

SECTION

SBC

SEAT BELT CONTROL SYSTEM

A
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C

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000011006819

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000011006820

CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Before removing and installing any control units, first turn the ignition power source and accessory power source to the OFF, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

2. Open driver door.
3. Turn the ignition switch to the ON position.
(At this time, the steering lock will be released.)
4. Turn the ignition switch to OFF position with driver door open.
5. Wait for 3 minutes or longer with driver door open.

NOTE:

- Do not close driver door because the steering wheel locks when driver door is closed.

PRECAUTIONS

< PRECAUTION >

- The auto acc function is adapted to this vehicle. For this reason, even when the ignition switch is turned to OFF position, the accessory power source does not turned OFF and continues to be supplied for a certain amount of time.
6. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
 7. Perform the necessary repair operation.
 8. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the ignition switch from OFF position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
 9. Perform self-diagnosis check of all control units using CONSULT.

Precautions for Removing Battery Terminal

INFOID:000000011006821

- With the adoption of Auto ACC function, ACC power is automatically supplied by operating the intelligent key or remote keyless entry or by opening/closing the driver side door. In addition, ACC power is supplied even after the ignition switch is turned to the OFF position, i.e. ACC power is supplied for a certain fixed time.
- When disconnecting the 12V battery terminal, turn off the ACC power before disconnecting the 12V battery terminal, observing "How to disconnect 12V battery terminal" described below.

NOTE:

Some ECUs operate for a certain fixed time even after ignition switch is turned OFF and ignition power supply is stopped. If the battery terminal is disconnected before ECU stops, accidental DTC detection or ECU data damage may occur.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

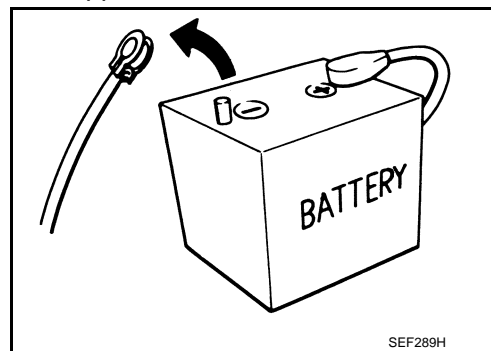
NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

NOTE:

The removal of 12V battery may cause a DTC detection error.



HOW TO DISCONNECT 12V BATTERY TERMINAL

Disconnect 12V battery terminal according to Instruction 1 or Instruction 2 described below.

For vehicles parked by ignition switch OFF, refer to Instruction 2.

INSTRUCTION 1

1. Open the hood.
2. Turn key switch to the OFF position with the driver side door opened.
3. Get out of the vehicle and close the driver side door.
4. Wait at least 3 minutes. For vehicle with the engine listed below, remove the battery terminal after a lapse of the specified time.

D4D engine	: 20 minutes
HRA2DDT	: 12 minutes
K9K engine	: 4 minutes
M9R engine	: 4 minutes
R9M engine	: 4 minutes
V9X engine	: 4 minutes

CAUTION:

While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.

5. Remove 12V battery terminal.

CAUTION:

After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.

INSTRUCTION 2 (FOR VEHICLES PARKED BY IGNITION SWITCH OFF)

1. Unlock the door with intelligent key or remote keyless entry.

PRECAUTIONS

< PRECAUTION >

NOTE:

At this moment, ACC power is supplied.

2. Open the driver side door.
3. Open the hood.
4. Close the driver side door.
5. Wait at least 3 minutes.

CAUTION:

While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.

6. Remove 12V battery terminal.

CAUTION:

After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.

COMPONENT PARTS

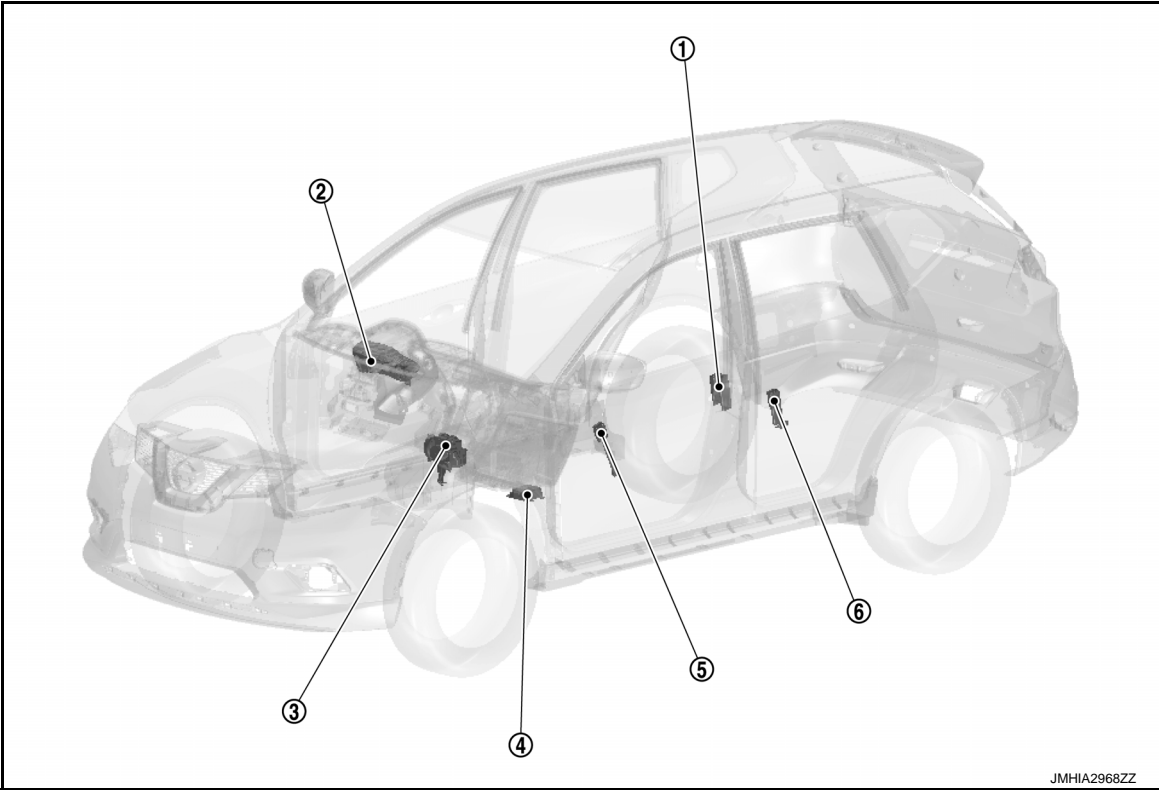
< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000010926545



