SEAT BELT CONTROL SYSTEM

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DIAGNOSIS AND REPAIR WORKFLOW < BASIC INSPECTION > **BASIC INSPECTION** Α DIAGNOSIS AND REPAIR WORKFLOW Work Flow INFOID:0000000001279915 **DETAILED FLOW** 1. OBTAIN INFORMATION ABOUT SYMPTOM Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred) as much as possible when the customer brought the vehicle in. D >> GO TO 2. $2.\mathsf{REPRODUCE}$ THE MALFUNCTION INFORMATION Е Check the malfunction on the vehicle that the customer describes. Inspect the relation of between the symptoms and the condition when the symptoms occur. F >> GO TO 3. 3.IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS" Use "Symptom diagnosis" from the symptom inspection result in step 2. Then identify where to start performing the diagnosis based on possible causes and symptoms. SBC >> GO TO 4. f 4.IDENTIFY MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS" Perform the diagnosis with "Component diagnosis" of the applicable system. >> GO TO 5. ${f 5}$. REPAIR OR REPLACE THE MALFUNCTIONING PARTS Repair or replace the specified malfunctioning parts. K >> GO TO 6. 6. FINAL CHECK Check that malfunctions are not reproduced when obtaining the malfunction information from the customer, referring to the symptom inspection result in step 2. Are all malfunctions crrected? M YES >> INSPECTION END NO >> GO TO 3.

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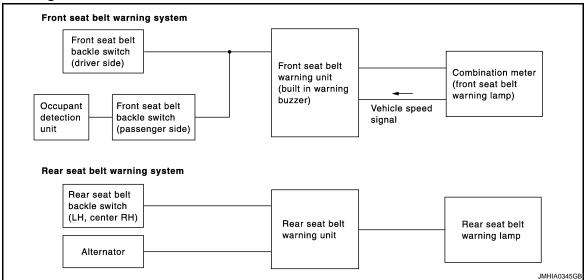
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FUNCTION DIAGNOSIS

SEAT BELT WARNING LAMP

System Diagram

INFOID:0000000001279916



System Description

INFOID:0000000001279917

FRONT SEAT BELT WARNING LAMP

- The front seat belt warning lamp illuminates/blinks to warn the occupants when the seat belt is unfastened.
- Front seat belt warning lamp is built in combination meter.
- As there is one seat belt warning lamp for both driver seat and passenger seats, if both seat belts are unfastened, the warning lamp will remain ON.
- There is an occupant detection unit inside the passenger seat, which is connecting in series with the passenger seat belt buckle switch.
- The occupant detection unit detects if the seat is occupied or not.
- When the passenger seat is unoccupied, the front seat belt warning unit detects only the driver seat belt status.

Condition of operation

The front seat belt warning unit operates according to the following speed conditions by illuminating or blinking the lamp:

Vehicle speed less than 25 km/h

- Ignition switch in ON position while driver and passenger seat belts are unfastened. The seat belt warning lamp will light up.
- Passenger seat is occupied while both driver and passenger seat belts are unfastened, the warning lamp will remain ON.
- Passenger seat is unoccupied; the warning lamp goes out as soon as the driver will fasten his seat belt.

Vehicle speed more than 25 km/h

 While driving at more than 25 km/h with any of driver or passenger seats unfastened, the warning lamp will start blinking.

NOTE:

The warning lamp will continue blinking even after decreasing the vehicle speed under 25 km/h.

- When sitting on the passenger seat, the warning lamp will remain ON until both driver and passenger seat belts are fastened.
- When the passenger seat is unoccupied, the warning lamp goes out as soon as the seat belt is fastened.

REAR SEAT BELT WARNING LAMP

The rear seat belt warning lamps are located on the center console and alert the driver and front passenger if any of the rear passenger seat belts have not been securely fastened.

Condition of operation

SEAT BELT WARNING LAMP

< FUNCTION DIAGNOSIS >

- After the engine has been started, the rear seat belt warning lights up for approximately 35 seconds if the seat belt is unfastened.
- After the engine has been started for approximately 35 seconds, all the rear seat belts warning lamps will turn OFF regardless of the seat belts status. Therefore if any of the rear seat belts are fastened/unfastened, the unfastened warning lamps will illuminate for 35 seconds.

SEAT BELT WARNING CHIME

- When driving the vehicle with the driver or passenger's seat belt unfastened, the buzzer will sound to warn the driver or passenger.
- The buzzer is built in the front seat belt warning unit.

Condition of operation

The front seat belt warning unit sounds the buzzer for 90 seconds when all the following conditions are met:

- Ignition switch is in the ON position.
- Any of the driver or passenger seat belt is not fastened.
- Vehicle speed more than 25 km/h.

NOTE:

The buzzer continues sounding even after decreasing the vehicle speed under 25km/h but stops after fastening the seat belt.

Stop the buzzer sound

The buzzer will stop sounding under the following conditions:

- After 90 seconds
- · Ignition switch is turned to OFF.
- The driver and passenger have fastened their seat belts.

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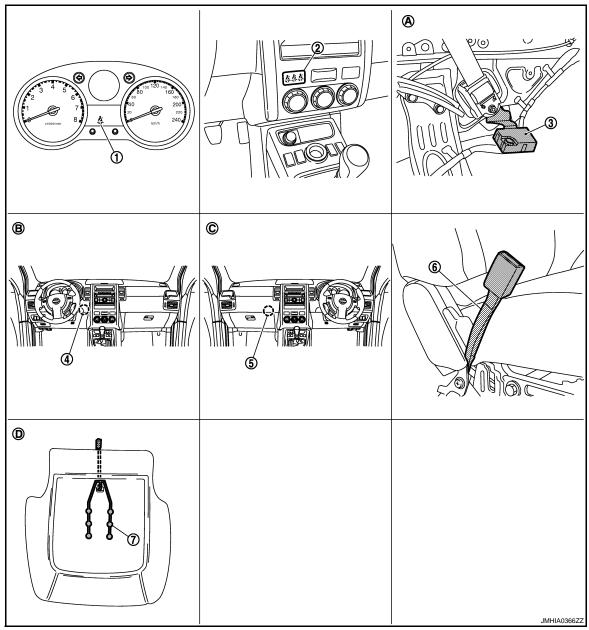
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Component Parts Location

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- Front seat belt warning lamp (built in 2. combination meter M34)
- 4. Front seat belt warning unit M63, M64
- 7. Occupant detection unit
- A. View with luggage side lower finisher removed
- D. Behind seat cushion trim

- Rear seat belt warning lamp M87
- Front seat belt warning unit M63, M64
- . LHD models

- 3. Rear seat belt warning unit B49
- Seat belt buckle switch (Driver side) B22
- C. RHD models

Component Description

INFOID:0000000001279919

Item	Function			
Combination meter	Driver and passenger seat belt warning lamp is built in combination meter.			
Rear seat belt warning unit	 Detects the status of rear seat belt buckle switch and controls the warning lamp illumination. Judges the status of engine by detection of the signal transmitted by alternator and performs the control of seat belt warning lamp ON/OFF function. 			

SEAT BELT WARNING LAMP

< FUNCTION DIAGNOSIS >

Item	Function		
Seat belt buckle switch (driver/passenger/rear)	Detects seat belt feature status transmits signal to front or rear seat belt warning unit.		
Front seat belt warning unit	 Detects the status of driver and passenger seat buckle switch and controls warning lamp operation. Judges the vehicle speed by detection of the signal transmitted by combination meter and performs the control of seat belt warning chime ON/OFF function. 		
Rear seat belt warning lamp Occupant detection unit	Detects the seat status (occupied or unoccupied) and then transmits signal to combination meter or to indicator unit.		

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT FRONT SEAT BELT WARNING UNIT

FRONT SEAT BELT WARNING UNIT: Diagnosis Procedure

INFOID:0000000001279921

1.CHECK FUSE

Check 10A fuse (No.1, located in the fuse and fusible link box).

Is the fuse fusing?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse or fusible link is blown.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect front seat belt warning unit connectors.
- 3. Turn ignition switch ON.
- 4. Check voltage between front seat belt warning unit harness connector and ground.

Front seat belt warning unit		Ground	Voltage
Connector	Terminal	Cround	(Approx.)
M64	17	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between front seat belt warning unit harness connector and ground.

Front seat belt warning unit		- Ground	Continuity
Connector	Connector Terminal		
M63	16	Ground	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

REAR SEAT BELT WARNING UNIT

REAR SEAT BELT WARNING UNIT: Diagnosis Procedure

INFOID:0000000001548700

1.CHECK FUSE

Check that the following fuse is not fusing.

10A fuse (No. 1, located in the fuse and fusible link box).

Is the fuse fusing?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect rear seat belt warning unit connectors.
- Turn ignition switch ON.
- Check voltage between rear seat belt warning unit harness connector and ground.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

ВСМ		Ground	Voltage
Connector Terminal		Giodila	(Approx.)
M64	17	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between rear seat belt warning unit harness connector and ground.

BCM		- Ground	Continuity
Connector	Connector Terminal		
M63	16	Ground	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

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< COMPONENT DIAGNOSIS >

FRONT SEAT BELT BUCKLE SWITCH

DRIVER SIDE

DRIVER SIDE : Description

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- Detects if the seat belt is fastened or unfastened.
- · Warning lamp turns OFF if the seat belt is fastened.

DRIVER SIDE: Component Function Check

INFOID:0000000001559378

1. CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE) FUNCTION

- 1. Turn ignition switch ON.
- 2. Sits in the passenger seat.
- 3. Front seat belt (passenger side) is fastened.
- 4. Check if the warning lamp turns OFF as soon as the seat belt (driver side) is fastened.

