

SECTION **SBC**

SEAT BELT CONTROL SYSTEM

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PRECAUTIONS

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PRECAUTION

PRECAUTIONS

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

INFOID:000000013492986

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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. 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, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, 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 or batteries, and wait at least 3 minutes before performing any service.

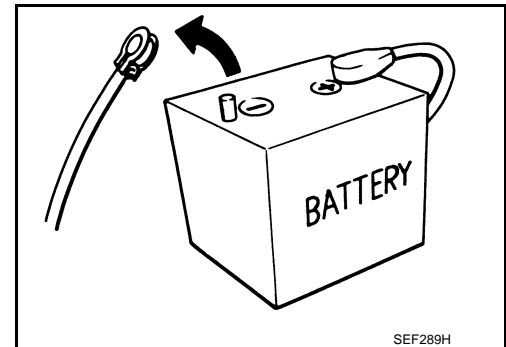
Precautions for Removing Battery Terminal

INFOID:000000013492987

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

BR08DE	: 4 minutes	V9X engine	: 4 minutes
D4D engine	: 20 minutes	YD25DDTi	: 2 minutes
HR09DET	: 12 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		



NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:

PRECAUTIONS

< PRECAUTION >

- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
 - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
 - Driving for 30 minutes or more on a steep slope.
- 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.

Precaution for Seat Belt Service

INFOID:000000012789375

CAUTION:

- Before removing the seat belt pre-tensioner assembly, turn the ignition switch off, disconnect the both battery cables and wait at least 3 minutes.
- Do not use electrical test equipment for seat belt pre-tensioner connector.
- After replacing or reinstalling seat belt pre-tensioner assembly, or reconnecting front seat belt pre-tensioner connector, check the system function. Refer to [SRC-16, "Description"](#).
- Do not use disassemble buckle or seat belt assembly.
- Replace anchor bolts if they are deformed or worn out.
- Never oil tongue and buckle.
- If any component of seat belt assembly is questionable, do not repair. Replace the whole seat belt assembly.
- If webbing is cut, frayed, or damaged, replace seat belt assembly.
- When replacing seat belt assembly, use a genuine NISSAN seat belt assembly.

AFTER A COLLISION

WARNING:

Inspect all seat belt assemblies including retractors and attaching hardware after any collision.

NISSAN recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could result in serious personal injury in an accident. Seat belt assemblies not in use during a collision should also be replaced if either damage or improper operation is noted. Seat belt pre-tensioner should be replaced even if the seat belts are not in use during a frontal collision in which the air bags are deployed.

Replace any seat belt assembly (including anchor bolts) if:

- The seat belt was in use at the time of a collision (except for minor collisions and the belts, retractors and buckles show no damage and continue to operate properly).
- The seat belt was damaged in an accident. (i.e. torn webbing, bent retractor or guide).
- The seat belt attaching point was damaged in an accident. Inspect the seat belt attaching area for damage or distortion and repair as necessary before installing a new seat belt assembly.
- Anchor bolts are deformed or worn out.
- The seat belt pre-tensioner should be replaced even if the seat belts are not in use during the collision in which the air bags are deployed.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

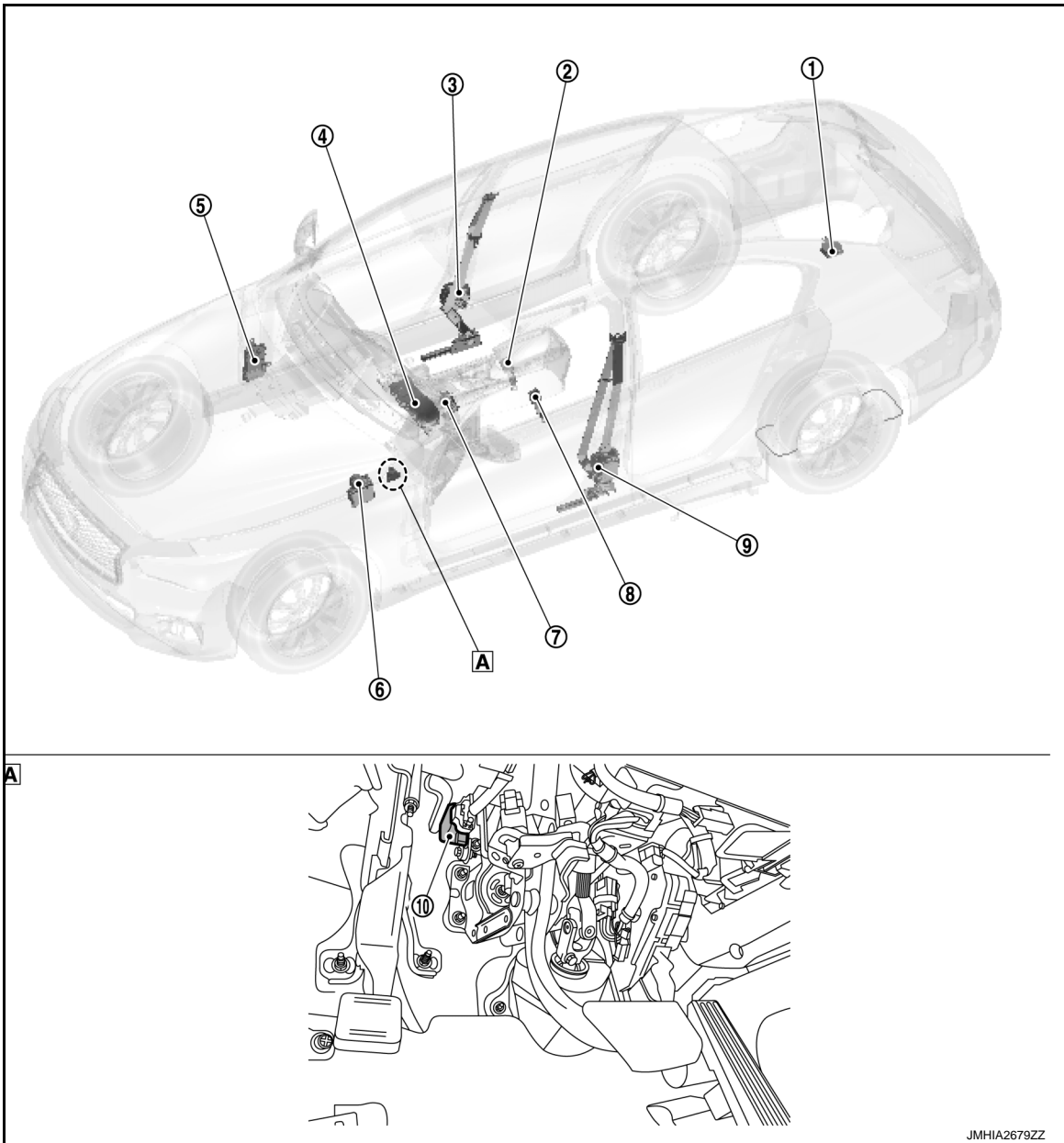
SYSTEM DESCRIPTION

COMPONENT PARTS

PRE-CRASH SEAT BELT SYSTEM

PRE-CRASH SEAT BELT SYSTEM : Component Parts Location

INFOID:000000012789376



A View with instrument lower panel LH removed

No.	Component	Function
①	ADAS control unit	Forward emergency braking operation signal is received from ADAS control unit via CAN communication. Refer to DAS-16, "Component Parts Location" for detailed installation location.
②	Seat belt buckle switch (passenger side)	Refer to SBC-6, "PRE-CRASH SEAT BELT SYSTEM : Seat Belt Buckle Switch" .

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

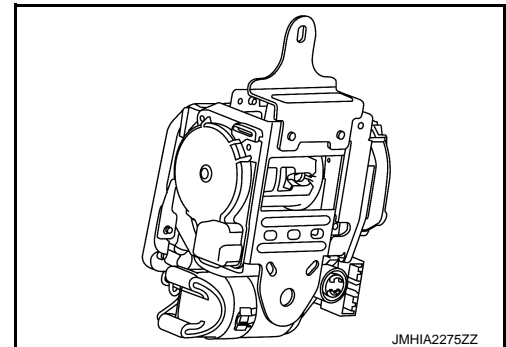
No.	Component	Function
③	Pre-crash seat belt control unit (passenger side)	Refer to SBC-6, "PRE-CRASH SEAT BELT SYSTEM : Pre-crash Seat Belt Control Unit" .
④	Combination meter	<ul style="list-style-type: none"> Transmits vehicle speed signal to pre-crash seat belt control unit (driver side). Turns the seat belt warning lamp ON when the seat belt is unfastened.
⑤	BCM	Ignition ON signal, sleep/wakeup signal, and door switch signal are received from BCM via CAN communication. Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑥	ABS actuator and electric unit (control unit)	ABS operation signal is received from ABS actuator and electric unit (control unit) via CAN communication. Refer to BRC-10, "Component Parts Location" for detailed installation location.
⑦	Steering angle sensor	Steering angle sensor signal, steering angle speed signal, steering angle sensor neutral position adjustment completion signal, and steering angle sensor malfunction signal are received via CAN communication. Refer to BRC-10, "Component Parts Location" for detailed installation location.
⑧	Seat belt buckle switch (driver side)	Refer to SBC-6, "PRE-CRASH SEAT BELT SYSTEM : Seat Belt Buckle Switch" .
⑨	Pre-crash seat belt control unit (driver side)	Refer to SBC-6, "PRE-CRASH SEAT BELT SYSTEM : Pre-crash Seat Belt Control Unit" .
⑩	Brake pedal stroke sensor	Refer to SBC-7, "PRE-CRASH SEAT BELT SYSTEM : Brake pedal stroke sensor" .

PRE-CRASH SEAT BELT SYSTEM : Pre-crash Seat Belt Control Unit

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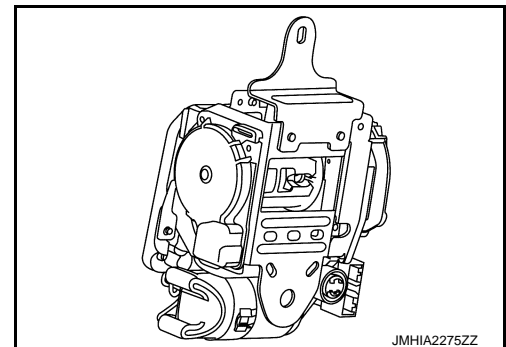
DRIVER SIDE

- Total control of pre-crash seat belt system is operated according to transmit signal.
- Driver seat belt retractor integrates pre-crash seat belt control unit (driver side) and driver seat belt motor.
- Seat belt motor operates each operation of pull, return, and hold.



PASSENGER SIDE

- Control of passenger pre-crash seat belt is operated according to transmit signal.
- Passenger seat belt retractor integrates pre-crash seat belt control unit (passenger seat) and passenger seat belt motor.
- Seat belt motor operates each operation of pull, return, and hold.
- The pre-crash seat belt control unit (passenger side) controls each function from pre-crash seat belt control unit (driver side) according to operation signal.



PRE-CRASH SEAT BELT SYSTEM : Seat Belt Buckle Switch

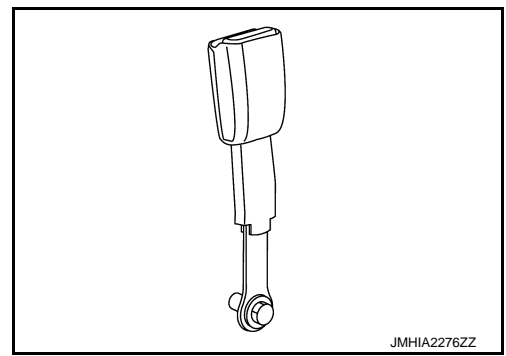
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DRIVER SIDE

COMPONENT PARTS

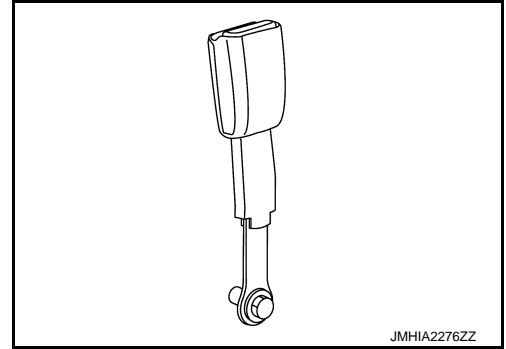
< SYSTEM DESCRIPTION >

- Fastening or not fastening of seat belt is judged. This judgment is used for control of driver pre-crash seat belt system.
- The seat belt buckle switch is installed in the seat belt buckle.



PASSENGER SIDE

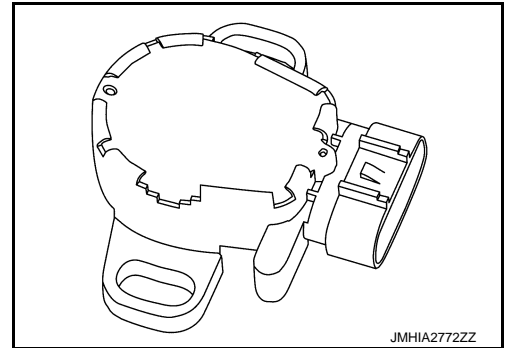
- Fastening or not fastening of seat belt is judged. This judgment is used for control of passenger pre-crash seat belt system.
- The seat belt buckle switch is installed in the seat belt buckle.



PRE-CRASH SEAT BELT SYSTEM : Brake pedal stroke sensor

INFOID:000000012789379

- It changes voltage according to brake pedal depressed amount and sends the signal to pre-crash seat belt control unit.
- There are 2 signals (brake pedal stroke sensor 1 and 2) sent from the brake pedal stroke sensor. Pre-crash seat belt control unit judges the stroke amount and the speed of the brake pedal according to the voltage of the signal sent by each side.



SEAT BELT WARNING LAMP SYSTEM

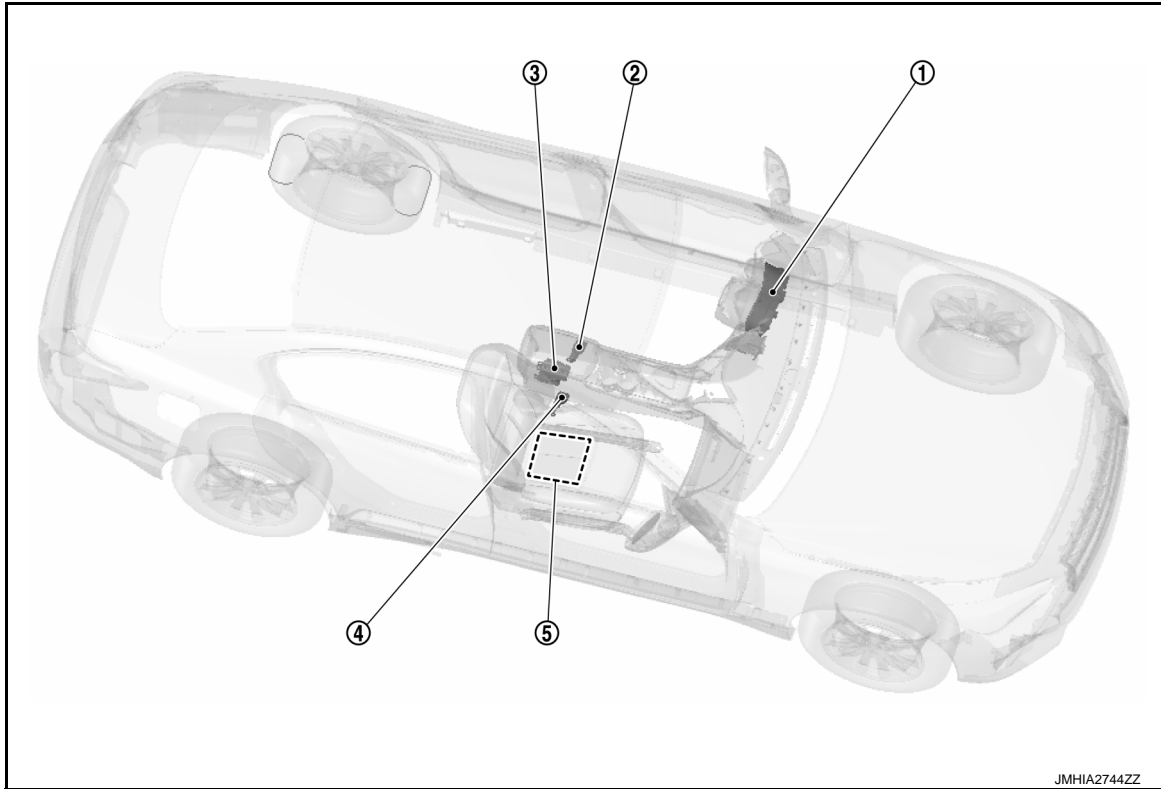
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COMPONENT PARTS

< SYSTEM DESCRIPTION >

SEAT BELT WARNING LAMP SYSTEM : Component Parts Location

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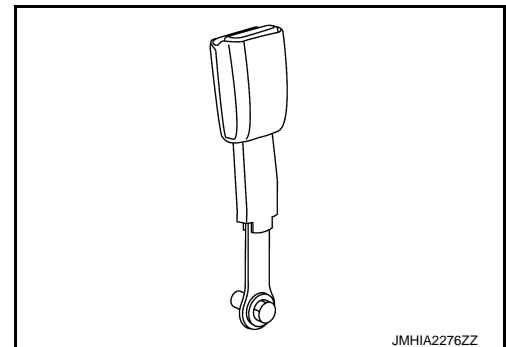
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No.	Component	Function
①	Combination meter	Turns the seat belt warning lamp ON when the seat belt is unfastened.
②	Seat belt buckle switch (Driver side)	Refer to SBC-6, "PRE-CRASH SEAT BELT SYSTEM : Seat Belt Buckle Switch" .
③	Air bag diagnosis sensor unit	Turns ON seat belt warning lamp based on the information from occupant detection system control unit. Refer to SRC-6, "Component Parts Location" for detailed installation location.
④	Seat belt buckle switch (Passenger side)	Refer to SBC-6, "PRE-CRASH SEAT BELT SYSTEM : Seat Belt Buckle Switch" .
⑤	Occupant detection system control unit and sensor	Judges the passenger seat condition based on the information from occupant detection system control unit. Refer to SRC-6, "Component Parts Location" for detailed installation location.

SEAT BELT WARNING LAMP SYSTEM : Seat Belt Buckle Switch

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Fasting or not fasting of seat belt is judged. This judgement is used to control seat belt warning lamp system.