No.	Component	Function
①	Rear seat belt buckle switch (Center and RH)	Refer to SBC-6, "Seat Belt Buckle Switch" .
②	Combination meter	<ul style="list-style-type: none">• Receives seat belt buckle switch signal from air bag diagnosis sensor unit.• Turns the seat belt warning lamp ON when the seat belt is unfastened.• Turns the rear seat belt warning (information display/buzzer) ON according to the request from air bag diagnosis sensor unit via CAN communication.
③	ABS actuator and electric unit (Control unit)	Transmits vehicle speed signal to combination meter. Refer to BRC-14, "Component Parts Location" for detailed installation location.
④	Air bag diagnosis sensor unit	Transmits seat belt buckle switch signal to combination meter. Refer to SRC-6, "Component Parts Location" for detailed installation location.
⑤	Front seat belt buckle switch (Passenger side)	Refer to SBC-6, "Seat Belt Buckle Switch" .
⑥	Rear seat belt buckle switch (LH)	Refer to SBC-6, "Seat Belt Buckle Switch" .

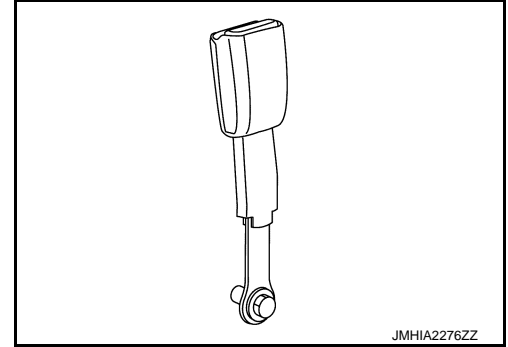
COMPONENT PARTS

< SYSTEM DESCRIPTION >

Seat Belt Buckle Switch

INFOID:0000000010926546

- Detects seat belt status and transmits seat belt buckle switch (passenger side and rear) signal to air bag diagnosis sensor unit.
- The seat belt buckle switch is installed in the seat belt buckle.



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SYSTEM

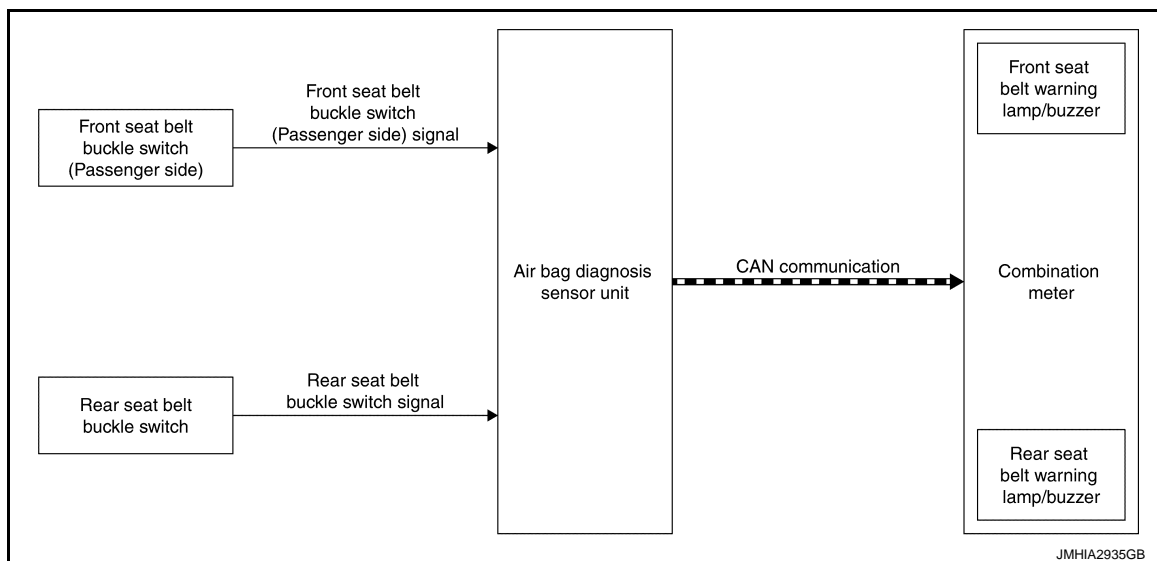
< SYSTEM DESCRIPTION >

SYSTEM

SEAT BELT WARNING LAMP CONTROL SYSTEM

SEAT BELT WARNING LAMP CONTROL SYSTEM : System Description INFOID:0000000010926547

SYSTEM DIAGRAM



SEAT BELT WARNING LAMP OPERATION

Seat belt warning lamp on combination meter turns ON during a period when ignition switch is turns ON until front seat belts are fastened. Seat belt warning lamp turns OFF when front seat belt is fastened. Seat belt warning lamp turns ON again when front seat belt is unfastened. Refer to [MWI-54, "WARNING LAMPS/INDICATOR LAMPS : Seat Belt Warning Lamp"](#).

REAR SEAT BELT WARNING LAMP OPERATION

Seat belt warning is displayed on information display for approximately 35 seconds when the following conditions.

- Turn ignition switch is ON.
- Rear seat belt buckle switch is turned ON (rear seat belt is not fastened).

Seat belt warning is canceled when the following conditions.

- Ignition switch is turned OFF (rear seat belt is fastened).
- Approximately 35 seconds are passed since rear seat belt warning is displayed.

