

## 3. Keyless Entry System

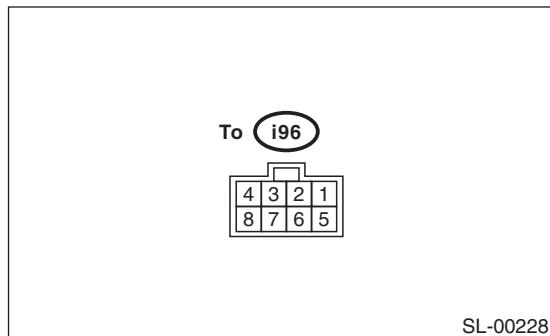
### A: WIRING DIAGRAM

#### 1. KEYLESS ENTRY

<Ref. to WI-140, WIRING DIAGRAM, Keyless Entry System.>

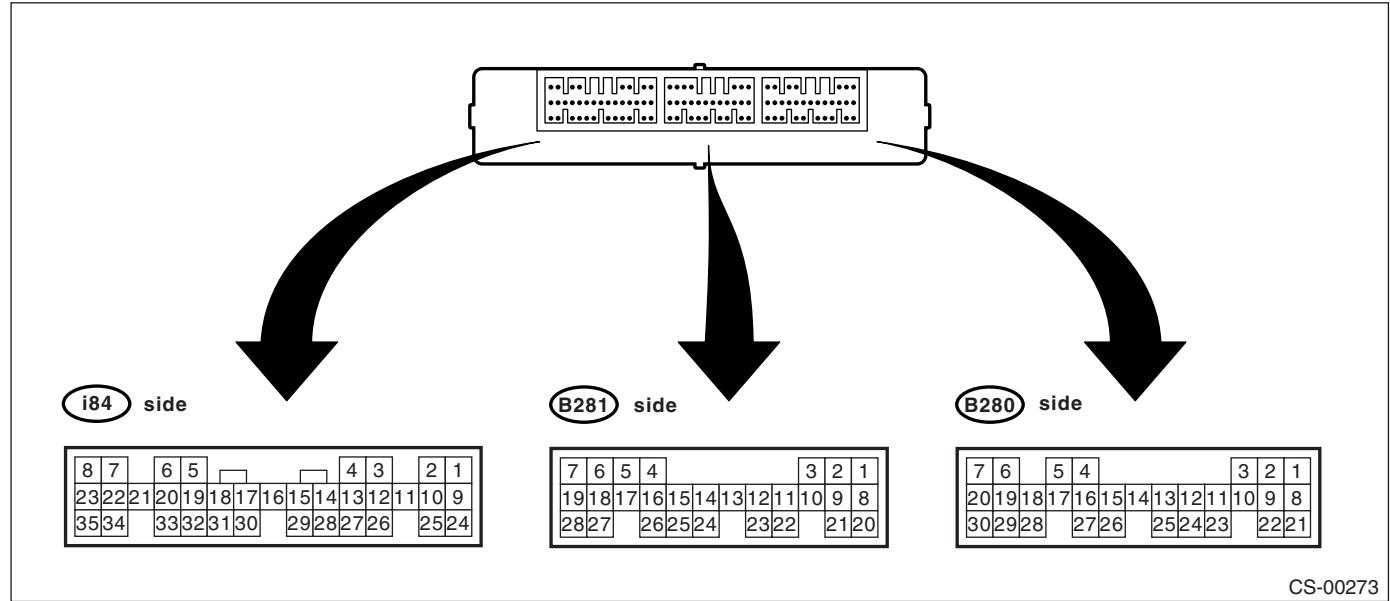
### B: ELECTRICAL SPECIFICATION

#### 1. KEYLESS ENTRY CONTROL MODULE



Description	Terminal No.	Measuring condition
Body integrated unit	3 (OUTPUT)	Battery voltage cannot be measured because of digital signal.
Power supply (Backup)	4	Battery voltage is constantly present.
Ground	7	0 V is constantly present.

