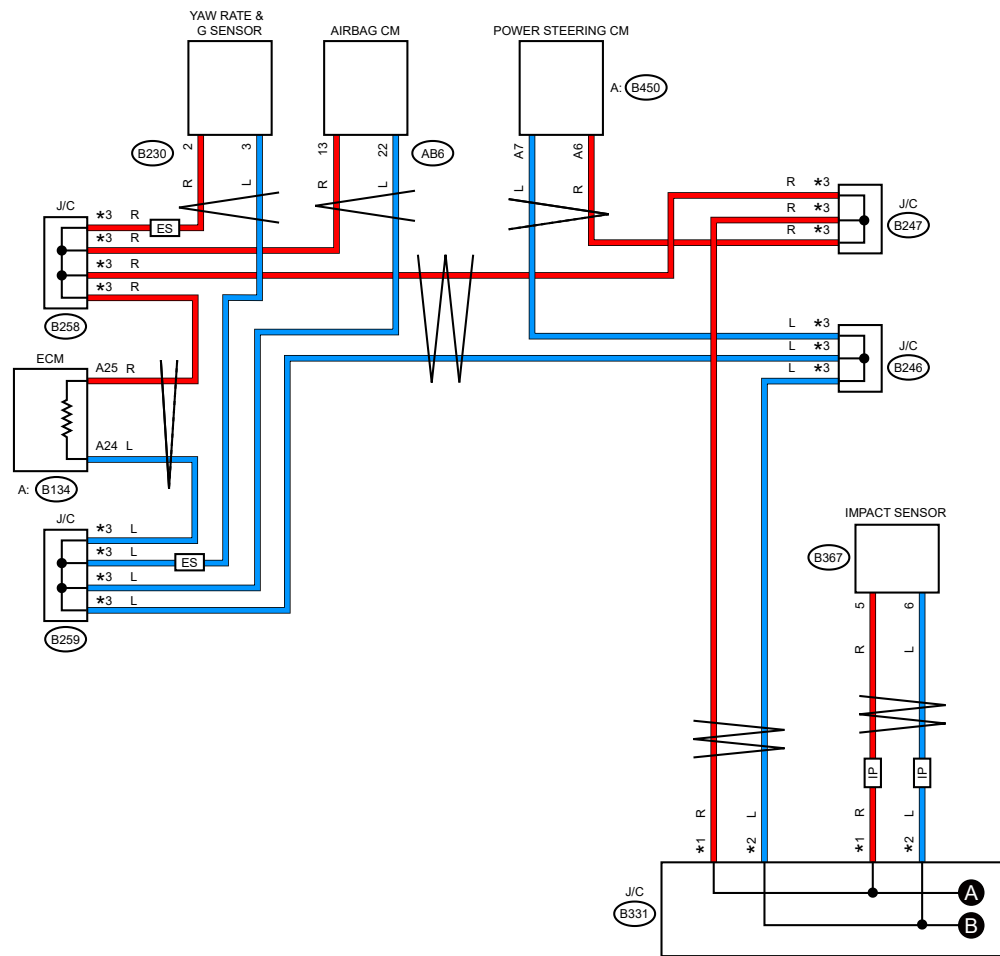
▼ Please select ▼ see

1. NON-TURBO MODEL



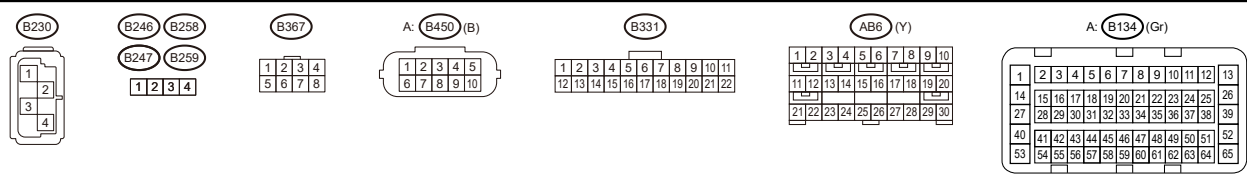
1a

1a



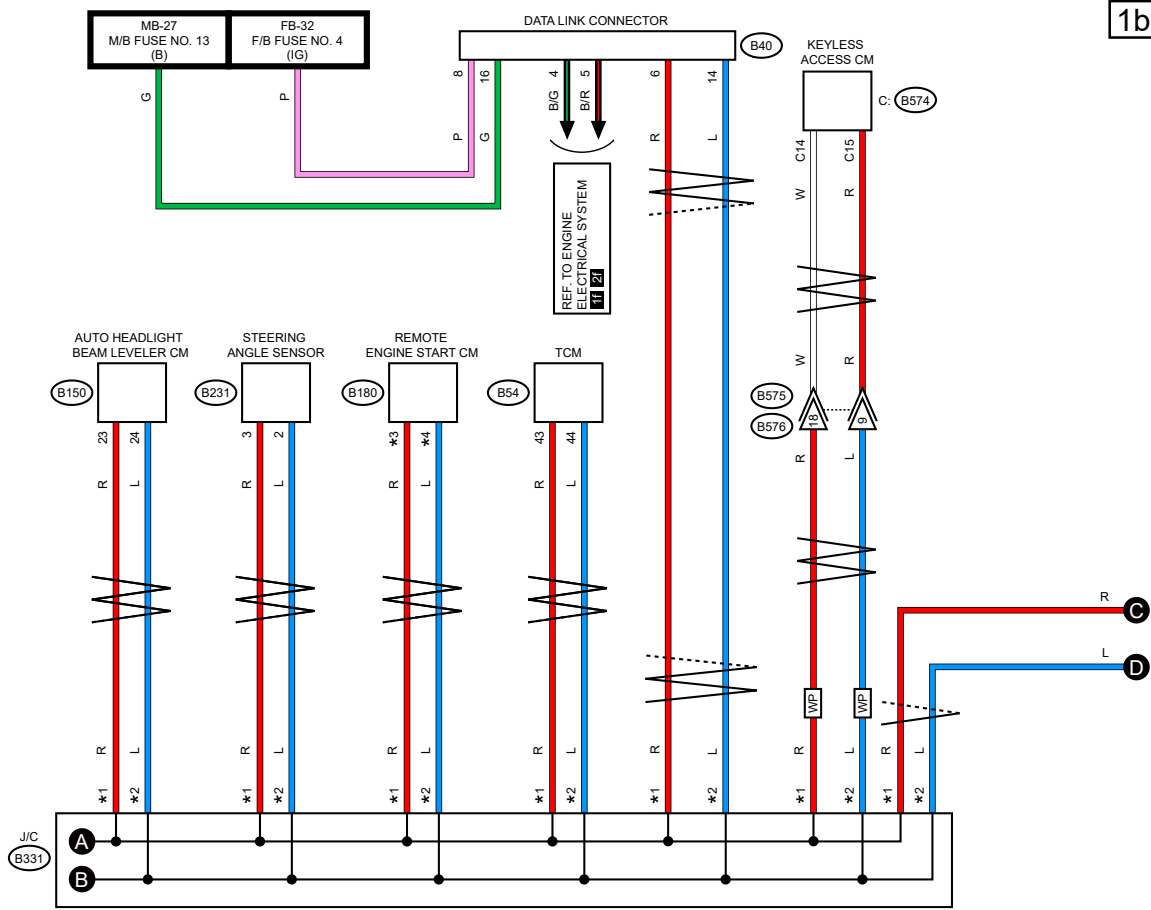
ES : WITH EyeSight
 IP : WITH IMPACT SENSOR

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
 *3 : TERMINAL No. OPTIONAL ARRANGEMENT



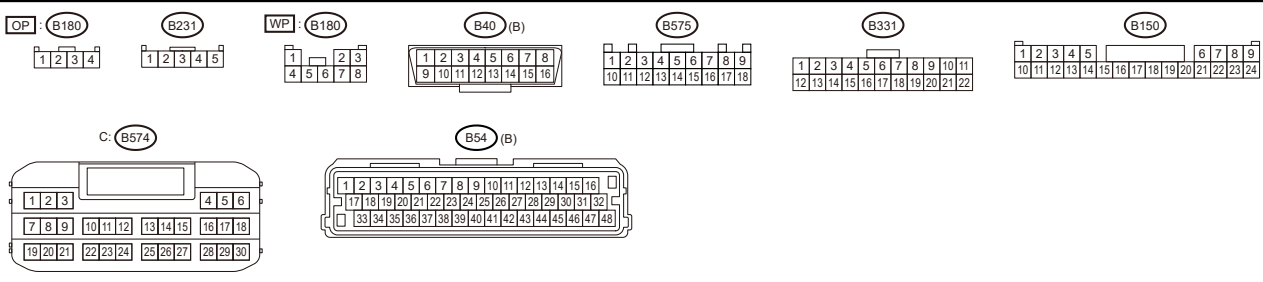
1b

1b

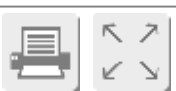


OP : WITHOUT PUSH BUTTON START
 WP : WITH PUSH BUTTON START

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
 *3 : WITHOUT PUSH BUTTON START : 1
 WITH PUSH BUTTON START : 2
 *4 : WITHOUT PUSH BUTTON START : 2
 WITH PUSH BUTTON START : 3

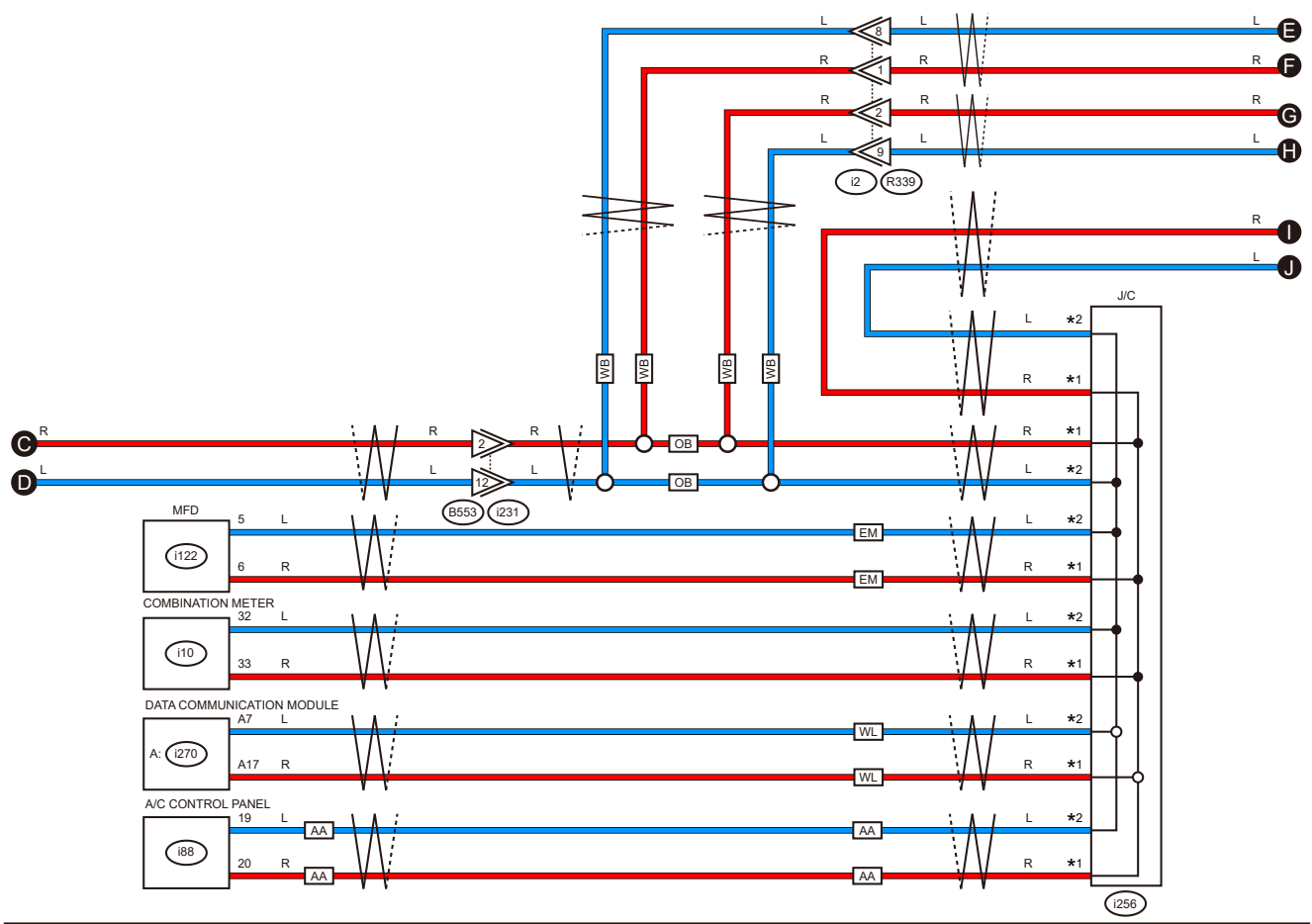


WI-65543



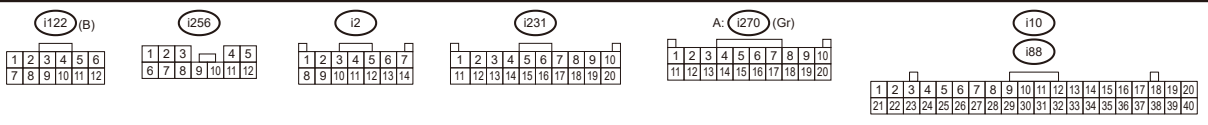
1c

1c

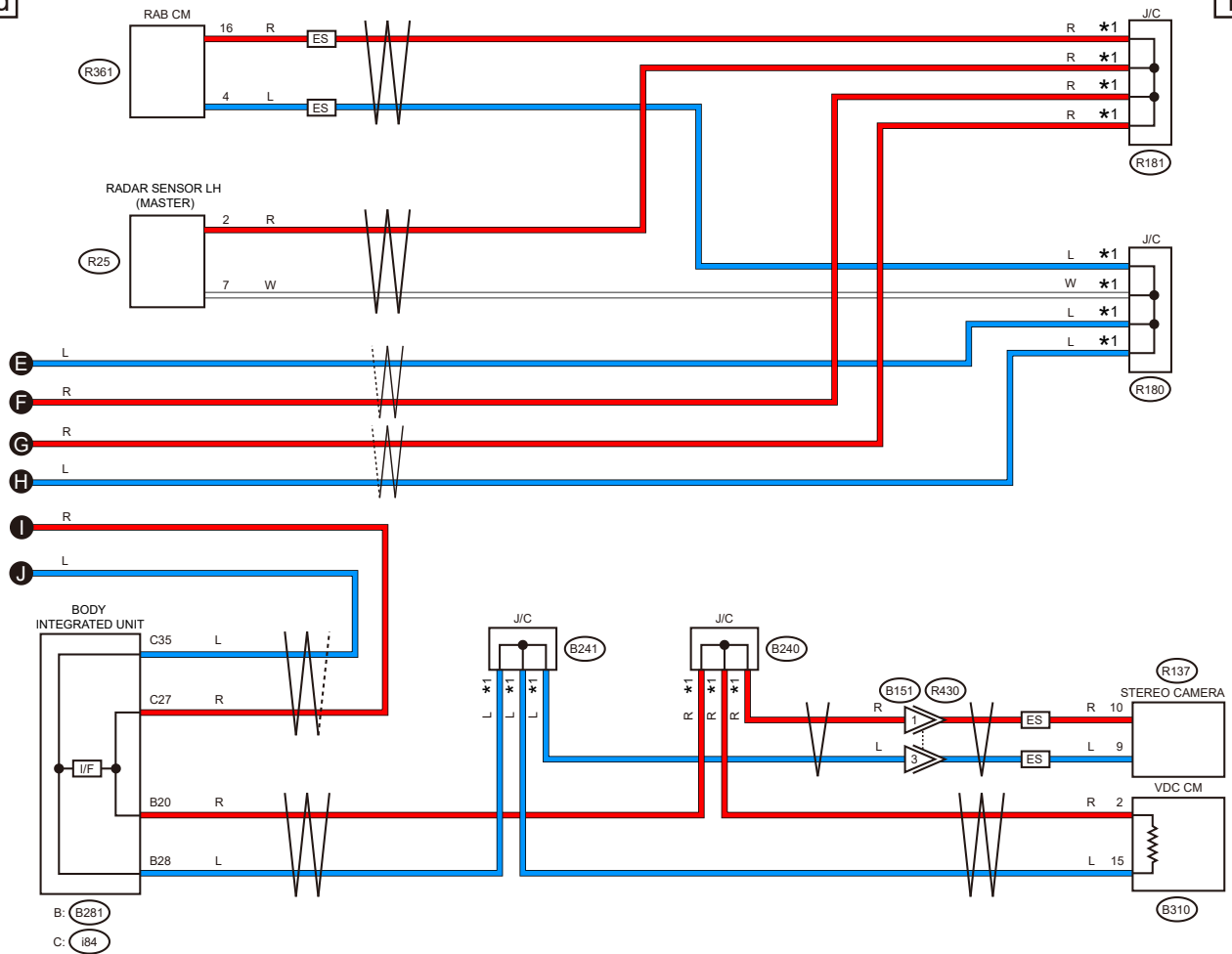


EM : EXCEPT FOR STANDARD MFD
OB : WITHOUT BSD/RCTA
WB : WITH BSD/RCTA
AA : AUTO A/C

WL : WITH TELEMATICS
 *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12



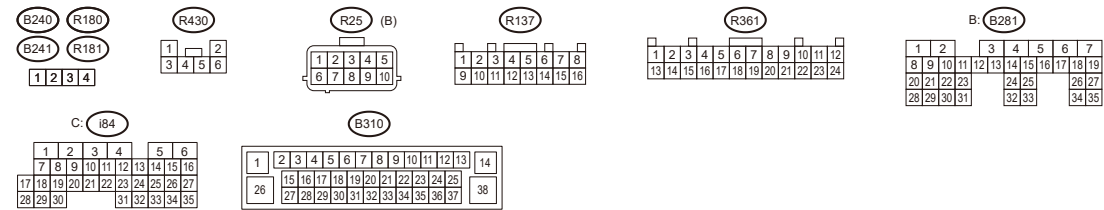
1d



1d

ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT



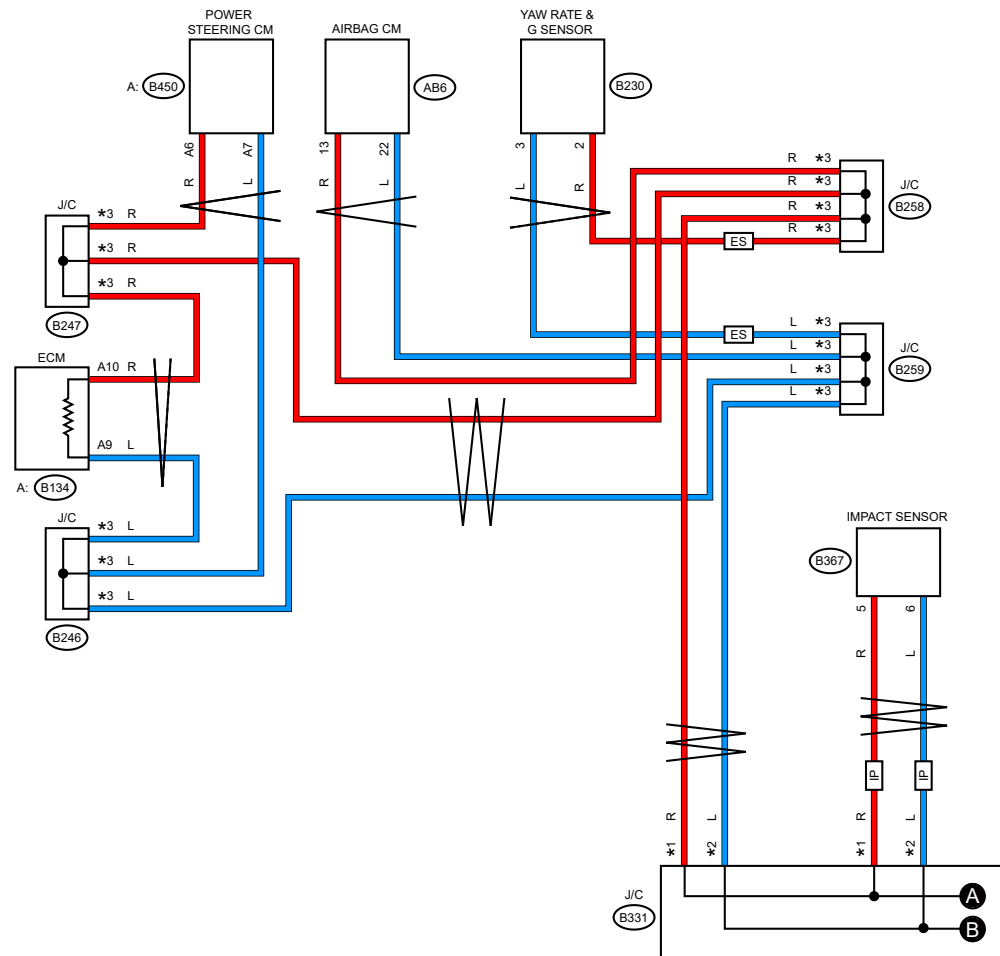
WI-67321

2. TURBO MODEL



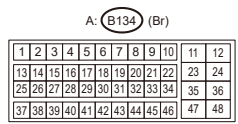
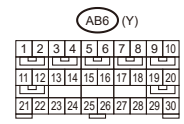
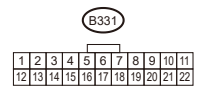
2a

2a

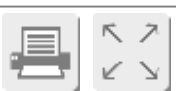


ES : WITH EyeSight
 IP : WITH IMPACT SENSOR

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
 *3 : TERMINAL No. OPTIONAL ARRANGEMENT

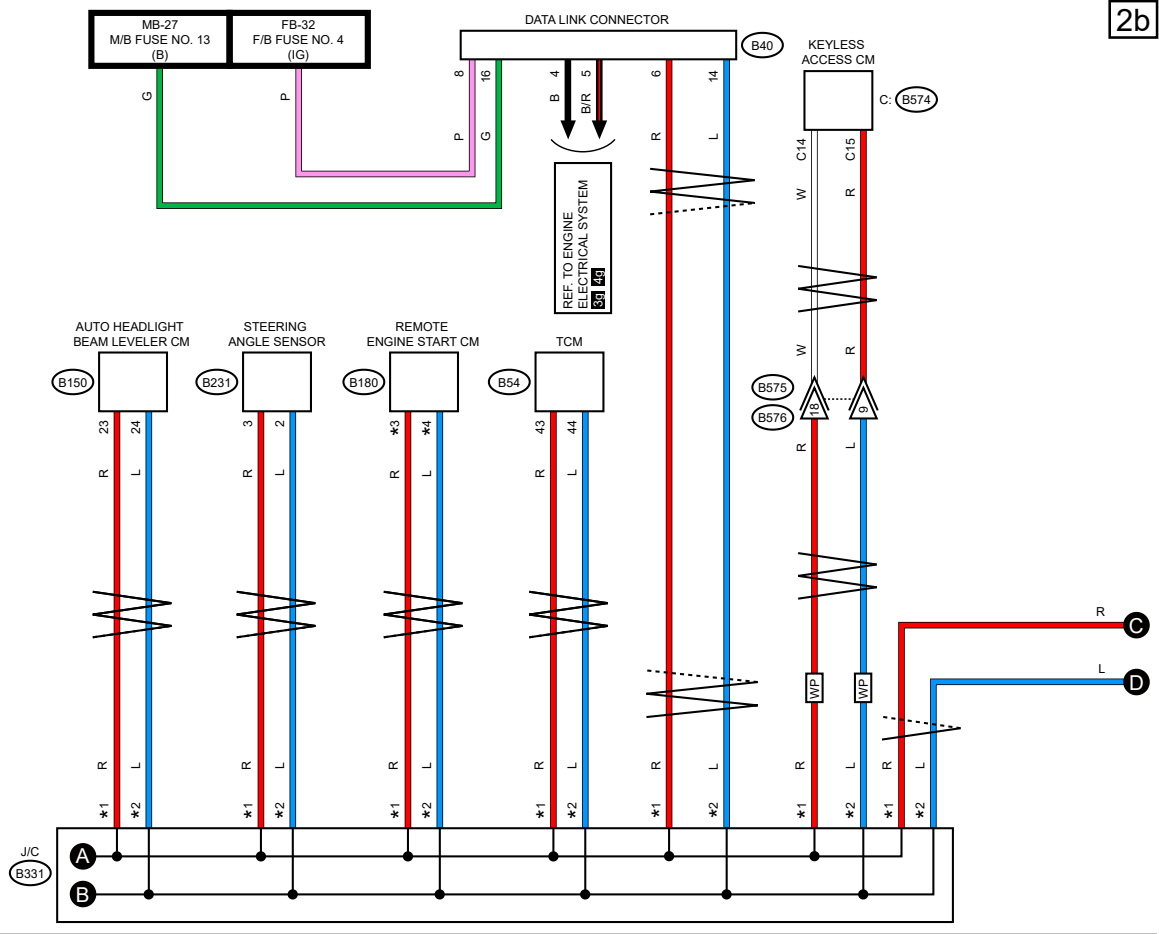


WI-65545



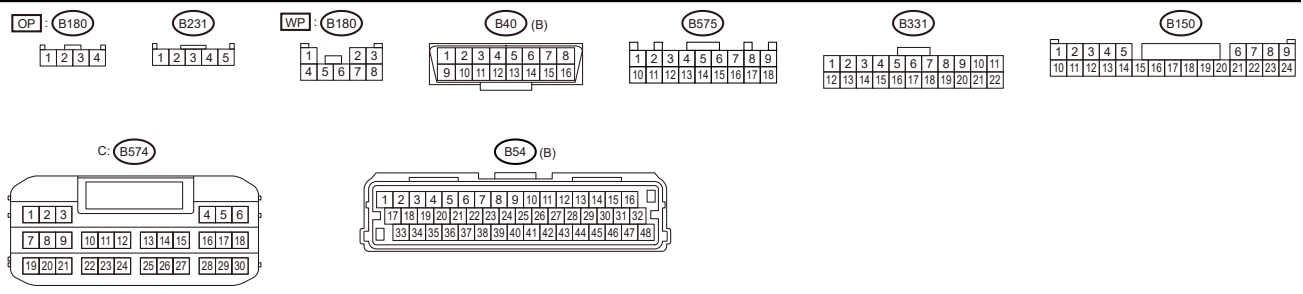
2b

2b



OP : WITHOUT PUSH BUTTON START
 WP : WITH PUSH BUTTON START

- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
- *3 : WITHOUT PUSH BUTTON START : 1
 WITH PUSH BUTTON START : 2
- *4 : WITHOUT PUSH BUTTON START : 2
 WITH PUSH BUTTON START : 3

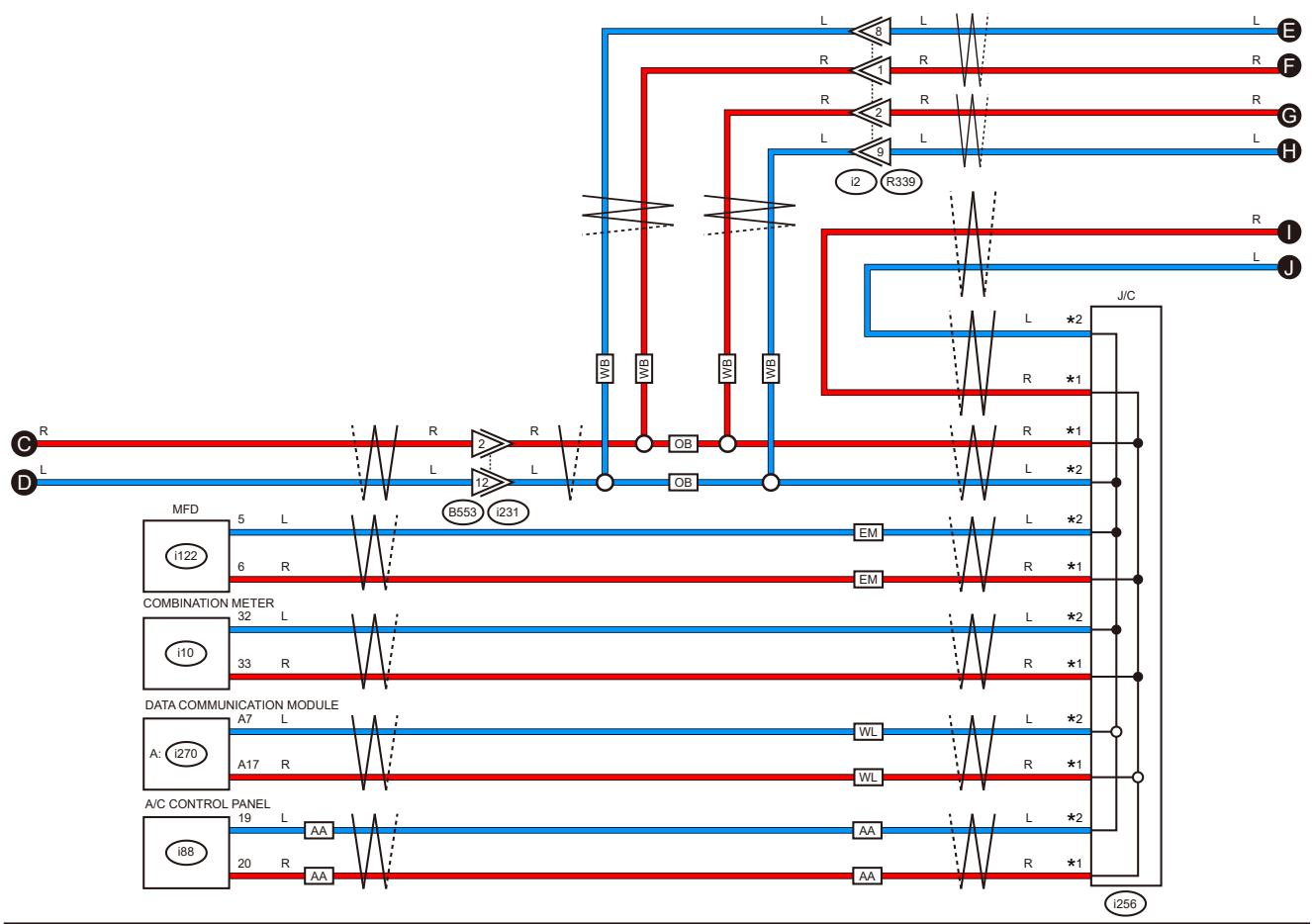


WI-65546



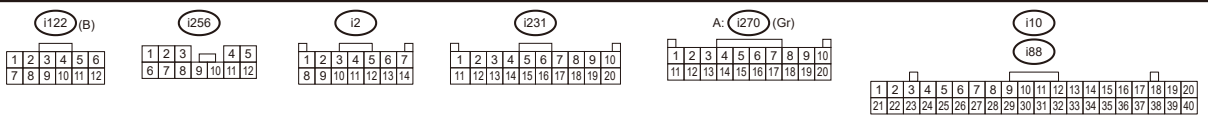
2c

2c



EM : EXCEPT FOR STANDARD MFD
OB : WITHOUT BSD/RCTA
WB : WITH BSD/RCTA
AA : AUTO A/C

WL : WITH TELEMATICS
 *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

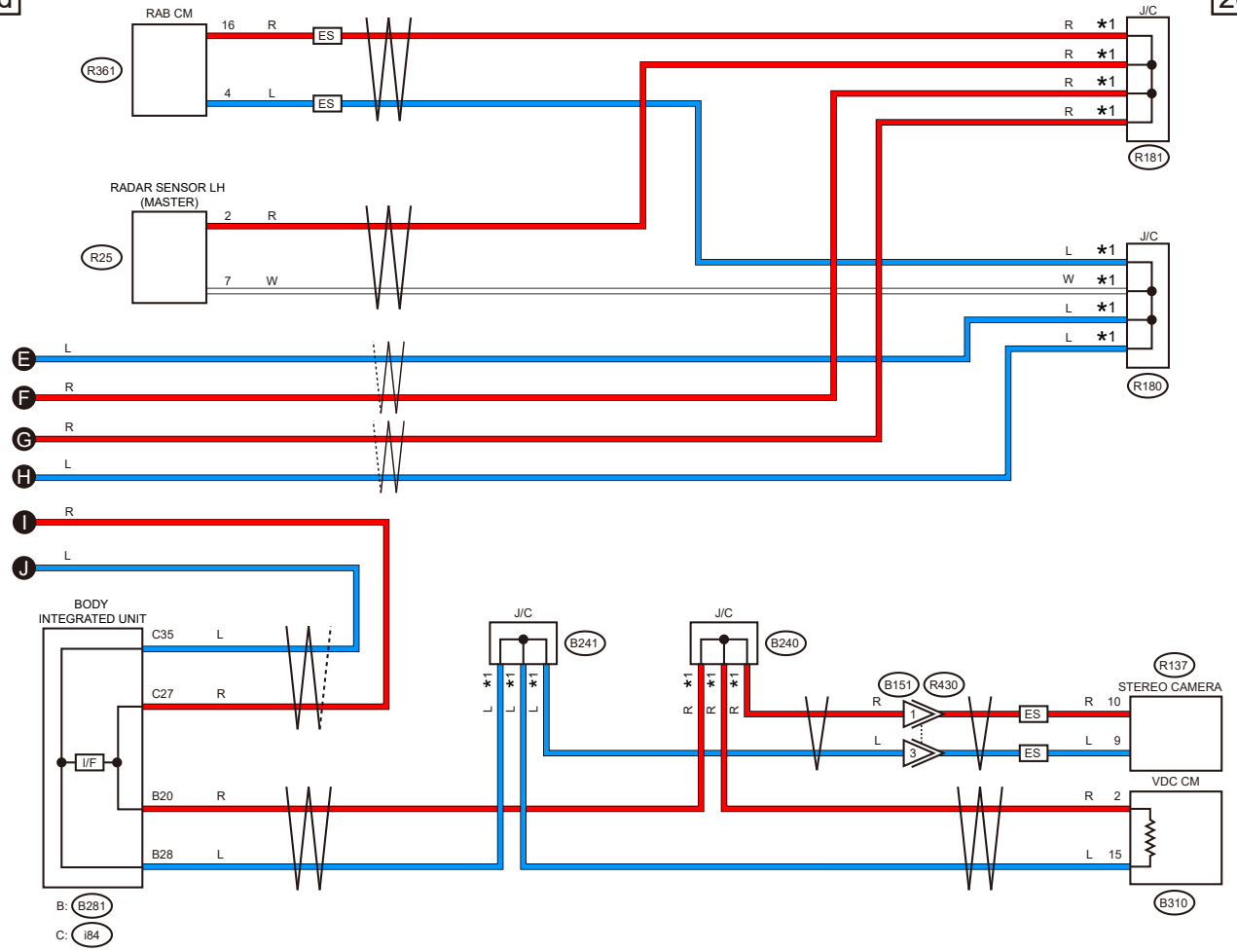


WI-65547



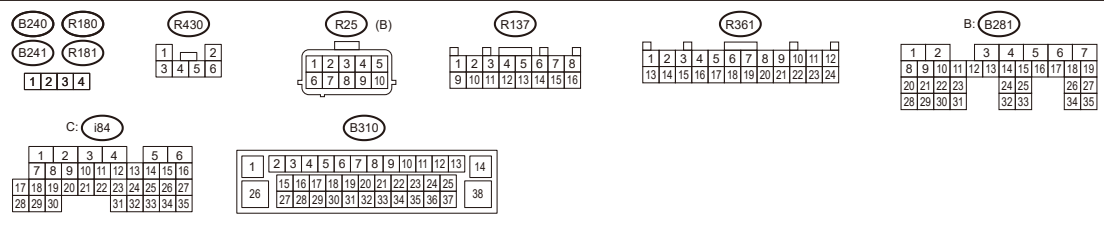
2d

2d



ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

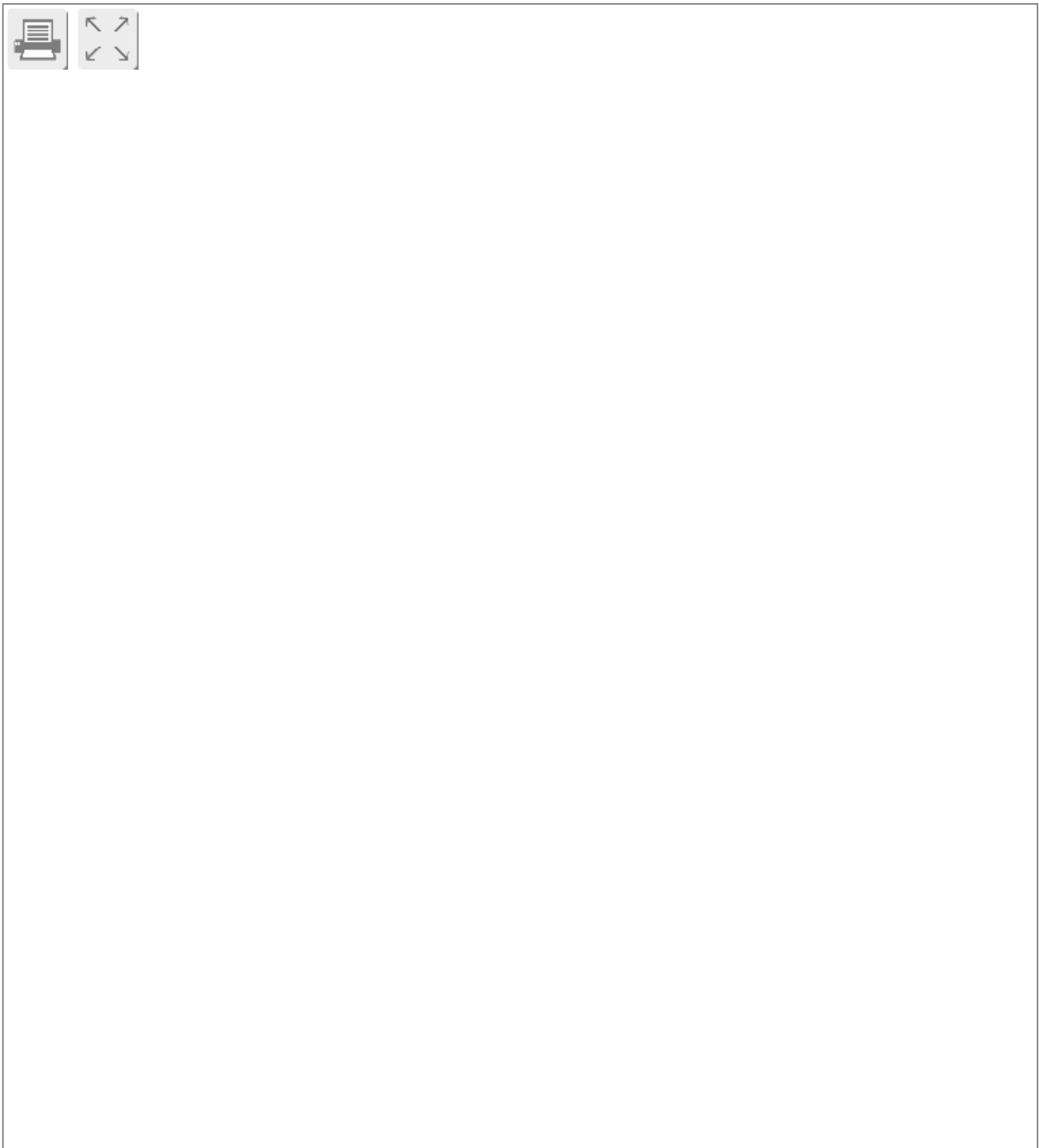


WIRING SYSTEM > Charging System

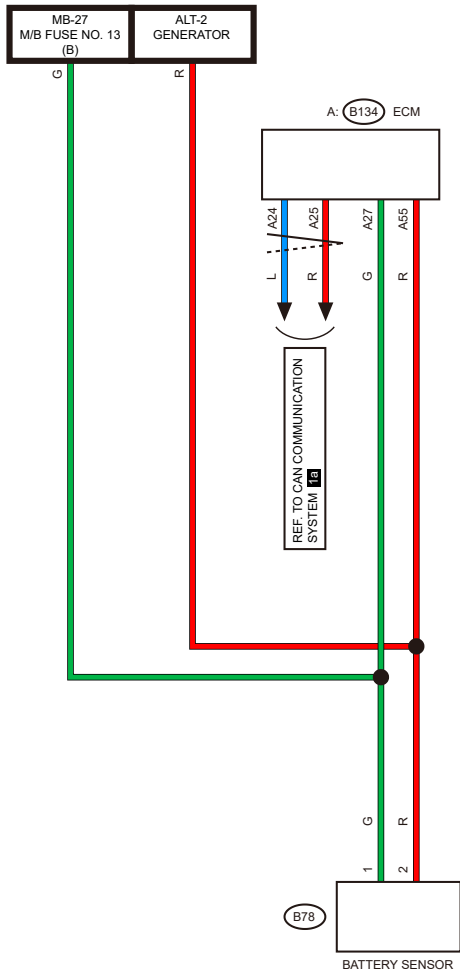
WIRING DIAGRAM

▼ Please select ▼ see

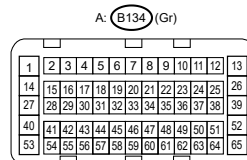
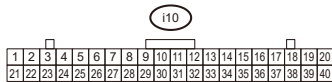
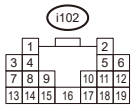
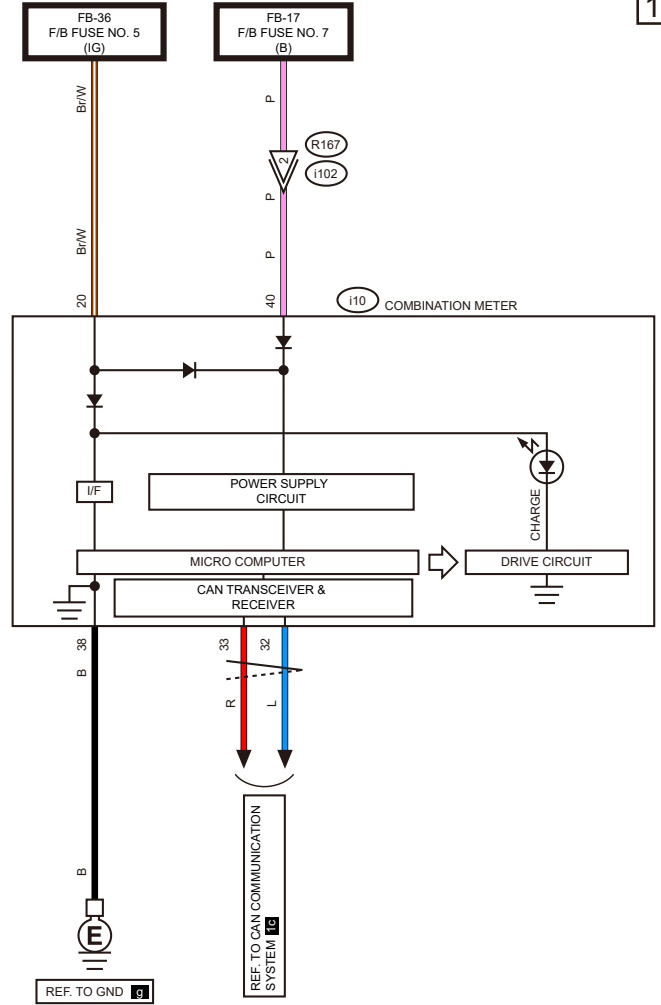
1. NON-TURBO MODEL



1a



1a



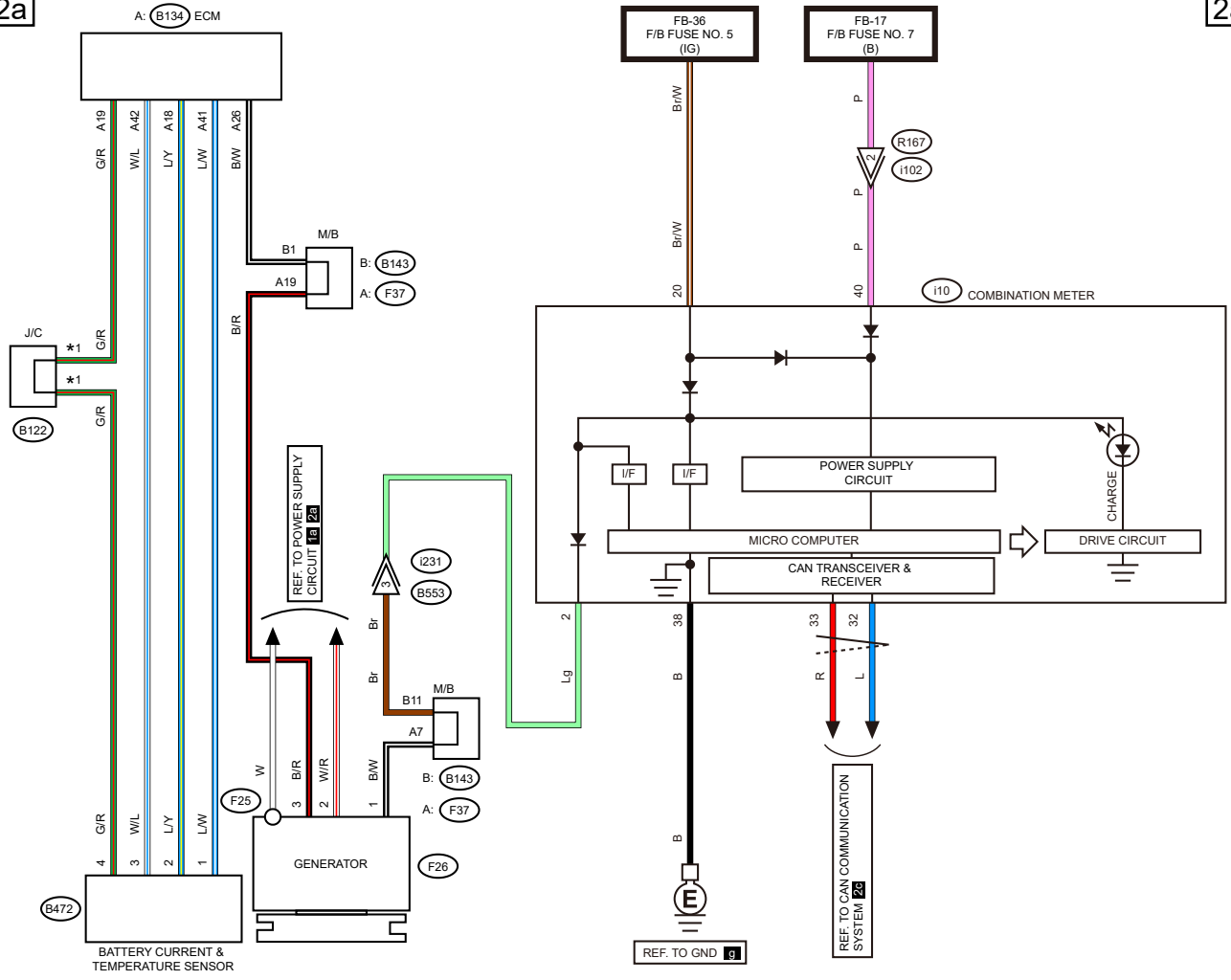
WI-65548

2. TURBO MODEL

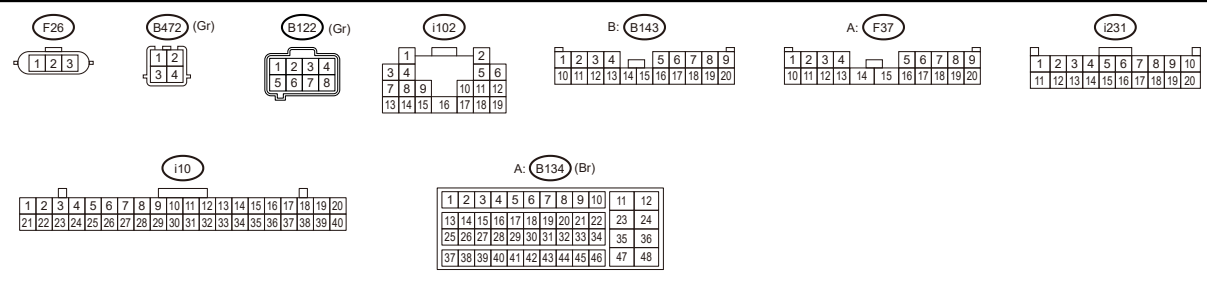


2a

2a



*1 : TERMINAL No. OPTIONAL ARRANGEMENT

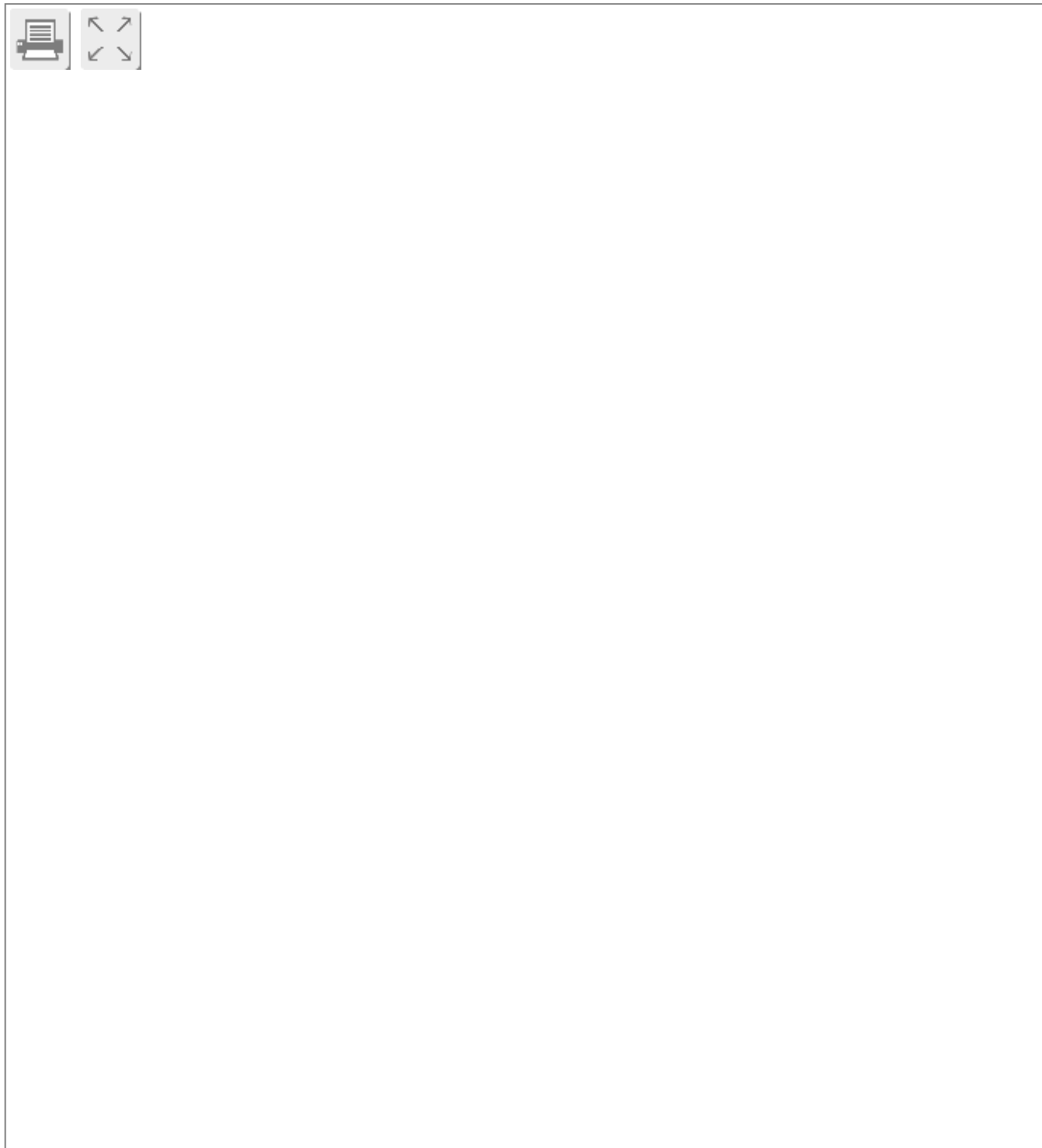


WIRING SYSTEM > Clearance Light and Illumination Light System

WIRING DIAGRAM

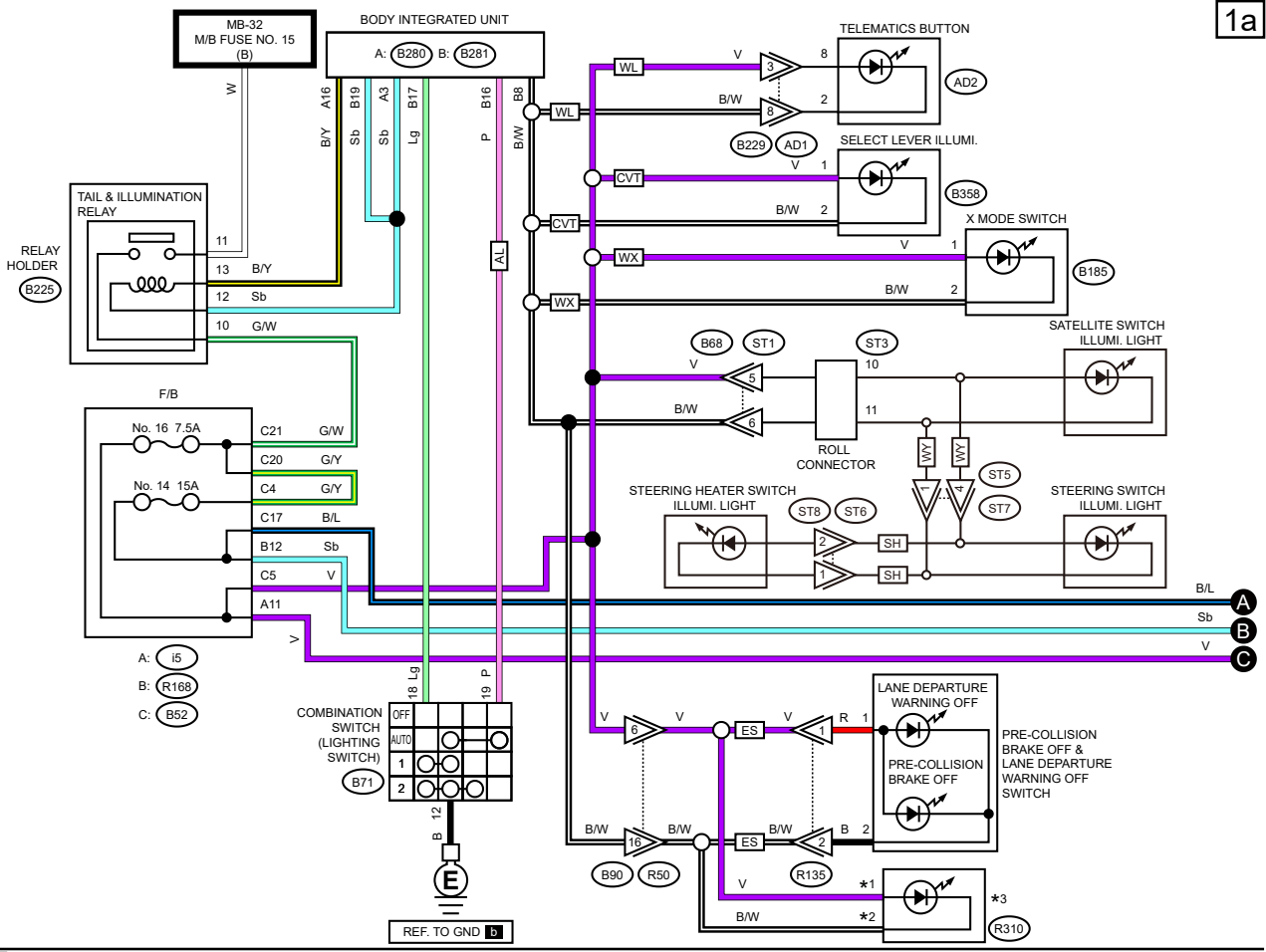
▼ Please select ▼ see

1. FRONT COMBINATION LIGHT HALOGEN MODEL

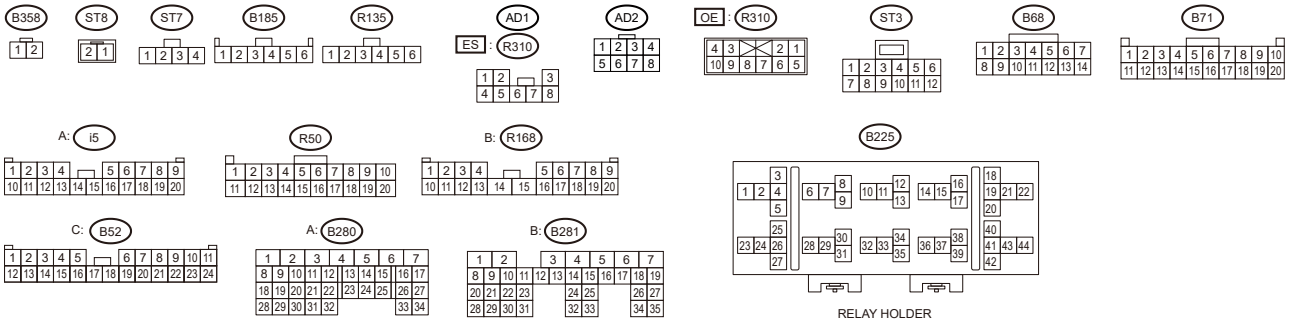


1a

1a



- OE** : WITHOUT EyeSight
- ES** : WITH EyeSight
- WY** : WITH STEERING SWITCH
- SH** : WITH STEERING HEATER
- WX** : WITH X MODE
- AL** : WITH AUTO LIGHT
- WL** : WITH TELEMATICS
- *1 : WITHOUT EyeSight : 9
WITH EyeSight : 5
- *2 : WITHOUT EyeSight : 10
WITH EyeSight : 4
- *3 : WITHOUT EyeSight : OVERHEAD CONSOLE (SHOWER LIGHT)
WITH EyeSight : STEREO CAMERA COVER (SHOWER LIGHT)

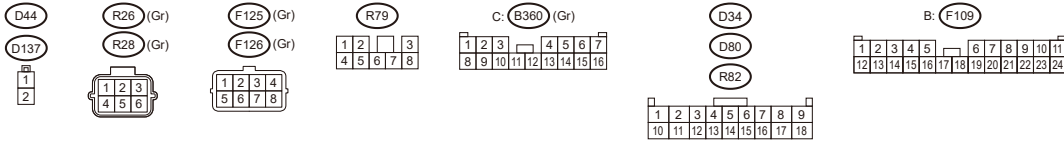
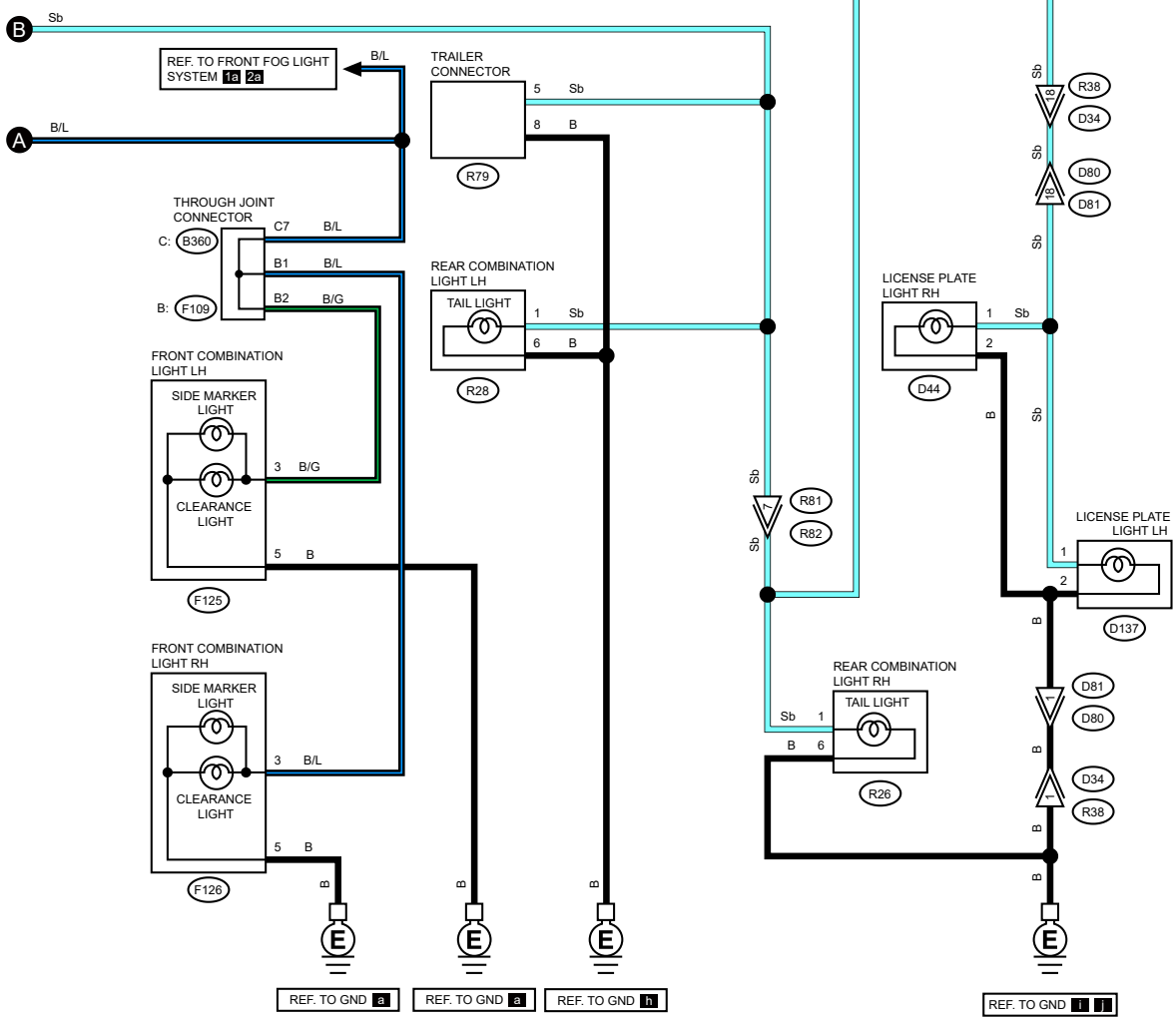


WI-65550



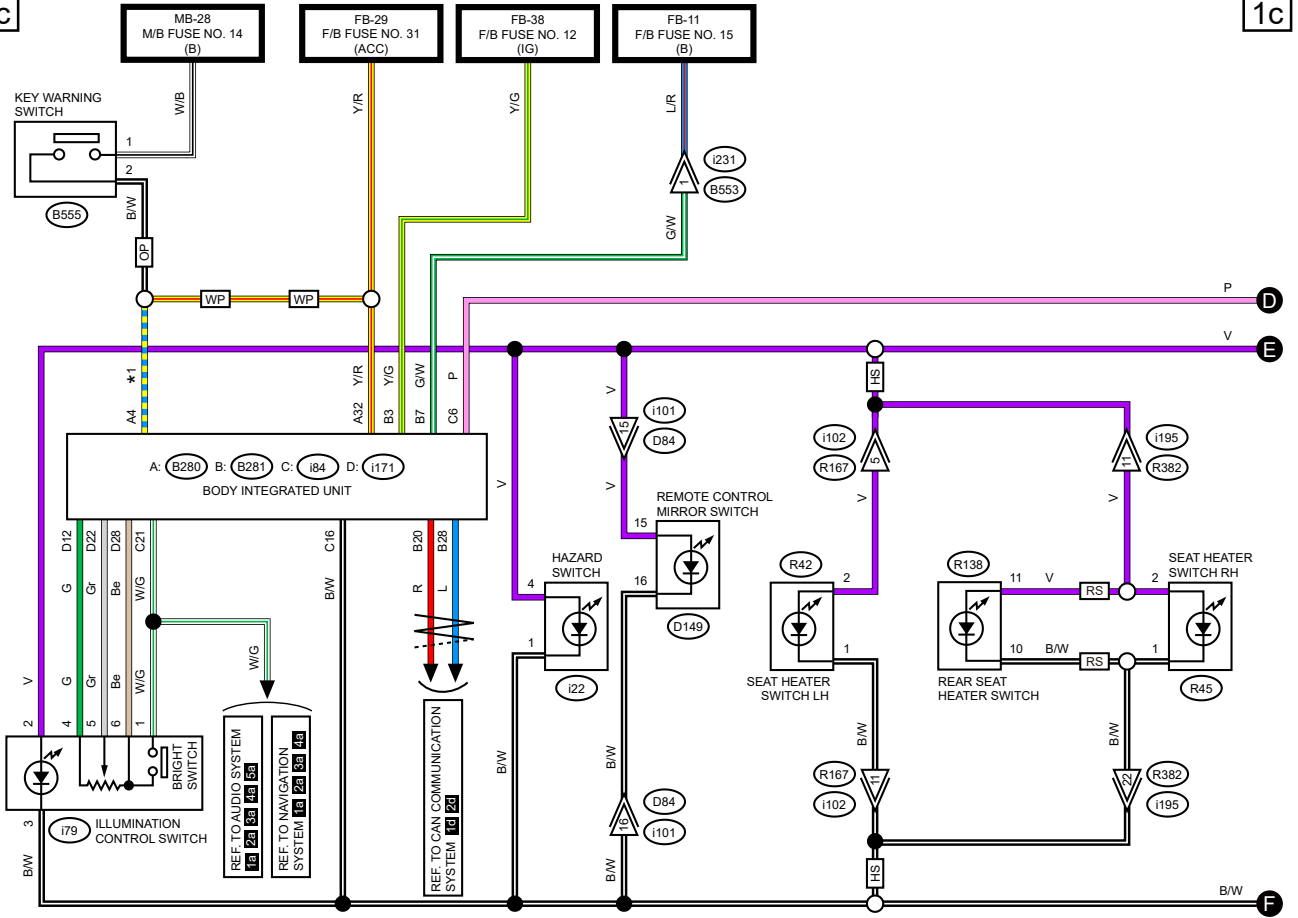
1b

1b



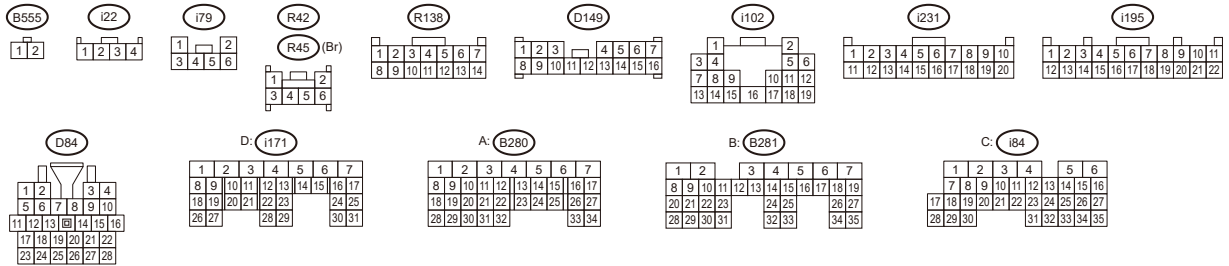
1c

1c



- HS** : WITH FRONT SEAT HEATER
- OP** : WITHOUT PUSH BUTTON START
- WP** : WITH PUSH BUTTON START
- RS** : WITH REAR SEAT HEATER

*1 : WITHOUT PUSH BUTTON START : B/W
WITH PUSH BUTTON START : Y/R

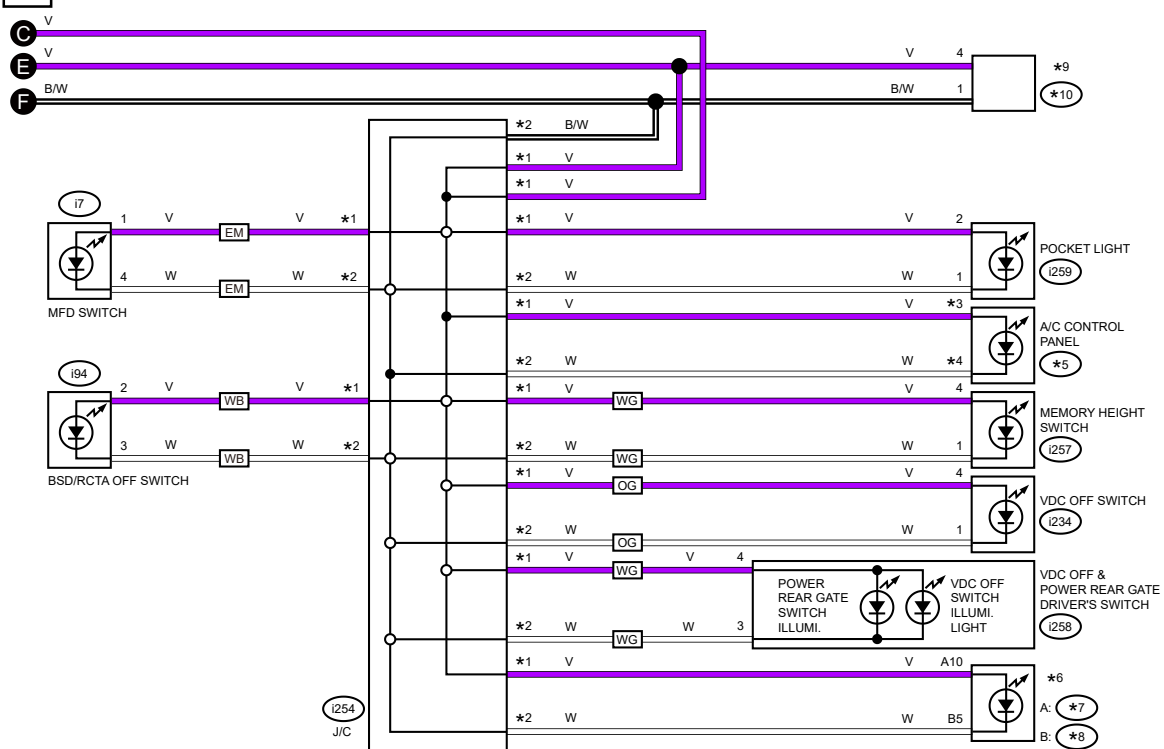


WI-65552



1d

1d



EM : EXCEPT FOR STANDARD MFD

WB : WITH BSD/RCTA

OG : WITHOUT POWER REAR GATE

WG : WITH POWER REAR GATE

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11

*2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22

*3 : MANUAL A/C : 14

AUTO A/C : 37

*4 : MANUAL A/C : 12

AUTO A/C : 35

*5 : MANUAL A/C : i16

AUTO A/C : i88

*6 : WITHOUT NAVIGATION : AUDIO
WITH NAVIGATION : NAVIGATION UNIT

*7 : WITHOUT AUDIO AMPLIFIER : i85

WITH AUDIO AMPLIFIER : i35

*8 : WITHOUT AUDIO AMPLIFIER : i131

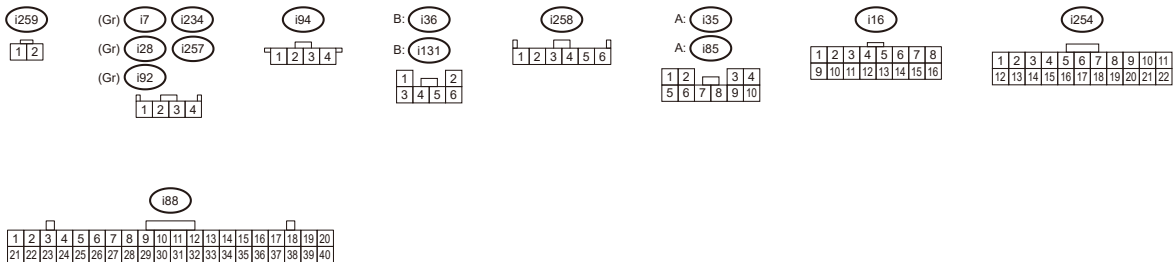
WITH AUDIO AMPLIFIER : i36

*9 : WITHOUT SRF : OP CONNECTOR (FOG LIGHT SWITCH)

WITH SRF : SRF OFF SWITCH

*10 : WITHOUT SRF : i28

WITH SRF : i92

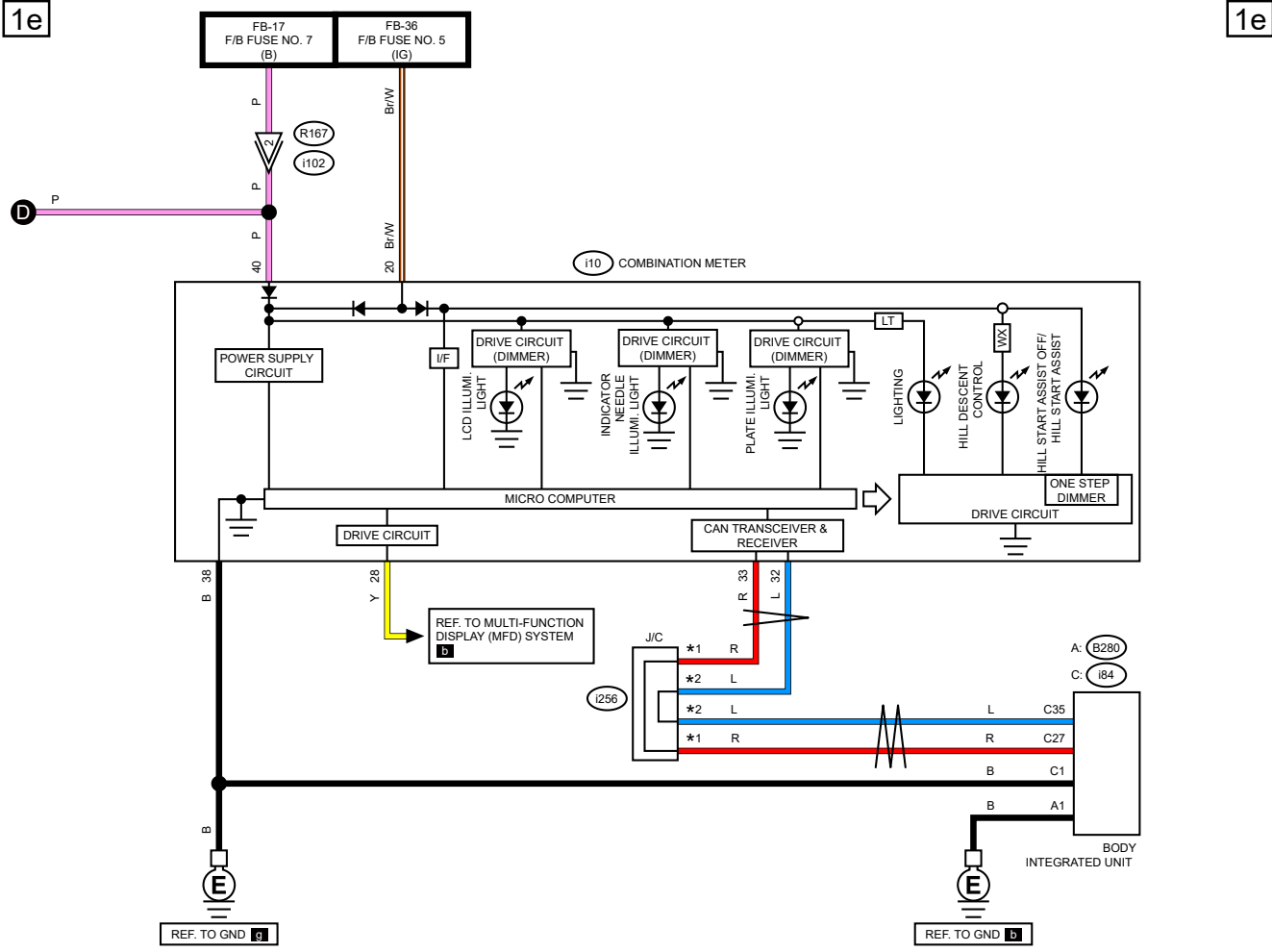


WI-65553



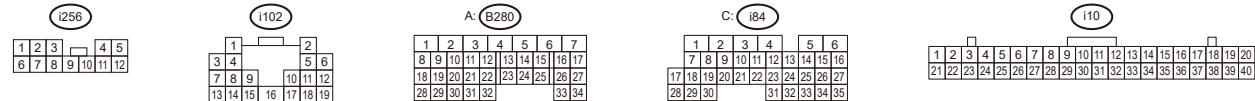
1e

1e



WX : WITH X MODE
LT : WITH LIGHTING INDICATOR

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12



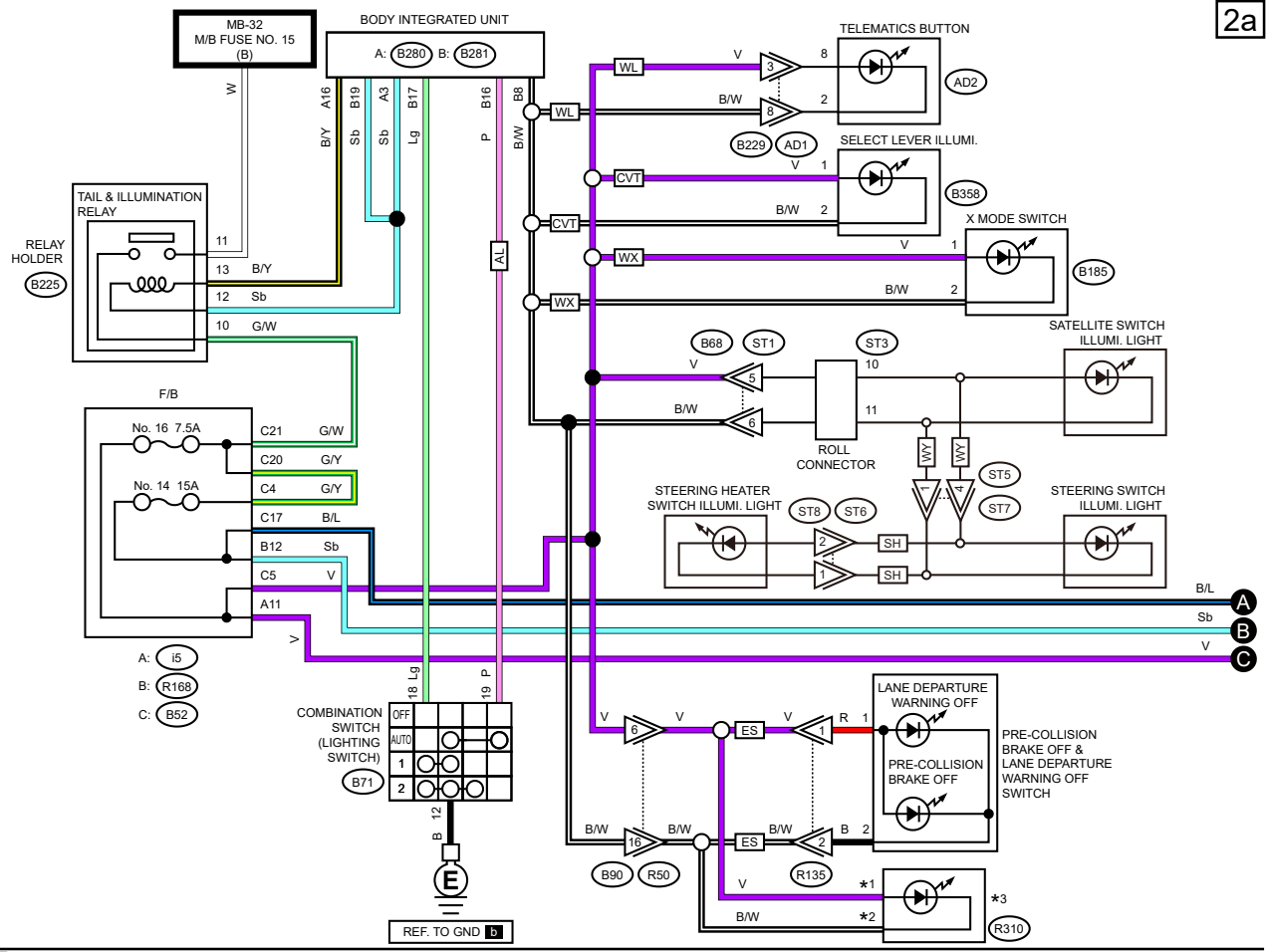
WI-65554

2. FRONT COMBINATION LIGHT LED MODEL



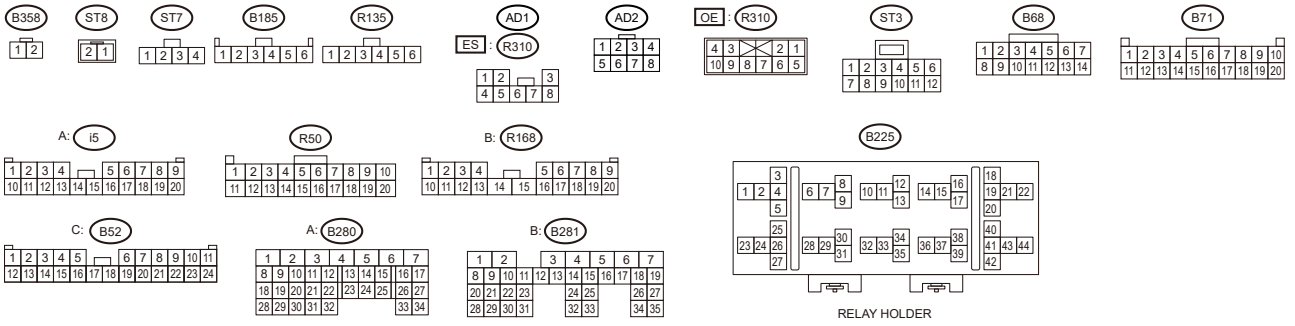
2a

2a



- OE** : WITHOUT EyeSight
- ES** : WITH EyeSight
- WY** : WITH STEERING SWITCH
- SH** : WITH STEERING HEATER
- WX** : WITH X MODE
- AL** : WITH AUTO LIGHT

- WL** : WITH TELEMATICS
- *1 : WITHOUT EyeSight : 9
WITH EyeSight : 5
- *2 : WITHOUT EyeSight : 10
WITH EyeSight : 4
- *3 : WITHOUT EyeSight : OVERHEAD CONSOLE (SHOWER LIGHT)
WITH EyeSight : STEREO CAMERA COVER (SHOWER LIGHT)

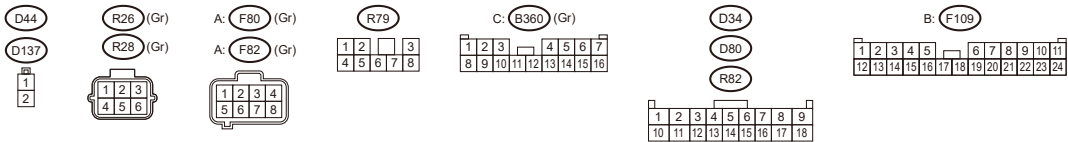
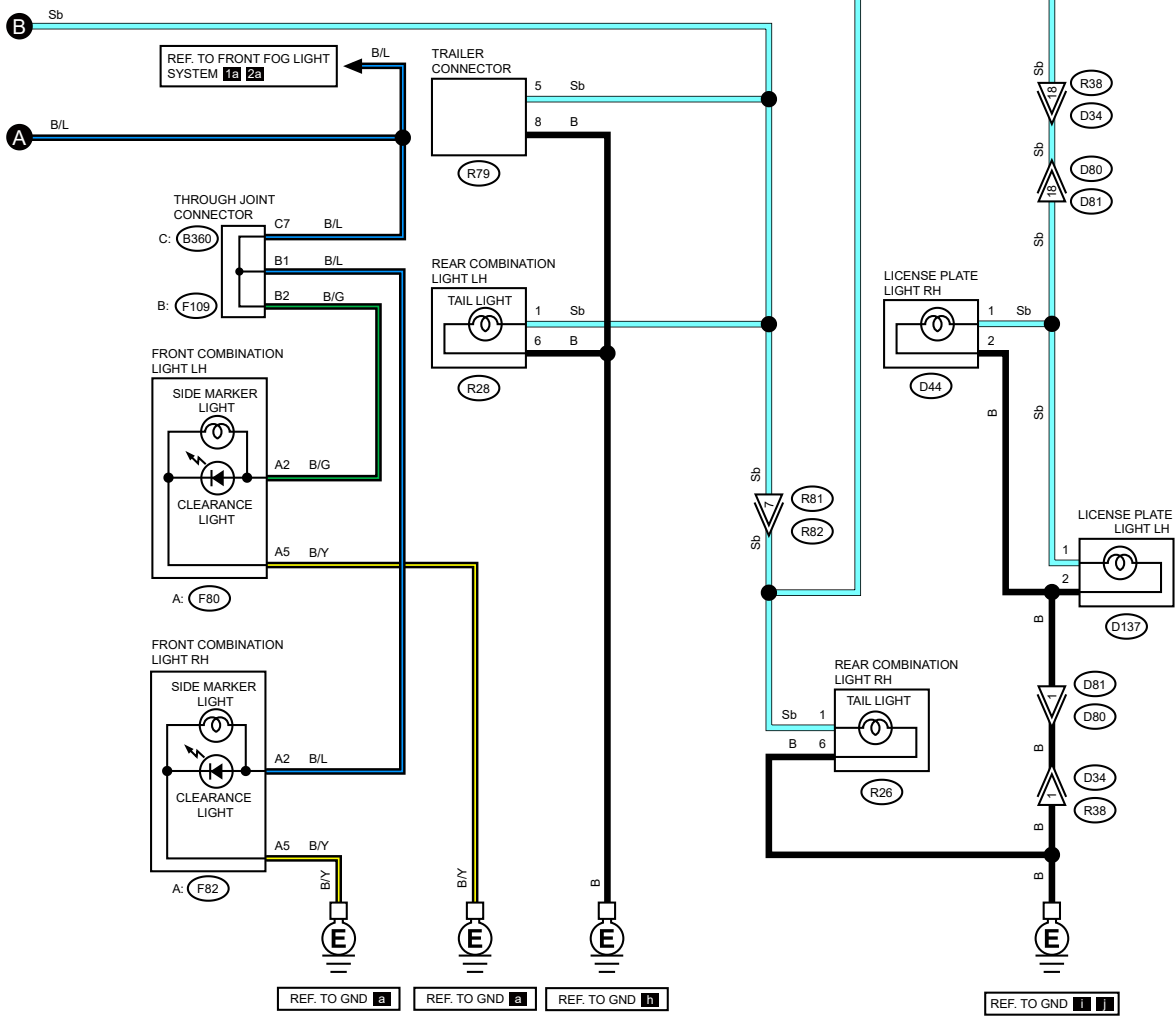


WI-67323



2b

2b

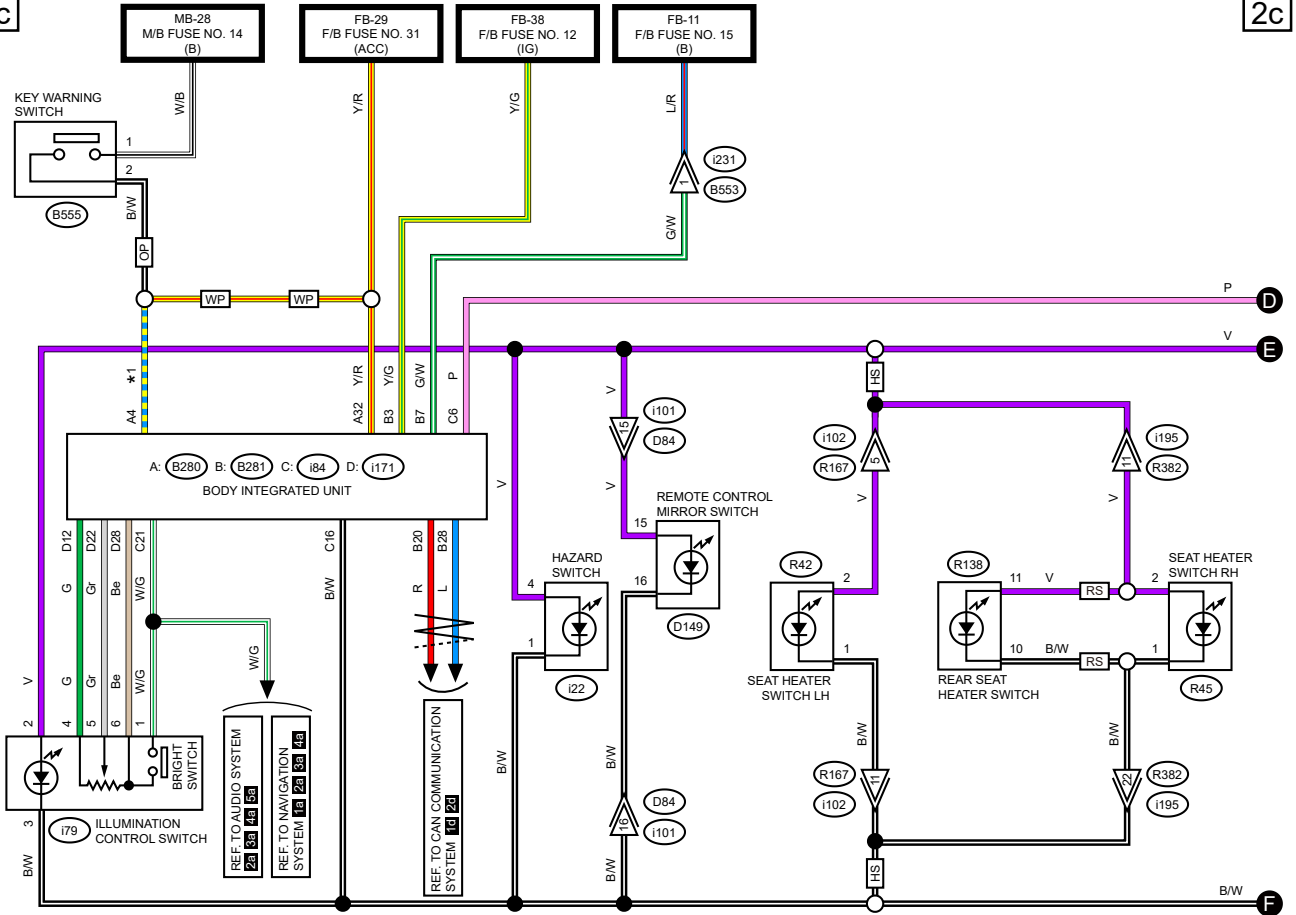


WI-67324



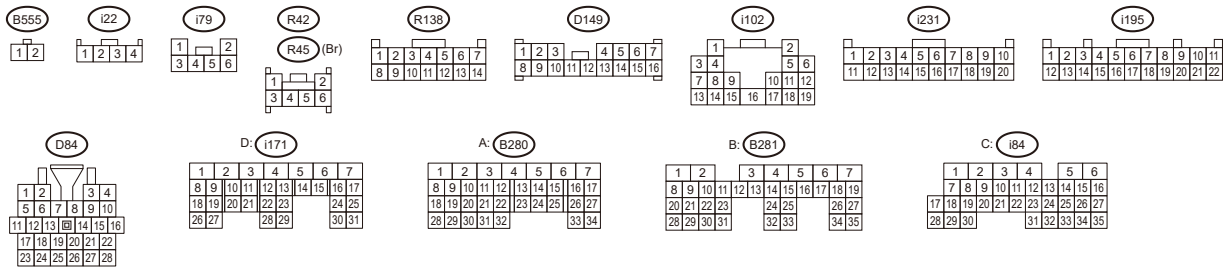
2c

2c



- HS** : WITH FRONT SEAT HEATER
- OP** : WITHOUT PUSH BUTTON START
- WP** : WITH PUSH BUTTON START
- RS** : WITH REAR SEAT HEATER

*1 : WITHOUT PUSH BUTTON START : B/W
WITH PUSH BUTTON START : Y/R

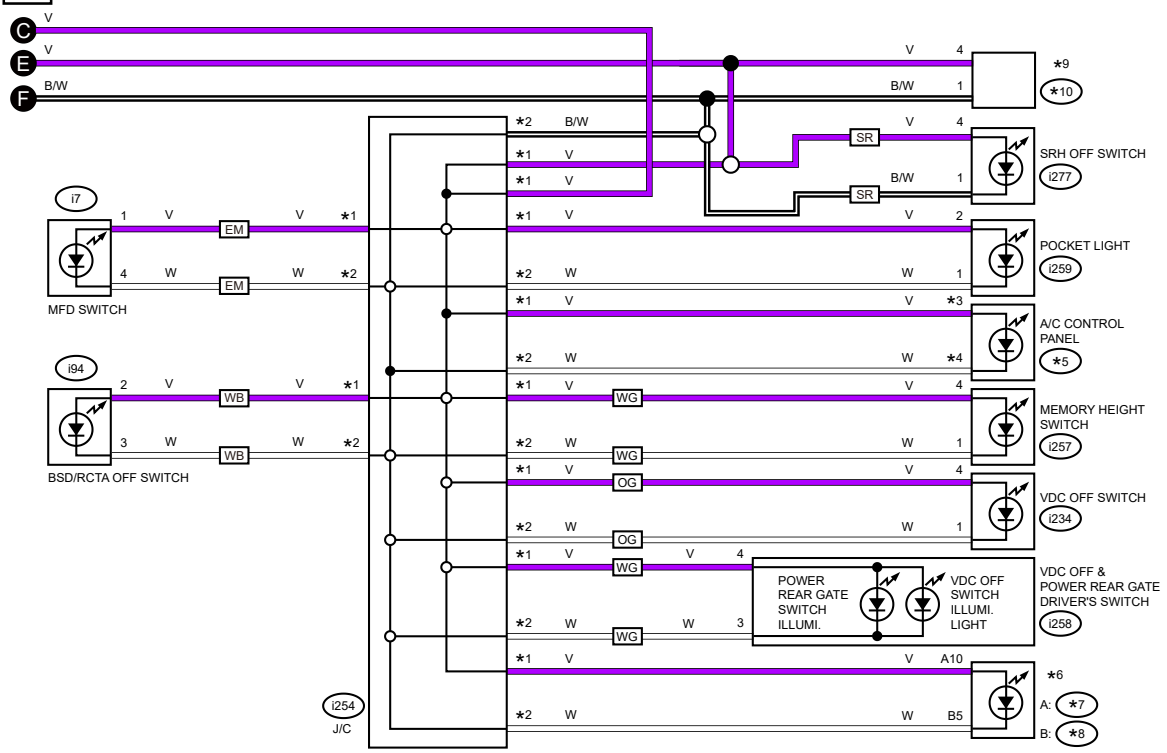


WI-67325



2d

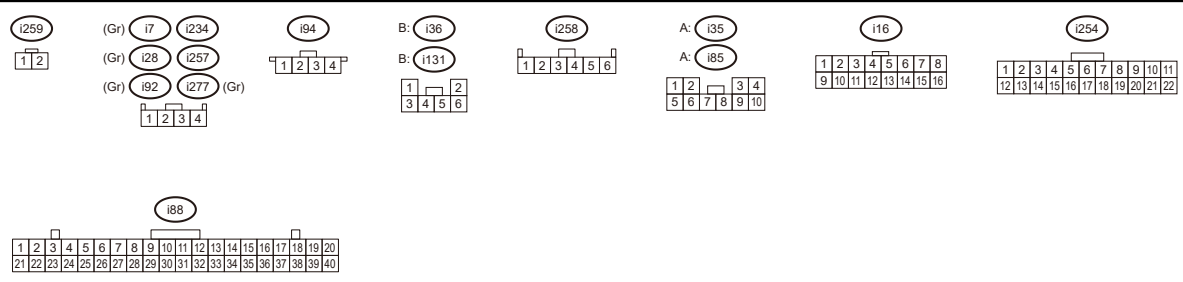
2d



- EM** : EXCEPT FOR STANDARD MFD
- WB** : WITH BSD/RCTA
- SR** : WITH SRH
- OG** : WITHOUT POWER REAR GATE
- WG** : WITH POWER REAR GATE

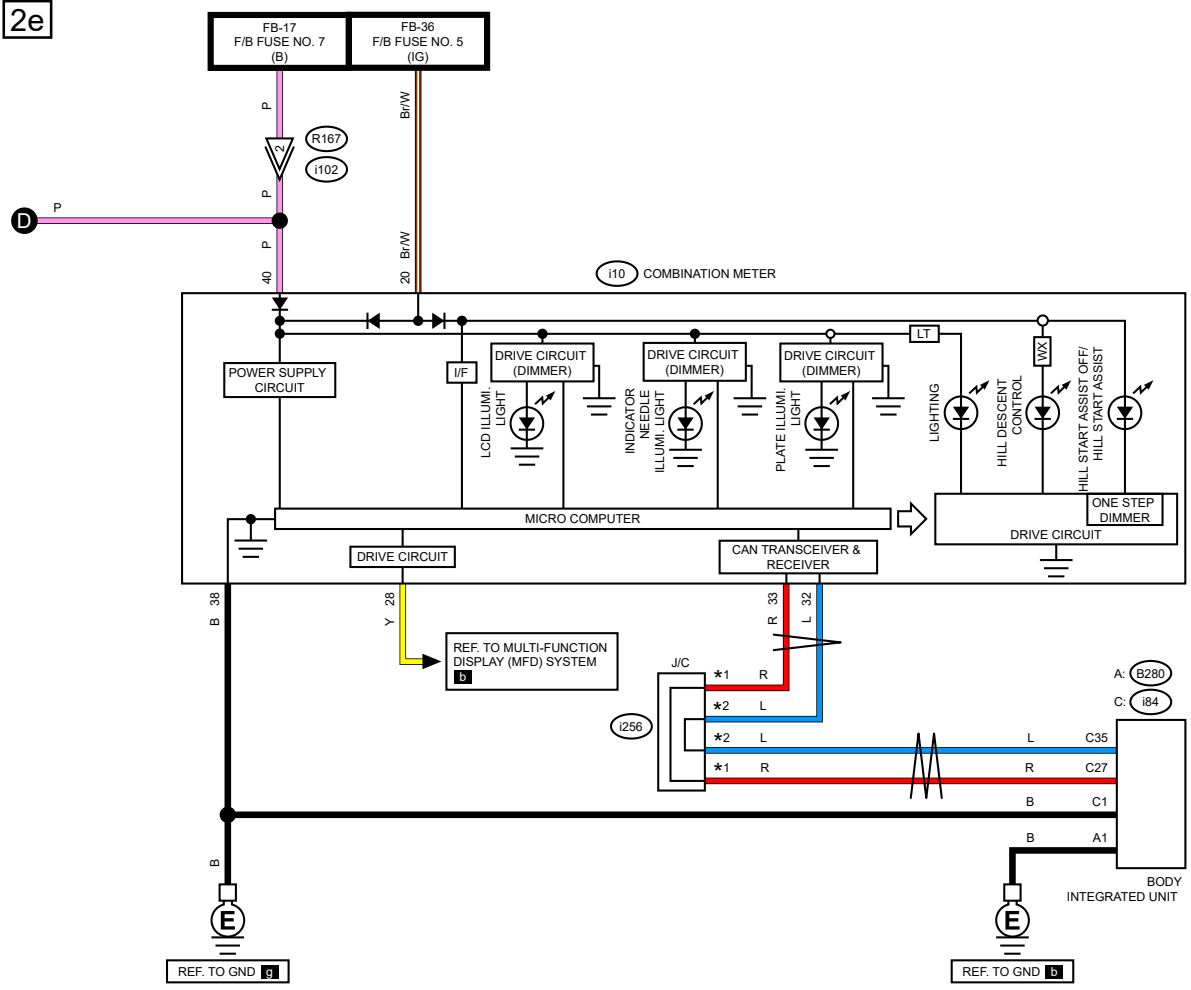
- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
- *3 : MANUAL A/C : 14
AUTO A/C : 37
- *4 : MANUAL A/C : 12
AUTO A/C : 35

- *5 : MANUAL A/C : I16
AUTO A/C : I88
- *6 : WITHOUT NAVIGATION : AUDIO
WITH NAVIGATION : NAVIGATION UNIT
- *7 : WITHOUT AUDIO AMPLIFIER : I85
WITH AUDIO AMPLIFIER : I35
- *8 : WITHOUT AUDIO AMPLIFIER : I131
WITH AUDIO AMPLIFIER : I36
- *9 : WITHOUT SRF : OP CONNECTOR (FOG LIGHT SWITCH)
WITH SRF : SRF OFF SWITCH
- *10 : WITHOUT SRF : I28
WITH SRF : I92



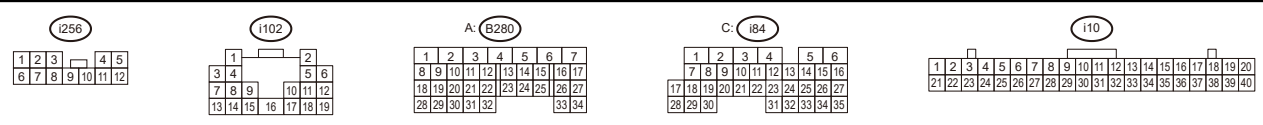
2e

2e



WX : WITH X MODE
LT : WITH LIGHTING INDICATOR

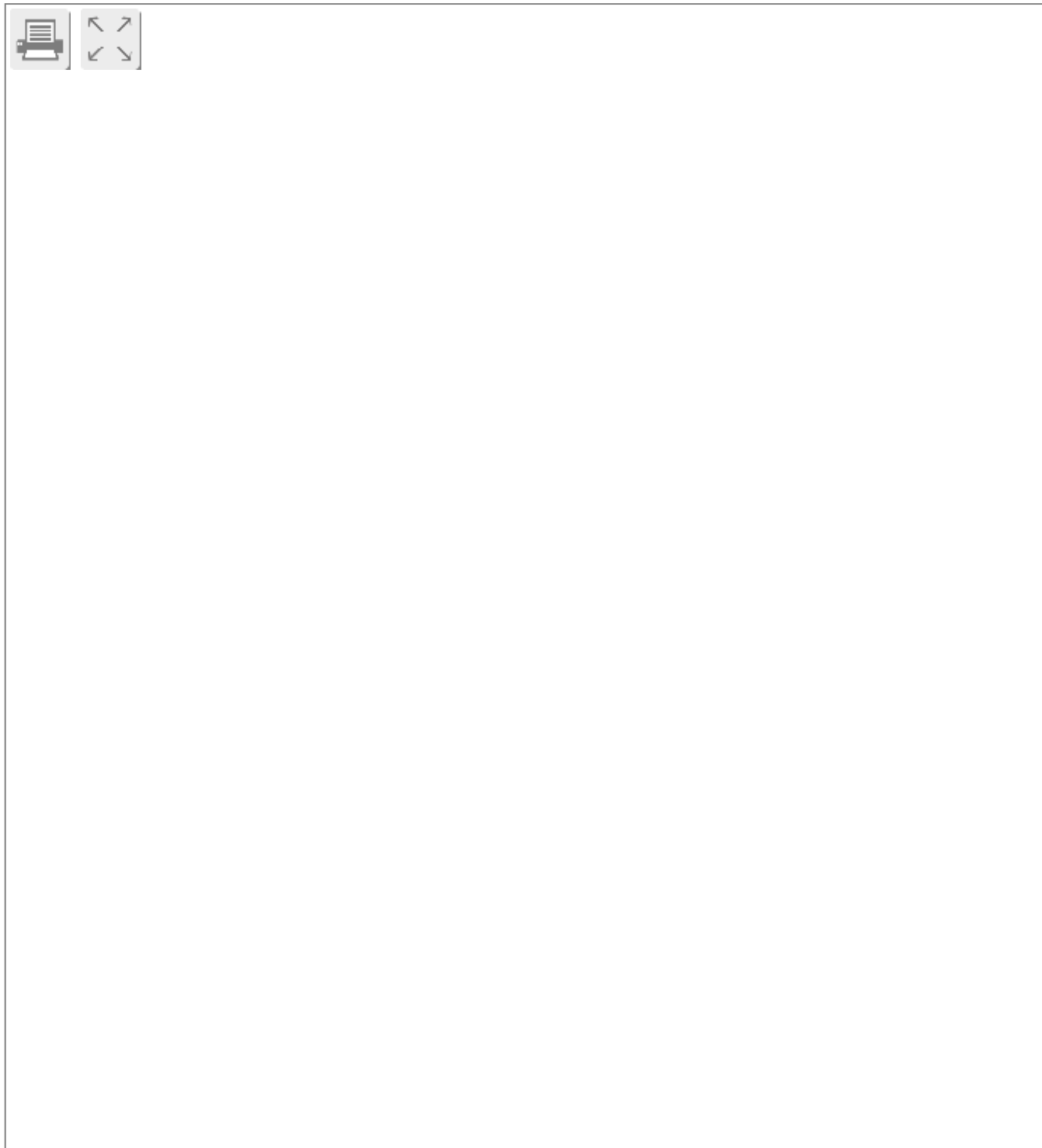
*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12



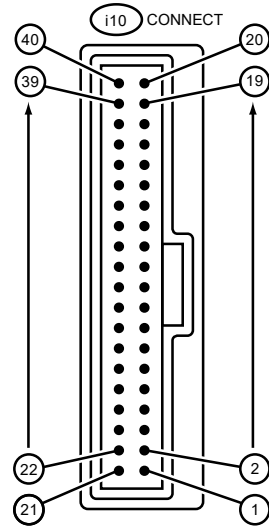
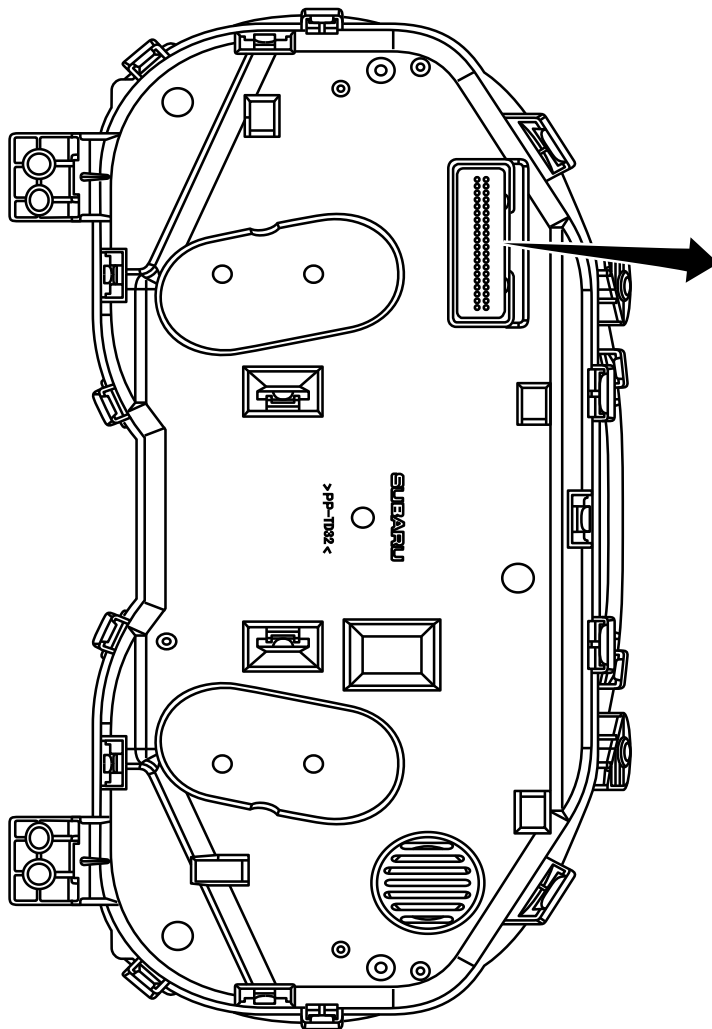
WIRING DIAGRAM

▼ Please select

1. MODEL WITH NORMAL METER



1a



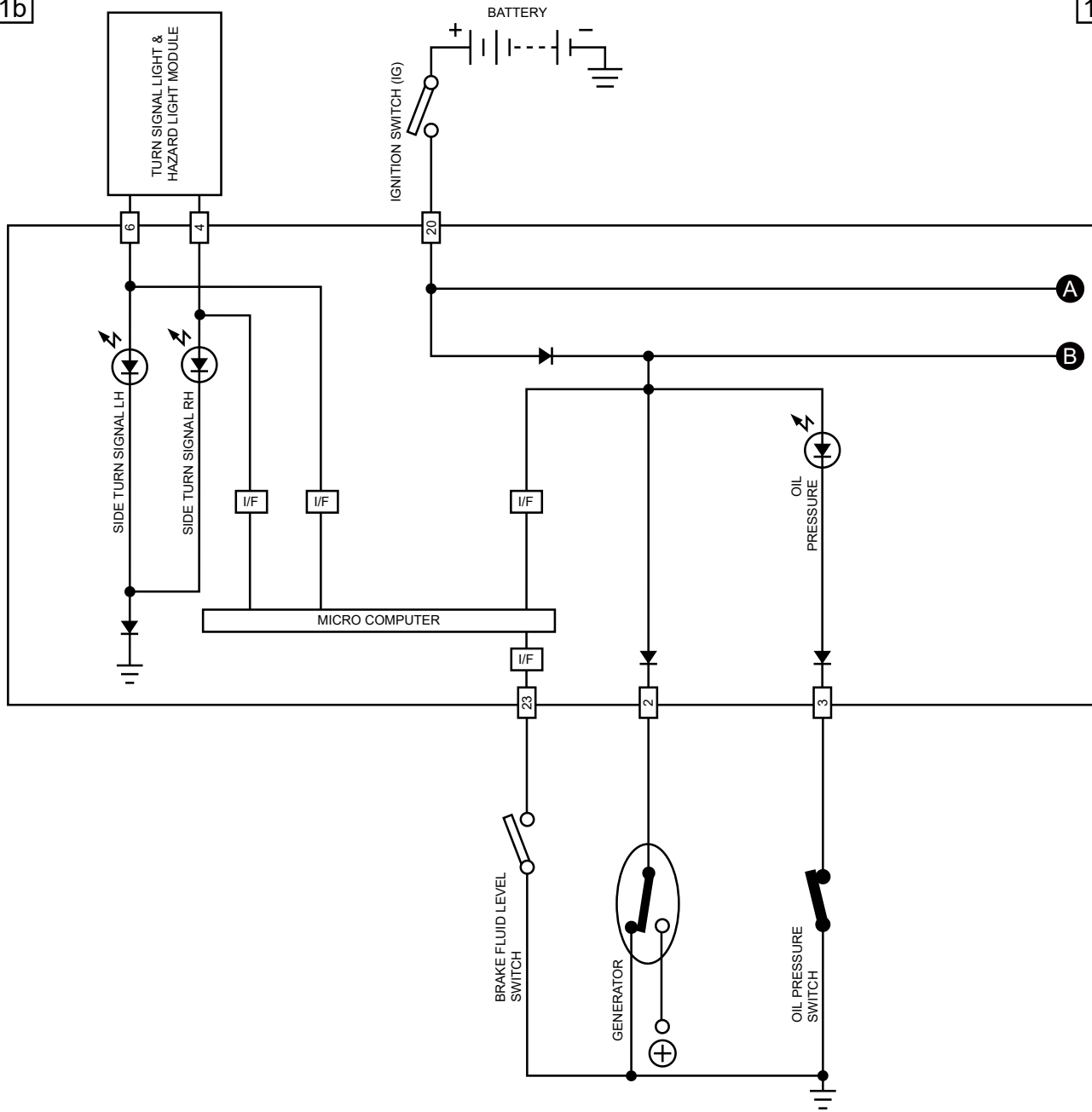
1a

WI-40702



1b

1b

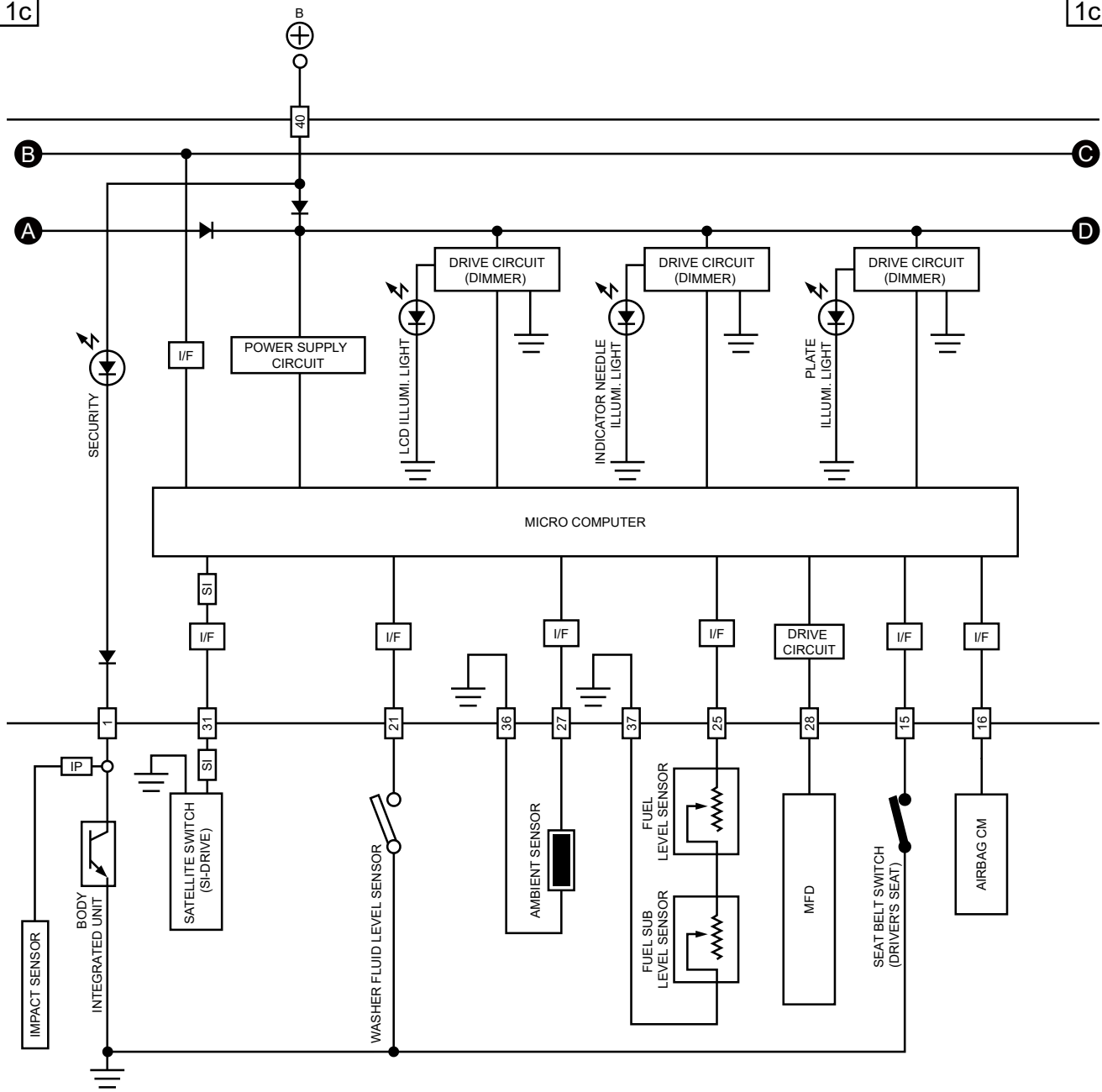


WI-67328



1c

1c



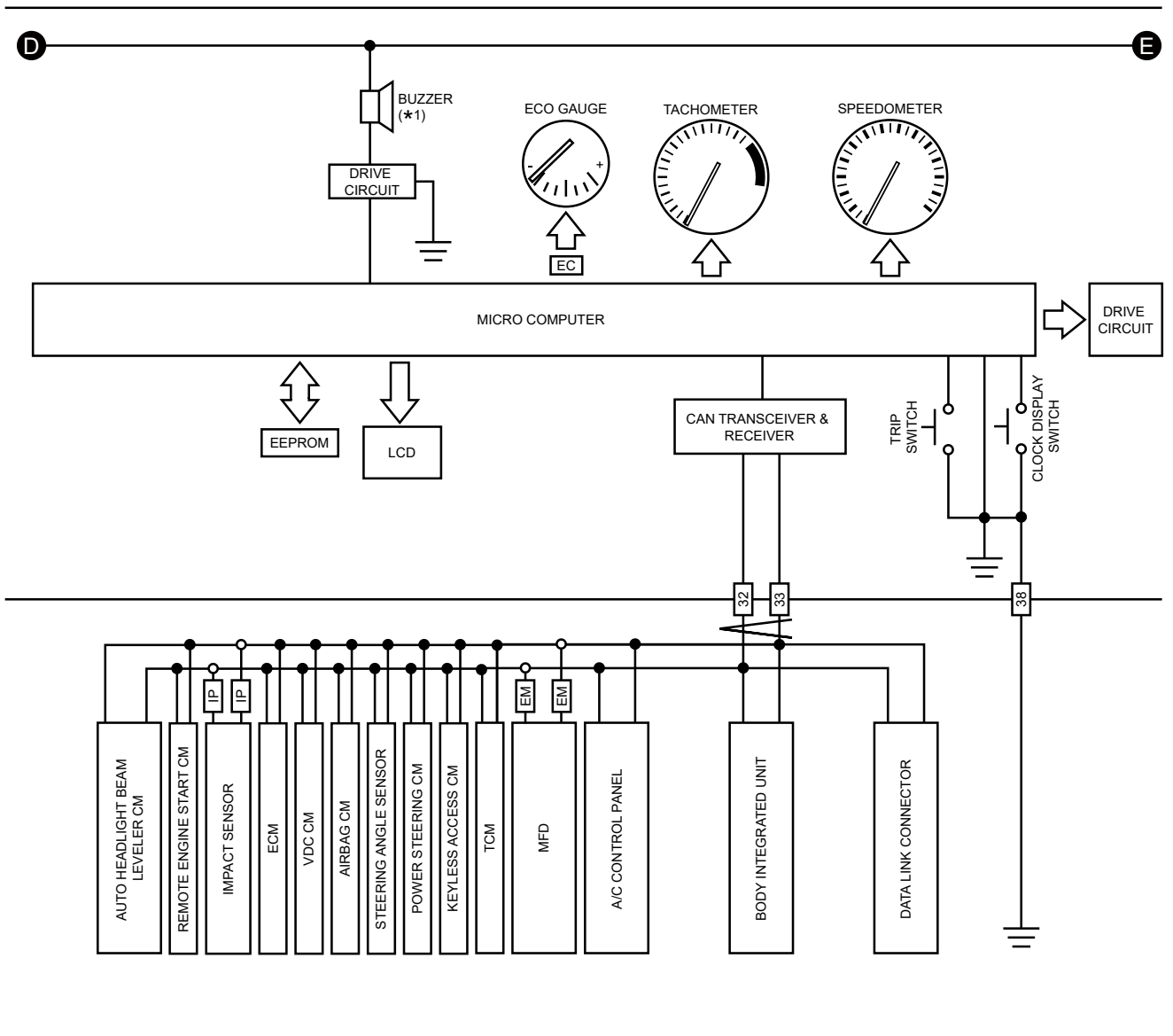
- SI : WITH SI-DRIVE
- IP : WITH IMPACT SENSOR

WI-67329



1d

1d



EM : EXCEPT FOR STANDARD MFD

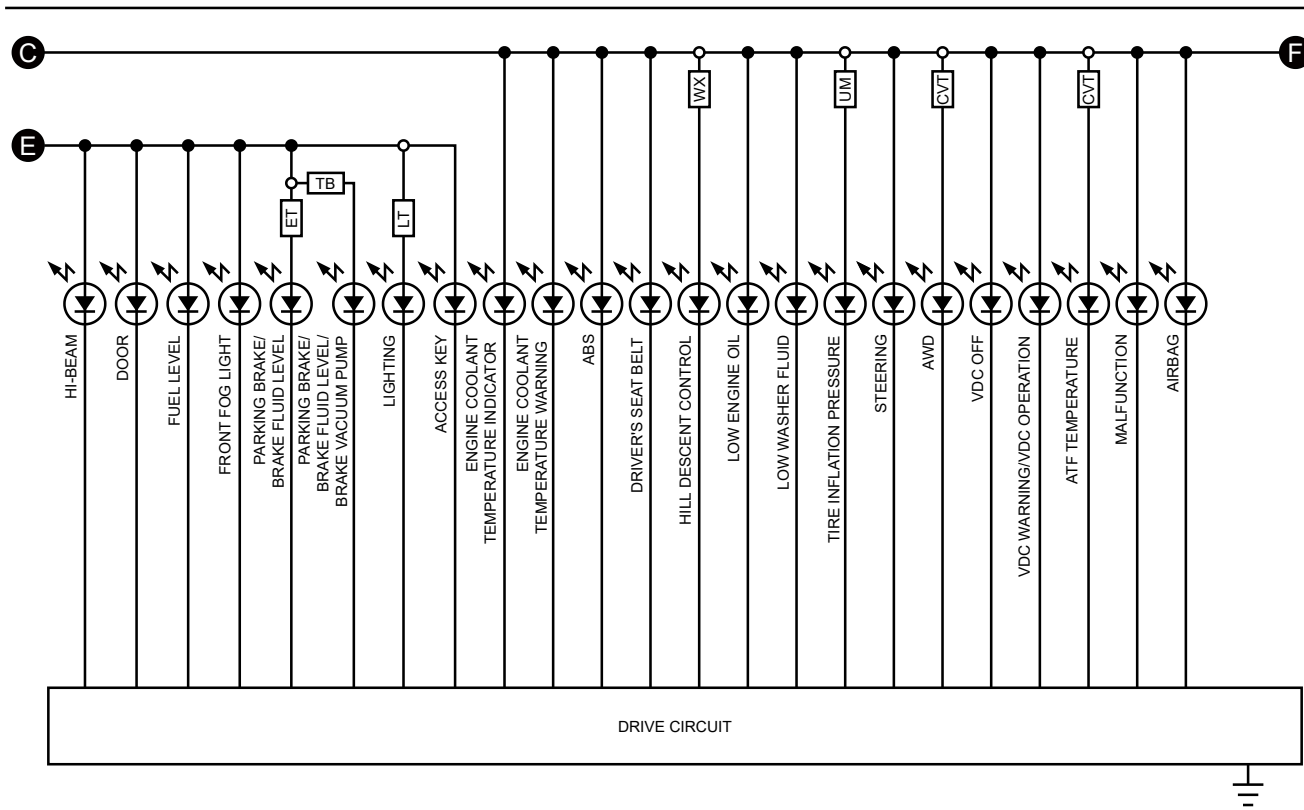
EC : WITH ECO GAUGE

IP : WITH IMPACT SENSOR

***1** : SEAT BELT
 KEY WARNING
 HEADLIGHT ON WARNING
 CUSTOMIZED
 KEYLESS ACCESS
 SI-DRIVE
 MANUAL SHIFT

WI-67330

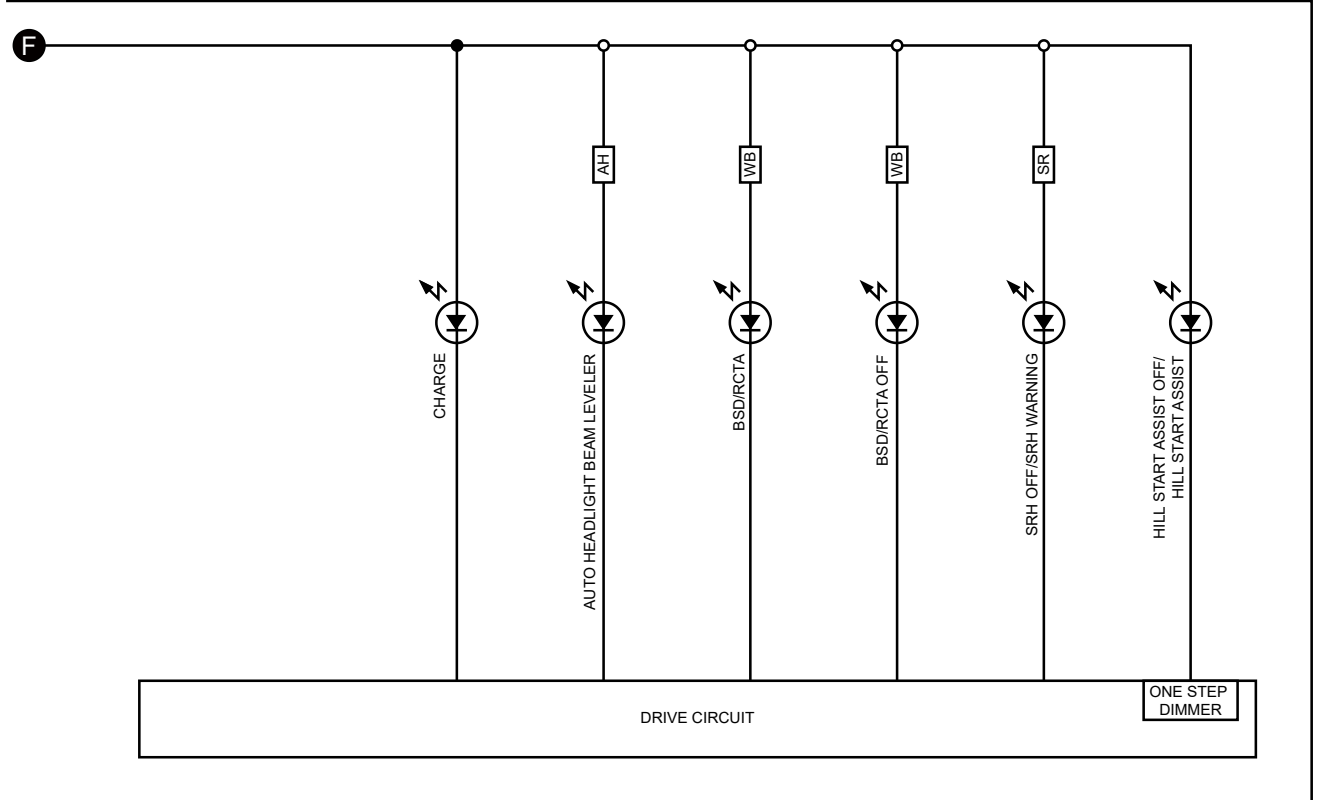




WX : WITH X MODE
TB : TURBO MODEL
ET : EXCEPT FOR TURBO MODEL

LT : WITH LIGHTING INDICATOR
UM : U4 & U5 MODEL





AH : WITH AUTO HEADLIGHT BEAM LEVELER

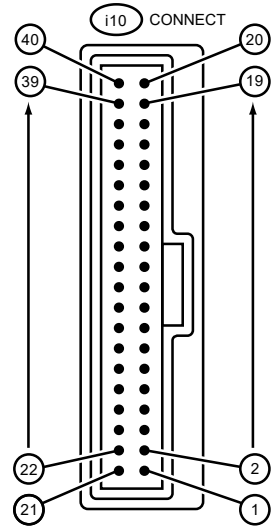
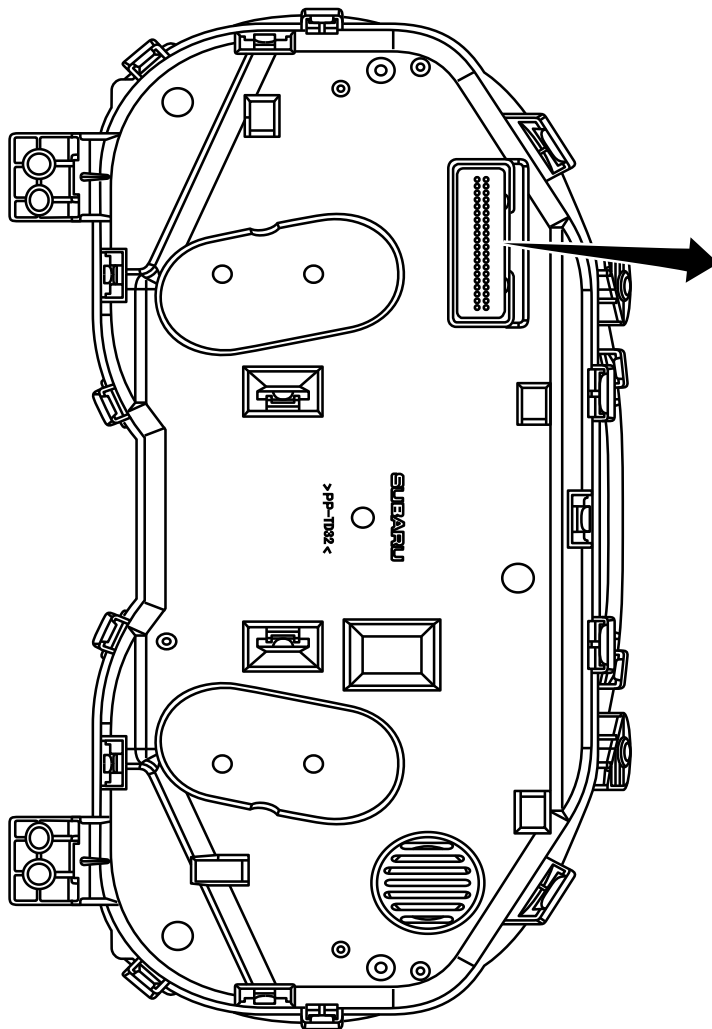
WB : WITH BSD/RCTA

SR : WITH SRH

2. MODEL WITH LUMINESCENT METER



2a



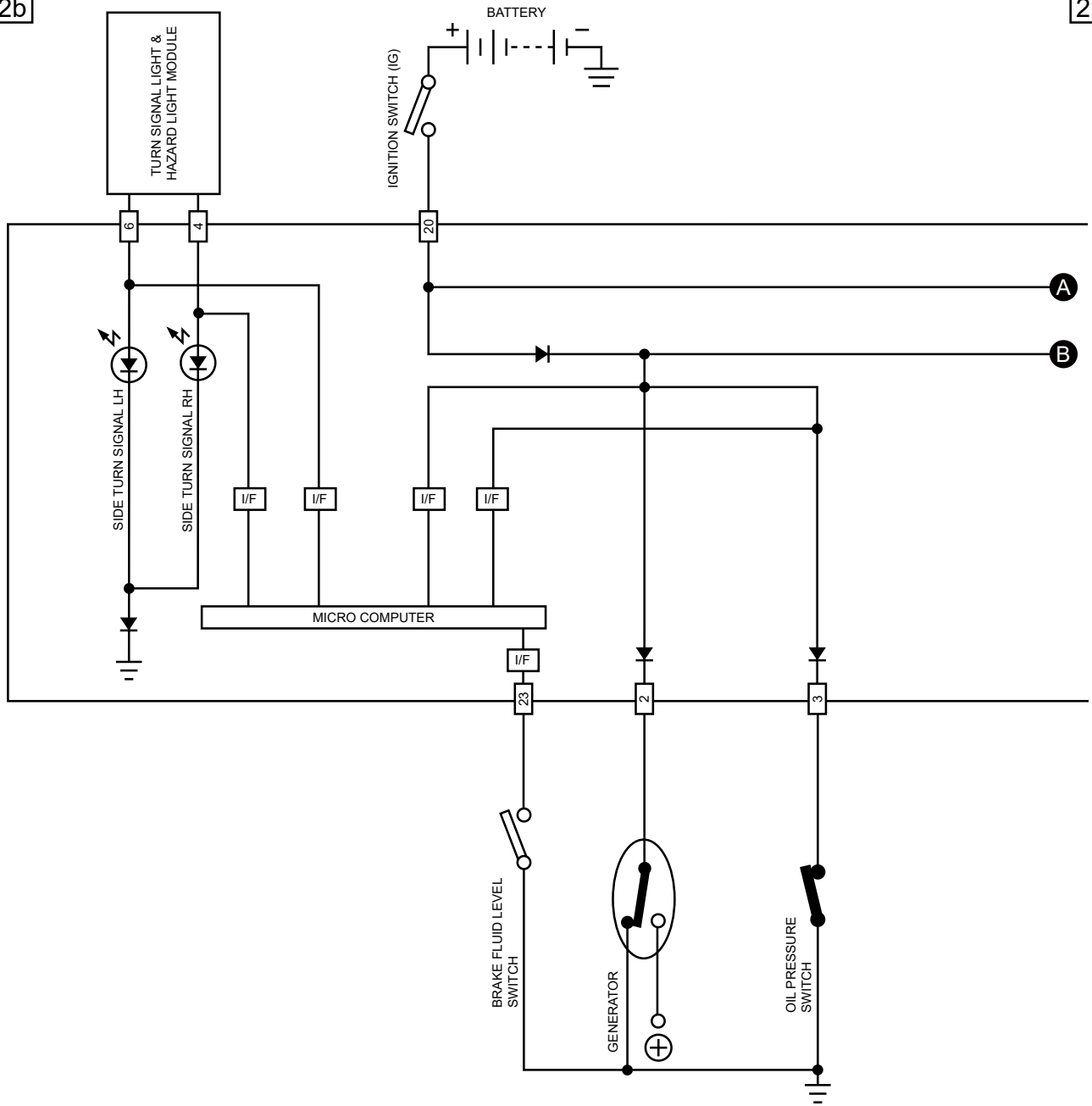
2a

WI-41013



2b

2b

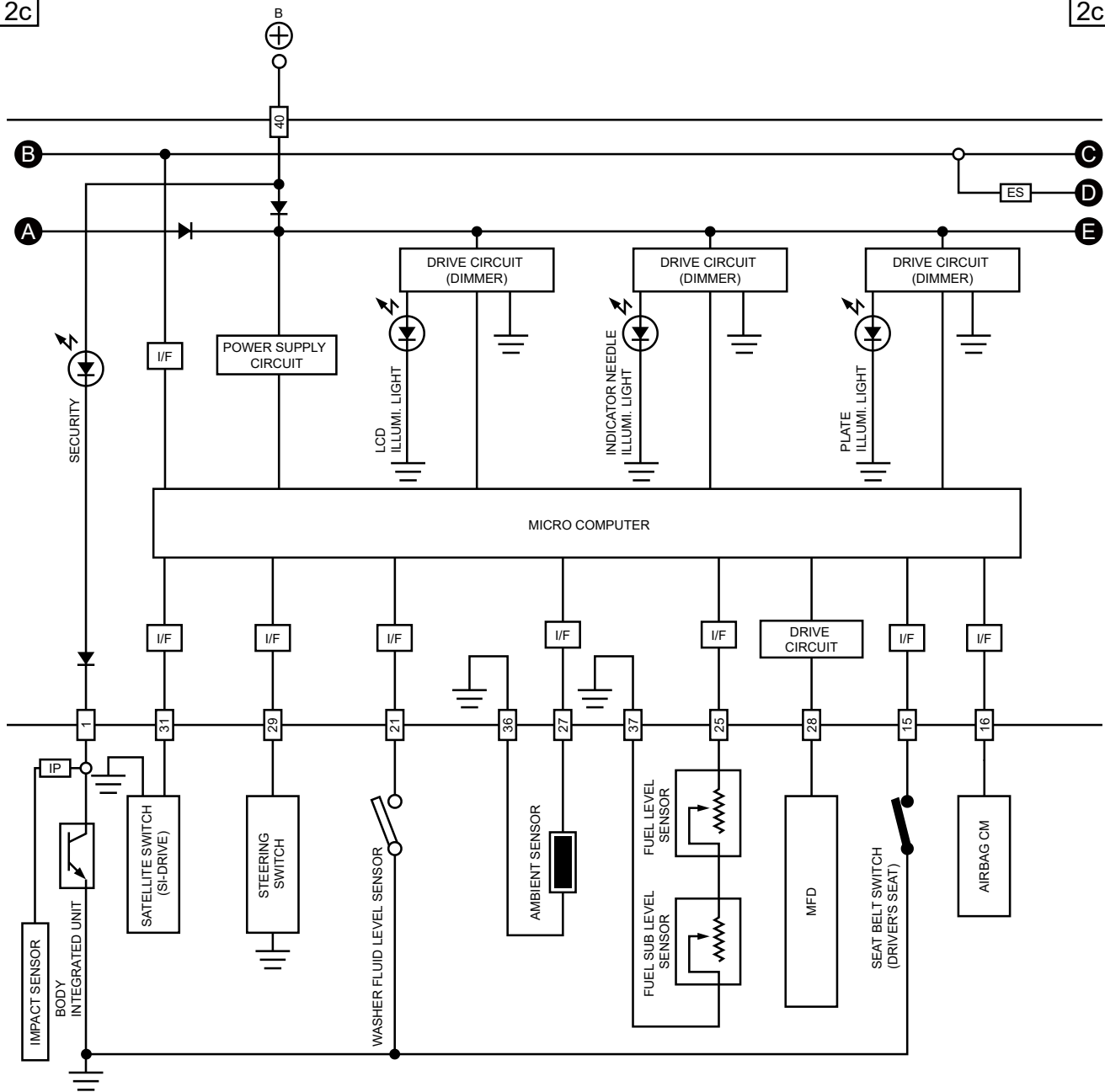


WI-67333



2c

2c

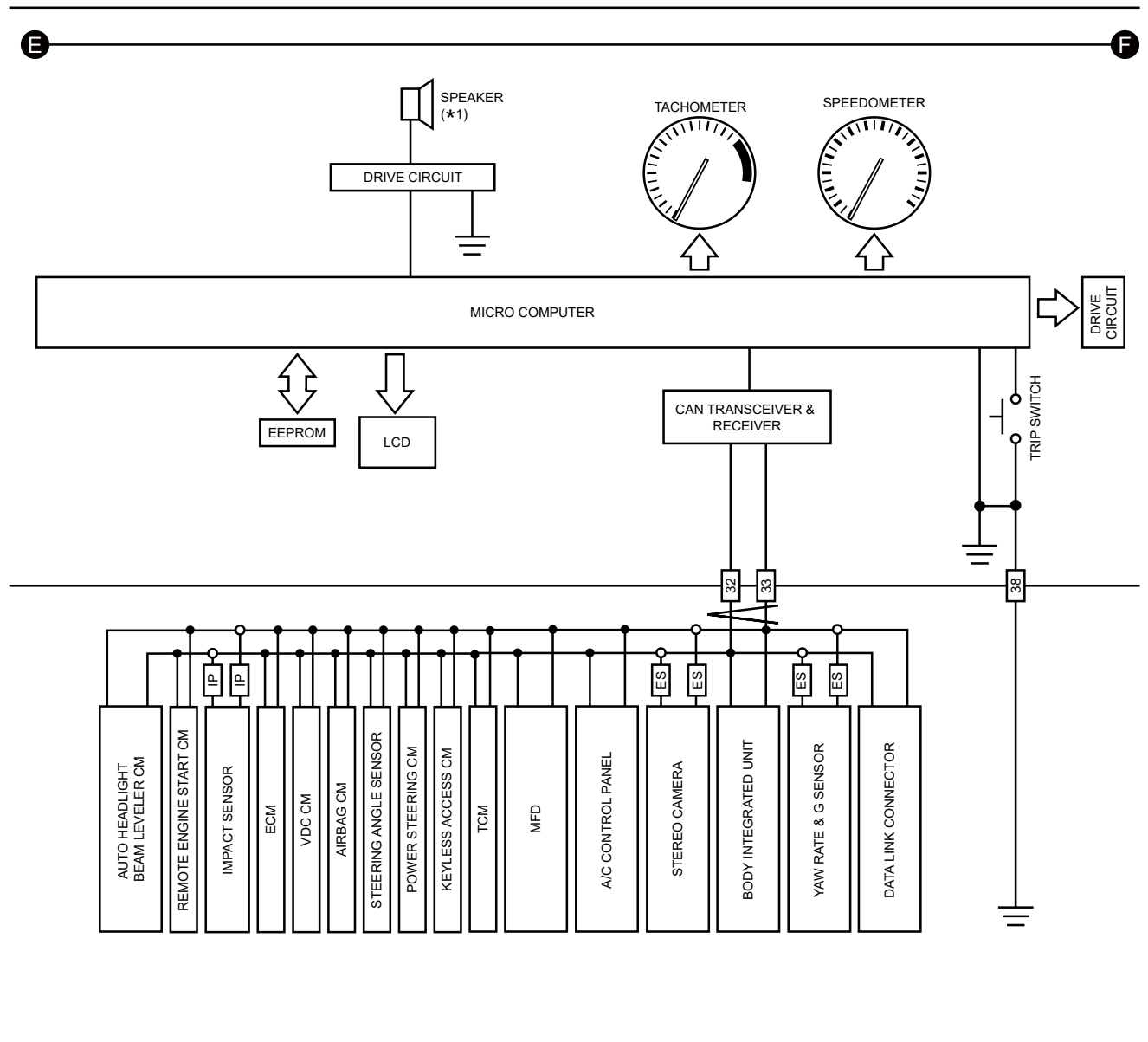


ES : WITH EyeSight

IP : WITH IMPACT SENSOR

WI-67334

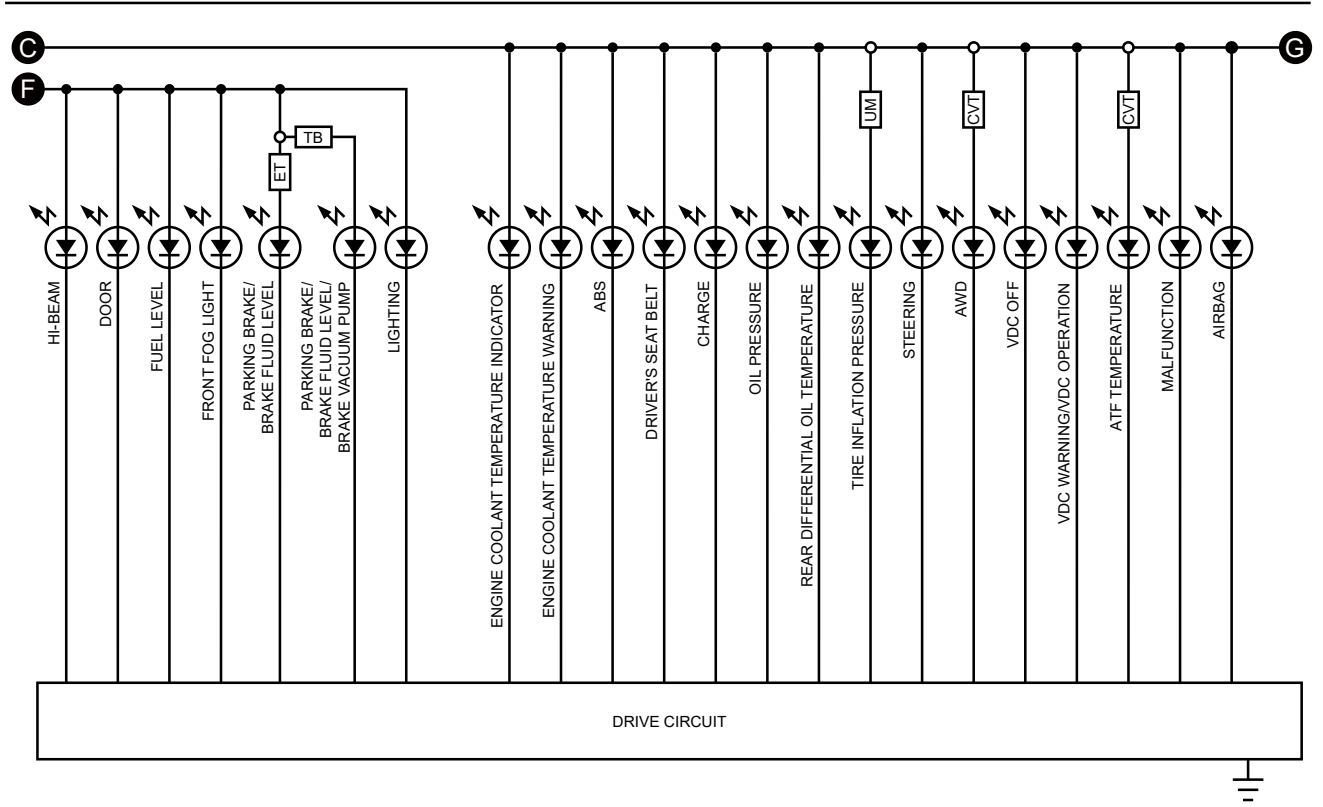




ES : WITH EyeSight
IP : WITH IMPACT SENSOR

***1** : SEAT BELT
 KEY WARNING
 HEADLIGHT ON WARNING
 CUSTOMIZED
 KEYLESS ACCESS
 SI-DRIVE
 MANUAL SHIFT



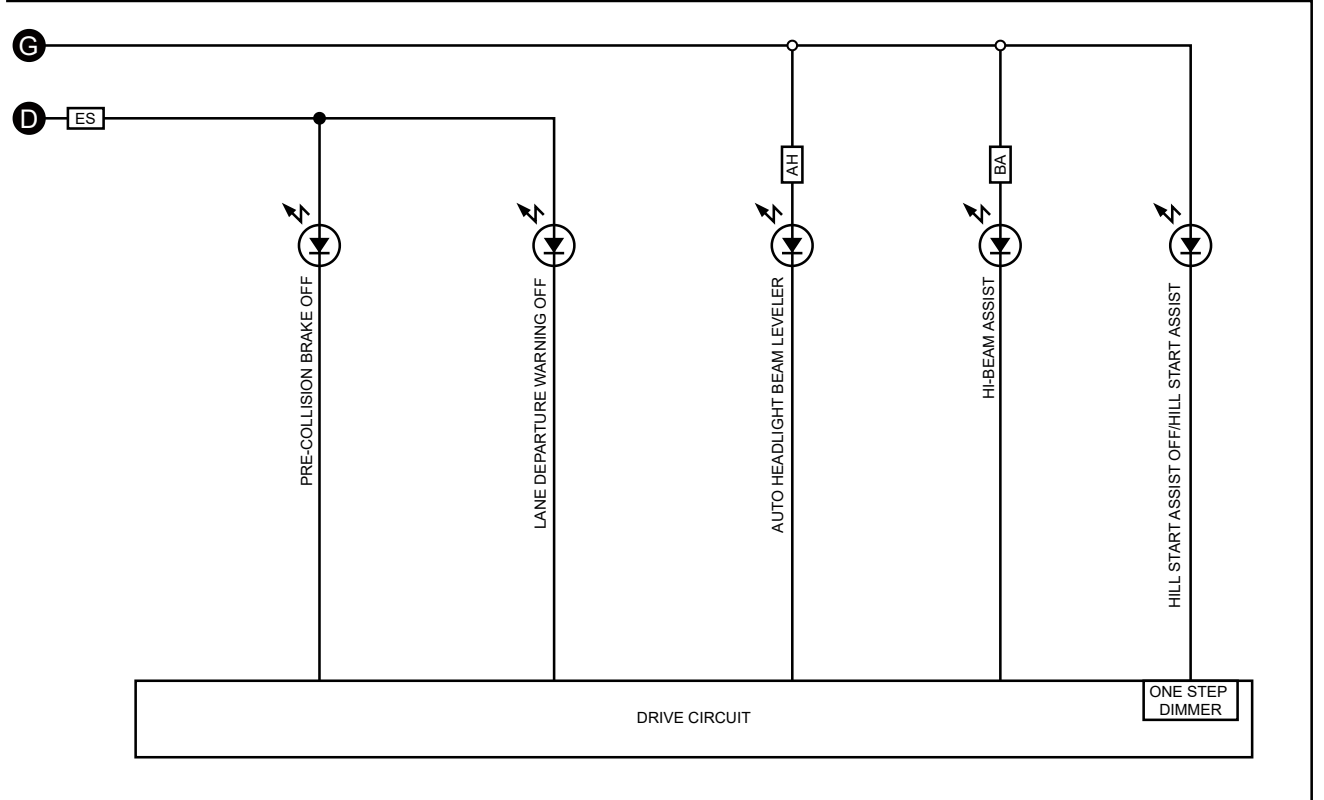


ET : EXCEPT FOR TURBO MODEL

TB : TURBO MODEL

UM : U4 & U5 MODEL





ES : WITH EyeSight

AH : WITH AUTO HEADLIGHT BEAM LEVELER

BA : WITH HI-BEAM ASSIST

WIRING SYSTEM > Coolant Temperature System

WIRING DIAGRAM

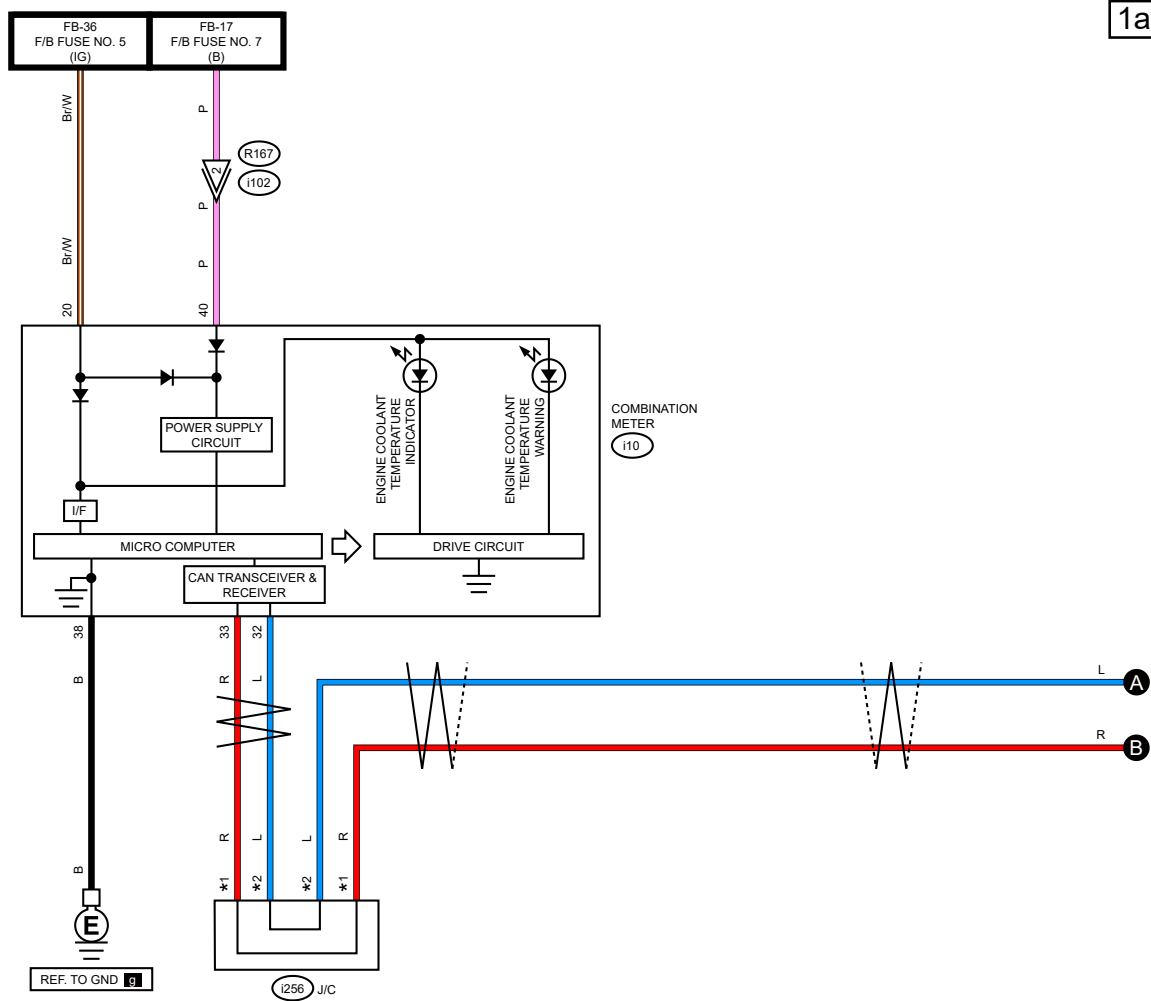
▼ Please select ▼ see

1. NON-TURBO MODEL

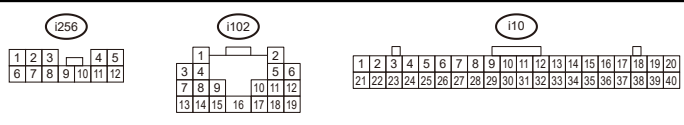


1a

1a

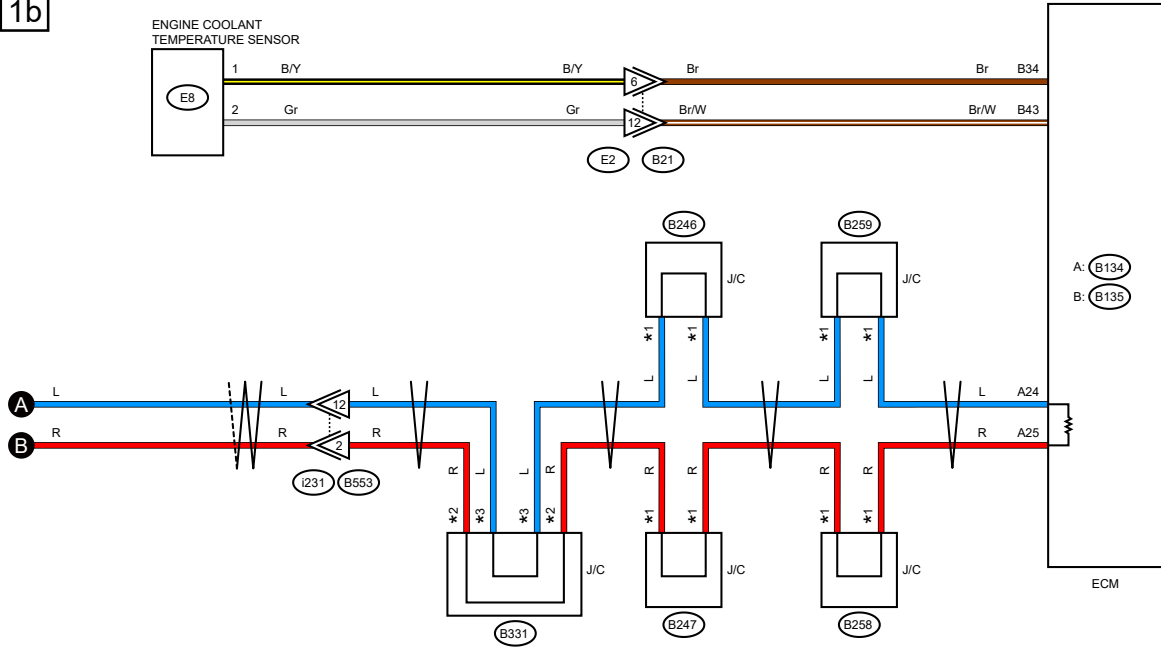


- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

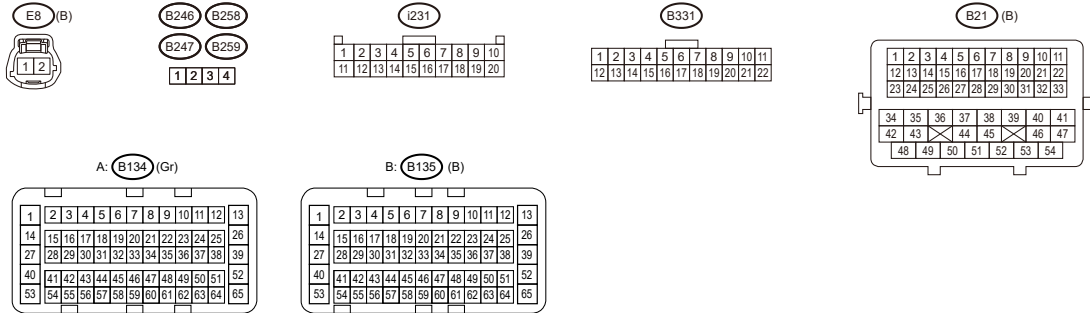


1b

1b



- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22



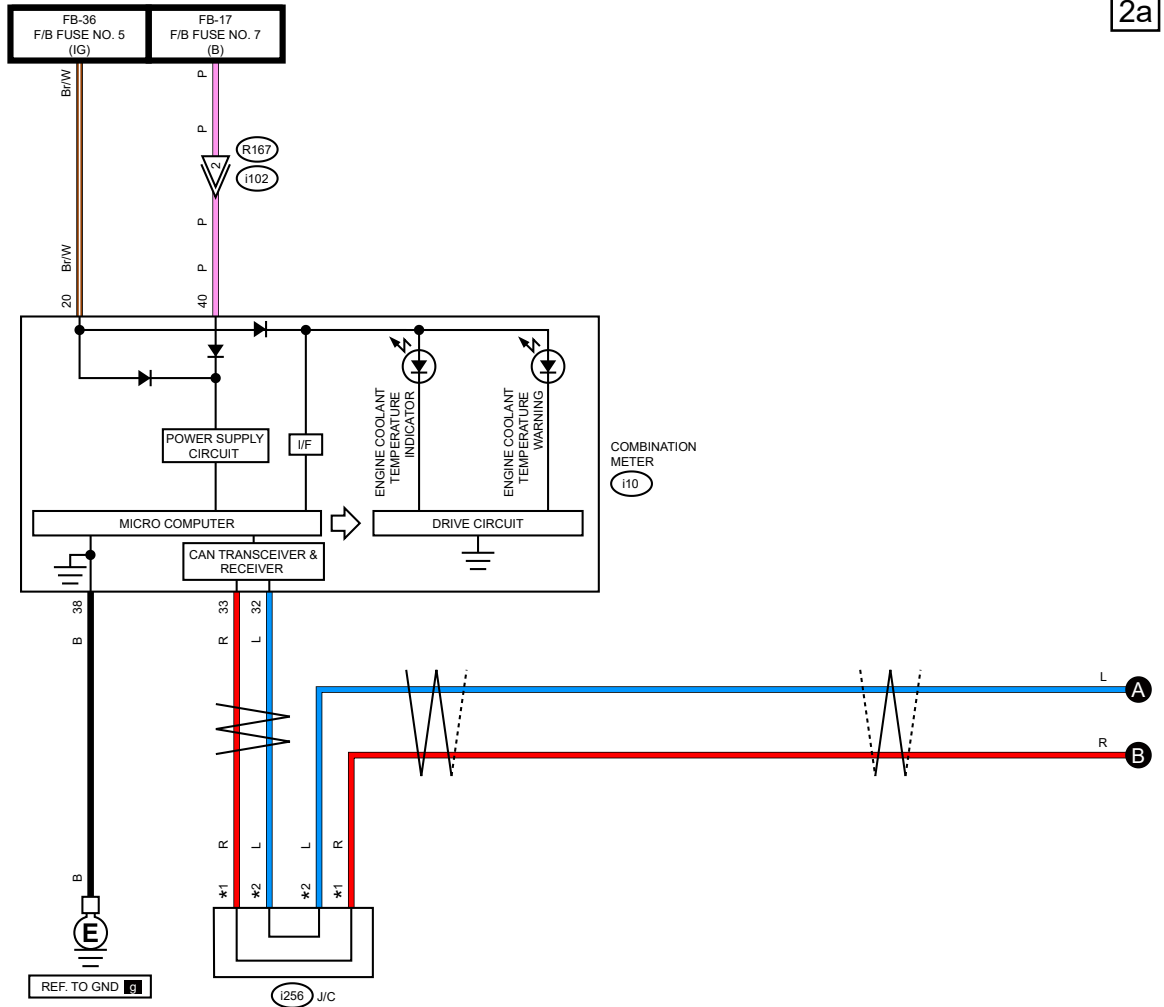
WI-65556

2. TURBO MODEL

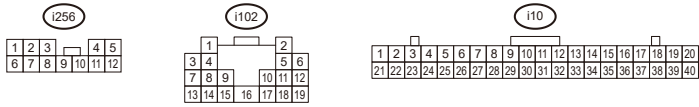


2a

2a

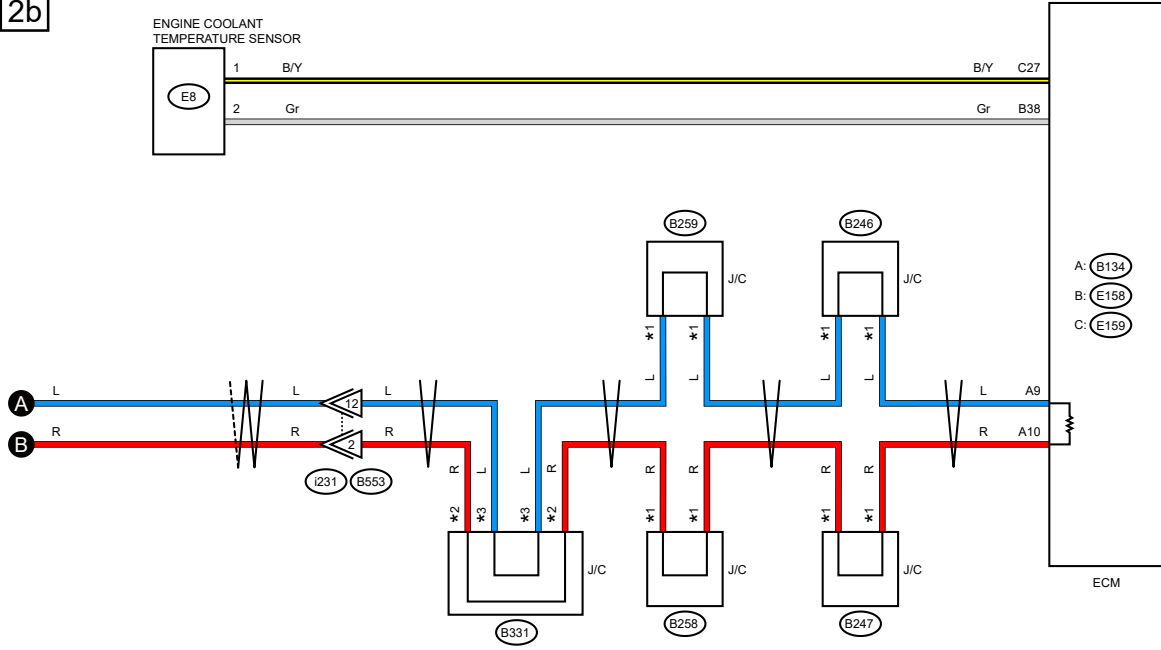


*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

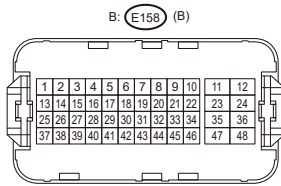
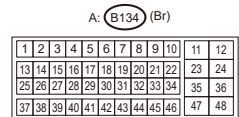
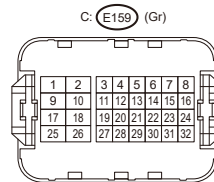
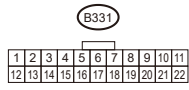
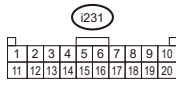


2b

2b



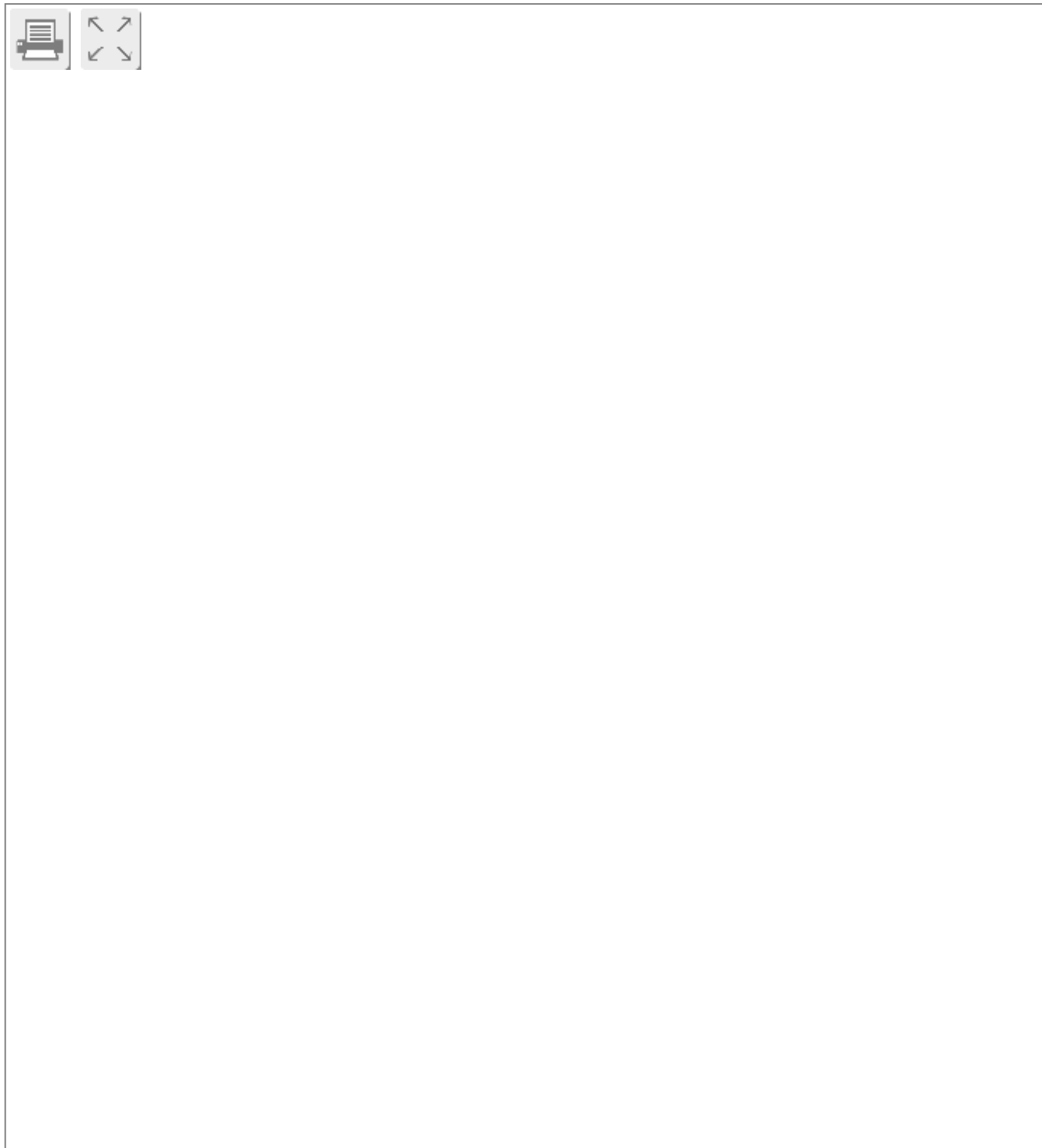
- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22



WIRING DIAGRAM

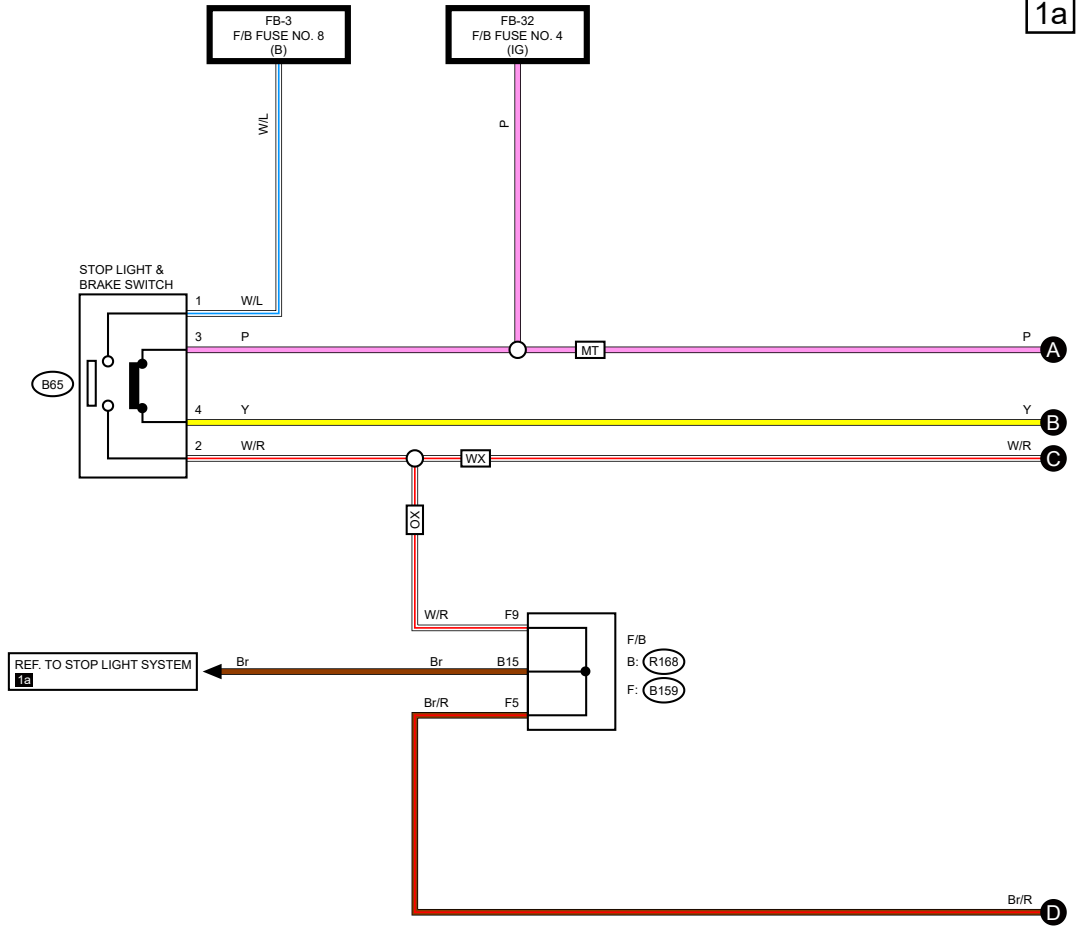
▼ Please select ▼ see

1. NON-TURBO MODEL



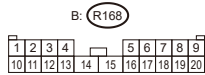
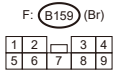
1a

1a



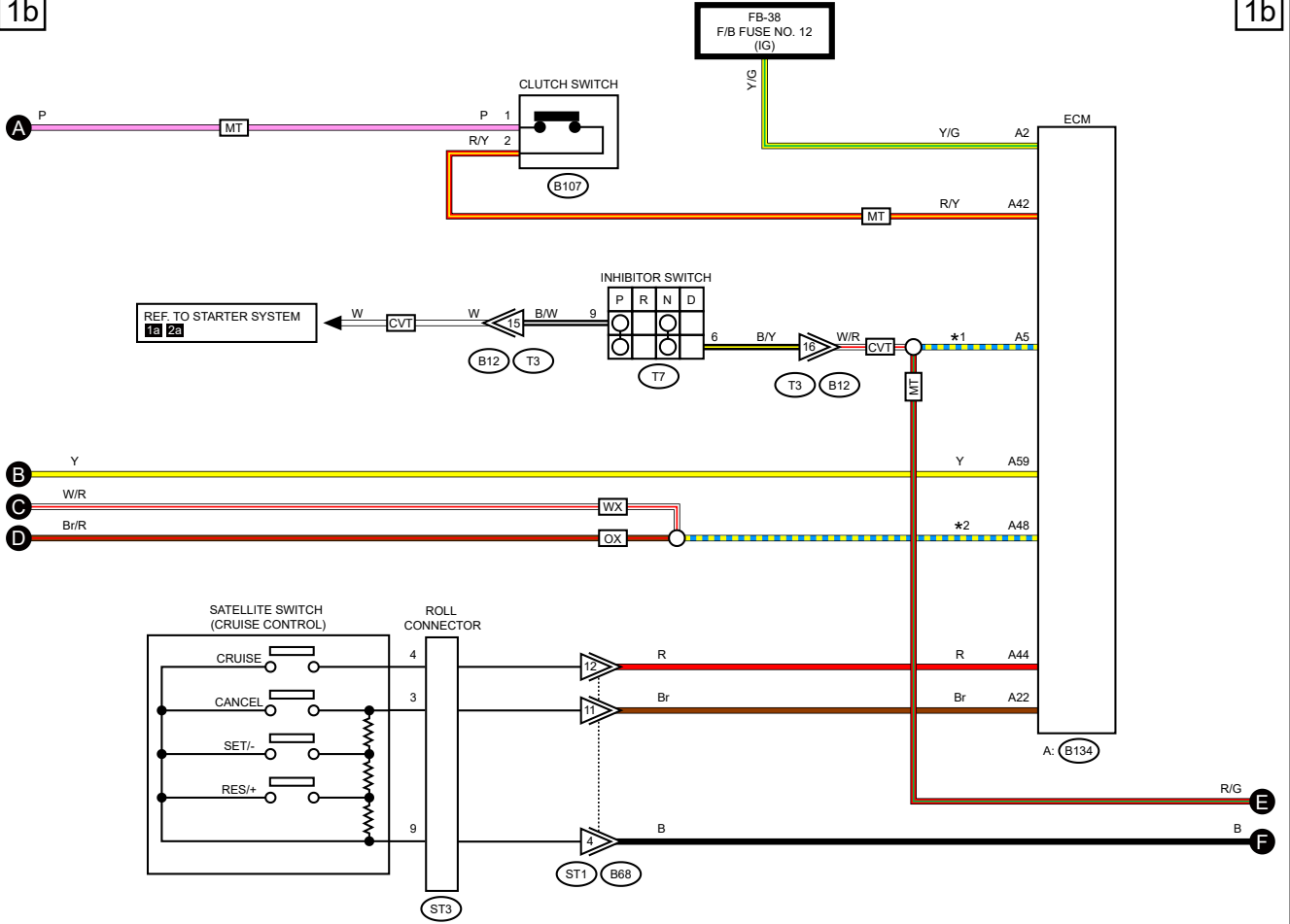
OX : WITHOUT X MODE

WX : WITH X MODE



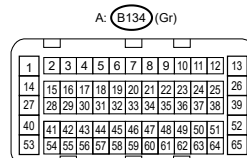
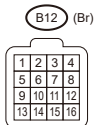
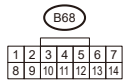
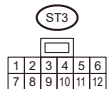
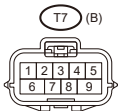
1b

1b

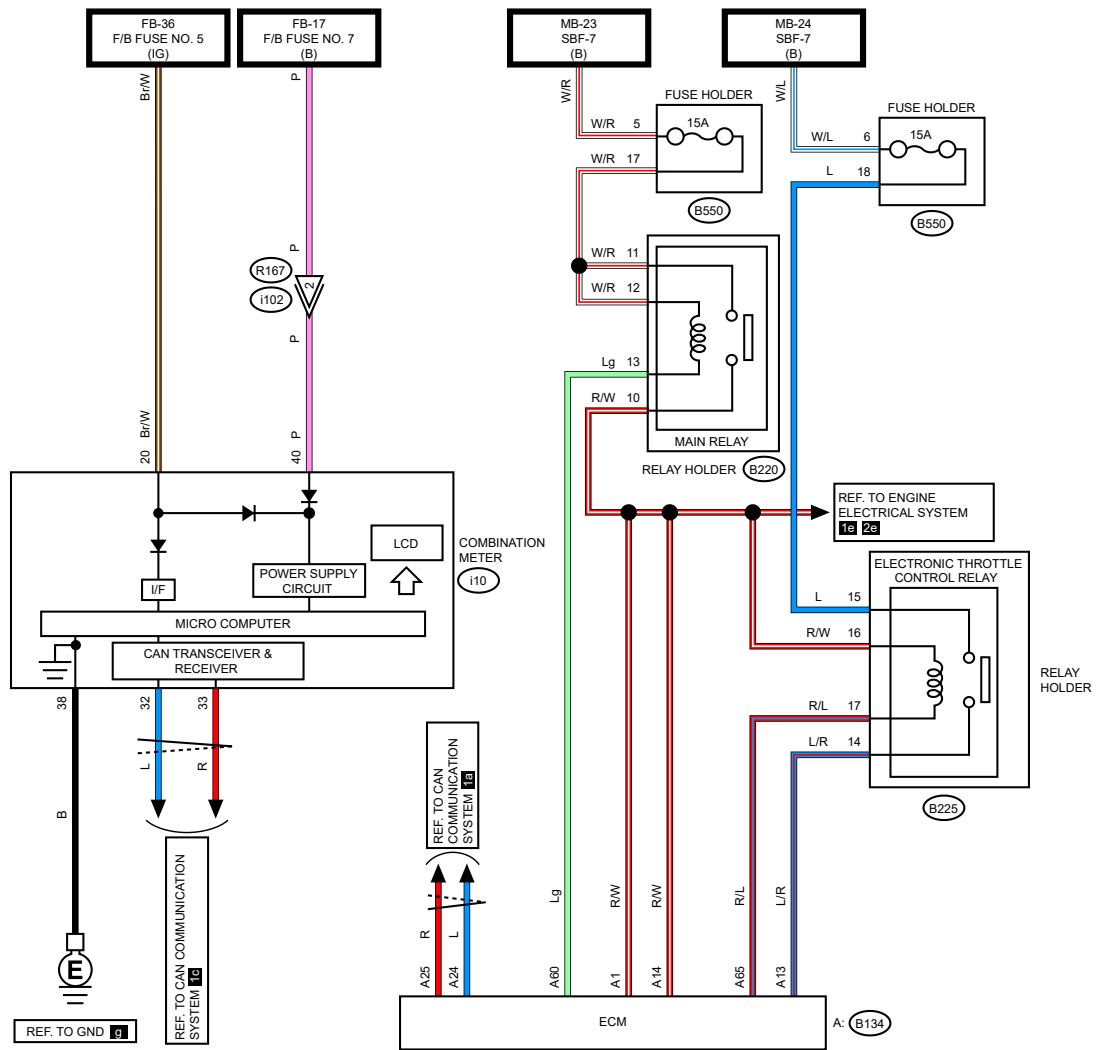


OX : WITHOUT X MODE
WX : WITH X MODE

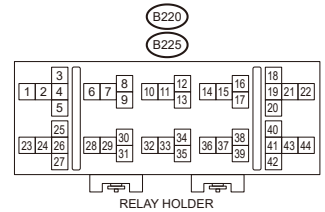
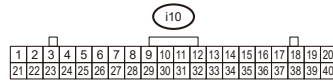
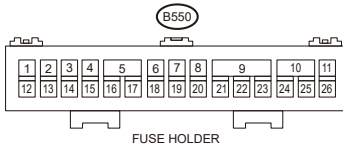
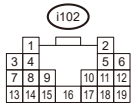
*1 : MT MODEL : R/G
 CVT MODEL : W/R
 *2 : WITHOUT X MODE : Br/R
 WITH X MODE : W/R



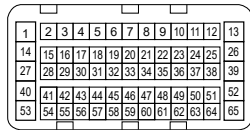
1c



1c



A: B134 (Gr)

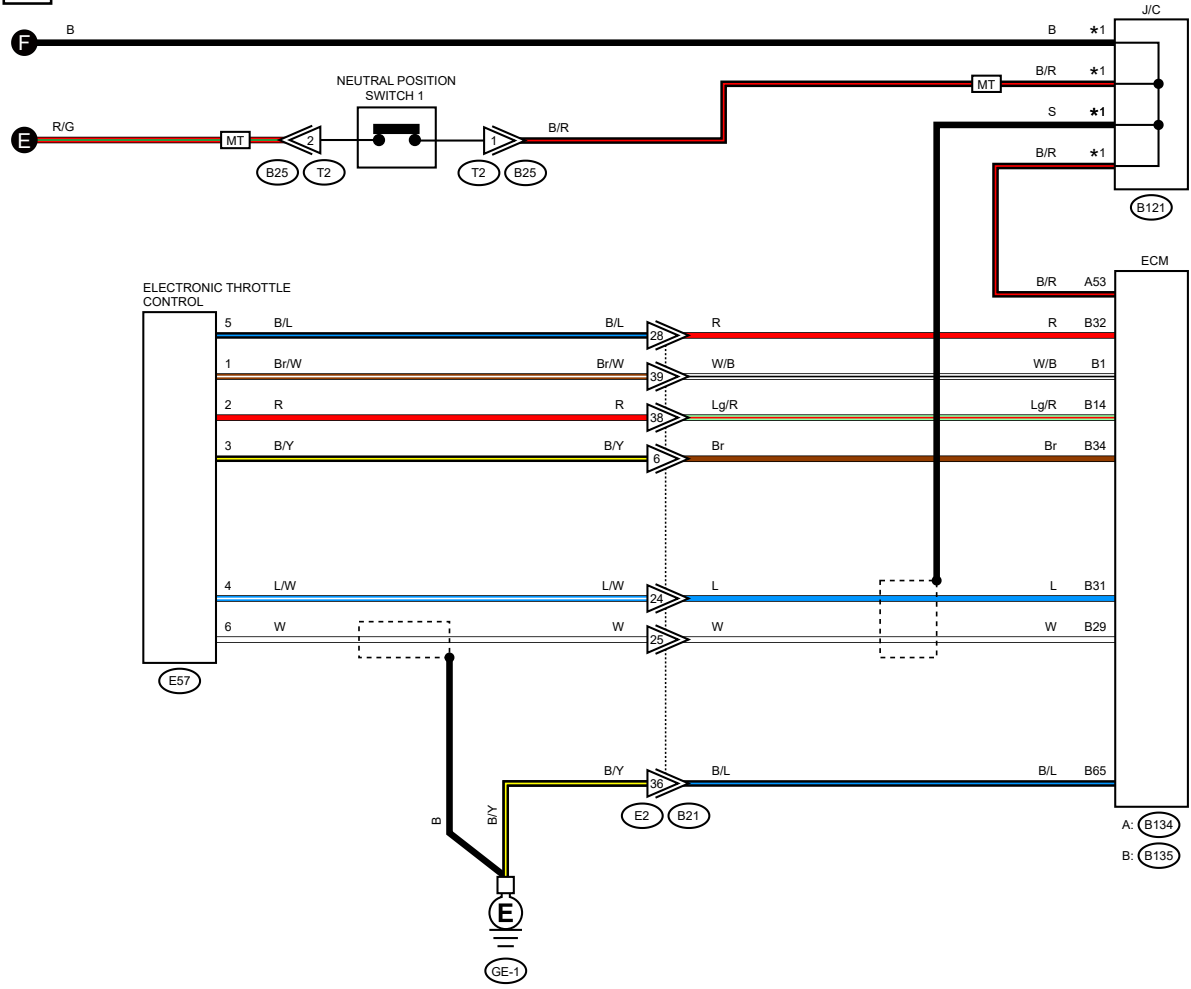


WI-65561

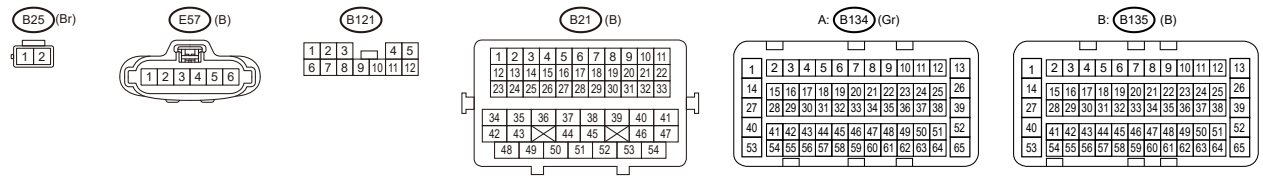


1d

1d



*1 : TERMINAL No. OPTIONAL ARRANGEMENT



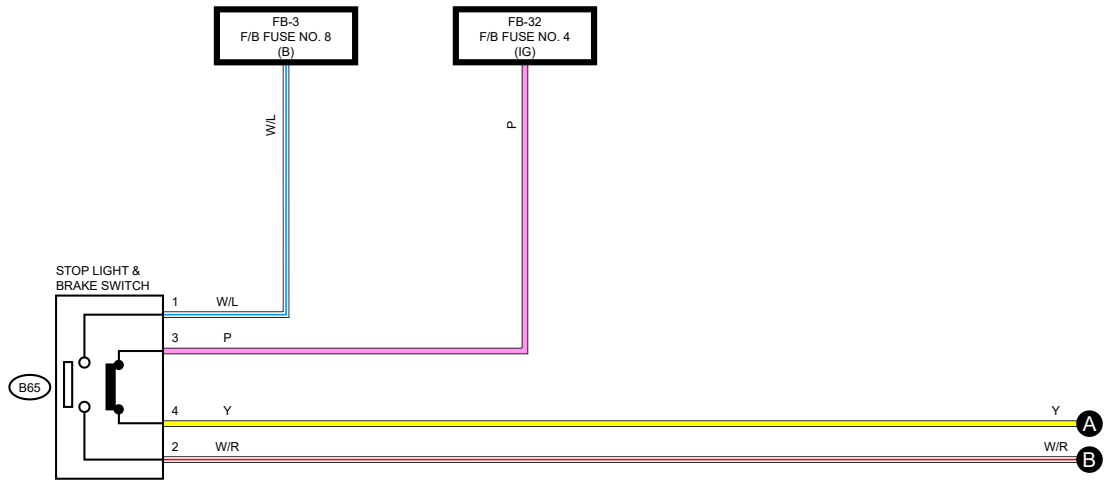
WI-65562

2. TURBO MODEL



2a

2a



B65 (B)