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SYSTEM

< SYSTEM DESCRIPTION >

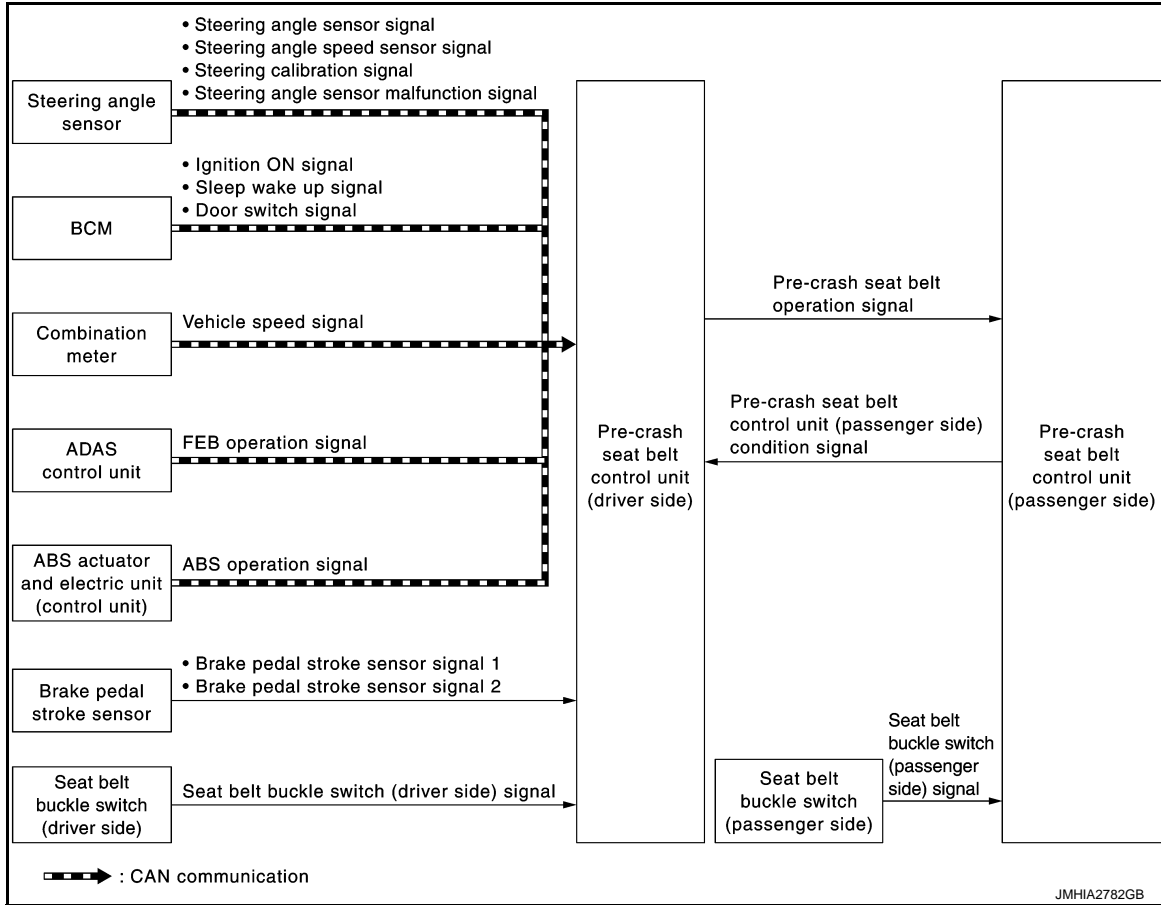
SYSTEM

PRE-CRASH SEAT BELT SYSTEM

PRE-CRASH SEAT BELT SYSTEM : System Description

INFOID:000000012789382

SYSTEM DIAGRAM



DESCRIPTION

- Pre-crash seat belt system integrates control unit and motor in driver and passenger seat belt retractors.
- Provides a sense of ease when pre-crash seat belt control unit judges the emergency braking operation, the forward emergency braking operating status, the continuous ABS operating status, the emergency steering wheel operation, or the lateral slippage status during cornering. The motor immediately retracts the seat belt and suppresses change in occupant posture.
- Even in a situation where a collision is unavoidable, effects of other safety devices, like the air bag, are maximized and damages are reduced.
- Motor retracts seat belt when unfastening and extracts seat belt when fastening to reduce the feeling of pressure. (comfort function)

Function Description

Pre-crash seat belt system operates under the following conditions.

- During emergency brake operation
- When ABS continuously operates
- When forward emergency braking operates
- When lateral slippage during cornering occurs
- When steering wheel is rotated for emergency
- When comfort function operates

Operation Condition

Operation while driving

- Operation start and stop conditions of pre-crash seat belt system are as shown in the following table.
- The activation and deactivation conditions of pre-crash seat belt are as per the following.

SYSTEM

< SYSTEM DESCRIPTION >

Operation item	Operation start condition	Operation stop condition
During emergency brake operation	<ul style="list-style-type: none"> Vehicle speed is 15 km/h (9 MPH) or more Emergency braking status is detected 	<ul style="list-style-type: none"> During acceleration When stopped
When ABS continuously operates	<ul style="list-style-type: none"> ABS continuously operates for 2 seconds or more Brake pedal is in depressed state 	
When forward emergency braking operates	System detects that forward emergency braking is in operating status	2 seconds after operation start
When lateral slippage during cornering occurs	<ul style="list-style-type: none"> Vehicle speed is 30 km/h (19 MPH) or more System detects that the vehicle is in lateral slippage state System detects that the vehicle is driving on a curve 	<ul style="list-style-type: none"> Vehicle stopped 1 second or more after maintaining steering wheel angle in straight driving state
When steering wheel is rotated for emergency	<ul style="list-style-type: none"> Vehicle speed is 60 km/h (36 MPH) or more Steering wheel angle is 90 degrees or more System detects that steering wheel is rotated for emergency 	

NOTE:

For details of forward emergency braking system. Refer to [BRC-18. "System Description"](#).

Comfort Function

- Seat belt is retracted and the looseness is reduced in the state as shown in the following table.
- Operation start and stop conditions of pre-crash seat belt system are as shown in the following table.

Operation item	Activating condition	Deactivating condition
Door open	<ul style="list-style-type: none"> Seat belt is in not fastened state Door is operated to open from closed Vehicle stopped 	Seat belt retract is complete
Seat belt is fastened	<ul style="list-style-type: none"> When door is closed Seat belt is fastened 	<ul style="list-style-type: none"> Seat belt is unfastened 1 second after operation
Seat belt is release	Seat belt is unfastened	Seat belt retract is complete

Operation Prohibition Condition

Pre-crash seat belt system does not operate in the following conditions.

- When seat belt is not fastened (only the seat belt that is not fastened does not operate)
- When motor is overheat due to contentious operation*¹
- When the system is in fail-safe mode

*¹: System operation is temporarily deactivated to avoid overheating, when comfort function is continuously operated (30 times or more) during a short period of time by fastening and unfastening seat belts or opening and closing doors.

Malfunction Warning

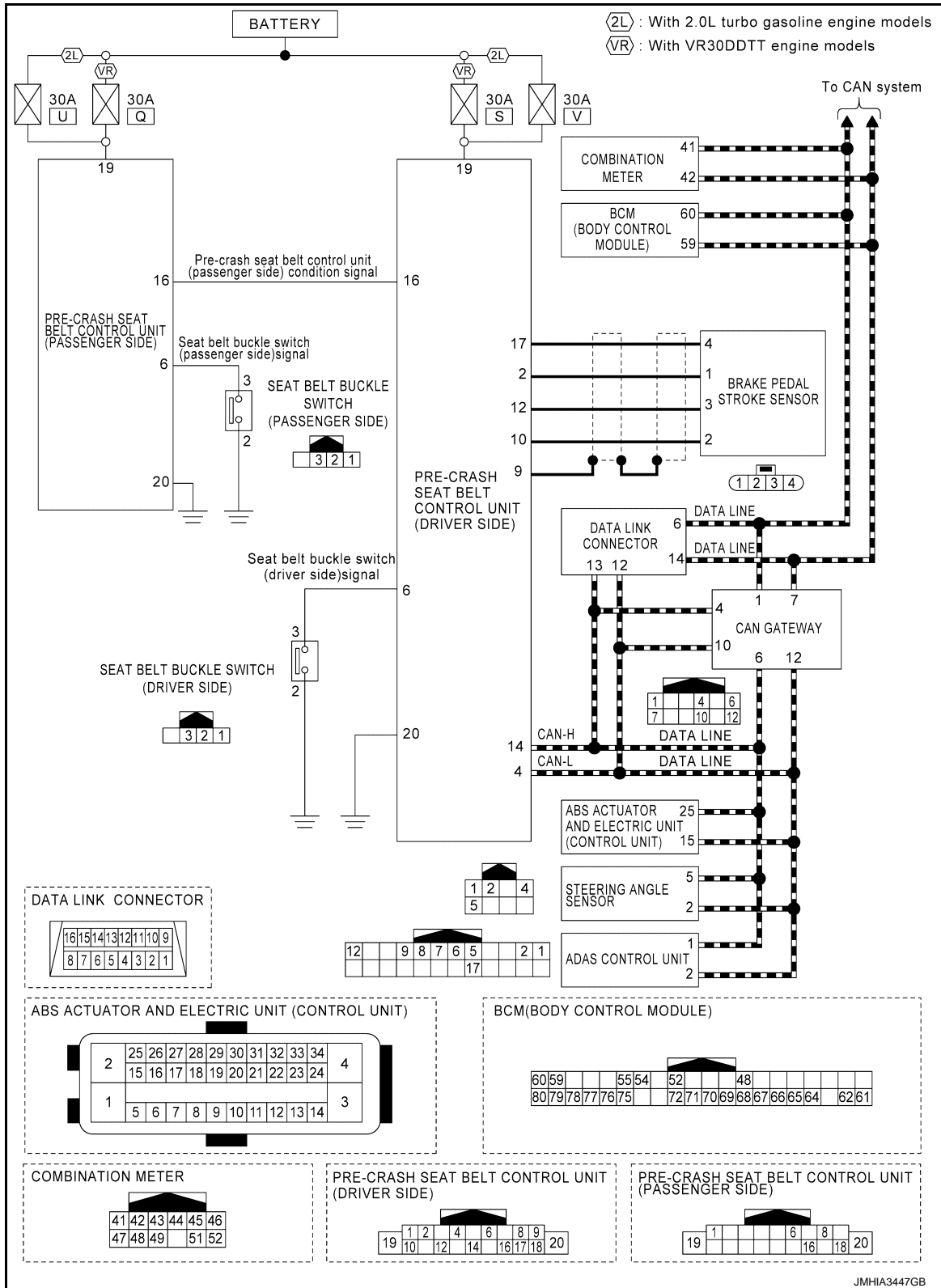
When system malfunction is detected, comfort function is deactivated to warn customer of system malfunction.

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PRE-CRASH SEAT BELT SYSTEM : Circuit Diagram

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PRE-CRASH SEAT BELT SYSTEM : Fail-Safe (Driver Side)

INFOID:000000013494222

When a system malfunction is detected, deactivates a part of the system or all functions depending on the malfunctioning part.
 When the malfunction condition recovers to the normal condition, the system returns to the normal operation.

SYSTEM

< SYSTEM DESCRIPTION >

Display contents of CONSULT	Fail-safe
B2451: SEAT BLT MTR DR CIRC	Fully deactivates the whole operation.
B2452: SEAT BLT MTR AS CIRC	Deactivates a part of comfort function.
B2453: BR STROKE SEN CIRC	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • A part of comfort function
B2455: CONTROL UNIT DR	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function
B2457: CONTROL UNIT AS	Deactivates a part of comfort function.
B2458: LOCAL COMM	Deactivates a part of comfort function.
B2461: VHCL SPEED SIGNAL	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency • When comfort function operates
B2466: DR/AS CONTROL UNIT	Deactivates a part of comfort function.
B2470: SYS HEAT PROTC DR	<ul style="list-style-type: none"> • Fully deactivates the whole operation. • Operation return <ul style="list-style-type: none"> - 1 time operation becomes possible after approximately 30 seconds - Returns to the initial condition after approximately 8 minutes
U0126: ST ANG SEN SIG	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency • A part of comfort function
U0428: STRG ANGL CAL	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency • A part of comfort function
U1000: CAN COMM CURCUIT	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function

*: The deactivation mode differs depending on the internal malfunctioning condition of control unit

PRE-CRASH SEAT BELT SYSTEM : Fail-Safe (Passenger Side)

INFOID:000000013494223

When a system malfunction is detected, deactivates a part of the system or all functions depending on the malfunctioning part.

When the malfunction condition recovers to the normal condition, the system returns to the normal operation.

Display contents of CONSULT	Fail-safe
B2452: SEAT BLT MTR DR CIRC	Fully deactivates the whole operation.
B2453: BR STROKE SEN CIRC	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates

SYSTEM

< SYSTEM DESCRIPTION >

Display contents of CONSULT	Fail-safe
B2455: CONTROL UNIT DR	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function
B2457: CONTROL UNIT AS	Fully deactivates the whole operation.*
B2458: LOCAL COMM	Fully deactivates the whole operation.*
B2461: VHCL SPEED SIGNAL	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency • A part or the whole comfort function
B2466: DR/AS CONTROL UNIT	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function
B2471: SYS HEAT PROTC AS	<ul style="list-style-type: none"> • Fully deactivates the whole operation. • Operation return - 1 time operation becomes possible after approximately 30 seconds - Returns to the initial condition after approximately 8 minutes
U0126: ST ANG SEN SIG	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency
U0428: STRG ANGL CAL	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency
U1000: CAN COMM CIRCUIT	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function

*: The deactivation mode differs depending on the internal malfunctioning condition of control unit

SEAT BELT WARNING LAMP SYSTEM

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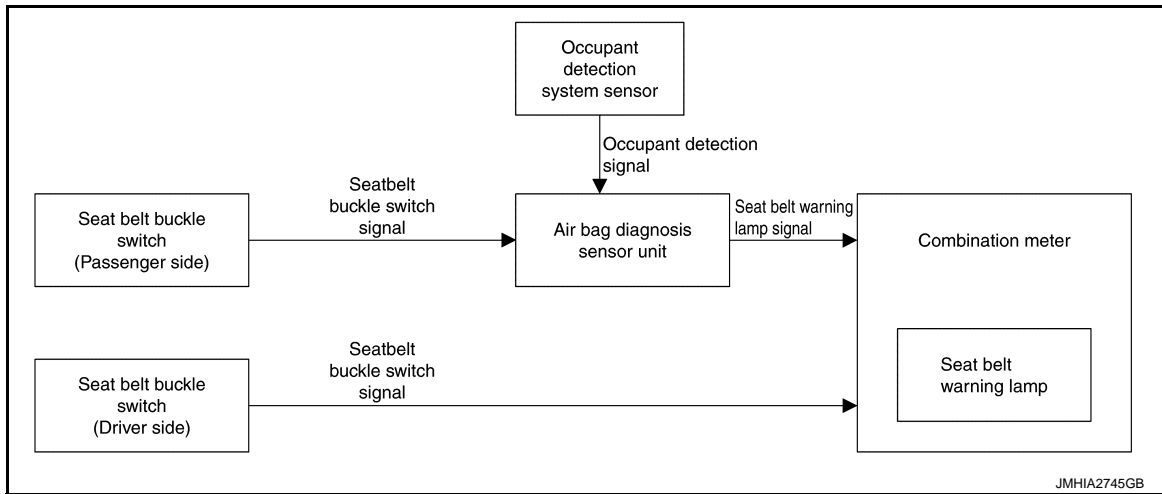
SYSTEM

< SYSTEM DESCRIPTION >

SEAT BELT WARNING LAMP SYSTEM : System Description

INFOID:000000012789386

SYSTEM DIAGRAM



DESCRIPTION

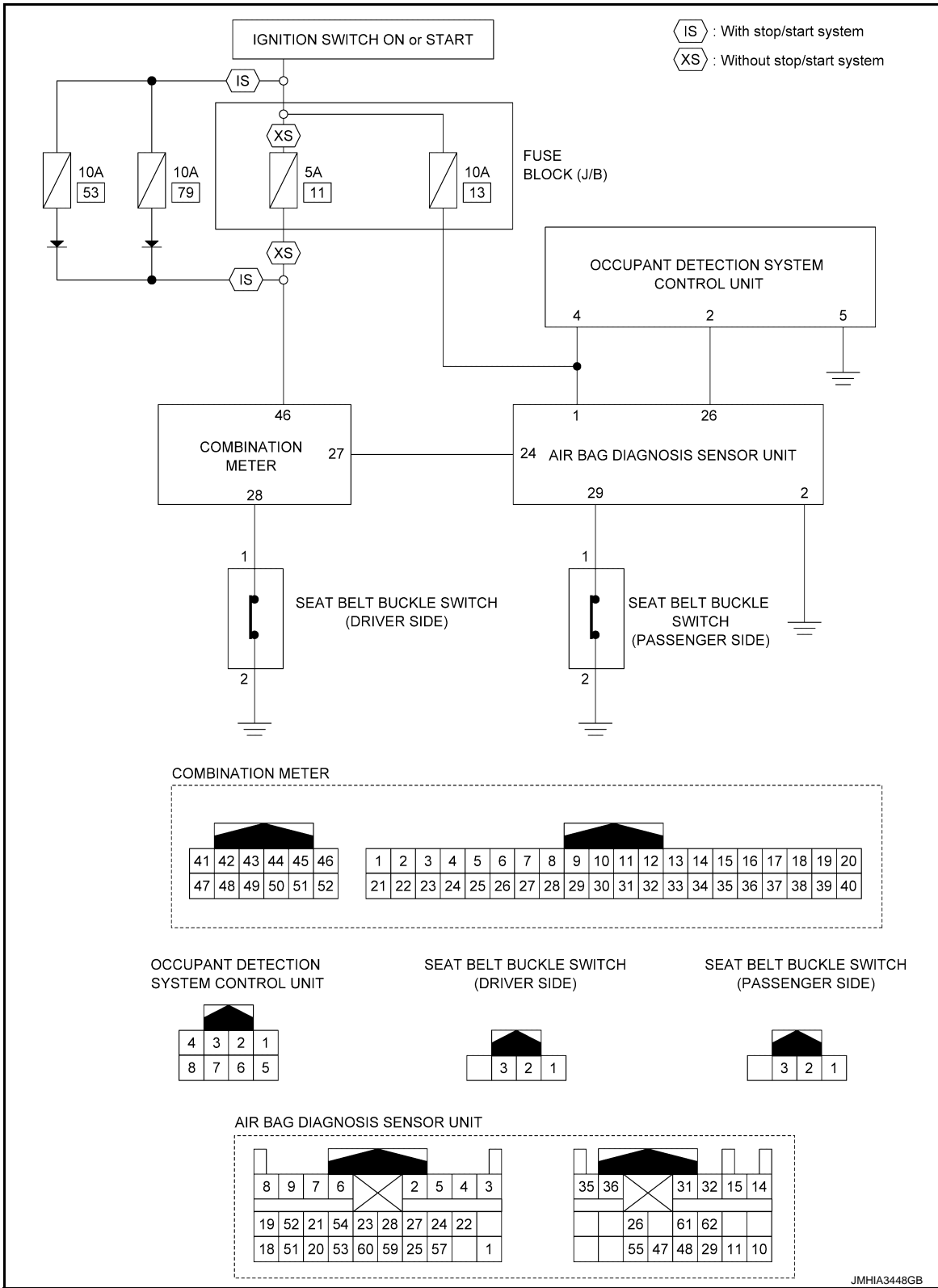
Seat belt warning lamp warns the driver that driver or passenger seat belt is not fastened. For details information, refer to [MWI-43. "WARNING LAMPS/INDICATOR LAMPS : Seat Belt Warning Lamp"](#).

SYSTEM

< SYSTEM DESCRIPTION >

SEAT BELT WARNING LAMP SYSTEM : Circuit Diagram

INFOID:000000012789387



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SBC


WARNING/INDICATOR/CHIME LIST

SYSTEM

< SYSTEM DESCRIPTION >

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

INFOID:000000012789388

Item	Design	Reference
Seat belt warning lamp		For layout, refer to MWI-9, "METER SYSTEM : Design" .
		For function, refer to MWI-43, "WARNING LAMPS/INDICATOR LAMPS : Seat Belt Warning Lamp" .

WARNING/INDICATOR/CHIME LIST : Warning Chime

INFOID:000000012789389

Item	Reference
Seat belt warning	Refer to WCS-19, "WARNING CHIME : Seat Belt Warning" .

DIAGNOSIS SYSTEM (PRE-CRASH SEAT BELT)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (PRE-CRASH SEAT BELT)

CONSULT Function

INFOID:000000012789390

Diagnosis for pre-crash seat belt system can be performed using CONSULT.

APPLICATION ITEM

Part to be diagnosed	Diagnosis Mode	Function description
Pre-crash seat belt	Self-diagnosis Results	<ul style="list-style-type: none"> Displays data recorded when a malfunction is detected. Can print out the display. Erases DTC recorded in memory.
	Data Monitor	Displays input data for pre-crash seat belt control unit in real time.
	Work Support	Changes the setting for each system function.
	CAN DIAG SUPPORT MNTR	Monitors communication status of CAN communication.
	ECU Identification	Displays pre-crash seat belt control unit part number.

SELF-DIAGNOSIS RESULTS

Refer to [SBC-21, "DTC Index"](#).

CAUTION:

When malfunctions are detected in several systems, including the CAN communication [U1000], troubleshoot the CAN communication [U1000].