#### 2. BODY INTEGRATED UNIT



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## SECURITY AND LOCKS

Description	Terminal No.	Measuring condition
Ignition switch (ON)	A1 (INPUT)	Battery voltage is present when ignition switch is turned ON.
Keyless buzzer	A6 (OUTPUT)	12 V is present when pressing the LOCK or UNLOCK button of transmitter.
Driver's side front door lock actuator	A7 (OUTPUT)	Battery voltage is present when pressing the transmitter LOCK button.
Door and rear gate lock actuator	A8 (OUTPUT)	Battery voltage is present when pressing the transmitter UNLOCK button.
Keyless entry control module	A9 (INPUT)	Communication line (Cannot be measured because of digital signal)
Rear gate latch switch	A17 (INPUT)	0 V is present when opening the rear gate.
Rear door switch RH	A18 (INPUT)	0 V is present when opening the rear door RH.
Front door switch LH	A19 (INPUT)	0 V is present when opening the front door LH.
Ground	A21	0 V is constantly present.
Rear gate release switch	C22 (OUTPUT)	0 V is present when pressing the rear gate release switch.
Rear gate release actuator	A22 (OUTPUT)	The battery voltage is detected for 0.6 seconds when operating the rear gate release switch.
Driver's side front door lock actuator	A23 (OUTPUT)	Battery voltage is present when pressing the transmitter UNLOCK button.
Driver's side power window main switch (door lock switch)	A15	0 V is present when pressing the door lock switch to the LOCK side.
Passenger's side door lock switch	A29	0 V is present when pressing the door lock switch to the UNLOCK side.
Rear door switch LH	A31 (INPUT)	0 V is present when opening the rear door LH.
Front door switch RH	A32 (INPUT)	0 V is present when opening the front door RH.
Power supply	A34	Battery voltage is constantly present.
Room light	B3 (INPUT)	<ul style="list-style-type: none"> <li>• 0 V is present when pressing the UNLOCK button of transmitter.</li> <li>• 0 V is present when opening the door.</li> </ul>
Power supply	B7	Battery voltage is constantly present.
Horn circuit	B11 (INPUT)	0 V is present when pressing the panic button of transmitter
Turn signal & hazard circuit	B12 (OUTPUT)	0 V is present when pressing the LOCK or UNLOCK button of transmitter.
Ground	B22	0 V is constantly present.
Power supply	C1	Battery voltage is constantly present.
Power supply	C2	Battery voltage is constantly present.
Key warning switch	C7 (INPUT)	Battery voltage is present when inserting the key into ignition switch.
Ground	C8	0 V is constantly present.
Ground	C9	0 V is constantly present.

### C: INSPECTION

#### 1. SYMPTOM CHART

Symptom	Repair order	Reference
None of the functions of keyless entry system operate.	1. Check the transmitter battery.  2. Check the fuse.  3. Check the keyless entry control module.  4. Check the power supply and ground circuit for body integrated unit.  5. Check the key warning switch.  6. Check the door switch.  7. Check the body integrated unit.	<Ref. to SL-15, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>  <Ref. to SL-16, CHECK FUSE, INSPECTION, Keyless Entry System.>  <Ref. to SL-16, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>  <Ref. to SL-17, CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT., INSPECTION, Keyless Entry System.>  <Ref. to SL-19, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>  <Ref. to SL-18, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>  <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
The transmitter cannot be registered.	1. Check the key warning switch.  2. Check the door lock switch signal.  3. Check the ignition switch.  4. Check the door switch.  5. Check the body integrated unit.	<Ref. to SL-19, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>  <Ref. to SL-22, CHECK DOOR LOCK SWITCH., INSPECTION, Keyless Entry System.>  <Ref. to SL-25, CHECK IGNITION SWITCH., INSPECTION, Keyless Entry System.>  <Ref. to SL-18, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>  <Ref. to LAN(diag)-2, 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 SL-8, INSPECTION, Door Lock Control System.>	1. Check the transmitter battery.  2. Check the keyless entry control module.  3. Check the key warning switch.  4. Check the door switch.  5. Check the body integrated unit.	<Ref. to SL-15, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>  <Ref. to SL-16, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>  <Ref. to SL-19, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>  <Ref. to SL-18, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>  <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