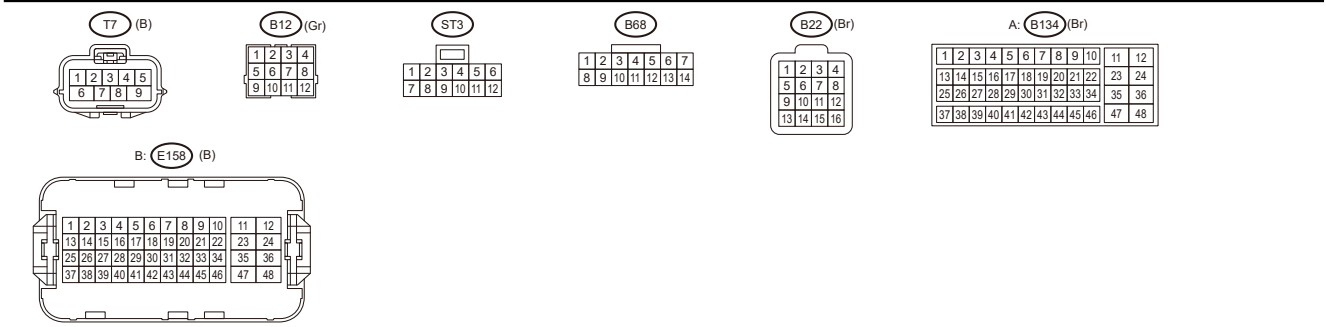
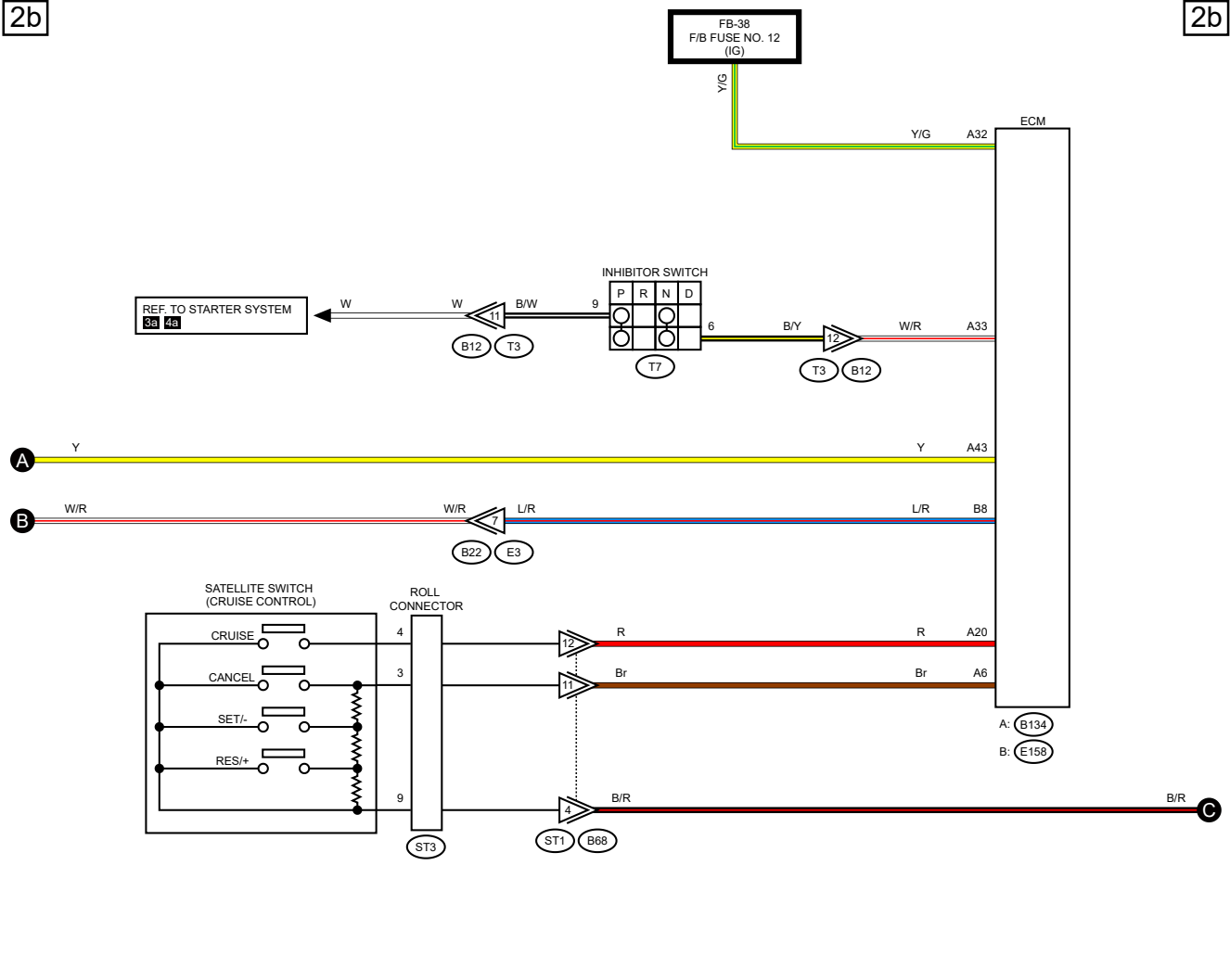


WI-65563

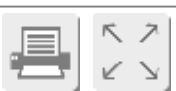


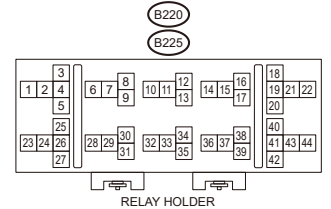
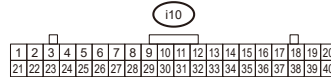
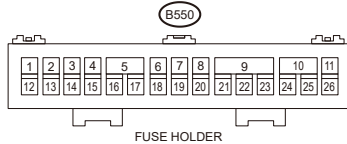
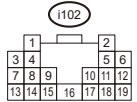
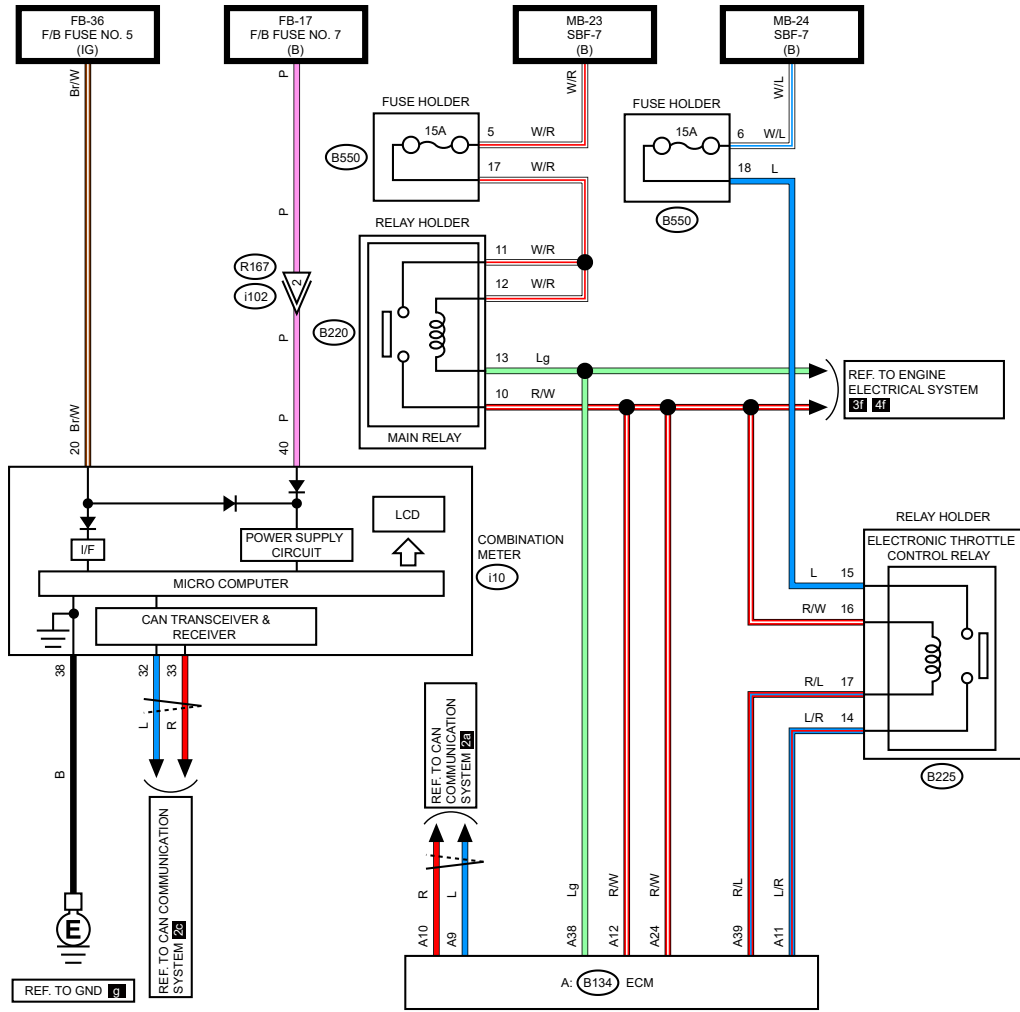
2b

2b



WI-65564





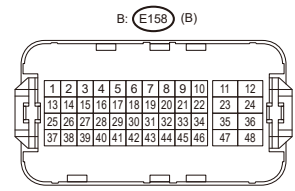
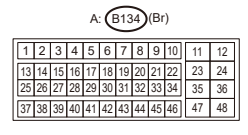
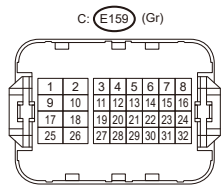
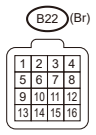
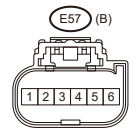
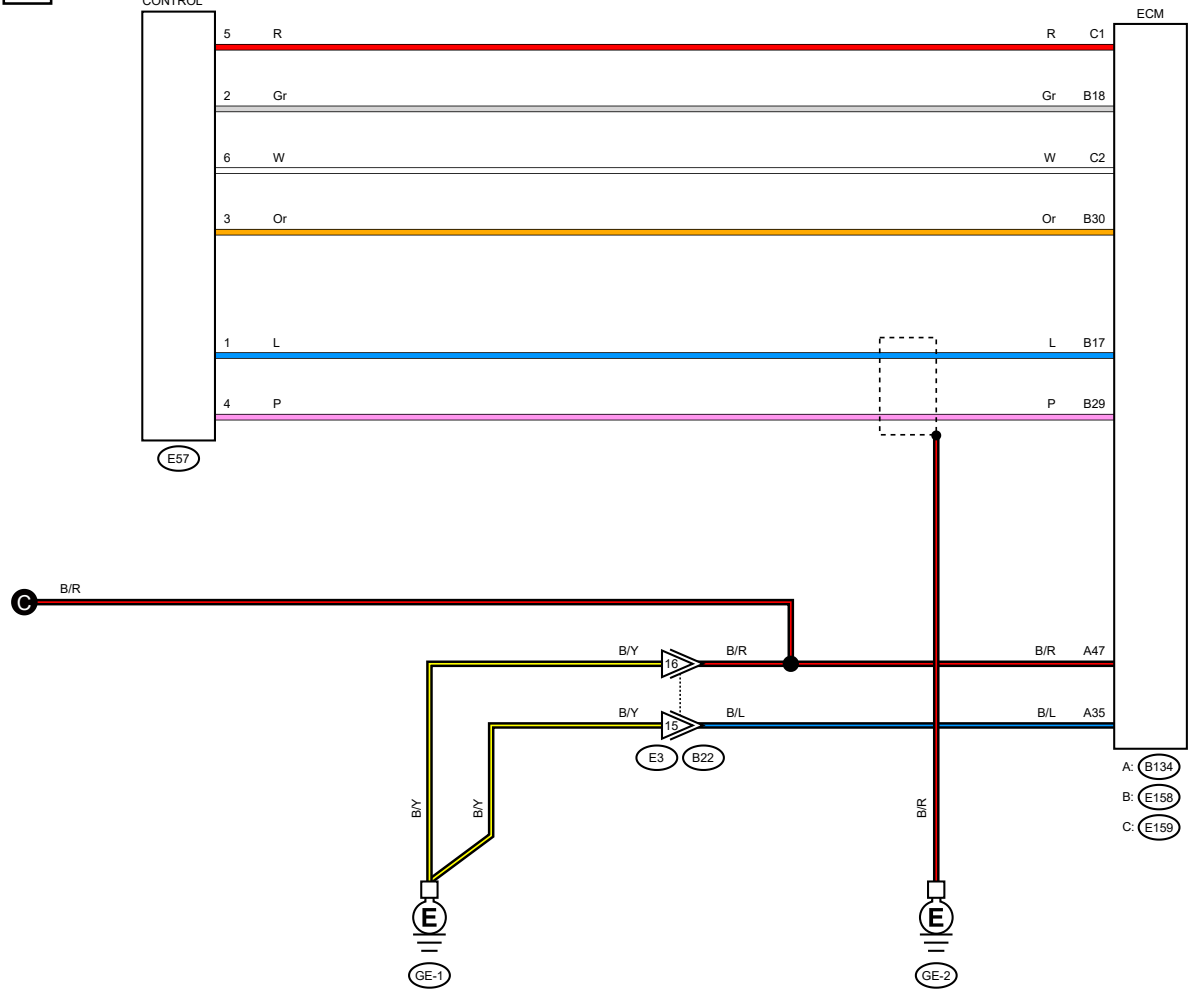
A: B134 (Br)



2d

2d

ELECTRONIC THROTTLE CONTROL

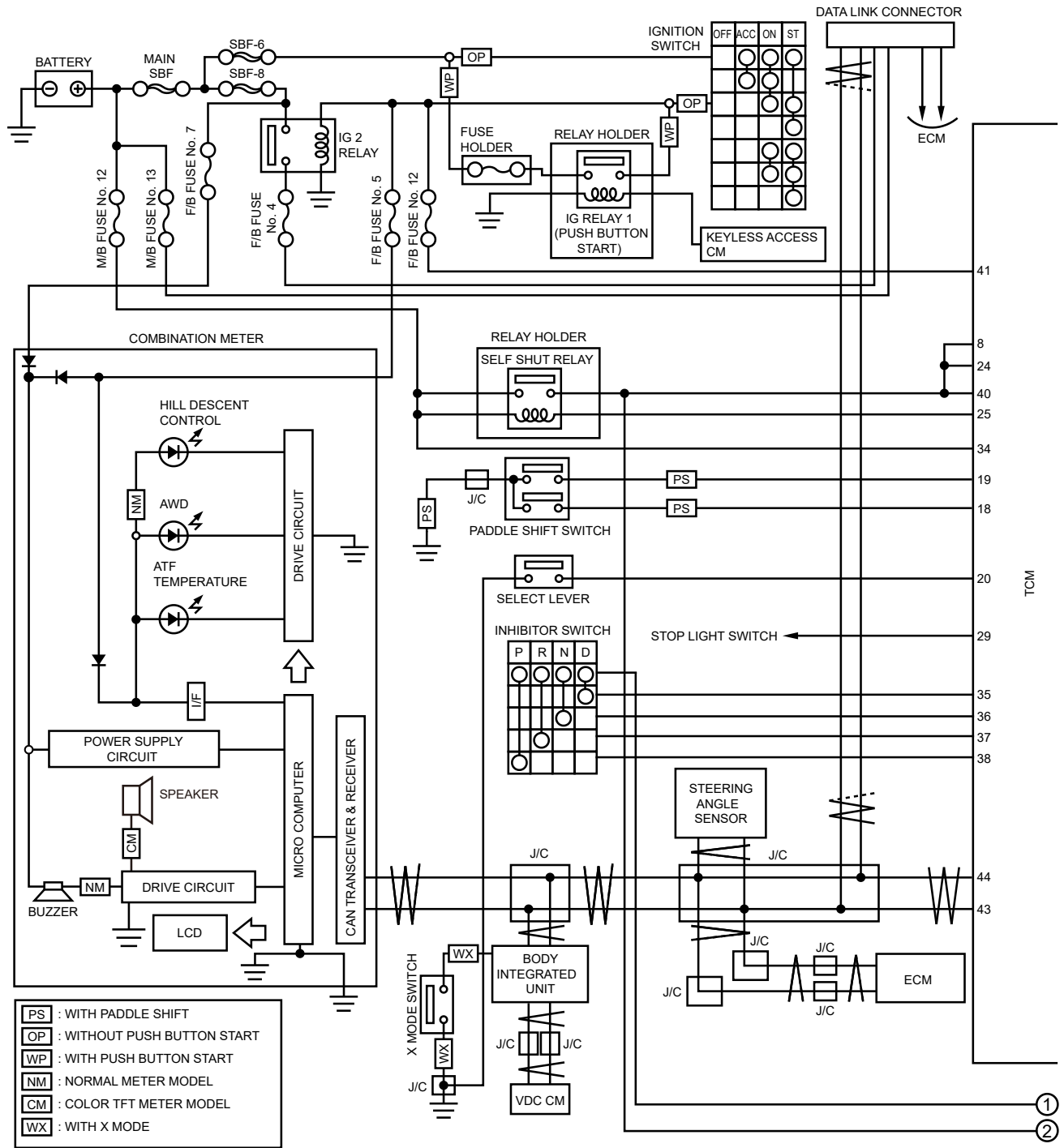


WIRING DIAGRAM

▼ Please select ▼ see

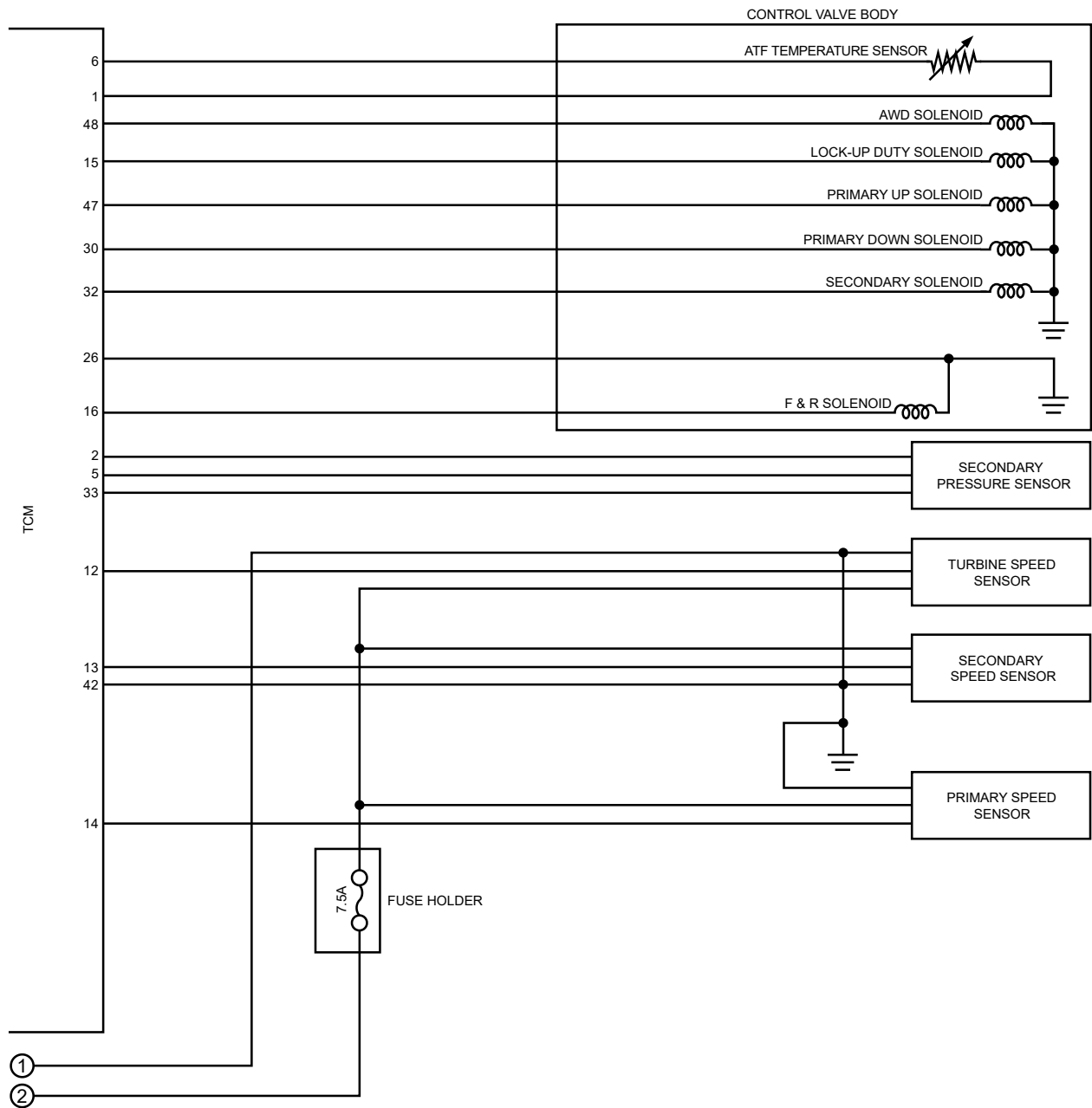
1. NON-TURBO MODEL





WI-67338



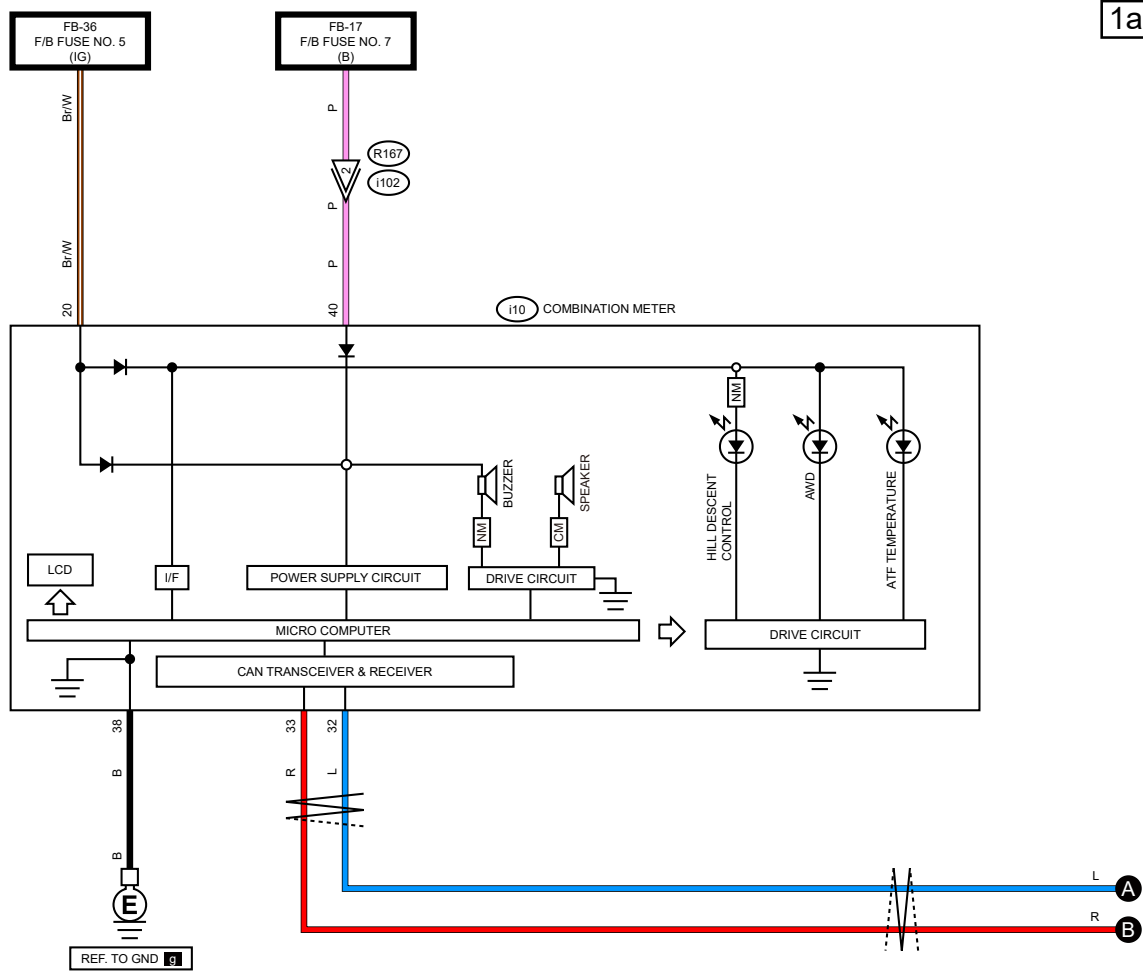


WI-60101

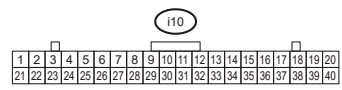
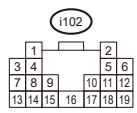


1a

1a



NM : NORMAL METER MODEL
CM : COLOR TFT METER MODEL

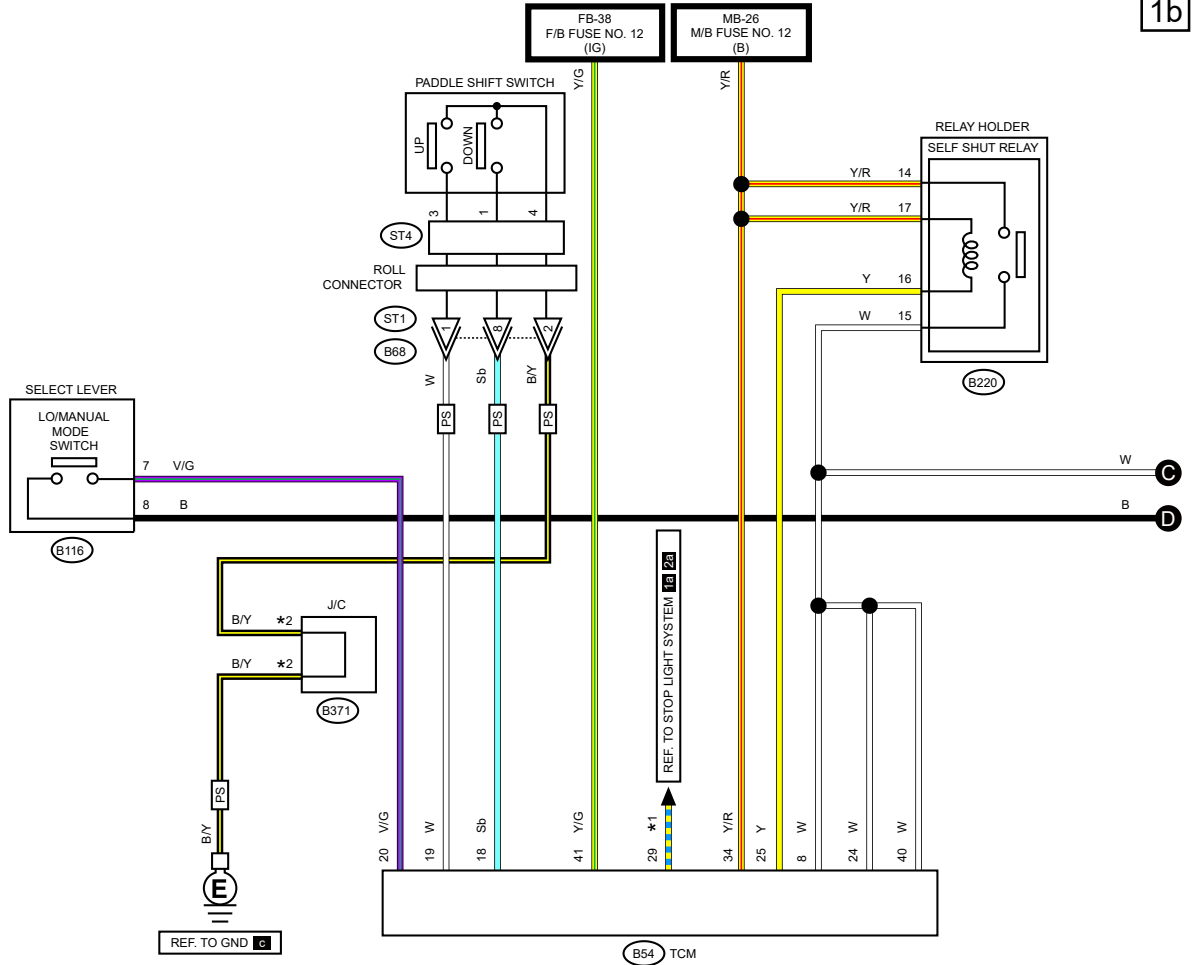


WI-65567



1b

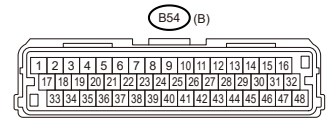
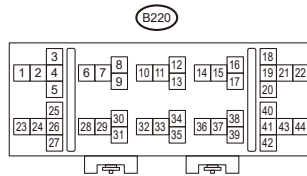
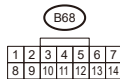
1b



PS : WITH PADDLE SHIFT

*1 : WITHOUT EyeSight AND X MODE : Br/R
EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE : W/R

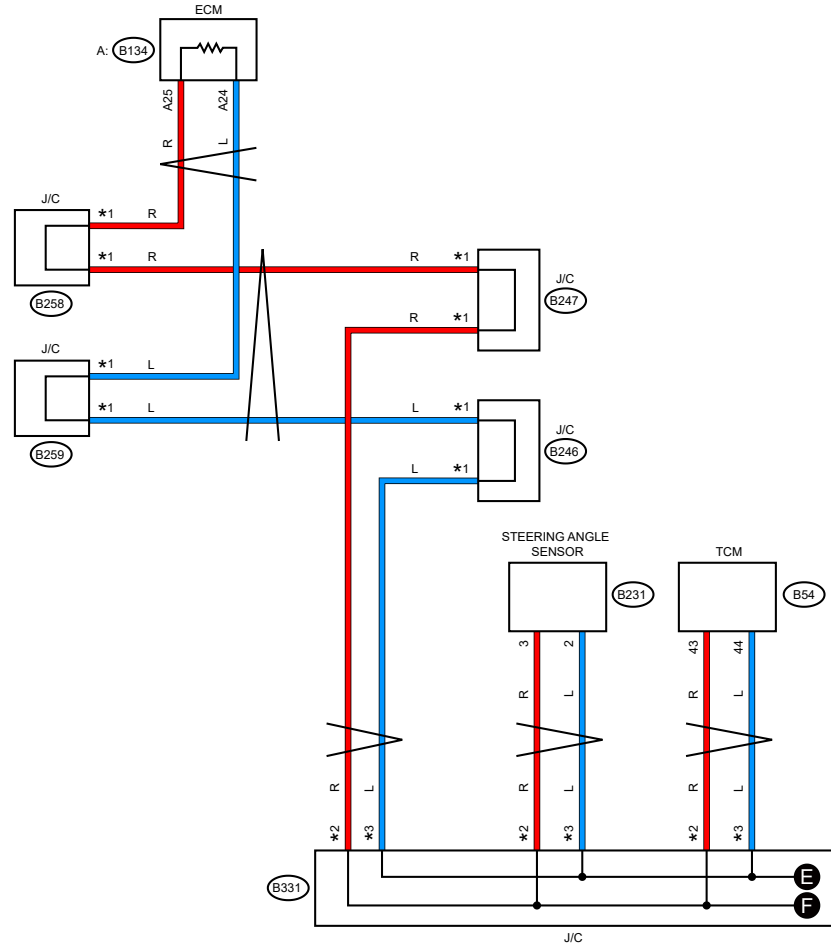
*2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6



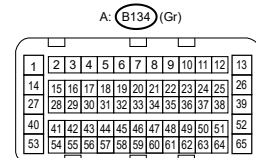
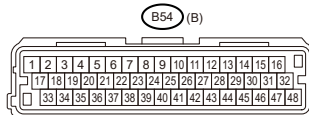
RELAY HOLDER

WI-65568



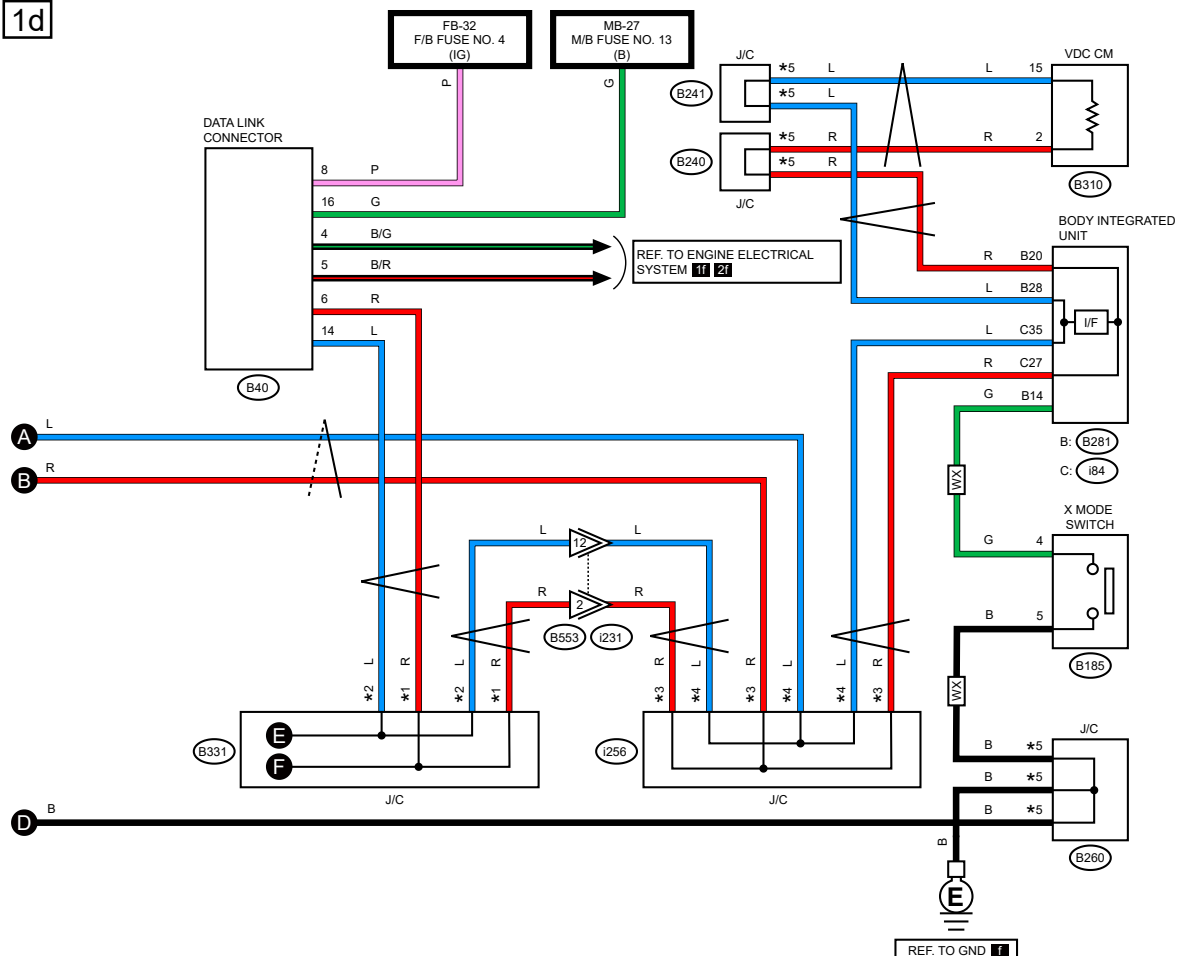


- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22



1d

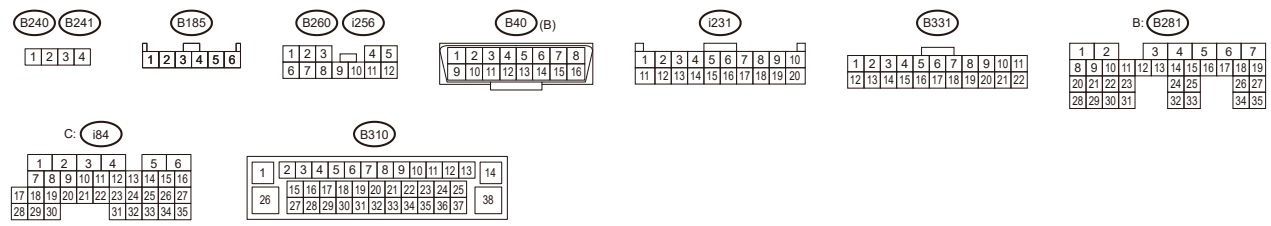
1d



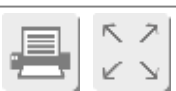
WX : WITH X MODE

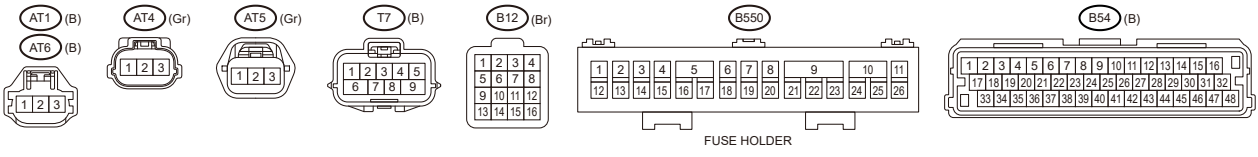
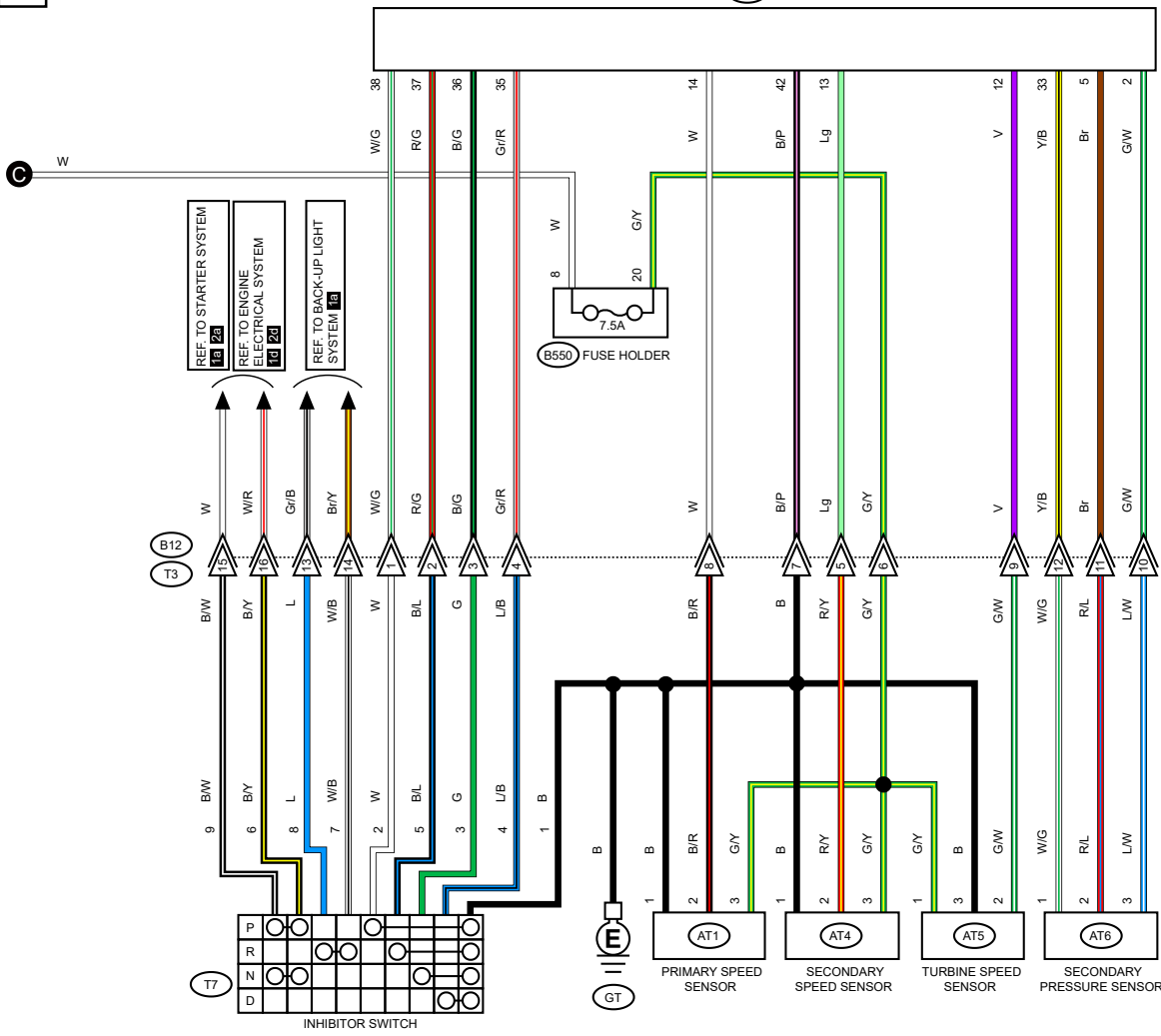
- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22

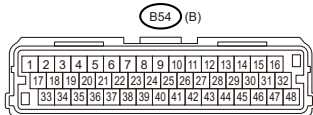
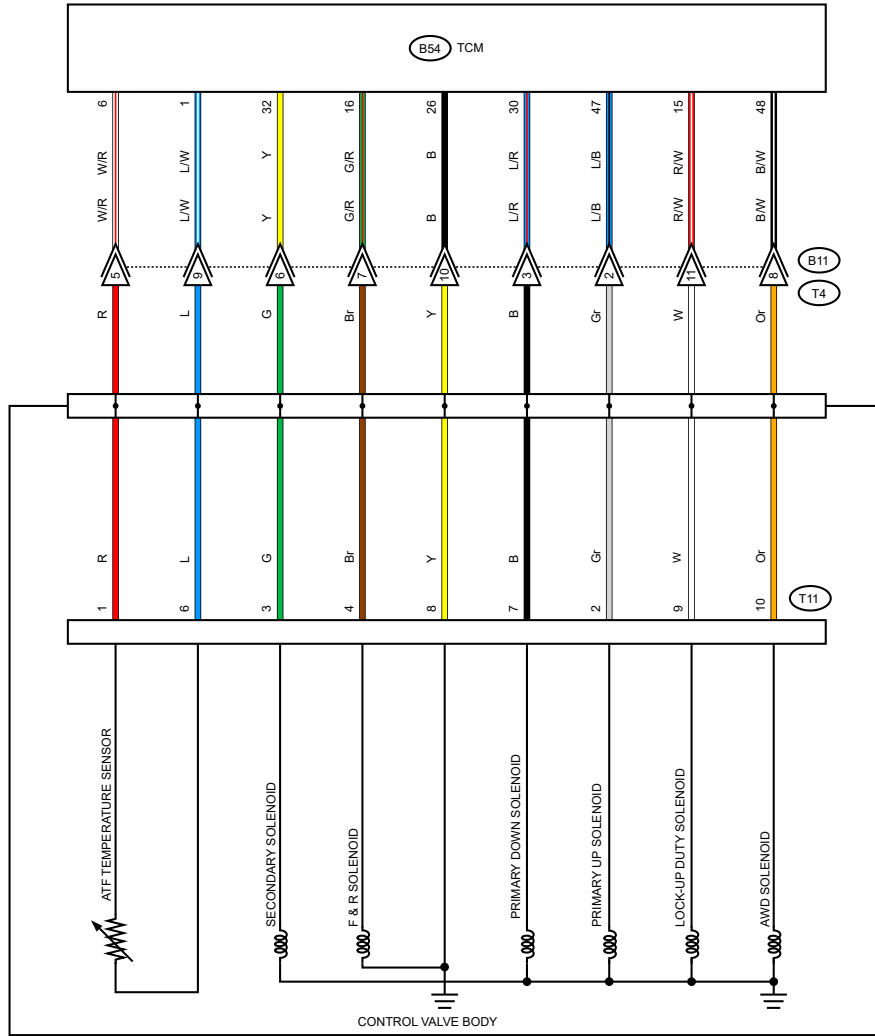
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *4 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12
- *5 : TERMINAL No. OPTIONAL ARRANGEMENT



WI-65570

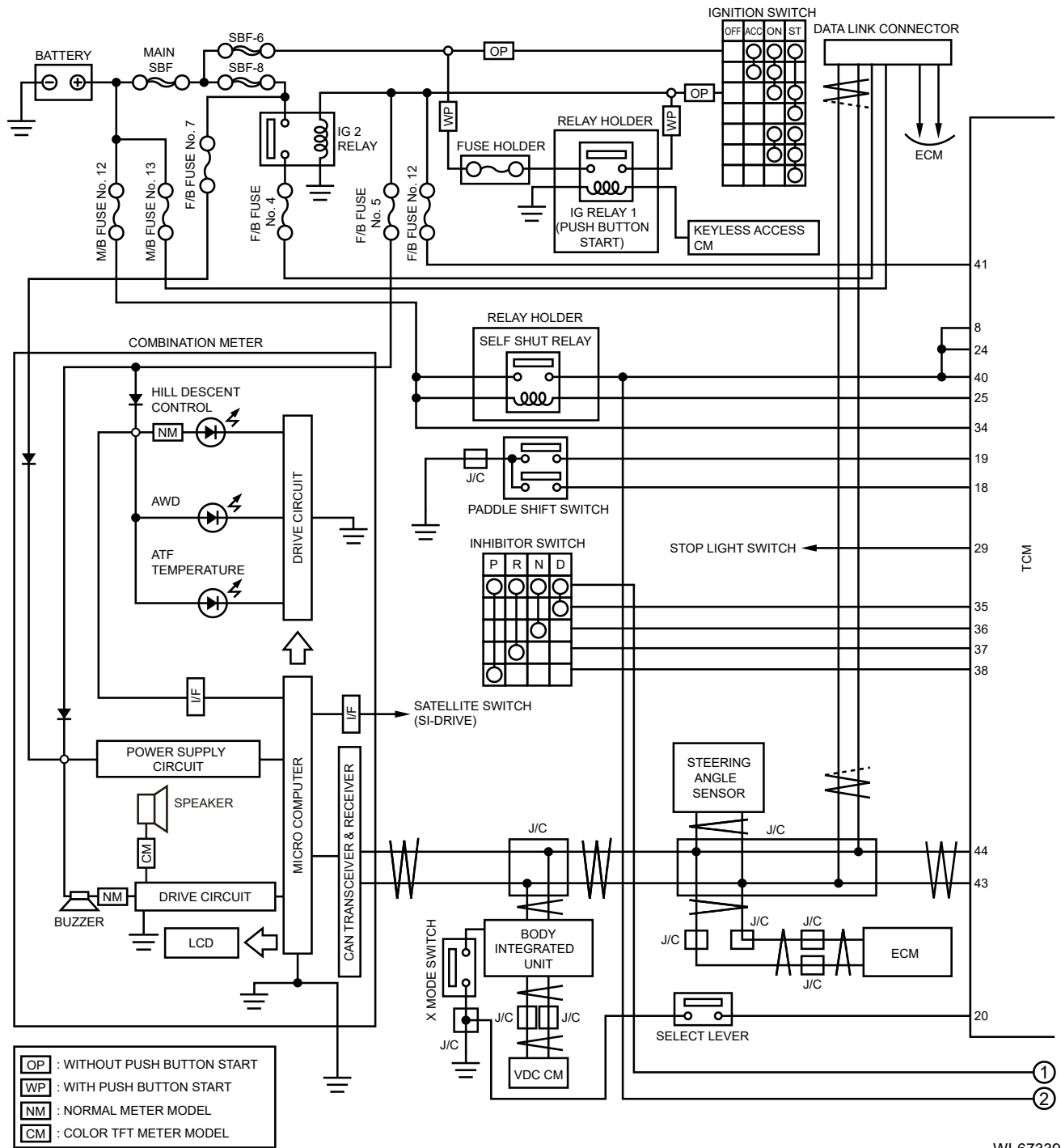


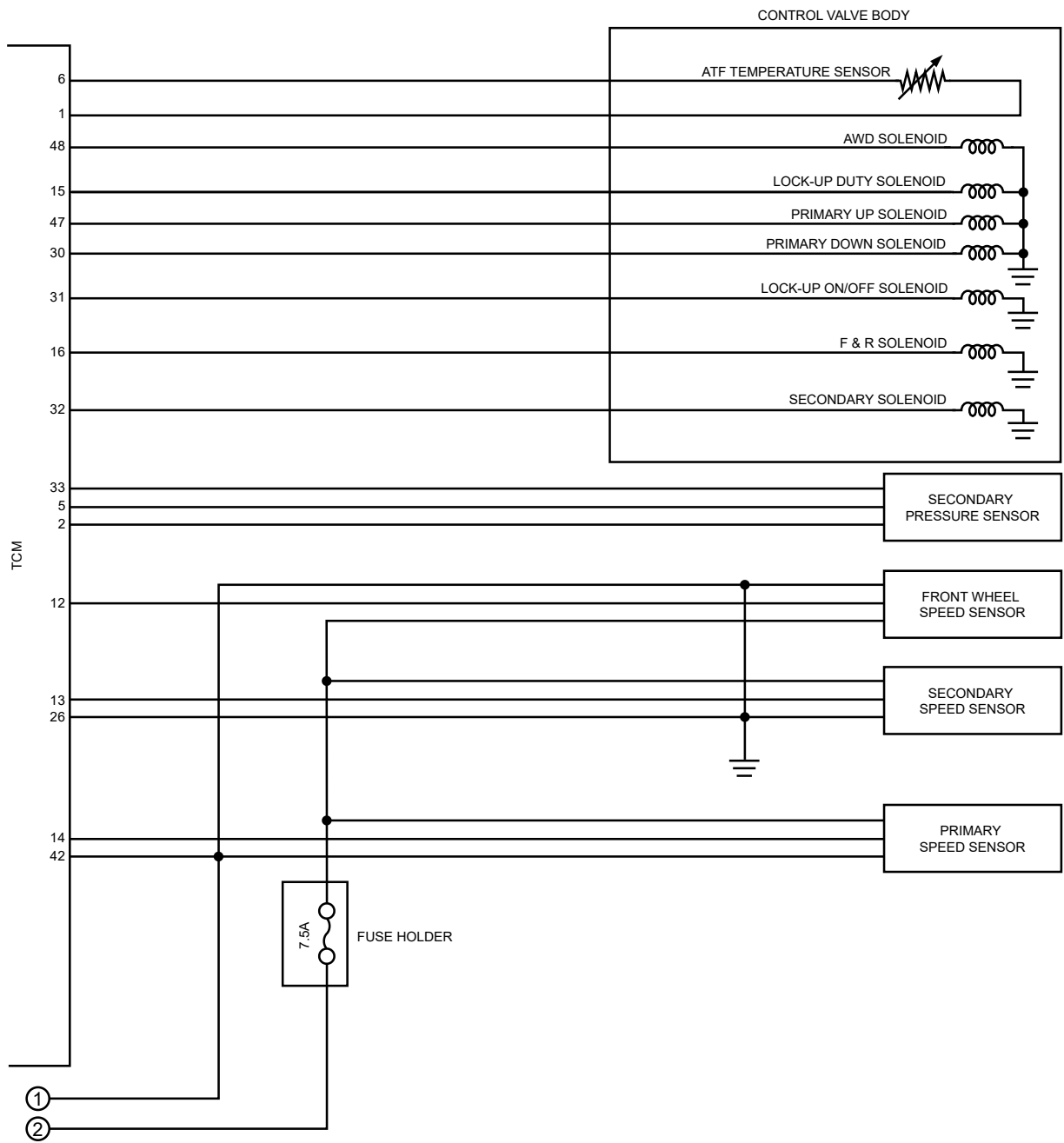




2. TURBO MODEL





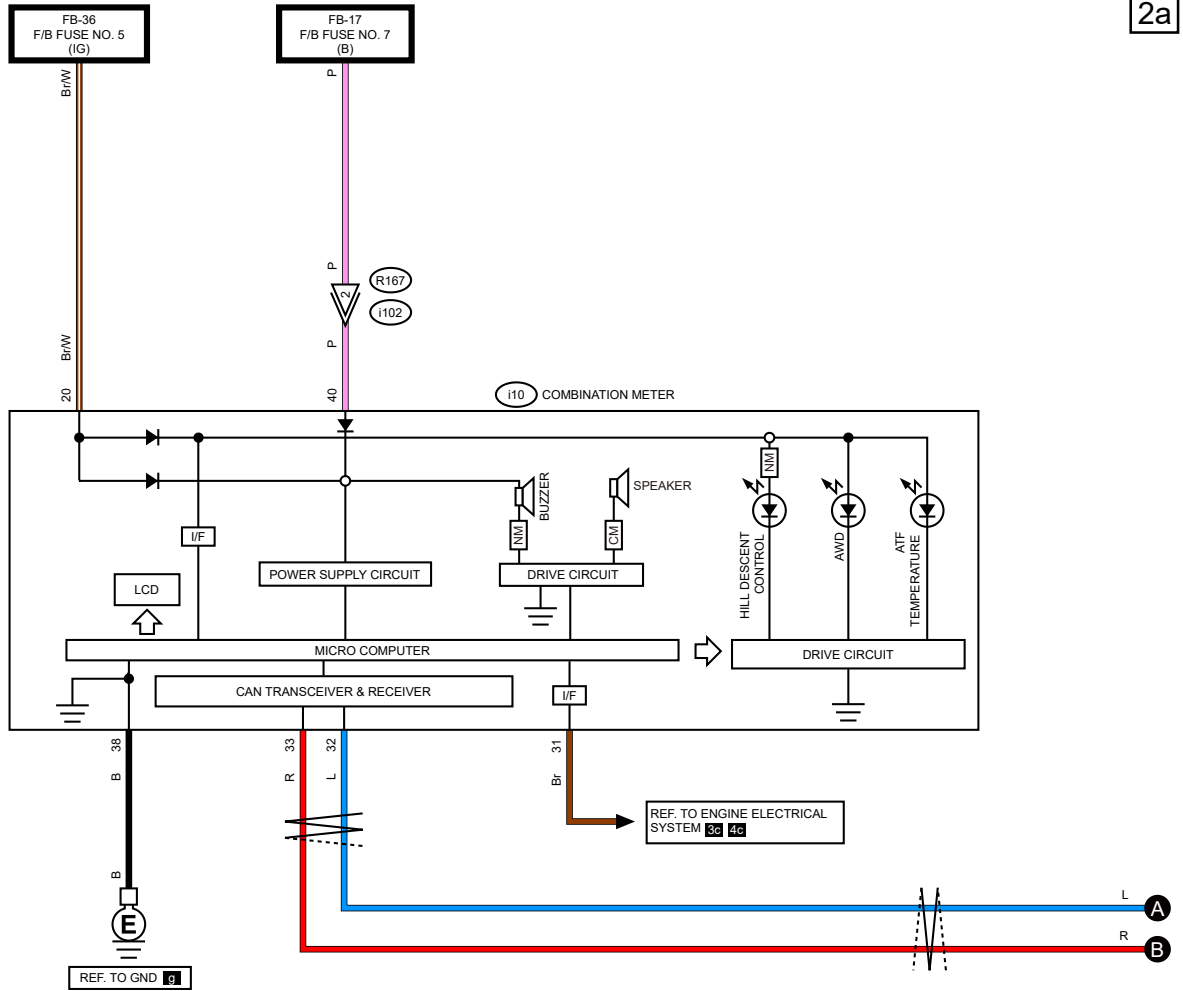


WI-60108

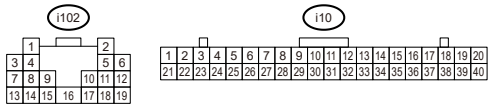


2a

2a



NM : NORMAL METER MODEL
CM : COLOR TFT METER MODEL

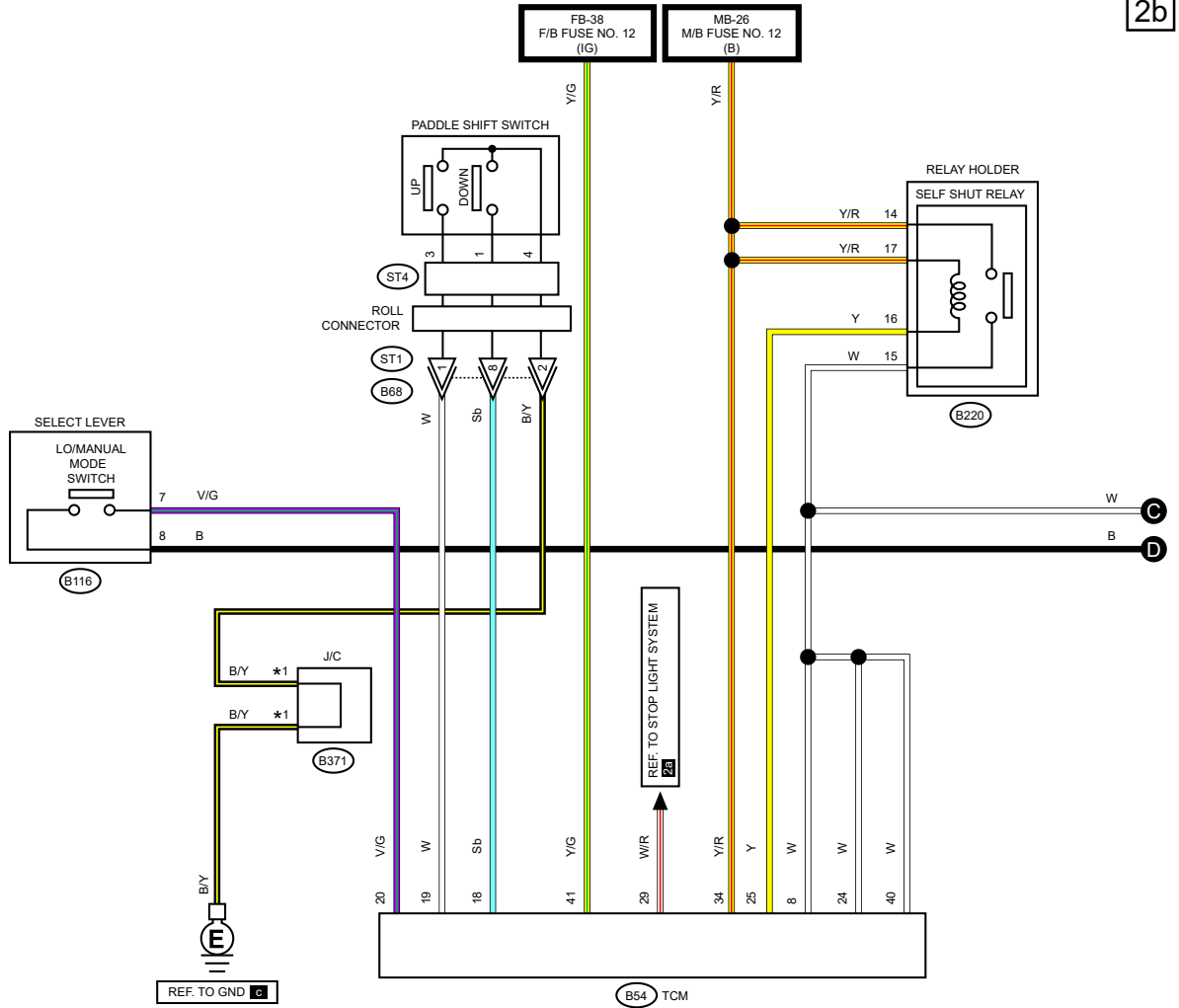


WI-65573

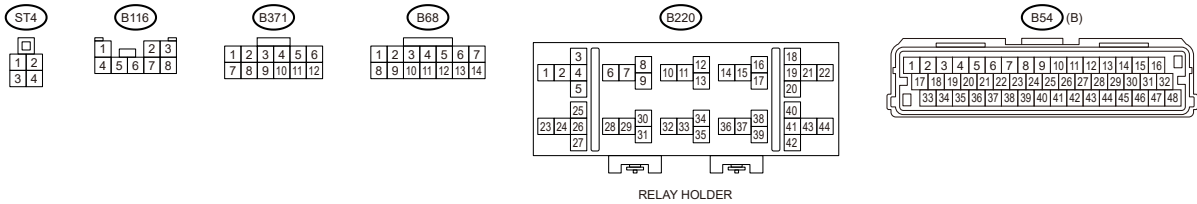


2b

2b

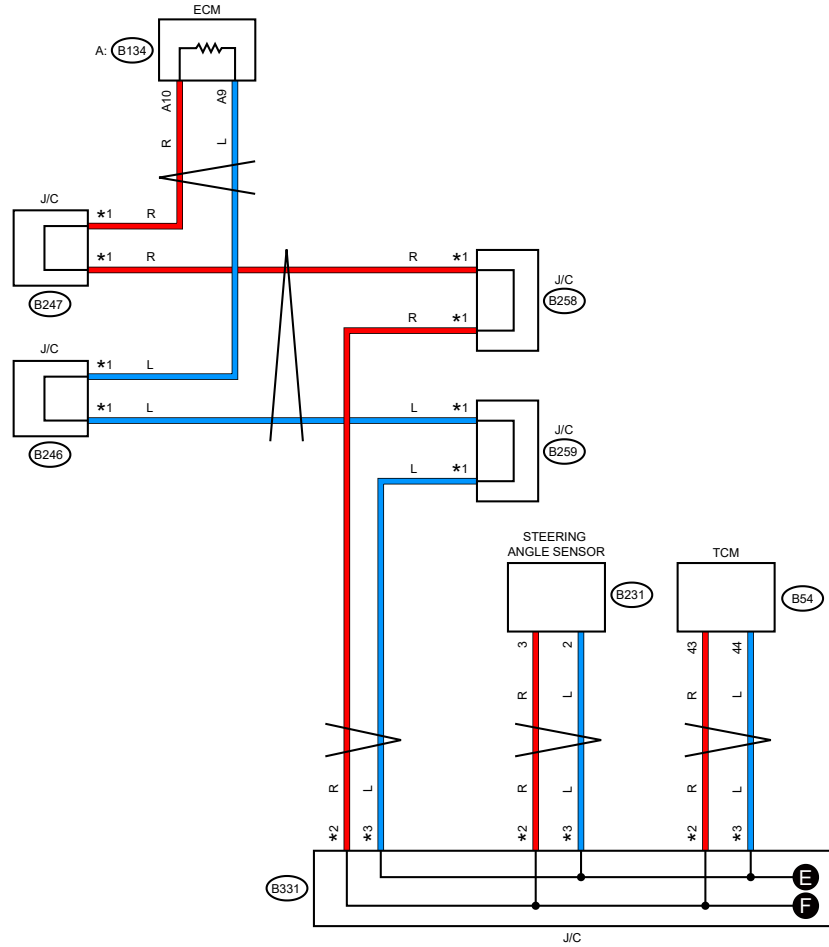


*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6

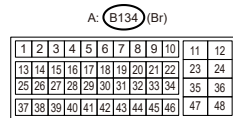
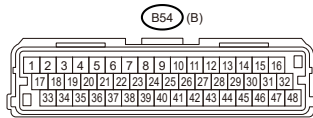
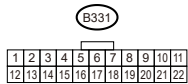


WI-65574



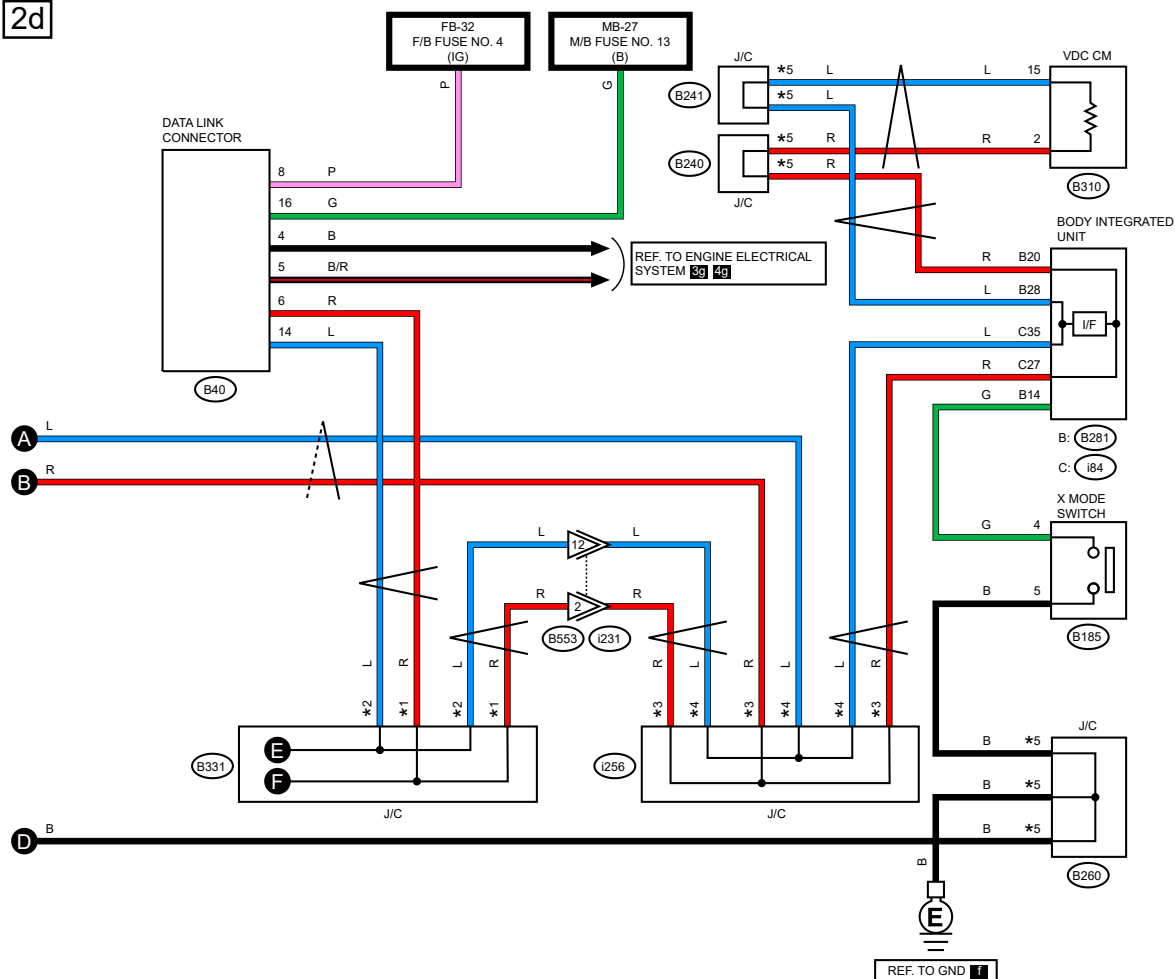


- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22

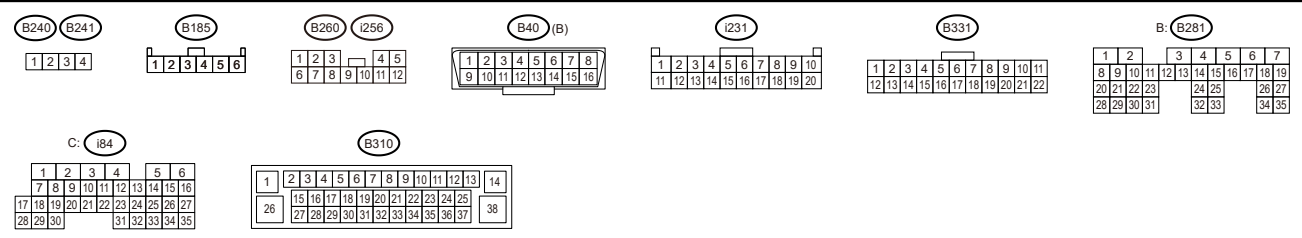


2d

2d

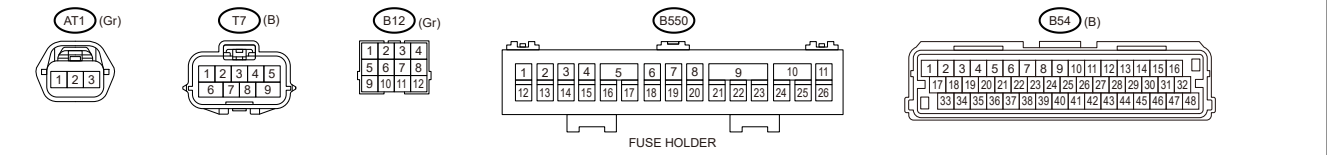
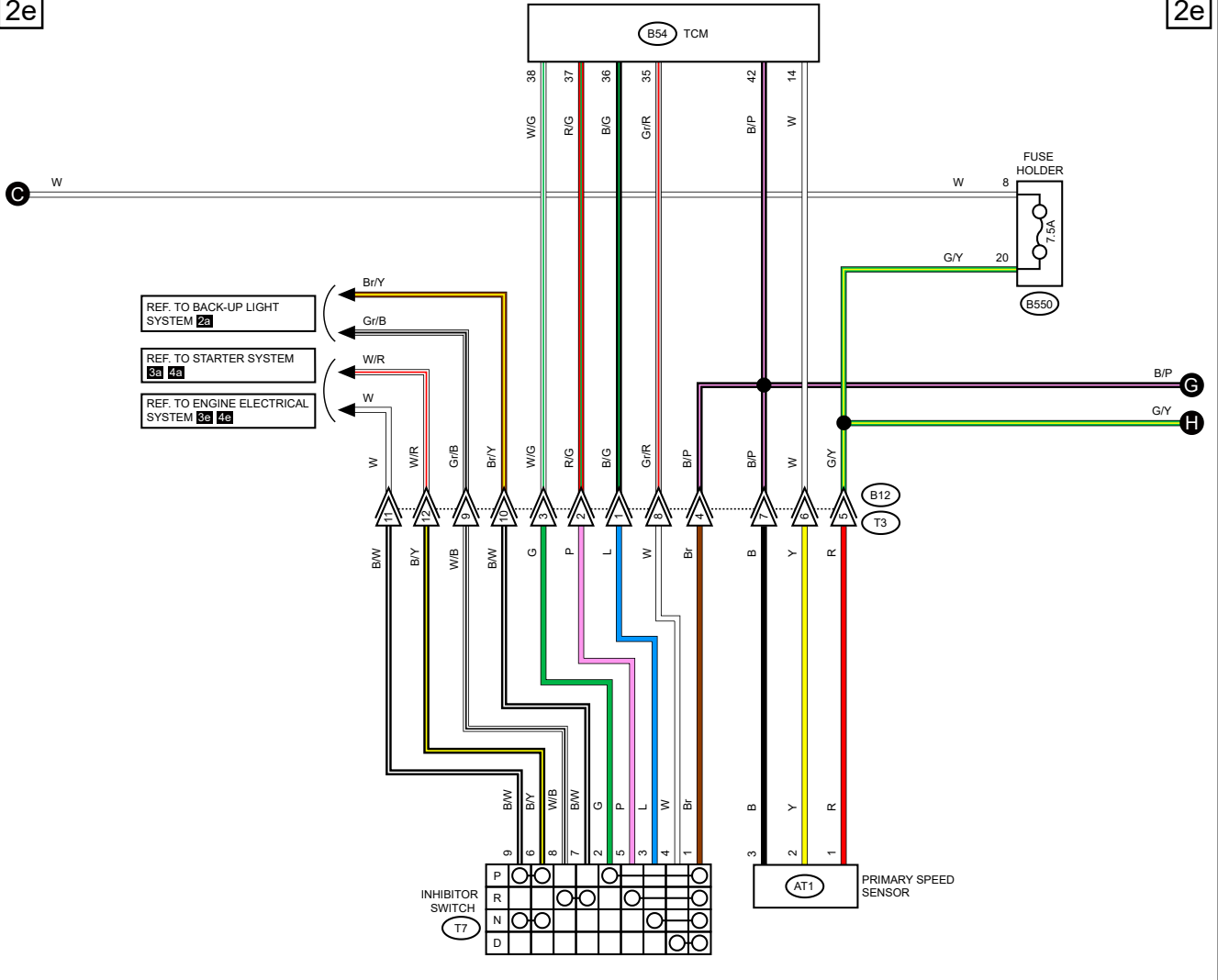


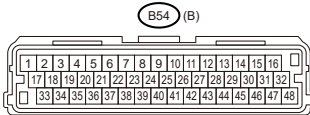
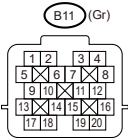
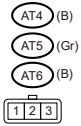
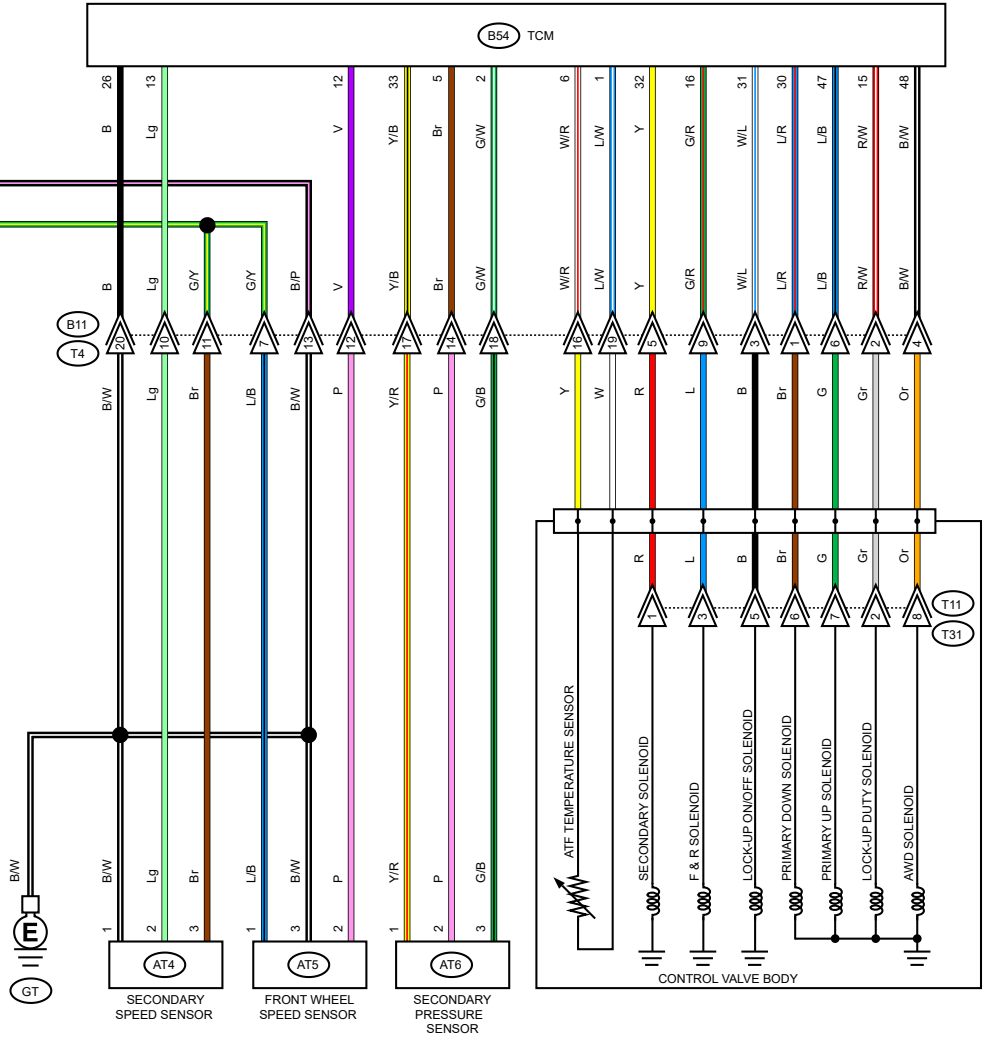
- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *4 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12
- *5 : TERMINAL No. OPTIONAL ARRANGEMENT



WI-65576







WIRING SYSTEM > Door Cord LH

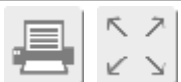
LOCATION

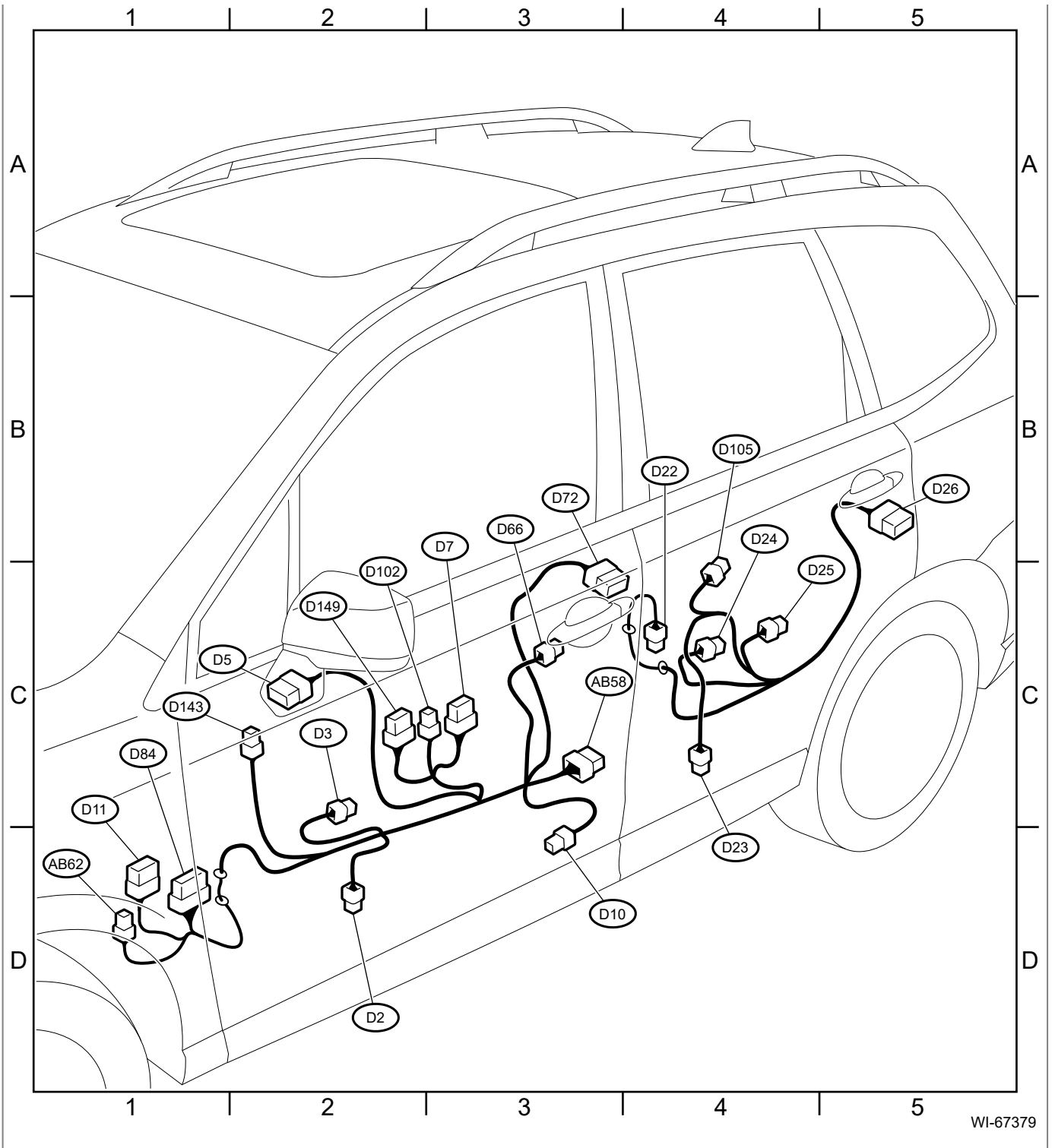
Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
D2	2	★	D-2		Front door speaker LH
D3	6	Gr	C-2		Front power window motor LH
D5	12	★	C-2		Outer mirror assembly LH
D7	16	★	C-3		Power window main switch
D10	2	★	D-3		Door step light LH
D11	11	★	D-1	B101	Bulkhead wiring harness
D22	8	★	C-4	R10	Rear wiring harness LH
D23	2	★	C-4		Rear door speaker LH
D24	6	Gr	C-4		Rear power window motor LH
D25	8	★	C-4		Rear power window switch LH
D26	10	★	B-5		Rear door lock actuator LH
D66	6	★	C-3		Outer handle LH
D72	10	★	C-3		Front door lock actuator LH
D84	28	★	D-1	i101	Instrument panel wiring harness
D102	3	★	C-3		Power window main switch
D105	2	B	D-4		Rear door sub speaker LH
D143	8	★	C-2		Seat position memory switch
D149	16	★	C-2		Remote control mirror switch

★:White or natural color

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB58	2	Y	C-3		Front door impact sensor LH
AB62	2	Y	D-1	R123	Rear wiring harness

★:White or natural color





WIRING SYSTEM > Door Cord RH

LOCATION

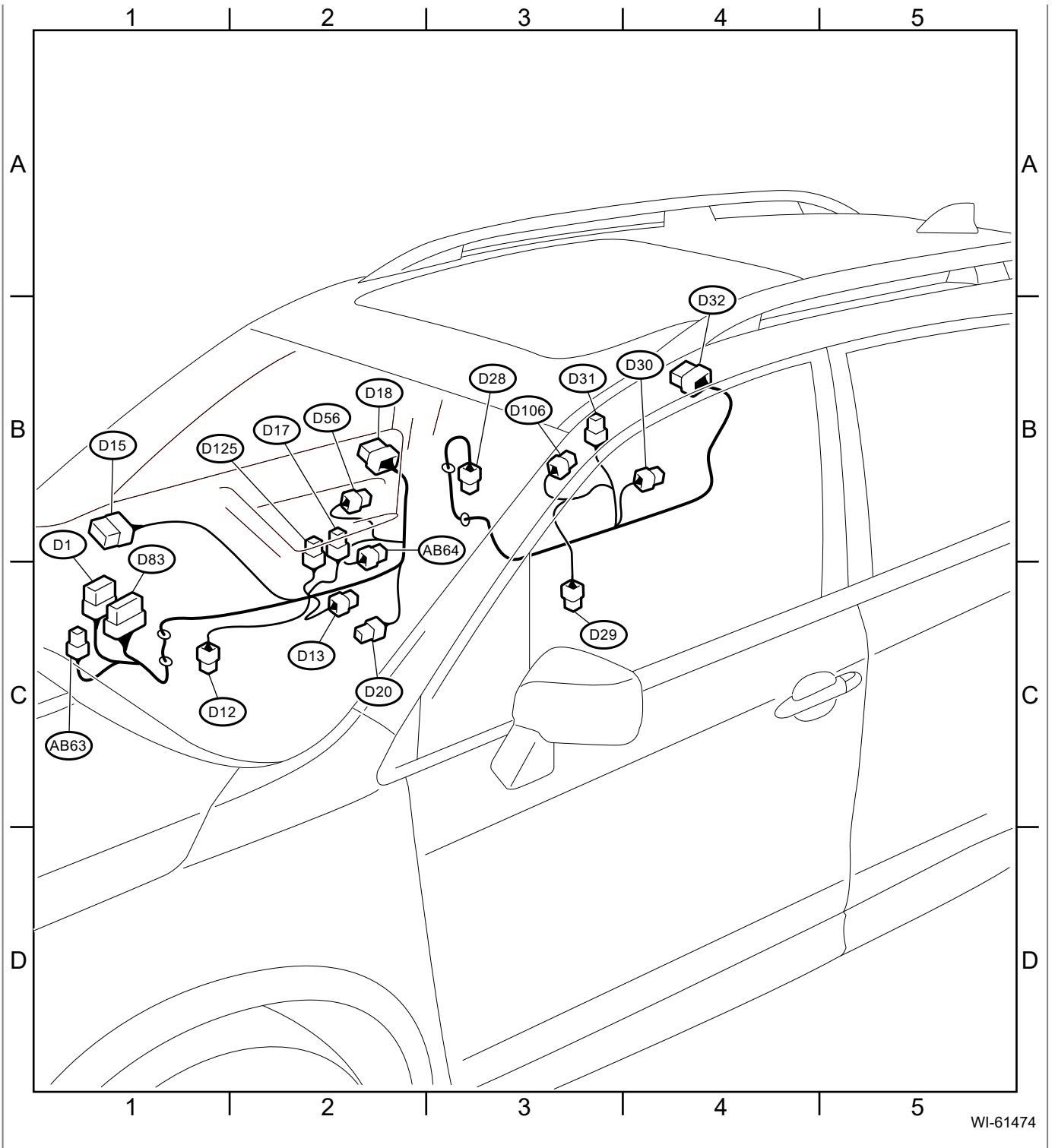
Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
D1	11	★	C-1	B30	Bulkhead wiring harness
D12	2	★	C-1		Front door speaker RH
D13	6	Gr	C-2		Front power window motor RH
D15	12	★	B-1		Outer mirror assembly RH
D17	8	★	B-2		Front power window sub-switch (without auto-reverse function)
	12	★	B-2		Front power window sub-switch (with auto-reverse function)
D18	10	★	B-2		Front door lock actuator RH
D20	2	★	C-2		Door step light RH
D28	8	★	B-3	R13	Rear wiring harness RH
D29	2	★	C-3		Rear door speaker RH
D30	6	Sb	B-4		Rear power window motor RH
D31	8	★	B-3		Rear power window switch RH
D32	10	★	B-4		Rear door lock actuator RH
D56	6	★	B-2		Outer handle RH
D83	28	★	C-1	i76	Instrument panel wiring harness
D106	2	B	B-3		Rear door sub speaker RH
D125	5	★	B-2		Passenger's seat door lock switch

★:White or natural color

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB63	2	★	C-1	R124	Rear wiring harness
AB64	2	Y	B-2		Front door impact sensor RH

★:White or natural color





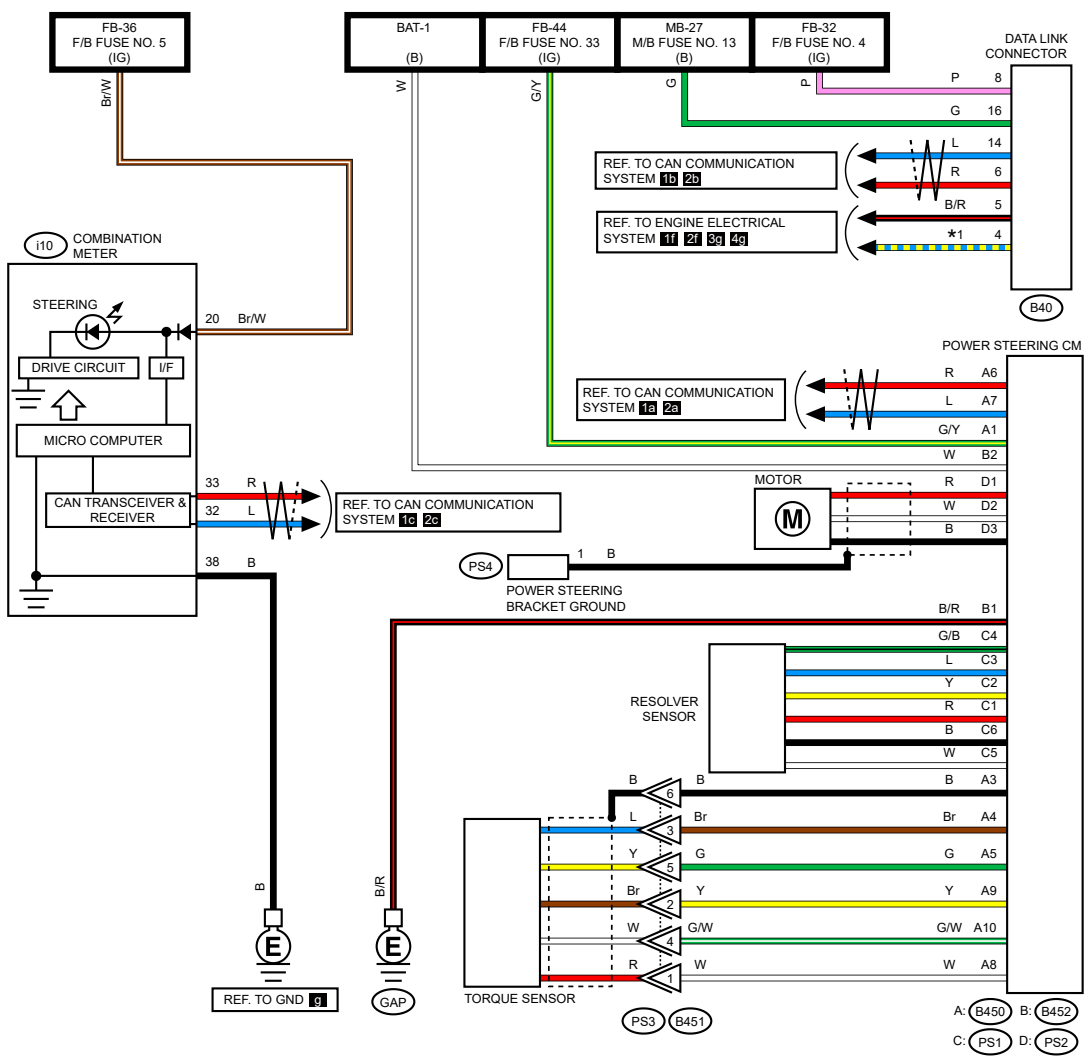
WIRING SYSTEM > Electric Power Steering System

WIRING DIAGRAM

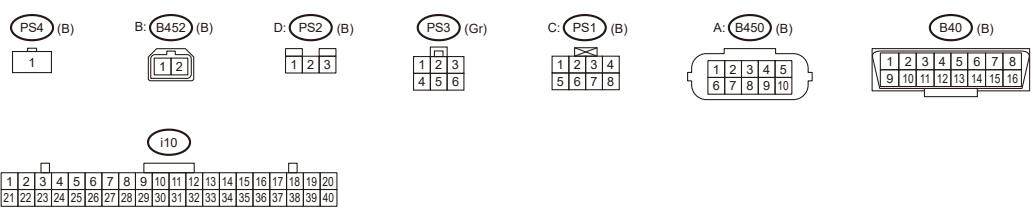


a

a



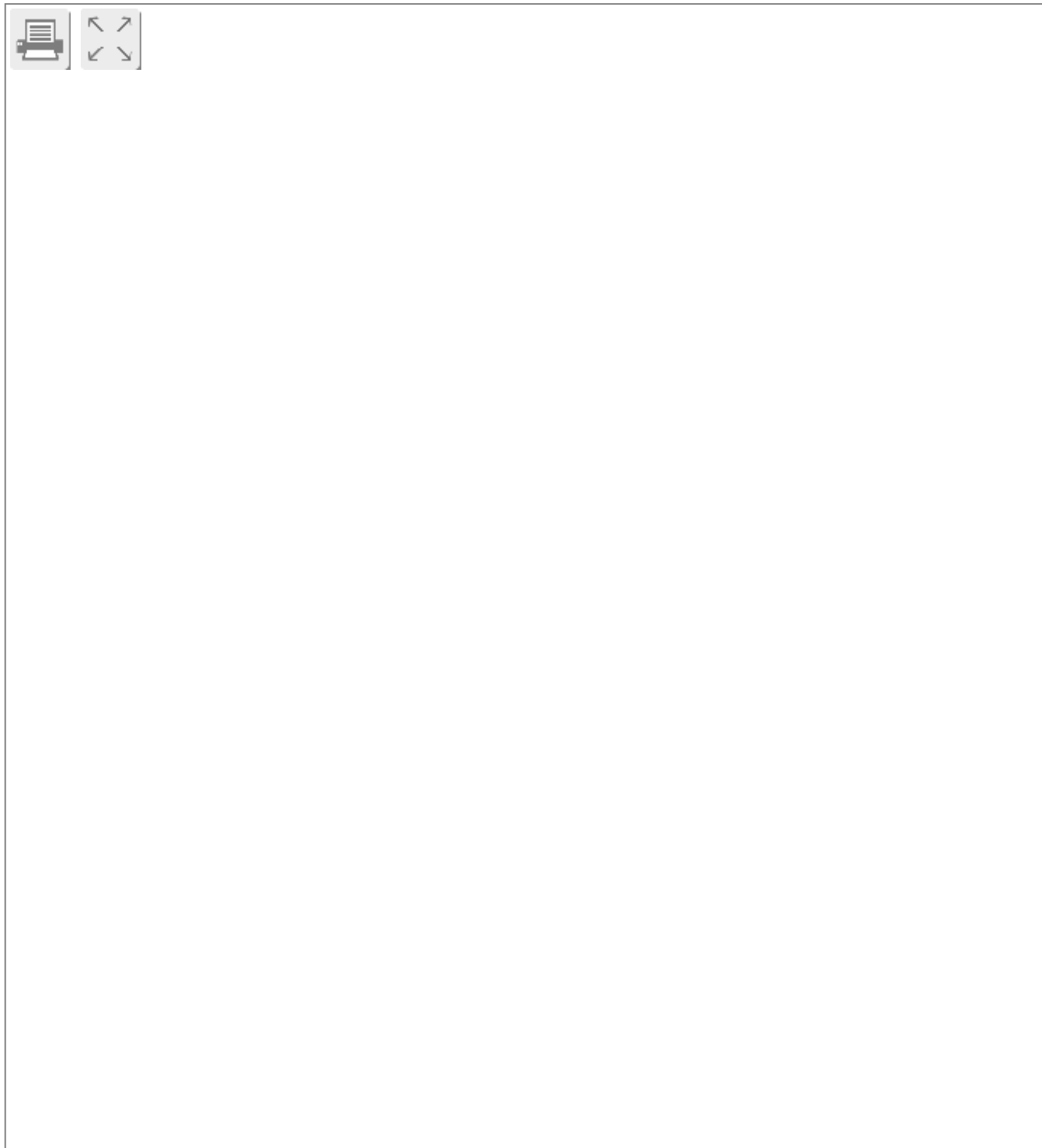
*1 : NON-TURBO MODEL : B/G
 TURBO MODEL : B

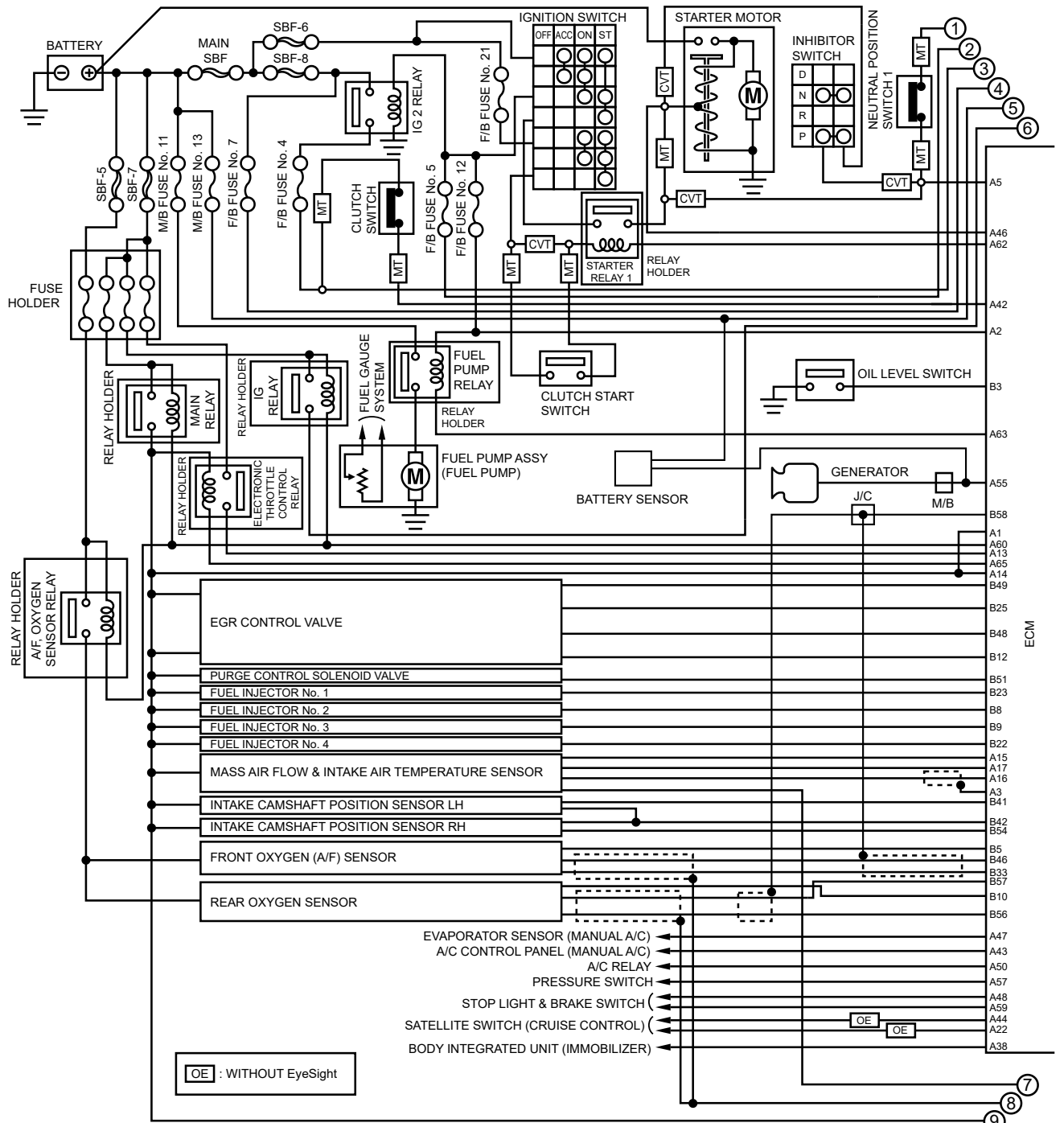


WIRING DIAGRAM

▼ Please select ▼ see

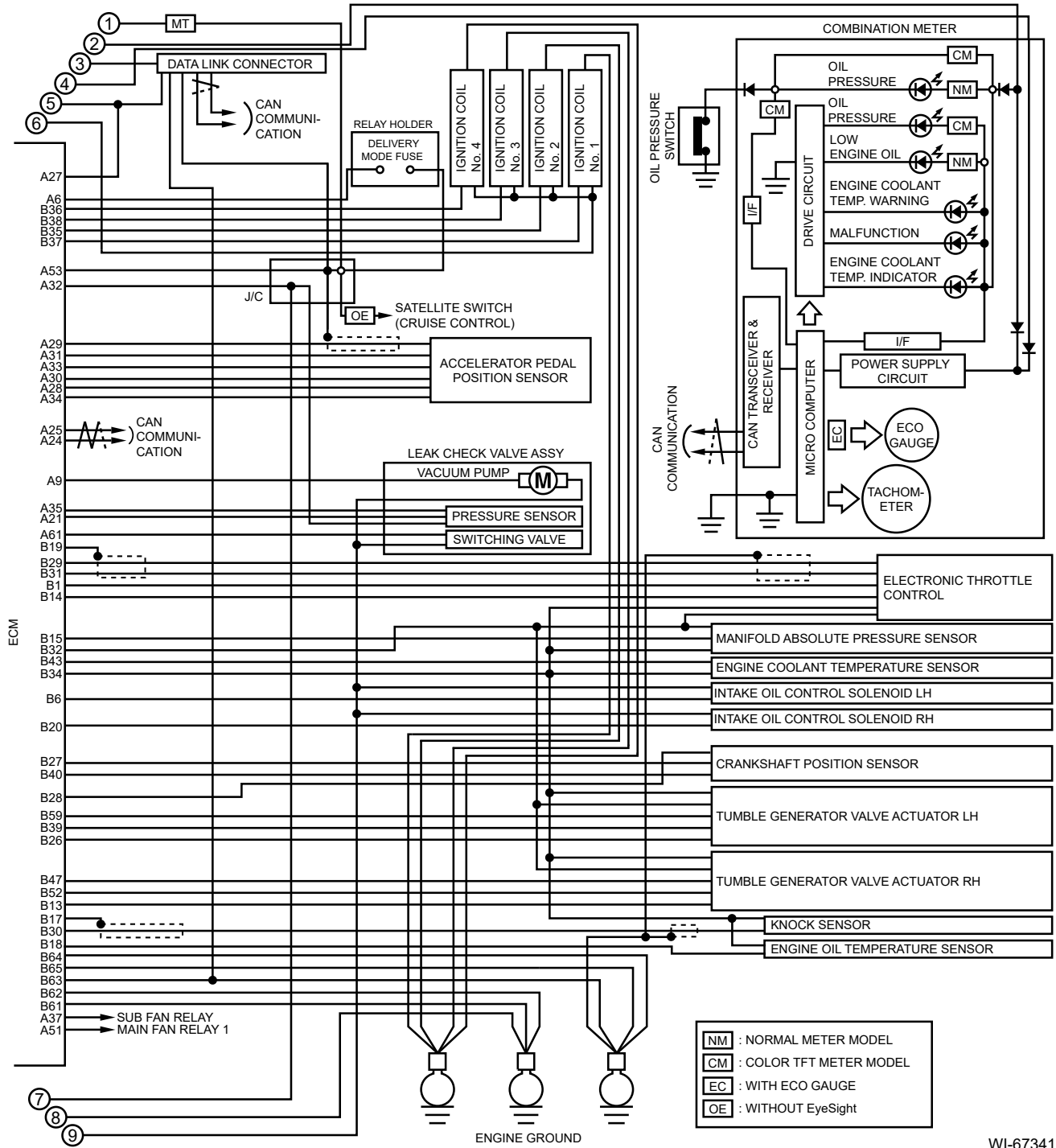
1. NON-TURBO MODEL (WITHOUT PUSH BUTTON START)





WI-67340



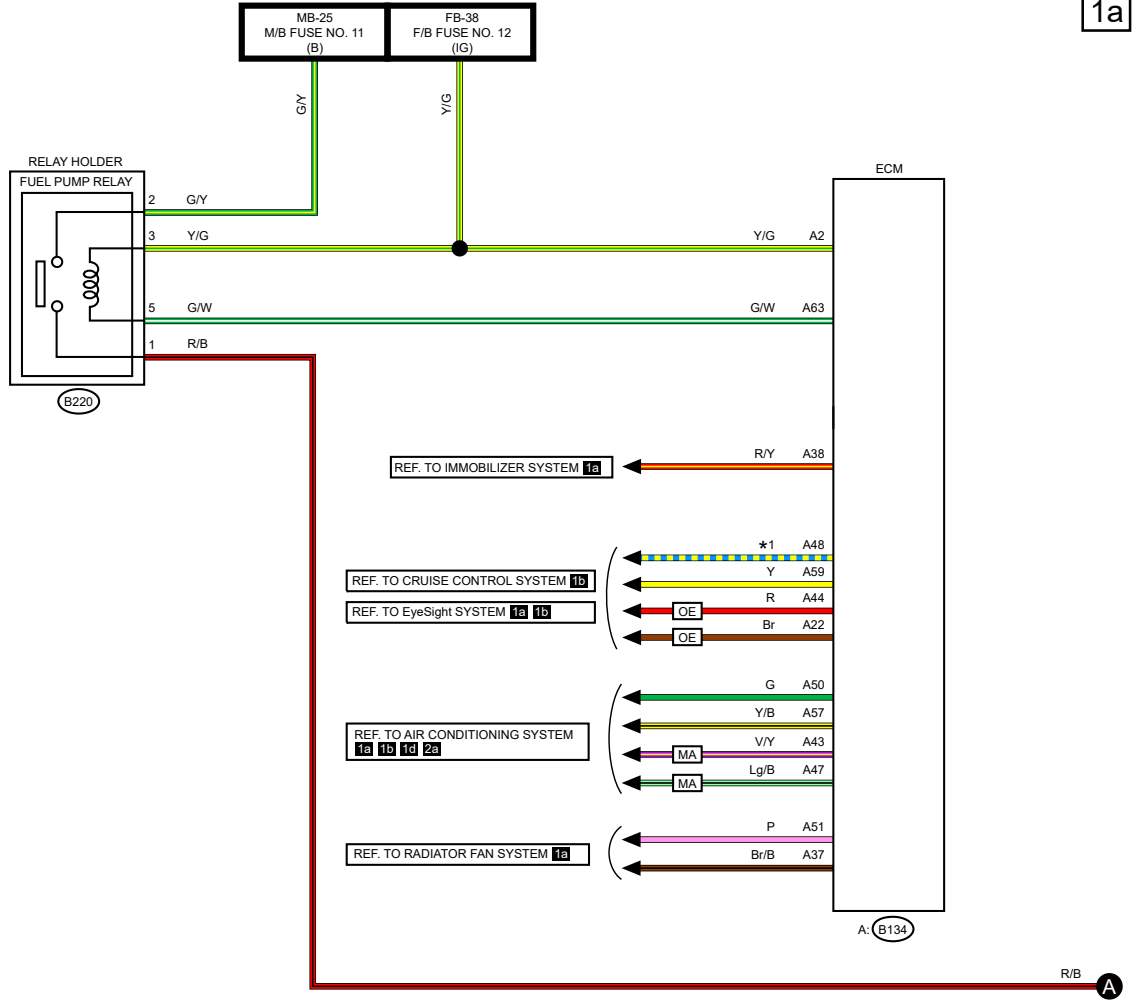


WI-67341



1a

1a

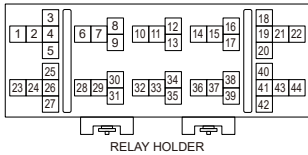


MA : MANUAL A/C

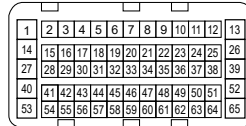
OE : WITHOUT EyeSight

*1 : WITHOUT EyeSight AND X MODE : Br/R
EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE : W/R

B220

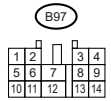
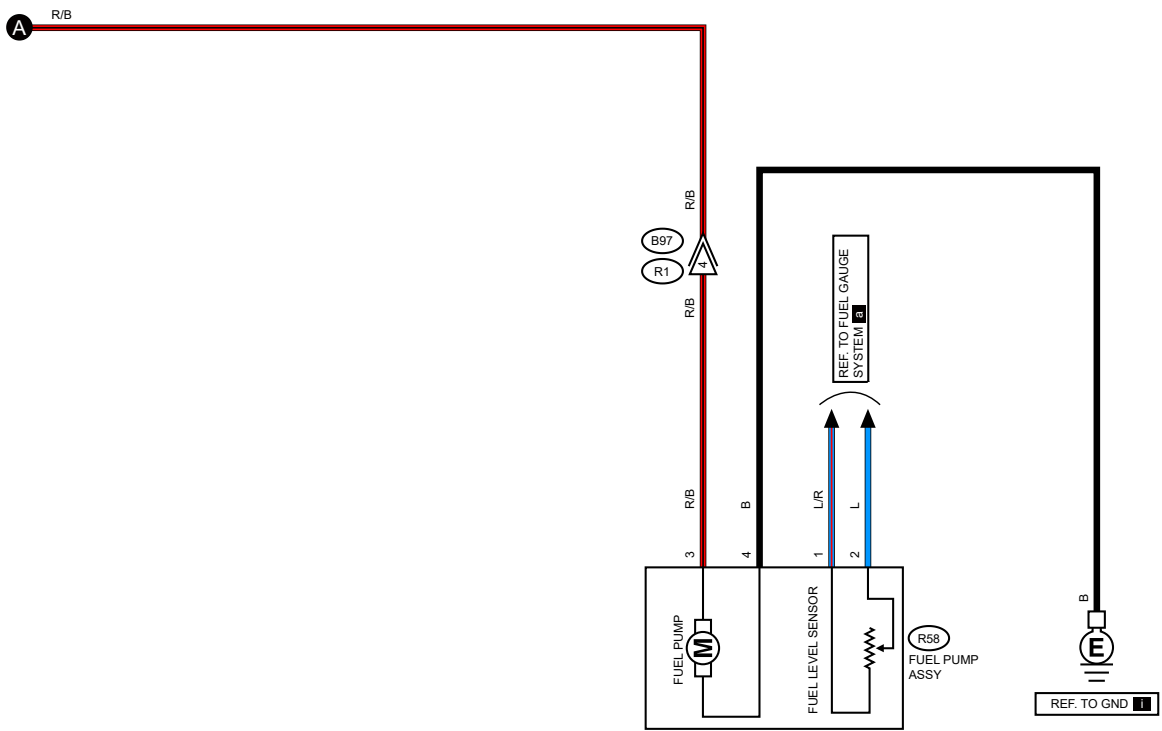


A: B134 (Gr)



1b

1b

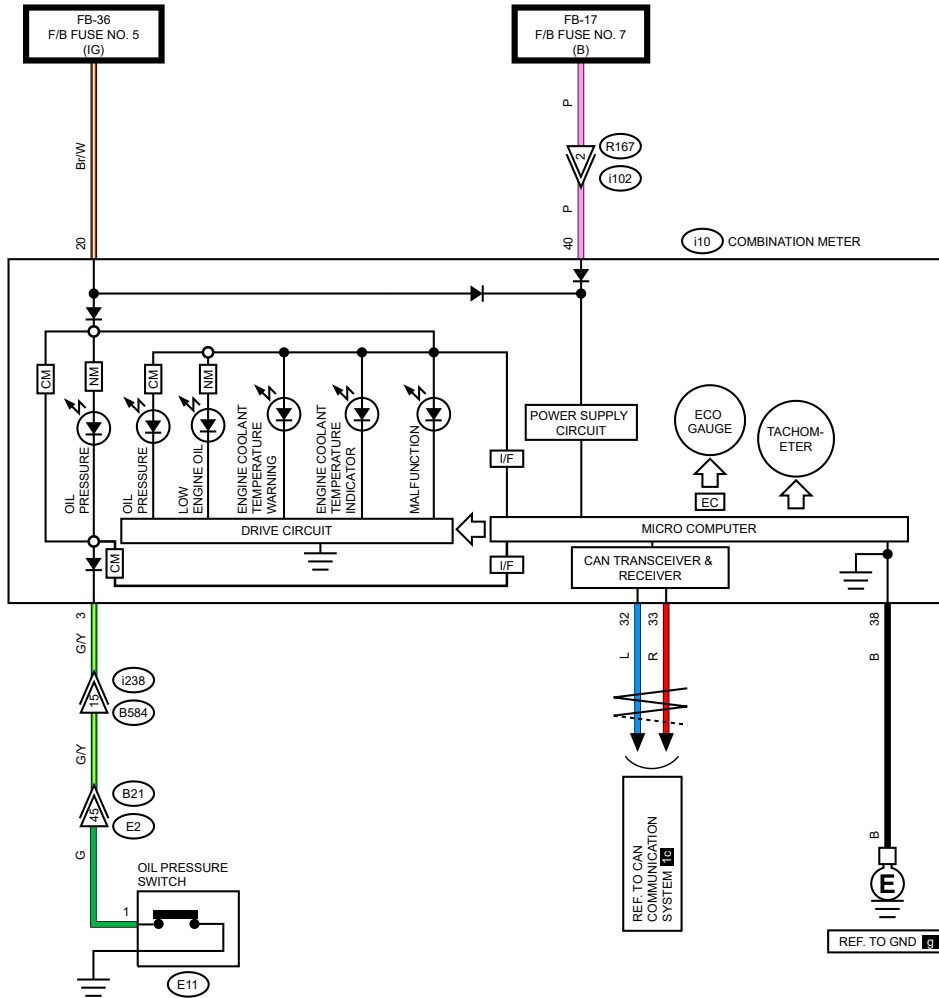


WI-65581



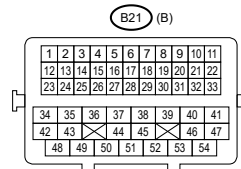
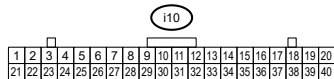
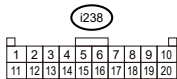
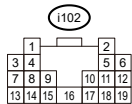
1c

1c



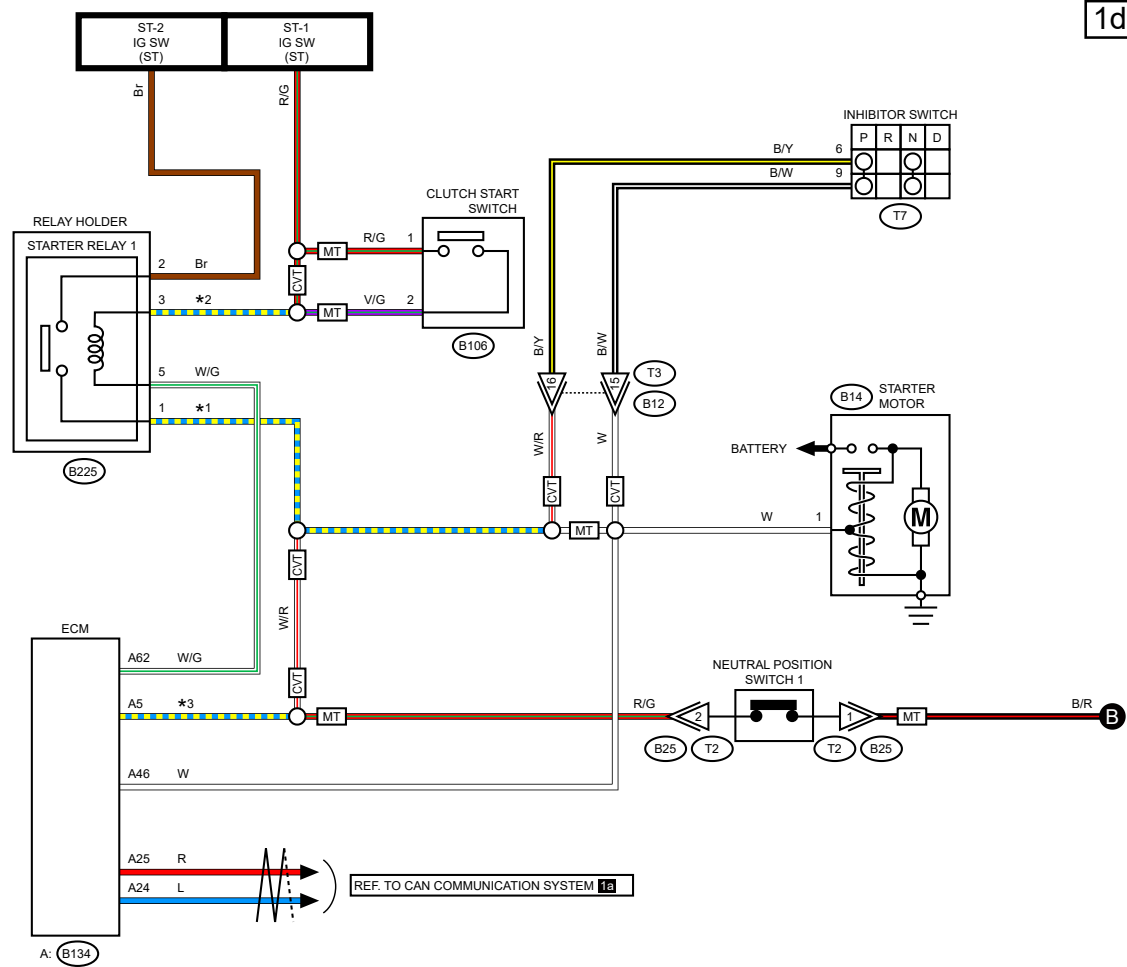
NM : NORMAL METER MODEL
CM : COLOR TFT METER MODEL

EC : WITH ECO GAUGE

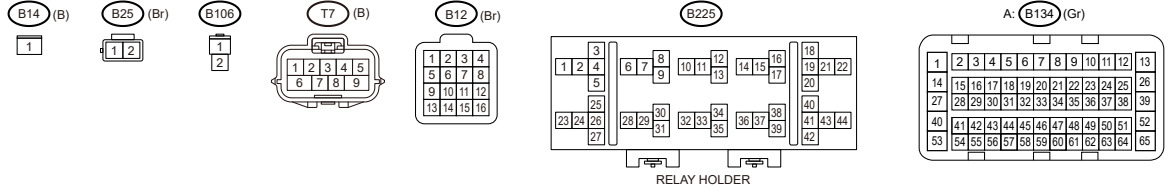


1d

1d

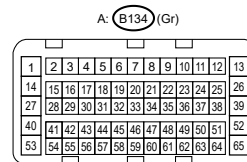
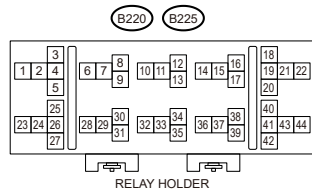
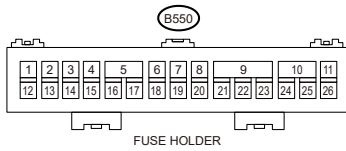
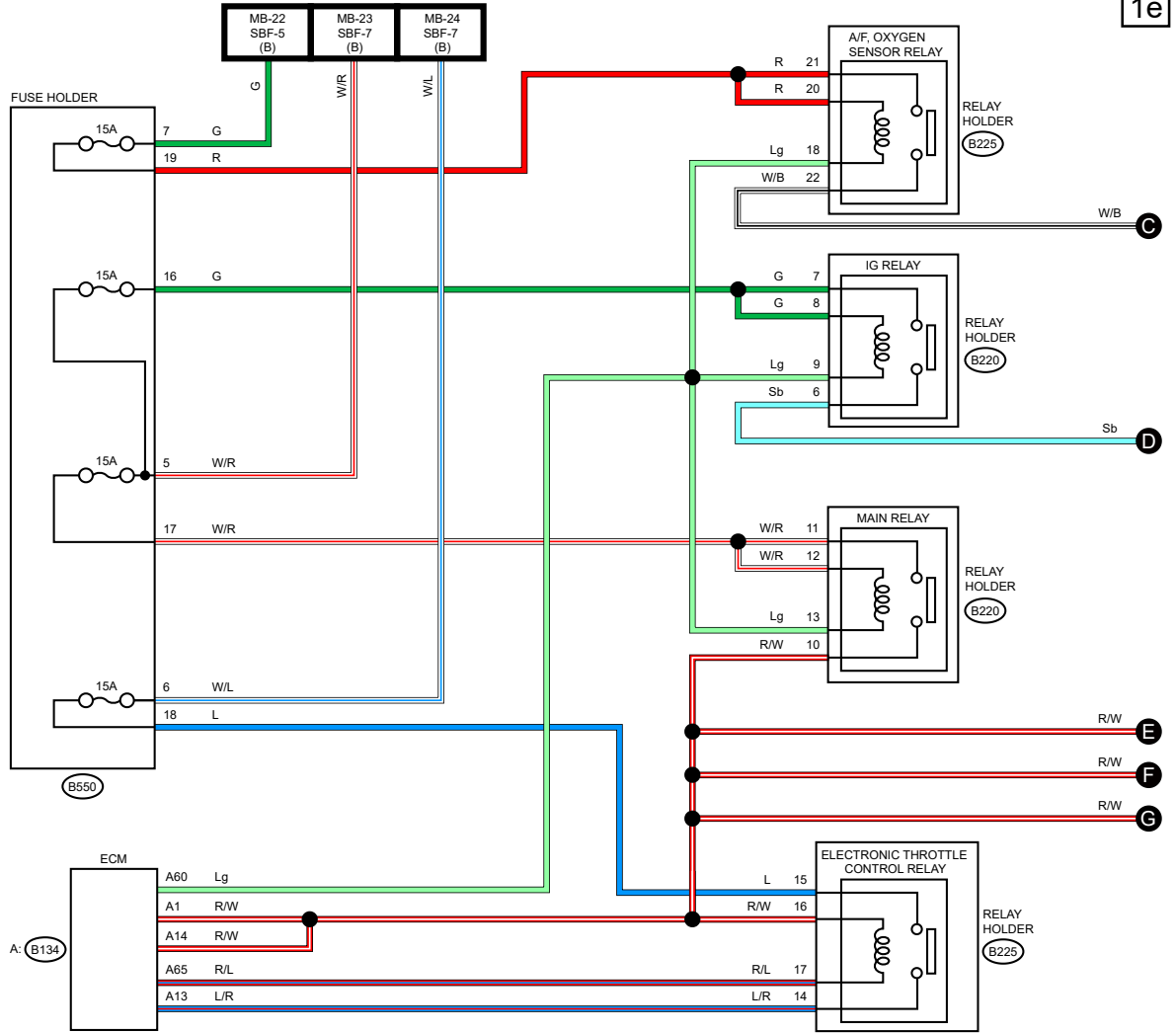


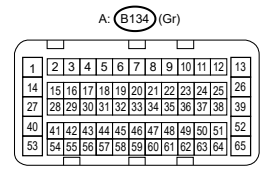
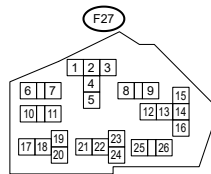
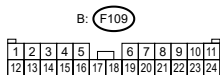
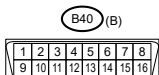
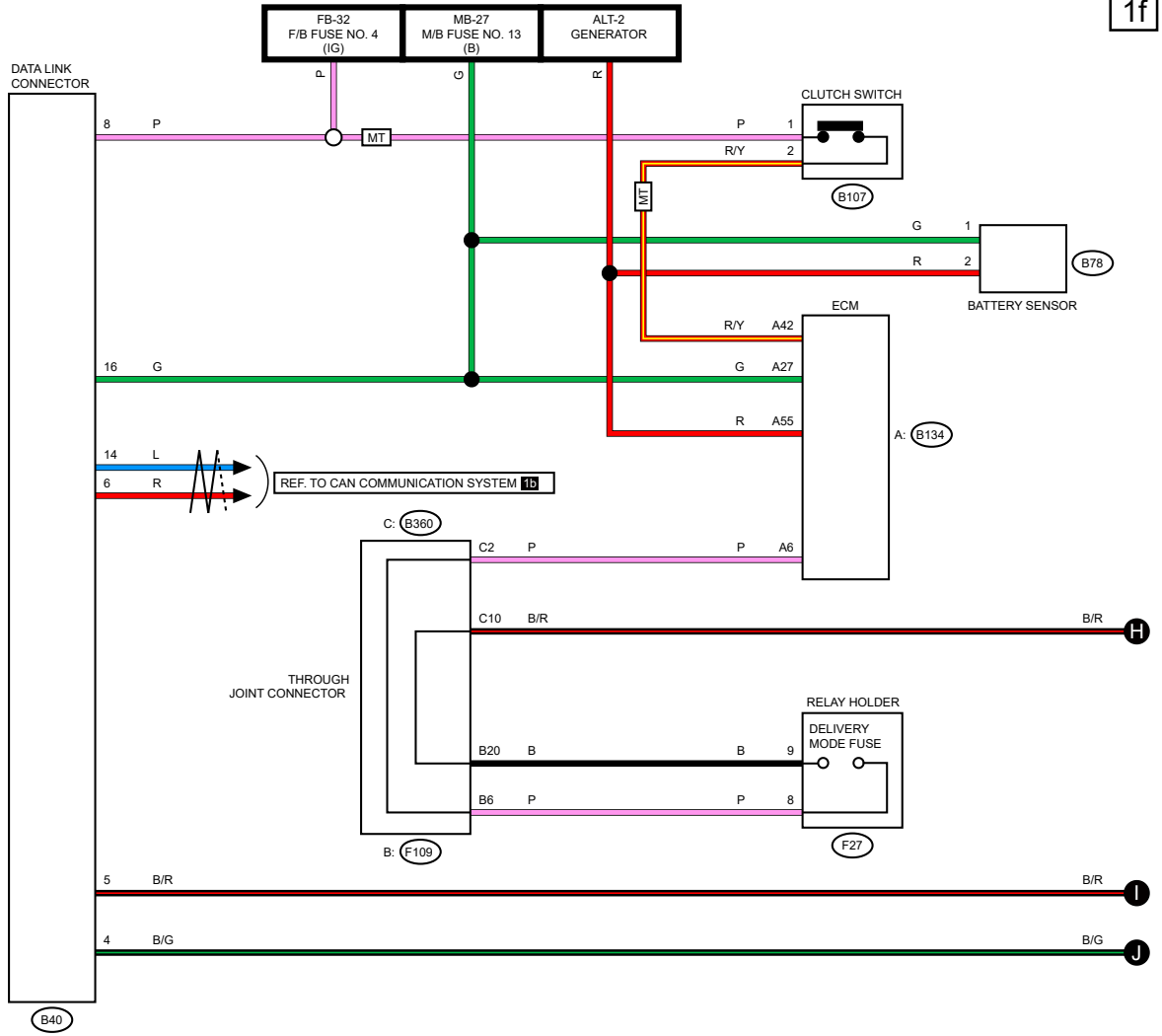
- *1 : MT MODEL : W
CVT MODEL : W/R
- *2 : MT MODEL : V/G
CVT MODEL : R/G
- *3 : MT MODEL : R/G
CVT MODEL : W/R



1e

1e



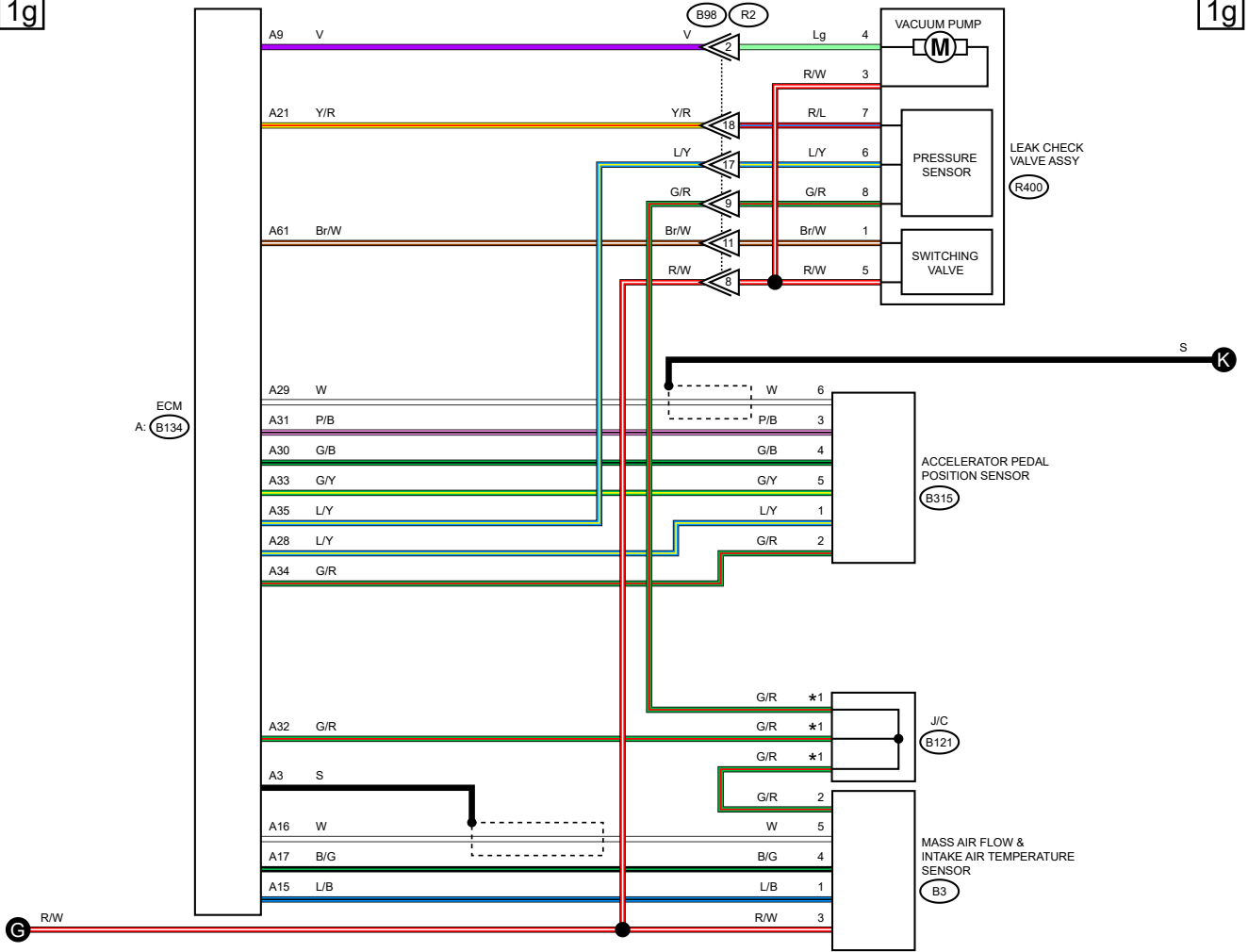


RELAY HOLDER

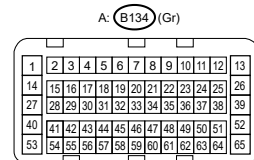
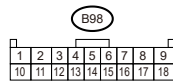
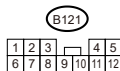
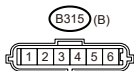
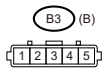


1g

1g

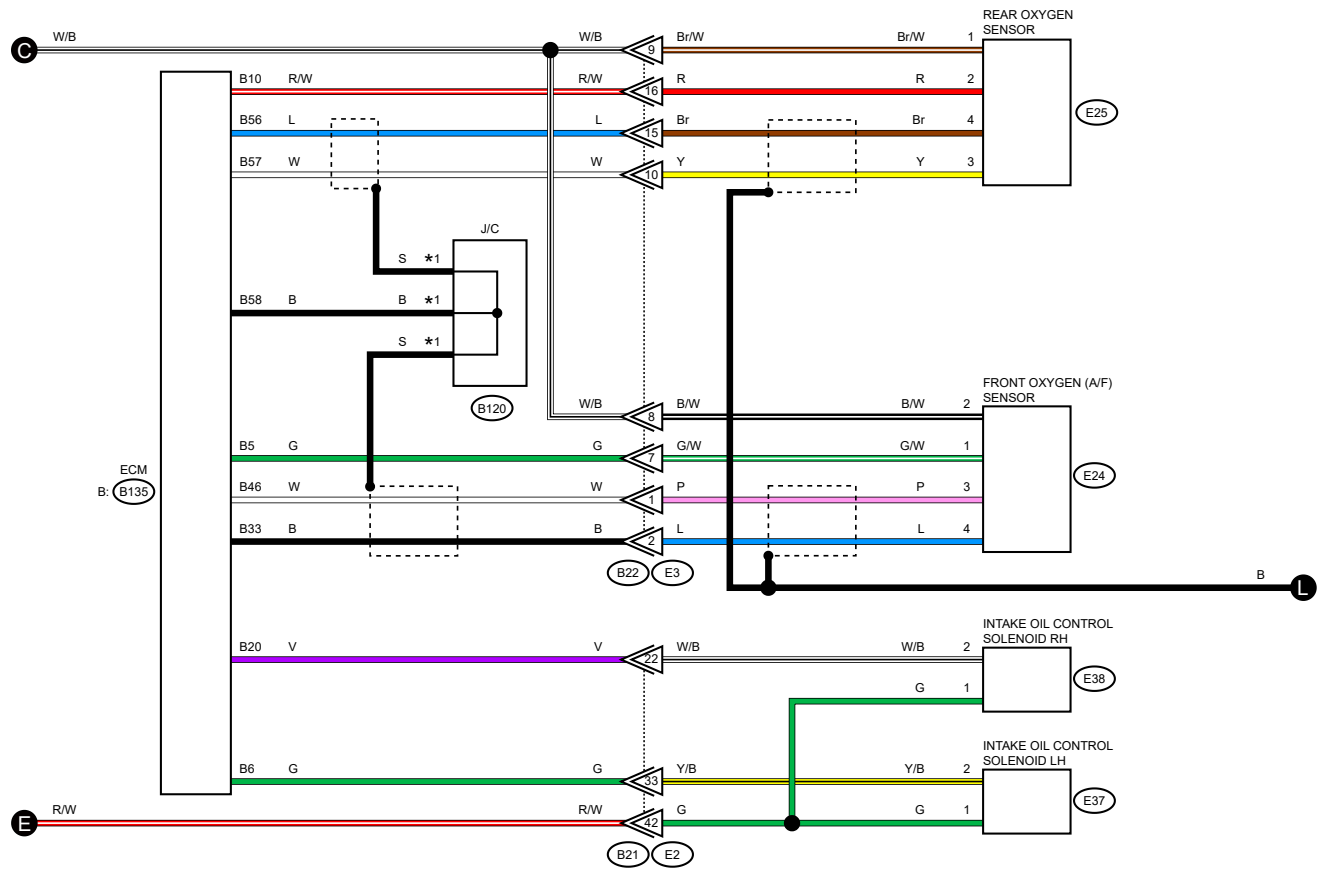


*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

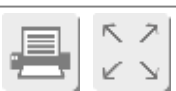
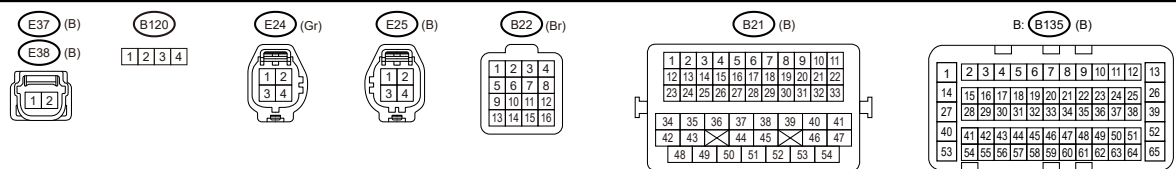


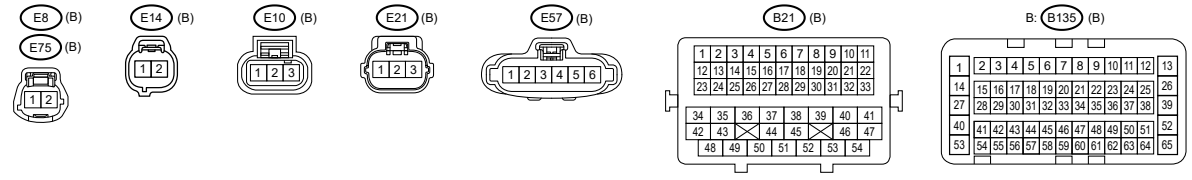
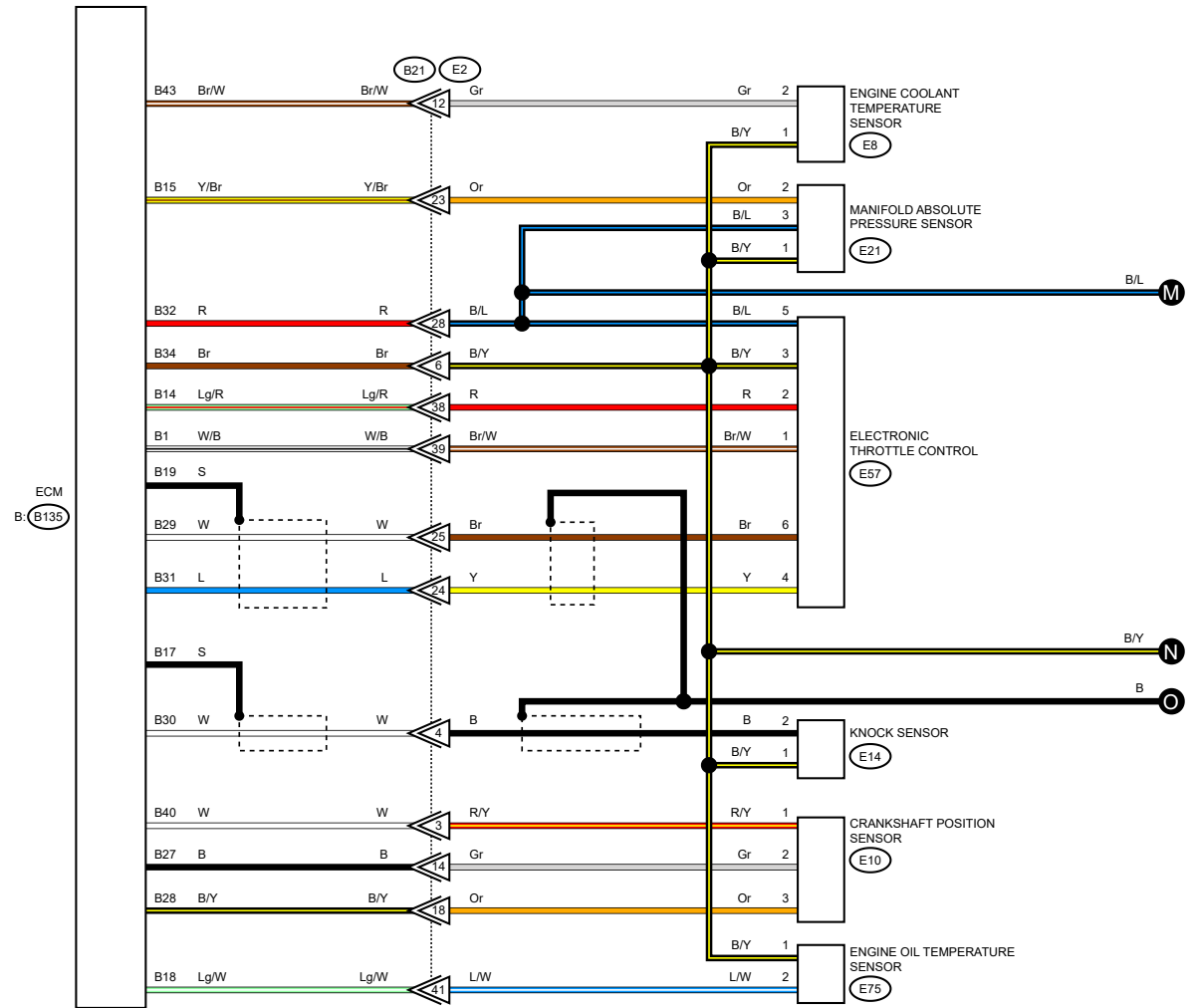
1h

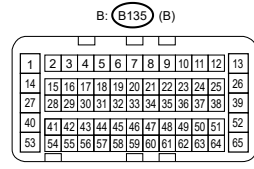
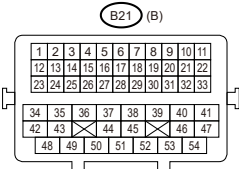
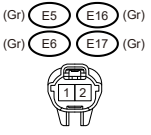
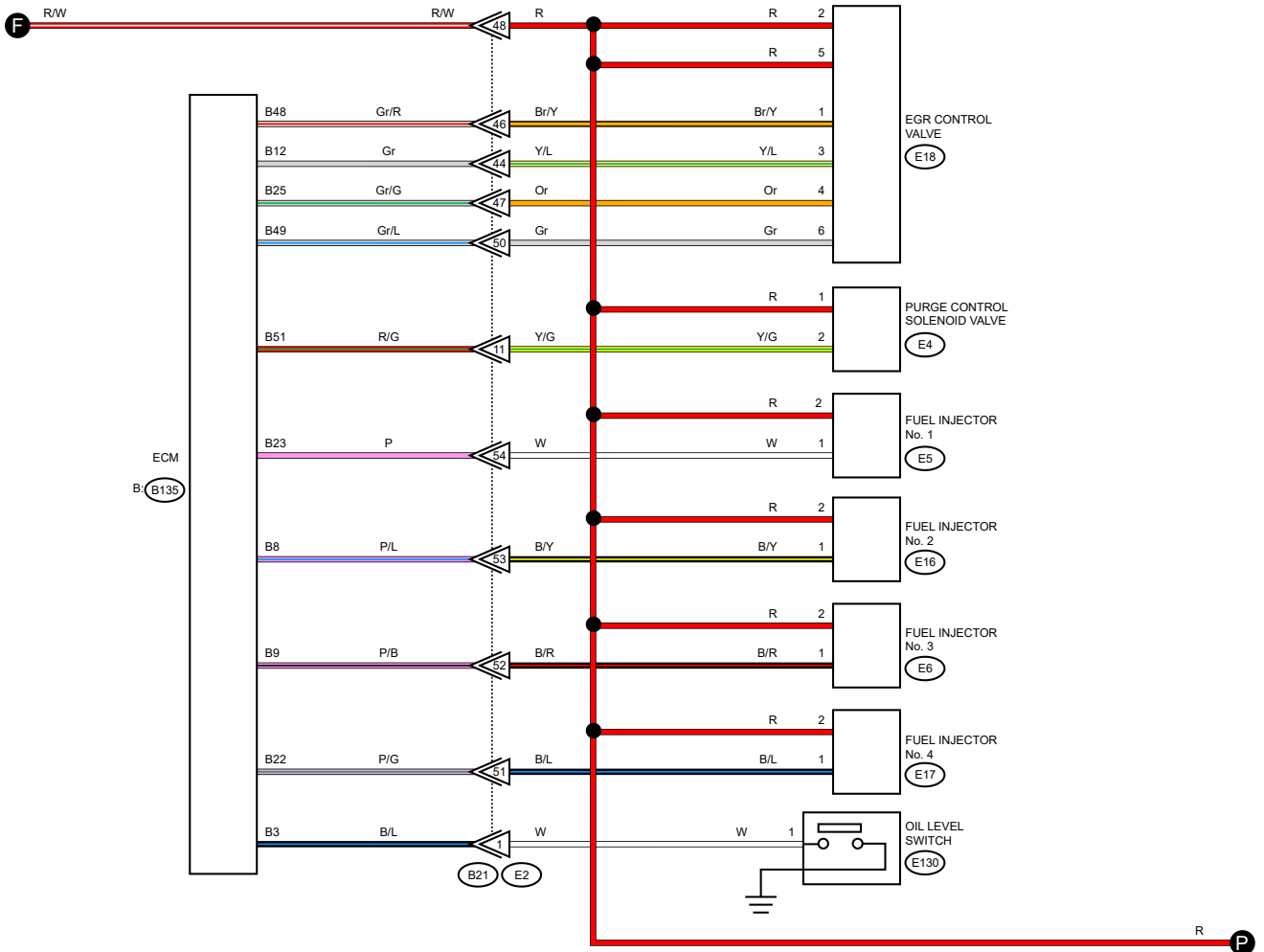
1h



*1 : TERMINAL No. OPTIONAL ARRANGEMENT

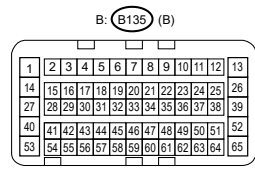
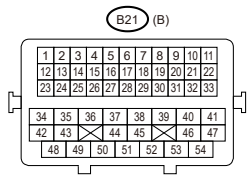
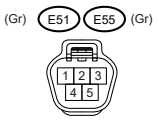
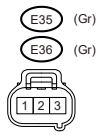
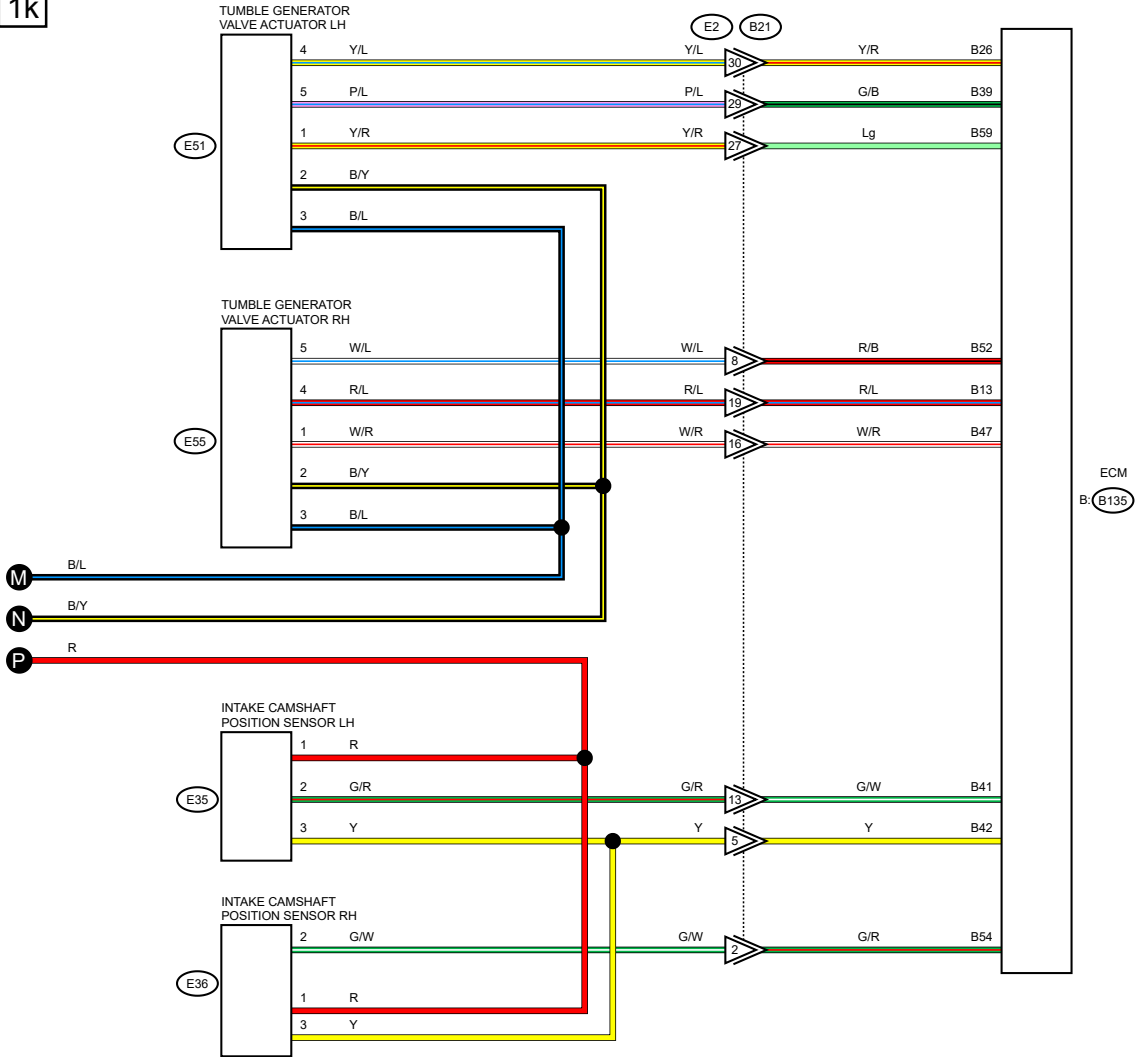






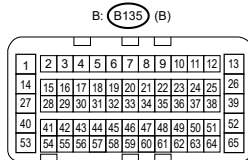
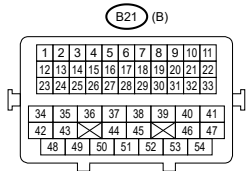
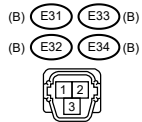
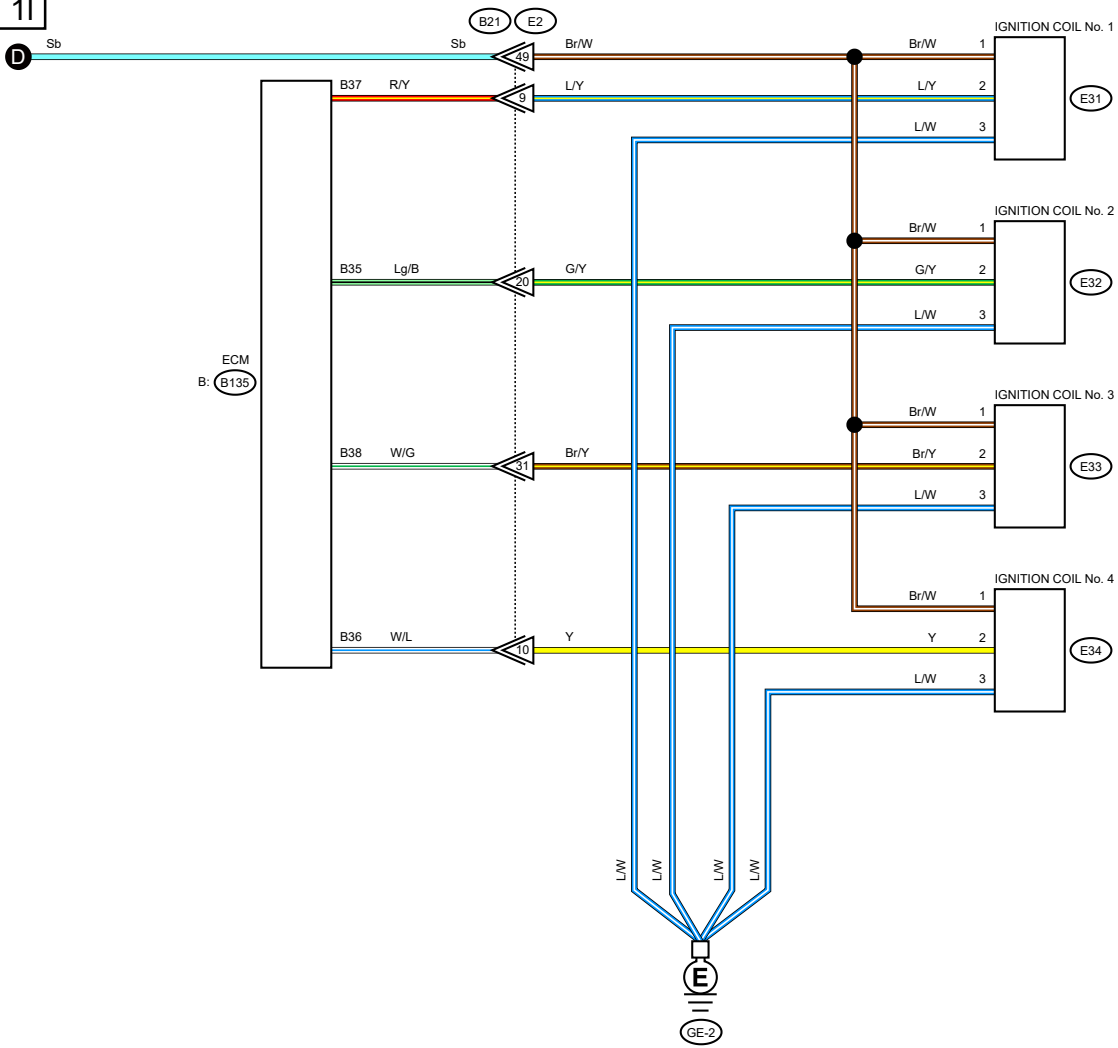
1k

1k



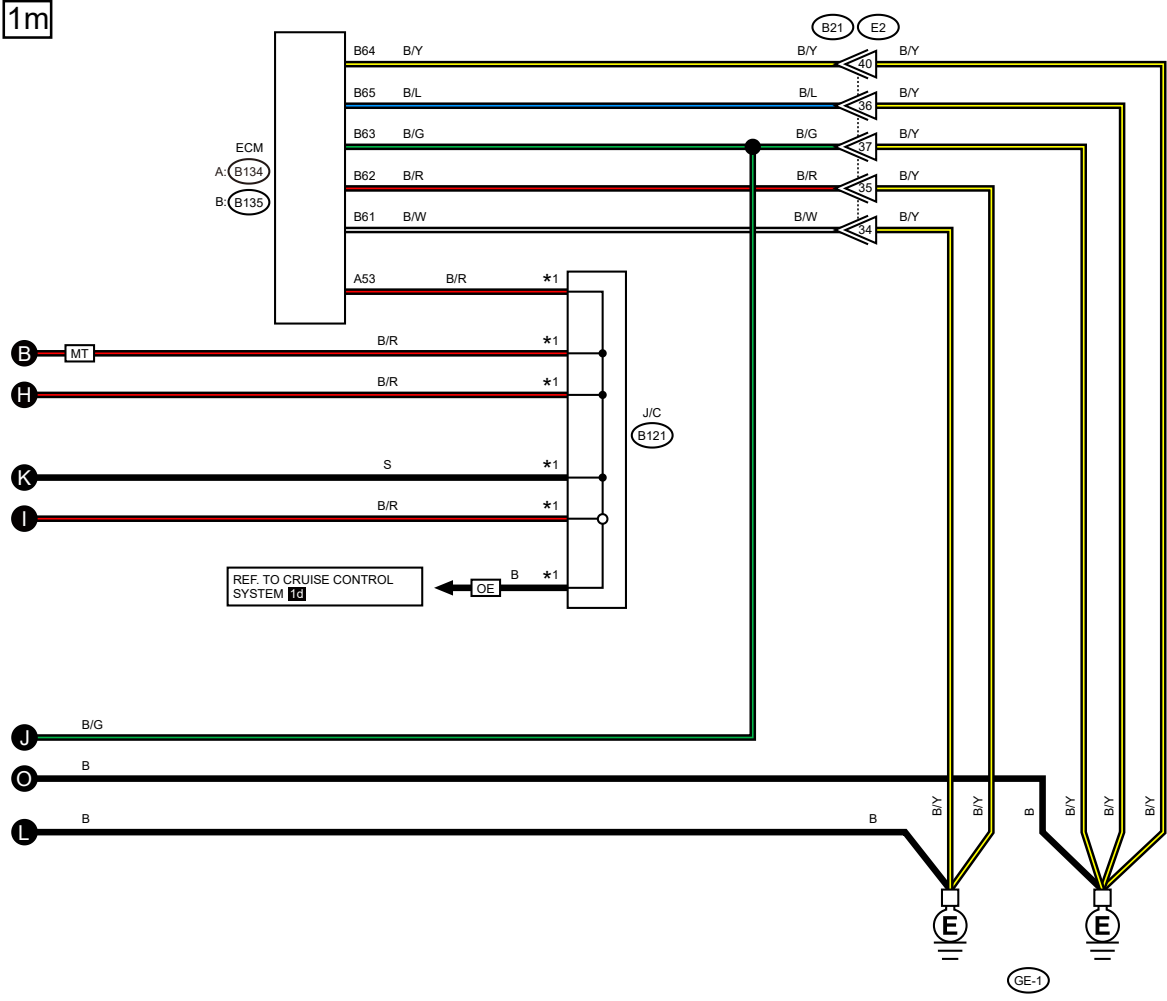
WI-65590





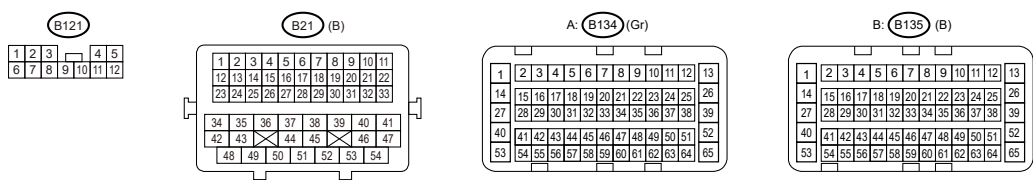
1m

1m



OE : WITHOUT EyeSight

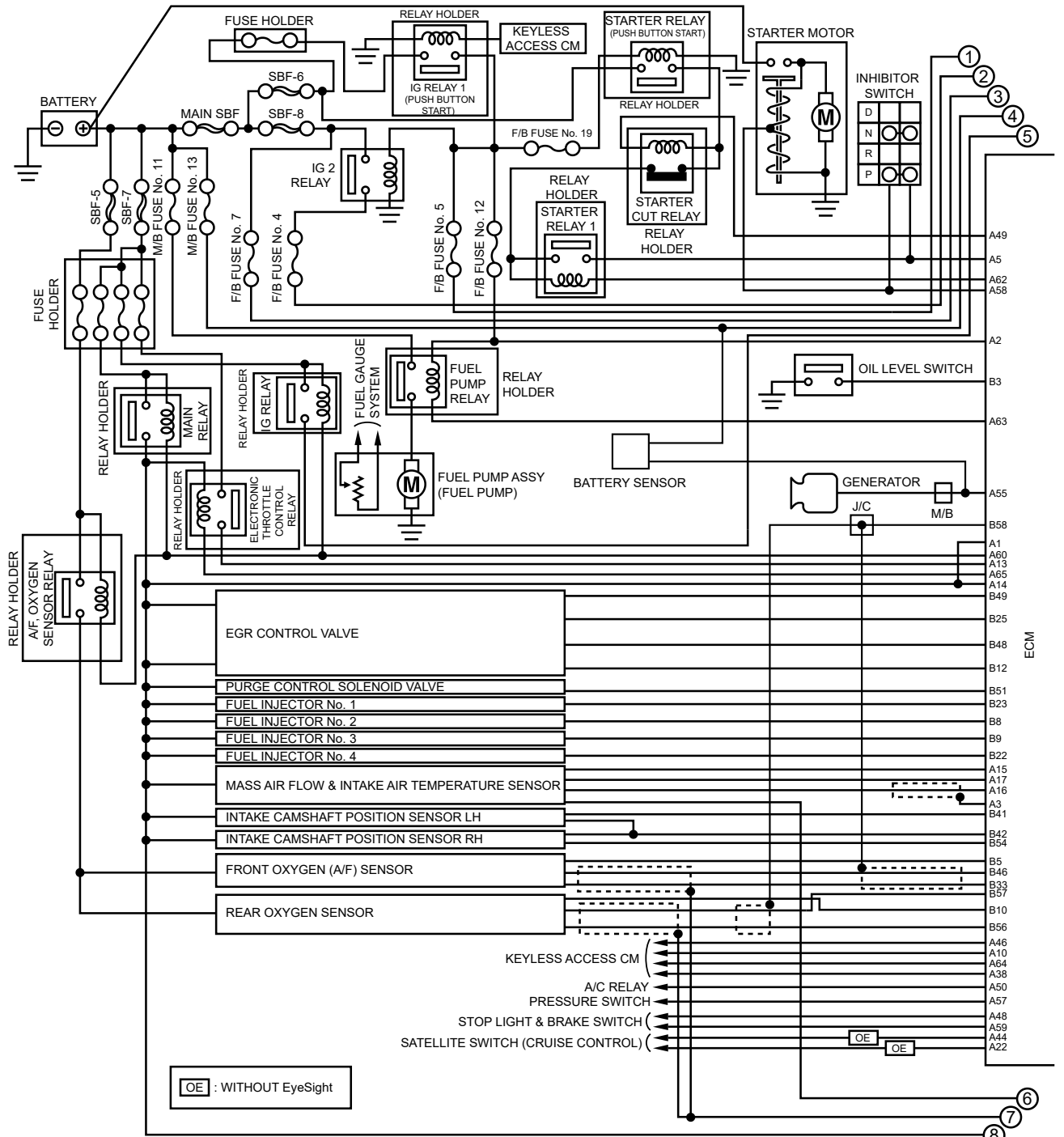
*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8



WI-65592

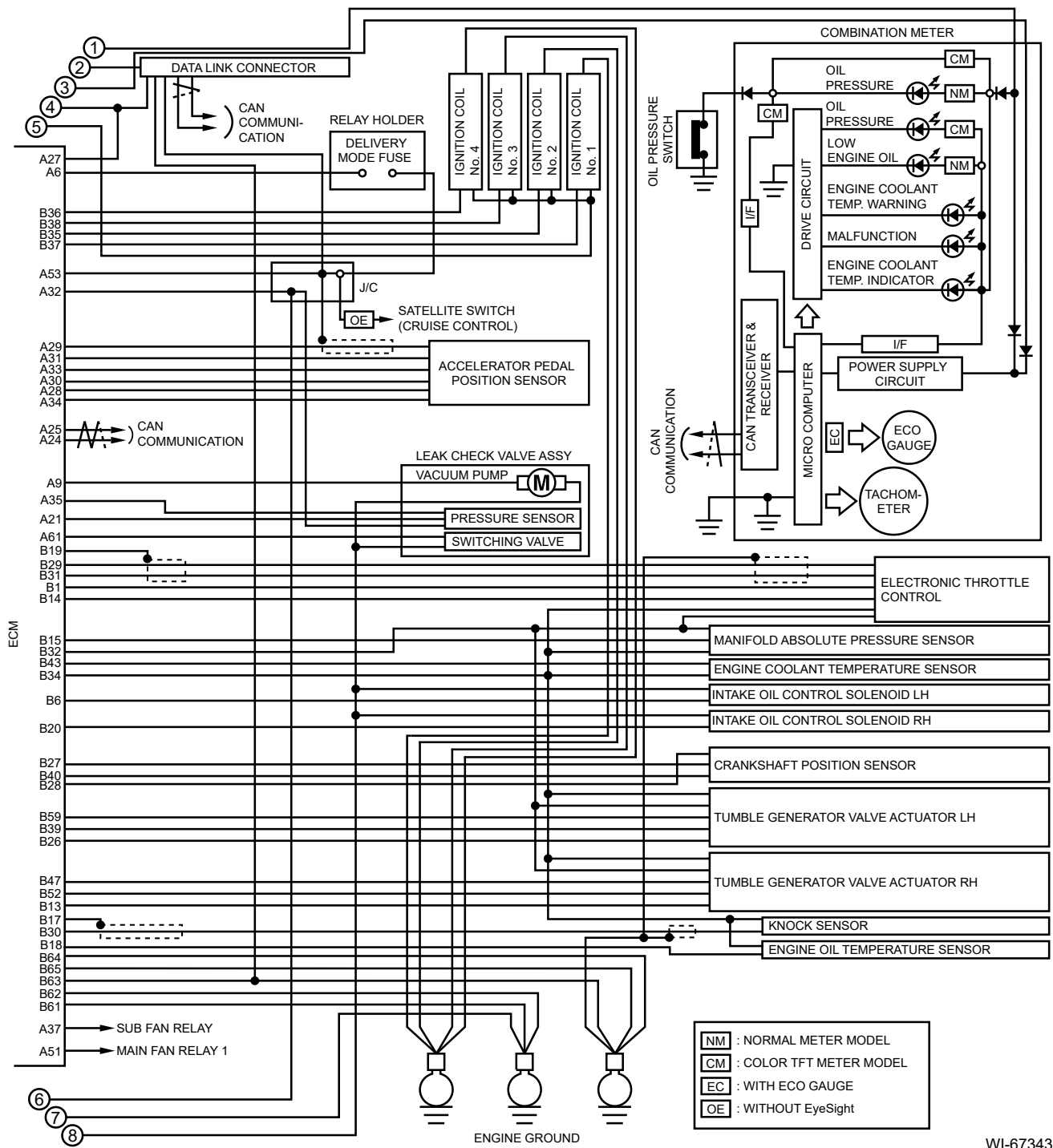
2. NON-TURBO MODEL (WITH PUSH BUTTON START)





OE : WITHOUT EyeSight



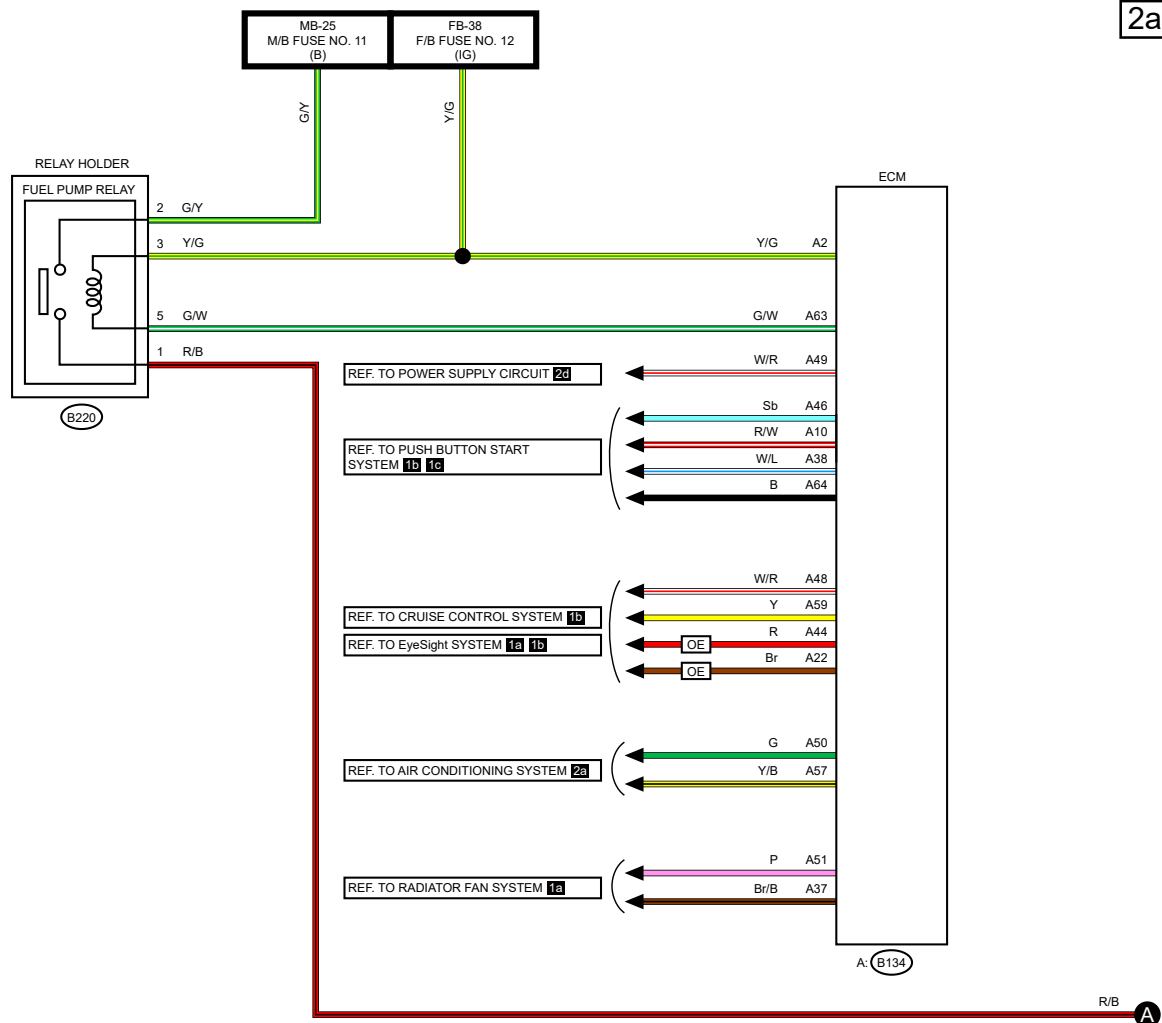


WI-67343

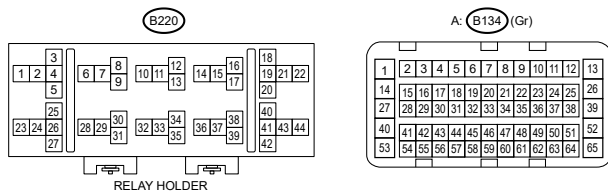


2a

2a



OE : WITHOUT EyeSight

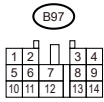
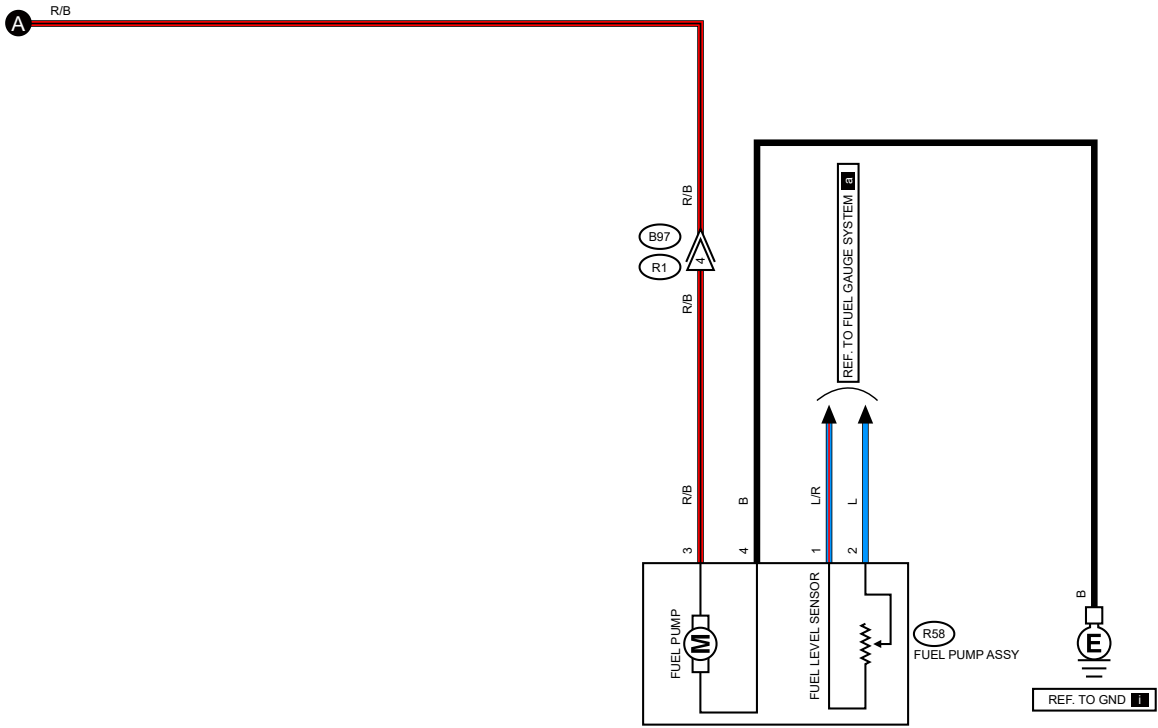


WI-65593



2b

2b

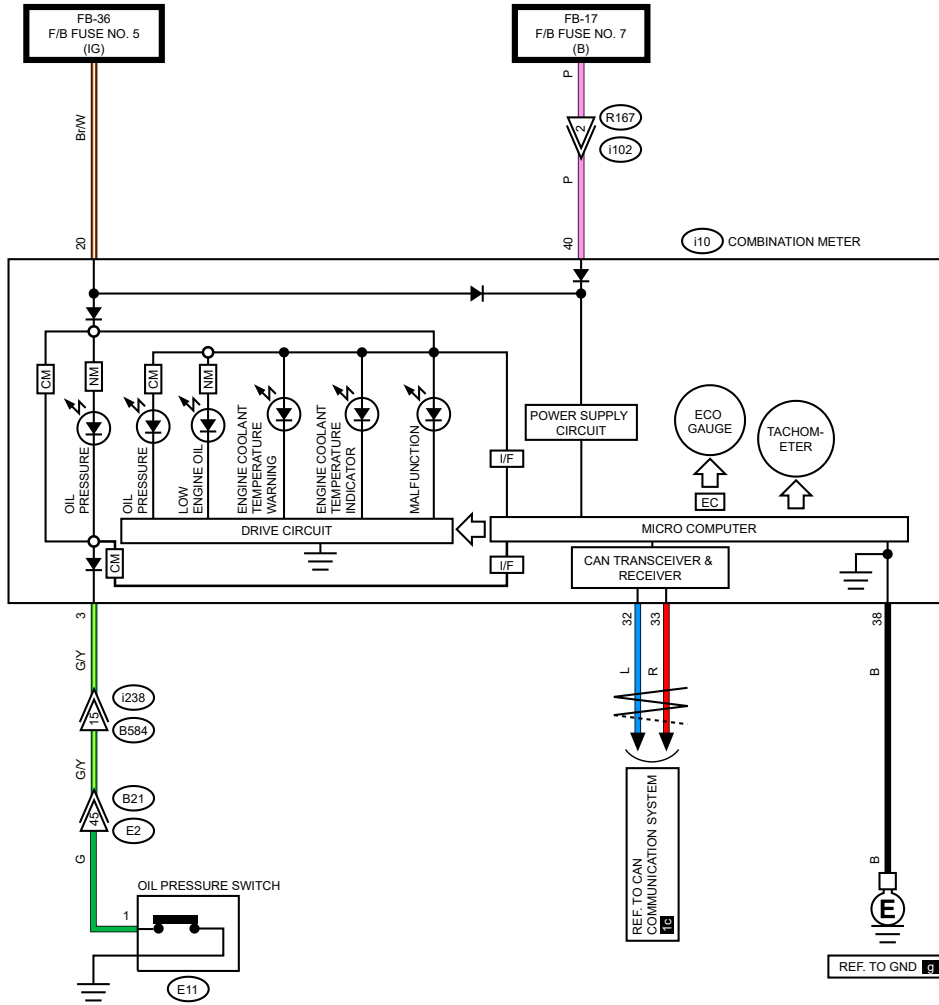


WI-65594



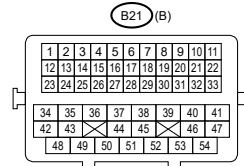
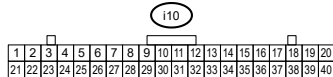
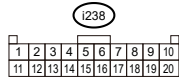
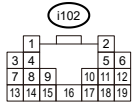
2c

2c



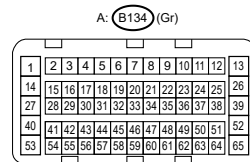
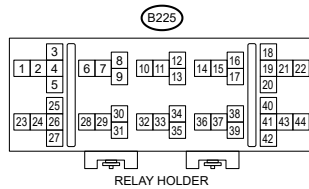
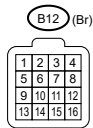
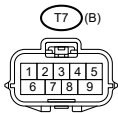
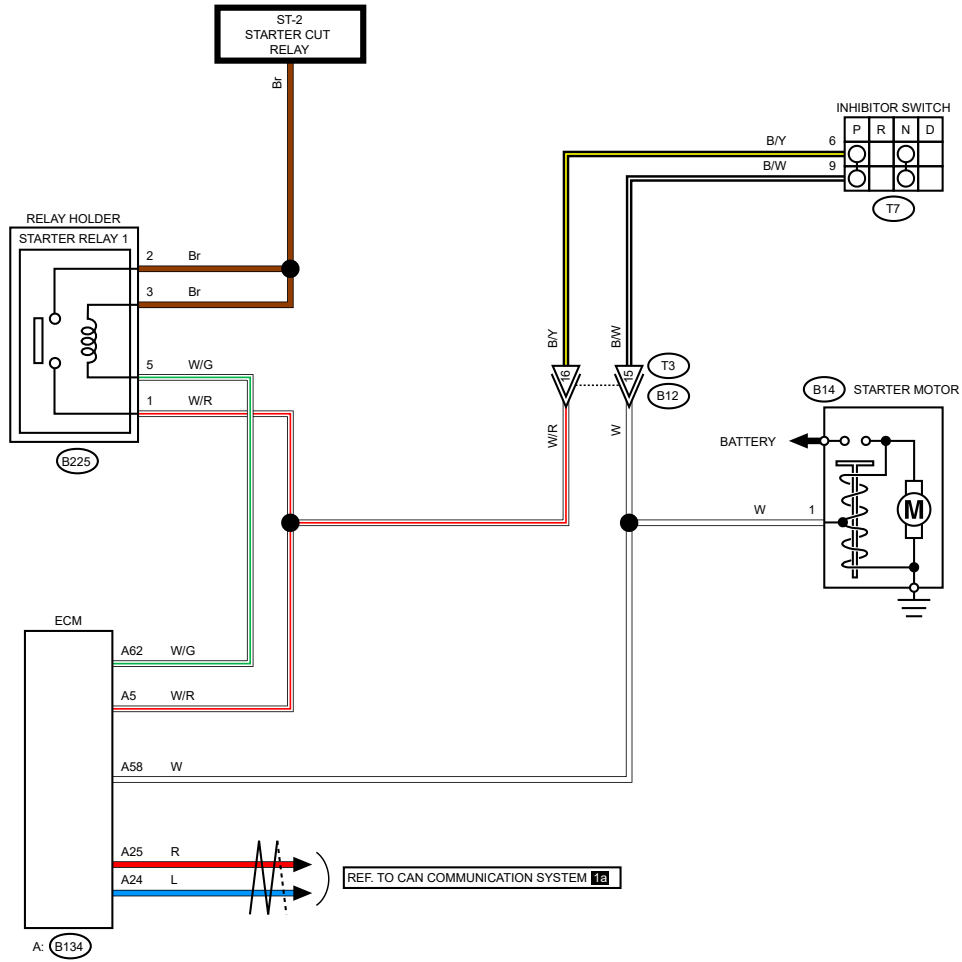
NM : NORMAL METER MODEL
 CM : COLOR TFT METER MODEL

EC : WITH ECO GAUGE



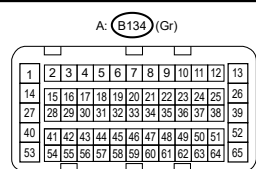
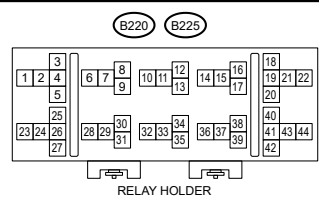
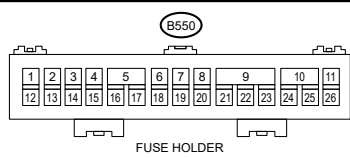
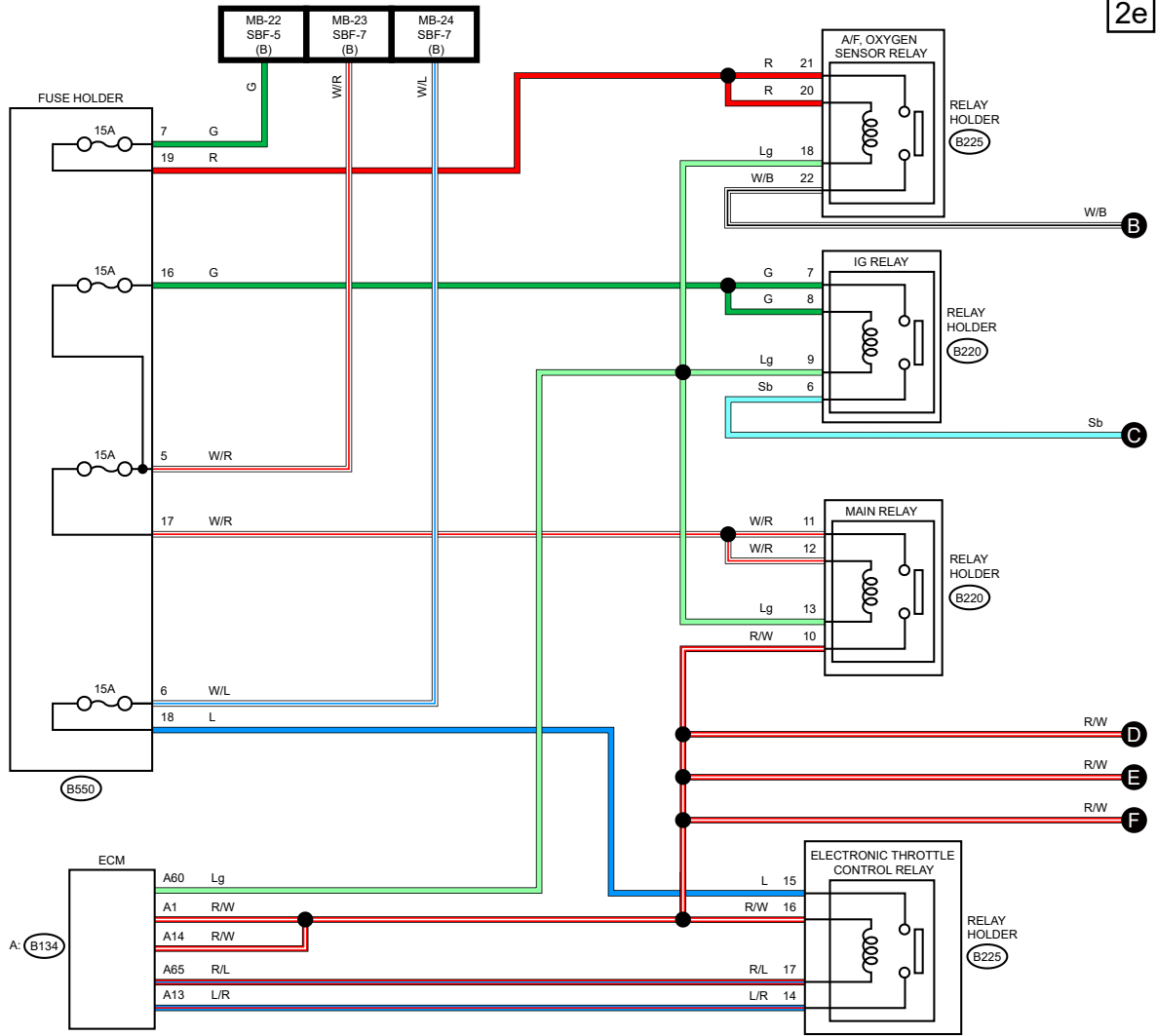
2d