SEAT BELT WARNING CHIME OPERATION

Front

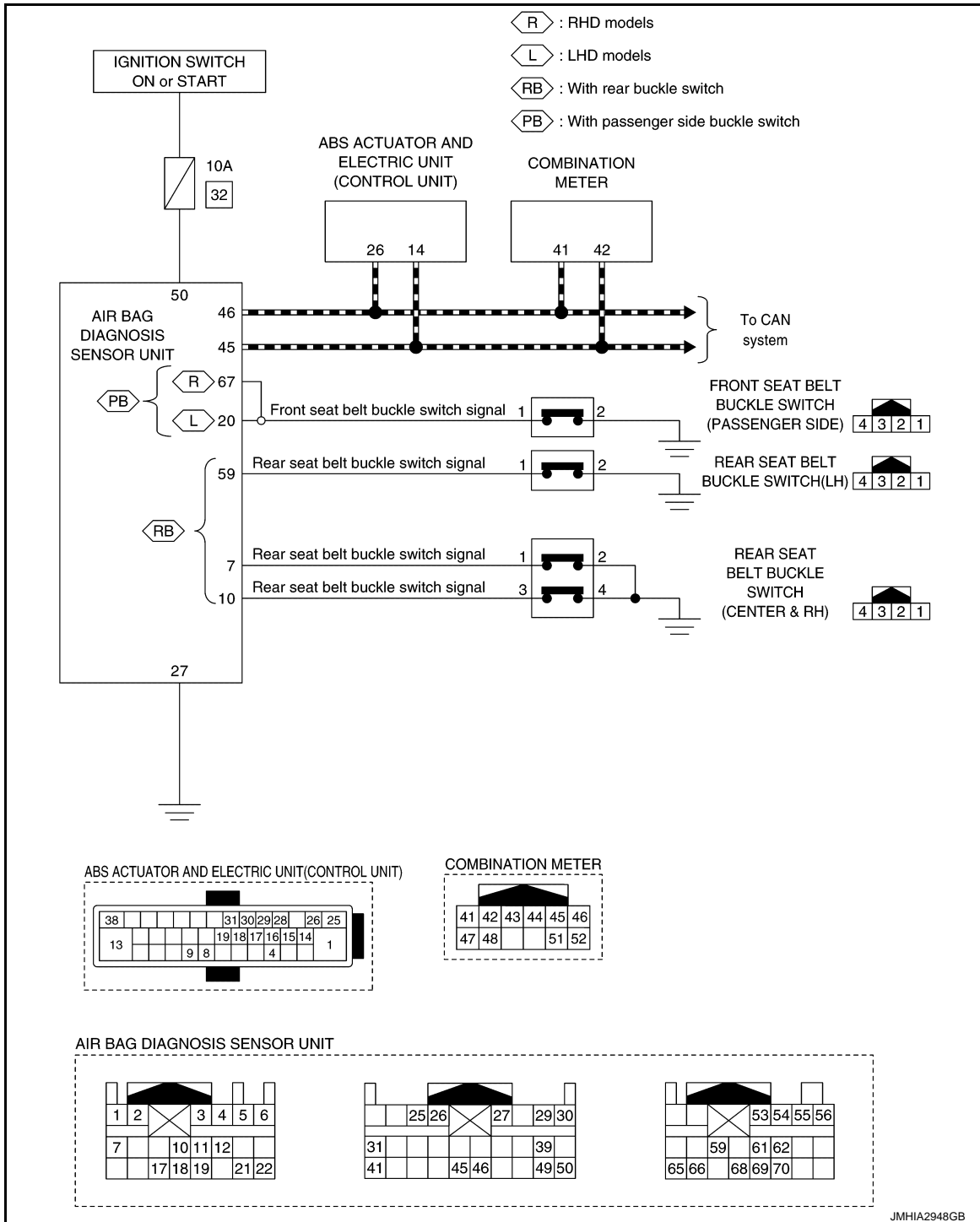
Front seat belt warning chime sounds for approximately 90 seconds when the vehicle speed is approximately 15 km/h (9.3 MPH) or more while front seat belts are not fastened. Front seat belt warning chime stops when front seat belt is fastened.

SYSTEM

< SYSTEM DESCRIPTION >

SEAT BELT WARNING LAMP CONTROL SYSTEM : Circuit Diagram

INFOID:000000010926548



INFORMATION DISPLAY (COMBINATION METER)

INFORMATION DISPLAY (COMBINATION METER) : Rear Seat Belt Warning


INFOID:000000010926549

DESIGN/PURPOSE

Rear seat belt warning warns the driver that rear seat belt is not fastened.

SYSTEM

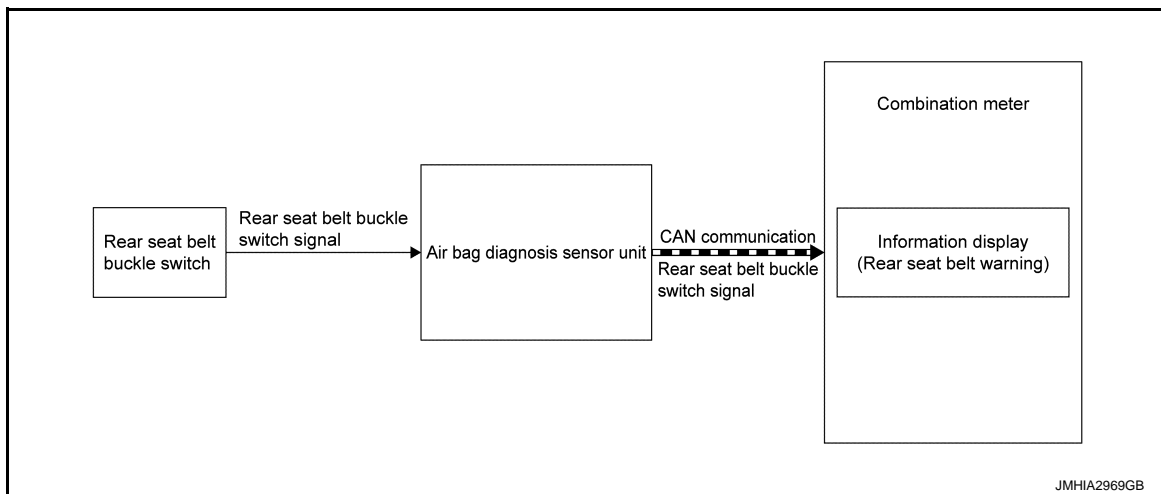
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Symbol	Message
 <p>JMKIB3746ZZ</p>	-

SYNCHRONIZATION WITH MASTER WARNING LAMP

No applicable

SYSTEM DIAGRAM



SIGNAL PATH

- When combination meter detects ignition switch ON, rear seat belt warning displays.
- When combination meter judges according to received rear seat belt buckle switch signal that a rear seat belt is not fastened.