ERASING SELF-DIAGNOSIS RESULTS

- SELF-DIAGNOSIS RESULTS
Current "SELF-DIAG RESULTS" are displayed. (If all suspect circuits have been repaired, "NO DTC" is displayed.)
- SELF-DIAG RESULTS [MEMORY]
Resume trouble diagnosis item selection screen, confirm "SELF-DIAG RESULTS", and then touch ERASE MEMORY.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Contents
BUCKLE SW RH	Indicates [On/Off] condition of seat belt buckle switch (RH).
BUCKLE SW LH	Indicates [On/Off] condition of seat belt buckle switch (LH).
VEHICLE DISTANCE	Indicates [On/Off] condition of forward emergency braking signal.
IGN SW	Indicates [On/Off] condition of ignition switch.
FR DOOR SW RH	Indicates [Close/Open] condition of front door switch (RH).
FR DOOR SW LH	Indicates [Close/Open] condition of front door switch (LH).
ABS ACTIVATING	Indicates [On/Off] condition of ABS activating.
VHCL SPEED	Indicates [km/h] vehicle speed signal.
BRK PEDAL SNSR1	Indicates [V] voltage of brake pedal stroke sensor 1 signal.
BRK PEDAL SNSR2	Indicates [V] voltage of brake pedal stroke sensor 2 signal.
STRG ANGLE	Indicates [deg] steering angle signal.
STRG ANGLE SPEED	Indicates [deg/s] steering angle speed signal.
HEAT PROTC RH	Indicates [On/Off] condition of heat protection (RH).
HEAT PROTC LH	Indicates [On/Off] condition of heat protection (LH).

DIAGNOSIS SYSTEM (PRE-CRASH SEAT BELT)

< SYSTEM DESCRIPTION >

WORK SUPPORT

Monitor item	Description
DOOR OPENING RETRACT RETRY	Changes the number of times for the seat belt retract retry when the door opens.

PRE-CRASH SEAT BELT CONTROL UNIT (DRIVER SIDE)

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

PRE-CRASH SEAT BELT CONTROL UNIT (DRIVER SIDE)

Reference Value

INFOID:0000000012789391

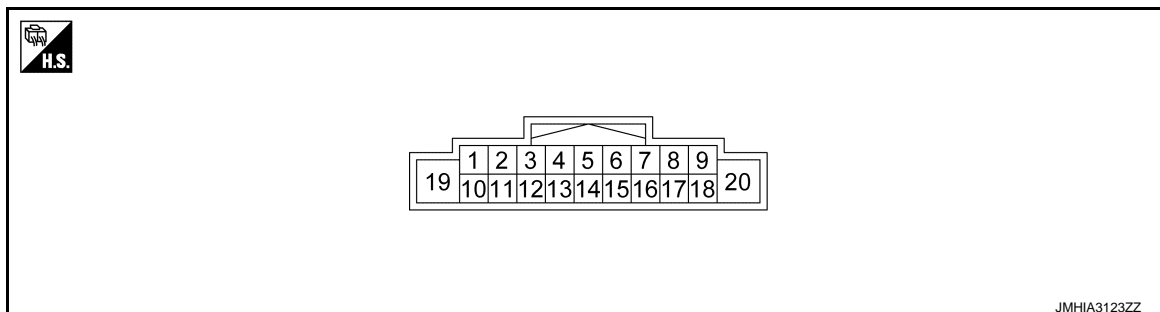
VALUES ON THE DIAGNOSIS TOOL
CONSULT MONITOR ITEM

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition	Value/Status (Approx.)
BUCKLE SW RH	RH seat belt is not fastened	OFF
	RH seat belt is fastened	ON
BUCKLE SW LH	LH seat belt is not fastened	OFF
	LH seat belt is fastened	ON
VEHICLE DISTANCE	Not activated	OFF
	Activated	ON
IGN SW	Ignition switch OFF	OFF
	Ignition switch ON	ON
FR DOOR SW RH	RH door close	CLOSE
	RH door open	OPEN
FR DOOR SW LH	LH door close	CLOSE
	LH door open	OPEN
ABS ACTIVATING	ABS not activating	OFF
	ABS activating	ON
VHCL SPEED	While driving	Equivalent speedometer reading (km/h)
BRK PEDAL SNSR1	Brake released → depressed	(1 V → 4 V)
BRK PEDAL SNSR2	Brake released → depressed	(4 V → 1V)
STRG ANGLE	Steering wheel: 0° (Neutral)	0 (deg)
	Steering wheel: 90° (Turned right)	+90 (deg)
	Steering wheel: 90° (Turned left)	-90 (deg)
STRG ANGLE SPEED	Ignition switch ON	Depending on steering angle speed (deg/s)
HEAT PROTC RH	RH heat protection is not activated	OFF
	RH heat protection is activated	ON
HEAT PROTC LH	LH heat protection is not activated	OFF
	LH heat protection is activated	ON

TERMINAL LAYOUT



JMHIA3123ZZ

PRE-CRASH SEAT BELT CONTROL UNIT (DRIVER SIDE)

< ECU DIAGNOSIS INFORMATION >

PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Value*1 (Approx.)
+	-	Signal name	Input/ Output		
2 (G)	GND	Brake pedal stroke sensor signal 1	Input	Brake released → de- pressed	1V→4V
4 (R)	GND	CAN-L	Input/ Output	—	—
6 (W)	GND	Seat belt buckle (driver side) switch signal	Input	Seat belt (driver side) is fas- tened	0 V
				Seat belt (driver side) is un- fastened	5 V
9 (-)	—	Shield	—	—	—
10 (R)	GND	Brake pedal stroke sensor power supply	Output	IGN ON	5 V
12 (B)	GND	Brake pedal stroke sensor signal 2	Input	Brake released → de- pressed	4V→1V
14 (L)	GND	CAN-H	Input/ Output	—	—
16 (Y)	GND	Local communication line 1	Input/ Output	—	—
17 (W)	GND	Brake pedal stroke sensor ground circuit	Input	—	0 V
19 (Y) ^{*2} (BR) ^{*3}	GND	Motor drive circuit power supply	Input	—	Battery voltage
20 (B)	GND	Motor drive circuit ground	Output	—	0 V

*1: Perform the measurement while connecting the control unit and the harness.

*2: For VR30DDTT engine models

*3.: For 2.0L turbo gasoline engine models

Fail-Safe (Driver Side)

INFOID:0000000012789392

When a system malfunction is detected, deactivates a part of the system or all functions depending on the malfunctioning part.

When the malfunction condition recovers to the normal condition, the system returns to the normal operation.

Display contents of CONSULT	Fail-safe
B2451: SEAT BLT MTR DR CIRC	Fully deactivates the whole operation.
B2452: SEAT BLT MTR AS CIRC	Deactivates a part of comfort function.
B2453: BR STROKE SEN CIRC	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • A part of comfort function
B2455: CONTROL UNIT DR	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function
B2457: CONTROL UNIT AS	Deactivates a part of comfort function.

PRE-CRASH SEAT BELT CONTROL UNIT (DRIVER SIDE)

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe
B2458: LOCAL COMM	Deactivates a part of comfort function.
B2461: VHCL SPEED SIGNAL	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency • When comfort function operates
B2466: DR/AS CONTROL UNIT	Deactivates a part of comfort function.
B2470: SYS HEAT PROTC DR	<ul style="list-style-type: none"> • Fully deactivates the whole operation. • Operation return - 1 time operation becomes possible after approximately 30 seconds - Returns to the initial condition after approximately 8 minutes
U0126: ST ANG SEN SIG	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency • A part of comfort function
U0428: STRG ANGL CAL	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency • A part of comfort function
U1000: CAN COMM CURCUIT	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function

*: The deactivation mode differs depending on the internal malfunctioning condition of control unit

DTC Index

INFOID:000000012789393

DISPLAY ITEM LIST (PRE-CRASH SEAT BELT)

DTC	Trouble diagnosis name (CONSULT display)	Reference
U1000	CAN COMM CIRCUIT	SBC-47, "DTC Description"
B2451	SEAT BLT MTR DR CIRC	SBC-52, "DTC Description"
B2452	SEAT BLT MTR AS CIRC	SBC-53, "DTC Description"
B2453	BR STROKE SEN CIRC	SBC-54, "DTC Description"
B2455	CONTROL UNIT DR	SBC-57, "DTC Description"
B2457	CONTROL UNIT AS	SBC-58, "DTC Description"
B2458	LOCAL COMM	SBC-59, "DTC Description"
B2461	VHCL SPEED SIGNAL	SBC-61, "DTC Description"
B2466	DR/AS CONTROL UNIT	SBC-63, "DTC Description"
B2470	SYS HEAT PROTC DR	SBC-64, "DTC Description"
B2471	SYS HEAT PROTC AS	SBC-65, "DTC Description"
U0126	ST ANG SEN SIG	SBC-48, "DTC Description"
U0428	STRG ANGL CAL	SBC-50, "DTC Description"

PRE-CRASH SEAT BELT CONTROL UNIT (PASSENGER SIDE)

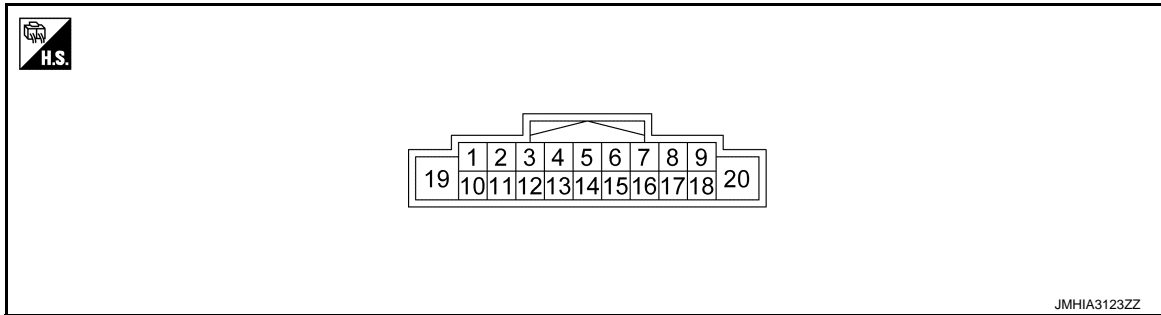
< ECU DIAGNOSIS INFORMATION >

PRE-CRASH SEAT BELT CONTROL UNIT (PASSENGER SIDE)

Reference Value

INFOID:000000012789394

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description	Input/ Output	Condition	Value* ¹ (Approx.)
+	-	Signal name			
6 (LG)	GND	Seat belt buckle switch signal	Input	Seat belt is fastened Seat belt is unfastened	0 V 5 V
16 (Y)	GND	Local communication line 1	Input/ Output	—	—
19 (W) ^{*2} (G) ^{*3}	GND	Motor passenger circuit power supply	Input	—	Battery voltage
20 (B)	GND	Motor passenger circuit ground	Output	—	0 V

*1: Perform the measurement while connecting the control unit and the harness.

*1: For VR30DDTT engine models

*1: For 2.0L turbo gasoline engine models

Fail-Safe (Passenger Side)

INFOID:000000012789395

When a system malfunction is detected, deactivates a part of the system or all functions depending on the malfunctioning part.

When the malfunction condition recovers to the normal condition, the system returns to the normal operation.

Display contents of CONSULT	Fail-safe
B2452: SEAT BLT MTR DR CIRC	Fully deactivates the whole operation.
B2453: BR STROKE SEN CIRC	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates
B2455: CONTROL UNIT DR	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function
B2457: CONTROL UNIT AS	Fully deactivates the whole operation.*
B2458: LOCAL COMM	Fully deactivates the whole operation.*

PRE-CRASH SEAT BELT CONTROL UNIT (PASSENGER SIDE)

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe
B2461: VHCL SPEED SIGNAL	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency • A part or the whole comfort function
B2466: DR/AS CONTROL UNIT	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function
B2471: SYS HEAT PROTC AS	<ul style="list-style-type: none"> • Fully deactivates the whole operation. • Operation return - 1 time operation becomes possible after approximately 30 seconds - Returns to the initial condition after approximately 8 minutes
U0126: ST ANG SEN SIG	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency
U0428: STRG ANGL CAL	Stops the operation in the conditions as per the following. <ul style="list-style-type: none"> • When lateral slippage during cornering occurs • When steering wheel is rotated for emergency
U1000: CAN COMM CIRCUIT	Stops the operation in the conditions as per the following.* <ul style="list-style-type: none"> • During emergency brake operation • When ABS continuously operates • When lateral slippage during cornering occurs • When forward emergency braking operates • When steering wheel is rotated for emergency • A part or the whole comfort function

*: The deactivation mode differs depending on the internal malfunctioning condition of control unit

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DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS INFORMATION >

DIAGNOSIS SENSOR UNIT

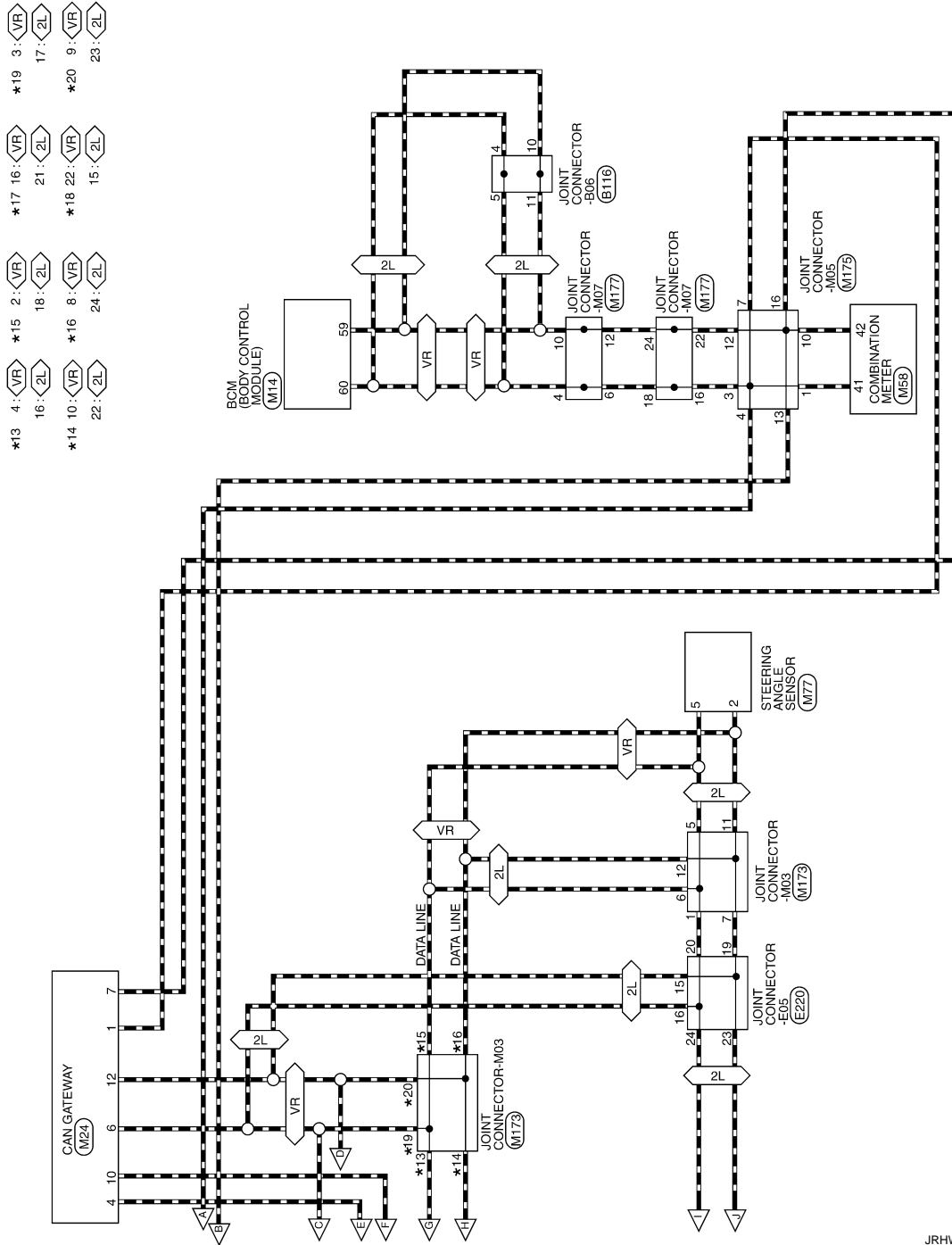
List of ECU Reference

INFOID:000000012789396

ECU	Reference
Air bag diagnosis sensor unit	SRC-23. "DTC Index"

PRE-CRASH SEAT BELT CONTROL UNIT

< WIRING DIAGRAM >



JRHWC5626GB

PRE-CRASH SEAT BELT CONTROL UNIT

< WIRING DIAGRAM >

PRE-CRASH SEAT BELT SYSTEM

Connector No.	B1
Connector Name	ADAS CONTROL UNIT
Connector Type	TH24FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
5	B	GROUND
6	L	ITS COMM-H
7	Y	ITS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
12	G	IGNITION [Except with VR30 engine and without BS]
17	V	IGNITION [VR30 engine and without BS]
23	Y	BRAKE HOLD RLY DRIVE SIGNAL
24	SB	STEERING SW SIGNAL

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	B	-
5	BR	- [With BOSE system]
5	Y	- [Without BOSE system]
7	R	-
8	B	-
9	Y	-

11	B	-
12	GR	-
13	G	-
14	B	-
15	W	-
16	BR	-

Connector No.	B4
Connector Name	SEAT BELT BUCKLE SWITCH (DRIVER SIDE)
Connector Type	TH24FW-AH



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

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With 2.0L turbo gasoline engine]
1	Y	- [With VR30 engine]
2	W	-
3	LG	-
4	P	- [With VR30 engine]
4	SB	- [With 2.0L turbo gasoline engine]
5	L	-
6	V	-

7	LG	-
8	R	-
9	W	-
10	B	-
11	G	-
12	R	-
13	GR	-
14	BG	-
15	BR	-
16	LG	-
17	V	-
18	BR	-
19	LG	- [With 2.0L turbo gasoline engine]
19	Y	- [With VR30 engine]
20	Y	-
21	R	- [With 2.0L turbo gasoline engine]
21	V	- [With VR30 engine]
22	L	-
23	V	-
24	B	- [With VR30 engine]
24	R	- [With 2.0L turbo gasoline engine]

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	L	-
4	LG	-
5	Y	-
6	R	-
7	V	-
8	LG	-
10	BG	-
11	BG	-
12	LG	-
13	GR	-

14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-
20	W	-
22	R	-
23	V	-
24	R	- [With 2.0L turbo gasoline engine]
24	Y	- [With VR30 engine]
25	P	-
25	V	- [With 2.0L turbo gasoline engine and without gateway]
25	W	- [With 2.0L turbo gasoline engine and with gateway]
26	G	-
27	R	-
28	R	-
31	B	-
31	BR	- [With 2.0L turbo gasoline engine]
32	B	-
33	B	-
34	LG	-
35	P	-
36	W	-
37	SB	-
38	LG	-
40	P	-
41	SB	-
42	BR	-
43	BG	-
44	BG	-
46	R	-
50	W	-
51	SB	-
52	V	-
53	LG	-
54	R	-
55	R	-
57	W	-
58	V	-
59	GR	-
60	G	-
61	G	-
62	BG	-
63	BR	-
64	Y	-
66	R	-
70	R	-
71	W	-
72	B	-

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SBC

PRE-CRASH SEAT BELT CONTROL UNIT

< WIRING DIAGRAM >

PRE-CRASH SEAT BELT SYSTEM

73	W	-	-
74	L	-	-
75	R	- [Without paddle shift] - [With paddle shift]	-
76	BR	-	-
77	B	-	-
78	SB	-	-
79	V	- [With VR30 engine] - [With 2.0L turbo gasoline engine]	-
80	W	-	-
81	B	-	-
82	R	-	-
83	BG	-	-
84	L	-	-
85	R	- [Without paddle shift] - [With paddle shift]	-
86	B	-	-
88	G	-	-
89	V	- [With 2.0L turbo gasoline engine] - [With VR30 engine]	-
91	GR	-	-
94	GR	-	-
96	Y	-	-
97	V	-	-
98	BR	- [With VR30 engine and with BOSE system] - [Except with VR30 engine and with BOSE system]	-
98	Y	-	-