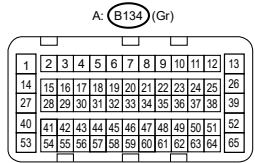
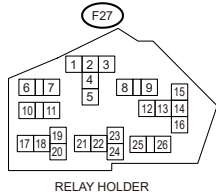
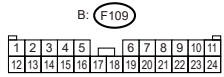
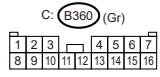
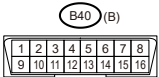
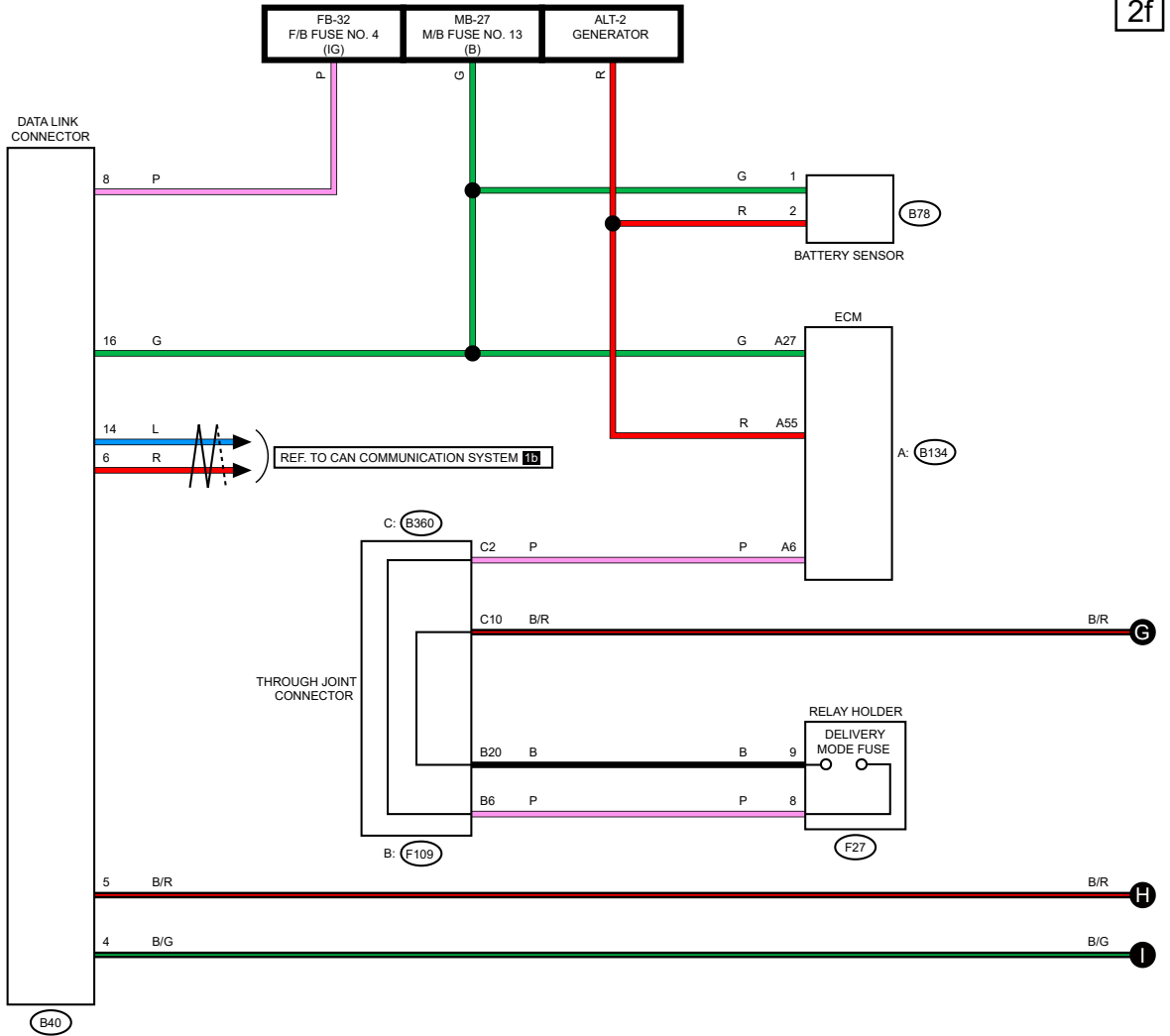
2d



2e

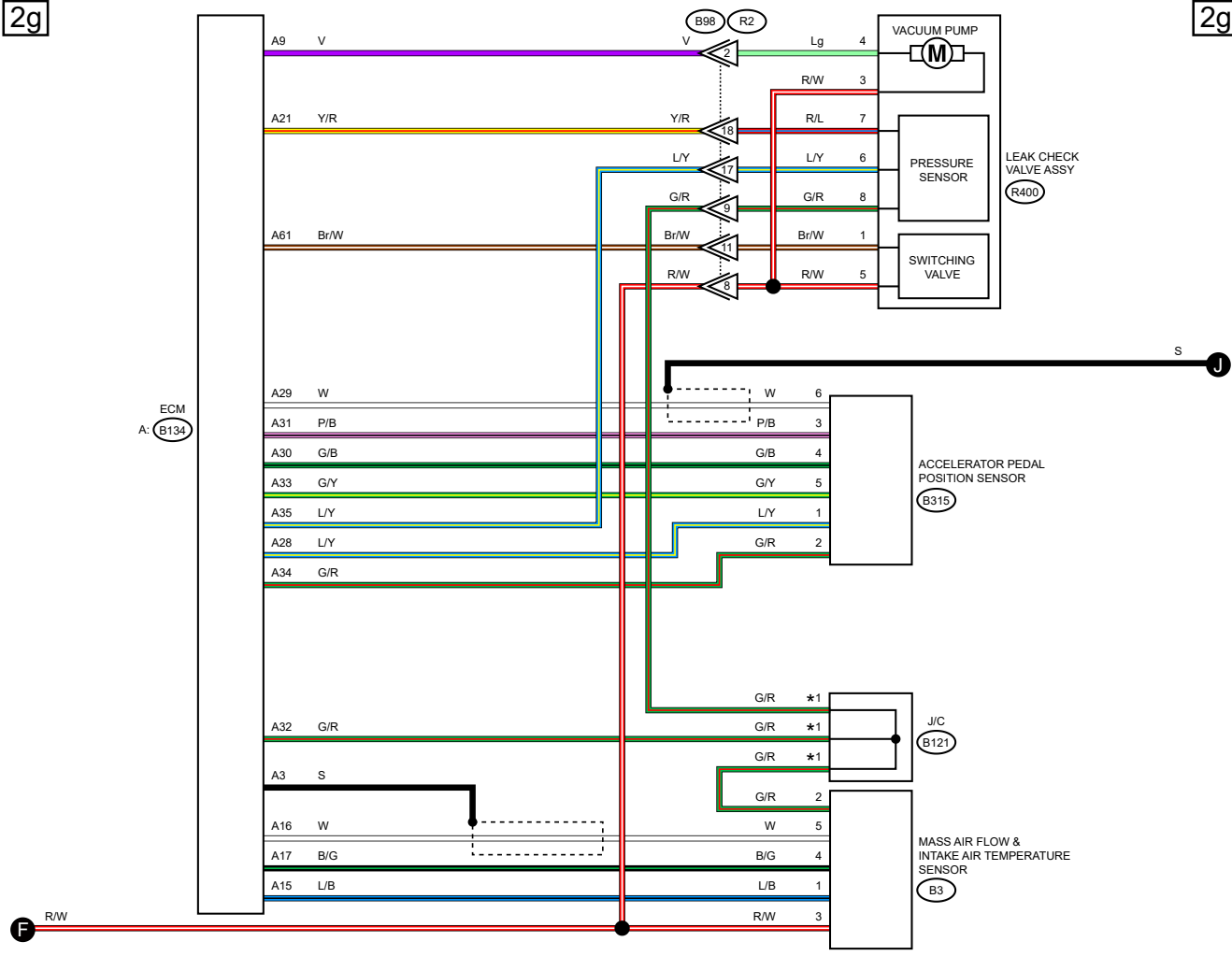
2e



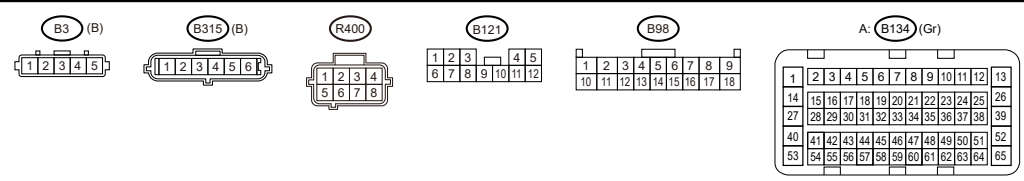


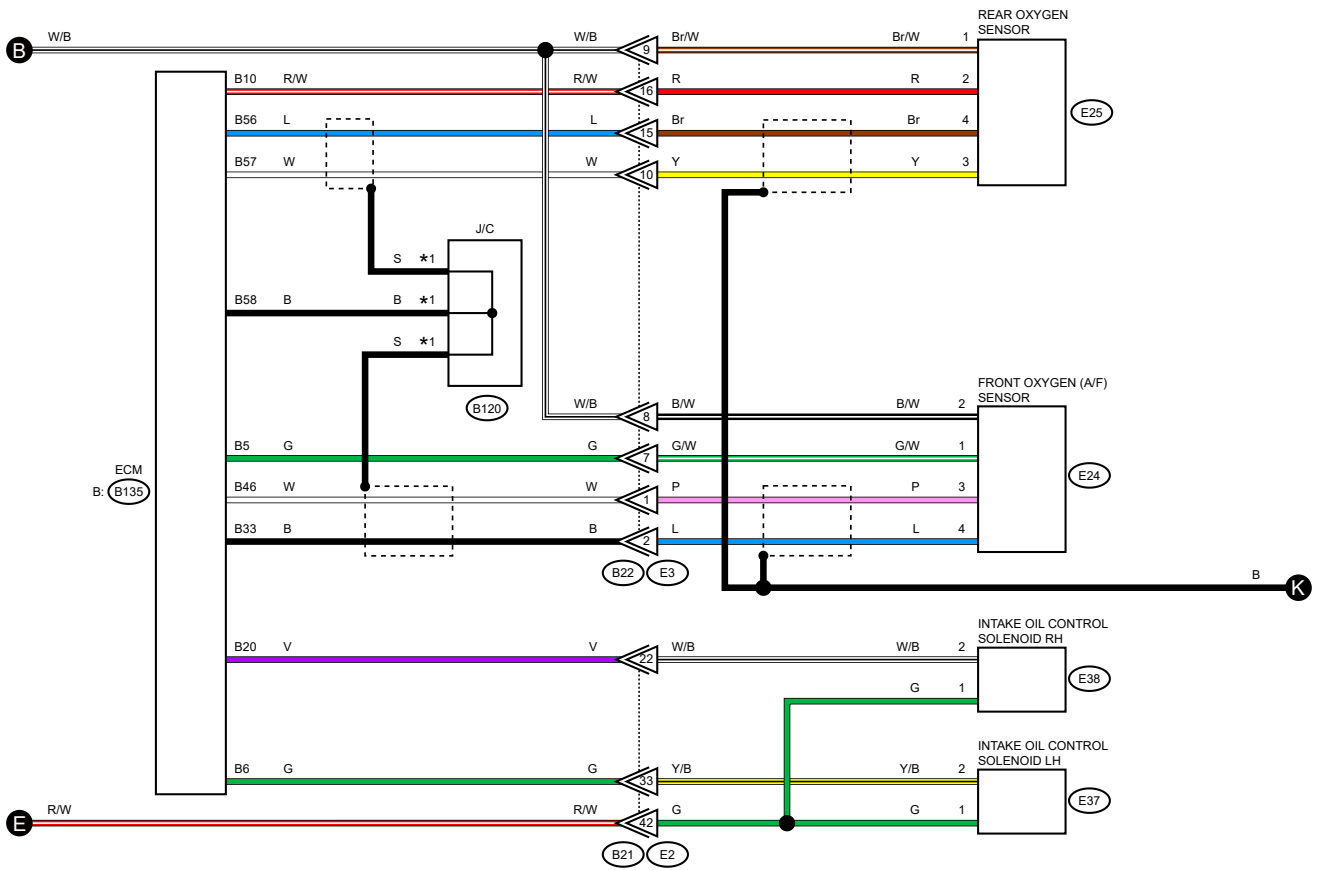
2g

2g

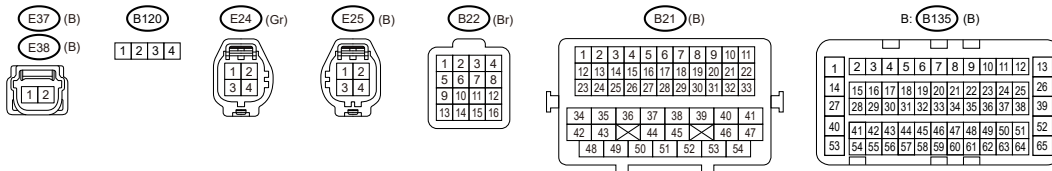


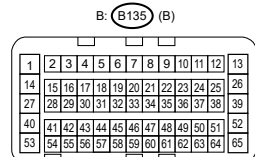
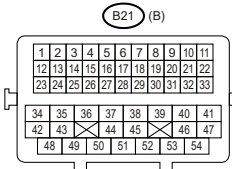
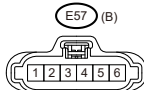
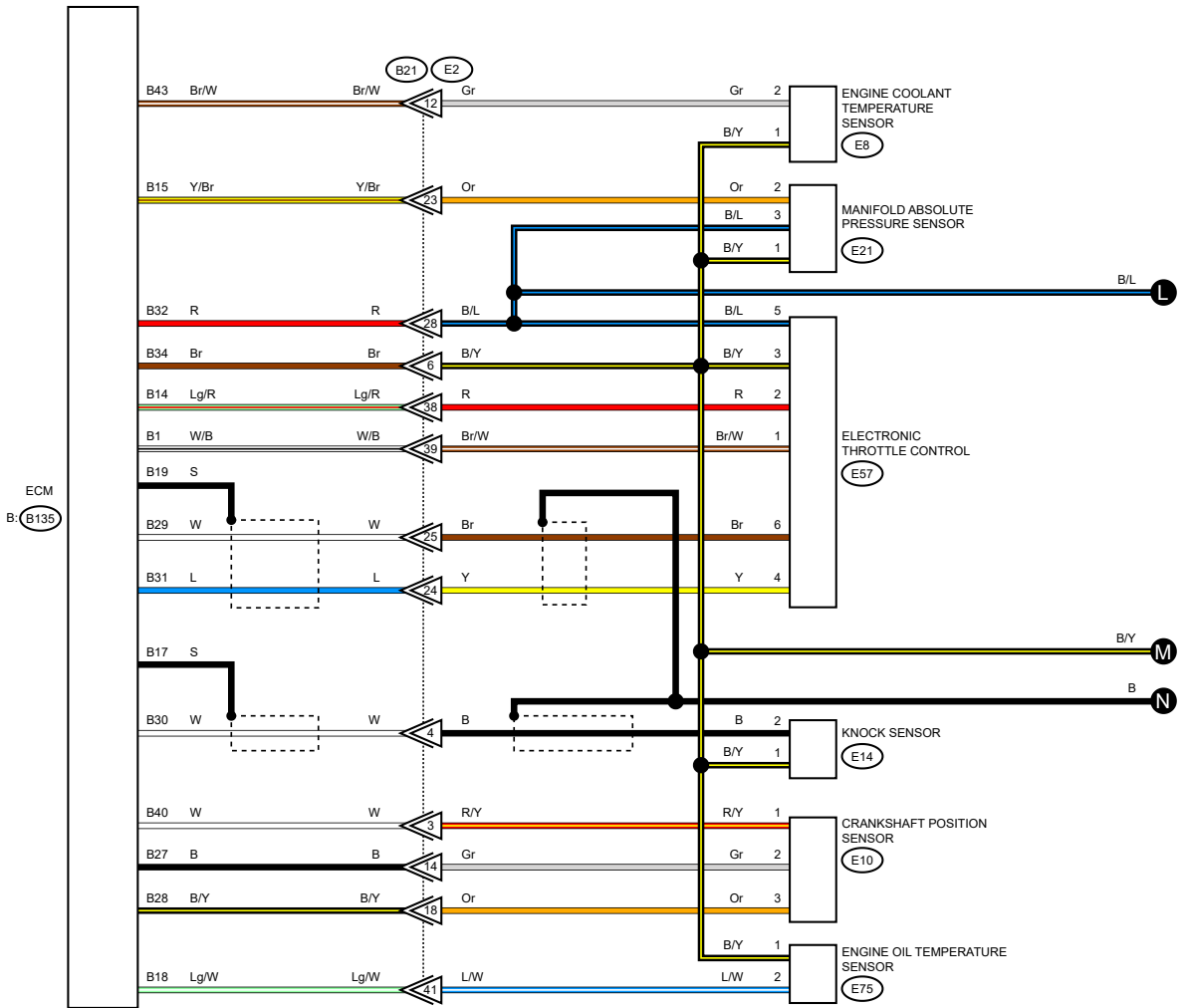
*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

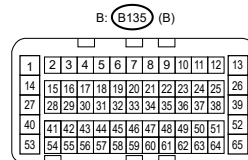
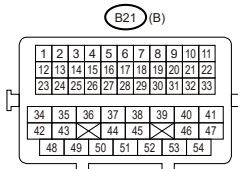
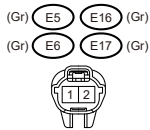
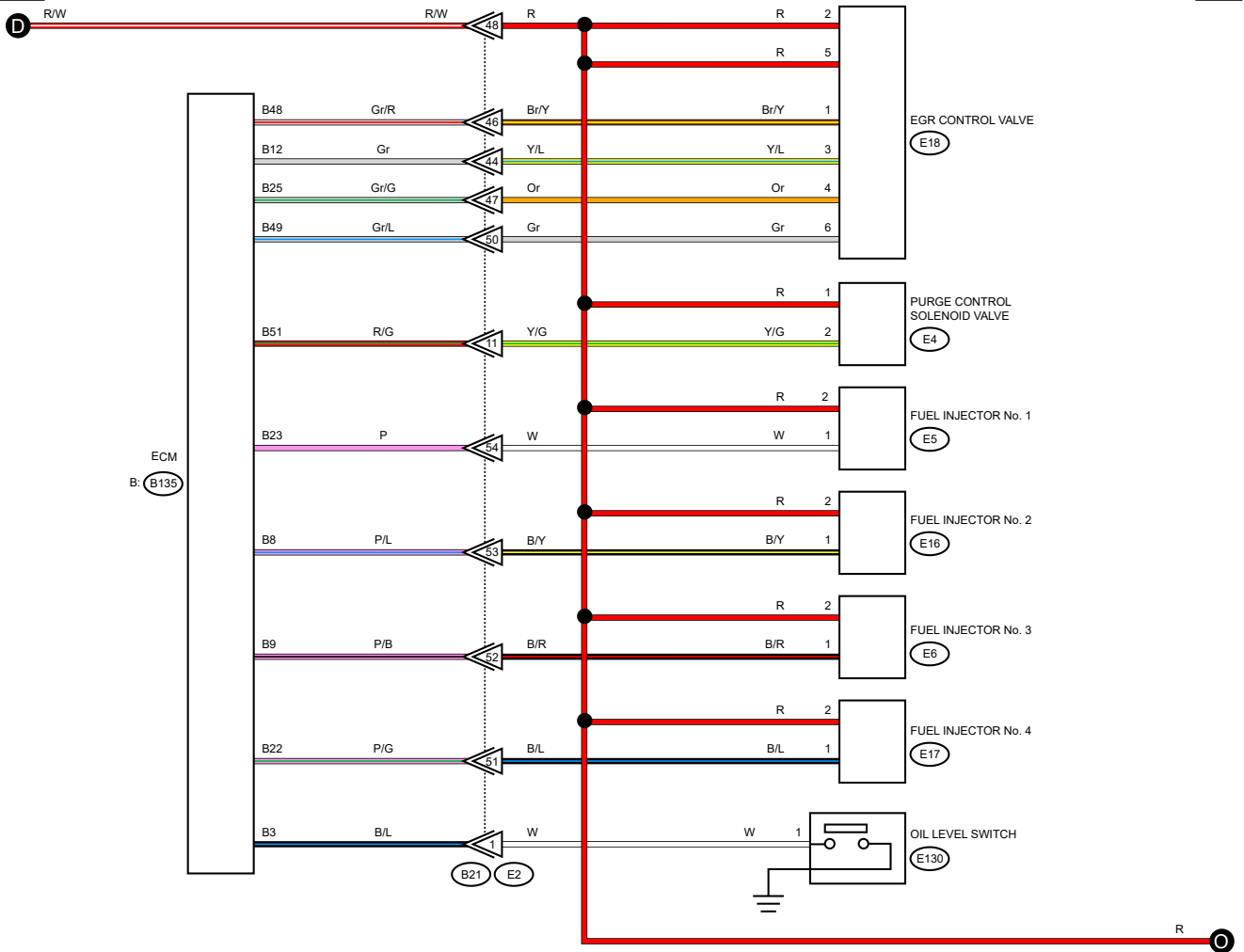


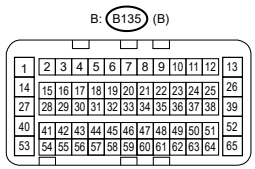
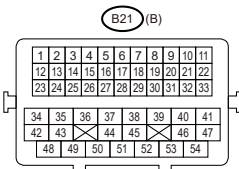
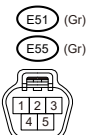
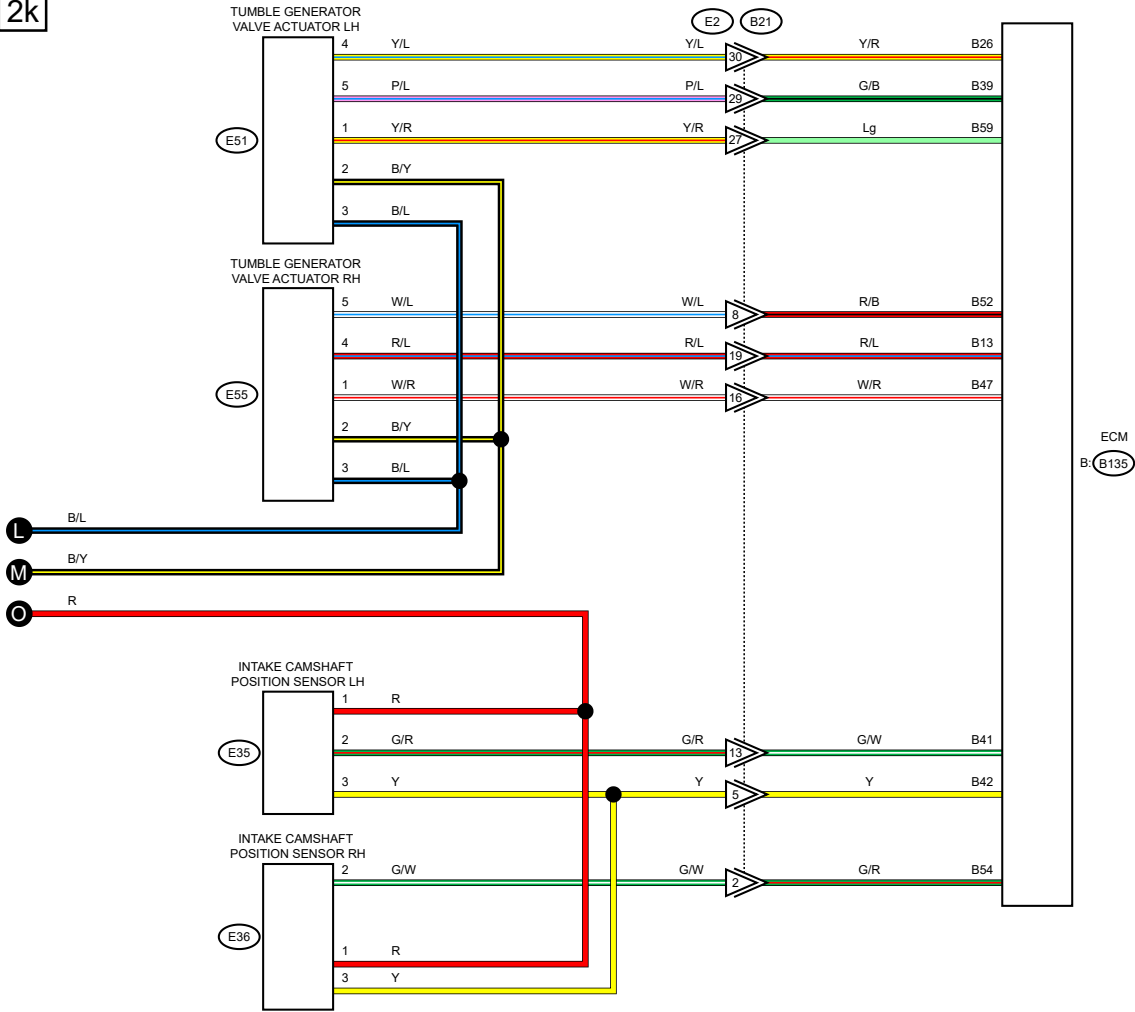


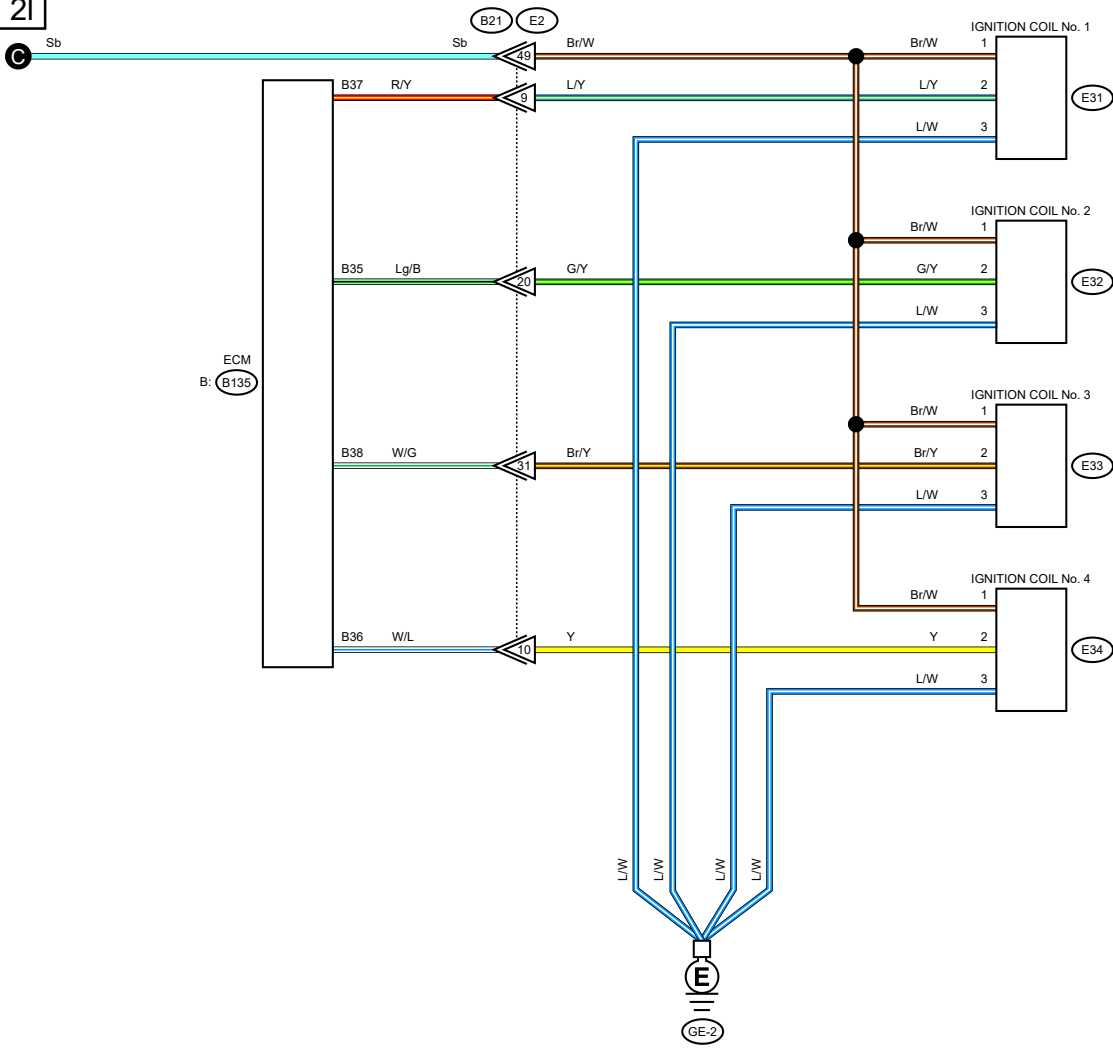
*1 : TERMINAL No. OPTIONAL ARRANGEMENT







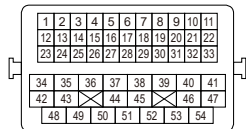




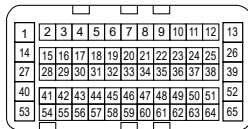
(B) E31 (B) E33 (B)
 (B) E32 (B) E34 (B)



B21 (B)

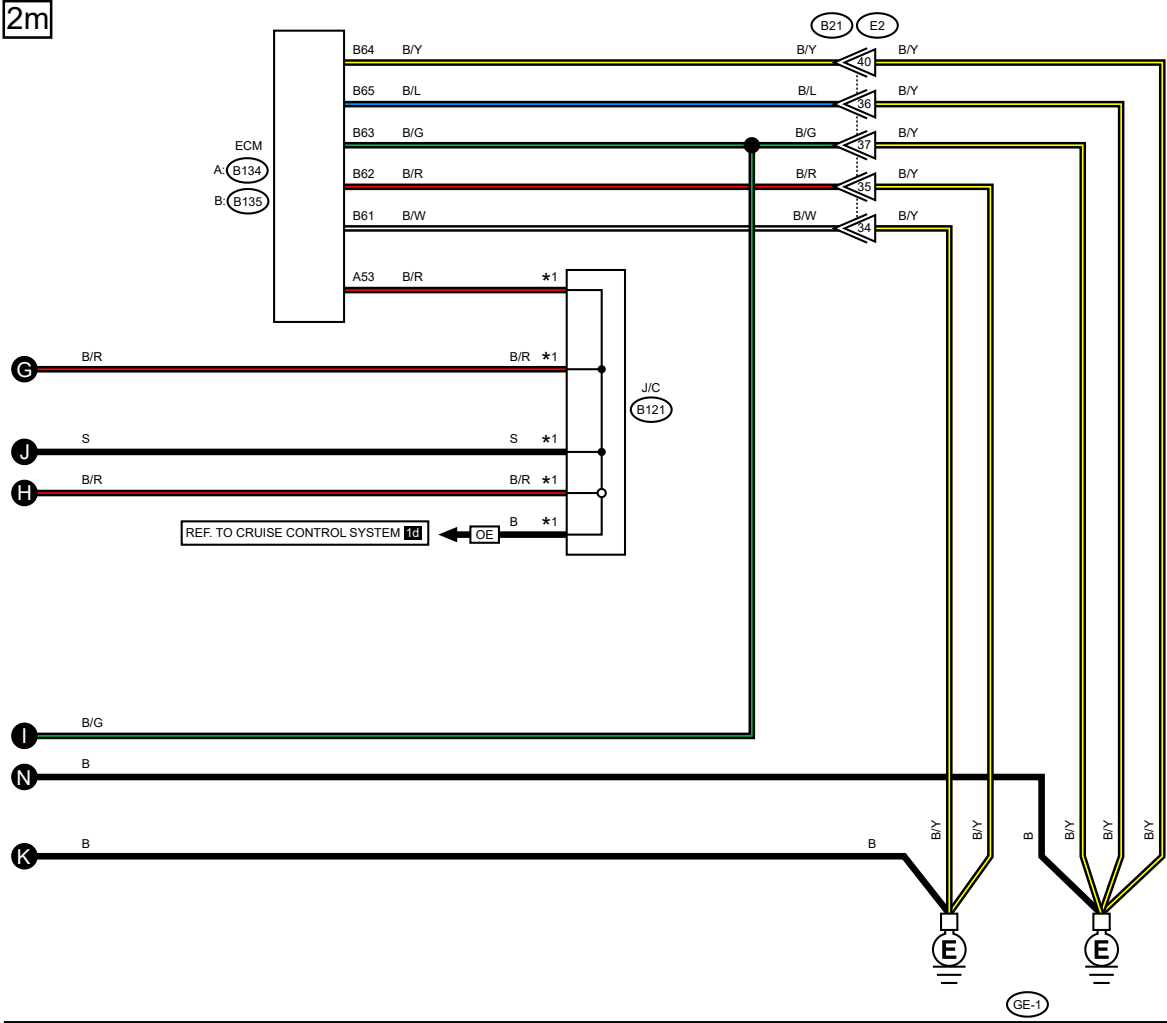


B: B135 (B)

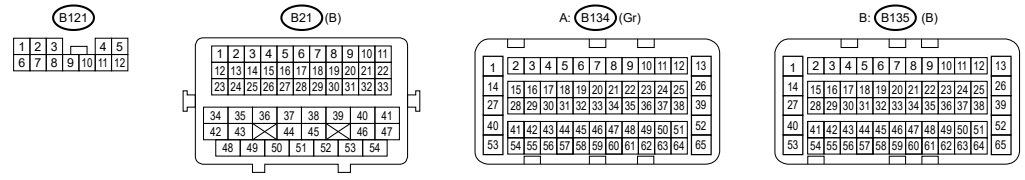


2m

2m

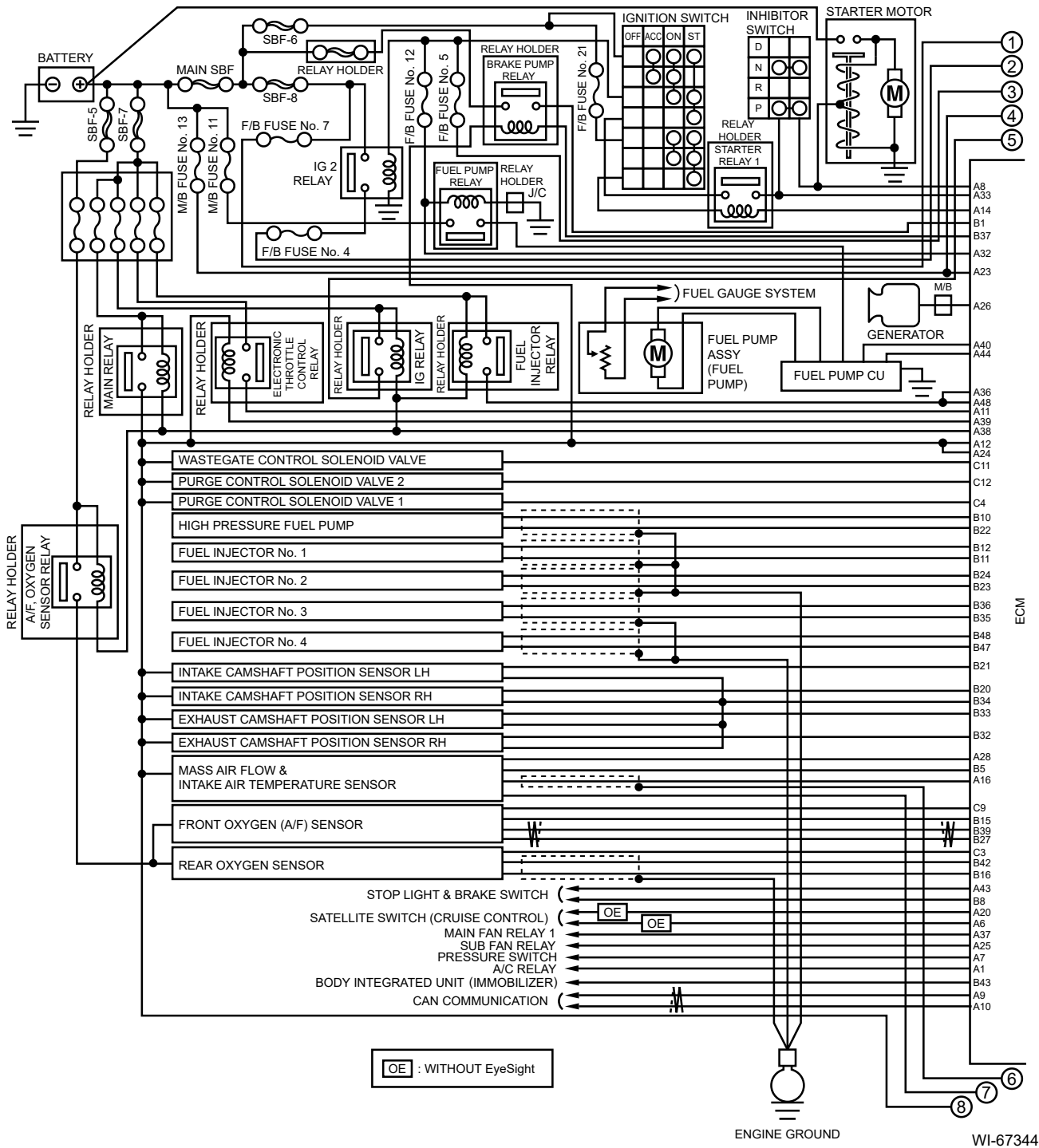


OE : WITHOUT EyeSight
 *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8



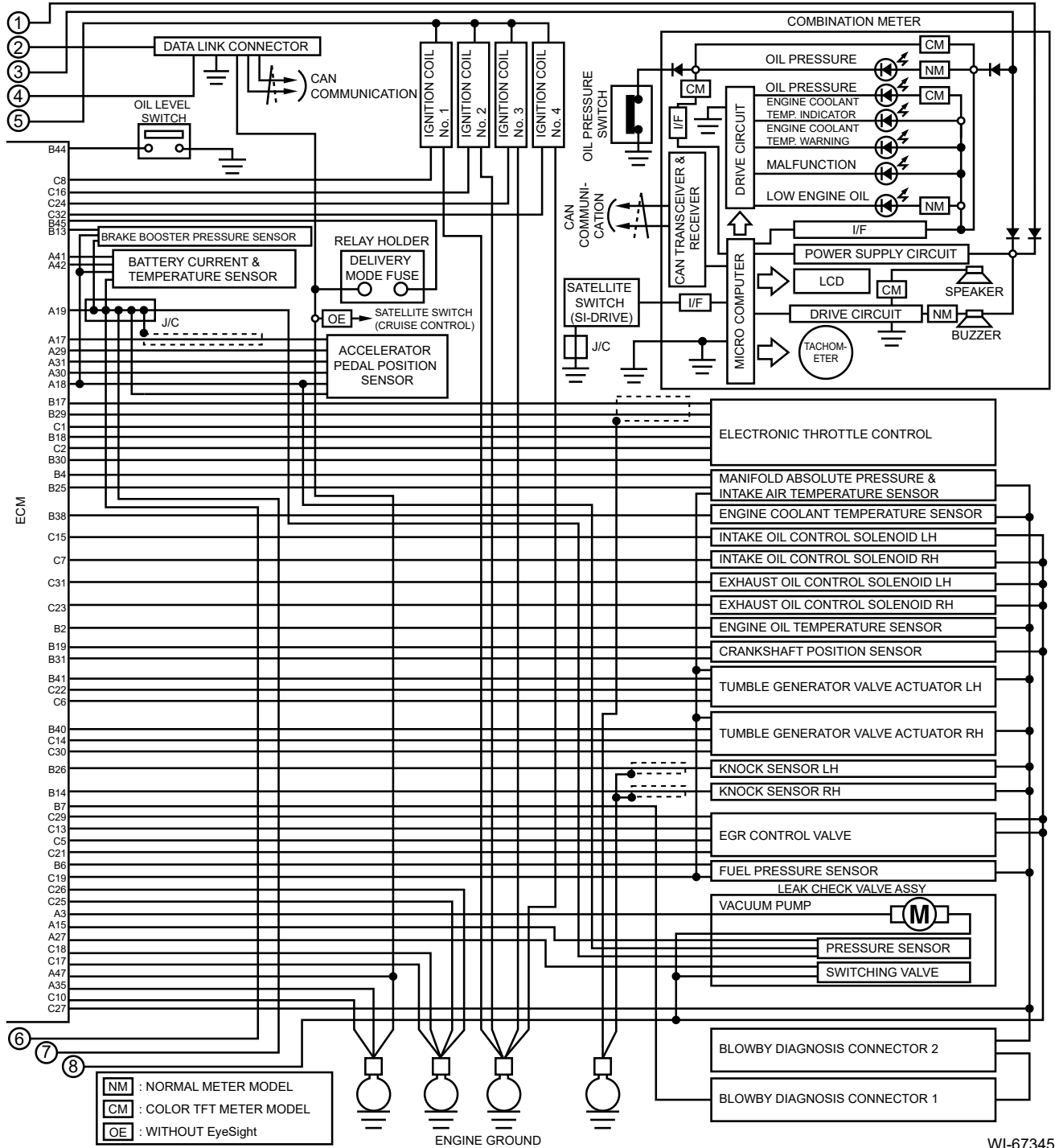
3. TURBO MODEL (WITHOUT PUSH BUTTON START)





ECM



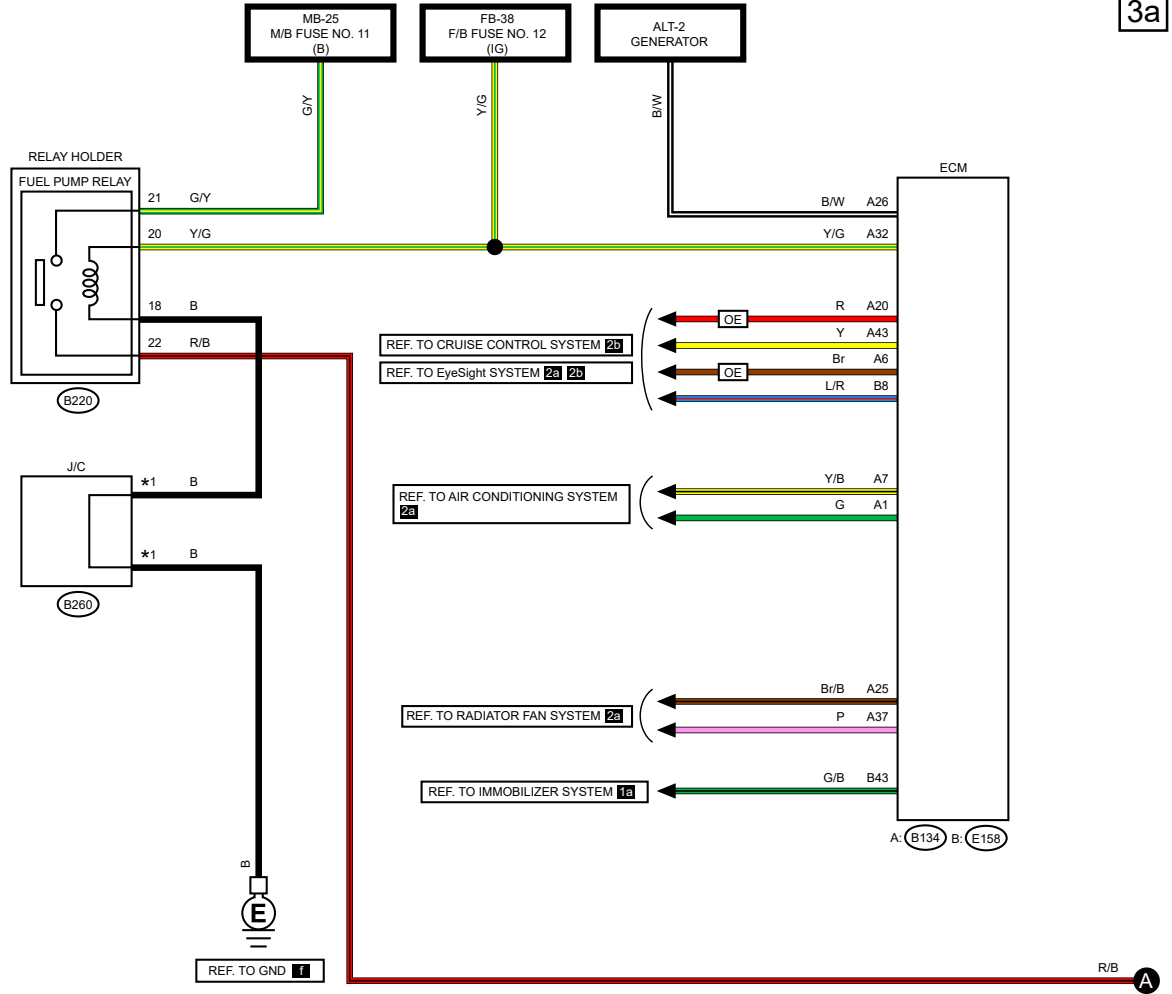


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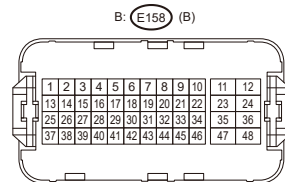
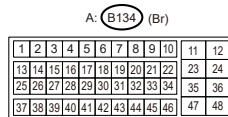
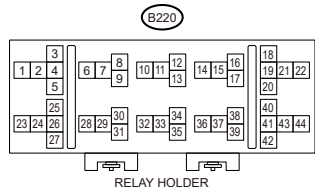
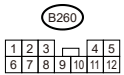
3a

3a



OE : WITHOUT EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

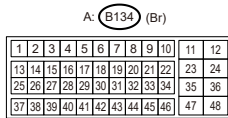
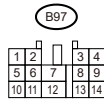
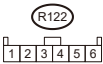
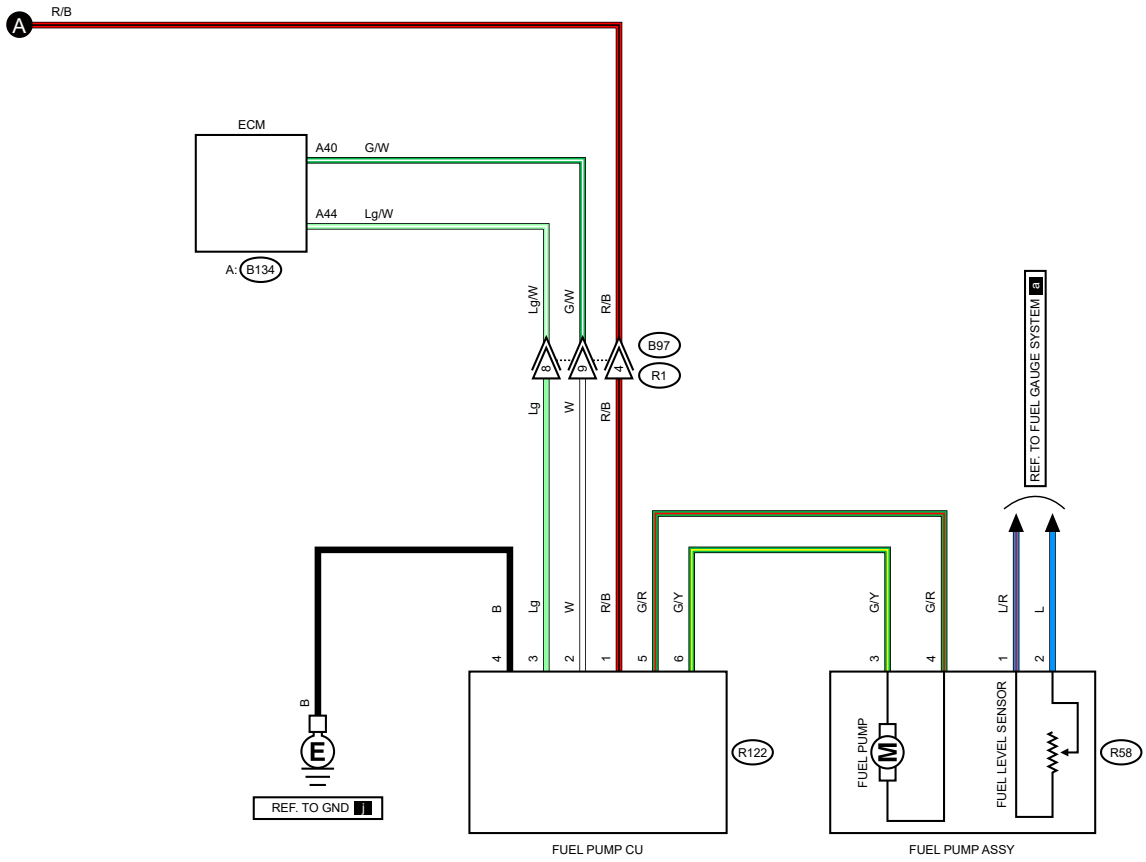


WI-65606



3b

3b

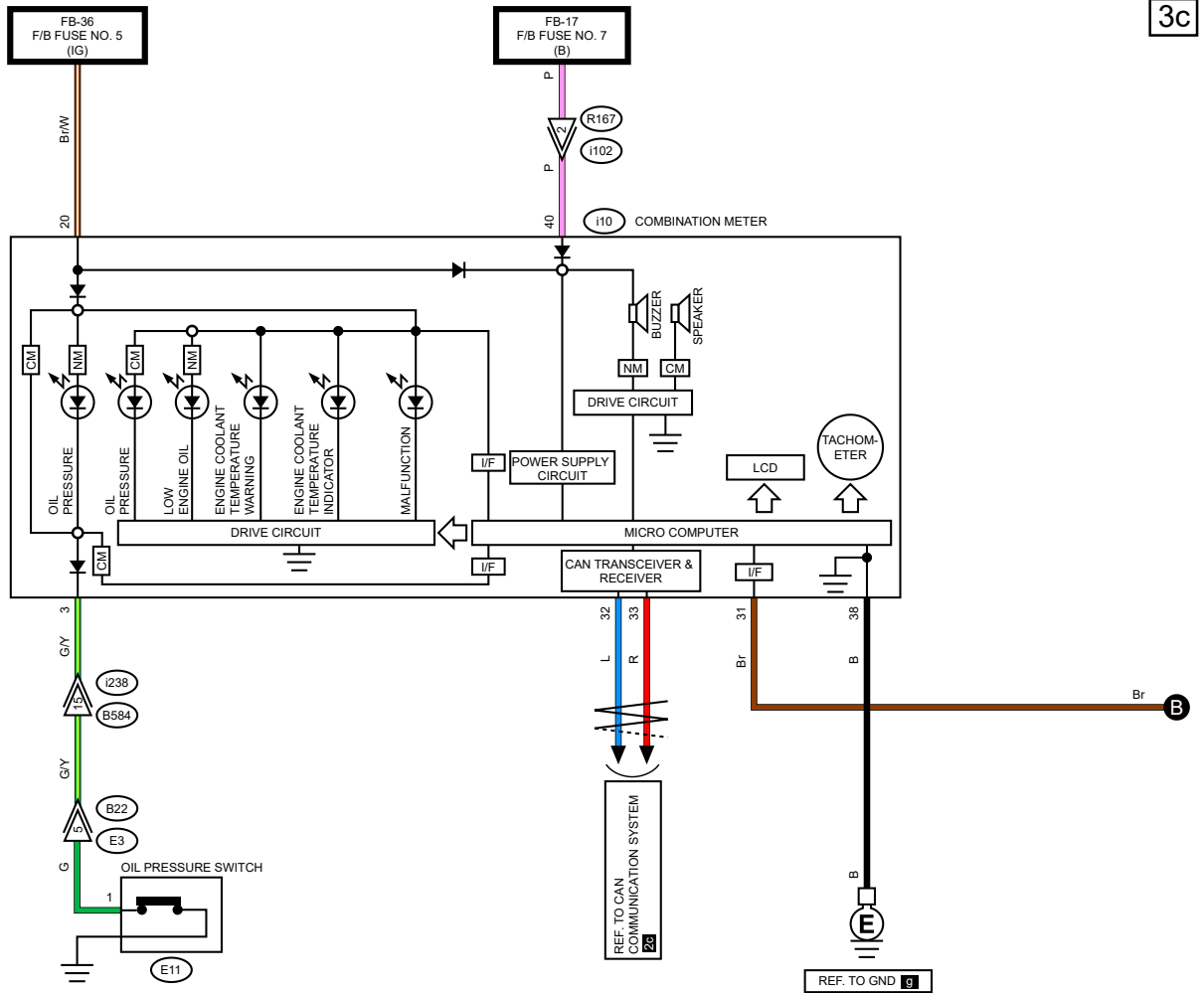


WI-65607

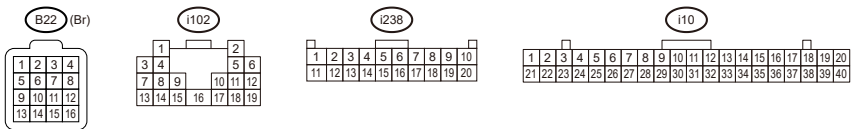


3c

3c

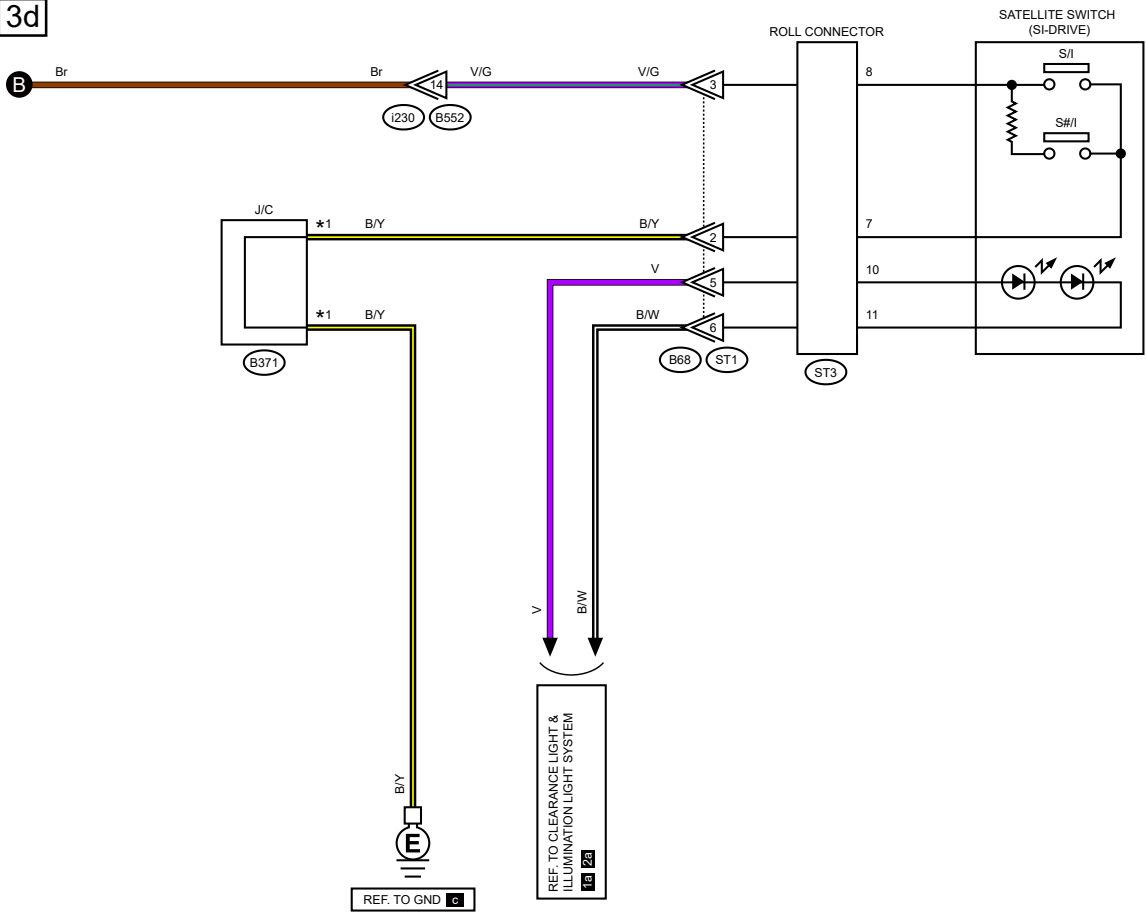


NM : NORMAL METER MODEL
CM : COLOR TFT METER MODEL

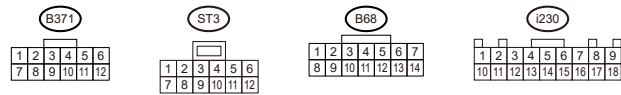


3d

3d

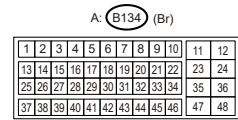
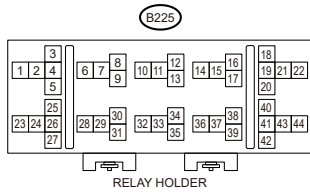
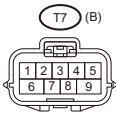
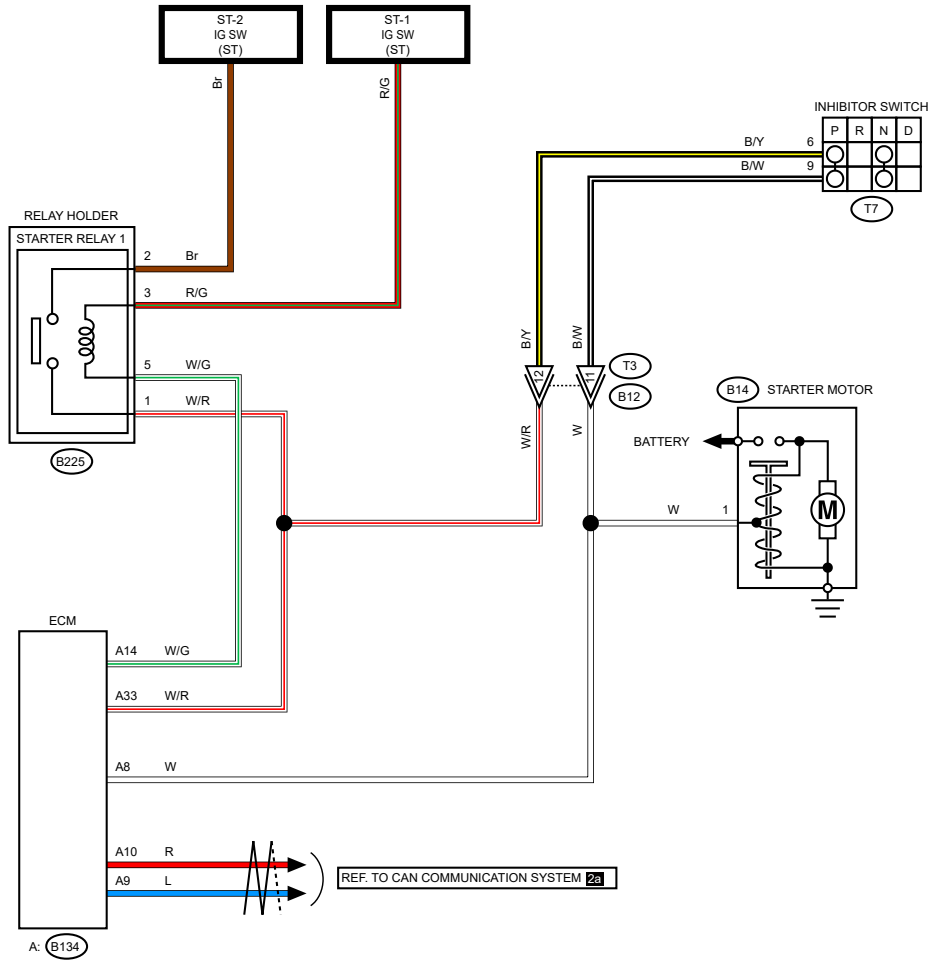


*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6



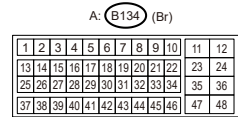
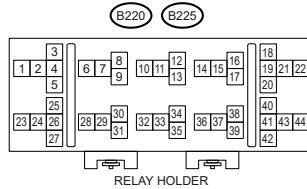
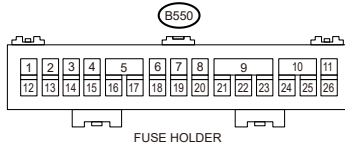
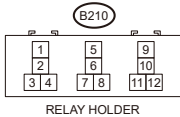
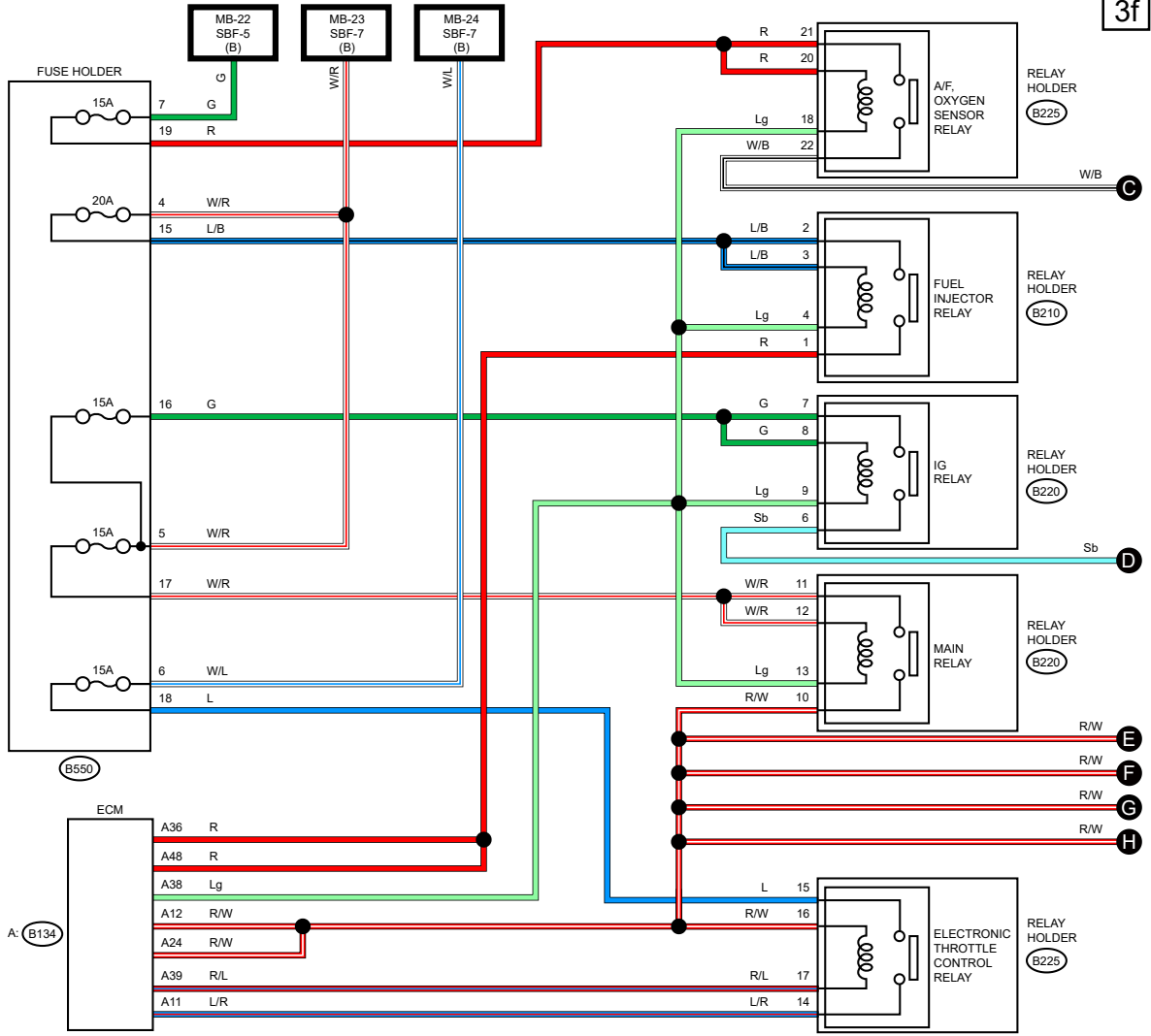
WI-65609





3f

3f

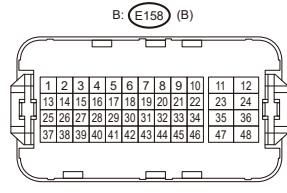
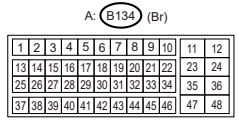
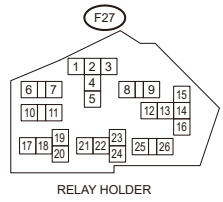
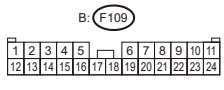
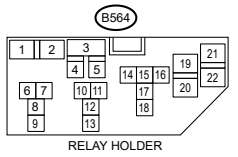
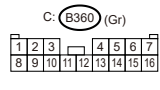
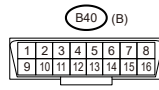
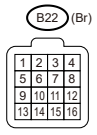
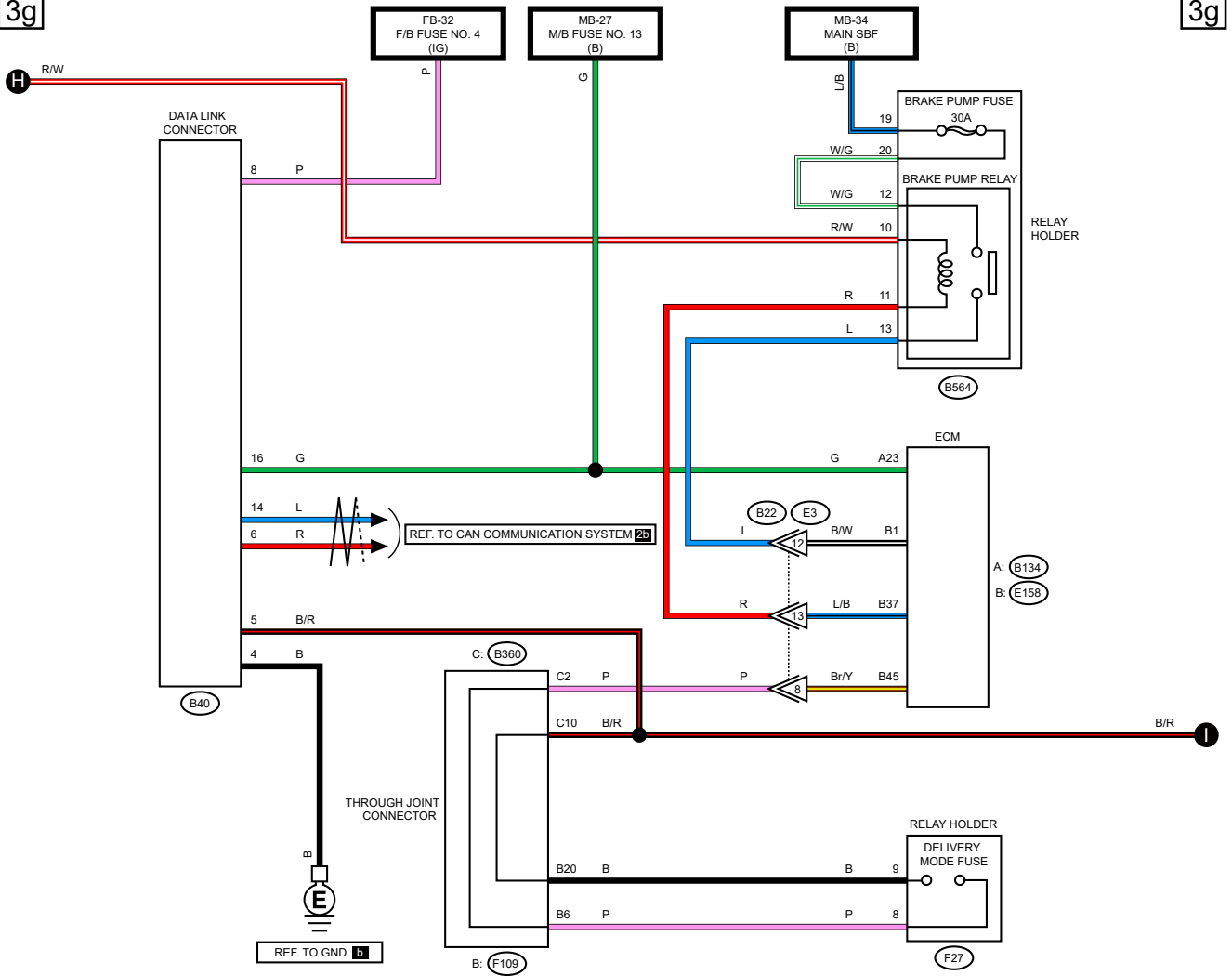


WI-65611



3g

3g

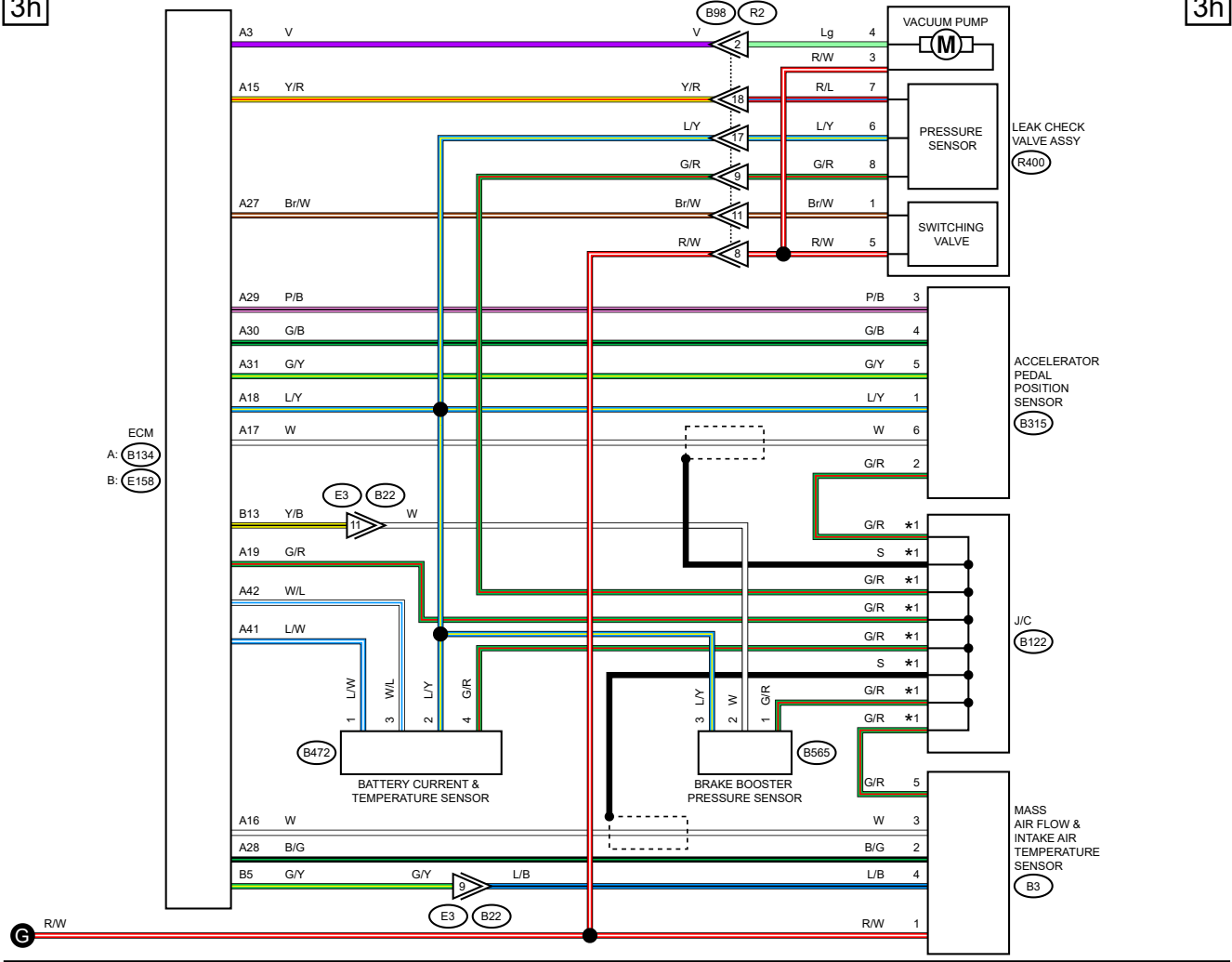


WI-65612

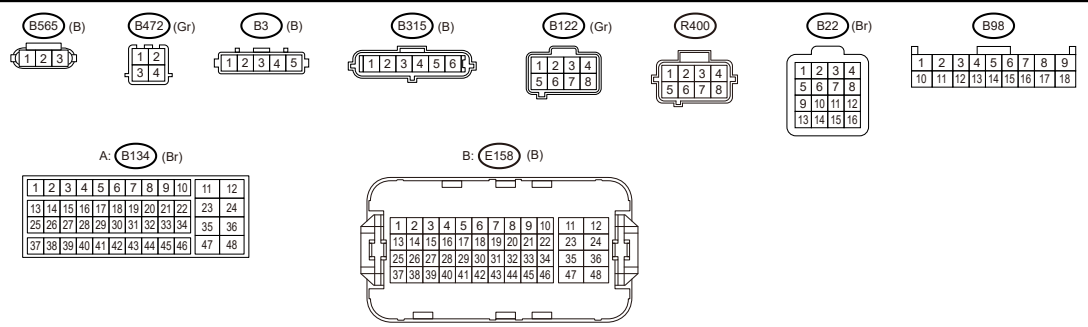


3h

3h

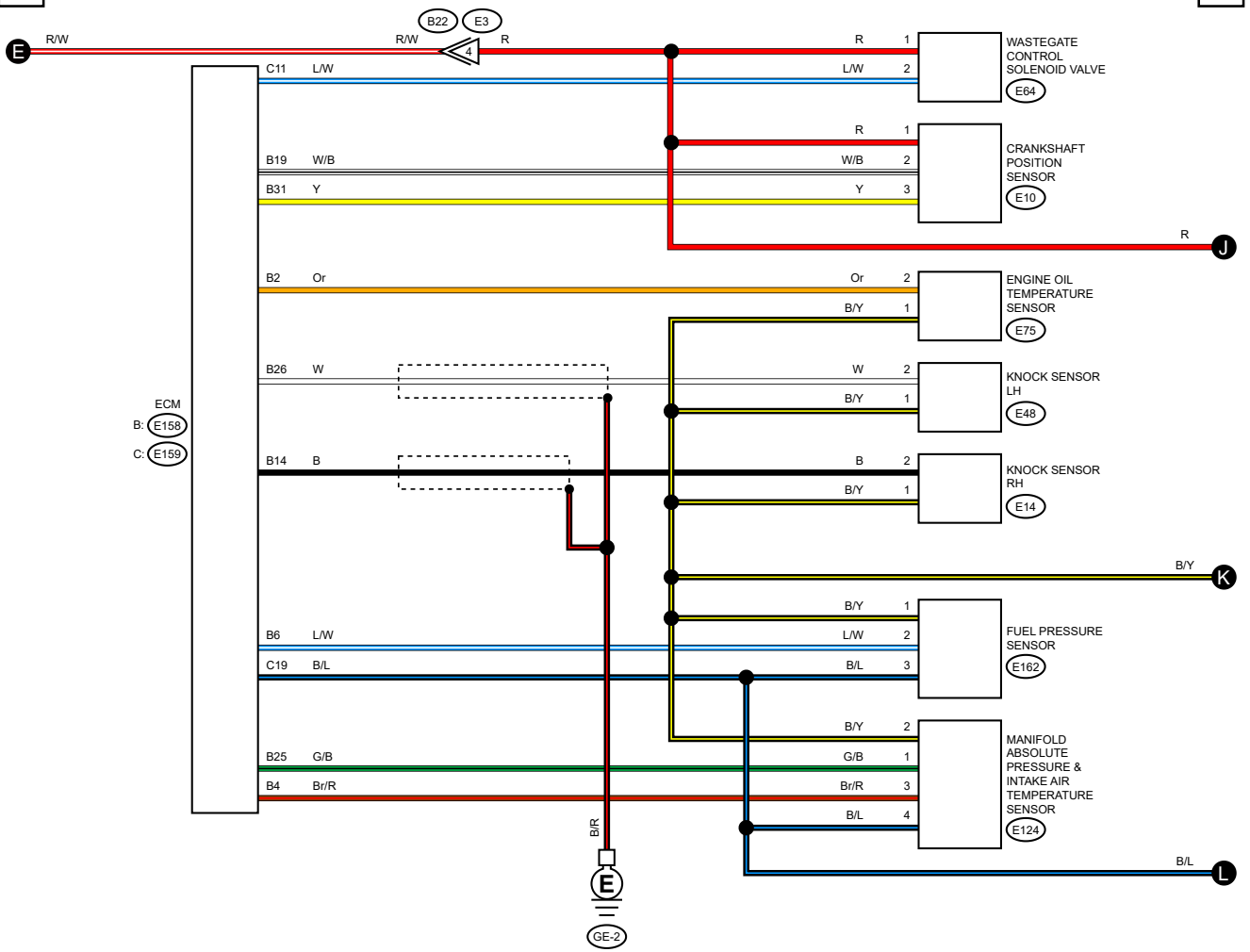


*1 : TERMINAL No. OPTIONAL ARRANGEMENT



WI-65613





(B) E14 (B) E75 (B)

E64 (B)

E10 (B)

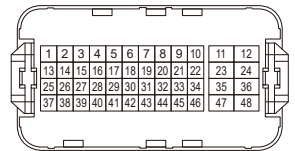
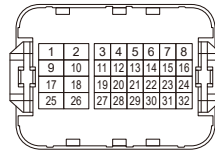
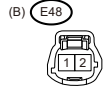
E162 (B)

E124 (B)

B22 (Br)

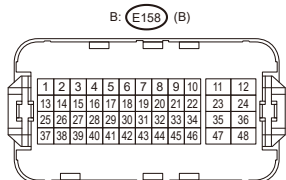
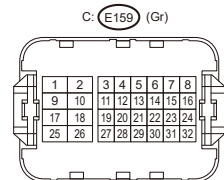
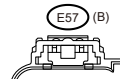
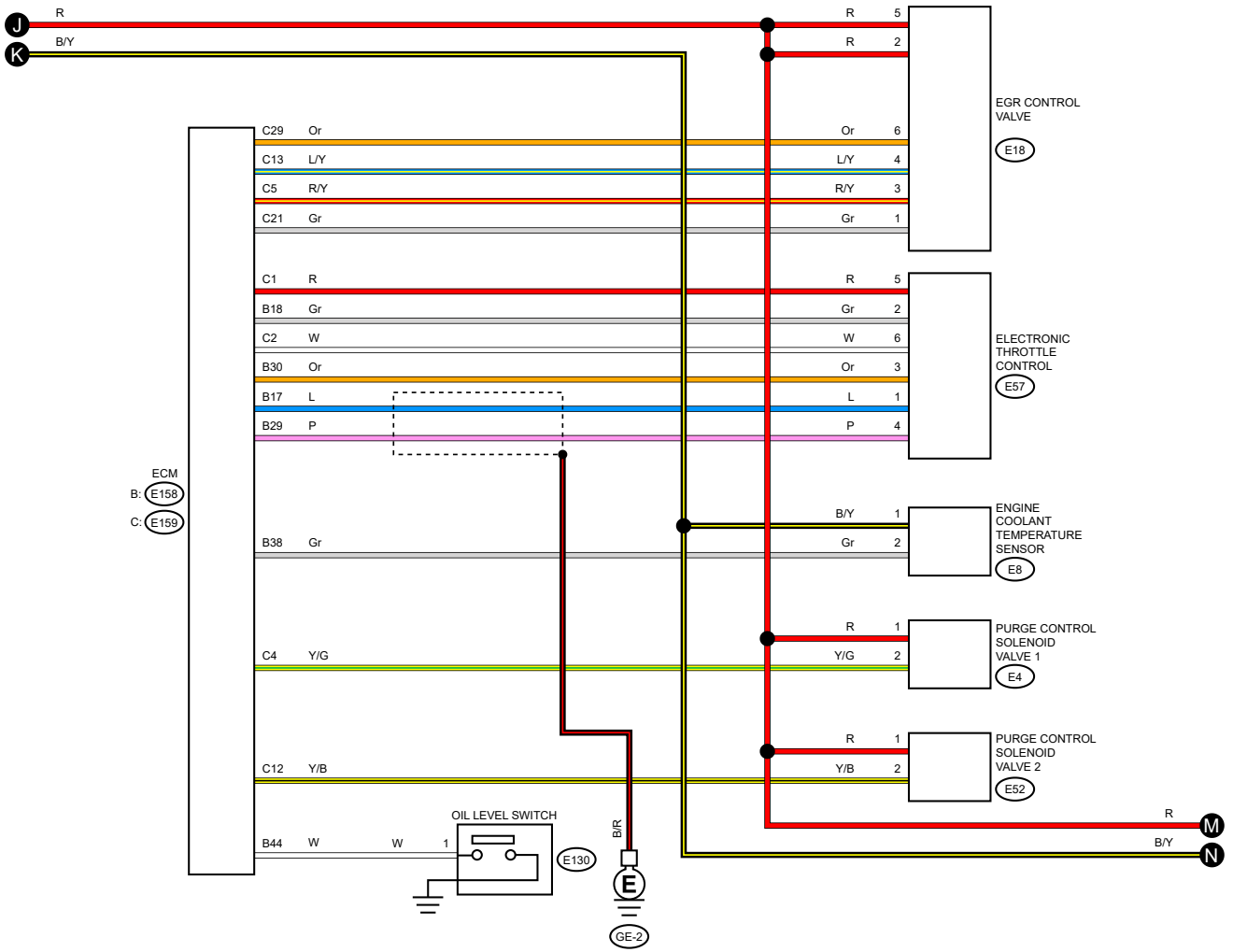
C: E159 (Gr)

B: E158 (B)



3j

3j

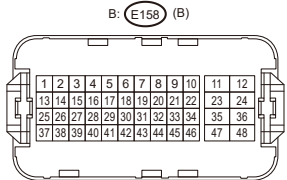
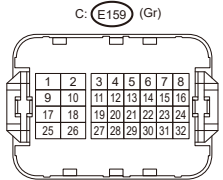
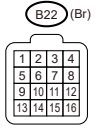
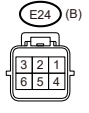
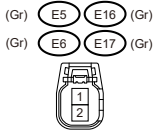
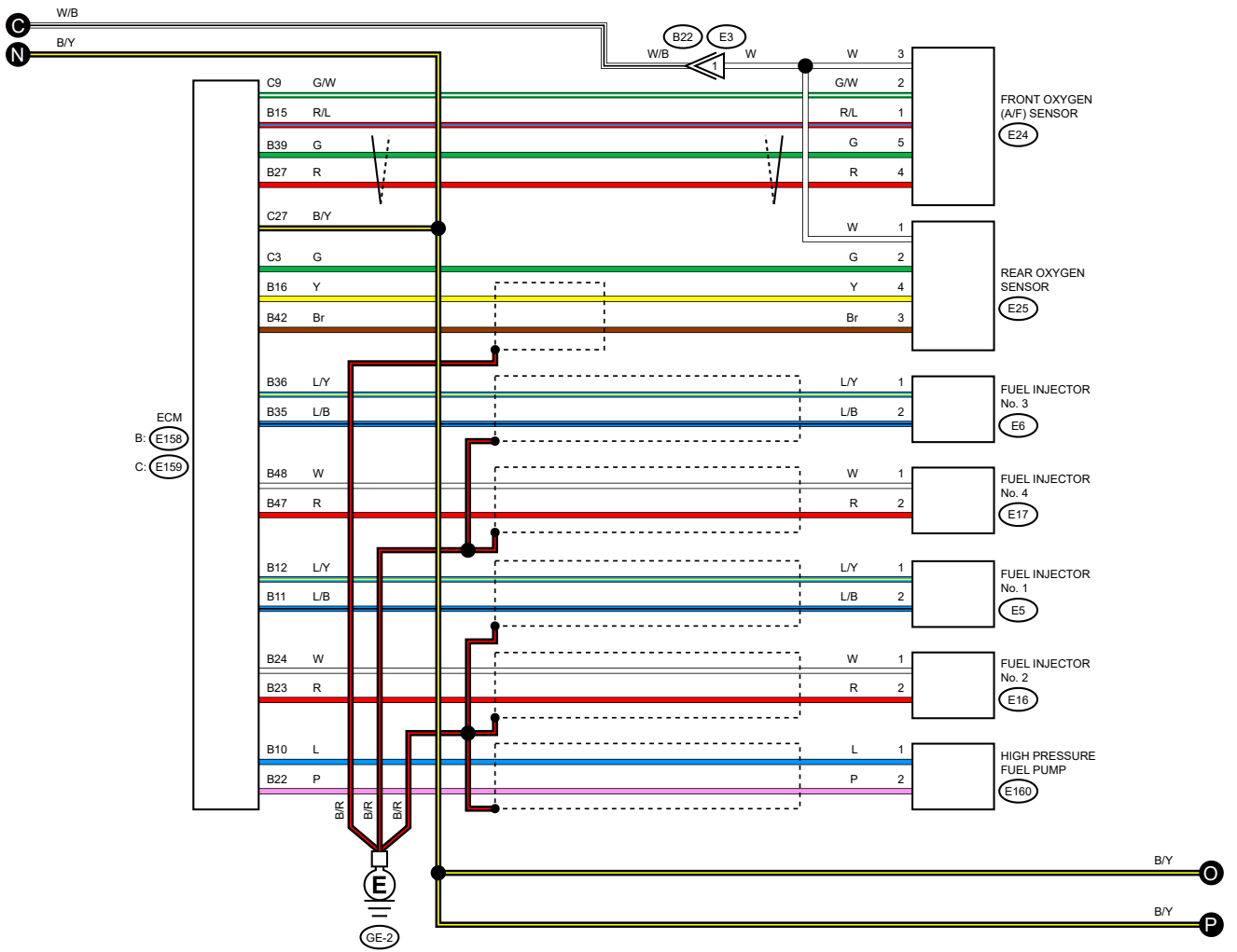


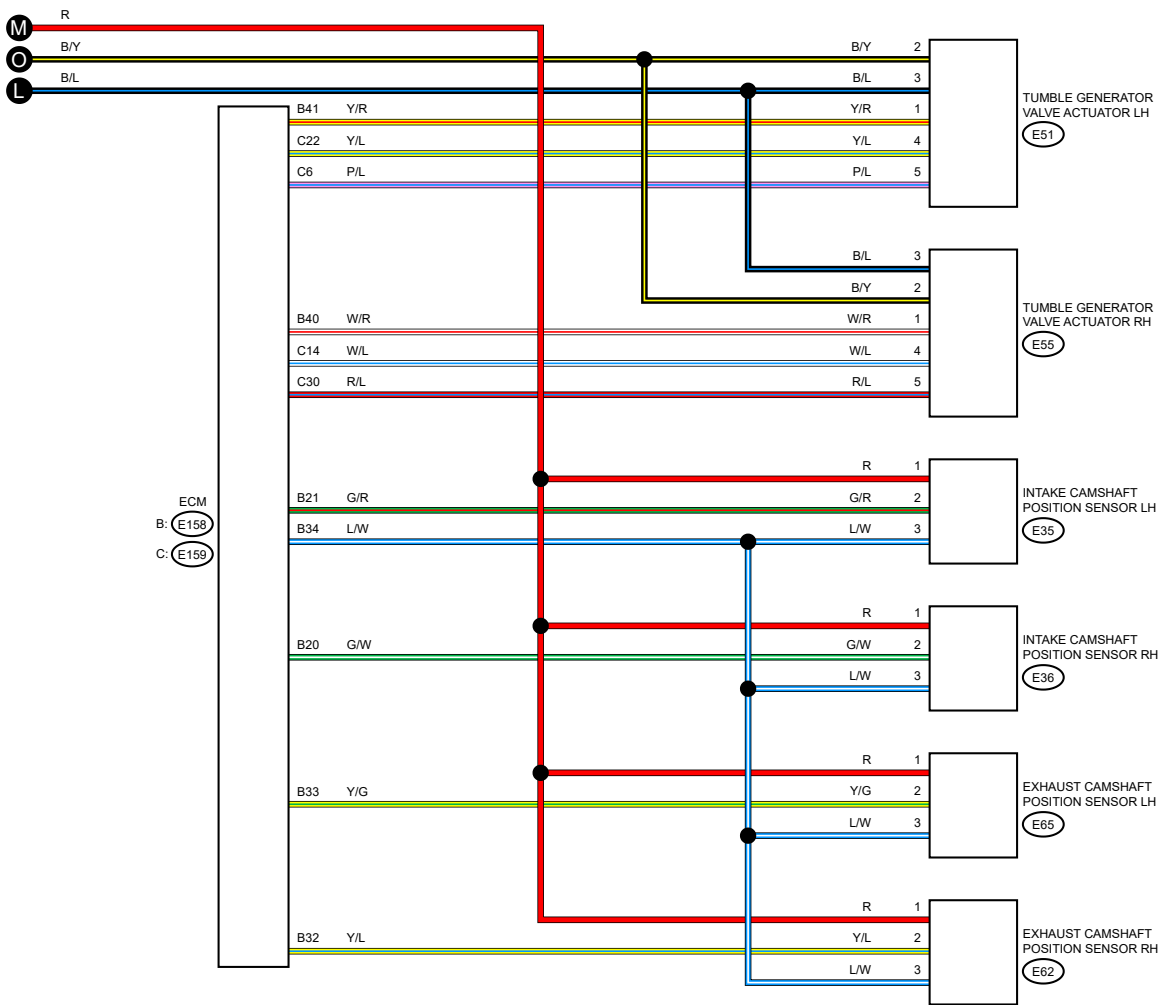
WI-65615



3k

3k





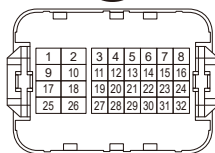
(Gr) (E35) (E62) (Gr)
 (Gr) (E36) (E65) (Gr)



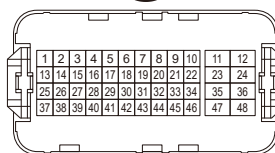
(E51) (Gr)
 (E55) (Gr)



C: (E159) (Gr)

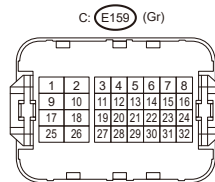
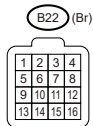
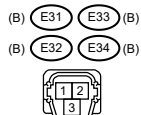
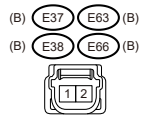
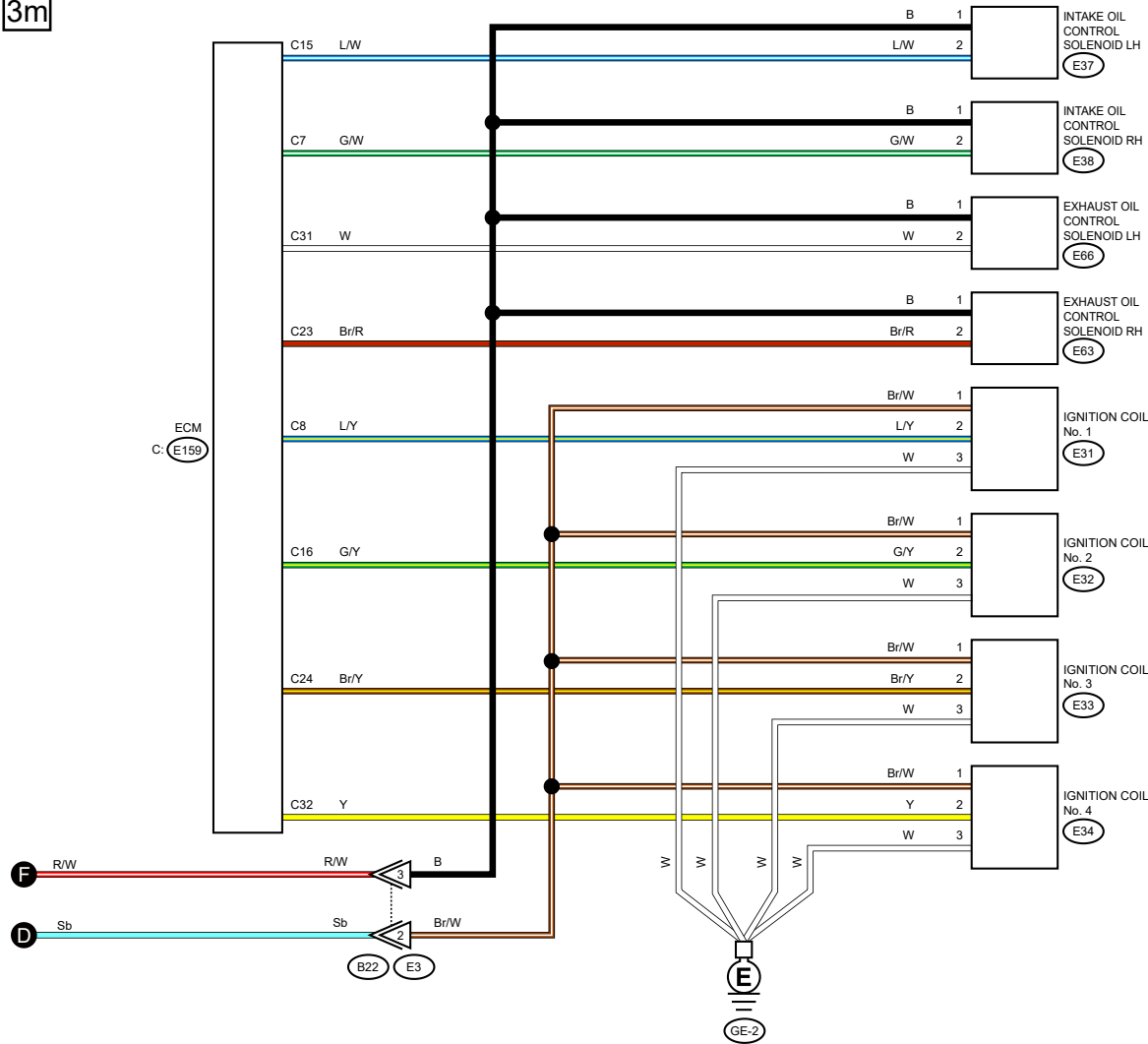


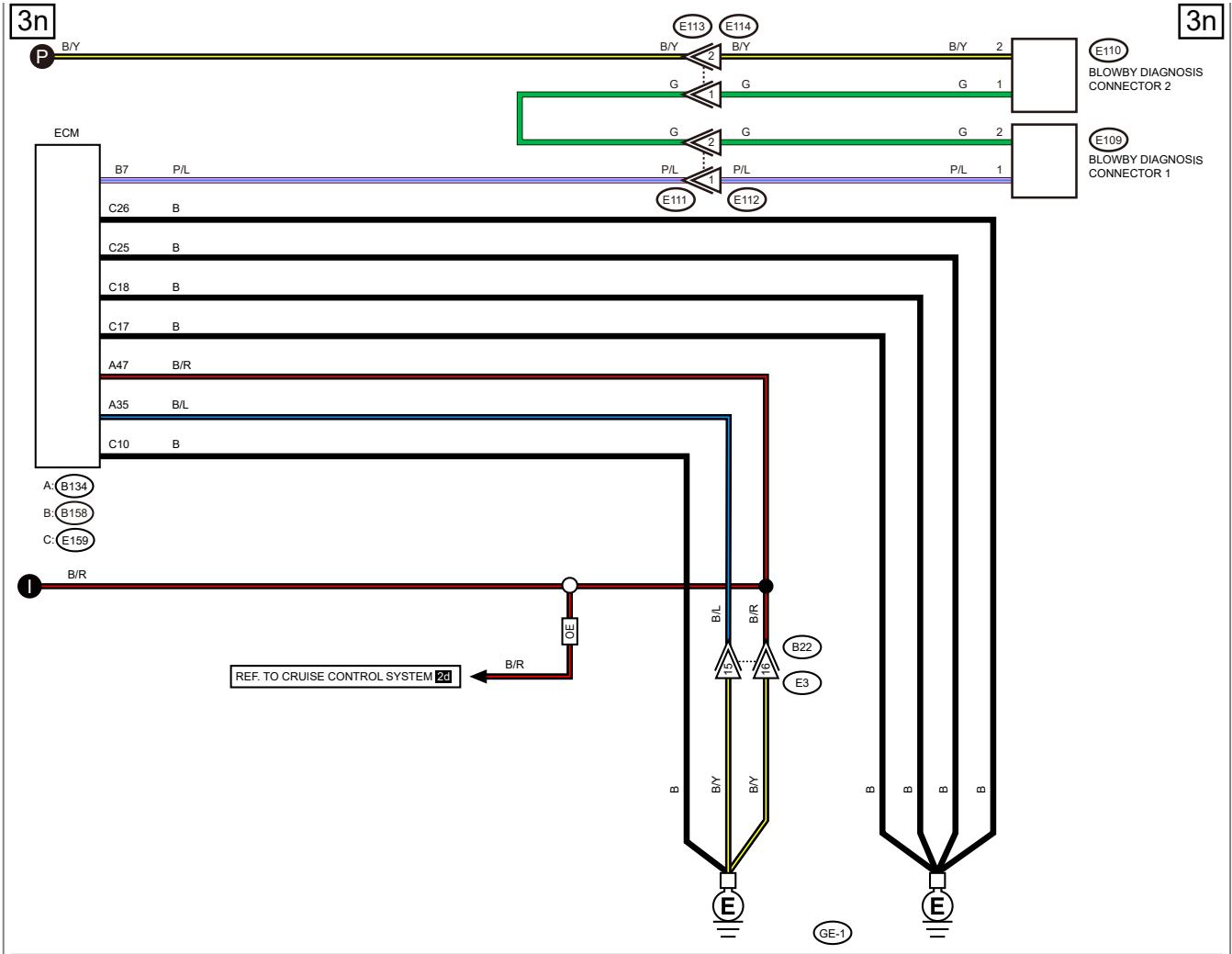
B: (E158) (B)



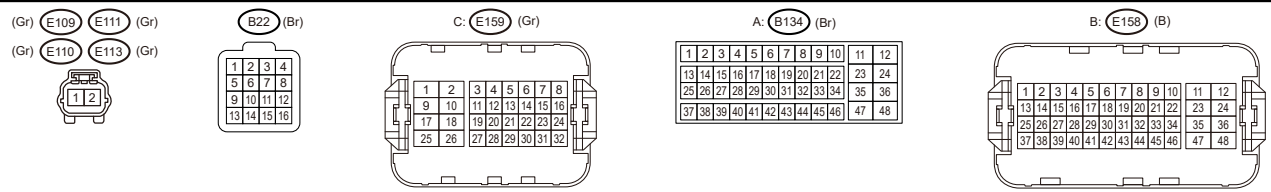
3m

3m





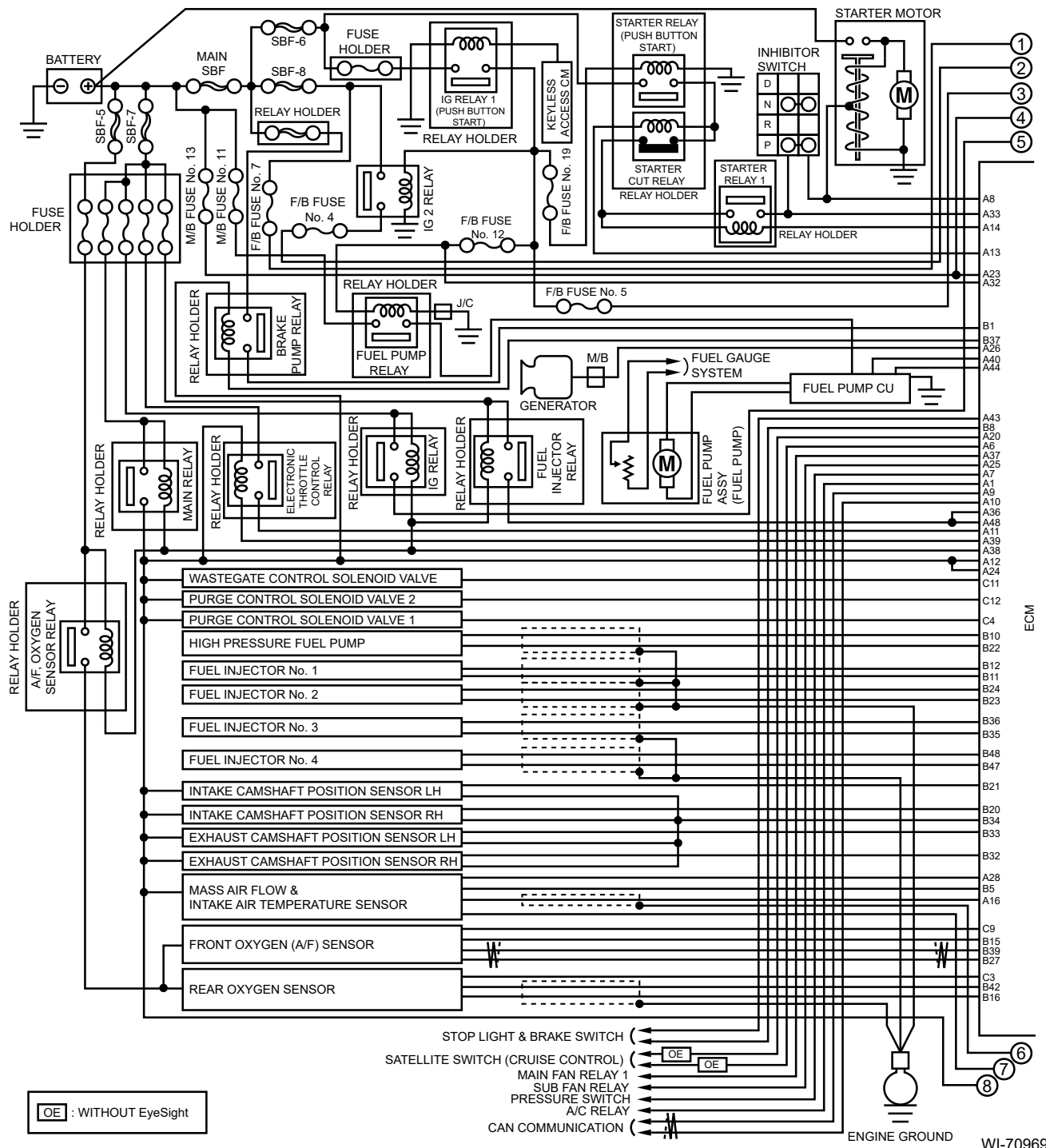
OE: WITHOUT EyeSight

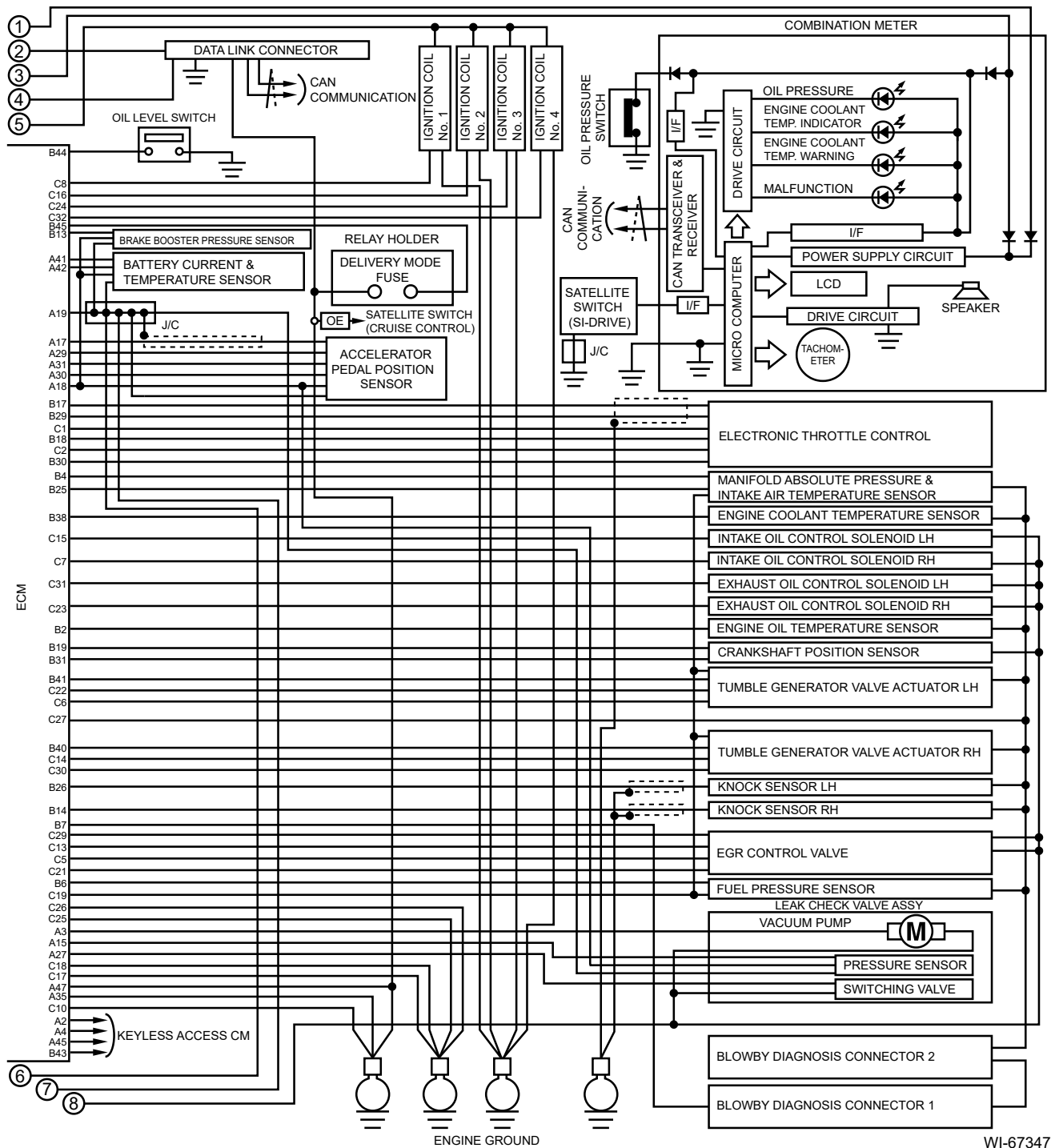


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4. TURBO MODEL (WITH PUSH BUTTON START)





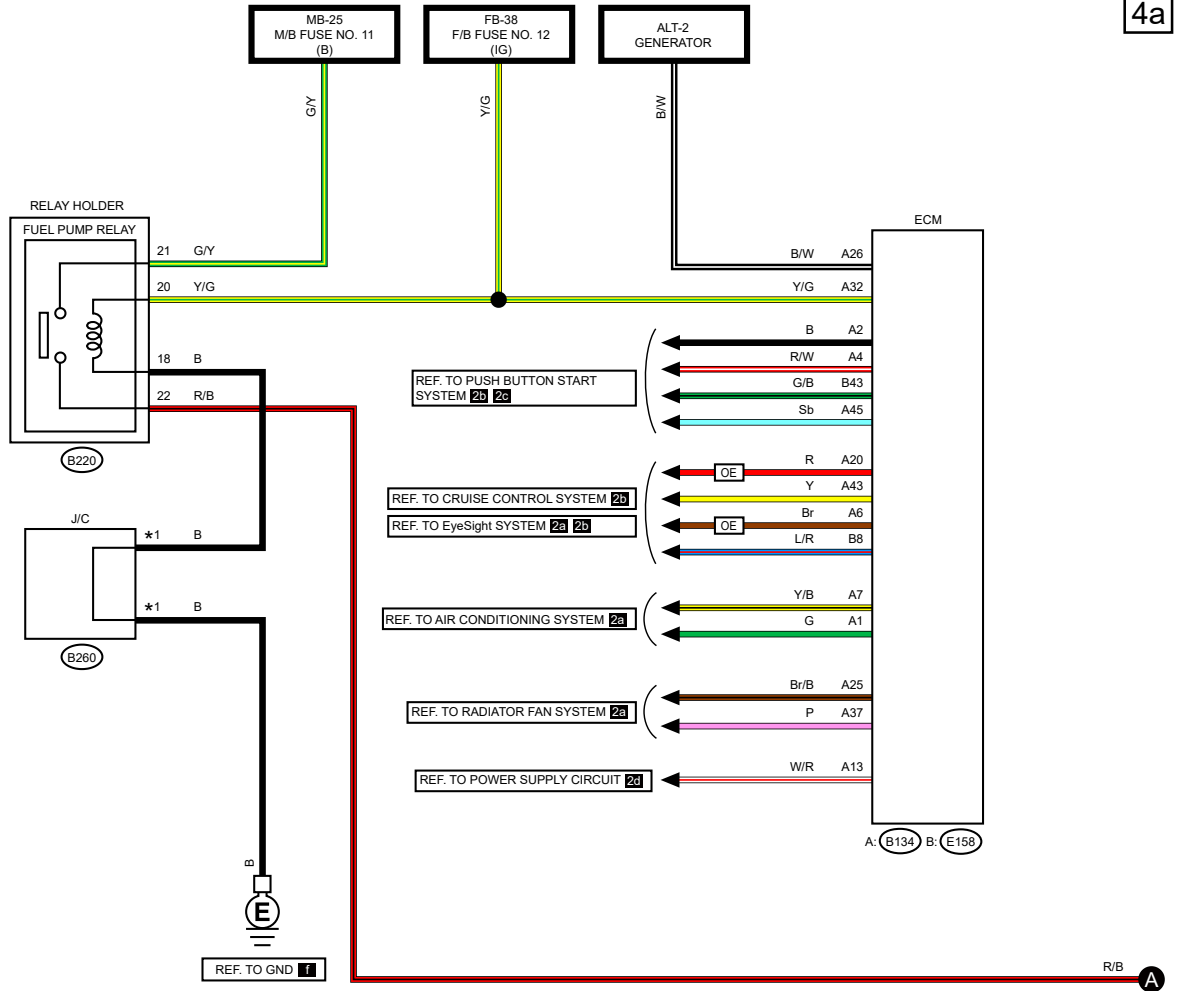


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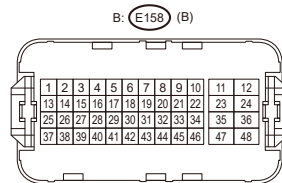
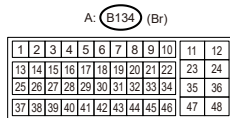
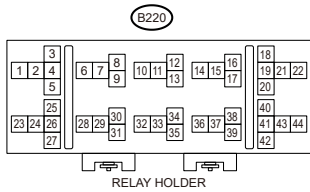
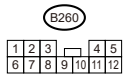
4a

4a



OE : WITHOUT EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

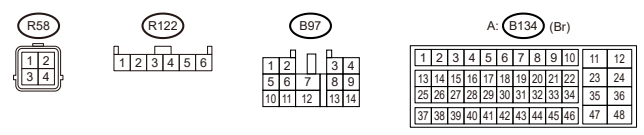
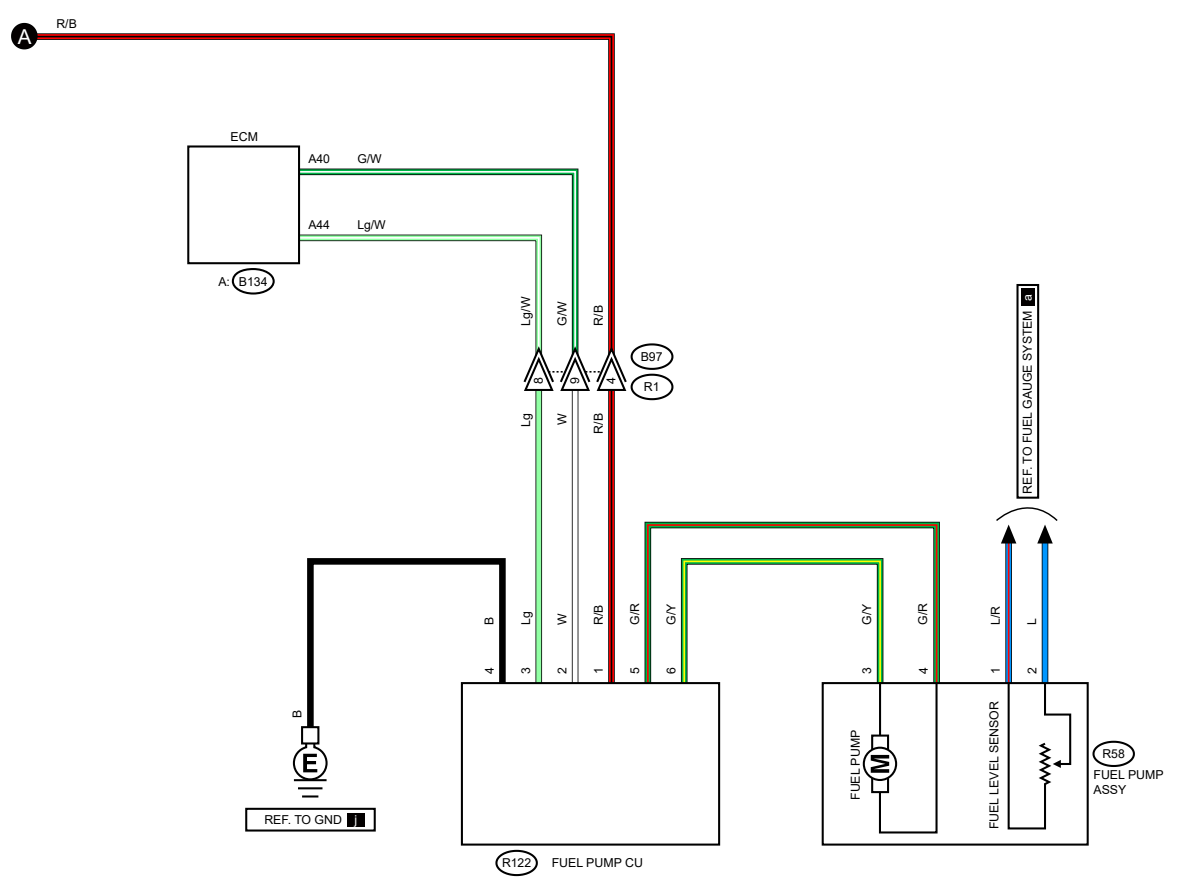


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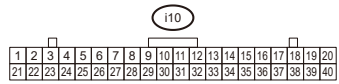
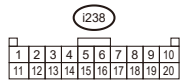
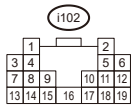
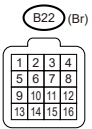
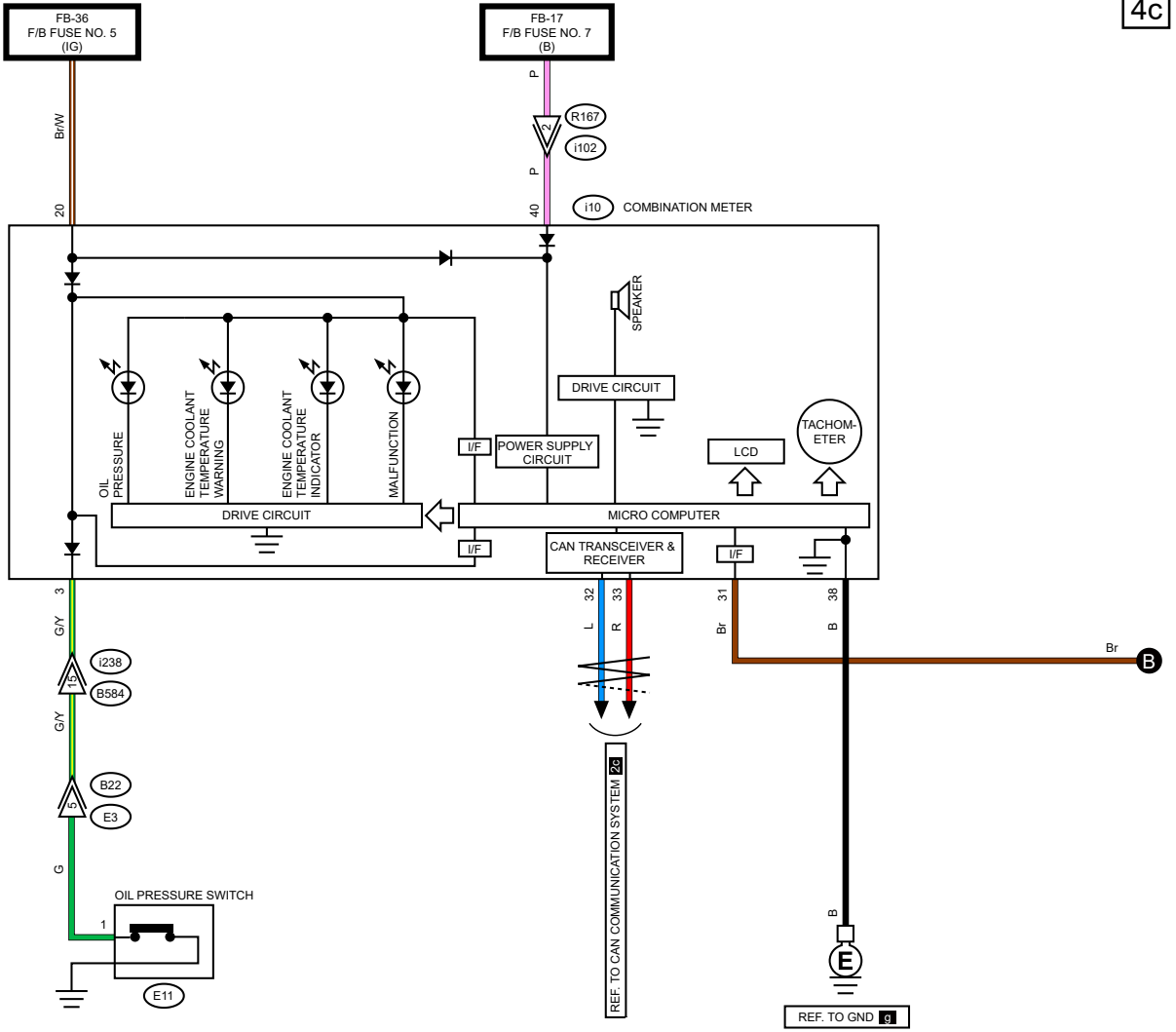
4b

4b



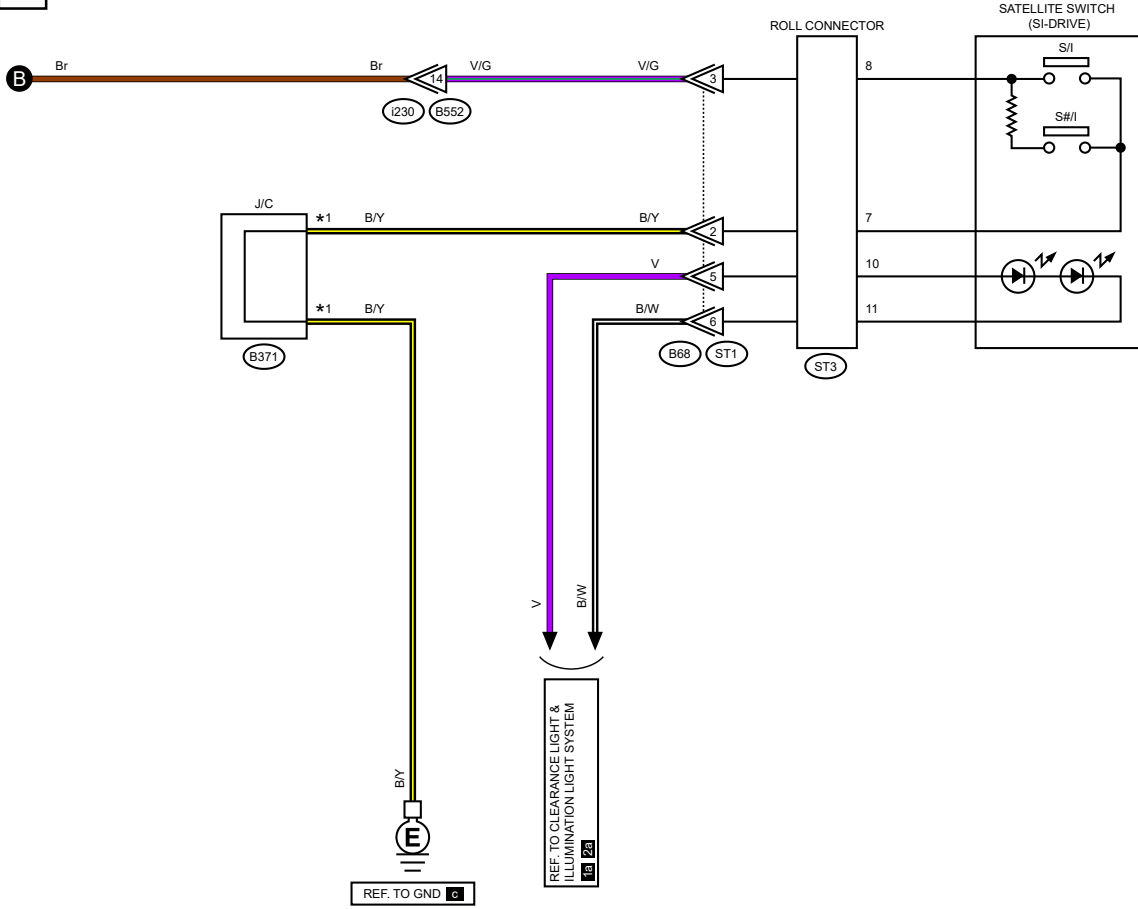
4c

4c

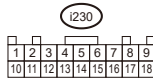
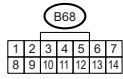
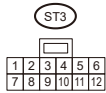
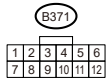


4d

4d



*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6

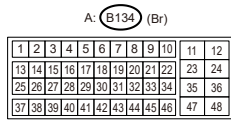
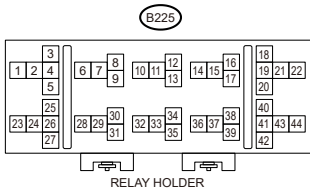
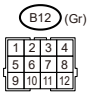
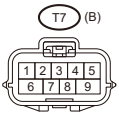
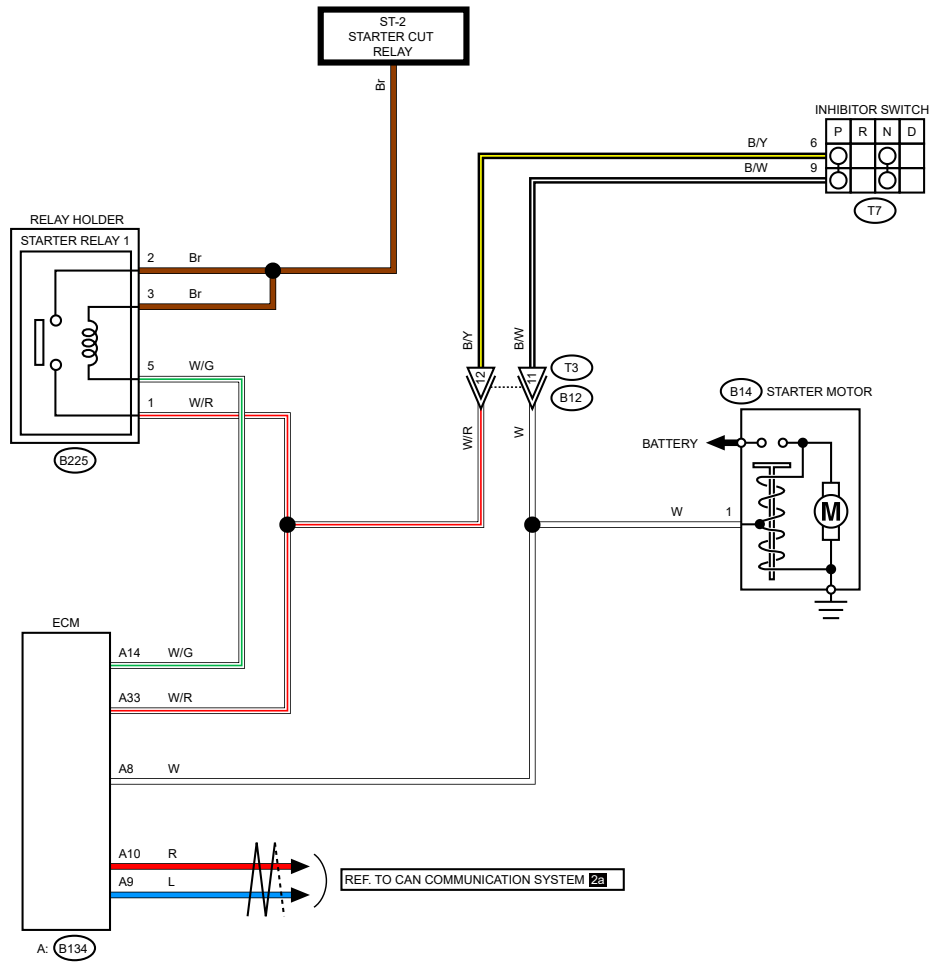


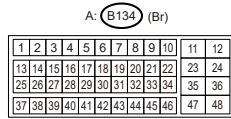
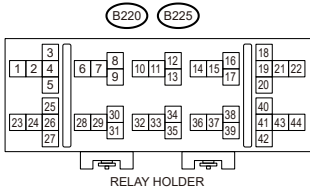
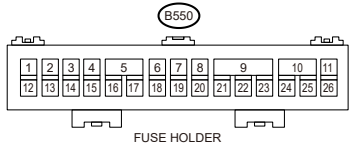
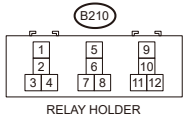
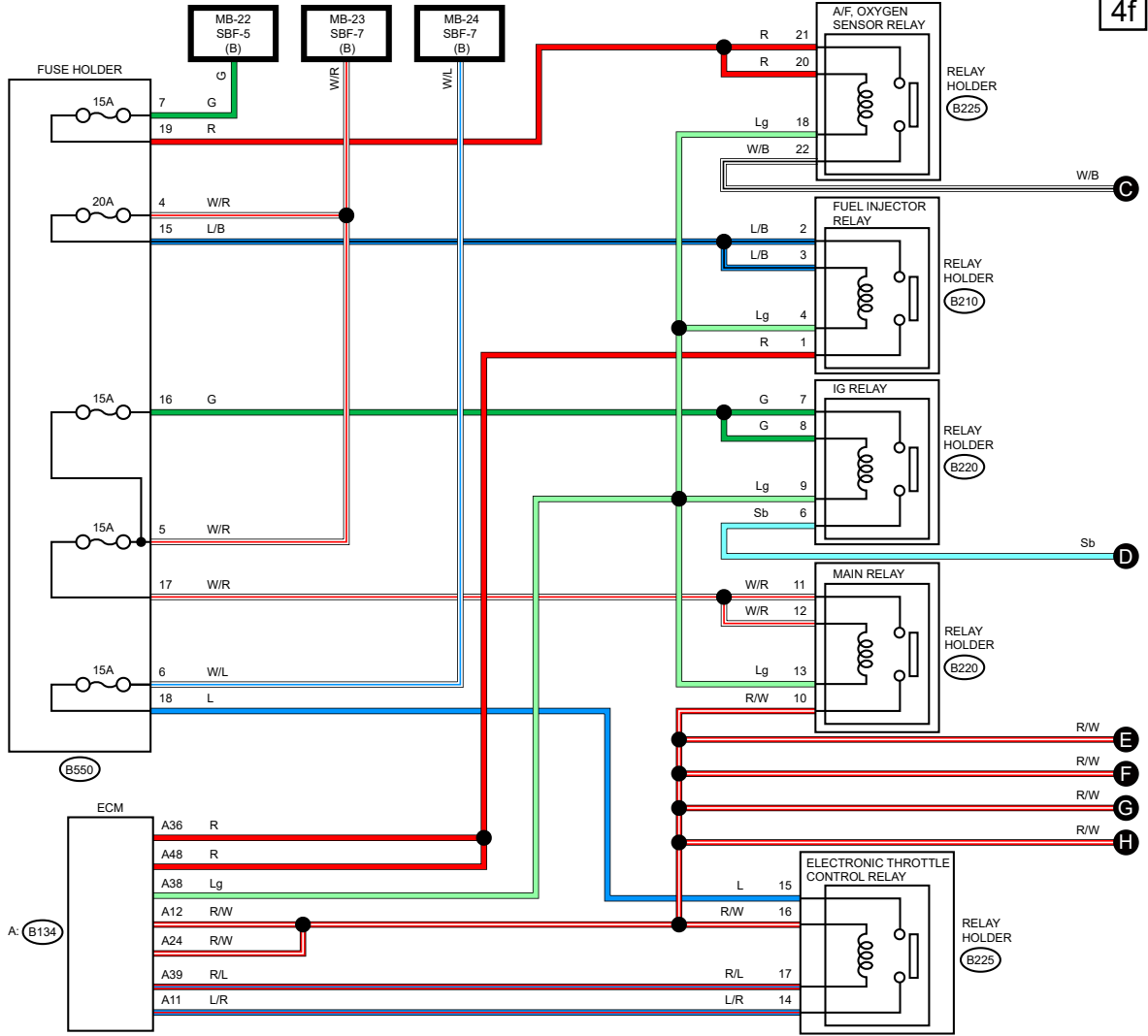
WI-65623



4e

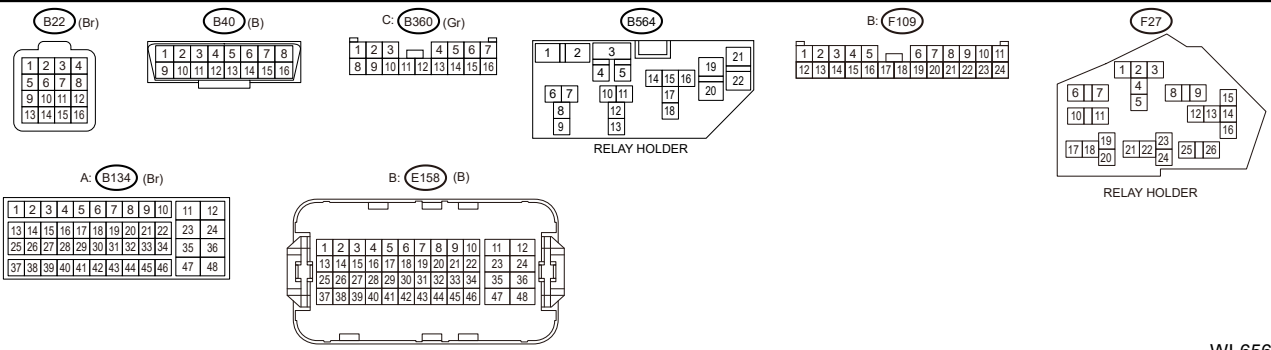
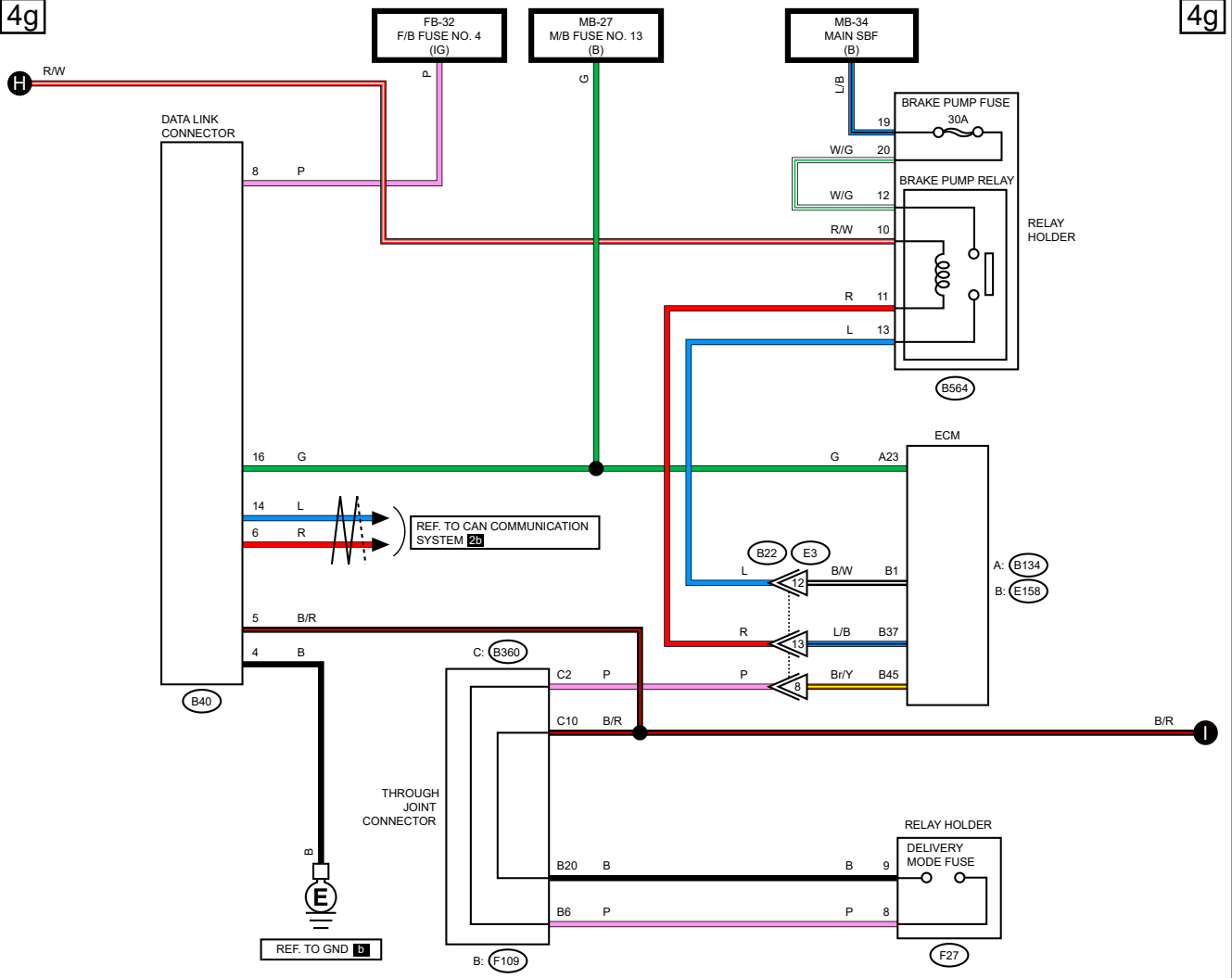
4e





4g

4g

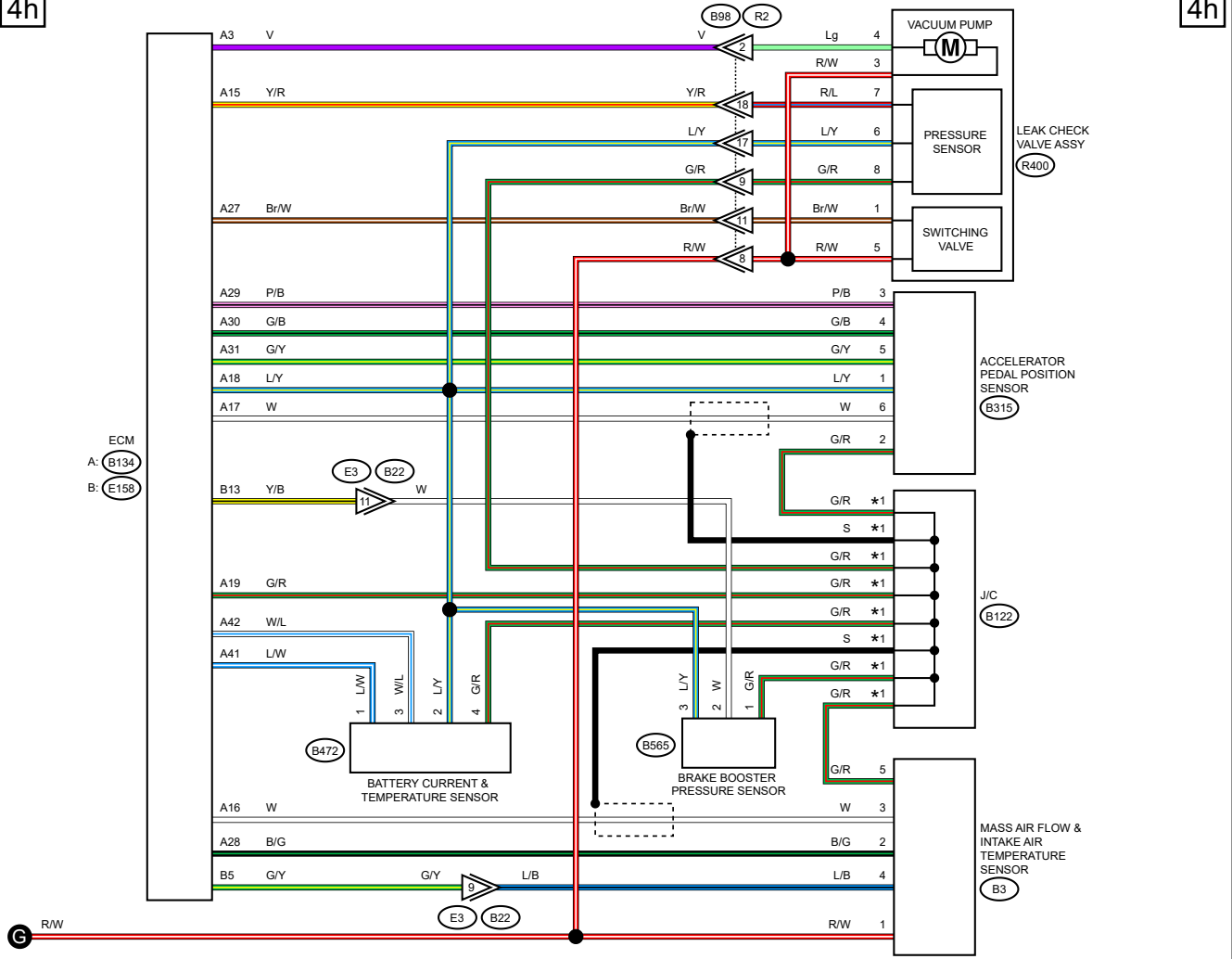


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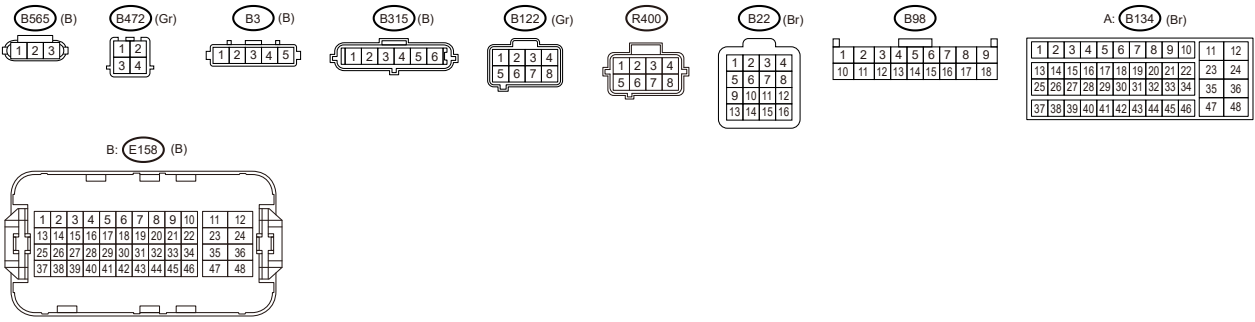


4h

4h

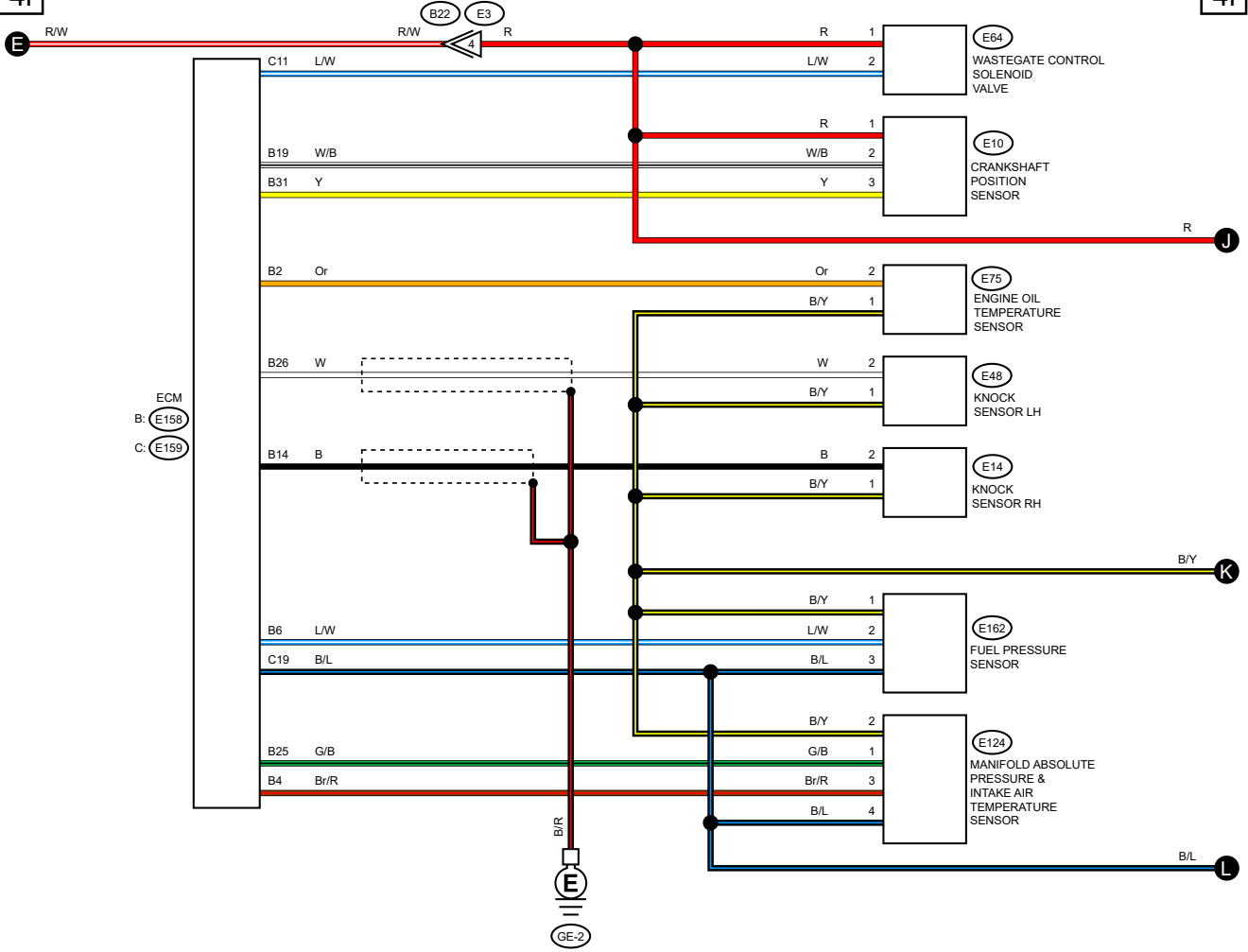


*1 : TERMINAL No. OPTIONAL ARRANGEMENT



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(B) E14 (B) E75 (B)

E64 (B)

E10 (B)

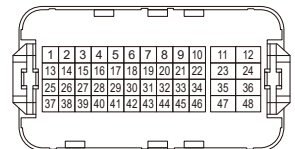
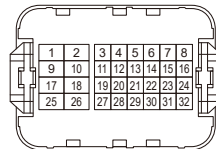
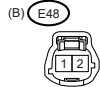
E162 (B)

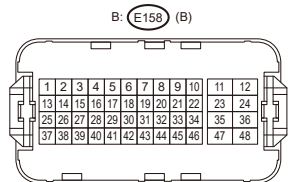
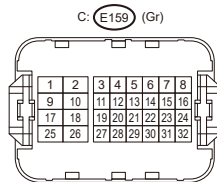
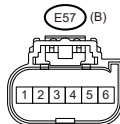
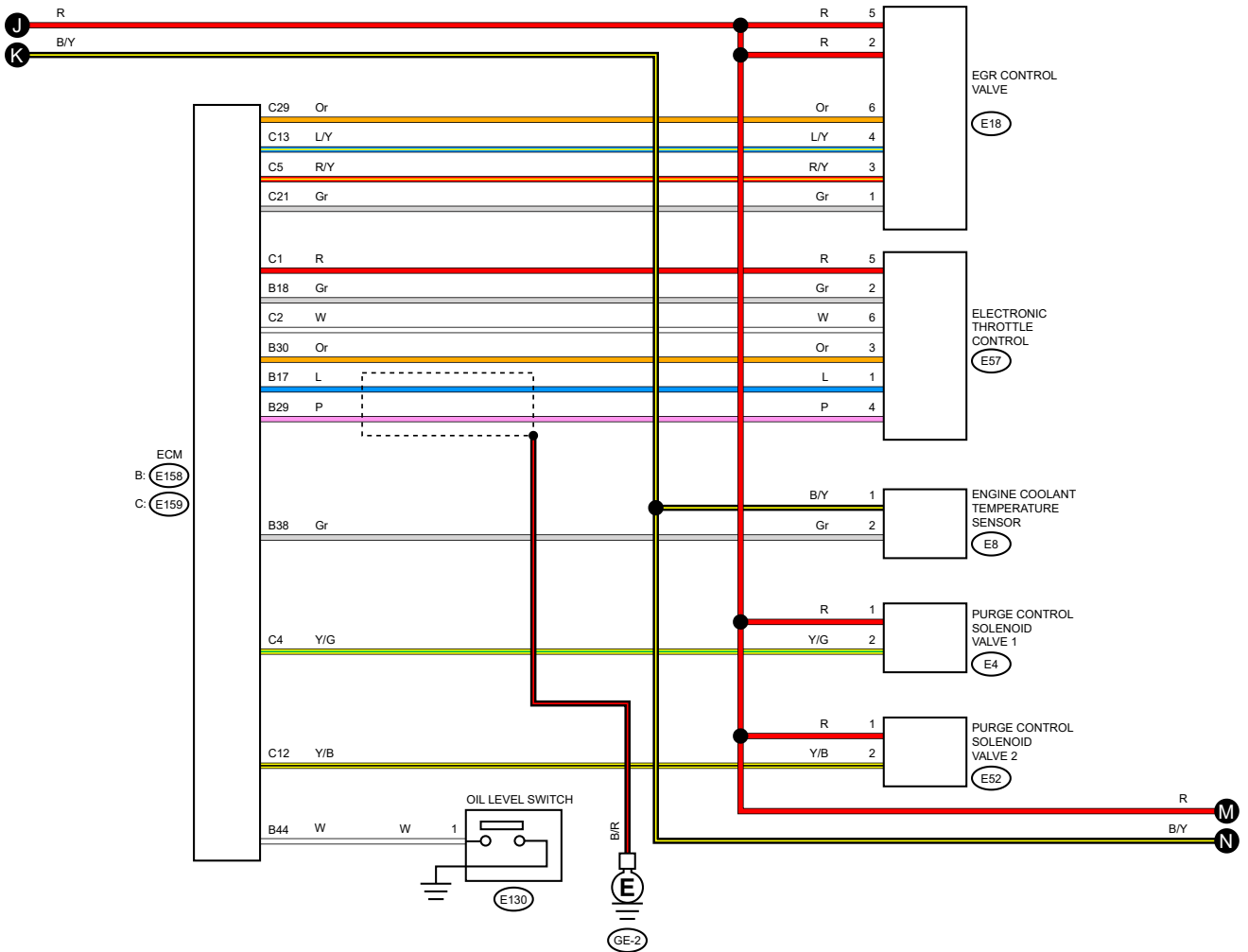
E124 (B)

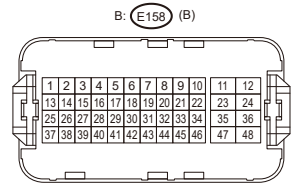
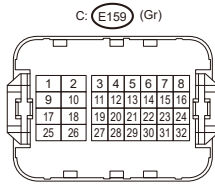
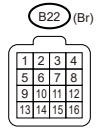
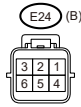
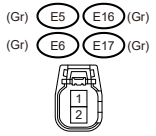
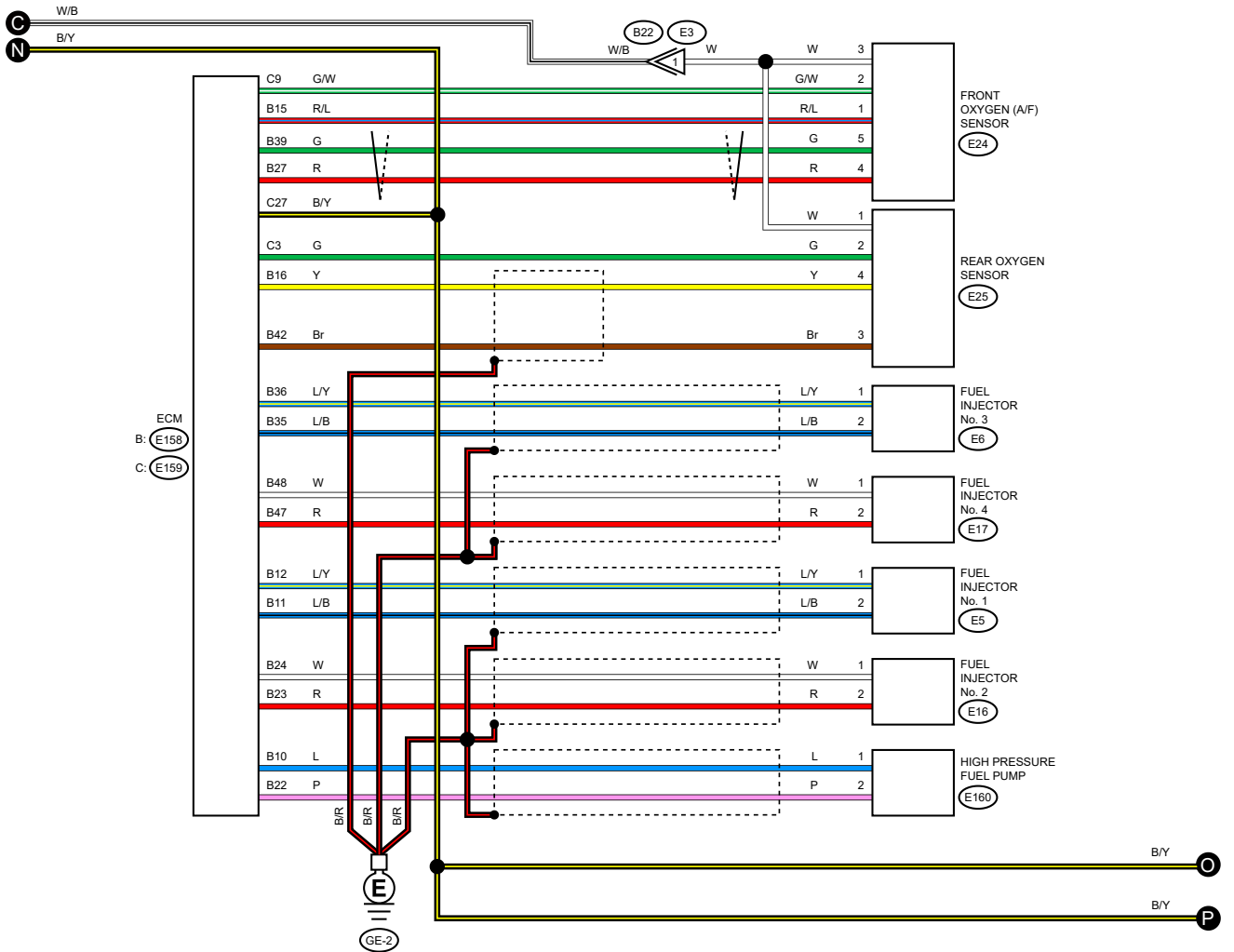
B22 (Br)

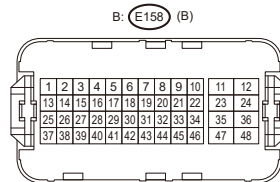
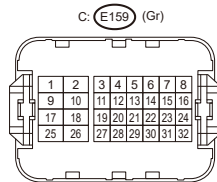
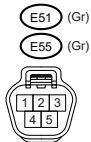
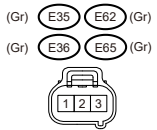
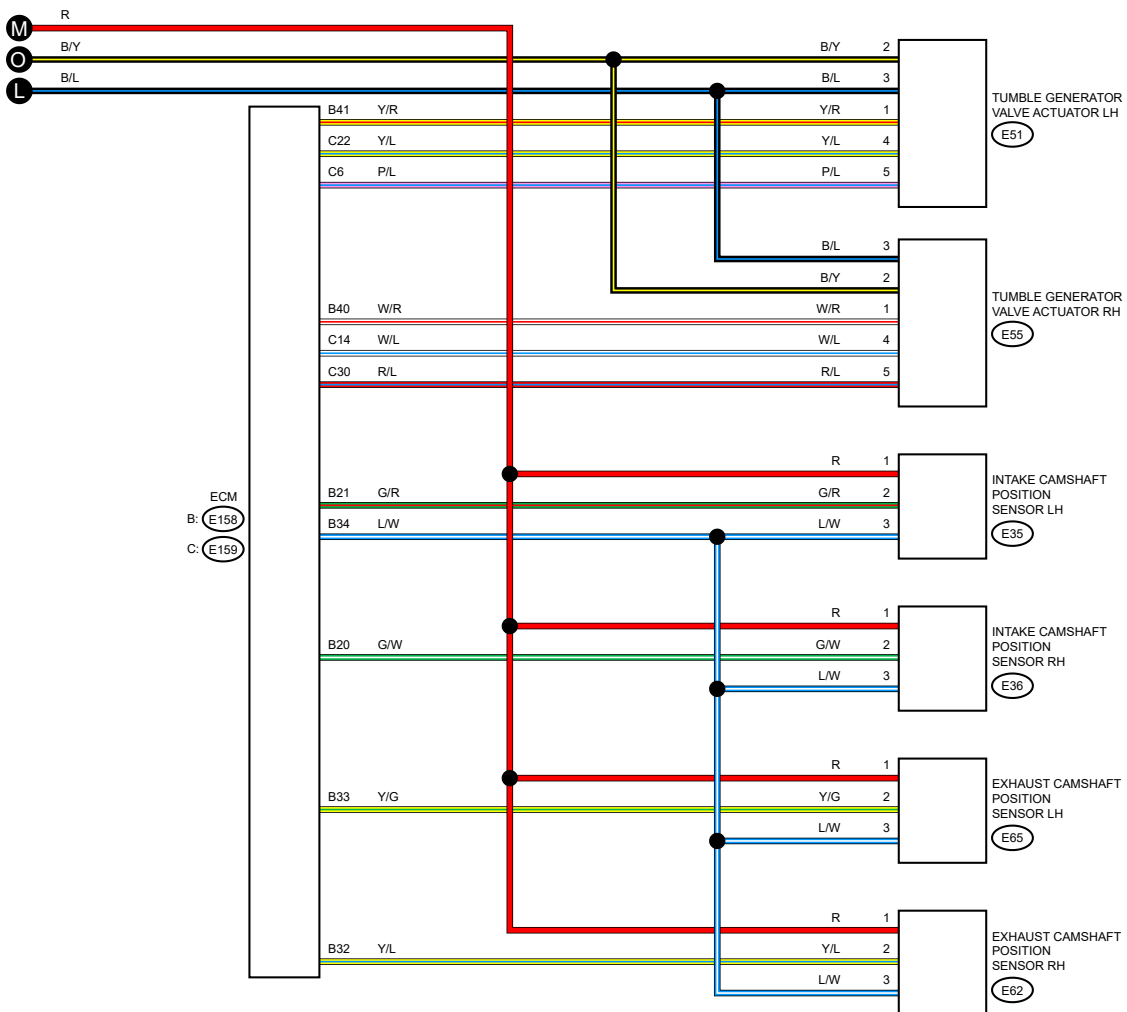
C: E159 (Gr)

B: E158 (B)



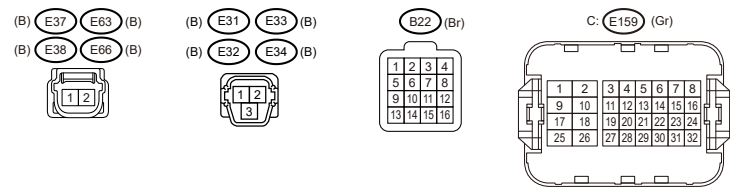
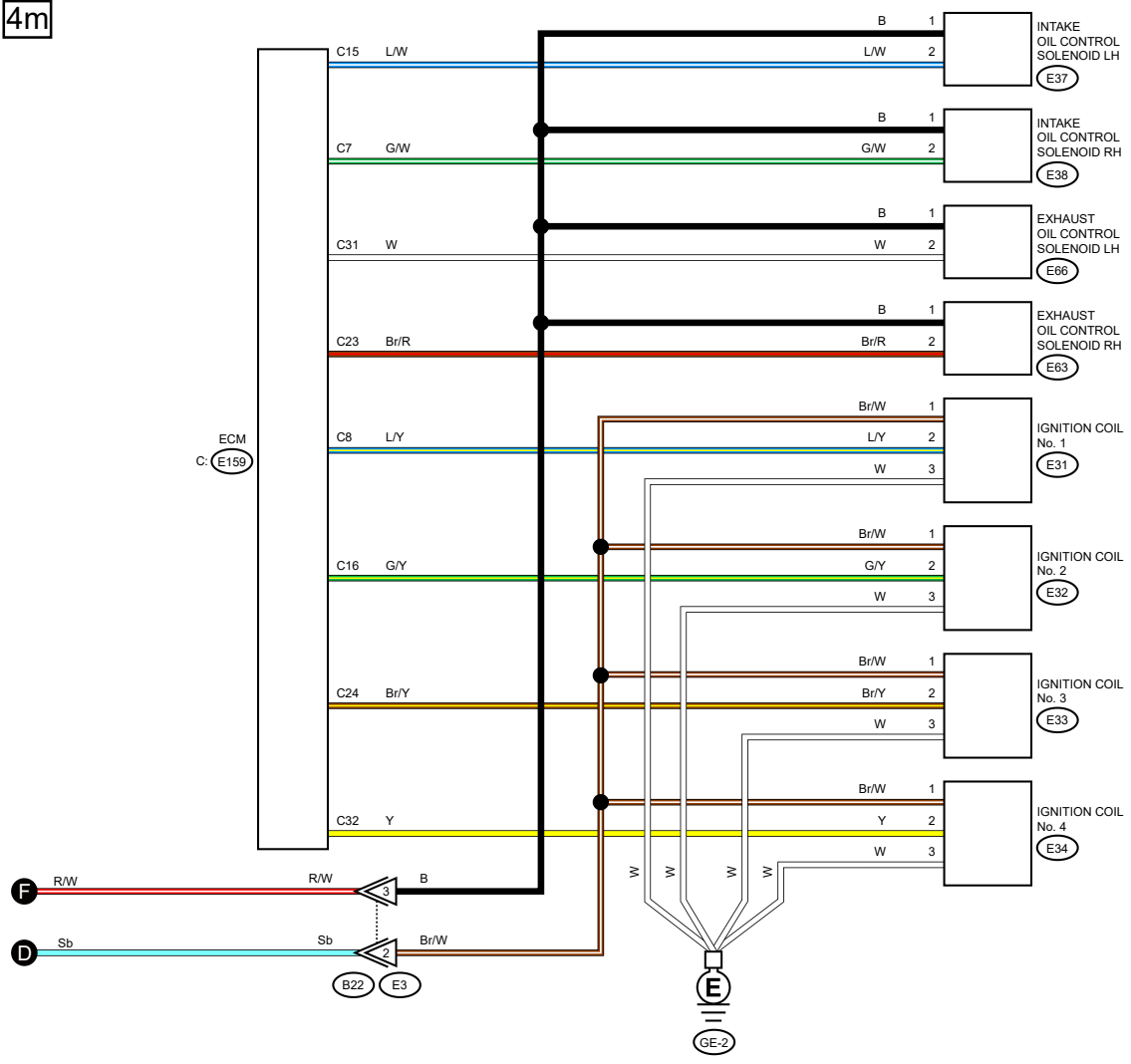






4m

4m



WI-65632



WIRING SYSTEM > Engine Wiring Harness and Transmission Cord

LOCATION

▼ Please select ▼ see

1. NON-TURBO MODEL

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
E2	54	B	A-4	B21	Bulkhead wiring harness
E3	16	Br	A-3	B22	
E4	2	L	B-4		Purge control solenoid valve
E5	2	Gr	B-2		Fuel injector No. 1
E6	2	Gr	A-2		Fuel injector No. 3
E8	2	B	B-2		Engine coolant temperature sensor
E10	3	B	B-3		Crankshaft position sensor
E11	1	—	B-3		Oil pressure switch
E14	2	B	B-3		Knock sensor
E16	2	Gr	B-4		Fuel injector No. 2
E17	2	Gr	B-4		Fuel injector No. 4
E18	6	Gr	A-3		EGR control valve
E21	3	B	A-3		Manifold absolute pressure sensor
E24	4	Gr	B-1		Front oxygen (A/F) sensor
E25	4	B	B-1		Rear oxygen sensor
E31	3	B	B-2		Ignition coil No. 1
E32	3	B	B-4		Ignition coil No. 2
E33	3	B	A-2		Ignition coil No. 3
E34	3	B	B-4		Ignition coil No. 4
E35	3	Gr	C-3		Intake camshaft position sensor LH
E36	3	Gr	B-1		Intake camshaft position sensor RH
E37	2	B	C-3		Intake oil control solenoid LH
E38	2	B	B-1		Intake oil control solenoid RH
E51	5	Gr	B-4		Tumble generator valve actuator LH
E55	5	Gr	A-2		Tumble generator valve actuator RH
E57	6	B	A-3		Electronic throttle control
E75	2	B	B-3		Engine oil temperature sensor
E130	1	★	C-3		Oil level switch

★:White or natural color

• MT model

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
T1	2	Gr	C-1	B24	Bulkhead wiring harness
T2	2	Br	C-1	B25	

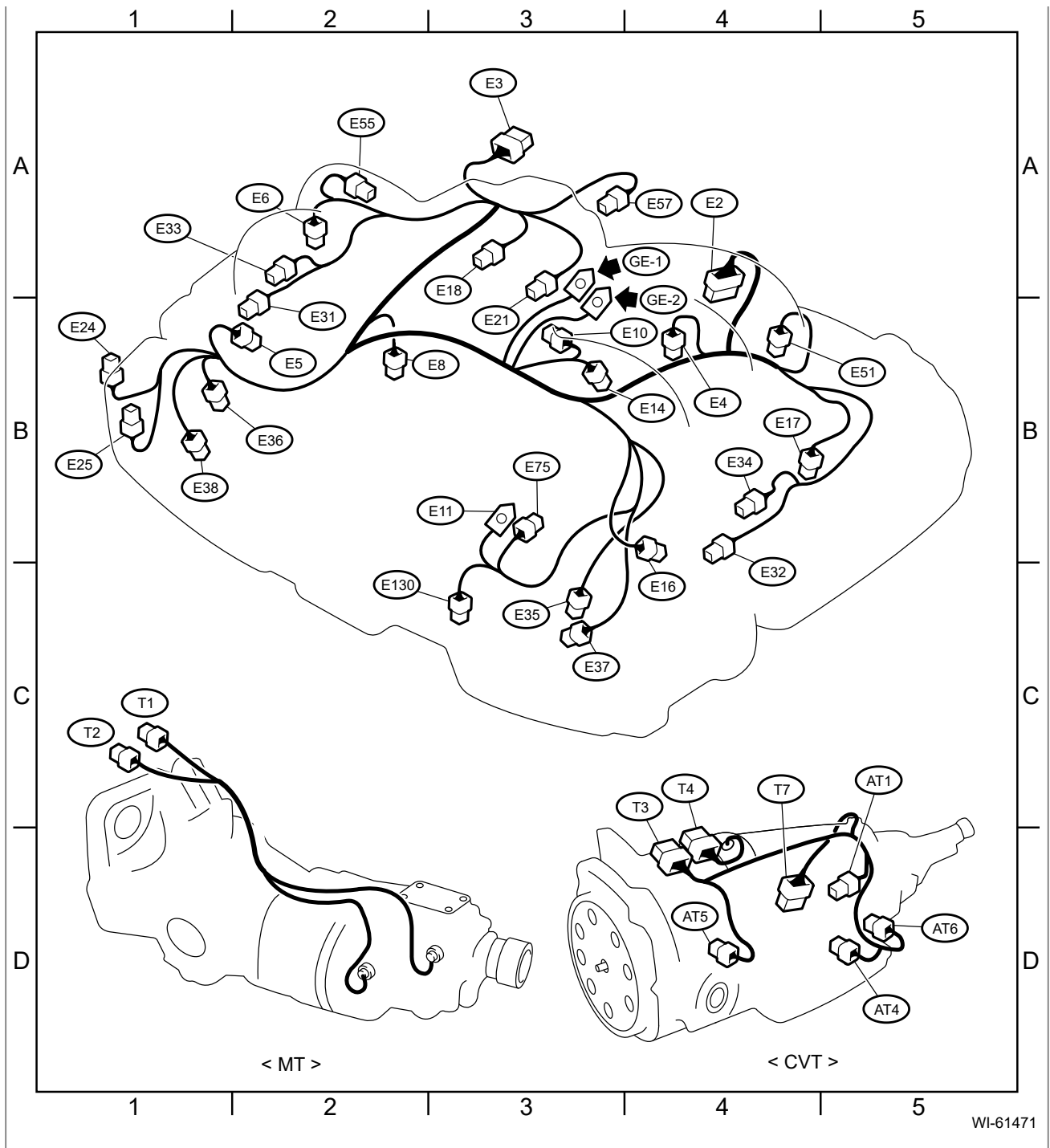
★:White or natural color

• CVT model

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
T3	16	Gr	D-4	B12	Bulkhead wiring harness
T4	12	Gr	D-4	B11	
T7	9	B	D-4		Inhibitor switch
AT1	3	B	D-5		Primary speed sensor
AT4	3	Gr	D-5		Secondary speed sensor
AT5	3	Gr	D-4		Turbine speed sensor
AT6	3	B	D-5		Secondary pressure sensor

★:White or natural color





WI-61471

2. TURBO MODEL

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
E3	16	Br	A-3	B22	Bulkhead wiring harness
E4	2	L	B-2		Purge control solenoid valve 1
E5	2	Gr	B-2		Fuel injector No. 1
E6	2	Gr	A-2		Fuel injector No. 3
E8	2	B	B-2		Engine coolant temperature sensor

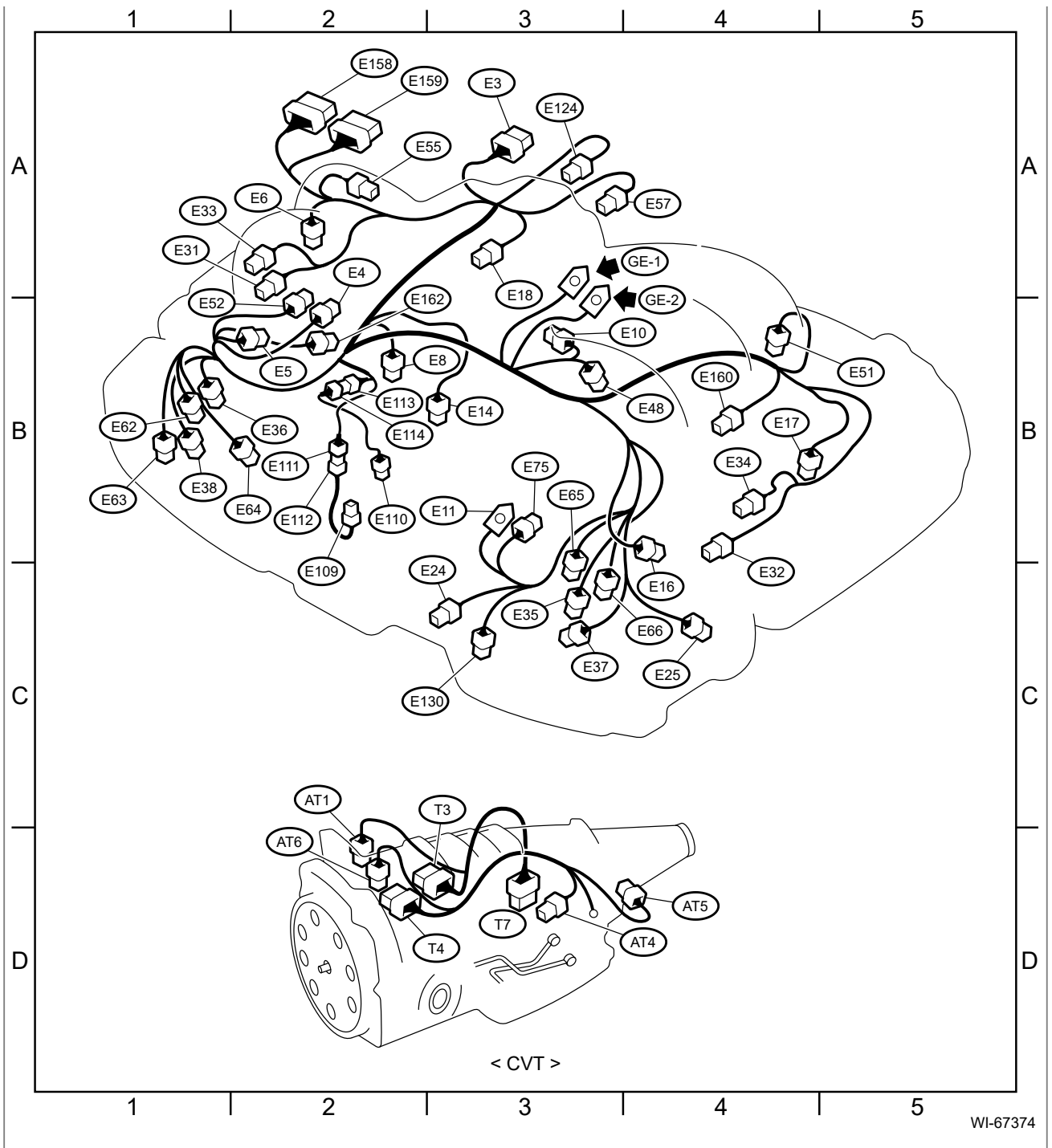
E10	3	B	B-3		Crankshaft position sensor
E11	1	—	B-3		Oil pressure switch
E14	2	B	B-3		Knock sensor 1
E16	2	Gr	B-4		Fuel injector No. 2
E17	2	Gr	B-4		Fuel injector No. 4
E18	6	Gr	A-3		EGR control valve
E24	6	B	C-3		Front oxygen (A/F) sensor
E25	4	G	C-4		Rear oxygen sensor
E31	3	B	B-2		Ignition coil No. 1
E32	3	B	B-4		Ignition coil No. 2
E33	3	B	A-2		Ignition coil No. 3
E34	3	B	B-4		Ignition coil No. 4
E35	3	Gr	C-3		Intake camshaft position sensor LH
E36	3	Gr	B-1		Intake camshaft position sensor RH
E37	2	B	C-3		Intake oil control solenoid LH
E38	2	B	B-1		Intake oil control solenoid RH
E48	2	B	B-3		Knock sensor 2
E51	5	Gr	B-4		Tumble generator valve actuator LH
E52	2	B	B-2		Purge control solenoid valve 2
E55	5	Gr	A-2		Tumble generator valve actuator RH
E57	6	L	A-3		Electronic throttle control
E62	3	Gr	B-1		Exhaust camshaft position sensor RH
E63	2	B	B-1		Exhaust oil control solenoid RH
E64	2	B	B-1		Wastegate control solenoid valve
E65	3	Gr	B-3		Exhaust camshaft position sensor LH
E66	2	B	C-3		Exhaust oil control solenoid LH
E75	2	B	B-3		Engine oil temperature sensor
E109	2	Gr	B-2		Blowby diagnosis connector 1
E110	2	Gr	B-2		Blowby diagnosis connector 2
E111	2	Gr	B-2	E112	Engine wiring harness
E112	2	Gr	B-2	E111	
E113	2	Gr	B-2	E114	
E114	2	Gr	B-2	E113	
E124	4	B	A-3		Manifold absolute pressure and intake air temperature sensor
E130	1	★	C-3		Oil level switch
E158	48	B	A-2		ECM
E159	32	Gr	A-2		
E160	2	B	B-4		High-pressure fuel pump
E162	3	B	B-2		Fuel pressure sensor
★:White or natural color					

• CVT model

--	--

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
T3	12	B	D-3	B12	Bulkhead wiring harness
T4	20	Gr	D-2	B11	
T7	9	B	D-3		Inhibitor switch
AT1	3	Gr	D-2		Primary speed sensor
AT4	3	B	D-3		Secondary speed sensor
AT5	3	Gr	D-4		Front wheel speed sensor
AT6	3	B	D-2		Secondary pressure sensor
★:White or natural color					

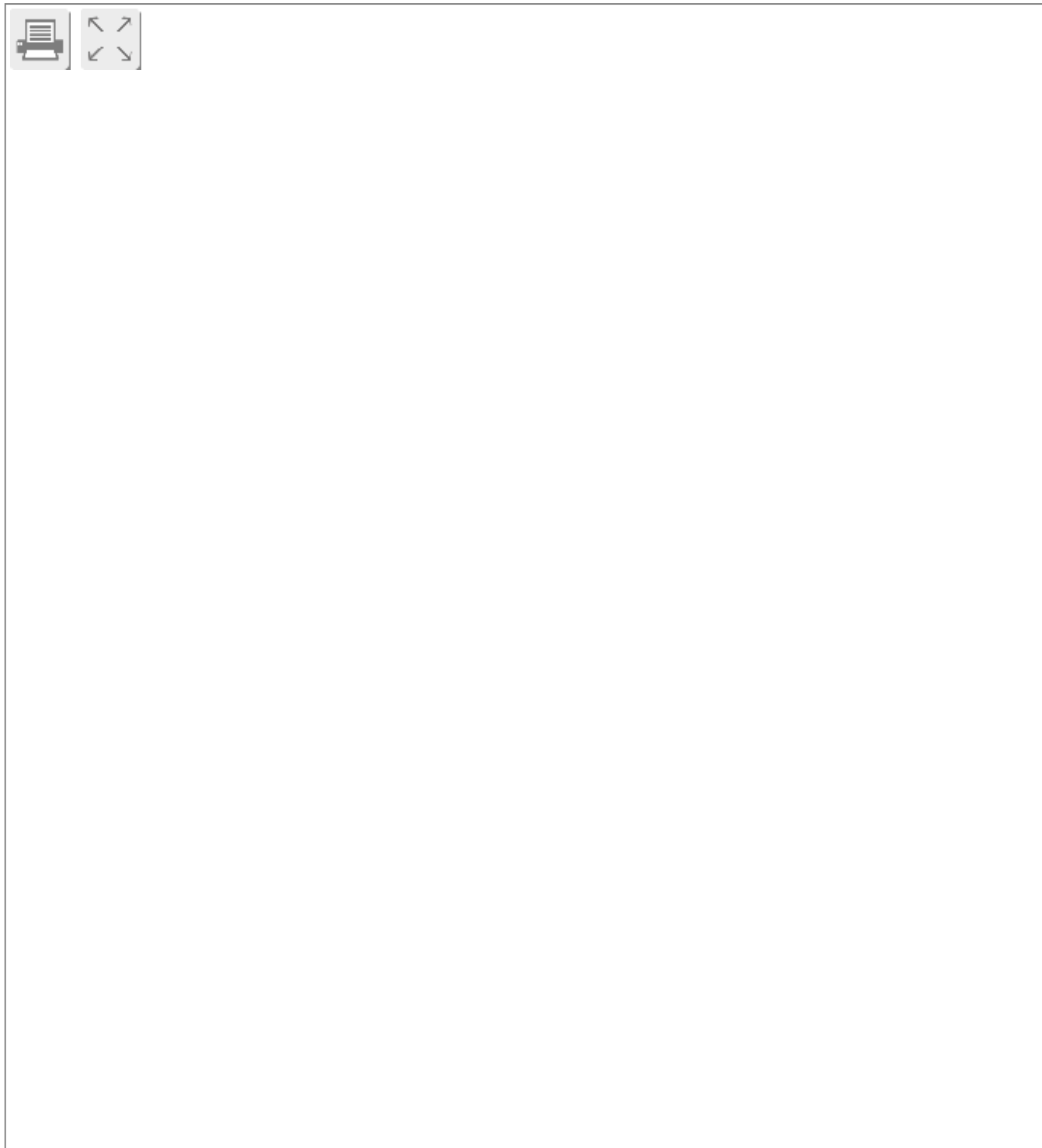




WIRING DIAGRAM

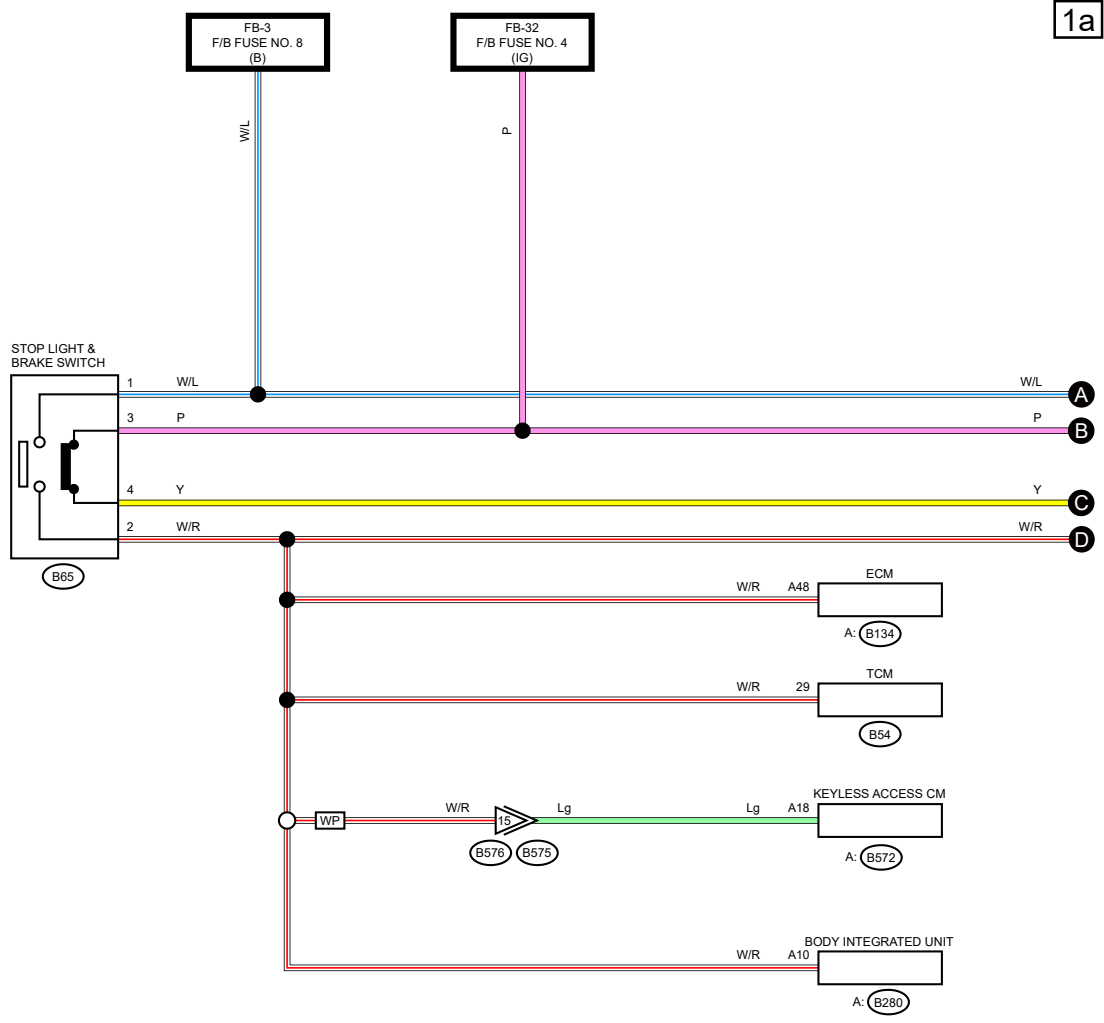
▼ Please select ▼ see

1. NON-TURBO MODEL

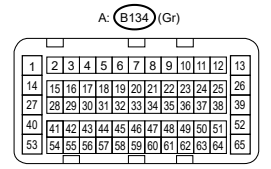
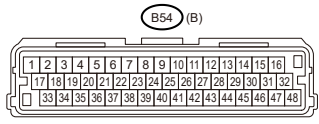
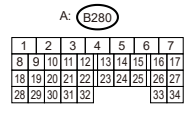
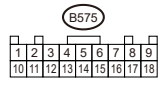
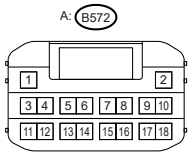


1a

1a

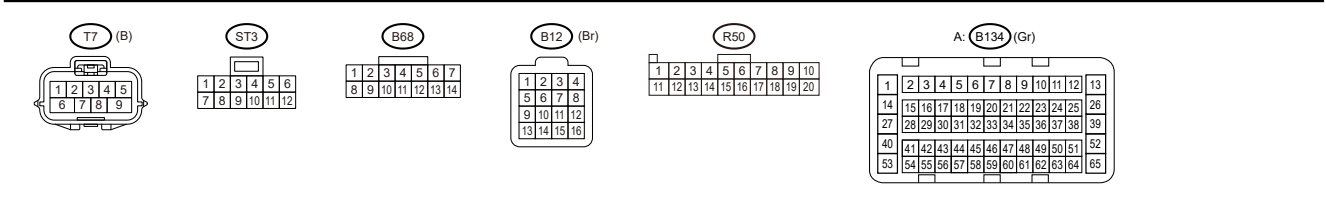
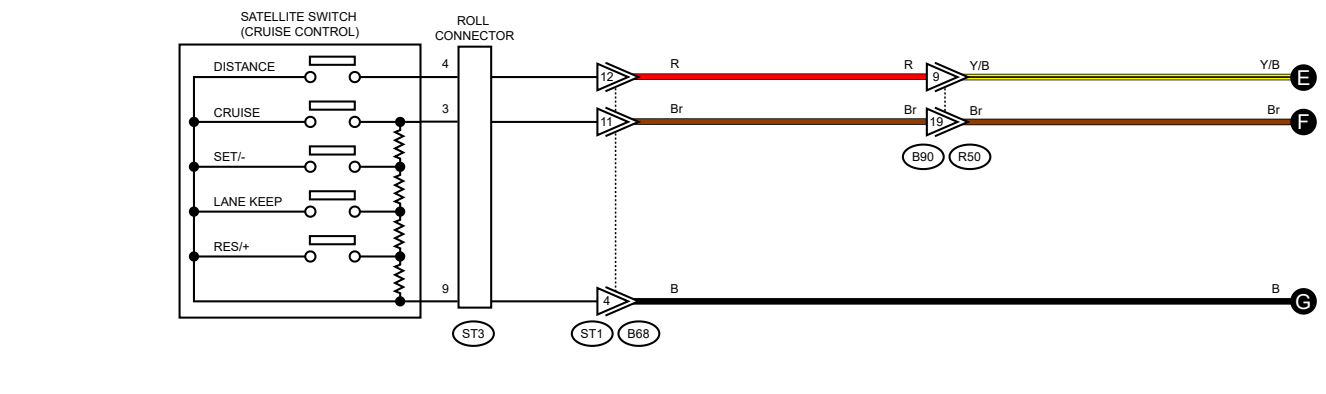
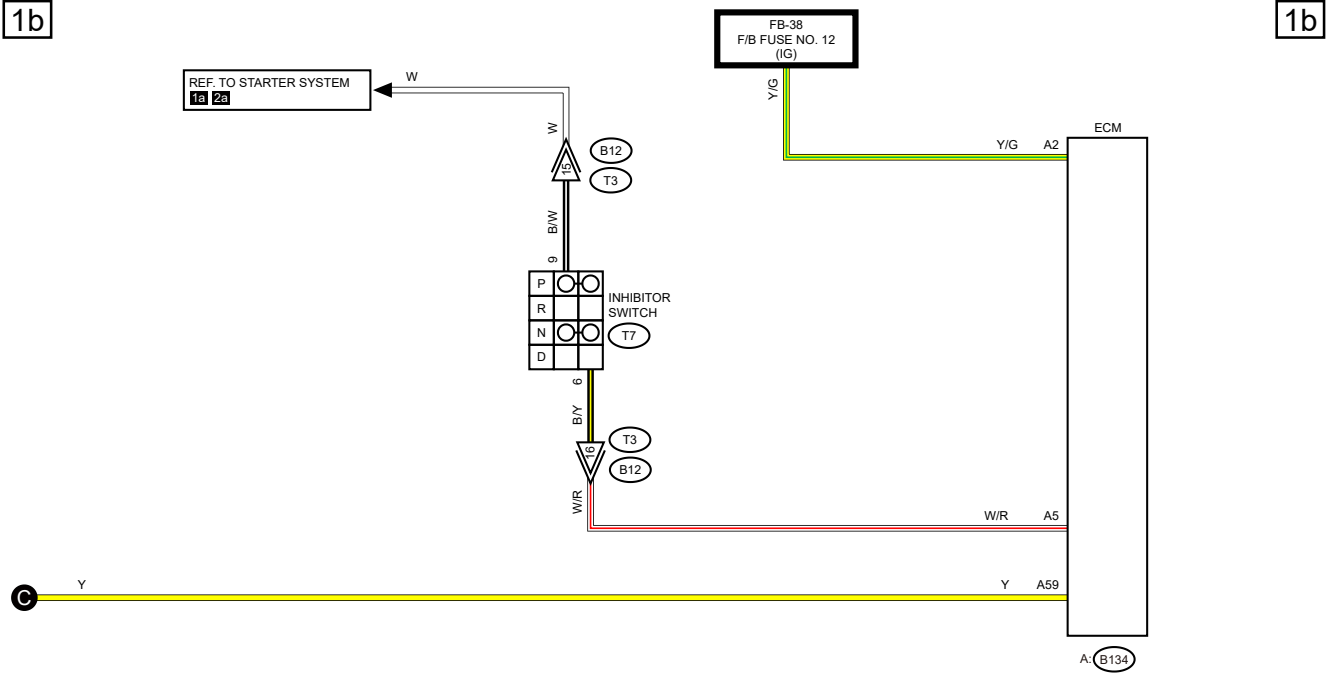