WARNING OPERATION CONDITION

When all of the following conditions are satisfied.

- Ignition switch is ON
- Rear seat belt buckle switch: OFF → ON (rear seat belt fastened → not fastened)

WARNING CANCEL CONDITION

When any of the following conditions are satisfied.

- Ignition switch: ON → OFF
- Approximately 35 seconds are passed since warning start.

WARNING/INDICATOR/CHIME LIST

WARNING/INDICATOR/CHIME LIST : Warning Lamp/Indicator Lamp

INFOID:0000000010926550

Item	Reference
Seat belt warning lamp	For layout, refer to MWI-10, "METER SYSTEM : Design" .
	For function, refer to MWI-54, "WARNING LAMPS/INDICATOR LAMPS : Seat Belt Warning Lamp" .

SYSTEM

< SYSTEM DESCRIPTION >

Item	Reference
Rear seat belt warning	For layout, refer to SBC-8, "INFORMATION DISPLAY (COMBINATION METER) : Rear Seat Belt Warning" .
	For function, refer to SBC-7, "SEAT BELT WARNING LAMP CONTROL SYSTEM : System Description" .

WARNING/INDICATOR/CHIME LIST : Warning Chime

INFOID:0000000010926551

Item	Reference
Seat belt warning	Refer to WCS-17, "WARNING CHIME : Seat Belt Warning" .

SEAT BELT WARNING LAMP CONTROL SYSTEM

< WIRING DIAGRAM >

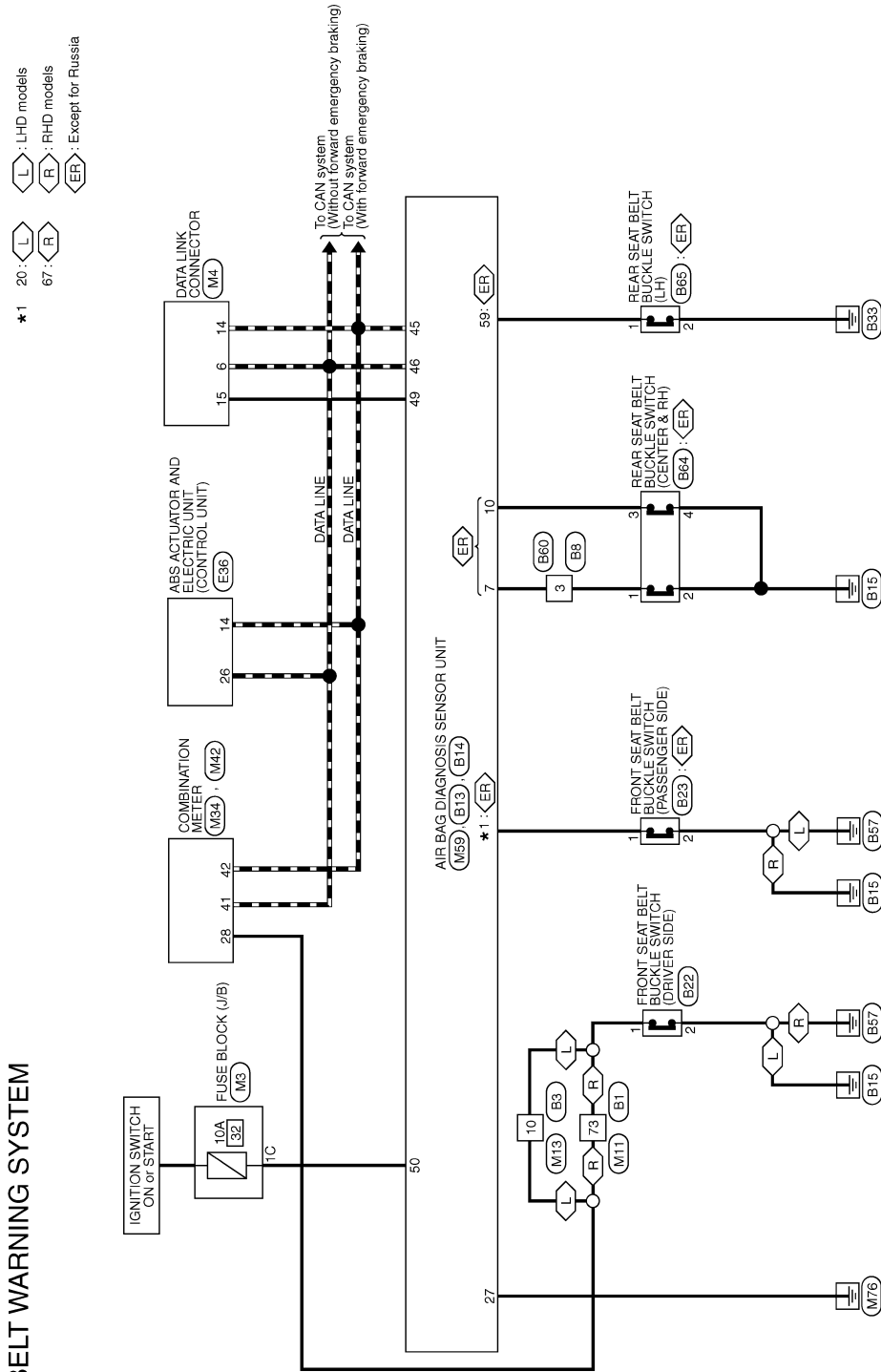
WIRING DIAGRAM

SEAT BELT WARNING LAMP CONTROL SYSTEM

Wiring Diagram

INFOID:0000000010926552

SEAT BELT WARNING SYSTEM



SBC

SEAT BELT WARNING LAMP CONTROL SYSTEM

< WIRING DIAGRAM >

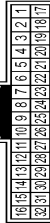
SEAT BELT WARNING SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