Connector No. B52			
Connector Name WIRE TO WIRE			
Connector Type NS16MW-CS			



Terminal No.	Color	Wire	Signal Name [Specification]
1	L	-	-
4	B	-	-
5	BR	-	- [With BOSE system] - [Without BOSE system]
7	R	-	-
8	SHIELD	-	-
9	P	-	-
11	B	-	-
12	GR	-	-

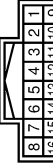
13	G	-	-
14	B	-	-
15	W	-	-
16	BR	-	-

Connector No. B56			
Connector Name SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)			
Connector Type TH04FW-AH			



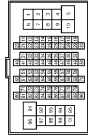
Terminal No.	Color	Wire	Signal Name [Specification]
1	LG	-	-
2	B	-	-
3	LG	-	-
4	BR	-	-

Connector No. B60			
Connector Name WIRE TO WIRE			
Connector Type TH16FW-AH			



Terminal No.	Color	Wire	Signal Name [Specification]
10	V	-	-
11	GR	-	-
12	V	-	-
13	R	-	-
14	BG	-	-
15	BG	-	- [With 2.0L turbo gasoline engine] - [With VR30 engine]
16	V	-	-
17	P	-	-
18	L	-	-
19	R	-	-
20	GR	-	-
21	R	-	-

Connector No. B62			
Connector Name WIRE TO WIRE			
Connector Type TH80FW-CS16-TM4			



Terminal No.	Color	Wire	Signal Name [Specification]
1	BR	-	- [With 2.0L turbo gasoline engine and without BOSE system] - [With VR30 engine]
1	LG	-	- [With 2.0L turbo gasoline engine and with BOSE system]
1	W	-	- [With VR30 engine]
2	L	-	- [With VR30 engine]
2	SHIELD	-	- [With VR30 engine]
3	BR	-	- [With 2.0L turbo gasoline engine]
3	R	-	- [With VR30 engine and with BOSE system]
3	W	-	- [With VR30 engine and without BOSE system]
4	SHIELD	-	- [With VR30 engine]
4	Y	-	- [With 2.0L turbo gasoline engine]
5	G	-	- [With VR30 engine]
5	V	-	- [With 2.0L turbo gasoline engine]
6	BG	-	- [With VR30 engine]
6	BR	-	- [With 2.0L turbo gasoline engine]
7	B	-	- [With 2.0L turbo gasoline engine and with BOSE system]
7	BR	-	- [With VR30 engine and without BOSE system]
7	W	-	- [With VR30 engine and with BOSE system]
7	Y	-	- [With 2.0L turbo gasoline engine and without BOSE system]
8	B	-	- [With VR30 engine and with BOSE system]
8	G	-	- [With 2.0L turbo gasoline engine]
8	Y	-	- [With VR30 engine and without BOSE system]
9	LG	-	- [With 2.0L turbo gasoline engine]
9	SHIELD	-	- [With VR30 engine]
10	V	-	-
11	GR	-	-
12	V	-	-
13	R	-	-
14	BG	-	-
15	BG	-	- [With 2.0L turbo gasoline engine] - [With VR30 engine]
16	V	-	-
17	P	-	-
18	L	-	-
19	R	-	-
20	GR	-	-
21	R	-	-
22	V	-	-
23	W	-	- [With 2.0L turbo gasoline engine]
24	BG	-	- [With VR30 engine]
24	V	-	- [With 2.0L turbo gasoline engine]
25	L	-	- [With 2.0L turbo gasoline engine]
25	SB	-	- [With VR30 engine]
25	G	-	- [With VR30 engine]
26	W	-	- [With 2.0L turbo gasoline engine]
27	R	-	- [With 2.0L turbo gasoline engine]
29	LG	-	-
30	LG	-	- [With 2.0L turbo gasoline engine]
30	P	-	- [With VR30 engine]
31	SHIELD	-	-
32	L	-	-
33	B	-	- [With VR30 engine]
33	LG	-	- [With 2.0L turbo gasoline engine]
34	SHIELD	-	-
35	W	-	- [With VR30 engine]
35	W	-	- [With VR30 engine]
36	R	-	- [With VR30 engine]
36	W	-	- [With 2.0L turbo gasoline engine]
37	P	-	- [With 2.0L turbo gasoline engine and without BOSE system]
37	R	-	- [With VR30 engine]
37	W	-	- [With 2.0L turbo gasoline engine and with BOSE system]
38	W	-	-
39	P	-	- [With VR30 engine and without BOSE system]
39	R	-	- [With 2.0L turbo gasoline engine]
39	W	-	- [With VR30 engine and with BOSE system]
40	G	-	-
41	L	-	-
42	R	-	-
43	SHIELD	-	-
44	P	-	-
45	B	-	- [With 2.0L turbo gasoline engine]
45	G	-	- [With VR30 engine]
46	SHIELD	-	-
47	G	-	-
48	BG	-	-
49	G	-	-
50	V	-	-
51	GR	-	-
52	W	-	- [With 2.0L turbo gasoline engine]
53	Y	-	- [With VR30 engine]
54	GR	-	-
55	L	-	-
56	V	-	-
57	R	-	-
58	LG	-	-
59	P	-	-

PRE-CRASH SEAT BELT CONTROL UNIT

< WIRING DIAGRAM >

PRE-CRASH SEAT BELT SYSTEM

8	R	- [With VR30 engine and without paddle shift]
8	V	- [With VR30 engine and with paddle shift]
9	LG	- [With 2.0L turbo gasoline engine]
9	R	- [With VR30 engine and without paddle shift]
9	V	- [With VR30 engine and with paddle shift]
10	LG	- [With 2.0L turbo gasoline engine]
10	SHIELD	- [With VR30 engine]
11	LG	- [With 2.0L turbo gasoline engine]
11	SHIELD	- [With VR30 engine]
12	LG	- [With 2.0L turbo gasoline engine]
12	SHIELD	- [With VR30 engine]
13	P	- [With 2.0L turbo gasoline engine and without gateway]
13	R	- [With 2.0L turbo gasoline engine and with gateway]
14	L	- [With VR30 engine]
14	P	- [With 2.0L turbo gasoline engine and without gateway]
14	R	- [With 2.0L turbo gasoline engine and with gateway]
15	L	- [With VR30 engine]
15	R	- [With 2.0L turbo gasoline engine]
16	L	-
17	L	-
18	L	-
19	L	- [With 2.0L turbo gasoline engine]
20	L	- [With VR30 engine]
20	SHIELD	- [With VR30 engine]
21	L	- [With 2.0L turbo gasoline engine]
21	SHIELD	- [With VR30 engine]
22	R	-
23	R	-
24	R	-

Connector No.	B120
Connector Name	JOINT CONNECTOR-B02
Connector Type	24342-4642A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	R	-
3	L	- [With VR30 engine]

3	R	- [With 2.0L turbo gasoline engine]
4	L	- [With VR30 engine]
4	R	- [With 2.0L turbo gasoline engine]
5	L	-
6	L	-
7	L	-
8	L	-
9	L	- [With 2.0L turbo gasoline engine]
9	R	- [With VR30 engine]
10	L	- [With 2.0L turbo gasoline engine]
10	R	- [With VR30 engine]
11	R	-
12	R	-
13	W	-
14	W	-
15	W	-
17	SHIELD	-
18	B	-
19	B	- [With 2.0L turbo gasoline engine]
19	GR	- [With VR30 engine]
20	SHIELD	- [With VR30 engine]
21	B	- [With 2.0L turbo gasoline engine]
21	GR	- [With VR30 engine]
22	W	-
23	W	-
24	W	-

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With 2.0L turbo gasoline engine]
1	Y	- [With VR30 engine]
2	W	-
3	LG	-
4	P	- [With VR30 engine]
5	L	- [With 2.0L turbo gasoline engine]

6	Y	-
7	LG	-
8	BG	-
9	W	-
10	B	-
11	G	-
12	R	-
13	GR	-
14	G	-
15	LG	- [With 2.0L turbo gasoline engine]
15	V	- [With VR30 engine]
16	Y	-
17	P	-
18	BR	-
19	LG	- [With 2.0L turbo gasoline engine]
19	Y	- [With VR30 engine]
20	GR	-
21	R	- [With 2.0L turbo gasoline engine]
21	V	- [With VR30 engine]
22	L	-
23	P	-
24	B	-
24	BR	- [With 2.0L turbo gasoline engine]

Connector No.	E25
Connector Name	WIRE TO WIRE
Connector Type	THBDFW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	-
6	V	-
7	L	-
8	BG	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	B	- [With 2.0L turbo gasoline engine]
9	GR	- [With VR30 engine] [Color of wire differs depending on production]
10	BR	-
11	L	-
12	GR	- [With VR30 engine]

12	P	- [With 2.0L turbo gasoline engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
13	W	- [With VR30 engine]
14	B	-
15	GR	- [With 2.0L turbo gasoline engine]
15	SB	- [With VR30 engine]
16	BR	- [With 2.0L turbo gasoline engine]
16	Y	- [With VR30 engine]
17	BR	- [With VR30 engine]
17	GR	- [With 2.0L turbo gasoline engine]
18	G	- [With 2.0L turbo gasoline engine]
18	P	- [With VR30 engine]
19	Y	-
31	W	- [With 2.0L turbo gasoline engine]
32	Y	- [With VR30 engine]
32	G	- [With 2.0L turbo gasoline engine]
32	GR	- [With VR30 engine]
33	L	-
33	Y	- [With 2.0L turbo gasoline engine]
34	P	-
35	GR	-
36	R	-
37	L	- [With 2.0L turbo gasoline engine]
37	V	- [With VR30 engine]
38	L	- [With VR30 engine]
38	P	- [With 2.0L turbo gasoline engine and without gateway]
38	R	- [With 2.0L turbo gasoline engine and with gateway]
39	BR	- [With 2.0L turbo gasoline engine]
39	Y	- [With VR30 engine]
40	SB	-
41	LG	-
44	Y	-
45	L	- [With 2.0L turbo gasoline engine]
45	W	- [With VR30 engine]
46	B	-
46	Y	- [With 2.0L turbo gasoline engine]
47	G	-
48	SHIELD	-
49	R	-
50	BR	- [With VR30 engine]
50	GR	- [With 2.0L turbo gasoline engine]
51	L	-
52	W	-
53	V	-
54	P	- [With VR30 engine]
54	W	- [With 2.0L turbo gasoline engine]
55	B	- [With 2.0L turbo gasoline engine]
55	W	- [With VR30 engine]
56	BG	- [With 2.0L turbo gasoline engine]
56	SB	- [With VR30 engine]

PRE-CRASH SEAT BELT CONTROL UNIT

< WIRING DIAGRAM >

PRE-CRASH SEAT BELT SYSTEM

57	BG	-	[With VR30 engine]
57	W	-	[With 2.0L turbo gasoline engine]
58	B	-	[Color of wire differs depending on production]
58	B/W	-	[Color of wire differs depending on production]
59	W	-	-
61	R	-	-
64	Y	-	-
65	BR	-	[Color of wire differs depending on production]
65	GR	-	[Color of wire differs depending on production]
66	GR	-	-
67	LG	-	-
68	BG	-	-
69	R	-	-
70	R	-	-
71	LG	-	[With 2.0L turbo gasoline engine]
72	L	-	[With VR30 engine]
72	V	-	[With VR30 engine]
73	G	-	[With 2.0L turbo gasoline engine]
73	W	-	[With VR30 engine]
74	BR	-	[With 2.0L turbo gasoline engine]
74	L	-	[With 2.0L turbo gasoline engine]
75	P	-	[With 2.0L turbo gasoline engine and without gateway]
75	R	-	[With 2.0L turbo gasoline engine and with gateway]
75	V	-	[With VR30 engine]
76	G	-	-
77	Y	-	-
78	LG	-	[With 2.0L turbo gasoline engine and with ADAS]
78	P	-	[With VR30 engine]
78	V	-	[With 2.0L turbo gasoline engine and without ADAS]
79	S8	-	-
80	G	-	-
81	R	-	-
82	V	-	-
83	BR	-	[With 2.0L turbo gasoline engine]
83	R	-	[With VR30 engine]
84	LG	-	-
86	BG	-	-
87	G	-	-
89	LG	-	-
90	G	-	[With VR30 engine]
90	GR	-	[With 2.0L turbo gasoline engine]
91	G	-	-
93	BG	-	-
94	GR	-	[With VR30 engine]
94	L	-	[With 2.0L turbo gasoline engine]
95	BG	-	[With VR30 engine]
95	P	-	[With 2.0L turbo gasoline engine and without gateway]
95	R	-	[With 2.0L turbo gasoline engine and with gateway]
96	W	-	-

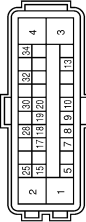
97	LG	-	-
98	L	-	-
99	LG	-	[With 2.0L turbo gasoline engine]
99	P	-	[With VR30 engine]
100	SHIELD	-	-

Connector No.	E32
Connector Name	BRAKE PEDAL STROKE SENSOR
Connector Type	HS4FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	OUT 1
2	R	VCC
3	B	OUT 2
4	W	GND

Connector No.	E35
Connector Name	ABS RETURN AND ELECTRIC UNIT (DOWN/UP UNIT)
Connector Type	SAZ30FB-S1Z4-U



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	G	VALVE BATTERY [With VR30 engine]
3	P	VALVE BATTERY [With 2.0L turbo gasoline engine]
4	Y	MOTOR BATTERY
5	LG	STOP LAMP SW SIGNAL [With ADAS]
5	V	STOP LAMP SW SIGNAL [With ASCD]
7	GR	RR LH WHEEL SENSOR SIGNAL
8	G	RR LH WHEEL SENSOR POWER SUPPLY

9	BR	FR RH WHEEL SENSOR SIGNAL
10	GR	FR RH WHEEL SENSOR POWER SUPPLY
13	R	VACUUM SENSOR SIGNAL
15	P	CAN-L [Without Gateway]
15	R	CAN-L [With gateway]
17	Y	RR RH WHEEL SENSOR SIGNAL
18	LG	RR RH WHEEL SENSOR POWER SUPPLY [With VR30 engine]
18	V	RR RH WHEEL SENSOR POWER SUPPLY [With 2.0L turbo gasoline engine]
19	S8	FR LH WHEEL SENSOR SIGNAL
20	BG	FR LH WHEEL SENSOR POWER SUPPLY
23	L	CAN-H
28	G	VACUUM SENSOR POWER SUPPLY
30	R	VDC OFF SW SIGNAL
32	SHIELD	VACUUM SENSOR GROUND
34	G	IGN

Connector No.	E220
Connector Name	JOINT CONNECTOR-E05
Connector Type	NH24FB-J



Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-
4	L	-
7	W	-
8	L	-
11	W	-
12	L	-
15	P	[Without Gateway]
15	R	[With Gateway]
16	L	-
19	P	[Without Gateway]
19	R	[With Gateway]
20	L	-
23	P	[Without Gateway]
23	R	[With Gateway]
24	L	-

Connector No.	M14
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
48	R	PUSH-BTN IGN SW ILL PWR
52	G	DONGLE LINK
54	V	COMM LINE
55	R	RAIN SENSOR
59	P	CAN-L
60	L	CAN-H
61	G	REAR WINDOW DEF RLY CONT
62	R	STARTER RLY CONT
64	V	I-KEY WARN BUZZER
65	B	OUTS HD LAMP CONT
66	B	BLOWER FAN RLY CONT [With VR30 engine]
66	Y	BLOWER FAN RLY CONT [With 2.0L turbo gasoline engine]
67	W/B	IGN RLYAY (F/B) CONT
68	R	DIMMER
69	GR	A/T SHIFT SELECT PWS SPY
70	B	IGN RLYAY (PDM E/R) CONT
71	G	DR DOOR REQ SW
72	S8	PASS DOOR REQ SW
75	BR	COMBI SW INRUT 5
76	BG	COMBI SW INRUT 4
77	V	COMBI SW INRUT 3
78	Y	COMBI SW INRUT 2
79	LG	COMBI SW INRUT 1
80	L	TR LID OPNR SW

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SBC

PRE-CRASH SEAT BELT CONTROL UNIT

< WIRING DIAGRAM >

PRE-CRASH SEAT BELT SYSTEM

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	S8	-
4	BR	-
5	Y	-
6	R	-
7	W	-
8	V	-
10	BG	-
11	BR	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-
20	W	-
22	S8	-
23	R	-
24	R	- [With 2.0L turbo gasoline engine]
24	Y	- [With VR30 engine]
25	P	- [With 2.0L turbo gasoline engine]
25	W	- [With VR30 engine]
26	G	-
27	R	-
28	R	-
31	BR	-
32	B	-
33	B	-
34	V	-
35	P	-
36	W	-
37	S8	-
38	R	-
39	B	-
40	P	-
41	L	-
42	R	-
43	S8	-
44	P	-
45	LG	-
45	P	-

41	G	-
42	BR	-
43	BR	-
44	BR	-
46	BG	-
50	W	-
51	Y	-
52	V	-
53	LG	-
54	R	-
55	R	-
57	W	-
58	V	-
59	BG	-
60	G	-
61	G	-
62	BG	-
63	BR	-
64	Y	-
66	R	-
70	LG	-
71	W	-
72	B	-
73	W	-
74	L	-
75	W	-
76	BR	-
77	B	-
78	S8	-
79	P	-
79	W	- [With VR30 engine]
79	W	- [With 2.0L turbo gasoline engine]
81	B	-
82	R	-
83	BG	-
84	L	-
85	W	-
86	B	-
88	G	-
89	V	-
89	W	- [With 2.0L turbo gasoline engine]
89	V	- [With VR30 engine]
91	GR	-
94	GR	-
96	W	-
97	V	-
98	Y	-
98	Y	- [With VR30 engine and with BOSE system]
98	Y	- [Except with VR30 engine and with BOSE system]

Connector No.	M20
Connector Name	WIRE TO WIRE
Connector Type	TH16MAW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
10	Y	-
11	SHIELD	-
12	B	-
13	W	-
14	R	-

Connector No.	M22
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	L	-
2	SHIELD	- [With VR30 engine]
3	BR	- [With 2.0L turbo gasoline engine]
3	R	- [With VR30 engine]
4	SHIELD	- [With VR30 engine]
4	Y	- [With 2.0L turbo gasoline engine]
5	G	- [With VR30 engine]
5	V	- [With 2.0L turbo gasoline engine]
6	BG	- [With VR30 engine]
6	BR	- [With 2.0L turbo gasoline engine]
7	LG	- [With VR30 engine]
7	P	- [With 2.0L turbo gasoline engine]
8	G	- [With 2.0L turbo gasoline engine]
8	P	- [With VR30 engine]

9	LG	- [With 2.0L turbo gasoline engine]
9	SHIELD	- [With VR30 engine]
10	V	-
11	GR	-
12	V	-
13	LG	-
14	LG	-
15	BR	- [With 2.0L turbo gasoline engine]
15	P	- [With VR30 engine]
16	S8	- [With DCM]
16	V	- [Without DCM]
17	Y	-
18	L	-
19	G	-
20	GR	-
21	R	-
22	V	-
23	L	-
24	BG	- [With 2.0L turbo gasoline engine]
24	V	- [With VR30 engine]
25	L	- [With 2.0L turbo gasoline engine]
25	S8	- [With VR30 engine]
26	G	- [With VR30 engine]
26	W	- [With 2.0L turbo gasoline engine]
27	R	-
29	LG	-
30	S8	- [With VR30 engine]
30	W	- [With 2.0L turbo gasoline engine]
31	SHIELD	-
32	L	-
33	B	- [With VR30 engine]
33	LG	- [With 2.0L turbo gasoline engine]
34	SHIELD	-
35	LG	- [With VR30 engine]
35	W	- [With 2.0L turbo gasoline engine]
36	R	- [With VR30 engine]
36	V	- [With 2.0L turbo gasoline engine]
37	R	- [With VR30 engine]
37	V	- [With 2.0L turbo gasoline engine]
38	W	-
38	P	- [With VR30 engine and without BOSE system]
39	R	- [With 2.0L turbo gasoline engine]
39	V	- [With VR30 engine and with BOSE system]
40	G	-
41	L	-
42	R	-
43	SHIELD	-
44	P	-
45	B	- [With 2.0L turbo gasoline engine]
45	G	- [With VR30 engine]