Is the inspection results normal?

YES >> Seat belt buckle switch (driver side) is OK.

NO >> Refer to SBC-10, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001279924

1.INSPECTION START

Check which type of seat the vehicle is equipped with.

Which type of seat

Power seat>>GO TO 2.

Manual seat>>GO TO 7.

2.check seat belt buckle switch (driver side) input signal

- Turn ignition switch ON.
- 2. Check voltage between front seat belt warning unit harness connector and ground.

Front seat belt warning unit				
connector	Terminal		Condition	Voltage (V) (Approx.)
M64	(+)	(-)		(11 -)
	21	Ground	Driver seat belt is unfastened	0
	ZI Ground		Driver seat belt is fastened	5

Is the inspection result normal?

YES >> GO TO 12.

NO >> GO TO 3.

3.check seat belt buckle switch (driver side) circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect front seat belt warning unit and seat belt buckle switch (driver side) connector.
- Check continuity between front seat belt warning unit harness connector and seat belt buckle switch (driver side) harness connector.

Front seat belt warning unit		Seat belt buckle switch (driver side)		Continuity	
connector	Terminal	connector terminal		Continuity	
M64	21	B22	5	Existed	

4. Check continuity between front seat belt warning unit harness connector and ground.

Front seat belt warning unit		- Ground	Continuity
connector Terminal			
M64	21	Ground	Not existed

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

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

Seat belt buckle sw	Seat belt buckle switch (driver side)		Continuity
connector	Terminal	Ground	Continuity
B22	6	Ground	Existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check seat belt buckle switch (driver side).

Refer to SBC-12, "DRIVER SIDE: Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace seat belt buckle switch (driver side). Refer to SB-7, "SEAT BELT BUCKLE: Removal and Installation".

6.CHECK FRONT SEAT BELT WARNING UNIT OUTPUT SIGNAL

- Turn ignition switch ON.
- 2. Connect front seat belt warning unit connector.
- Check voltage between front seat belt warning unit harness connector and ground.

Front seat belt warning unit		Ground	Voltage (V)
connector	Terminal	Giodila	(Approx.)
M34	35	Ground	5

Is the inspection result normal?

YES >> GO TO 12.

NO >> Replace front seat belt warning unit.

7. CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

- Turn ignition switch ON.
- 2. Check voltage between front seat belt warning unit connector and ground.

Combination me	eter	- Ground Condition		Voltage (V)
connector	Terminal	Ground	Condition	(Approx.)
M64	21	Ground	Driver seat belt is unfastened	0
WO4	21	Glound	Driver seat belt is fastened	5

Is the inspection result normal?

YES >> GO TO 12.

NO >> GO TO 8.

8.check seat belt buckle switch (driver side) circuit harness

- Turn ignition switch OFF.
- 2. Disconnect front seat belt warning unit and seat belt buckle switch (driver side) connector.
- 3. Check continuity between front seat belt warning unit and seat belt buckle switch (driver side) harness connector.

Front seat be	elt warning unit	Seat belt buckle switch (driver side) connector terminal		Continuity
connector	Terminal			Continuity
M64	21	B22	1	Existed

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< COMPONENT DIAGNOSIS >

4. Check continuity between front seat belt warning unit harness connector and ground.

Front seat belt	warning unit	Ground	Continuity	
connector	Terminal	Ground	Continuity	
M64	21	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace harness.

9.CHECK SEAT BELT BUCKLE SWTCH GROUND CIRCUIT

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

Seat belt buckle switch (driver side)		Ground	Continuity	
connector	Terminal	Ground	Continuity	
B22	2	Ground	Existed	

Is the inspection result normal?

YES >> GO TO 10.

NO >> Repair or replace harness.

10.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check seat belt buckle switch (driver side).

Refer to SBC-12, "DRIVER SIDE: Component Inspection".

Is the inspection result normal?

YES >> GO TO 11.

NO >> Replace seat belt buckle switch (driver side). Refer to <u>SB-7, "SEAT BELT BUCKLE : Removal and Installation".</u>

11. CHECK FRONT SEAT BELT WARNING UNIT OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Connect front seat belt warning unit connector.
- 3. Check voltage between front seat belt warning unit harness connector and ground.

Combination meter			V 16 00
connector	Term	inal	Voltage (V) (Approx.)
M64	(+)	(-)	
INIOT	21	Ground	5

Is the inspection result normal?

YES >> GO TO 12.

NO >> Replace front seat belt warning unit.

12. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

DRIVER SIDE: Component Inspection

INFOID:0000000001279925

1. CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

- Turn ignition switch OFF.
- Disconnect seat belt buckle switch connector.
- Check continuity between seat belt buckle switch (driver side) terminal.

Seat belt buckle switch (drive	Condition	Continuity	
connector	Terminal	Condition	Continuity

< COMPONENT DIAGNOSIS >

	5	6	When seat belt is unfastened	Existed
D22	3	U	When seat belt is fastened	Not existed

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace seat belt buckle switch (driver side). Refer to <u>SB-7, "SEAT BELT BUCKLE : Removal and Installation".</u>

PASSENGER SIDE

PASSENGER SIDE : Description

Detects if the pasenger side seat belt is fastened or unfastened.

Warning lamp turns OFF if the seat belt is fastened.

PASSENGER SIDE : Component Function Check

1. CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE) FUNCTION

Turn ignition switch ON.

- 2. Front seat belt (driver side) is fastened.
- 3. Sits in the passenger seat.
- 4. Check if the warning lamp turns OFF as soon as the seat belt (passenger side) is fastened.

Is the inspection results normal?

YES >> Seat belt buckle switch (passenger side) is OK.

NO >> Refer to SBC-13, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

1. INSPECTION START

Check which type of seat the vehicle is equipped with

Which type of seat

Power seat>>GO TO 2.

Manual seat>>GO TO 7.

2.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE) INPUT SIGNAL

- Turn ignition switch ON.
- 2. Check voltage between front seat belt warning unit harness connector and ground.

Front seat belt warning unit			N/ 1/ 0.0	
connector	Terminal		Condition	Voltage (V) (Approx.)
	(+)	(-)		(44)
M64	21	Ground	Passenger seat belt is unfastened	0
	21	Giodila	Passenger seat belt is fastened	5

Is the inspection result normal?

YES >> GO TO 12.

NO >> GO TO 3.

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

- Turn ignition switch OFF.
- Disconnect front seat belt warning unit and seat belt buckle switch (passenger side) connector.
- 3. Check continuity between front seat belt warning unit harness connector and seat belt buckle switch (passenger side) harness connector.

Front seat be	elt warning unit	Seat belt buckle switch (passenger side) terminal		Continuity	
connector	Terminal	connector	terriliai	Continuity	
M64	21	B22	5	Existed	

Check continuity between front seat belt warning unit harness connector and ground.

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< COMPONENT DIAGNOSIS >

Front seat belt warning unit		Ground	Continuity	
connector	Terminal	Ground	Continuity	
M64	21	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

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

Seat belt buckle switch (passenger side)		Ground	Continuity	
connector	Terminal	Ground	Continuity	
B22	6	Ground	Existed	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Check seat belt buckle switch (passenger side).

Refer to SBC-15, "PASSENGER SIDE: Component Inspection (Passenger side seat belt buckle switch)".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace seat belt buckle switch (passenger side). Refer to <u>SB-7, "SEAT BELT BUCKLE :</u> Removal and Installation".

6. CHECK FRONT SEAT BELT WARNING UNIT OUTPUT SIGNAL

- Turn ignition switch ON.
- 2. Connect front seat belt warning unit connector.
- 3. Check voltage between front seat belt warning unit harness connector and ground.

Front seat belt warning unit		_		
connector	Terminal	Ground	Voltage (V) (Approx.)	
M34	35	Ground	5	

Is the inspection result normal?

YES >> GO TO 12.

NO >> Replace front seat belt warning unit.

7.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE) INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage between front seat belt warning unit harness connector and ground.

Combina	Combination meter		Condition	Voltage (V)
connector	Terminal	Ground	Condition	(Approx.)
M64	21	Ground	Passenger seat belt is unfastened	0
10104	21	Ground	Passenger seat belt is fastened	5

Is the inspection result normal?

YES >> GO TO 12.

NO >> GO TO 8.

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

- Turn ignition switch OFF.
- 2. Disconnect front seat belt warning unit and seat belt buckle switch (passenger side) connector.

< COMPONENT DIAGNOSIS >

3. Check continuity between front seat belt warning unit harness connector and seat belt buckle switch (passenger side) harness connector.

Front seat bel	Front seat belt warning unit		Seat belt buckle switch (passenger side)	
connector	Terminal	connector terminal		Continuity
M64	21	B22	1	Existed

4. Check continuity between front seat belt warning unit harness connector and ground.

Front seat belt warning		Ground	Continuity	
unit connector	Terminal	Ground	Continuity	
M64	21	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace harness.

9. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

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

Seat belt buckle switch	ch (passenger side)	Ground	Continuity	
connector	Terminal	Giodila		
B22	2	Ground	Existed	

Is the inspection result normal?

YES >> GO TO 10.

NO >> Repair or replace harness.

10.check seat belt buckle switch (passenger side)

Check seat belt buckle switch (passenger side).

Refer to SBC-15, "PASSENGER SIDE: Component Inspection (Passenger side seat belt buckle switch)".

Is the inspection result normal?

YES >> GO TO 11.