WP : WITH PUSH BUTTON START



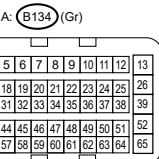
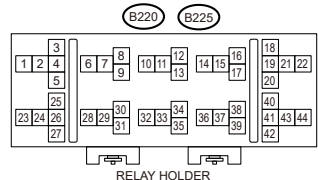
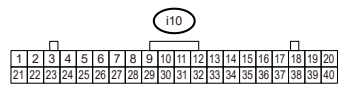
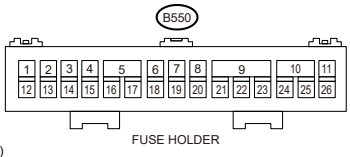
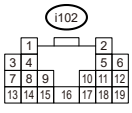
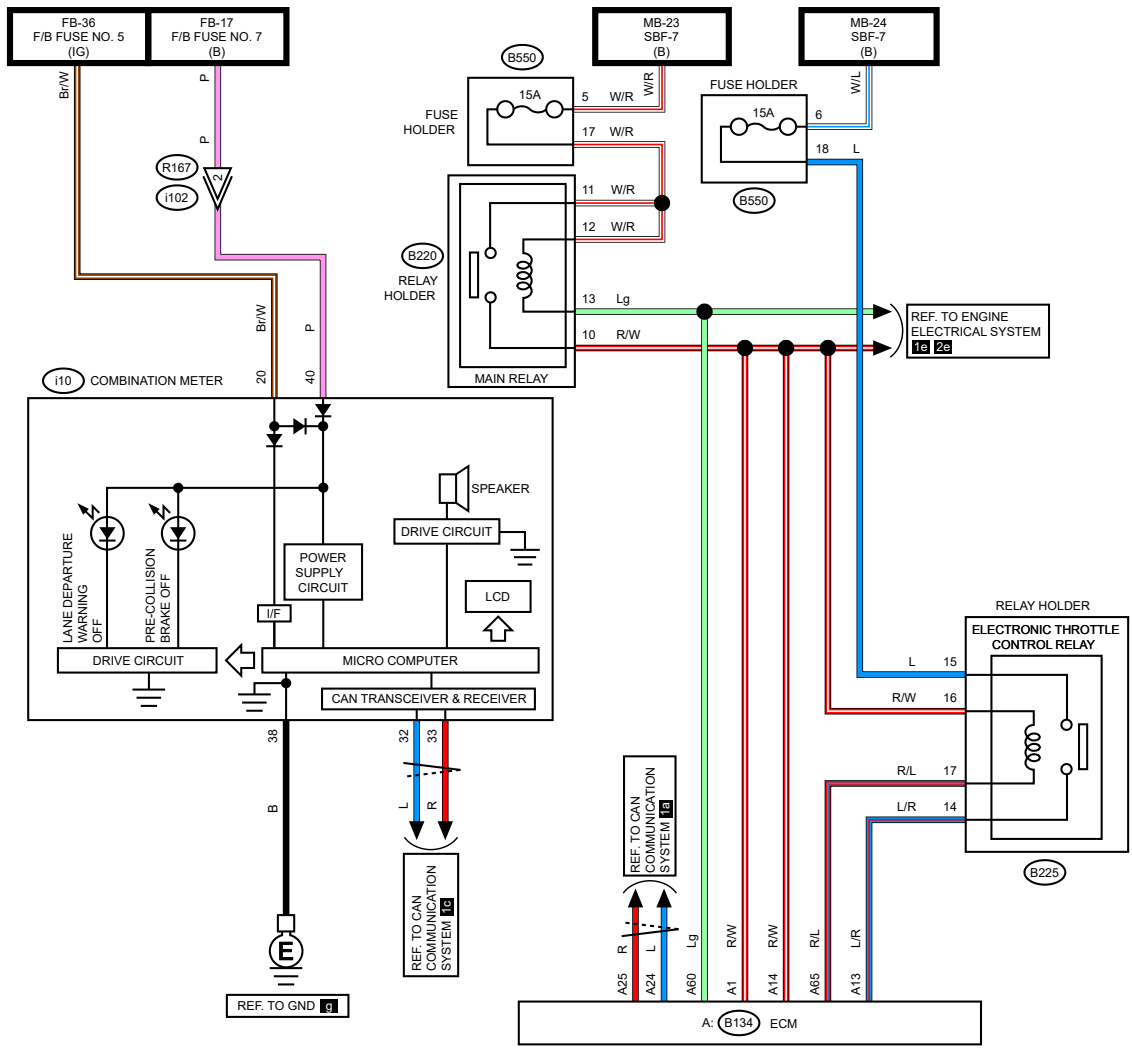
1b

1b



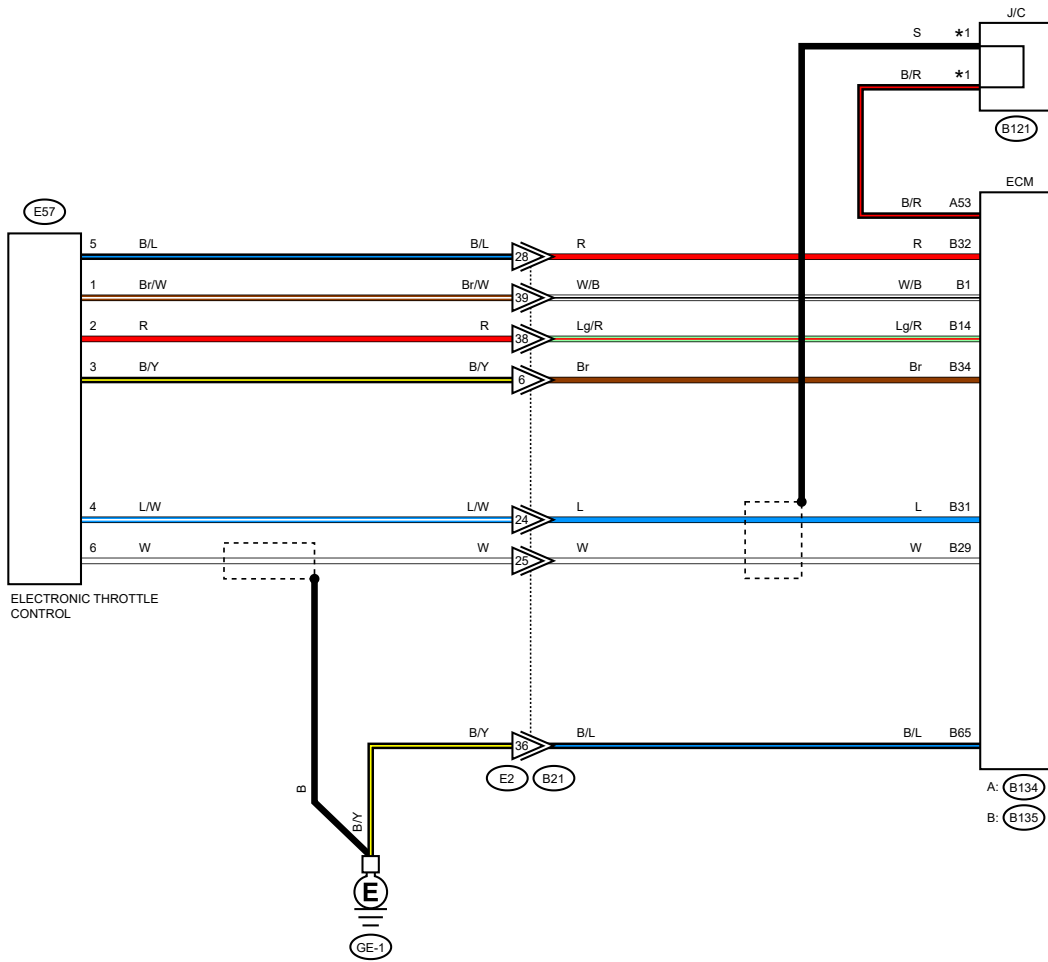
1c

1c

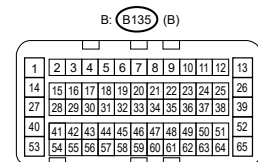
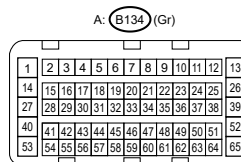
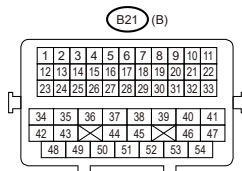
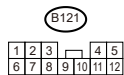
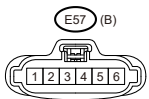


1d

1d

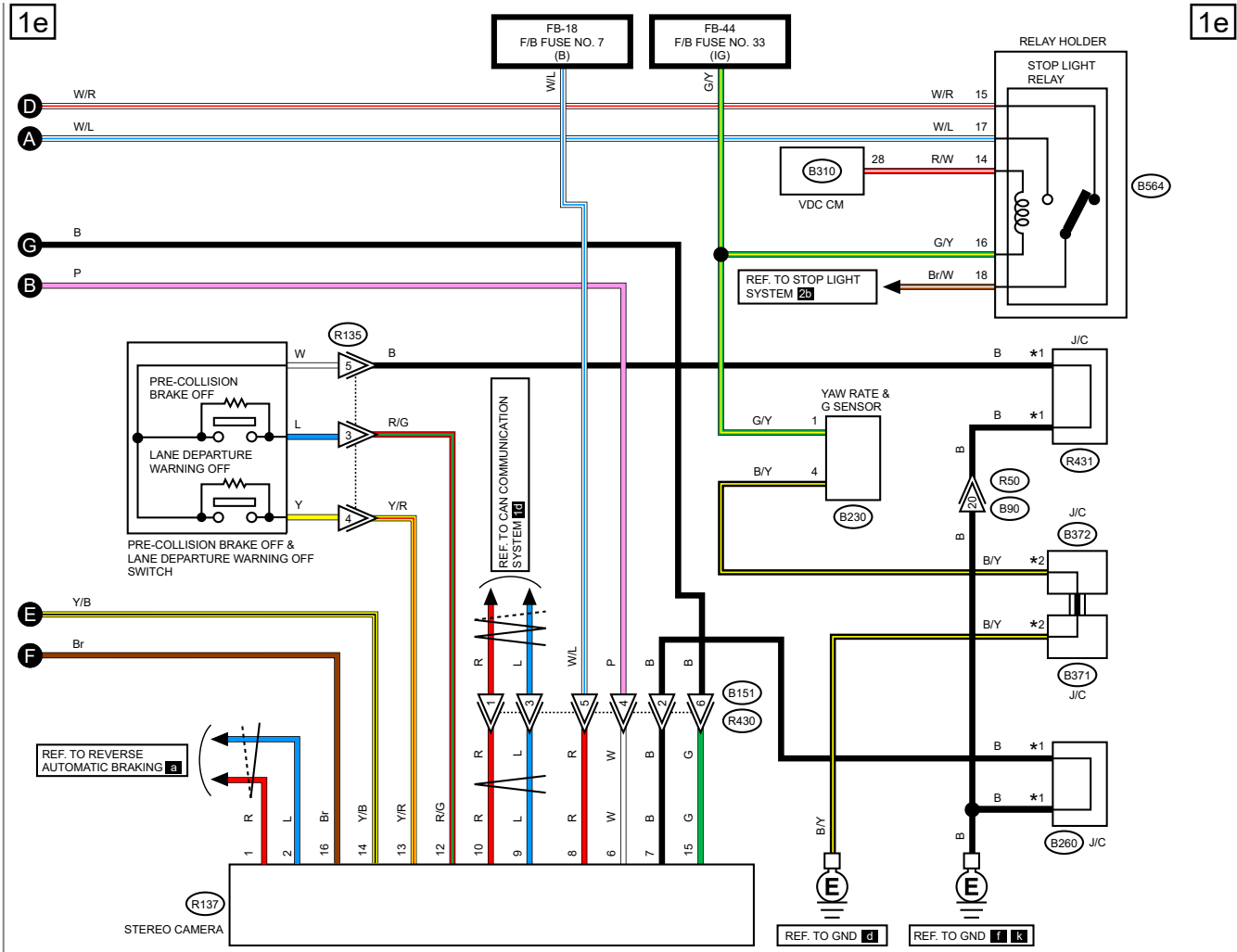


*1 : TERMINAL No. OPTIONAL ARRANGEMENT

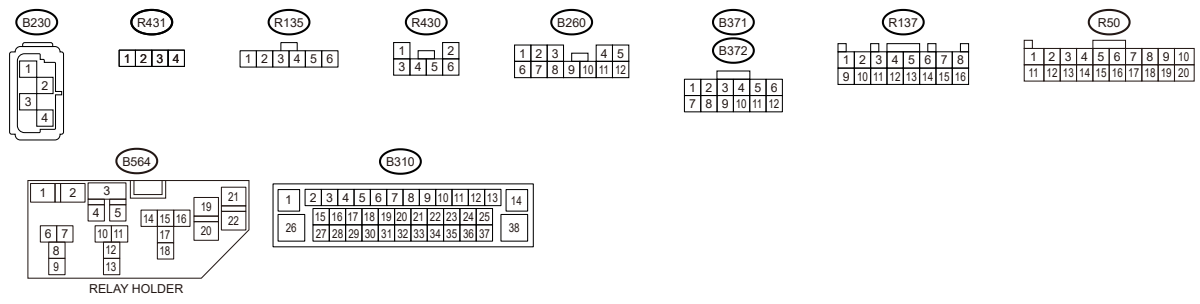


WI-65637





*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6



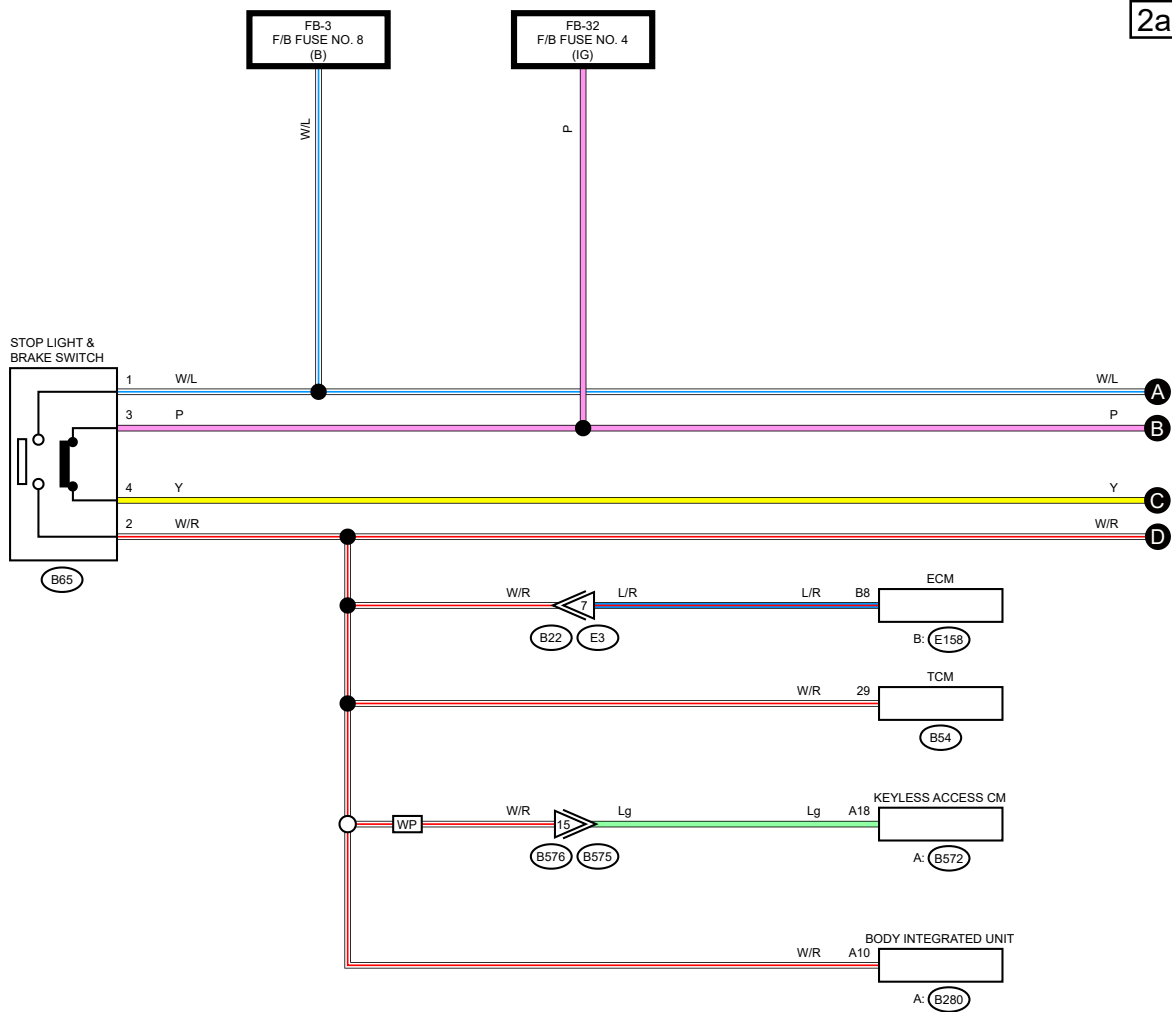
WI-65638

2. TURBO MODEL

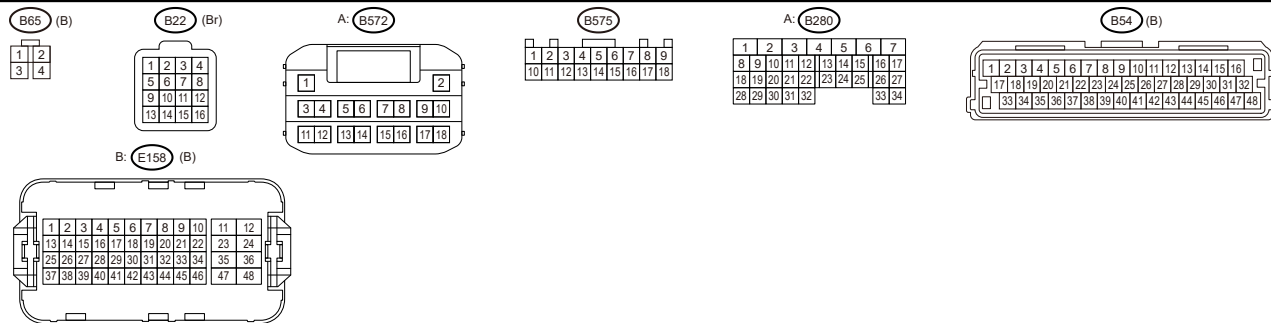


2a

2a



WP - WITH PUSH BUTTON START

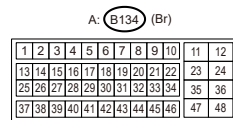
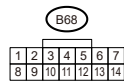
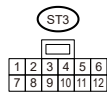
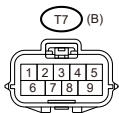
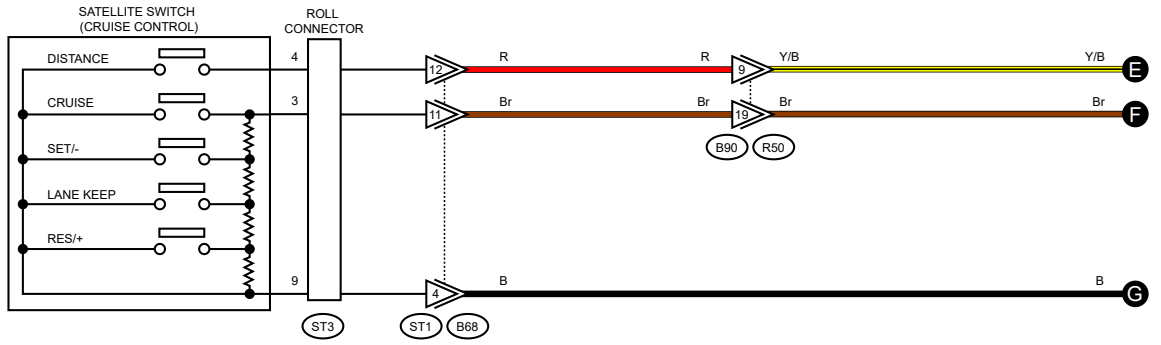
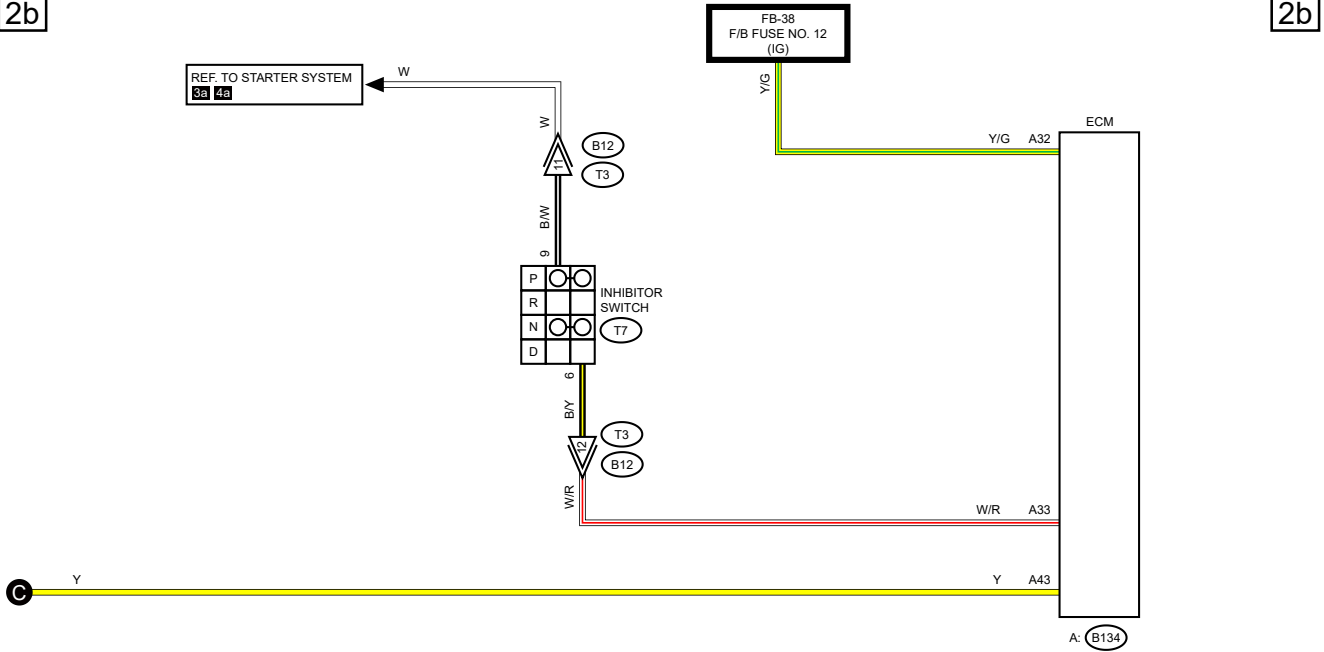


WI-65639



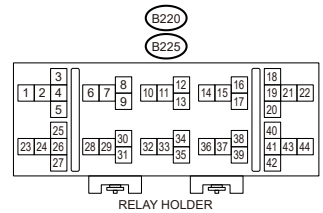
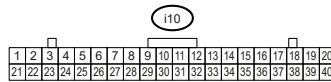
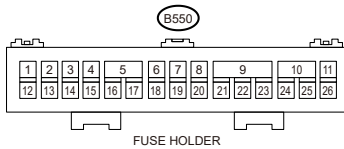
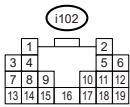
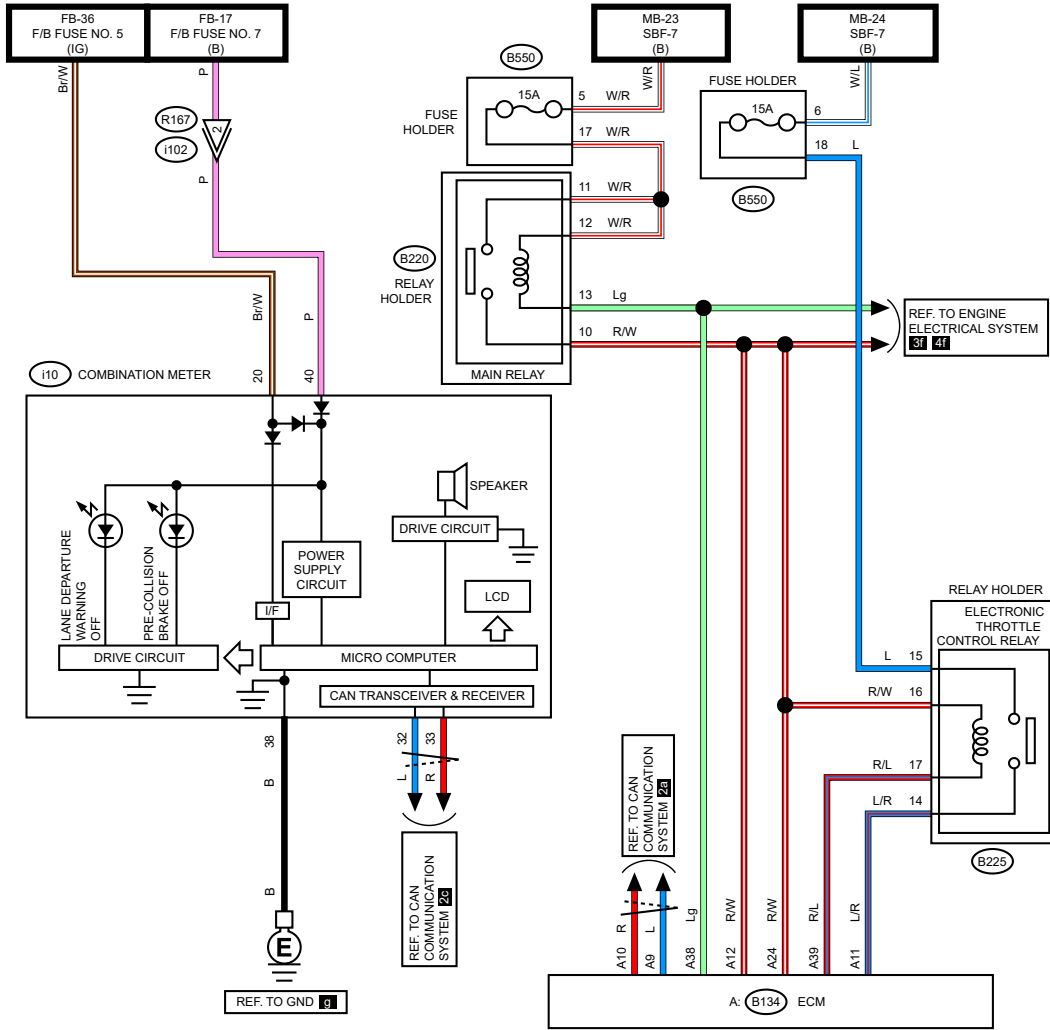
2b

2b

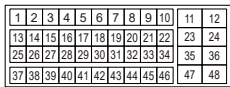


2c

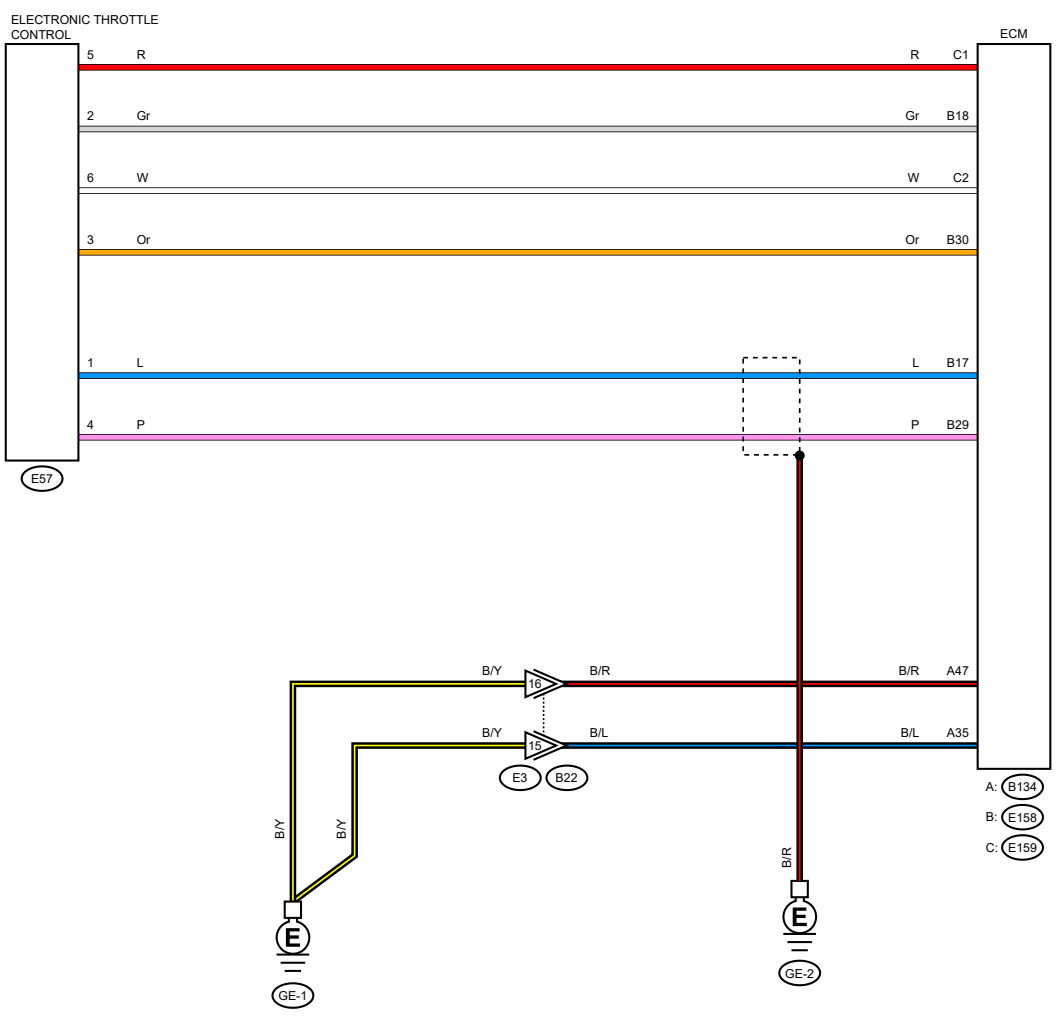
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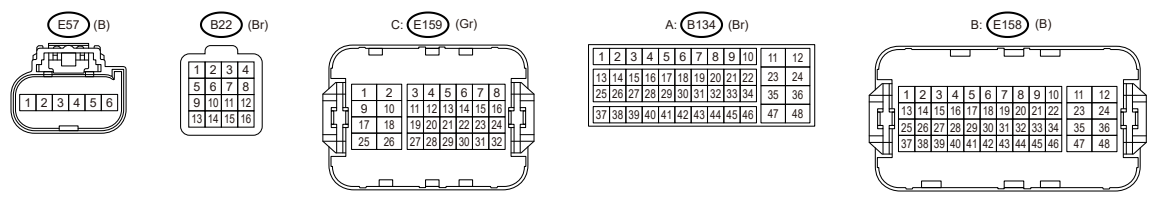
A: B134 (Br)



2d



2d

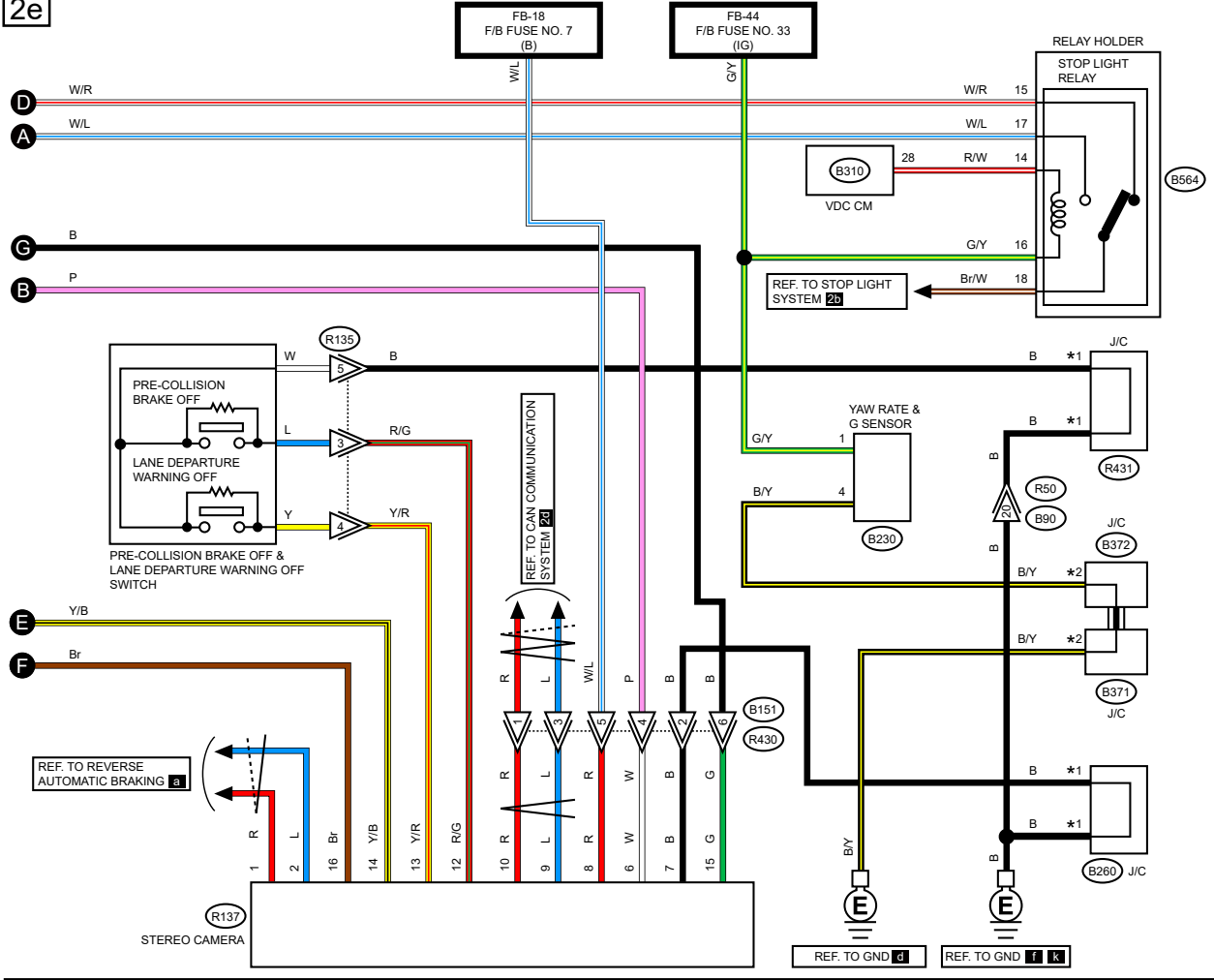


WI-65642

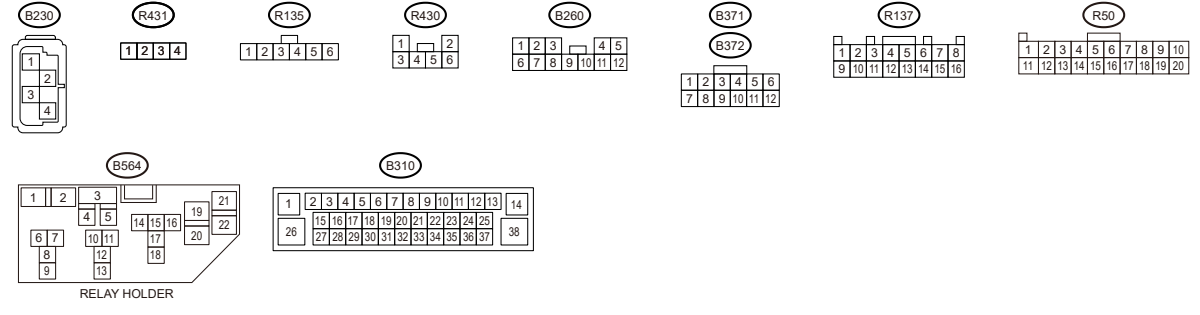


2e

2e



- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6



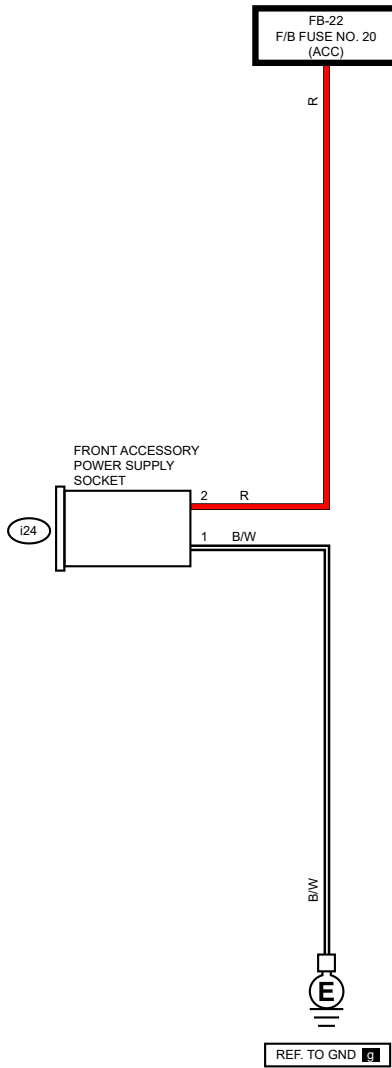
WIRING SYSTEM > Front Accessory Power Supply Socket System

WIRING DIAGRAM



a

a



i24

1
2

WIRING SYSTEM > Front Fog Light System

WIRING DIAGRAM

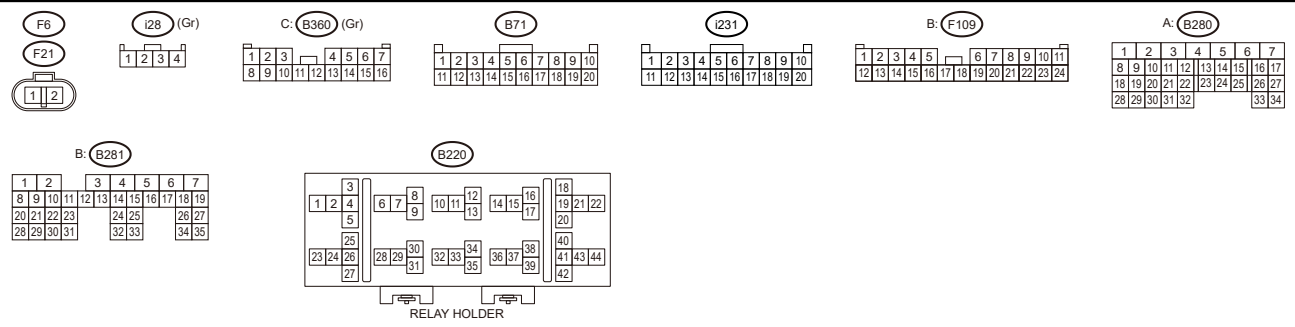
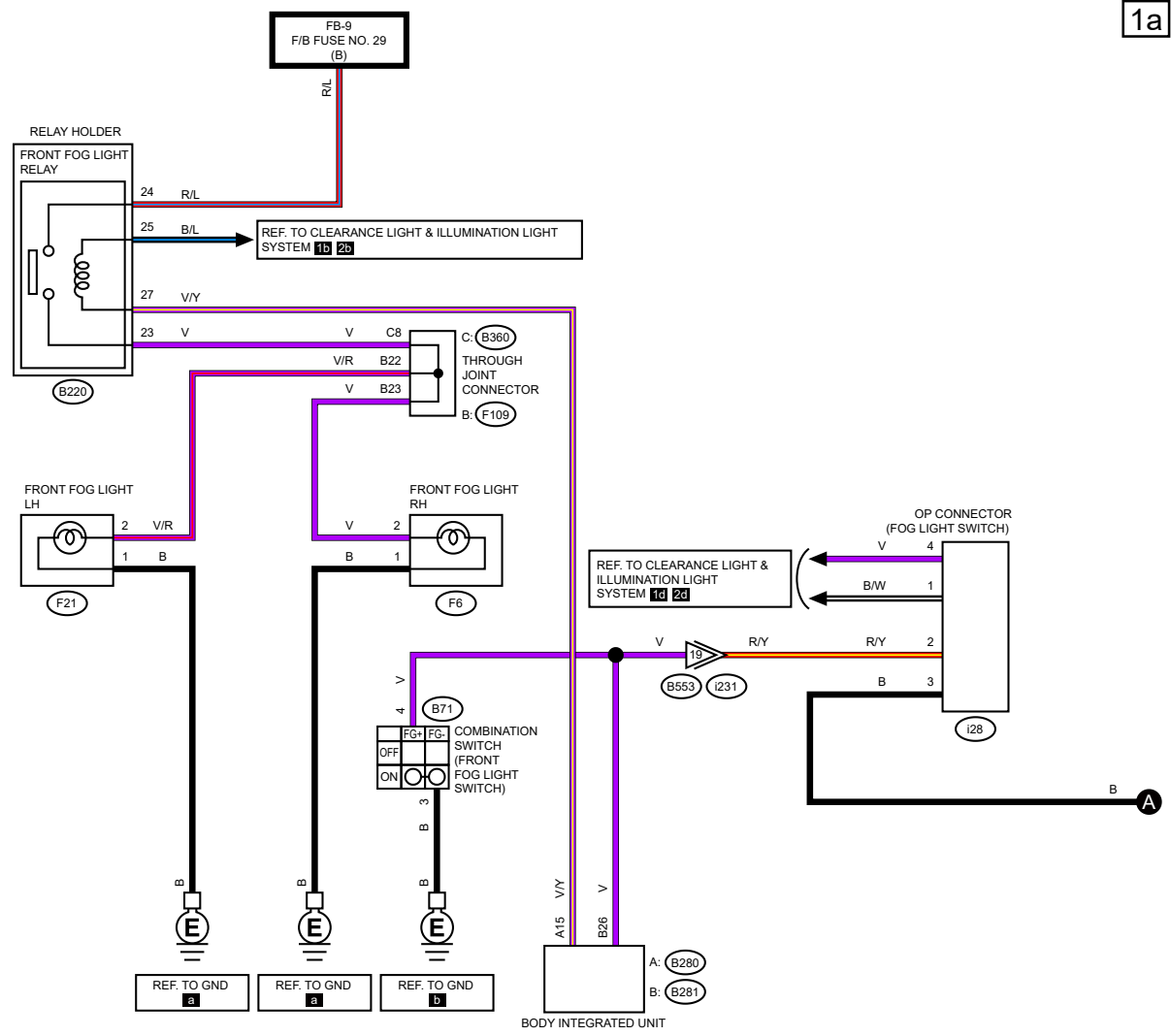
▼ Please select ▼ see

1. WITHOUT SRF

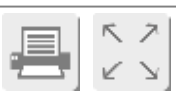


1a

1a

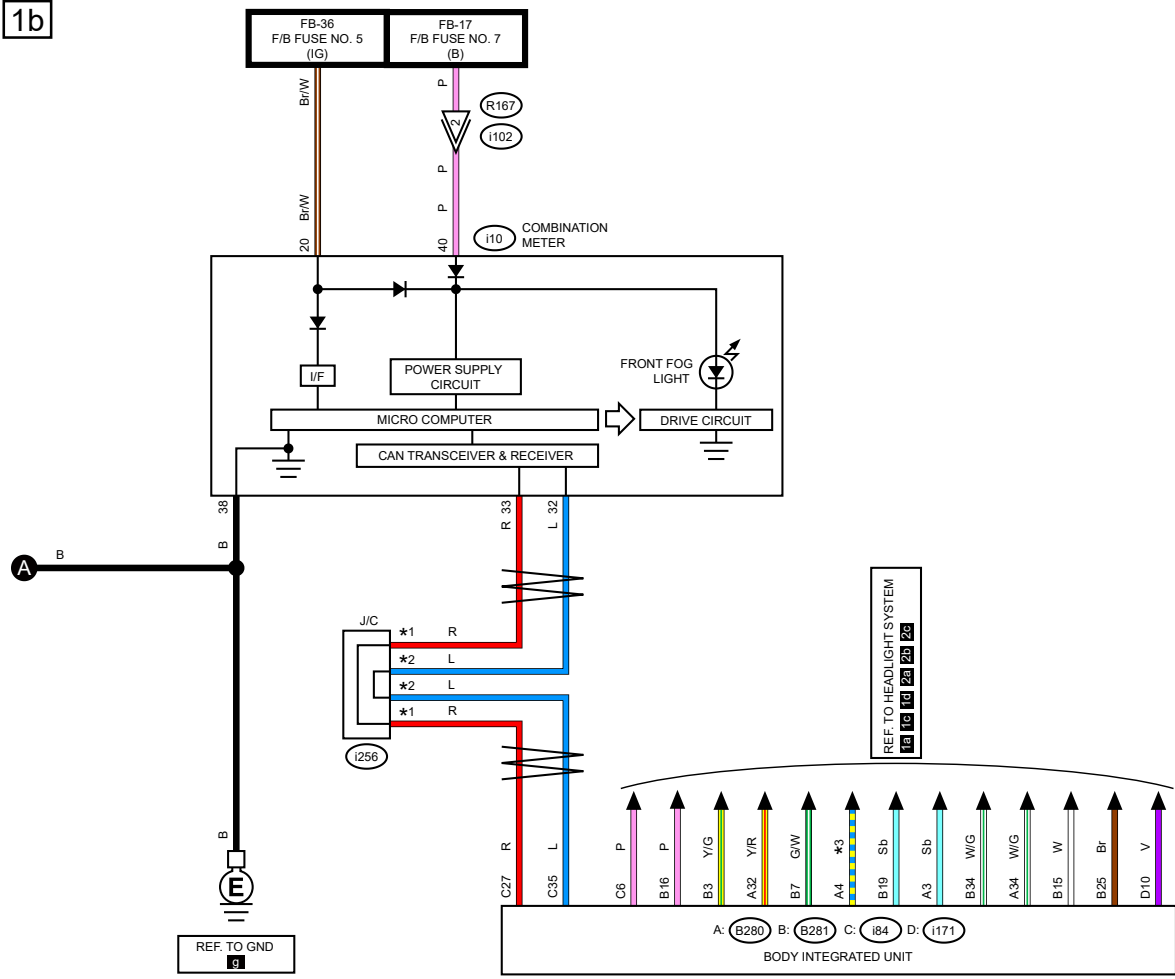


WI-65645

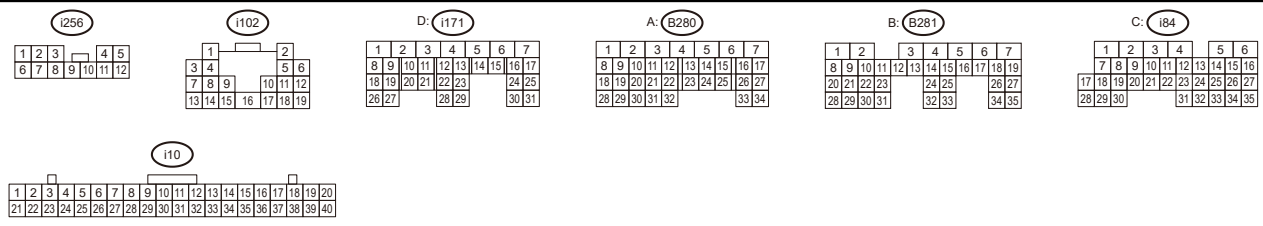


1b

1b



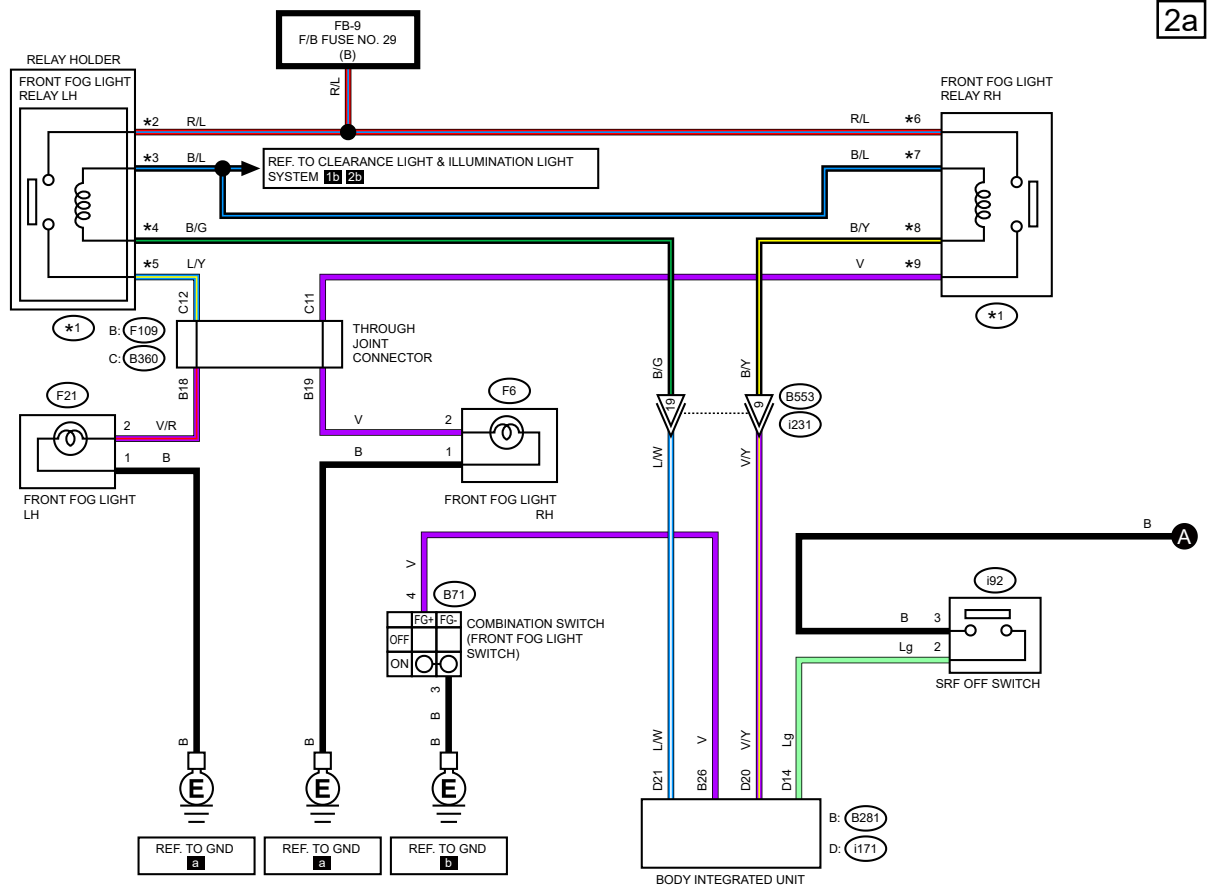
- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12
- *3 : WITHOUT PUSH BUTTON START : BW
WITH PUSH BUTTON START : Y/R



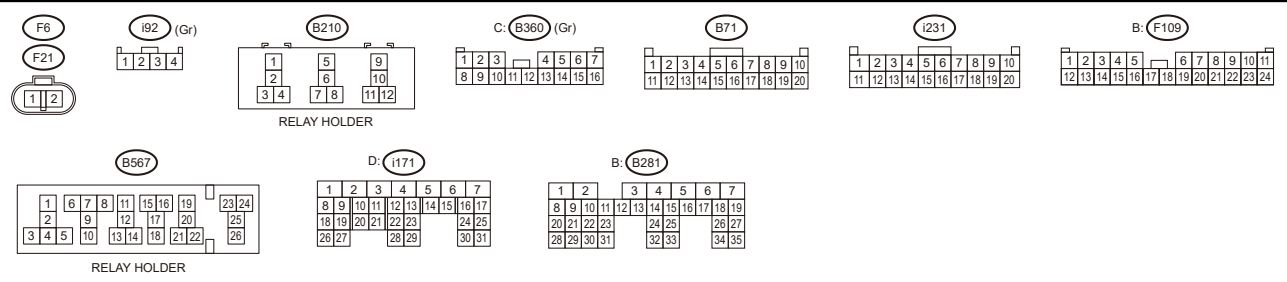
WI-65646

2. WITH SRF



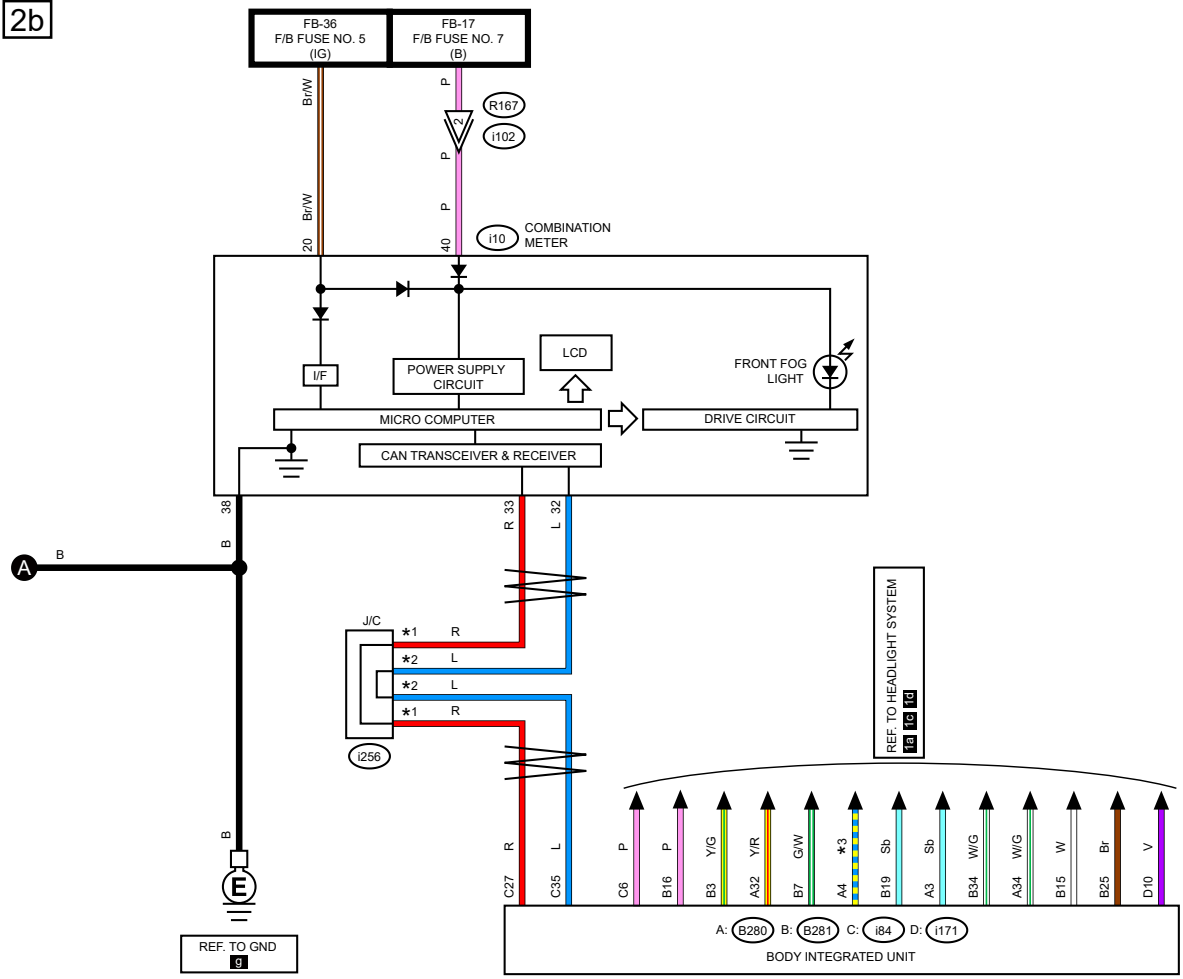


- *1 : NON-TURBO MODEL : B567
TURBO MODEL : B210
- *2 : NON-TURBO MODEL : 20
TURBO MODEL : 10
- *3 : NON-TURBO MODEL : 22
TURBO MODEL : 12
- *4 : NON-TURBO MODEL : 21
TURBO MODEL : 11
- *5 : NON-TURBO MODEL : 19
TURBO MODEL : 9
- *6 : NON-TURBO MODEL : 17
TURBO MODEL : 6
- *7 : NON-TURBO MODEL : 15
TURBO MODEL : 8
- *8 : NON-TURBO MODEL : 16
TURBO MODEL : 7
- *9 : NON-TURBO MODEL : 18
TURBO MODEL : 5

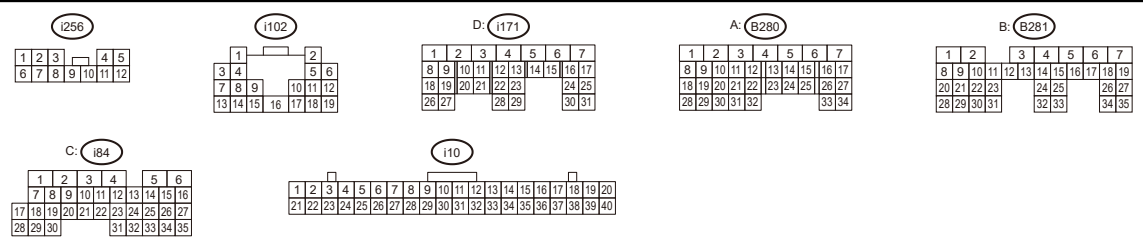


2b

2b



- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12
- *3 : WITHOUT PUSH BUTTON START : B/W
WITH PUSH BUTTON START : Y/R



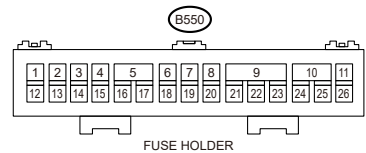
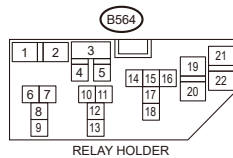
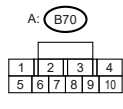
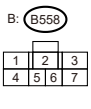
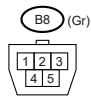
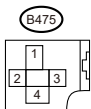
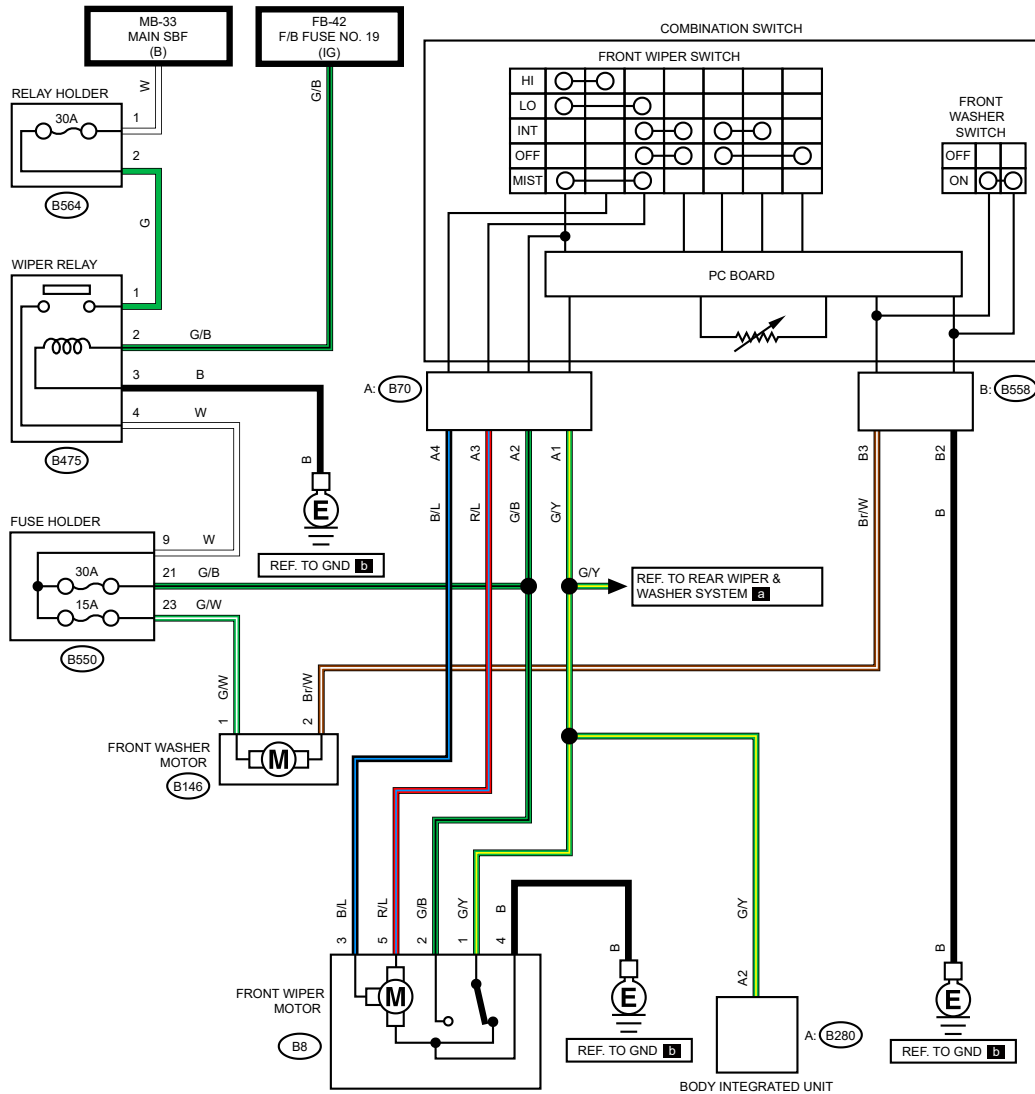
WIRING SYSTEM > Front Wiper and Washer System

WIRING DIAGRAM



a

a

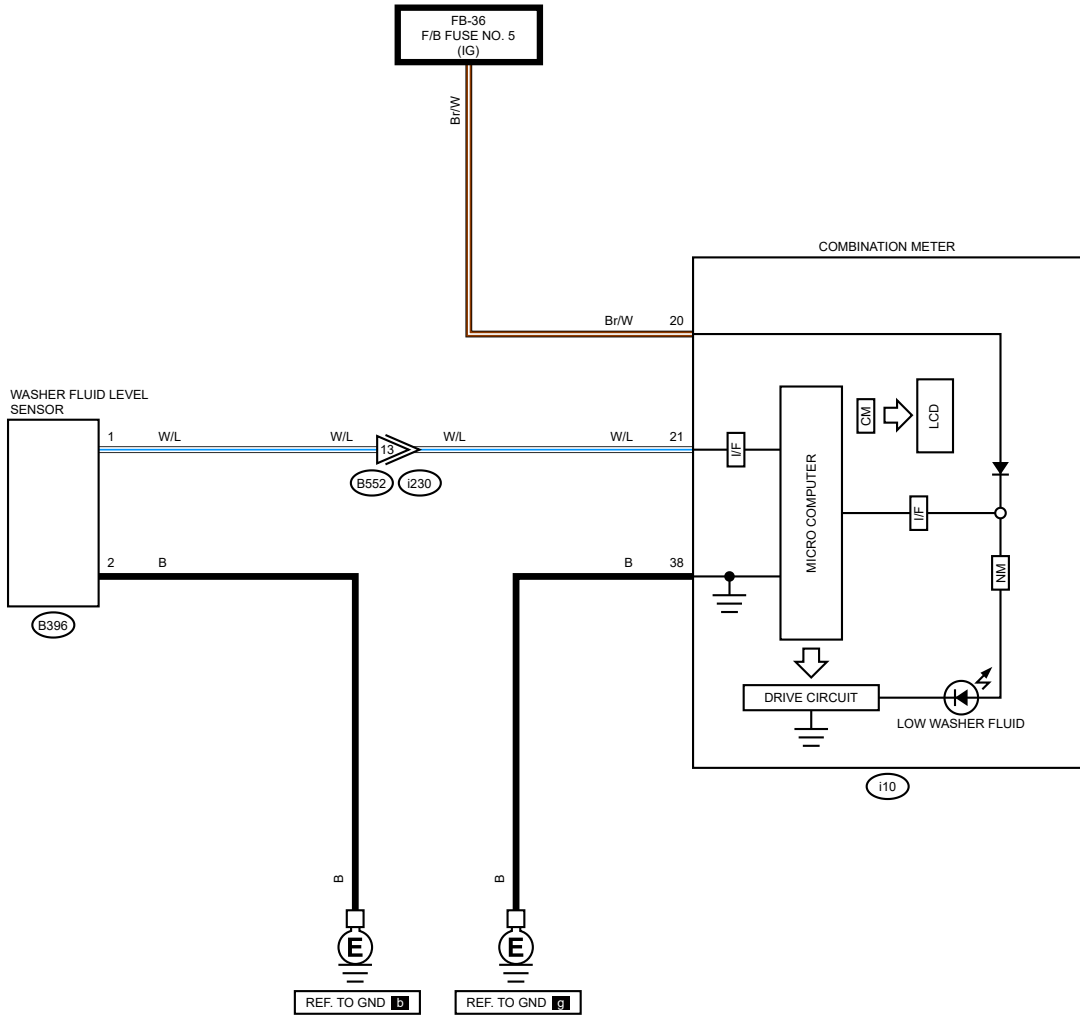


A: B280

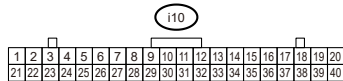
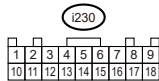


b

b



NM : NORMAL METER MODEL
 CM : COLOR TFT METER MODEL



WIRING SYSTEM > Front Wiring Harness

LOCATION

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
F5	1	B	C-1		Horn
F6	2	★	C-1		Front fog light RH
F12	3	Gr	C-1		Daytime running light resistor
F16	2	★	C-1		Sub fan motor
F17	2	★	C-2		Main fan motor
F21	2	★	D-4		Front fog light LH
F24	1	★	B-3		Magnet clutch
F25	1	★	B-2		Generator terminal B
F26	3	★	B-3		Generator
F27	26	★	B-4		Relay holder
F35	12	L	B-5		M/B
F36	7	★	B-5		
F37	20	★	B-5		
F43	6	Gr	C-4	B171	Bulkhead wiring harness
F47	1	B	C-2		Horn
F62	2	★	C-1		J/C
F63	2	★	C-2		
F78	2	B	C-2		Ambient sensor
F80	8	Gr	C-4		Front combination light LH (LED model)
F81	8	B	C-4		
F82	8	Gr	B-1		Front combination light RH (LED model)
F83	8	B	B-1		
F84	10	Gr	C-3		Daytime running light relay LH
F85	10	Gr	B-1		Daytime running light relay RH
F108	18	Gr	B-4	B361	Through joint connector
F109	24	★	B-4	B360	
F125	8	Gr	C-4		Front combination light LH (halogen model)
F126	8	Gr	B-1		Front combination light RH (halogen model)
F134	2	Gr	B-3		Vacuum pump

★:White or natural color



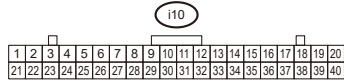
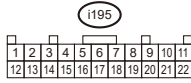
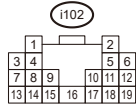
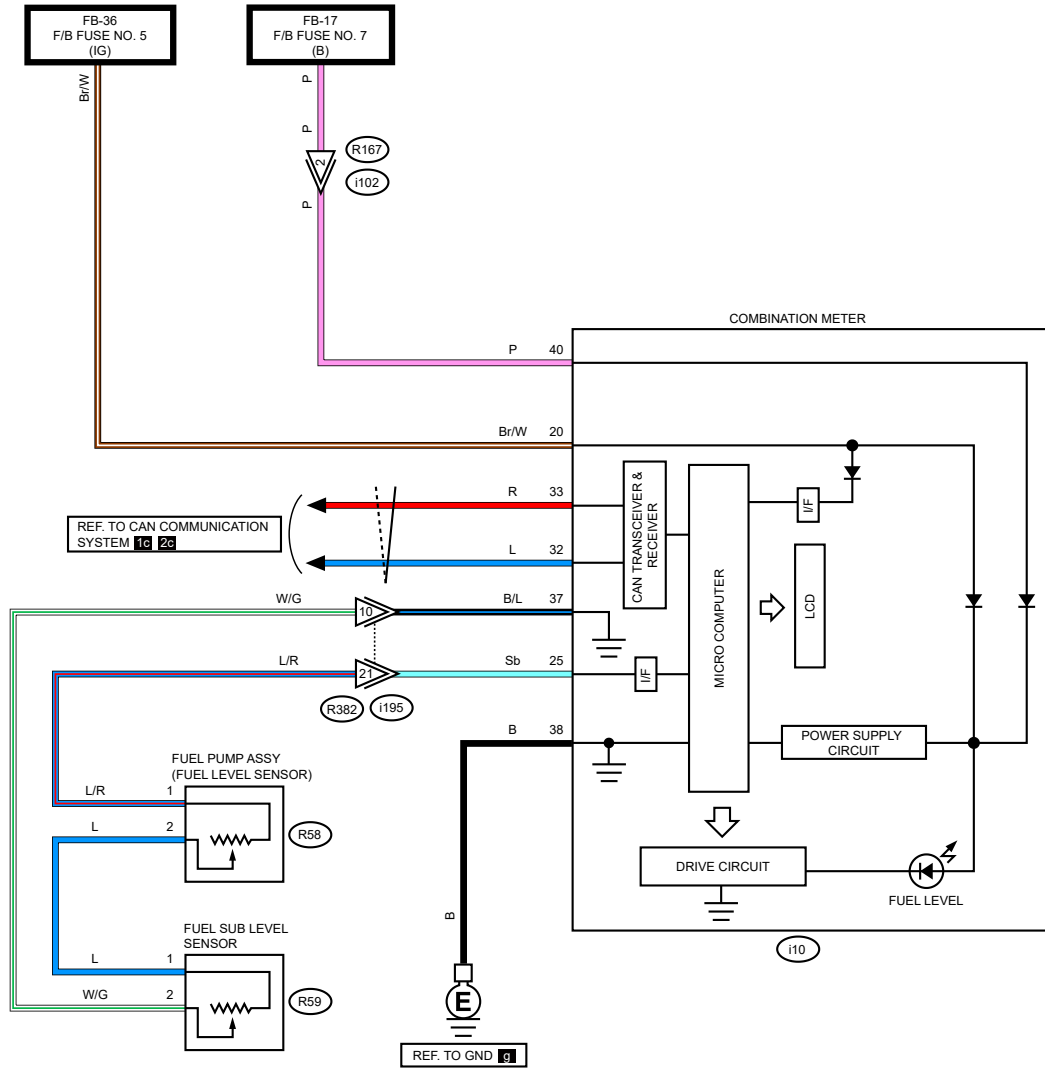
WIRING SYSTEM > Fuel Gauge System

WIRING DIAGRAM



a

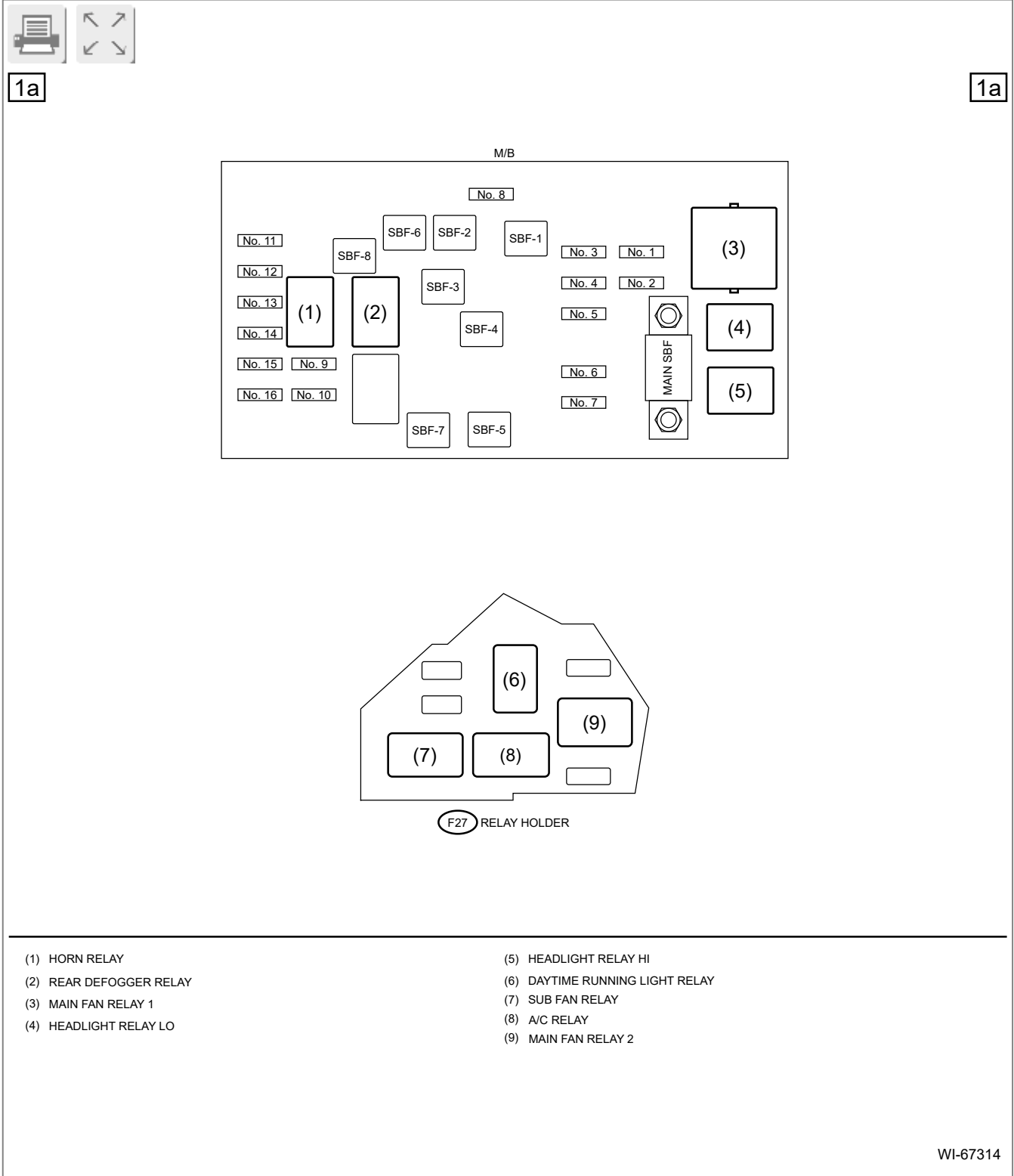
a



LOCATION

▼ Please select ▼ see

1. WITHOUT PUSH BUTTON START (ENGINE COMPARTMENT SIDE)

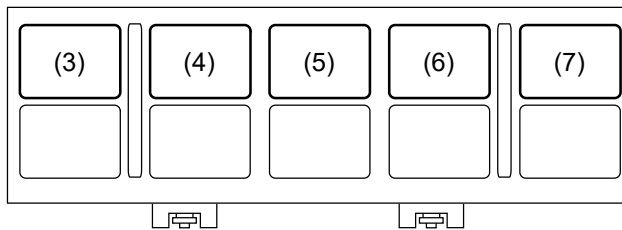
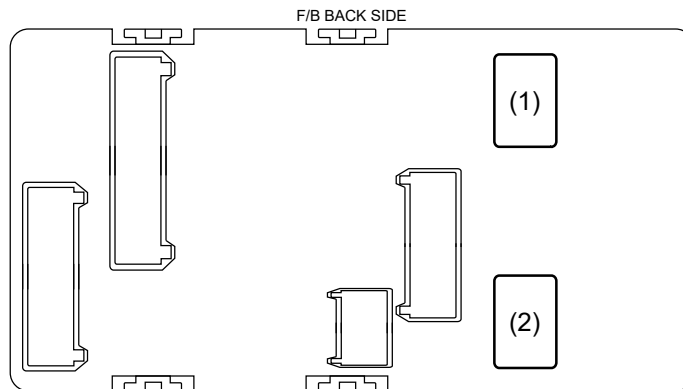
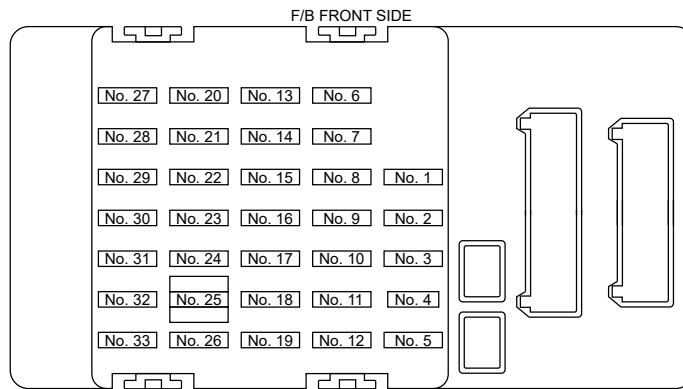


2. WITHOUT PUSH BUTTON START (PASSENGER ROOM SIDE)

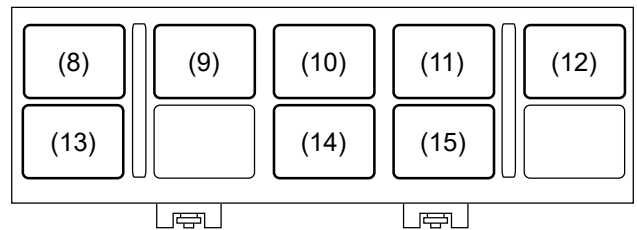


2a

2a



B225 RELAY HOLDER



B220 RELAY HOLDER

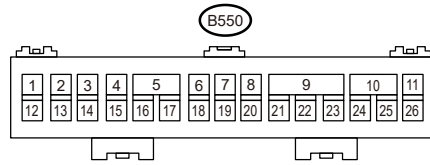
- | | |
|--|---------------------------------------|
| (1) IG 2 RELAY | (8) FUEL PUMP RELAY (NON-TURBO MODEL) |
| (2) ACCESSORY RELAY | (9) IG RELAY |
| (3) STARTER RELAY 1 | (10) MAIN RELAY |
| (4) POWER WINDOW RELAY | (11) SELF SHUT RELAY (CVT MODEL) |
| (5) TAIL & ILLUMINATION RELAY | (12) FUEL PUMP RELAY (TURBO MODEL) |
| (6) ELECTRONIC THROTTLE CONTROL RELAY | (13) FRONT FOG LIGHT RELAY |
| (7) A/F, OXYGEN SENSOR RELAY (NON-TURBO MODEL)
MAIN RELAY 2 (TURBO MODEL) | (14) WIPER DEICER RELAY |
| | (15) SEAT HEATER RELAY |

WI-67315



2b

2b



FUSE HOLDER

Pole	Fuse rating	Connecting to
1 · 12	-	-
2 · 13	-	-
3 · 14	7.5A	Keyless access CM
		ID code box
4 · 15	20A	Fuel injector relay (turbo model)
5 · 16	15A	IG relay
5 · 17	15A	Main relay
6 · 18	15A	Electronic throttle control relay
7 · 19	15A	A/F, oxygen sensor relay
8 · 20	7.5A	Primary speed sensor
		Secondary speed sensor
		Turbine speed sensor (non-turbo model)
		Front wheel speed sensor (turbo model)
9 · 21	30A	Combination switch (manual wiper)
		Front wiper motor
		Wiper relay unit (auto wiper)
		Headlight washer unit
9 · 22	15A	Body integrated unit
		Rear washer motor
		Rear wiper motor
9 · 23	15A	Front washer motor
10 · 24	-	-
10 · 25	-	-
11 · 26	-	-

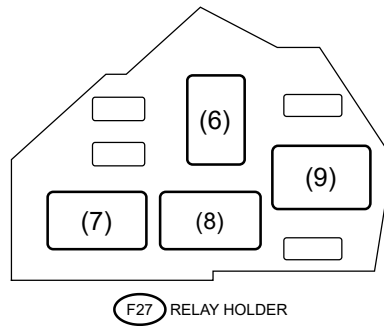
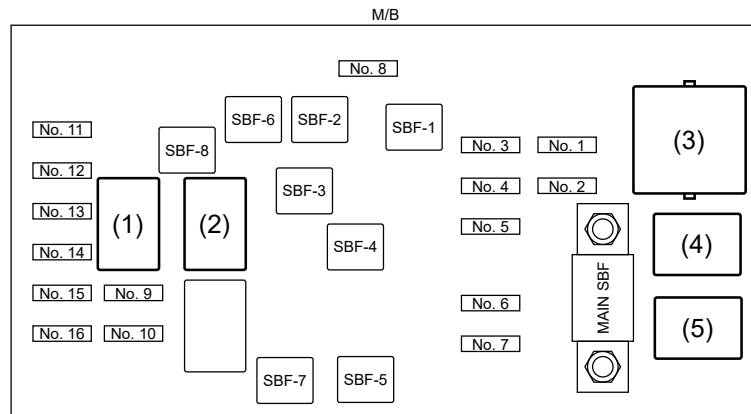
WI-72878

3. WITH PUSH BUTTON START (ENGINE COMPARTMENT SIDE)



3a

3a



- | | |
|-------------------------|---------------------------------|
| (1) HORN RELAY | (5) HEADLIGHT RELAY HI |
| (2) REAR DEFOGGER RELAY | (6) DAYTIME RUNNING LIGHT RELAY |
| (3) MAIN FAN RELAY 1 | (7) SUB FAN RELAY |
| (4) HEADLIGHT RELAY LO | (8) A/C RELAY |
| | (9) MAIN FAN RELAY 2 |

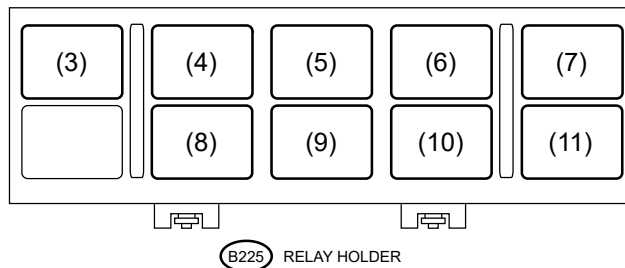
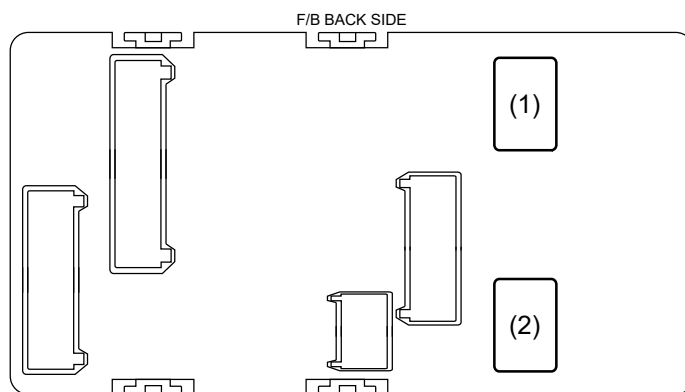
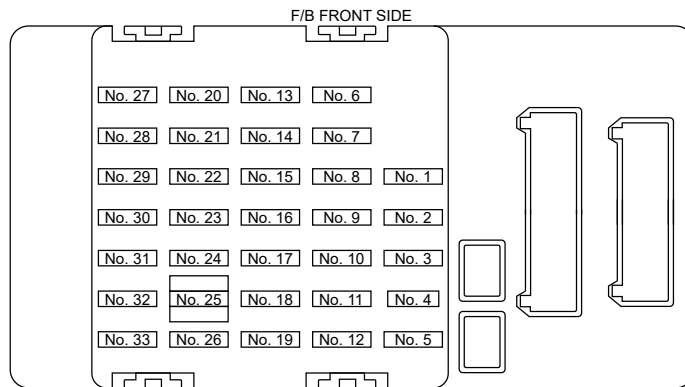
WI-67316

4. WITH PUSH BUTTON START (PASSENGER ROOM SIDE)

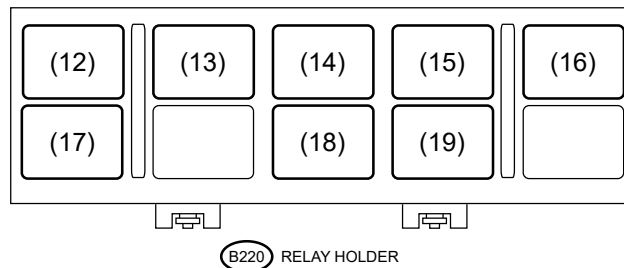


4a

4a



B225 RELAY HOLDER



B220 RELAY HOLDER

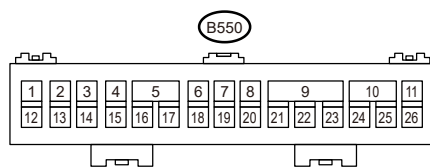
- | | |
|--|--|
| (1) IG 2 RELAY | (10) IG RELAY 1 |
| (2) ACCESSORY RELAY | (11) STARTER CUT RELAY |
| (3) STARTER RELAY 1 | (12) FUEL PUMP RELAY (NON-TURBO MODEL) |
| (4) POWER WINDOW RELAY | (13) IG RELAY |
| (5) TAIL & ILLUMINATION RELAY | (14) MAIN RELAY |
| (6) ELECTRONIC THROTTLE CONTROL RELAY | (15) SELF SHUT RELAY |
| (7) A/F, OXYGEN SENSOR RELAY (NON-TURBO MODEL)
MAIN RELAY 2 (TURBO MODEL) | (16) FUEL PUMP RELAY (TURBO MODEL) |
| (8) STARTER RELAY | (17) FRONT FOG LIGHT RELAY |
| (9) IG RELAY 2 | (18) WIPER DEICER RELAY |
| | (19) SEAT HEATER RELAY |

WI-67317



4b

4b



FUSE HOLDER

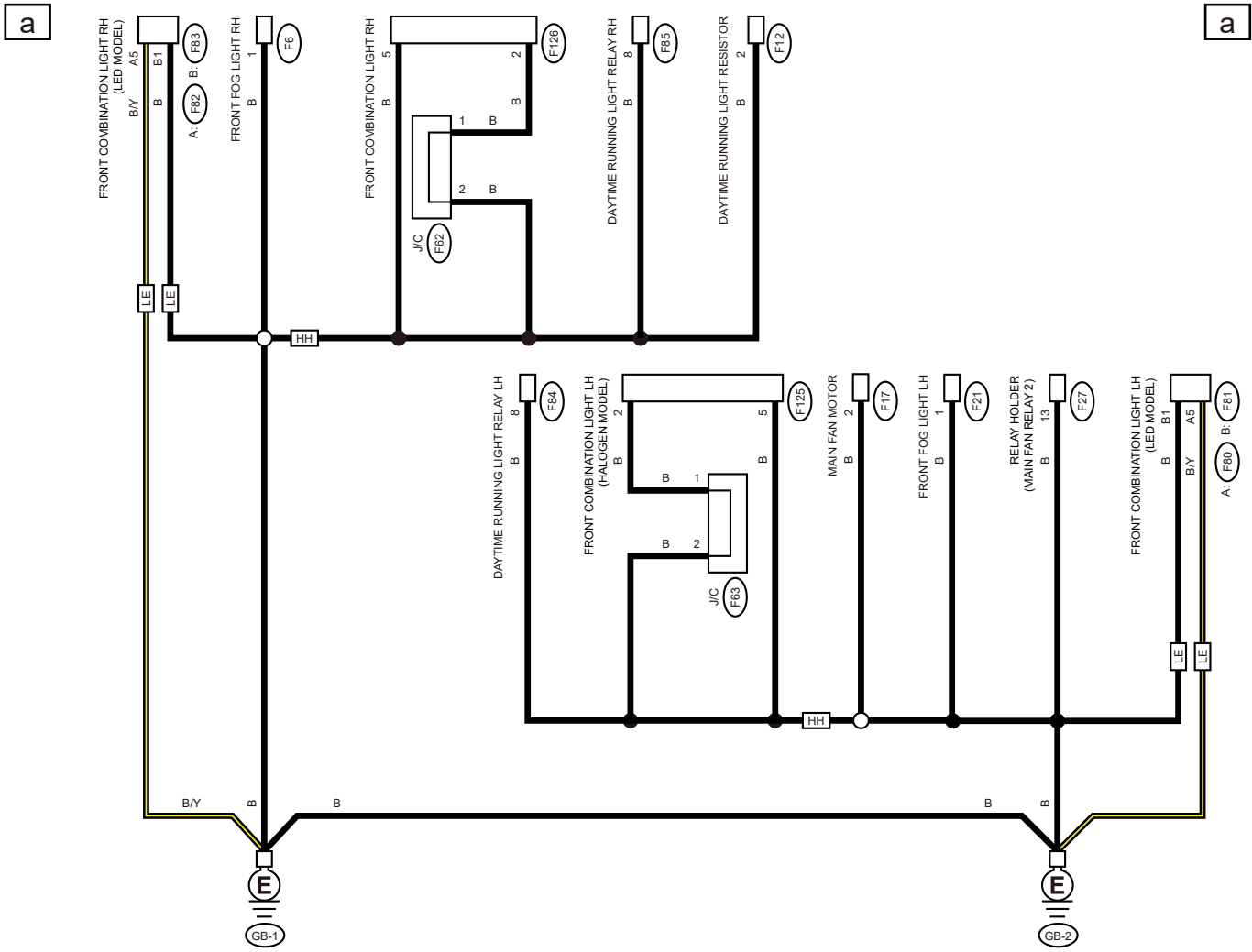
Pole	Fuse rating	Connecting to
1 · 12	-	-
2 · 13	-	-
3 · 14	7.5A	Keyless access CM
		ID code box
4 · 15	20A	Fuel injector relay (turbo model)
5 · 16	15A	IG relay
5 · 17	15A	Main relay
6 · 18	15A	Electronic throttle control relay
7 · 19	15A	A/F, oxygen sensor relay
8 · 20	7.5A	Primary speed sensor
		Secondary speed sensor
		Turbine speed sensor (non-turbo model)
		Front wheel speed sensor (turbo model)
9 · 21	30A	Combination switch (manual wiper)
		Front wiper motor
		Wiper relay unit (auto wiper)
		Headlight washer unit
9 · 22	15A	Body integrated unit
		Rear washer motor
		Rear wiper motor
9 · 23	15A	Front washer motor
10 · 24	20A	IG relay 1 (push button start)
10 · 25	15A	IG relay 2 (push button start)
11 · 26	-	-

WI-72879

WIRING SYSTEM > Ground Circuit

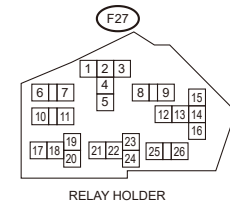
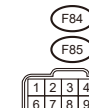
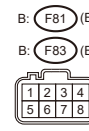
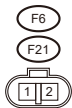
WIRING DIAGRAM





HH : FRONT COMBINATION LIGHT HALOGEN MODEL

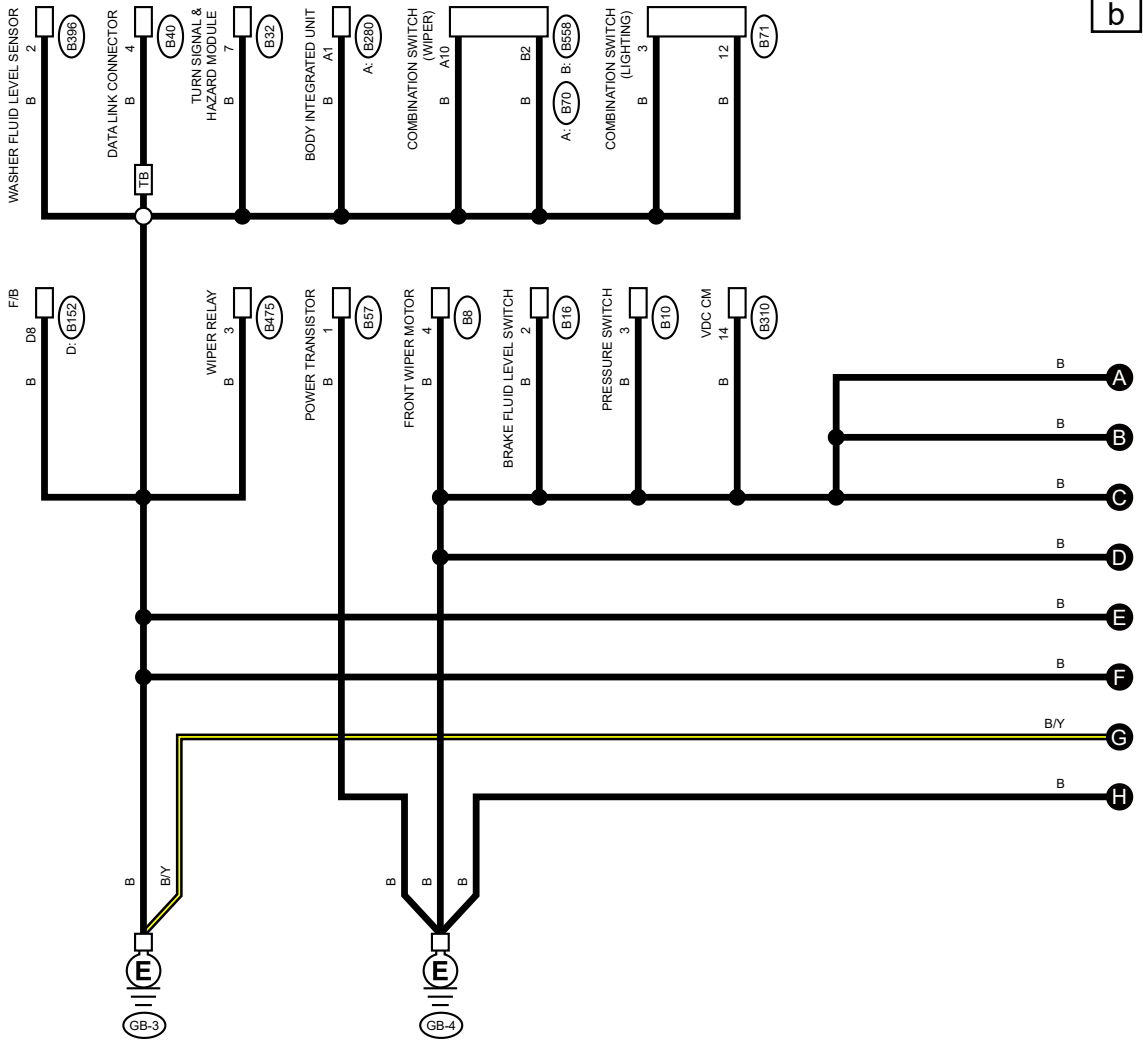
LE : FRONT COMBINATION LIGHT LED MODEL



RELAY HOLDER

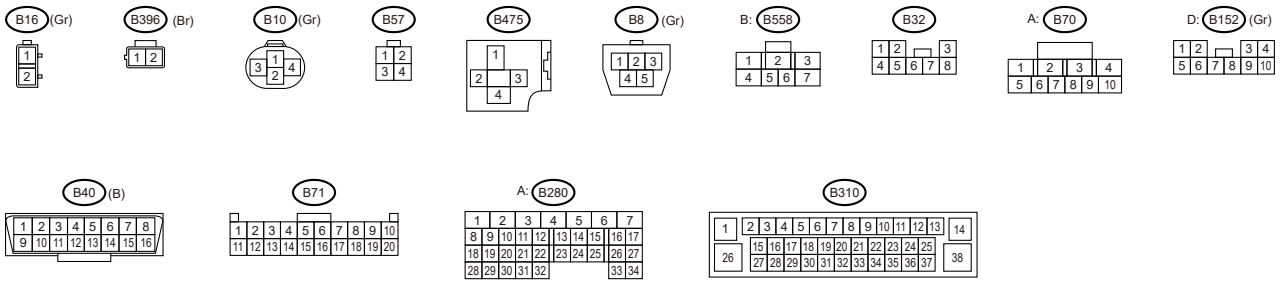


b



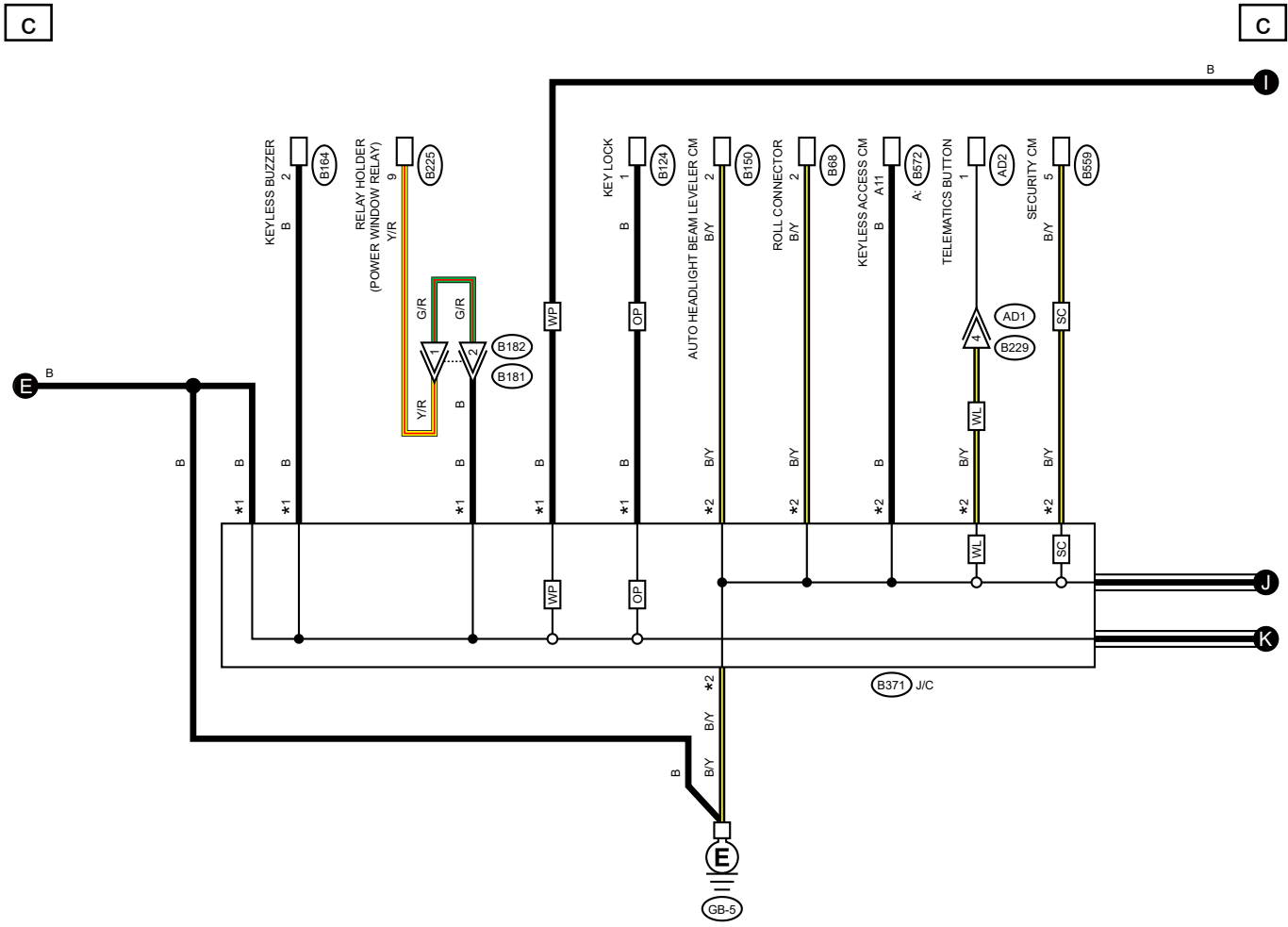
b

TB : TURBO MODEL



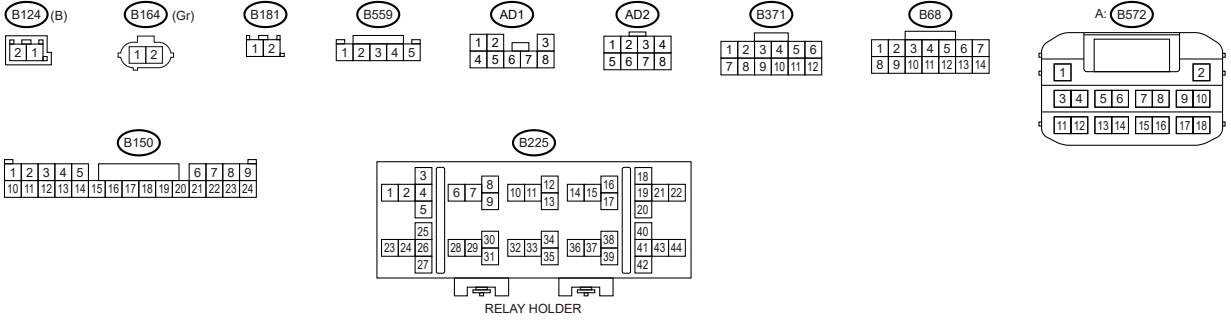
WI-65486



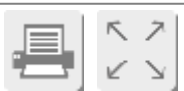


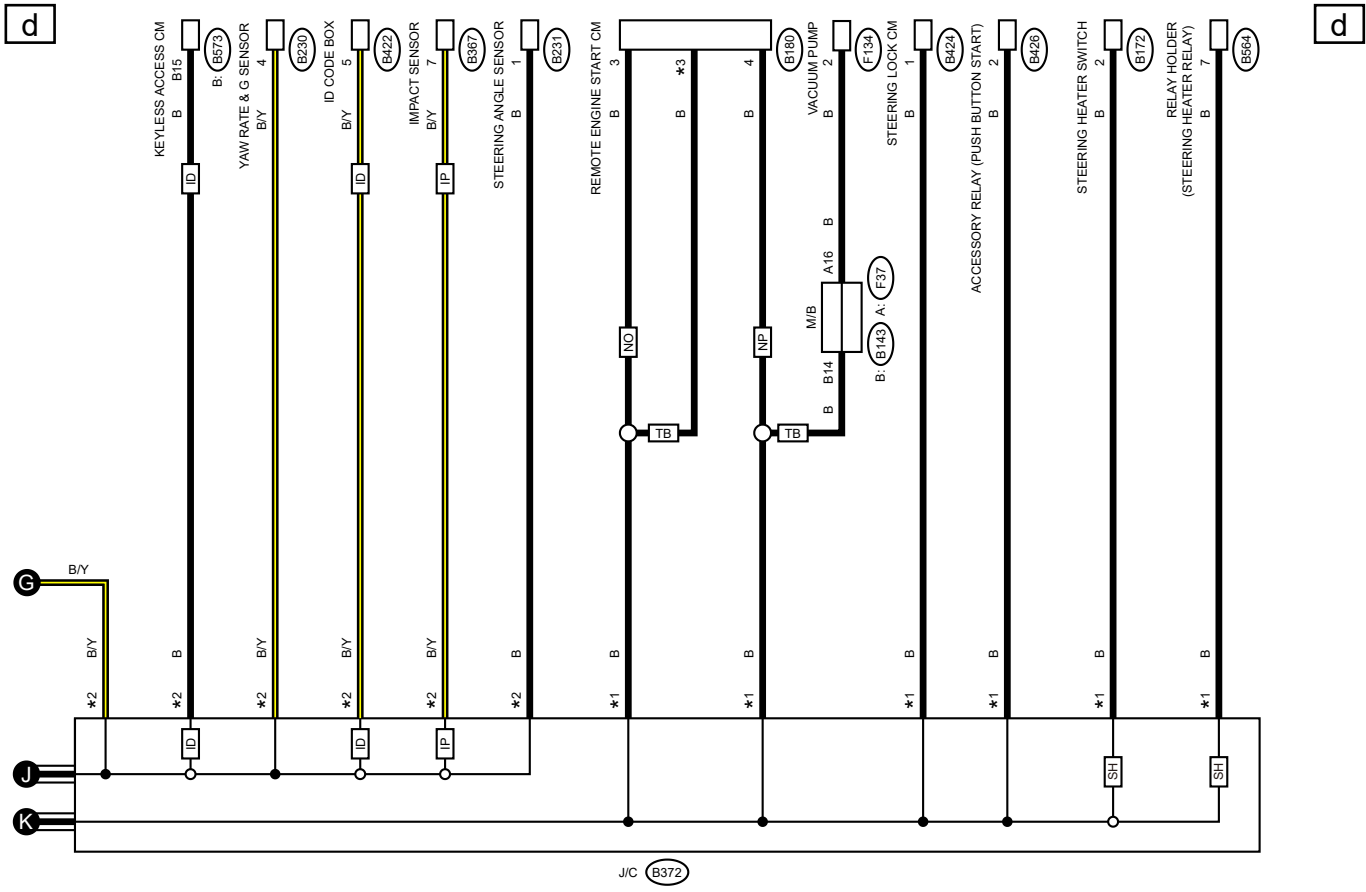
OP : WITHOUT PUSH BUTTON START
WP : WITH PUSH BUTTON START
SC : WITH SECURITY CM
WL : WITH TELEMATICS

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6

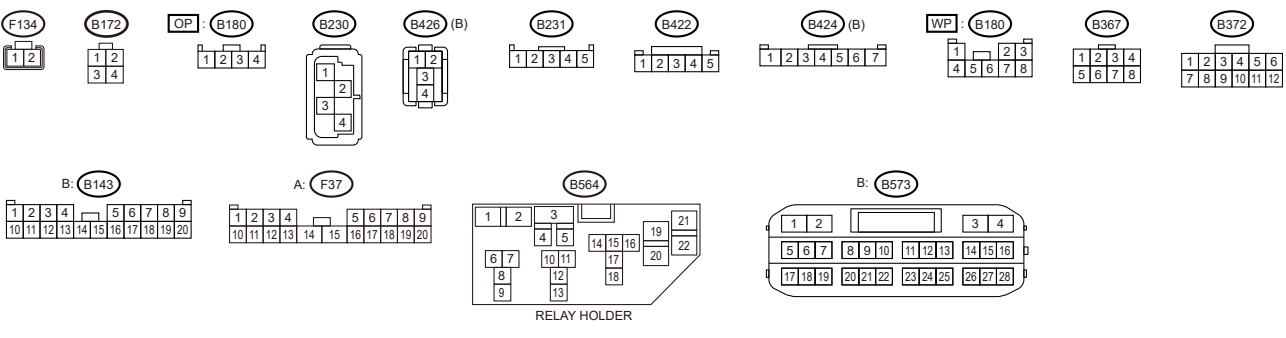


WI-65487



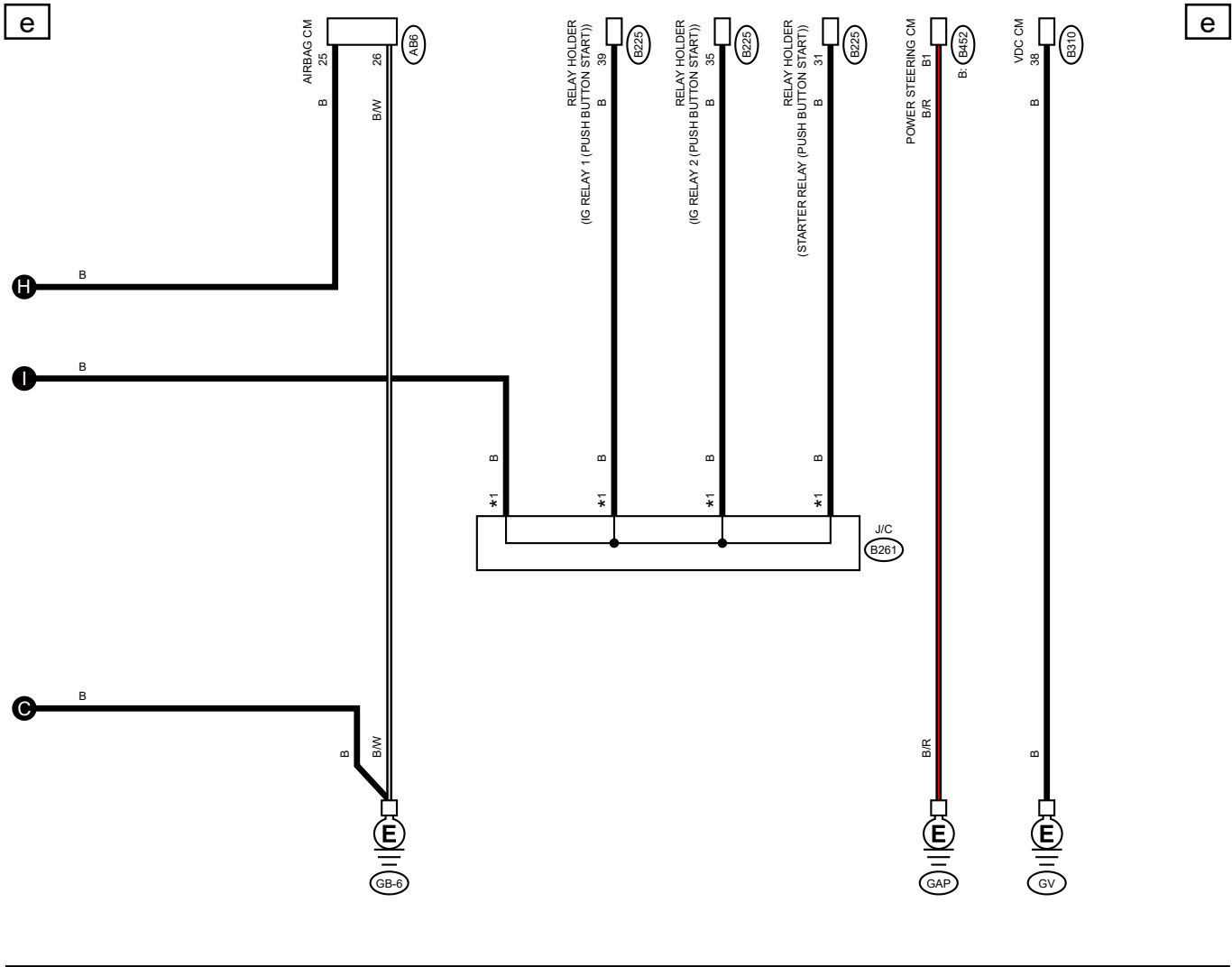


- TB** : TURBO MODEL
 - IP** : WITH IMPACT SENSOR
 - NO** : NON-TURBO MODEL WITHOUT PUSH BUTTON START
 - NP** : NON-TURBO MODEL WITH PUSH BUTTON START
 - OP** : WITHOUT PUSH BUTTON START
 - WP** : WITH PUSH BUTTON START
 - SH** : WITH STEERING HEATER
- ID** : WITH ID CODE BOX
 - *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12
 - *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6
 - *3 : WITHOUT PUSH BUTTON START : 3
WITH PUSH BUTTON START : 4

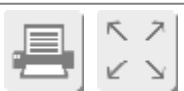
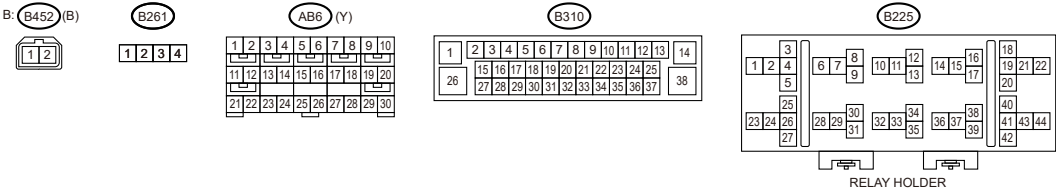


WI-65488

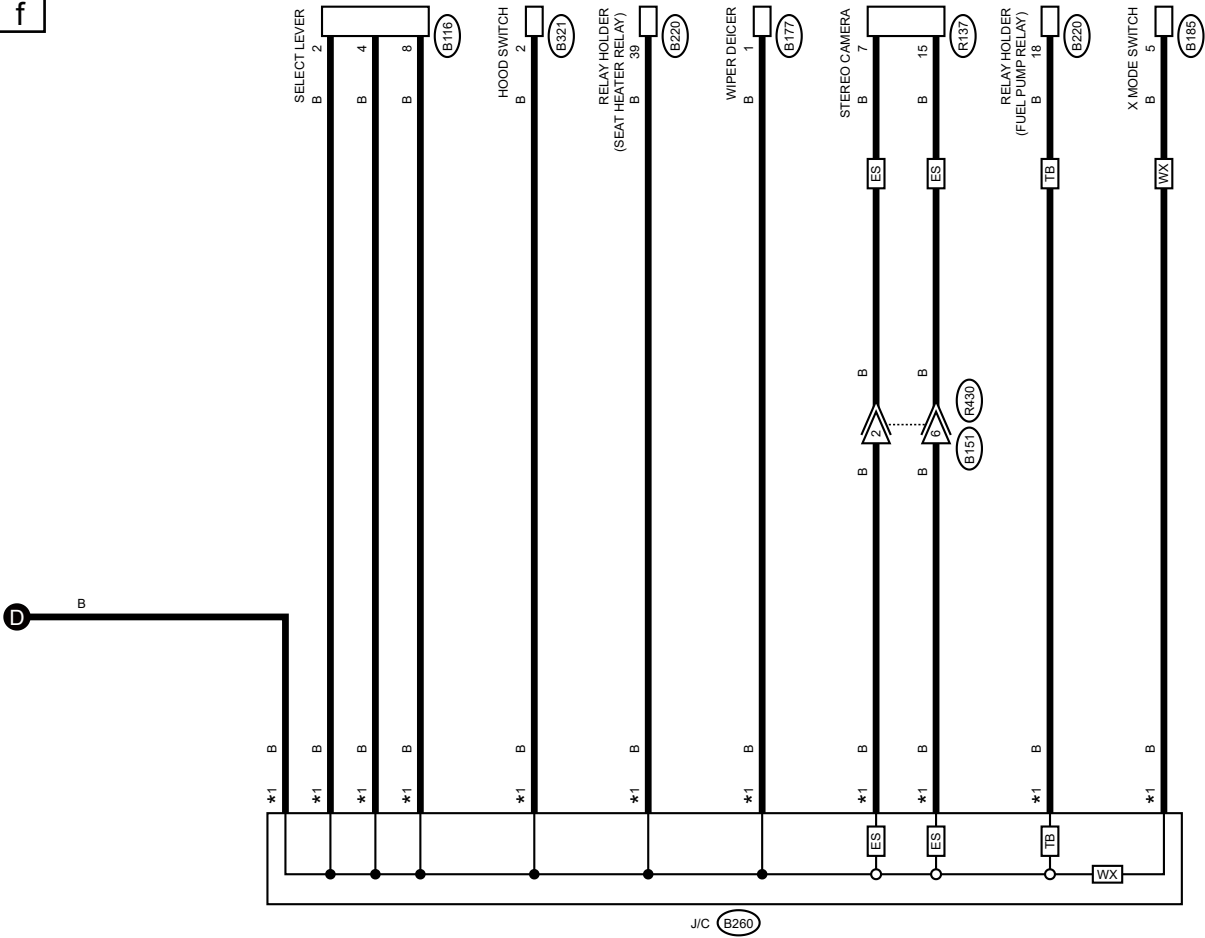




*1 : TERMINAL No. OPTIONAL ARRANGEMENT



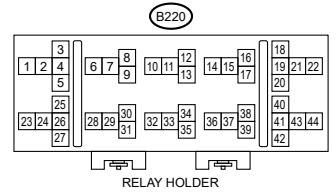
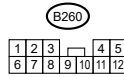
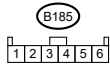
f



f

ES : WITH EyeSight
 TB : TURBO MODEL
 WX : WITH X MODE

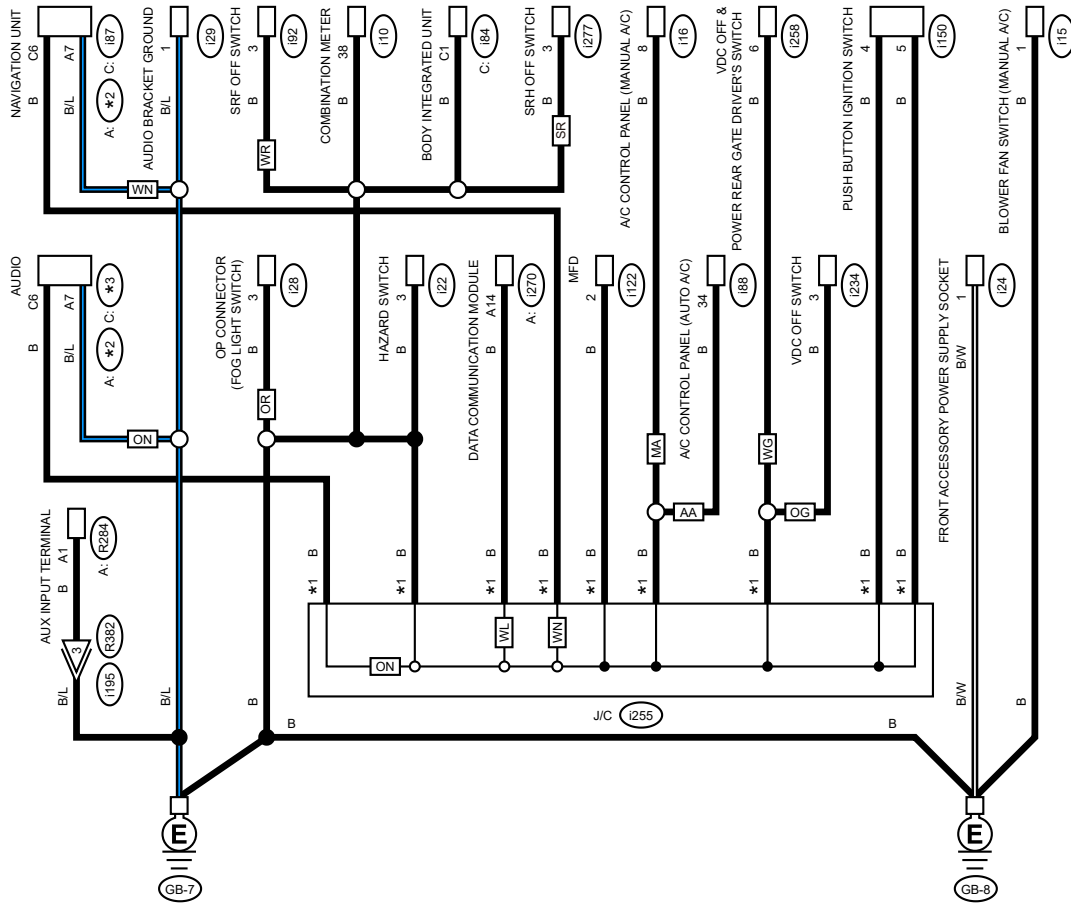
*1 : TERMINAL No. OPTIONAL ARRANGEMENT



WI-65490



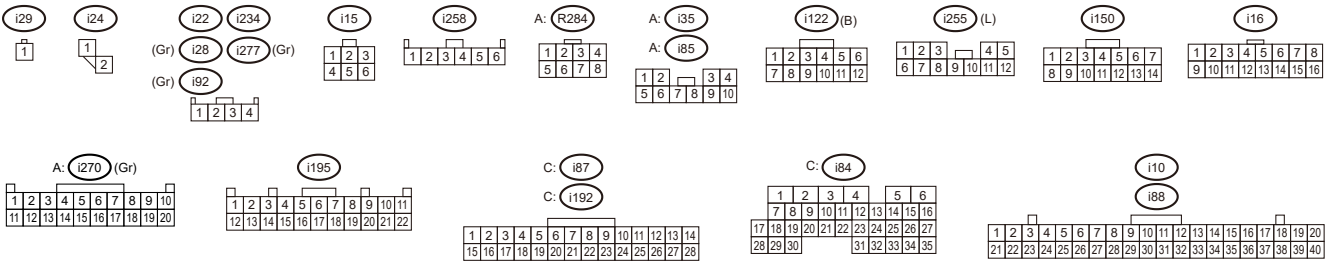
g



g

- ON** : WITHOUT NAVIGATION
- WN** : WITH NAVIGATION
- OG** : WITHOUT POWER REAR GATE
- WG** : WITH POWER REAR GATE
- OR** : WITHOUT SRF
- WR** : WITH SRF
- MA** : MANUAL A/C

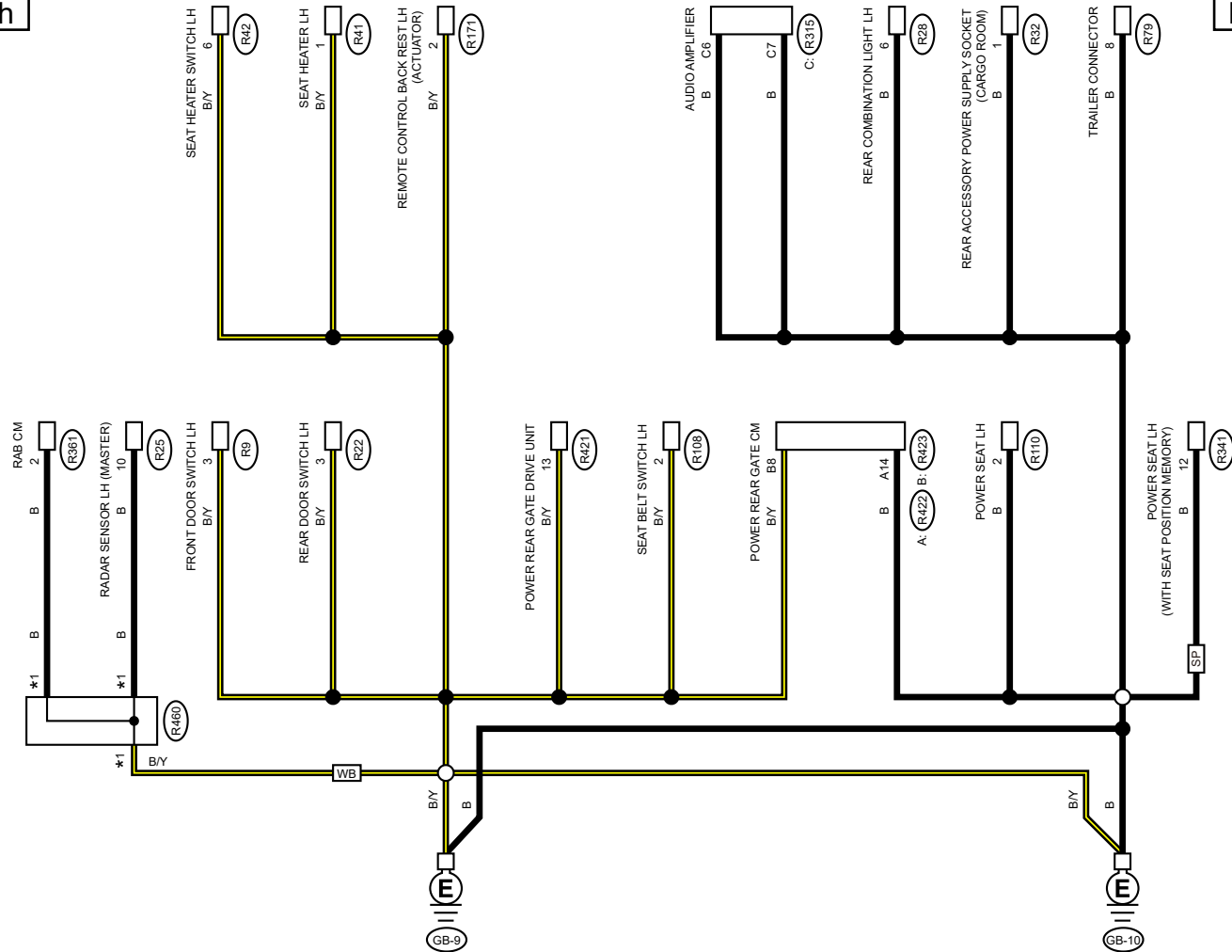
- AA** : AUTO A/C
- WL** : WITH TELEMATICS
- SR** : WITH SRH
- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : WITHOUT AUDIO AMPLIFIER : i85
WITH AUDIO AMPLIFIER : i35
- *3 : 6.2 INCH DISPLAY : i192
7 INCH DISPLAY : i87



WI-65491



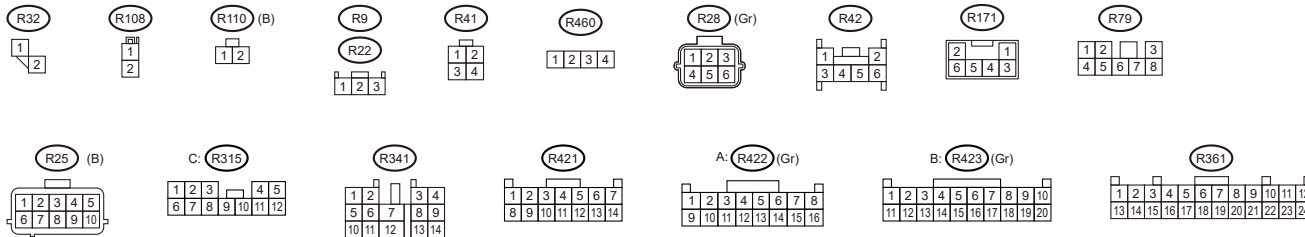
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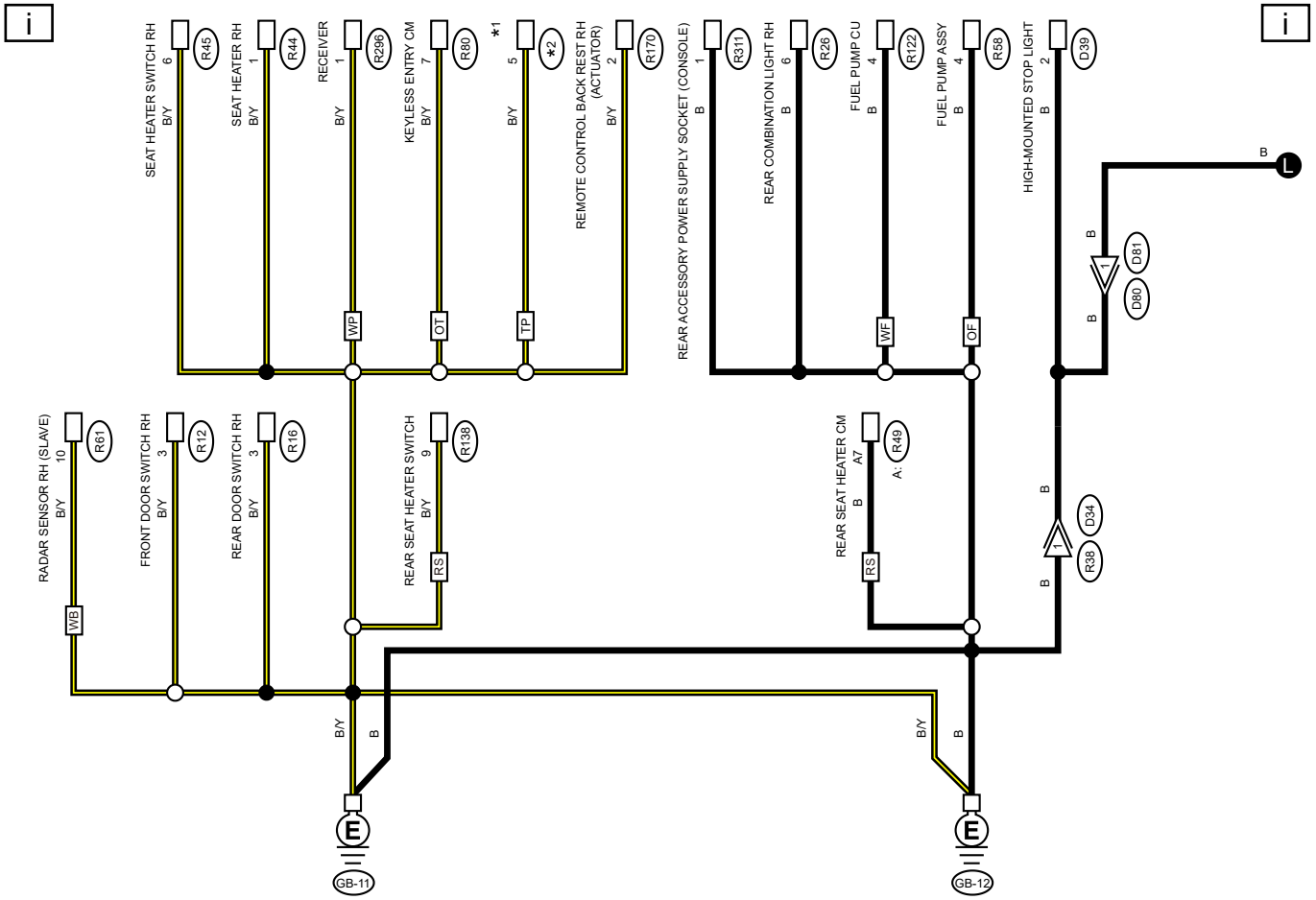


[WB] : WITH BSD/RCTA

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

[SP] : WITH SEAT POSITION MEMORY

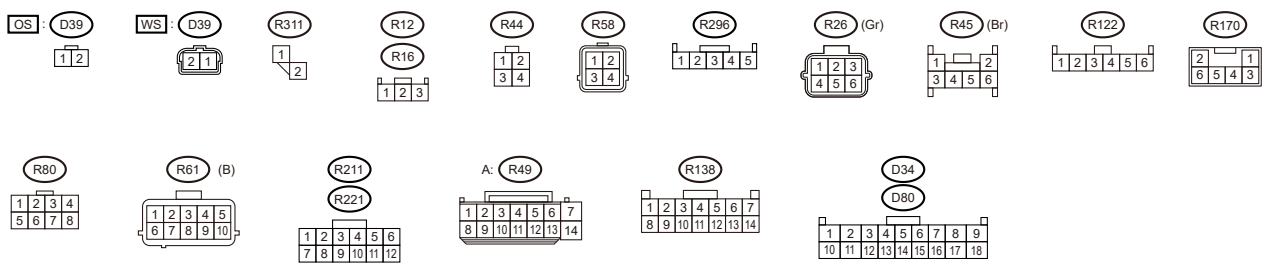


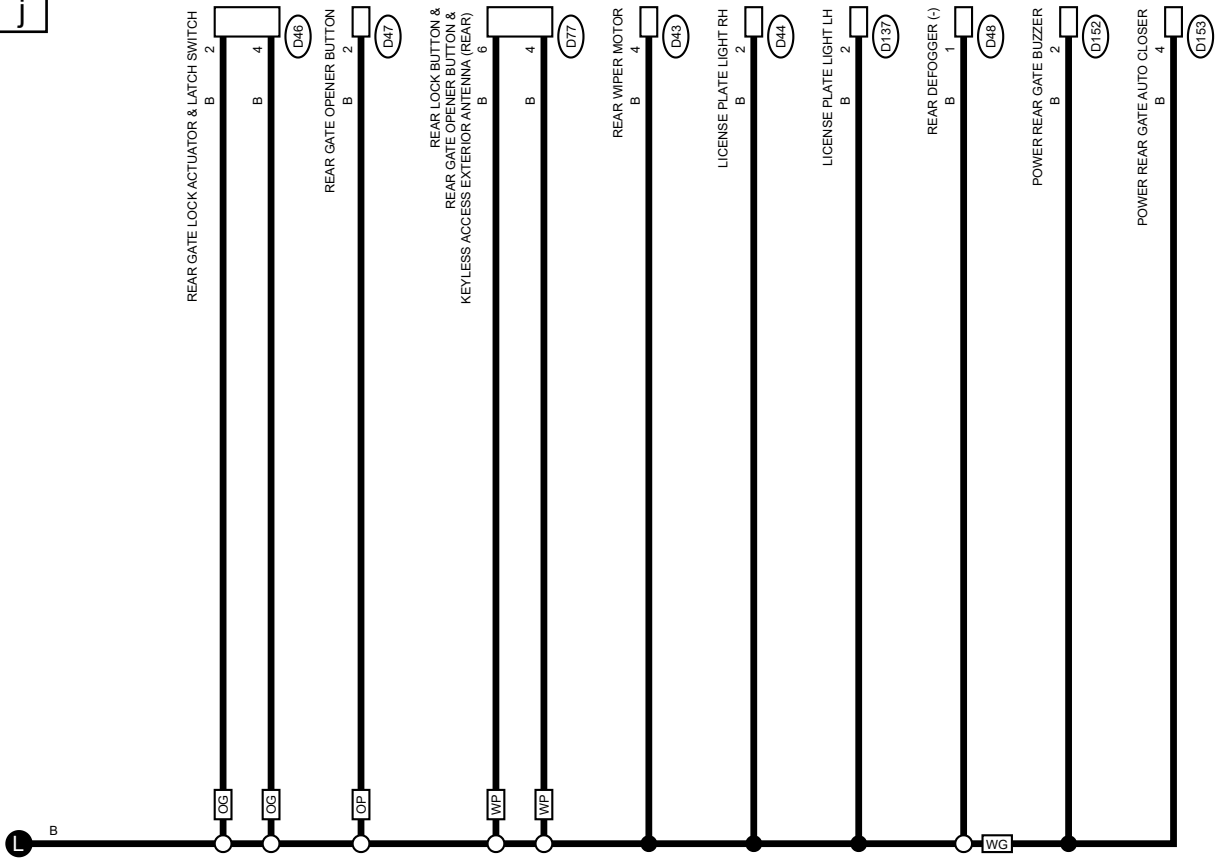


- OF** : WITHOUT FUEL PUMP CU
- WF** : WITH FUEL PUMP CU
- WP** : WITH PUSH BUTTON START
- OS** : WITHOUT REAR SPOILER
- WS** : WITH REAR SPOILER
- OT** : WITHOUT TPMS
- TP** : WITH TPMS

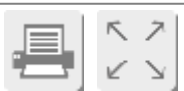
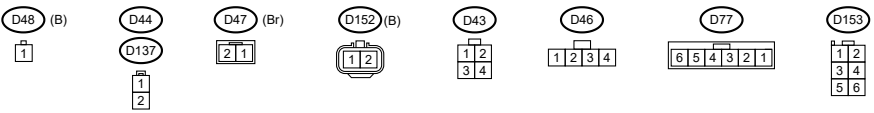
- WB** : WITH BSD/RCTA
- RS** : WITH REAR SEAT HEATER

- *1 : WITHOUT PUSH BUTTON START : TPMS & KEYLESS ENTRY CM
WITH PUSH BUTTON START : TPMS CM
- *2 : WITHOUT PUSH BUTTON START : R221
WITH PUSH BUTTON START : R211

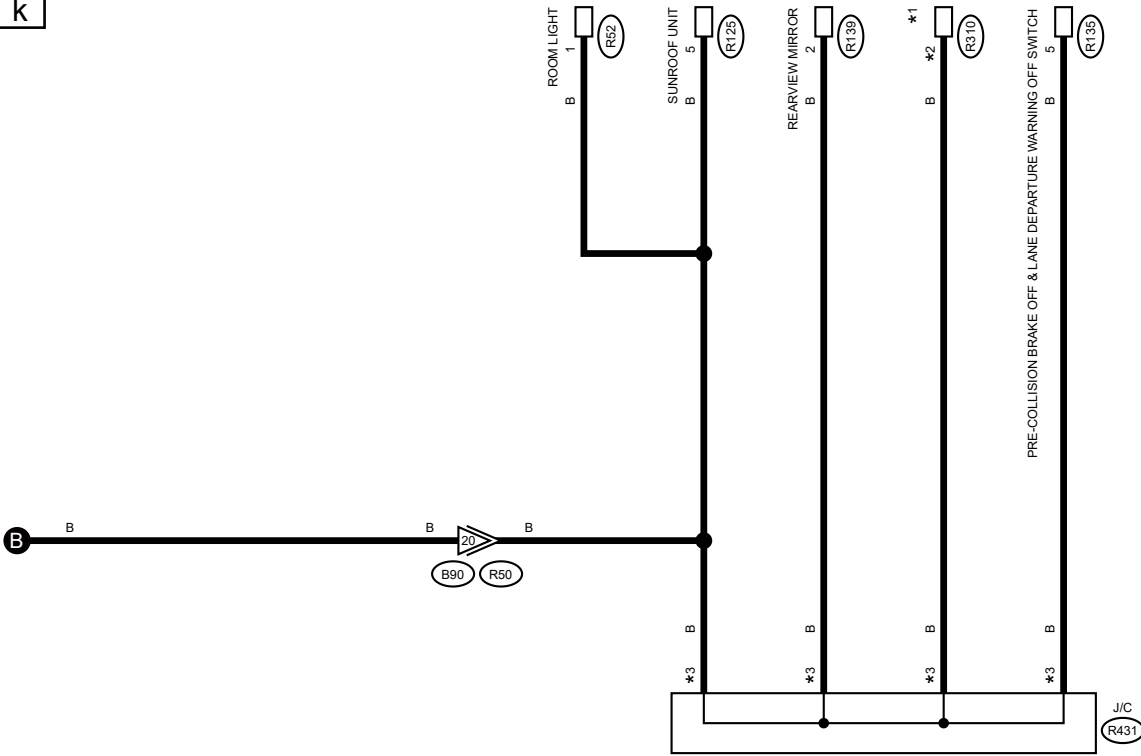




- OP** : WITHOUT PUSH BUTTON START
- WP** : WITH PUSH BUTTON START
- OG** : WITHOUT POWER REAR GATE
- WG** : WITH POWER REAR GATE



k



k

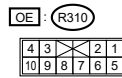
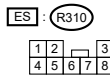
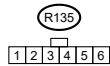
OE : WITHOUT EyeSight

ES : WITH EyeSight

*1 : WITHOUT EyeSight : OVERHEAD CONSOLE (SPOT MAP LIGHT)
WITH EyeSight : STEREO CAMERA COVER (SPOT MAP LIGHT)

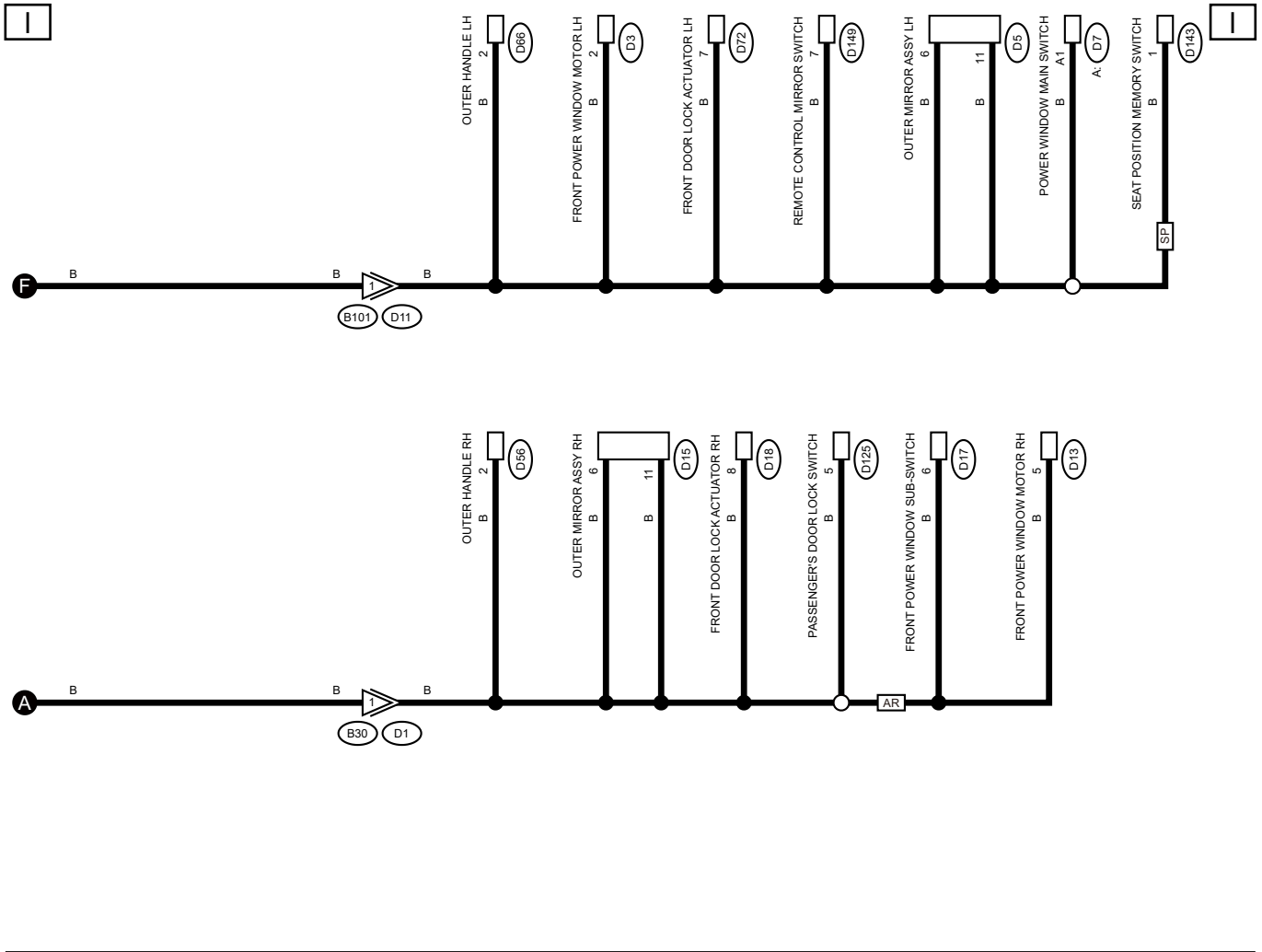
*2 : WITHOUT EyeSight : 5
WITH EyeSight : 8

*3 : TERMINAL No. OPTIONAL ARRANGEMENT

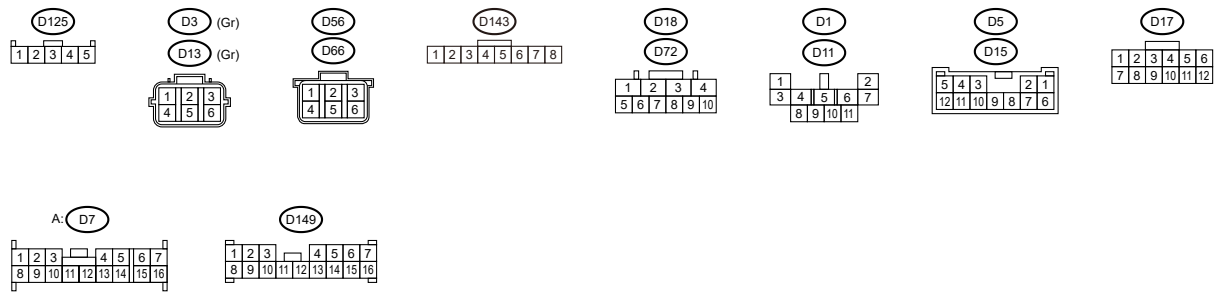


WI-65495



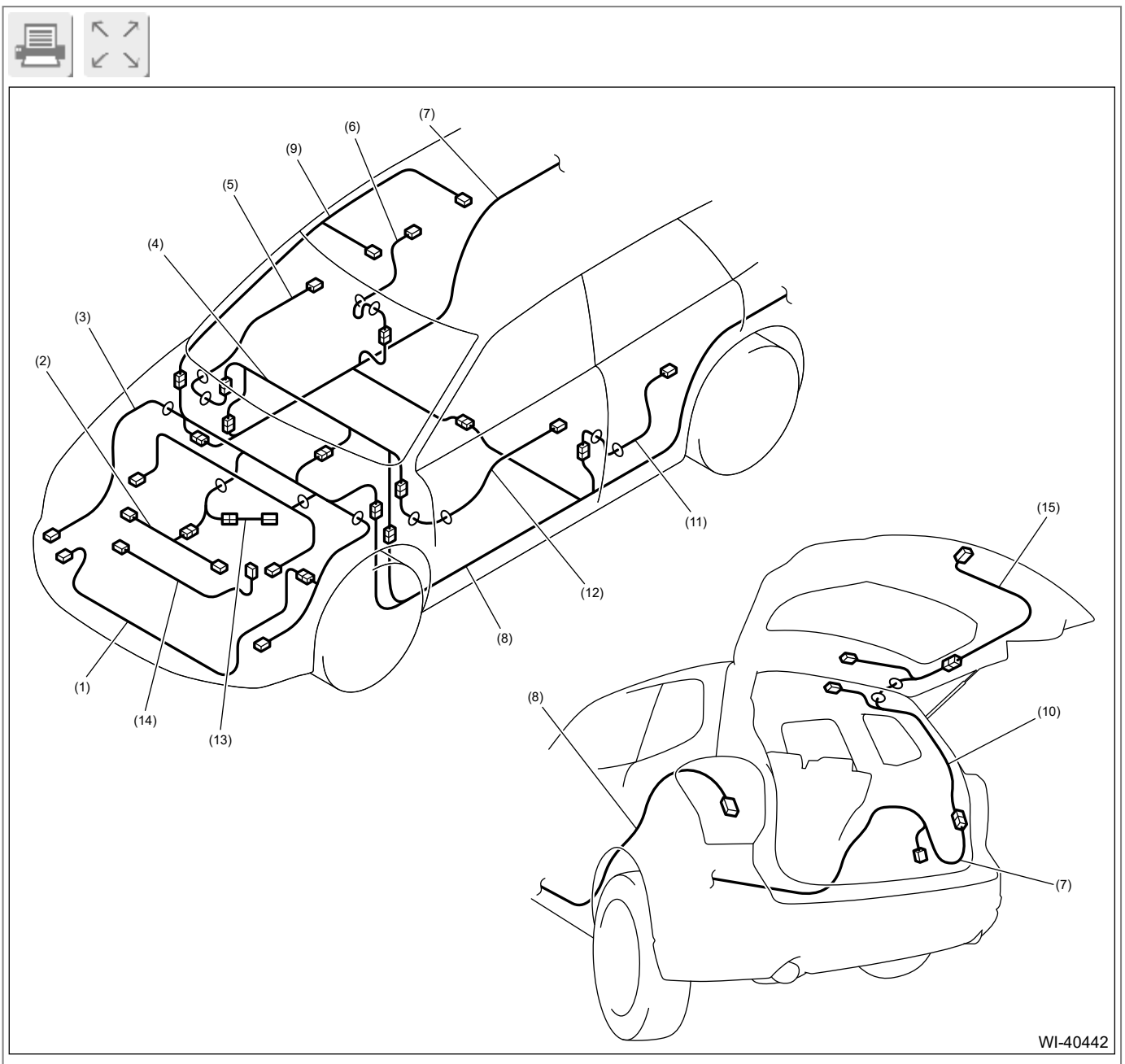


SP : WITH SEAT POSITION MEMORY
AR : PASSENGER SIDE WITH AUTO-REVERSE FUNCTION



WIRING SYSTEM > Harness Components Location

LOCATION



WI-40442

- | | | |
|-------------------------------------|----------------------------|---------------------------|
| (1) Front wiring harness | (6) Rear door cord RH | (11) Rear door cord LH |
| (2) Engine wiring harness | (7) Rear wiring harness RH | (12) Front door cord LH |
| (3) Bulkhead wiring harness | (8) Rear wiring harness LH | (13) Transmission cord |
| (4) Instrument panel wiring harness | (9) Roof cord | (14) Generator cord |
| (5) Front door cord RH | (10) Rear gate cord (UPR) | (15) Rear gate cord (LWR) |

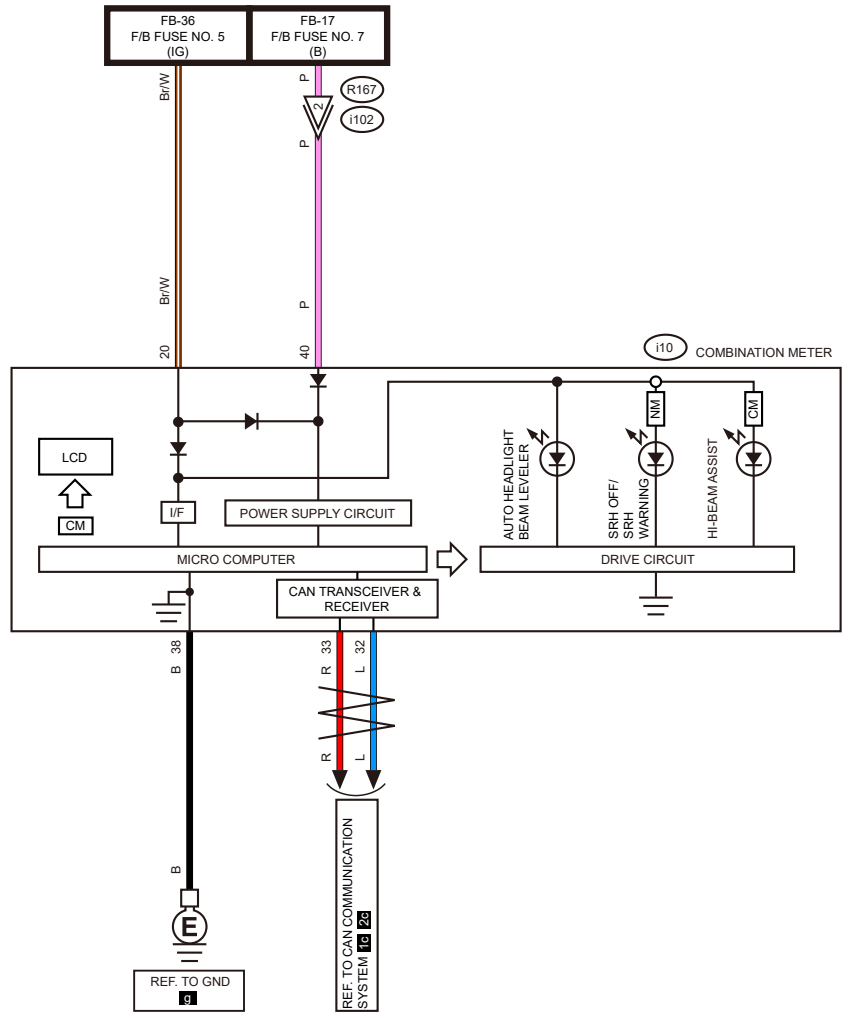
WIRING SYSTEM > Headlight Beam Leveler System

WIRING DIAGRAM

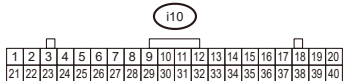
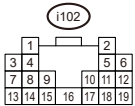


a

a

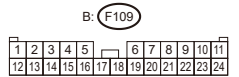
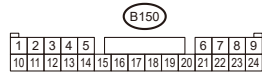
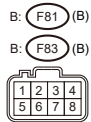
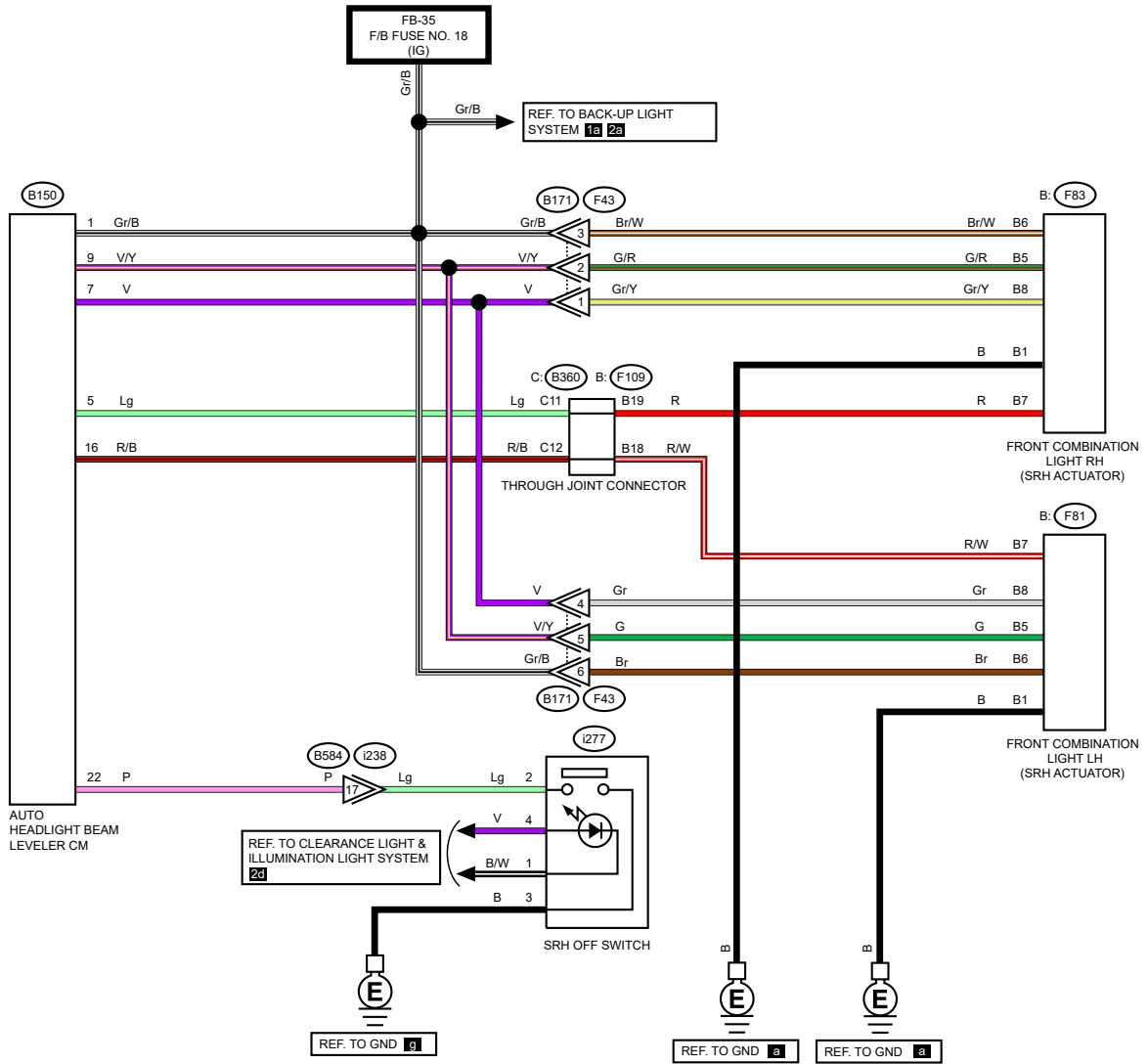


NM : NORMAL METER MODEL
CM : COLOR TFT METER MODEL



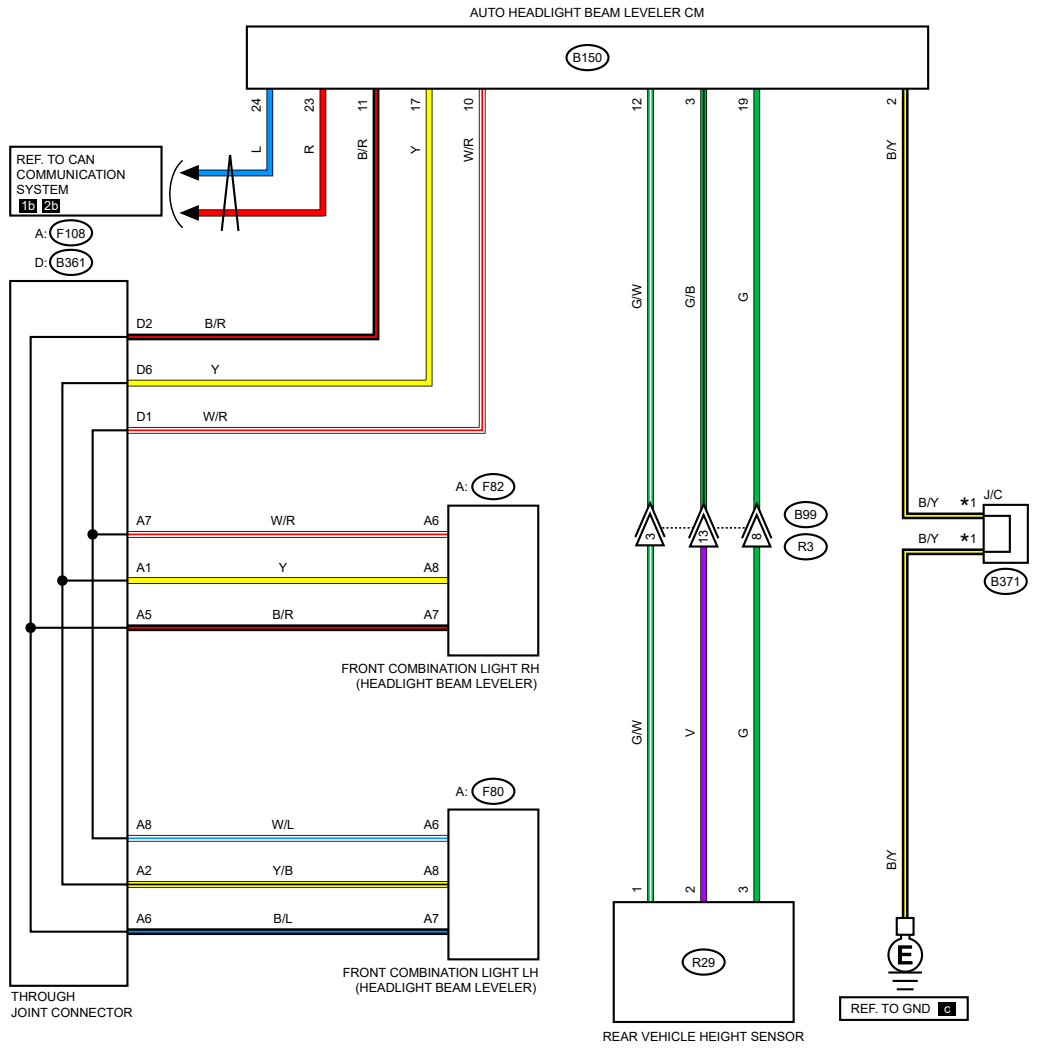
b

b

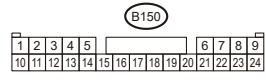
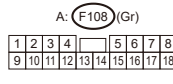
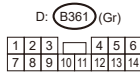
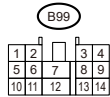
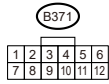
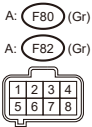


C

C



*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6

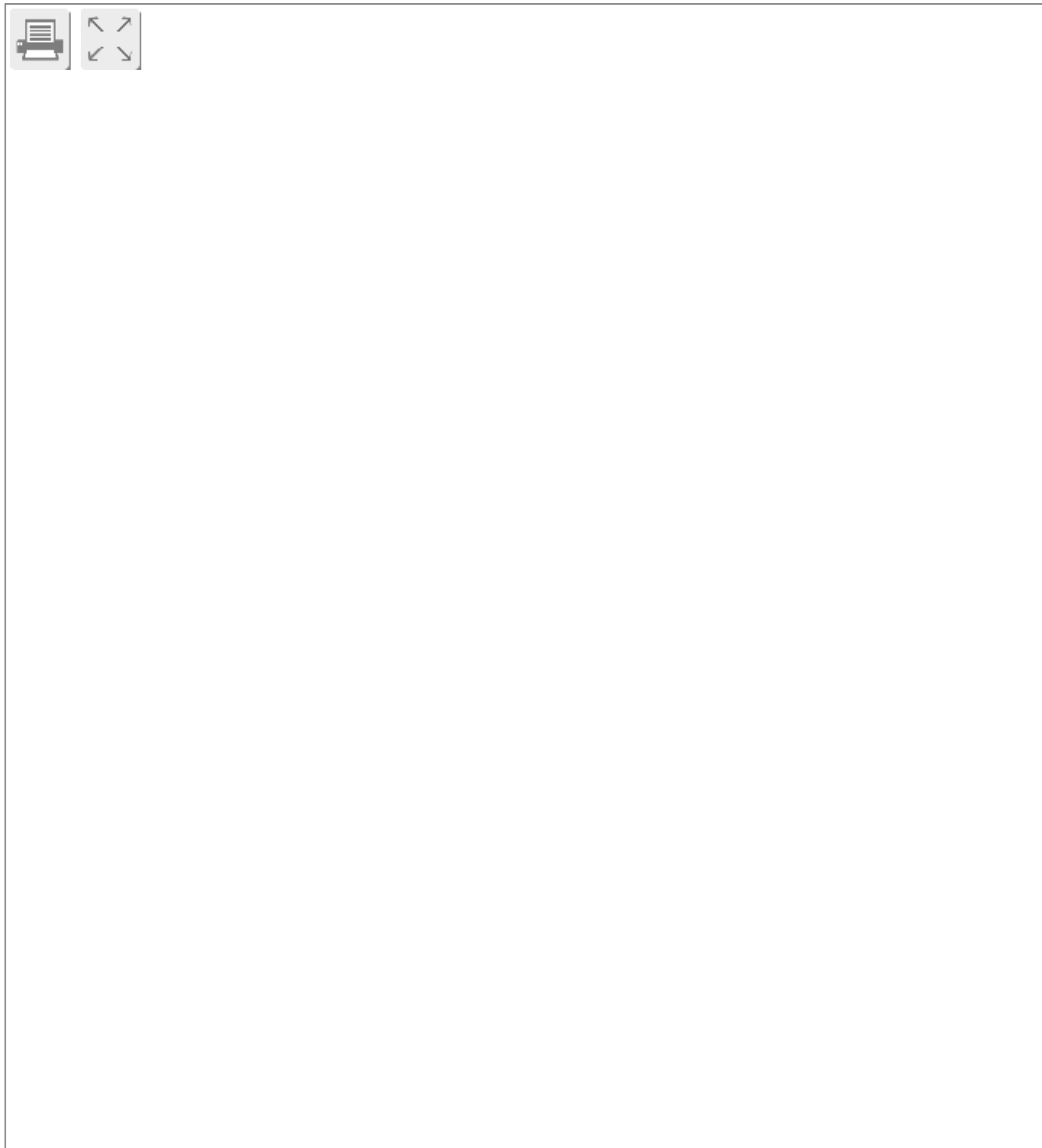


WIRING SYSTEM > Headlight System

WIRING DIAGRAM

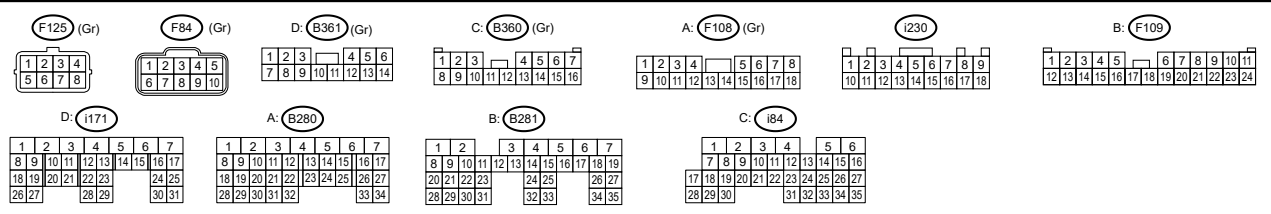
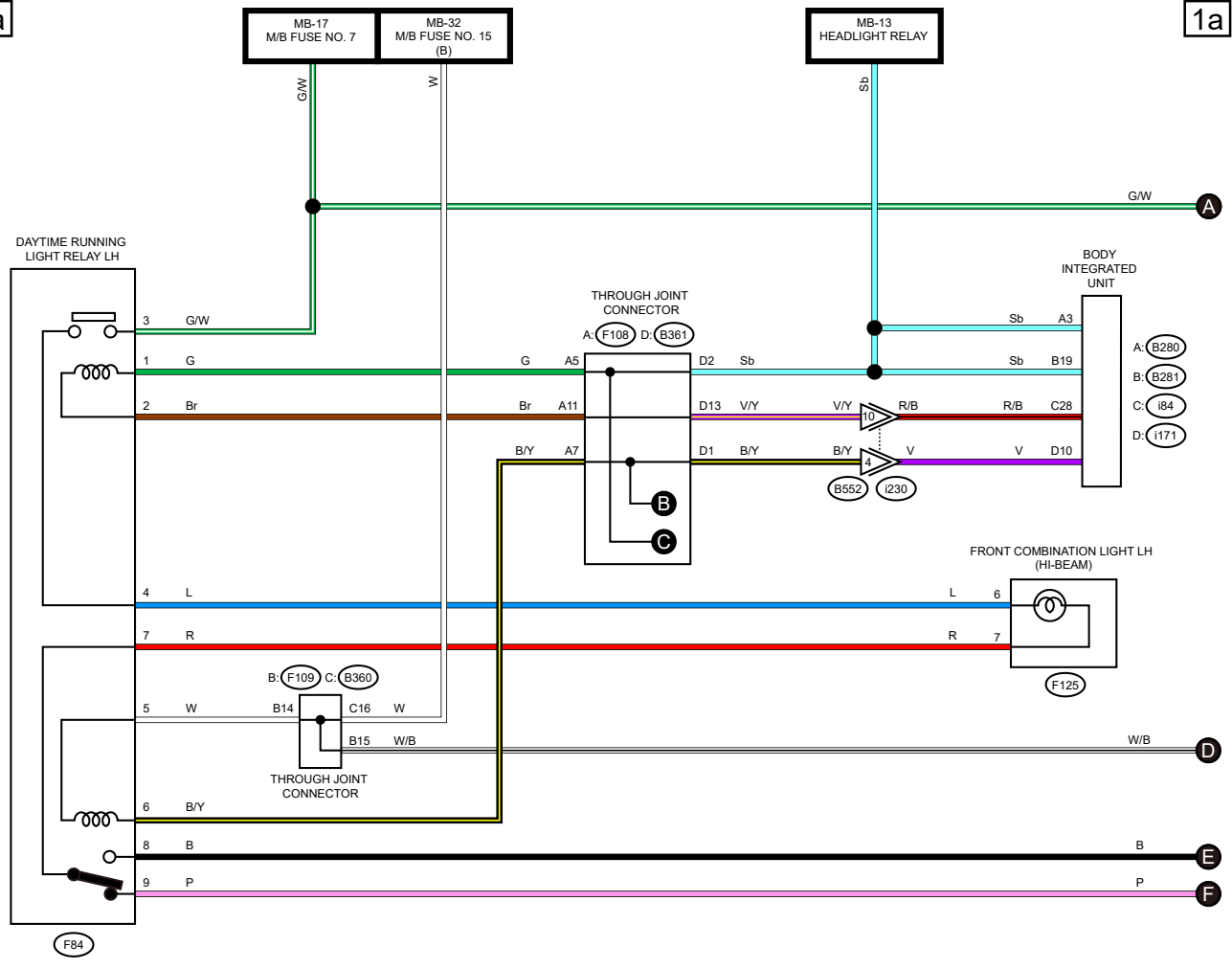
▼ Please select ▼ see

1. HALOGEN MODEL



1a

1a

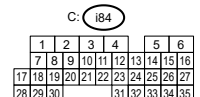
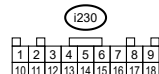
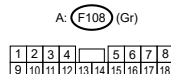
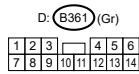
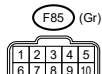
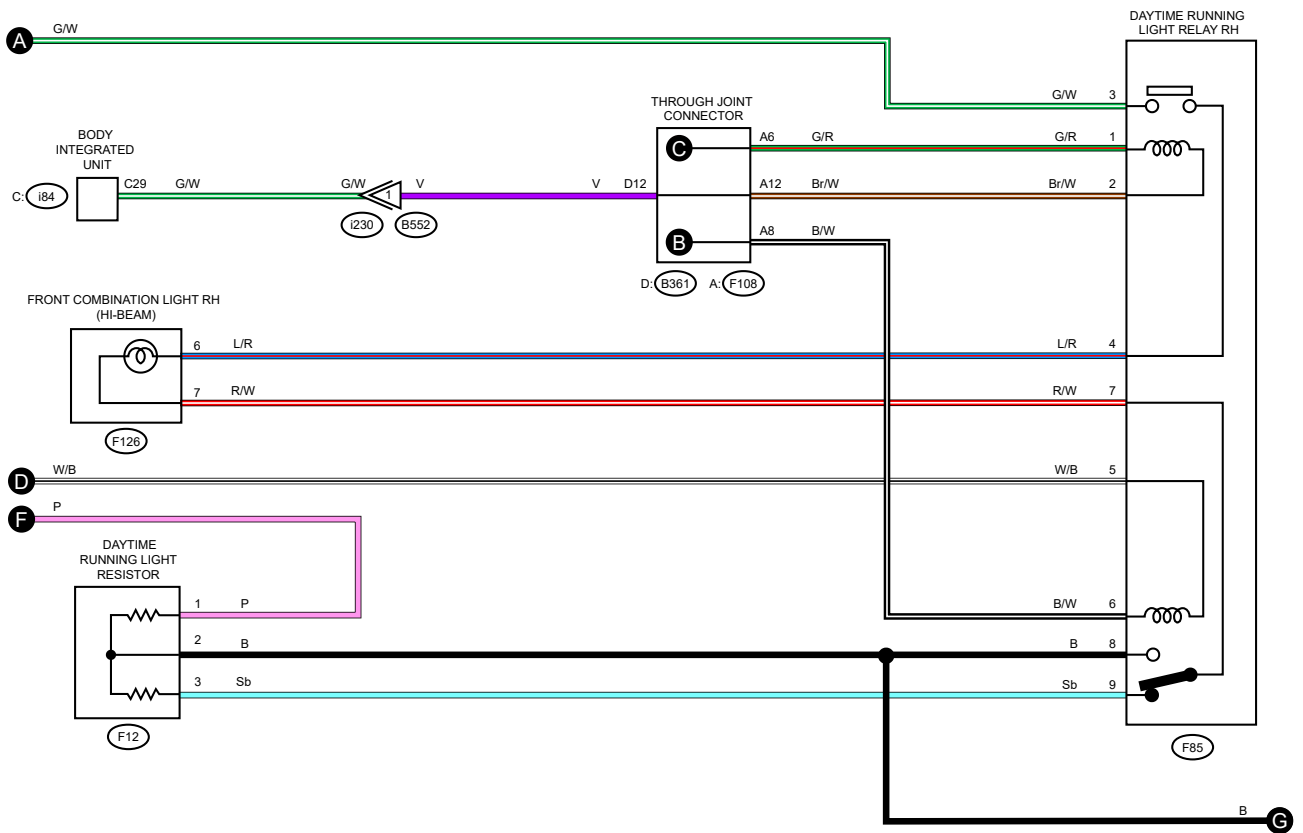


WI-67351



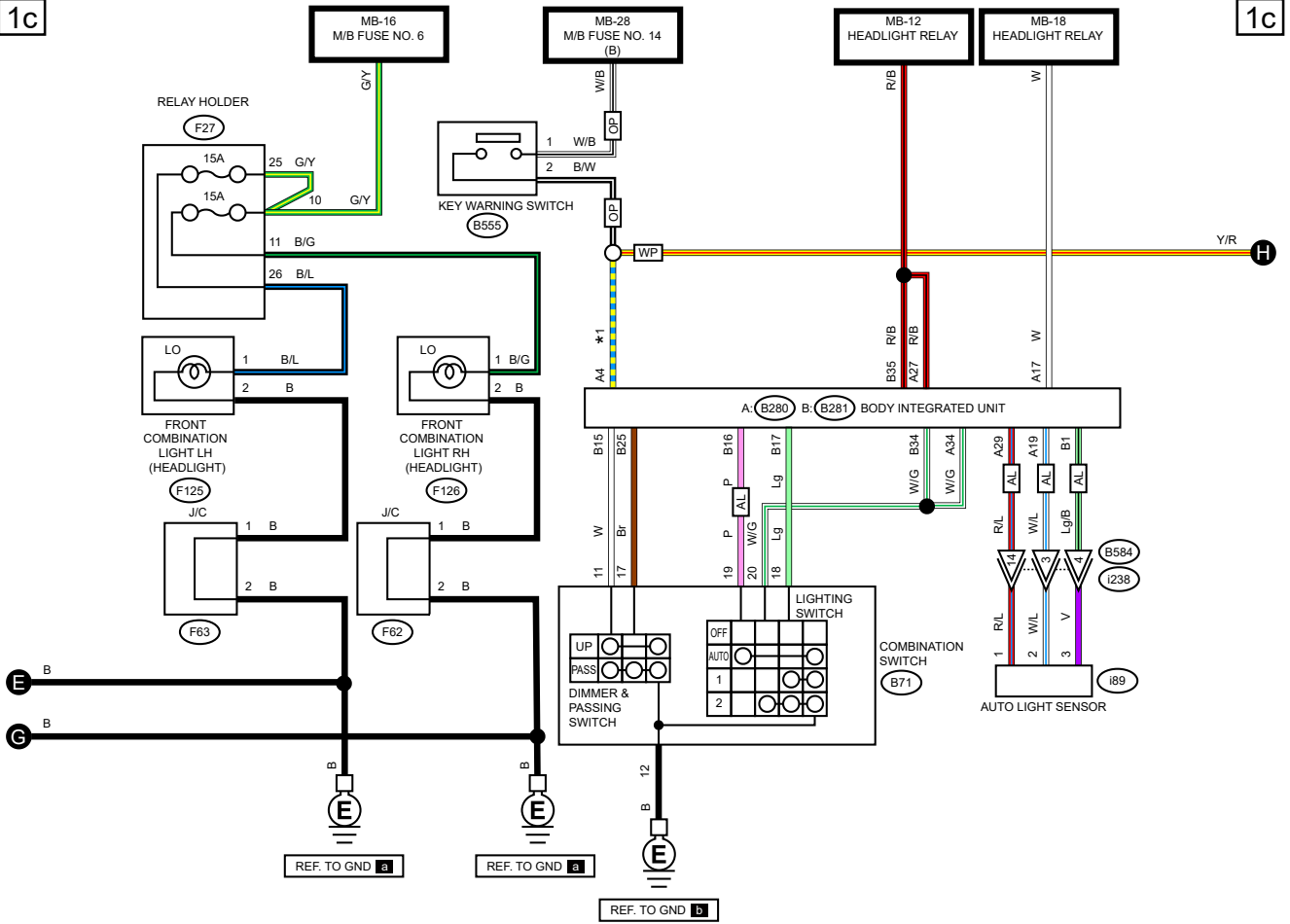
1b

1b



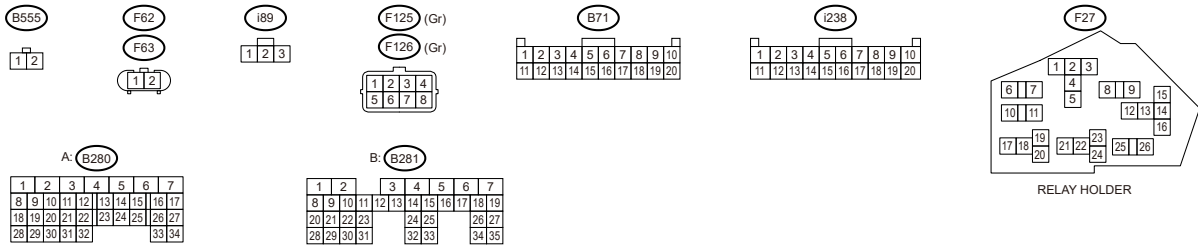
1c

1c



AL : WITH AUTO LIGHT
 OP : WITHOUT PUSH BUTTON START
 WP : WITH PUSH BUTTON START

*1 : WITHOUT PUSH BUTTON START : B/W
 WITH PUSH BUTTON START : Y/R

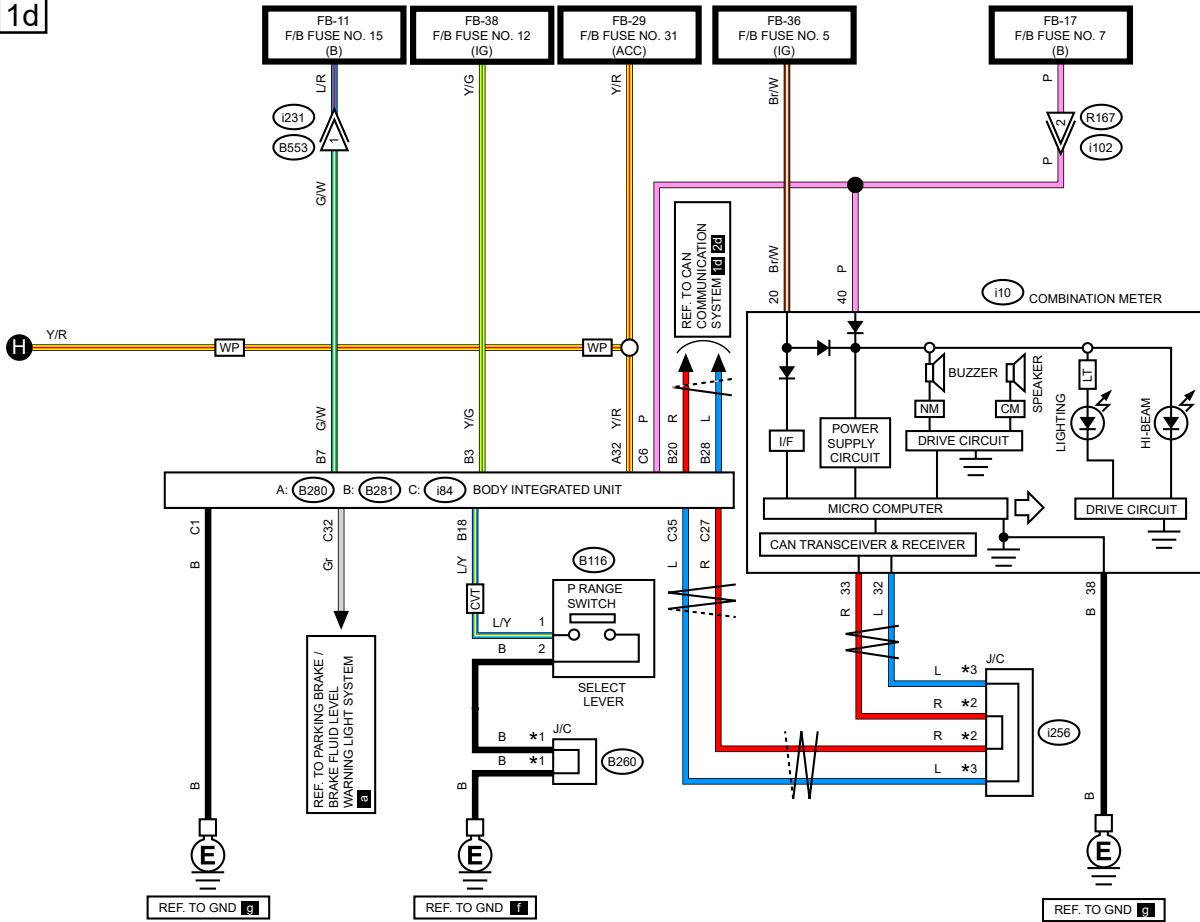


WI-65655



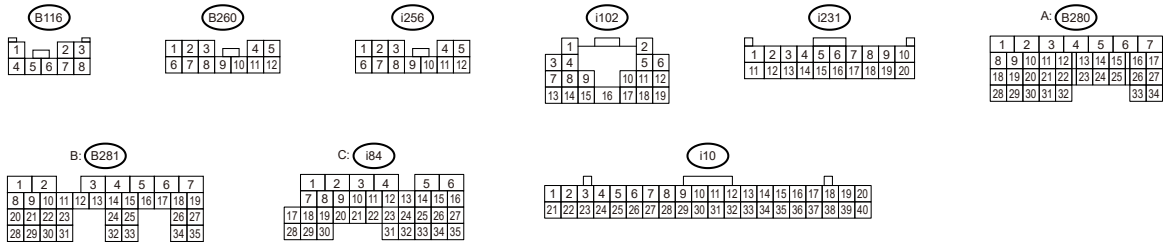
1d

1d



- LT** : WITH LIGHTING INDICATOR
- WP** : WITH PUSH BUTTON START
- NM** : NORMAL METER MODEL
- CM** : COLOR TFT METER MODEL

- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12



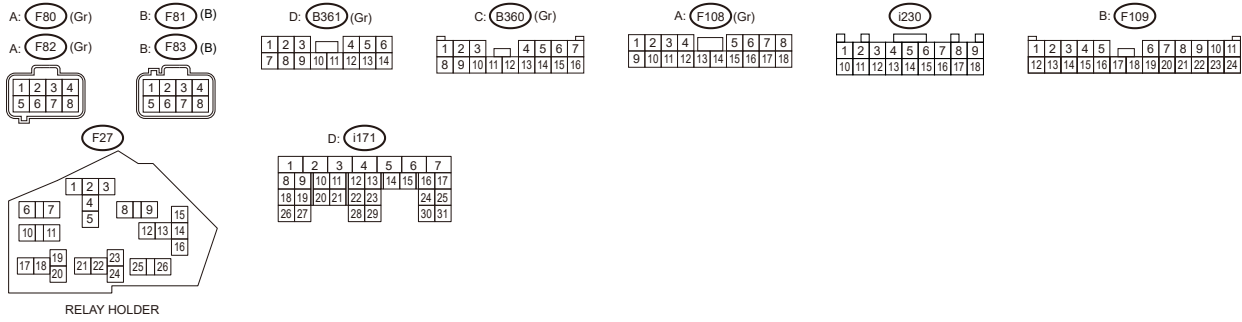
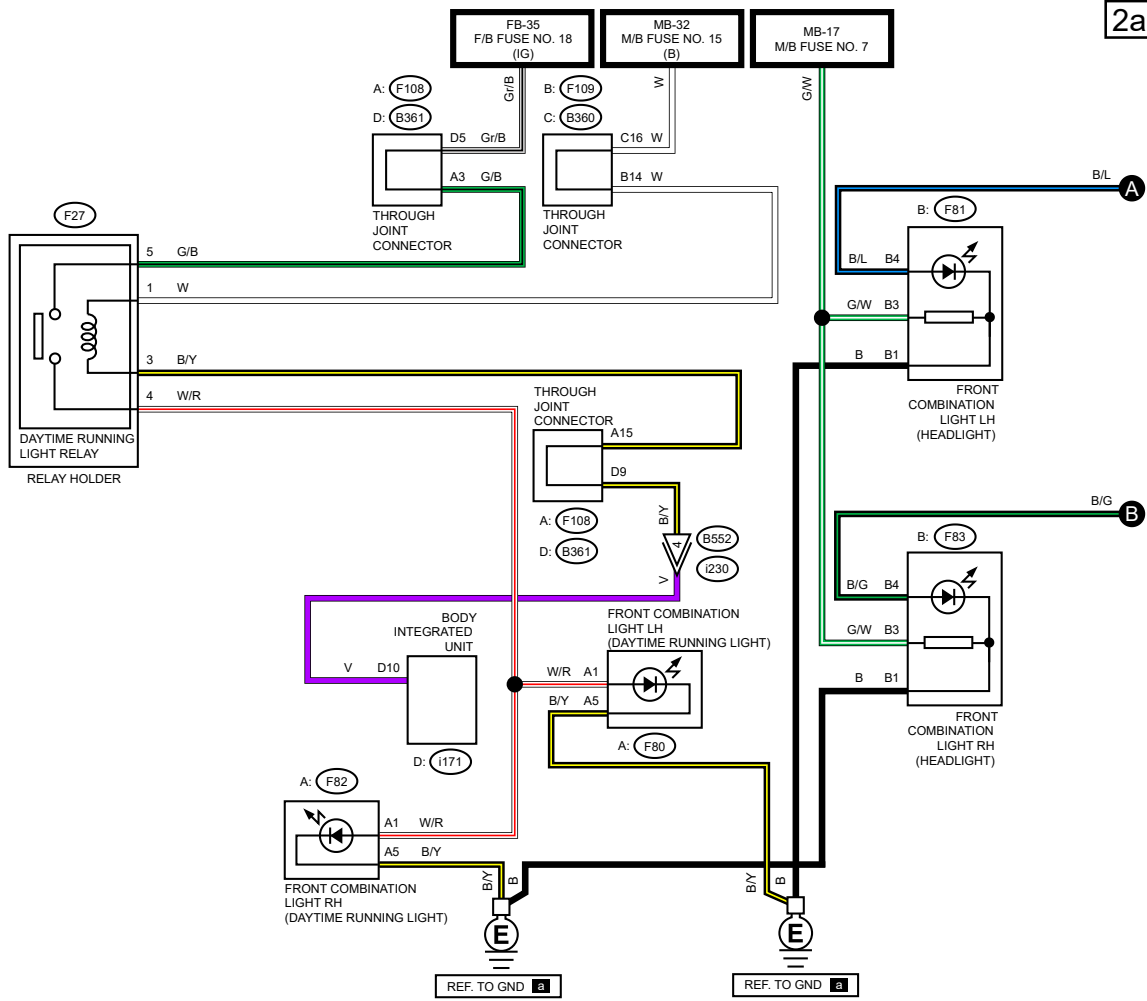
WI-65656

2. LED MODEL



2a

2a

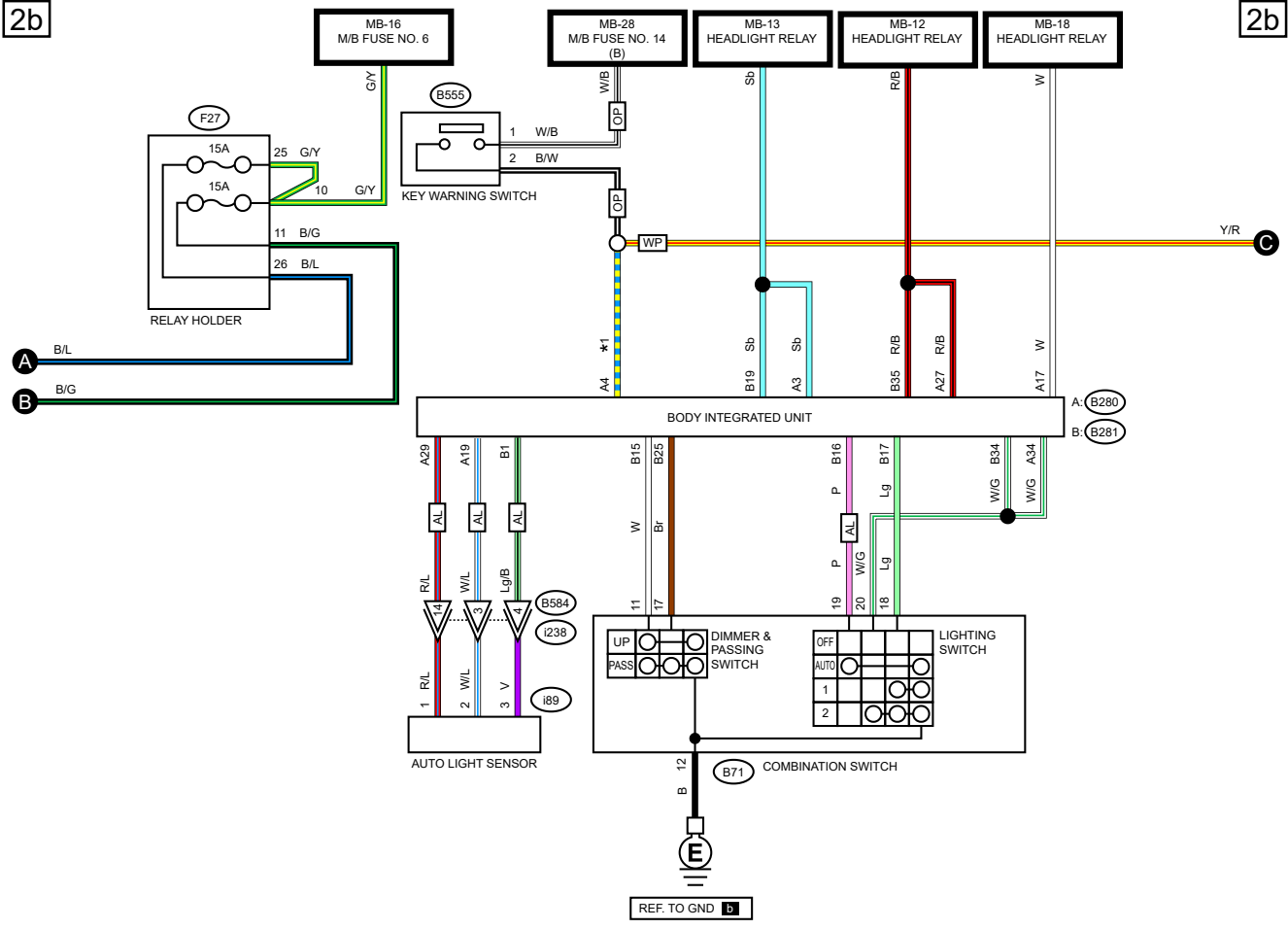


WI-67353

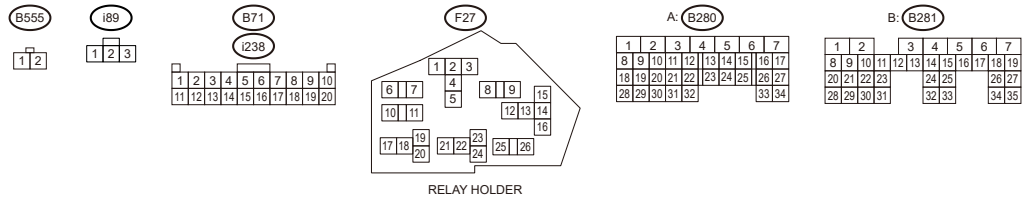


2b

2b



- AL** : WITH AUTO LIGHT
- OP** : WITHOUT PUSH BUTTON START
- WP** : WITH PUSH BUTTON START
- *1 : WITHOUT PUSH BUTTON START : B/W
WITH PUSH BUTTON START : Y/R

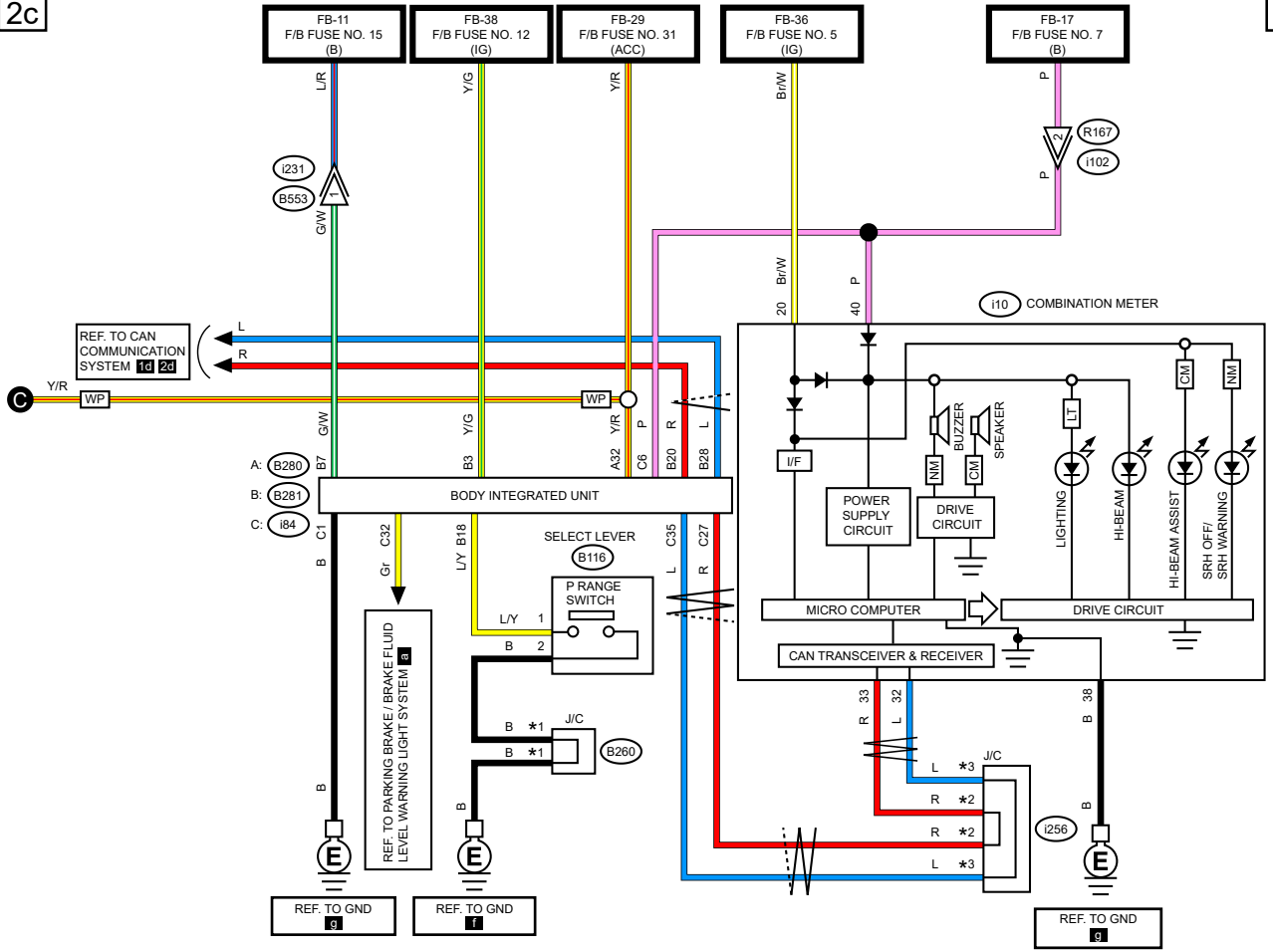


WI-67354



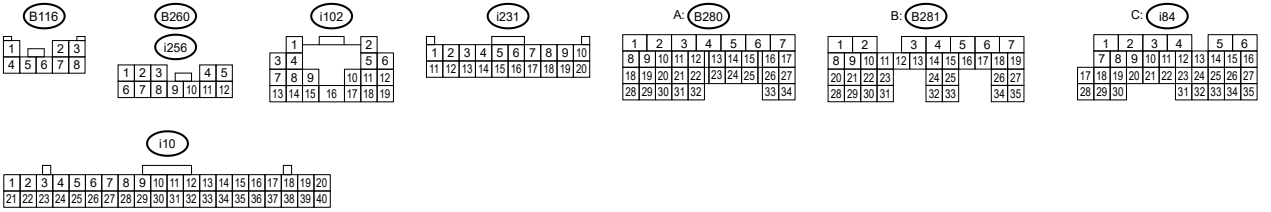
2c

2c



- WP** : WITH PUSH BUTTON START
- LT** : WITH LIGHTING INDICATOR
- NM** : NORMAL METER MODEL
- CM** : COLOR TFT METER MODEL

- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

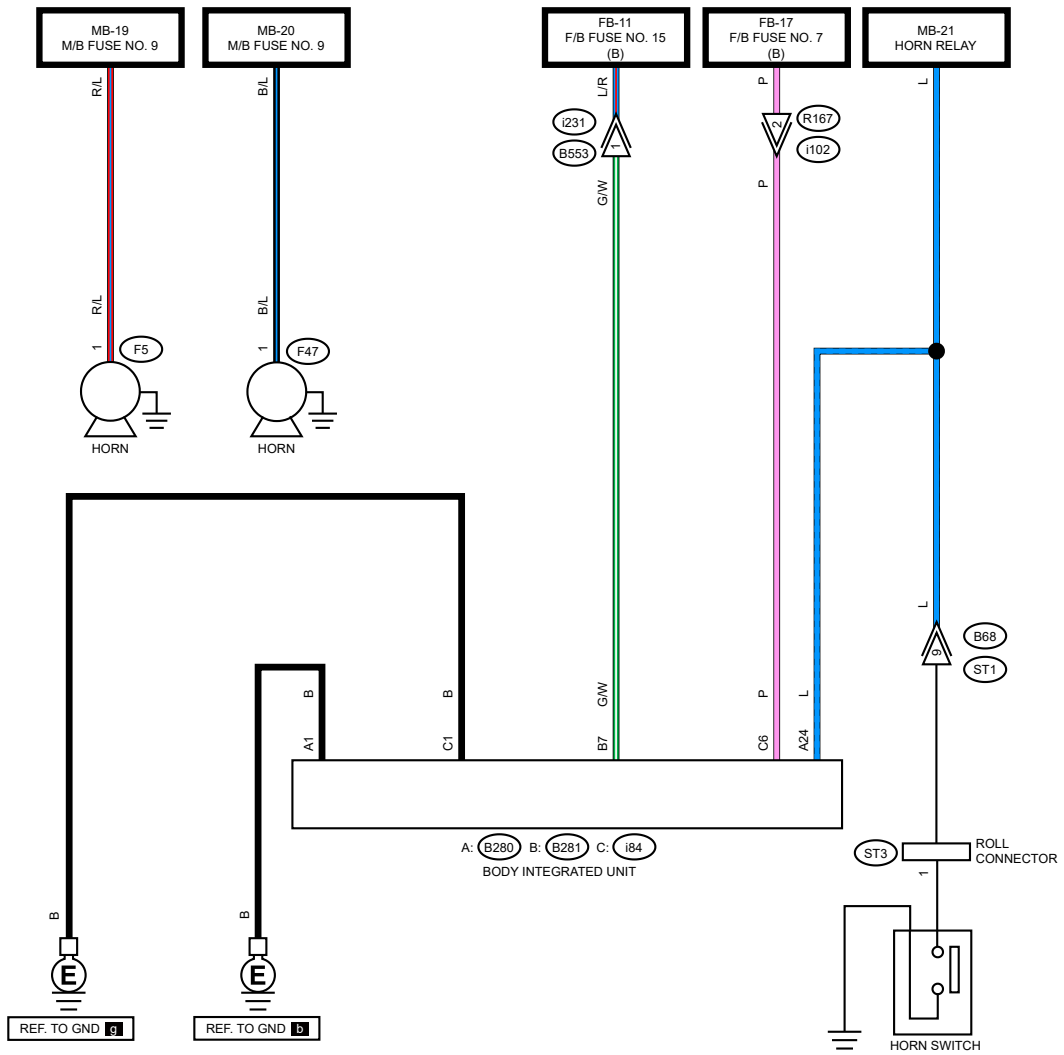


WIRING SYSTEM > Horn System

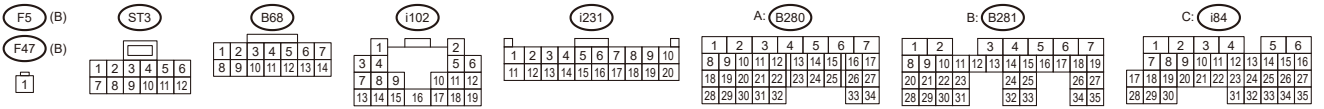
WIRING DIAGRAM



a



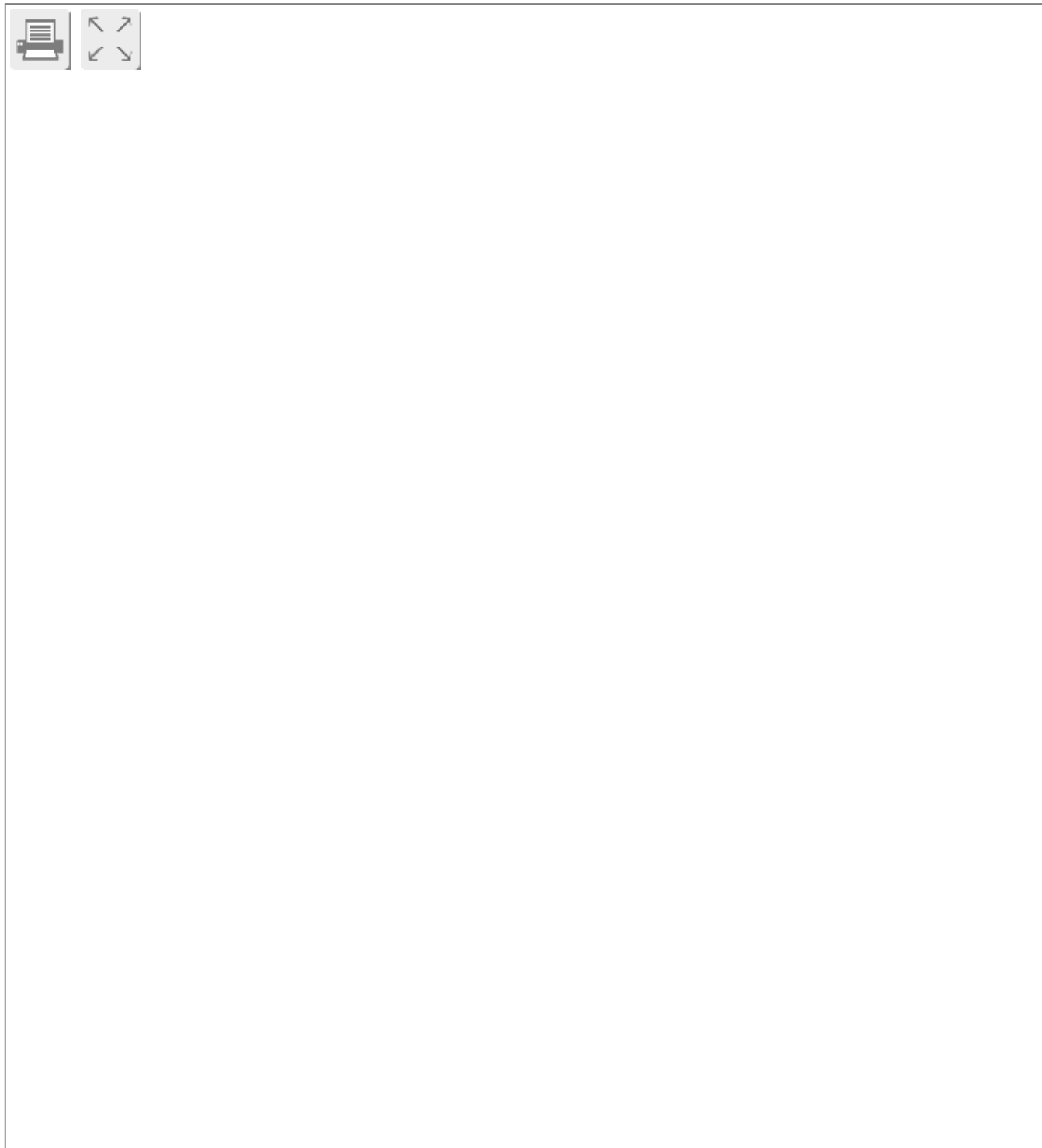
a



WIRING DIAGRAM

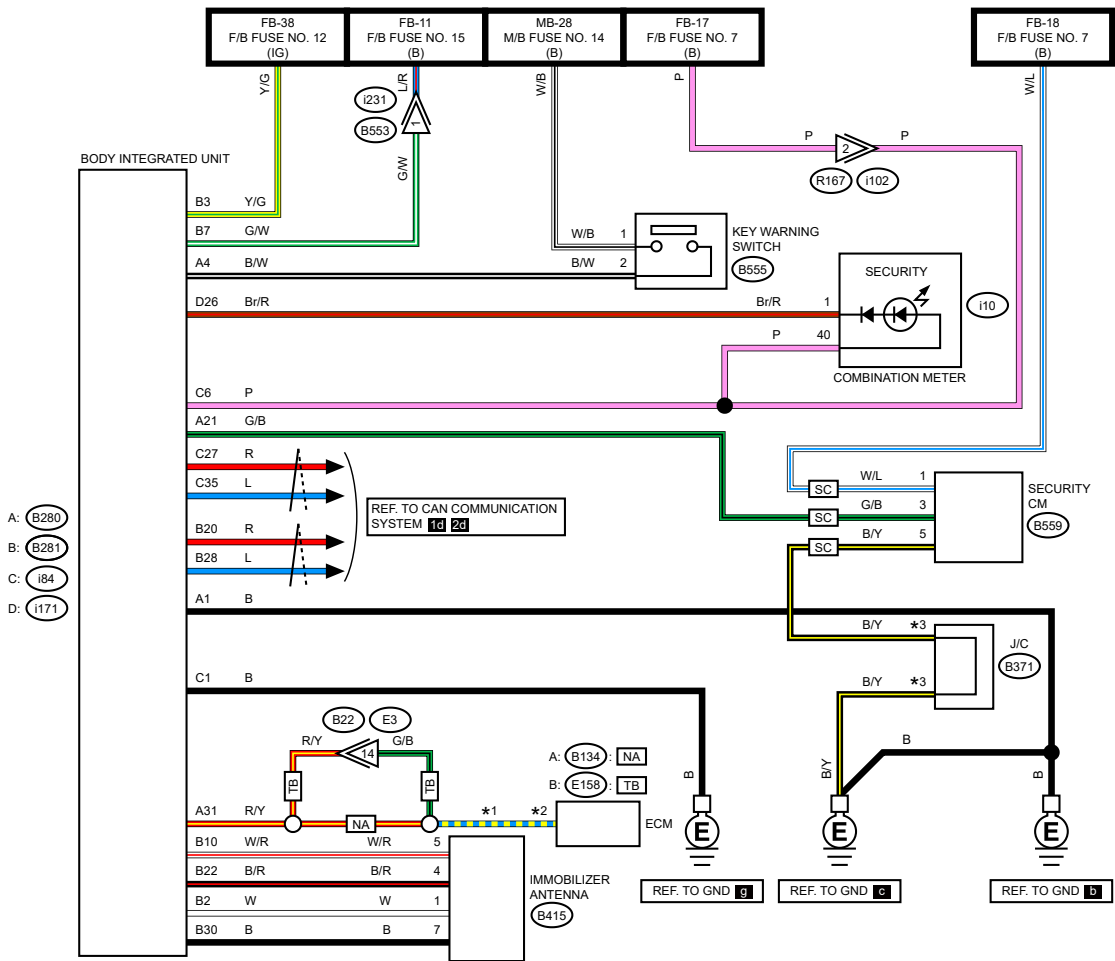
▼ Please select ▼ see

1. WITHOUT PUSH BUTTON START



1a

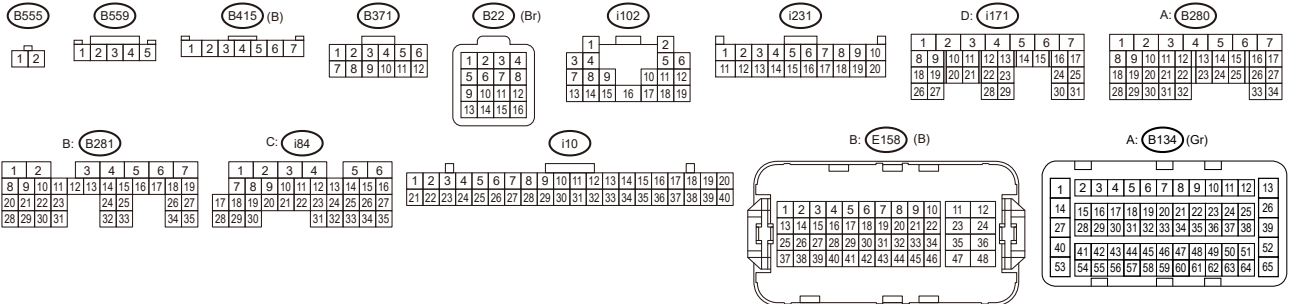
1a



- A: (B280)
- B: (B281)
- C: (i84)
- D: (i171)

[NA] : NON-TURBO MODEL
 [TB] : TURBO MODEL
 [SC] : WITH SECURITY CM

*1 : NON-TURBO MODEL : R/Y
 TURBO MODEL : G/B
 *2 : NON-TURBO MODEL : A38
 TURBO MODEL : B43
 *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6



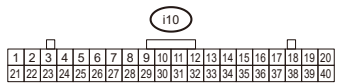
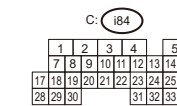
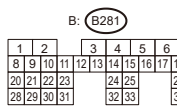
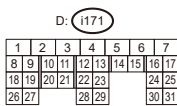
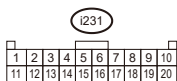
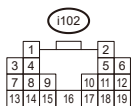
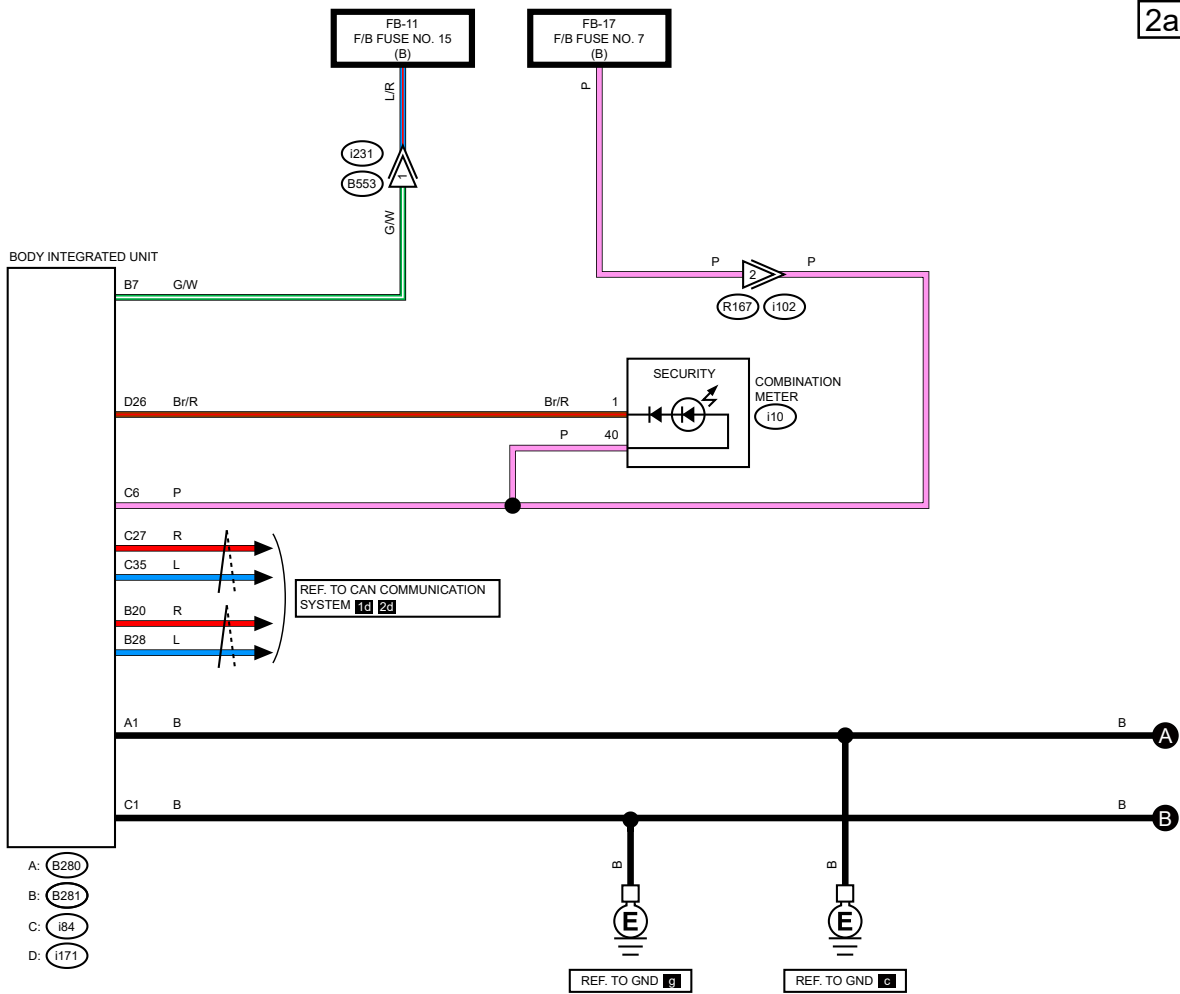
WI-65658

2. WITH PUSH BUTTON START

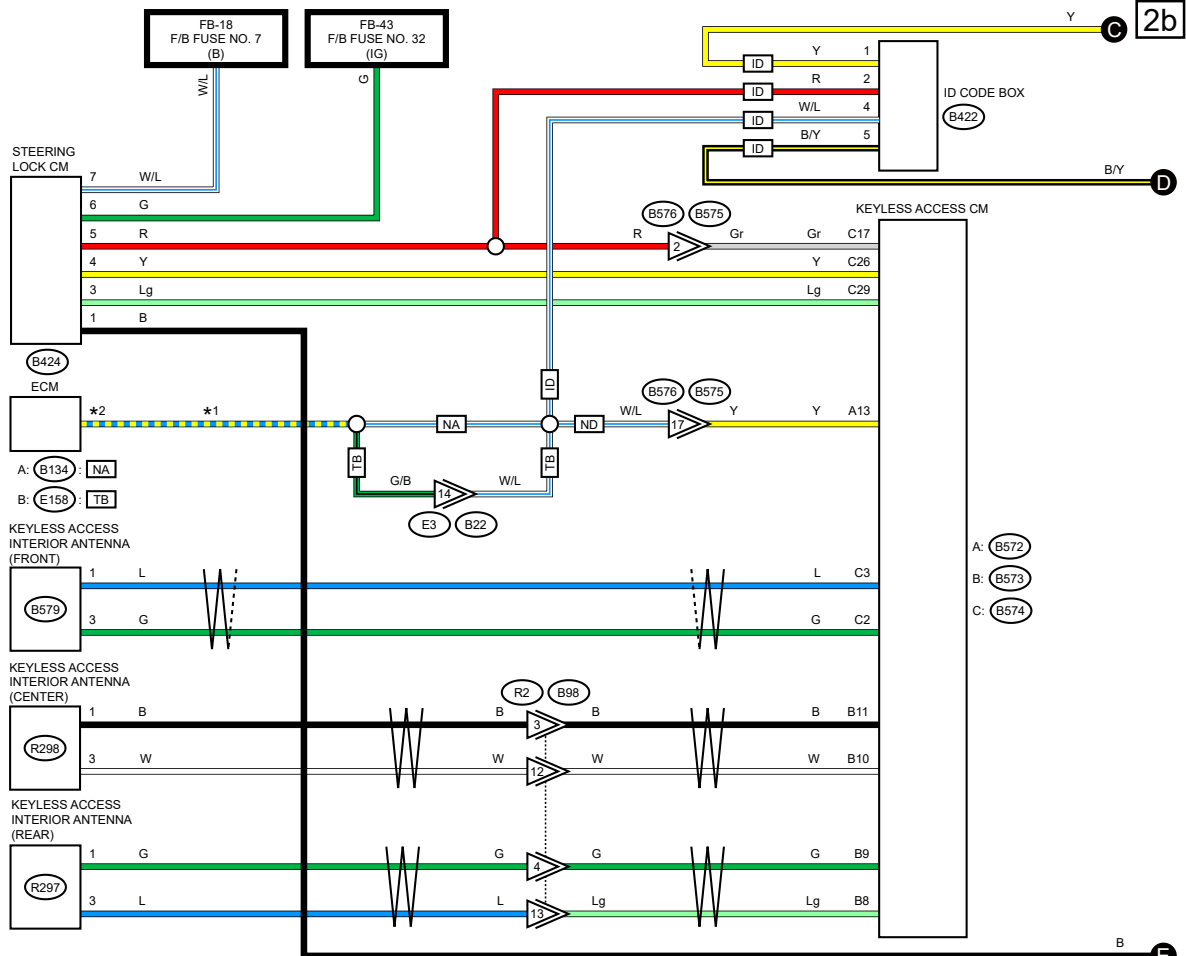


2a

2a

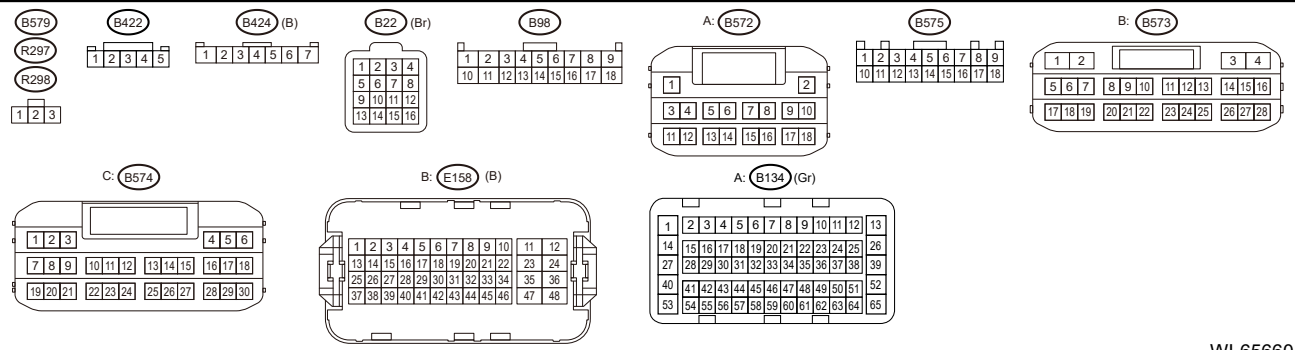


2b



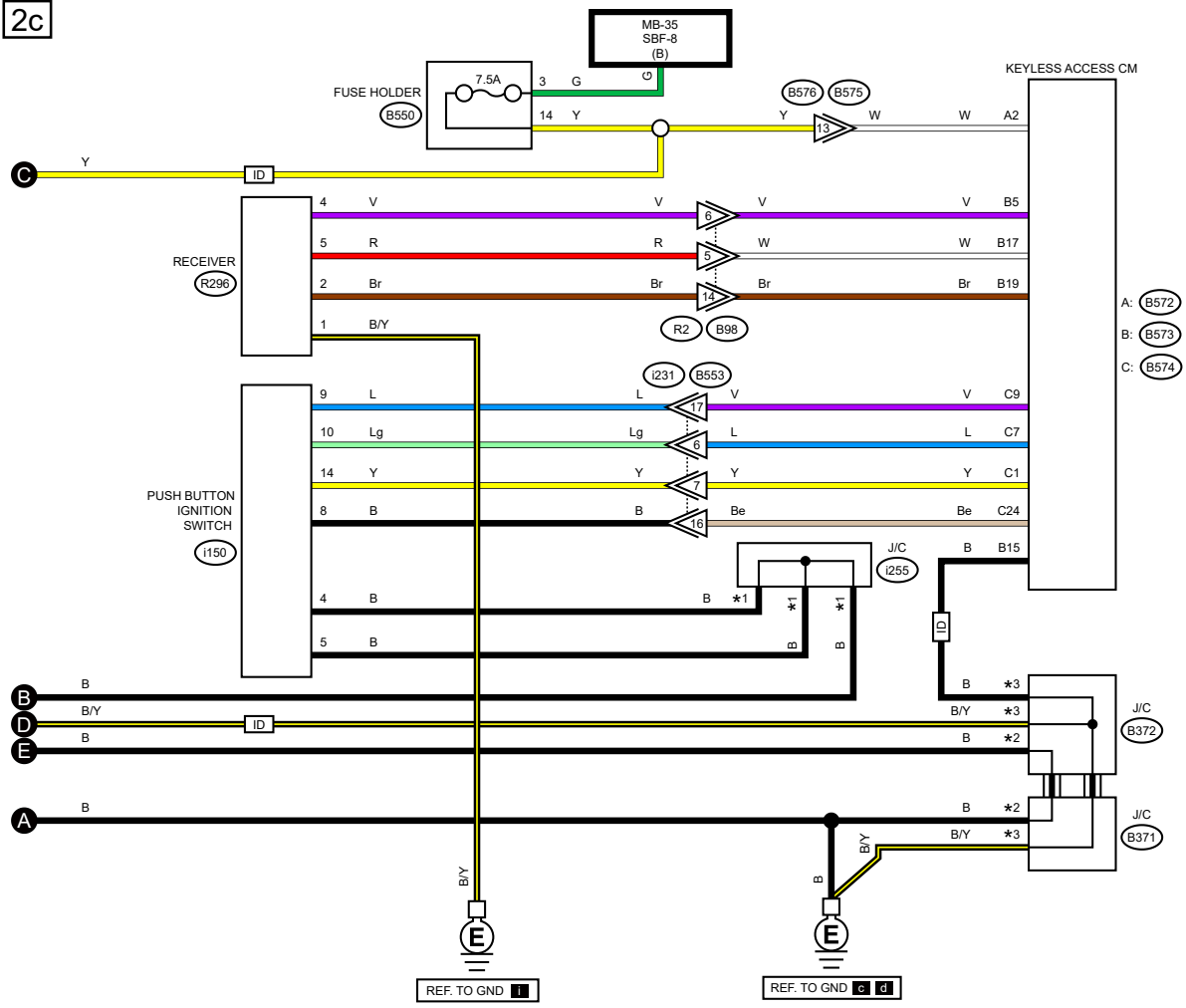
NA : NON-TURBO MODEL
 TB : TURBO MODEL
 ND : WITHOUT ID CODE BOX
 ID : WITH ID CODE BOX

*1 : NON-TURBO MODEL : W/L
 TURBO MODEL : G/B
 *2 : NON-TURBO MODEL : A38
 TURBO MODEL : B43



WI-65660



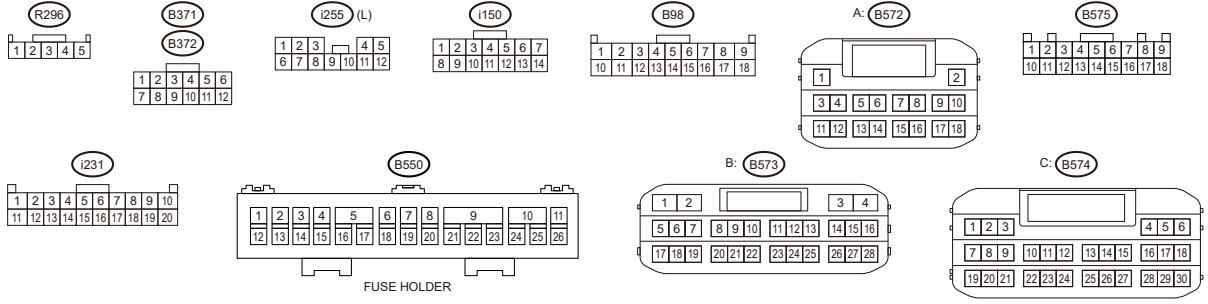


ID : WITH ID CODE BOX

*2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

*3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6



WIRING SYSTEM > Instrument Panel Wiring Harness LH

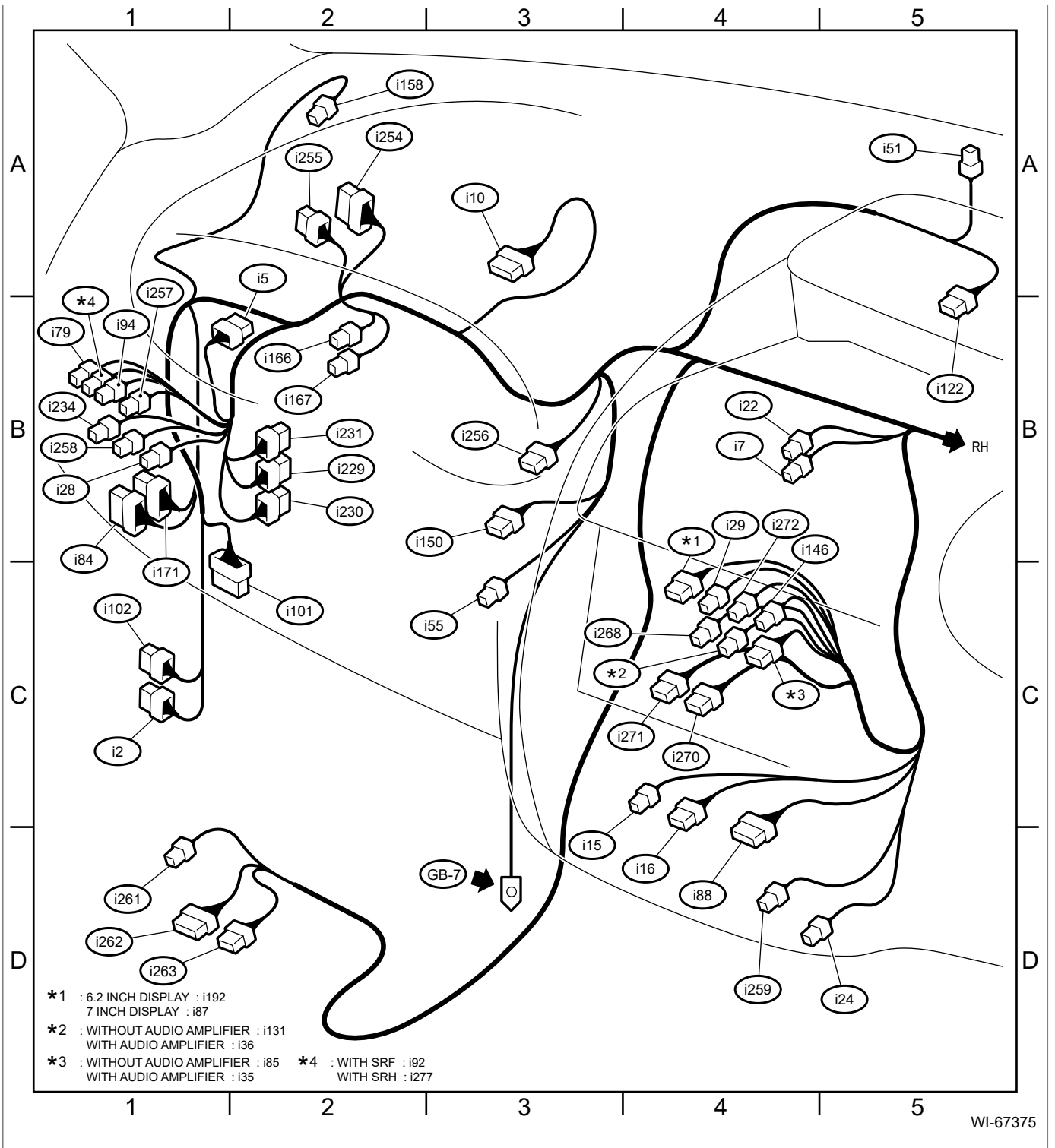
LOCATION

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
i2	14	★	C-1	R339	Rear wiring harness LH
i5	20	★	B-2		F/B
i7	4	Gr	B-4		MFD switch
i10	40	★	A-3		Combination meter
i15	6	★	C-4		Blower fan switch (manual A/C)
i16	16	★	C-4		A/C control panel (manual A/C)
i22	4	★	B-4		Hazard switch
i24	2	★	D-4		Front accessory power supply socket
i28	4	Gr	B-1		OP connector (fog light switch)
i29	1	★	C-4		Audio bracket ground
i35	10	★	C-4		Audio (without navigation)
	10	★	C-4		Navigation unit (with navigation)
i36	6	★	C-4		Audio (without navigation)
	6	★	C-4		Navigation unit (with navigation)
i51	2	★	A-5		Sunload sensor
i55	2	★	C-3		In-vehicle sensor
i79	6	★	B-1		Illumination control switch
i84	35	★	B-1		Body integrated unit
i85	10	★	C-4		Audio (without navigation)
	10	★	C-4		Navigation unit (with navigation)
i87	28	★	C-4		Audio (without navigation)
	28	★	C-4		Navigation unit (with navigation)
i88	40	★	D-4		A/C control panel (auto A/C)
i92	4	Gr	B-1		SRF OFF switch
i94	4	★	B-1		BSD/RCTA OFF switch
i101	28	★	C-1	D84	Front door cord LH
i102	18	★	C-1	R167	Rear wiring harness LH
i122	12	B	B-5		MFD
i131	6	★	C-4		Audio (without navigation)
	6	★	C-4		Navigation unit (with navigation)
i146	5	★	C-4		Audio (without navigation)
	5	★	C-4		Navigation unit (with navigation)
i150	14	★	B-3		Push button ignition switch
i158	2	★	A-2		Side tweeter LH (without audio amplifier)
	4	★	A-2		Side tweeter LH (with audio amplifier)

i166	4	★	B-2		J/C
i167	4	★	B-2		
i171	31	★	B-1		Body integrated unit
i192	28	★	C-4		Audio
i229	16	★	B-2	B551	Bulkhead wiring harness
i230	18	★	B-2	B552	
i231	20	★	B-2	B553	
i234	4	★	B-1		VDC OFF switch
i254	22	★	A-2		J/C
i255	12	L	A-2		
i256	12	★	B-3		
i257	4	★	B-1		Memory height switch
i258	6	★	B-1		VDC OFF & power rear gate driver's switch (with power rear gate)
i259	2	★	D-4		Pocket light
i261	4	★	D-1		J/C
i262	24	★	D-1		Audio amplifier
i263	10	★	D-1		
i268	4	★	C-4		J/C
i270	20	Gr	B-4		Data communication module
i271	16	Gr	B-4		
i272	8	★	C-4		Audio (without navigation)
	8	★	C-4		Navigation unit (with navigation)
i277	4	Gr	B-1		SRH OFF switch

★:White or natural color





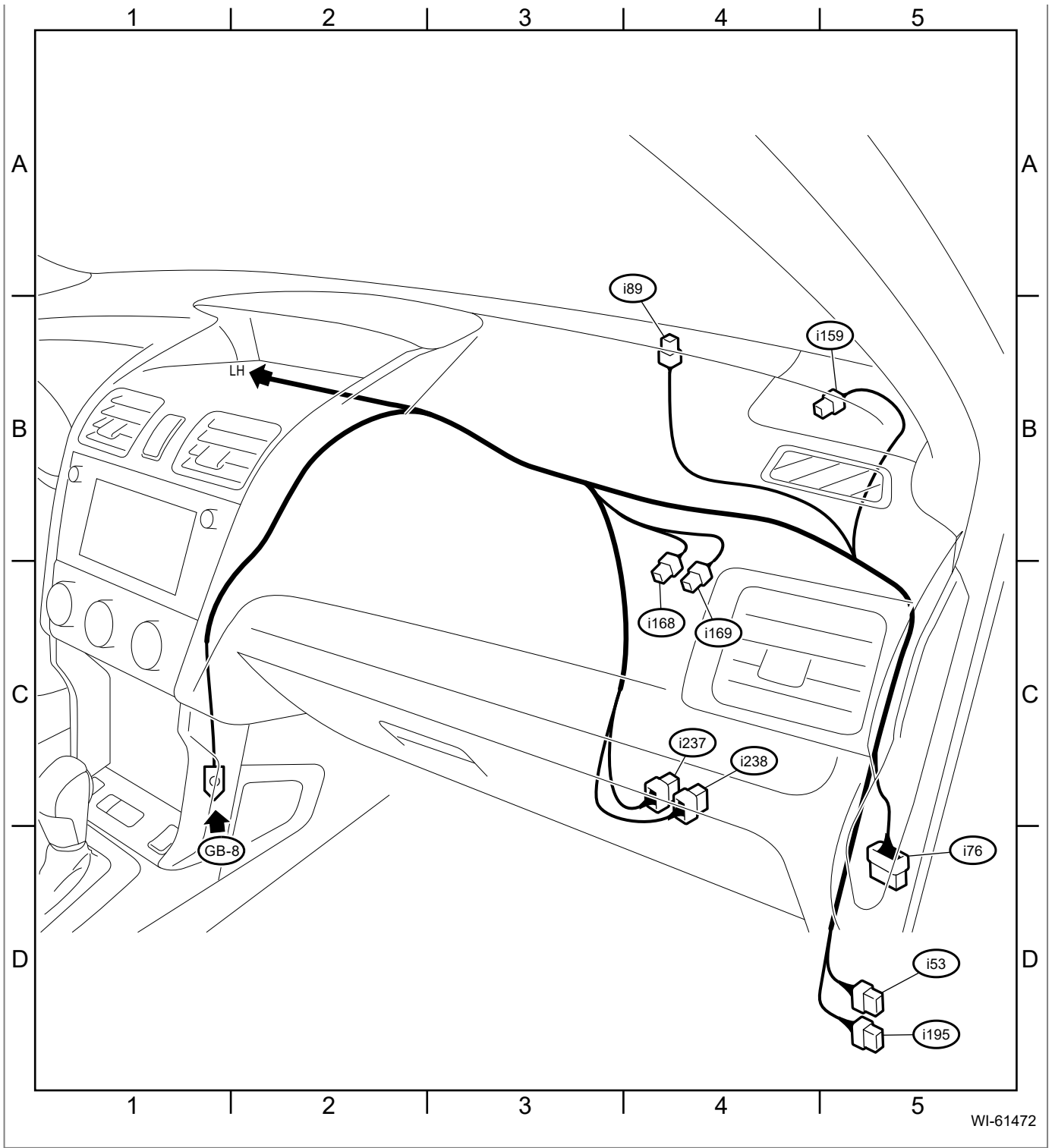
WIRING SYSTEM > Instrument Panel Wiring Harness RH

LOCATION

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
i53	19	★	D-5	R98	Rear wiring harness RH
i76	28	★	D-5	D83	Front door cord RH
i89	3	★	B-4		Auto light sensor
i159	2	★	B-5		Side tweeter RH (without audio amplifier)
	4	★	B-5		Side tweeter RH (with audio amplifier)
i168	4	★	B-4		J/C
i169	4	★	B-4		
i195	22	★	D-5	R382	Rear wiring harness RH
i237	18	★	C-4	B583	Bulkhead wiring harness
i238	20	★	C-4	B584	

★: White or natural color

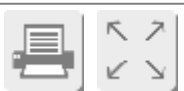
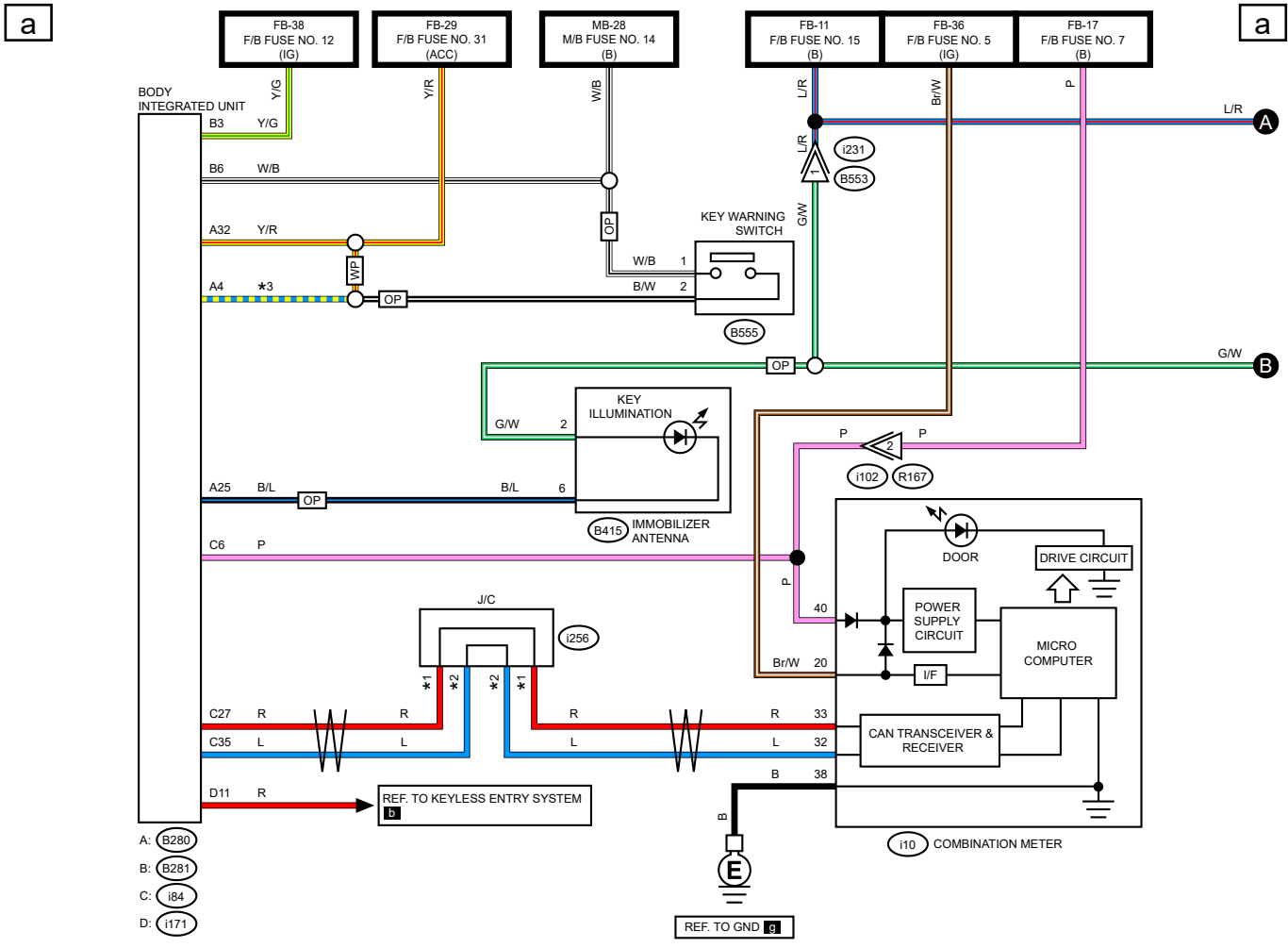


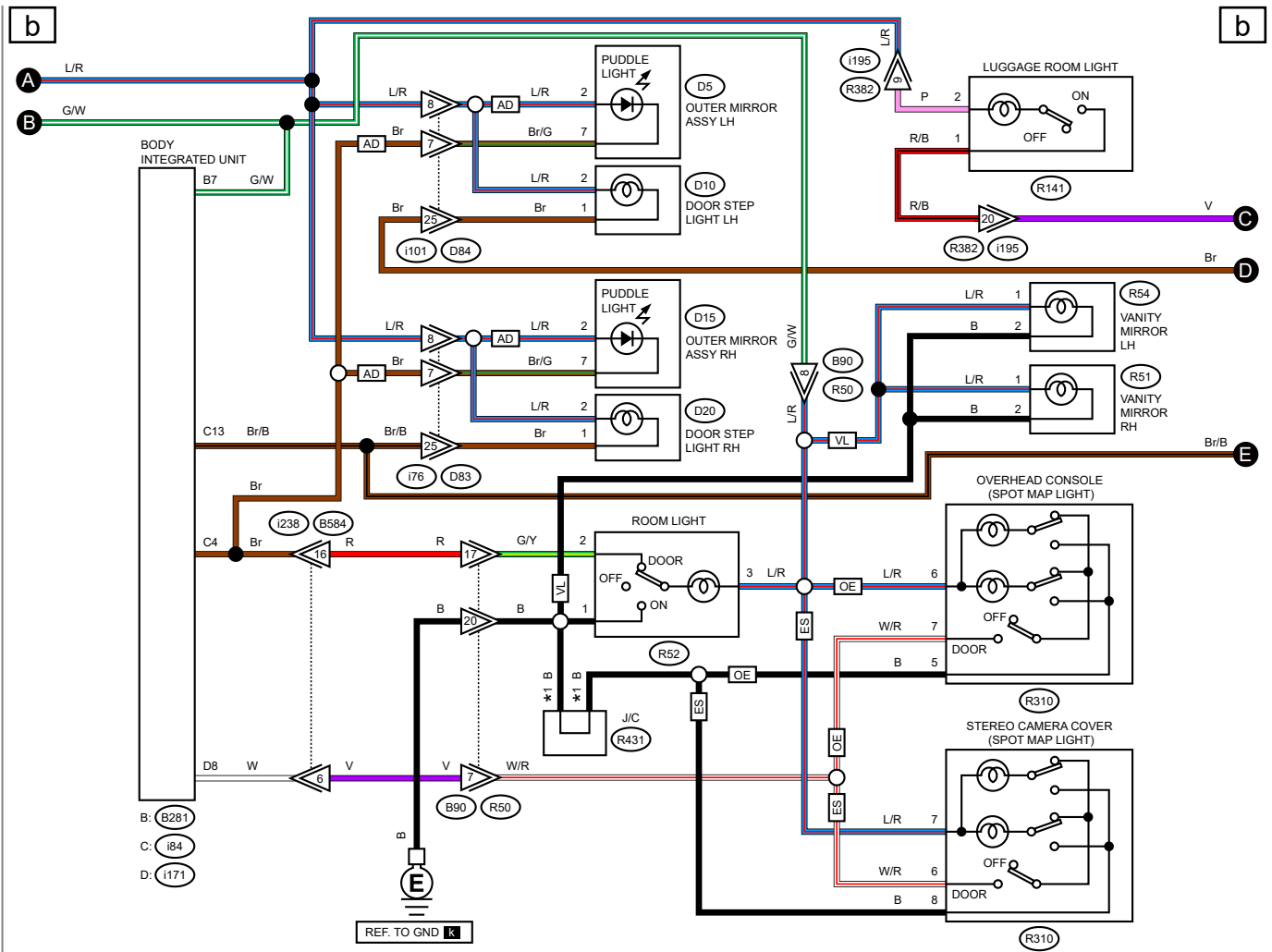


WIRING SYSTEM > Interior Light System

WIRING DIAGRAM







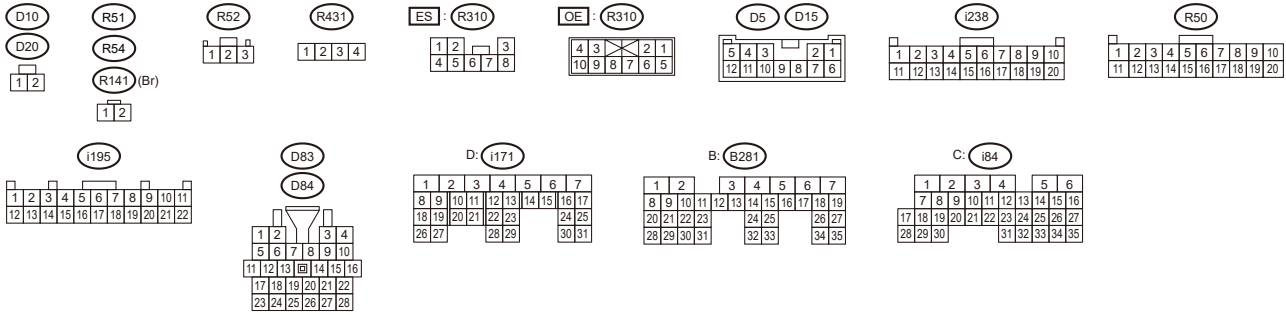
OE : WITHOUT EyeSight

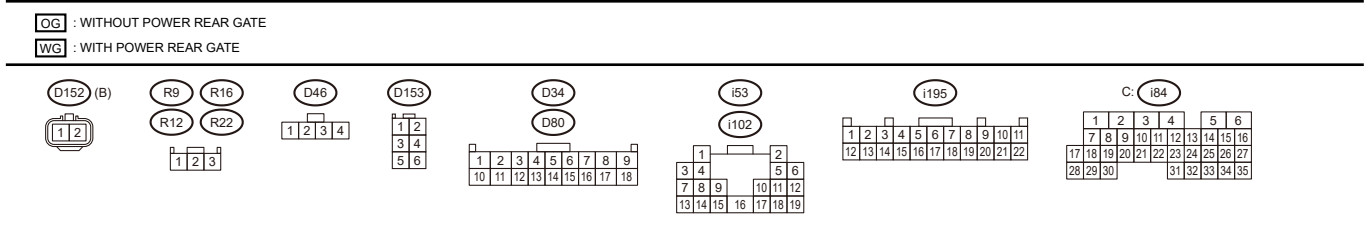
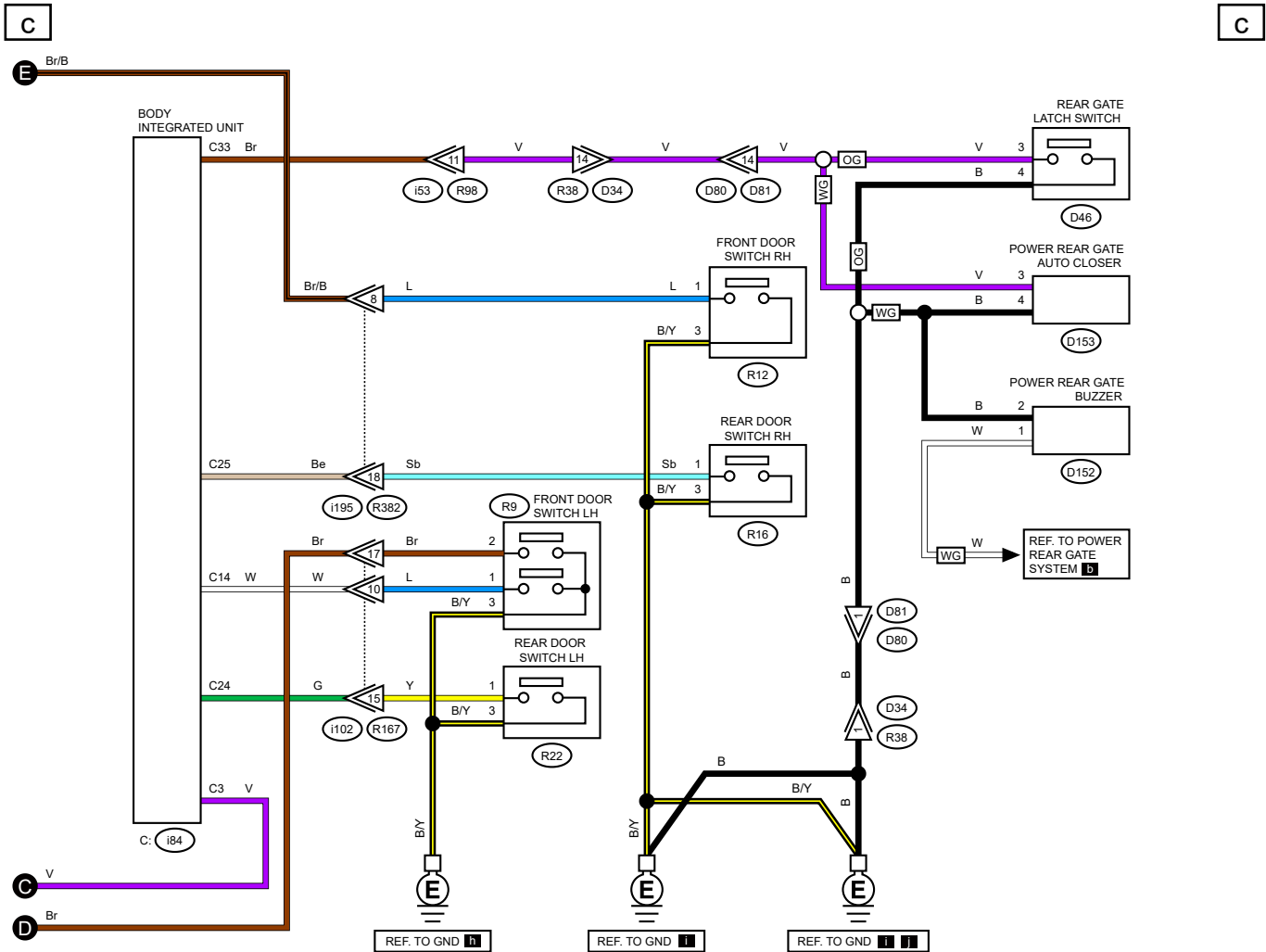
ES : WITH EyeSight

AD : WITH AUTOMATIC ANTI-GLARE

VL : WITH VANITY MIRROR LIGHT

*1 : TERMINAL No. OPTIONAL ARRANGEMENT





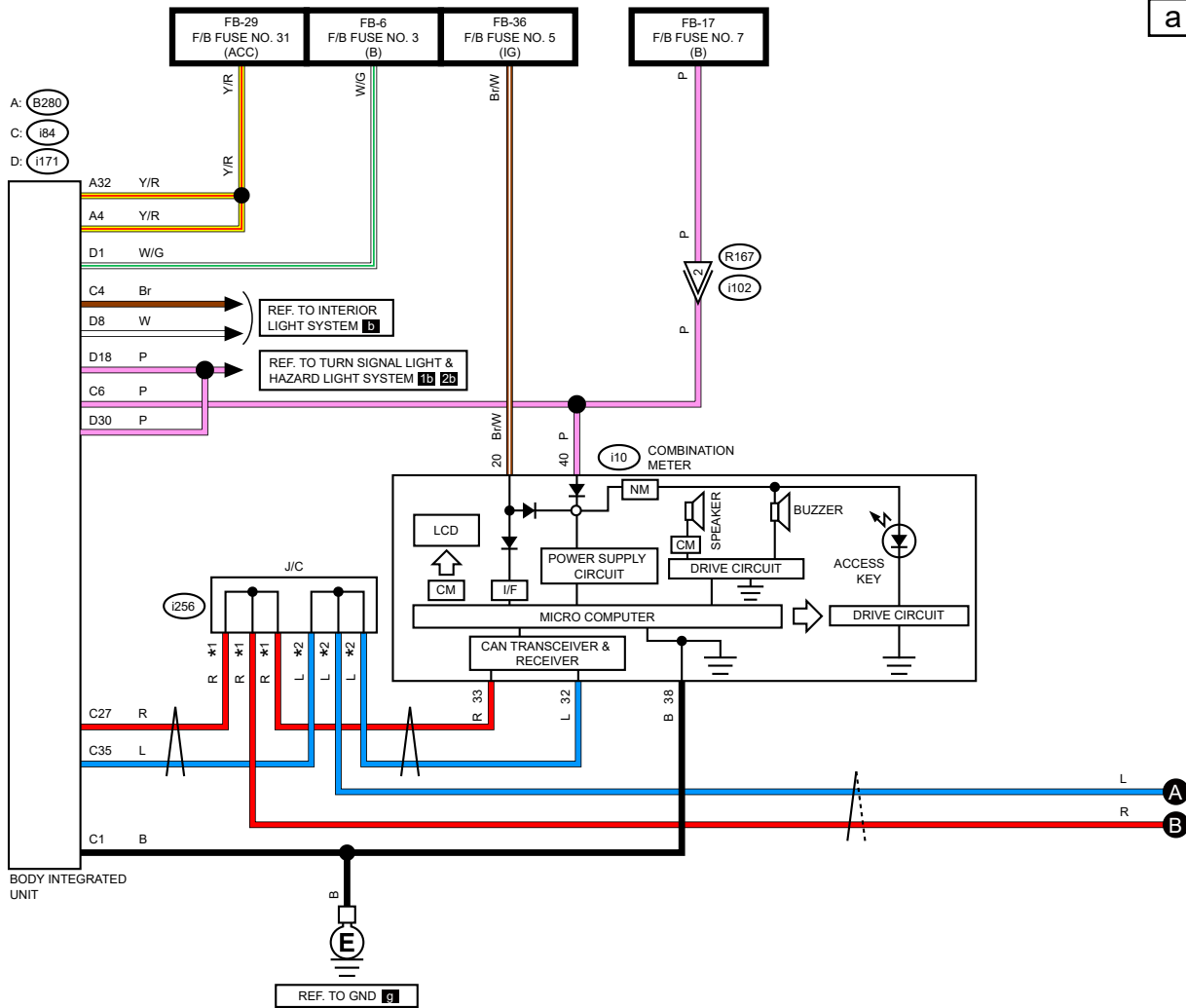
WIRING SYSTEM > Keyless Access System

WIRING DIAGRAM



a

a

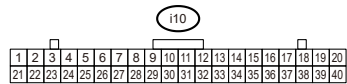
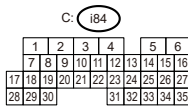
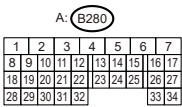
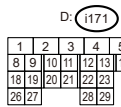
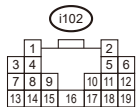
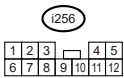


[NM] : NORMAL METER MODEL

[CM] : COLOR TFT METER MODEL

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8

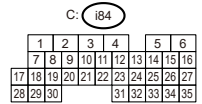
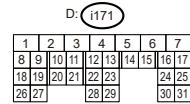
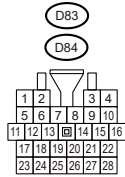
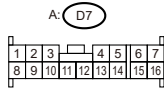
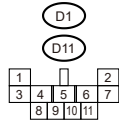
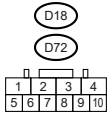
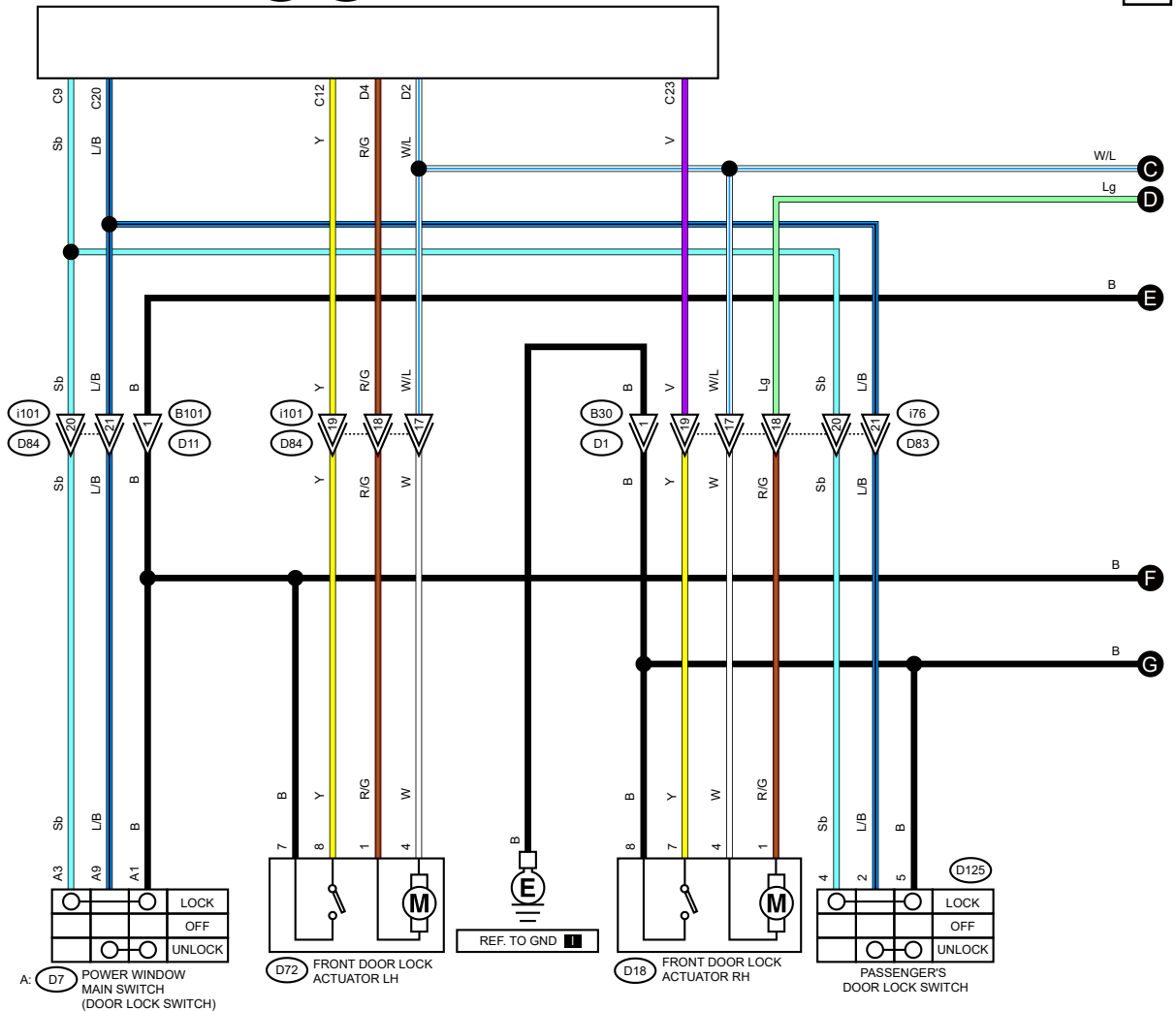
*2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

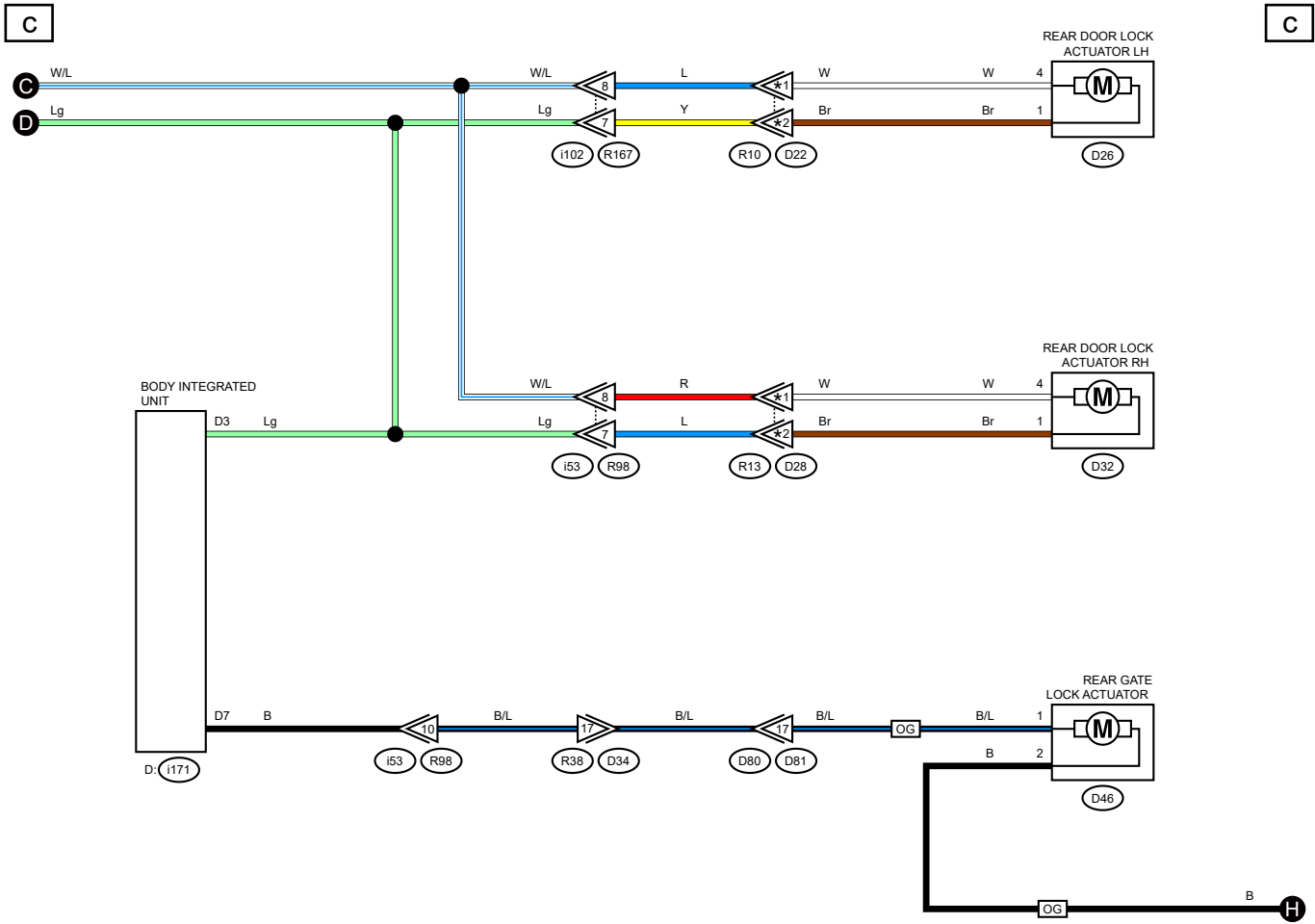


b

C: i84 D: i171 BODY INTEGRATED UNIT

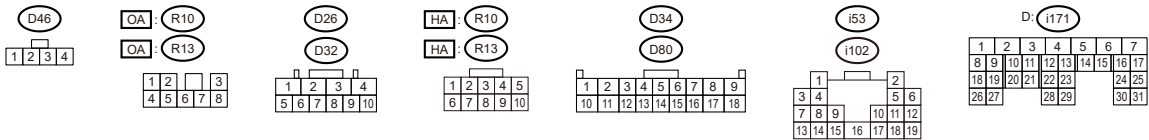
b





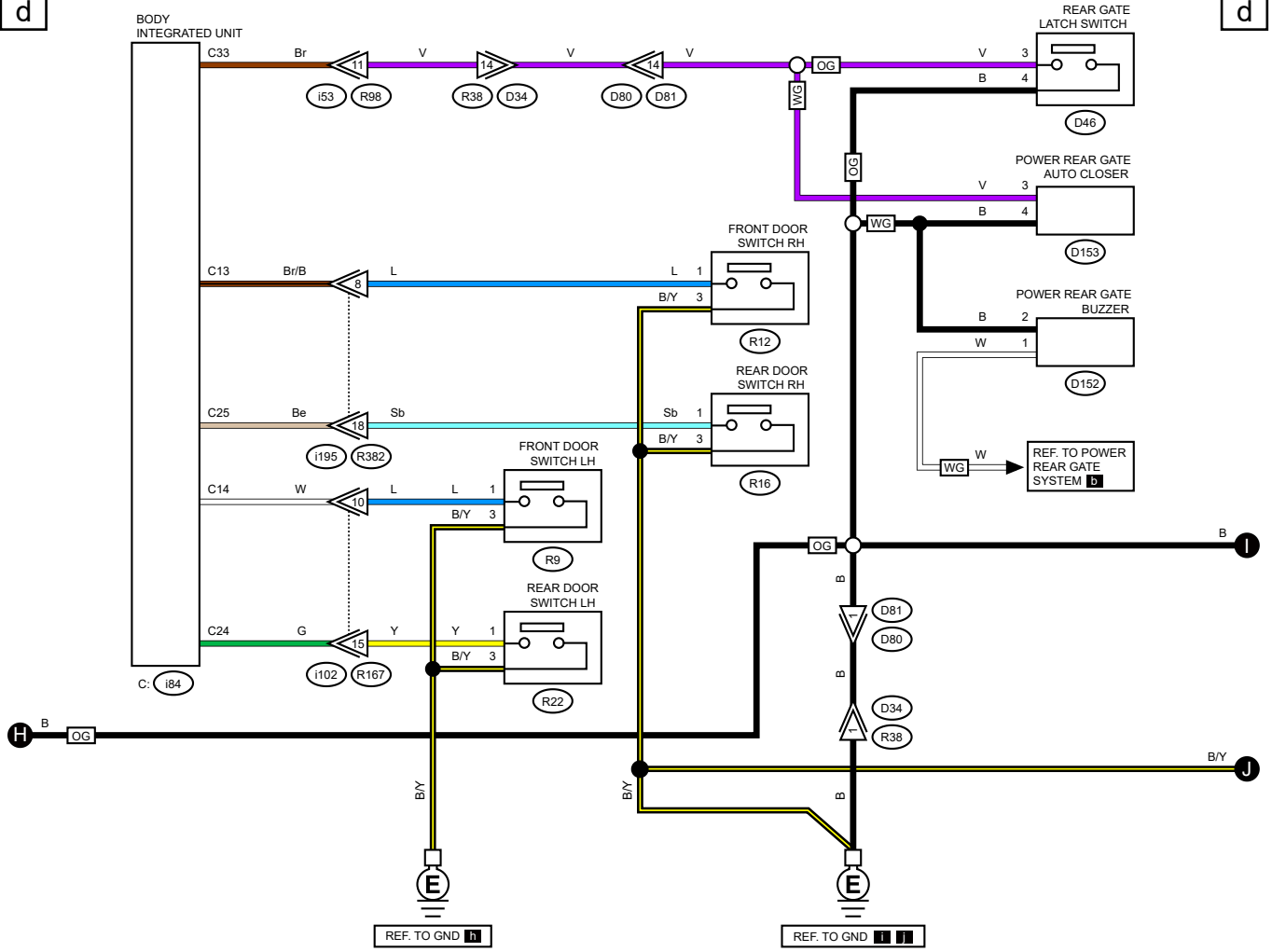
OG : WITHOUT POWER REAR GATE
 OA : MODEL WITH STANDARD AUDIO
 HA : MODEL WITH HIGH GRADE AUDIO

*1 : MODEL WITH STANDARD AUDIO : 4
 MODEL WITH HIGH GRADE AUDIO : 6
 *2 : MODEL WITH STANDARD AUDIO : 5
 MODEL WITH HIGH GRADE AUDIO : 7

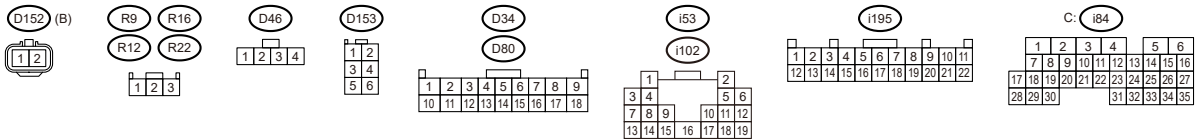


d

d

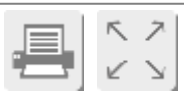
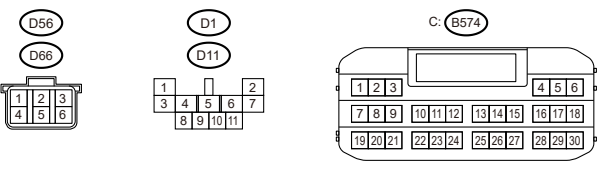
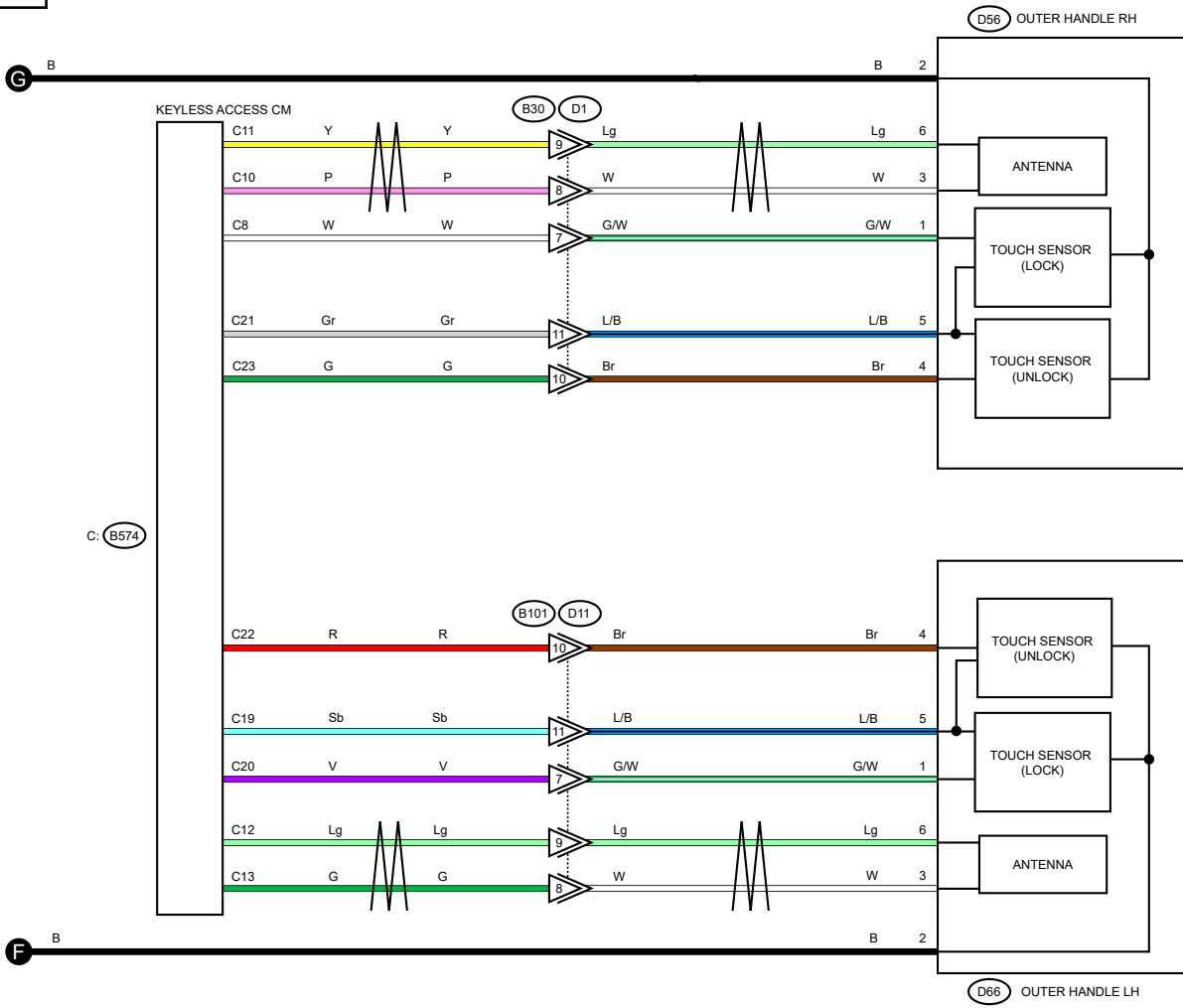


OG : WITHOUT POWER REAR GATE
 WG : WITH POWER REAR GATE



e

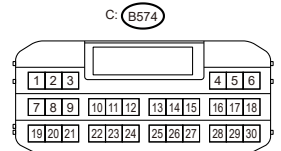
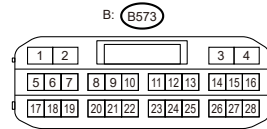
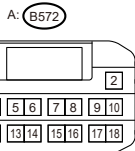
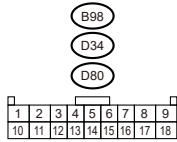
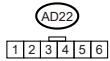
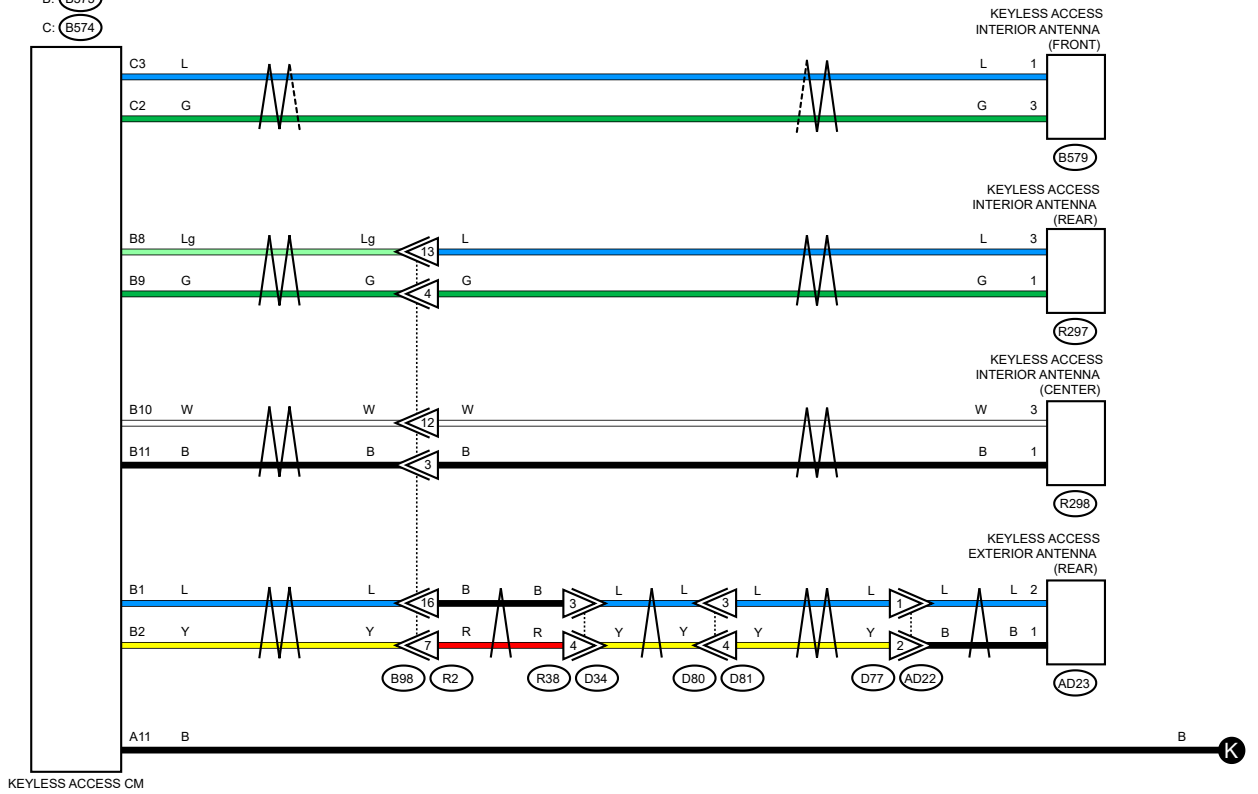
e



f

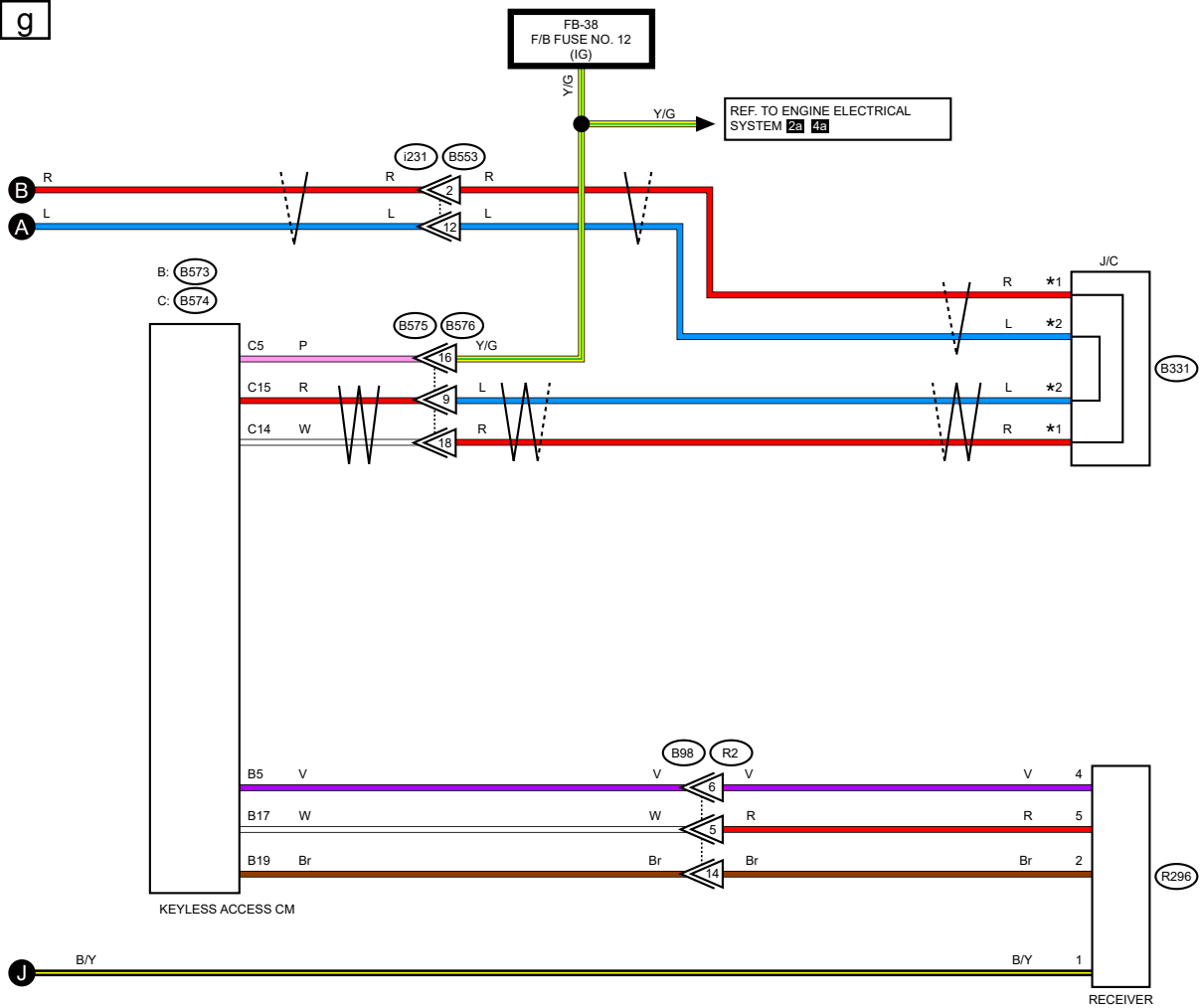
- A: B572
- B: B573
- C: B574

f

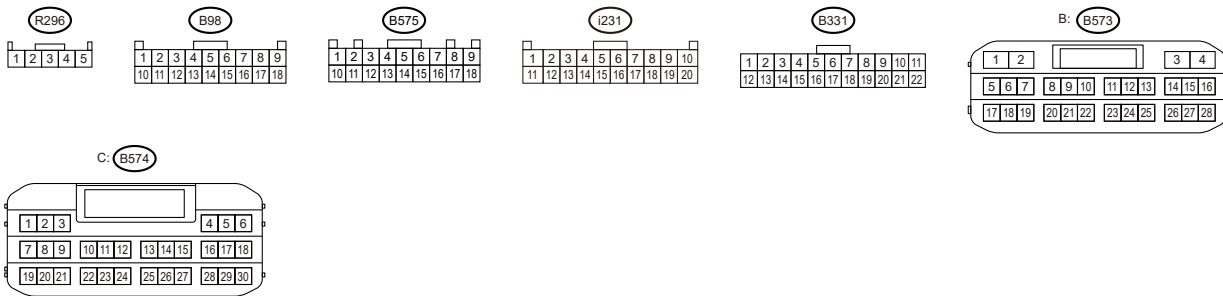


g

g



- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22

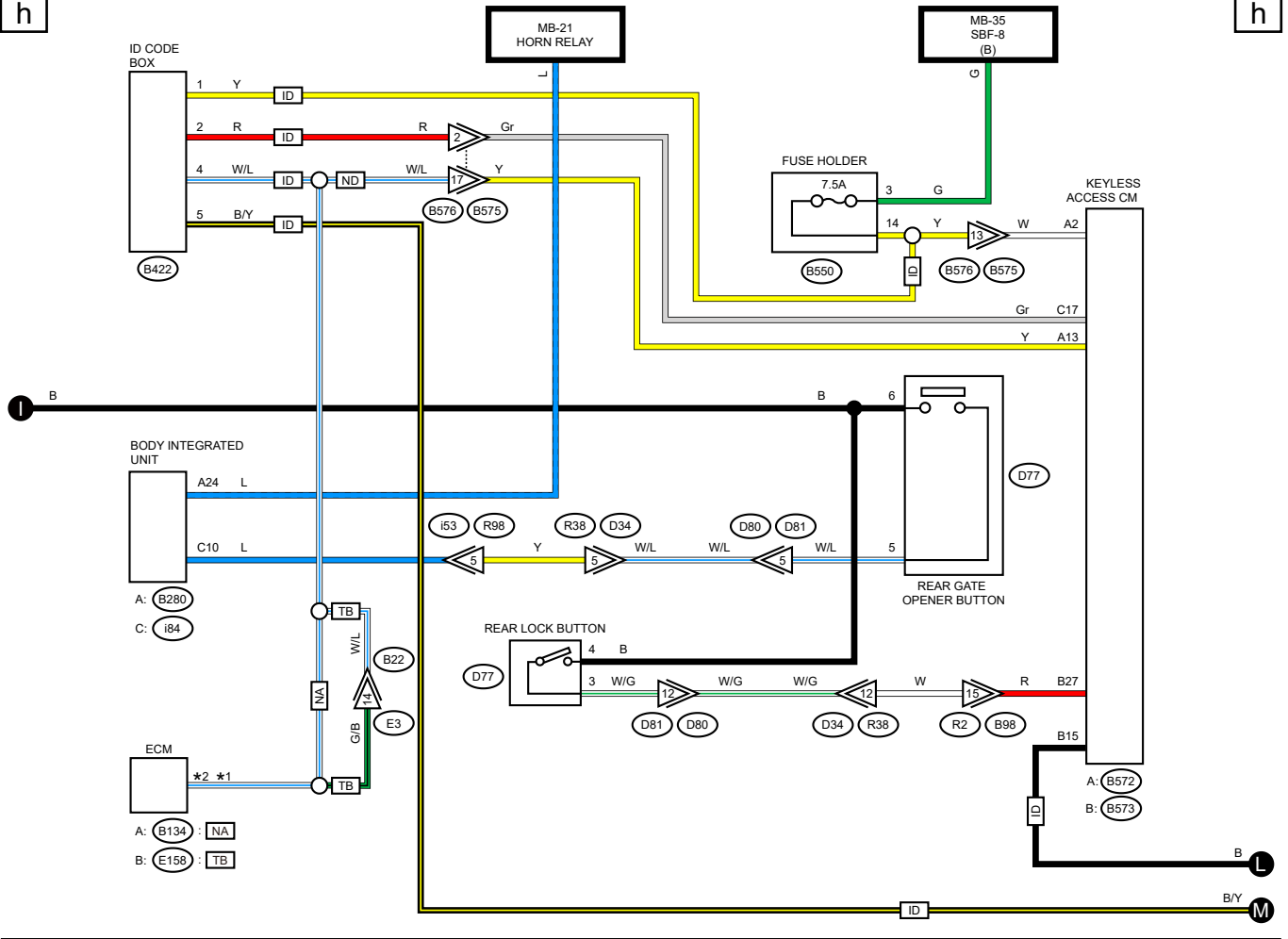


WI-65671



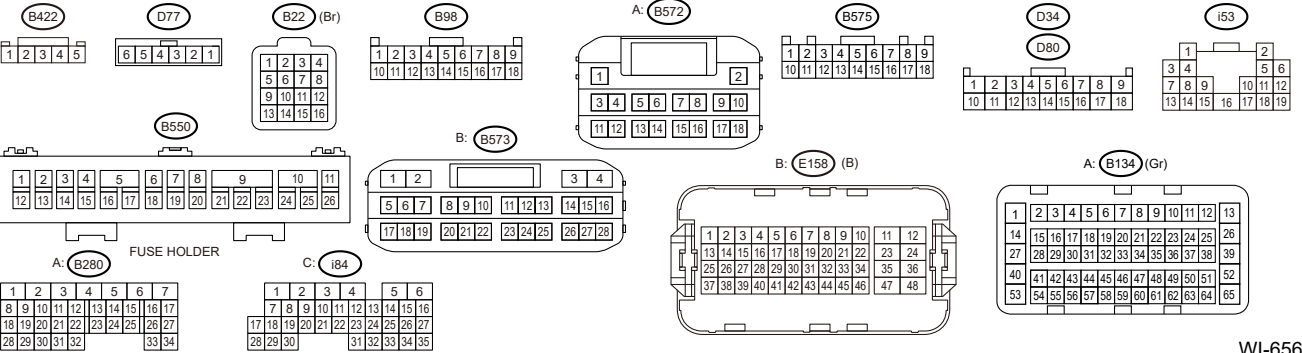
h

h



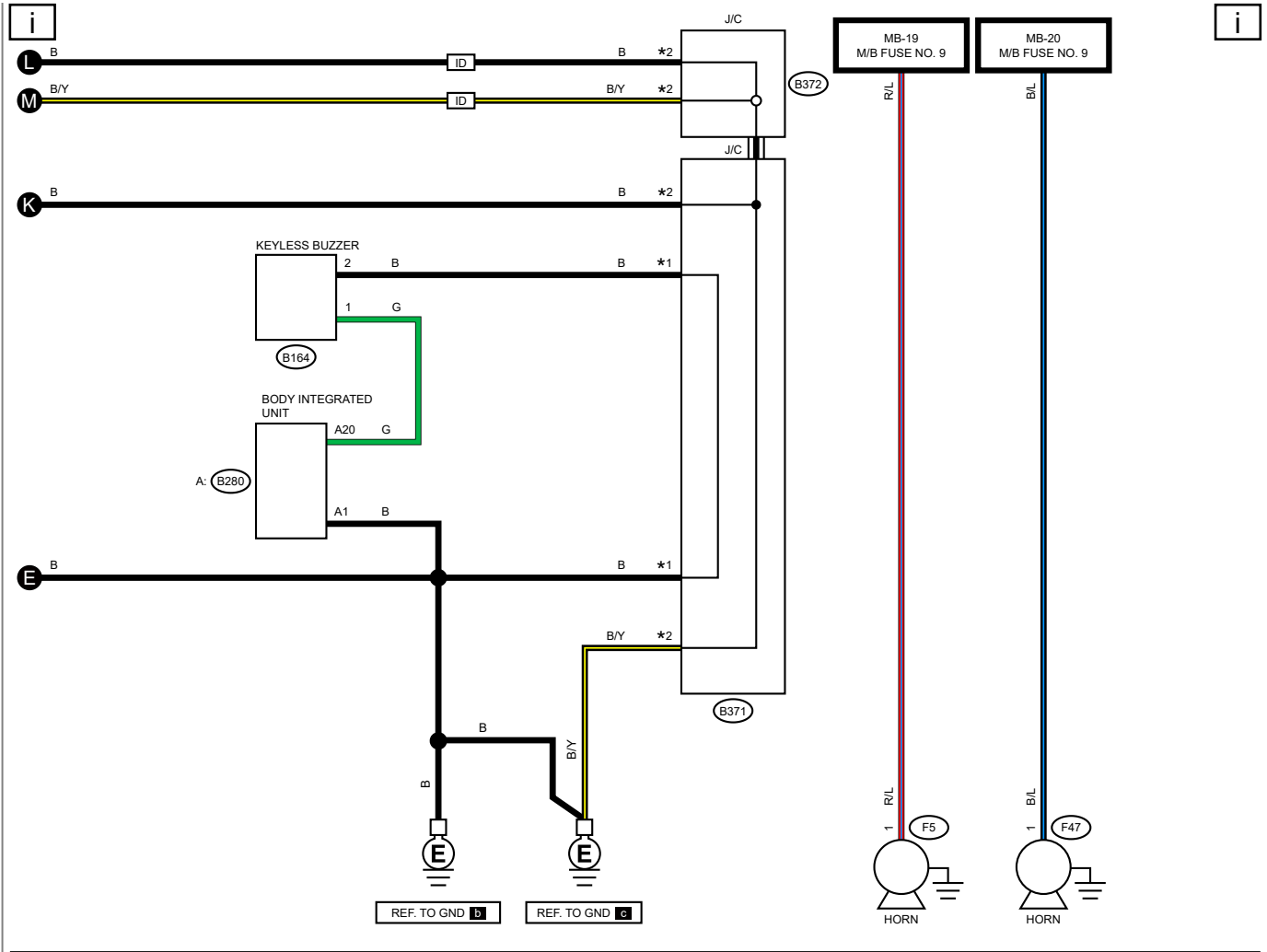
- NA : NON-TURBO MODEL
- TB : TURBO MODEL
- ND : WITHOUT ID CODE BOX
- ID : WITH ID CODE BOX

- *1 : NON-TURBO MODEL : W/L
TURBO MODEL : G/B
- *2 : NON-TURBO MODEL : A38
TURBO MODEL : B43



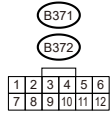
WI-65672





*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6

ID : WITH ID CODE BOX

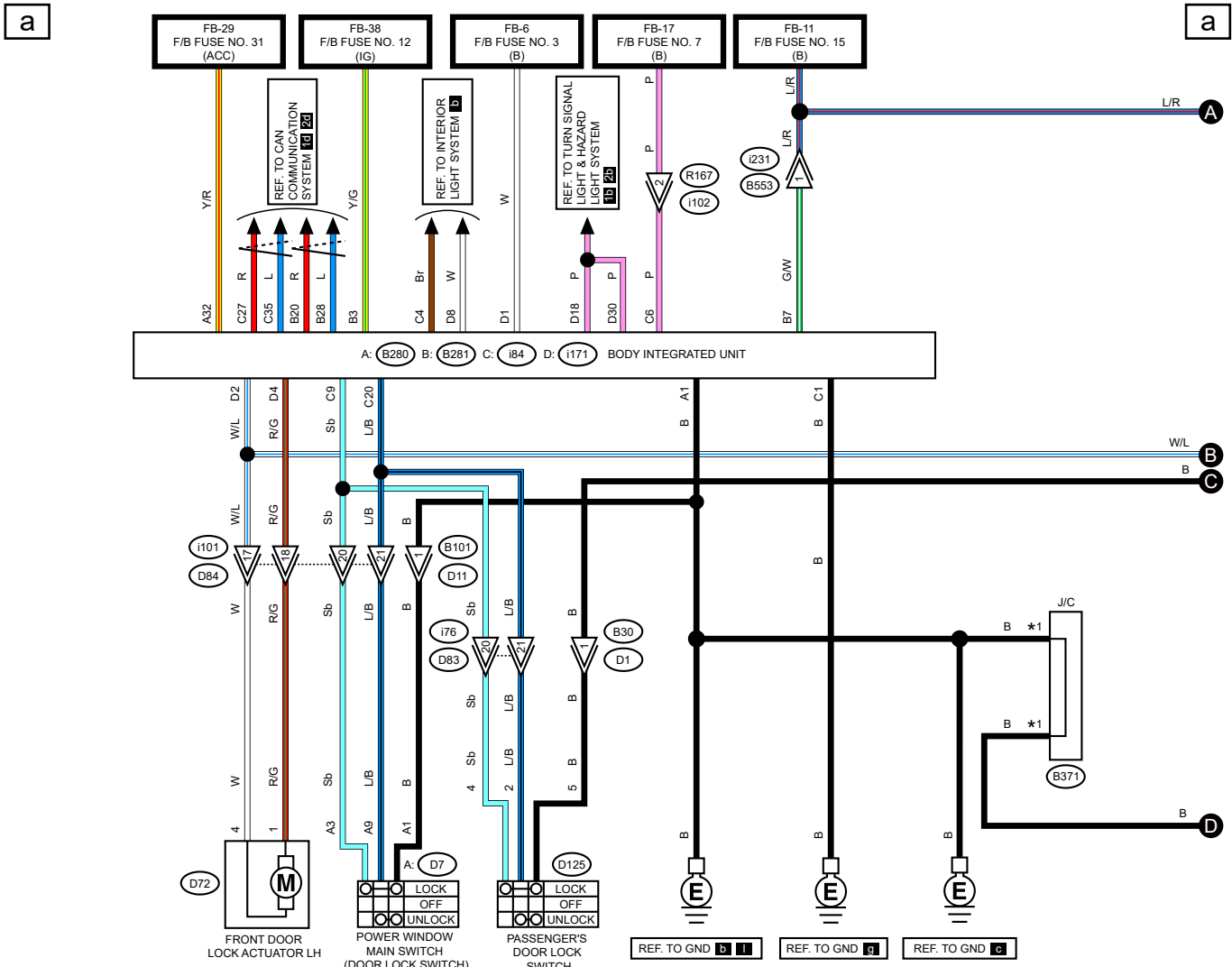


1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	

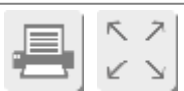
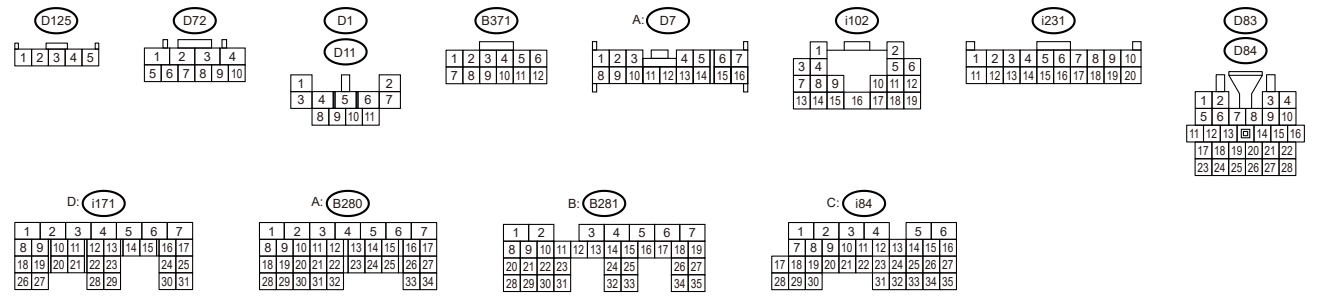
WIRING SYSTEM > Keyless Entry System

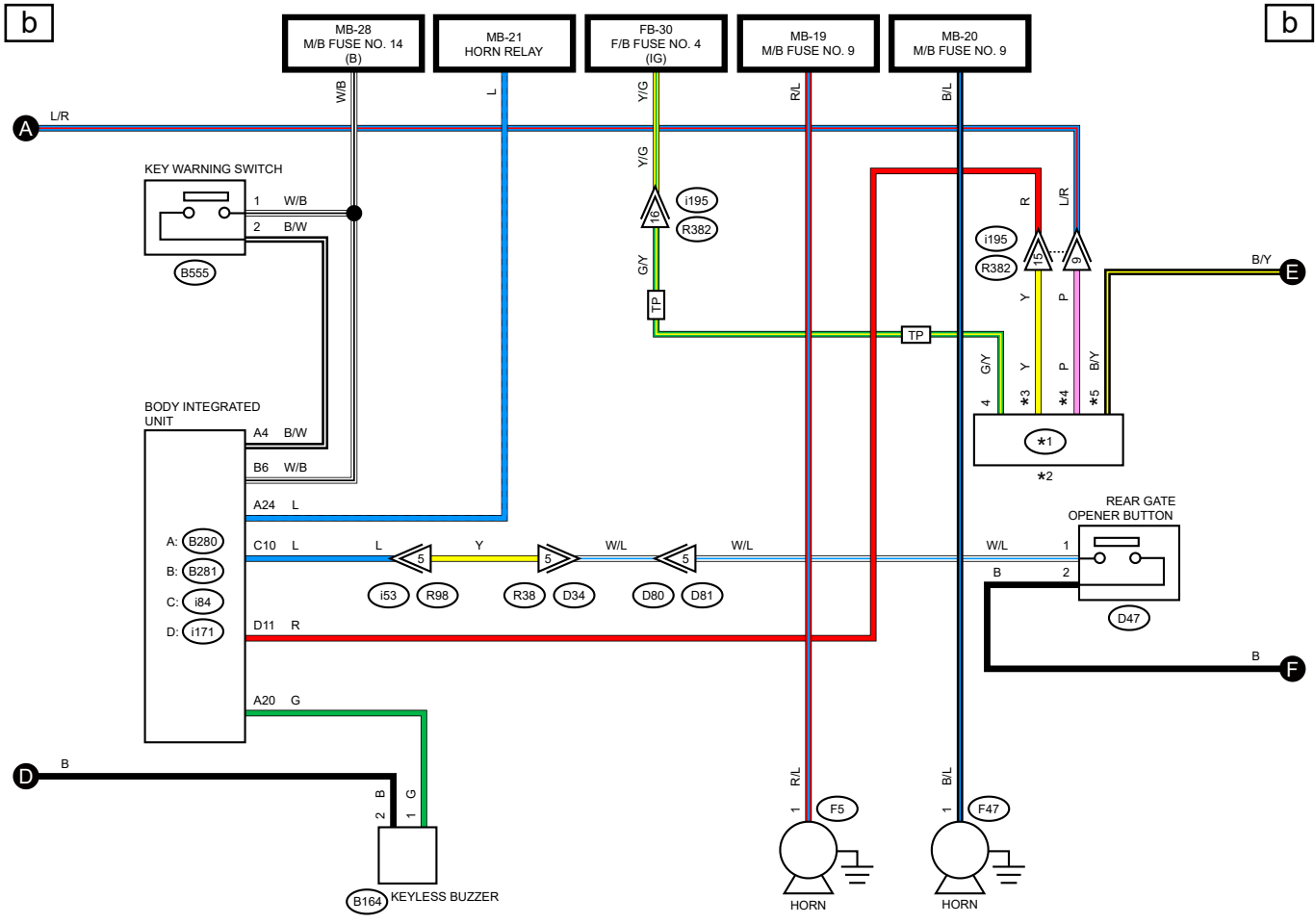
WIRING DIAGRAM



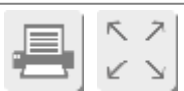
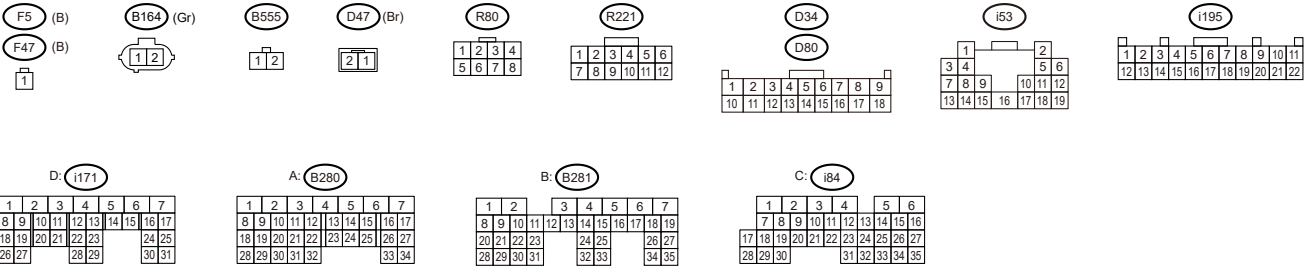


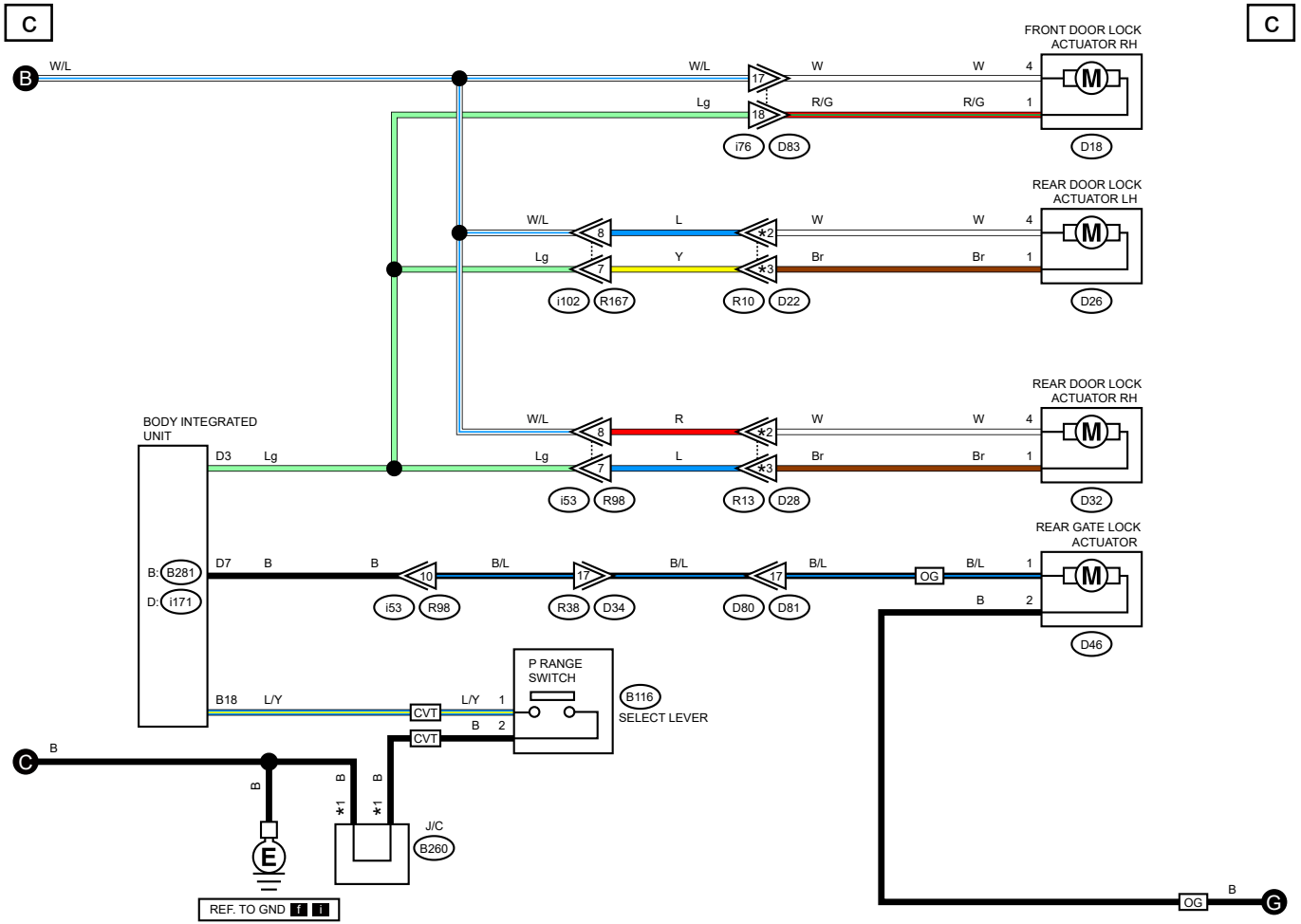
*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12





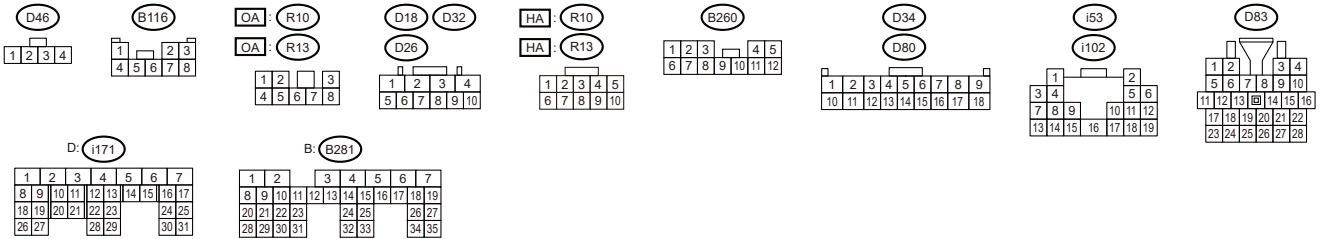
- [TP]** : WITH TPMS
- *1 : WITHOUT TPMS : R80
WITH TPMS : R221
 - *2 : WITHOUT TPMS : KEYLESS ENTRY CM
WITH TPMS : TPMS & KEYLESS ENTRY CM
 - *3 : WITHOUT TPMS : 3
WITH TPMS : 11
 - *4 : WITHOUT TPMS : 4
WITH TPMS : 6
 - *5 : WITHOUT TPMS : 7
WITH TPMS : 5





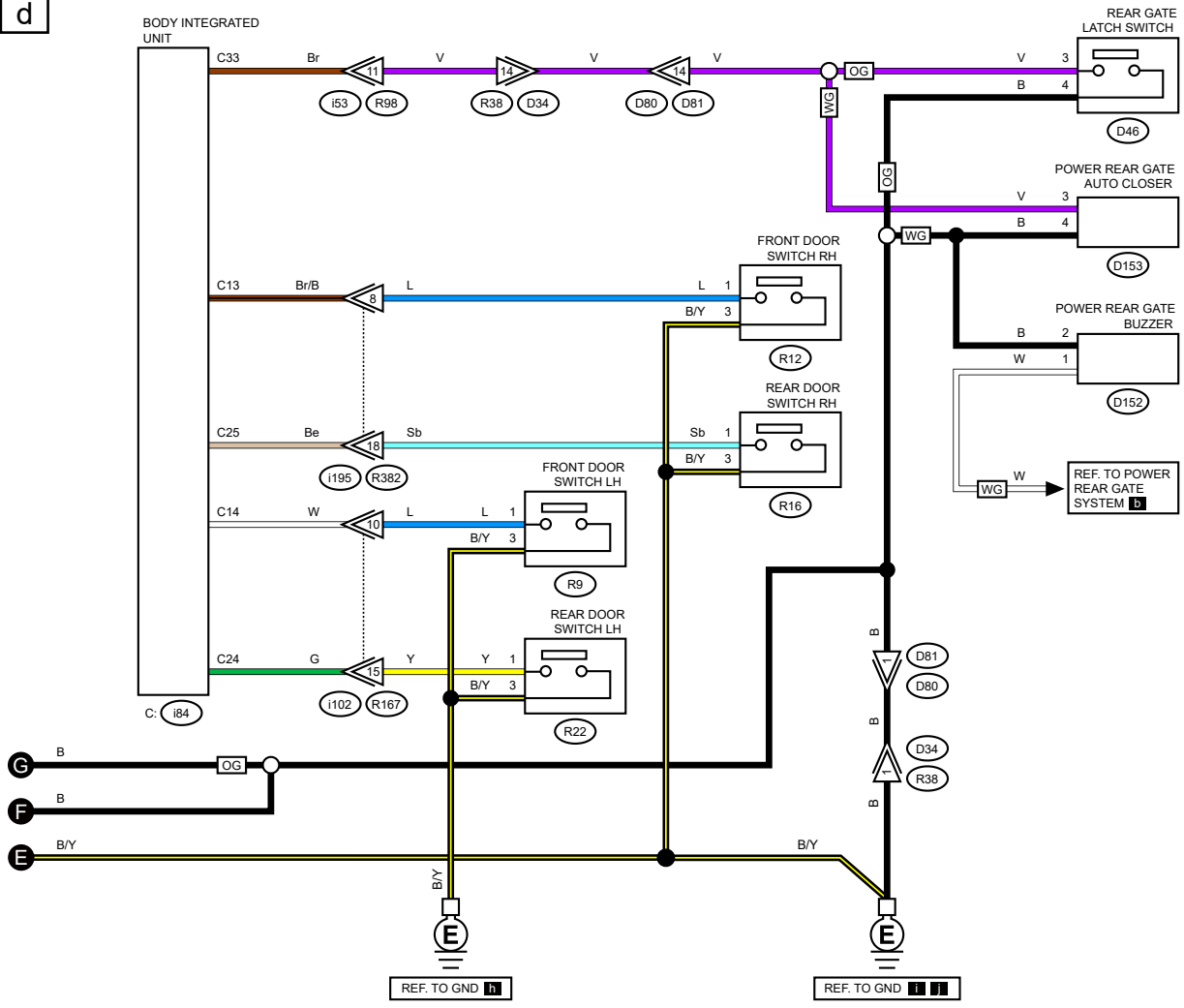
OG : WITHOUT POWER REAR GATE
 OA : MODEL WITH STANDARD AUDIO
 HA : MODEL WITH HIGH GRADE AUDIO

*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : MODEL WITH STANDARD AUDIO : 4
 MODEL WITH HIGH GRADE AUDIO : 6
 *3 : MODEL WITH STANDARD AUDIO : 5
 MODEL WITH HIGH GRADE AUDIO : 7

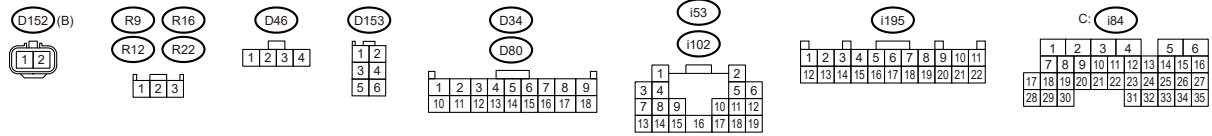


d

d



OG : WITHOUT POWER REAR GATE
 WG : WITH POWER REAR GATE



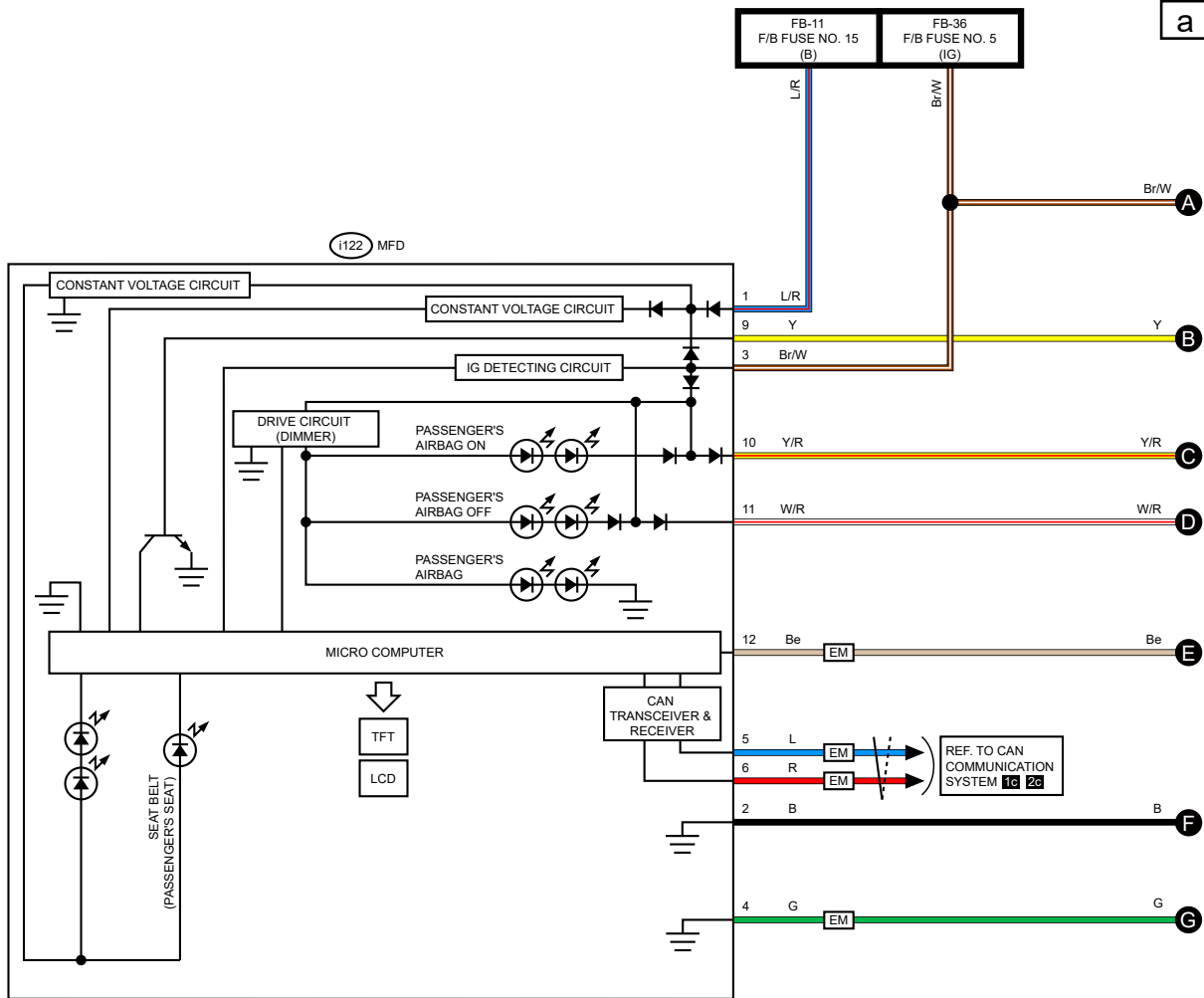
WIRING SYSTEM > Multi-function Display (MFD) System

WIRING DIAGRAM

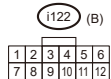


a

a

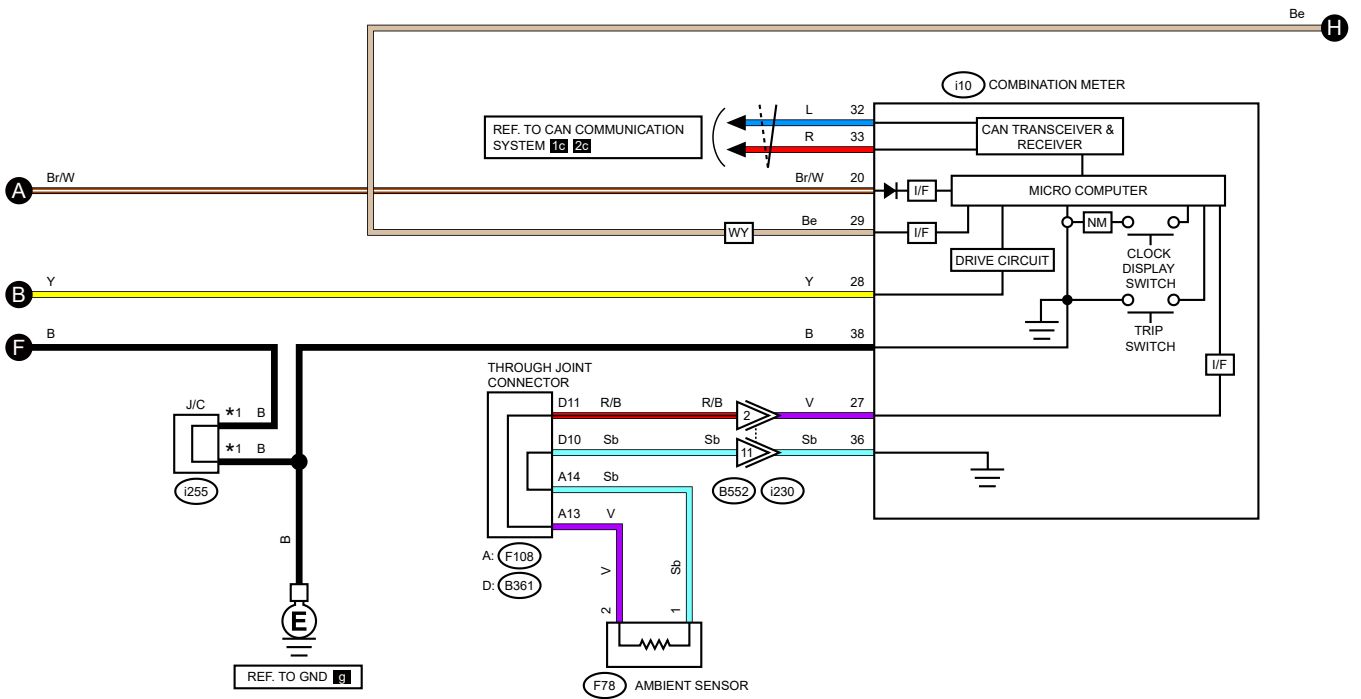


EM : EXCEPT FOR STANDARD MFD



b

b



WY : WITH STEERING SWITCH

NM : NORMAL METER MODEL

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

F78 (B)



i255 (L)



D: B361 (Gr)



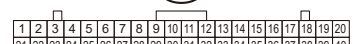
A: F108 (Gr)



i230

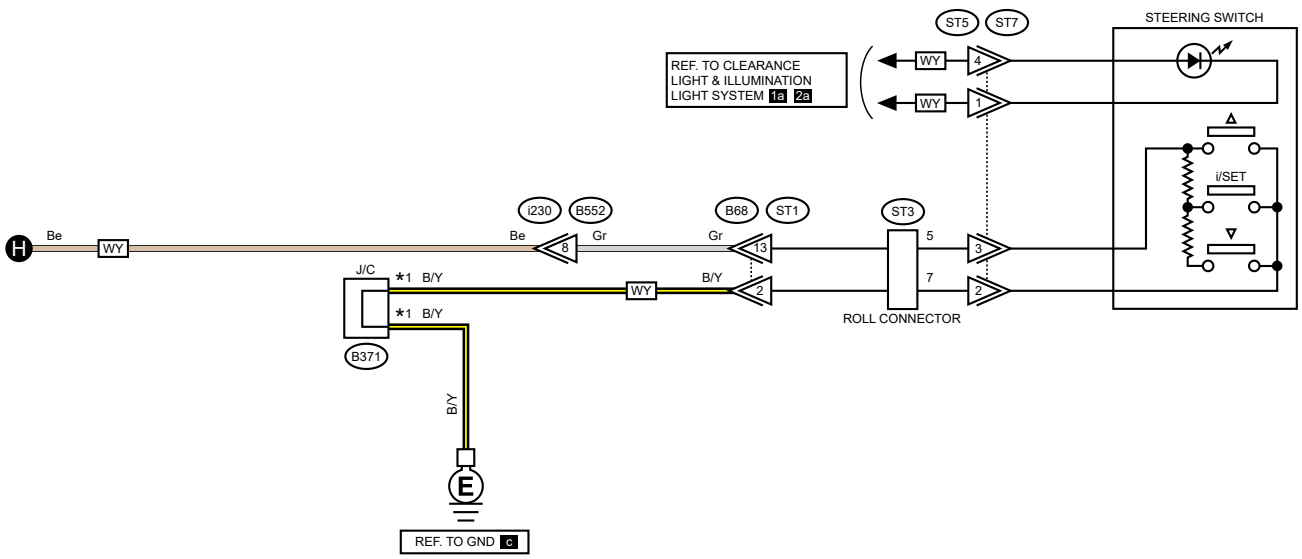
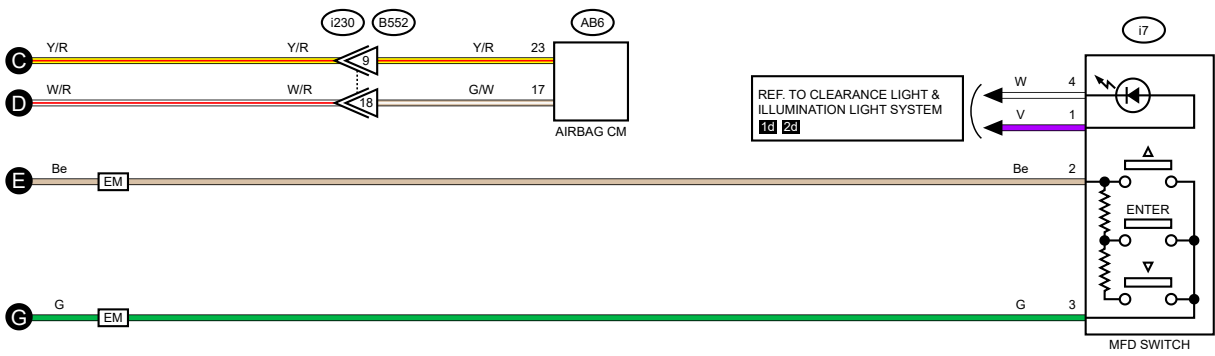


i10



C

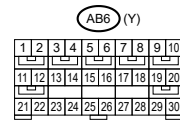
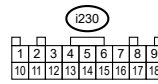
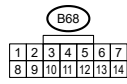
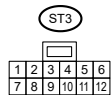
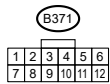
C



EM : EXCEPT FOR STANDARD MFD

WY : WITH STEERING SWITCH

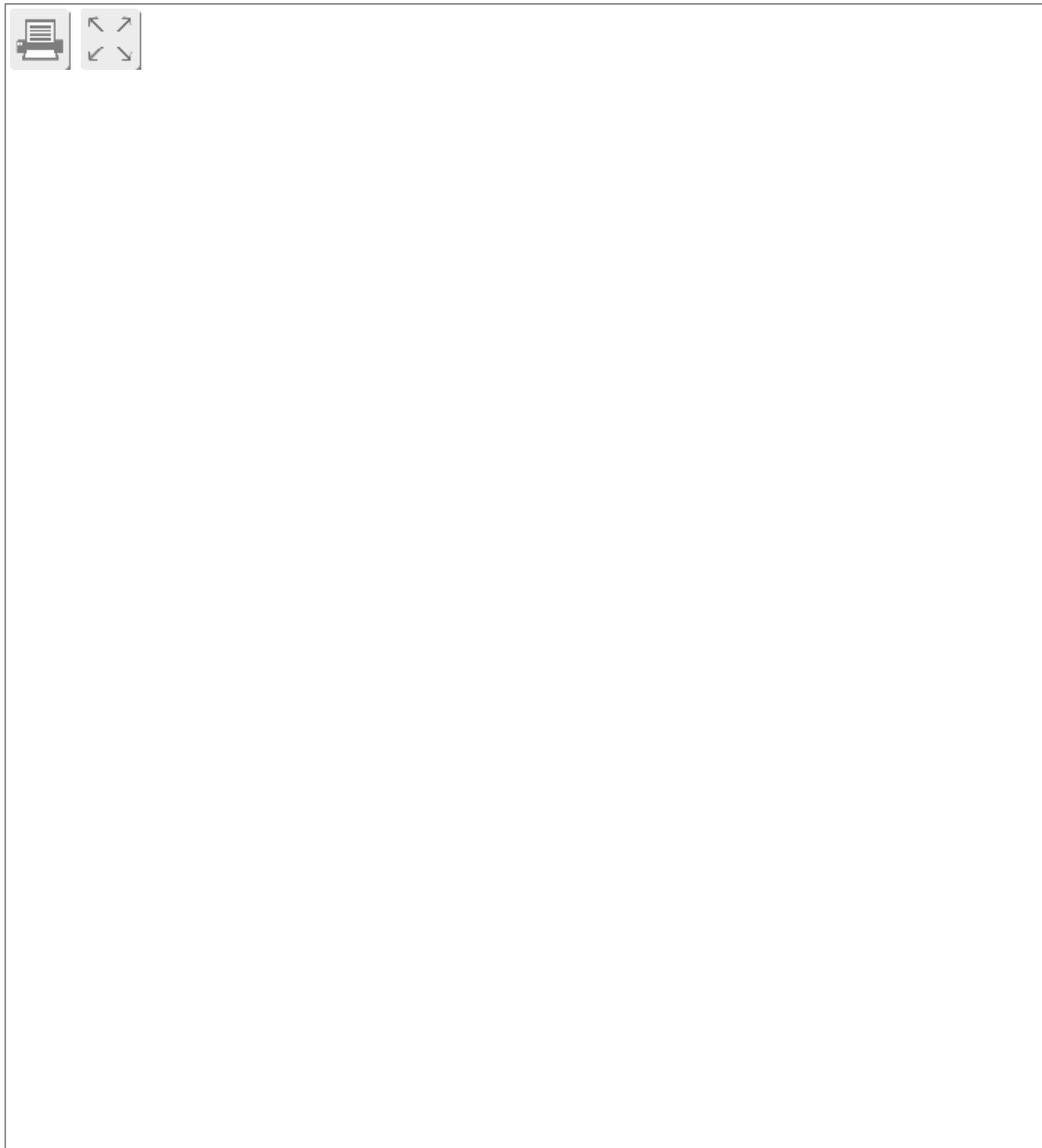
*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6



WIRING DIAGRAM

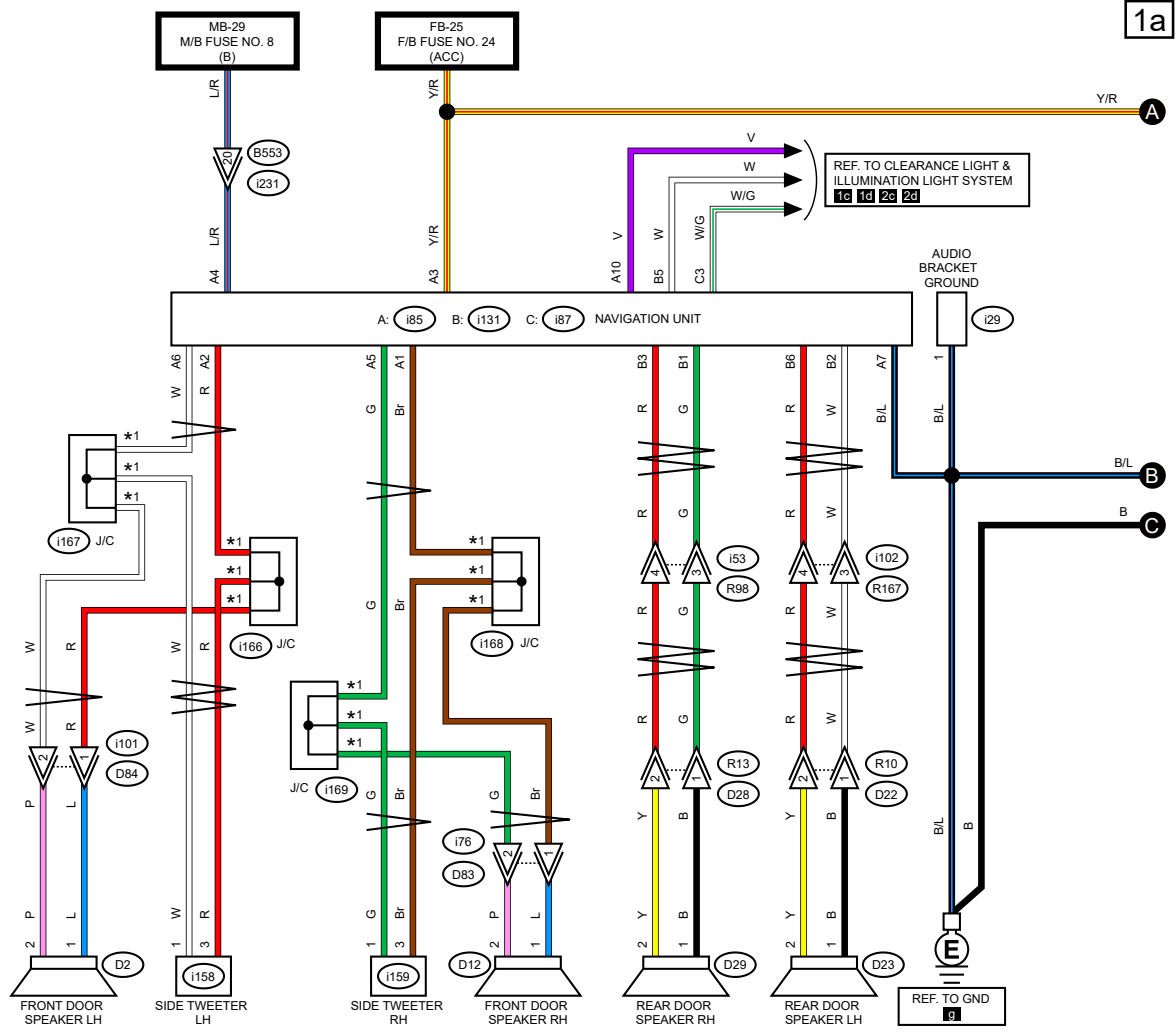
▼ Please select ▼ see

1. WITHOUT AUDIO AMPLIFIER, WITHOUT TELEMATICS

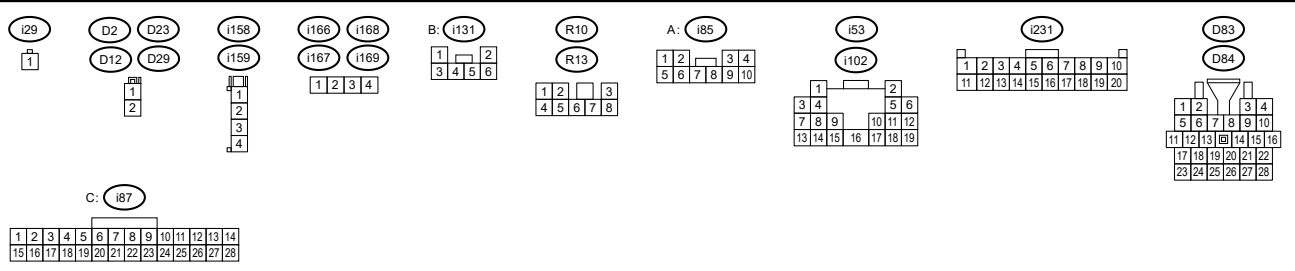


1a

1a



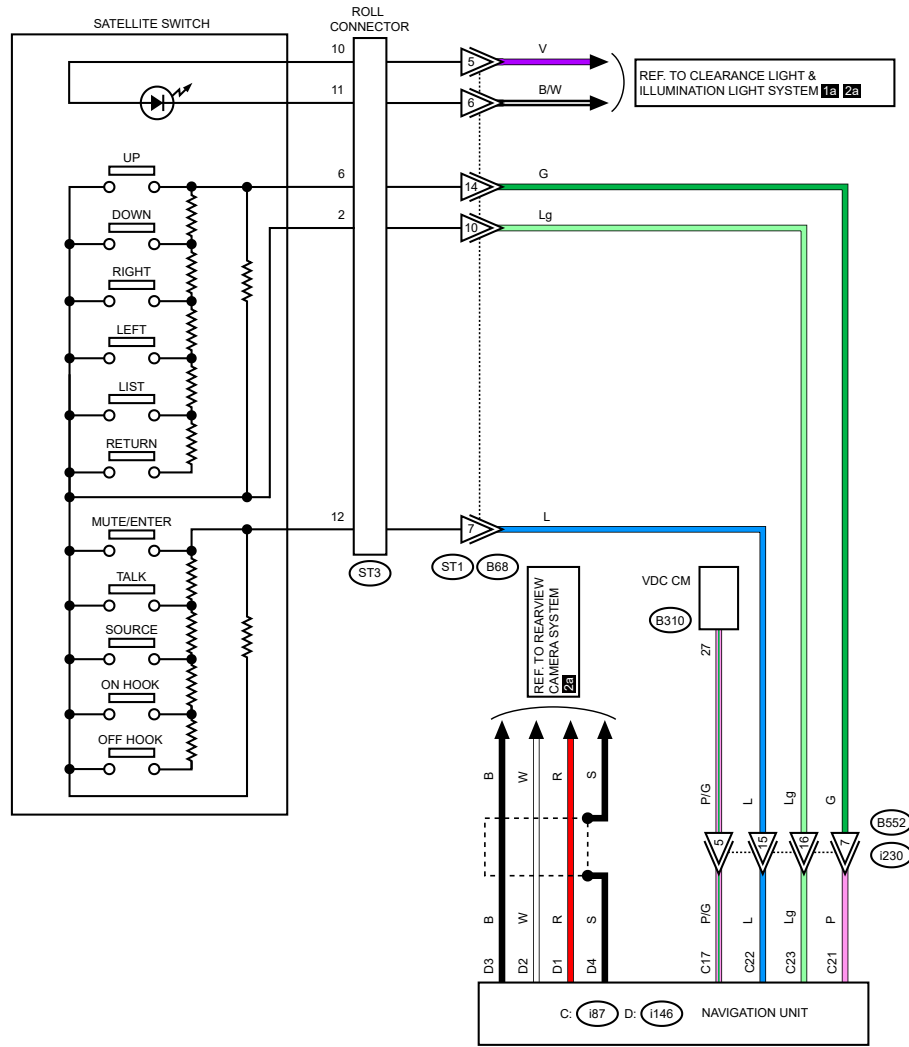
*1 : TERMINAL No. OPTIONAL ARRANGEMENT



WI-65680



1b



1b

D: (146)

1	2	3	4	5
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ST3

1	2	3	4	5	6
7	8	9	10	11	12

B68

1	2	3	4	5	6	7
8	9	10	11	12	13	14

1230

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

C: 187

1	2	3	4	5	6	7	8	9	10	11	12	13	14
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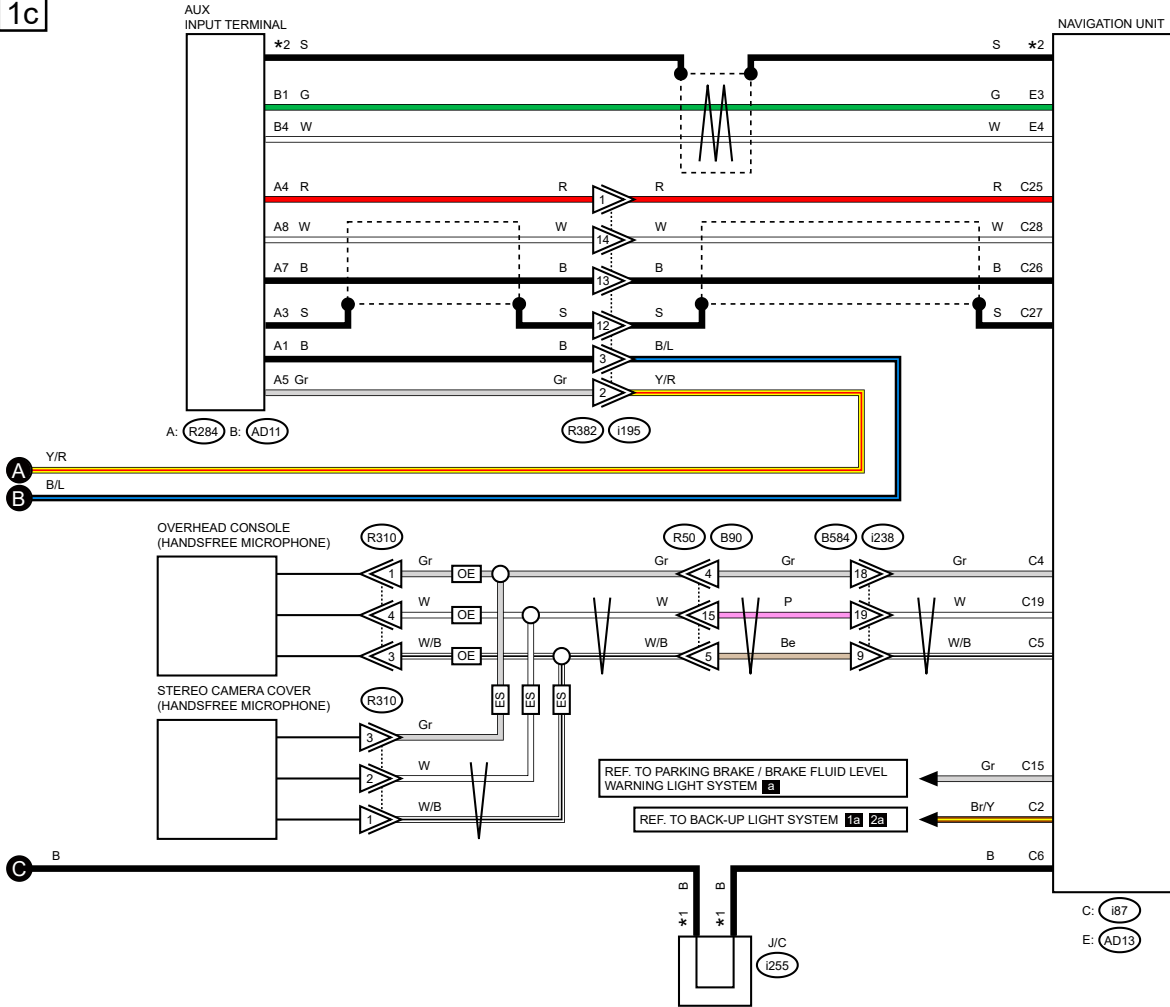
B310

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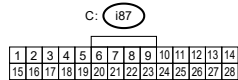
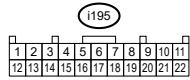
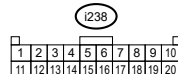
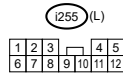
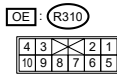
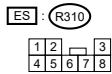
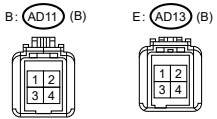
1c

1c



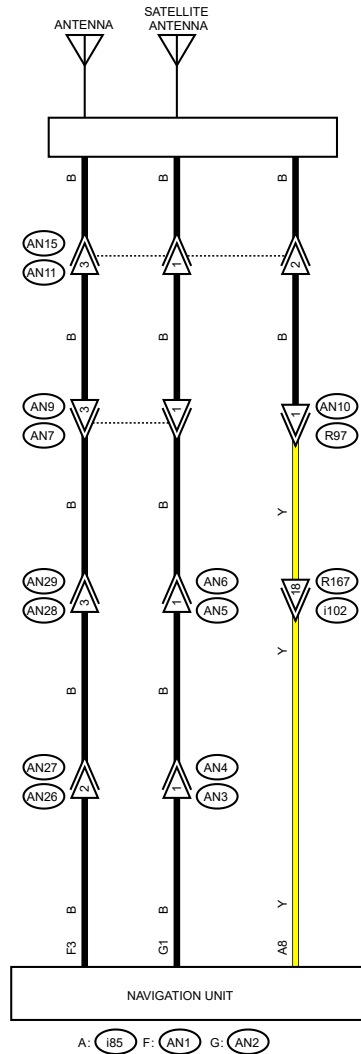
OE : WITHOUT EyeSight
 ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : SHIELD CONNECTOR

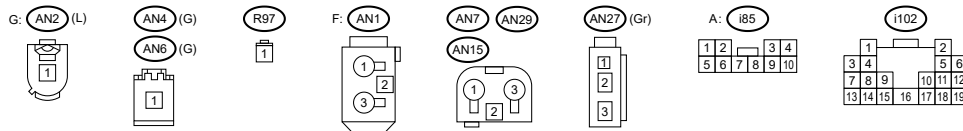


1d

1d



A: i85 F: AN1 G: AN2



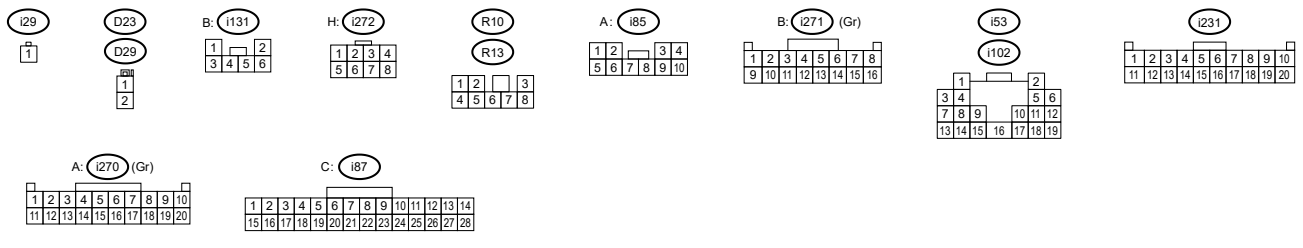
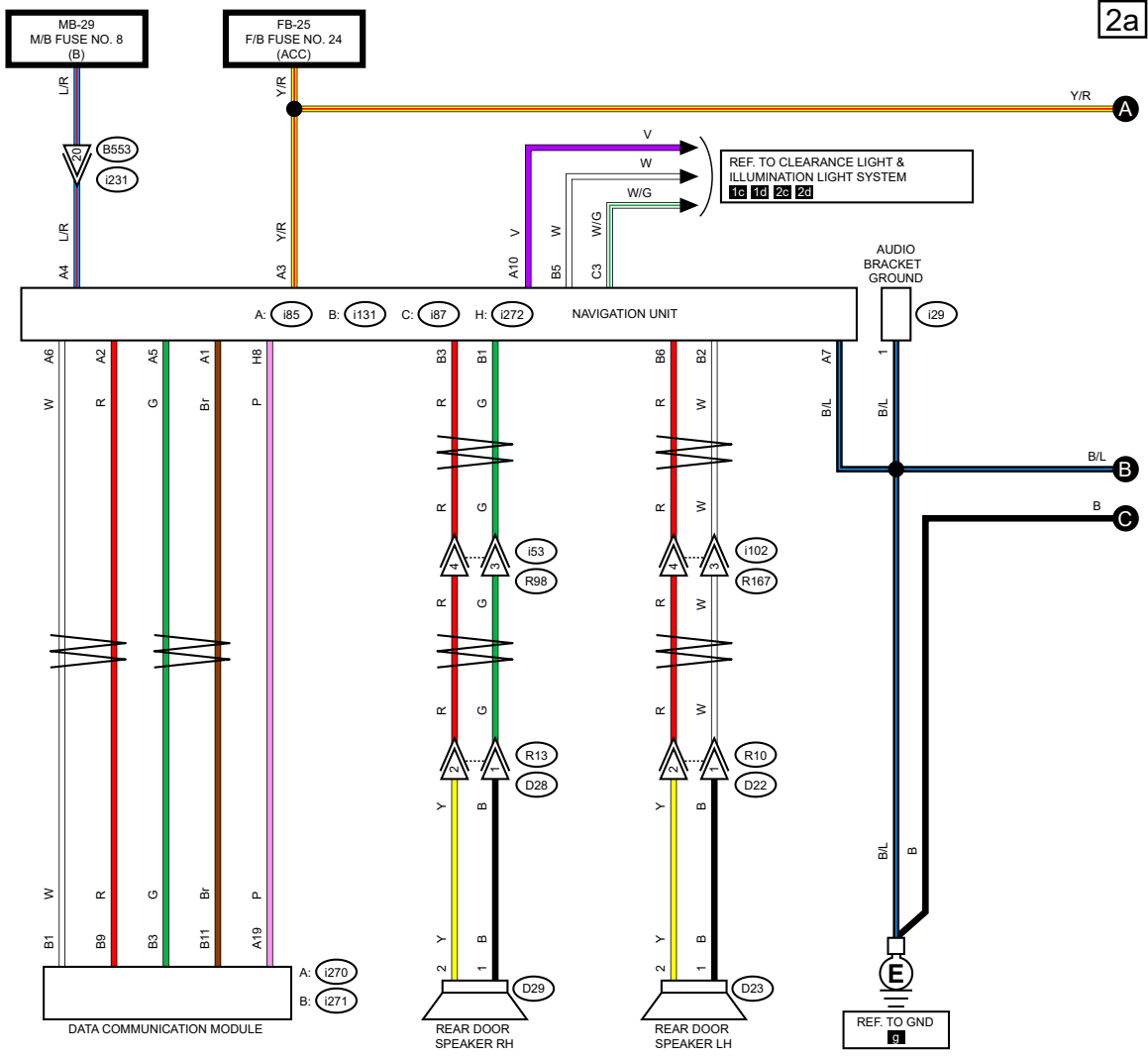
WI-65683

2. WITHOUT AUDIO AMPLIFIER, WITH TELEMATICS



2a

2a

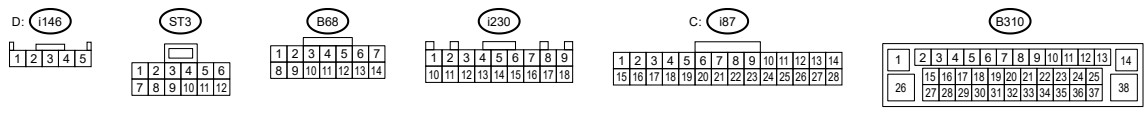
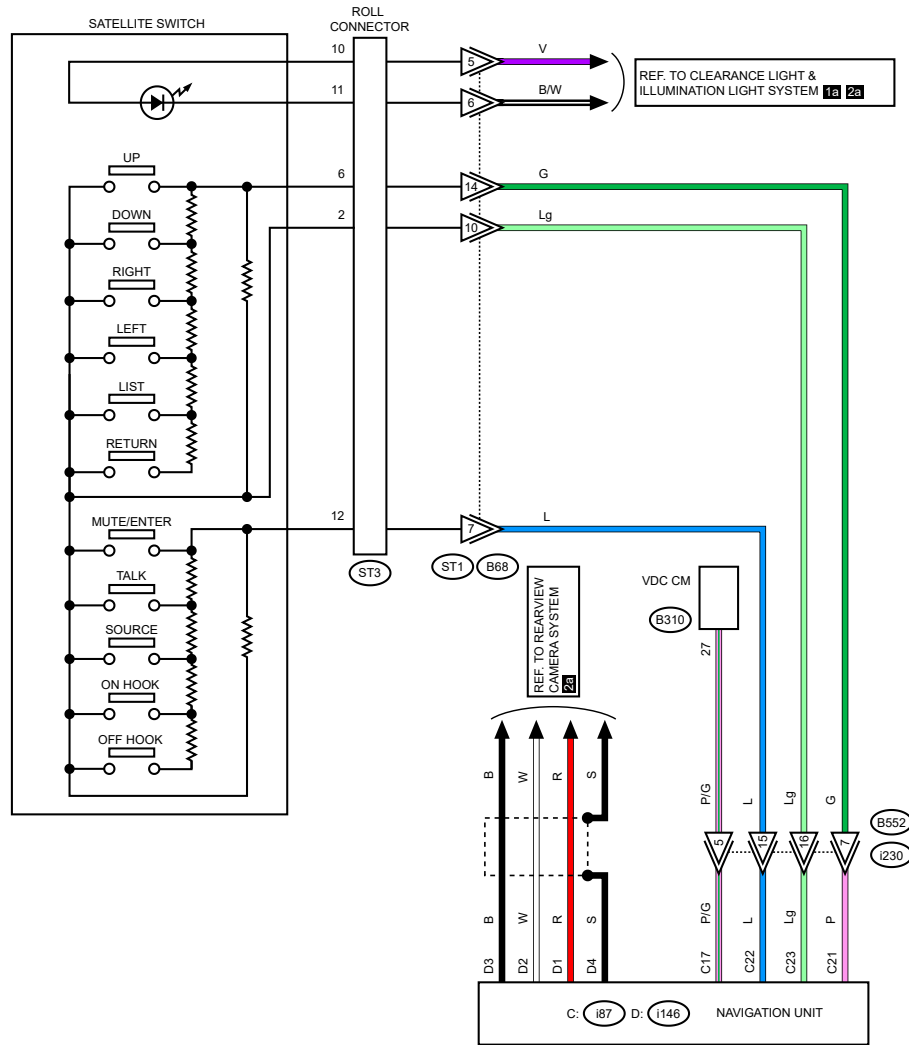


WI-65684



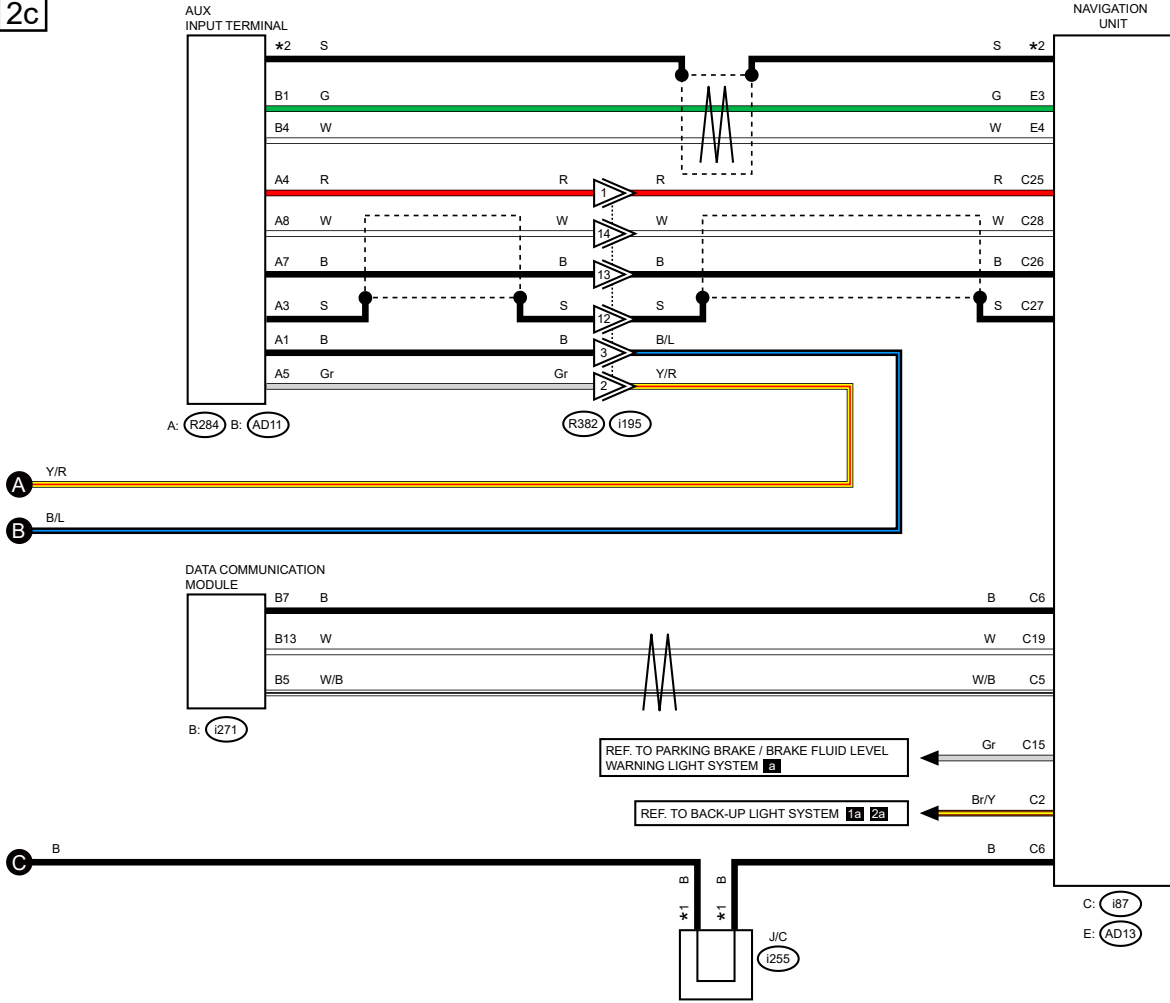
2b

2b

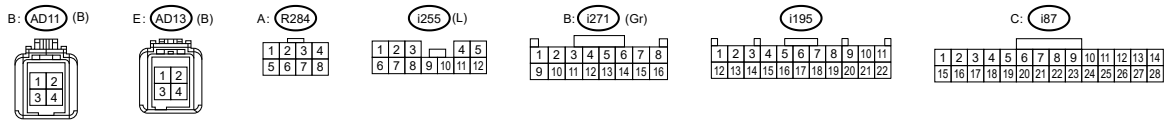


2c

2c

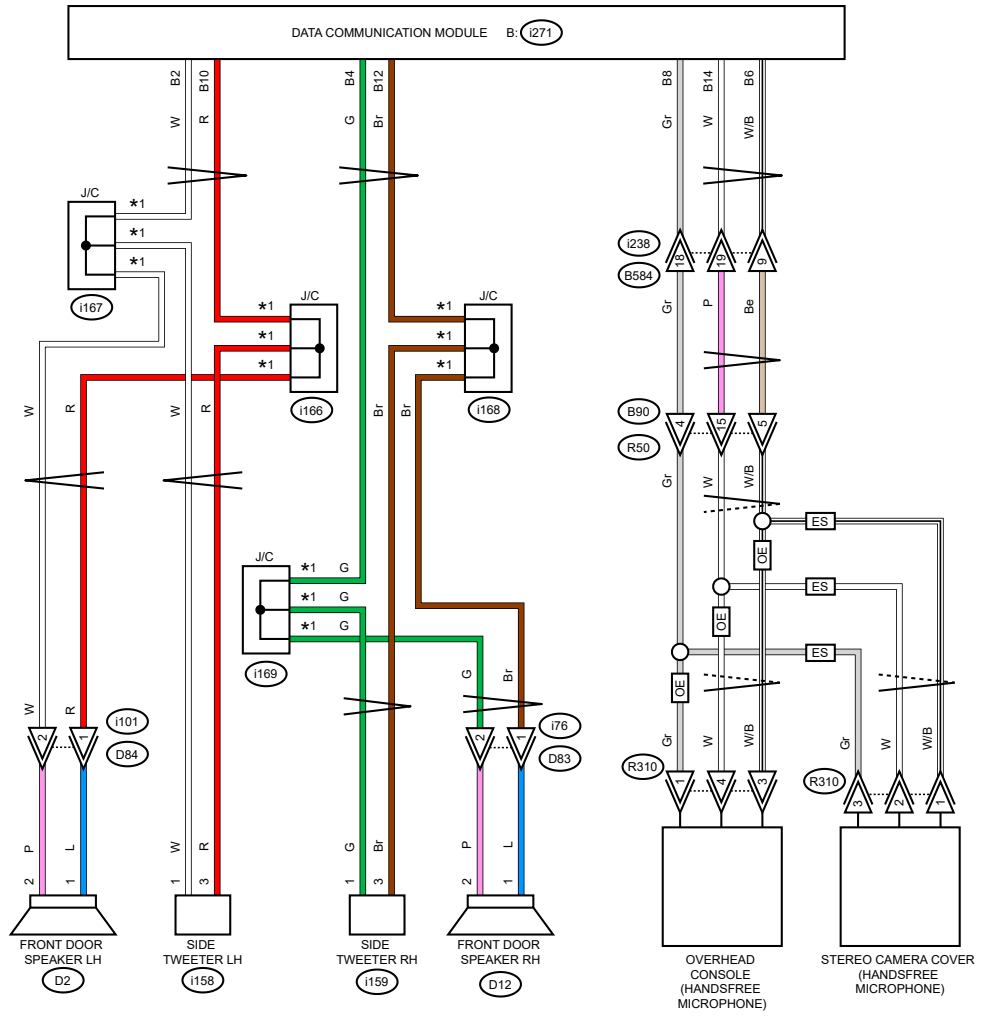


*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : SHIELD CONNECTOR



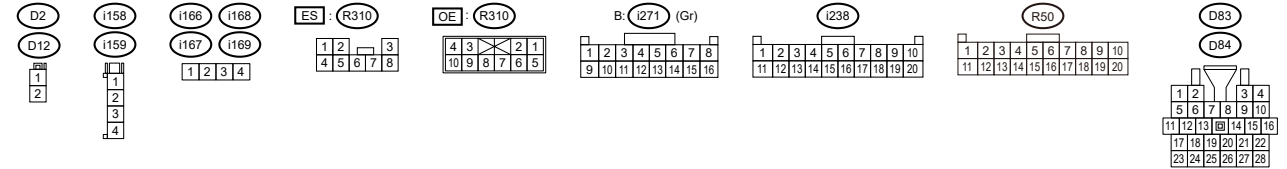
WI-65686

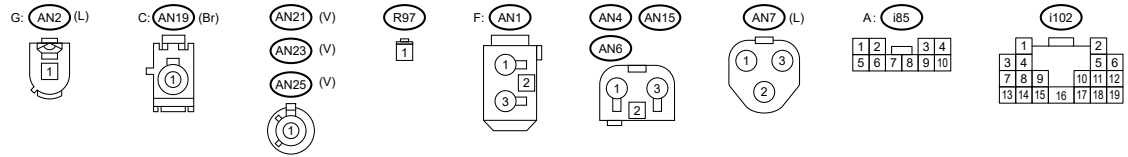
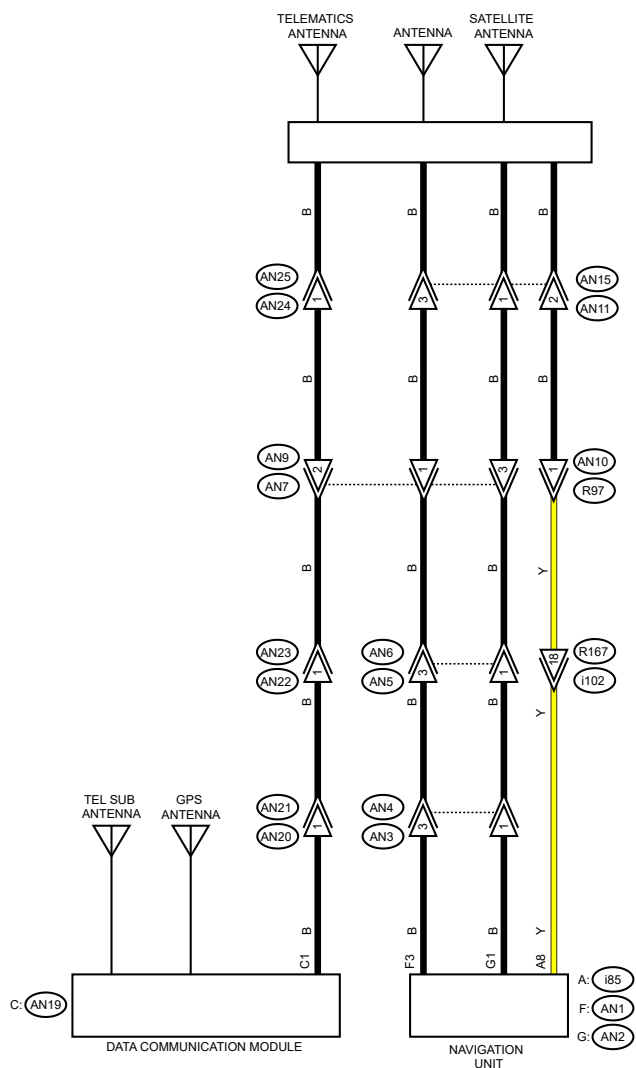




OE : WITHOUT EyeSight
 ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT



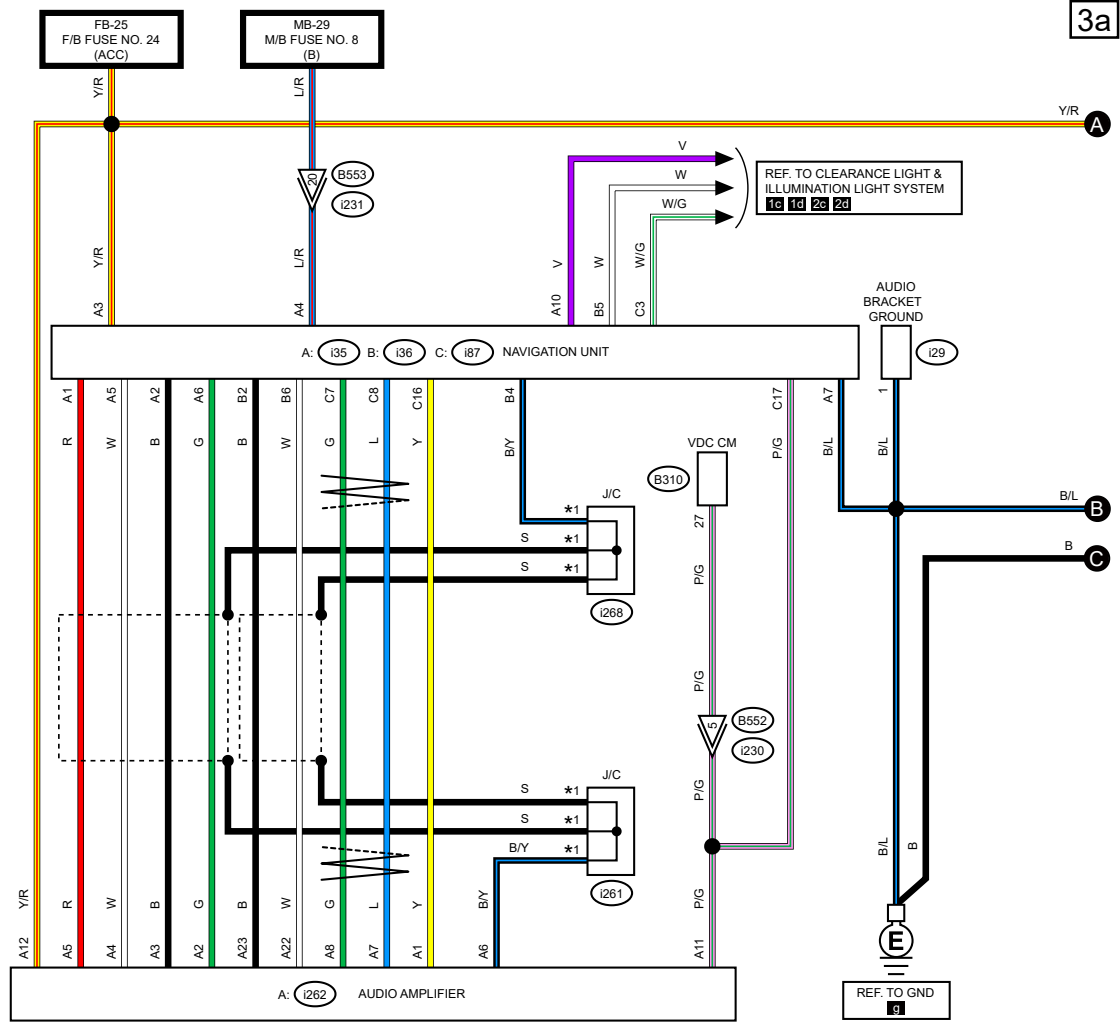


3. WITH AUDIO AMPLIFIER, WITHOUT TELEMATICS

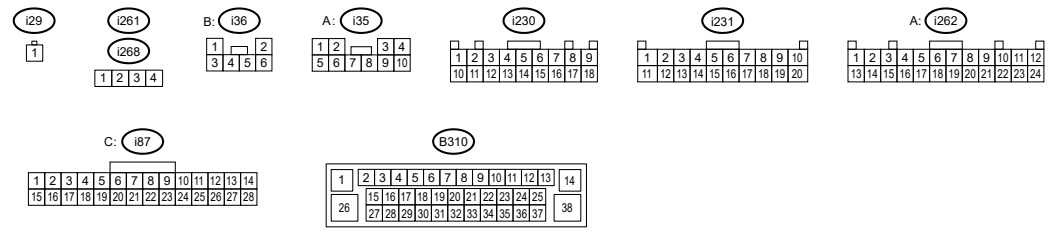


3a

3a

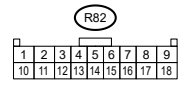
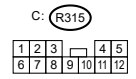
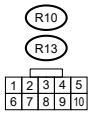
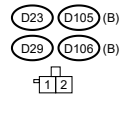
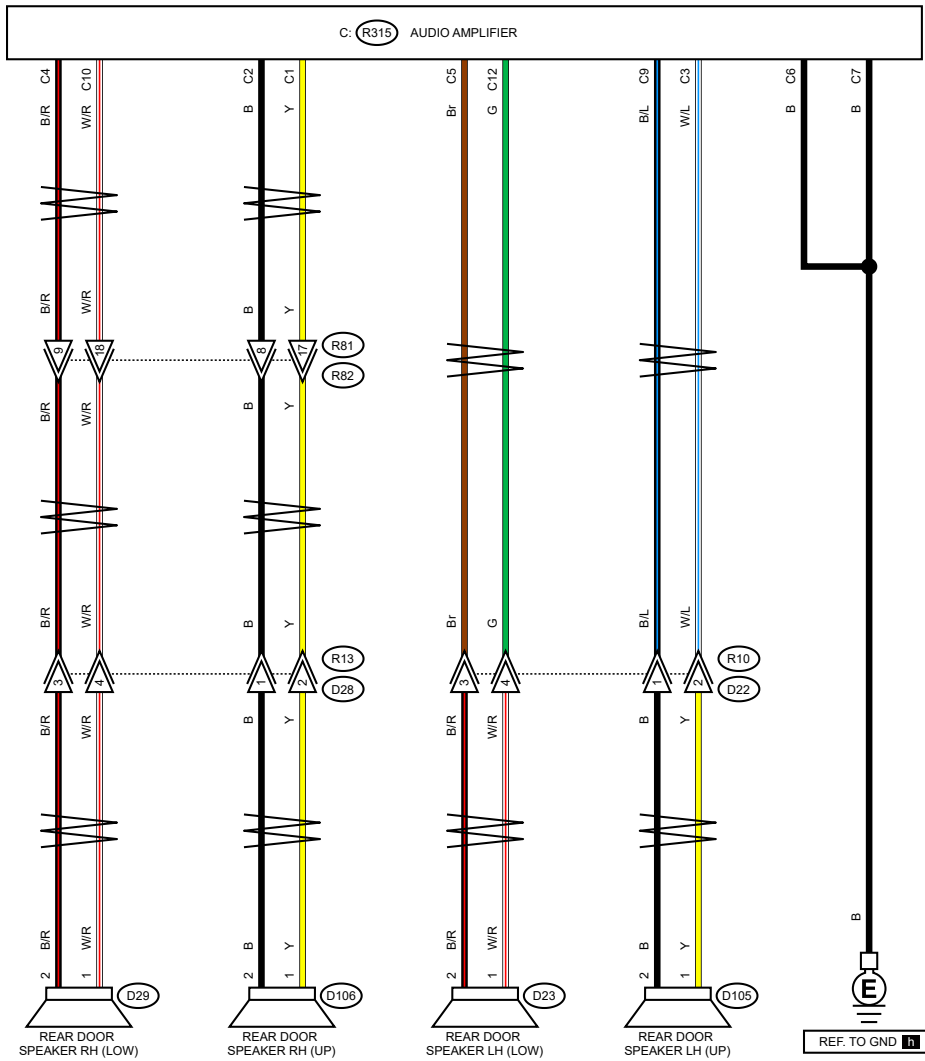