PRE-CRASH SEAT BELT CONTROL UNIT

< WIRING DIAGRAM >

PRE-CRASH SEAT BELT SYSTEM

53	G	-	-
54	SB	- [With 2.0L turbo gasoline engine]	-
55	Y	- [With VR30 engine]	-
56	B	- [With 2.0L turbo gasoline engine]	-
57	P	- [With VR30 engine]	-
58	BG	- [With 2.0L turbo gasoline engine]	-
59	GR	- [With VR30 engine]	-
60	GR	- [With 2.0L turbo gasoline engine]	-
61	P	- [With VR30 engine]	-
62	B	- [With 2.0L turbo gasoline engine]	-
63	W/B	-	-
64	R	-	-
65	R	-	-
66	P	- [Color of wire differs depending on production]	-
67	V	- [Color of wire differs depending on production]	-
68	BG	-	-
69	L	-	-
70	R	-	-
71	V	- [With VR30 engine]	-
72	W	- [With 2.0L turbo gasoline engine]	-
73	L	- [With 2.0L turbo gasoline engine]	-
74	LG	- [With VR30 engine]	-
75	R	- [With VR30 engine]	-
76	W	- [With 2.0L turbo gasoline engine]	-
77	W/B	-	-
78	G	- [With VR30 engine]	-
79	LG	- [With 2.0L turbo gasoline engine]	-
80	R	-	-
81	R	-	-
82	LG	-	-
83	BR	- [With 2.0L turbo gasoline engine]	-
84	R	- [With VR30 engine]	-
85	V	-	-
86	V	-	-
87	G	-	-
88	V	-	-
89	V	-	-
90	G	- [With VR30 engine]	-
91	V	- [With 2.0L turbo gasoline engine]	-
92	G	-	-
93	BR	-	-

94	GR	- [With VR30 engine]	-
95	L	- [With 2.0L turbo gasoline engine]	-
96	BR	- [With VR30 engine]	-
97	P	- [With 2.0L turbo gasoline engine and without gateway]	-
98	R	- [With 2.0L turbo gasoline engine and with gateway]	-
99	W	-	-
100	LG	- [With VR30 engine]	-
101	Y	-	-
102	BR	- [With VR30 engine]	-
103	LG	- [With 2.0L turbo gasoline engine]	-
104	SHIELD	-	-

Connector No.	M58
Connector Name	COMBINATION METER
Connector Type	TH12FW-AH



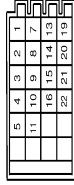
Terminal No.	Color Of Wire	Signal Name [Specification]
41	L	CAN-H
42	P	CAN-L
43	B	ILLUMINATION CONTROL SIGNAL
44	Y	FUEL LEVEL SENSOR GROUND
45	W	BATTERY POWER SUPPLY
46	BG	IGNITION SIGNAL (except with VR30 engine and without ISS)
47	SB	AV COMMUNICATION SIGNAL (H)
48	LG	AV COMMUNICATION SIGNAL (L)
49	BR	FUEL LEVEL SENSOR SIGNAL
50	B	GROUND

Connector No.	M77
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	P	CAN-L [Without Gateway]
3	R	CAN-L [With Gateway]
4	G	IGN
5	L	CAN-H

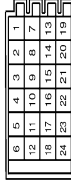
Connector No.	M137
Connector Name	JOINT CONNECTOR-M10
Connector Type	24342-4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-
5	B	-
6	B	-
7	B	-
8	B	-
9	B	-
10	B	-
11	B	-
12	B	-
13	B	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	L	-
20	L	-
21	L	-
22	L	-
23	L	-
24	L	-

20	R	-
21	R	-
22	R	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M03
Connector Type	24342-4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	-
9	R	-
10	R	-
11	R	-
12	R	-
13	SR	-
14	SR	-
15	SR	-
16	L	- [With 2.0L turbo gasoline engine]
17	L	- [With VR30 engine]
18	L	- [With 2.0L turbo gasoline engine]
19	L	- [With VR30 engine]
20	BR	- [With VR30 engine]
21	BR	- [With 2.0L turbo gasoline engine]
22	BR	- [With VR30 engine]
23	BR	- [With 2.0L turbo gasoline engine]
24	BR	- [With VR30 engine]
25	BR	- [With 2.0L turbo gasoline engine]
26	BR	- [With VR30 engine]
27	BR	- [With 2.0L turbo gasoline engine]
28	BR	- [With VR30 engine]
29	BR	- [With 2.0L turbo gasoline engine]
30	BR	- [With VR30 engine]
31	BR	- [With 2.0L turbo gasoline engine]
32	BR	- [With VR30 engine]
33	BR	- [With 2.0L turbo gasoline engine]
34	BR	- [With VR30 engine]
35	BR	- [With 2.0L turbo gasoline engine]
36	BR	- [With VR30 engine]
37	BR	- [With 2.0L turbo gasoline engine]
38	BR	- [With VR30 engine]
39	BR	- [With 2.0L turbo gasoline engine]
40	BR	- [With VR30 engine]
41	BR	- [With 2.0L turbo gasoline engine]
42	BR	- [With VR30 engine]
43	BR	- [With 2.0L turbo gasoline engine]
44	BR	- [With VR30 engine]
45	BR	- [With 2.0L turbo gasoline engine]
46	BR	- [With VR30 engine]
47	BR	- [With 2.0L turbo gasoline engine]
48	BR	- [With VR30 engine]
49	BR	- [With 2.0L turbo gasoline engine]
50	BR	- [With VR30 engine]
51	BR	- [With 2.0L turbo gasoline engine]
52	BR	- [With VR30 engine]
53	BR	- [With 2.0L turbo gasoline engine]
54	BR	- [With VR30 engine]
55	BR	- [With 2.0L turbo gasoline engine]
56	BR	- [With VR30 engine]
57	BR	- [With 2.0L turbo gasoline engine]
58	BR	- [With VR30 engine]
59	BR	- [With 2.0L turbo gasoline engine]
60	BR	- [With VR30 engine]
61	BR	- [With 2.0L turbo gasoline engine]
62	BR	- [With VR30 engine]
63	BR	- [With 2.0L turbo gasoline engine]
64	BR	- [With VR30 engine]
65	BR	- [With 2.0L turbo gasoline engine]
66	BR	- [With VR30 engine]
67	BR	- [With 2.0L turbo gasoline engine]
68	BR	- [With VR30 engine]
69	BR	- [With 2.0L turbo gasoline engine]
70	BR	- [With VR30 engine]
71	BR	- [With 2.0L turbo gasoline engine]
72	BR	- [With VR30 engine]
73	BR	- [With 2.0L turbo gasoline engine]
74	BR	- [With VR30 engine]
75	BR	- [With 2.0L turbo gasoline engine]
76	BR	- [With VR30 engine]
77	BR	- [With 2.0L turbo gasoline engine]
78	BR	- [With VR30 engine]
79	BR	- [With 2.0L turbo gasoline engine]
80	BR	- [With VR30 engine]
81	BR	- [With 2.0L turbo gasoline engine]
82	BR	- [With VR30 engine]
83	BR	- [With 2.0L turbo gasoline engine]
84	BR	- [With VR30 engine]
85	BR	- [With 2.0L turbo gasoline engine]
86	BR	- [With VR30 engine]
87	BR	- [With 2.0L turbo gasoline engine]
88	BR	- [With VR30 engine]
89	BR	- [With 2.0L turbo gasoline engine]
90	BR	- [With VR30 engine]
91	BR	- [With 2.0L turbo gasoline engine]
92	BR	- [With VR30 engine]
93	BR	- [With 2.0L turbo gasoline engine]

PRE-CRASH SEAT BELT CONTROL UNIT

< WIRING DIAGRAM >

PRE-CRASH SEAT BELT SYSTEM

23	SB	- [With VR30 engine and without ISS]
23	V	- [With VR30 engine and with ISS]
24	R	- [With 2.0L turbo gasoline engine]
24	SB	- [With VR30 engine and without ISS]
24	V	- [With VR30 engine and with ISS]

Connector No.	M175
Connector Name	JOINT CONNECTOR-M05
Connector Type	NH3DFE-DC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	L	-
8	L	-
10	P	-
11	P	-
12	P	-
13	P	-
14	P	-
15	P	-
16	R	- [With VR30 engine]
16	R	- [With 2.0L turbo gasoline engine]
17	P	- [With VR30 engine]
17	P	- [With 2.0L turbo gasoline engine]
18	R	- [With VR30 engine and with ISS]
19	W	- [Except with VR30 engine and with ISS]
20	R	- [With VR30 engine and with ISS]
20	W	- [Except with VR30 engine and with ISS]

Connector No.	M177
Connector Name	JOINT CONNECTOR-M07
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	P	-
8	P	-
9	P	-
10	P	-
11	P	-
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	W	-
20	W	-
21	W	-
22	P	-
23	P	-
24	P	-

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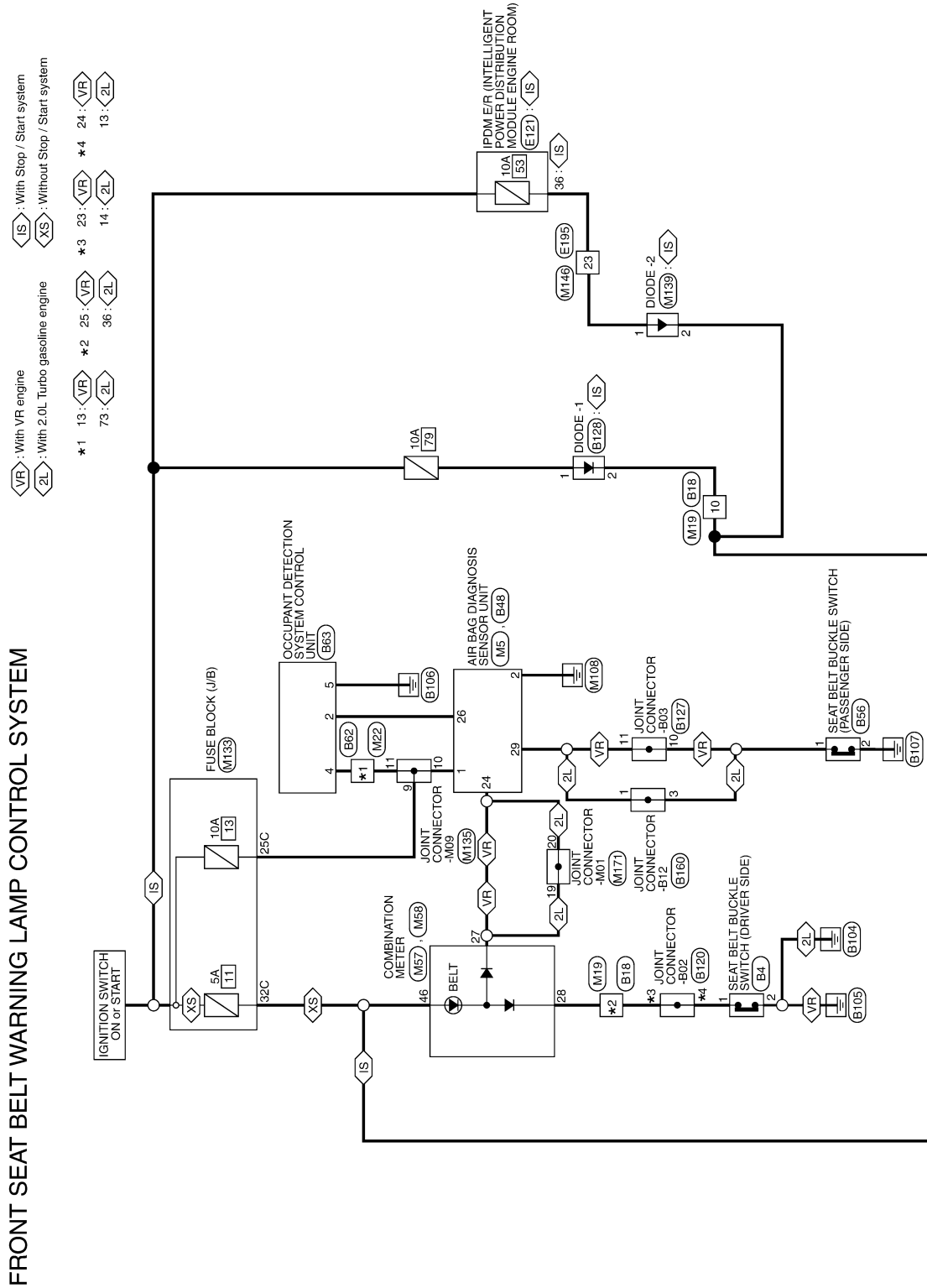
SEAT BELT WARNING SYSTEM

< WIRING DIAGRAM >

SEAT BELT WARNING SYSTEM

Wiring Diagram

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SEAT BELT WARNING SYSTEM

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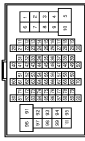
FRONT SEAT BELT WARNING LAMP CONTROL SYSTEM

Connector No.	B4
Connector Name	SEAT BELT BUCKLE SWITCH (DRIVER SIDE)
Connector Type	TH04FW-AH



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

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH80PW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	L	-
4	LG	-
5	Y	-
6	R	-
7	V	-
8	LG	-
10	BG	-
11	BG	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-

19	BR	-	-
20	W	-	-
22	R	-	-
23	V	-	- [With VR30 engine]
24	R	-	- [With 2.0L turbo gasoline engine]
24	Y	-	- [With VR30 engine]
25	P	-	- [With 2.0L turbo gasoline engine and without BOSE system]
25	V	-	- [With 2.0L turbo gasoline engine and with BOSE system]
26	W	-	- [With VR30 engine]
26	G	-	-
27	R	-	-
28	R	-	-
31	B	-	- [With VR30 engine]
31	BR	-	- [With 2.0L turbo gasoline engine]
32	B	-	-
33	B	-	-
34	LG	-	-
35	P	-	-
36	W	-	-
37	SB	-	-
38	LG	-	-
40	P	-	-
41	SB	-	-
42	BR	-	-
43	BG	-	-
44	BG	-	-
46	R	-	-
50	W	-	-
51	SB	-	-
52	V	-	-
53	LG	-	-
54	R	-	-
55	R	-	-
57	W	-	-
58	V	-	-
59	GR	-	-
60	G	-	-
61	G	-	-
62	BG	-	-
63	BR	-	-
64	Y	-	-
66	R	-	-
70	R	-	-
71	W	-	-
72	B	-	-
73	W	-	-
74	L	-	-
75	R	-	- [Without paddle shift]
75	V	-	- [With paddle shift]

76	BR	-	-
77	B	-	-
78	SB	-	-
79	V	-	- [With VR30 engine]
79	W	-	- [With 2.0L turbo gasoline engine]
81	B	-	-
82	R	-	-
83	BG	-	-
84	-	-	-
85	R	-	- [Without paddle shift]
85	V	-	- [With paddle shift]
86	B	-	-
88	G	-	-
89	V	-	- [With 2.0L turbo gasoline engine]
89	W	-	- [With VR30 engine]
91	GR	-	-
94	GR	-	-
96	Y	-	-
97	V	-	-
98	BR	-	- [With VR30 engine and with BOSE system]
98	Y	-	- [Except with VR30 engine and with BOSE system]

Connector No.	B48
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	NH22PF-1V-EX



Terminal No.	Color Of Wire	Signal Name [Specification]
10	Y/R	PRH (+)
11	V/B	PRH (-)
14	Y/G	ELK-RP2+
15	Y	ELK-RP2-
26	V	ODS INPUT
29	LG	RH BUCKLE SW INPUT
31	Y/R	SRH (+)
32	Y/B	SRH (-)
35	Y	CRH (+)
36	L	CRH (-)
47	R	SIDE SENS RH+
48	L	SIDE SENS RH-

55	B	GND
61	G	SATELLITE RH (+)
62	R	SATELLITE RH (-)
69	BR	BUCKLE_SW_RH-

Connector No.	B56
Connector Name	SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)
Connector Type	TH04FW-AH



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

Connector No.	B62
Connector Name	WIRE TO WIRE
Connector Type	TH80PW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	- [With 2.0L turbo gasoline engine and without BOSE system]
1	LG	- [With VR30 engine]
1	W	- [With 2.0L turbo gasoline engine and with BOSE system]
2	L	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	BR	- [With VR30 engine and with BOSE system]
3	R	- [With VR30 engine and without BOSE system]
3	W	- [With VR30 engine and without BOSE system]
4	SHIELD	- [With VR30 engine]

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SEAT BELT WARNING SYSTEM

< WIRING DIAGRAM >

FRONT SEAT BELT WARNING LAMP CONTROL SYSTEM

4	Y	W	- [With 2.0L turbo gasoline engine]
5	G	W	- [With VR30 engine]
6	BG	P	- [With 2.0L turbo gasoline engine]
7	BR	R	- [With VR30 engine]
8	B	W	- [With 2.0L turbo gasoline engine and with BOSE system]
9	LG	W	- [With VR30 engine and without BOSE system]
10	V	W	- [With 2.0L turbo gasoline engine and with BOSE system]
11	GR	W	- [With VR30 engine]
12	Y	W	-
13	R	W	-
14	BG	W	- [With 2.0L turbo gasoline engine]
15	GR	W	- [With VR30 engine]
16	V	W	-
17	P	W	-
18	L	W	-
19	R	W	-
20	GR	W	- [With VR30 engine]
21	R	W	-
22	V	W	-
23	W	W	- [With 2.0L turbo gasoline engine]
24	BG	W	- [With VR30 engine]
24	V	W	- [With 2.0L turbo gasoline engine]
25	S8	W	- [With VR30 engine]
26	G	W	- [With VR30 engine]
26	W	W	- [With 2.0L turbo gasoline engine]
27	R	W	-
29	LG	W	- [With 2.0L turbo gasoline engine]
30	P	W	- [With VR30 engine]
31	SHIELD	W	-
32	L	W	-
33	B	W	- [With VR30 engine]
33	LG	W	- [With 2.0L turbo gasoline engine]
34	SHIELD	W	-
35	LG	W	- [With VR30 engine]
35	W	W	- [With 2.0L turbo gasoline engine]
36	R	W	- [With VR30 engine]
36	W	W	- [With 2.0L turbo gasoline engine]
37	P	W	- [With 2.0L turbo gasoline engine and without BOSE system]
37	R	W	- [With VR30 engine]

37	W	W	- [With 2.0L turbo gasoline engine and with BOSE system]
38	W	W	- [With VR30 engine and without BOSE system]
39	P	W	- [With 2.0L turbo gasoline engine]
39	R	W	- [With VR30 engine and with BOSE system]
40	G	W	- [With 2.0L turbo gasoline engine]
41	L	W	-
42	R	W	-
43	SHIELD	W	-
44	P	W	-
45	G	W	- [With 2.0L turbo gasoline engine]
46	SHIELD	W	- [With VR30 engine]
47	G	W	-
48	BG	W	-
49	G	W	-
50	V	W	-
51	GR	W	-
52	W	W	- [With 2.0L turbo gasoline engine]
53	R	W	- [With VR30 engine]
54	GR	W	-
55	L	W	-
56	V	W	-
57	R	W	-
58	LG	W	-
59	P	W	-
61	L	W	-
62	P	W	- [With VR30 engine]
62	V	W	- [With 2.0L turbo gasoline engine]
63	L	W	-
64	W	W	-
66	LG	W	-
68	L	W	-
69	P	W	-
71	GR	W	- [With 2.0L turbo gasoline engine]
71	R	W	- [With VR30 engine]
72	G	W	- [With 2.0L turbo gasoline engine]
73	R	W	- [With VR30 engine]
73	SHIELD	W	-
74	BG	W	- [With 2.0L turbo gasoline engine]
74	L	W	- [With VR30 engine]
75	GR	W	- [With 2.0L turbo gasoline engine]
75	V	W	- [With VR30 engine]
76	GR	W	- [With VR30 engine]
76	P	W	- [With 2.0L turbo gasoline engine]
77	P	W	-
78	L	W	-
79	R	W	-