NO >> Replace seat belt buckle switch (passenger side). Refer to <u>SB-7, "SEAT BELT BUCKLE : Removal and Installation".</u>

11. CHECK FRONT SEAT BELT WARNING UNIT OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Connect front seat belt warning unit connector.
- 3. Check voltage between front seat belt warning unit harness connector and ground.

Combination meter		Ground	Voltage (V)	
connector	Terminal	Orodina	(Approx.)	
M64	21	Ground	5	

Is the inspection result normal?

YES >> GO TO 12.

NO >> Replace front seat belt warning unit.

12. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE: Component Inspection (Passenger side seat belt buckle switch)

1. CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

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< COMPONENT DIAGNOSIS >

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

Seat belt buckle switch (passenger side)			Condition	Continuity	
connector	Terminal		Condition	Continuity	
B23	1	2	When seat belt is unfastened	Existed	
DZ3	1 2	2	When seat belt is fastened	Not existed	

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace seat belt buckle switch (passenger side). Refer to <u>SB-7, "SEAT BELT BUCKLE : Removal and Installation"</u>.

PASSENGER SIDE: Component Inspection (Occupant detection unit)

INFOID:0000000001521453

1. CHECK OCCUPANT DETECTION UNIT

- 1. Turn ignition switch OFF.
- 2. Disconnect occupant detection unit connector.
- 3. Check continuity between occupant detection unit terminal.

Occupant detection unit		Condition	Continuity		
connector	Term	ninal	Condition	Continuity	
B48	1	1 2	When getting in the passenger seat	Existed	
D40	1		1 2	Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace occupant detection unit. Refer to SE-36, "Disassembly and Assembly".

< COMPONENT DIAGNOSIS >

REAR SEAT BELT BUCKLE SWITCH

REAR LH

REAR LH : Description

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- Detects if the rear seat belt LH is fastened or unfastened.
- Warning lamp turns OFF if the rear seat belt LH is fastened.

REAR LH: Component Function Check

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1. CHECK REAR SEAT BELT BUCKLE SWITCH FUNCTION

- 1. Start the engine.
- 2. Check if the warning lamp turns OFF as soon as the rear seat belt LH is fastened.

Is the inspection results normal?

YES >> Rear seat belt buckle switch is OK.

NO >> Refer to <u>SBC-17, "REAR LH : Diagnosis Procedure"</u>.

REAR LH: Diagnosis Procedure

INFOID:0000000001279933

1. CHECK REAR SEAT BELT WARNING UNIT OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage between rear seat belt warning unit harness connector and ground.

Rear seat belt	Rear seat belt buckle switch		Condition	Voltage (V)	
Connector	Terminal	Ground	Condition	(Approx.)	
B49	7	Ground	Rear seat belt (LH) is fastened	Battery voltage	
D49	1	Ground	Rear seat belt (LH) is unfastened	0	

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2.CHECK REAR SEAT BELT BUCKLE SWITCH CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect rear seat belt and rear seat belt buckle switch connector.
- 3. Check continuity between rear seat belt warning unit harness connector and rear seat belt buckle switch harness connector.

Rear seat be	It warning unit	Rear seat belt buckle switch		Continuity
Connector	Terminal	Connector	terminal	Continuity
M49	7	B63	1	Existed

4. Check continuity between rear seat belt warning unit connector and ground.

Rear seat be	Rear seat belt warning unit		Continuity
Connector	Terminal	Ground	Continuity
M49	7	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK REAR LH SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

Check continuity between rear LH sear belt buckle switch harness connector and ground.

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Rear seat beli	t buckle switch	Ground	Continuity	
connector	Terminal	Ground		
B63	2	Ground	Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

f 4.CHECK REAR LH SEAT BELT BUKLE SWITCH

Check rear seat belt buckle switch.

Refer to <u>SBC-18</u>, "REAR LH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace rear LH seat belt buckle switch. Refer to <u>SB-13, "SEAT BELT BUCKLE : Removal and Installation".</u>

${f 5.}$ CHECK REAR LH SEAT BELT WARNING UNIT OUTPUT SIGANL

Check voltage between rear seat belt warning unit harness connector and ground.

Rear seat belt war	ning unit connector	Ground	Voltage (V) (Approx.)	
Connector	Terminal	Ground		
M91	7	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace rear seat belt warning unit.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

REAR LH: Component Inspection

INFOID:0000000001279934

1. CHECK SEAT BELT BUCKLE SWITCH

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

Rear seat belt buckle switch			Condition	Continuity
Connector	Terminal			
B63	1	2	Rear seat belt (LH) is unfastened	Existed
D03	l	2	Rear seat belt (LH) is fastened	Not existed

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace rear LH seat belt buckle switch. Refer to <u>SB-13, "SEAT BELT BUCKLE : Removal and Installation".</u>

REAR RH AND CENTER

REAR RH AND CENTER: Description

INFOID:0000000001524224

- Detects if the rear seat belt (Center or RH) is fastened or unfastened.
- Warning lamp turns OFF if the seat belt (Center or RH) is fastened.

< COMPONENT DIAGNOSIS >

REAR RH AND CENTER: Component Function Check

INFOID:0000000001524225

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1.CHECK REAR SEAT BELT BUCKLE SWITCH FUNCTION

- 1. Start the engine.
- 2. Check if the warning lamp turns OFF as soon as the rear seat belt (Center or RH) is fastened.

Is the inspection results normal?

YES >> Rear seat belt buckle switch is OK.

NO >> Refer to .<u>SBC-19</u>, "REAR RH AND CENTER : Diagnosis Procedure".

REAR RH AND CENTER: Diagnosis Procedure

INFOID:0000000001524226

1. CHECK REAR SEAT BELT WARNING UNIT OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage between rear seat belt warning unit harness connector and ground.

Rear	seat belt buckle	switch	Ground	Condition	Voltage (V)	
	Connector	Terminal	Ground	Condition	(Approx.)	
Center		6		Rear seat belt (RH) is fastened	Battery voltage	
Center	B49	0	Ground	Rear seat belt (RH) is unfastened	0	
DU	D49	Glound	D49	Ground	Rear seat belt (center) is fastened	Battery voltage
RH 1	!		Rear seat belt (center) is unfastened	0		

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2. CHECK REAR SEAT BELT BUCKLE SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seat belt warning unit and rear seat belt buckle switch connector.
- 3. Check continuity between rear seat warning unit harness connector and rear seat belt buckle switch harness connector.

Rear seat be	elt warning unit	Rear seat belt buckle switch		Continuity
Connector	Terminal	Connector	terminal	Continuity
M49	6	B64 (RH and center)	1	Existed
10149	1	Bo4 (KH and center)	3	Existed

Check continuity between rear seat belt warning unit connector and ground.

	Rear seat be	It warning unit	Ground	Continuity	
	Connector	Terminal	Giodila	Continuity	
Center	M49	6	Ground	Not existed	
RH	10149	1	Ground	NOT EXISTED	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

Check continuity between rear sear belt buckle switch connector and ground.

	Rear seat belt buckle switch		Ground	Continuity	
	connector	Terminal	Glound	Continuity	
Center	B64	2	Ground	Existed	
RH	D04	4	Ground	Existeu	

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< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK REAR SEAT BELT BUKLE SWITCH

Check rear seat belt buckle switch.

Refer to SBC-20, "REAR RH AND CENTER: Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace rear seat belt buckle switch. Refer to <u>SB-13, "SEAT BELT BUCKLE : Removal and Installation".</u>

5. CHECK REAR SEAT BELT WARNING UNIT OUTPUT SIGANL

Check voltage between rear seat belt warning unit harness connector and ground.

	Rear seat belt war	ning unit connector	Ground	Voltage (V)	
	Connector	Terminal	Ground	(Approx.)	
Center	M91	6	Ground	Battery voltage	
RH	IVIST	1	Giouria	Battery voltage	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace rear seat belt warning unit.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

REAR RH AND CENTER: Component Inspection

INFOID:0000000001524227

1. CHECK SEAT BELT BUCKLE SWITCH

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

Rear seat belt buckle switch			Condition	Continuity
Connector	Terminal			
	1	2	Rear seat belt (RH) is unfastened	Existed
B64			Rear seat belt (RH) is fastened	Not existed
В 04	3	4	Rear seat belt (center) is unfastened	Existed
	3	4	Rear seat belt (center) is fastened	Not existed

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace seat belt buckle switch. Refer to <u>SB-13</u>, "<u>SEAT BELT BUCKLE</u>: Removal and Installation".

FRONT SEAT BELT WARNING LAMP

< COMPONENT DIAGNOSIS >

FRONT SEAT BELT WARNING LAMP

Description INFOID:0000000001534948

The front seat belt warning lamp is located in combination meter.

The combination meter illuminate front seat belt warning lamp when seat belts (driver side and passenger side) are fastened.

Component Function Check

1. SEAT BELT WARNING LAMP FUNCTION

- 1. Turn ignition switch ON.
- 2. Sits in the passenger seat.
- 3. Fasten the seat belt (passenger side).
- 4. Check front seat belt warning lamp function.

Condition	Front 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 >> Seat belt warning lamp is OK.

NO >> Refer to SBC-21, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000001534953

INFOID:0000000001534949

1. CHECK SEAT BELT WARNING LAMP INPUT SIGNAL

- 1. Turn ignition switch ON.
- Sits in the passenger seat.
- 3. Fasten the seat belt (passenger side).
- 4. Check signal between front seat belt warning unit harness connector and ground oscilloscope.

Front seat be	Front seat belt warning unit		Condition	Signal	
Connector	Terminal	Ground	Condition	Signal	
M63	M63 9		Seat belt (driver side) is fastened	Battery voltage	
	8	Ground	Seat belt (driver side) is unfastened	0	

Is the inspection results normal?