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## SECURITY AND LOCKS

Symptom	Repair order	Reference
The panic alarm does not operate.	1. Check the keyless transmitter battery and function.	<Ref. to SL-15, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	Check the horn operation.	<Ref. to SL-23, CHECK HORN OPERATION, INSPECTION, Keyless Entry System.>
	3. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
Buzzer or hazard light does not operate.	1. Check the buzzer operation.	<Ref. to SL-24, CHECK KEYLESS BUZZER, INSPECTION, Keyless Entry System.>
	2. Check the hazard light operation.	<Ref. to SL-20, CHECK HAZARD LIGHT OPERATION, INSPECTION, Keyless Entry System.>
	3. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
Room light does not operate.	1. Check the room light operation.	<Ref. to SL-20, CHECK ROOM LIGHT OPERATION, INSPECTION, Keyless Entry System.>
	2. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
Ignition switch illumination does not operate.	1. Check the ignition switch illumination.	<Ref. to SL-23, CHECK IGNITION SWITCH ILLUMINATION., INSPECTION, Keyless Entry System.>
	2. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## 2. CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION

Step	Check	Yes	No
1 <b>CHECK TRANSMITTER BATTERY.</b> 1) Remove the battery from the transmitter. <Ref. to SL-53, REMOVAL, Transmitter.> 2) Check the battery voltage. <Ref. to SL-53, INSPECTION, Transmitter.>	Is the voltage more than 2.5 V?	Go to step 2.	Replace the transmitter battery. <Ref. to SL-53, Transmitter.>
2 <b>CHECK KEYLESS TRANSMITTER BATTERY.</b> Register the keyless transmitter which operates normally on other vehicles to the inspection target vehicle. <Ref. to SL-53, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.> 1) Close all the doors and rear gate of inspection target vehicle. 2) Remove the key from ignition switch. 3) Using the keyless transmitter, lock and unlock the doors and rear gate of vehicle.	Is the inspection target vehicle operates lock and unlock normally?	Go to step 3.	Due to vehicle malfunction, continue the keyless entry system diagnosis.
3 <b>CHECK KEYLESS TRANSMITTER BATTERY.</b> Register the keyless transmitter of inspection target vehicle to the another vehicle which the keyless system operates normally. <Ref. to SL-53, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.>	Is the keyless transmitter registered correctly?	Go to step 4.	Replace the transmitter. <Ref. to SL-53, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.>
4 <b>CHECK KEYLESS TRANSMITTER BATTERY.</b> Check the registered keyless transmitter battery. 1) Close all the doors and rear gate of the vehicle which operates keyless system normally. 2) Remove the key from ignition switch. 3) Using the keyless transmitter, lock and unlock the doors and rear gate of vehicle.	Is the vehicle operates lock and unlock normally?	The transmitter is OK.	Replace the transmitter. <Ref. to SL-53, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.>

### CAUTION:

Be sure to reset the keyless transmitter of other vehicle which is registered to the inspection target vehicle, and the vehicle to which the keyless transmitter is registered for inspection, to the condition before performing the inspection. (Register the keyless transmitter again.)

# Keyless Entry System

## SECURITY AND LOCKS

### 3. CHECK FUSE

Step	Check	Yes	No
<b>1 CHECK FUSE.</b> Remove and visually check the fuse No. 3 (in the fuse and relay box) and No. 7 (in the fuse and relay box).	Is the fuse blown out?	Replace the fuse with a new one.	Check the power supply and ground circuit. <Ref. to SL-17, CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT., INSPECTION, Keyless Entry System.>

### 4. CHECK KEYLESS ENTRY CONTROL MODULE

Step	Check	Yes	No
<b>1 CHECK DIAGNOSTIC TROUBLE CODE (DTC).</b> 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {Integ. unit} from main menu. 4) Select the {Diagnostic Trouble Code}. 5) Check that the DTC is displayed.	Is DTC B0500 "Keyless UART com. Malfunction" displayed?	Go to step 2.	Keyless entry control module is normal.
<b>2 CHECK POWER SUPPLY.</b> 1) Disconnect the keyless entry control module harness connector. 2) Measure the voltage between harness connector terminal and chassis ground. <i>Connector &amp; terminal (i96) No. 4 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 3.	Check the harness for open circuits and shorts between the keyless entry control module and fuse.
<b>3 CHECK GROUND CIRCUIT.</b> Measure the resistance between harness connector terminal and chassis ground. <i>Connector &amp; terminal (i96) No. 7 — Chassis ground:</i>	Is the resistance less than 10 $\Omega$ ?	Go to step 4.	Repair the harness.
<b>4 CHECK KEYLESS ENTRY CONTROL MODULE CIRCUIT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Measure the resistance between harness connector terminals. <i>Connector &amp; terminal (i84) No. 9 — (i96) No. 3:</i>	Is the resistance less than 10 $\Omega$ ?	Replace the keyless entry control module. <Ref. to SL-50, Keyless Entry Control Module.>	Repair the harness.