*1 : TERMINAL No. OPTIONAL ARRANGEMENT



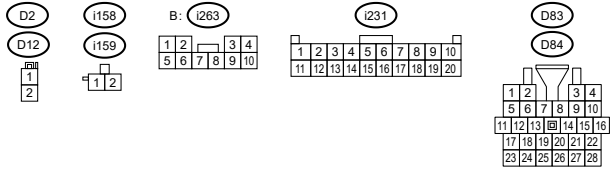
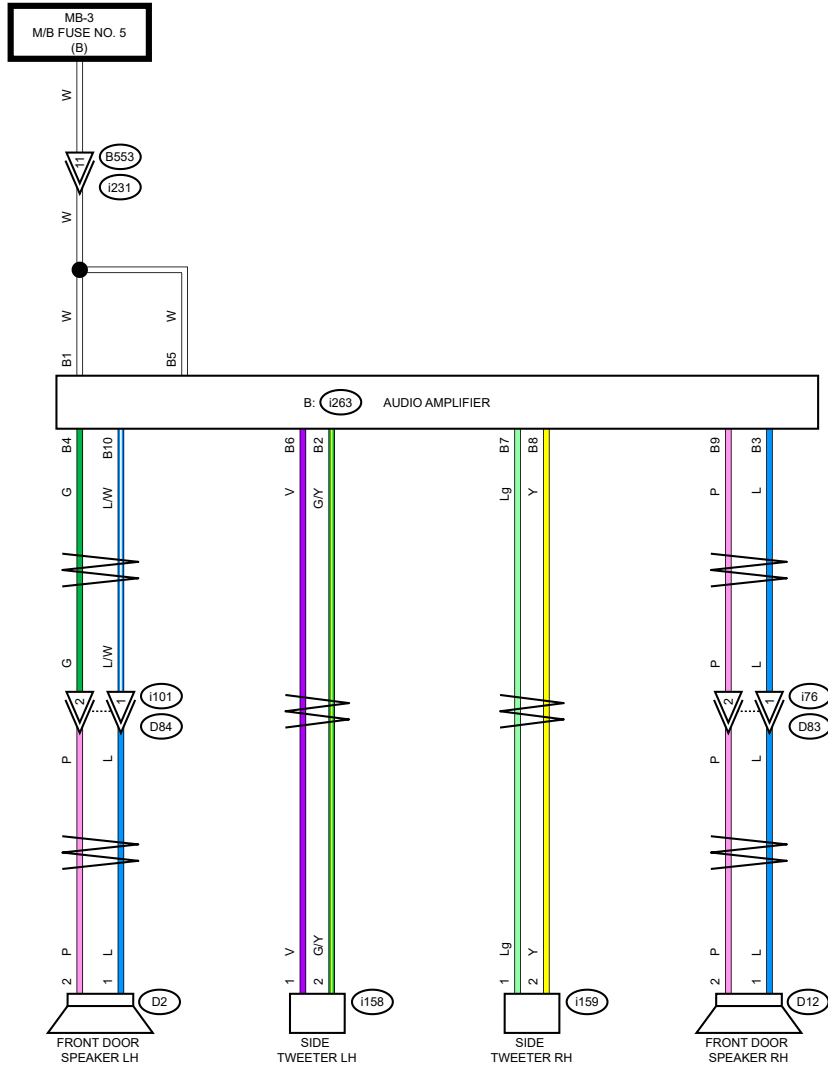
3b

3b



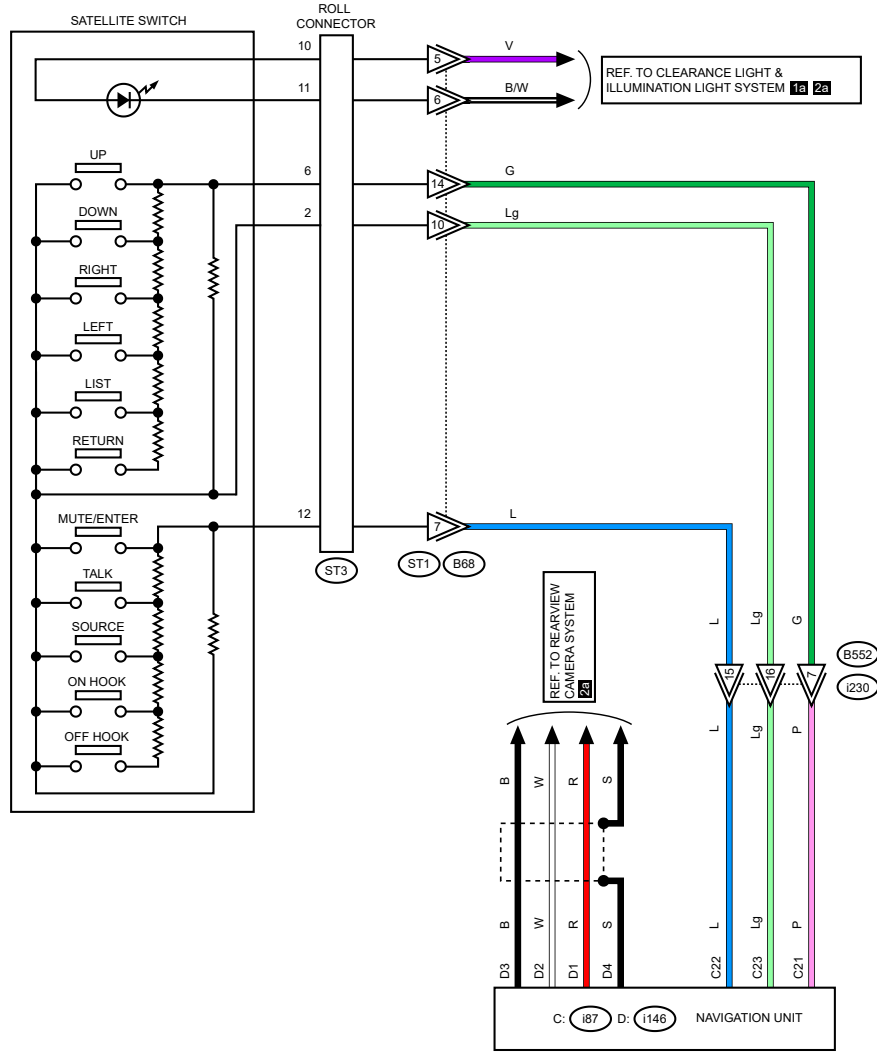
WI-65690





3d

3d



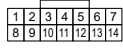
D: i146



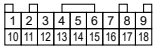
ST3



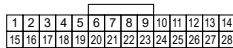
B68



i230

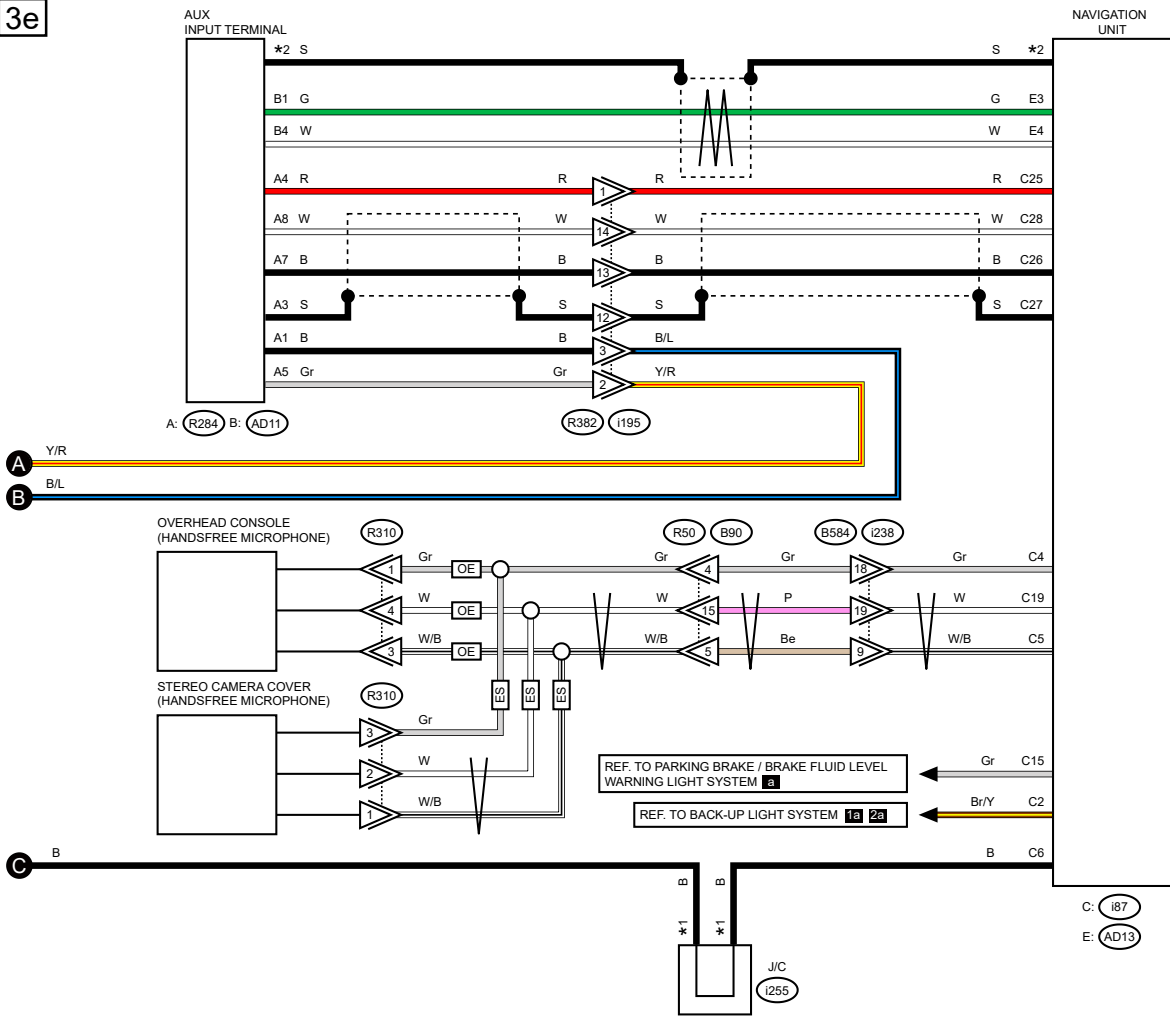


C: i87



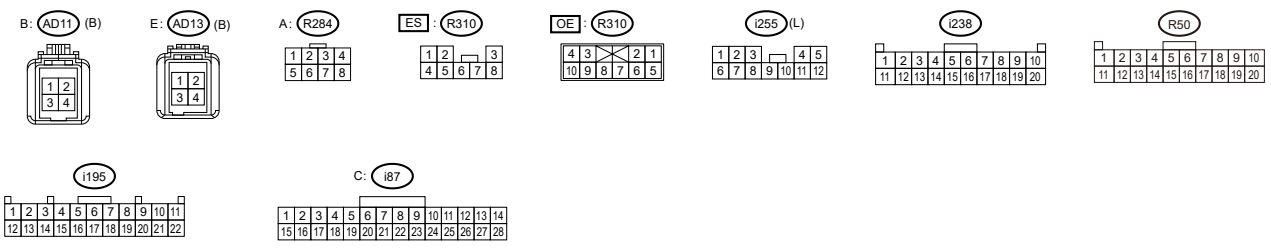
3e

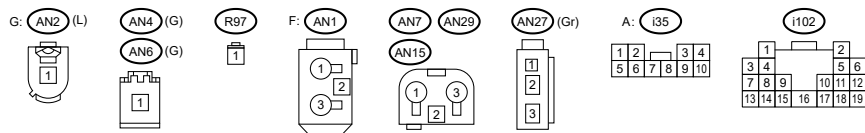
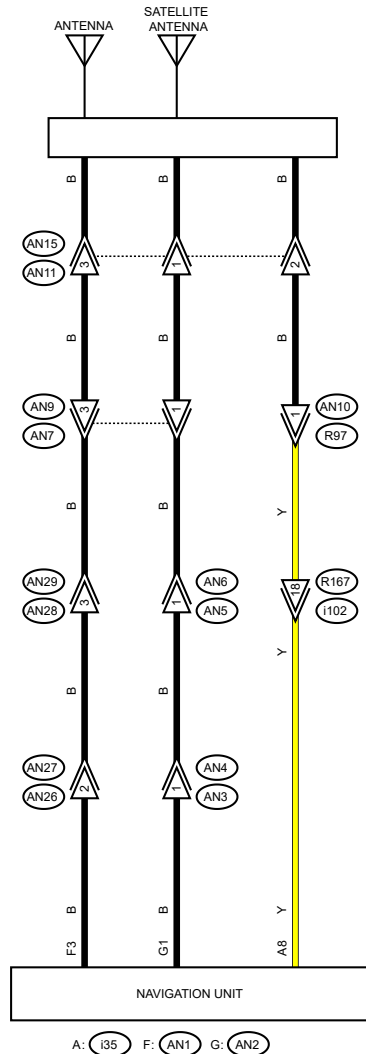
3e



OE : WITHOUT EyeSight
 ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : SHIELD CONNECTOR



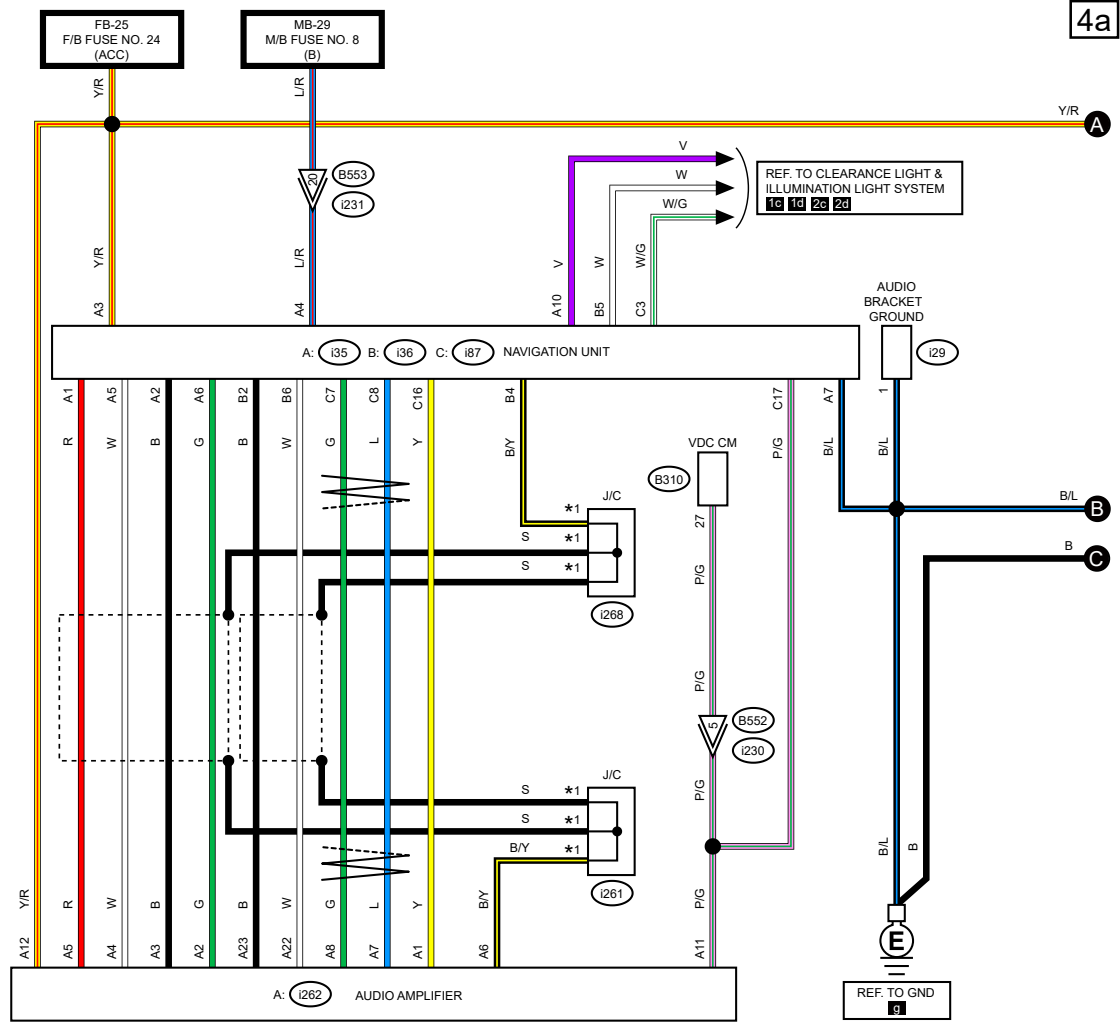


4. WITH AUDIO AMPLIFIER, WITH TELEMATICS

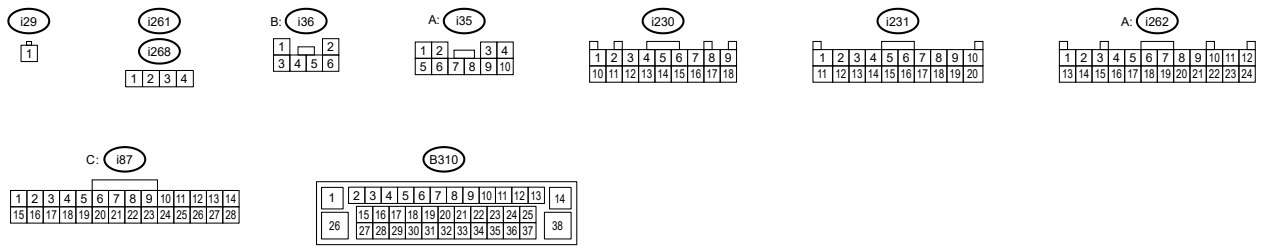


4a

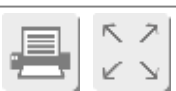
4a



*1 : TERMINAL No. OPTIONAL ARRANGEMENT

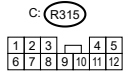
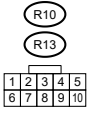
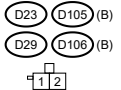
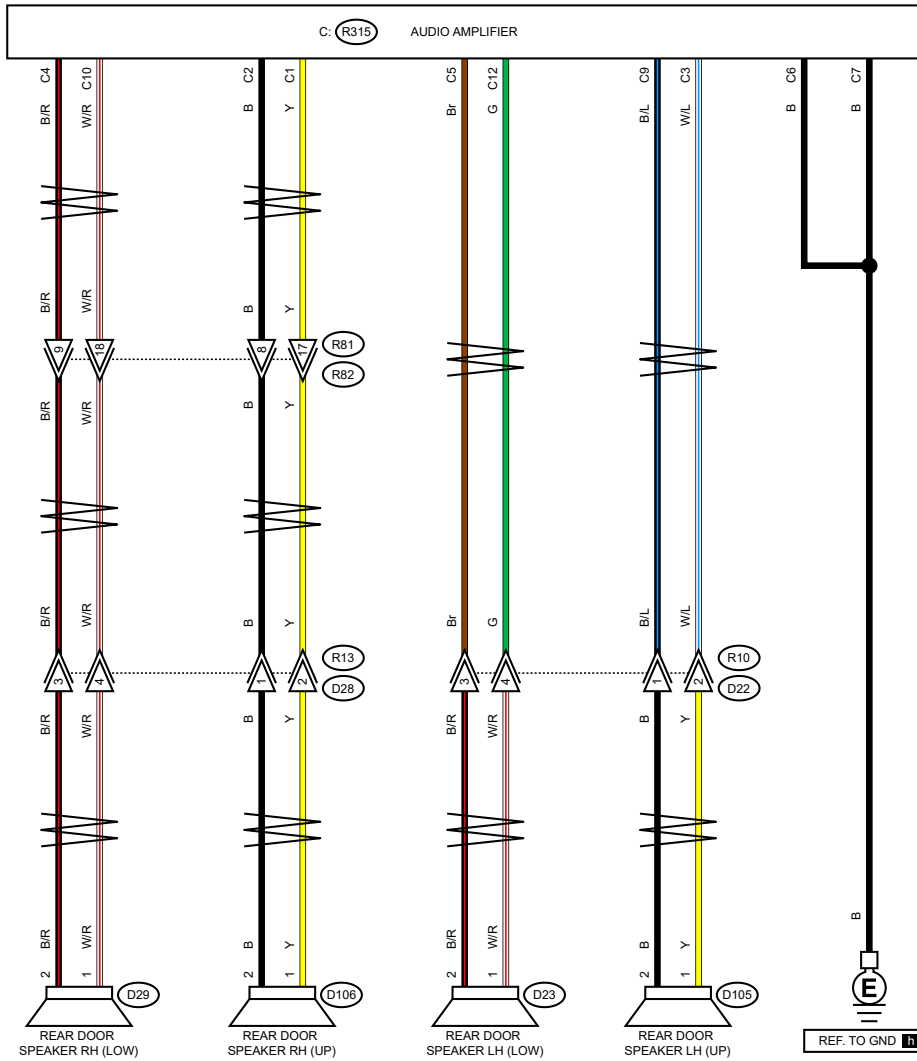


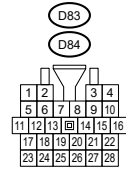
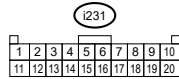
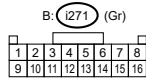
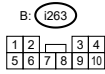
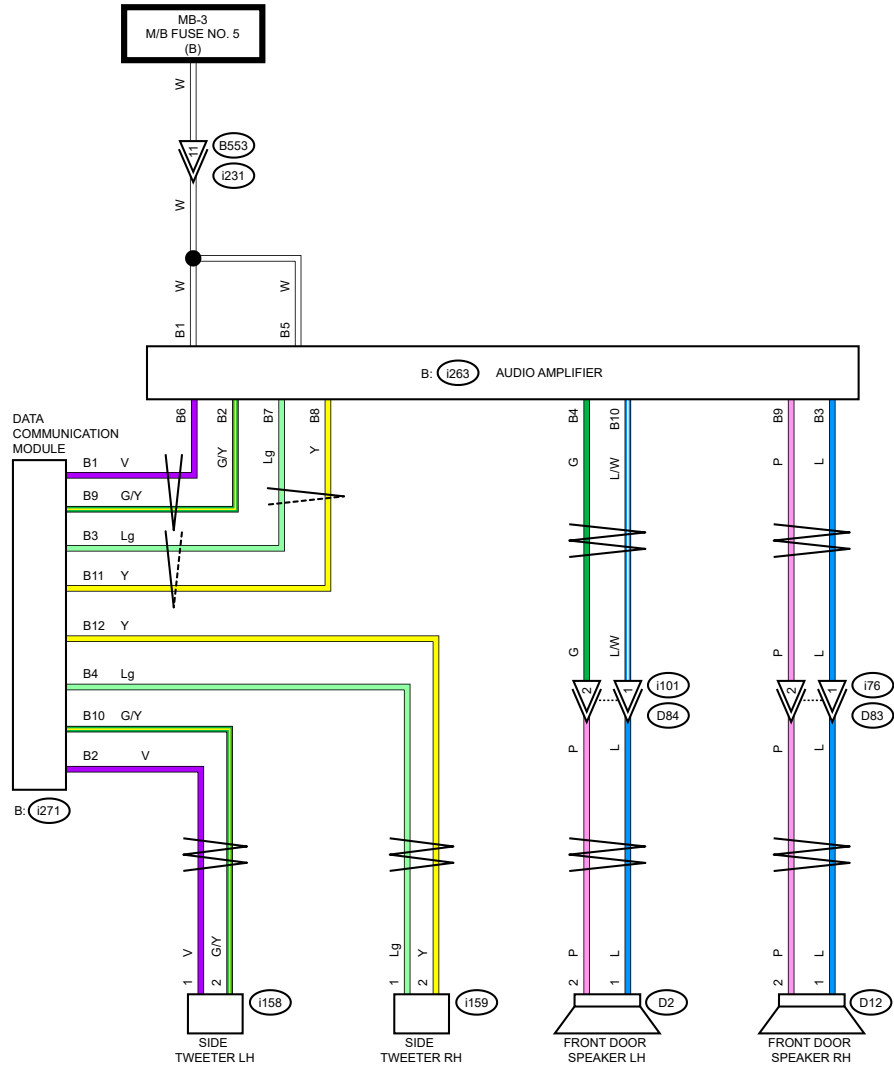
WI-65695



4b

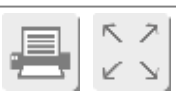
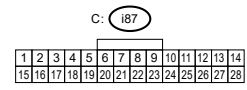
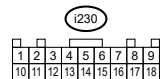
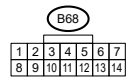
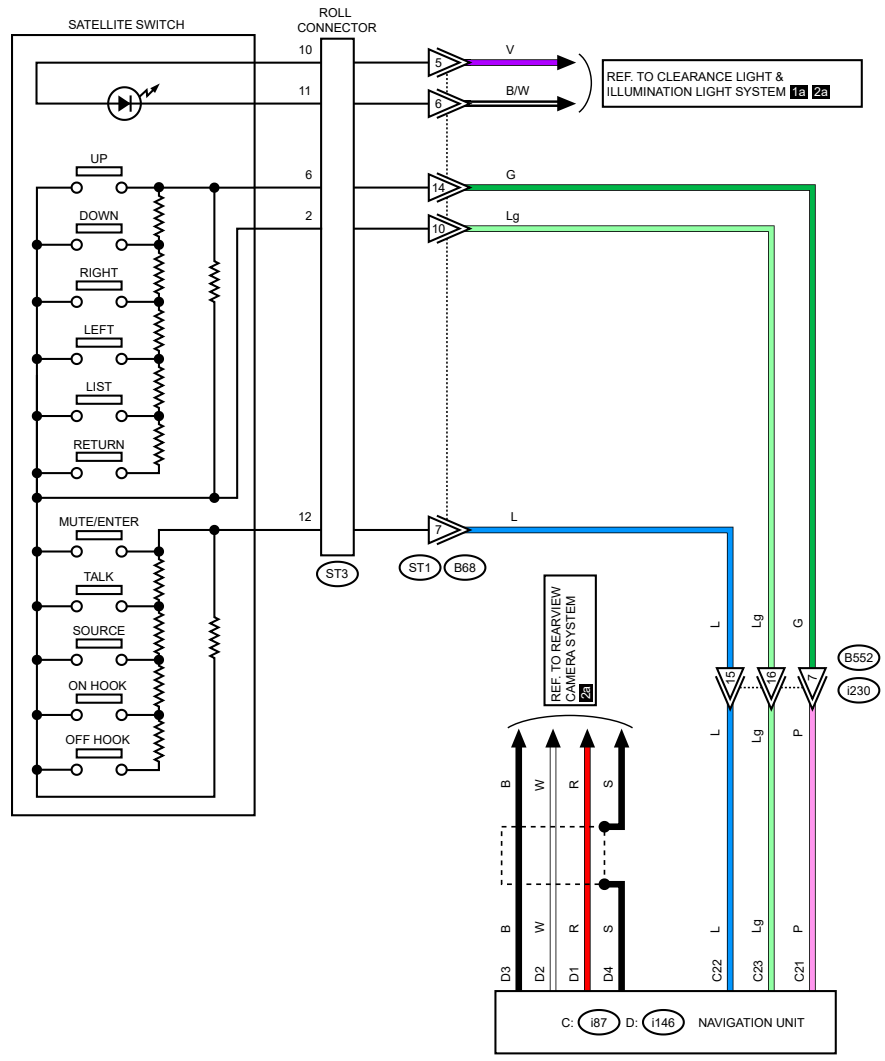
4b





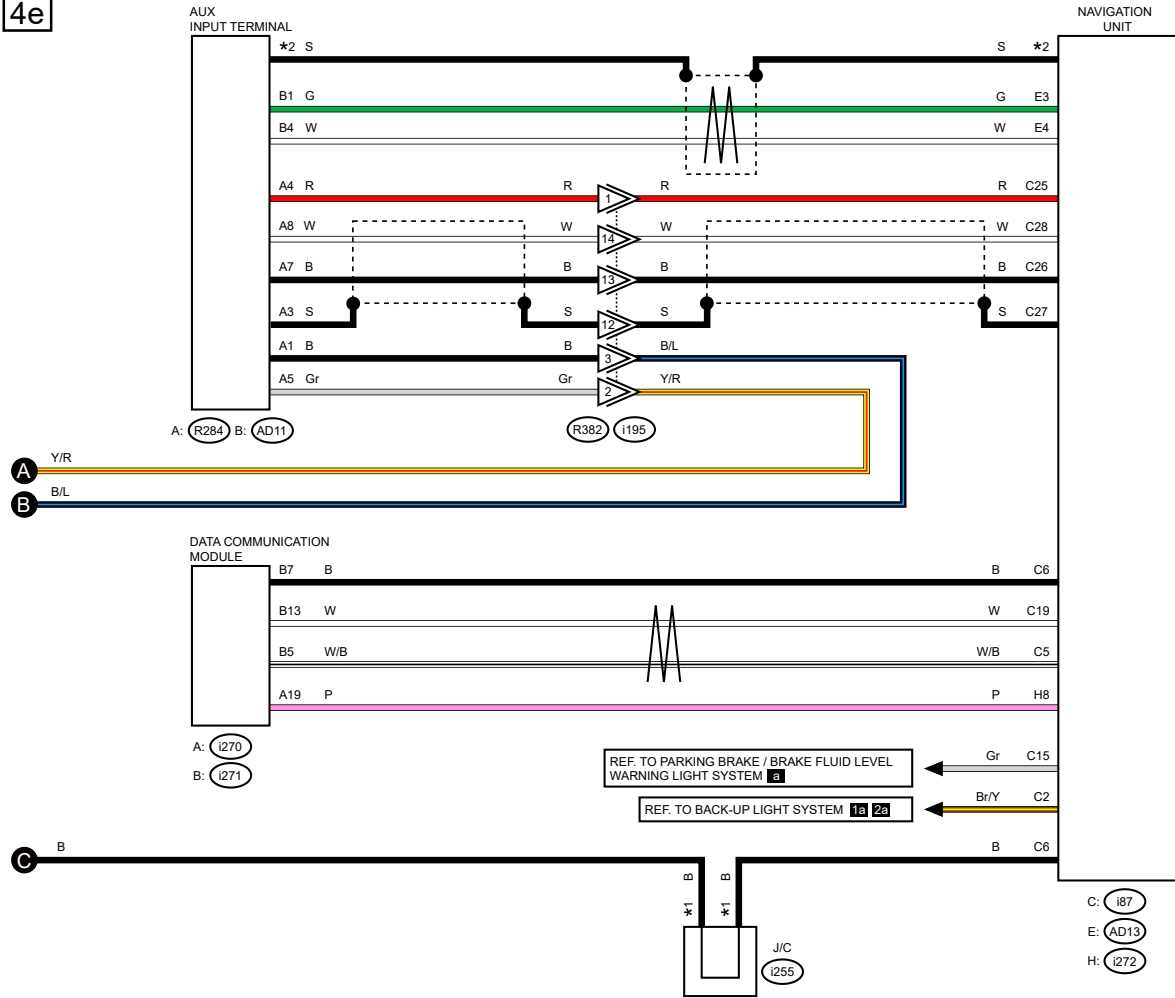
4d

4d

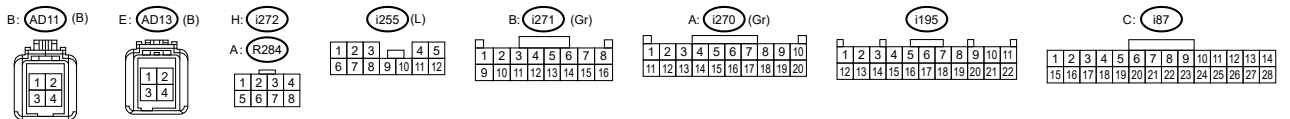


4e

4e

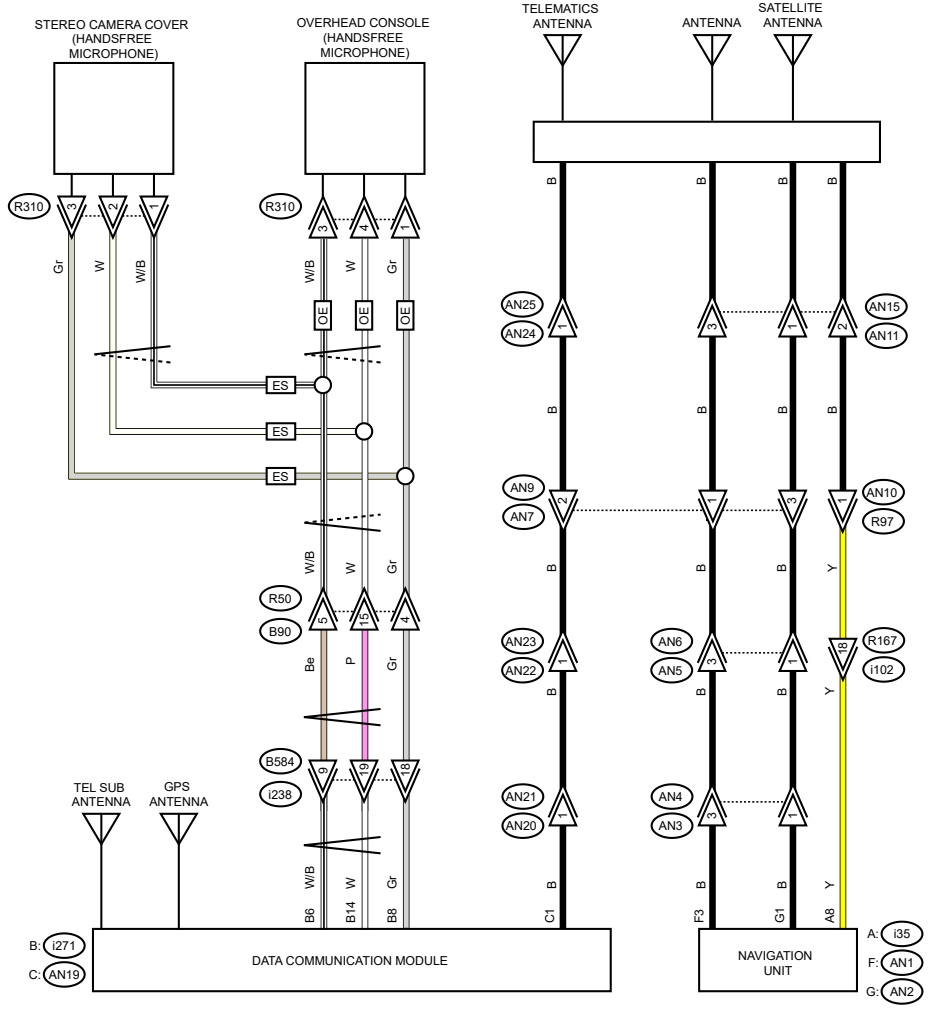


*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : SHIELD CONNECTOR

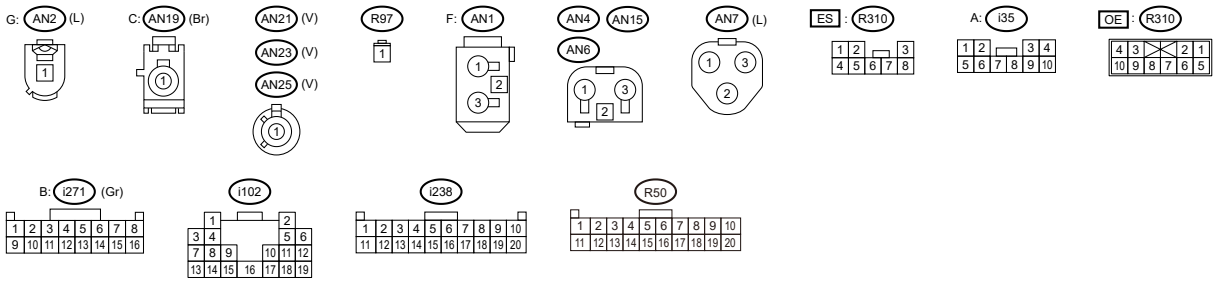


WI-65699





OE : WITHOUT EyeSight
 ES : WITH EyeSight



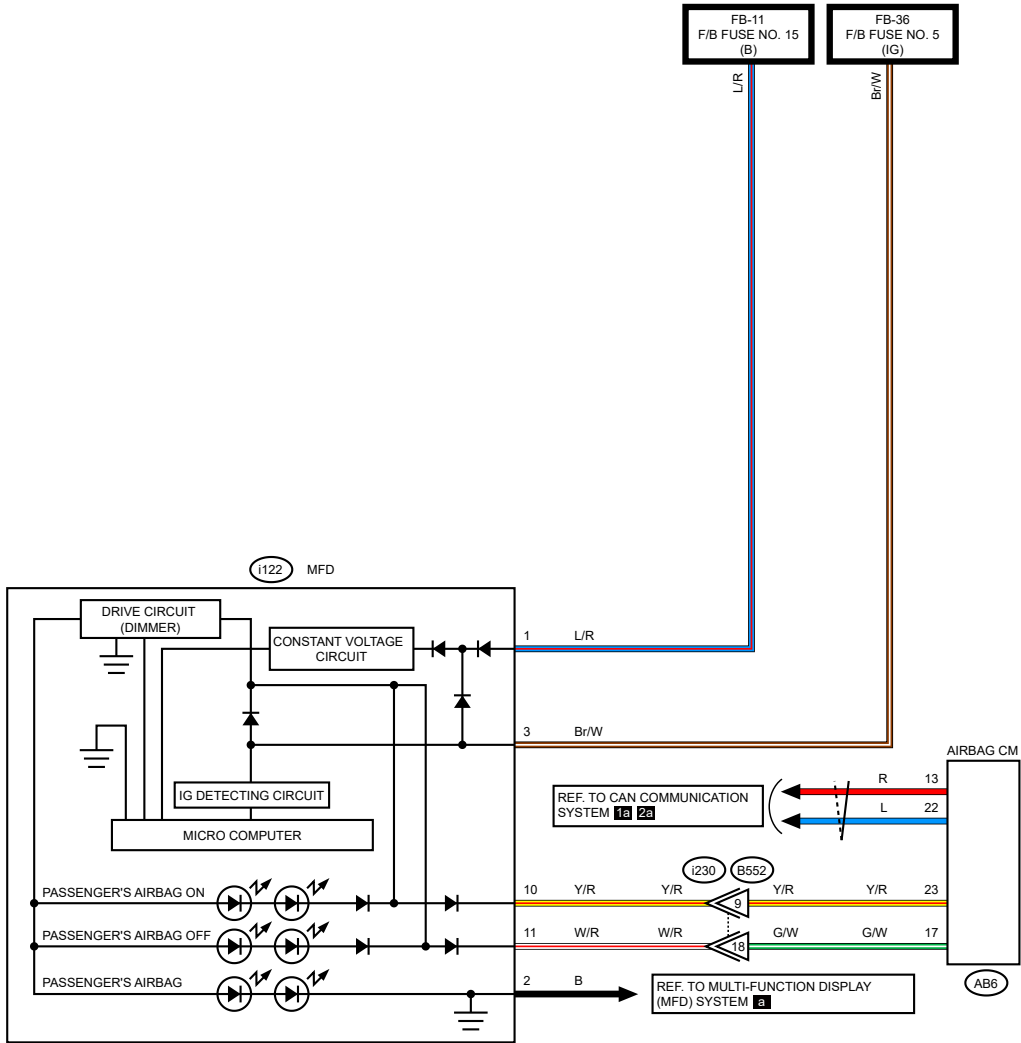
WIRING SYSTEM > Occupant Detection System

WIRING DIAGRAM



a

a



1122 (B)

1	2	3	4	5	6
7	8	9	10	11	12

1230

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

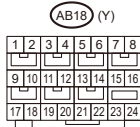
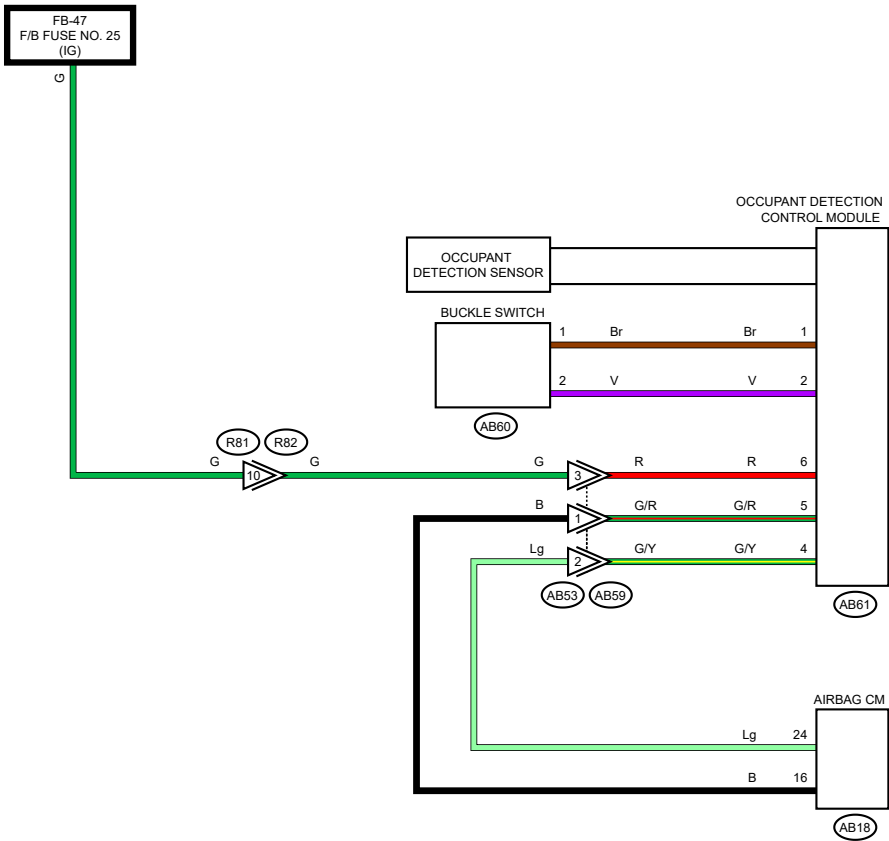
AB6 (Y)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30



b

b



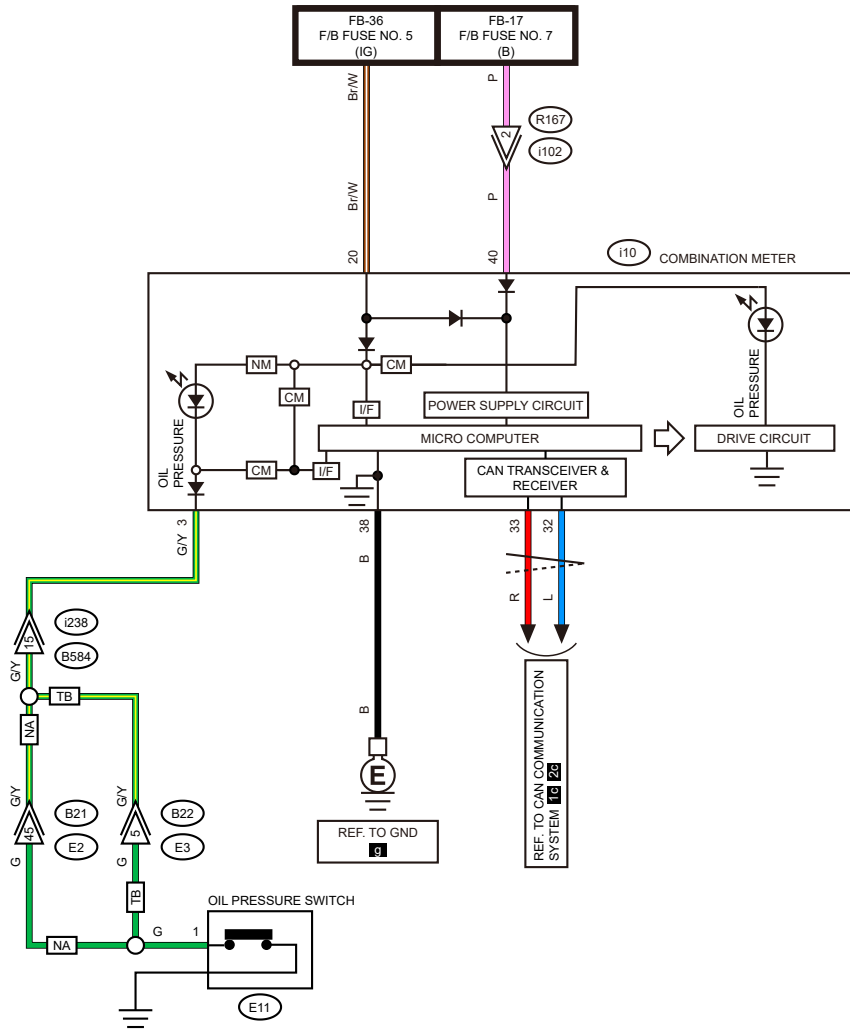
WIRING SYSTEM > Oil Pressure Warning Light System

WIRING DIAGRAM



a

a

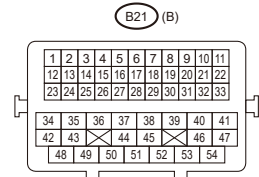
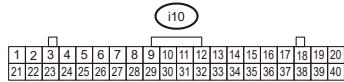
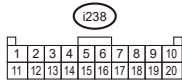
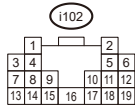
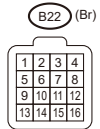


NM : NORMAL METER MODEL

NA : NON-TURBO MODEL

CM : COLOR TFT METER MODEL

TB : TURBO MODEL



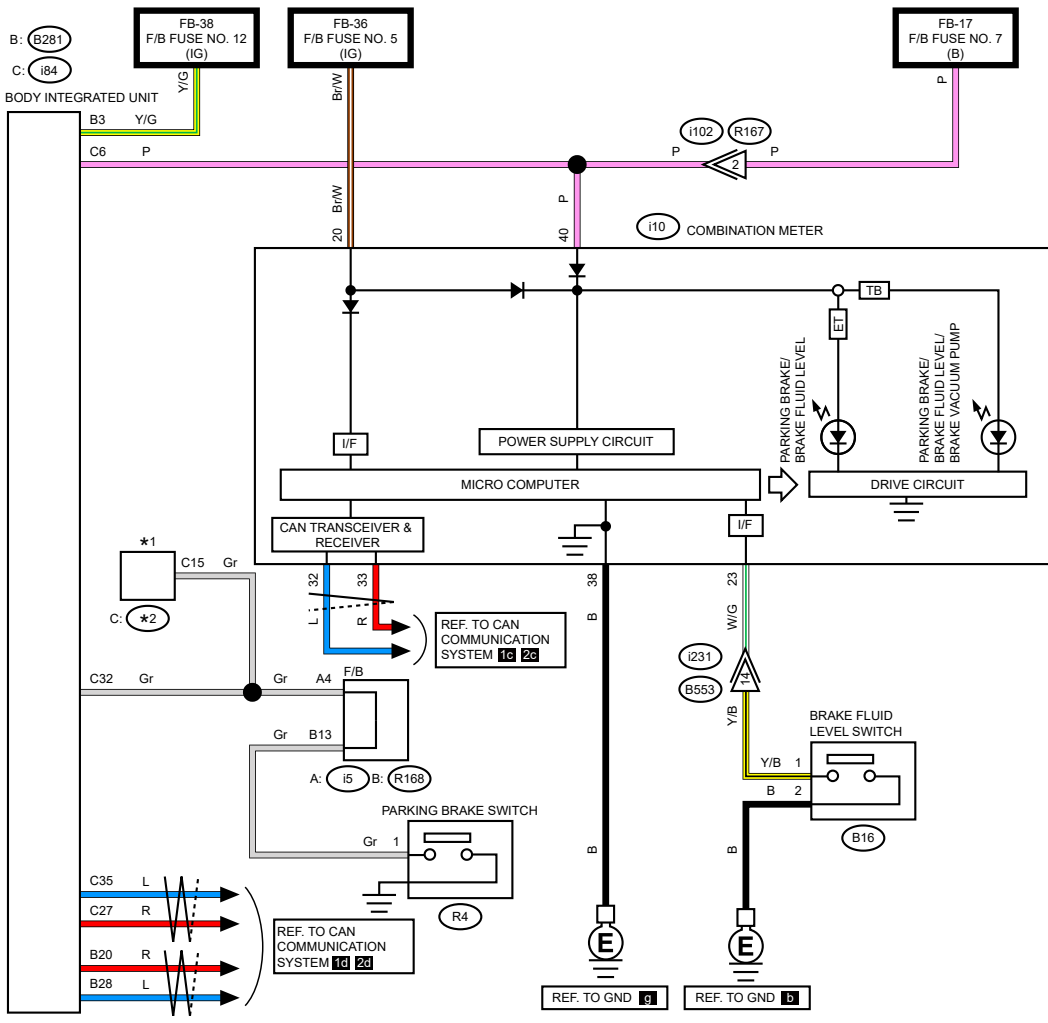
WIRING SYSTEM > Parking Brake / Brake Fluid Level Warning Light System

WIRING DIAGRAM



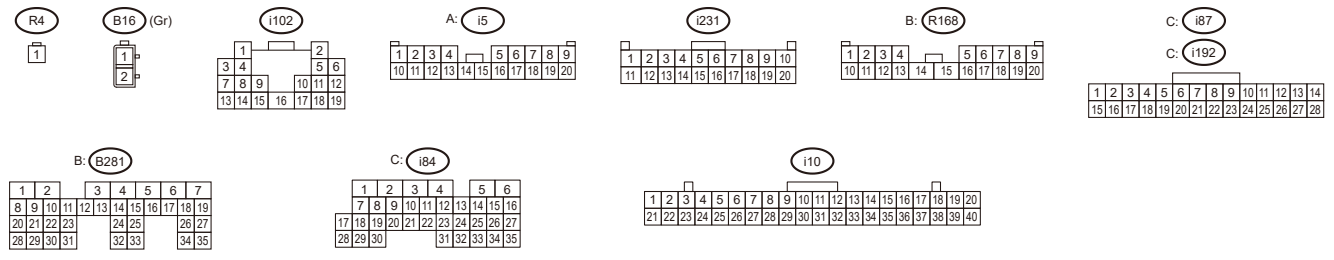
a

a



[ET] : EXCEPT FOR TURBO MODEL
 [TB] : TURBO MODEL

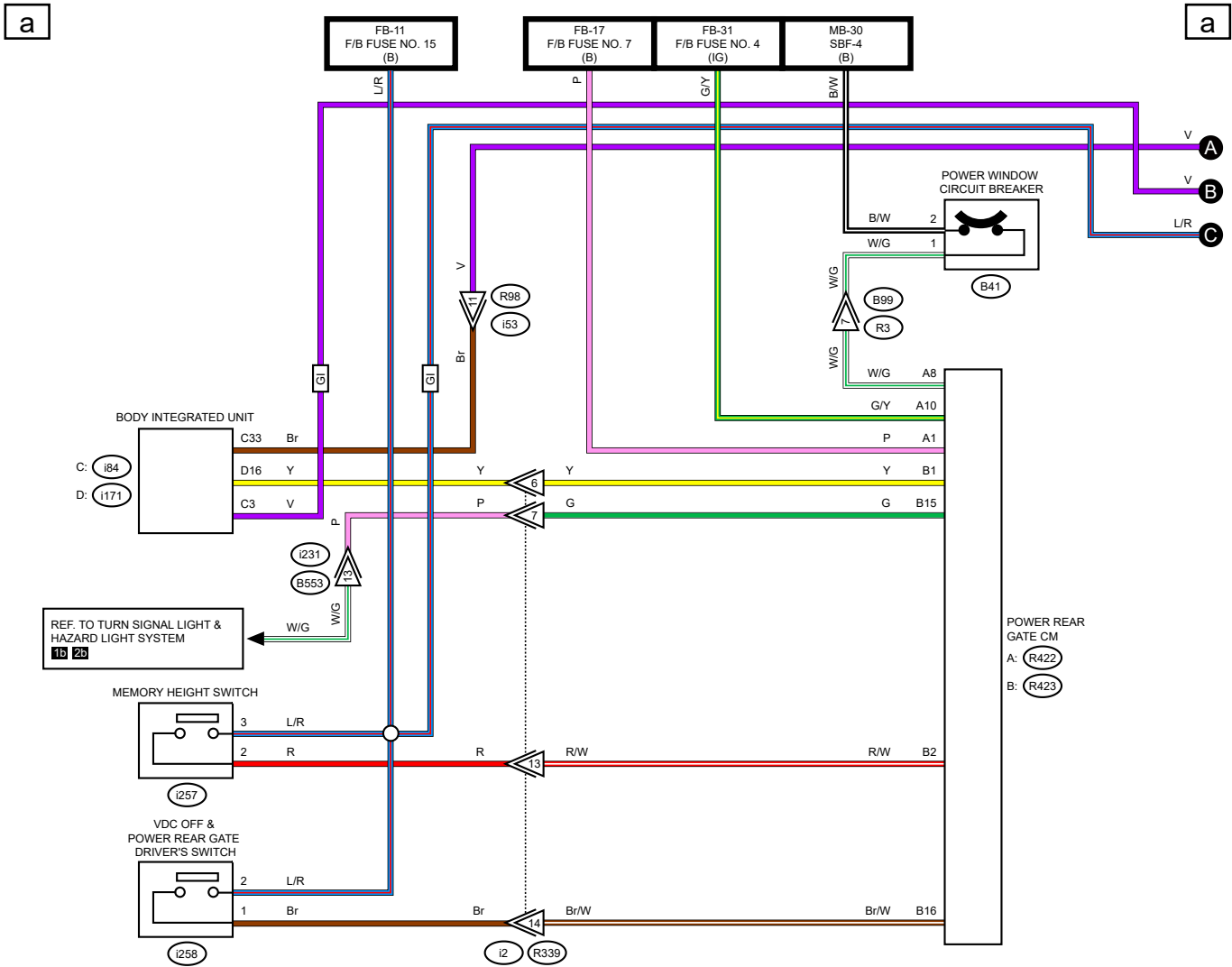
*1 : WITHOUT NAVIGATION : AUDIO WITH NAVIGATION : NAVIGATION UNIT
 *2 : 6.2 INCH DISPLAY : i192
 7 INCH DISPLAY : i87



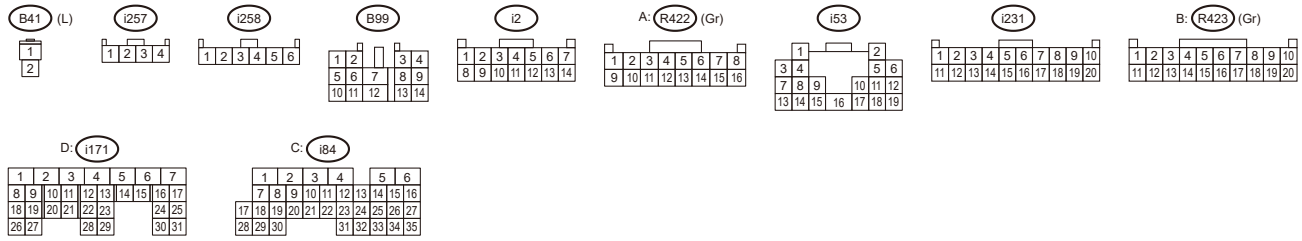
WIRING SYSTEM > Power Rear Gate System

WIRING DIAGRAM



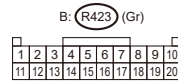
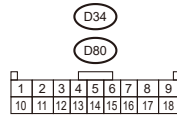
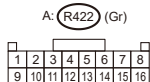
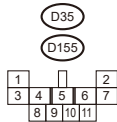
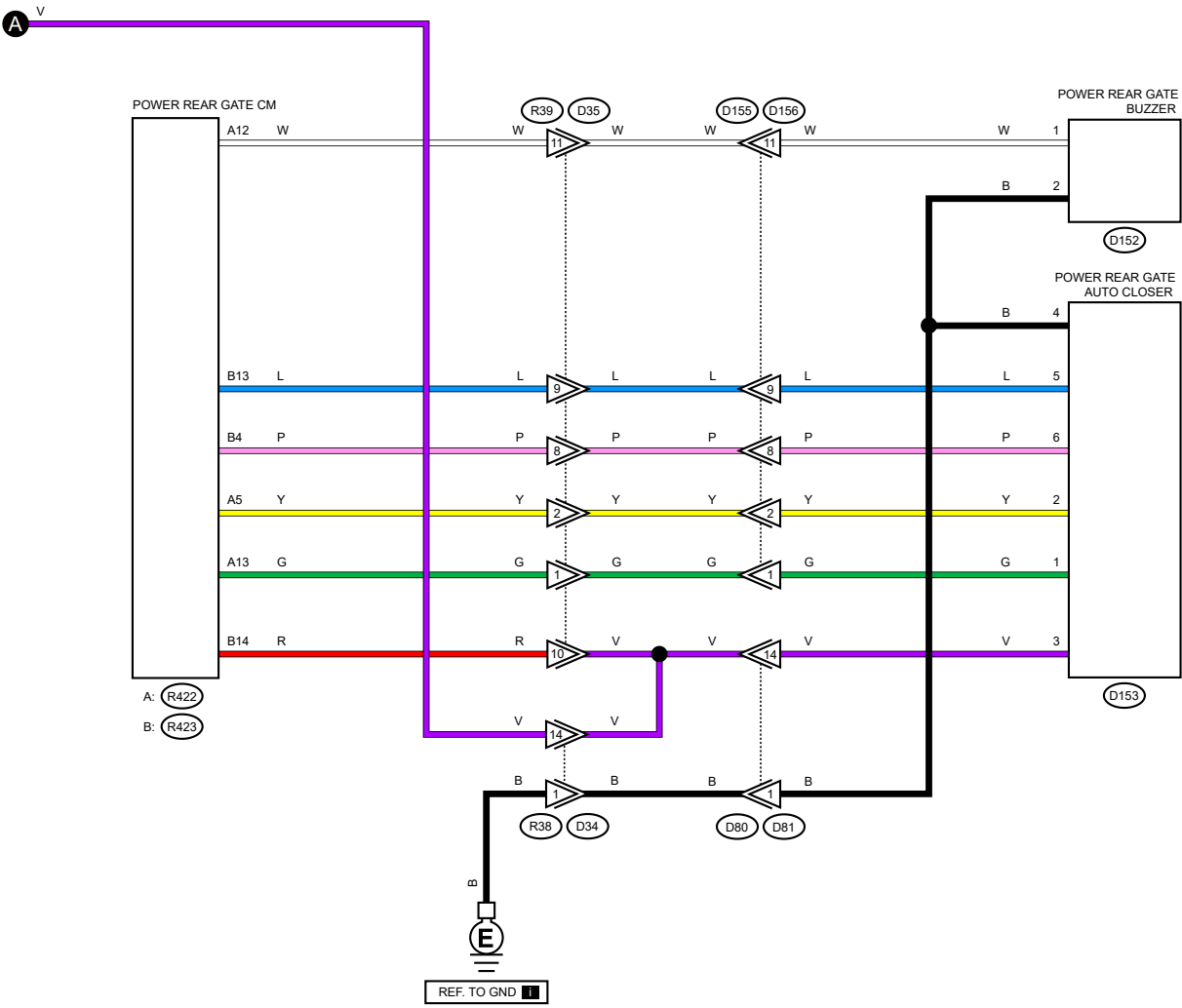


[GI] : WITH POWER REAR GATE ILLUMINATION



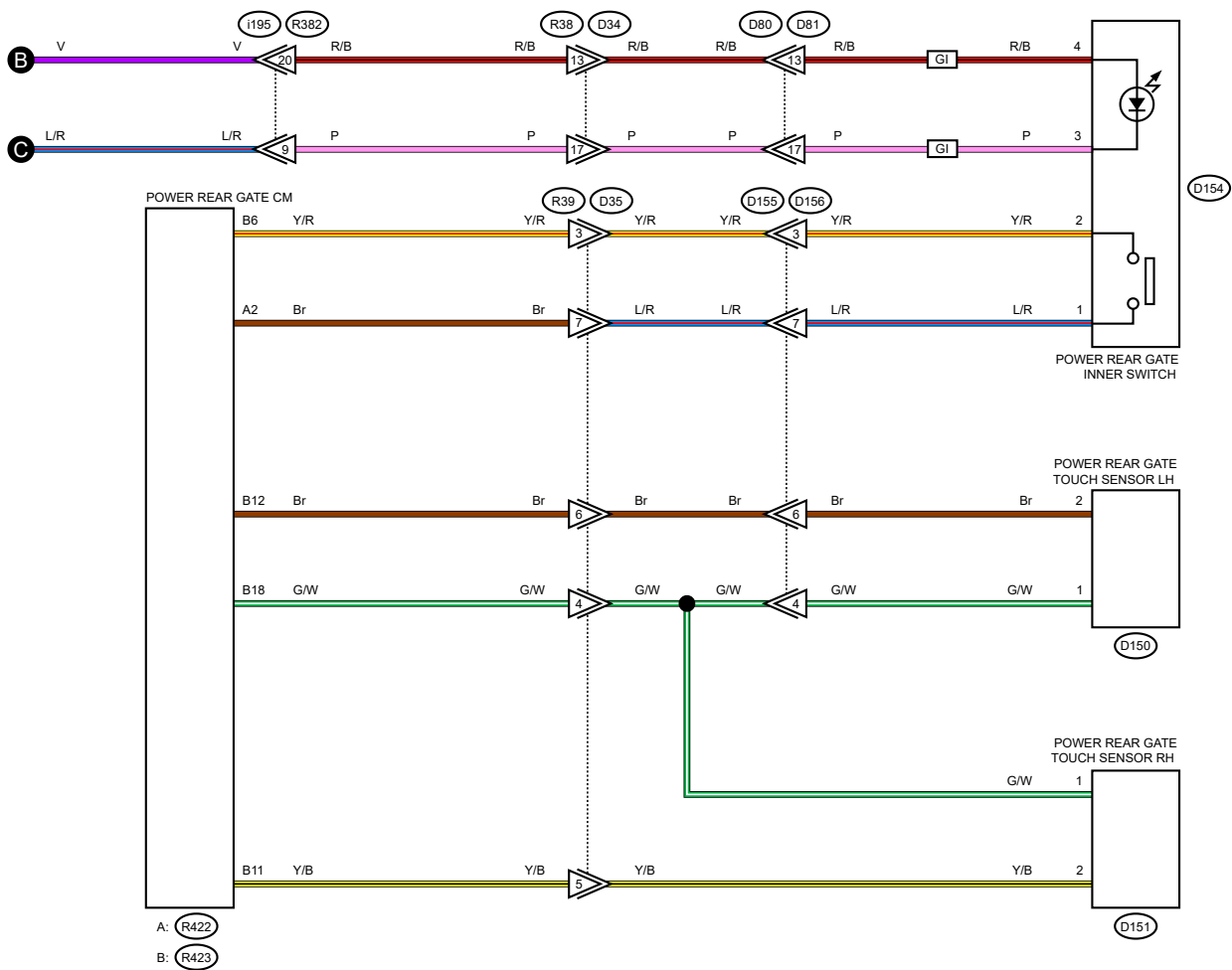
b

b

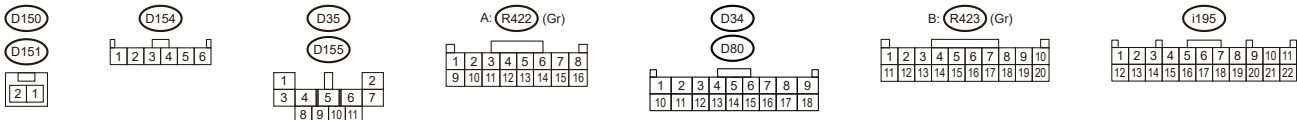


C

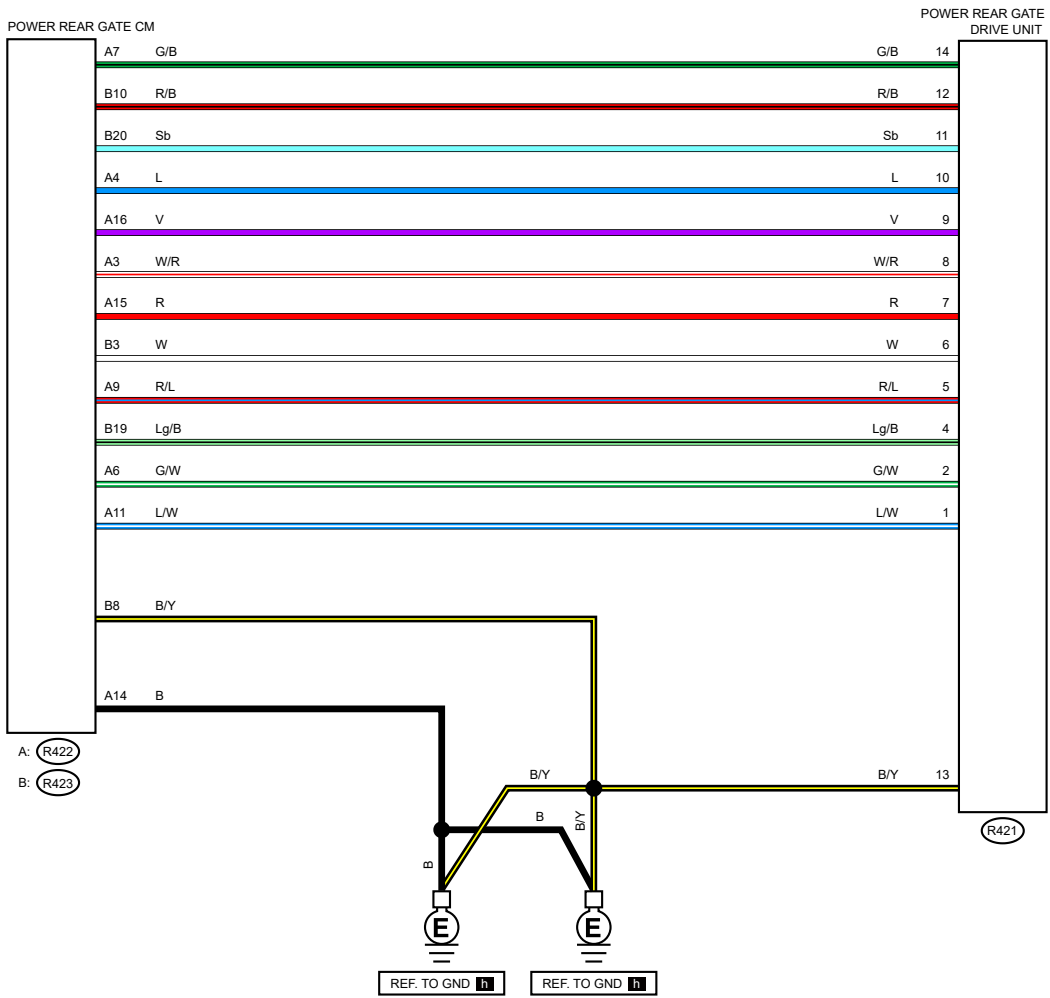
C



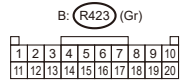
[GI] : WITH POWER REAR GATE ILLUMINATION



d



d



WIRING DIAGRAM

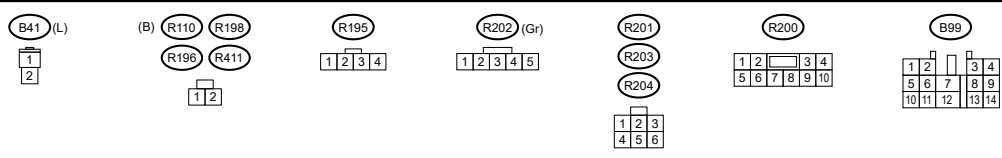
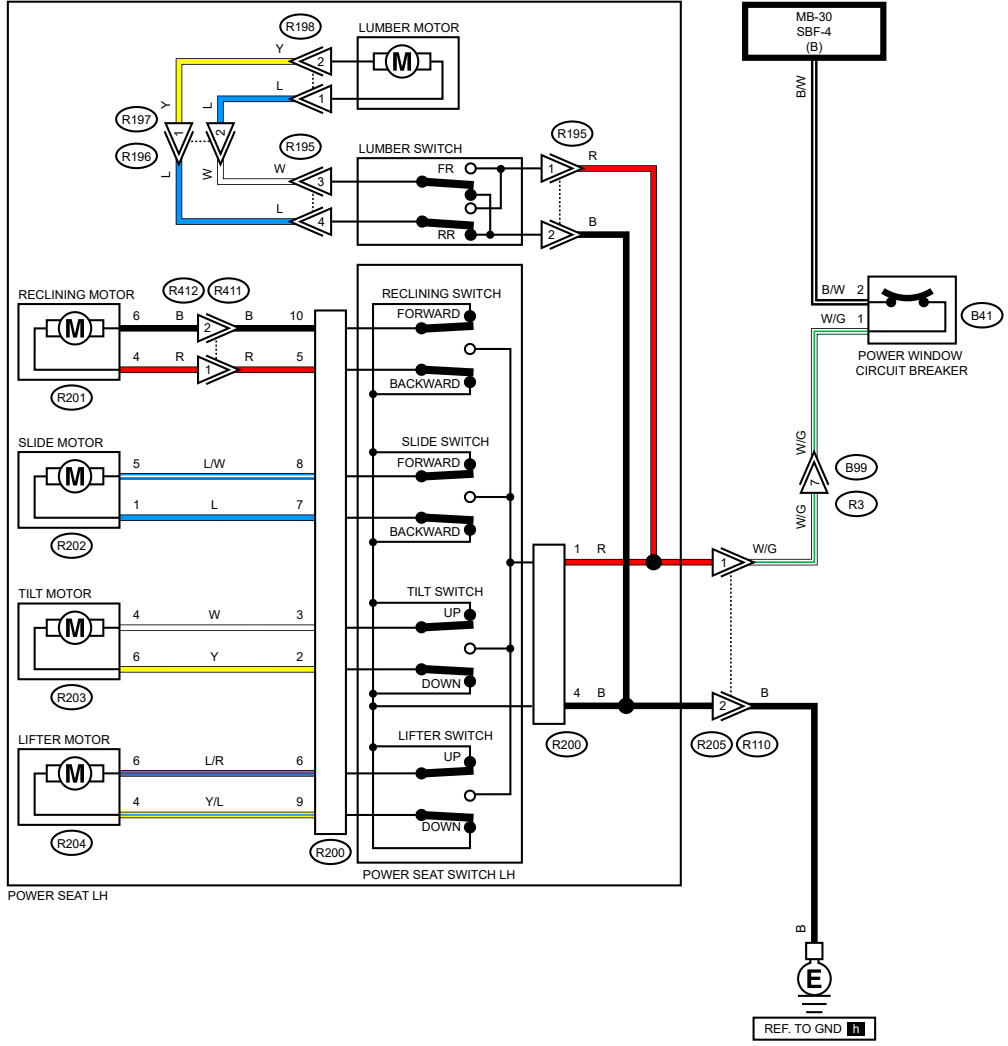
▼ Please select ▼ see

1. DRIVER'S SEAT WITHOUT MEMORY



1a

1a



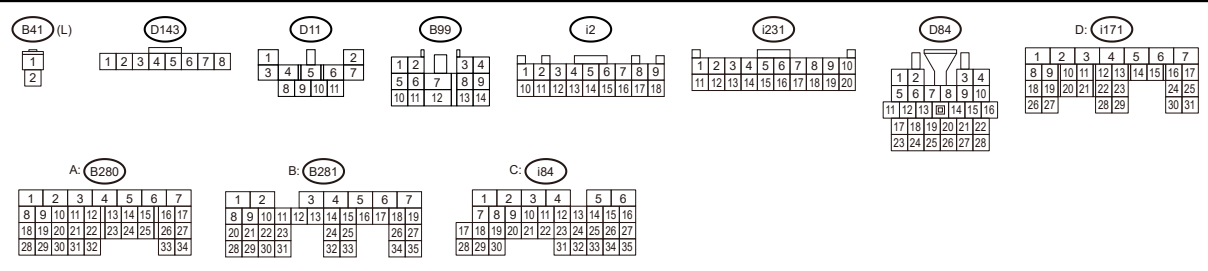
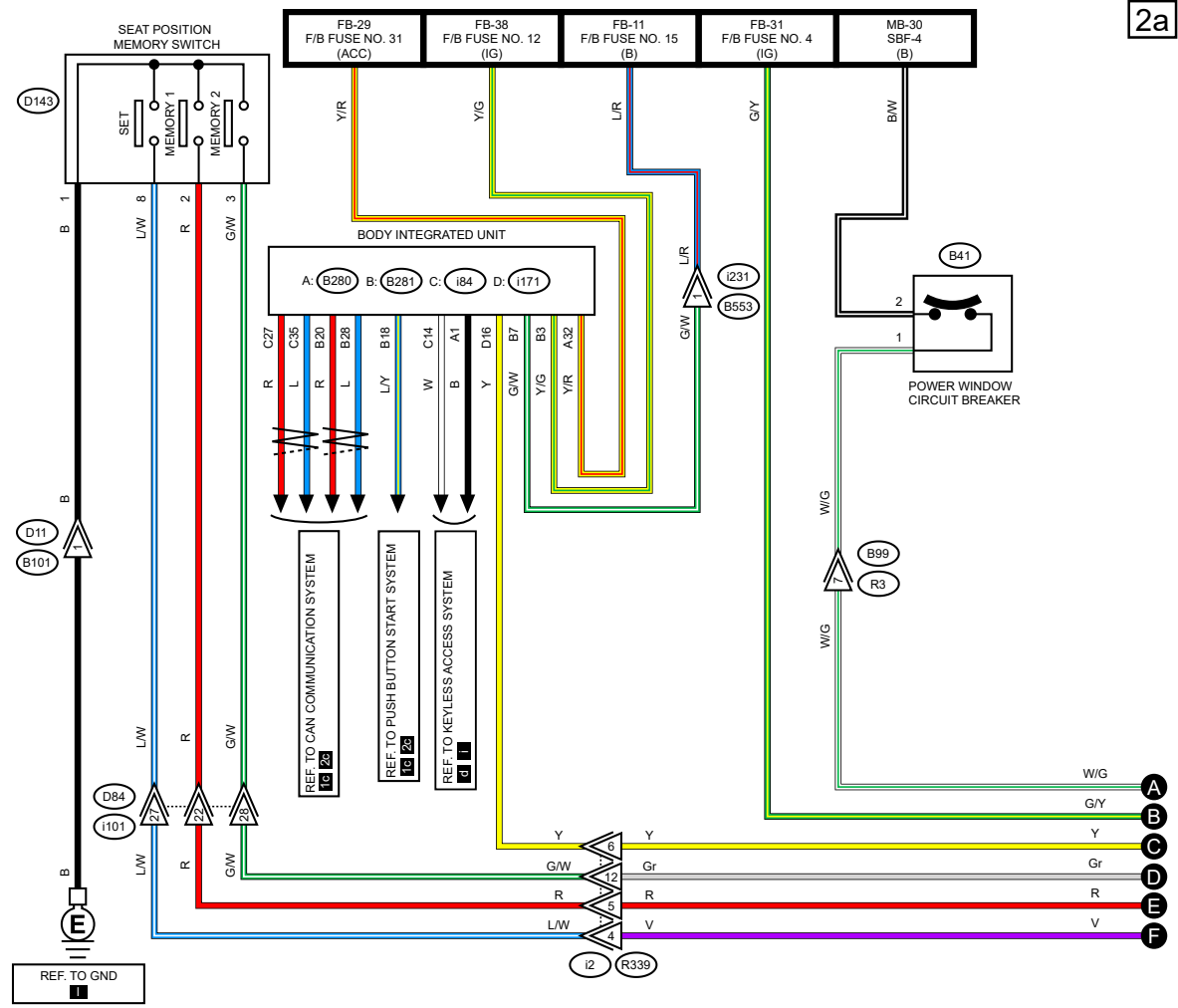
WI-65709

2. DRIVER'S SEAT WITH MEMORY



2a

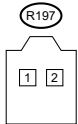
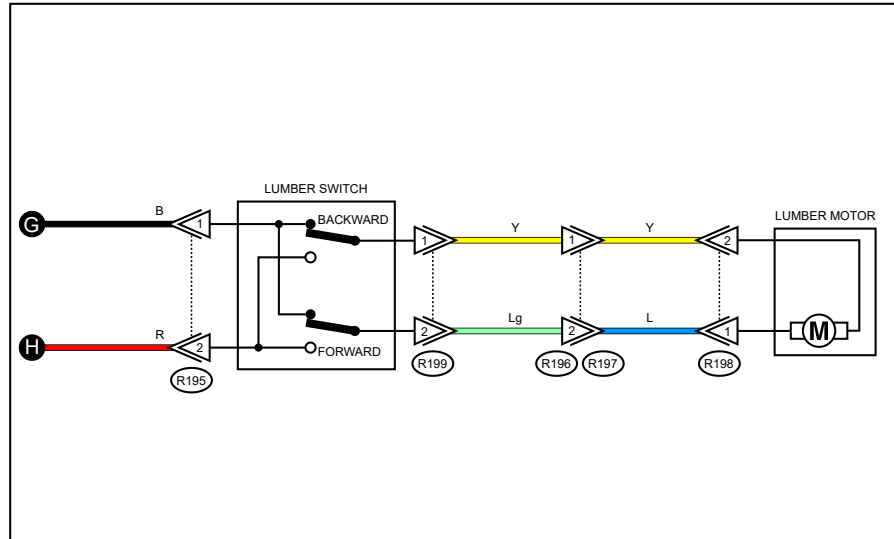
2a



WI-67381



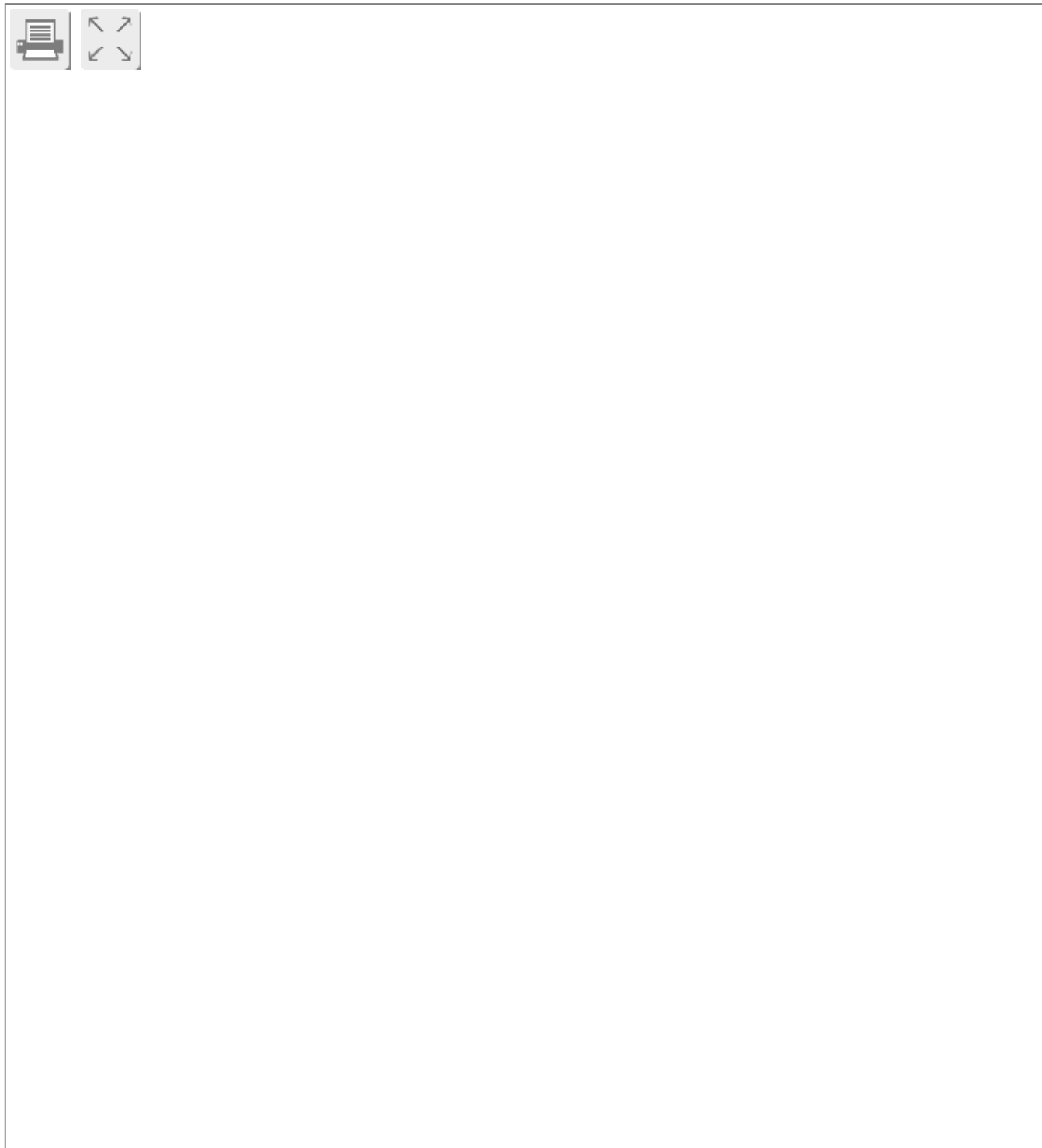
POWER SEAT LH (WITH SEAT POSITION MEMORY)



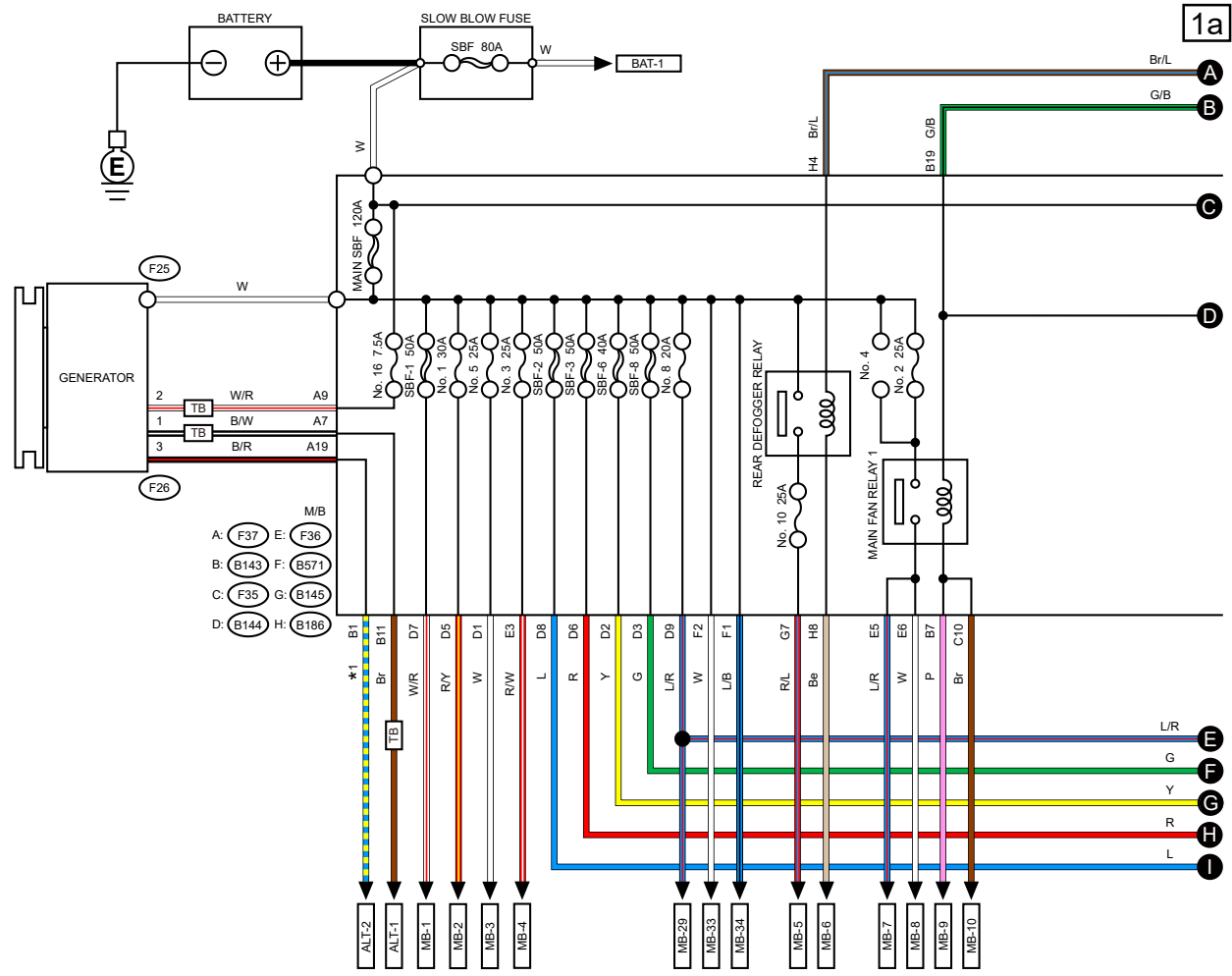
WIRING DIAGRAM

▼ Please select ▼ see

1. WITHOUT PUSH BUTTON START



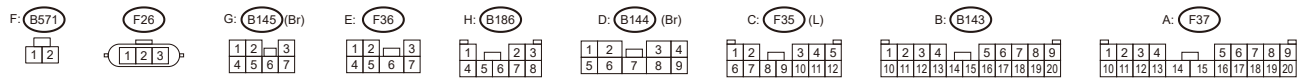
1a



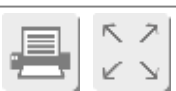
1a

- A: F37
- B: B143
- C: F35
- D: B144
- E: F36
- F: B571
- G: B145
- H: B186
- M/B

TB : TURBO MODEL
 *1 : NON-TURBO MODEL : R
 TURBO MODEL : B/W

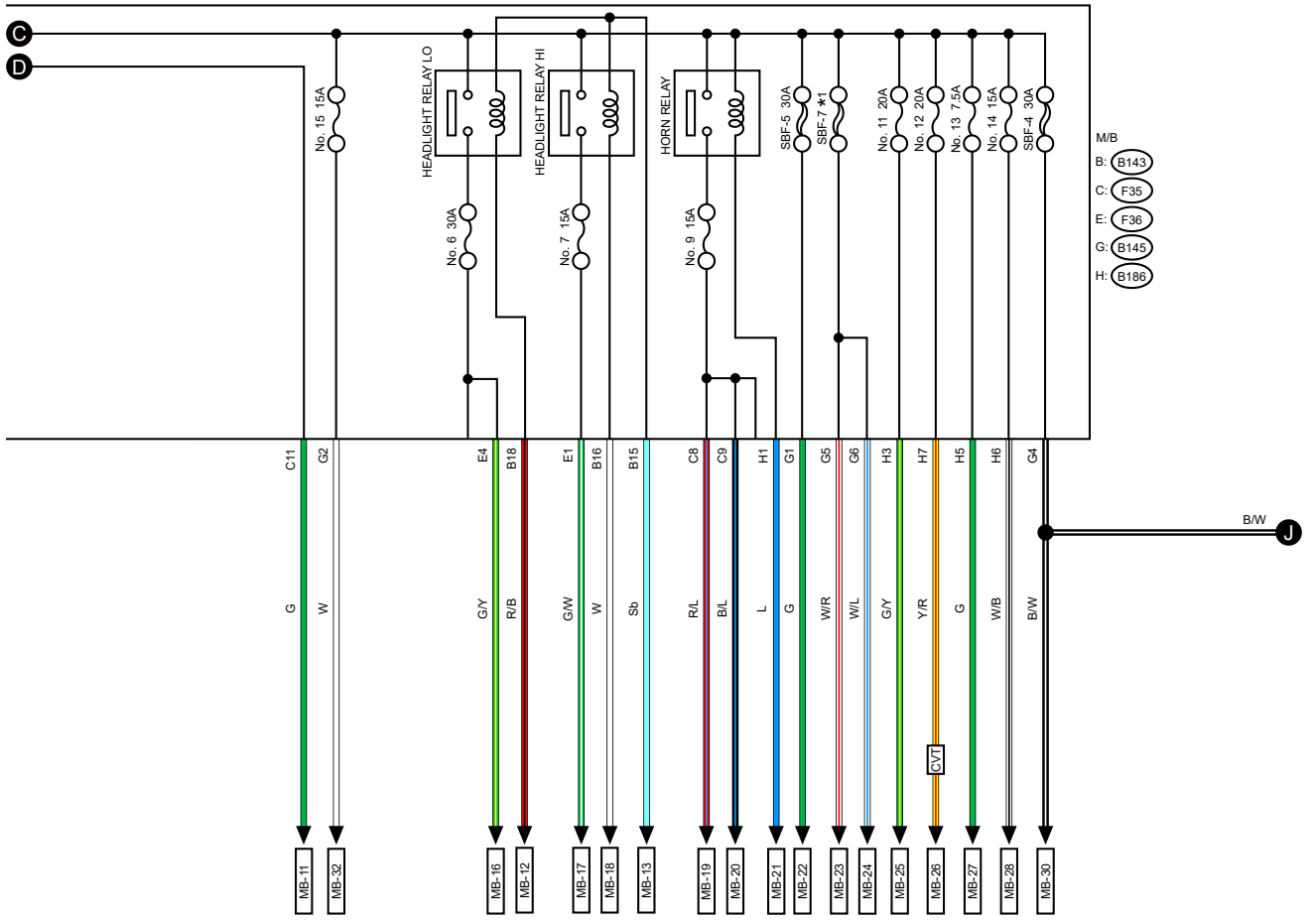


WI-65475



1b

1b



*1 : NON-TURBO MODEL : 30A
TURBO MODEL : 50A

G: (B145) (Br)



E: (F36)



H: (B186)



C: (F35) (L)



B: (B143)

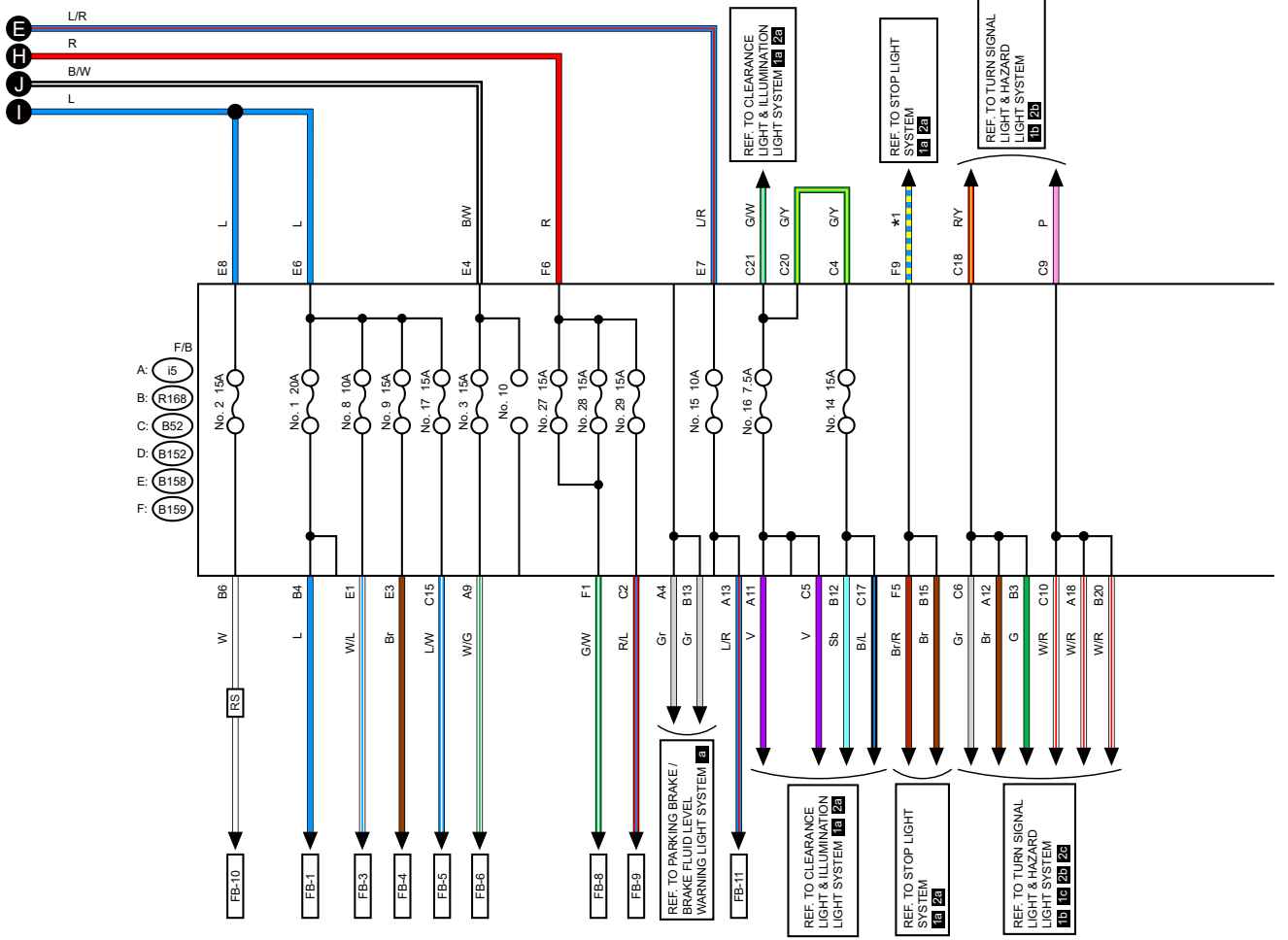


WI-65476



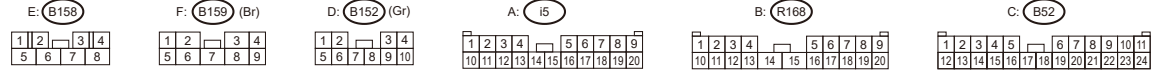
1c

1c

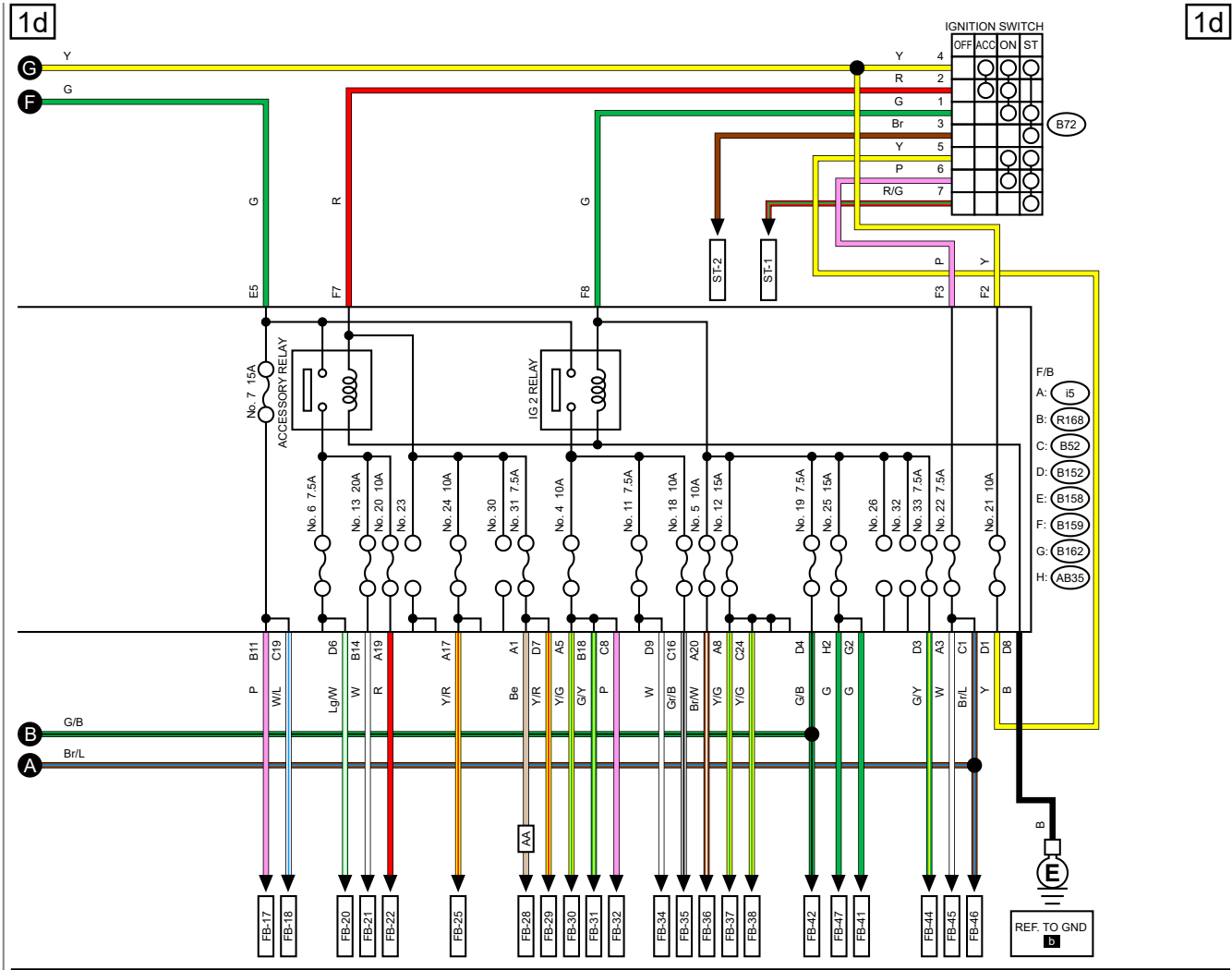


[RS] : WITH REAR SEAT HEATER

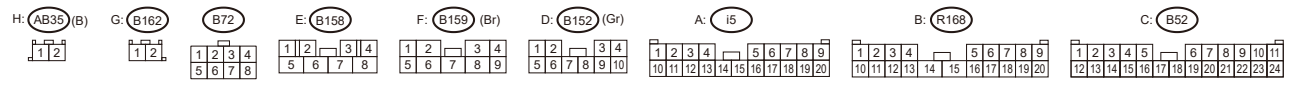
*1 : WITHOUT EyeSight AND X MODE : W/R
EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE : Br/W



1d



AA: AUTO A/C



WI-65478

No.	Load
MB-1	VDC CM
MB-2	VDC CM
MB-4	Sub fan relay
MB-5	Mirror heater LH
	Mirror heater RH
	Rear defogger
	A/C control panel (manual A/C)

MB-6	Body integrated unit
MB-7	Main fan relay 2
MB-8	Main fan motor
MB-9	ECM
MB-10	Main fan relay 2
MB-11	Main fan relay 2
MB-12	Body integrated unit
MB-13	Body integrated unit
	Daytime running light relay LH (halogen model)
	Daytime running light relay RH (halogen model)
MB-16	Front combination light LH
	Front combination light RH
MB-17	Daytime running light relay LH (halogen model)
	Daytime running light relay RH (halogen model)
	Front combination light LH
	Front combination light RH
MB-18	Body integrated unit
MB-19	Horn
MB-20	Horn
MB-21	Horn switch
	Body integrated unit
MB-22	A/F, oxygen sensor relay
MB-23	Main relay
	IG relay
MB-24	Electronic throttle control relay
MB-25	Fuel pump relay
MB-26	TCM
	Self shut relay
MB-27	ECM
	Data link connector
	Battery sensor
MB-28	Turn signal and hazard unit
	Body integrated unit
	Key warning switch
MB-29	Body integrated unit
	Navigation unit
	Audio
MB-30	Power window circuit breaker
MB-32	Tail & Illumination relay
	Daytime running light relay (LED model)
	Daytime running light relay LH (halogen model)

	Daytime running light relay RH (halogen model)
MB-33	Wiper relay
MB-34	Brake pump relay
	Data communication module
	Steering heater relay
ALT-1	OP connector
ALT-2	ECM
	Battery sensor
ST-1	Clutch start switch
	Starter relay 1
ST-2	Starter relay 1
FB-1	Trailer connector
FB-3	Stop light and brake switch
	Stop light relay
FB-4	Wiper deicer relay
FB-5	Seat heater relay
FB-6	Body integrated unit
	Remote control back rest switch LH
	Remote control back rest switch RH
FB-8	Blower motor relay
FB-9	Front fog light relay (without SRF)
	Front fog light relay LH (with SRF)
	Front fog light relay RH (with SRF)
FB-10	Rear seat heater CM
FB-11	Overhead console (spot map light)
	Body integrated unit
	Immobilizer antenna
	Door step light LH
	Door step light RH
	Outer mirror assembly LH
	Outer mirror assembly RH
	Room light
	Stereo camera cover (spot map light)
	Luggage room light
	Keyless entry CM
	TPMS & keyless entry CM
	MFD
	Memory height switch
	VDC OFF & power rear gate driver's switch
	Puddle light LH
Puddle light RH	

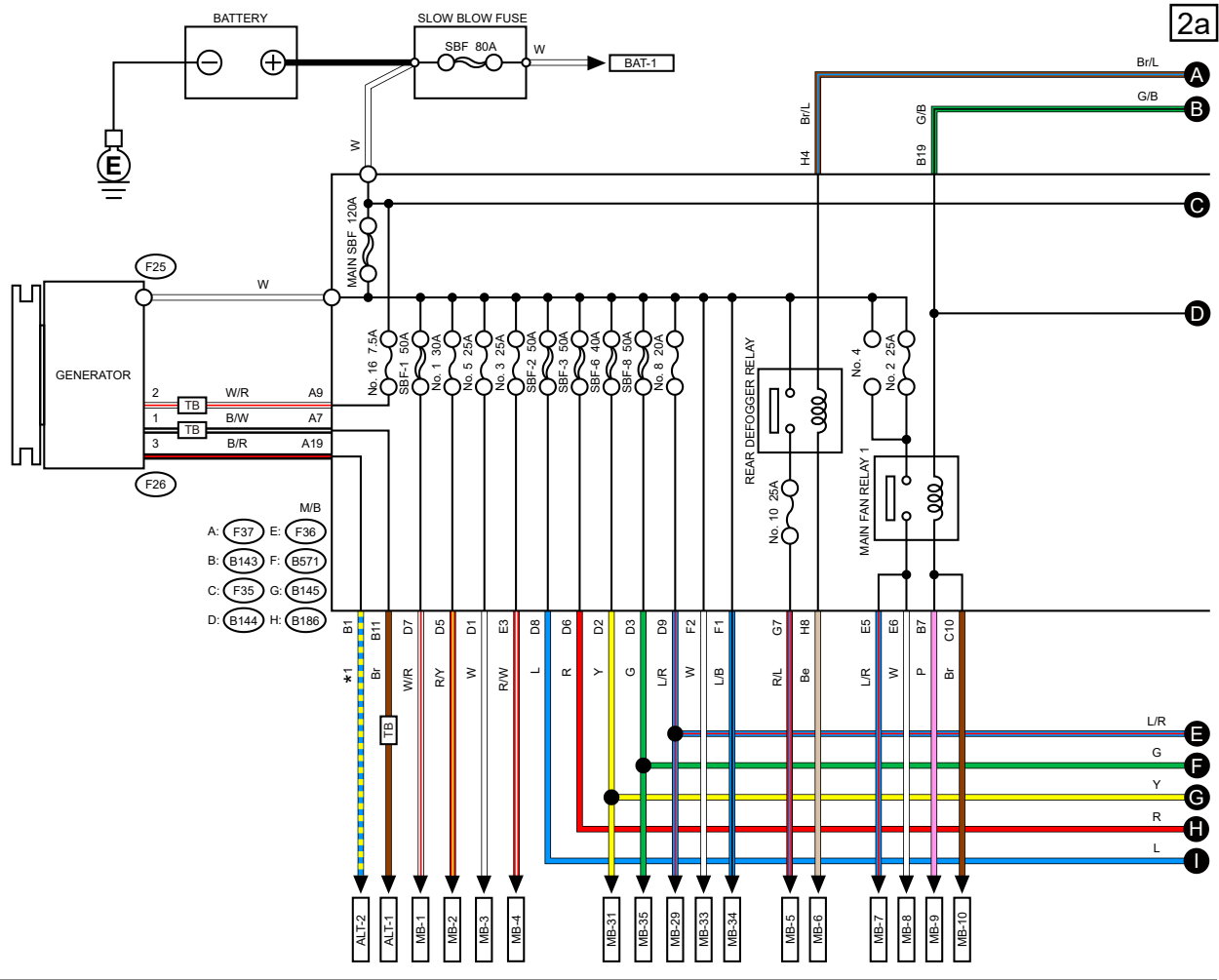
	Vanity mirror LH
	Vanity mirror RH
	Power rear gate inner switch
FB-17	Combination meter
	Body integrated unit
	A/C control panel (auto A/C)
	Power rear gate CM
	RAB CM
FB-18	Security CM
	Steering lock CM
	Impact sensor
	Air mix door actuator LH (with left/right independent air conditioner)
	Air mix door actuator RH (with left/right independent air conditioner)
	Mode door actuator (auto A/C)
	Air mix door actuator (without left/right independent air conditioner)
	Stereo camera
FB-20	Seat heater relay
	Rear view mirror
	Remote control mirror switch
FB-21	Rear accessory power supply socket
FB-22	Front accessory power supply socket
FB-25	Audio
	Navigation unit
	Data communication module
FB-28	A/C control panel
FB-29	Body integrated unit
FB-30	BSD/RCTA OFF switch
	Radar sensor LH (master)
	Radar sensor RH (slave)
	TPMS & keyless entry CM
	Rear seat heater CM
FB-31	Power rear gate CM
	RAB CM
	Power seat LH (with seat position memory)
FB-32	Sunroof switch
	Clutch switch
	Sunroof unit
	Data link connector
	Stop light and brake switch
	Wiper deicer relay
	Impact sensor

	Stereo camera
	Steering heater relay
	Steering heater switch
FB-34	Turn signal and hazard unit
FB-35	Inhibitor switch
	Headlight washer unit
	Auto headlight beam leveler CM
	Daytime running light relay (LED model)
	Front combination light LH (SRH actuator)
	Front combination light RH (SRH actuator)
FB-36	Combination meter
	MFD
FB-37	Data communication module
FB-38	ECM
	TCM
	Body integrated unit
	Fuel pump relay
	Combination switch
FB-41	Airbag CM
FB-42	Power window relay
	Wiper relay
FB-43	Steering lock CM
FB-44	VDC CM
	Steering angle sensor
	Power steering CM
	Stop light relay
	Yaw rate & G sensor
FB-45	A/C control panel
FB-46	A/C relay
	Sub fan relay
	Pressure switch
	Blower motor relay
FB-47	Occupant detection control module
BAT-1	Power steering CM

2. WITH PUSH BUTTON START

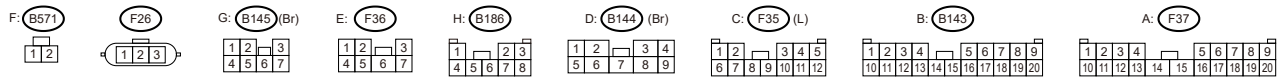


2a

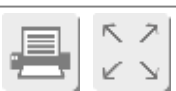


2a

TB : TURBO MODEL
 *1 : NON-TURBO MODEL : R
 TURBO MODEL : B/W

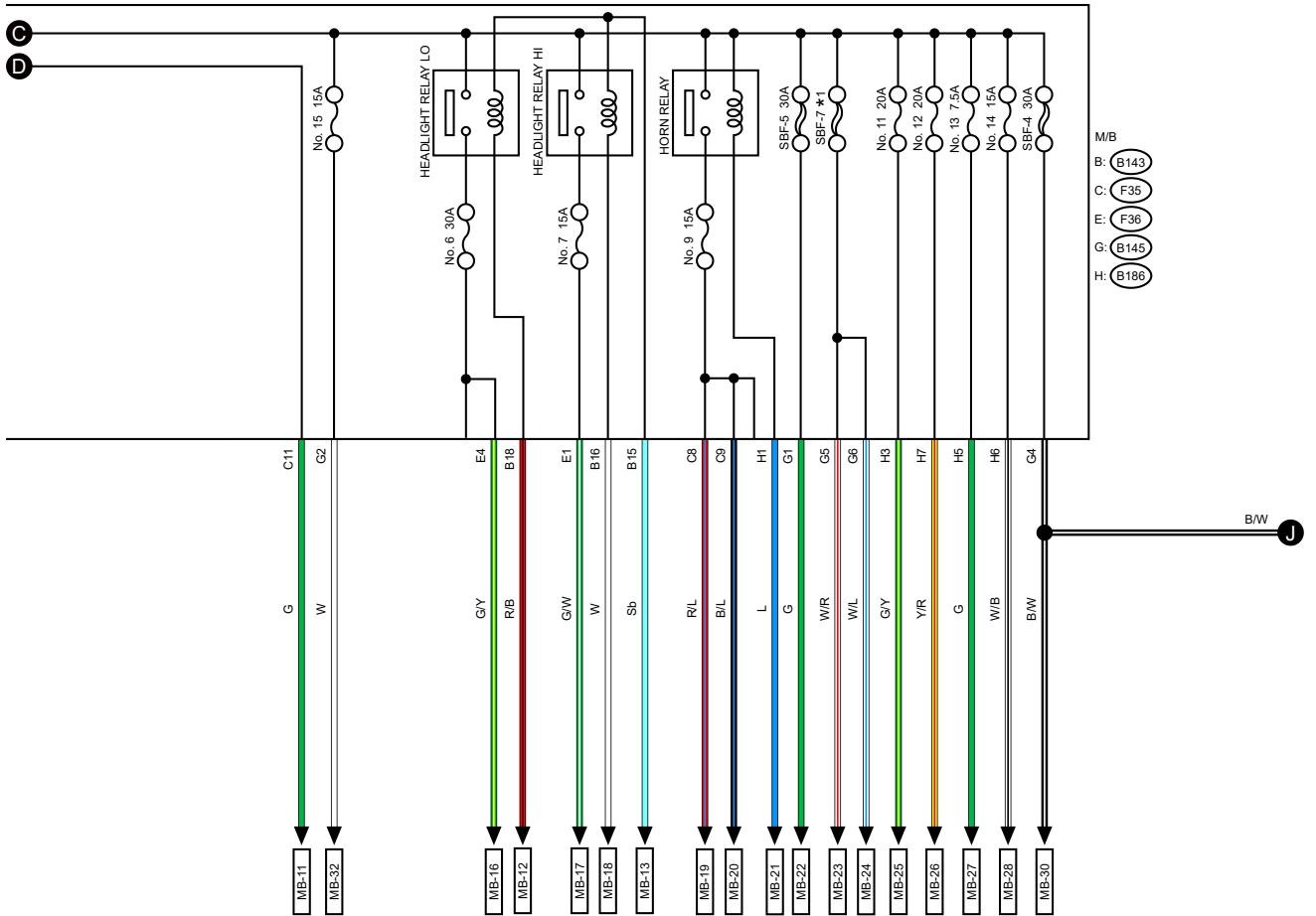


WI-65479



2b

2b



*1 : NON-TURBO MODEL : 30A
TURBO MODEL : 50A

G: (B145)(Br)



E: (F36)



H: (B186)



C: (F35) (L)



B: (B143)

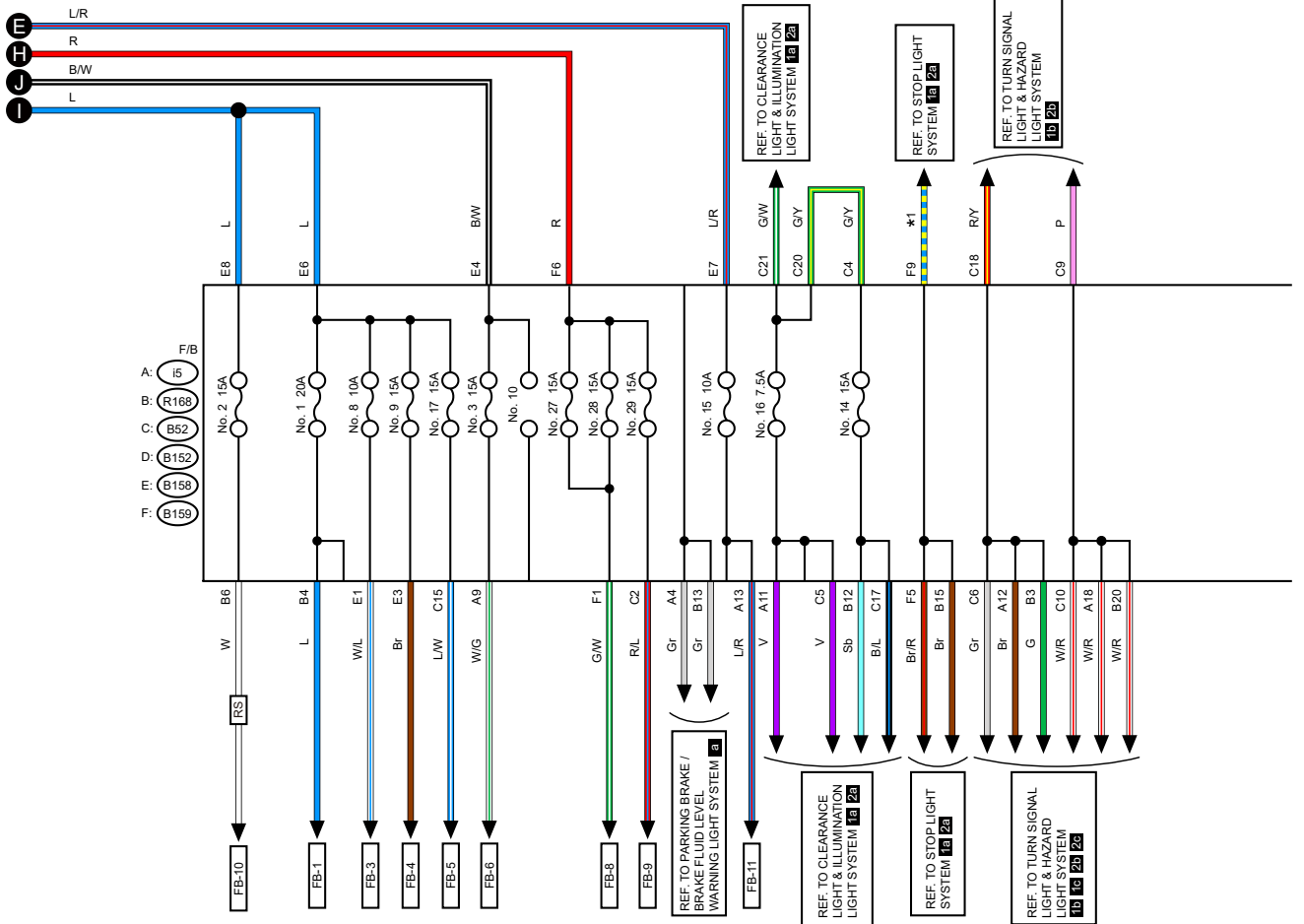


WI-65480



2c

2c



[RS] : WITH REAR SEAT HEATER

*1 : WITHOUT EyeSight AND X MODE : W/R
EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE : Br/W

E: (B158)

1	2	3	4
5	6	7	8

F: (B159) (Br)

1	2	3	4
5	6	7	8
9			

D: (B152) (Gr)

1	2	3	4
5	6	7	8
9	10		

A: (i5)

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20							

B: (R168)

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20							

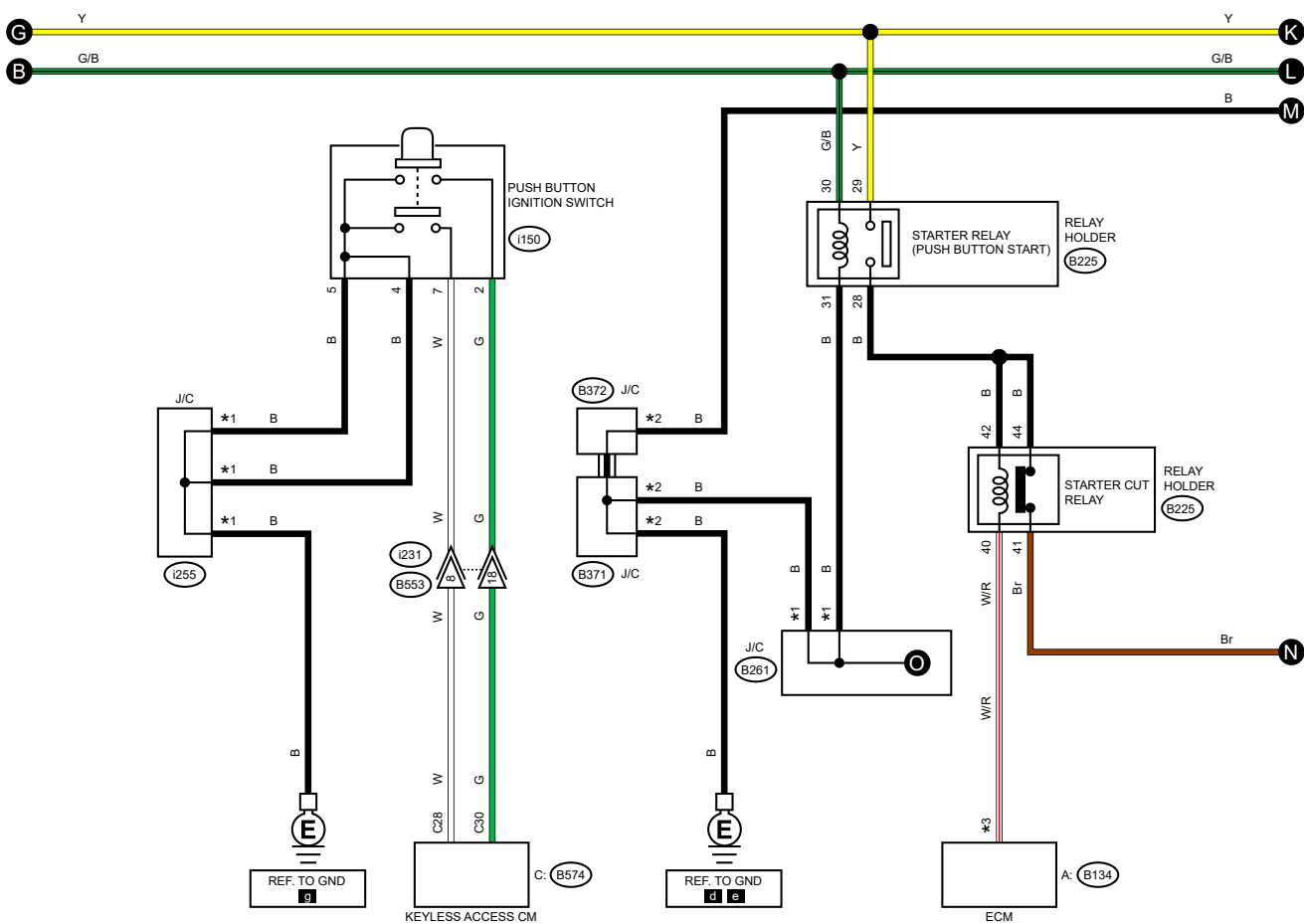
C: (B52)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22
23	24									



2d

2d



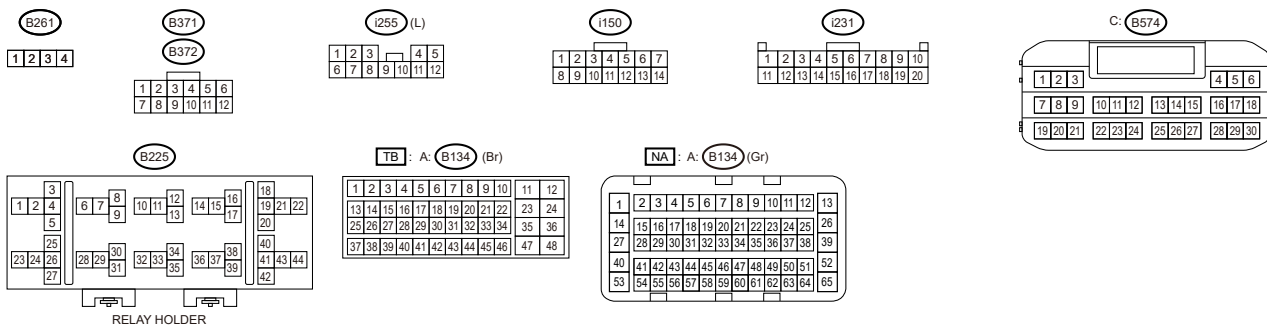
NA : NON-TURBO MODEL

TB : TURBO MODEL

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

*2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12

*3 : NON-TURBO MODEL : A49
TURBO MODEL : A13

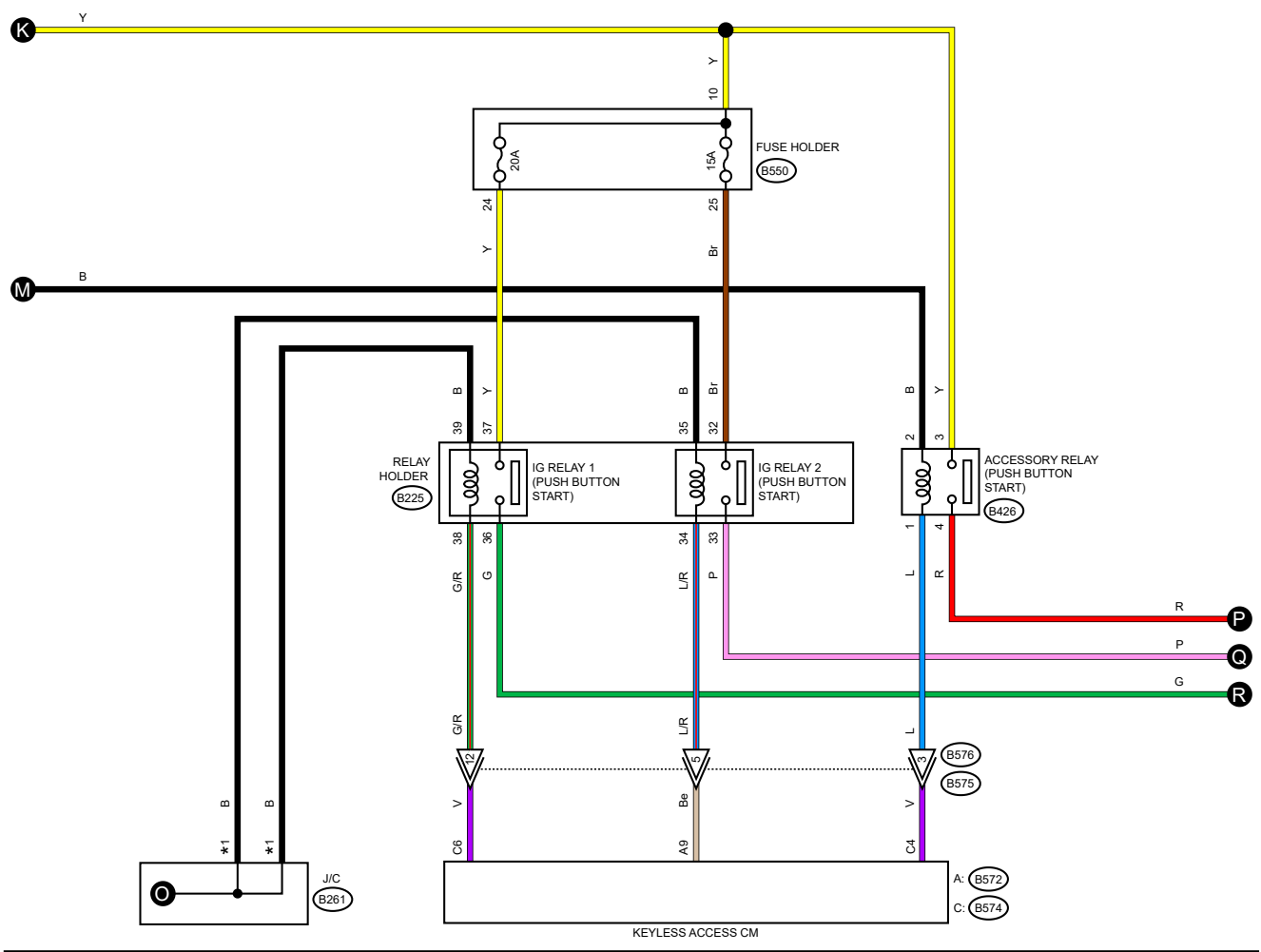


WI-65482

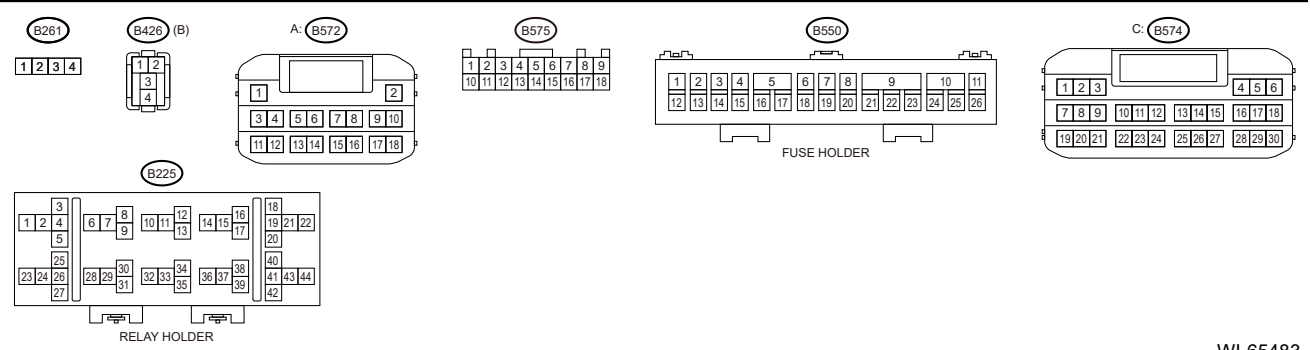


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2e

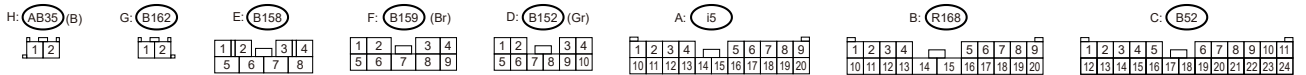
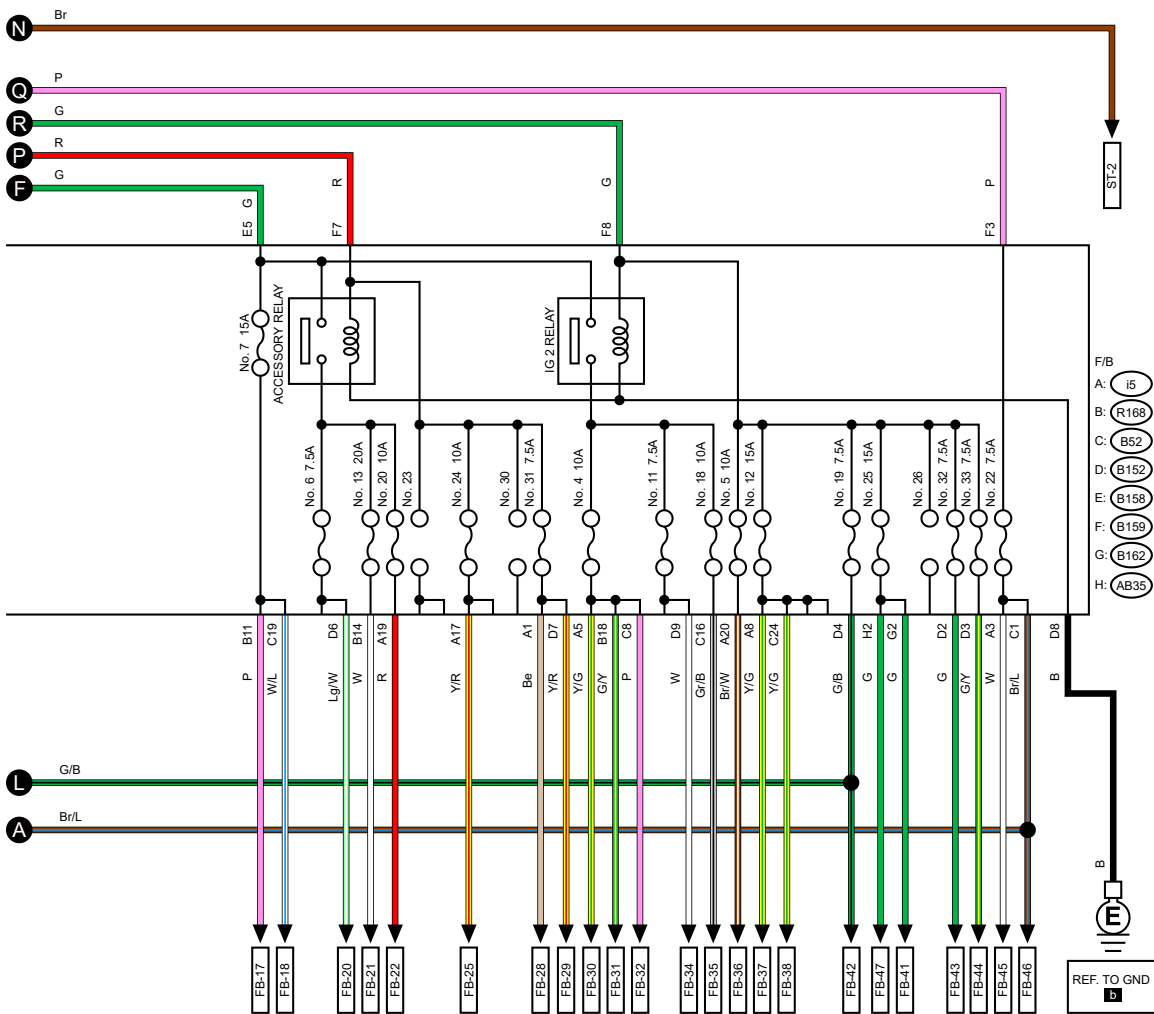


*1 : TERMINAL No. OPTIONAL ARRANGEMENT



WI-65483





WI-65484

No.	Load
MB-1	VDC CM
MB-2	VDC CM
MB-4	Sub fan relay
MB-5	Mirror heater LH
	Mirror heater RH
	Rear defogger
	A/C control panel (manual A/C)

MB-6	Body integrated unit
MB-7	Main fan relay 2
MB-8	Main fan motor
MB-9	ECM
MB-10	Main fan relay 2
MB-11	Main fan relay 2
MB-12	Body integrated unit
MB-13	Body integrated unit
	Daytime running light relay LH (halogen model)
	Daytime running light relay RH (halogen model)
MB-16	Front combination light LH
	Front combination light RH
MB-17	Daytime running light relay LH (halogen model)
	Daytime running light relay RH (halogen model)
	Front combination light LH
	Front combination light RH
MB-18	Body integrated unit
MB-19	Horn
MB-20	Horn
MB-21	Horn switch
	Body integrated unit
MB-22	A/F, oxygen sensor relay
MB-23	Main relay
	IG relay
	Fuel injector relay (turbo model)
MB-24	Electronic throttle control relay
MB-25	Fuel pump relay
MB-26	TCM
	Self shut relay
MB-27	ECM
	Data link connector
	Battery sensor
MB-28	Turn signal and hazard unit
	Body integrated unit
MB-29	Audio
	Navigation unit
MB-30	Power window circuit breaker
MB-31	Accessory relay
	IG relay 1
	IG relay 2
MB-32	Tail & Illumination relay

	Daytime running light relay (LED model)
	Daytime running light relay LH (halogen model)
	Daytime running light relay RH (halogen model)
MB-33	Wiper relay
MB-34	Brake pump relay
	Data communication module
	Steering heater relay
MB-35	Keyless access CM
	ID code box
ALT-2	ECM
	Battery sensor
ST-2	Starter relay 1
FB-1	Trailer connector
FB-3	Stop light and brake switch
	Stop light relay
FB-4	Wiper deicer relay
FB-5	Seat heater relay
FB-6	Body integrated unit
	Remote control back rest switch RH
	Remote control back rest switch LH
FB-8	Blower motor relay
FB-9	Front fog light relay (without SRF)
	Front fog light relay LH (with SRF)
	Front fog light relay RH (with SRF)
FB-10	Rear seat heater CM
FB-11	Overhead console (spot map light)
	Body integrated unit
	Immobilizer antenna
	Door step light LH
	Door step light RH
	Outer mirror assembly LH
	Outer mirror assembly RH
	Room light
	Stereo camera cover (spot map light)
	Luggage room light
	MFD
	Memory height switch
	VDC OFF & power rear gate driver's switch
	Remote engine start CM
	Puddle light LH
Puddle light RH	

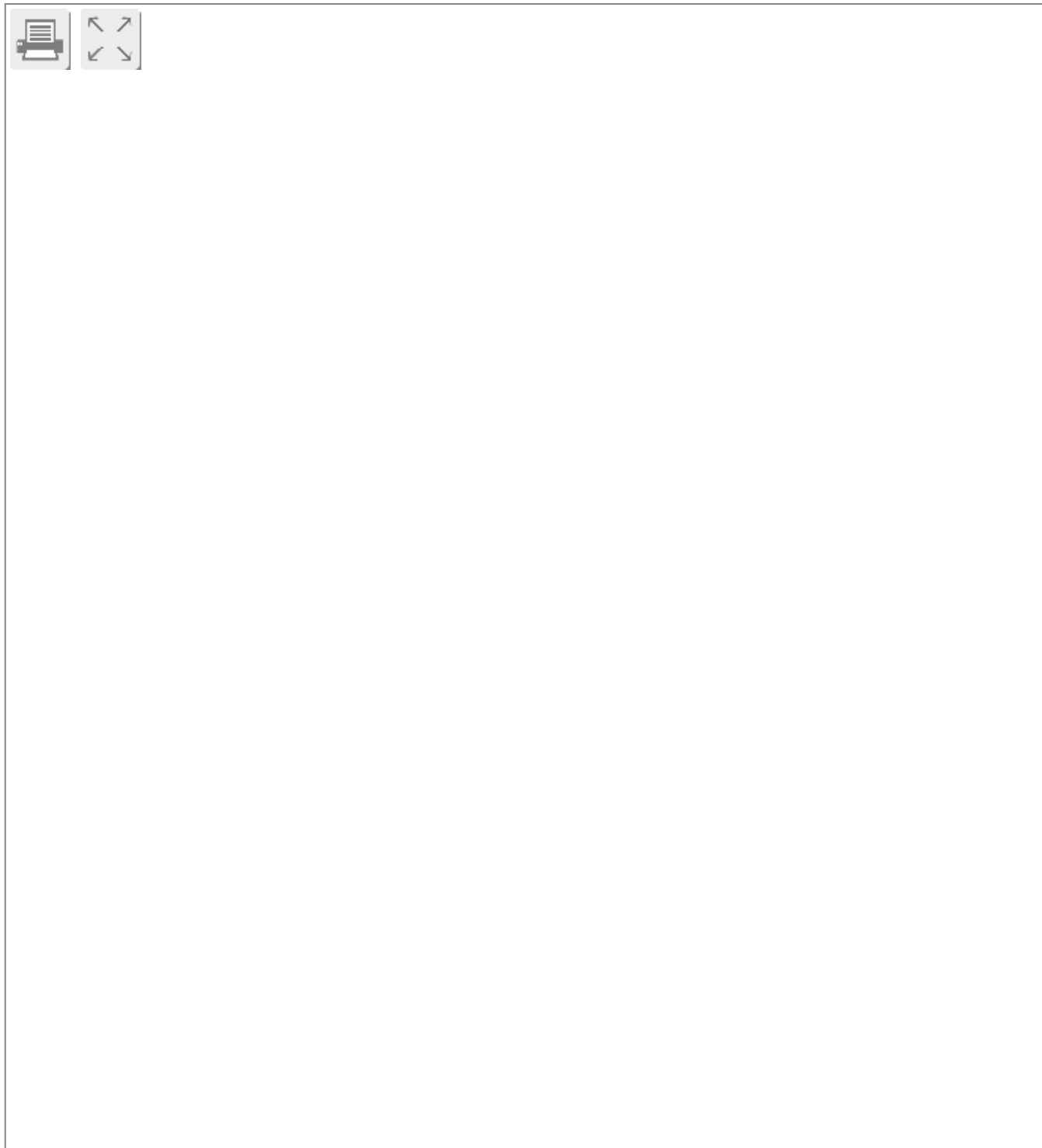
	Vanity mirror LH
	Vanity mirror RH
	Power rear gate inner switch
FB-17	Combination meter
	Body integrated unit
	A/C control panel (auto A/C)
	Power rear gate CM
	RAB CM
FB-18	Impact sensor
	Security CM
	Air mix door actuator LH (with left/right independent air conditioner)
	Air mix door actuator RH (with left/right independent air conditioner)
	Mode door actuator (auto A/C)
	Air mix door actuator (without left/right independent air conditioner)
	Stereo camera
FB-20	Seat heater relay
	Rear view mirror
	Remote control mirror switch
FB-21	Rear accessory power supply socket
FB-22	Front accessory power supply socket
FB-25	Audio
	Navigation unit
	Data communication module
FB-28	A/C control panel (auto A/C)
FB-29	Body integrated unit
FB-30	BSD/RCTA OFF switch
	Radar sensor LH (master)
	Radar sensor RH (slave)
	Rear seat heater CM
	TPMS CM
FB-31	Power rear gate CM
	RAB CM
	Power seat LH (with seat position memory)
FB-32	Sunroof switch
	Sunroof unit
	Data link connector
	Stop light and brake switch
	Wiper deicer relay
	Impact sensor
	Stereo camera
	Remote engine start CM

	Steering heater relay
	Steering heater switch
FB-34	Turn signal and hazard unit
FB-35	Inhibitor switch
	Back-up light switch
	Auto headlight beam leveler CM
	Daytime running light relay (LED model)
	Front combination light LH (SRH actuator)
	Front combination light RH (SRH actuator)
FB-36	Combination meter
	MFD
FB-37	Data communication module
FB-38	ECM
	TCM
	Body integrated unit
	Fuel pump relay
	Combination switch
	Keyless access CM
FB-41	Airbag CM
FB-42	Power window relay
	Wiper relay
FB-43	Steering lock CM
FB-44	VDC CM
	Yaw rate & G sensor
	Steering angle sensor
	Power steering CM
	Stop light relay
FB-45	A/C control panel
FB-46	A/C relay
	Sub fan relay
	Pressure switch
	Blower motor relay
FB-47	Occupant detection control module
BAT-1	Power steering CM

WIRING DIAGRAM

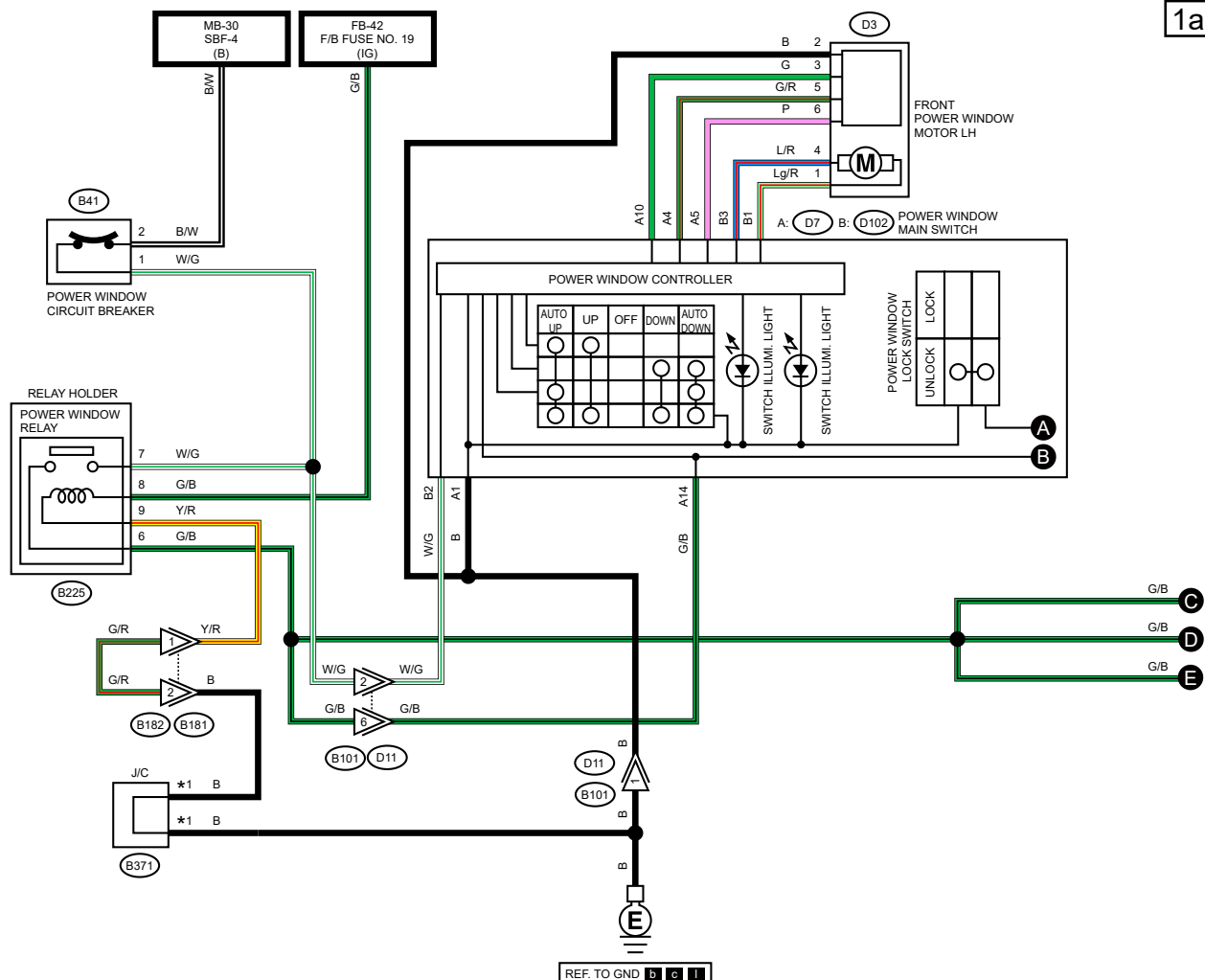
▼ Please select ▼ see

1. PASSENGER SIDE WITHOUT AUTO-REVERSE FUNCTION

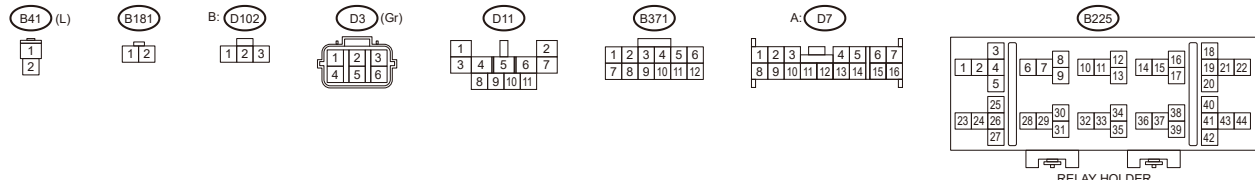


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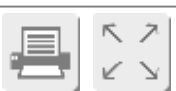
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*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12

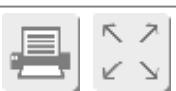
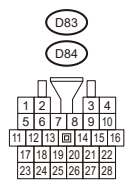
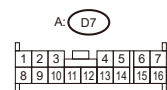
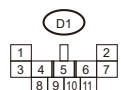
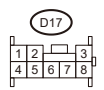
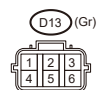
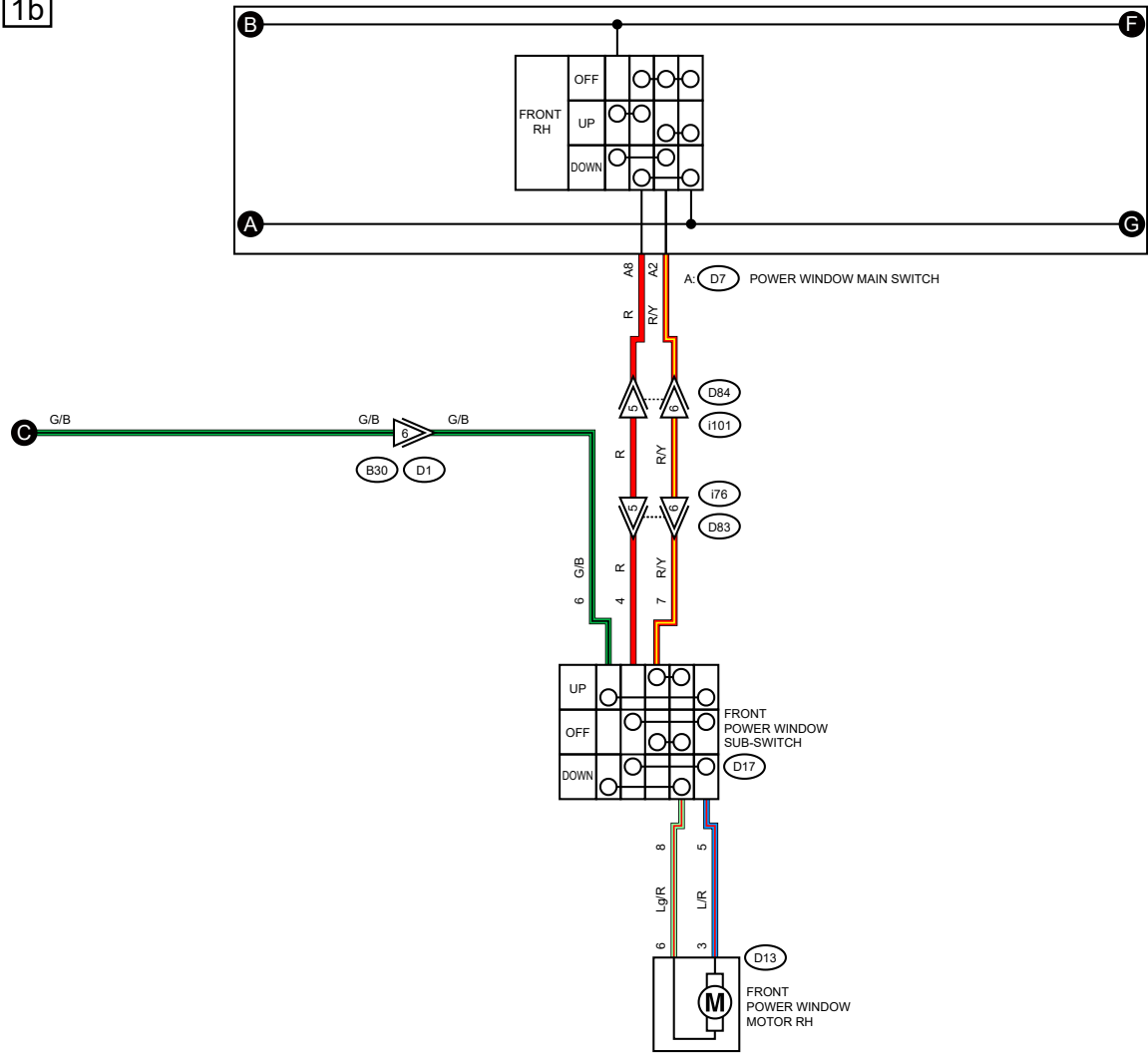


WI-70971



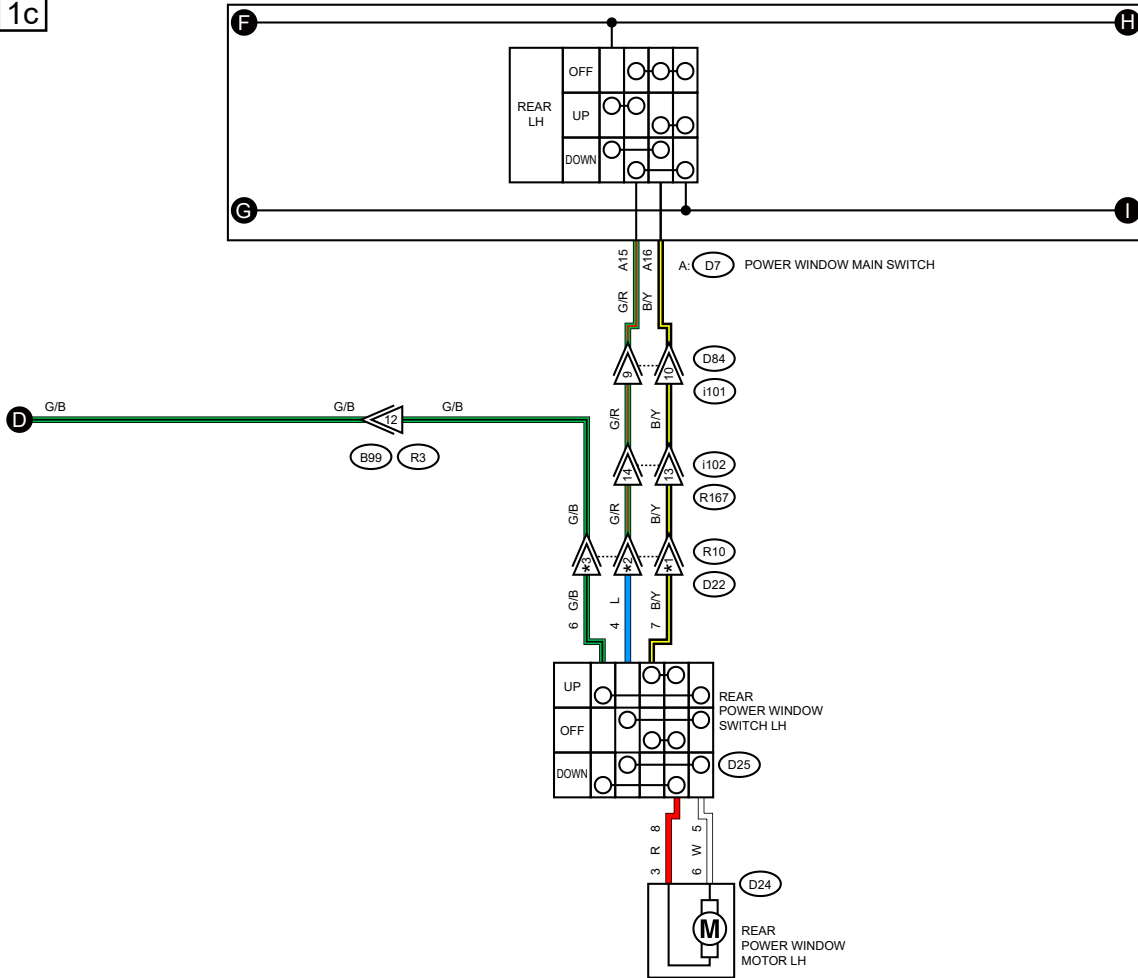
1b

1b



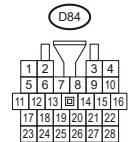
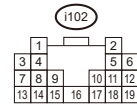
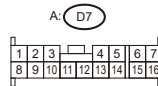
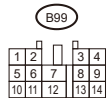
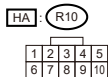
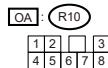
1c

1c



OA : MODEL WITH STANDARD AUDIO
 HA : MODEL WITH HIGH GRADE AUDIO
 *1 : MODEL WITH STANDARD AUDIO : 6
 MODEL WITH HIGH GRADE AUDIO : 8

*2 : MODEL WITH STANDARD AUDIO : 7
 MODEL WITH HIGH GRADE AUDIO : 9
 *3 : MODEL WITH STANDARD AUDIO : 8
 MODEL WITH HIGH GRADE AUDIO : 10

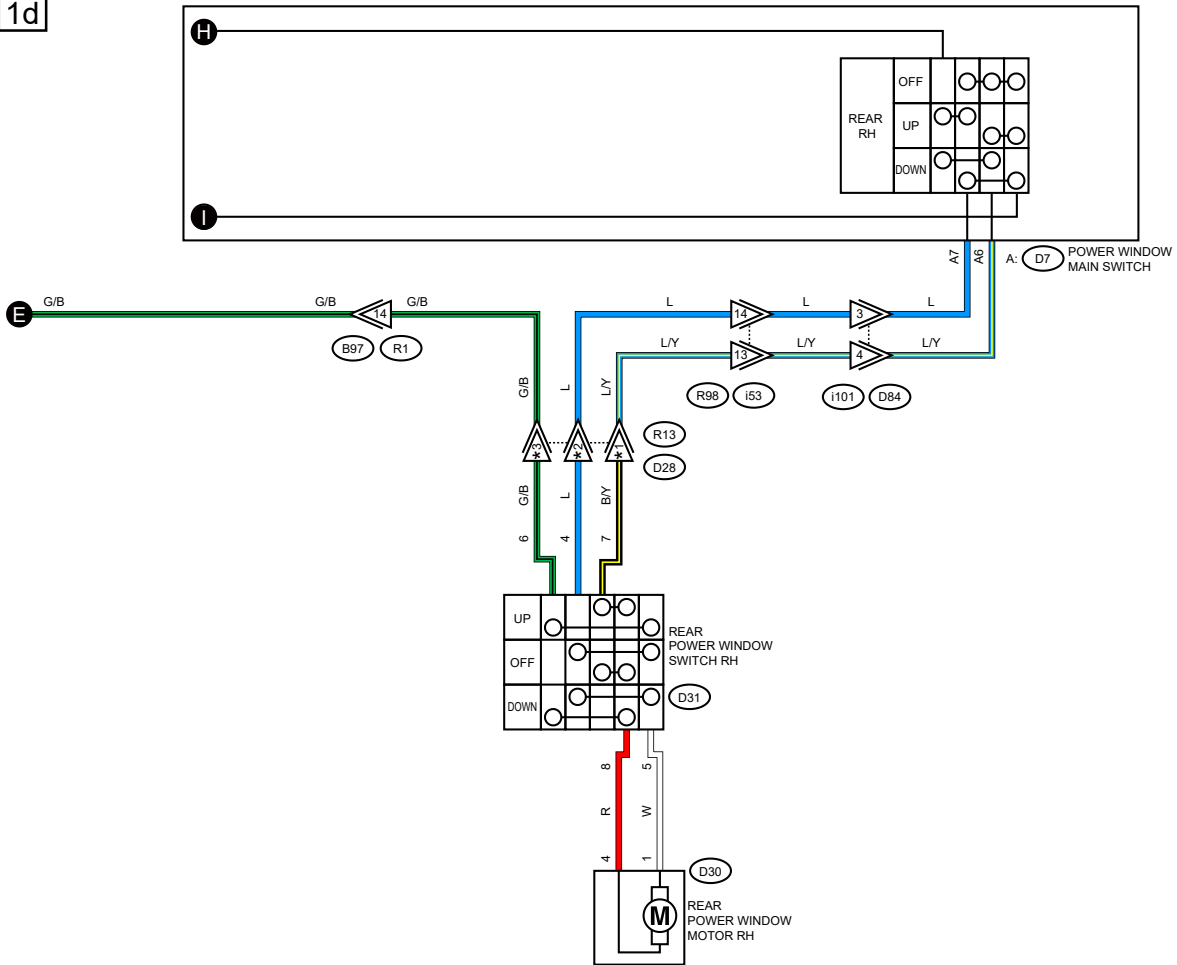


WI-65716



1d

1d



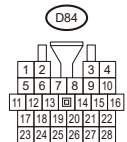
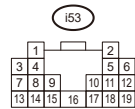
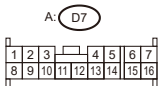
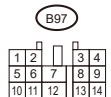
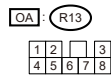
OA : MODEL WITH STANDARD AUDIO

HA : MODEL WITH HIGH GRADE AUDIO

*1 : MODEL WITH STANDARD AUDIO : 6
MODEL WITH HIGH GRADE AUDIO : 8

*2 : MODEL WITH STANDARD AUDIO : 7
MODEL WITH HIGH GRADE AUDIO : 9

*3 : MODEL WITH STANDARD AUDIO : 8
MODEL WITH HIGH GRADE AUDIO : 10



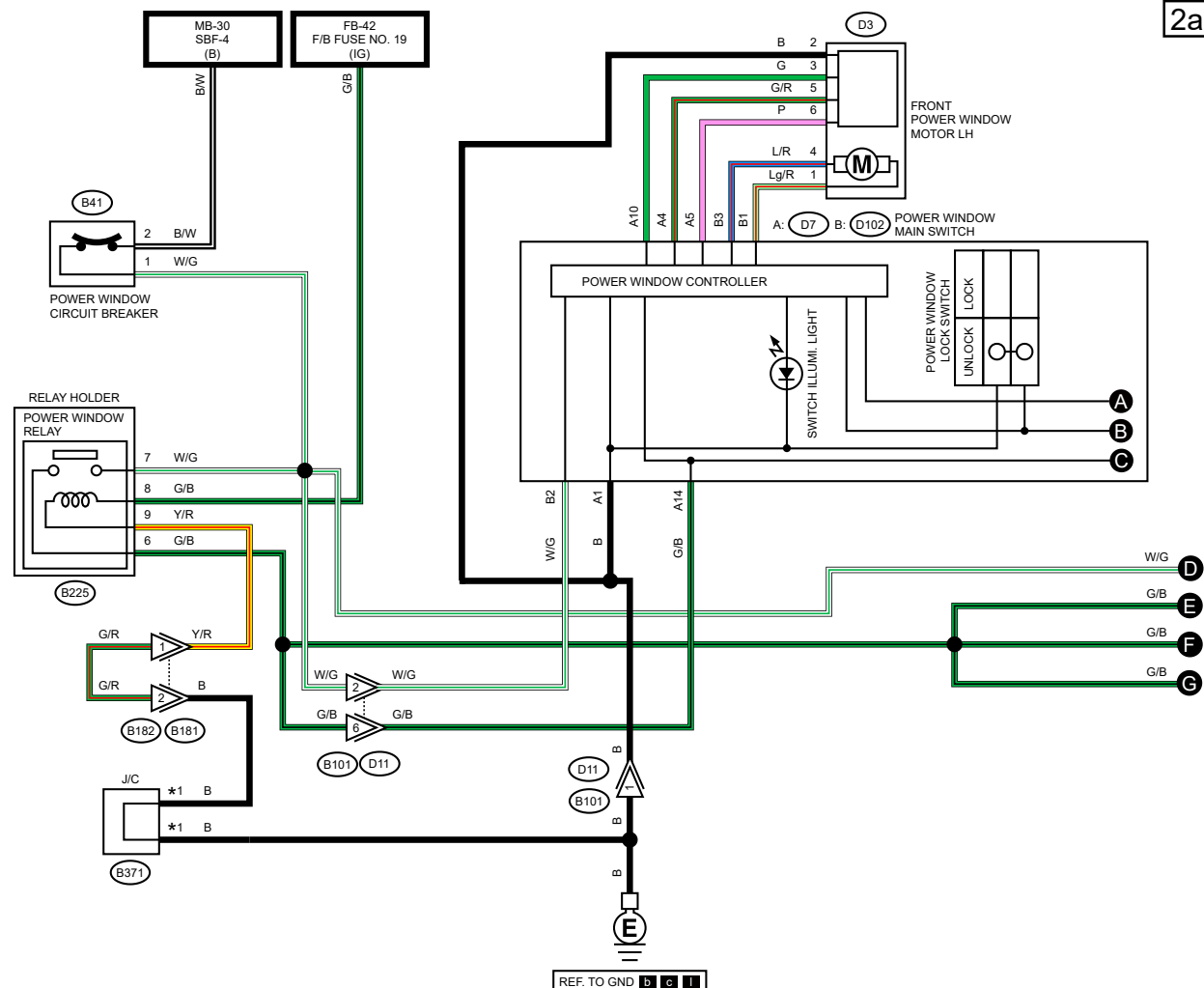
WI-65717

2. PASSENGER SIDE WITH AUTO-REVERSE FUNCTION



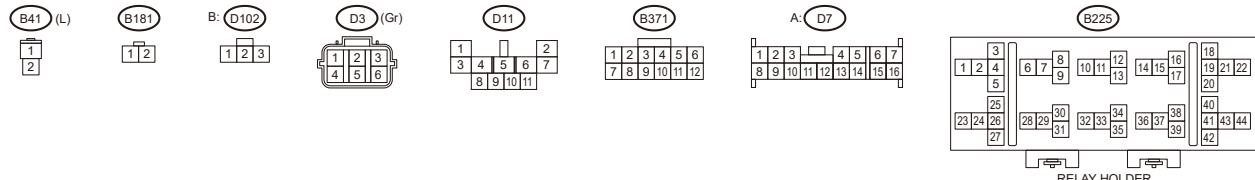
2a

2a



REF. TO GND

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12

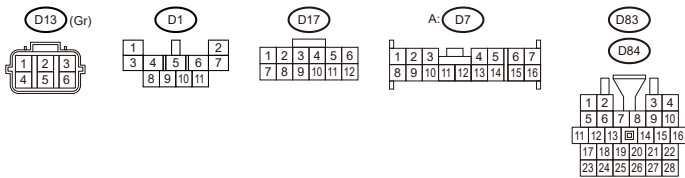
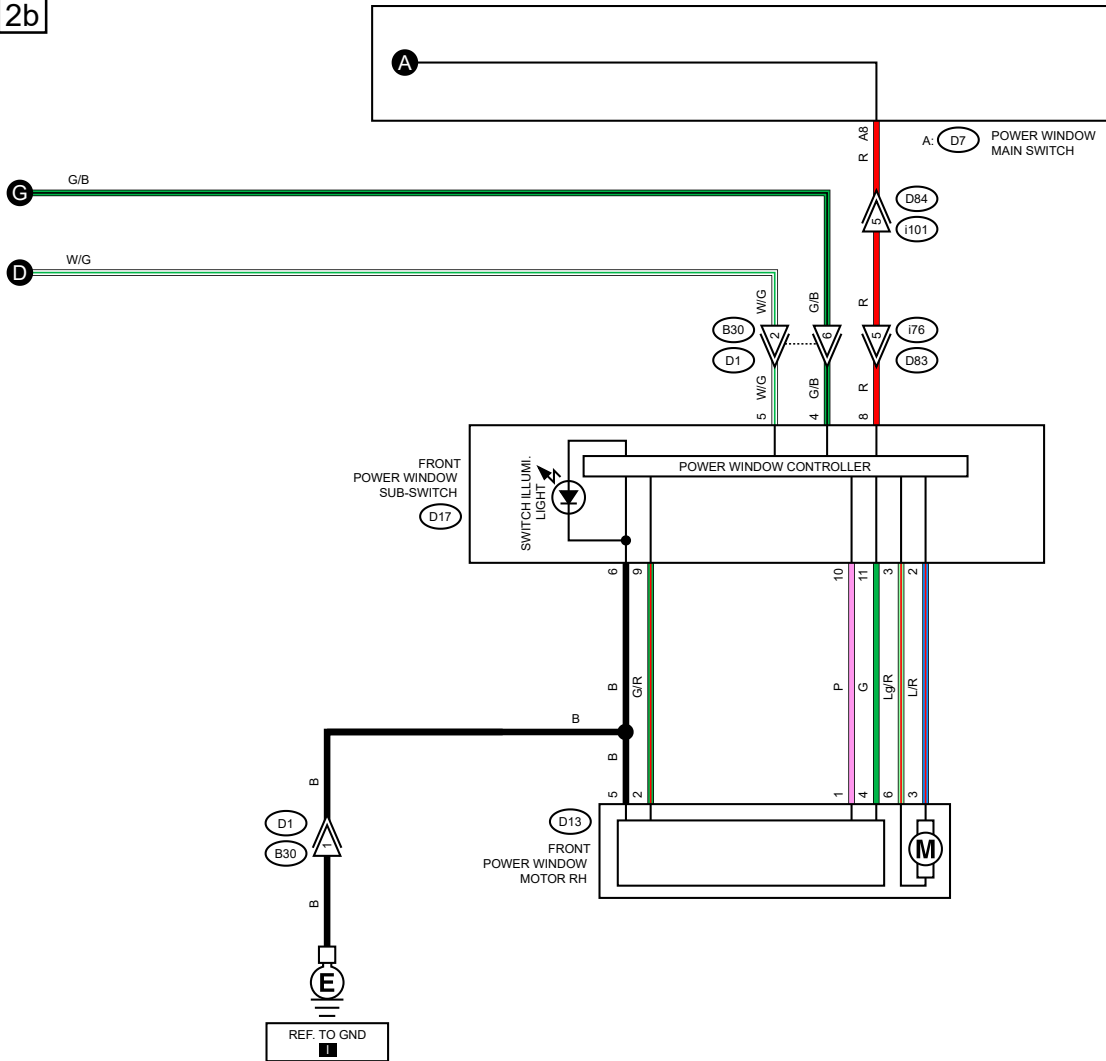


WI-71007



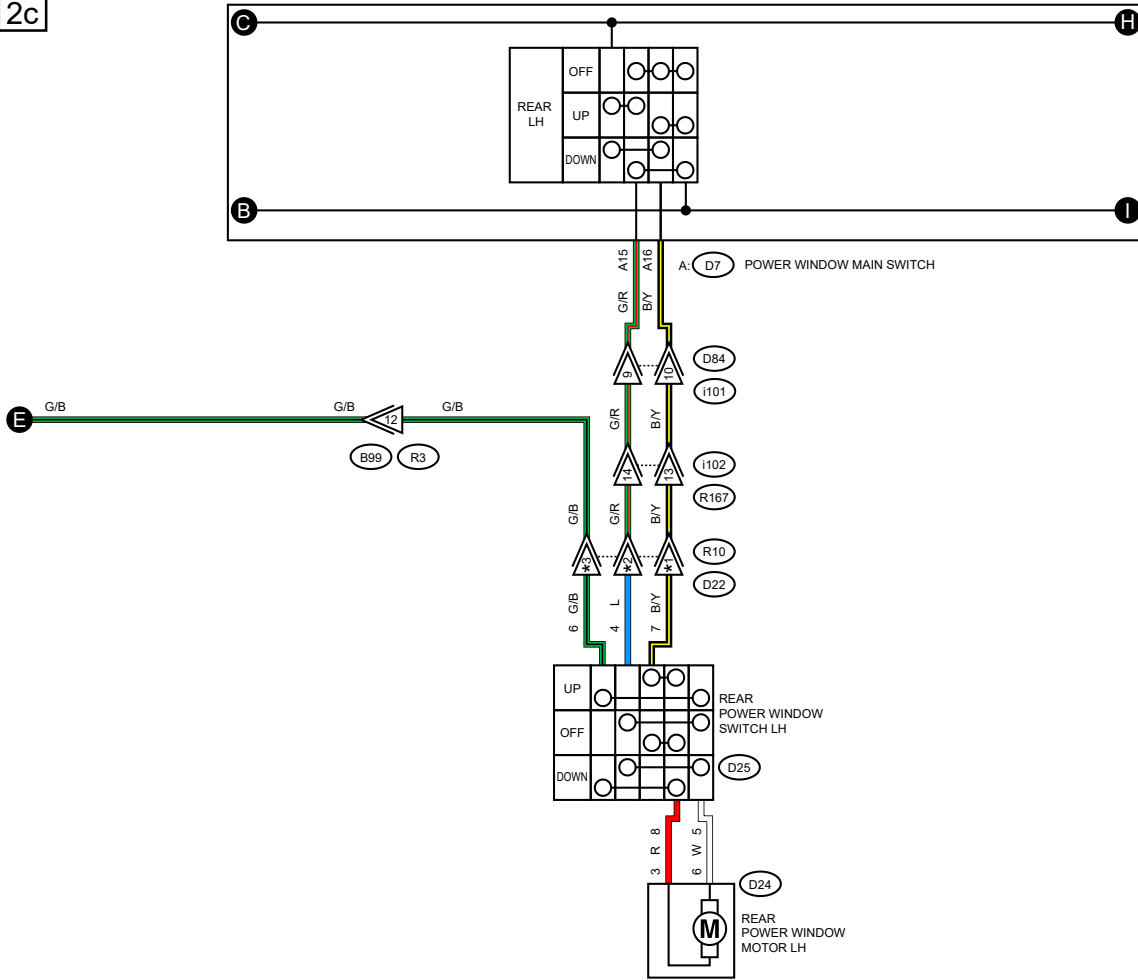
2b

2b



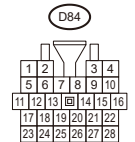
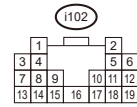
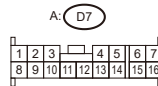
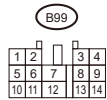
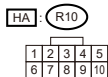
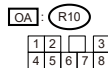
2c

2c



OA : MODEL WITH STANDARD AUDIO
 HA : MODEL WITH HIGH GRADE AUDIO
 *1 : MODEL WITH STANDARD AUDIO : 6
 MODEL WITH HIGH GRADE AUDIO : 8

*2 : MODEL WITH STANDARD AUDIO : 7
 MODEL WITH HIGH GRADE AUDIO : 9
 *3 : MODEL WITH STANDARD AUDIO : 8
 MODEL WITH HIGH GRADE AUDIO : 10

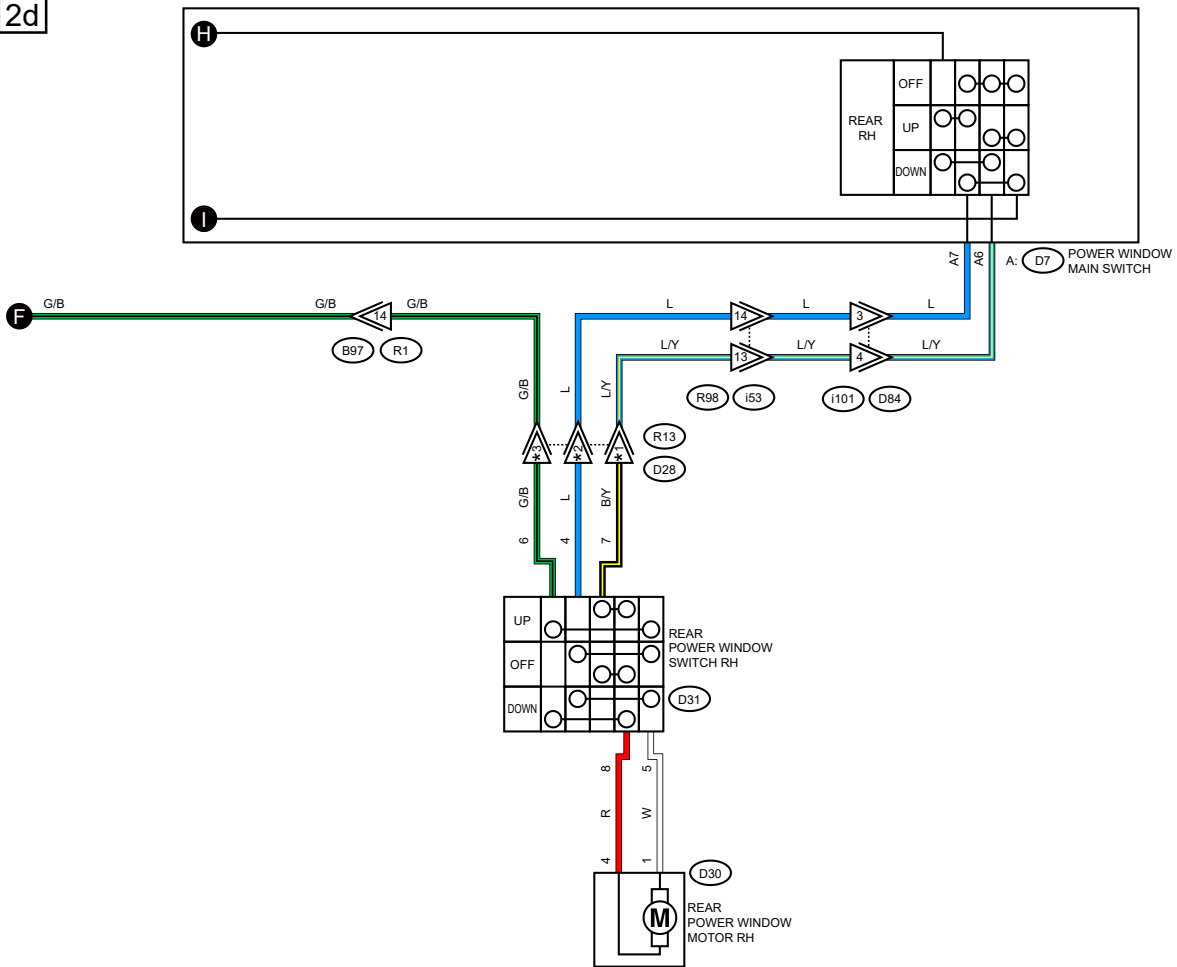


WI-71009



2d

2d



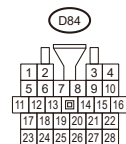
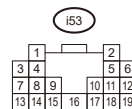
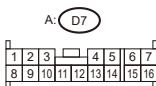
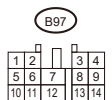
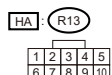
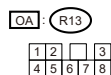
OA : MODEL WITH STANDARD AUDIO