YES >> GO TO 4

NO >> GO TO 2

2.CHECK SEAT BELT WARNING LAMP CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect front seat belt warning unit connector and combination meter connector.
- 3. Check continuity between front seat belt warning unit harness connector and combination meter harness connector.

Front seat belt	warning unit	ng unit Combination meter		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M63	8	M34	35	Existed	

Check continuity between front seat belt warning unit and ground.

Front seat belt warning unit		Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
M63	8	Ground	Not existed	

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FRONT SEAT BELT WARNING LAMP

< COMPONENT DIAGNOSIS >

YES >> GO TO 3

NO >> Repair or replace harness.

3.CHECK COMBINATION METER

Refer to MWI-64, "DTC Index".

>> INSPECTION END

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

REAR SEAT BELT WARNING LAMP

< COMPONENT DIAGNOSIS >

REAR SEAT BELT WARNING LAMP

Description INFOID:000000001308624

- Detects if the rear seat belt is fastened or unfastened.
- Warning lamp turns OFF if the seat belt is fastened.

Component Function Check

INFOID:0000000001308625

1. CHECK REAR SEAT BELT BUCKLE SWITCH FUNCTION

Check if the warning lamp turns OFF as soon as the seat belt is fastened.

Is the inspection results normal?

YES >> Rear seat belt buckle switch is OK.

NO >> Refer to SBC-23, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000001308626

1. CHECK SEAT BELT WARNING LAMP POWER SUPPLY

1. Turn ignition switch OFF.

- 2. Disconnect rear seat belt warning lamp connector.
- 3. Check voltage between rear seat belt warning lamp harness connector and ground.

Rear seat belt warning lamp		Ground	Condition	Voltage	
Connector	Terminal	Giodila	Condition	voltage	
M87	1	Ground	Ignition switch ON	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check harness open or short between rear seat belt warning lamp and fuse.

2.CHECK REAR SEAT BELT WARNING LAMP OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage between rear seat belt warning lamp harness connector and ground.

	Rear seat belt buckle switch		Ground	Condition	Voltage (V)
	Connector	Terminal	Cround	Condition	(Approx.)
LH		4		Rear seat belt (LH) is fastened	Battery voltage
LII		7	Ground	Rear seat belt (LH) is unfastened	0
Center	M87	M07 2		Rear seat belt (center) is fastened	Battery voltage
Center	IVIO7		Ground	Rear seat belt (center) is unfastened	0
DU		2		Rear seat belt (RH) is fastened	Battery voltage
RH		2		Rear seat belt (RH) is unfastened	0

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 3.

3.CHECK REAR SEAT BELT WARNING UNIT OUTPUT SIGNAL

Check voltage between rear seat belt warning unit harness connector and ground.

Rear seat belt warning unit		Ground	Voltage (V)	
connector	Terminal	Oround	(Approx.)	
	3			
M91	4	Ground	Battery voltage	
	5			

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REAR SEAT BELT WARNING LAMP

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear seat belt warning unit.

4. CHECK REAR SEAT BELT WARNING LAMP CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seat belt warning unit and rear seat belt buckle switch connector.
- 3. Check continuity between rear seat belt warning unit harness connector and rear seat belt buckle switch harness connector.

Rear seat be	elt warning unit	Rear seat belt warning unit		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	3		4	
M87	4	B49	3	Existed
	5		2	

4. Check continuity between rear seat belt warning unit harness connector and ground.

Rear seat be	It warning unit	Ground	Continuity	
Connector Terminal		Glound	Continuity	
	2		Not existed	
M87	3	Ground		
	4			

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

VEHICLE SPEED SIGNAL

< COMPONENT DIAGNOSIS >

VEHICLE SPEED SIGNAL

Description INFOID:0000000001534943

The front seat belt warning unit receives vehicle speed signal from combination meter.

The front seat belt warning unit use the signal for seat belt warning chime.

Component Function Check

INFOID:0000000001534944

1. CHECK VEHICLE SPEED SIGNAL

- Lift up the vehicle.
- 2. Seat belt warning chime will sound, when seat belt is unfastened and vehicle speed is more than 25 km/h. Is the inspection results normal?

YES >> Vehicle speed signal is OK.

>> Refer to SBC-25, "Diagnosis Procedure". NO

Diagnosis Procedure

INFOID:0000000001534954

1. CHECK VEHICLE SPEED SIGNAL

- 1. Lift up the vehicle.
- 2. Check signal between front seat belt warning unit harness connector and ground oscilloscope.

Front seat belt warning unit		Ground	Condition	Signal	
Connector	Terminal	Ground	Condition	Signal	
M64	36	Ground	Vehicle speed is at 40 km/h	PKIA1935E	

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Is the inspection results normal?

YES >> GO TO 4 NO >> GO TO 2

2. CHECK VEHICLE SPEED CIRCUIT

- Turn ignition switch OFF.
- Disconnect front seat belt warning unit connector and combination meter connector.
- Check continuity between front seat belt warning unit harness connector and combination meter harness connector.

Front seat belt warning unit		Combination meter		Continuity	
Connector	Terminal Connector		Terminal	Continuity	
M64	36	M34	30	Existed	

Check continuity between front seat belt warning unit and ground.

Front seat be	Front seat belt warning unit		Continuity	
Connector	Terminal	Ground	Continuity	
M64	36	Ground	Not existed	

YES >> GO TO 3

NO >> Repair or replace harness.

3.CHECK COMBINATION METER

Refer to MWI-64, "DTC Index".

>> INSPECTION END

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

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VEHICLE SPEED SIGNAL

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>> INSPECTION END

ALTERNATOR SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

ALTERNATOR SIGNAL CIRCUIT

Description

Transmits the "engine started" signal to indicator unit.

Component Function Check

INFOID:0000000001279936

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1. CHECK ALTERNATOR SIGNAL CIRCUIT

Check if the warning lamp turns OFF, approximately 35 seconds after the engine has started.

Is the inspection results normal?

YES >> Alternator signal circuit is OK.

NO >> Refer to <u>SBC-27</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000001279937

1. CHECK REAR SEAT BELT WARNING UNIT INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seat belt warning unit connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between rear seat belt warning unit harness connector and ground.

Rear seat belt warning unit		Ground	Condition	Voltage (V) (Approx.)	
Connector	Terminal		Condition		
B49	6	Ground	Engine running	Battery voltage	
В49	O	Ground	Other than above	0	

Is the inspection result normal?

YES >> Replace rear seat belt warning unit.

NO >> GO TO 2.

2. CHECK ALTERNATOR CIRCUIT

Turn ignition switch OFF.

Disconnect alternator connector.

Check continuity between rear seat belt warning unit harness connector and alternator harness connector.

Rear seat belt warning unit		Alter	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B49	B49 2	F15 ^{*1}	3	Existed
210	_	F60 ^{*2}	, and the second	ZXIOLOG

^{*1} QR engine models

4. Check continuity between rear seat belt warning unit harness connector and ground.

Rear seat belt warr	ning unit	Ground	Continuity	
Connector	Terminal	Giodila		
B49	2	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

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^{*2} Except QR engine models

ALTERNATOR SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

>> INSPECTION END

FRONT SEAT BELT WARNING UNIT

< ECU DIAGNOSIS >

ECU DIAGNOSIS

FRONT SEAT BELT WARNING UNIT

LHD MODELS

LHD MODELS: Reference Value

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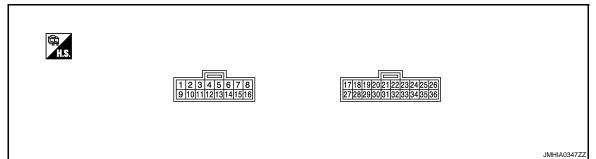
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TERMINAL LAYOUT

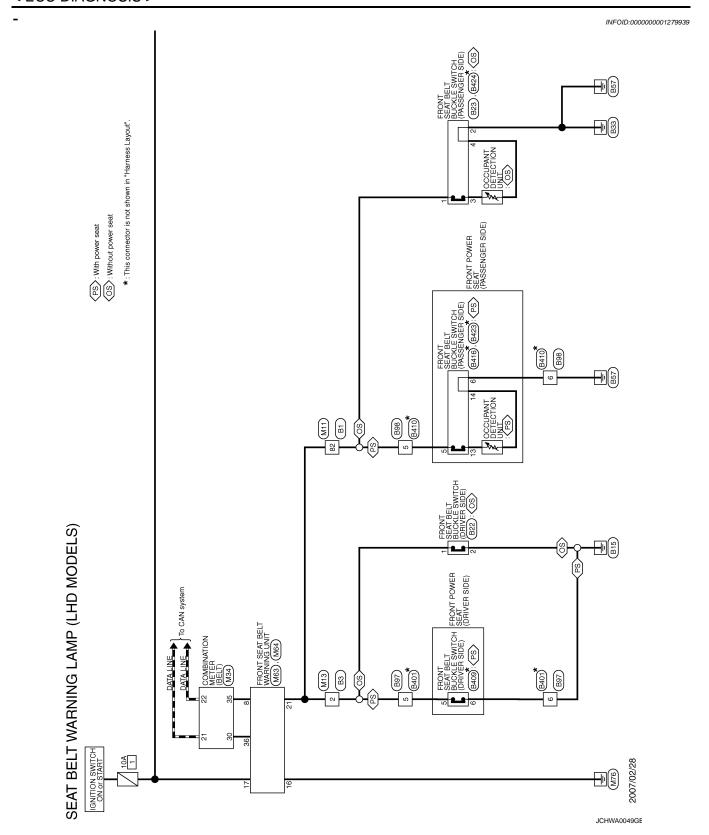


PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value
+	-	Signal name	Input/ Output		(Approx.)	
8	Ground	Seat belt warning lamp signal	Output	Output Ignition switch ON	Seat belt warning lamp is illuminated.	0 V
					Seat belt warning lamp is not illuminated.	Battery voltage
16	Ground	Ground	_	_	_	0 V
17	Ground	IGN signal	Input	Ignition switch ON	_	Battery voltage
24	Ground	Fround Seat belt backle switch signalInput	Input	Input Ignition switch ON	Seat belt bacle switch is fastened.	Battery voltage
21					Seat belt bacle switch is unfastened.	0 V
36	Ground	Vehicle speed signal	Input	Ignition switch ON	When vehicle speed is approx. 40km (25MPH).	