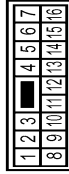
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	LAY	-
6	V	-
7	LAY	-
20	L	- [With diesel engine]
20	LAL	- [With gasoline engine]
21	B	- [With diesel engine]
21	LAB	- [With gasoline engine]
24	G	-
25	BR	-
73	LAY	-
74	R	-
75	R	-
84	L	-
85	L	-
92	LAR	-
93	LAL	-
95	LABR	-
97	L	-
98	Y	-
99	LAP	-
100	GR	- [With diesel engine]
100	LA/GR	- [With gasoline engine]

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
2	V	-
3	LAR	-
4	V	-
6	GR	-
7	Y	-
8	Y	-
7	LG	-
8	BG	-
9	W	-
10	LAY	-
11	BR	-
12	Y	-
13	W	-
14	V	-
15	L	-
16	BR	-
17	Y	-
18	LAL	- [Without PSM]
18	SB	- [With PSM]
20	LG	-
21	G	-
22	V	-
23	BR	-
24	P	-
25	L	-
26	G	-
29	SHIELD	-
30	W	-
31	B	-
32	R	-

Connector No.	B8
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	G	-
3	P	-
6	L	-
7	L	-
8	SB	-
9	R	-
10	LAW	-
11	LAWR	-
12	W	-
13	P	-
14	R	-
15	P	-
16	P	-

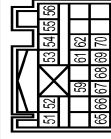
Connector No.	B13
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	NH22FY-IV-EX



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	PRH2(+)
2	L	PRH2(-)
3	V	SRH(+)
4	P	SRH(-)
5	B	GRH(-)

6	W	CRH(+)
7	P	REAR SEAT BELT BUCKLE SWITCH (CENTER)
10	GR	REAR SEAT BELT BUCKLE SWITCH (RH)
11	BR	C-SATELLITE RH(+)
12	Y	C-SATELLITE RH(-)
17	SHIELD	GND
18	R	B-SATELLITE RH(+)
19	G	B-SATELLITE RH(-)
20	SB	SEAT BELT BUCKLE SWITCH (FRONT RH)
21	V	PRH(-)
22	LG	PRH(+)

Connector No.	B14
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	NH22FY-2V-EX



Terminal No.	Color Of Wire	Signal Name [Specification]
51	G	PLH2(+)
52	R	PLH2(-)
53	V	SLH(+)
54	LG	SLH(-)
55	BR	CLH(+)
56	Y	CLH(-)
59	LG	REAR SEAT BELT BUCKLE SWITCH (LH)
61	L	C-SATELLITE LH(+)
62	P	C-SATELLITE LH(-)
65	P	PLH(+)
66	GR	PLH(-)
67	SB	SEAT BELT BUCKLE SWITCH (FRONT LH)
68	G	B-SATELLITE LH(+)
69	R	B-SATELLITE LH(-)
70	SHIELD	GND

SEAT BELT WARNING LAMP CONTROL SYSTEM

< WIRING DIAGRAM >

SEAT BELT WARNING SYSTEM

Connector No.	B22
Connector Name	FRONT SEAT BELT BUCKLE SWITCH (DRIVER SIDE)
Connector Type	TH04FW-NH



Terminal No.	Wire	Signal Name [Specification]
1	LAY	-
2	B	-

Connector No.	B23
Connector Name	FRONT SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)
Connector Type	TH04FW-NH



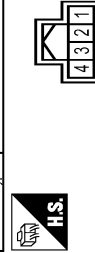
Terminal No.	Wire	Signal Name [Specification]
1	SB	-
2	B	-

Connector No.	B60
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LALG	-
2	LAGR	-
3	P	-
4	L	-
5	L	-
6	GR	-
7	GR	-
8	SB	- [For LHD models]
9	LAR	- [For RHD models]
10	LAY	-
11	LABR	-
12	W	-
13	LAV	-
14	R	-
15	P	-
16	P	-

Connector No.	B64
Connector Name	REAR SEAT BELT BUCKLE SWITCH (CENTER L/H)
Connector Type	TH04FW-NH



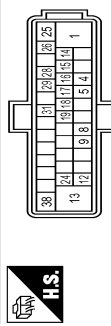
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	B	-
3	LG	-
4	B	-

Connector No.	B65
Connector Name	REAR SEAT BELT TRUCKLE SWITCH (L/H)
Connector Type	TH04FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	B	-

Connector No.	E36
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BE24FB-BH2-BJ22-RH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	MOTOR POWER SUPPLY
4	SB	FR RH WHEEL SENSOR POWER SUPPLY
5	V	BRAKE VACUUM SENSOR POWER SUPPLY
8	P	FR LH WHEEL SENSOR SIGNAL
9	Y	hill descent control SWITCH SIGNAL
12	LG	BRAKE VACUUM SENSOR SIGNAL
13	B	GROUND (MOTOR)
14	P	CANL
15	BR	VDC OFF SWITCH SIGNAL
16	R	FR RH WHEEL SENSOR POWER SUPPLY
17	Y	RR RH WHEEL SENSOR POWER SUPPLY
18	G	RR LH WHEEL SENSOR SIGNAL
19	W	FR LH WHEEL SENSOR POWER SUPPLY
24	SHIELD	BRAKE VACUUM SENSOR GROUND
25	BR	VALVE POWER SUPPLY
26	L	CANH
28	GR	IGNITION POWER SUPPLY
29	LG	RR RH WHEEL SENSOR SIGNAL

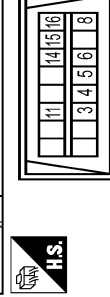
31	BR	RR LH WHEEL SENSOR POWER SUPPLY
38	B	GROUND (VALVE)

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	LG	-
13C	LAG	-
14C	R	-
15C	L	-
16C	LAW	-
1C	R	-
2C	G	-
3C	Y	-
4C	LG	-
5C	GR	-
6C	LAR	-
7C	Y	-
8C	BR	- [With ISS]
8C	LABR	- [Without ISS]
9C	L	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



JRHWC2023GB

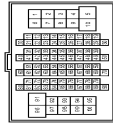
SEAT BELT WARNING LAMP CONTROL SYSTEM

< WIRING DIAGRAM >

SEAT BELT WARNING SYSTEM

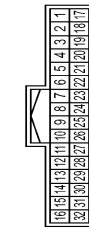
Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
8	Y	-
11	SB	-
14	P	-
15	BR	-
16	W	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH89FW-CS16-TM4