### 5. CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT.

Step	Check	Yes	No
1 <b>CHECK POWER SUPPLY OF BODY INTEGRATED UNIT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Measure the voltage between harness connector terminal and chassis ground. <i>Connector &amp; terminal</i> (B280) No. 7 (+) — Chassis ground (-); (B281) No. 2 (+) — Chassis ground (-);	Is the voltage more than 10 V?	Go to step 2.	Check the harness for open or short between body integrated unit and fuse.
2 <b>CHECK BODY INTEGRATED UNIT GROUND CIRCUIT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Measure the resistance between harness connector terminal and chassis ground. <i>Connector &amp; terminal</i> (B280) No. 22 — Chassis ground; (B281) No. 8 — Chassis ground; (B281) No. 9 — Chassis ground;	Is the resistance less than 10 $\Omega$ ?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair the harness.

# Keyless Entry System

## SECURITY AND LOCKS

### 6. CHECK DOOR SWITCH

Step	Check	Yes	No
1 <b>CHECK DOOR SWITCH CIRCUIT.</b> Measure the voltage between the body integrated unit harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>Front door RH:</b> (i84) No. 32 (+) — Chassis ground (-): <b>Front door LH:</b> (i84) No. 19 (+) — Chassis ground (-): <b>Rear door RH:</b> (i84) No. 18 (+) — Chassis ground (-): <b>Rear door LH:</b> (i84) No. 31 (+) — Chassis ground (-): <b>Rear gate:</b> (i84) No. 17 (+) — Chassis ground (-):	Is the voltage 0 V when each door or rear gate is opened?	Go to step 2.	Go to step 3.
2 <b>CHECK DOOR SWITCH CIRCUIT.</b> Measure the voltage between the body integrated unit harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>Front door RH:</b> (i84) No. 32 (+) — Chassis ground (-): <b>Front door LH:</b> (i84) No. 19 (+) — Chassis ground (-): <b>Rear door RH:</b> (i84) No. 18 (+) — Chassis ground (-): <b>Rear door LH:</b> (i84) No. 31 (+) — Chassis ground (-): <b>Rear gate:</b> (i84) No. 17 (+) — Chassis ground (-):	Is the voltage more than 10 V when each door or rear gate is closed?	The door switch is OK.	Go to step 3.
3 <b>CHECK DOOR SWITCH.</b> 1) Disconnect the door switch harness connector. 2) Measure the resistance between door switch terminals. <b>Connector &amp; terminal</b> <b>(R12) Front RH door switch:</b> <b>(R9) Front LH door switch:</b> <b>(R16) Rear RH door switch:</b> <b>(R22) Rear LH door switch:</b> <b>No. 1 — No. 3:</b> <b>Rear gate latch switch: (D140) No. 3 — No. 4:</b>	Is the resistance more than 1 MΩ when door switch is pushed?	Go to step 4.	Replace the door switch.
4 <b>CHECK DOOR SWITCH.</b> Measure the resistance between door switch terminals. <b>Connector &amp; terminal</b> <b>(R12) Front RH door switch:</b> <b>(R9) Front LH door switch:</b> <b>(R16) Rear RH door switch:</b> <b>(R22) Rear LH door switch:</b> <b>No. 1 — No. 3:</b> <b>Rear gate latch switch: (D140) No. 3 — No. 4:</b>	Is the resistance less than 1 Ω when door switch is released?	Check the harness for open or short between body integrated unit and door switch.	Replace the door switch.