LHD MODELS: Wiring Diagram - SEAT BELT WARNING LAMP CONTROL SYSTEM

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 $\langle QR \rangle$: With QR engine $\langle XQ \rangle$: Without QR engine

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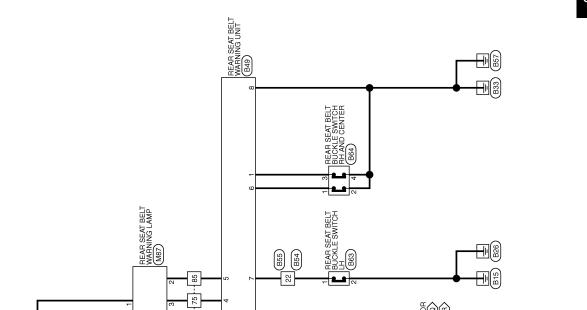
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ALTERNATOR F15: XQ F60: QR F42

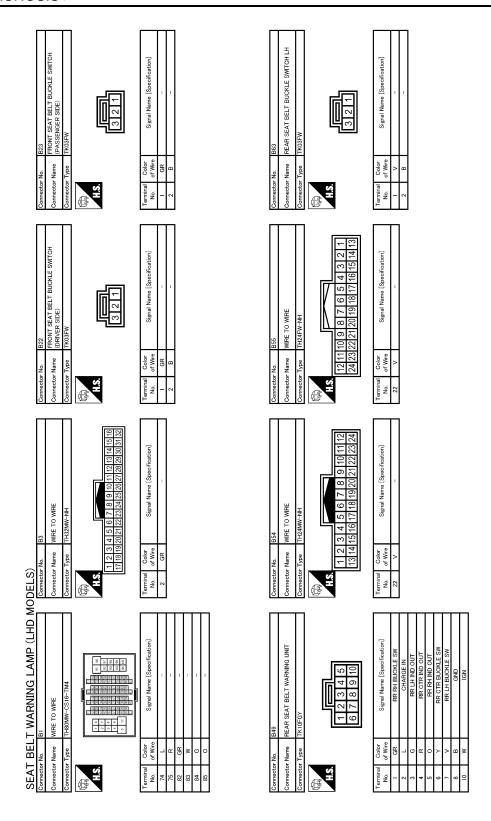
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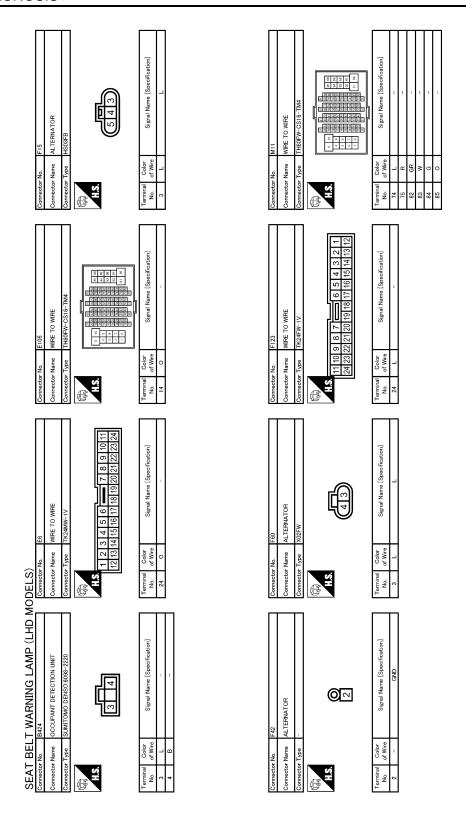
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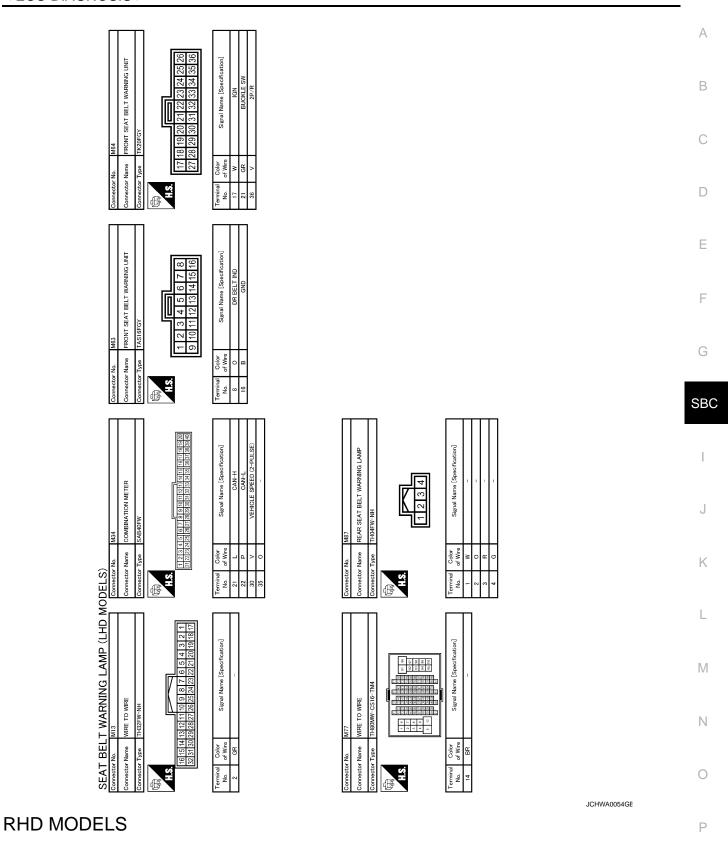


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MIRE TO W NSOGMW-C	O O O O O O O O O O O O O O O O O O O		Color of Wife B B		С
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	freation]	E SWITCH	fication]		Е
O WIRECS	Signal Name (Specification)	B416 FRONT SEAT BELT BUCKLE SWITCH [PASSENGER SIDE] TKG3FW [6 5]	Signal Name [Specification]		F
WIRE TO NSO6FW	Color GR GR	No. B416 FRONT 5 Name (PASSER Type TK03FW	Celor of Wire D		G
Connector Name Connector Type	Terminal To	Connector No. Connector Name Connector Type H.S.	10-minal No. 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		SBC
	pecification]		specification)		I
MIRE TO WIRE NSOBRIW-CS 3 4 5 6	Signal Name [Specification]	MRE TO WIRE NSDGMW-CS 2 mm 1 6 5 4 3	Signal Name [Specification]		J
No. Type	Terminal Color S G GR 6 B B B	ector No. ector Name ector Type	O N N N N N N N N N N N N N N N N N N N		K
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T WARNING LAMP (LH	Signal Name (Specification)	FROM SEAT BELT BUCKLE SWITCH INCOMERS SIDE) TRGGSPW TRGGSPW	Signal Name (Specification)		M
T WARNIN B64 RARS SEAT BELT RND CRUTER TKO4FW	Signal Na	B409 FRONT SEAT BELL (DRIVER SIDE) TK03FW	Signal Na		Ν
SEAT BELT WARNING LAMP (LHD MODELS) Commercian Name Set	Terminal Color No. of Wire B B C B B C B B B C B B B C B B C B B C B B C B B C	Connector No. Connector Name Connector Type	Color Color No. of Wire S		0
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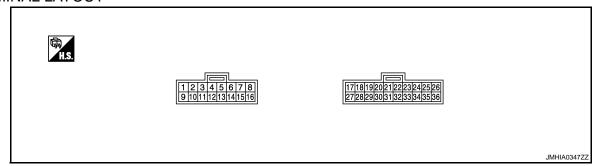
FRONT SEAT BELT WARNING UNIT