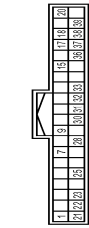
Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	Y	-
6	GR	-
7	LG	-
20	LAL	-
21	LAV	-
24	G	-
25	BR	-
73	Y	-
74	R	-
75	R	-
84	L	-
85	L	-
92	LAW	-
93	LAY	-
95	SB	-
97	BG	-
98	Y	-
99	W	-
100	LAV	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH92FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
2	V	-
3	SB	-
4	BR	-
5	L	-
6	Y	-
7	LG	-
8	BG	-
9	W	-
10	Y	-
11	R	-
12	SB	-
13	LG	-
14	V	-
15	SB	-
16	Y	-
17	LAV	-
18	LAL	-
20	BG	-
21	BG	-
22	GR	-
23	GR	-
24	P	-
25	L	-
26	BR	-
29	SHIELD	-
30	W	-
31	B	-
32	R	-

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-AH



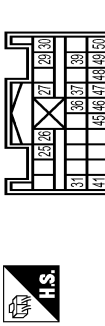
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
7	BG	SECURITY SIGNAL
9	GR	ECO MODE SWITCH SIGNAL
15	L	AMBIENT SENSOR SIGNAL
17	BG	METER CONTROL SWITCH SIGNAL
18	SB	TRIP RESET SWITCH SIGNAL
20	Y	AMBIENT SENSOR GROUND
21	L	STEERING SWITCH SIGNAL A
22	Y	STEERING SWITCH SIGNAL B
23	GR	STEERING SWITCH SIGNAL
25	V	BRAKE FLUID LEVEL SWITCH SIGNAL
28	Y	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	LG	MANUAL MODE SIGNAL
31	SB	NON-MANUAL MODE SIGNAL
32	BG	MANUAL MODE SHIFT UP SIGNAL
33	BR	MANUAL MODE SHIFT DOWN SIGNAL
36	GR	ILLUMINATION CONTROL SWITCH SIGNAL (+)
37	V	ILLUMINATION CONTROL SWITCH SIGNAL (-)
38	G	VEHICLE SPEED SIGNAL (8-PULSE)
39	W	VEHICLE SPEED SIGNAL (2-PULSE)

Connector No.	M42
Connector Name	COMBINATION METER
Connector Type	TH12FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
41	L	CANH
42	P	CANL
43	W	ILLUMINATION CONTROL SIGNAL
44	LAV	FUEL LEVEL SENSOR GROUND
45	LAG	BATTERY POWER SUPPLY
46	LAV	IGNITION SIGNAL (IMBOLUSS)
46	Y	IGNITION SIGNAL (IMBOLUSS)
47	SB	AV COMMUNICATION SIGNAL (+)
48	LG	AV COMMUNICATION SIGNAL (-)
49	Y	OIL LEVEL SENSOR SIGNAL
50	BG	OIL LEVEL SENSOR GROUND
51	LAL	FUEL LEVEL SENSOR SIGNAL
52	B	GROUND

Connector No.	M59
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	NI28FY-EX



Terminal No.	Color Of Wire	Signal Name [Specification]
25	LG	INFLATOR AS-
26	SB	ASI(+)
27	B	ASI(+)
29	Y	DB(+)
30	G	DB(+)
31	B	ECZS(+)
36	BR	DEACTIVE

SEAT BELT WARNING LAMP CONTROL SYSTEM

< WIRING DIAGRAM >

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SEAT BELT WARNING SYSTEM		
37	R	ACTIVE
39	SHIELD	GND
41	W	ECZS(+)
45	P	CAN-L
46	L	CAN-H
47	GR	ABS ON IND
48	W	ABS OFF IND
49	BG	K-LINE
50	R	IGN

JRHWC2025GB

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

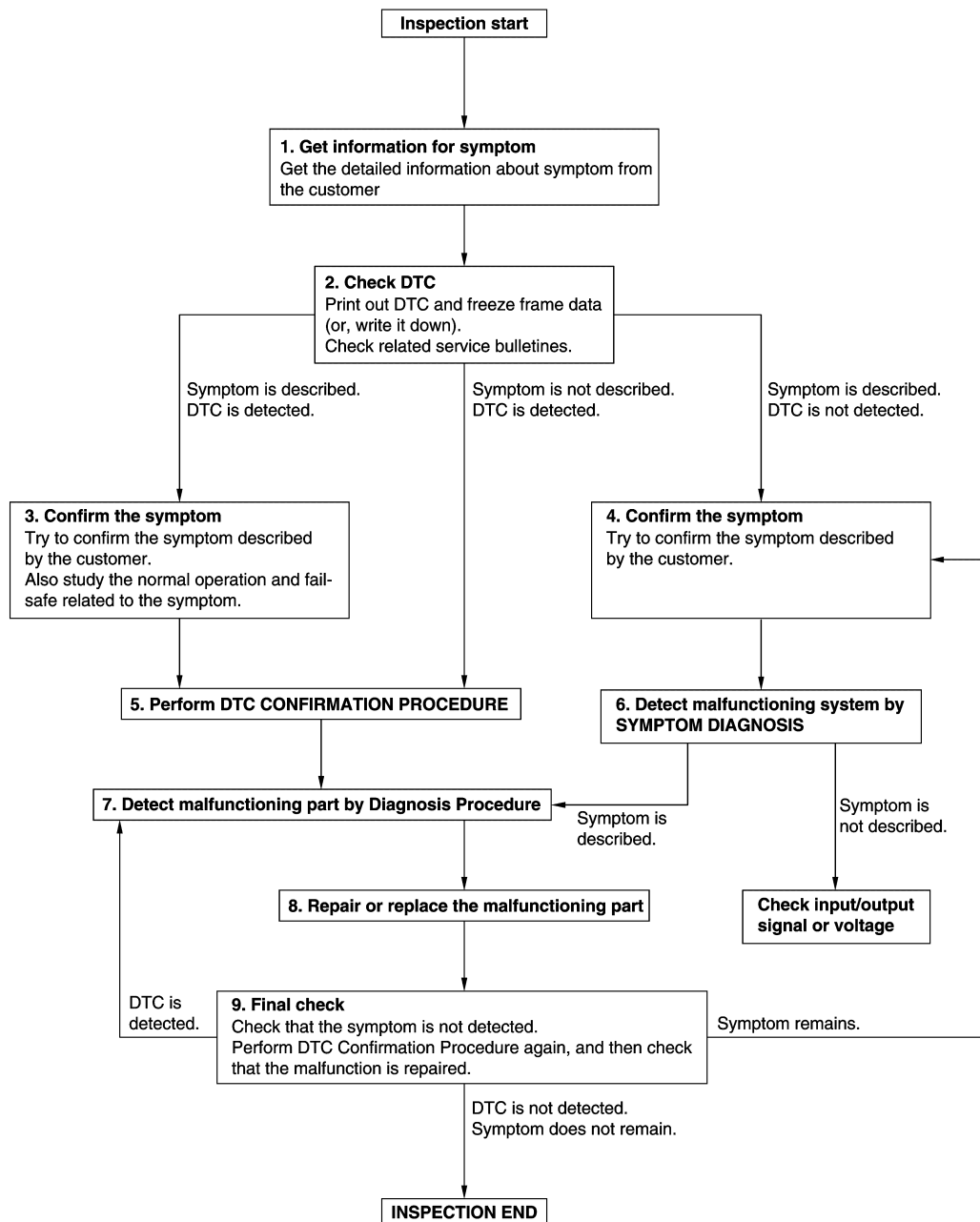
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000010926553