80	GR	W	- [With 2.0L turbo gasoline engine]
80	W	W	- [With VR30 engine]
81	B	W	- [With 2.0L turbo gasoline engine]
81	R	W	- [With 2.0L turbo gasoline engine]
82	G	W	- [With 2.0L turbo gasoline engine]
82	SHIELD	W	- [With VR30 engine]
83	R	W	- [With 2.0L turbo gasoline engine]
83	W	W	- [With VR30 engine]
84	BR	W	- [With VR30 engine]
84	SHIELD	W	- [With VR30 engine]
85	BG	W	- [With VR30 engine]
85	G	W	- [With 2.0L turbo gasoline engine]
86	W	W	- [With 2.0L turbo gasoline engine]
87	LG	W	- [With VR30 engine]
87	SHIELD	W	- [With VR30 engine]
89	LG	W	-
90	P	W	- [With 2.0L turbo gasoline engine]
90	V	W	- [With VR30 engine]
92	L	W	- [With 2.0L turbo gasoline engine]
92	W	W	- [With VR30 engine]
93	R	W	- [With VR30 engine]
93	SHIELD	W	- [With 2.0L turbo gasoline engine]
94	R	W	-
95	L	W	- [With 2.0L turbo gasoline engine]
95	Y	W	- [With VR30 engine]
96	R	W	- [With 2.0L turbo gasoline engine]
96	W	W	- [With VR30 engine]
97	L	W	- [With VR30 engine]
97	R	W	- [With 2.0L turbo gasoline engine and with BOSE system]
97	W	W	- [With 2.0L turbo gasoline engine and without BOSE system]
98	LG	W	-
99	BR	W	- [With VR30 engine and with BOSE system]
99	P	W	- [With 2.0L turbo gasoline engine]
99	Y	W	- [With VR30 engine and without BOSE system]
100	BR	W	-
100	W	W	- [With 2.0L turbo gasoline engine]

Connector No.	B63
Connector Name	OCCUPANT DETECTION SYSTEM CONTROL UNIT
Connector Type	TH08FW-NH



Terminal No.	Color	Wire	Signal Name [Specification]
2	V		COMMUNICATION
4	R		IGN
5	B		GND
7	Y		K-LINE

Connector No.	BJ20
Connector Name	JOINT CONNECTOR-802
Connector Type	24342_4GAZA



Terminal No.	Color	Wire	Signal Name [Specification]
1	R		-
2	R		-
3	L		- [With VR30 engine]
3	R		- [With 2.0L turbo gasoline engine]
4	L		- [With VR30 engine]
4	R		- [With 2.0L turbo gasoline engine]
5	L		-
6	L		-
7	L		-
8	L		-
9	L		- [With 2.0L turbo gasoline engine]
9	R		- [With VR30 engine]
10	L		- [With 2.0L turbo gasoline engine]
10	R		- [With VR30 engine]
11	R		-
12	R		-

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SEAT BELT WARNING SYSTEM

< WIRING DIAGRAM >

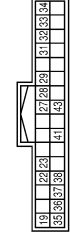
FRONT SEAT BELT WARNING LAMP CONTROL SYSTEM

13	W	-	-
14	W	-	-
15	W	-	-
17	SHIELD	-	-
18	B	-	-
19	B	-	- [With 2.0L turbo gasoline engine]
19	GR	-	- [With VR30 engine]
20	GR	-	- [With VR30 engine]
20	SHIELD	-	- [With 2.0L turbo gasoline engine]
21	B	-	- [With 2.0L turbo gasoline engine]
21	GR	-	- [With VR30 engine]
23	W	-	-
24	W	-	-

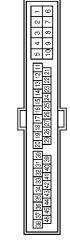


Connector No.	B128
Connector Name	DIODE-1
Connector Type	ETD2-2W

Connector No.	E121
Connector Name	HEAVY INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH32FW-AH



Connector No.	E195
Connector Name	WIRE TO WIRE
Connector Type	TK36FW-AS10



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	BG	-

Terminal No.	Color Of Wire	Signal Name [Specification]
19	L	- [With 2.0L turbo gasoline engine]
19	P	- [With VR30 engine]
22	BG	-
23	GR	- [With VR30 engine]
23	LG	- [With 2.0L turbo gasoline engine and without anti-theft device]
23	P	- [With 2.0L turbo gasoline engine and with anti-theft device]
27	GR	-
28	P	-
29	L	-
31	G	-
32	SB	-
33	SB	-
34	Y	-
35	G	-
36	SB	- [With VR30 engine]
37	GR	- [With 2.0L turbo gasoline engine]
38	BR	-
41	GR	-
43	V	-

Terminal No.	Color Of Wire	Signal Name [Specification]
5	BR	-
8	GR	-
9	P	-
10	R	-
11	L	-
12	P	-
13	GR	-
14	Y	-
15	G	-
16	W	-
17	L	-
18	R	-
19	BR	-
20	SHIELD	-
21	BR	-
22	V	-
23	W	-
24	L	-
25	G	-
26	G	-
30	Y	-
31	GR	-
32	SB	-
32	W	-
34	W	-
35	B	-
36	G	-
37	SHIELD	-
38	R	-
39	L	-
40	GR	-
41	W	-
42	B	-
43	BR	-
44	P	-
45	SB	-

Connector No.	B127
Connector Name	JOINT CONNECTOR-B03
Connector Type	NR2DFG-DC



Connector No.	B160
Connector Name	JOINT CONNECTOR-B12
Connector Type	TR04FW-J



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	SHIELD	-
3	SHIELD	-
4	SHIELD	-
5	SHIELD	-
6	P	-
7	P	-
8	P	-
9	P	-
10	LG	- [With VR30 engine]
10	SHIELD	- [With 2.0L turbo gasoline engine]
11	LG	- [With VR30 engine]
11	SHIELD	- [With 2.0L turbo gasoline engine]
13	BG	-
14	BG	-
15	BG	-
17	LG	-
18	LG	-
19	LG	-
20	LG	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
3	LG	-

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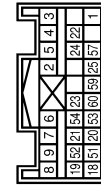
SEAT BELT WARNING SYSTEM

< WIRING DIAGRAM >

FRONT SEAT BELT WARNING LAMP CONTROL SYSTEM

46	Y	-
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Connector No.	M5
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	MH2BEX



Terminal No.	Color Of Wire	Signal Name (Specification)
1	LG	IGN
2	B	GND
3	Y/R	DR1 (+)
4	Y/B	DR1 (-)
5	Y	DR2 (+)
6	Y/R	AS1 (+)
7	Y/B	AS1 (-)
8	Y/G	AS2 (+)
9	Y	AS2 (-)
18	BR	EC25+
19	BR	EC25-
20	V/R	ACT_VENT+
21	V/B	ACT_VENT-
22	SHIELD	GND
23	V	AIRBAG W/L
24	G	A/B OFF IND
25	GR	A/B OFF IND
51	G	SATELLITE RH2 (+)
52	R	SATELLITE RH2 (-)
53	V	SIDE SENS LH2+
54	L	SIDE SENS LH2-
57	LG	IVCS
59	L	CAN-H
60	P	CAN-L

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name (Specification)
1	Y	-
2	G	-
3	SB	-
4	BR	-
5	Y	-
6	R	-
7	W	-
8	V	-
10	BG	-
11	BR	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-
20	W	-
22	SB	-
23	R	-
24	R	- [With 2.0L turbo gasoline engine]
24	Y	- [With VR30 engine]
25	P	- [With 2.0L turbo gasoline engine]
25	W	- [With VR30 engine]
26	G	-
27	R	-
28	R	-
31	BR	-
32	B	-
33	B	-
34	V	-
35	P	-
36	W	-
37	SB	-
38	LG	-
40	P	-

41	G	-
42	BR	-
43	BR	-
44	BR	-
46	BG	-
50	W	-
51	Y	-
52	V	-
53	LG	-
54	R	-
55	R	-
57	W	-
58	V	-
59	BG	-
60	G	-
61	G	-
62	BG	-
63	BR	-
64	Y	-
66	R	-
70	LG	-
71	W	-
72	B	-
73	W	-
74	L	-
75	W	-
76	BR	-
77	B	-
78	S/B	-
79	P	- [With VR30 engine]
79	W	- [With 2.0L turbo gasoline engine]
81	B	-
82	R	-
83	BG	-
84	L	-
85	W	-
86	B	-
88	G	-
89	V	- [With 2.0L turbo gasoline engine]
89	W	- [With VR30 engine]
91	GR	-
94	GR	-
96	W	-
97	V	-
98	BR	- [With VR30 engine and with BOSE system]
98	Y	- [Except with VR30 engine and with BOSE system]

Connector No.	M22
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name (Specification)
1	LG	-
2	L	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	BR	- [With 2.0L turbo gasoline engine]
3	R	- [With VR30 engine]
4	SHIELD	- [With VR30 engine]
4	Y	- [With 2.0L turbo gasoline engine]
5	G	- [With VR30 engine]
5	V	- [With 2.0L turbo gasoline engine]
6	BG	- [With VR30 engine]
6	BR	- [With 2.0L turbo gasoline engine]
7	LG	- [With VR30 engine]
7	P	- [With 2.0L turbo gasoline engine]
8	G	- [With 2.0L turbo gasoline engine]
8	P	- [With VR30 engine]
9	LG	- [With 2.0L turbo gasoline engine]
9	SHIELD	- [With VR30 engine]
10	V	-
11	GR	-
12	V	-
13	LG	-
14	LG	-
15	BR	- [With 2.0L turbo gasoline engine]
15	P	- [With VR30 engine]
16	S/B	- [With DCM]
16	V	- [Without DCM]
17	Y	-
18	L	-
19	G	-
20	GR	-
21	R	-
22	V	-
23	L	-
24	BG	- [With 2.0L turbo gasoline engine]
24	V	- [With VR30 engine]
25	L	- [With 2.0L turbo gasoline engine]

SEAT BELT WARNING SYSTEM

< WIRING DIAGRAM >

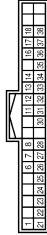
FRONT SEAT BELT WARNING LAMP CONTROL SYSTEM

25	S8	- [With VR30 engine]
26	G	- [With VR30 engine]
27	W	- [With 2.0L turbo gasoline engine]
29	R	-
29	LG	- [With VR30 engine]
30	S8	- [With VR30 engine]
30	W	- [With 2.0L turbo gasoline engine]
31	SHIELD	-
32	L	-
33	B	- [With VR30 engine]
33	LG	- [With 2.0L turbo gasoline engine]
34	SHIELD	-
35	LG	- [With VR30 engine]
35	W	- [With 2.0L turbo gasoline engine]
36	R	- [With VR30 engine]
36	V	- [With 2.0L turbo gasoline engine]
37	R	- [With VR30 engine]
37	V	- [With 2.0L turbo gasoline engine]
38	W	-
39	P	- [With VR30 engine and without BOSE system]
39	R	- [With 2.0L turbo gasoline engine]
39	V	- [With VR30 engine and with BOSE system]
40	G	-
41	L	-
42	R	-
43	SHIELD	-
44	P	-
45	G	- [With 2.0L turbo gasoline engine]
46	SHIELD	- [With VR30 engine]
47	G	-
48	BG	- [Except with VR30 engine and with BOSE system]
48	BR	- [With VR30 engine and with BOSE system]
49	G	-
50	V	-
51	V	-
52	L	- [With 2.0L turbo gasoline engine]
52	Y	- [With VR30 engine]
53	R	-
54	GR	-
55	L	-
56	P	-
57	R	-
58	LG	-
59	S8	-
61	L	-
62	P	- [With 2.0L turbo gasoline engine]
62	V	- [With VR30 engine]
63	L	-
64	W	-

66	R	-
68	L	-
69	P	- [With 2.0L turbo gasoline engine]
71	GR	- [With VR30 engine]
72	G	- [With VR30 engine]
72	V	- [With 2.0L turbo gasoline engine]
73	LG	- [With VR30 engine]
73	SHIELD	- [With VR30 engine]
74	L	- [With VR30 engine]
74	P	- [With 2.0L turbo gasoline engine]
75	P	-
76	S8	- [With 2.0L turbo gasoline engine]
76	V	- [With VR30 engine]
77	Y	-
78	L	-
79	G	-
80	GR	- [With 2.0L turbo gasoline engine]
80	W	- [With VR30 engine]
81	B	- [With VR30 engine]
81	R	- [With 2.0L turbo gasoline engine]
82	G	- [With 2.0L turbo gasoline engine]
82	SHIELD	- [With VR30 engine]
83	R	- [With 2.0L turbo gasoline engine]
83	W	- [With VR30 engine]
84	BR	- [With VR30 engine]
84	SHIELD	- [With 2.0L turbo gasoline engine]
85	BR	- [With VR30 engine]
85	G	- [With 2.0L turbo gasoline engine]
86	R	- [With 2.0L turbo gasoline engine]
86	V	- [With VR30 engine]
87	LG	- [With 2.0L turbo gasoline engine]
87	SHIELD	- [With VR30 engine]
89	BR	- [With VR30 engine]
89	LG	- [With 2.0L turbo gasoline engine]
90	S8	- [With 2.0L turbo gasoline engine]
90	V	- [With VR30 engine]
92	L	- [With 2.0L turbo gasoline engine]
92	W	- [With VR30 engine]
93	R	- [With VR30 engine]
93	SHIELD	- [With 2.0L turbo gasoline engine]
94	R	-
95	L	- [With 2.0L turbo gasoline engine]
95	Y	- [With VR30 engine]
96	R	- [With 2.0L turbo gasoline engine]
96	W	- [With VR30 engine]
97	L	- [With 2.0L turbo gasoline engine]
97	R	- [With VR30 engine]
98	BR	-
99	BR	- [With VR30 engine and with BOSE system]

99	P	- [With 2.0L turbo gasoline engine]
100	Y	- [With VR30 engine and without BOSE system]
100	BR	- [With VR30 engine]
100	W	- [With 2.0L turbo gasoline engine]

Connector No.	IM57
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
6	GR	STOP/START OFF SWITCH INDICATOR SIGNAL
7	G	SECURITY SIGNAL
8	B	-
11	W	ALTERNATOR SIGNAL
12	G	LED HEADLAMP (RH) WARNING SIGNAL
13	GR	LED HEADLAMP (LH) WARNING SIGNAL
14	V	ACC POWER SUPPLY
16	V	AIR BAG SIGNAL
17	BR	METER CONTROL SWITCH GROUND
18	S8	TRIP/RESET SIGNAL
21	B	STEERING SWITCH SIGNAL GROUND
22	P	STEERING SWITCH SIGNAL A
23	W/B	STEERING SWITCH SIGNAL B
24	L	WASHER LEVEL SWITCH SIGNAL
25	LG	BRAKE FLUID LEVEL SWITCH SIGNAL
26	V	PARKING BRAKE SWITCH SIGNAL
27	G	PASSENGER SEAT BELT WARNING SIGNAL
28	W	SEAT BELT RECLINE SWITCH SIGNAL (DRIVER SIDE)
30	G	MANUAL MODE SIGNAL [With 2.0L turbo gasoline engine]
30	S8	MANUAL MODE SIGNAL [With VR30 engine]
31	L	NON-MANUAL MODE SIGNAL [With 2.0L turbo gasoline engine]
31	G	NON-MANUAL MODE SIGNAL [With VR30 engine]
32	BG	MANUAL MODE SHIFT UP SIGNAL
33	GR	MANUAL MODE SHIFT DOWN SIGNAL [With VR30 engine]
33	P	MANUAL MODE SHIFT DOWN SIGNAL [With VR30 engine]
34	BG	PADDLE SHIFTER UP SWITCH SIGNAL
35	G	PADDLE SHIFTER DOWN SWITCH SIGNAL
36	V	ILLUMINATION CONTROL SWITCH SIGNAL (+)
37	GR	ILLUMINATION CONTROL SWITCH SIGNAL (-)

38	R	VEHICLE SPEED SIGNAL (B-PULSE)
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Connector No.	IM58
Connector Name	COMBINATION METER
Connector Type	TH112FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
41	L	CAN-H
42	P	CAN-L
43	B	ILLUMINATION CONTROL SIGNAL
44	Y	FUEL LEVEL SENSOR GROUND
45	W	BATTERY POWER SUPPLY
46	BG	IGNITION SIGNAL [Except with VR30 engine and without BS]
46	R	IGNITION SIGNAL [With VR30 engine and without BS]
47	S8	AV COMMUNICATION SIGNAL (H)
48	LG	AV COMMUNICATION SIGNAL (L)
51	BR	FUEL LEVEL SENSOR SIGNAL
52	B	GROUND

Connector No.	IM133
Connector Name	FUSE BLOCK (1/8)
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	V	-
12C	L	-
13C	L	-
14C	Y	-
15C	R	-
16C	R	-

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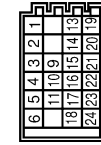
SEAT BELT WARNING SYSTEM

< WIRING DIAGRAM >

FRONT SEAT BELT WARNING LAMP CONTROL SYSTEM

17C	L	-
18C	BG	- [Without DRPO] - [With DRPO]
19C	P	-
20C	R	-
21C	W	-
22C	L	-
23C	L	-
24C	L	-
25C	LG	-
26C	SB	-
27C	R	-
28C	W	-
29C	W	-
30C	R	-
31C	W	-
32C	R	-
33C	B	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
34C	R	-
35C	SB	-
36C	R	-
37C	W	-
38C	SB	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
39C	V	- [With VR30 engine]
40C	P	- [With 2.0L turbo gasoline engine]
41C	P	- [With 2.0L turbo gasoline engine]
42C	P	- [With 2.0L turbo gasoline engine]
43C	G	- [With 2.0L turbo gasoline engine]
44C	P	- [With 2.0L turbo gasoline engine]
45C	P	- [With 2.0L turbo gasoline engine]
46C	G	- [With 2.0L turbo gasoline engine]
47C	G	- [With 2.0L turbo gasoline engine]
48C	G	- [With 2.0L turbo gasoline engine]
49C	V	- [With 2.0L turbo gasoline engine]

Connector No.	M135
Connector Name	JOINT CONNECTOR-M09
Connector Type	24342_4GA2A

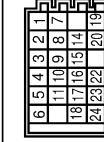


Connector No.	M139
Connector Name	DIODE-2
Connector Type	ET02-2W



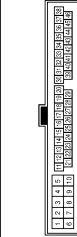
25	R	-
26	G	-
30	Y	-
31	GR	-
32	SB	-
33	BG	-
34	W	-
35	G	-
36	R	-
37	SHIELD	-
38	B	-
39	W	-
40	B	-
41	GR	-
42	B	-
43	LG	-
44	B	-
45	SB	-
46	B	-

Connector No.	M171
Connector Name	JOINT CONNECTOR-M01
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	BG	-

Connector No.	M146
Connector Name	WIRE TO WIRE
Connector Type	TK36MW-MS10



Terminal No.	Color Of Wire	Signal Name [Specification]
5	R	-
8	GR	-
9	V	-
10	BG	-
11	L	-
12	P	-
13	SB	-
14	V	-
15	G	-
16	BR	-
17	W	-
18	R	-
19	L	-
20	SHIELD	-
21	BR	-
22	B	-
23	G	-
24	L	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-
5	B	-
6	B	-
9	LG	-
10	LG	-
11	LG	-
13	B	- [With VR30 engine]
13	SB	- [With 2.0L turbo gasoline engine]
14	B	- [With VR30 engine]
14	SB	- [With 2.0L turbo gasoline engine]
15	B	- [With VR30 engine]
15	SB	- [With 2.0L turbo gasoline engine]
16	SB	- [With 2.0L turbo gasoline engine]
17	Y	- [With VR30 engine]
17	SB	- [With 2.0L turbo gasoline engine]
17	Y	- [With VR30 engine]
18	SB	- [With 2.0L turbo gasoline engine]
18	Y	- [With VR30 engine]
19	SHIELD	-
20	R	-
21	R	-
22	SHIELD	-
23	L	-
24	L	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-
5	B	-
9	B	-
7	B	-
8	B	-
9	B	-
10	G	-
11	G	-
14	B	-
15	B	-
16	SB	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
16	Y	-