### 7. CHECK KEY WARNING SWITCH

Step	Check	Yes	No
<b>1 CHECK FUSE.</b> Remove and visually check the fuse No. 14 (in the main fuse box).	Is the fuse blown out?	Replace the fuse with a new one.	Go to step 2.
<b>2 CHECK KEY WARNING SWITCH CIRCUIT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Insert the key into ignition switch. (LOCK position) 3) Measure the voltage between harness connector terminal and chassis ground.  <i>Connector &amp; terminal</i> <i>(B281) No. 7 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 3.	Go to step 4.
<b>3 CHECK KEY WARNING SWITCH CIRCUIT.</b> 1) Remove the key from ignition switch. 2) Measure the voltage between harness connector terminal and chassis ground.  <i>Connector &amp; terminal</i> <i>(B281) No. 7 (+) — Chassis ground (-):</i>	Is the voltage 0 V?	The key warning switch is OK.	Go to step 4.
<b>4 CHECK KEY WARNING SWITCH.</b> 1) Disconnect the key warning switch harness connector. 2) Insert the key into ignition switch. (LOCK position) 3) Measure the resistance between key warning switch terminals.  <i>Connector &amp; terminal</i> <i>(B350) No. 3 — No. 4:</i>	Is the resistance less than 1 $\Omega$ ?	Go to step 5.	Replace the key warning switch.
<b>5 CHECK KEY WARNING SWITCH.</b> 1) Remove the key from ignition switch. 2) Measure the resistance between key warning switch terminals.  <i>Connector &amp; terminal</i> <i>(B350) No. 3 — No. 4:</i>	Is the resistance more than 1 $M\Omega$ ?	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	Replace the key warning switch.

# Keyless Entry System

## SECURITY AND LOCKS

### 8. CHECK ROOM LIGHT OPERATION

Step	Check	Yes	No
<b>1 CHECK ROOM LIGHT OPERATION.</b> Make sure the room light illuminates when the room light switch is turned to ON.	Does the room light illuminate?	Go to step 2.	Check the room light circuit.
<b>2 CHECK HARNESS BETWEEN ROOM LIGHT AND BODY INTEGRATED UNIT.</b> 1) Disconnect the body integrated unit harness connector and room light harness connector. 2) Measure the resistance between the body integrated unit harness connector terminal and room light harness connector terminal. <i>Connector &amp; terminal</i> <i>(B280) No. 3 — (R52) No. 2:</i>	Is the resistance less than 10 $\Omega$ ?	The room light operation circuit is OK.	Check the harness for open or short between body integrated unit and room light.

### 9. CHECK HAZARD LIGHT OPERATION

Step	Check	Yes	No
<b>1 CHECK HAZARD LIGHT OPERATION.</b> Make sure the hazard light blinks when hazard switch is turned to ON.	Does the hazard light blink?	Go to step 2.	Check the hazard light circuit.
<b>2 CHECK OUTPUT TO HAZARD LIGHT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the key warning switch harness connector. 3) Connect the Subaru Select Monitor to data link connector. 4) Turn the ignition switch to ON. 5) Select {Integ. unit} from main menu. 6) Select {ECU customizing}. 7) Check {Hazard answer-back setup}, and then switch to ON setting if necessary. 8) Select the {Current Data Display & Save}. 9) When operate the LOCK/UNLOCK button of transmitter, check the hazard output signal of body integrated unit. <i>Connector &amp; terminal</i> <i>(B280) No. 12 — (B32) No. 8:</i>	Is output signal is present when operating the transmitter LOCK/UNLOCK button?	Go to step 3.	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
<b>3 CHECK CIRCUIT OF HAZARD LIGHT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Disconnect the turn signal & hazard unit harness connector. 3) Measure the resistance between harness connector terminals.	Is the resistance less than 10 $\Omega$ ?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair the harness.

### 10.CHECK REAR GATE RELEASE ACTUATOR OPERATION

Step	Check	Yes	No
1 <b>CHECK REAR GATE RELEASE ACTUATOR OPERATION.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the key warning switch harness connector. 3) Connect the Subaru Select Monitor to data link connector. 4) Turn the ignition switch to ON. 5) Select {Integ. unit} from main menu. 6) Select the {Current Data Display & Save}. 7) Check the rear gate release output signal of body integrated unit when operating the LOCK/UNLOCK button of keyless transmitter.	Is output signal is present when operating the transmitter LOCK/UNLOCK button?	Go to step 2.	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2 <b>CHECK THE CIRCUIT OF REAR GATE RELEASE ACTUATOR.</b> 1) Disconnect the harness connector of body integrated unit. 2) Disconnect the rear gate release actuator harness connector. 3) Measure the resistance between harness connectors.  <i>Connector &amp; terminal (i84) No. 22 — (D140) No. 1:</i>	Is the resistance less than 10 Ω?	Go to step 3.	Repair the harness.
3 <b>CHECK CIRCUIT OF HAZARD LIGHT.</b> 1) Check the ground circuit of rear gate release actuator 2) Disconnect the rear gate release actuator harness connector. 3) Measure the resistance between harness connector terminal and chassis ground.  <i>Connector &amp; terminal (D140) No. 2 — Chassis ground:</i>	Is the resistance less than 10 Ω?	Check the trunk lid lock actuator. <Ref. to SL-43, INSPECTION, Rear Gate Latch Assembly.>	Repair the harness.