HA : MODEL WITH HIGH GRADE AUDIO

*1 : MODEL WITH STANDARD AUDIO : 6
MODEL WITH HIGH GRADE AUDIO : 8

*2 : MODEL WITH STANDARD AUDIO : 7
MODEL WITH HIGH GRADE AUDIO : 9

*3 : MODEL WITH STANDARD AUDIO : 8
MODEL WITH HIGH GRADE AUDIO : 10



WIRING SYSTEM > Push Button Start System

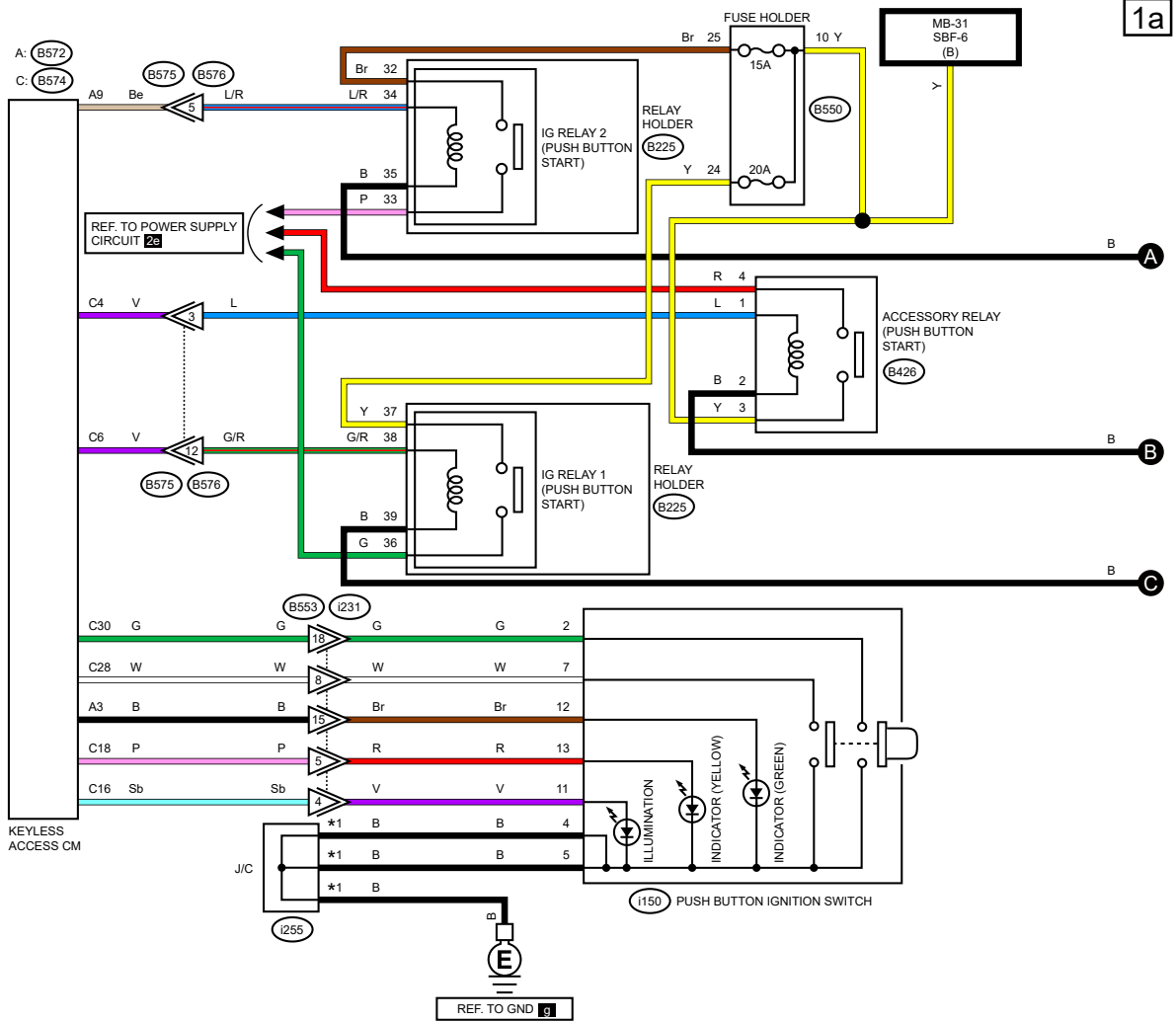
WIRING DIAGRAM

▼ Please select ▼ see

1. NON-TURBO MODEL

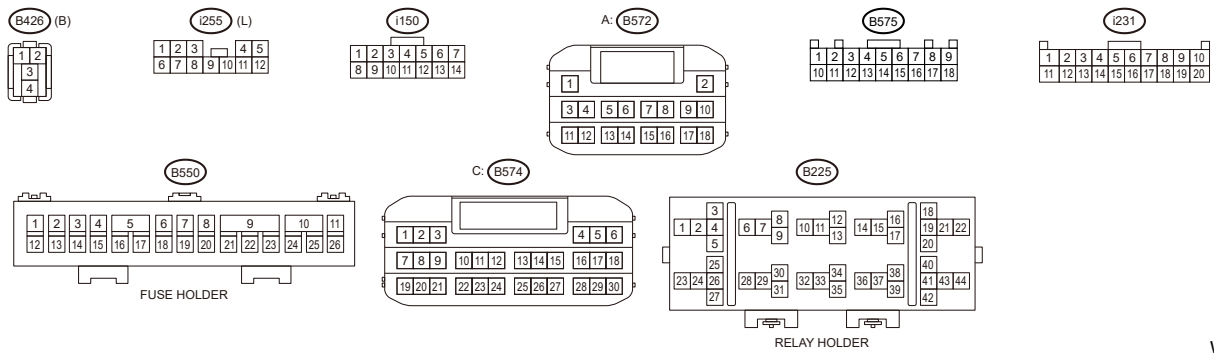


1a



1a

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

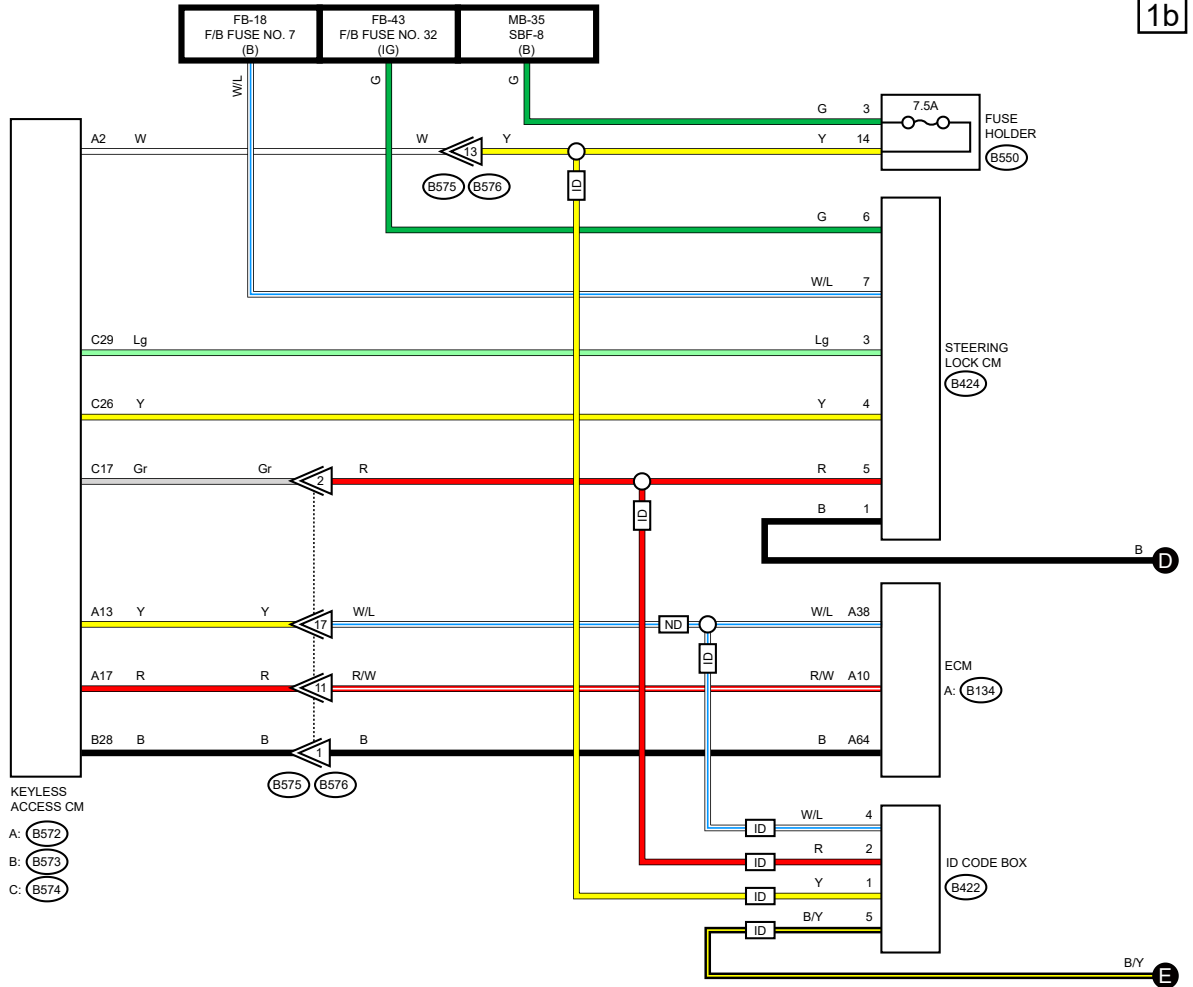


WI-65718



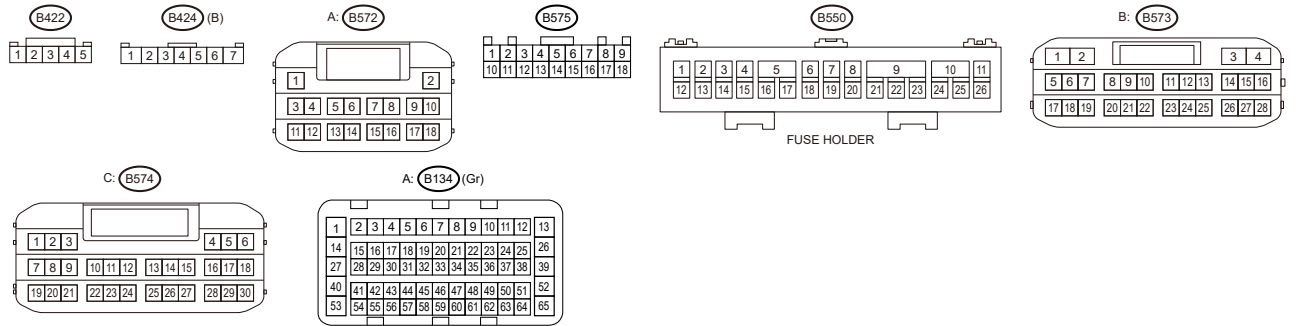
1b

1b



ND : WITHOUT ID CODE BOX

ID : WITH ID CODE BOX

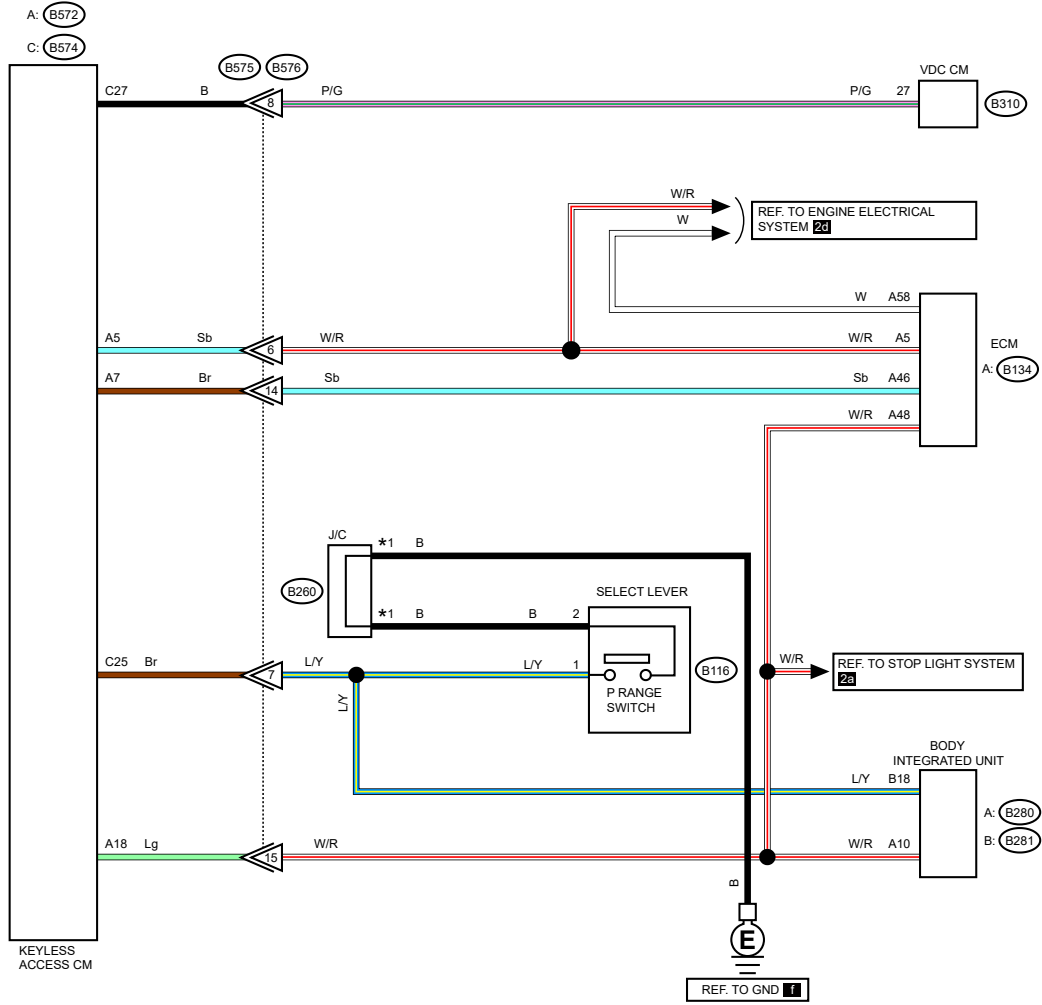


WI-65719

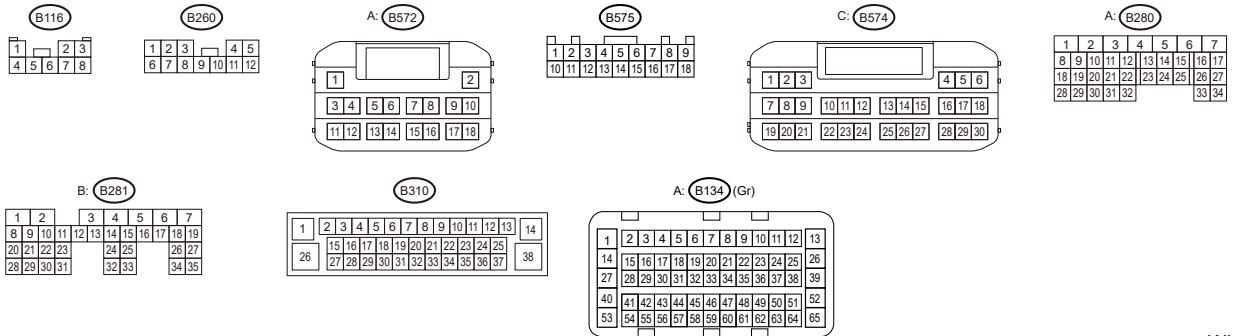


1c

1c



*1 : TERMINAL No. OPTIONAL ARRANGEMENT

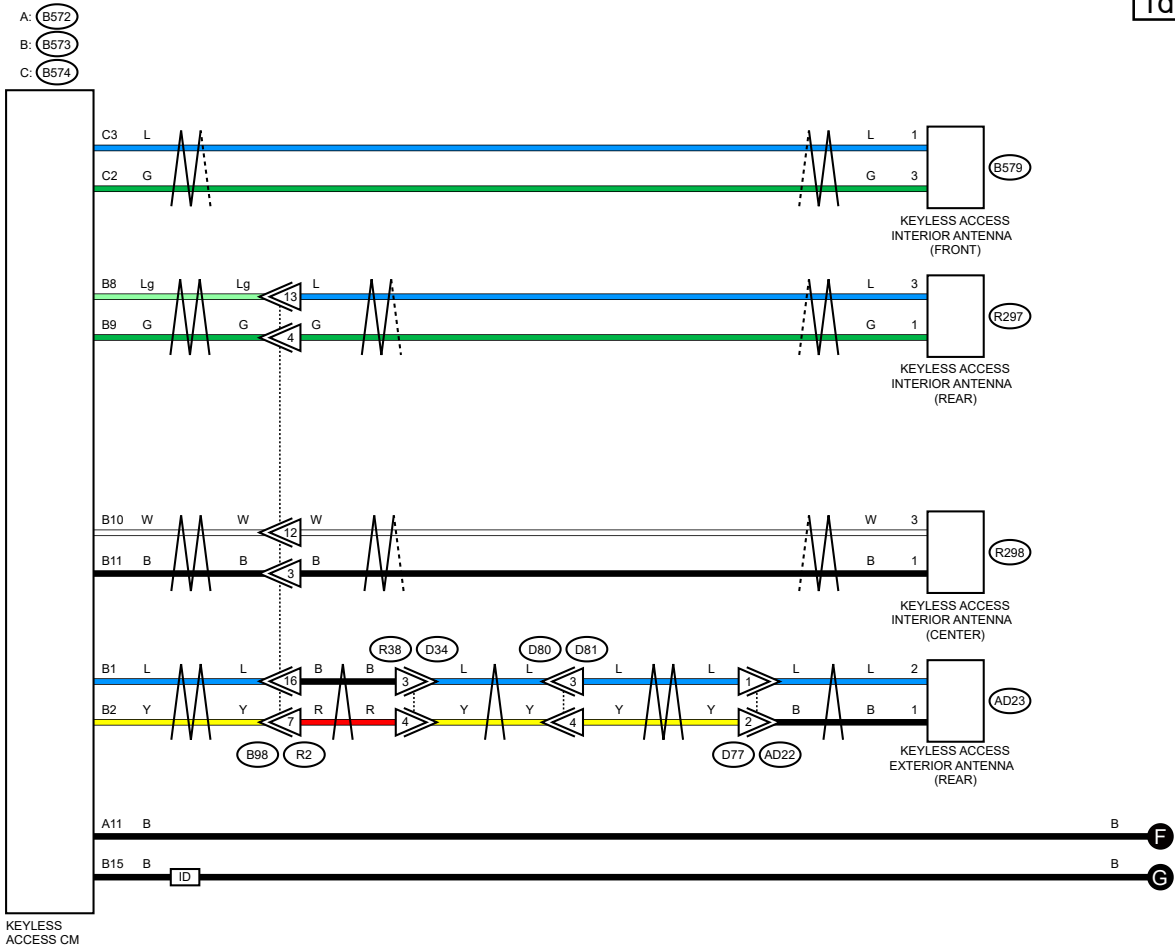


WI-65720

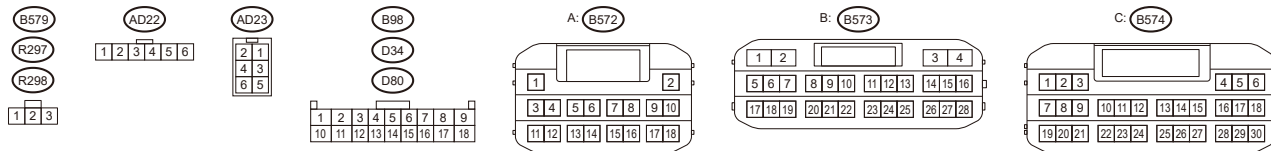


1d

1d



ID WITH ID CODE BOX

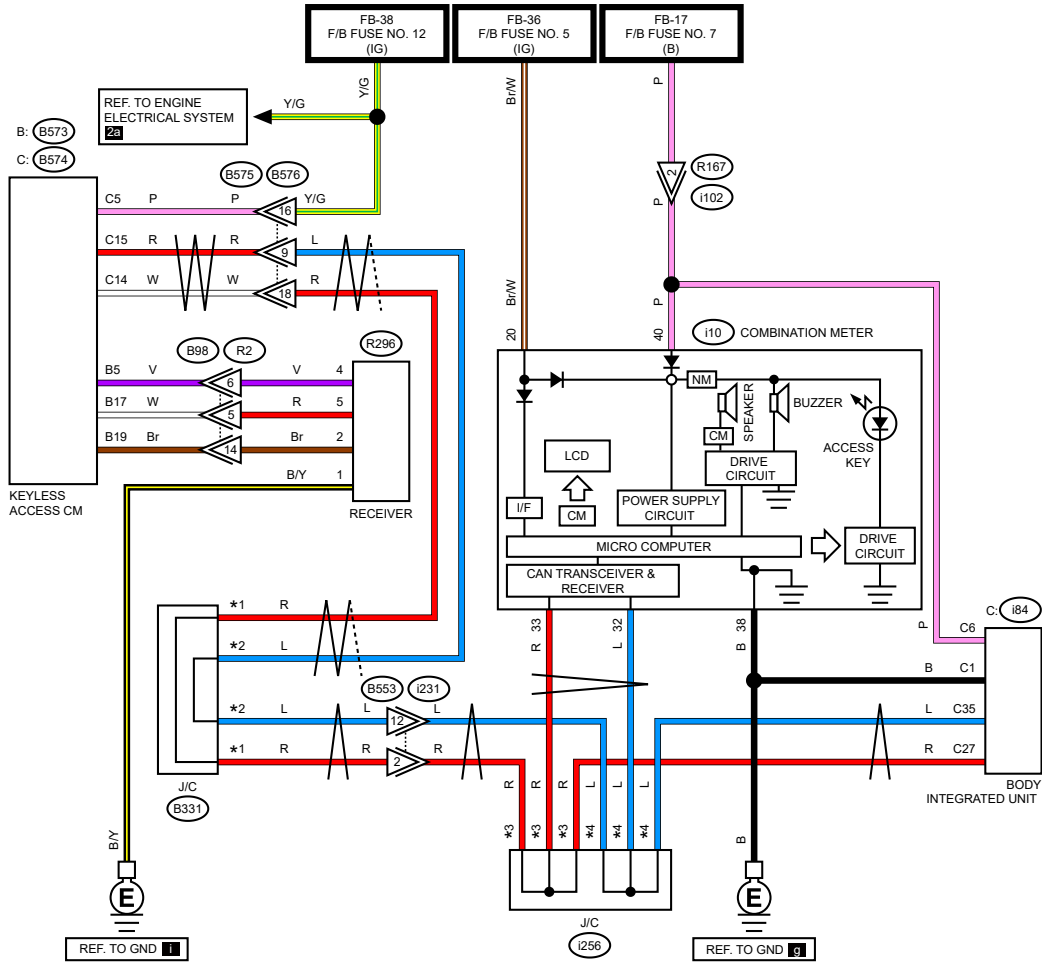


WI-65721



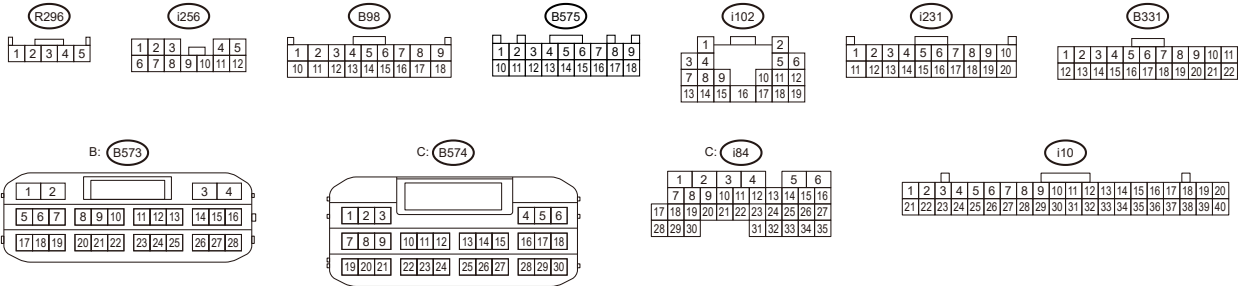
1e

1e



NM : NORMAL METER MODEL
 CM : COLOR TFT METER MODEL

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
 *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
 *4 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

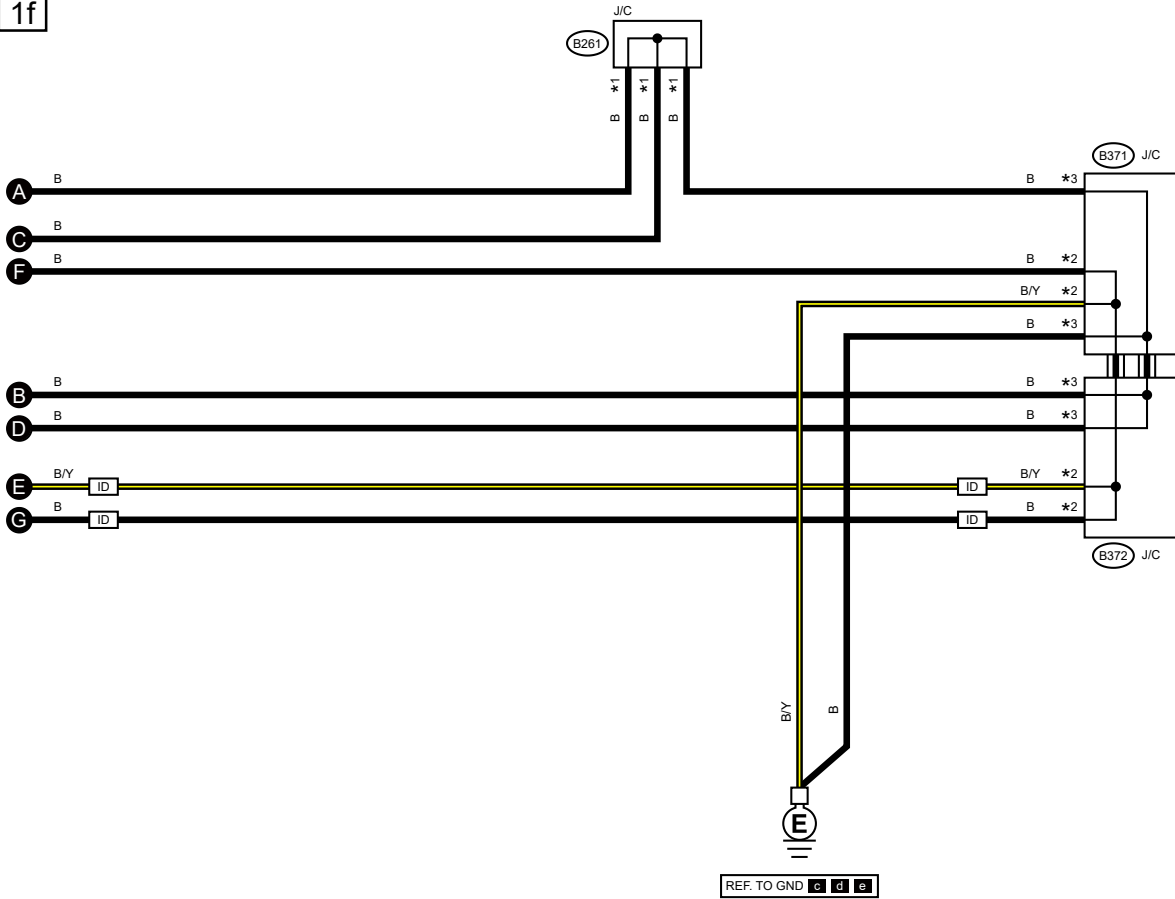


WI-65722



1f

1f

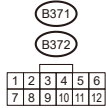


ID : WITH ID CODE BOX

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

*2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6

*3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12

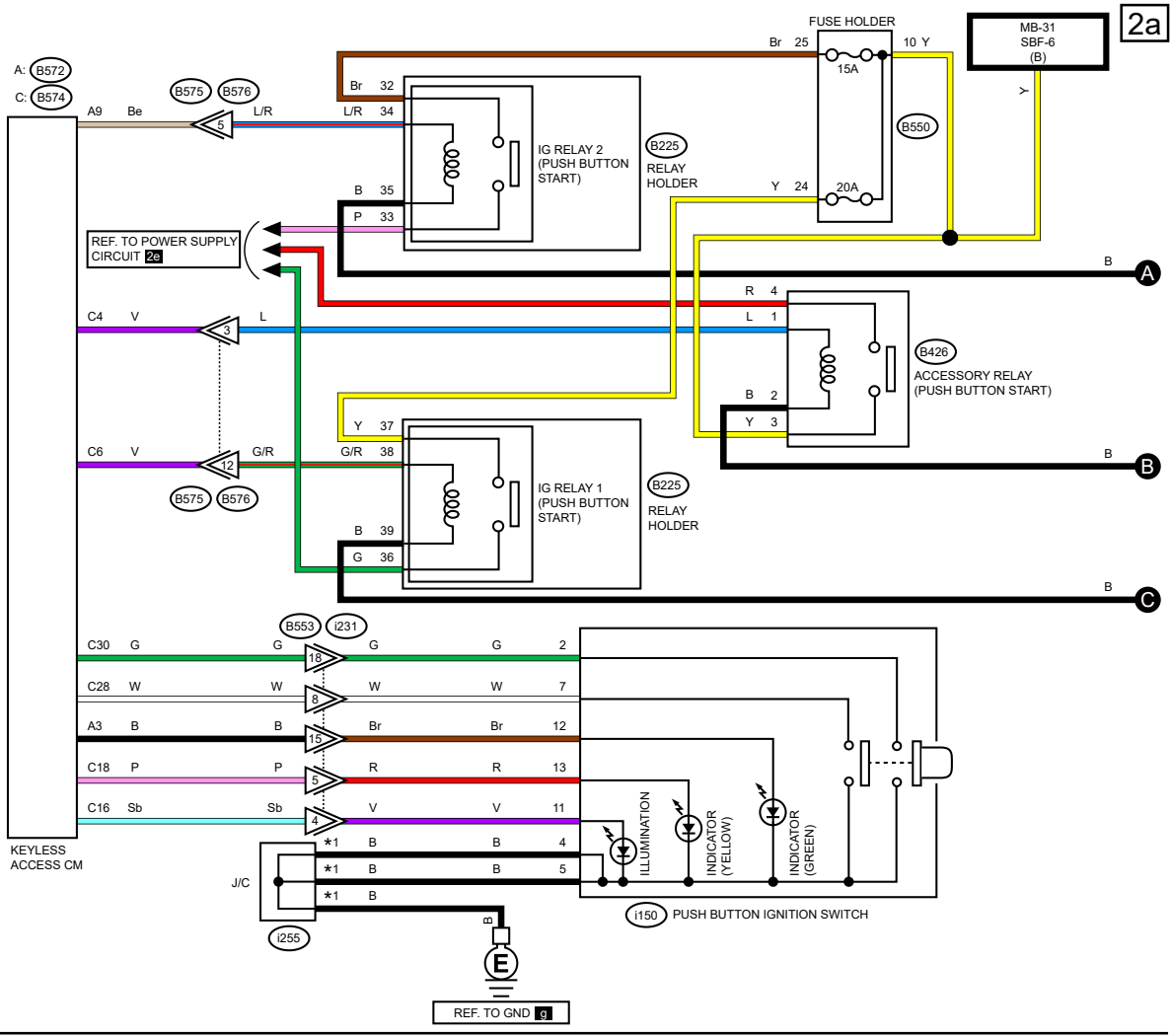


WI-65723

2. TURBO MODEL

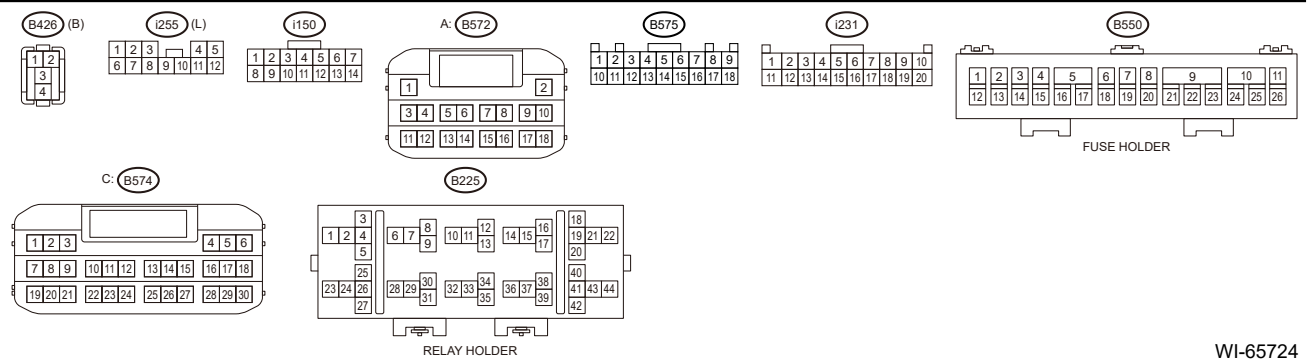


2a



2a

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

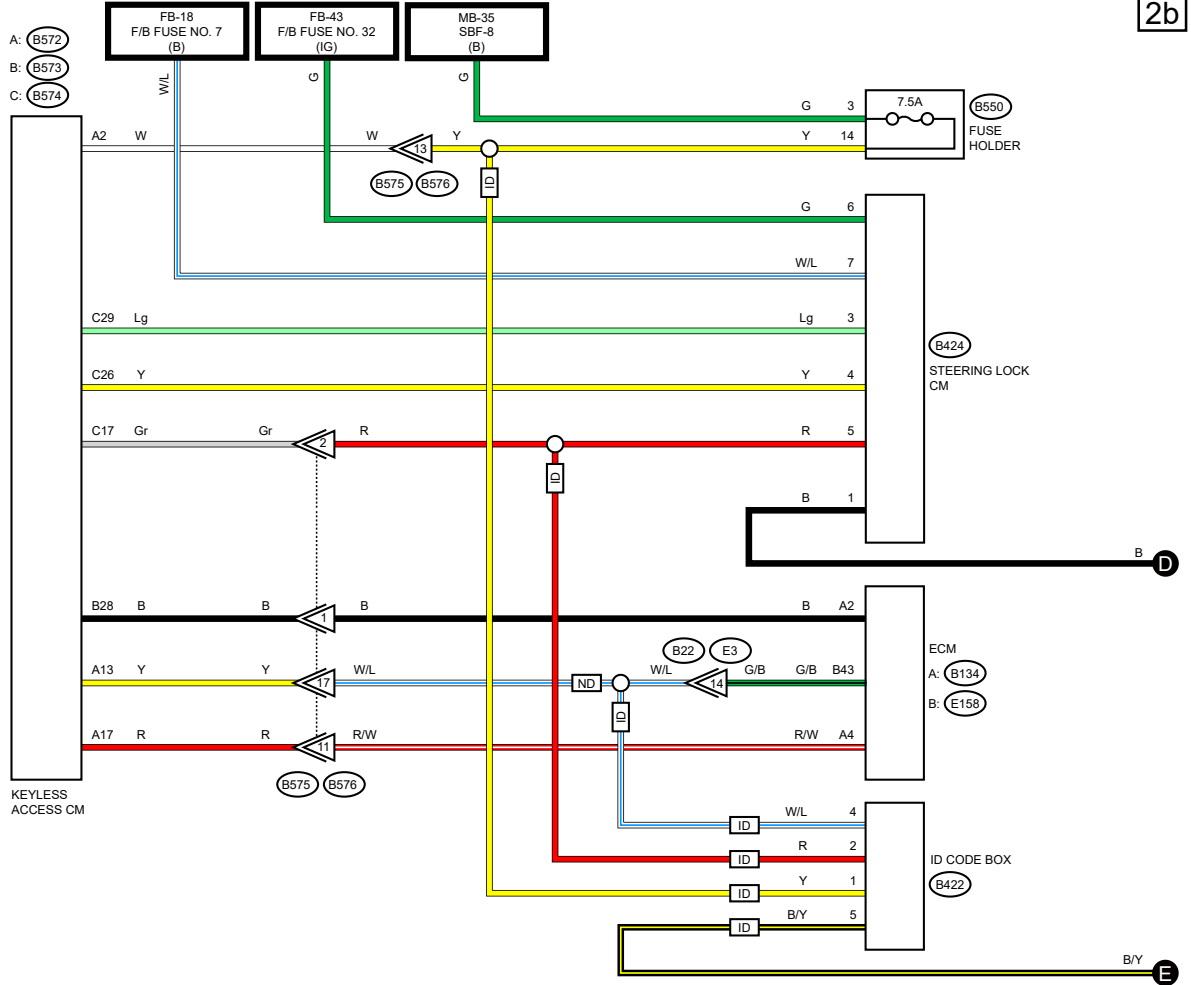


WI-65724



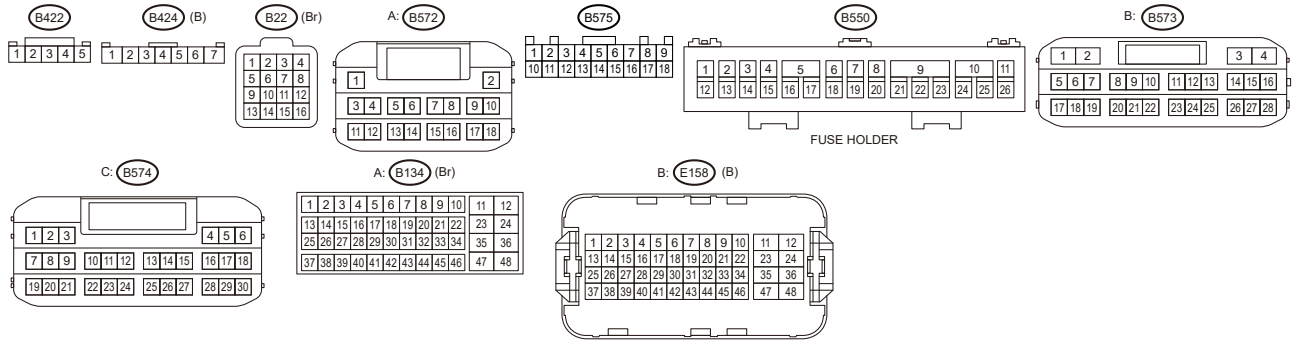
2b

2b



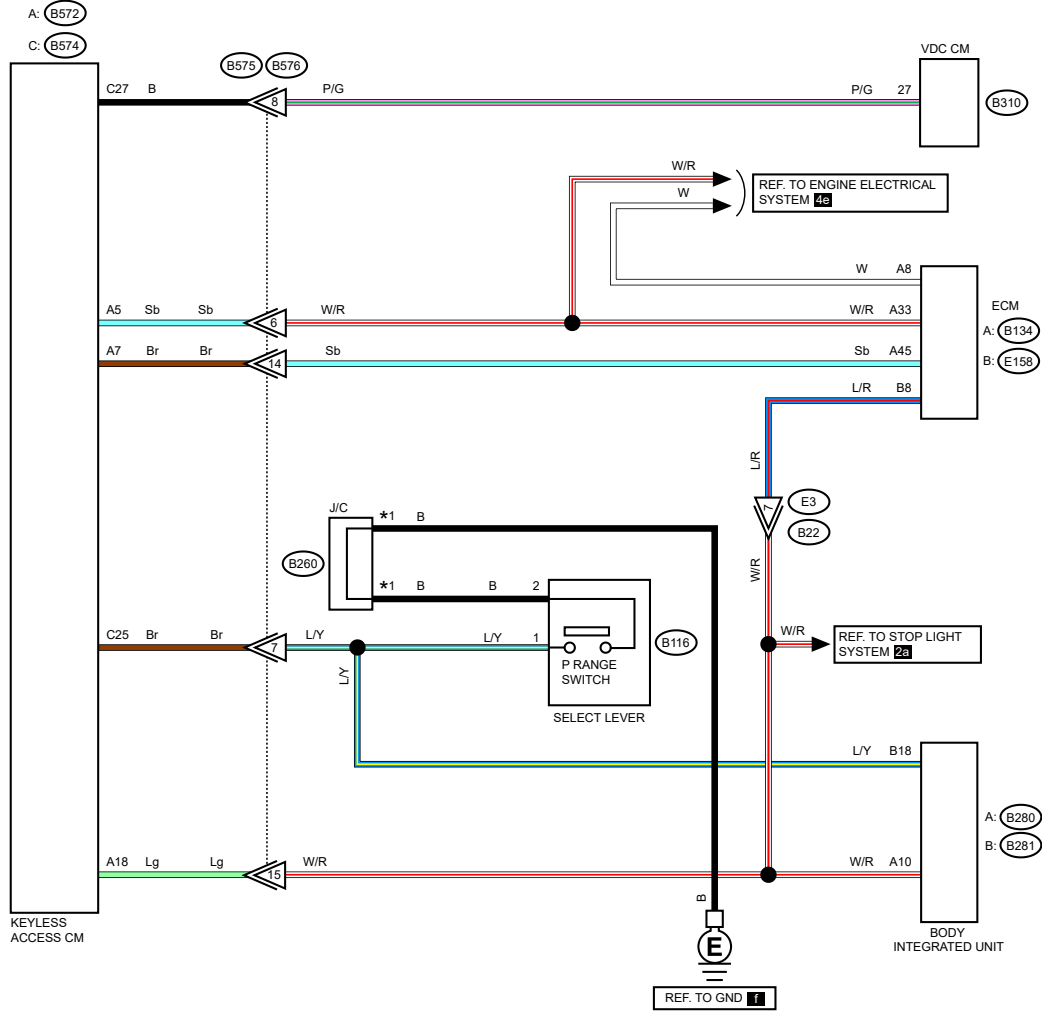
ND : WITHOUT ID CODE BOX

ID : WITH ID CODE BOX

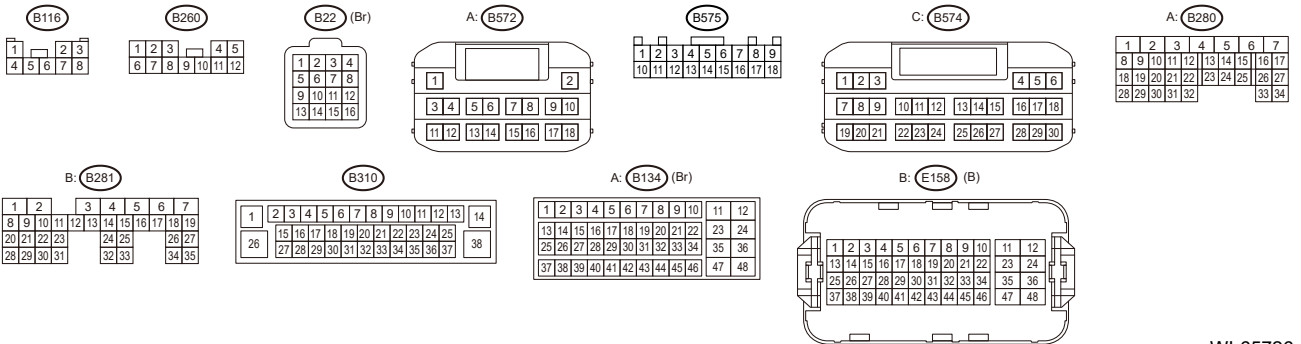


WI-65725





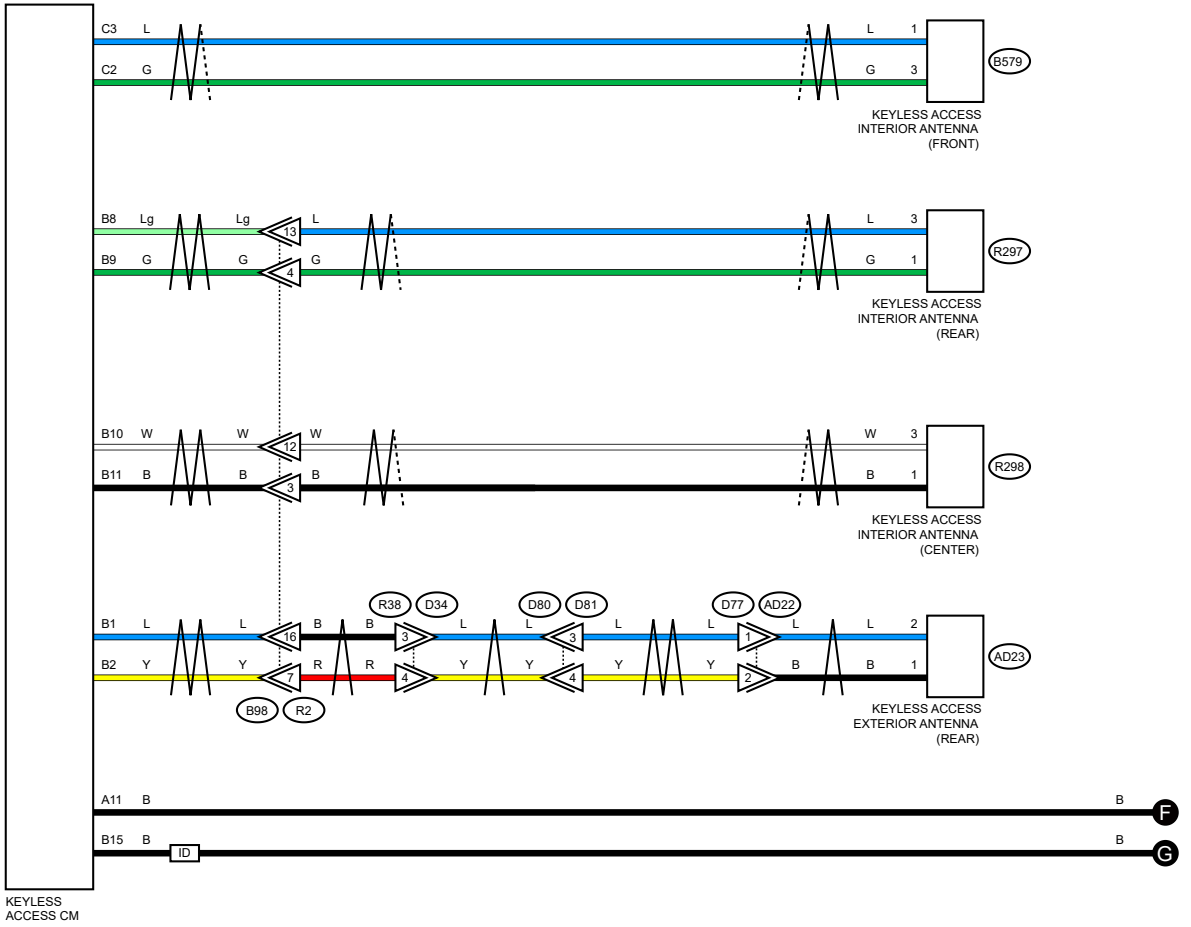
*1 : TERMINAL No. OPTIONAL ARRANGEMENT



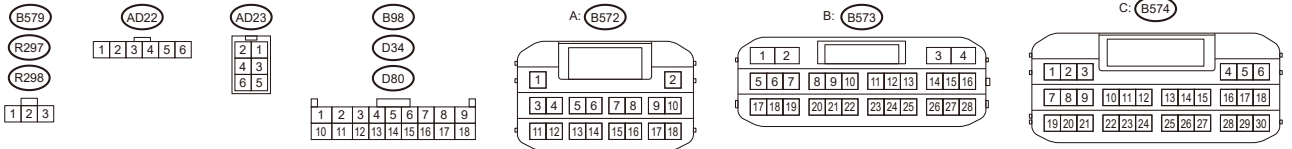
2d

2d

- A: B572
- B: B573
- C: B574

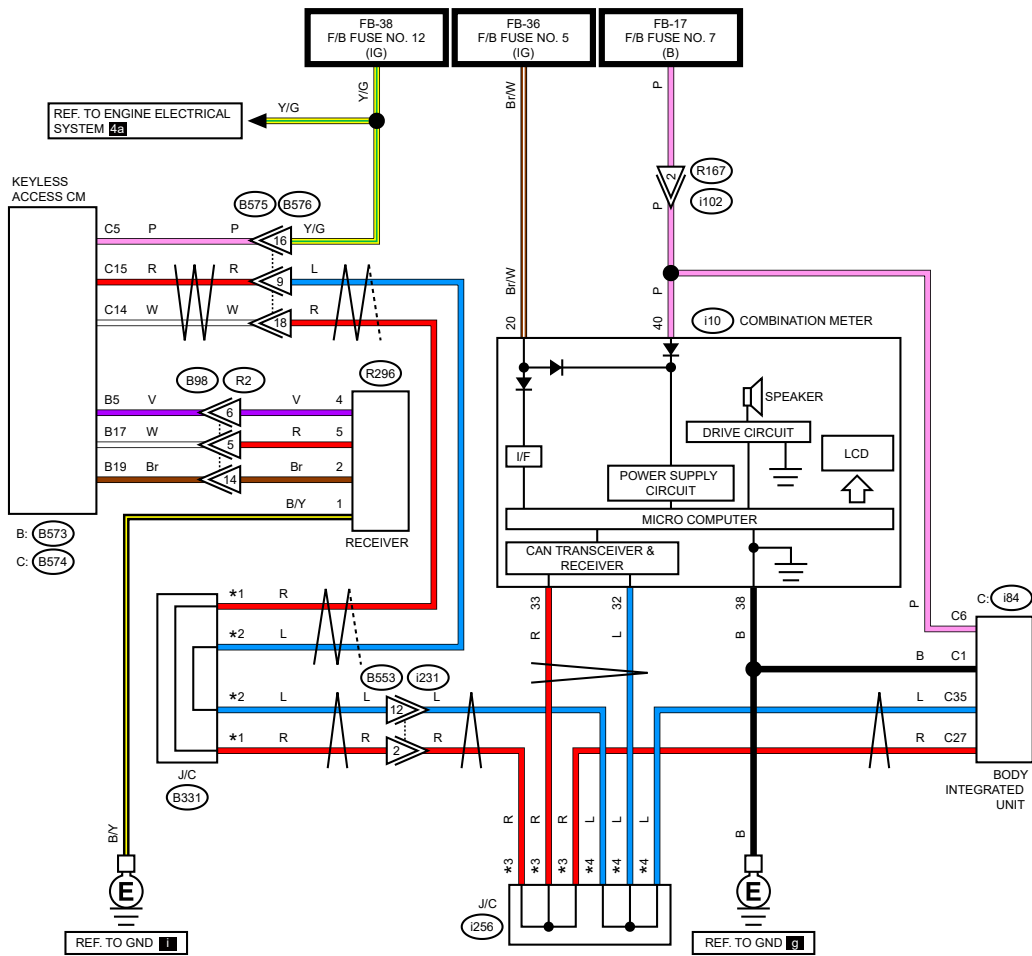


ID : WITH ID CODE BOX

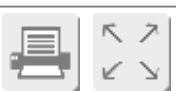
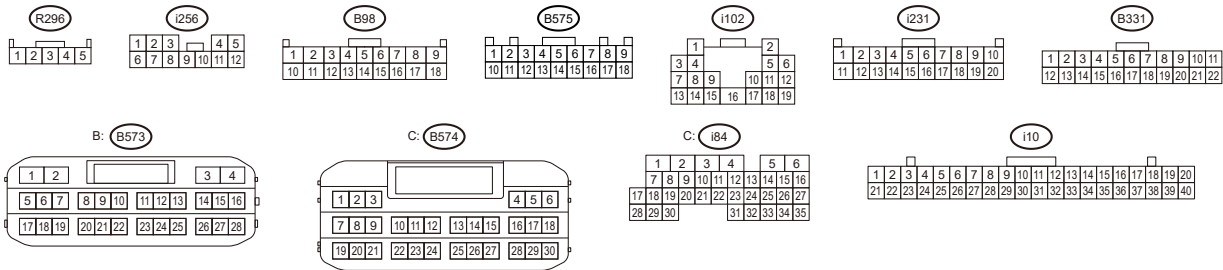


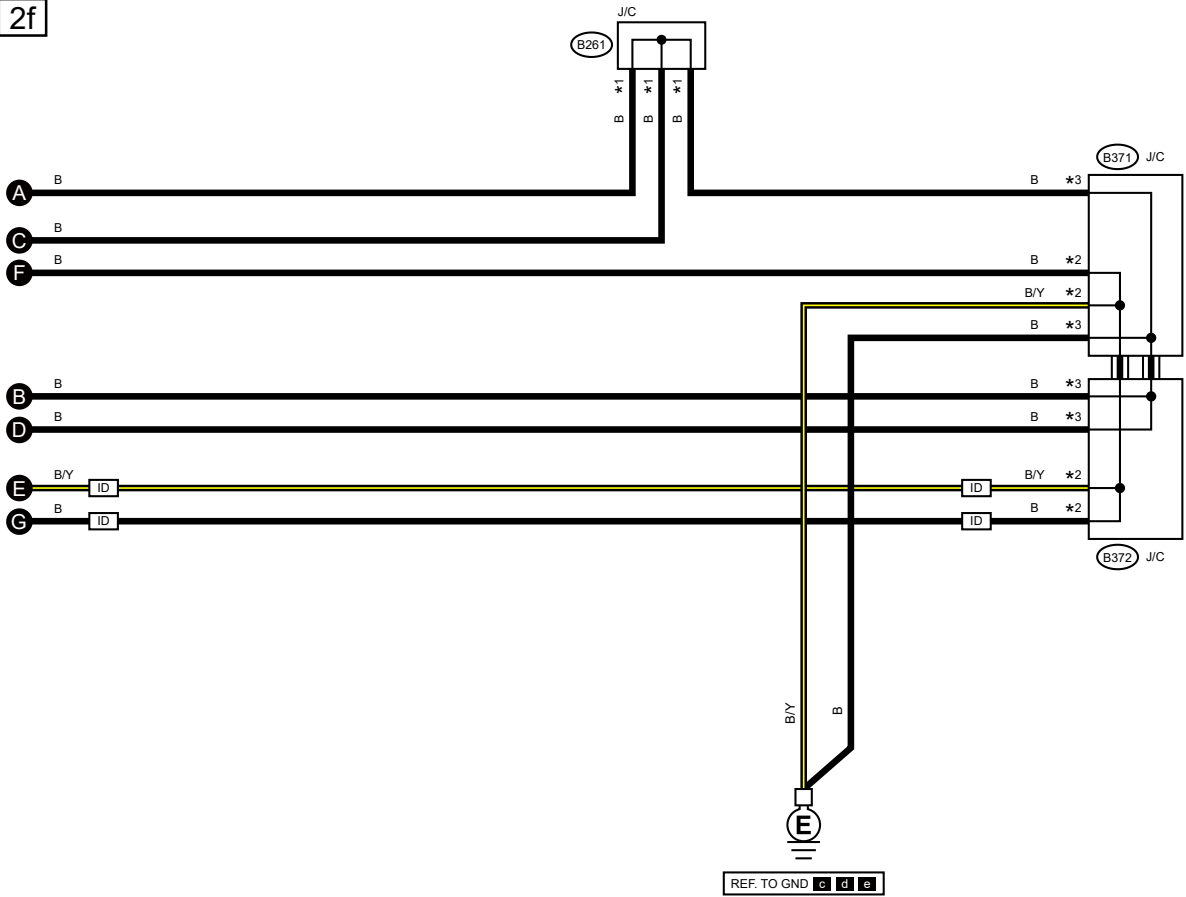
WI-65727



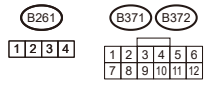


- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *4 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12





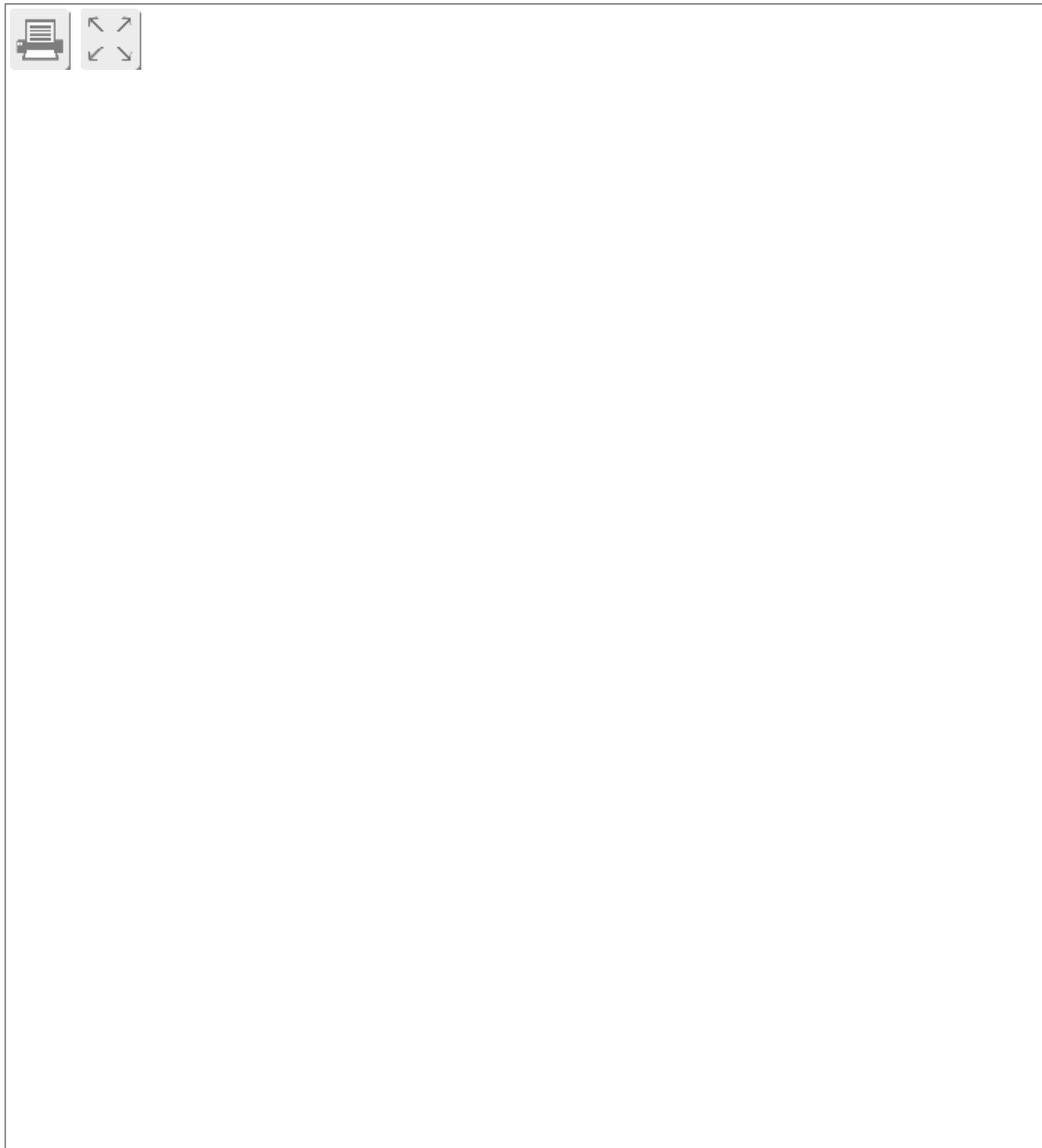
- ID : WITH ID CODE BOX
- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12



WIRING DIAGRAM

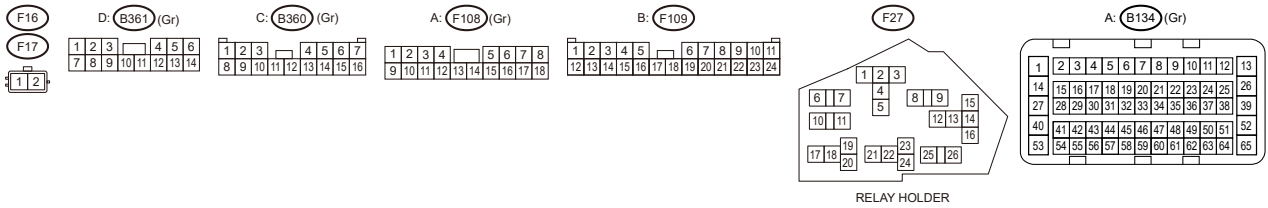
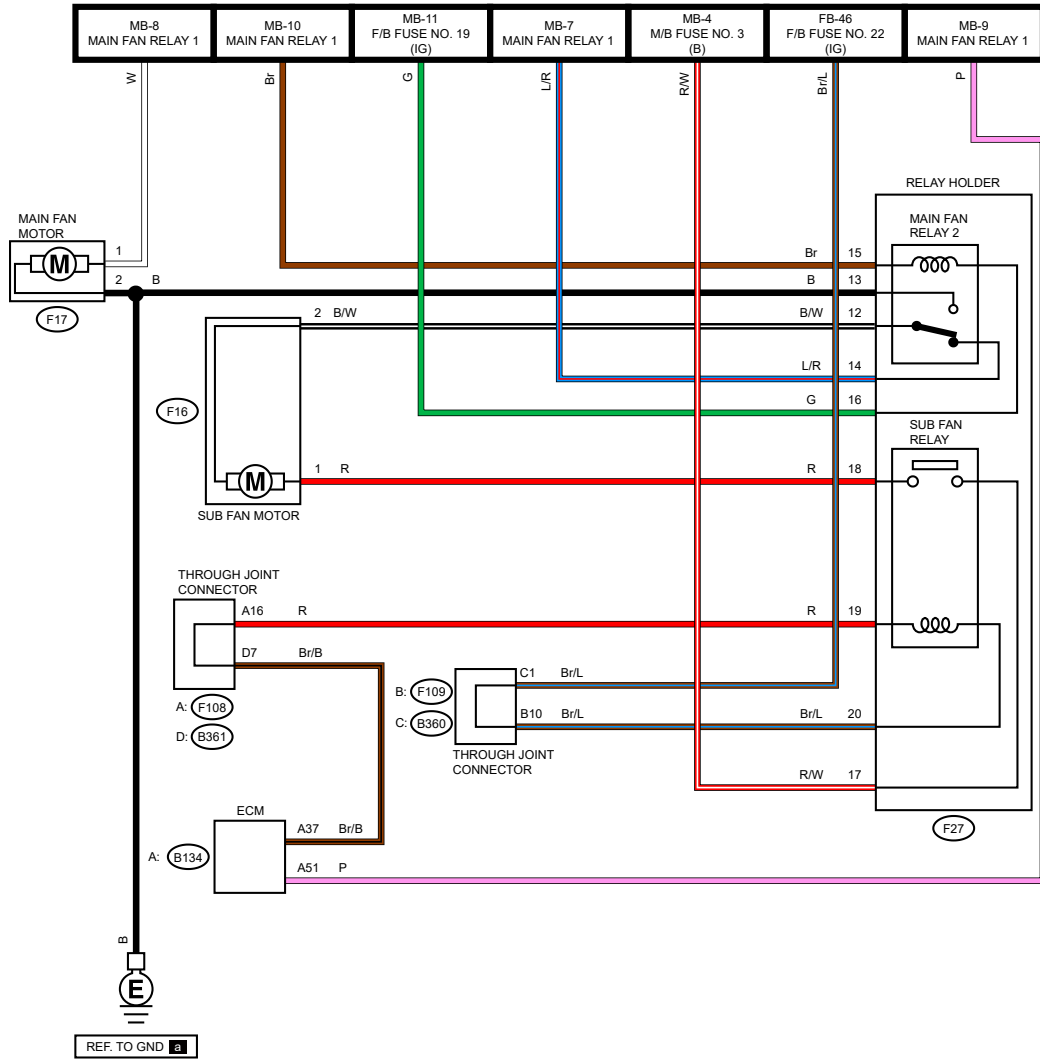
▼ Please select ▼ see

1. NON-TURBO MODEL



1a

1a



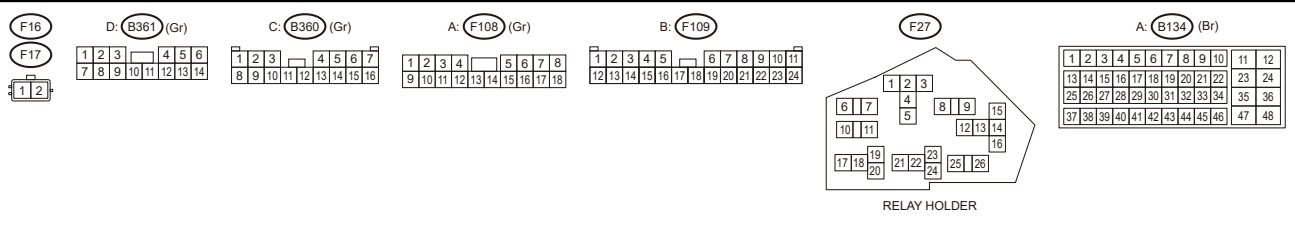
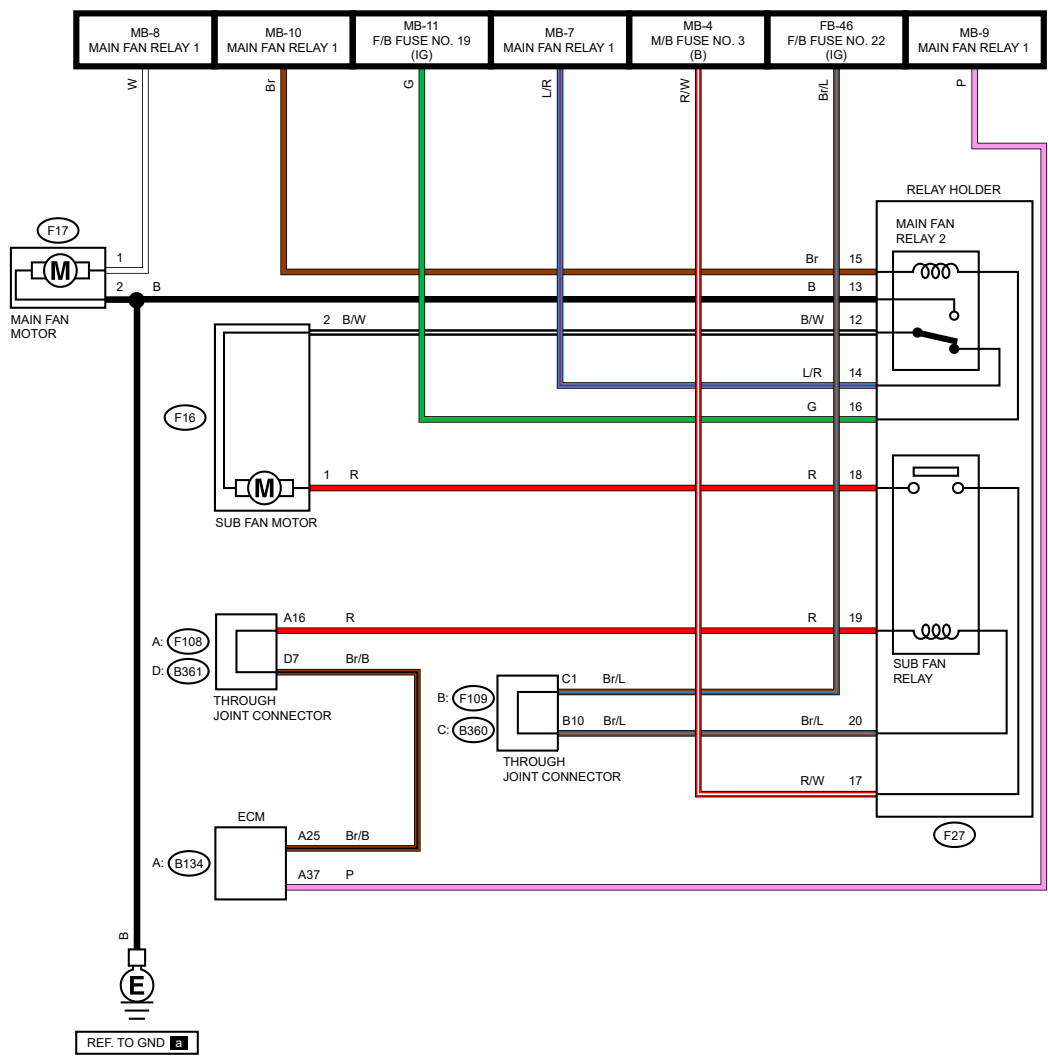
WI-70973

2. TURBO MODEL



2a

2a



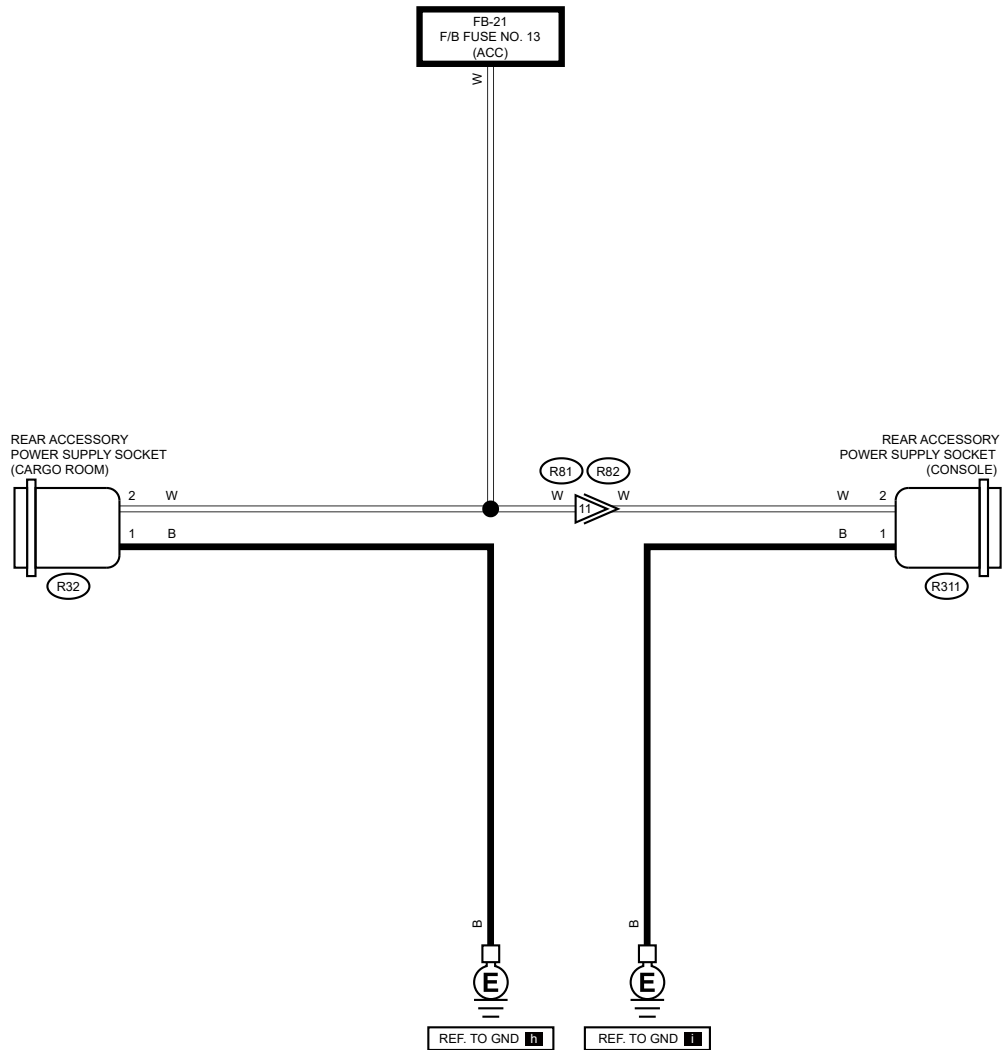
WIRING SYSTEM > Rear Accessory Power Supply Socket System

WIRING DIAGRAM



a

a



R32

R82

R311

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

1

2

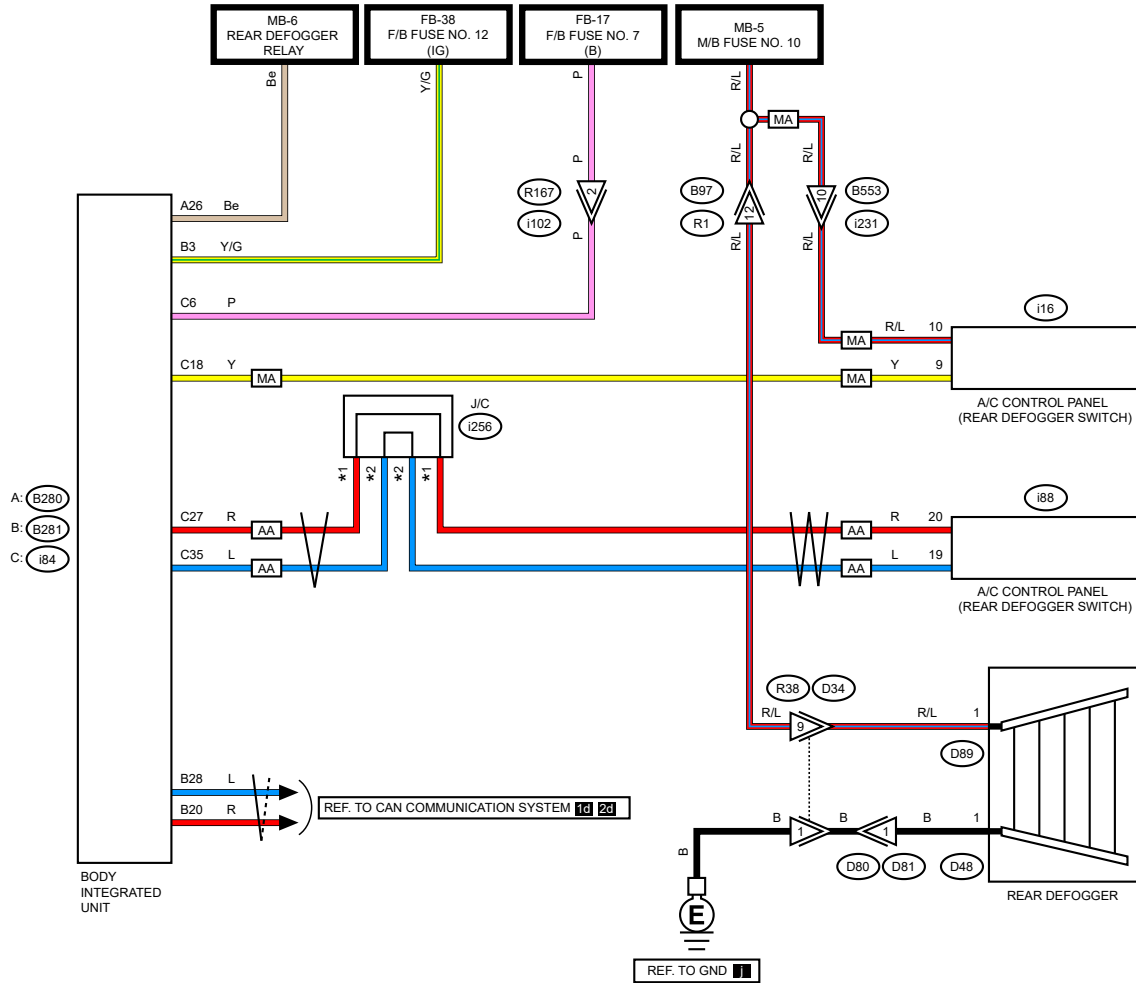
WIRING SYSTEM > Rear Defogger System

WIRING DIAGRAM



a

a

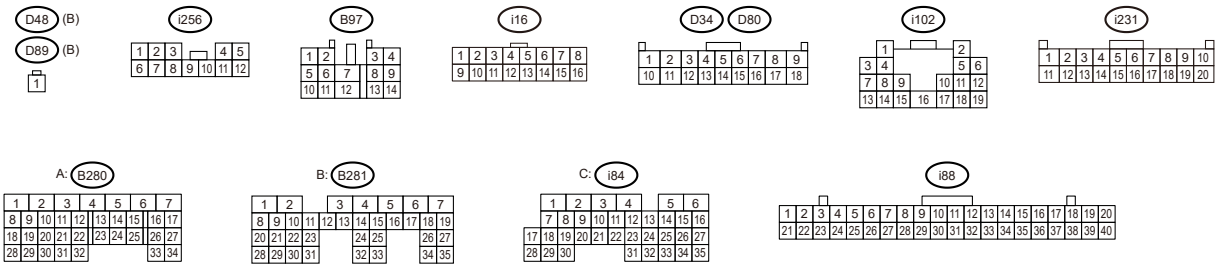


MA : MANUAL A/C

AA : AUTO A/C

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8

*2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12



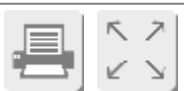
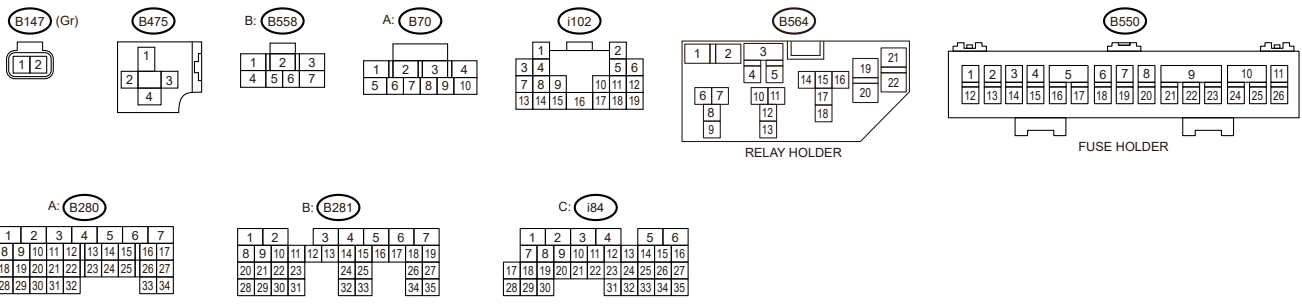
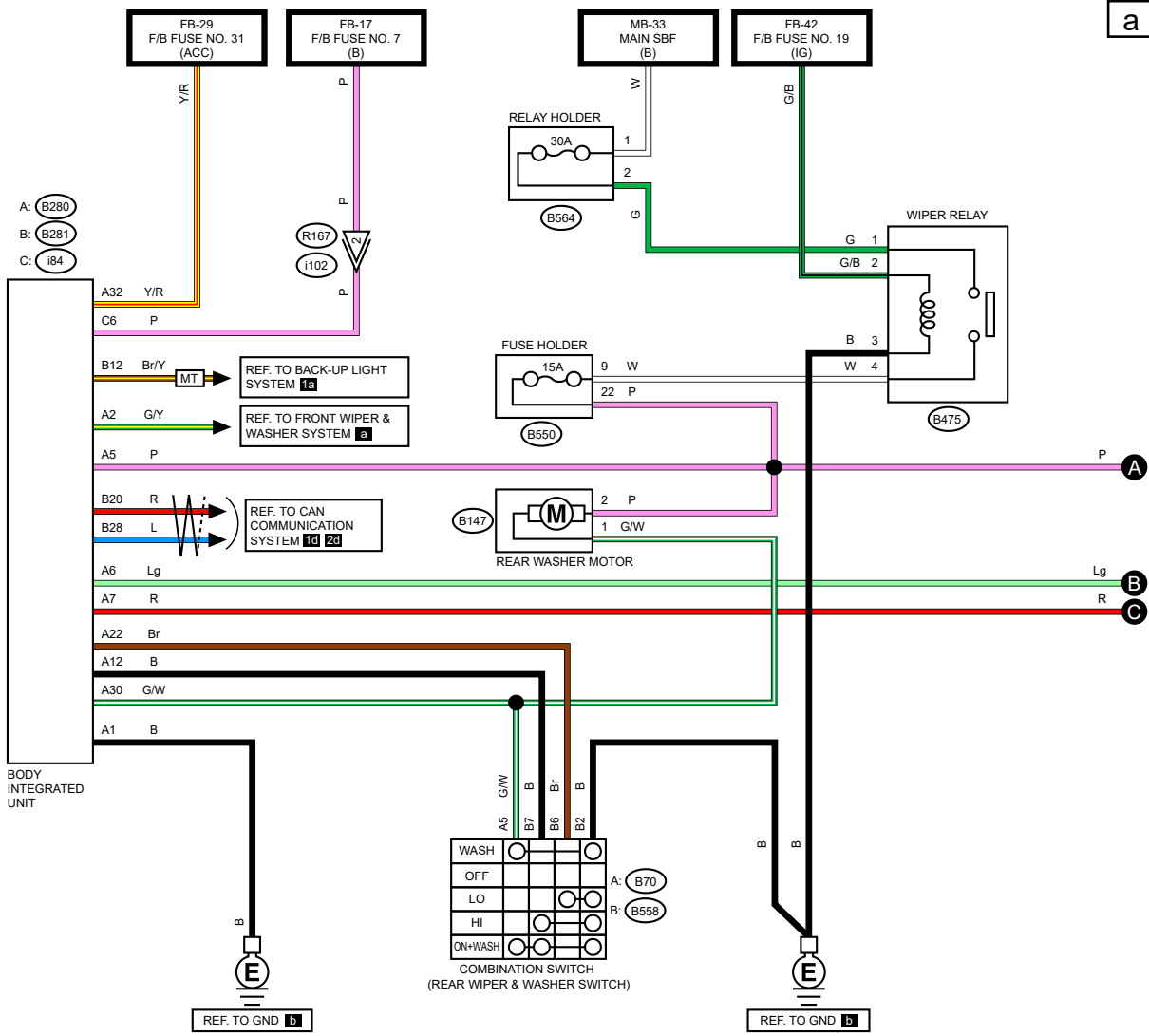
WIRING SYSTEM > Rear Wiper and Washer System

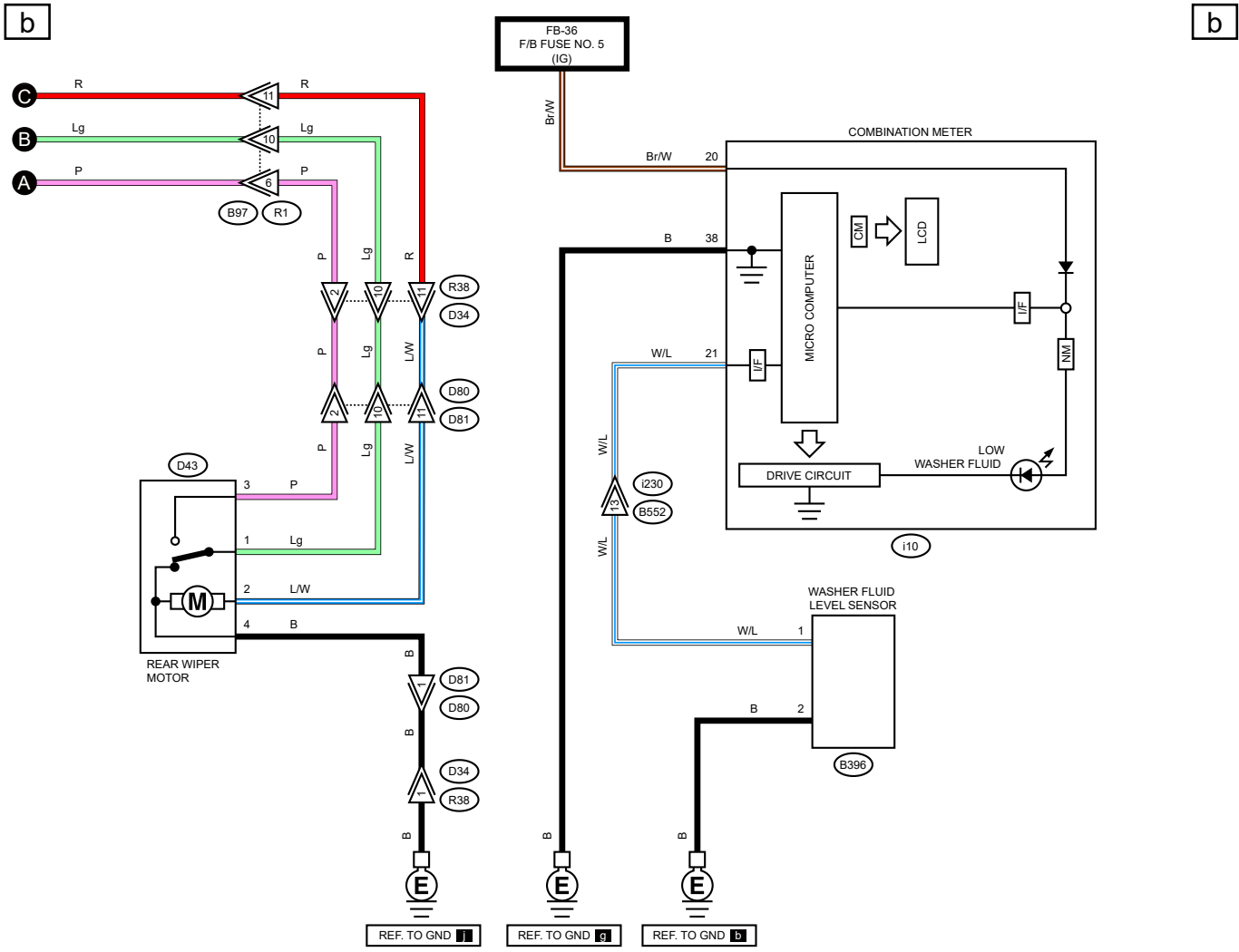
WIRING DIAGRAM



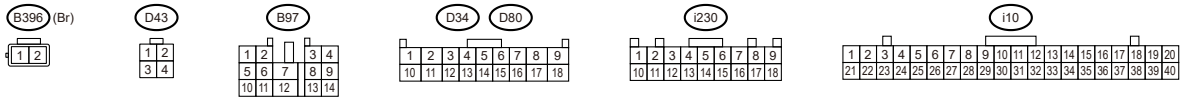
a

a





NM : NORMAL METER MODEL
CM : COLOR TFT METER MODEL



WIRING SYSTEM > Rear Wiring Harness and Rear Gate Cord

LOCATION

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
R16	3	★	C-3		Rear door switch RH
R22	3	★	C-1		Rear door switch LH
R25	10	B	C-3		Radar sensor LH (master)
R26	6	Gr	C-4		Rear combination light RH
R28	6	Gr	B-2		Rear combination light LH
R29	3	Gr	D-2		Rear vehicle height sensor
R32	2	★	C-2		Rear accessory power supply socket (cargo room)
R38	18	★	B-3	D34	Rear gate cord
R39	11	★	B-3	D35	
R49	14	★	C-4		Rear seat heater CM
R53	16	B	C-4		
R58	4	★	D-3		Fuel pump assembly
R59	2	★	D-2		Fuel sub level sensor
R61	10	B	C-5		Radar sensor RH (slave)
R70	6	★	C-3		Rear seat heater (seat cushion)
R72	2	Gr	D-4		Rear ABS wheel speed sensor RH
R73	2	Gr	C-2		Rear ABS wheel speed sensor LH
R79	8	★	C-2		Trailer connector
R80	8	★	B-3		Keyless entry CM (without push button start, without TPMS)
R97	1	★	B-2		Antenna
R122	6	★	C-4		Fuel pump CM
R133	2	★	D-4		Condenser RH
R134	2	★	C-2		Condenser LH
R141	2	Br	C-4		Luggage room light
R170	6	★	C-3		Remote control back rest RH
R171	6	★	C-1		Remote control back rest LH
R172	5	★	C-4		Remote control back rest switch RH
R173	5	★	C-1		Remote control back rest switch LH
R178	4	★	C-2	R179	Rear wiring harness
R179	4	★	C-2	R178	
R180	4	★	C-2		J/C
R181	4	★	C-2		
R211	12	★	C-4		TPMS CM (with push button start, with TPMS)
R221	12	★	C-4		TPMS & keyless entry CM (without push button

					start, with TPMS)
R296	5	★	B-3		Receiver (with push button start)
R297	3	★	D-3		Keyless access interior antenna (rear)
R298	3	★	D-3		Keyless access interior antenna (center)
R361	24	★	C-2		RAB CM
R362	8	B	C-3	R368	Sonar sensor cord
R364	2	B	D-2		Sonar sensor (left corner)
R365	2	B	D-3		Sonar sensor (left inner)
R366	2	B	C-4		Sonar sensor (right corner)
R367	2	B	C-4		Sonar sensor (right inner)
R368	8	B	C-3	R362	Rear wiring harness
R400	8	★	C-3		Leak check valve assy
R421	14	★	C-1		Power rear gate drive unit
R422	16	Gr	C-1		Power rear gate CM
R423	20	Gr	D-1		
R460	4	★	C-2		J/C
R461	2	★	C-2	R462	Rear wiring harness
R462	2	★	C-2	R461	
★:White or natural color					

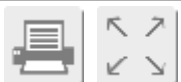
Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
D34	18	★	B-3	R38	Rear wiring harness
D35	11	★	B-3	R39	
D39	2	★	A-3		High-mounted stop light
D43	4	★	A-4		Rear wiper motor
D44	2	★	A-5		License plate light RH
D46	4	★	A-4		Rear gate lock actuator & latch switch
D47	2	Br	A-4		Rear gate opener button (without push button start)
D48	1	★	A-2		Rear defogger
D77	6	★	A-4		Rear lock button & rear gate opener button & keyless access exterior antenna (rear)
D80	18	★	A-5	D81	Rear gate cord (LWR)
D81	18	★	A-5	D80	Rear gate cord (UPR)
D85	4	★	A-4		Rearview camera
D89	1	★	A-4		Rear defogger
D137	2	★	A-4		License plate light LH
D150	2	★	A-3		Power rear gate touch sensor LH
D151	2	★	A-5		Power rear gate touch sensor RH
D152	2	B	A-4		Power rear gate buzzer

D153	6	★	A-4		Power rear gate auto closer
D154	6	★	A-5		Power rear gate inner switch
D155	11	★	A-5	D156	Rear gate cord (LWR)
D156	11	★	A-5	D155	Rear gate cord (UPR)

★:White or natural color

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB31	2	B	B-1		Curtain airbag module LH
AB32	4	Y	C-1		Curtain airbag sensor LH
AB33	2	B	B-3		Curtain airbag module RH
AB34	4	Y	C-3		Curtain airbag sensor RH
AB41	2	Y	C-2		Satellite safing sensor

★:White or natural color



WIRING SYSTEM > Rear Wiring Harness LH

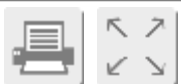
LOCATION

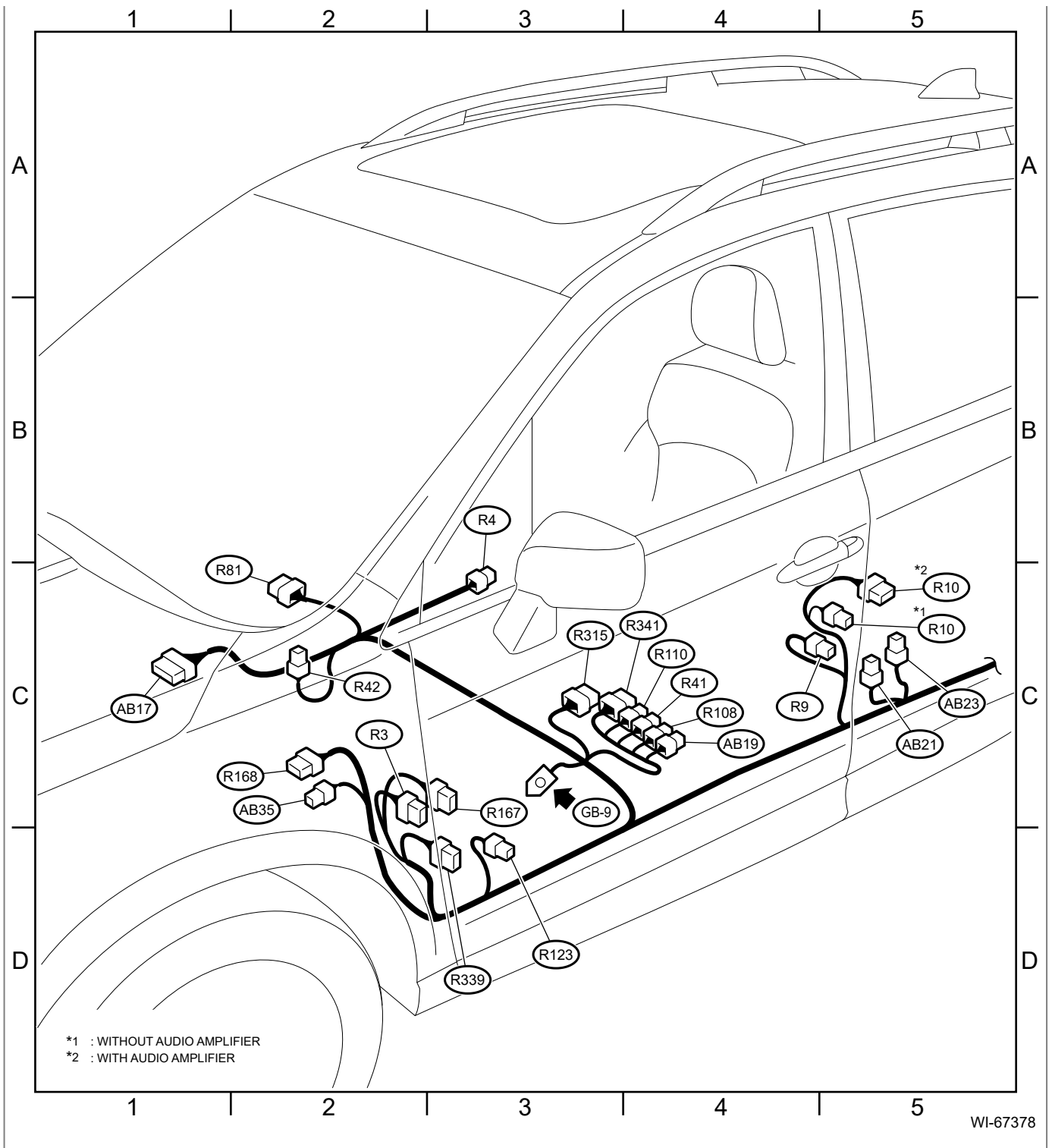
Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
R3	14	★	C-2	B99	Bulkhead wiring harness
R4	1	B	C-3		Parking switch
R9	3	★	C-4		Front door switch LH
R10	8	★	C-5	D22	Rear door cord LH (without audio amplifier)
	10	★	C-5	D22	Rear door cord LH (with audio amplifier)
R41	4	★	C-4		Seat heater LH
R42	6	★	C-2		Seat heater switch LH
R81	18	★	C-2	R82	Rear wiring harness RH
R108	2	★	C-4		Seat belt switch LH
R110	2	B	C-3		Power seat LH (without seat position memory)
R123	2	★	D-3	AB62	Airbag wiring harness
R167	19	★	C-3	i102	Instrument panel wiring harness
R168	20	★	C-2		F/B
R315	12	★	C-3		Audio amplifier
R339	14	★	D-3	i2	Instrument panel wiring harness
R341	14	★	C-4		Power seat LH (with seat position memory)

★:White or natural color

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB17	24	Y	C-1		Airbag CM
AB19	4	Y	C-4		Side airbag module LH
AB21	2	B	C-5		Pretensioner LH
AB23	4	Y	C-5		Side airbag sensor LH
AB35	2	B	C-2		F/B

★:White or natural color





WIRING SYSTEM > Rear Wiring Harness RH

LOCATION

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
R1	14	★	B-1	B97	Bulkhead wiring harness
R2	18	★	C-1	B98	
R12	3	★	B-3		Front door switch RH
R13	8	★	B-3	D28	Rear door cord RH (without audio amplifier)
	10	★	B-3	D28	Rear door cord RH (with audio amplifier)
R44	4	★	B-3		Seat heater RH
R45	6	Br	C-3		Seat heater switch RH
R82	18	★	C-4	R81	Rear wiring harness LH
R98	19	★	B-2	i53	Instrument panel wiring harness
R124	2	★	B-2	AB63	Airbag wiring harness
R138	14	★	B-4		Rear seat heater switch
R284	8	★	B-4		AUX input terminal
R311	2	★	B-4		Rear accessory power supply socket (console)
R382	22	★	C-2	i95	Instrument panel wiring harness

★:White or natural color

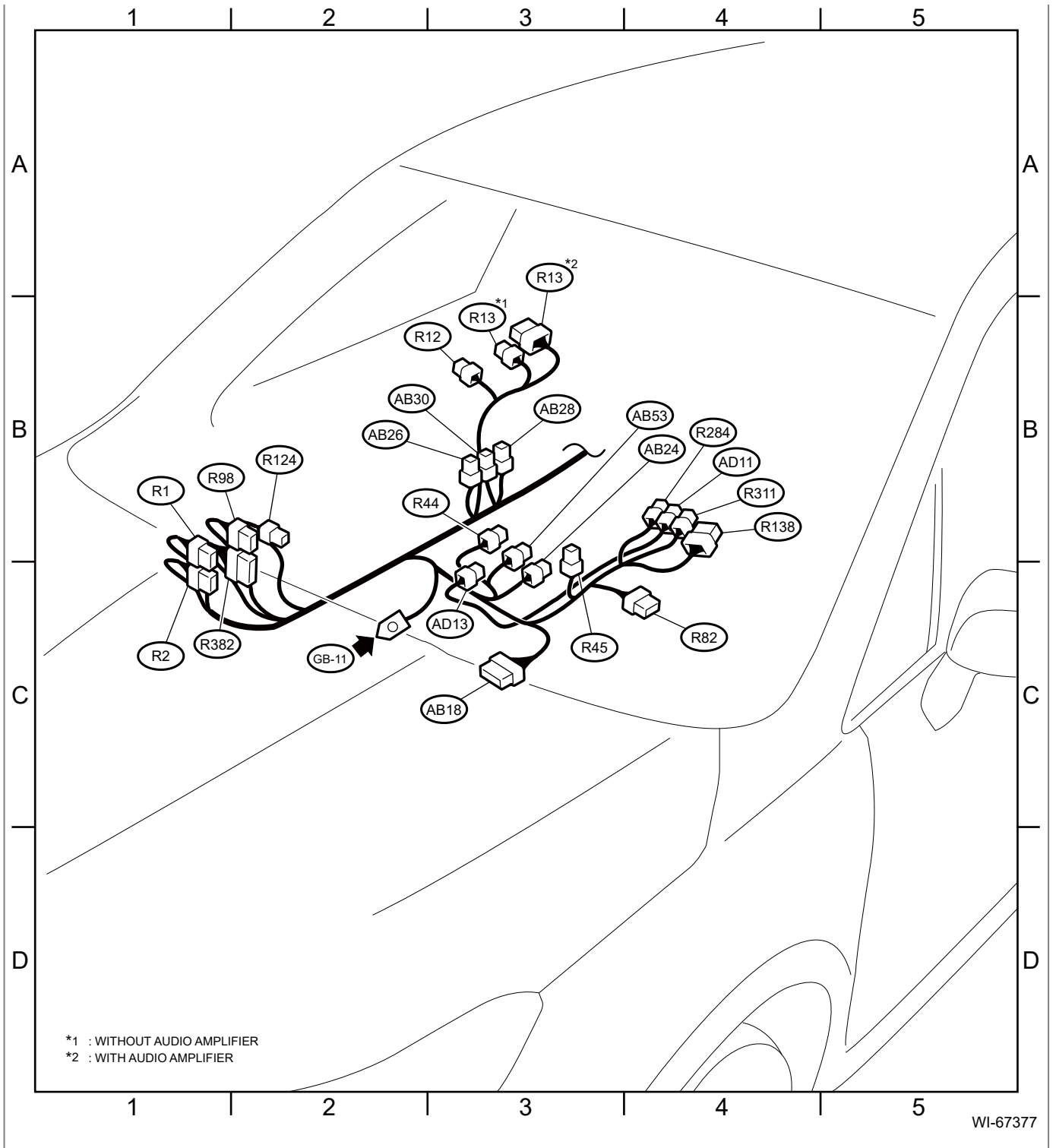
Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AB18	24	Y	C-3		Airbag CM
AB24	4	Y	C-3		Side airbag module RH
AB26	2	B	B-3		Pretensioner RH
AB28	4	Y	B-3		Side airbag sensor RH
AB30	2	Y	B-3		Lap seat belt pretensioner RH
AB53	3	Gr	B-3		Occupant detection control module

★:White or natural color

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AD11	4	B	B-4		AUX input terminal
AD13	4	B	C-3		Audio (without navigation)
	4	B	C-3		Navigation unit (with navigation)

★:White or natural color





WIRING SYSTEM > Rearview Camera System

WIRING DIAGRAM

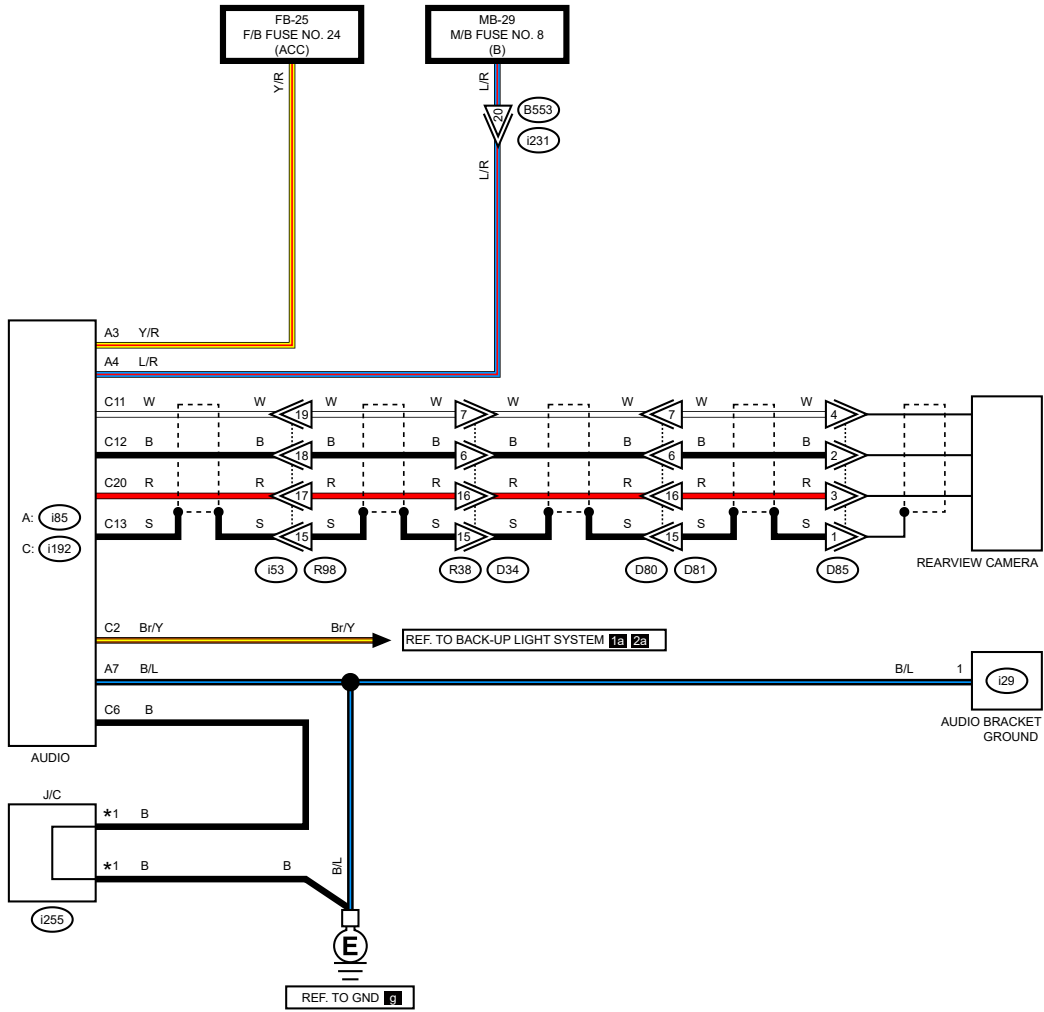
▼ Please select ▼ see

1. 6.2 INCH DISPLAY

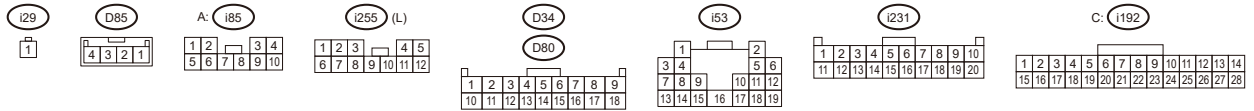


1a

1a



*1 : TERMINAL No. OPTIONAL ARRANGEMENT



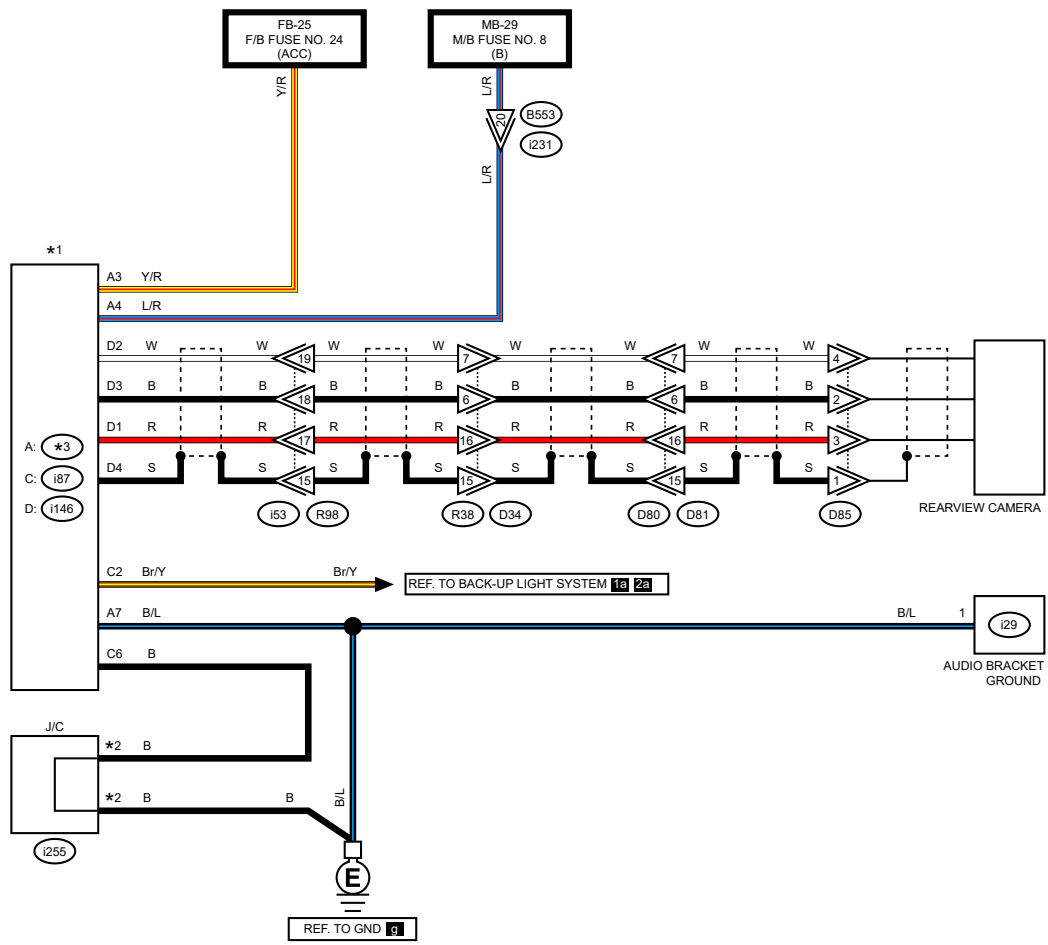
WI-65734

2. 7 INCH DISPLAY

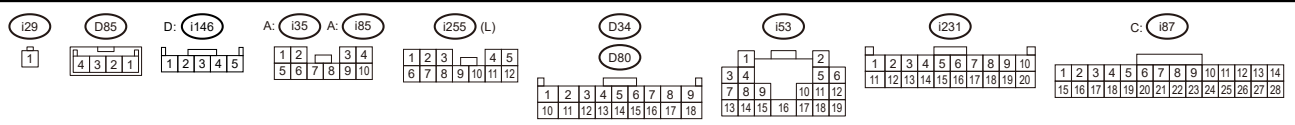


2a

2a



- *1 : WITHOUT NAVIGATION : AUDIO
WITH NAVIGATION : NAVIGATION UNIT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT
- *3 : WITHOUT AUDIO AMPLIFIER : i85
WITH AUDIO AMPLIFIER : i35



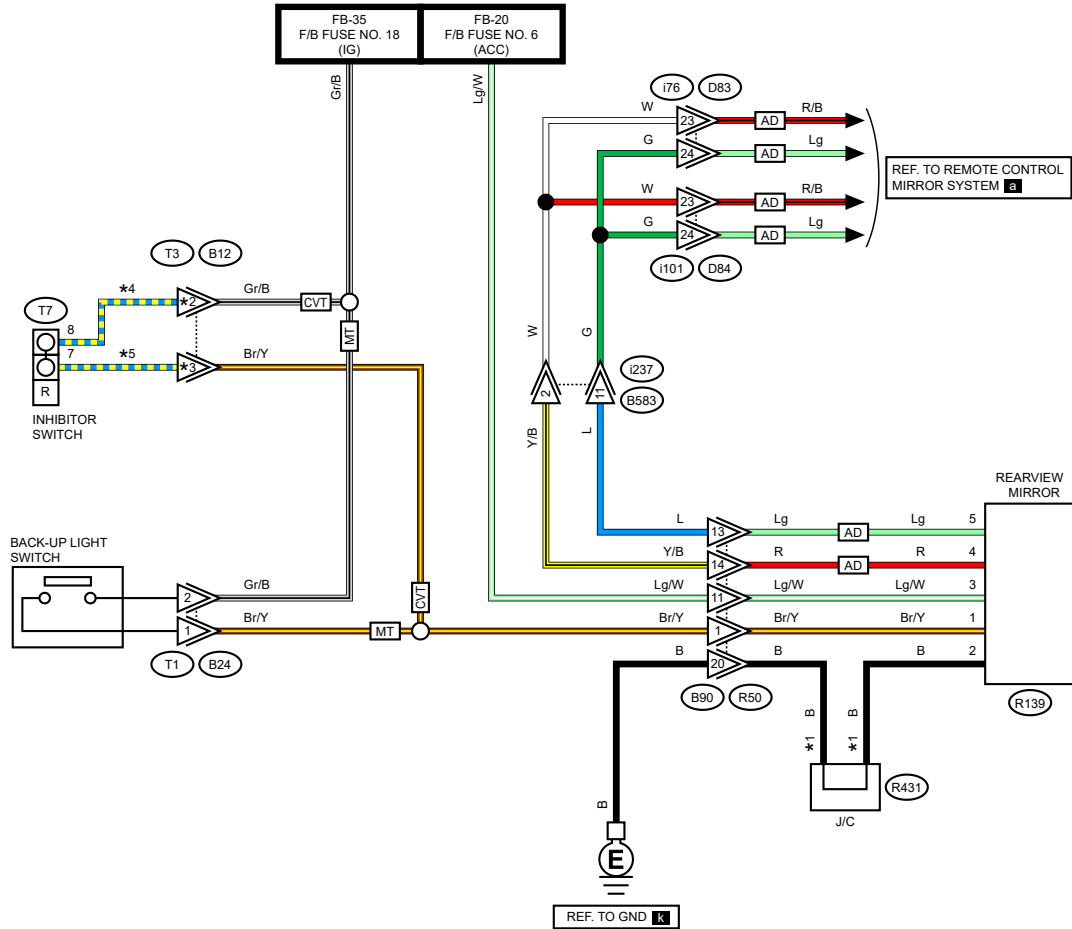
WIRING SYSTEM > Rearview Mirror System

WIRING DIAGRAM



a

a



AD : WITH AUTOMATIC ANTI-GLARE

NA : NON-TURBO MODEL

TB : TURBO MODEL

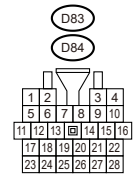
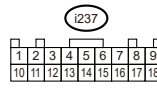
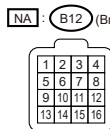
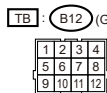
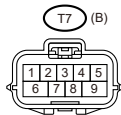
*1 : TERMINAL No. OPTIONAL ARRANGEMENT

*2 : NON-TURBO MODEL : 13
TURBO MODEL : 9

*3 : NON-TURBO MODEL : 14
TURBO MODEL : 10

*4 : NON-TURBO MODEL : L
TURBO MODEL : W/B

*5 : NON-TURBO MODEL : W/B
TURBO MODEL : B/W



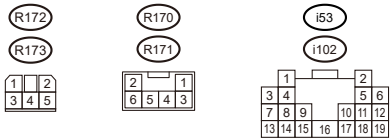
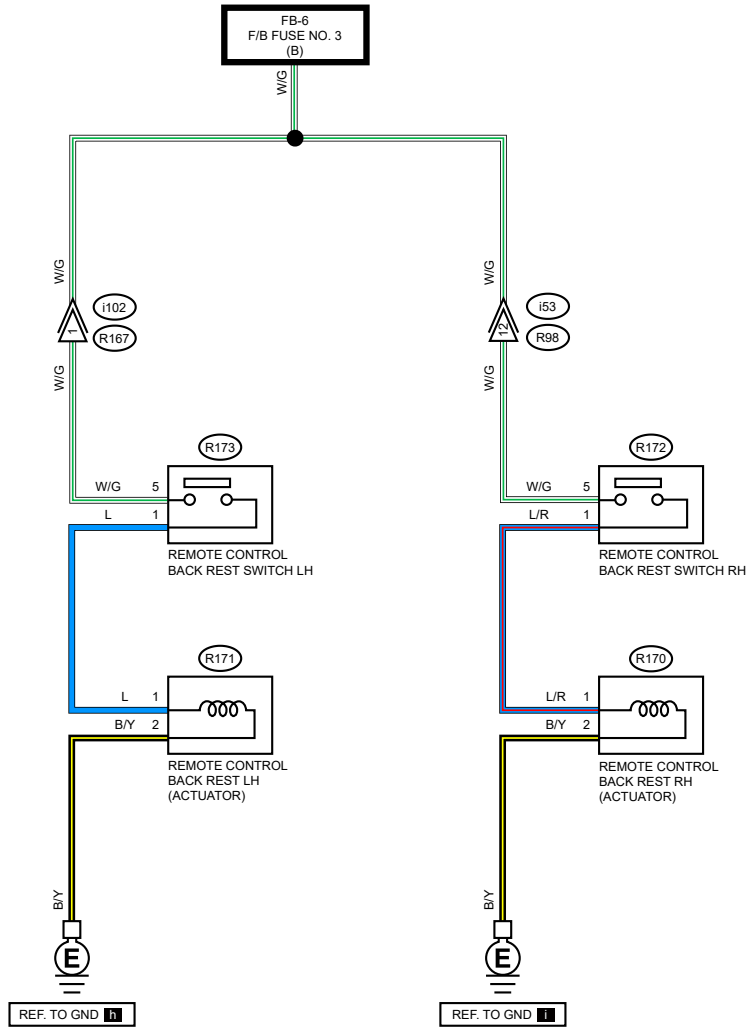
WIRING SYSTEM > Remote Control Back Rest System

WIRING DIAGRAM



a

a



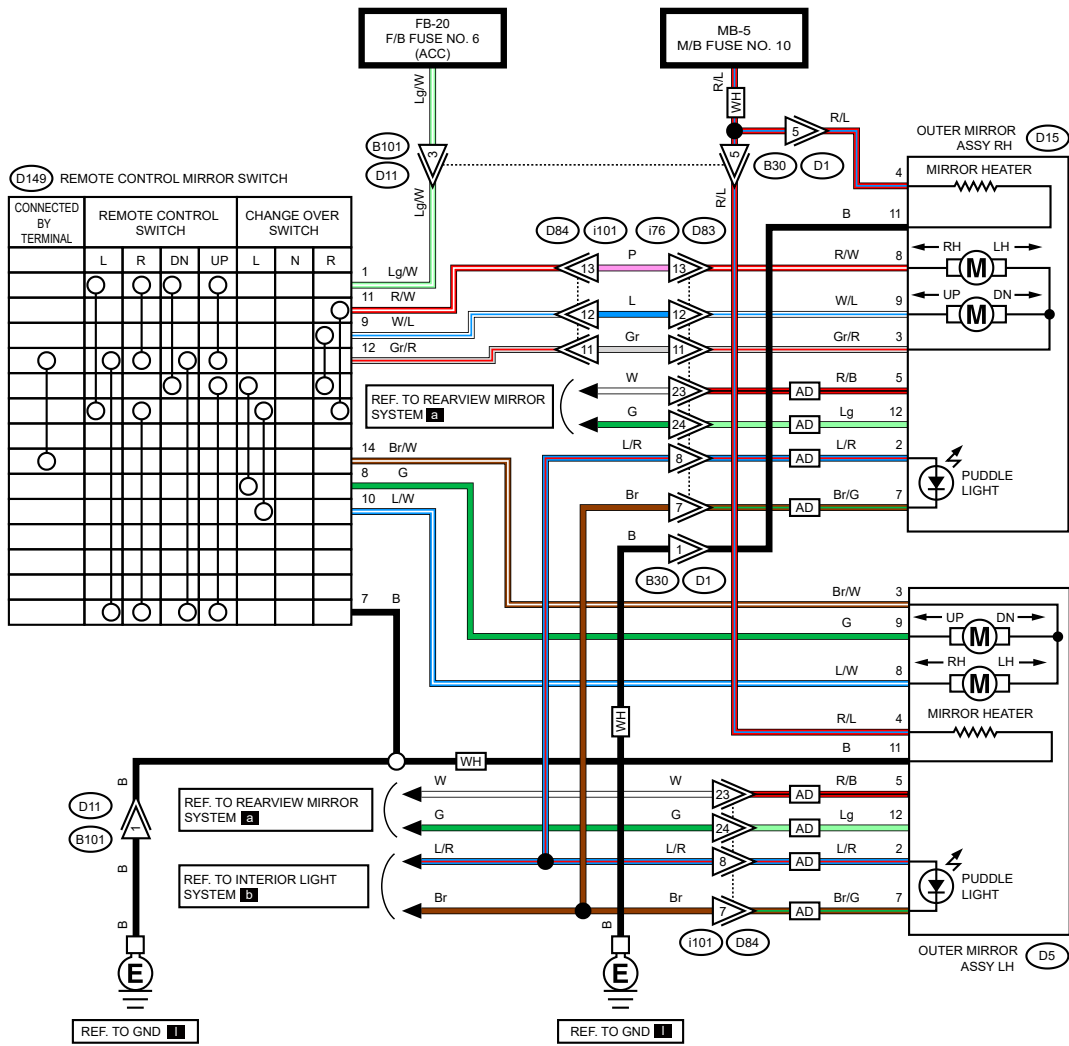
WIRING SYSTEM > Remote Control Mirror System

WIRING DIAGRAM



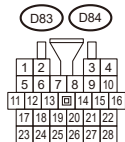
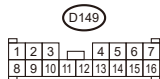
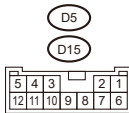
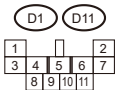
a

a



WH : WITH MIRROR HEATER

AD : WITH AUTOMATIC ANTI-GLARE



WIRING SYSTEM > Remote Engine Start System

WIRING DIAGRAM

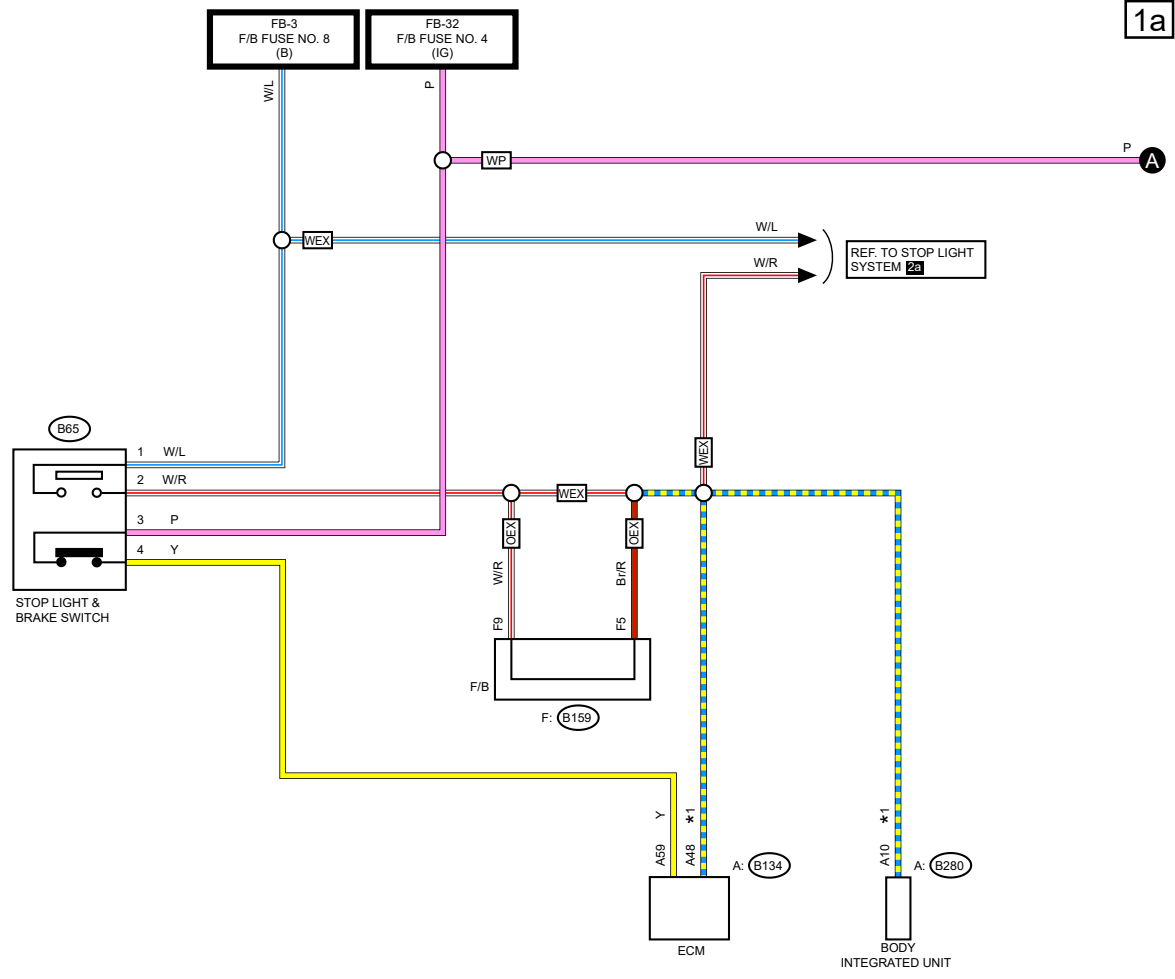
▼ Please select ▼ see

1. NON-TURBO MODEL



1a

1a



OEX : WITHOUT EyeSight AND X MODE

WEX : EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE

WP : WITH PUSH BUTTON START

*1 : WITHOUT EyeSight AND X MODE : Br/R
EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE : W/R

B65 (B)

1	2
3	4

F: B159 (Br)

1	2	3	4
5	6	7	8

A: B280

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	

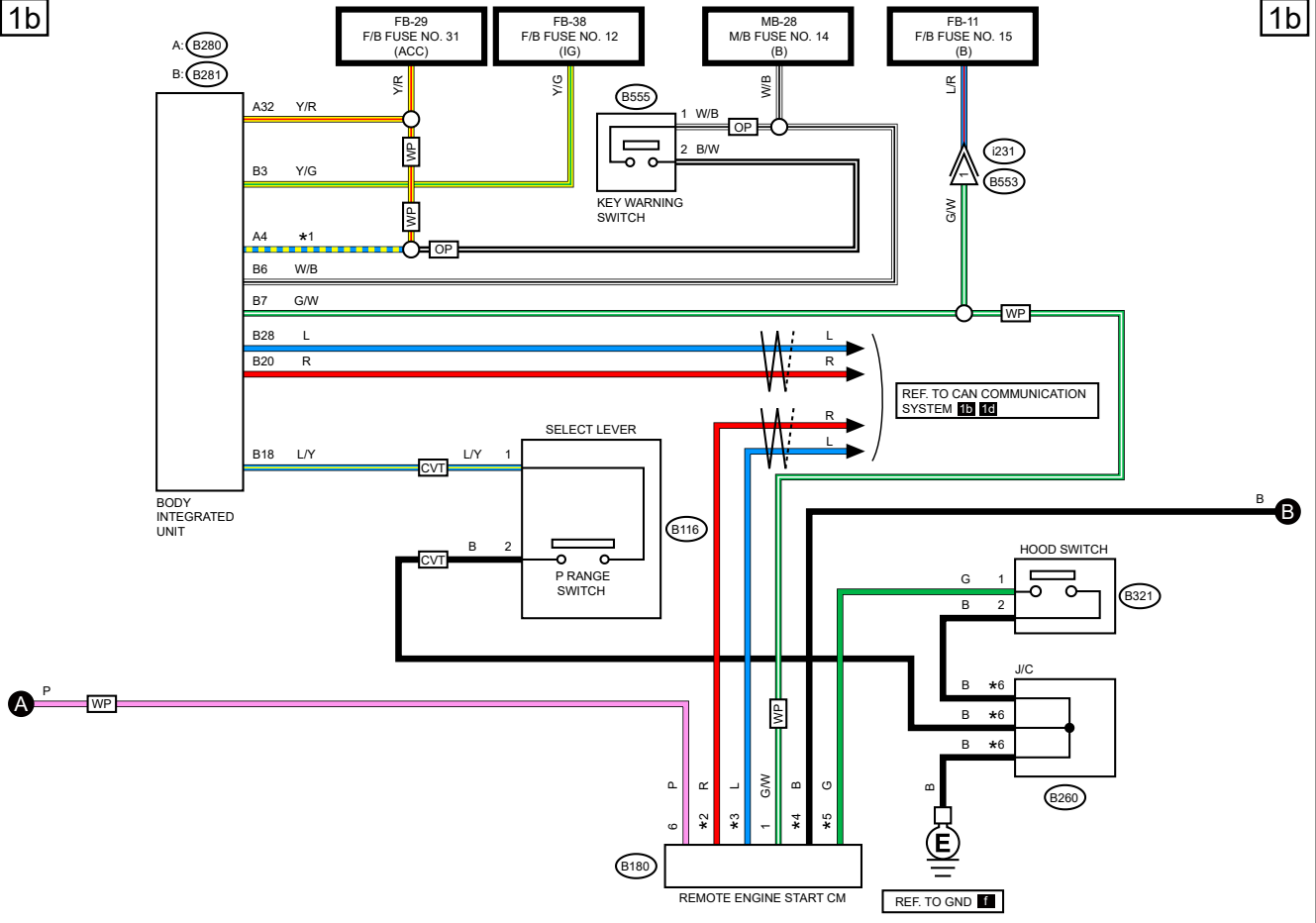
A: B134 (Gr)

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26
27	28	29	30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49	50	51	52
53	54	55	56	57	58	59	60	61	62	63	64	65



1b

1b



OP : WITHOUT PUSH BUTTON START

WP : WITH PUSH BUTTON START

*1 : WITHOUT PUSH BUTTON START : B/W
WITH PUSH BUTTON START : Y/R

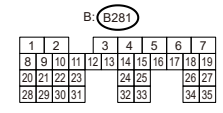
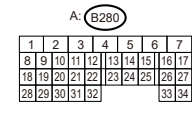
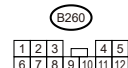
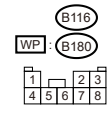
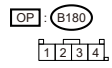
*2 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2

*3 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3

*4 : WITHOUT PUSH BUTTON START : 3
WITH PUSH BUTTON START : 4

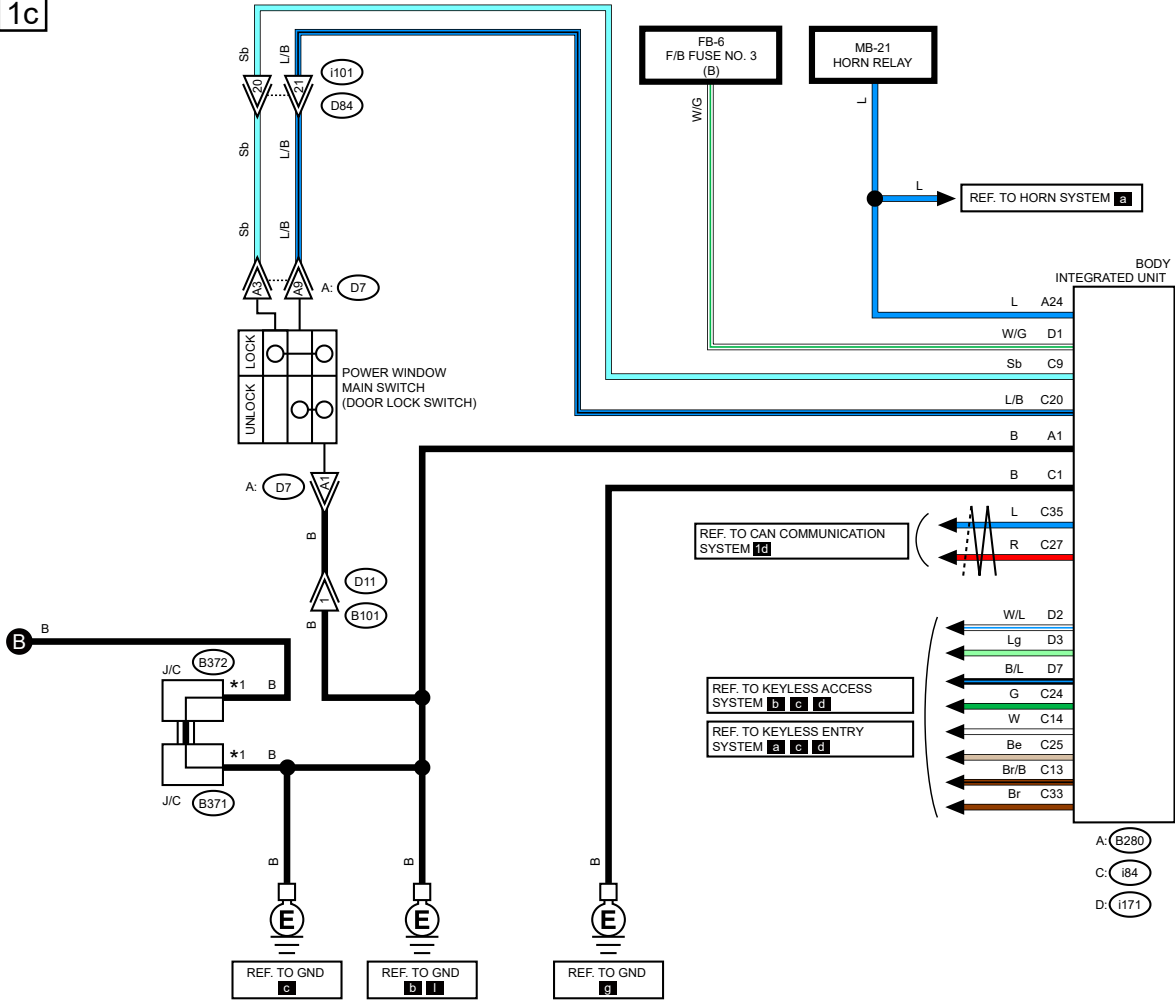
*5 : WITHOUT PUSH BUTTON START : 4
WITH PUSH BUTTON START : 5

*6 : TERMINAL No. OPTIONAL ARRANGEMENT

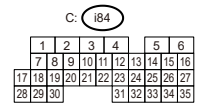
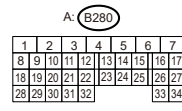
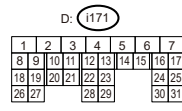
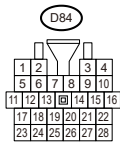
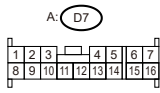
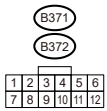


1c

1c



*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12



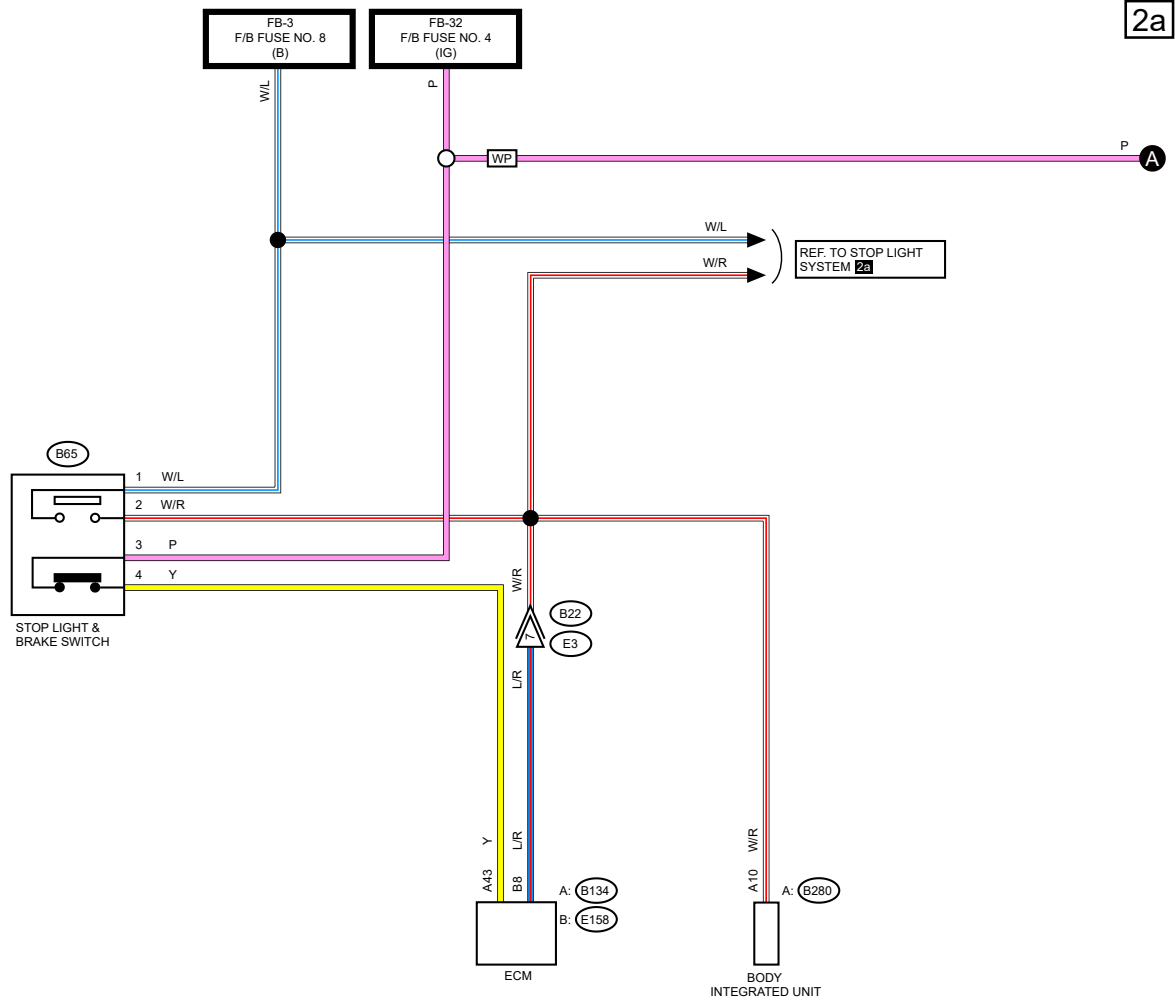
WI-65743

2. TURBO MODEL

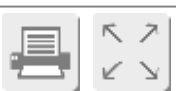
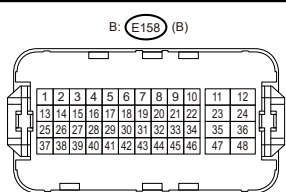
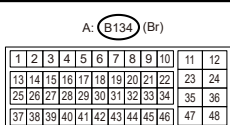
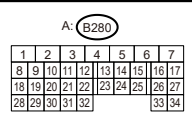
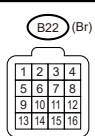


2a

2a

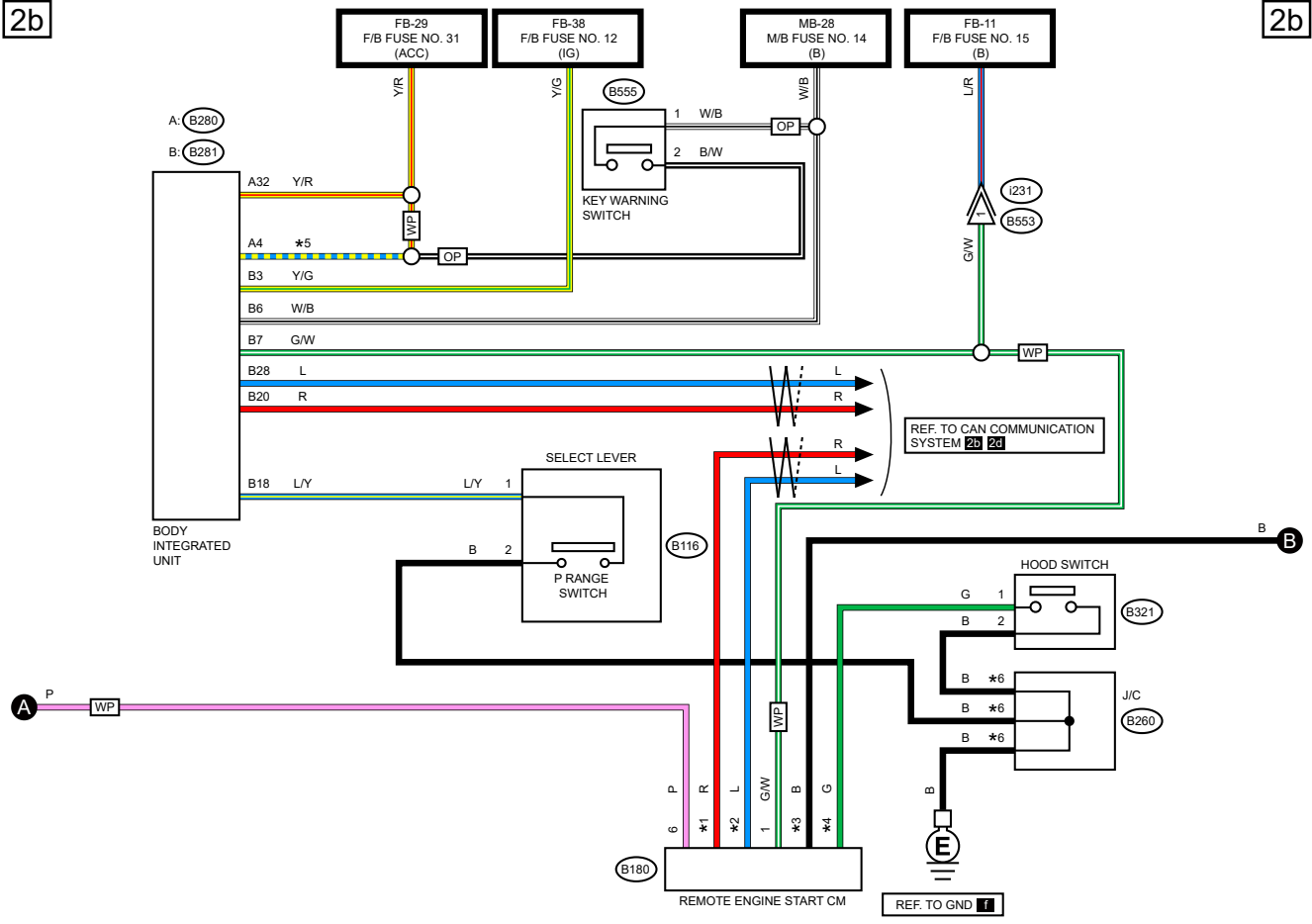


WP : WITH PUSH BUTTON START

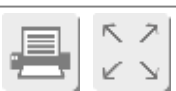
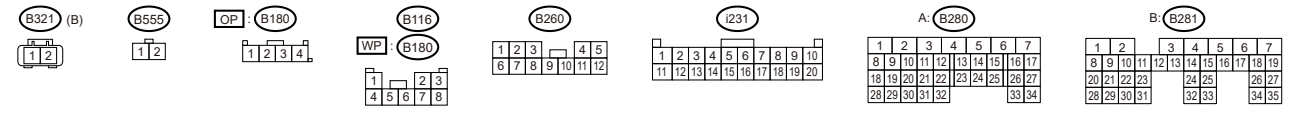


2b

2b

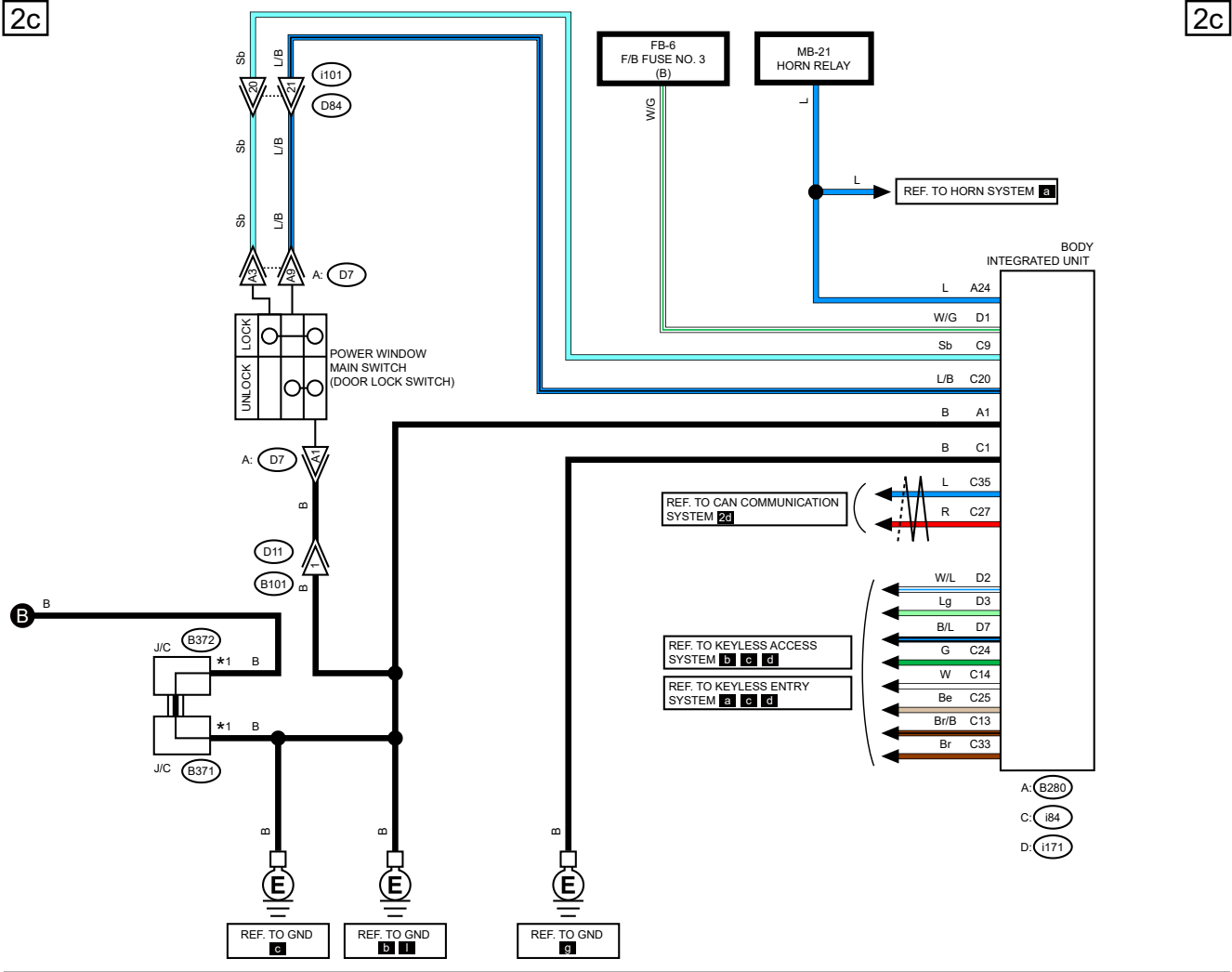


- OP** : WITHOUT PUSH BUTTON START
- WP** : WITH PUSH BUTTON START
- *1** : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
- *2** : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
- *3** : WITHOUT PUSH BUTTON START : 3
WITH PUSH BUTTON START : 4
- *4** : WITHOUT PUSH BUTTON START : 4
WITH PUSH BUTTON START : 5
- *5** : WITHOUT PUSH BUTTON START : B/W
WITH PUSH BUTTON START : Y/R
- *6** : TERMINAL No. OPTIONAL ARRANGEMENT

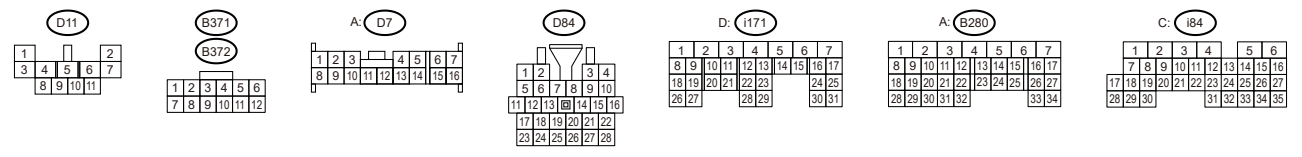


2c

2c



*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12



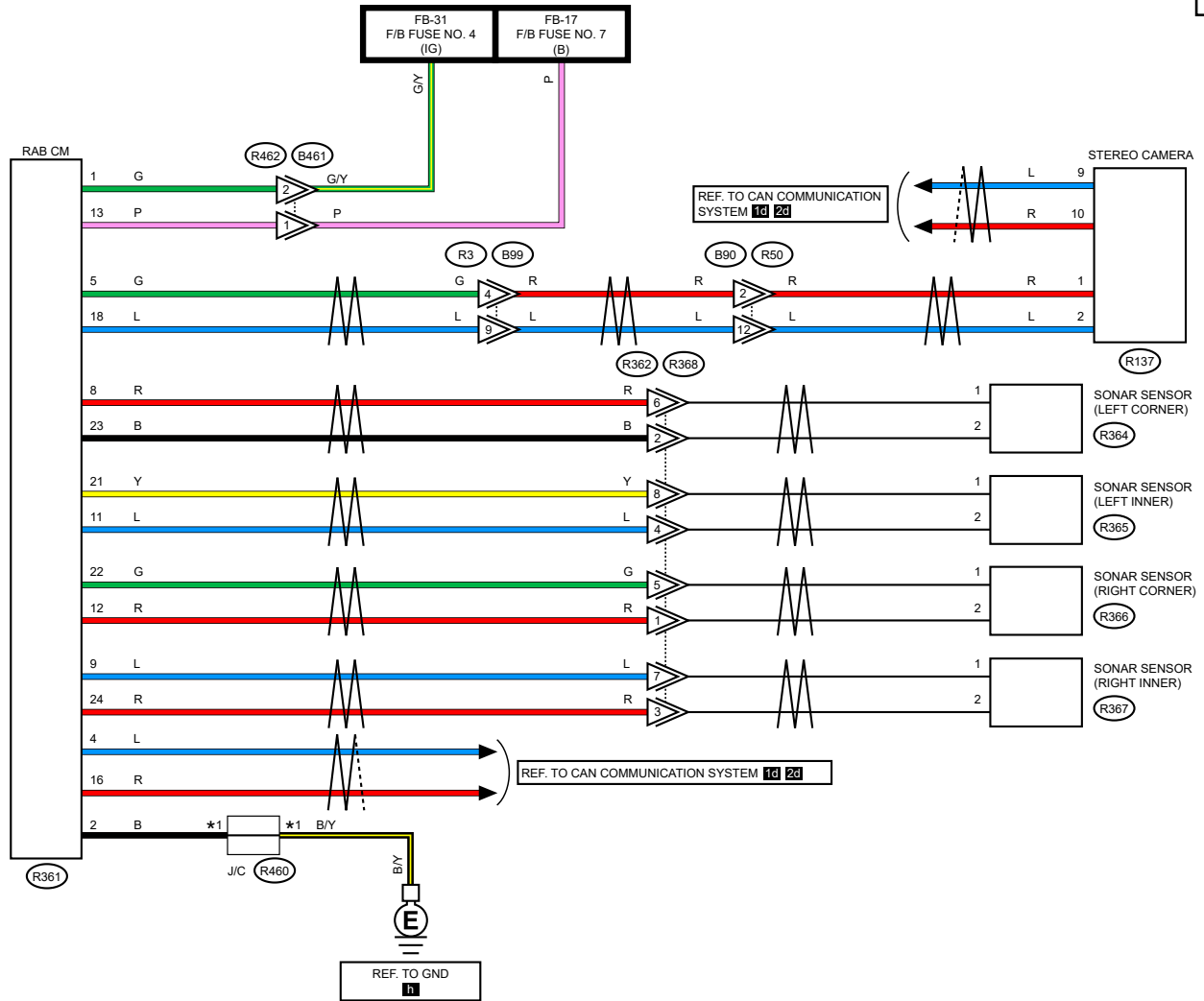
WIRING SYSTEM > Reverse Automatic Braking

WIRING DIAGRAM

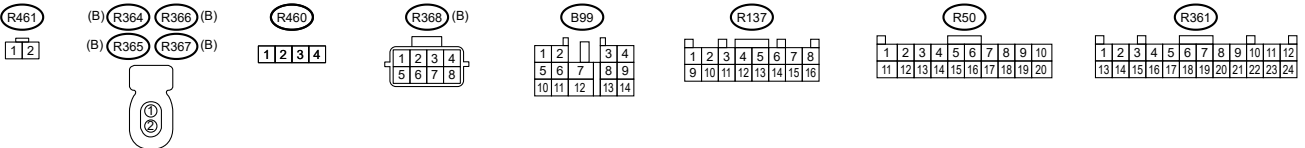


a

a

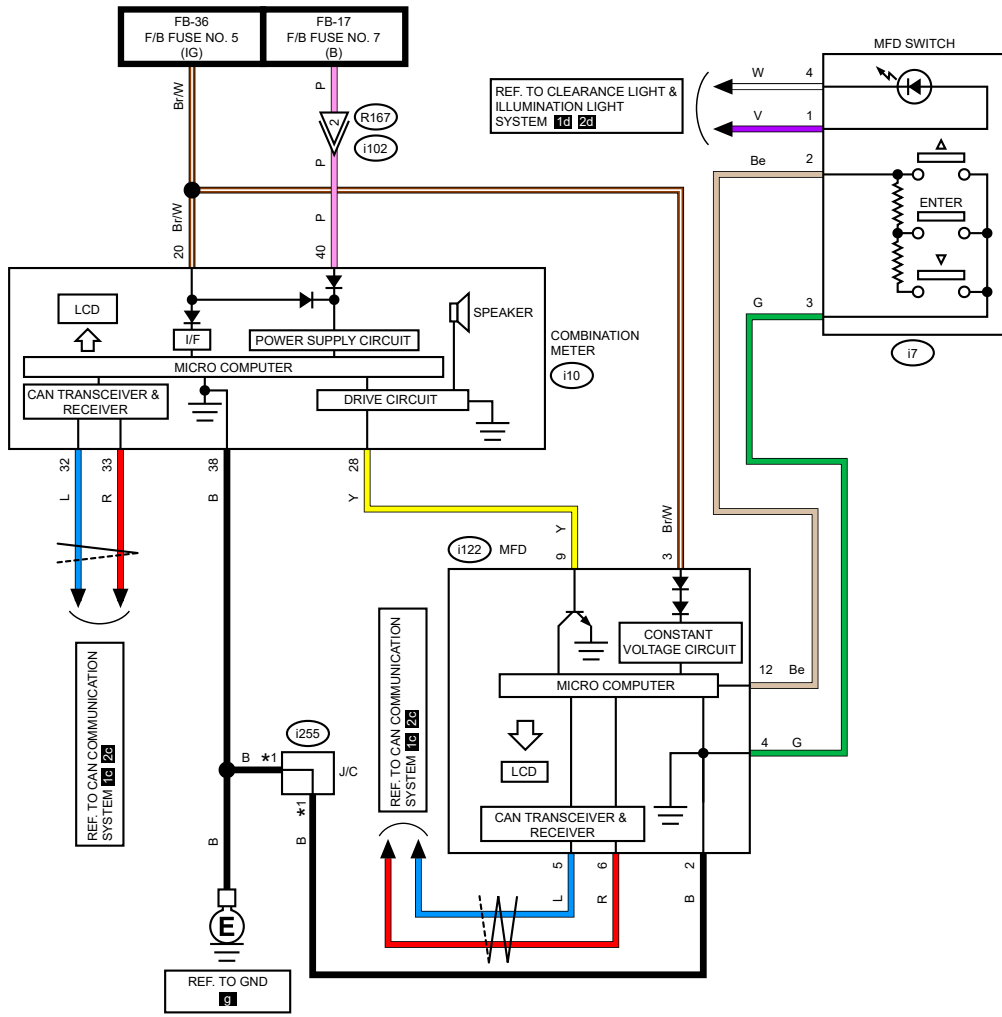


*1 : TERMINAL No. OPTIONAL ARRANGEMENT

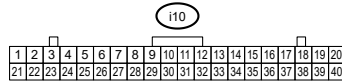
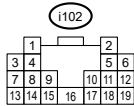
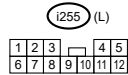
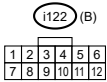


b

b



*1 : TERMINAL No. OPTIONAL ARRANGEMENT



WIRING SYSTEM > Roof Cord

LOCATION

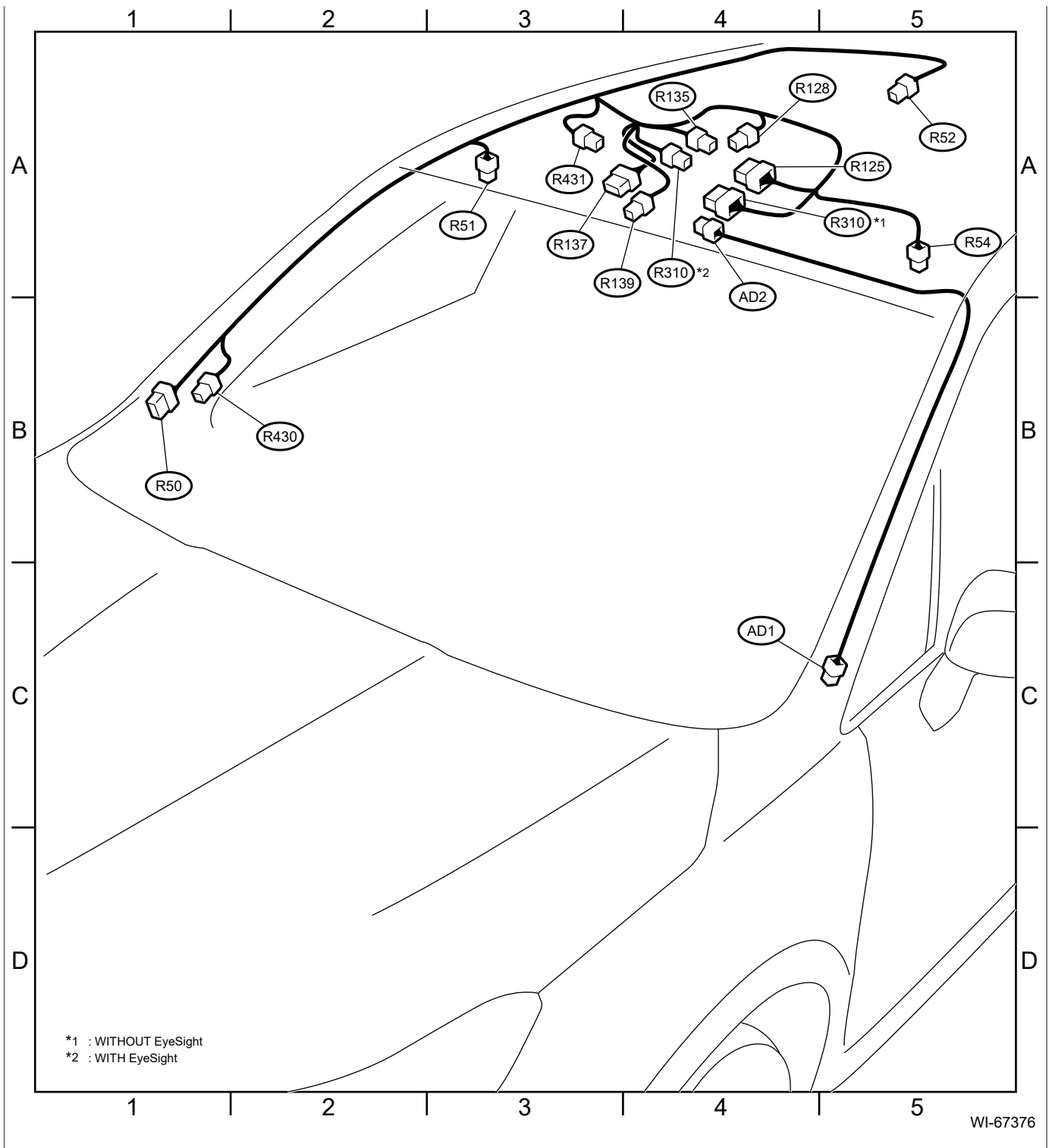
Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
R50	20	★	B-1	B90	Bulkhead wiring harness
R51	2	B	A-3		Vanity mirror light RH
R52	3	★	A-5		Room light
R54	2	B	A-5		Vanity mirror light LH
R125	10	Gr	A-4		Sunroof unit
R128	5	★	A-4		Sunroof switch
R135	6	★	A-4		Pre-collision brake OFF & lane departure warning OFF switch (with EyeSight)
R137	16	★	A-3		Stereo camera
R139	5	★	A-4		Rear view mirror
R310	8	★	A-4		Stereo camera cover (with EyeSight)
	10	★	A-4		Overhead console (without EyeSight)
R430	6	★	B-1	B151	Bulkhead wiring harness (with EyeSight)
R431	4	★	A-3		J/C

★: White or natural color

Connector				Connecting to	
No.	Pole	Color	Area	No.	Description
AD1	8	★	C-4	B229	Bulkhead wiring harness
AD2	8	★	A-4		Telematics button

★: White or natural color

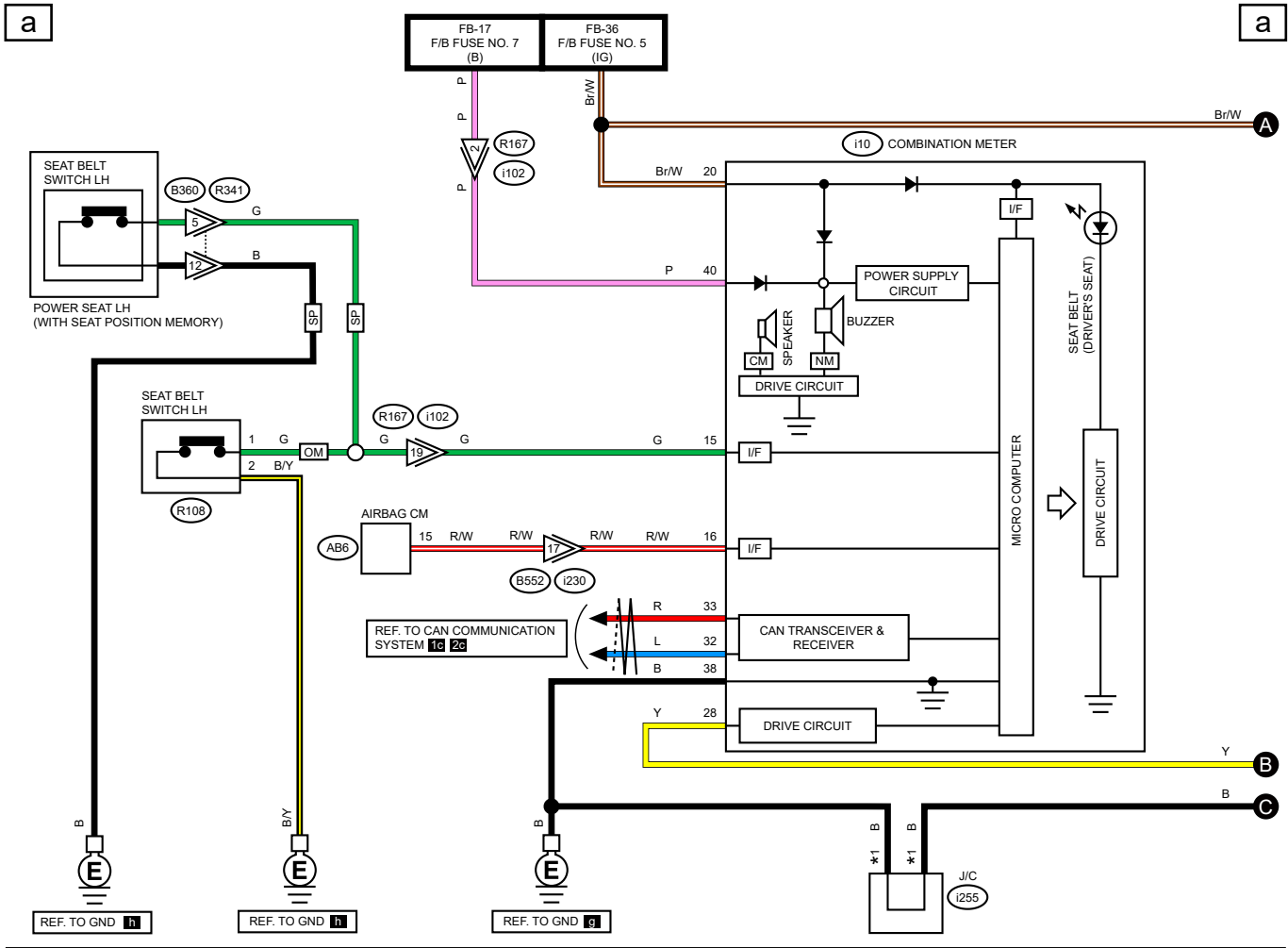




WIRING SYSTEM > Seat Belt Warning System

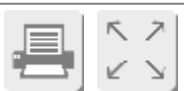
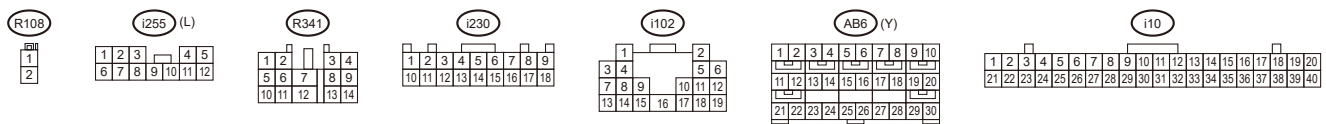
WIRING DIAGRAM





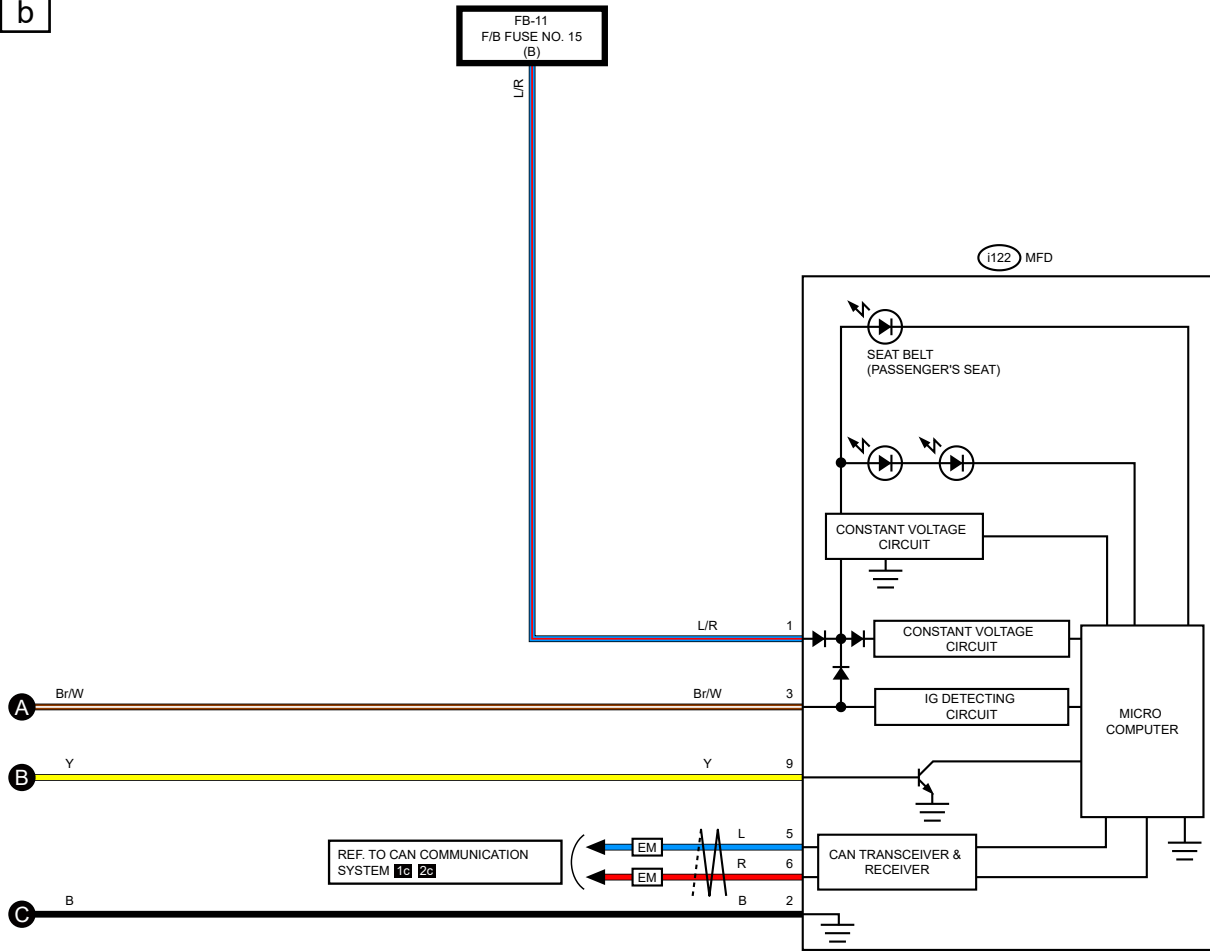
- [OM] : WITHOUT SEAT POSITION MEMORY
- [SP] : WITH SEAT POSITION MEMORY
- [NM] : NORMAL METER MODEL
- [CM] : COLOR TFT METER MODEL

*1 : TERMINAL No. OPTIONAL ARRANGEMENT



b

b



EM : EXCEPT FOR STANDARD MFD

(122) (B)

1	2	3	4	5	6
7	8	9	10	11	12

WIRING SYSTEM > Seat Heater System

WIRING DIAGRAM

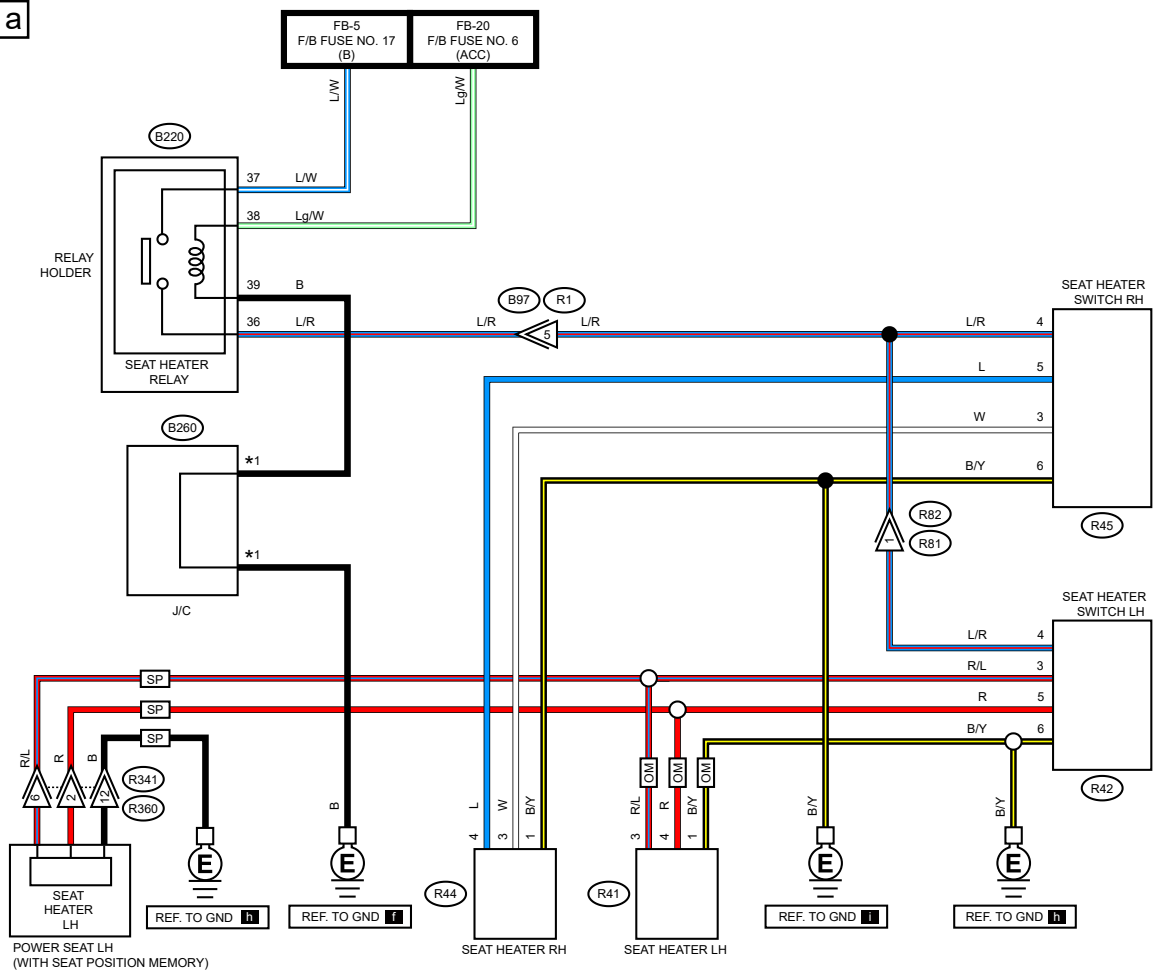
▼ Please select ▼ see

1. FRONT SEAT

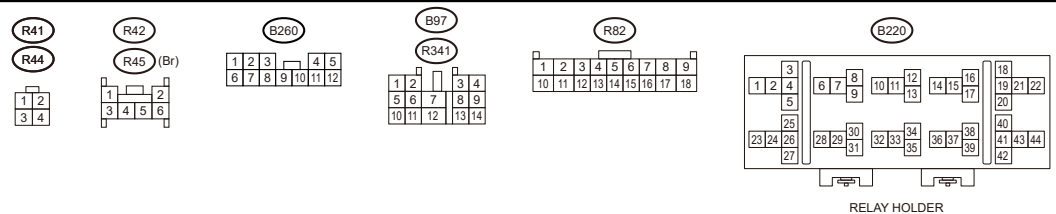


1a

1a



OM : WITHOUT SEAT POSITION MEMORY
 SP : WITH SEAT POSITION MEMORY
 *1 : TERMINAL No. OPTIONAL ARRANGEMENT



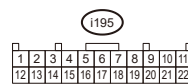
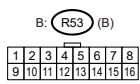
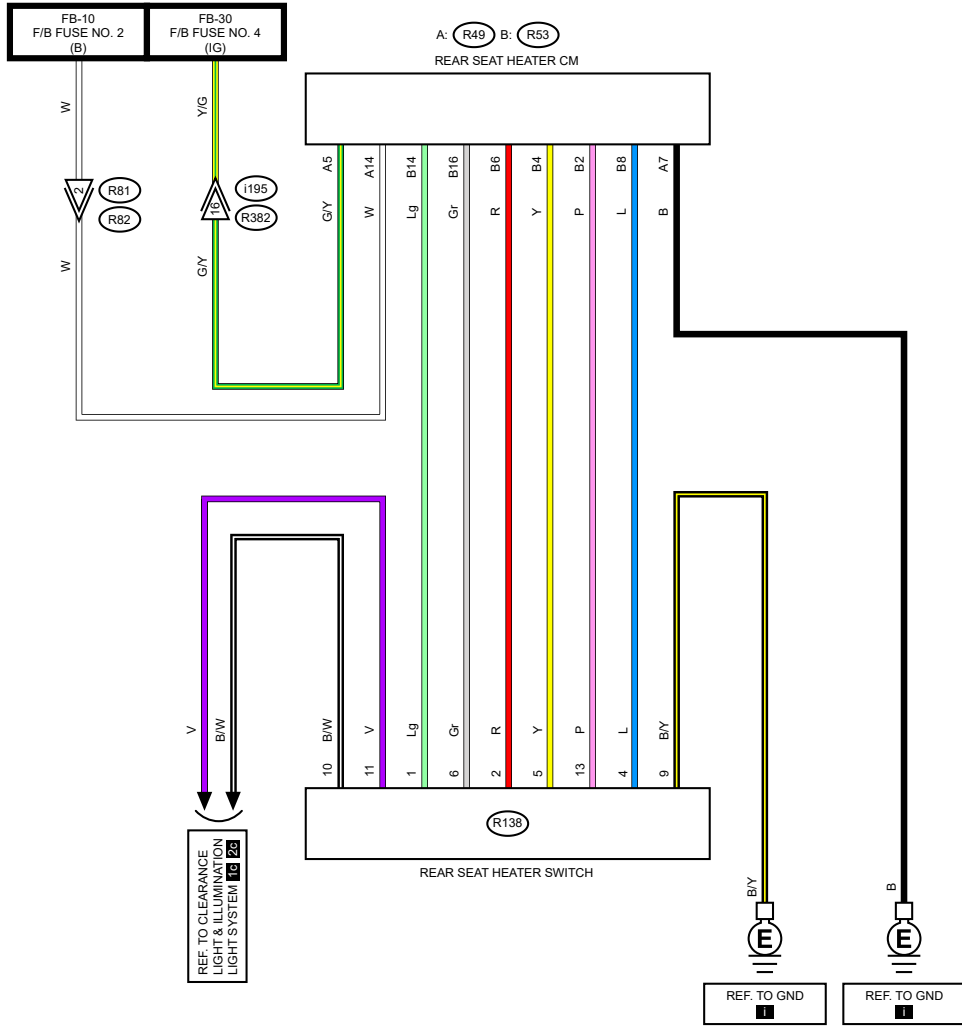
WI-65749

2. REAR SEAT



2a

2a

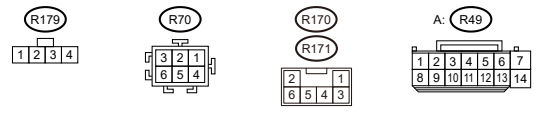
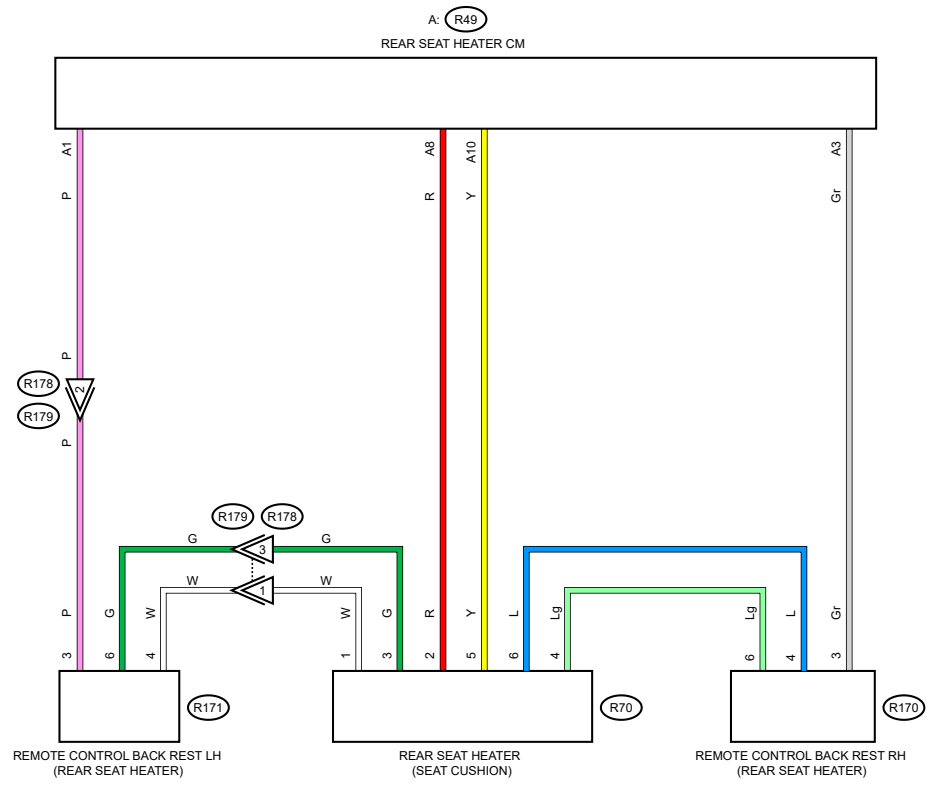


WI-67363



2b

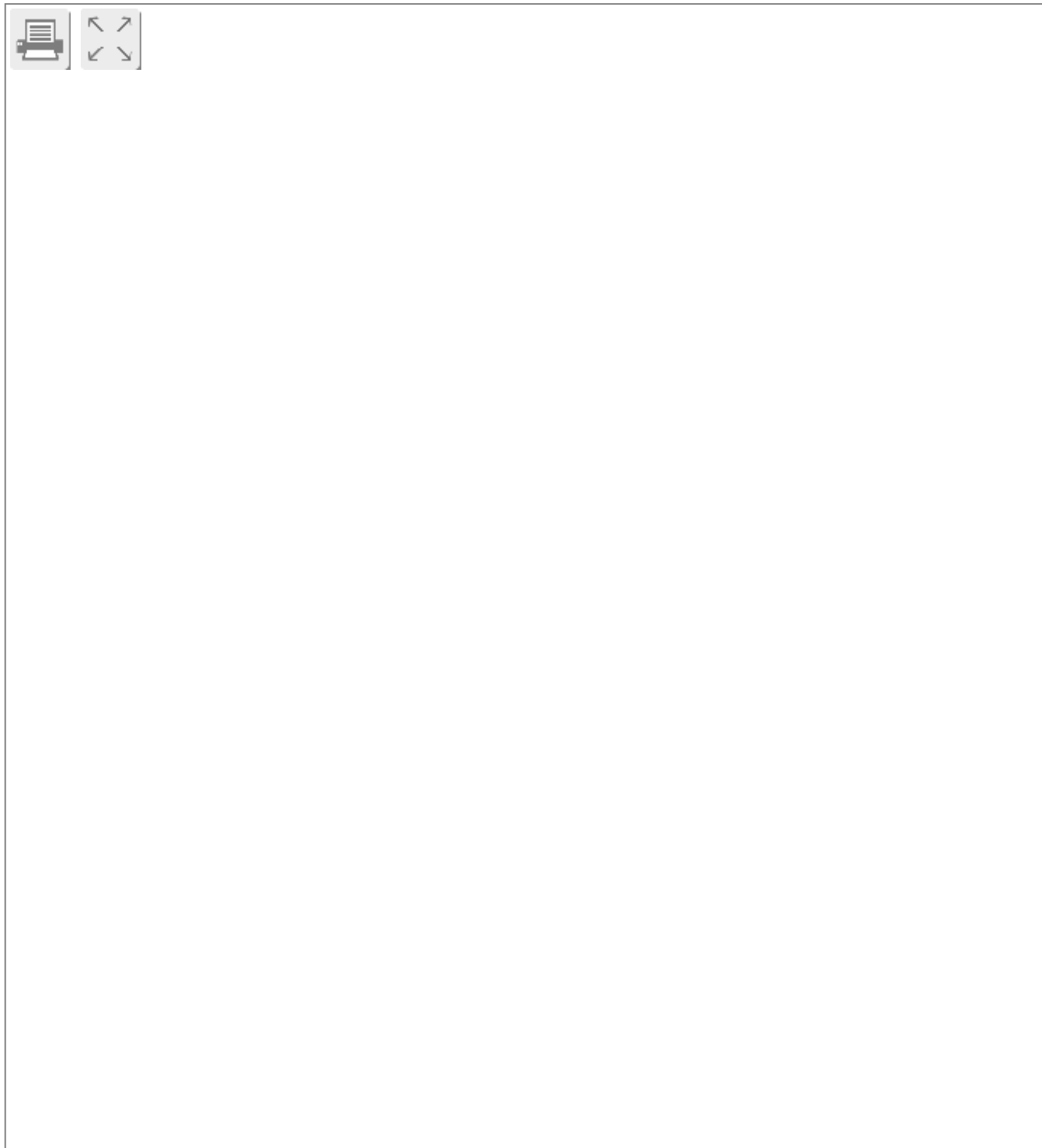
2b



WIRING DIAGRAM

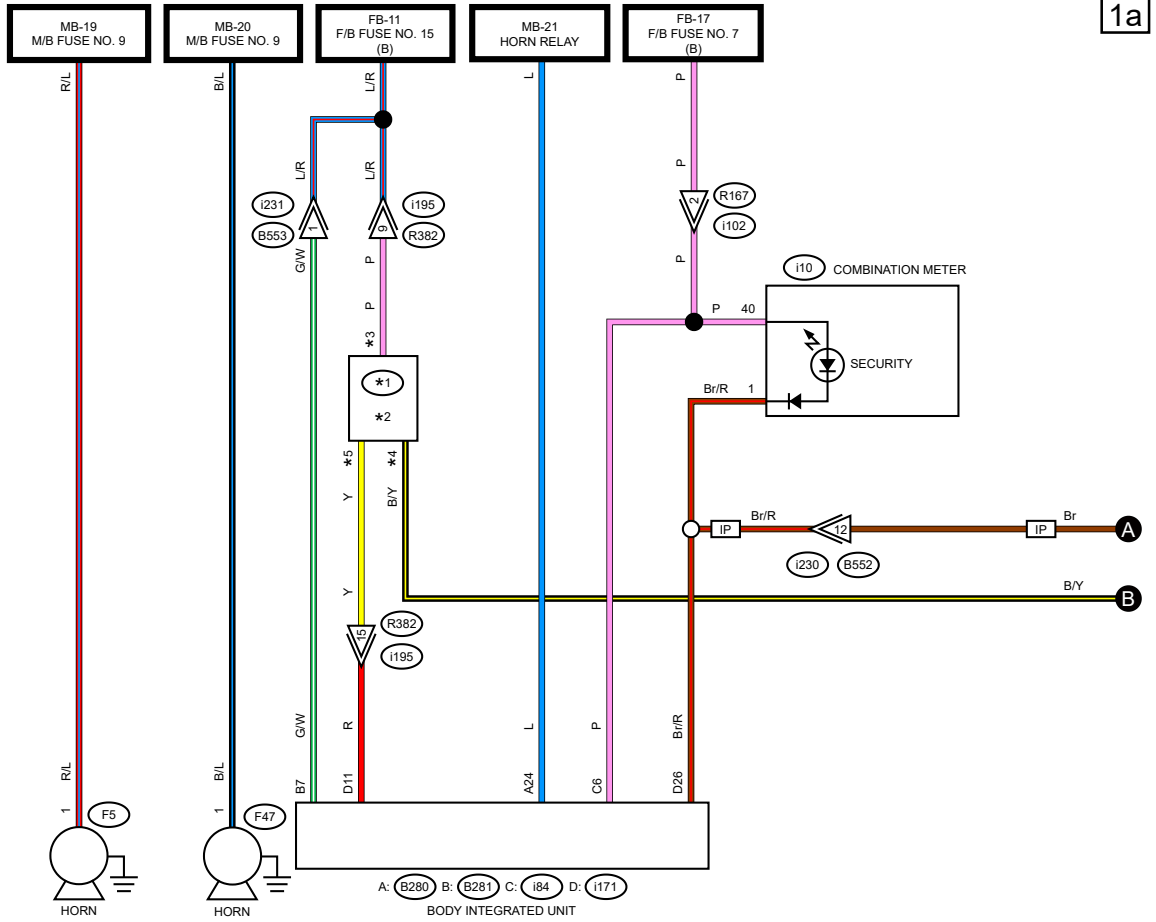
▼ Please select ▼ see

1. WITHOUT PUSH BUTTON START



1a

1a

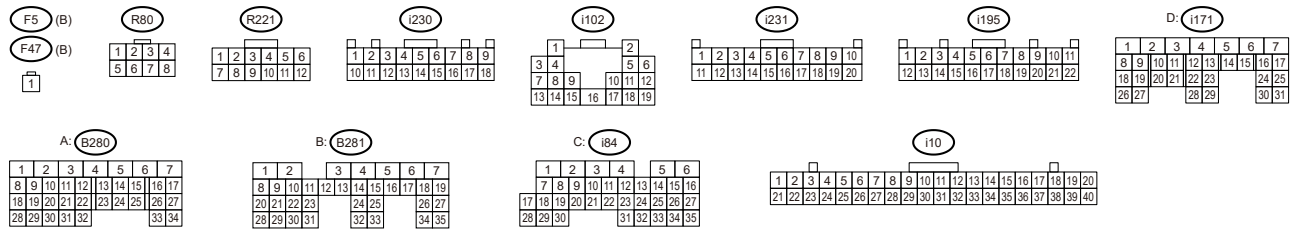


A: (B280) B: (B281) C: (184) D: (1171)
BODY INTEGRATED UNIT

IP : WITH IMPACT SENSOR

- *1 : WITHOUT TPMS : R80
WITH TPMS : R221
- *2 : WITHOUT TPMS : KEYLESS ENTRY CM
WITH TPMS : TPMS & KEYLESS ENTRY CM
- *3 : WITHOUT TPMS : 4
WITH TPMS : 6

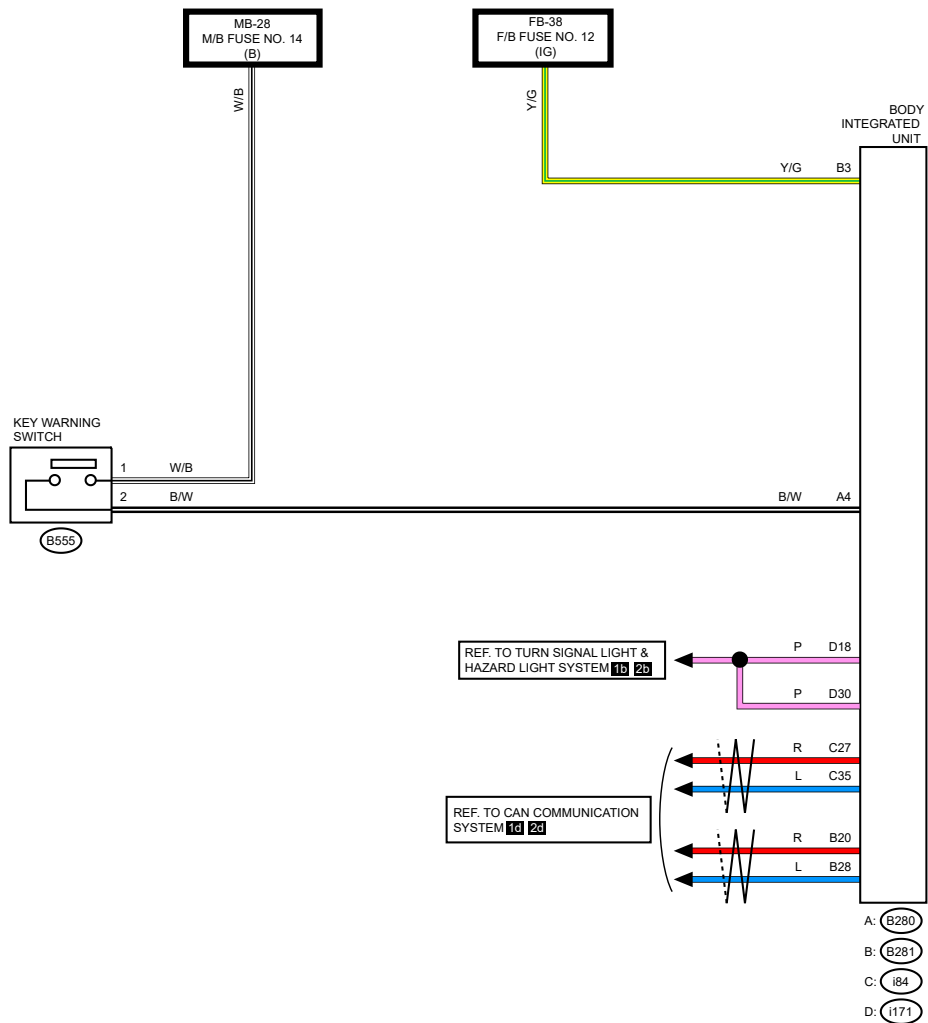
- *4 : WITHOUT TPMS : 7
WITH TPMS : 5
- *5 : WITHOUT TPMS : 3
WITH TPMS : 11



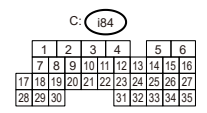
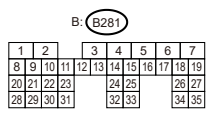
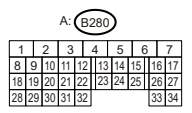
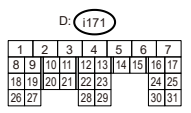
WI-65750



1b

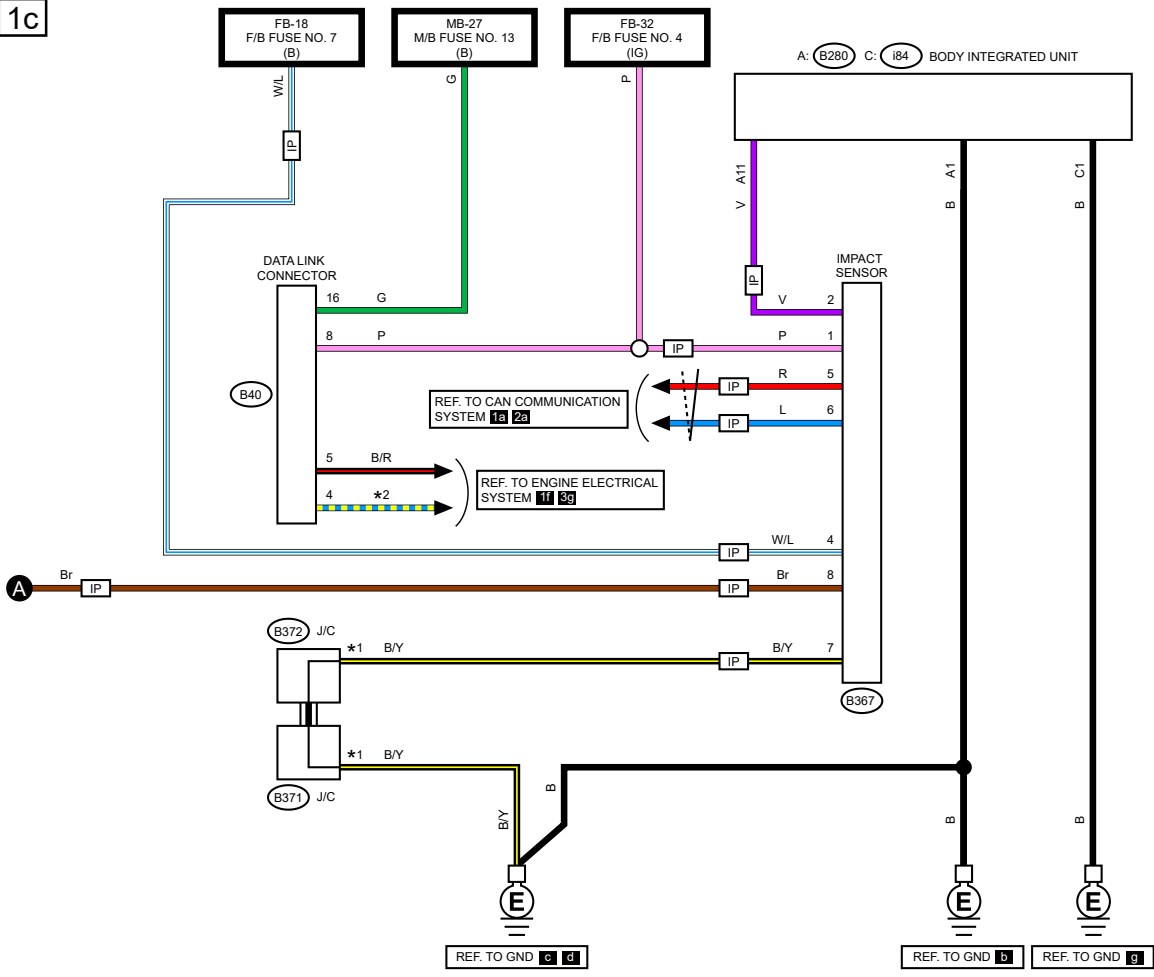


1b



1c

1c



IP : WITH IMPACT SENSOR

*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6

*2 : NON-TURBO MODEL : B/G
TURBO MODEL : B

B367

1	2	3	4
5	6	7	8

B371

B372

1	2	3	4	5	6
7	8	9	10	11	12

B40 (B)