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SEAT BELT WARNING SYSTEM

< WIRING DIAGRAM >

FRONT SEAT BELT WARNING LAMP CONTROL SYSTEM

17	SB	- [With V930 engine]
17	Y	- [With 2.0L turbo gasoline engine]
18	SB	- [With V930 engine]
18	Y	- [With 2.0L turbo gasoline engine]
19	G	-
20	G	-
22	LG	- [With V930 engine]
22	SB	- [With 2.0L turbo gasoline engine]
22	LG	- [With V930 engine]
22	SB	- [With 2.0L turbo gasoline engine]
24	LG	- [With V930 engine]
24	SB	- [With 2.0L turbo gasoline engine]

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

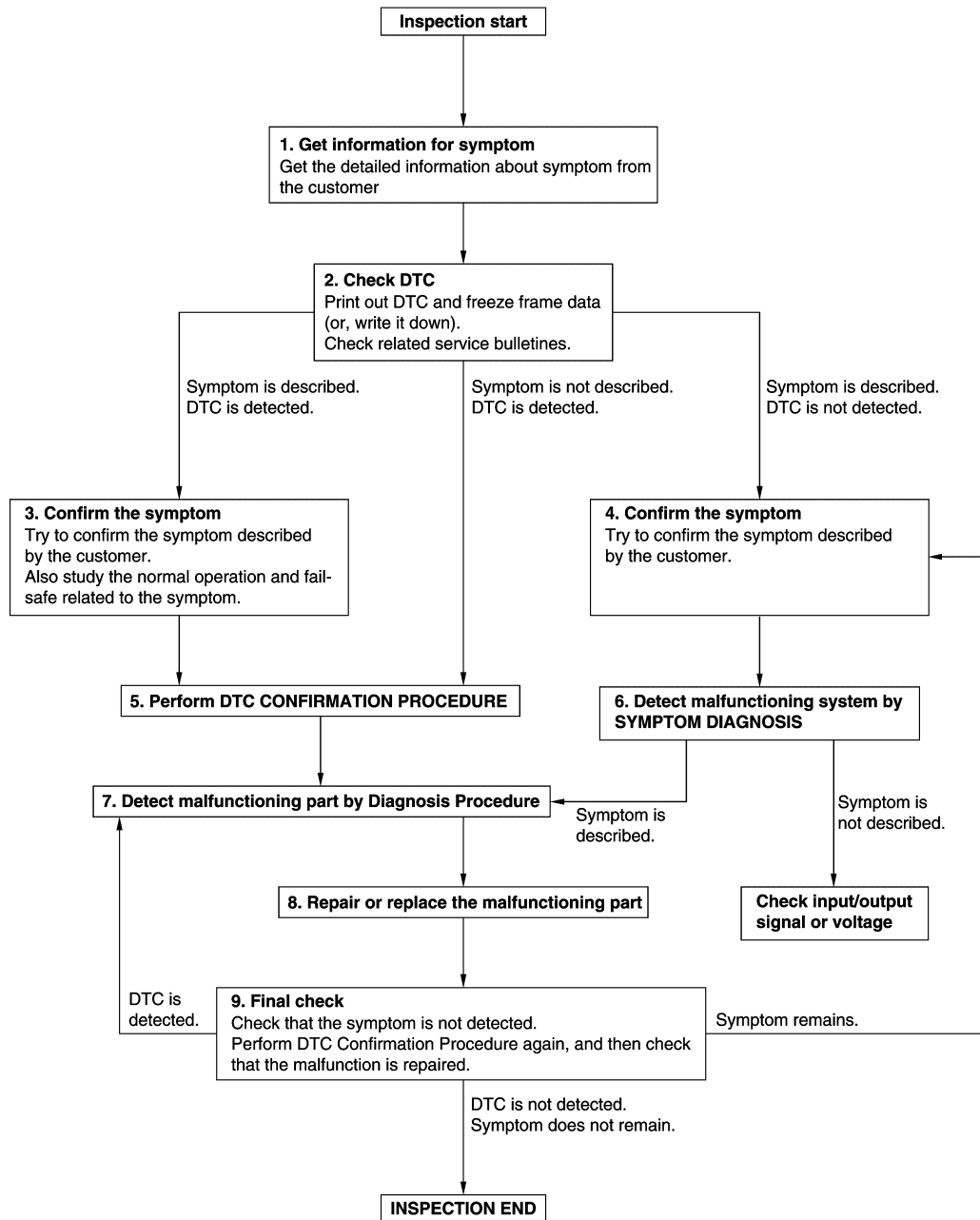
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000012789399

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.

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-45. "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

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

- YES >> GO TO 8.
NO >> Check according to [GI-45, "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.

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000012789400

- CAN (Controller Area Network) is a serial communication line for real time applications. It is an on board multiplex communication line with high data communication speed and excellent error detection ability. A modern vehicle is equipped with many electric control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, two control units are connected with two communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.
- Refer to [LAN-60. "CAN COMMUNICATION SYSTEM : CAN System Specification Chart"](#) in LAN section for CAN communication unit.

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
U1000	CAN COMM CIRCUIT (CAN communication circuit)	Pre-crash seat belt control unit cannot transmit and receive CAN communication system for 2 seconds or more.

POSSIBLE CAUSE

Harness or connectors (CAN communication line is open or shorted)

FAIL-SAFE

Stops the operation in the conditions as per the following.*1

- During emergency brake operation.
- When ABS continuously operates.
- When lateral slippage during cornering occurs.
- When forward emergency braking operates.
- When steering wheel is rotated for emergency.
- A part or the whole comfort function.

*1: The deactivation mode differs depending on the internal malfunctioning condition of control unit.

DTC CONFIRMATION PROCEDURE

1.SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC "U1000" displayed?

- YES >> Refer to [LAN-41. "Trouble Diagnosis Flow Chart"](#).
- NO >> GO TO 2.

2.CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END.

U0126 ST ANG SEN SIG

< DTC/CIRCUIT DIAGNOSIS >

U0126 ST ANG SEN SIG

DTC Description

INFOID:000000012789401

Inputs the steering angle signal from steering angle sensor via CAN communication.

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection Condition
U0126	ST ANG SEN SIG (Steering angle sensor signal)	Receipt of a malfunction signal of Steering angle signal

POSSIBLE CAUSE

Steering angle sensor

FAIL-SAFE

Driver side

Stop the operation in the conditions as per the following.

- When lateral slippage during cornering occurs.
- When steering wheel is rotated for emergency.
- A part of comfort function.

Passenger side

Stop the operation in the conditions as per the following.

- When lateral slippage during cornering occurs.
- When steering wheel is rotated for emergency.

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC U0126 is displayed with DTC U1000, first perform the confirmation procedure for DTC U1000.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [SBC-47, "DTC Description"](#).
NO >> GO TO 2.

2.SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Refer to [SBC-48, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789402

1.CHECK DTC PRIORITY

If DTC U0126 is displayed with DTC U1000, first perform the confirmation procedure for DTC U1000.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [SBC-47, "DTC Description"](#).
NO >> GO TO 2.

2.CHECK DTC WITH "ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)"

Check "Self-diagnostic result" for "ABS" with CONSULT. Refer to [SBC-17, "CONSULT Function"](#).

Is DTC detected?

- YES >> Repair or replace malfunctioning parts.
NO >> GO TO 3.

3.CHECK INTERMITTENT INCIDENT

U0126 ST ANG SEN SIG

< DTC/CIRCUIT DIAGNOSIS >

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

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U0428 STRG ANGL CAL

< DTC/CIRCUIT DIAGNOSIS >

U0428 STRG ANGL CAL

DTC Description

INFOID:000000012789403

Inputs the steering calibration incomplete signal from steering angle sensor via CAN communication.

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
U0428	STRG ANGL CAL (Steering angle calibration not compiled with)	Receipt of the calibration incomplete signal

POSSIBLE CAUSE

Steering angle sensor calibration incomplete

FAIL-SAFE

Driver side

Stops the operation in the conditions as per the following.

- When lateral slippage during cornering occurs.
- When steering wheel is rotated for emergency.
- A part of comfort function.

Passenger side

Stops the operation in the conditions as per the following.

- When lateral slippage during cornering occurs.
- When steering wheel is rotated for emergency.

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC U0428 is displayed with DTC U0126, first perform the confirmation procedure for DTC U0126.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [SBC-48. "DTC Description"](#).

NO >> GO TO 2.

2.SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

YES >> Refer to [SBC-50. "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789404

1.CHECK DTC PRIORITY

If DTC U0428 is displayed with DTC U0126, first perform the confirmation procedure for DTC U0126.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [SBC-48. "DTC Description"](#).

NO >> GO TO 2.

2.CHECK DTC WITH "ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)"

Check "Self-diagnostic result" for "ABS" with CONSULT. Refer to [SBC-17. "CONSULT Function"](#).

Is DTC detected?

YES >> Repair or replace malfunctioning parts.

NO >> GO TO 3.

3.CHECK INTERMITTENT INCIDENT

U0428 STRG ANGL CAL

< DTC/CIRCUIT DIAGNOSIS >

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

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B2451 SEAT BLT MTR DR CIRC

< DTC/CIRCUIT DIAGNOSIS >

B2451 SEAT BLT MTR DR CIRC

DTC Description

INFOID:000000012789405

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
B2451	SEAT BLT MTR DR CIRC (Seat belt motor driver circuit)	Circuit of seat belt motor (driver side) is open or shorted

POSSIBLE CAUSE

Pre-crash seat belt control unit (driver side)

FAIL-SAFE

Fully deactivates the whole operation.

DTC CONFIRMATION PROCEDURE

1. SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Refer to [SBC-52, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789406

1. INSPECTION START

1. Check "Self-diagnostic result" with CONSULT.
2. Touch "ERASE".
3. Perform DTC Confirmation Procedure.
See [SBC-52, "DTC Description"](#).

Is DTC B2451 displayed again?

- YES >> Replace pre-crash seat belt control unit (driver side). Refer to [SB-9, "SEAT BELT RETRACTOR : Removal and Installation"](#).
NO >> GO TO 2.

2. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2452 SEAT BLT MTR AS CIRC

< DTC/CIRCUIT DIAGNOSIS >

B2452 SEAT BLT MTR AS CIRC

DTC Description

INFOID:000000012789407

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
B2452	SEAT BLT MTR AS CIRC (Seat belt motor assist circuit)	Circuit of seat belt motor (passenger side) is open or shorted

POSSIBLE CAUSE

Pre-crash seat belt control unit (passenger side)

FAIL-SAFE

Driver side

Deactivates a part of comfort function.

Passenger side

Fully deactivates the whole operation.

DTC CONFIRMATION PROCEDURE

1. SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

YES >> Refer to [SBC-53, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789408

1. INSPECTION START

1. Check "Self-diagnostic result" with CONSULT.
2. Touch "ERASE".
3. Perform DTC Confirmation Procedure.
See [SBC-53, "DTC Description"](#).

Is DTC B2452 displayed again?

YES >> Replace pre-crash seat belt control unit (passenger side). Refer to [SB-9, "SEAT BELT RETRAC-TOR : Removal and Installation"](#).

NO >> GO TO 2.

2. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2453 BR STROKE SEN CIRC

< DTC/CIRCUIT DIAGNOSIS >

B2453 BR STROKE SEN CIRC

DTC Description

INFOID:000000012789409

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
B2453	BR STROKE SEN CIRC (Brake stroke sensor circuit)	Circuit of brake pedal stroke sensor output is open or shorted

POSSIBLE CAUSE

- Harness or connectors (brake pedal stroke sensor circuit is open or shorted)
- Pre-crash seat belt control unit (driver side)
- Brake pedal stroke sensor

FAIL-SAFE

Driver side

Stops the operation in the conditions as per the following.

- During emergency brake operation.
- When ABS continuously operates.
- A part of comfort function.

Passenger side

Stops the operation in the conditions as per the following.

- During emergency brake operation.
- When ABS continuously operates.

DTC CONFIRMATION PROCEDURE

1. SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Refer to [SBC-54, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789410

1. CHECK PRE-CRASH SEAT BELT CONTROL UNIT INPUT SIGNAL

1. Turn ignition switch ON.
2. Select "BRK PEDAL SNSR1" and "BRK PEDAL SNSR2" in "DATA MONITOR" mode with CONSULT.
3. Check "BRK PEDAL SNSR1" and "BRK PEDAL SNSR2" indication under the following conditions.

Monitor item	Condition	Voltage (V) (Approx.)
BRK PEDAL SNSR1	Brake released → depressed	1 → 4
BRK PEDAL SNSR2		4 → 1

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> GO TO 2.

2. CHECK BRAKE PEDAL STROKE SENSOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect brake pedal stroke sensor connector.
3. Check voltage between brake pedal stroke sensor harness connector and ground.

B2453 BR STROKE SEN CIRC

< DTC/CIRCUIT DIAGNOSIS >

Brake pedal stroke sensor		Ground	Voltage (V) (Approx.)
Connector	Terminal		
E32	2		5

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK BRAKE PEDAL STROKE SENSOR POWER SUPPLY CIRCUIT

1. Disconnect pre-crash seat belt control unit (driver side) connector.
2. Check continuity between pre-crash seat belt control unit (driver side) harness connector and brake pedal stroke sensor harness connector.

Pre-crash seat belt control unit (driver side)		Brake pedal stroke sensor		Continuity
Connector	Terminal	Connector	Terminal	
B97	10	E32	2	Existed

3. Check continuity between pre-crash seat belt control unit (driver side) and ground.

Pre-crash seat belt control unit (driver side)		Ground	Continuity
Connector	Terminal		
B97	10		Not existed

Is the inspection result normal?

YES >> Replace pre-crash seat belt control unit (driver side) Refer to [SBC-9, "SEAT BELT RETRACTOR : Removal and Installation"](#).

NO >> Repair or replace harness or connector.

4. CHECK BRAKE PEDAL STROKE SENSOR CIRCUIT

1. Disconnect pre-crash seat belt control unit (driver side) connector.
2. Check continuity between pre-crash seat belt control unit (driver side) harness connector and brake pedal stroke sensor harness connector.

Pre-crash seat belt control unit (driver side)		Brake pedal stroke sensor		Continuity
Connector	Terminal	Connector	Terminal	
B97	2	E32	1	Existed
	12		3	
	17		4	

3. Check continuity between pre-crash seat belt control unit harness connector (driver side) and ground.

Pre-crash seat belt control unit (driver side)		Ground	Continuity
Connector	Terminal		
B97	2		Not existed
	12		
	17		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness or connector.

5. CHECK BRAKE PEDAL STROKE SENSOR

Refer to [SBC-56, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace brake pedal stroke sensor. Refer to [SBC-79, "Removal and Installation"](#).

B2453 BR STROKE SEN CIRC

< DTC/CIRCUIT DIAGNOSIS >

6. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000012789411

1. CHECK BRAKE PEDAL STROKE SENSOR

1. Turn ignition switch OFF.
2. Disconnect brake pedal stroke sensor connector.
3. Check resistance between brake pedal stroke sensor terminal as per the following.

Brake pedal stroke sensor		Condition	Resistance (kΩ) (Approx.)
Terminal			
2	3	Brake released → depressed	1.0 → 0.2
	1		0.2 → 1.0

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace brake pedal stroke sensor. Refer to [SBC-79, "Removal and Installation"](#).

B2455 CONTROL UNIT DR

< DTC/CIRCUIT DIAGNOSIS >

B2455 CONTROL UNIT DR

DTC Description

INFOID:000000012789414

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
B2455	CONTROL UNIT DR (Pre-clash seat belt control unit driver side internal circuit)	Pre-crash seat belt control unit (driver side) internal circuit malfunction

POSSIBLE CAUSE

Pre-crash seat belt control unit (driver side)

FAIL-SAFE

Stops the operation in the conditions as per the following.*1

- During emergency brake operation.
- When ABS continuously operates.
- When lateral slippage during cornering occurs.
- When steering wheel is rotated for emergency.
- A part or the whole comfort function.

*1: The deactivation mode differs depending on the internal malfunctioning condition of control unit.

DTC CONFIRMATION PROCEDURE

1.SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

YES >> Refer to [SBC-57, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789415

1..INSPECTION START

1. Check "Self-diagnostic result" with CONSULT.
2. Touch "ERASE".
3. Perform DTC Confirmation Procedure.
See [SBC-57, "DTC Description"](#).

Is DTC B2455 displayed again?

YES >> Replace pre-crash seat belt control unit (driver side). Refer to [SB-9, "SEAT BELT RETRACTOR : Removal and Installation"](#).

NO >> GO TO 2.

2.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2457 CONTROL UNIT AS

< DTC/CIRCUIT DIAGNOSIS >

B2457 CONTROL UNIT AS

DTC Description

INFOID:000000012789418

DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC Detection Condition
B2457	CONTROL UNIT AS (Pre-clash seat belt control unit assist side internal circuit)	Pre-crash seat belt control unit (passenger side) internal circuit malfunction

POSSIBLE CAUSE

Pre-crash seat belt control unit (passenger side)

FAIL-SAFE

Driver side

Deactivates a part of comfort function.

Passenger side

Fully deactivates the whole operation.*¹

*¹: The deactivation mode differs depending on the internal malfunctioning condition of control unit.

DTC CONFIRMATION PROCEDURE

1.SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

YES >> Refer to [SBC-58, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789419

1..INSPECTION START

1. Check "Self-diagnostic result" with CONSULT.
2. Touch "ERASE".
3. Perform DTC Confirmation Procedure.
See [SBC-58, "DTC Description"](#).

Is DTC B2457 displayed again?

YES >> Replace pre-crash seat belt control unit (passenger side). Refer to [SB-9, "SEAT BELT RETRAC-TOR : Removal and Installation"](#).

NO >> GO TO 2.

2.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2458 LOCAL COMM

< DTC/CIRCUIT DIAGNOSIS >

B2458 LOCAL COMM

DTC Description

INFOID:000000012789420

DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC Detection Condition
B2458	LOCAL COMM (Local communication system malfunction)	Receipt of a malfunction signal between pre-crash seat belt control unit (driver side) and pre-crash seat belt control unit (passenger side)

POSSIBLE CAUSE

- Harness or connectors[Pre-crash seat belt control unit (driver side) and pre-crash seat belt (passenger side) circuit is open or shorted]
- Pre-crash seat belt control unit (driver side)
- Pre-crash seat belt control (passenger side)

FAIL-SAFE

Driver side

Deactivates a part of comfort function.

Passenger side

Fully deactivates the whole operation.*¹

*¹: The deactivation mode differs depending on the internal malfunctioning condition of control unit.

DTC CONFIRMATION PROCEDURE

1. SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Refer to [SBC-59, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789421

1. CHECK PRE-CRASH-SEAT BELT CONTROL UNIT (PASSENGER SIDE)

Check pre-crash seat belt control unit (passenger side) power supply. Refer to [SBC-66, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair or replace harness between pre-crash seat belt control unit (passenger side) connector and fusible link.

2. CHECK LOCAL COMMUNICATION LINE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect pre-crash seat belt control unit (driver side and passenger side) connectors.
3. Check continuity between local communication line harness connectors.

Pre-crash seat belt control unit (driver side)		Pre-crash seat belt control unit (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
B97	16	B98	16	Existed

4. Check continuity between pre-crash seat belt control unit (driver side) harness connector and ground.

B2458 LOCAL COMM

< DTC/CIRCUIT DIAGNOSIS >

Pre-crash seat belt control unit (driver side)		Ground	Continuity
Connector	Terminal		
B97	16		Not existed

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace local communication line.

3.REPLACE PRE-CRASH SEAT BELT CONTROL UNIT (PASSENGER SIDE)

1. Replace pre-crash seat belt control unit (passenger side)
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

- YES >> GO TO 4.
NO >> INSPECTION END

4.REPLACE PRE-CRASH SEAT BELT CONTROL UNIT (DRIVER SIDE)

1. Replace pre-crash seat belt control unit (driver side)
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

- YES >> GO TO 5.
NO >> INSPECTION END

5.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2461 VHCL SPEED SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

B2461 VHCL SPEED SIGNAL

DTC Description

INFOID:000000012789422

Inputs the vehicle speed signal from combination meter via CAN communication.