OVERALL SEQUENCE



JMKIA8652GB

DETAILED FLOW

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

1.GET INFORMATION FOR SYMPTOM

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

2.CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is detected.
 - Record DTC and freeze frame data (Print them out using CONSULT.)
 - Erase DTC.
 - Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.

Symptom is described, DTC is not detected>>GO TO 4.

Symptom is not described, DTC is detected>>GO TO 5.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time. If two or more DTCs are detected, refer to DTC INSPECTION PRIORITY CHART, and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.
If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to [GI-44. "Intermittent Incident"](#).

6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

Is the symptom described?

YES >> GO TO 7.

NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

7.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-44, "Intermittent Incident"](#).

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.

When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.

YES-2 >> Symptom remains: GO TO 4.

NO >> Before returning the vehicle to the customer, always erase DTC.

SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Diagnosis Procedure

INFOID:0000000010926554

1.CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

1. Disconnect seat belt buckle switch (passenger side) connector.
2. Check continuity between seat belt buckle switch (passenger side) and ground.

Seat belt buckle switch (passenger side)		Ground	Continuity
Connector	Terminal		
B23	2		Existed

Is the inspection result normal?

- YES >> GO TO 2
NO >> Repair or replace harness.

2.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Check seat belt buckle switch (passenger side).

Refer to [SBC-19. "Component Inspection"](#).

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace seat belt buckle (passenger side). Refer to [SB-14. "SEAT BELT BUCKLE : Removal and Installation"](#).

SBC

Component Inspection

INFOID:0000000010926555

1.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

1. Turn ignition switch OFF.
2. Disconnect seat belt buckle switch connector.
3. Check continuity of seat belt buckle (passenger side).

Seat belt buckle switch (passenger side)		Condition	Continuity
Terminal			
1	2	When passenger side seat belt is not fastened	Existed
		When passenger side seat belt is fastened	Not existed

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace seat belt buckle (passenger side). Refer to [SB-14. "SEAT BELT BUCKLE : Removal and Installation"](#).

REAR SEAT BELT BUCKLE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

REAR SEAT BELT BUCKLE SWITCH

Diagnosis Procedure

INFOID:0000000010926556

1.CHECK REAR SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

1. Disconnect rear seat belt buckle switch connector.
2. Check the continuity between rear seat belt buckle switch harness connector and ground.

Rear seat belt buckle switch			Ground	Continuity
Connector		Terminal		
LH	B65	2	Ground	Existed
Center	B64	4		
RH		2		

Is the inspection result normal?

- YES >> GO TO 2
NO >> Repair or replace harness.

2.CHECK REAR SEAT BELT BUCKLE SWITCH

Check rear seat belt buckle switch.

Refer to [SBC-20, "Component Inspection"](#).

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace rear seat belt buckle. Refer to [SB-19, "SEAT BELT BUCKLE : Removal and Installation"](#).

Component Inspection

INFOID:0000000010926557

1.CHECK REAR SEAT BELT BUCKLE SWITCH

Check continuity between rear seat belt buckle switch connector.

Rear seat belt buckle switch				Condition	Continuity
Connector		Terminal			
LH	B65	1	2	Rear seat belt (LH) is unfastened	Existed
				Rear seat belt (LH) is fastened	Not existed
Center	B64	3	4	Rear seat belt (center) is unfastened	Existed
				Rear seat belt (center) is fastened	Not existed
RH		1	2	Rear seat belt (RH) is unfastened	Existed
				Rear seat belt (RH) is fastened	Not existed

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace rear seat belt buckle. Refer to [SB-19, "SEAT BELT BUCKLE : Removal and Installation"](#).

FRONT SEAT BELT WARNING LAMP DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

FRONT SEAT BELT WARNING LAMP DOES NOT ILLUMINATE

Diagnosis Procedure

INFOID:0000000010926558

1.CHECK DTC OF "AIR BAG DIAGNOSIS SENSOR UNIT"

Check DTC in "Self Diagnosis Result" mode of "Air bag diagnosis sensor unit" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [SRC-18. "DTC Index"](#).
- NO >> GO TO 2.

2.CHECK DTC OF "COMBINATION METER"

Check DTC in "Self Diagnosis Result" mode of "METER/M&A" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [MWI-105. "DTC Index"](#).
- NO >> GO TO 3.

3.CHECK COMBINATION METER POWER SUPPLY AND GROUND CIRCUIT

Check combination meter power supply and ground circuit. Refer to [MWI-129. "COMBINATION METER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace the malfunctioning parts.

4.CHECK HARNESS CONNECTOR

Check the harness connector for disconnection, looseness or damage.

Is the inspection result normal?