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## SECURITY AND LOCKS

### 11.CHECK DOOR LOCK SWITCH.

Step	Check	Yes	No
<b>1 CHECK DOOR LOCK SWITCH.</b> Check the input signal from door lock switch to body integrated unit using Subaru Select Monitor. 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {Integ. unit} from main menu. 4) Select the {Current Data Display & Save}. 5) Check the input signal to body integrated unit by operating the door lock switch.	Is the normal input signal displayed when the door lock switch is moved to LOCK/UNLOCK?	The door lock switch is OK. Go to step 2.	
<b>2 CHECK DOOR LOCK SWITCH CIRCUIT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Measure the resistance between the harness connector terminal and chassis ground when moving the door lock switch to LOCK. <i>Connector &amp; terminal (i84) No. 15 — Chassis ground:</i>	Is the resistance less than 10 $\Omega$ ?	Go to step 3. Go to step 4.	
<b>3 CHECK DOOR LOCK SWITCH CIRCUIT.</b> Measure the resistance between the harness connector terminal and chassis ground when the door lock switch is moved to UNLOCK. <i>Connector &amp; terminal (i84) No. 29 — Chassis ground:</i>	Is the resistance less than 10 $\Omega$ ?	The door lock switch is OK. Go to step 4.	
<b>4 CHECK DOOR LOCK SWITCH.</b> 1) Disconnect the door lock switch harness connector. 2) Measure the resistance between the door lock switch terminals when moving the door lock switch to LOCK. <i>Connector &amp; terminal Driver's side: (D7) No. 5 — No. 9: Passenger's side: (D125) No. 2 — No. 5:</i>	Is the resistance less than 1 $\Omega$ ?	Go to step 5. Replace the door lock switch.	
<b>5 CHECK DOOR LOCK SWITCH.</b> Measure the resistance between the door lock switch terminals when moving the door lock switch to UNLOCK. <i>Connector &amp; terminal Driver's side: (D7) No. 5 — No. 8: Passenger's side: (D125) No. 4 — No. 5:</i>	Is the resistance less than 1 $\Omega$ ?	Check the harness for open circuits or shorts between the body integrated unit and the door lock switch. Replace the door lock switch.	

### 12.CHECK IGNITION SWITCH ILLUMINATION.

Step	Check	Yes	No
<b>1 CHECK FUSE.</b> Remove and visually check the fuse No. 14 (in the main fuse box).	Is the fuse blown out?	Replace the fuse with a new one.	Go to step 2.
<b>2 CHECK POWER SUPPLY.</b> 1) Disconnect the ignition switch illumination harness connector. 2) Measure the voltage between harness connector terminal and chassis ground. <i>Connector &amp; terminal (B414) No. 2 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 3.	Check the harness for open circuits and shorts between the ignition switch illumination and fuse.
<b>3 CHECK IGNITION SWITCH ILLUMINATION CIRCUIT.</b> 1) Disconnect the harness connector of body integrated unit and ignition switch illumination harness connector. 2) Measure the resistance between body integrated unit harness connector terminal and ignition switch illumination harness connector terminal. <i>Connector &amp; terminal (B280) No. 4 — (B414) No. 1:</i>	Is the resistance less than 10 $\Omega$ ?	Replace the ignition switch illumination bulb with a new one. <Ref. to LI-35, REMOVAL, Ignition Switch Illumination.>	Check the harness for open circuits and shorts between the body integrated unit and ignition switch illumination.

### 13.CHECK HORN OPERATION

Step	Check	Yes	No
<b>1 CHECK HORN OPERATION.</b> Make sure the horn sounds when the horn switch is pushed.	Does the horn sound?	Go to step 2.	Check the horn circuit.
<b>2 CHECK HORN OPERATION.</b> 1) Disconnect the harness connector of body integrated unit. 2) Connect the harness connector terminal to ground using a suitable lead wire. <i>Connector &amp; terminal (B280) No. 11 (+) — Chassis ground (-):</i>	Does the horn sound?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Check the harness for open circuits and/or shorts between the body integrated unit and horn relay.