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

A: B280

1	2	3	4	5	6	7			
8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34			

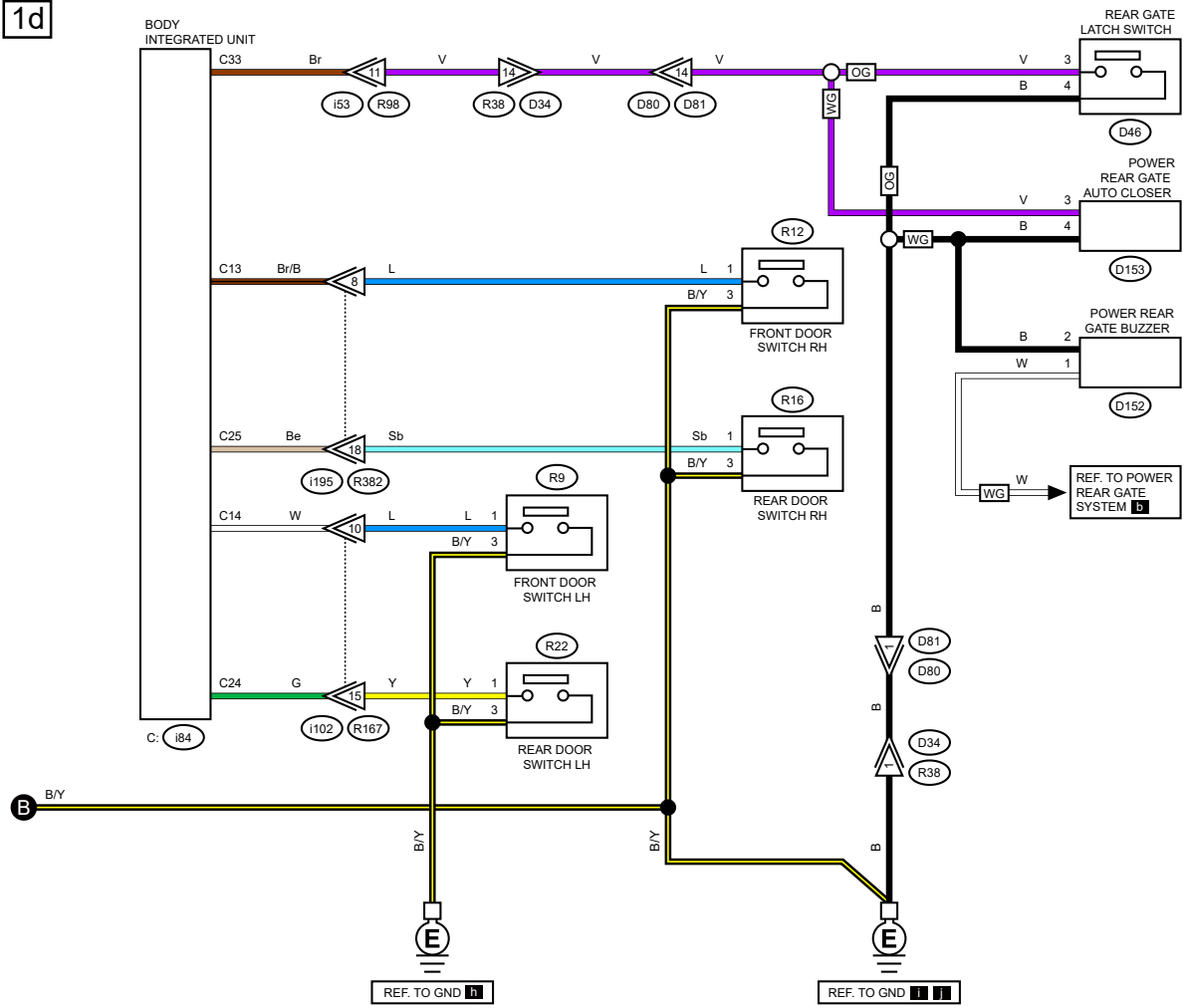
C: i84

1	2	3	4	5	6					
7	8	9	10	11	12	13	14	15	16	
17	18	19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35			

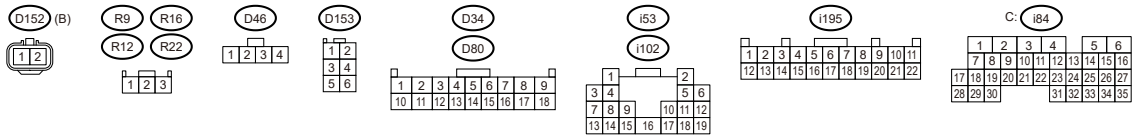


1d

1d



OG : WITHOUT POWER REAR GATE
 WG : WITH POWER REAR GATE



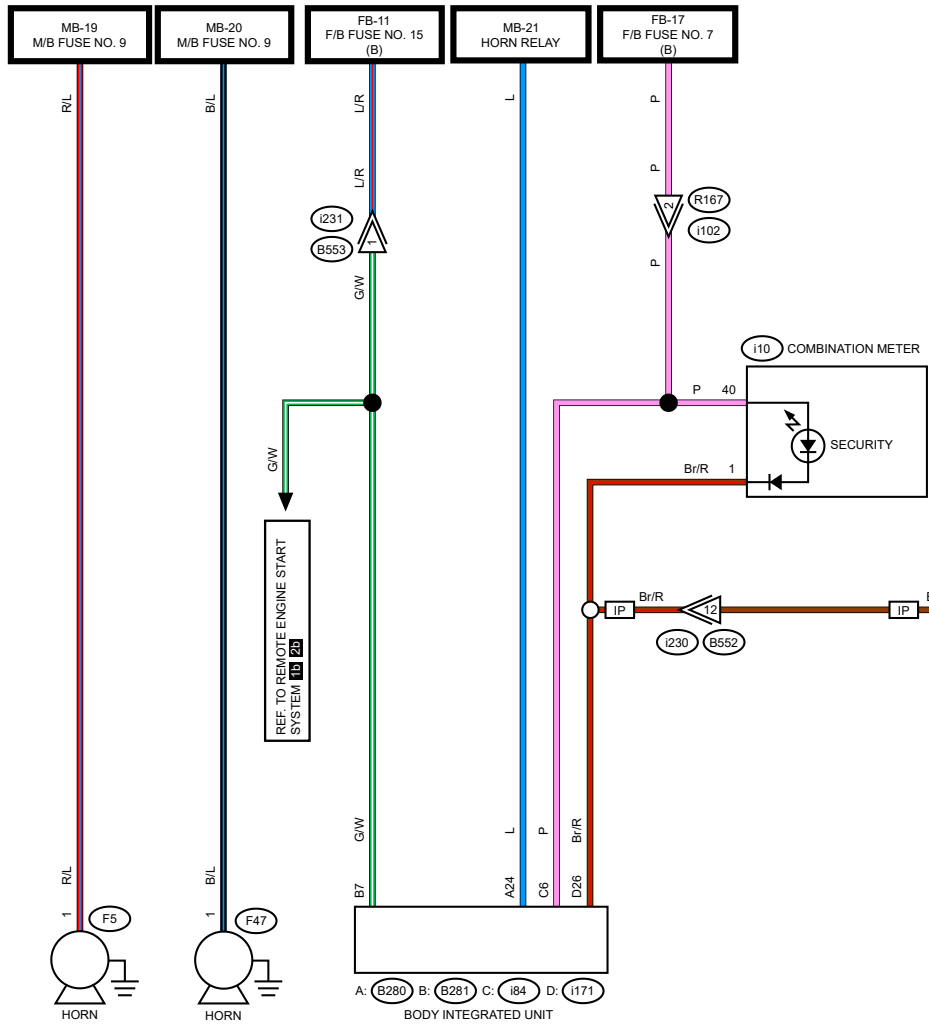
WI-65753

2. WITH PUSH BUTTON START

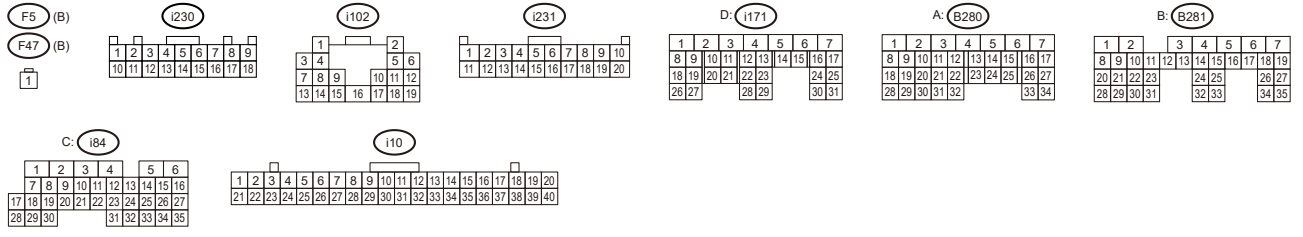


2a

2a



IP : WITH IMPACT SENSOR

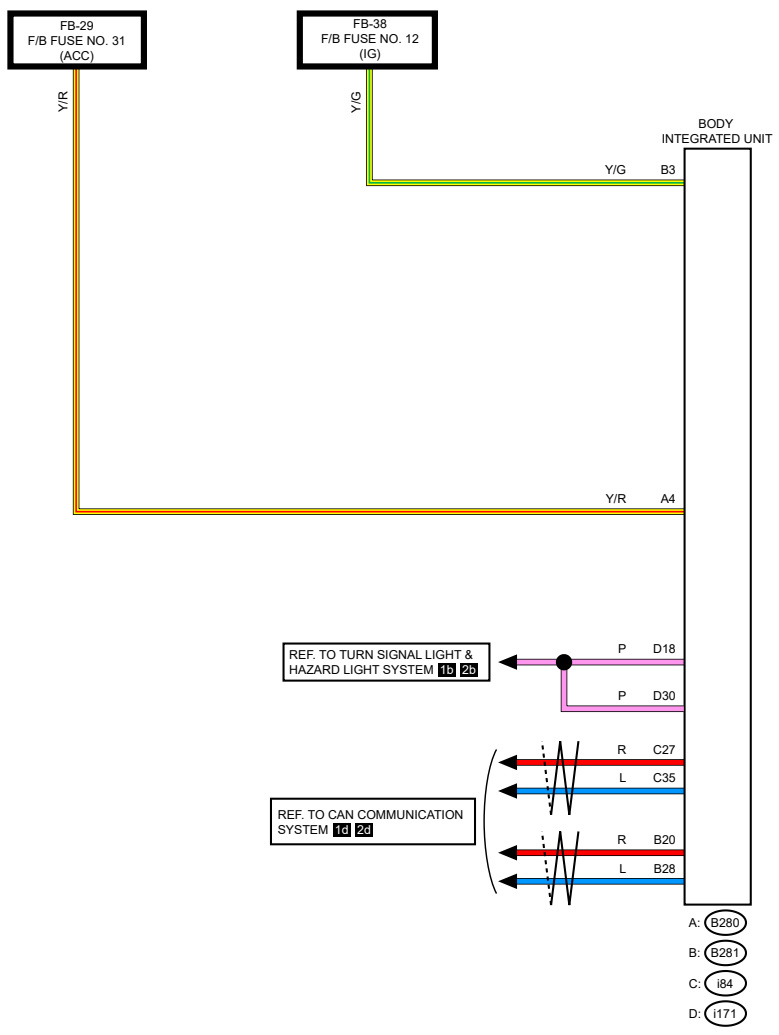


WI-65754



2b

2b



D: i171

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35

A: B280

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35

B: B281

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35

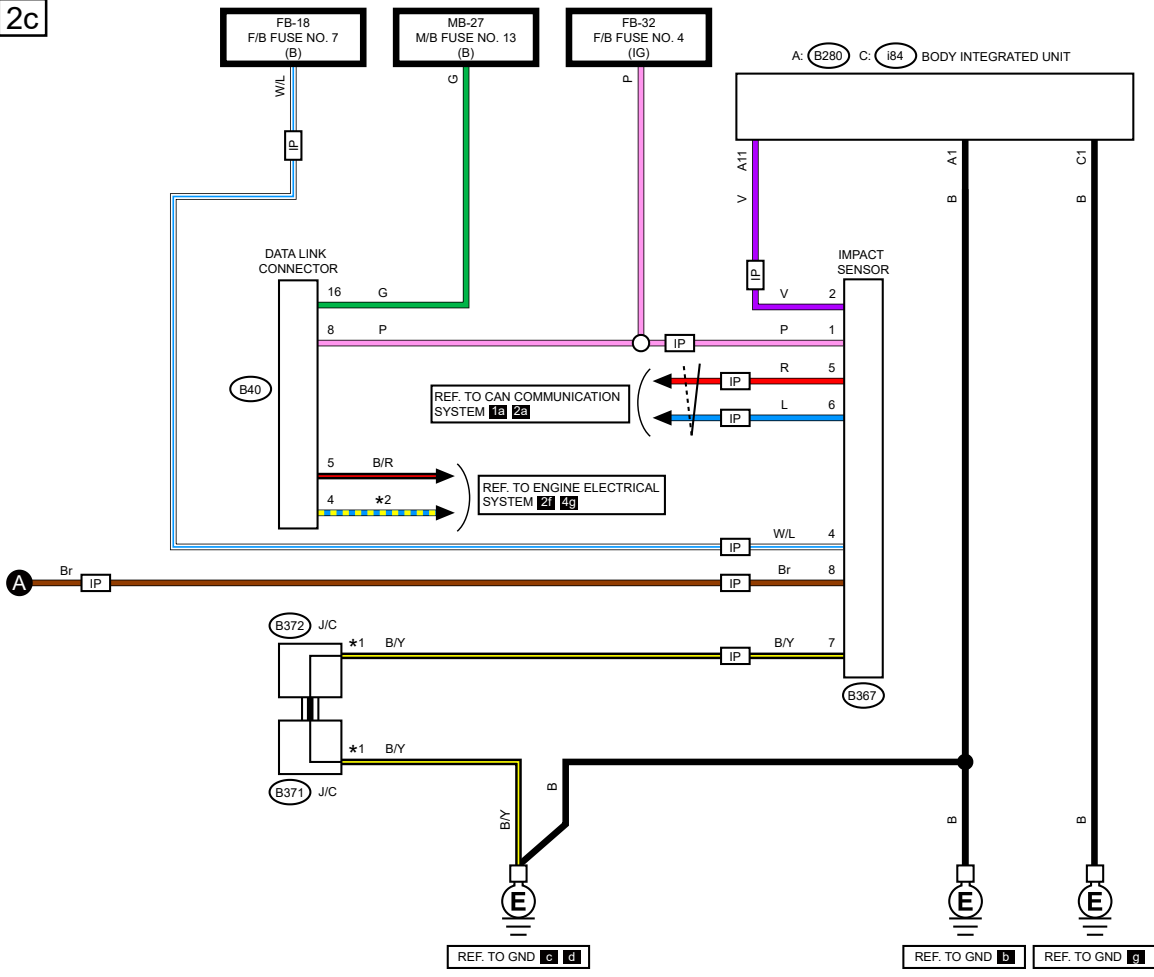
C: i84

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

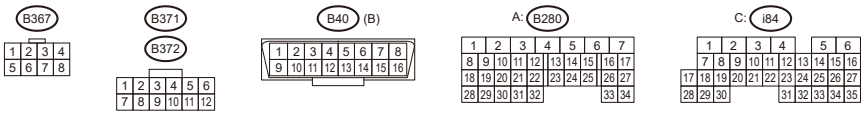


2c

2c

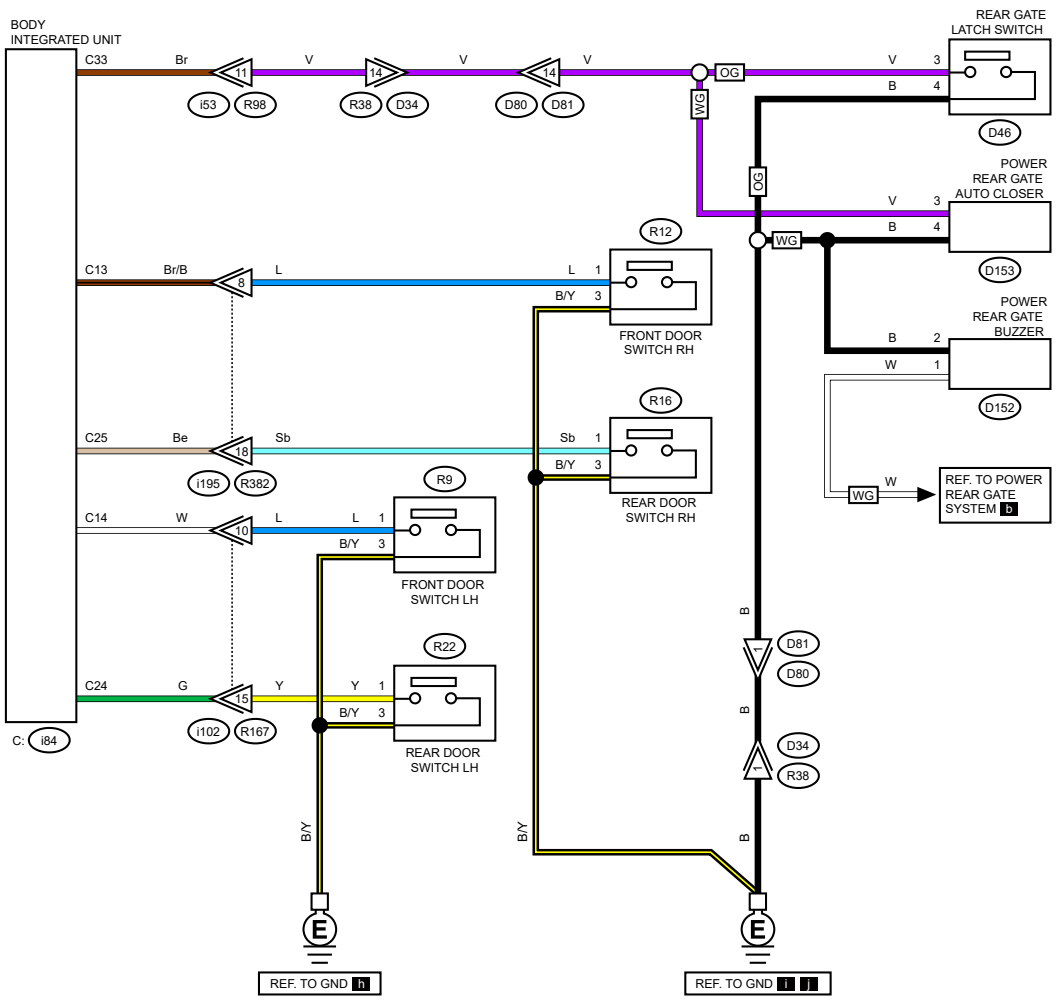


IP : WITH IMPACT SENSOR
 *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6
 *2 : NON-TURBO MODEL : B/G
 TURBO MODEL : B

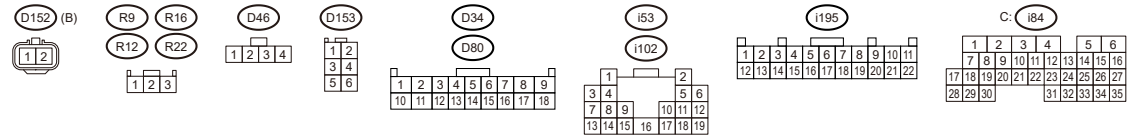


2d

2d



OG : WITHOUT POWER REAR GATE
 WG : WITH POWER REAR GATE

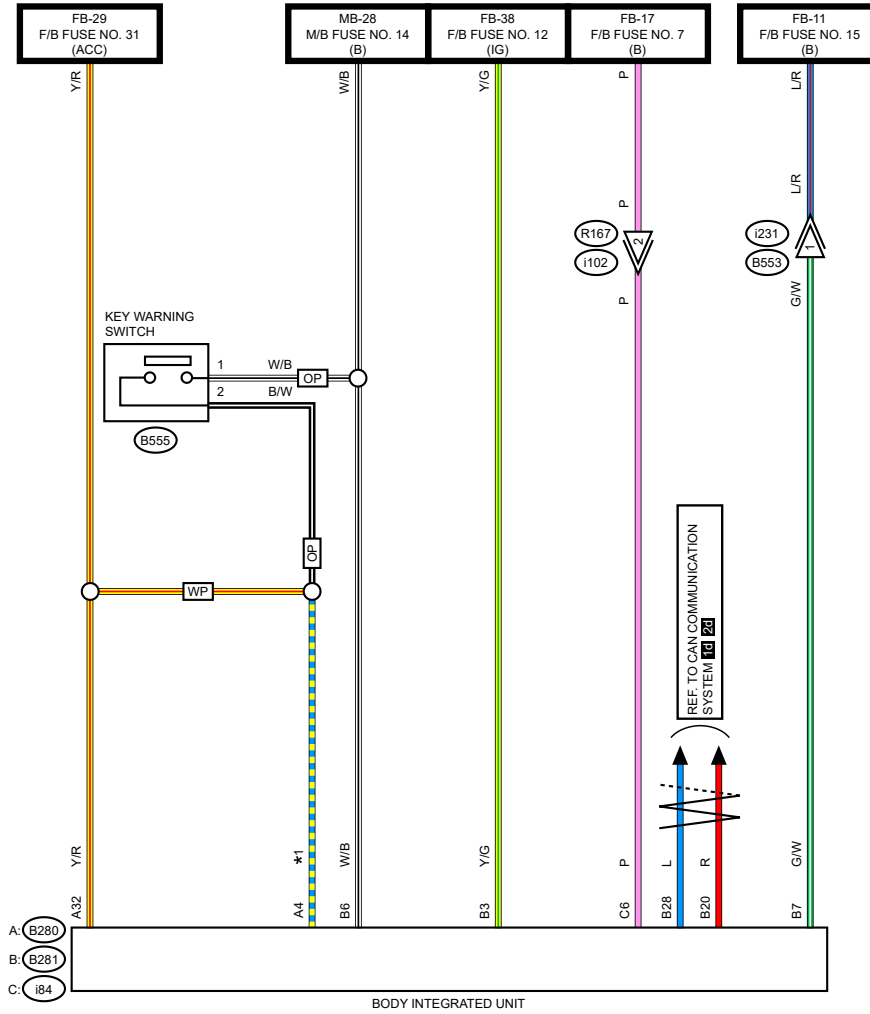


WIRING SYSTEM > Shift Lock Control System

WIRING DIAGRAM



a



a

OP : WITHOUT PUSH BUTTON START
WP : WITH PUSH BUTTON START

***1** : WITHOUT PUSH BUTTON START : B/W
 WITH PUSH BUTTON START : Y/R

B555

1	2
---	---

i102

1	2					
3	4	5	6			
7	8	9	10	11	12	
13	14	15	16	17	18	19

i231

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

A: B280

1	2	3	4	5	6	7			
8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34			

B: B281

1	2	3	4	5	6	7					
8	9	10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27				
28	29	30	31	32	33	34	35				

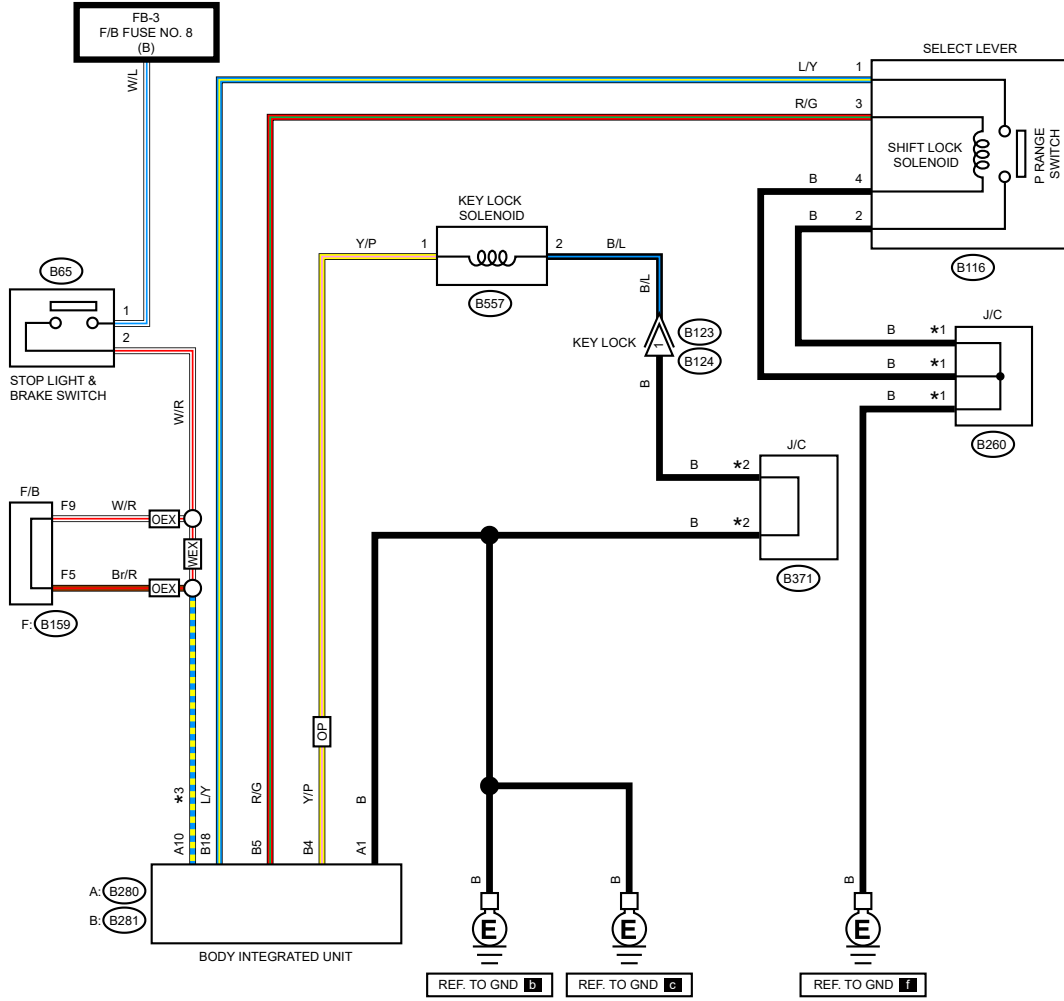
C: i84

1	2	3	4	5	6					
7	8	9	10	11	12	13	14	15	16	
17	18	19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35			



b

b



OP : WITHOUT PUSH BUTTON START
OEX : WITHOUT EyeSight AND X MODE
WEX : EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE

*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12
 *3 : WITHOUT EyeSight AND X MODE : Br/R
 EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE : W/R

B123 (B)	B557	B65 (B)	B116	F: B159 (Br)	B260	B371	A: B280	B: B281																																																																																																																														
<table border="1"><tr><td>1</td><td>2</td></tr></table>	1	2	<table border="1"><tr><td>1</td><td>2</td></tr></table>	1	2	<table border="1"><tr><td>1</td><td>2</td></tr><tr><td>3</td><td>4</td></tr></table>	1	2	3	4	<table border="1"><tr><td>1</td><td>2</td><td>3</td></tr><tr><td>4</td><td>5</td><td>6</td></tr><tr><td>7</td><td>8</td><td></td></tr></table>	1	2	3	4	5	6	7	8		<table border="1"><tr><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>5</td><td>6</td><td>7</td><td>8</td></tr><tr><td>9</td><td></td><td></td><td></td></tr></table>	1	2	3	4	5	6	7	8	9				<table border="1"><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>11</td><td>12</td><td></td><td></td><td></td></tr></table>	1	2	3	4	5	6	7	8	9	10	11	12				<table border="1"><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr></table>	1	2	3	4	5	6	7	8	9	10	11	12	<table border="1"><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr><tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr><tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr><tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr><tr><td>29</td><td>30</td><td>31</td><td>32</td><td>33</td><td>34</td><td></td></tr></table>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34		<table border="1"><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr><tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr><tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr><tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr><tr><td>29</td><td>30</td><td>31</td><td>32</td><td>33</td><td>34</td><td>35</td></tr></table>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
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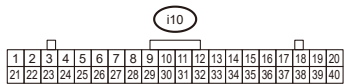
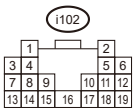
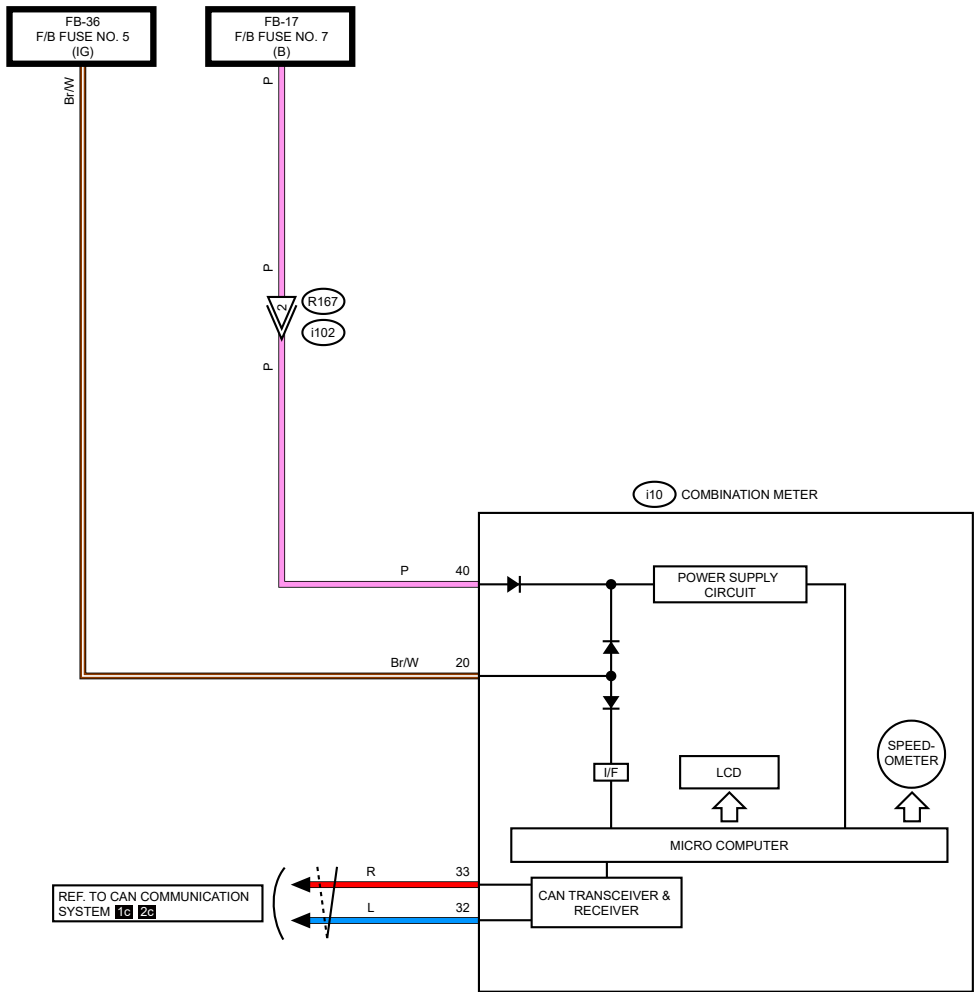
WIRING SYSTEM > Speedometer System

WIRING DIAGRAM



a

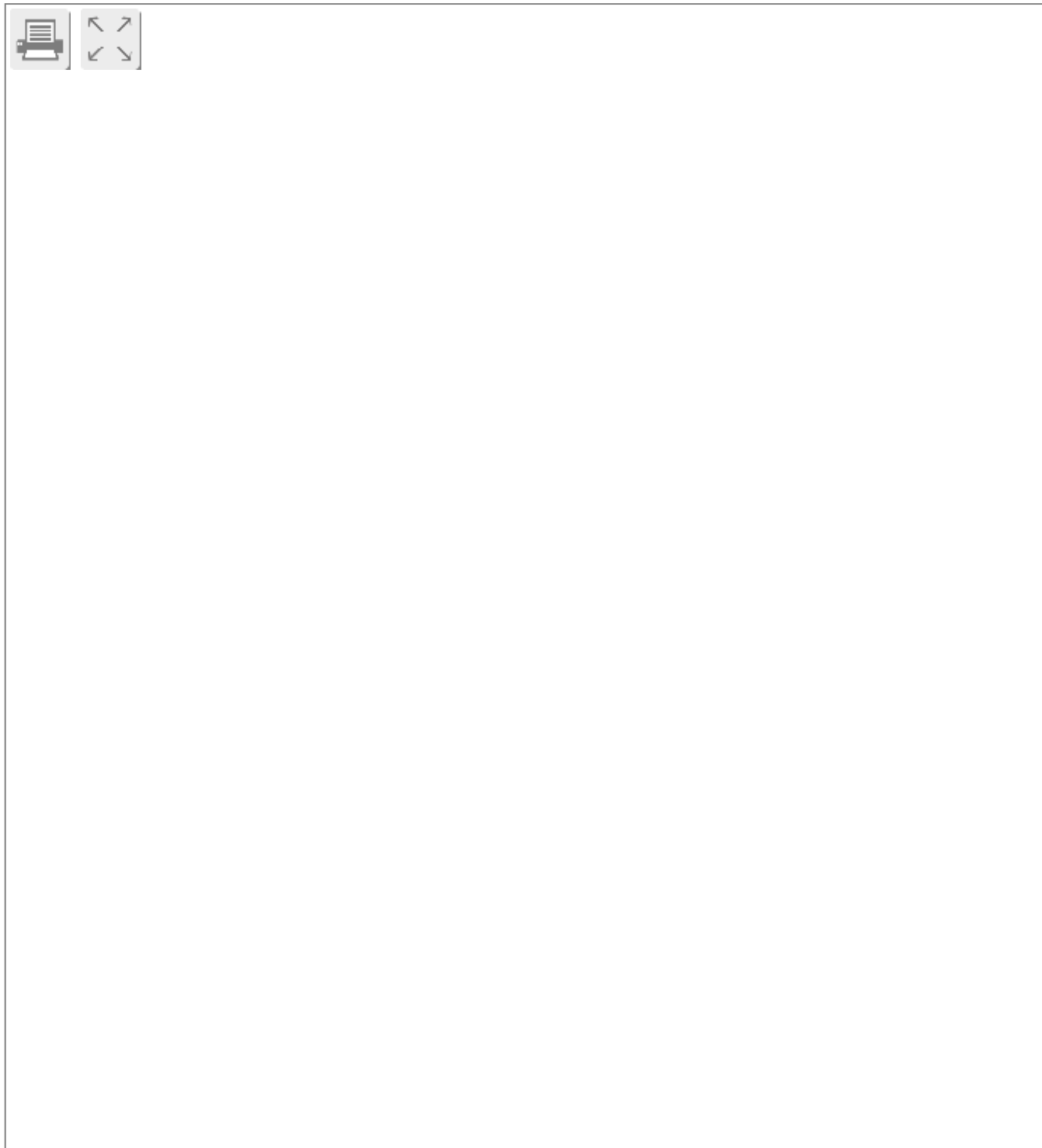
a



WIRING DIAGRAM

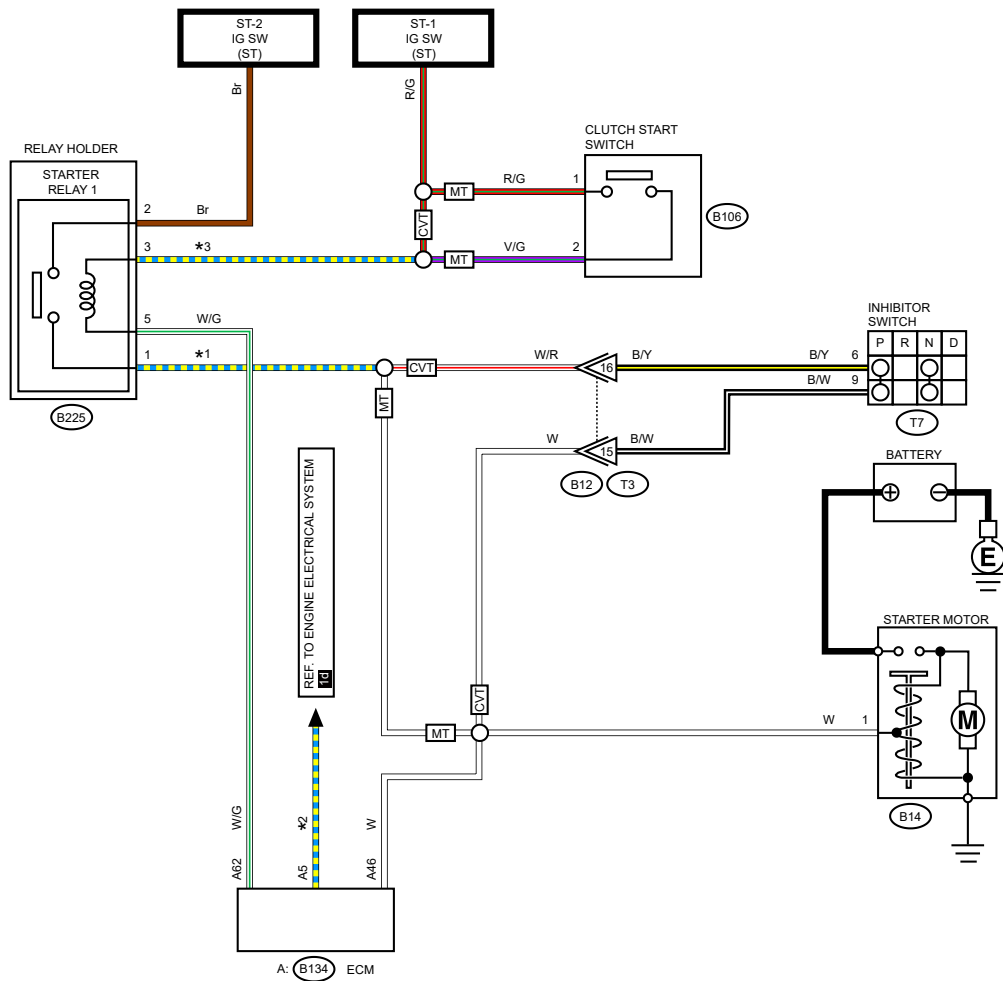
▼ Please select ▼ see

1. NON-TURBO MODEL (WITHOUT PUSH BUTTON START)



1a

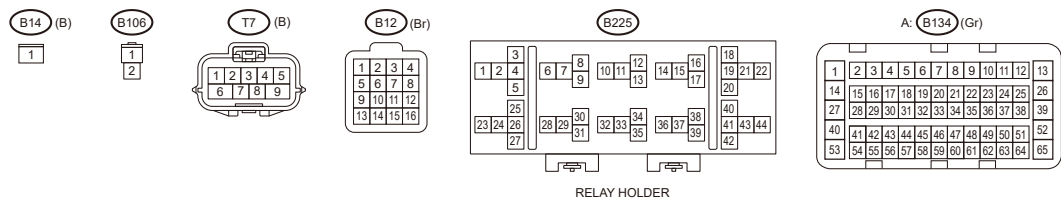
1a



*1 : MT MODEL : W
CVT MODEL : W/R

*2 : MT MODEL : R/G
CVT MODEL : W/R

*3 : MT MODEL : V/G
CVT MODEL : R/G



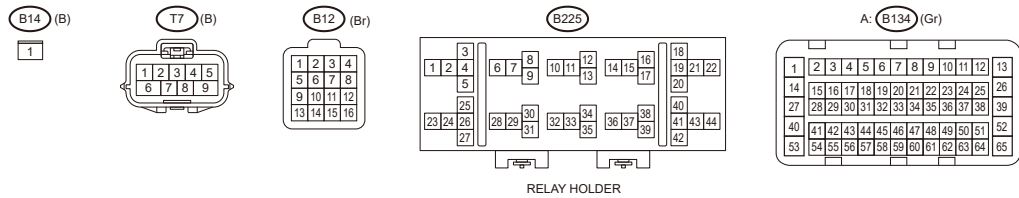
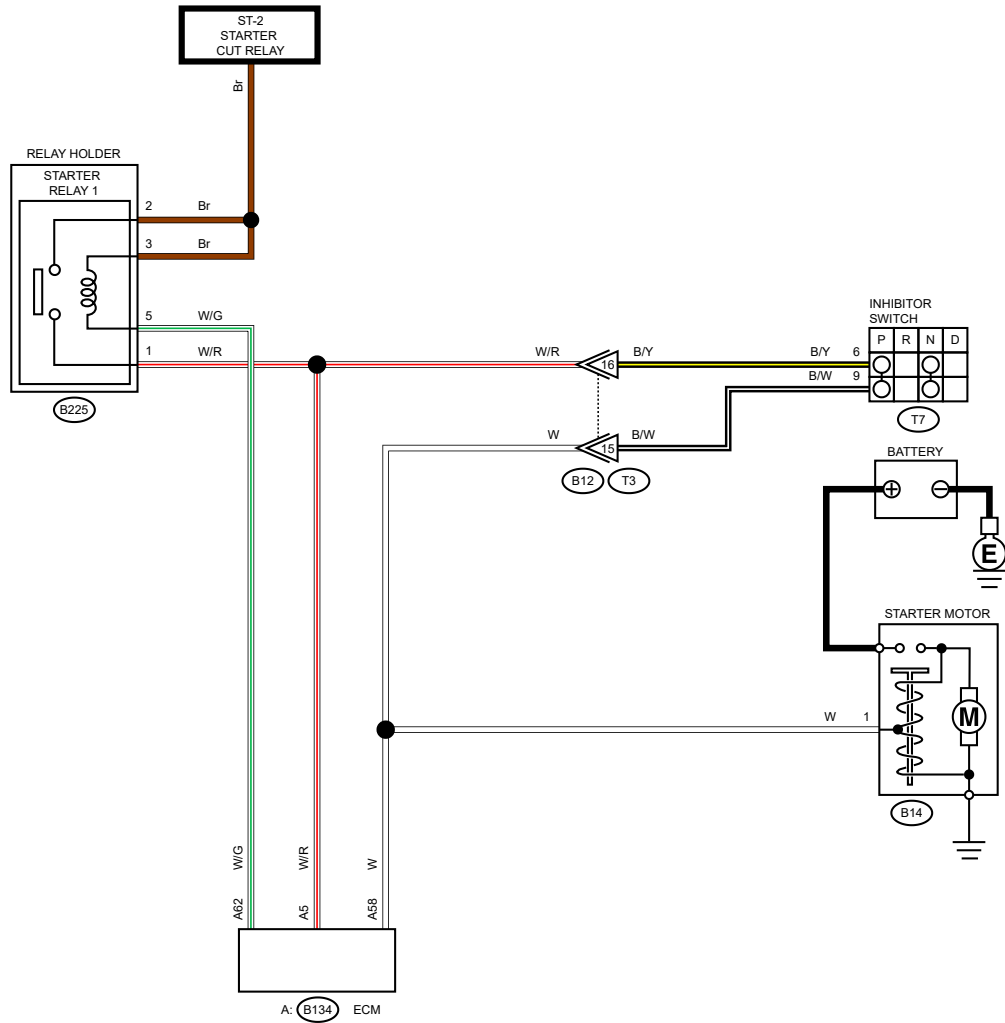
WI-65761

2. NON-TURBO MODEL (WITH PUSH BUTTON START)



2a

2a



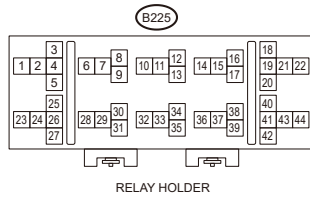
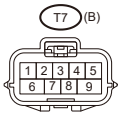
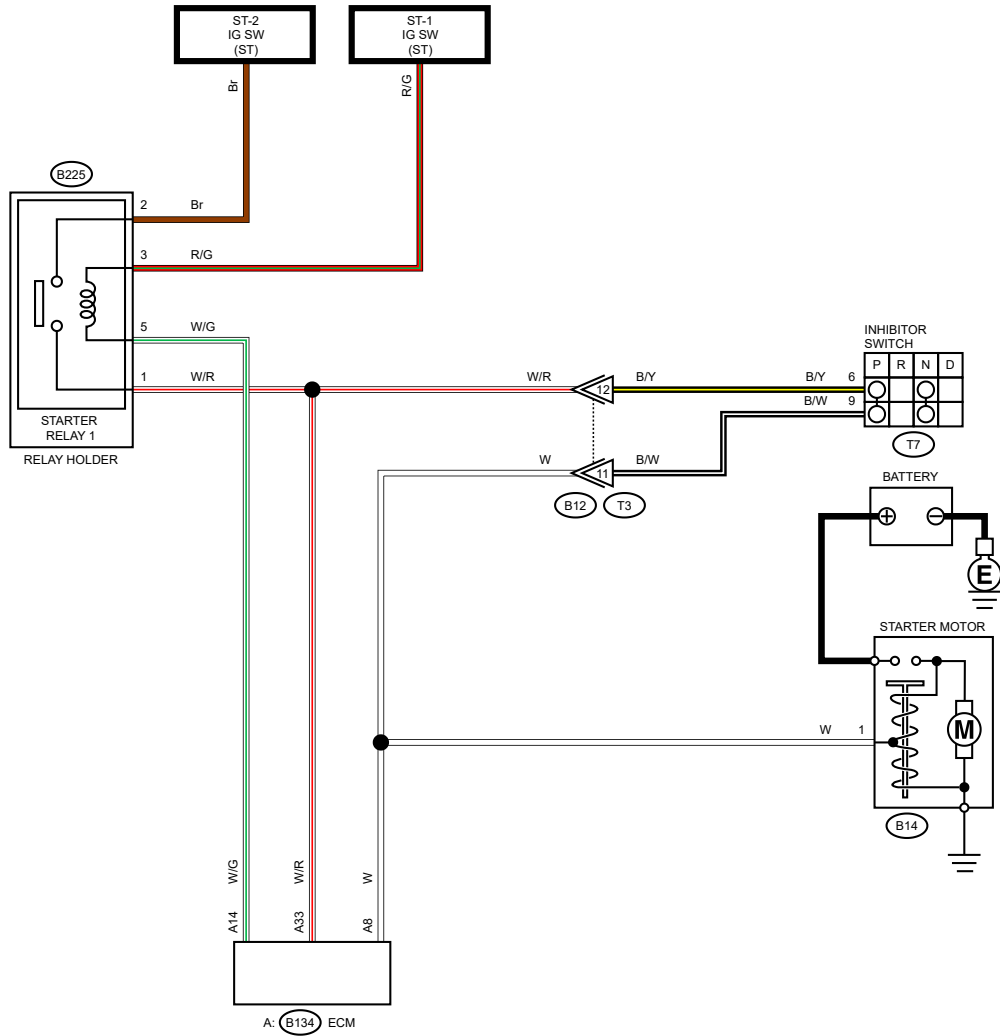
WI-65762

3. TURBO MODEL (WITHOUT PUSH BUTTON START)



3a

3a



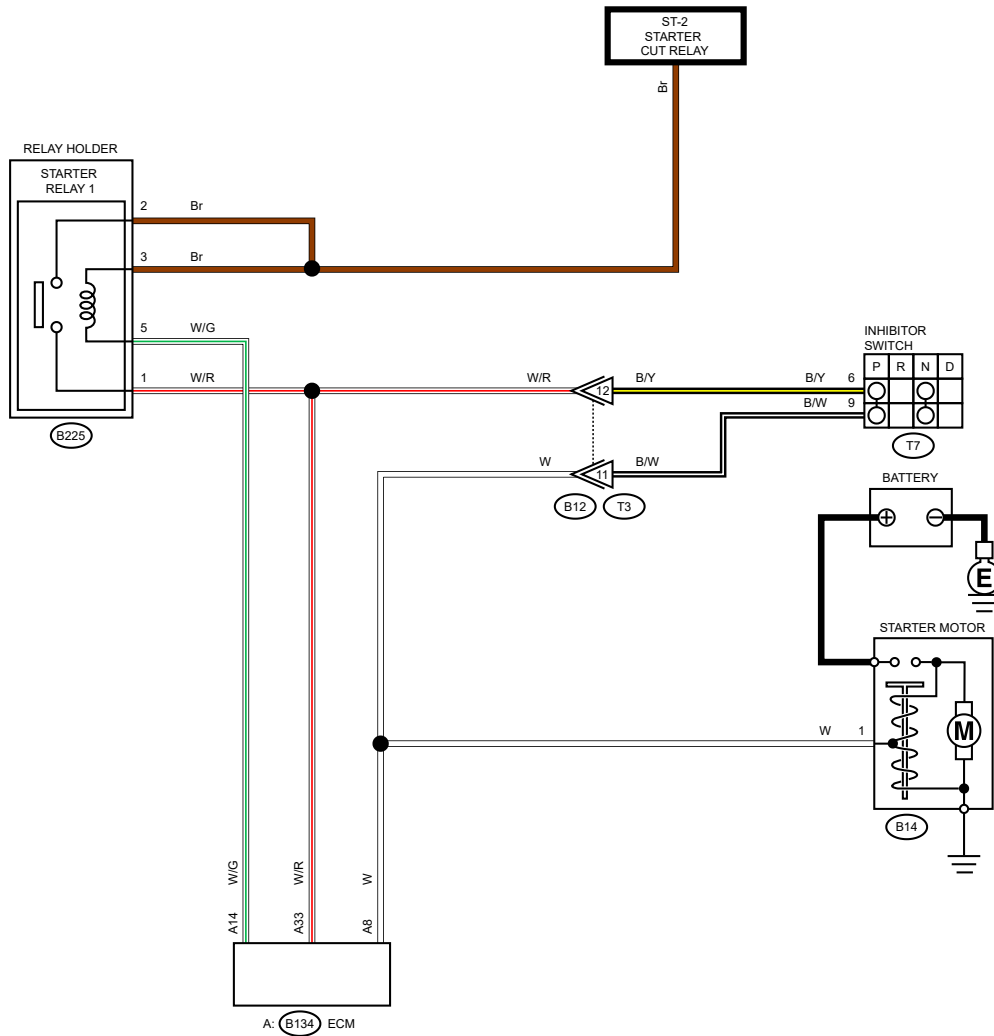
WI-65763

4. TURBO MODEL (WITH PUSH BUTTON START)



4a

4a



B14 (B)

1

T7 (B)



B12 (Gr)



B225



RELAY HOLDER

A: B134 (Br)

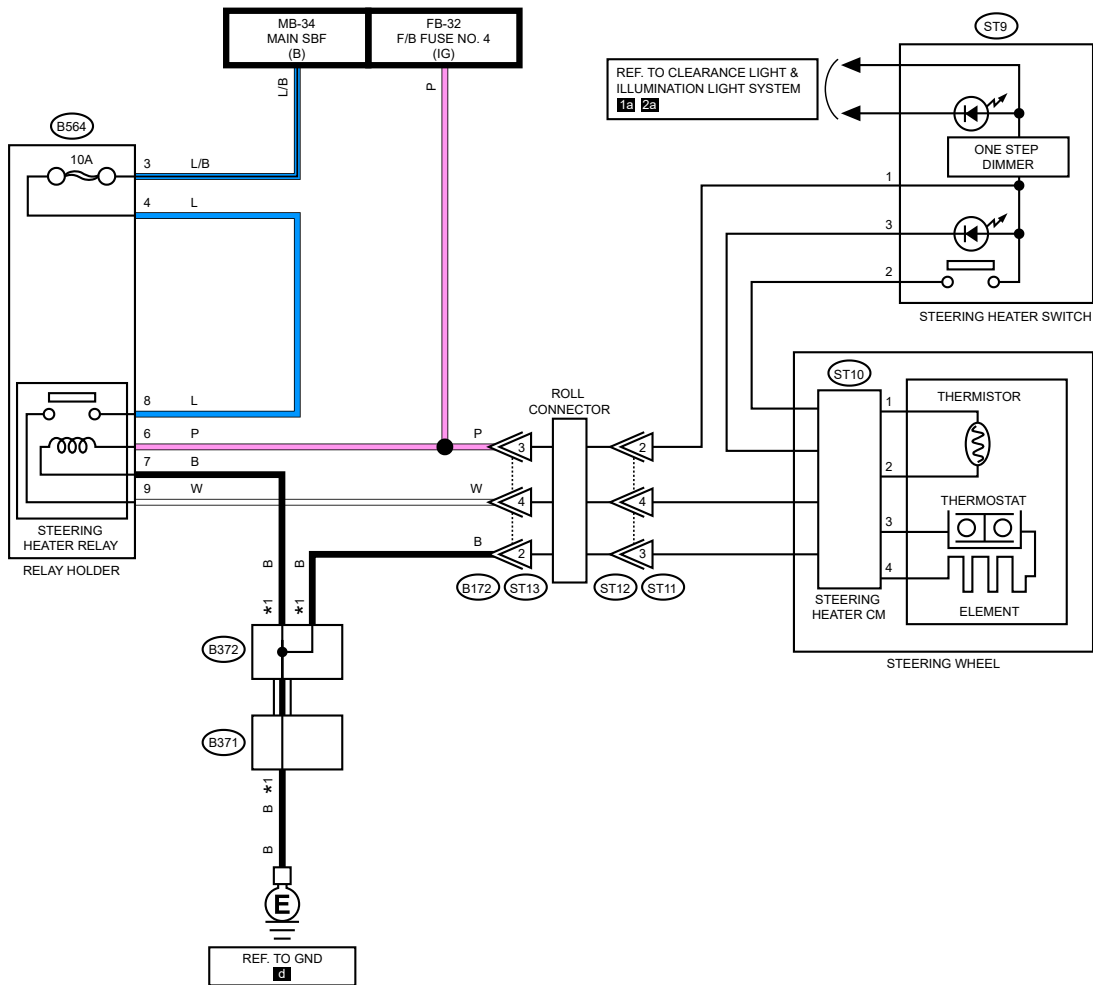


WIRING SYSTEM > Steering Heater System

WIRING DIAGRAM

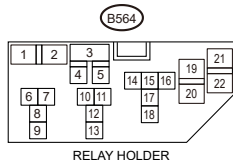
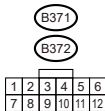


a



a

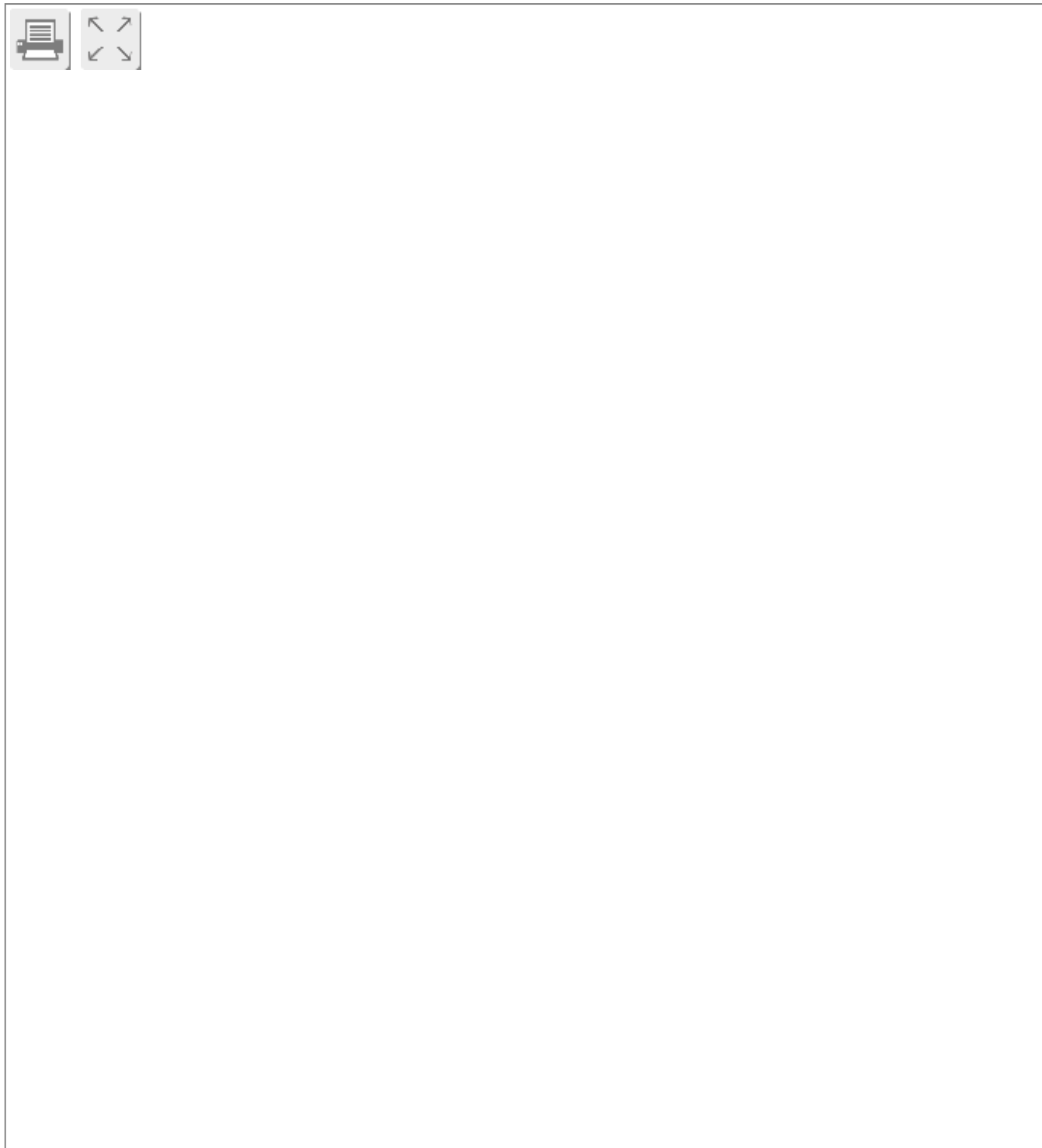
*1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12



WIRING DIAGRAM

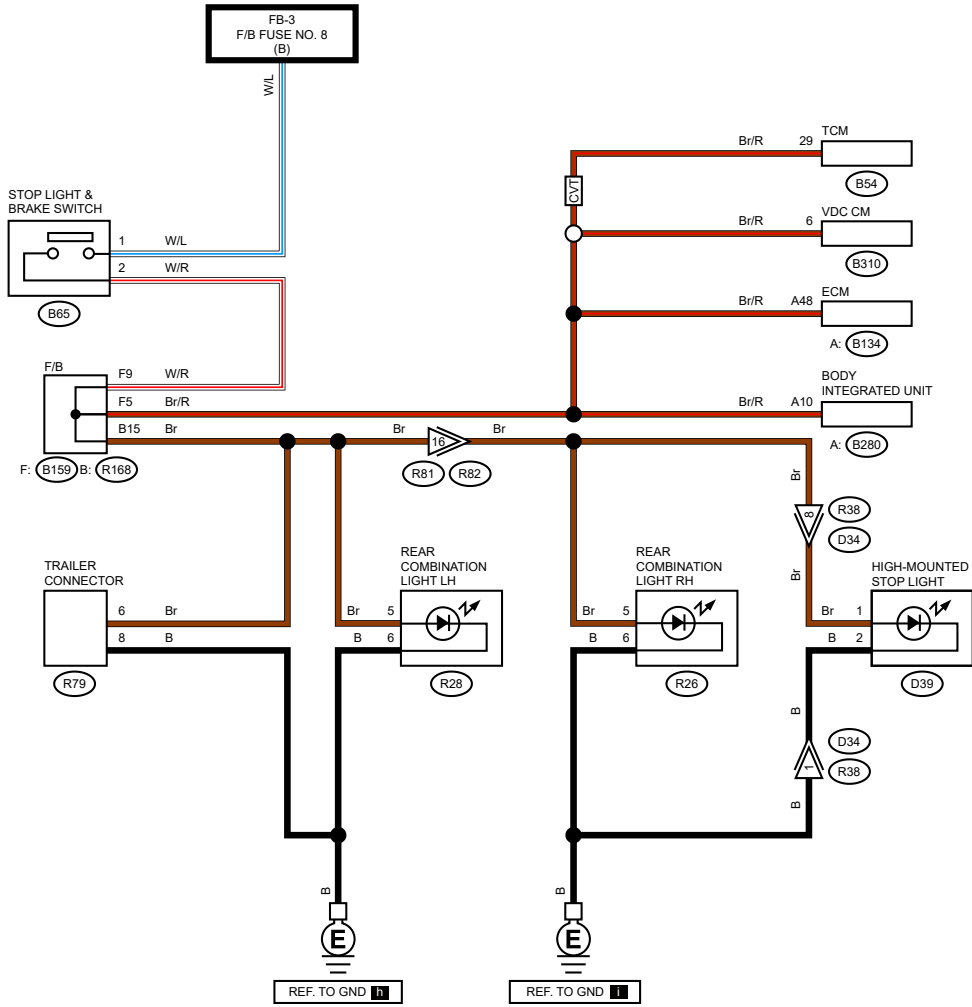
▼ Please select ▼ see

1. WITHOUT EyeSight AND X MODE

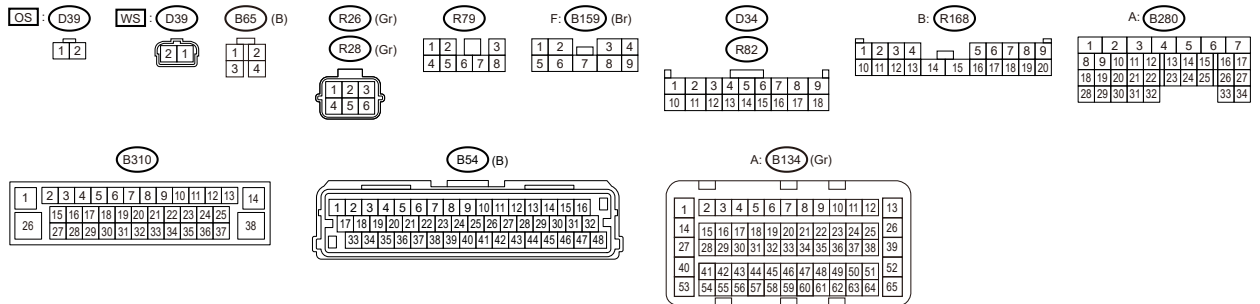


1a

1a



OS : WITHOUT REAR SPOILER
 WS : WITH REAR SPOILER



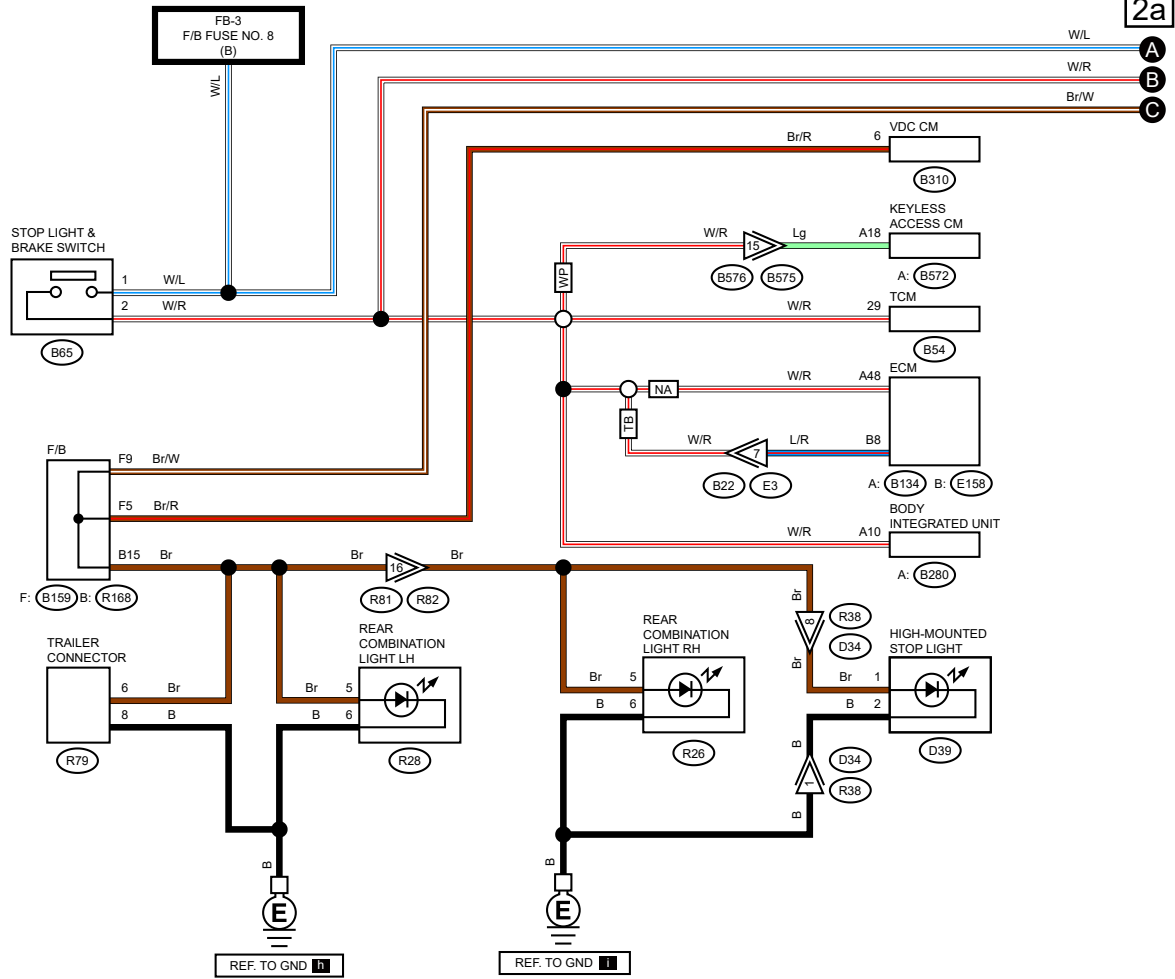
WI-65765

2. EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE



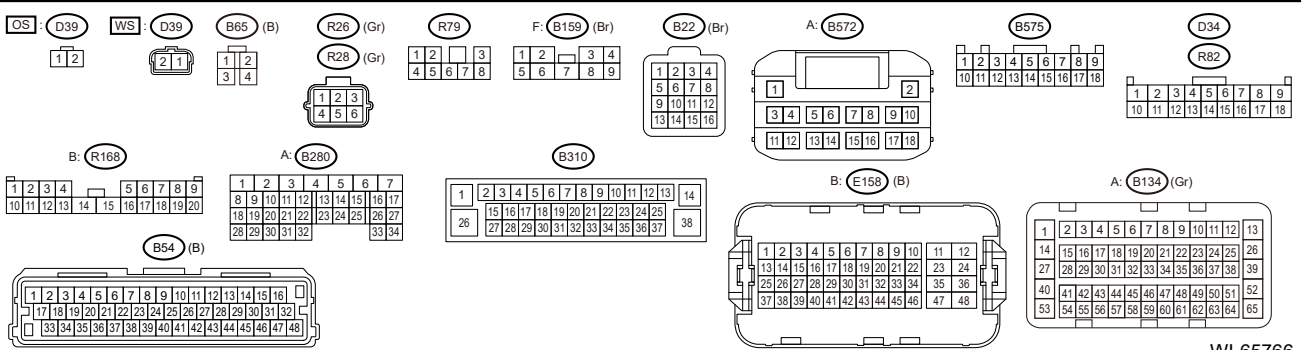
2a

2a



- NA : NON-TURBO MODEL
- TB : TURBO MODEL
- WP : WITH PUSH BUTTON START

- OS : WITHOUT REAR SPOILER
- WS : WITH REAR SPOILER



WI-65766



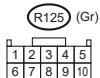
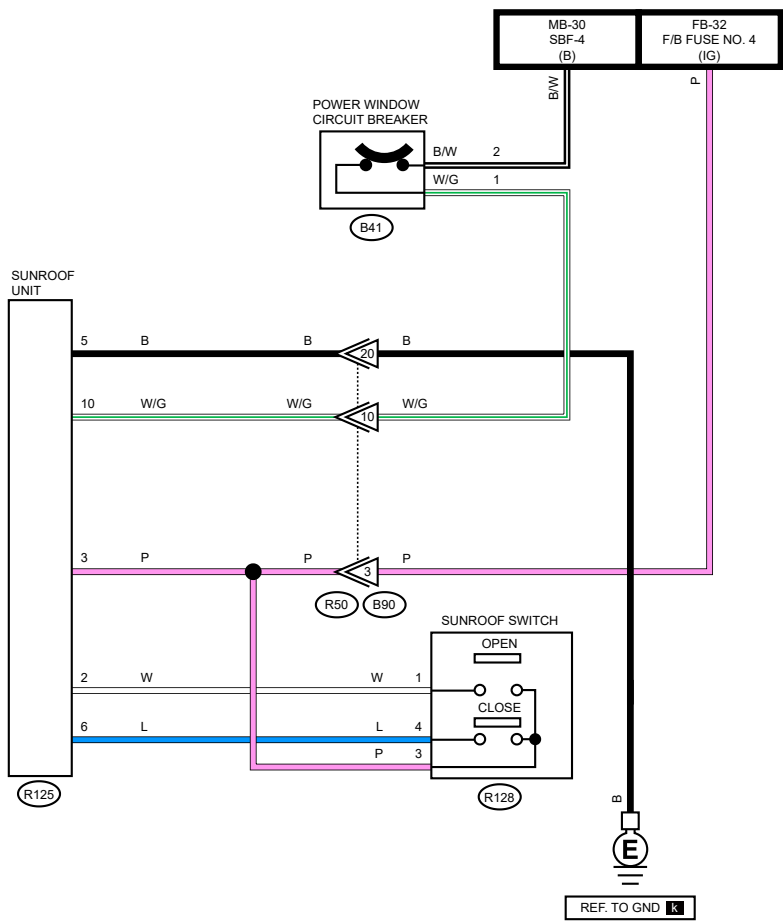
WIRING SYSTEM > Sunroof Control System

WIRING DIAGRAM



a

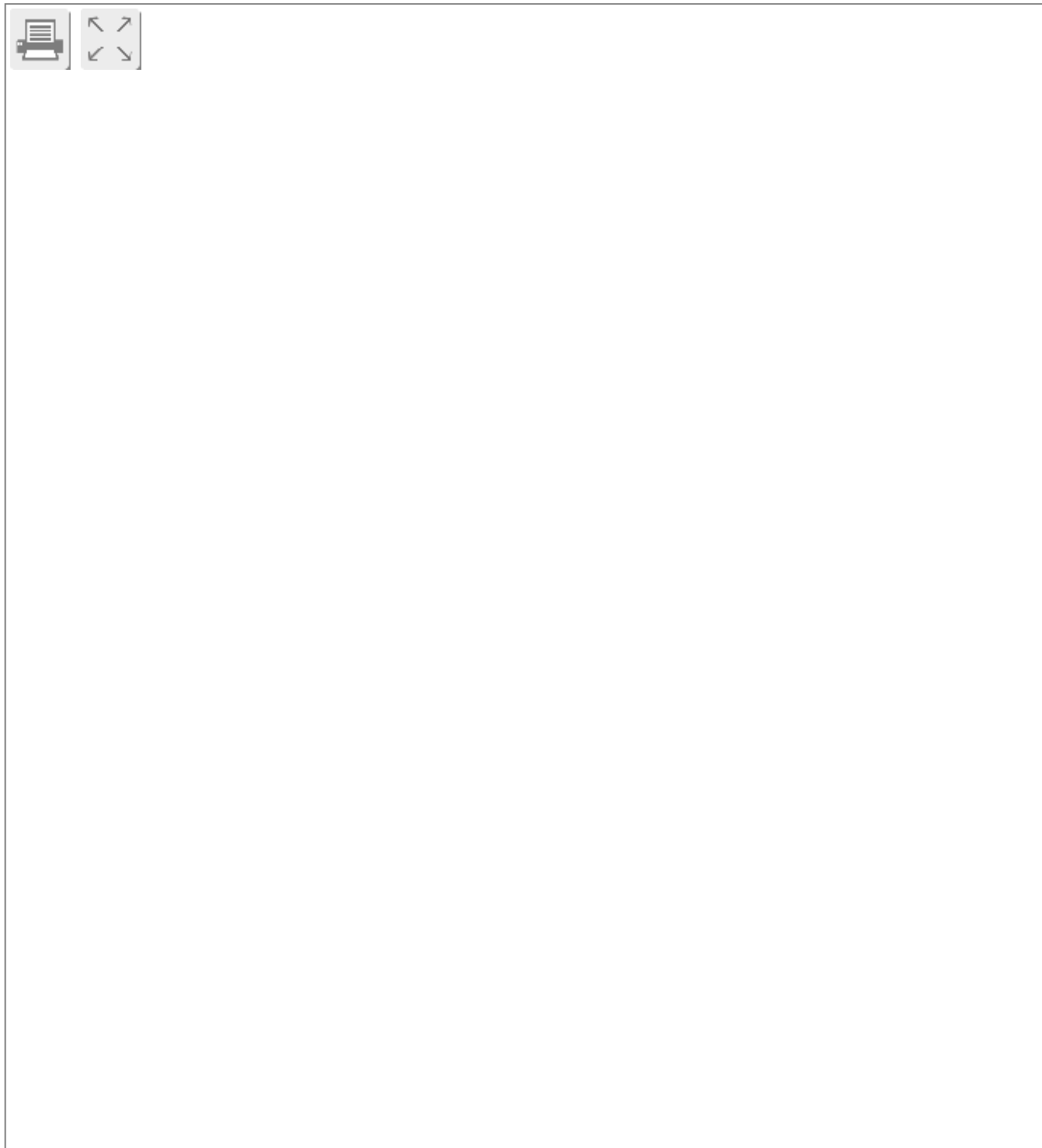
a



WIRING DIAGRAM

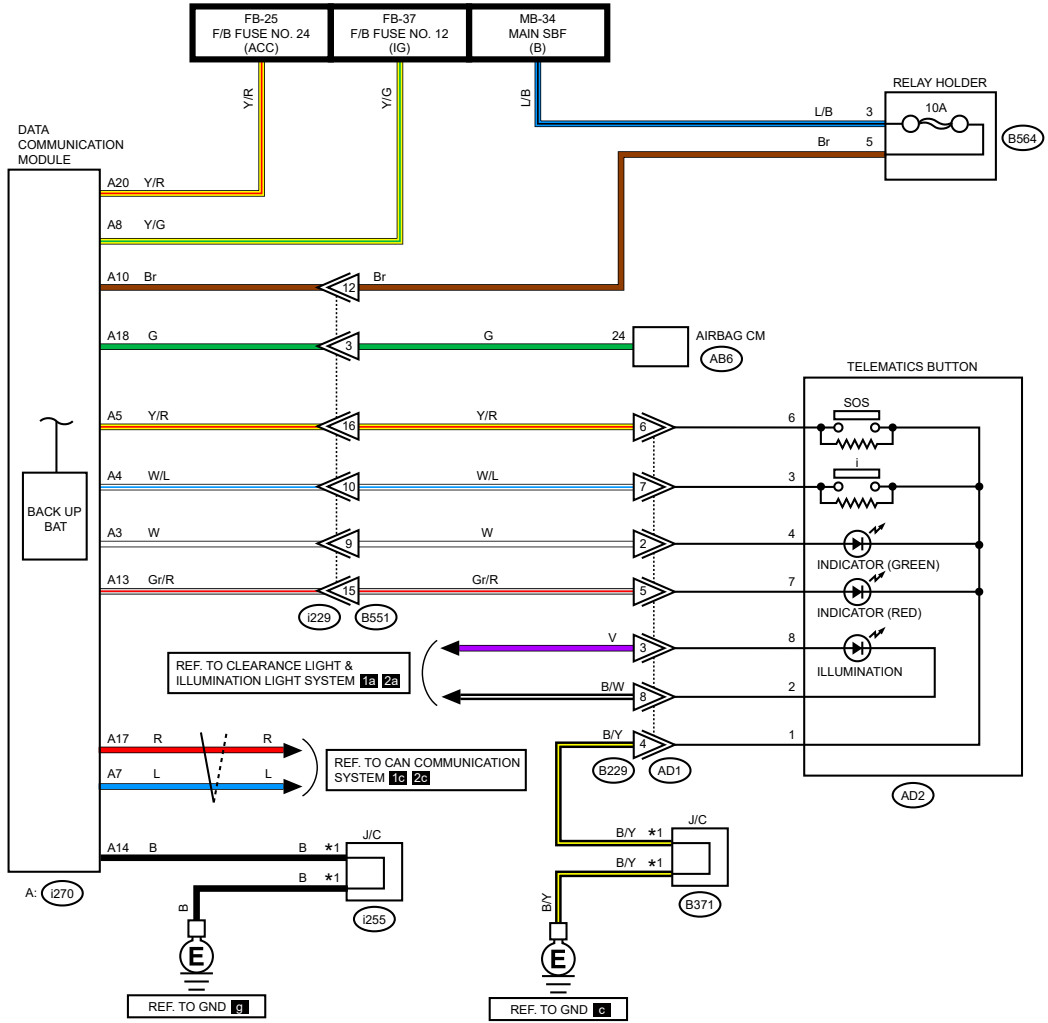
▼ Please select ▼ see

1. WITHOUT AUDIO AMPLIFIER

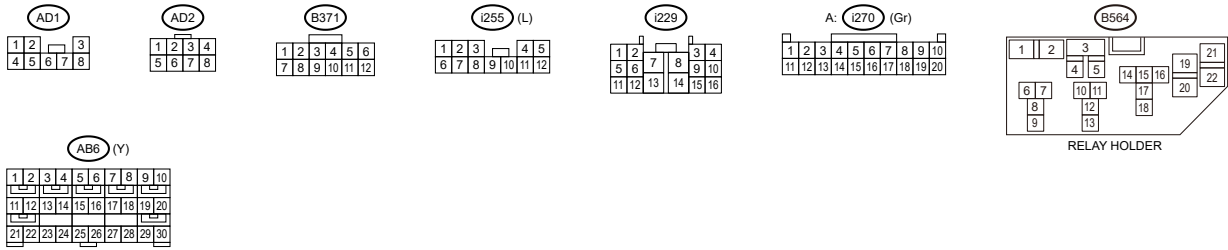


1a

1a



*1: TERMINAL No. OPTIONAL ARRANGEMENT

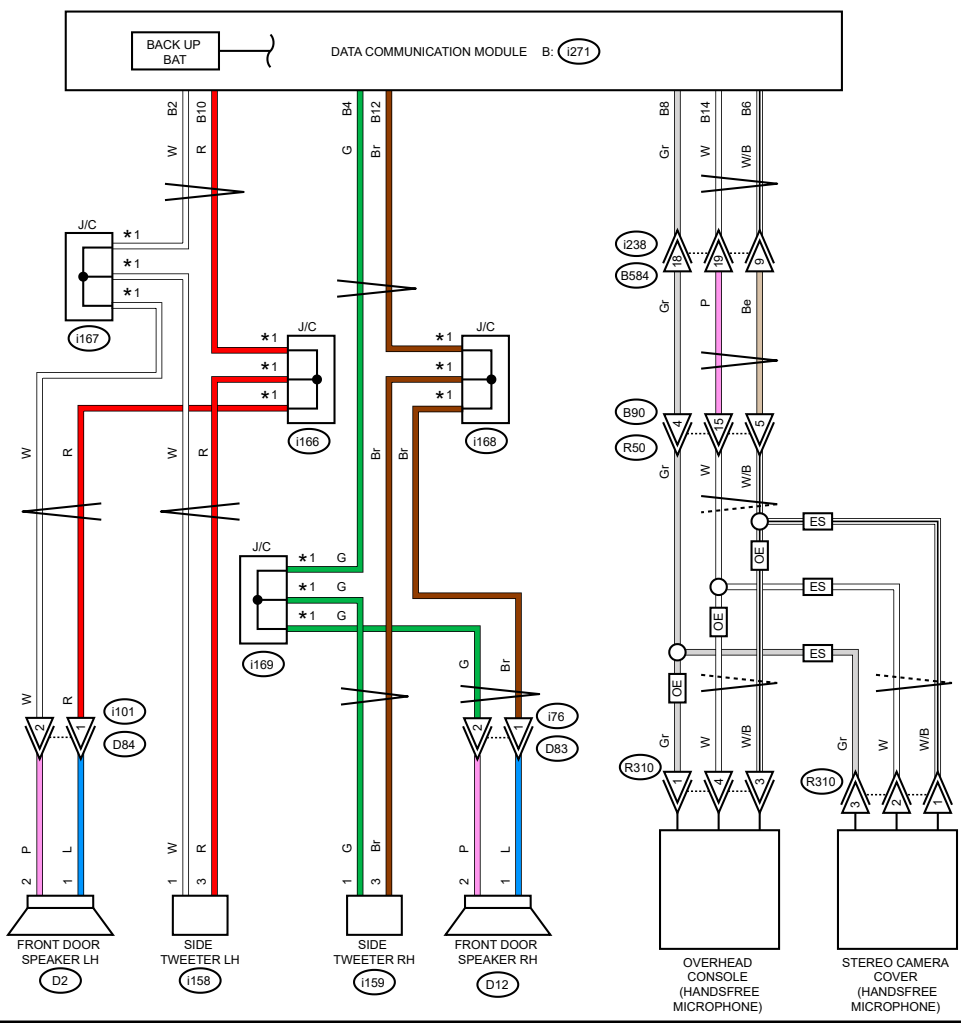


WI-65769



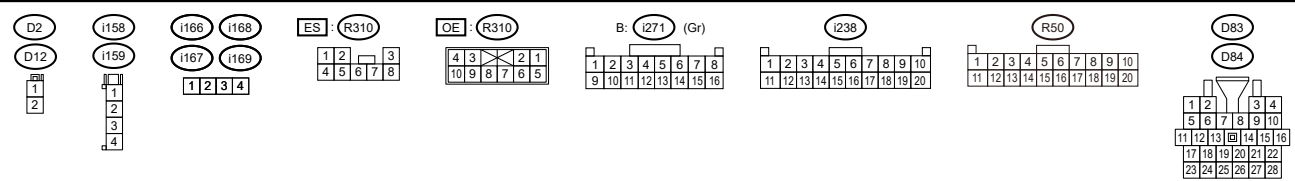
1b

1b



OE: WITHOUT EyeSight
 ES: WITH EyeSight

*1: TERMINAL No. OPTIONAL ARRANGEMENT

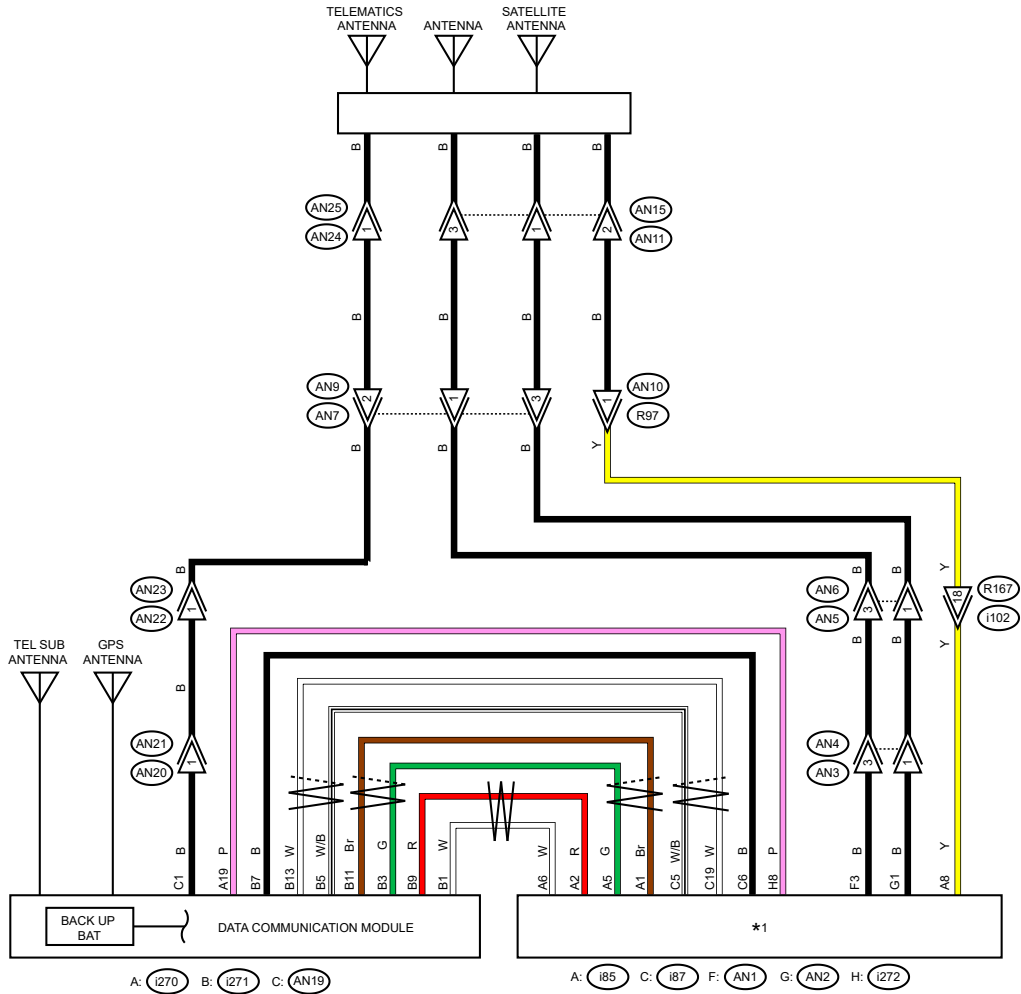


WI-65770

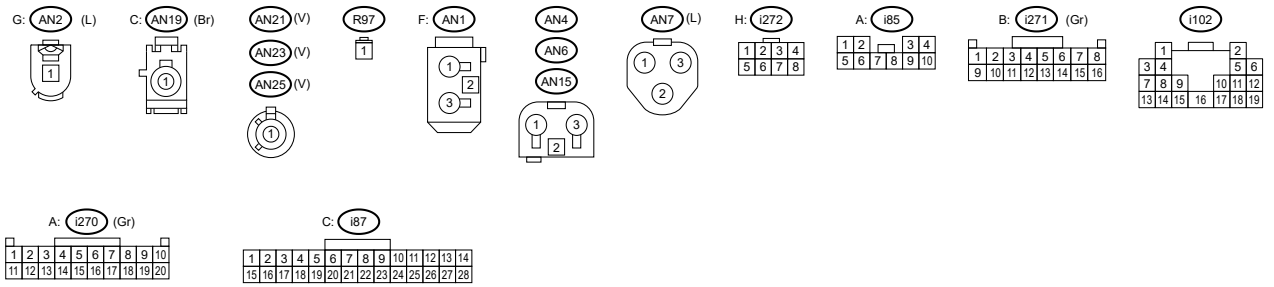


1c

1c



*1 : WITHOUT NAVIGATION : AUDIO
WITH NAVIGATION : NAVIGATION UNIT



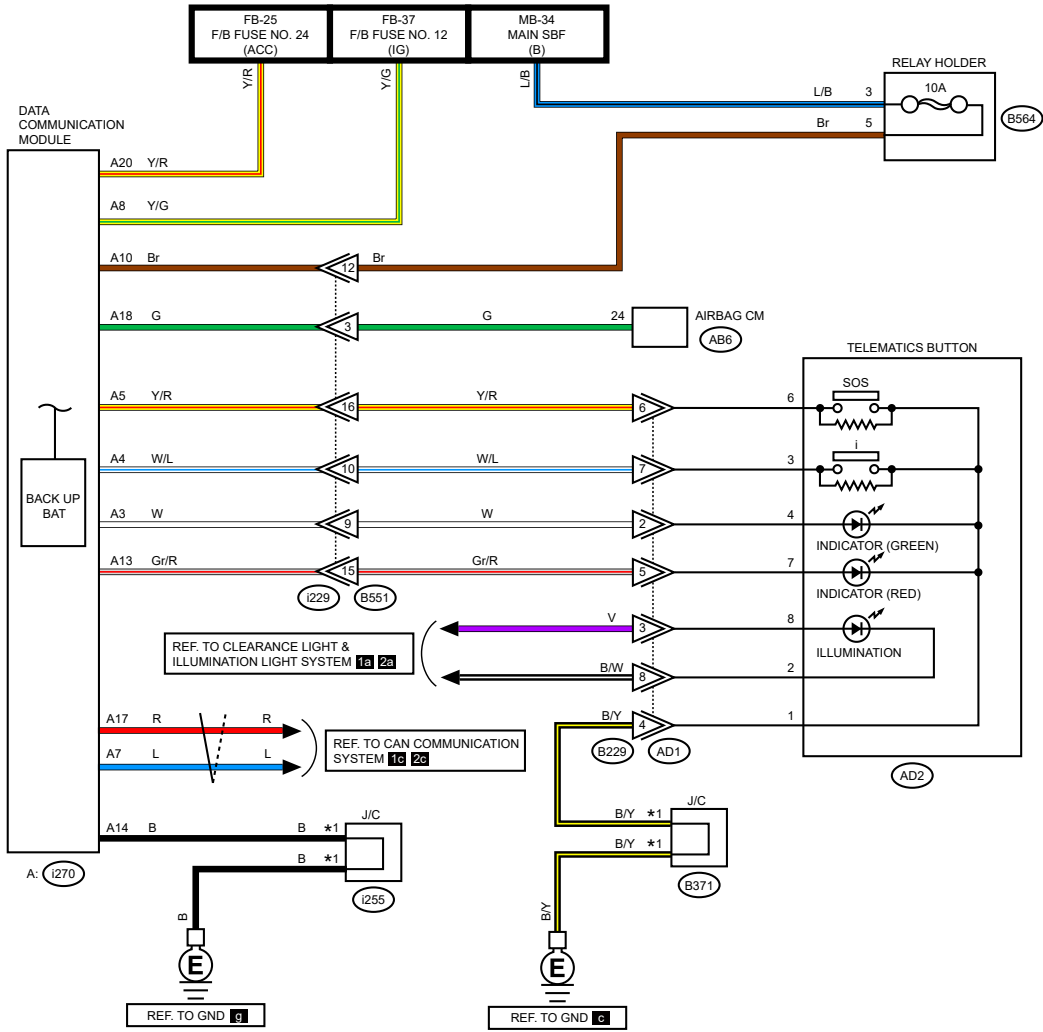
WI-65771

2. WITH AUDIO AMPLIFIER

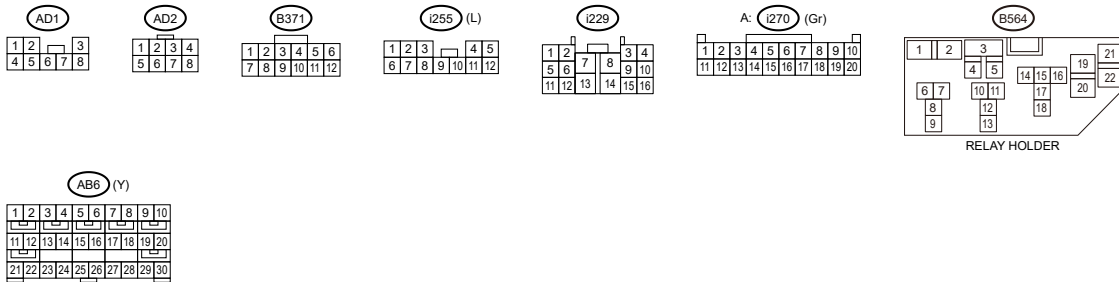


2a

2a

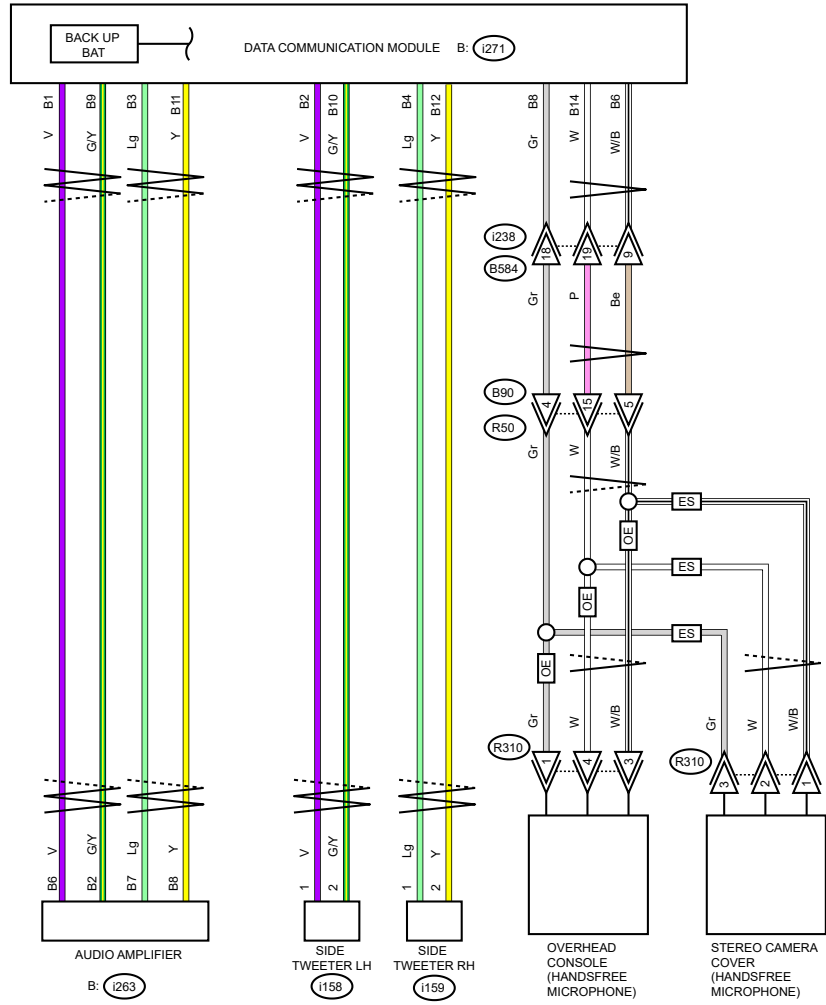


*1 : TERMINAL No. OPTIONAL ARRANGEMENT

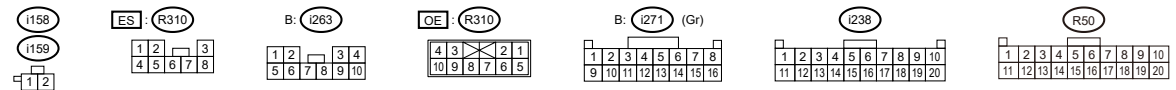


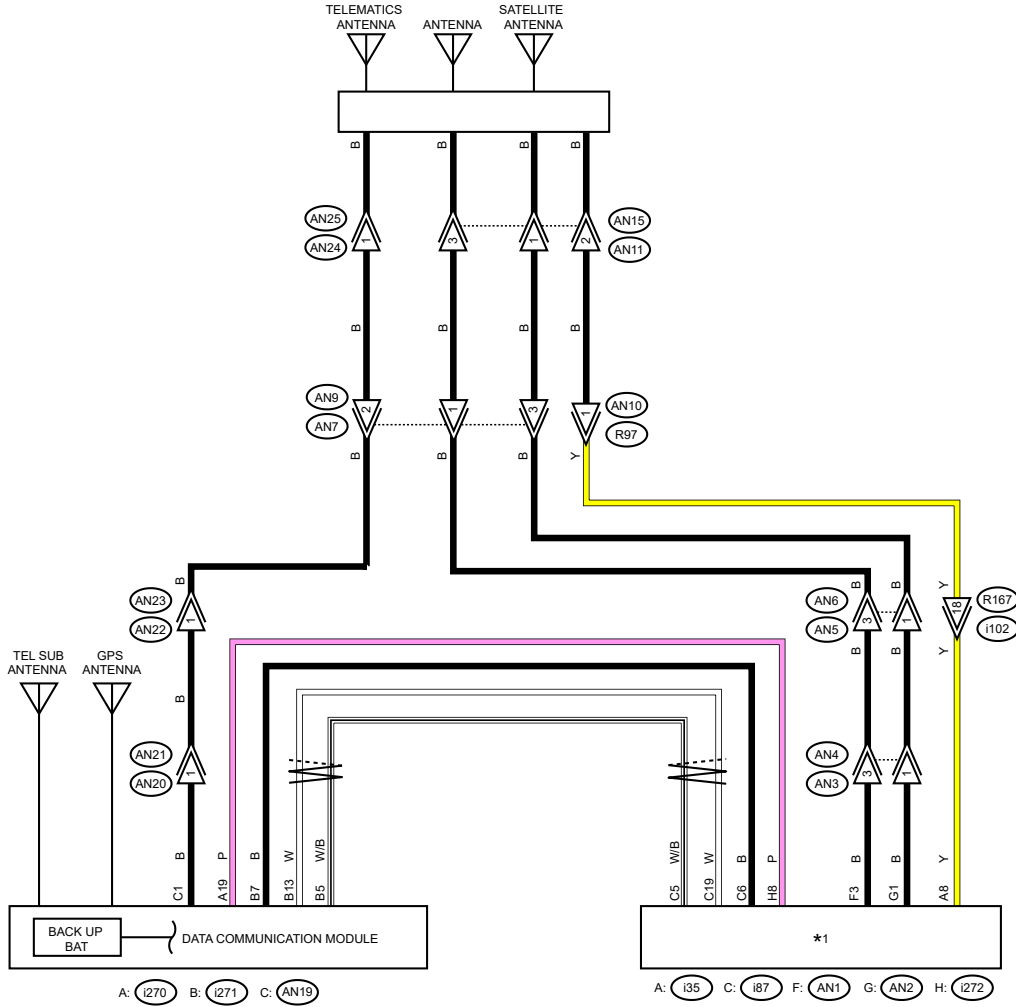
WI-65772



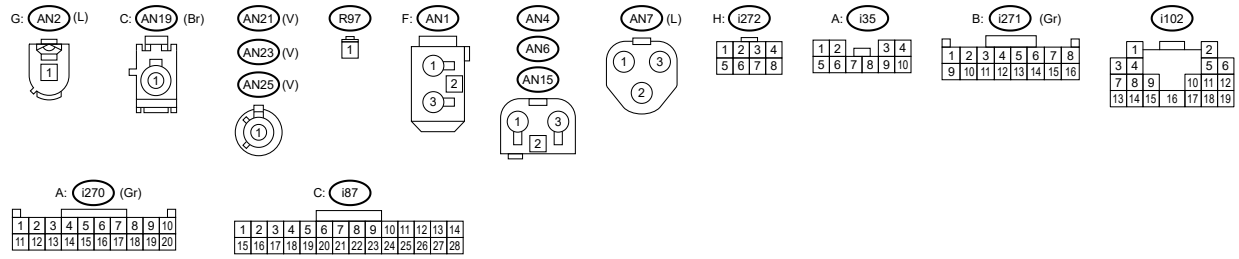


OE : WITHOUT EyeSight
 ES : WITH EyeSight





*1 : WITHOUT NAVIGATION : AUDIO
WITH NAVIGATION : NAVIGATION UNIT



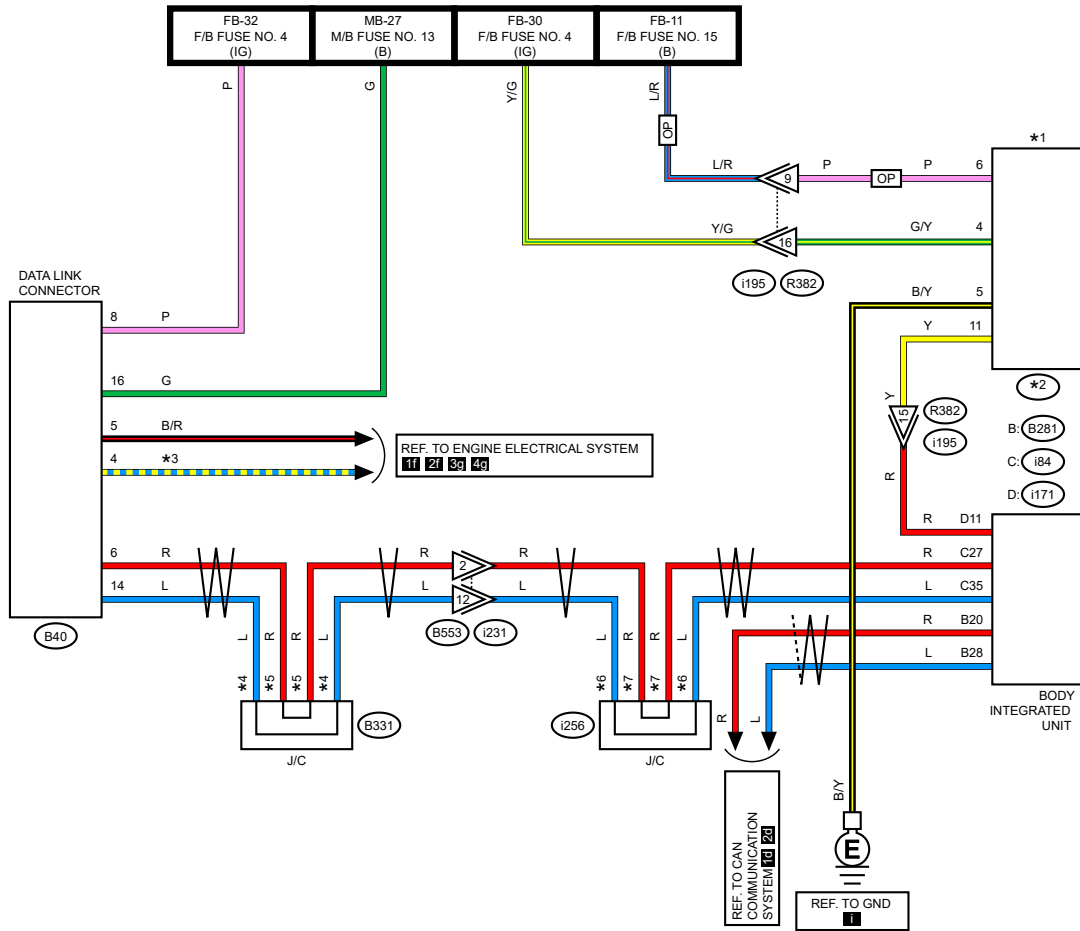
WIRING SYSTEM > Tire Pressure Monitoring System

WIRING DIAGRAM



a

a



OP : WITHOUT PUSH BUTTON START

*1 : WITHOUT PUSH BUTTON START : TPMS & KEYLESS ENTRY CM
WITH PUSH BUTTON START : TPMS CM

*2 : WITHOUT PUSH BUTTON START : R221
WITH PUSH BUTTON START : R211

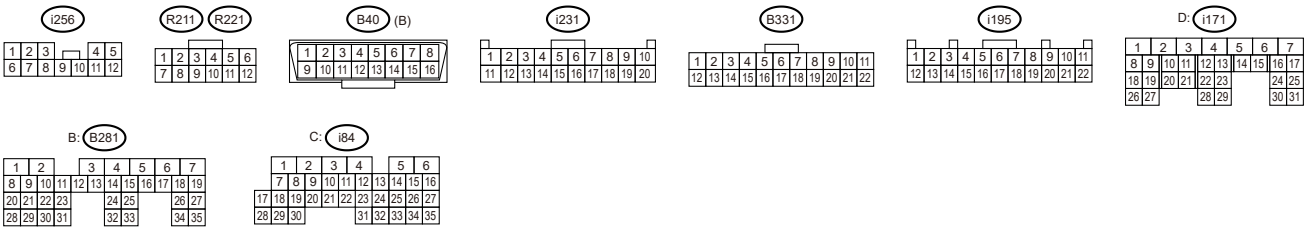
*3 : NON-TURBO MODEL : B/G
TURBO MODEL : B

*4 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22

*5 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11

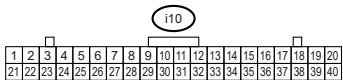
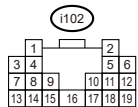
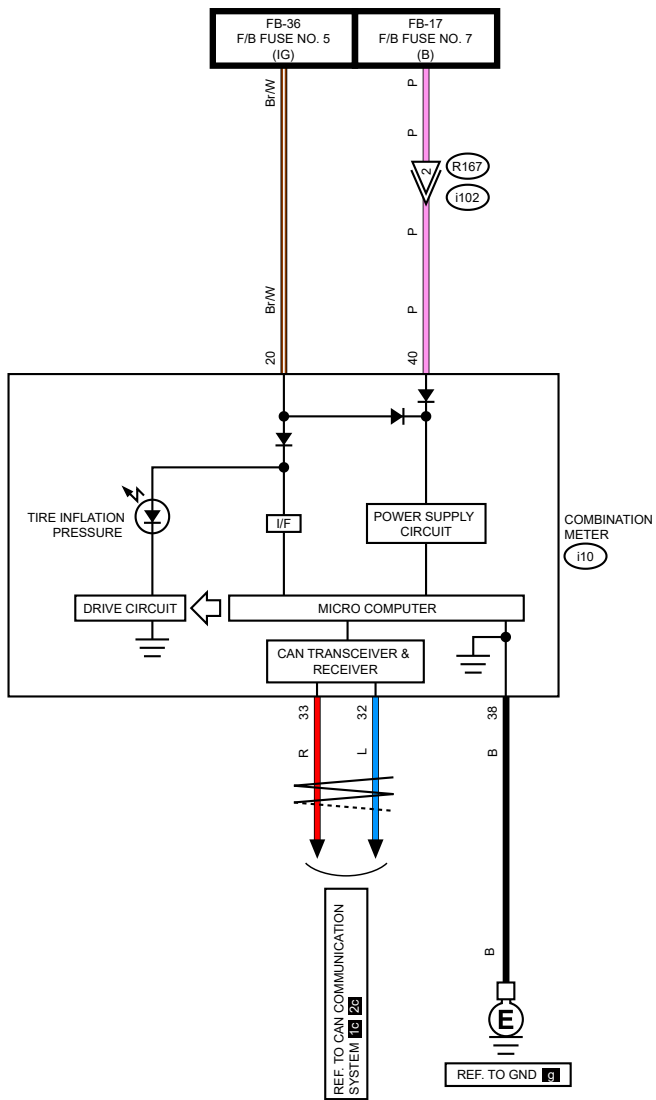
*6 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

*7 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8



b

b



WIRING SYSTEM > Turn Signal Light and Hazard Light System

WIRING DIAGRAM

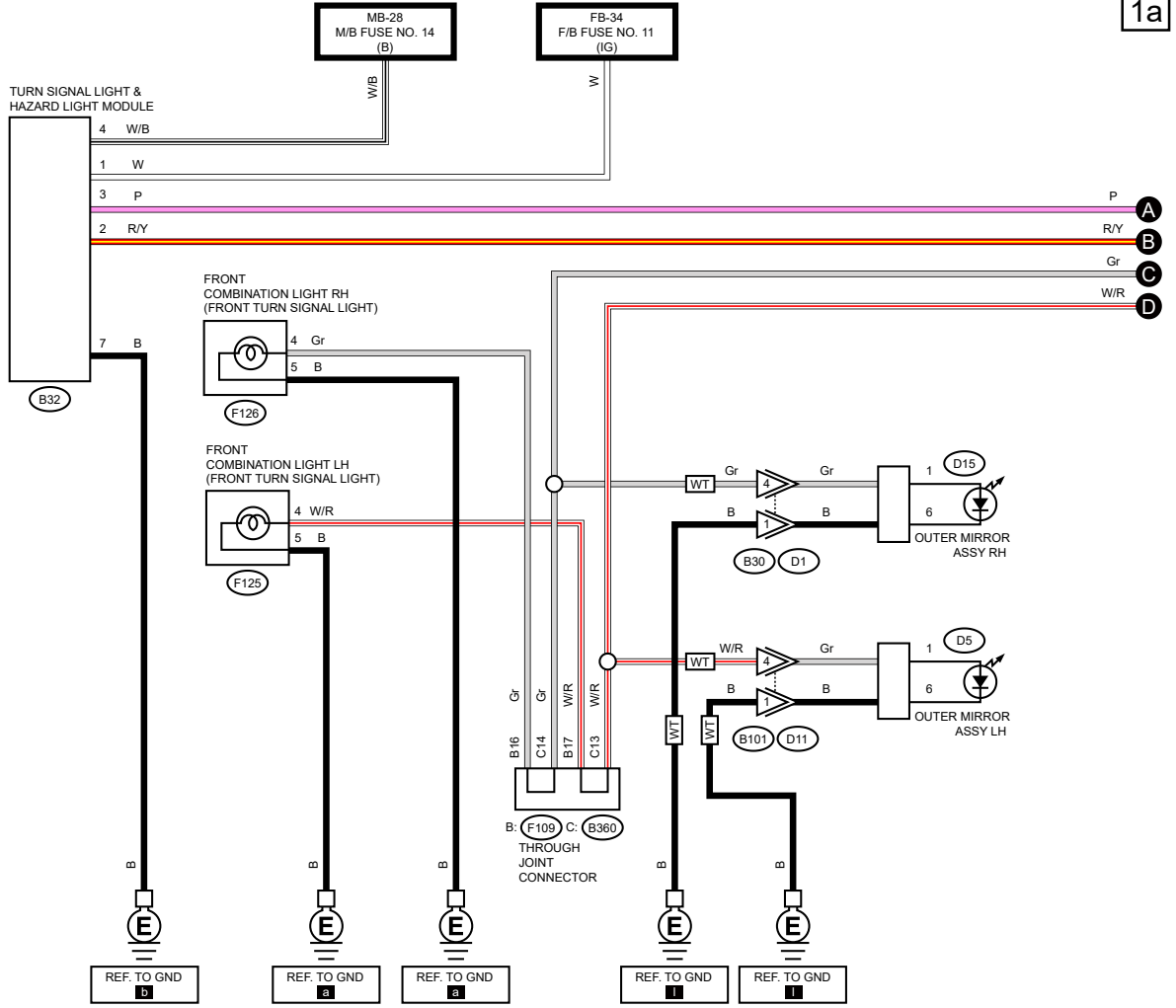
▼ Please select ▼ see

1. FRONT COMBINATION LIGHT HALOGEN MODEL

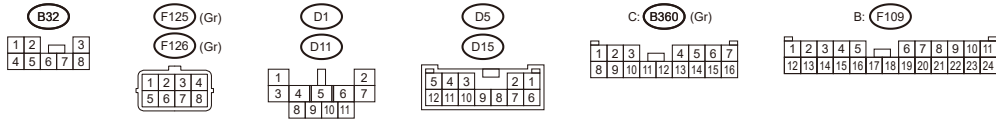


1a

1a



WT : WITH MIRROR TURN

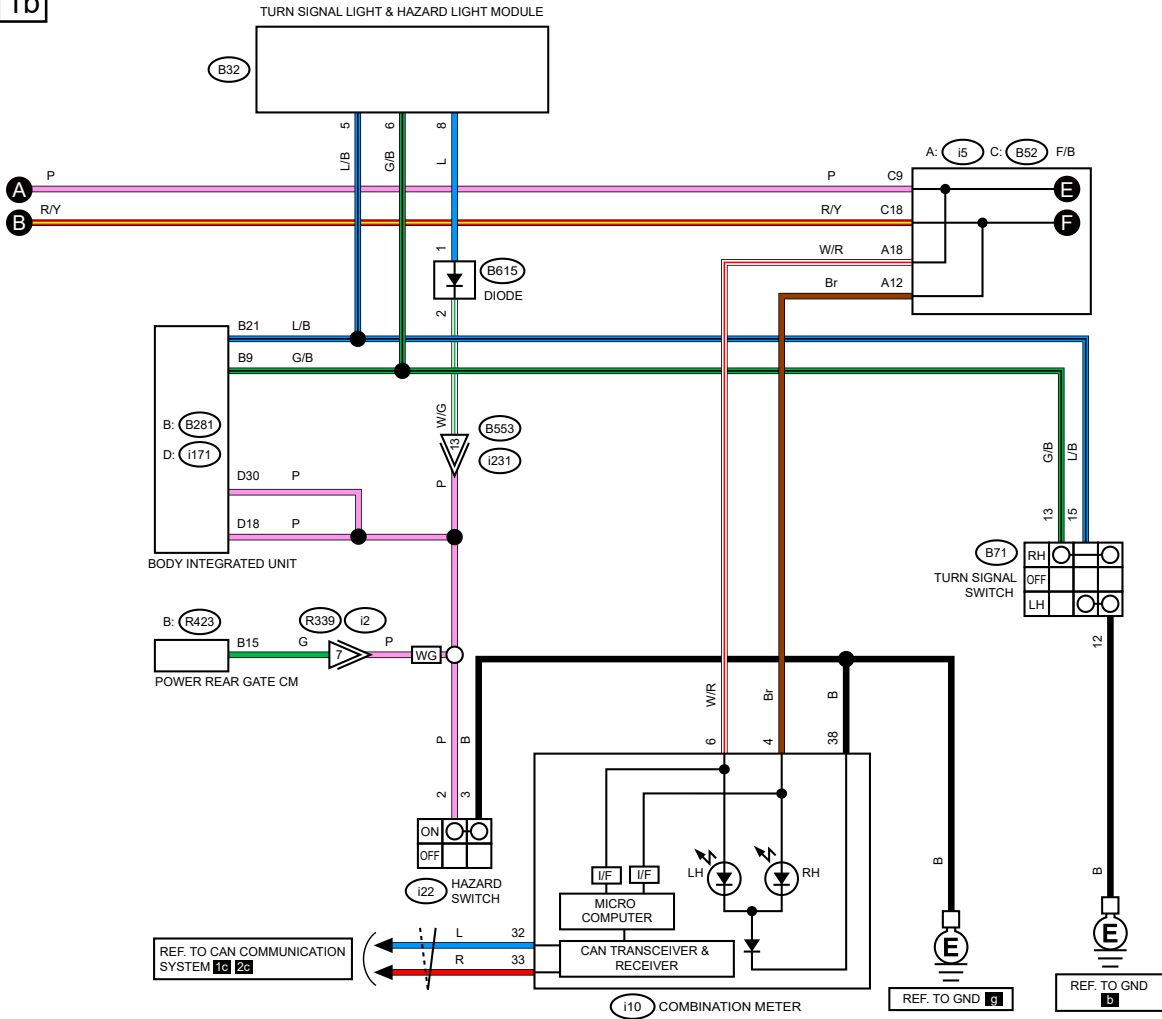


WI-65777

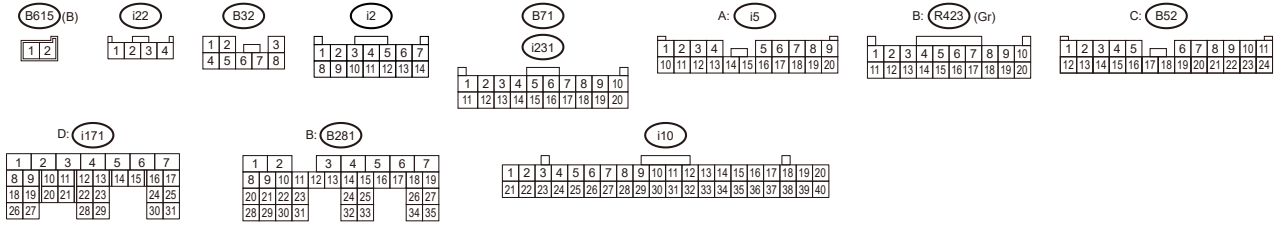


1b

1b

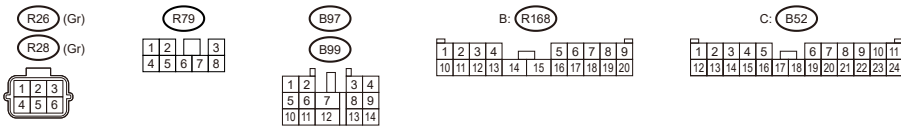
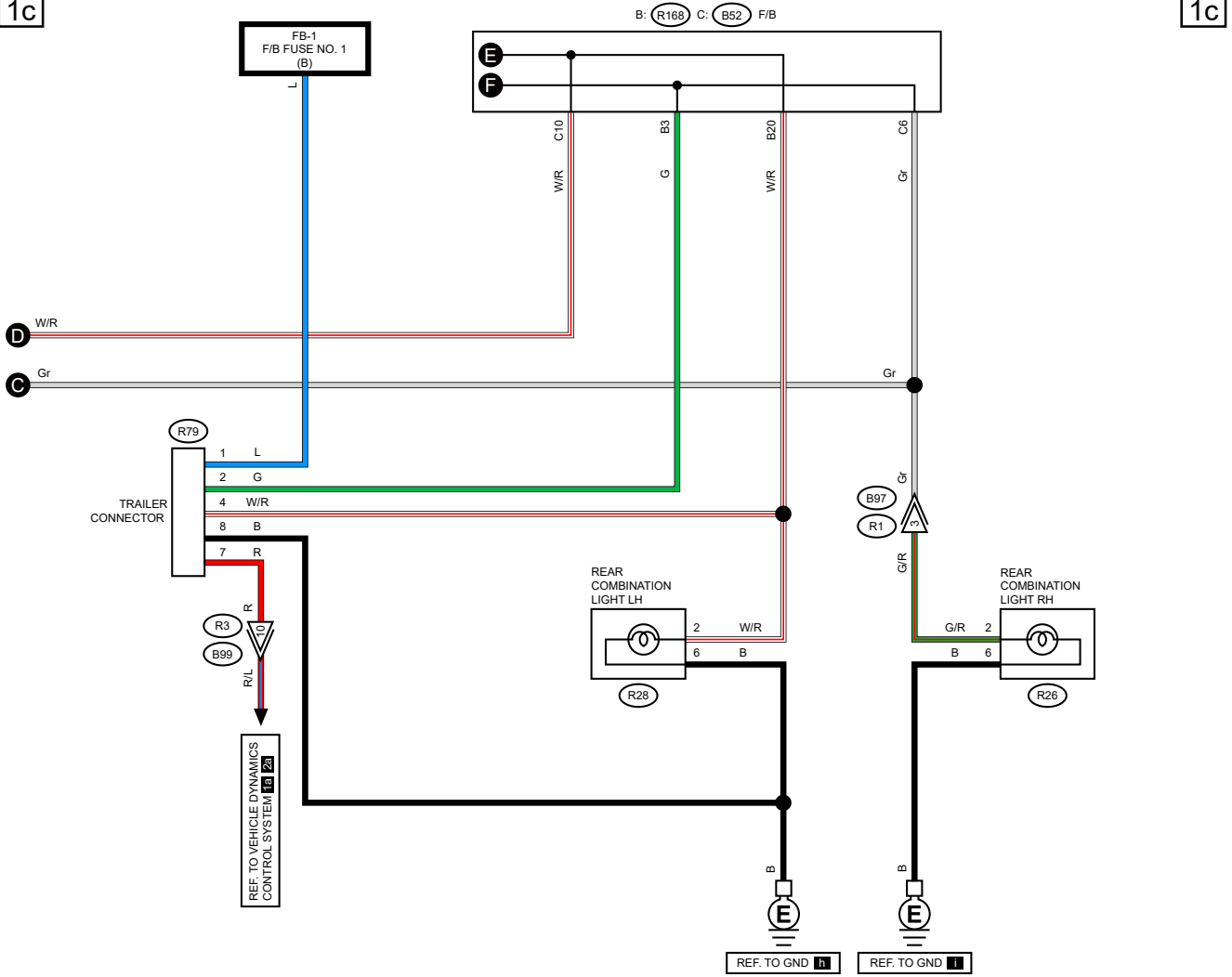


WG: WITH POWER REAR GATE



1c

1c



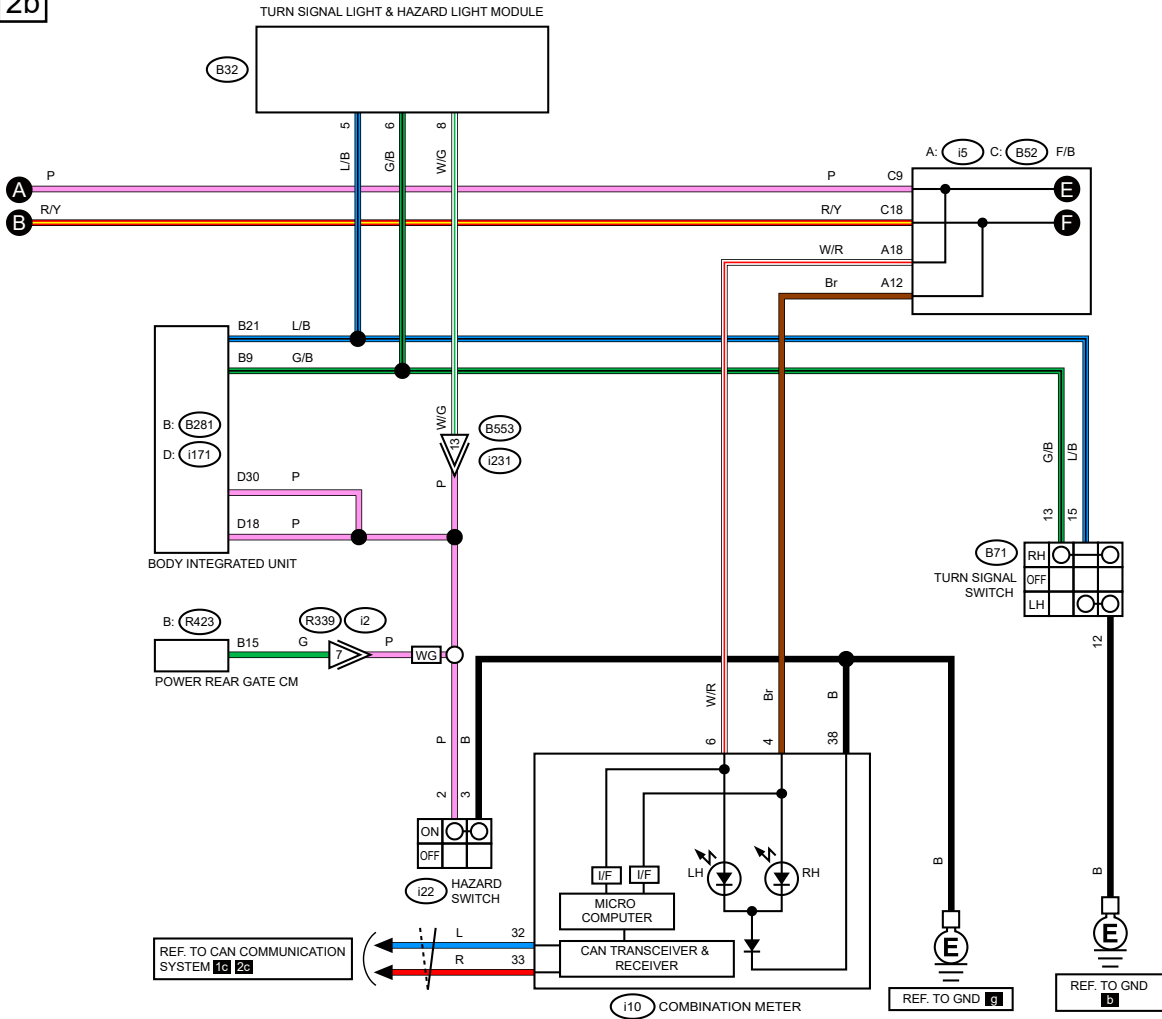
WI-65779

2. FRONT COMBINATION LIGHT LED MODEL

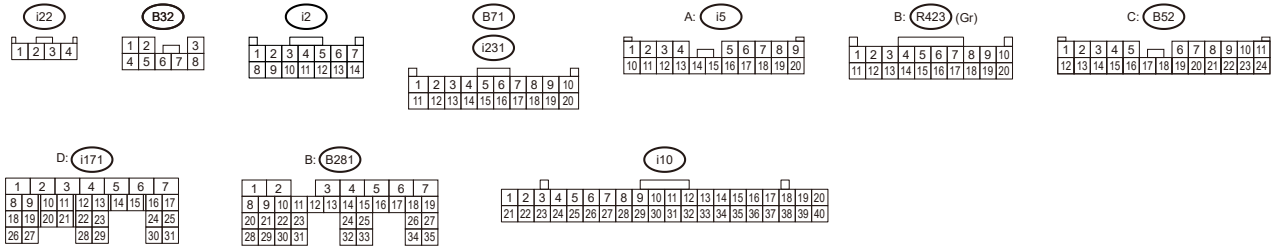


2b

2b



WG: WITH POWER REAR GATE

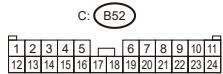
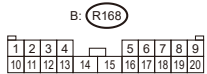
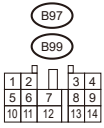
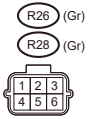
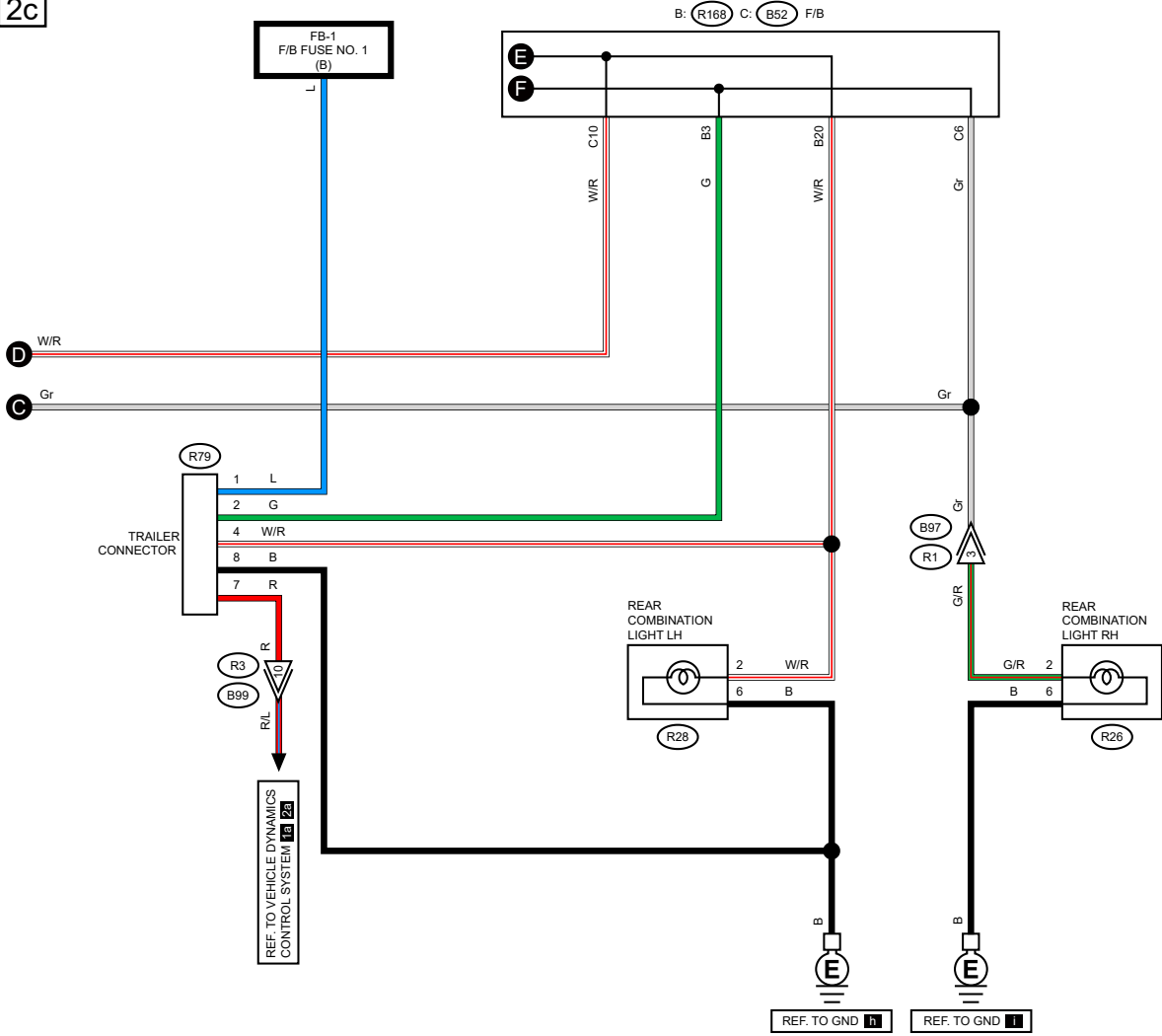


WI-67367



2c

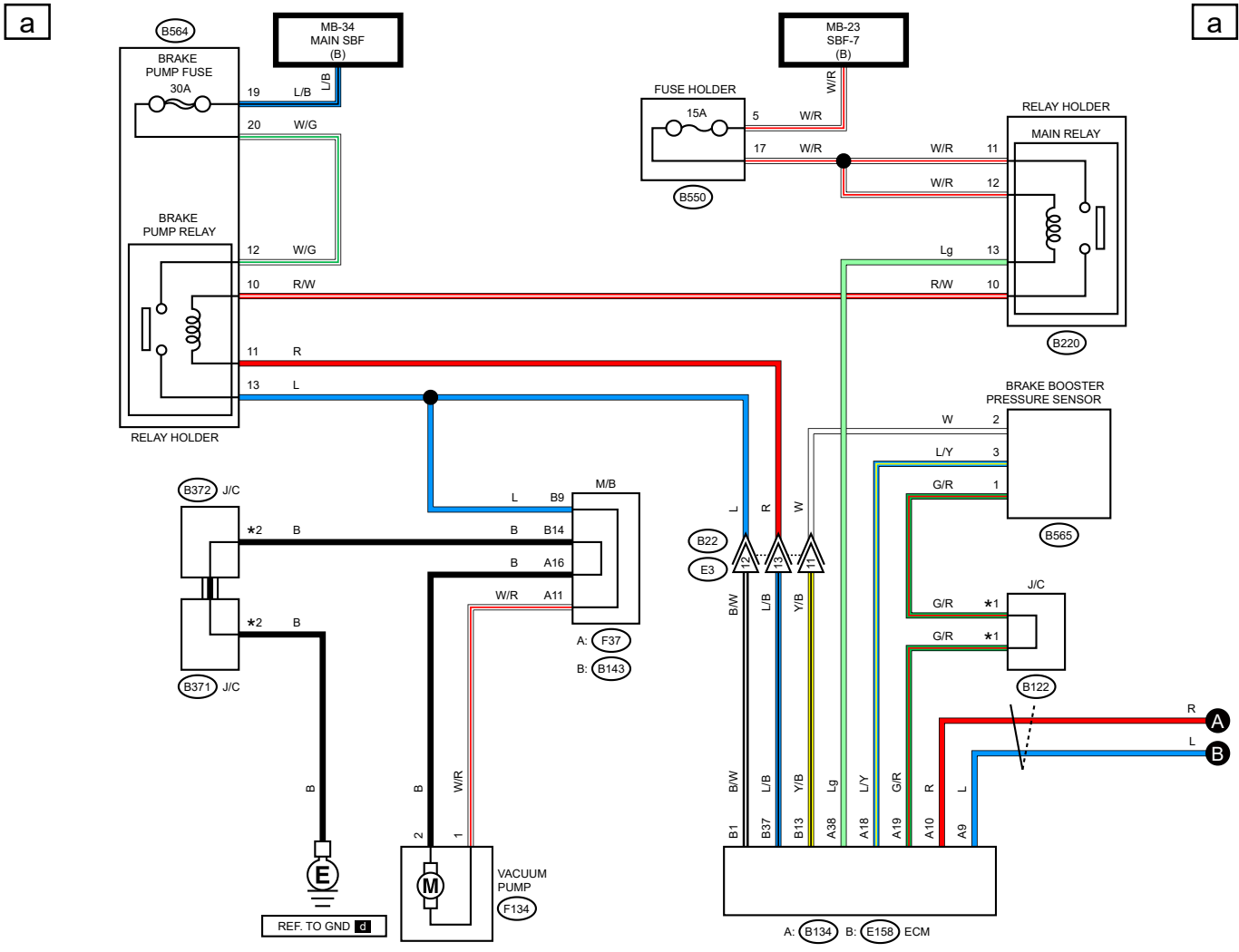
2c



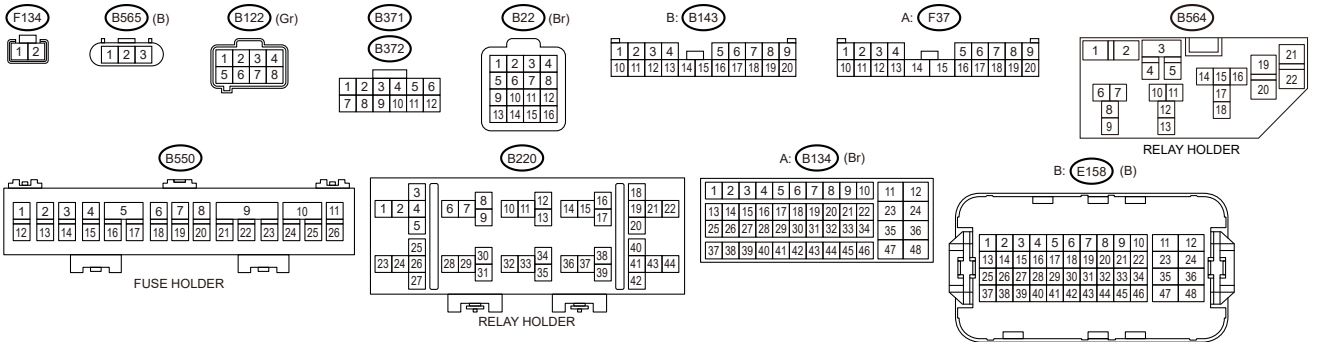
WIRING SYSTEM > Vacuum Pump Control System

WIRING DIAGRAM



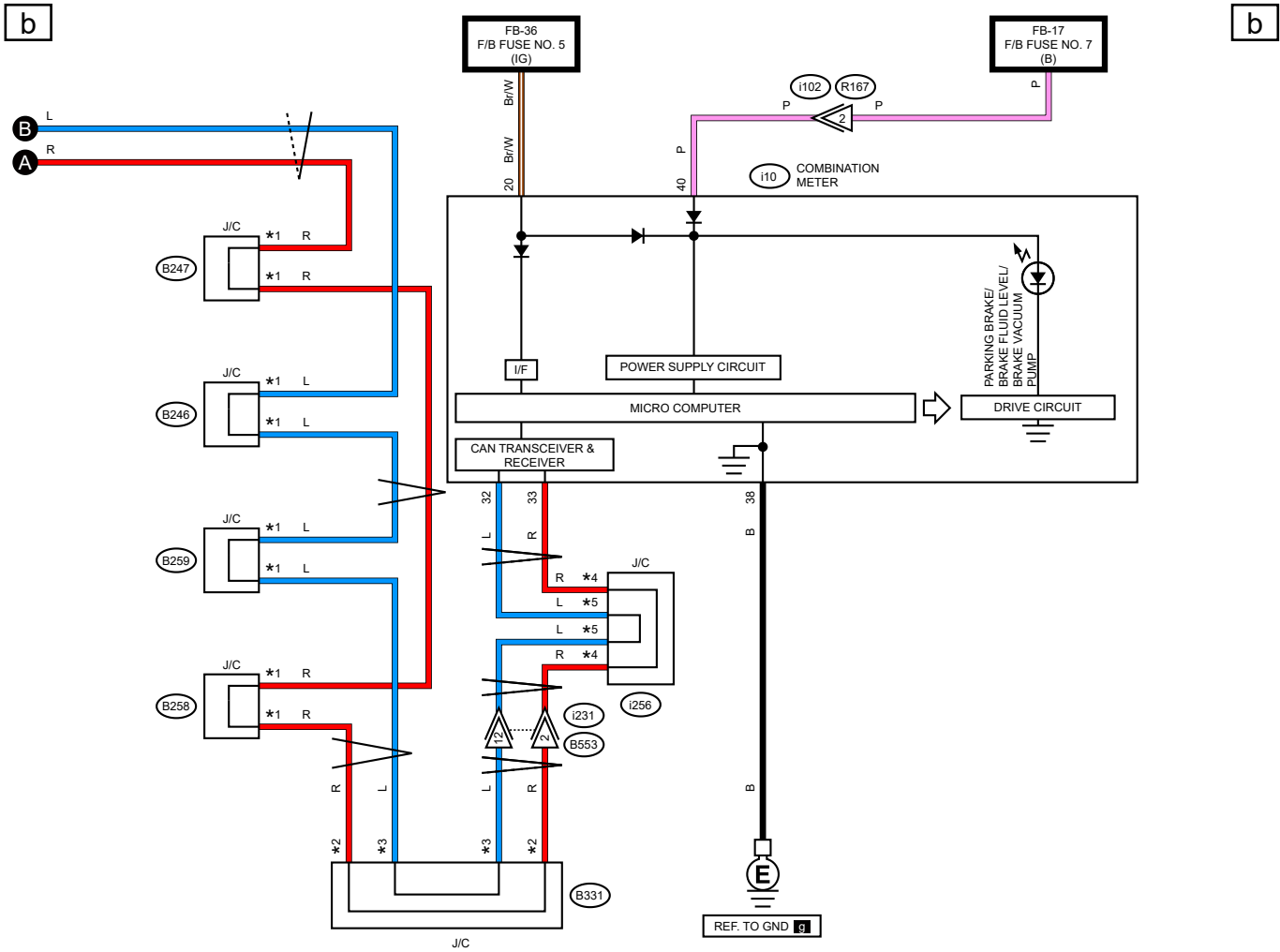


- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 7, 8, 9, 10, 11 AND 12

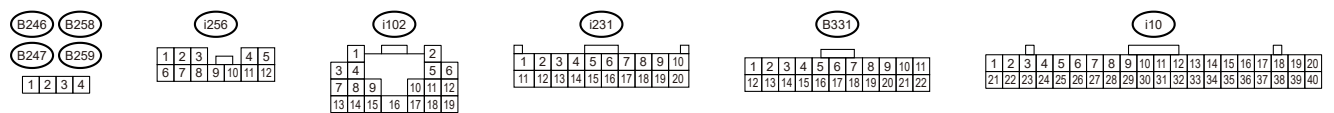


WI-65780





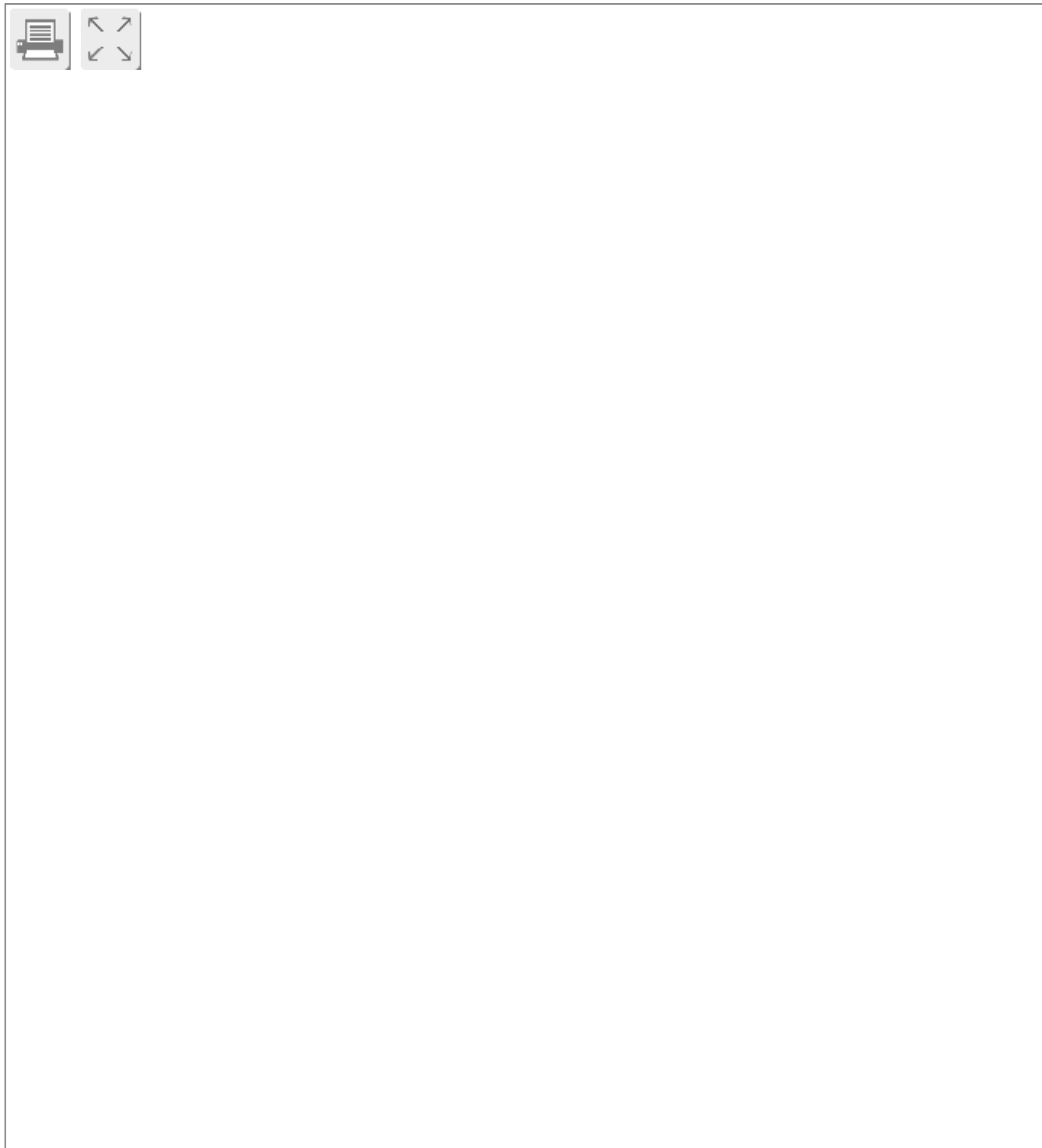
- *1 : TERMINAL No. OPTIONAL ARRANGEMENT
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
- *4 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *5 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12



WIRING DIAGRAM

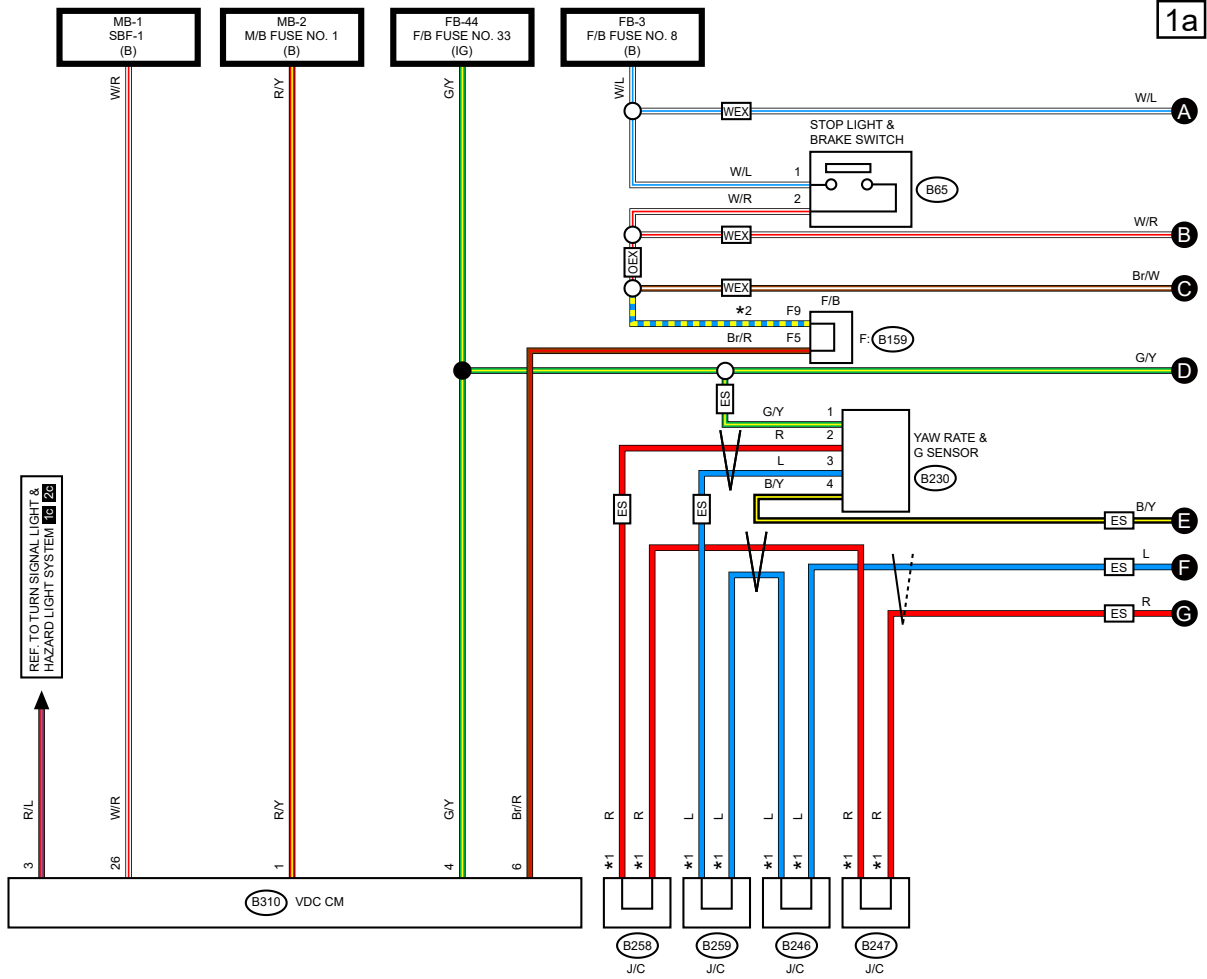
▼ Please select ▼ see

1. NON-TURBO MODEL



1a

1a



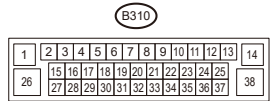
OX : WITHOUT EyeSight AND X MODE

EX : EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE

ES : WITH EyeSight

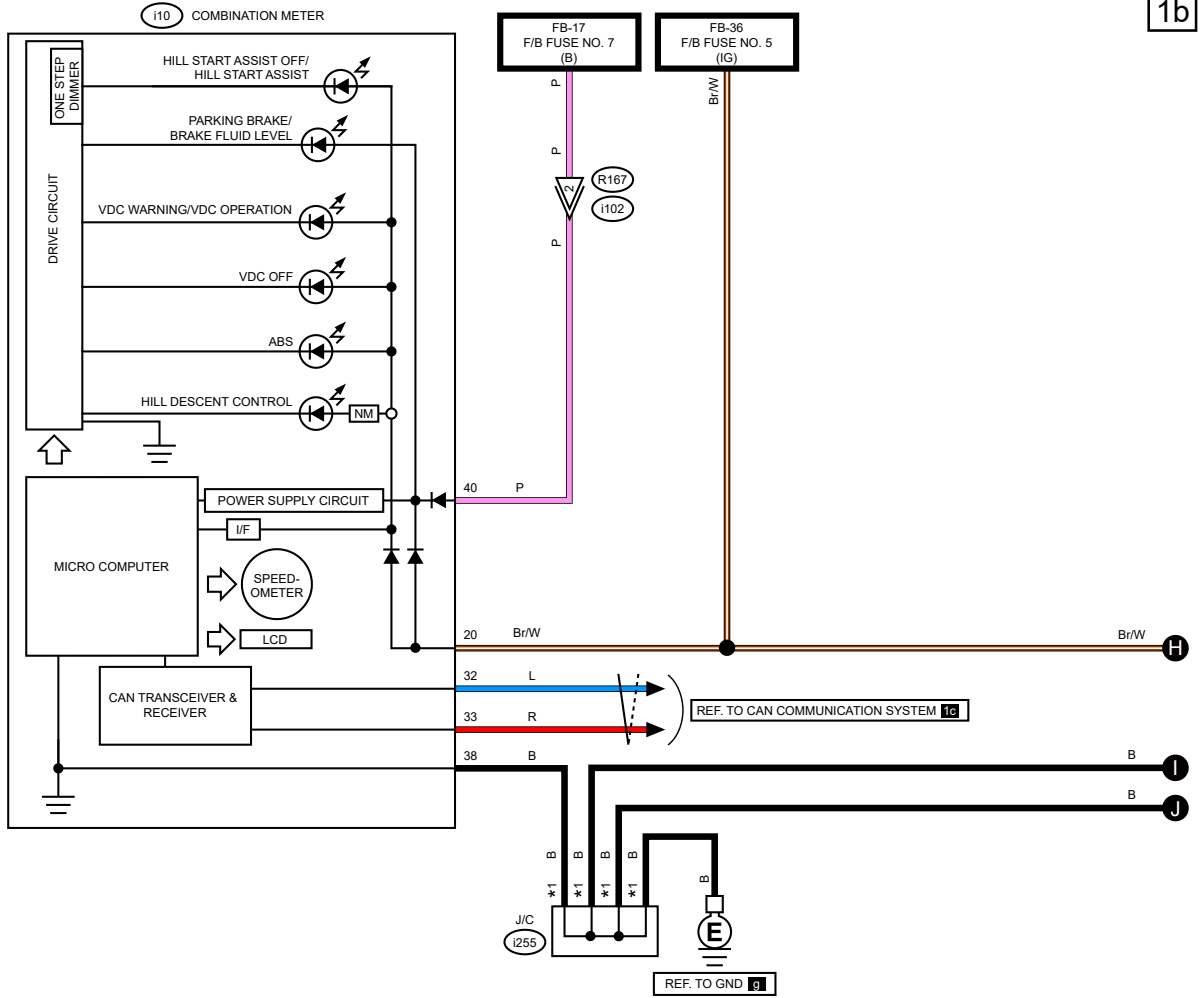
*1 : TERMINAL No. OPTIONAL ARRANGEMENT

*2 : WITHOUT EyeSight AND X MODE : W/R
EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE : Br/W



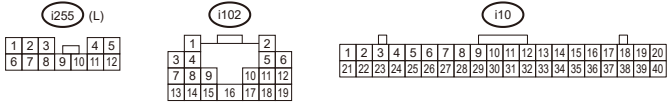
1b

1b



NM : NORMAL METER MODEL

*1 : TERMINAL No. OPTIONAL ARRANGEMENT

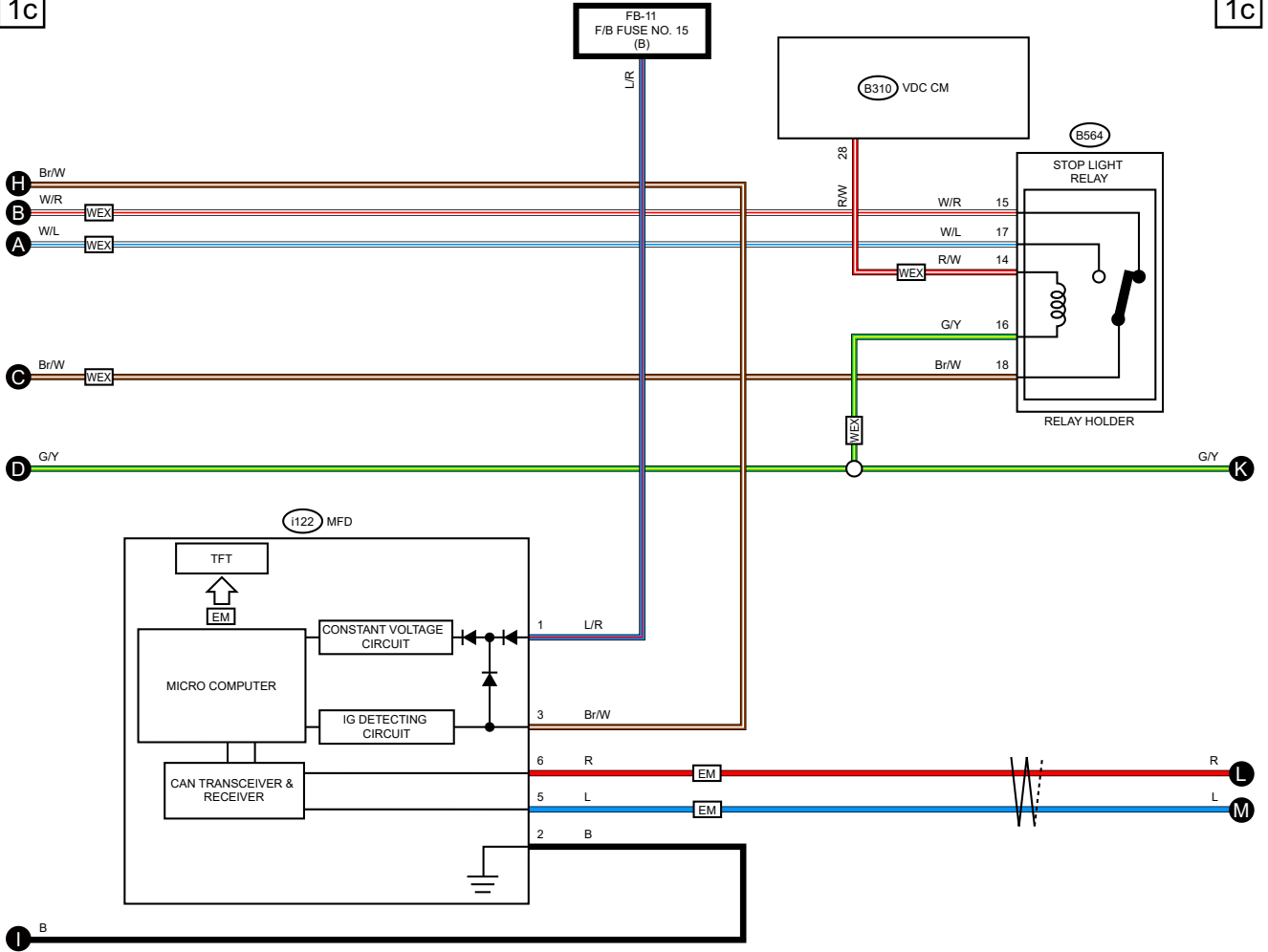


WI-65783



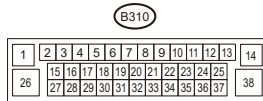
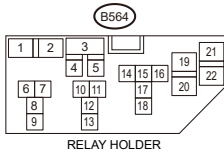
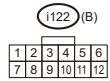
1c

1c



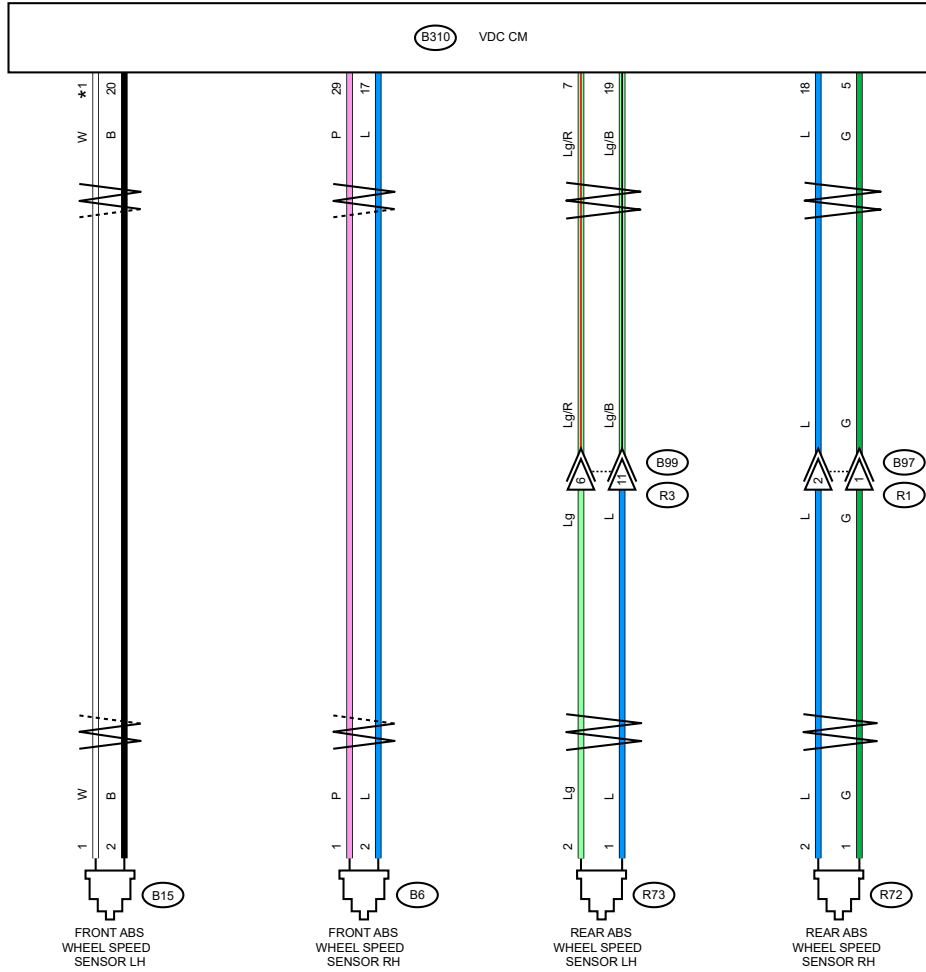
WEX : EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE

EM : EXCEPT FOR STANDARD MFD

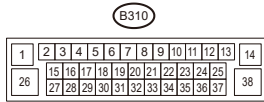
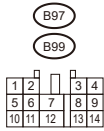


1d

1d

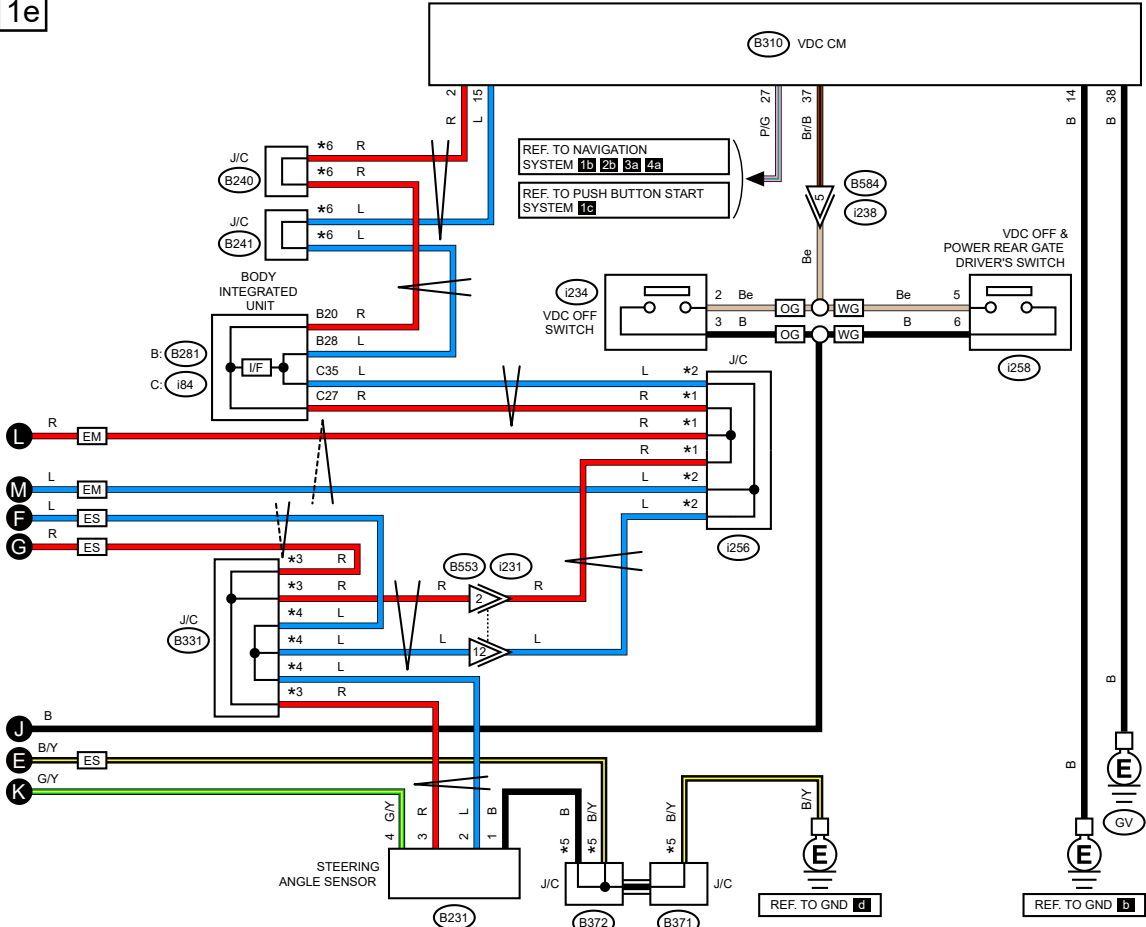


*1 : WITHOUT EyeSight : 33
WITH EyeSight : 8



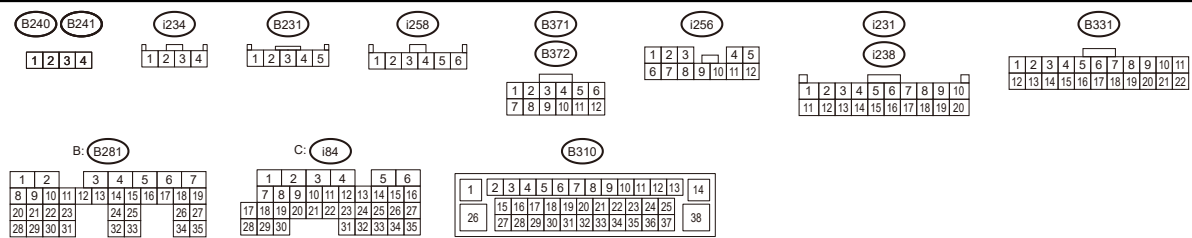
1e

1e



- ES** : WITH EyeSight
- EM** : EXCEPT FOR STANDARD MFD
- OG** : WITHOUT POWER REAR GATE
- WG** : WITH POWER REAR GATE

- *1 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8
- *2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12
- *3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 AND 11
- *4 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 AND 22
- *5 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 4, 5 AND 6
- *6 : TERMINAL No. OPTIONAL ARRANGEMENT



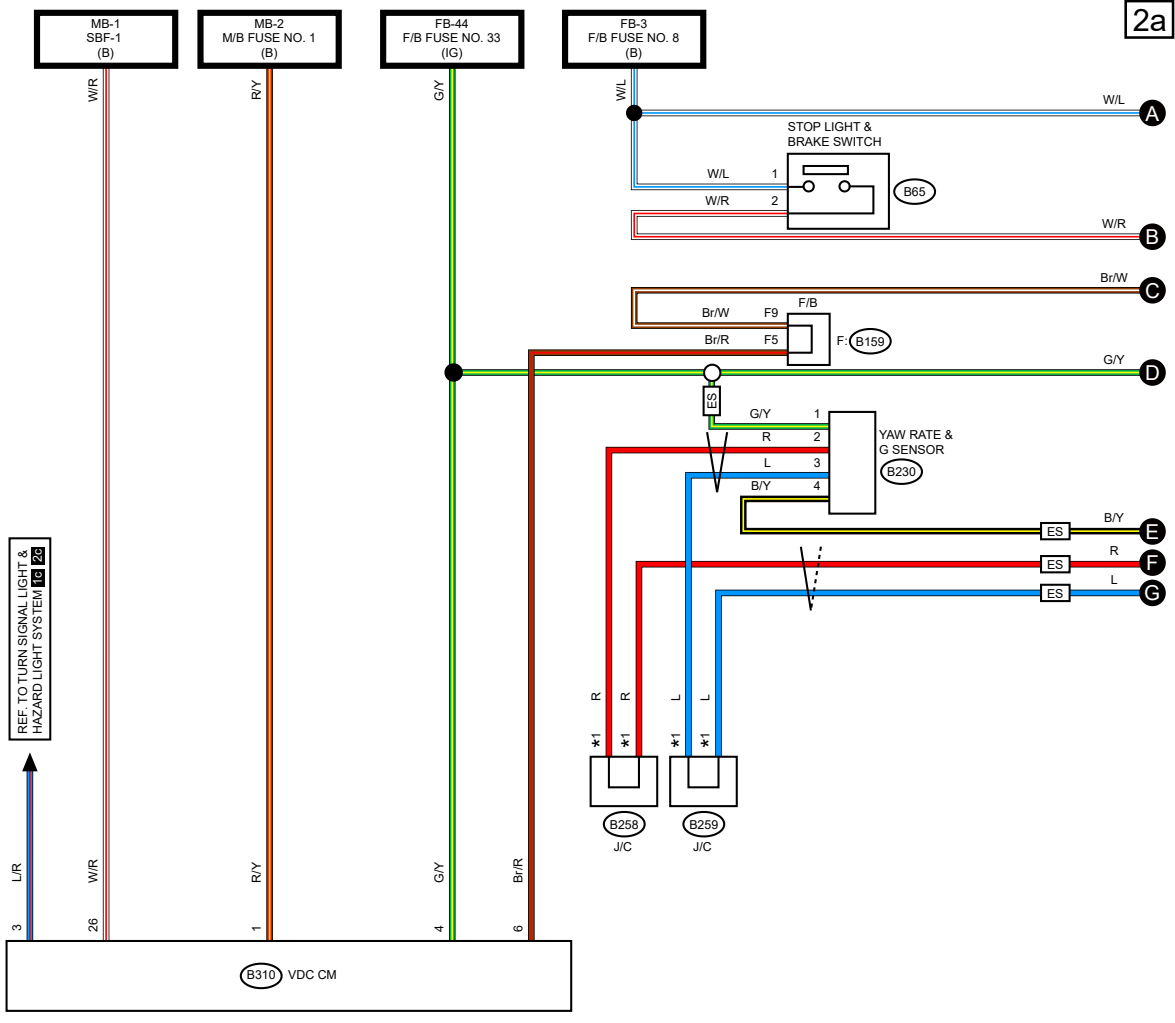
WI-65786

2. TURBO MODEL



2a

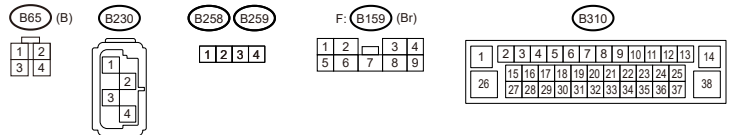
2a



REF. TO TURN SIGNAL LIGHT & HAZARD LIGHT SYSTEM [Pg. 2a]

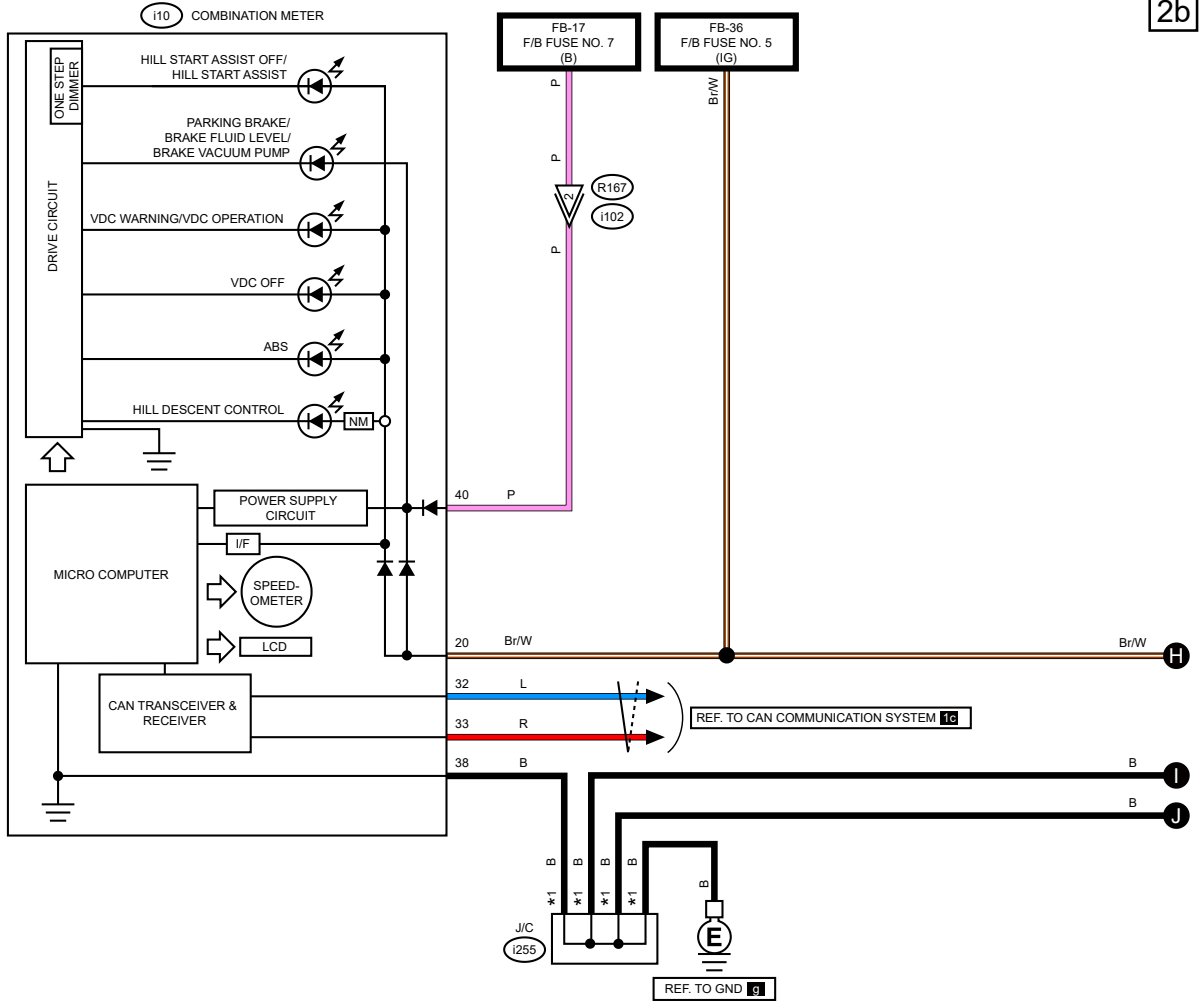
ES : WITH EyeSight

*1 : TERMINAL No. OPTIONAL ARRANGEMENT



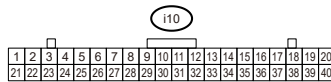
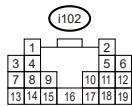
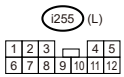
2b

2b



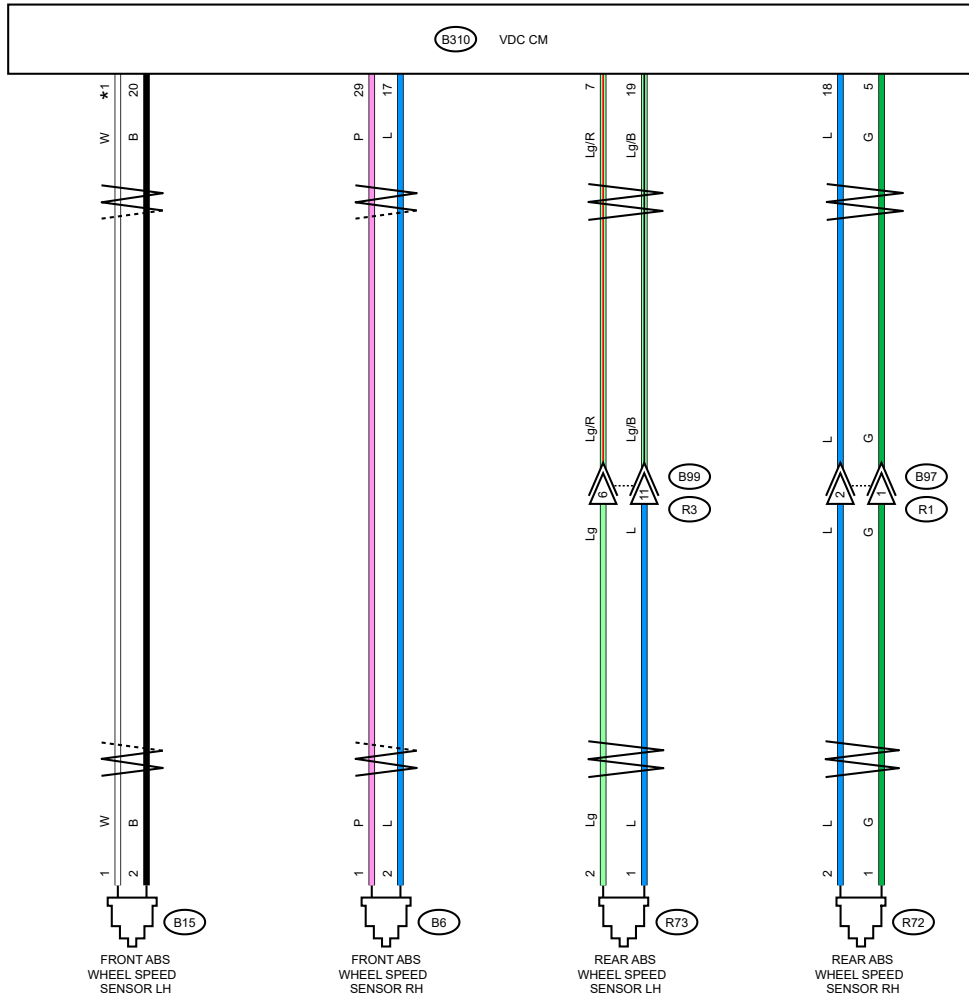
[NM] : NORMAL METER MODEL

*1 : TERMINAL No. OPTIONAL ARRANGEMENT
 *2 : NORMAL METER MODEL : HILL START ASSIST
 COLOR TFT METER MODEL : HILL START ASSIST OFF/HILL START ASSIST

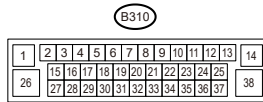
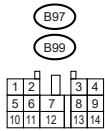
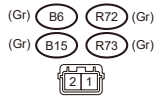


WI-65788





*1 : WITHOUT EyeSight : 33
WITH EyeSight : 8



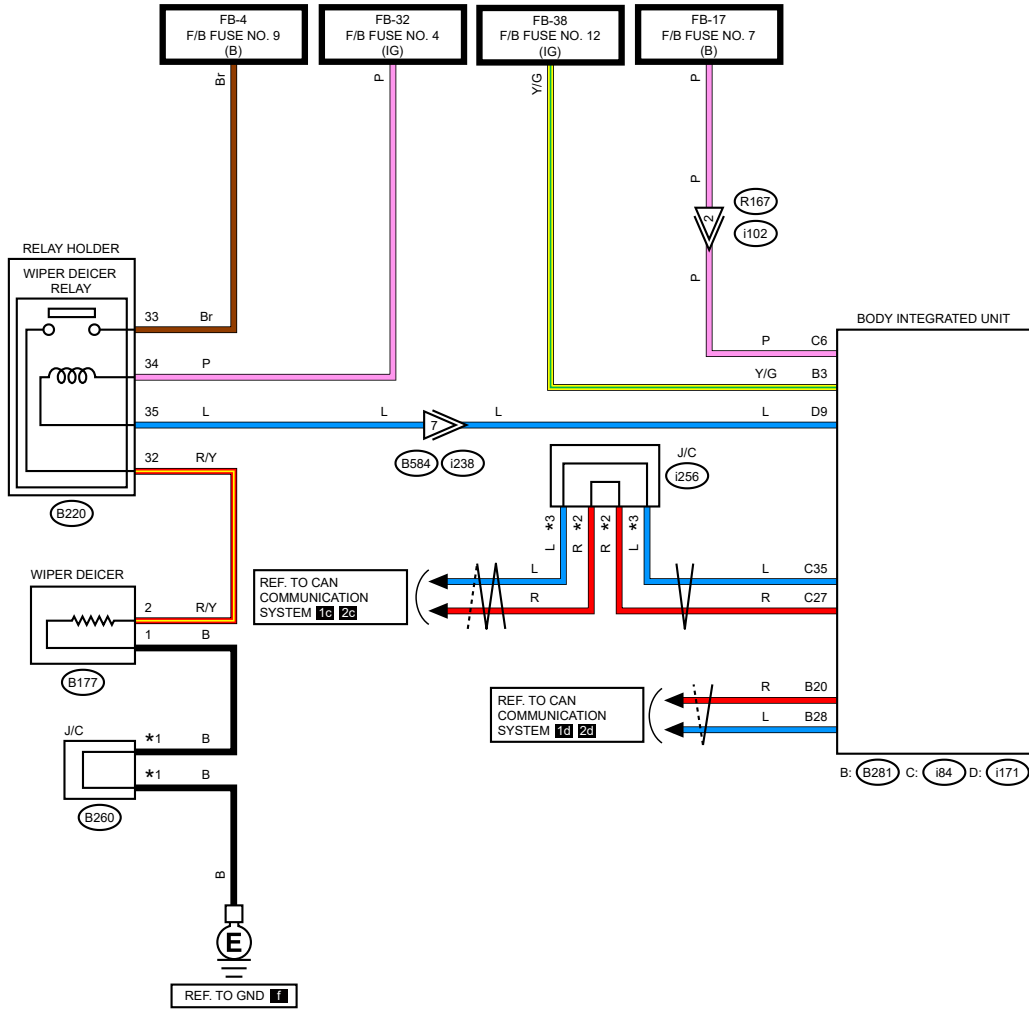
WIRING SYSTEM > Wiper Deicer System

WIRING DIAGRAM



a

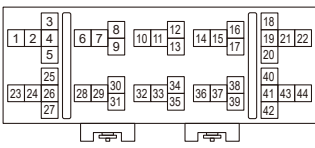
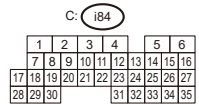
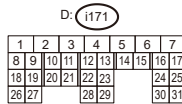
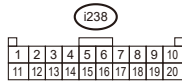
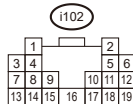
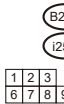
a



*1 : TERMINAL No. OPTIONAL ARRANGEMENT

*2 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 1, 2, 3, 6, 7 AND 8

*3 : TERMINAL No. OPTIONAL ARRANGEMENT AMONG 4, 5, 9, 10, 11 AND 12

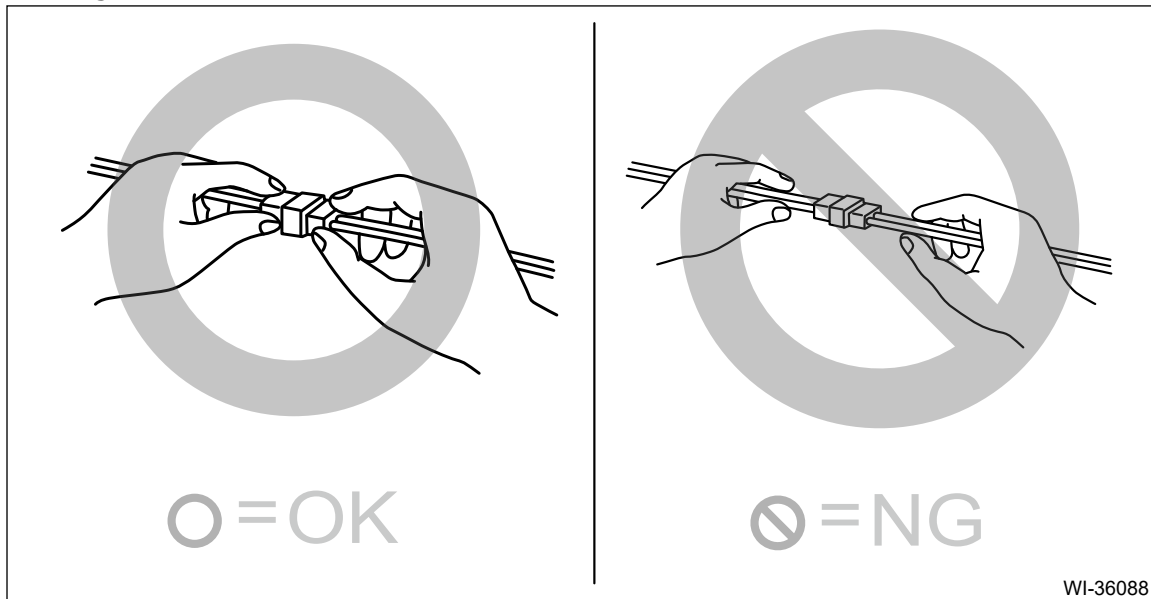


RELAY HOLDER

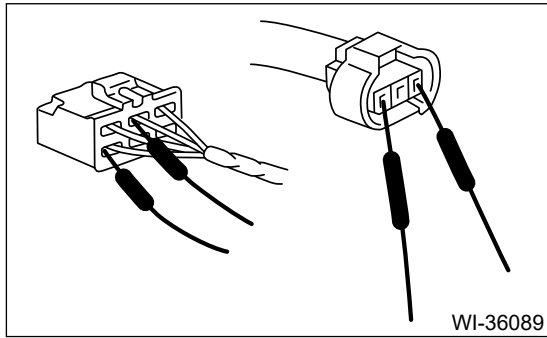
WIRING SYSTEM > Working Precautions

PRECAUTIONS IN TROUBLE DIAGNOSIS AND REPAIR OF ELECTRIC PARTS

1. Always refer to "CAUTION" and "NOTE" of "General Description" in the same models service manual before starting the diagnostics and repair.
2. Always refer to the cautions of each section when diagnosing and repairing each system and component.
3. The battery cable must be disconnected from the negative terminal after the ignition switch is set to the OFF position, unless otherwise required by the diagnostics.
4. When disconnecting a connector, do not pull the harness, but pull while holding the connector housing.



5. Confirm the locking shape completely before disconnecting a connector. In addition, firmly push in the connector until a click sounds when connecting a connector.
6. When checking continuity between connector terminals, or measuring voltage across the terminal and ground, always touch tester probe (s) to terminals from the harness side. If the probe is too thick to gain access to the terminal, do not push it in forcibly but use a mini test lead.
7. When measuring the voltage or resistance of individual sensor or all electrical control modules, use a tapered pin with a diameter of 0.6 mm (0.024 in) or less and touch it to the tip of terminal. Never insert the tapered pin into the terminal at this time. Doing so may cause internal deformation and a malfunction can occur.
8. To check water-proof connectors (which are not measurable from the harness side), touch tester probes on the terminal side and be very careful not to bend or damage the terminals.



- 9.** Securely fasten the harness with clamps and clips so that the harness does not interfere with the body end parts, edges, bolts or screws.
- 10.** When installing a harness and a component, be careful not to catch them on the harness.
- 11.** Sensors, relays, units, etc., are sensitive to strong impacts. Handle them with extra care so that they are not dropped or mishandled.
- 12.** Because the HID headlight uses high voltage, be sure to confirm that the power supply is turned off before diagnostics and repair. Furthermore, do not perform diagnostics and repair with wet hands because there is a possibility of electrical shock.
- 13.** When inspecting the airbag system, in order to avoid malfunction, always refer to "CAUTION" of "General Description" of the airbag system in the same model's service manual.

WIRING SYSTEM > Working Precautions

PRECAUTIONS WHEN WORKING WITH THE PARTS MOUNTED ON THE VEHICLE

- 1.** Always refer to "CAUTION" and "NOTE" of "General Description" in the same model's service manual before starting the service.
- 2.** When working under a vehicle which is jacked-up, always be sure to use rigid rack.
- 3.** The parking brake must always be applied during working. Also, in automatic transmission vehicles, keep the select lever set to the P (Parking) range.
- 4.** Be sure the workshop is properly ventilated when running the engine.
- 5.** Be careful not to touch the rotating parts such as a belt or a fan while the engine is operating.
- 6.** Be careful not to touch hot metal parts immediately after the engine has been turned on or off.