< ECU DIAGNOSIS >

RHD MODELS: Reference Value

INFOID:0000000001551299

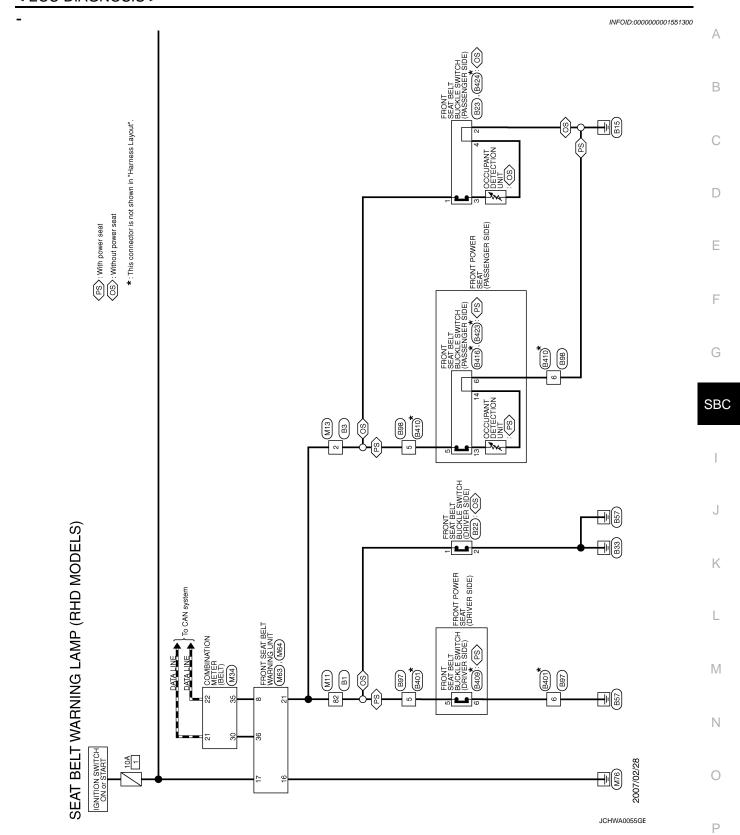
TERMINAL LAYOUT

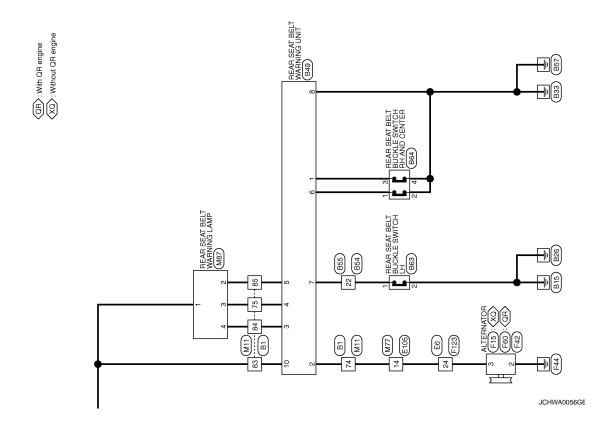


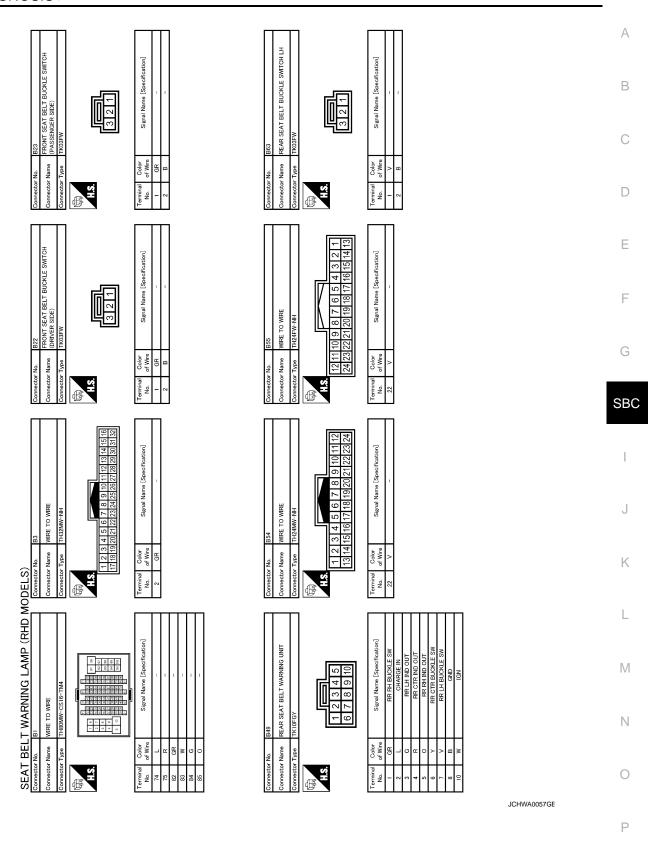
PHYSICAL VALUES

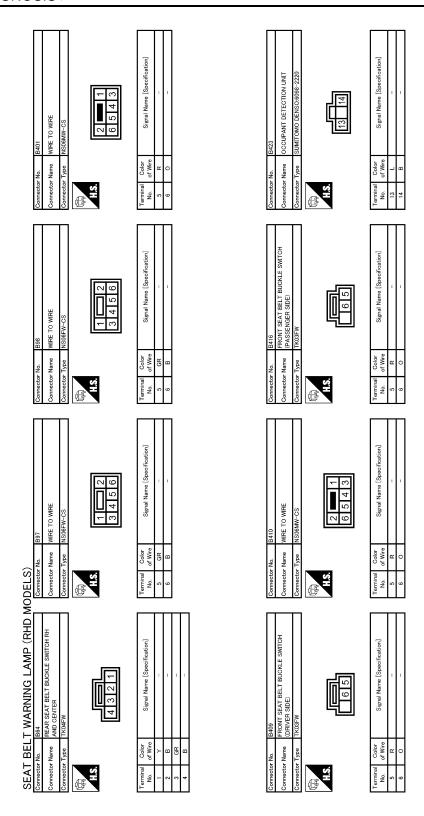
Terminal No. (Wire color)		Description		Condition		Value
+	-	Signal name	Input/ Output		(Approx.)	
8 (Ground	Seat belt warning lamp signal	Output	lgnition switch ON	Seat belt warning lamp is illuminated.	0 V
0	Giodila				Seat belt warning lamp is not illuminated.	Battery voltage
16	Ground	Ground	_	_	_	0 V
17	Ground	IGN signal	Input	Ignition switch ON	_	Battery voltage
21	Ground	Seat belt backle switch signalInput	Input	Input Ignition switch ON	Seat belt bacle switch is fastened.	Battery voltage
21					Seat belt bacle switch is unfastened.	0 V
36	Ground	Vehicle speed signal	Input	Ignition switch ON	When vehicle speed is approx. 40km (25MPH).	

RHD MODELS: Wiring Diagram - SEAT BELT WARNING LAMP CONTROL SYSTEM

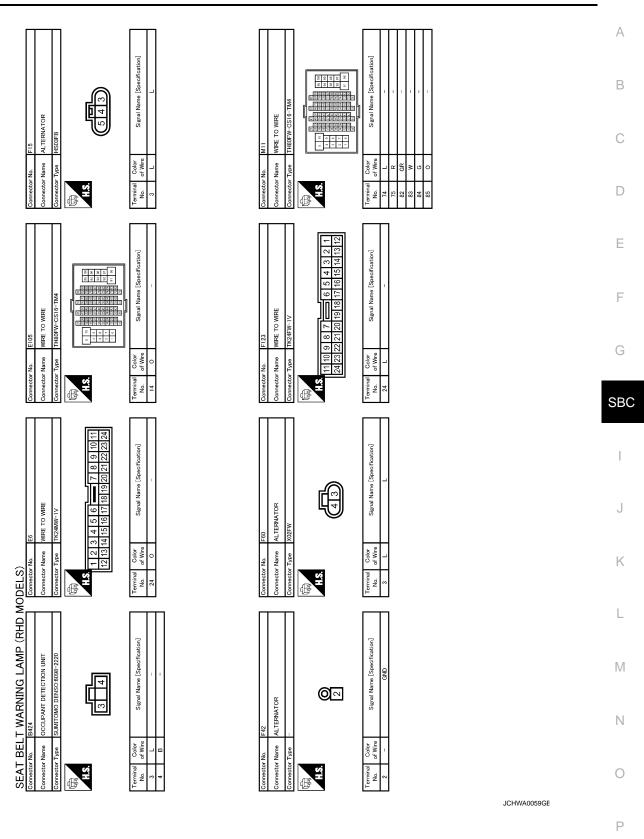


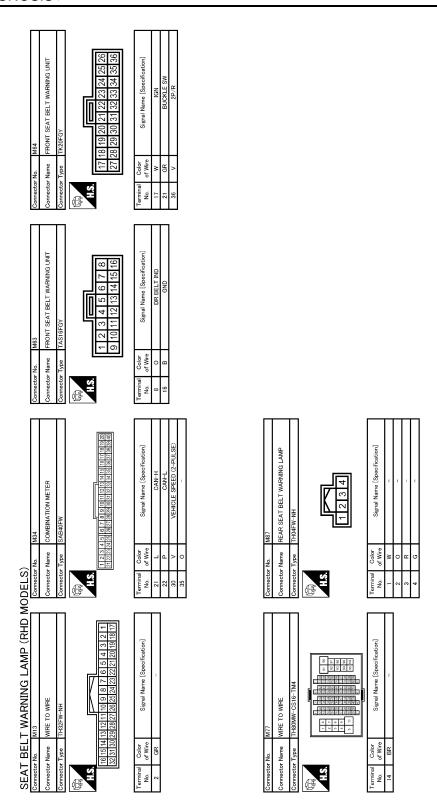






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REAR SEAT BELT WARNING UNIT

< ECU DIAGNOSIS >

REAR SEAT BELT WARNING UNIT

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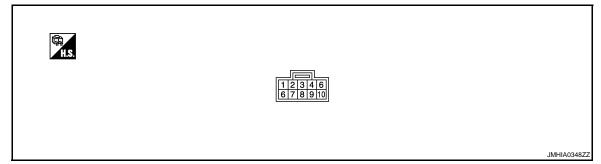
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TERMINAL LAYOUT