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## SECURITY AND LOCKS

### 14.CHECK KEYLESS BUZZER

Step	Check	Yes	No
1 <b>CHECK KEYLESS BUZZER OPERATION.</b> Check that the keyless buzzer sounds when LOCK or OPEN button of keyless remote control key is pressed.	Does the keyless buzzer sound?	Keyless buzzer is normal.	Go to step 2.
2 <b>CHECK KEYLESS BUZZER ON/OFF SWITCH.</b>  NOTE: If operations 1-5 are performed with the keyless buzzer OFF, the keyless buzzer will turn ON. 1) Close the driver's side door and remove the key from the ignition key cylinder. 2) Push the door lock switch to the UNLOCK side, and insert the key into the ignition key cylinder. 3) From 2, pull out ⇔ insert the key from the ignition key cylinder 5 times. 4) From 3, open → close the driver's side door within 10 seconds. 5) The keyless buzzer sound ON/OFF will switch, and the hazard lamp will blink 3 times. If the driver's side door is not opened → closed within 10 seconds in step 4, the hazard lamp will blink once and the setting will not be changed.) 6) Check that the keyless buzzer sounds when LOCK or OPEN button of keyless remote control key is pressed.	Does the keyless buzzer sound?	Keyless buzzer is normal.	Go to step 3.
3 <b>CHECK FOR POWER SUPPLY OF KEYLESS BUZZER.</b>  1) Turn the ignition switch to OFF. 2) Disconnect the keyless buzzer harness connector. 3) Press the LOCK/UNLOCK button of the keyless transmitter. 4) Measure the voltage between harness connector terminal and chassis ground.  <i>Connector &amp; terminal (F102) No. 1 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 4.	Check the harness for open circuits and shorts between the keyless buzzer and fuse.
4 <b>CHECK FOR GROUND CIRCUIT OF KEYLESS BUZZER.</b>  1) Disconnect the harness connector of body integrated unit. 2) Measure the resistance between harness connector terminals.  <i>Connector &amp; terminal (i84) No. 6 — (F102) No. 1:</i>	Is the resistance less than 10 Ω?	Go to step 5.	Repair the harness.
5 <b>CHECK KEYLESS BUZZER.</b>  1) Remove the keyless buzzer. 2) Install the keyless buzzer to another vehicle which operates keyless buzzer normally, check the buzzer sounds.	Does the keyless buzzer sound?	Check the body integrated unit or door lock switch. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.> <Ref. to GW-7, Power Window Control Switch.>	Replace the keyless buzzer.

### 15.CHECK IGNITION SWITCH.

Step	Check	Yes	No
1 <b>CHECK FUSIBLE LINK.</b> Remove the fusible link main SBF and SBF-6 (in main fuse box), and visually check.	Is the fusible link blown out?	Replace the fusible link main SBF or SBF-6. If the replaced fusible link has blown out easily, repair the short circuit between the fusible link and the ignition switch.	Go to step 2.
2 <b>CHECK FOR POWER SUPPLY OF IGNITION SWITCH.</b> 1) Disconnect the ignition switch harness connector. 2) Measure the voltage between harness connector terminal and chassis ground. <i>Connector &amp; terminal (B72) No. 3 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 3.	Check the harness for open circuits and shorts between the ignition switch and fusible link.
3 <b>CHECK IGNITION SWITCH.</b> 1) Insert the ignition key into ignition switch, and turn the each position. 2) Measure the resistance between ignition switch terminals. <i>Connector &amp; terminal No. 3 — No. 4 (ACC position): No. 3 — No. 4 — No. 6 — No. 1 (ON position): No. 3 — No. 6 — No. 1 — No. 2 (ST position):</i>	Is the resistance less than 1 $\Omega$ when turning the ignition key to each position?	Ignition switch is normal.	Replace the ignition switch with a new part. <Ref. to SL-46, REPLACEMENT, Ignition Key Lock.>

#### CAUTION:

When the ignition key lock is replaced, all ignition keys also must be registered. (Refer to the "IMMOBILIZER TEACHING OPERATION MANUAL".)