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
B2461	VHCL SPEED SIGNAL (Vehicle speed signal malfunction)	Receipt of a malfunction signal of the vehicle speed signal

POSSIBLE CAUSE

Combination meter

FAIL-SAFE

Driver side

Stops the operation in the conditions as per the following.

- During emergency brake operation
- When ABS continuously operates
- When lateral slippage during cornering occurs
- When steering wheel is rotated for emergency
- When comfort function operates

Passenger side

Stops the operation in the conditions as per the following.

- During emergency brake operation.
- When ABS continuously operates.
- When lateral slippage during cornering occurs.
- When steering wheel is rotated for emergency.
- A part or the whole comfort function.

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC B2461 is displayed with DTC U1000, first perform the confirmation procedure for DTC U1000.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [SBC-47, "DTC Description"](#).
NO >> GO TO 2.

2.SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Refer to [SBC-61, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789423

1.CHECK DTC PRIORITY

If DTC B2461 is displayed with DTC U1000, first perform the confirmation procedure for DTC U1000.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [SBC-47, "DTC Description"](#).
NO >> GO TO 2.

2.CHECK DTC WITH "UNIFIED METER AND A/C AMP."

Check "Self-diagnostic result" for "METER/M&A" with CONSULT. Refer to [SBC-17, "CONSULT Function"](#).

B2461 VHCL SPEED SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

Is DTC detected?

YES >> Repair or replace malfunctioning parts.

NO >> GO TO 3.

3.CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

B2466 DR/AS CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

B2466 DR/AS CONTROL UNIT

DTC Description

INFOID:000000012789424

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
B2466	DR/AS CONTROL UNIT (DR side and AS side control unit miss installation)	Pre-crash seat belt control unit is out of the vehicle specification

POSSIBLE CAUSE

- Pre-crash seat belt control unit (driver side)
- Pre-crash seat belt control unit (passenger side)

FAIL-SAFE

Driver side

Deactivates a part of comfort function.

Passenger side

Stops the operation in the conditions as per the following.*1

- During emergency brake operation.
- When ABS continuously operates.
- When lateral slippage during cornering occurs.
- When forward emergency braking operate.
- When steering wheel is rotated for emergency.
- A part or the whole comfort function.

*1: The deactivation mode differs depending on the internal malfunctioning condition of control unit.

DTC CONFIRMATION PROCEDURE

1.SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

YES >> Refer to [SBC-63, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789425

1.CHECK THE VEHICLE SPECIFICATION

Check the part number.

Does the part application fit to the vehicle specification?

YES >> GO TO 2.

NO >> Replace the malfunction parts.

2.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2470 SYS HEAT PROTC DR

< DTC/CIRCUIT DIAGNOSIS >

B2470 SYS HEAT PROTC DR

DTC Description

INFOID:000000012789426

When fastening and unfastening seat belt or opening and closing door is repeated continuously for a short period of time, the system temporarily deactivates the retracting function of seat belt to prevent excessive heating. The system recovers automatically.

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
B2470	SYS HEAT PROTC DR (System heat protection DR)	Deactivates to prevent excessive heating

POSSIBLE CAUSE

Belt retracting function activates continuously in a short period of time

FAIL-SAFE

Driver side

- Fully deactivates the whole operation.
- Operation return.
 - 1 time operation becomes possible after approximately 30 seconds.
 - Returns to the initial condition after approximately 8 minutes.

DTC CONFIRMATION PROCEDURE

1. SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Refer to [SBC-64, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789427

1. CHECK THE VEHICLE CONDITION WITH CONSULT DATA MONITOR

1. Check "HEAT PROTC LH" of DATA MONITOR.
2. Wait until "OFF" appears.
3. Perform the self-diagnosis, after performing the check.
4. Touch "ERASE".
5. Perform DTC Confirmation Procedure.
See [SBC-64, "DTC Description"](#).

Is DTC B2470 displayed again?

- YES >> GO TO 2.
- NO >> INSPECTION END

2. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2471 SYS HEAT PROTC AS

< DTC/CIRCUIT DIAGNOSIS >

B2471 SYS HEAT PROTC AS

DTC Description

INFOID:000000012789428

When fastening and unfastening seat belt or opening and closing door is repeated continuously for a short period of time, the system temporarily deactivates the retracting function of seat belt to prevent excessive heating. The system recovers automatically.

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition
B2471	SYS HEAT PROTC AS (System heat protection AS)	Deactivates to prevent excessive heating

POSSIBLE CAUSE

Belt retracting function activates continuously in the short period of time

FAIL-SAFE

Passenger side

- Fully deactivates the whole operation.
- Operation return.
- 1 time operation becomes possible after approximately 30 seconds.
- Returns to the initial condition after approximately 8 minutes.

DTC CONFIRMATION PROCEDURE

1. SELF-DIAGNOSIS WITH PRE-CRASH SEAT BELT CONTROL UNIT

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Refer to [SBC-65, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012789429

1. CHECK THE VEHICLE CONDITION WITH CONSULT DATA MONITOR

1. Check "HEAT PROTC RH" of DATA MONITOR.
2. Wait until "OFF" appears.
3. Perform the self-diagnosis, after performing the check.
4. Touch "ERASE".
5. Perform DTC Confirmation Procedure.
See [SBC-65, "DTC Description"](#).

Is DTC B2471 displayed again?

- YES >> GO TO 2.
- NO >> INSPECTION END

2. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000012789430

1.CHECK FUSE

Check that the following fusible link are not blown (open).

For VR30DDTT engine models

Terminal No.		Signal name	Fusible link No.
Driver side	19	Battery power supply	S (30 A)
Passenger side			Q (30 A)

For 2.0L turbo gasoline engine models

Terminal No.		Signal name	Fusible link No.
Driver side	19	Battery power supply	V (30 A)
Passenger side			U (30 A)

Is the fusible link blown (open)?

YES >> Replace the blown (open) fusible link after repairing the affected circuit if a fusible link are blown (open).

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect pre-crash seat belt control unit (driver side and passenger side) connectors.
3. Check voltage between harness pre-crash seat belt control unit (driver side and passenger side) connector and ground.

Pre-crash seat belt control unit			Ground	Voltage (V) (Approx.)
Connector		Terminal		
Driver side	B97	19		Battery voltage
Passenger side	B98			

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

Check continuity between pre-crash seat belt control unit harness connector and ground.

Pre-crash seat belt control unit			Ground	Continuity
Connector		Terminal		
Driver side	B97	20		Existed
Passenger side	B98			

Does continuity exist?

YES >> INSPECTION END

NO >> Repair or replace harness.

SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Description

INFOID:000000012789431

- Detects whether or not the seat belt is fastened when the ignition switch turns ON. If the seat belt is not fastened, illuminates the seat belt warning lamp on the combination meter.
- The seat belt buckle switch is installed in the seat belt buckle.

Component Function Check

INFOID:000000012789432

1. CHECK PRE-CRASH SEAT BELT CONTROL UNIT INPUT SIGNAL

 With CONSULT

1. Turn ignition switch ON.
2. Select "BUCKLE SW LH" in "DATA MONITOR" mode with CONSULT.
3. Check "BUCKLE SW LH" indication under the following conditions.

Monitor item	Condition		Indication
BUCKLE SW LH	Driver side seat belt	Not fastened	OFF
		Fastened	ON

Is the inspection result normal?

- YES >> Seat belt buckle switch (driver side) circuit is normal.
 NO >> Refer to [SBC-67, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000012789433

SBC

1. CHECK PRE-CRASH SEAT BELT CONTROL UNIT INPUT SIGNAL

1. Turn ignition switch ON.
2. Check the voltage between seat belt buckle switch (driver side) and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
B4	3	Ground	When driver side seat belt is not fastened	5
			When driver side seat belt is fastened	0

Is the inspection result normal?

- YES >> Replace seat belt buckle switch (driver side). Refer to [SB-12, "SEAT BELT BUCKLE : Removal and Installation"](#).
 NO >> GO TO 2.

2. CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect pre-crash seat belt control unit (driver side) connector and seat belt buckle switch (driver side) connector.
3. Check continuity between pre-crash seat belt control unit (driver side) and seat belt buckle switch (driver side).

Pre-crash seat belt control unit (driver side)		Seat belt buckle switch (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
B97	6	B4	3	Existed

4. Check continuity between pre-crash seat belt control unit (driver side) and ground.

SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

Pre-crash seat belt control unit (driver side)		Ground	Continuity
Connector	Terminal		
B97	6		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between pre-crash seat belt control unit (driver side) and seat belt buckle switch (driver side).

3. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

Check continuity between seat belt buckle switch (driver side) and ground.

Seat belt buckle switch (driver side)		Ground	Continuity
Connector	Terminal		
B4	2		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness between seat belt buckle switch and ground.

4. CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check seat belt buckle switch (driver side).

Refer to [SBC-68. "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace pre-crash seat belt control unit (driver side). Refer to [SB-9. "SEAT BELT RETRACTOR : Removal and Installation"](#).

NO >> Replace seat belt buckle switch (driver side). Refer to [SB-12. "SEAT BELT BUCKLE : Removal and Installation"](#).

Component Inspection

INFOID:000000012789434

1. CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

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

Seat belt buckle switch (driver side)		Condition	Continuity
Terminal			
3	2	When driver side seat belt is not fastened	Not existed
		When driver side seat belt is fastened	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch (driver side). Refer to [SB-12. "SEAT BELT BUCKLE : Removal and Installation"](#).

SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Description

INFOID:000000012789435

- Detects whether or not the seat belt is fastened when the ignition switch turns ON. If the seat belt switch is not fastened, illuminates the seat belt warning lamp on the combination meter.
- The seat belt buckle switch is installed in the seat belt buckle.

Component Function Check

INFOID:000000012789436

1. CHECK PRE-CRASH SEAT BELT CONTROL UNIT INPUT SIGNAL

 With CONSULT

1. Turn ignition switch ON.
2. Select "BUCKLE SW LH" in "DATA MONITOR" mode with CONSULT.
3. Check "BUCKLE SW LH" indication under the following conditions.

Monitor item	Condition		Indication
BUCKLE SW RH	Passenger side seat belt	Not fastened	OFF
		Fastened	ON

Is the inspection result normal?

- YES >> Seat belt buckle switch (passenger side) circuit is normal.
 NO >> Refer to [SBC-69, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000012789437

SBC

1. CHECK PRE-CRASH SEAT BELT CONTROL UNIT INPUT SIGNAL

1. Turn ignition switch ON.
2. Check the voltage between seat belt buckle switch (passenger side) and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
B56	3	Ground	When driver side seat belt is not fastened	5
			When driver side seat belt is fastened	0

Is the inspection result normal?

- YES >> Replace seat belt buckle switch (passenger side). Refer to [SB-9, "SEAT BELT RETRACTOR : Removal and Installation"](#).
 NO >> GO TO 2.

2. CHECK SEAT BELT BUCKLE (PASSENGER SIDE) SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect pre-crash seat belt control unit (passenger side) connector and seat belt buckle switch (passenger side) connector.
3. Check continuity between pre-crash seat belt control unit (passenger side) and seat belt buckle switch (passenger side).

Pre-crash seat belt control unit (passenger side)		Seat belt buckle switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
B98	6	B56	3	Existed

4. Check continuity between pre-crash seat belt control unit (passenger side) and ground.

SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

Pre-crash seat belt control unit (passenger side)		Ground	Continuity
Connector	Terminal		
B98	6		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between pre-crash seat belt control unit (passenger side) and seat belt buckle switch (passenger side).

3. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

Check continuity between seat belt buckle switch (passenger side) and ground.

Seat belt buckle switch (passenger side)		Ground	Continuity
Connector	Terminal		
B56	2		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness between seat belt buckle switch and ground.

4. CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Check seat belt buckle switch (passenger side).

Refer to [SBC-70. "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace pre-crash seat belt control unit (passenger side). Refer to [SB-9. "SEAT BELT RETRAC-TOR : Removal and Installation"](#).

NO >> Replace seat belt buckle switch (passenger side). Refer to [SB-12. "SEAT BELT BUCKLE : Removal and Installation"](#).

Component Inspection

INFOID:000000012789438

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			
3	2	When driver side seat belt is not fastened	Not existed
		When driver side seat belt is fastened	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch (passenger side). Refer to [SB-12. "SEAT BELT BUCKLE : Removal and Installation"](#).

SEAT BELT WARNING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

SEAT BELT WARNING LAMP CIRCUIT

Component Function Check

INFOID:000000012789439

1. CHECK SEAT BELT WARNING LAMP FUNCTION-I

1. Turn ignition switch ON.
2. Check seat belt warning lamp function.

Condition	Seat belt warning lamp
Seat belt (driver side) is fastened	Not illuminated
Seat belt (driver side) is unfastened	Illuminated

Is the inspection results normal?

- YES >> GO TO 2.
NO >> Refer to [SBC-71, "Diagnosis Procedure"](#).

2. CHECK SEAT BELT WARNING LAMP FUNCTION-II

1. Sits in the passenger seat.
2. Fasten the seat belt (passenger side).
3. Check seat belt warning lamp function.

Condition	Seat belt warning lamp
Seat belt (passenger side) is fastened	Not illuminated
Seat belt (passenger side) is unfastened	Illuminated

Is the inspection results normal?

- YES >> Seat belt warning lamp circuit is normal.
NO >> Refer to [SBC-71, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000012789440

1. CHECK SEAT BELT WARNING LAMP

Check seat belt warning lamp component function check result.

Which seat belt warning lamp circuit is not normal?

- >> Driver side: GO TO 4.
>> Passenger side: GO TO 8.
>> Both side: GO TO 2.

2. CHECK COMBINATION METER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Turn ignition switch ON.
4. Check voltage between combination meter harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Connector	Terminal		
M58	46	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace harness connector.

3. CHECK COMBINATION METER INTERNAL CIRCUIT

1. Turn ignition switch OFF.
2. Connect combination meter connector.
3. Disconnect seat belt buckle switch (driver side) connector.

SEAT BELT WARNING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

4. Turn ignition switch ON.
5. Check voltage between seat belt buckle switch (driver side) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Seat belt buckle switch (driver side)			
Connector	Terminal	Ground	Battery voltage
B4	1		

Is the inspection result normal?

YES >> GO TO 13.

NO >> Replace combination meter. Refer to [MWI-141, "Removal and Installation"](#).

4.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector and seat belt buckle switch (driver side) connector.
3. Check continuity between combination meter harness connector and seat belt buckle switch (driver side) harness connector.

Combination meter		Seat belt buckle switch (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
M57	28	B4	1	Existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness connector.

5.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check seat belt buckle switch.

Refer to [SBC-73, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace seat belt buckle (driver side). Refer to [SB-12, "SEAT BELT BUCKLE : Removal and Installation"](#).

6.CHECK COMBINATION METER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between combination meter harness connector and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M57	28		Existed

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness connector.

7.CHECK COMBINATION METER INTERNAL CIRCUIT

1. Connect combination meter connector.
2. Turn ignition switch ON.
3. Check voltage between seat belt buckle switch (driver side) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Seat belt buckle switch (driver side)			
Connector	Terminal	Ground	Battery voltage
B4	1		

Is the inspection result normal?

YES >> GO TO 13.

SEAT BELT WARNING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Replace combination meter. Refer to [MWI-141. "Removal and Installation"](#).

8.CHECK HARNESS CONNECTOR

WARNING:

- Before servicing, turn ignition switch OFF, disconnect battery negative terminal and wait at least 3 minutes. (To discharge backup capacitor.)
- Never use unspecified tester or other measuring device.

Check the harness connector.

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace harness connector.

9.CHECK WIRING HARNESS

Check the wiring harness externals.

Is the inspection result normal?

YES >> GO TO 10.

NO >> Repair or replace wiring harness.

10.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Check seat belt buckle switch (passenger side).

Refer to [SBC-70. "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 11.

NO >> Replace seat belt buckle (passenger side). Refer to [SB-12. "SEAT BELT BUCKLE : Removal and Installation"](#).

11.REPLACE COMBINATION METER

1. Replace combination meter.
Refer to [MWI-141. "Removal and Installation"](#).
2. Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> GO TO 12.

12.REPLACE AIR BAG DIAGNOSIS SENSOR UNIT

1. Replace bag diagnosis sensor unit.
Refer to [SR-37. "Removal and Installation"](#).
2. Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> GO TO 13.

13.CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000012789441

1.CHECK SEAT BELT BUCKLE SWITCH

1. Turn ignition switch OFF.
2. Disconnect seat belt buckle switch harness connector.
3. Check continuity between seat belt buckle switch terminals.

SEAT BELT WARNING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle. Refer to [SB-12. "SEAT BELT BUCKLE : Removal and Installation"](#).

PRE-CRASH SEAT BELT DOSE NOT OPERATE

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

PRE-CRASH SEAT BELT DOSE NOT OPERATE BOTH SIDES

BOTH SIDES : Diagnosis Procedure

INFOID:000000012789442

1.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit. Refer to [SBC-66, "Diagnosis Procedure"](#)

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:000000012789443

1.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check seat belt buckle switch (driver side). Refer to [SBC-67, "Component Function Check"](#)

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000012789444

1.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit. Refer to [SBC-66, "Diagnosis Procedure"](#)

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Check seat belt buckle switch (passenger side). Refer to [SBC-69, "Component Function Check"](#)

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

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SBC

SEAT BELT WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

SEAT BELT WARNING LAMP DOES NOT TURN OFF

Diagnosis Procedure

INFOID:000000012789445

1. CHECK SEAT BELT WARNING LAMP CIRCUIT

Check seat belt warning lamp circuit. Refer to [SBC-71, "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).
- NO >> GO TO 1.

SEAT BELT WARNING LAMP DOES NOT TURN ON

< SYMPTOM DIAGNOSIS >

SEAT BELT WARNING LAMP DOES NOT TURN ON

Diagnosis Procedure

INFOID:000000012789446

1. CHECK SEAT BELT WARNING LAMP CIRCUIT

Check seat belt warning lamp circuit. Refer to [SBC-71, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

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SBC

SEAT BELT WARNING CHIME DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

SEAT BELT WARNING CHIME DOES NOT SOUND

Diagnosis Procedure

INFOID:000000012789447

1. CHECK SEAT BELT WARNING LAMP CIRCUIT

Check seat belt warning lamp circuit. Refer to [SBC-71, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

BRAKE PEDAL STROKE SENSOR

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

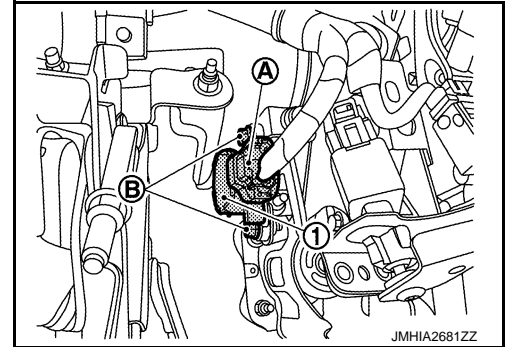
BRAKE PEDAL STROKE SENSOR

Removal and Installation

INFOID:000000012789448

REMOVAL

1. Remove instrument lower panel LH. Refer to [IP-13. "Removal and Installation"](#).
2. Disconnect brake pedal stroke sensor connector (A).
3. Remove mounting bolts (B).
4. Remove brake pedal stroke sensor (1).



INSTALLATION

Install in the reverse order of removal.

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SBC

PRE-CRASH SEAT BELT CONTROL UNIT

< REMOVAL AND INSTALLATION >

PRE-CRASH SEAT BELT CONTROL UNIT

Exploded View

INFOID:000000012789449

Refer to [SB-9. "SEAT BELT RETRACTOR : Removal and Installation"](#).

Removal and Installation

INFOID:000000012789450

For removal and installation procedures, refer to [SB-9. "SEAT BELT RETRACTOR : Removal and Installation"](#).