- YES >> GO TO 5.
- NO-1 >> Damage: Replace malfunctioning parts.
- NO-2 >> Disconnection or looseness: Securely lock the connector.

5.CHECK WIRING HARNESS

Check the wiring harness externals.

Is the inspection result normal?

- YES-1 >> GO TO 6. (driver side)
- YES-2 >> GO TO 7. (passenger side)
- NO >> Replace malfunctioning parts.

6.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check the seat belt buckle switch. Refer to [WCS-55. "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 9.
- NO >> Repair or replace the malfunctioning parts.

7.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Check the seat belt buckle switch. Refer to [SBC-19. "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 8.
- NO >> Repair or replace the malfunctioning parts.

8.REPLACE AIR BAG DIAGNOSIS SENSOR UNIT

Replace air bag diagnosis sensor unit.

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> GO TO 9.

FRONT SEAT BELT WARNING LAMP DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

9. REPLACE COMBINATION METER

Replace combination meter. Refer to [MWI-151, "Removal and Installation"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 10.

10. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

FRONT SEAT BELT WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

FRONT SEAT BELT WARNING LAMP DOES NOT TURN OFF

Diagnosis Procedure

INFOID:0000000010926559

1.CHECK DTC OF "AIR BAG DIAGNOSIS SENSOR UNIT"

Check DTC in "Self Diagnosis Result" mode of "Air bag diagnosis sensor unit" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [SRC-18, "DTC Index"](#).
- NO >> GO TO 2.

2.CHECK DTC OF "COMBINATION METER"

Check DTC in "Self Diagnosis Result" mode of "METER/M&A" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [MWI-105, "DTC Index"](#).
- NO >> GO TO 3.

3.CHECK HARNESS CONNECTOR

Check the harness connector for disconnection, looseness or damage.

Is the inspection result normal?

- YES >> GO TO 4.
- NO-1 >> Damage: Replace malfunctioning parts.
- NO-2 >> Disconnection or looseness: Securely lock the connector.

4.CHECK WIRING HARNESS

Check the wiring harness externals.

Is the inspection result normal?

- YES-1 >> GO TO 5. (driver side)
- YES-2 >> GO TO 6. (passenger side)
- NO >> Replace malfunctioning parts.

5.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check the seat belt buckle switch. Refer to [WCS-55, "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 8.
- NO >> Repair or replace the malfunctioning parts.

6.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Check the seat belt buckle switch. Refer to [SBC-19, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 7.
- NO >> Repair or replace the malfunctioning parts.

7.REPLACE AIR BAG DIAGNOSIS SENSOR UNIT

Replace air bag diagnosis sensor unit.

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> GO TO 8.

8.REPLACE COMBINATION METER

Replace combination meter. Refer to [MWI-151, "Removal and Installation"](#).

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> GO TO 9.

9.INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

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FRONT SEAT BELT WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

>> INSPECTION END

REAR SEAT BELT WARNING LAMP DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

REAR SEAT BELT WARNING LAMP DOES NOT ILLUMINATE

Diagnosis Procedure

INFOID:0000000010926560

1.CHECK DTC OF "AIR BAG DIAGNOSIS SENSOR UNIT"

Check DTC in "Self Diagnosis Result" mode of "Air bag diagnosis sensor unit" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [SRC-18, "DTC Index"](#).
- NO >> GO TO 2.

2.CHECK DTC OF "COMBINATION METER"

Check DTC in "Self Diagnosis Result" mode of "METER/M&A" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [MWI-105, "DTC Index"](#).
- NO >> GO TO 3.

3.CHECK COMBINATION METER POWER SUPPLY AND GROUND CIRCUIT

Check combination meter power supply and ground circuit. Refer to [MWI-129, "COMBINATION METER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace the malfunctioning parts.

4.CHECK HARNESS CONNECTOR

Check the harness connector for disconnection, looseness or damage.

Is the inspection result normal?

- YES >> GO TO 5.
- NO-1 >> Damage: Replace malfunctioning parts.
- NO-2 >> Disconnection or looseness: Securely lock the connector.

5.CHECK WIRING HARNESS

Check the wiring harness externals.

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Replace malfunctioning parts.

6.CHECK REAR SEAT BELT BUCKLE SWITCH

Check the applicable rear seat belt buckle switch. Refer to [SBC-20, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 7.
- NO >> Replace the applicable rear seat belt buckle switch.

7.REPLACE AIR BAG DIAGNOSIS SENSOR UNIT

Replace air bag diagnosis sensor unit.

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> GO TO 8.

8.REPLACE COMBINATION METER

Replace combination meter. Refer to [MWI-151, "Removal and Installation"](#).

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> GO TO 9.

9.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

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REAR SEAT BELT WARNING LAMP DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

>> INSPECTION END

REAR SEAT BELT WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

REAR SEAT BELT WARNING LAMP DOES NOT TURN OFF

Diagnosis Procedure

INFOID:000000010926561

1.CHECK DTC OF "AIR BAG DIAGNOSIS SENSOR UNIT"

Check DTC in "Self Diagnosis Result" mode of "Air bag diagnosis sensor unit" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [SRC-18, "DTC Index"](#).
- NO >> GO TO 2.

2.CHECK DTC OF "COMBINATION METER"

Check DTC in "Self Diagnosis Result" mode of "METER/M&A" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [MWI-105, "DTC Index"](#).
- NO >> GO TO 3.

3.CHECK HARNESS CONNECTOR

Check the harness connector for disconnection, looseness or damage.

Is the inspection result normal?

- YES >> GO TO 4.
- NO-1 >> Damage: Replace malfunctioning parts.
- NO-2 >> Disconnection or looseness: Securely lock the connector.

4.CHECK WIRING HARNESS

Check the wiring harness externals.

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace malfunctioning parts.

5.CHECK REAR SEAT BELT BUCKLE SWITCH

Check the applicable rear seat belt buckle switch. Refer to [SBC-20, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Replace seat belt buckle switch.

6.REPLACE AIR BAG DIAGNOSIS SENSOR UNIT

Replace air bag diagnosis sensor unit.

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> GO TO 7.

7.REPLACE COMBINATION METER

Replace combination meter. Refer to [MWI-151, "Removal and Installation"](#).

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> GO TO 8.

8.INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

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