PHYSICAL VALUES

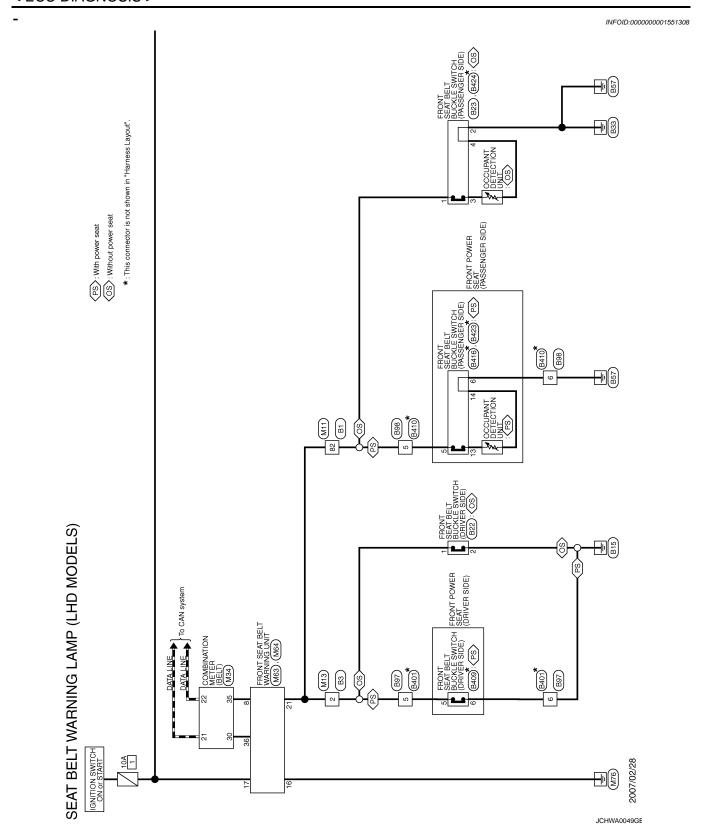
Terminal No. (Wire color)		Description		Condition		Value
+	-	Signal name	Input/ Output	Condition		(Approx.)
1 (Cravinal	Rear seat belt buckle switch (RH) signal	Input	Ignition switch ON	Seat belt buckle switch is fastened.	Battery voltage
	Ground				Seat belt buckle switch is unfastened.	0 V
2	Ground	_	_	_	_	0 V
3	Ground	Seat belt warning lamp signal (LH)	Output	Ignition switch ON	Seat belt warning lamp is illuminated.	0 V
					Seat belt warning lamp is not illuminated.	Battery voltage
4	Ground	Seat belt warning lamp signal (Center)	Output	Ignition switch ON	Seat belt warning lamp is illuminated.	0 V
					Seat belt warning lamp is not illuminated.	Battery voltage
5	Ground	Seat belt warning lamp signal (RH)	Output	Ignition switch ON	Seat belt warning lamp is illuminated.	0 V
					Seat belt warning lamp is not illuminated.	Battery voltage
8	Ground	Ground	_	_	_	0 V
10	Ground	IGN signal	Input	Ignition switch ON	_	Battery voltage
7	Ground	Rear seat belt buckle switch (LH) signal	Input	Ignition switch ON	Seat belt buckle switch is fastened.	Battery voltage
					Seat belt buckle switch is unfastened.	0 V
6	Ground	Rear seat belt buckle switch (center) signal	lanut	Ignition	Seat belt buckle switch is fastened.	Battery voltage
			Input	switch ON	Seat belt buckle switch is unfastened.	0 V

LHD MODELS: Wiring Diagram - SEAT BELT WARNING LAMP CONTROL SYSTEM

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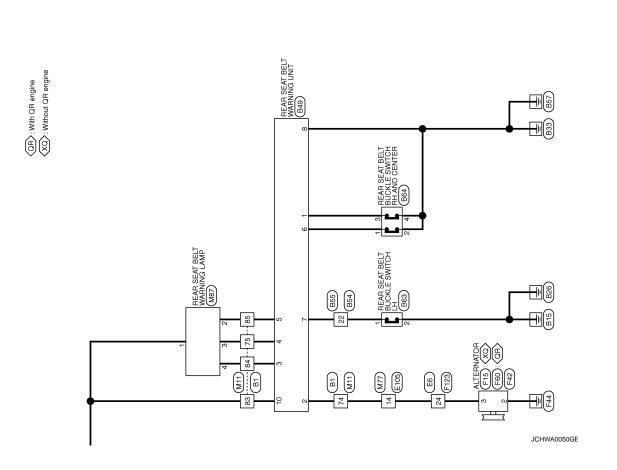
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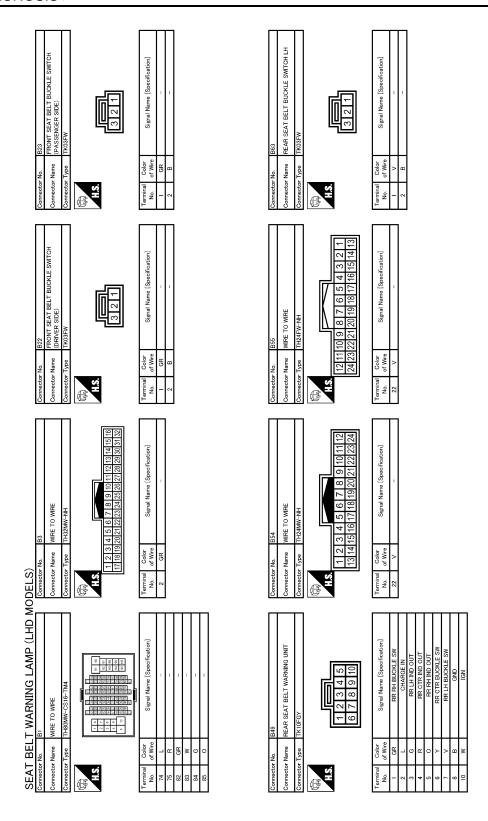
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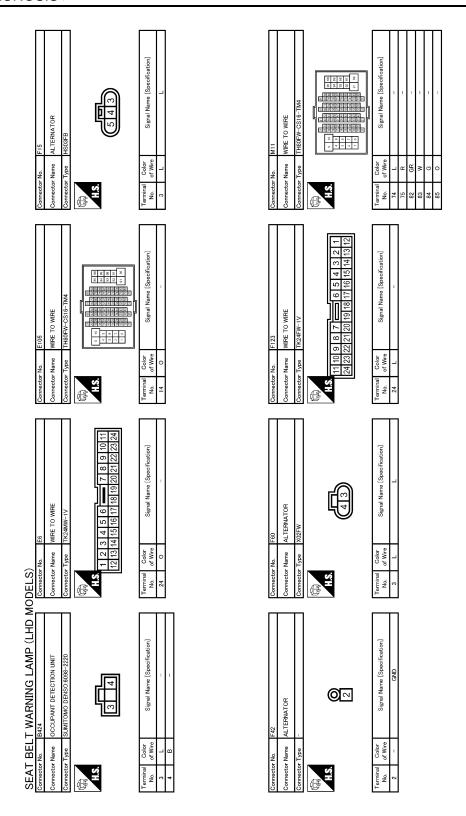


SBC-45

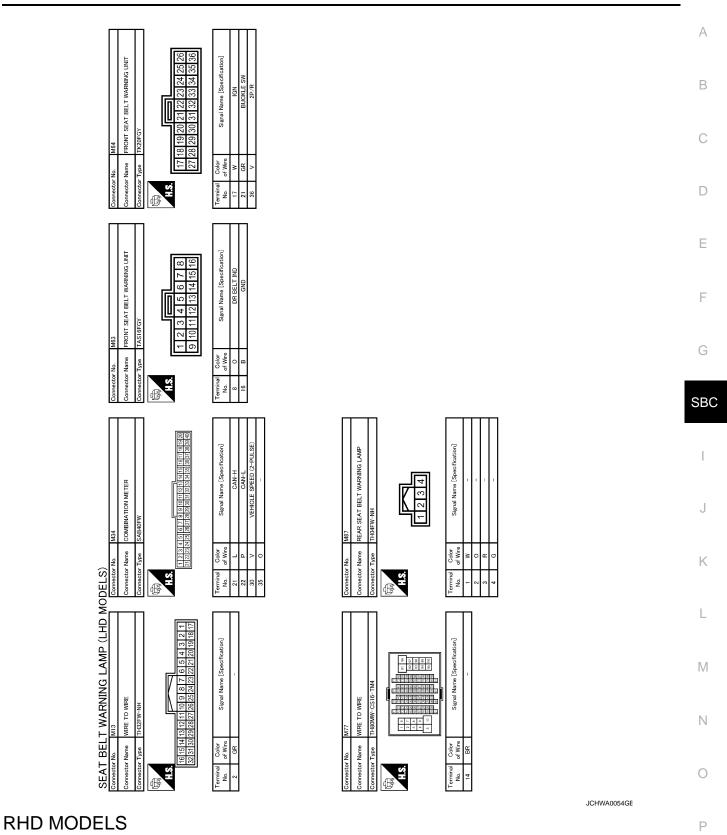


JCHWA0051GE

	Signal Name [Specification]	2100u unit 25086-2220	Signal Name [Specification]		A B
Connector No. B401 Connector Name WIRE TO WIRE Connector Type INSOBMW-CS MA.S. H.S. [2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Terminal Color Signal Nam No. or Whre 5 R R 6 O	ector No. B423 ector Name OCCUPANT DETE. SUMITOMO DENS:	Color Color Signal Nam 13 L 14 B		C
O Common					E
NSOGEW-CS 1	Signal Name [Specification]	PATE PROVILE SWITCH PROVIN SEAT BELT BUCKLE SWITCH (PASSENGER SIDE) TROSTW TROSTW 665	Signal Name [Specification]		F
Cornector No. B198 Connector Name WRR Cornector Type NSD	Terminal Color No of Wire 5 GR 6 B	Connector No. B416 Connector Name PROM Connector Type INGOIN	Terminal Color No. of Wire of No. of Wire of No. of		G
	$\overline{\square}$		[toon]		SBC
WIRE TO WIRE NSOGRW-CS 3 4 5 6	Signal Mame (Specification)	WIRE TO WIRE NISOBAW-CS 2	Signal Name [Specification]		J
Connector No. B. Connector Name W. Connector Type N. Connector Type N. H.S.	Terminal Color No. of Wire 5 GR 6 B B	Connector No. B Connector Name W Connector Type N Connector Type N K K K K K K K K K K K K K K K K K K	Terminal Color No. of Wire 5 R 8 0 O		K
CHD MO	8	HOL.	8		L
T WARNING LAMP (LH B84 SEAT BELT BUCKLE SWITCH FH AND CENTER TKGAPW	Signal Name [Specification]	ENON SEAT BELT BUCKLE SWITCH FROM SIDE) TKGGPW TKGGPW	Signal Name [Specification]		M
→					Ν
SEAT BE Connector Name Connector Type H.S.	Color Color	Connector No. Connector Type	Color Color Color Color No		0
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SBC-49

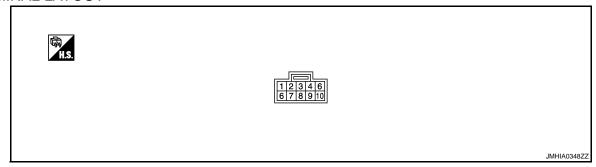
REAR SEAT BELT WARNING UNIT

< ECU DIAGNOSIS >

RHD MODELS: Reference Value

INFOID:0000000001551305

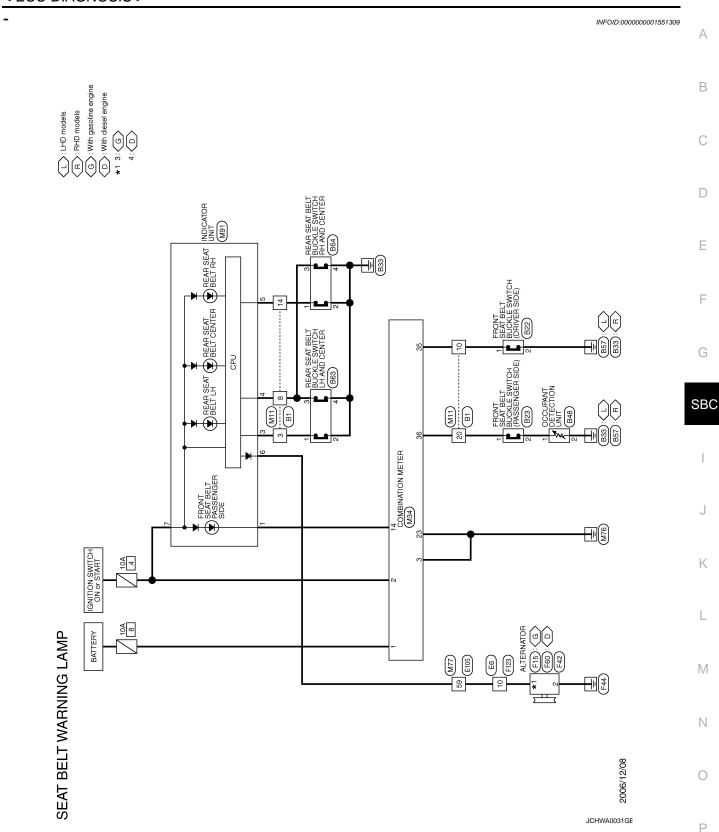
TERMINAL LAYOUT

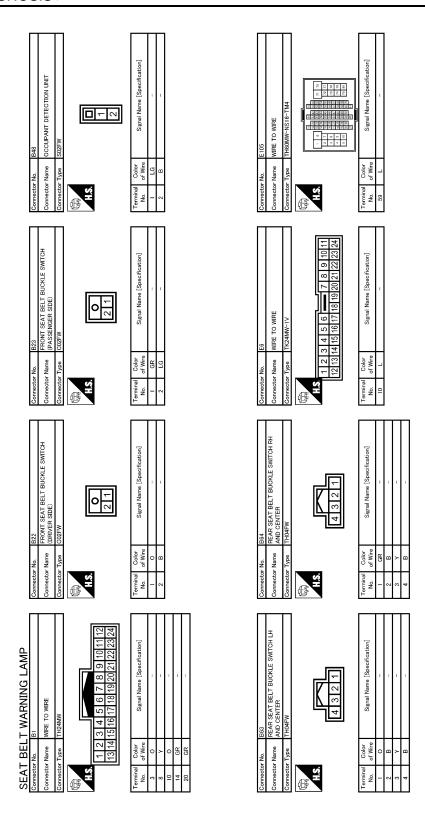


PHYSICAL VALUES

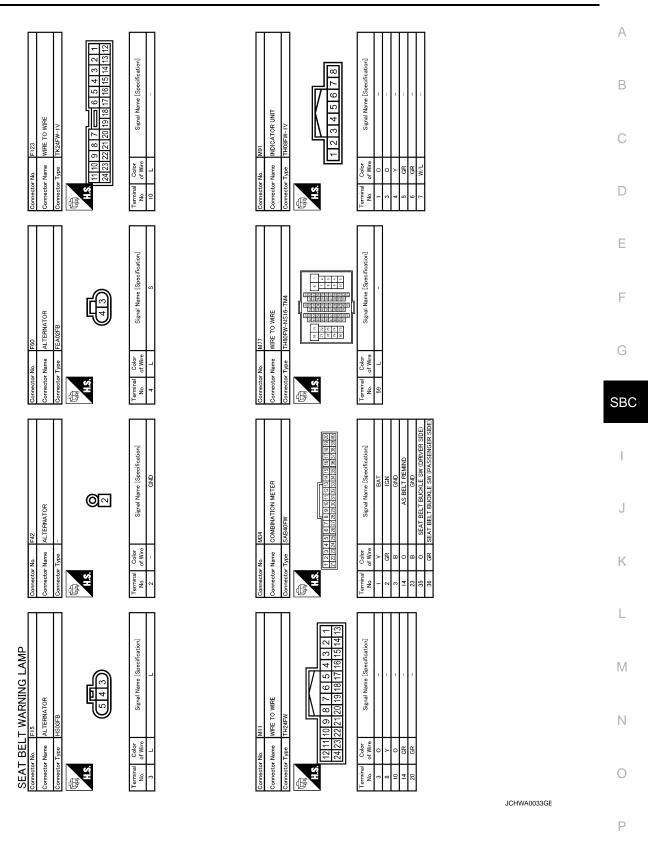
Terminal No. (Wire color)		Description		Condition		Value
+	-	Signal name	Input/ Output	Condition		(Approx.)
1	Ground	Rear seat belt buckle switch (RH) signal	Input	Ignition switch ON	Seat belt buckle switch is fastened.	Battery voltage
					Seat belt buckle switch is unfastened.	0 V
2	Ground	_	_	_		
3	Ground	Seat belt warning lamp signal (LH)	Output	Ignition switch ON	Seat belt warning lamp is illuminated.	0 V
3					Seat belt warning lamp is not illuminated.	Battery voltage
4	Ground	Seat belt warning lamp signal (Center)	Output	Ignition switch ON	Seat belt warning lamp is illuminated.	0 V
					Seat belt warning lamp is not illuminated.	Battery voltage
5	Ground	Seat belt warning lamp signal (RH)	Output	Ignition switch ON	Seat belt warning lamp is illuminated.	0 V
5					Seat belt warning lamp is not illuminated.	Battery voltage
8	Ground	Ground	_	_	_	0 V
10	Ground	IGN signal	Input	Ignition switch ON	_	Battery voltage
7	Ground	d Rear seat belt buckle switch (LH) signal	Input	Ignition switch ON	Seat belt buckle switch is fastened.	Battery voltage
					Seat belt buckle switch is unfastened.	0 V
6	Ground	Ground Rear seat belt buckle switch (center) signal Inpu	Innut	Ignition switch ON	Seat belt buckle switch is fastened.	Battery voltage
6			iriput		Seat belt buckle switch is unfastened.	0 V

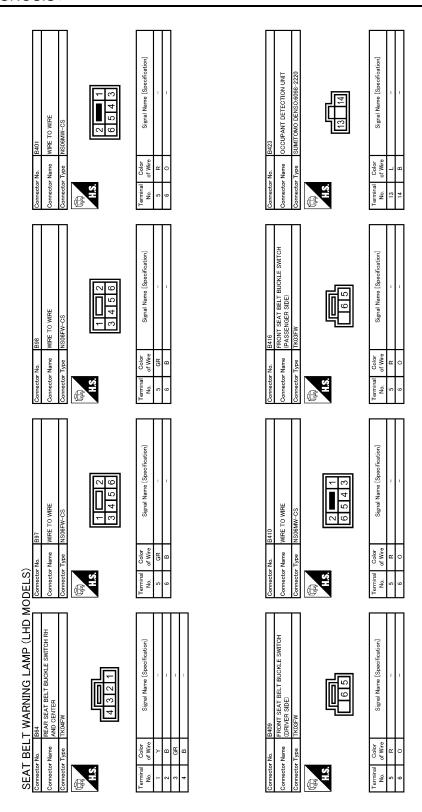
RHD MODELS: Wiring Diagram - SEAT BELT WARNING LAMP CONTROL SYSTEM



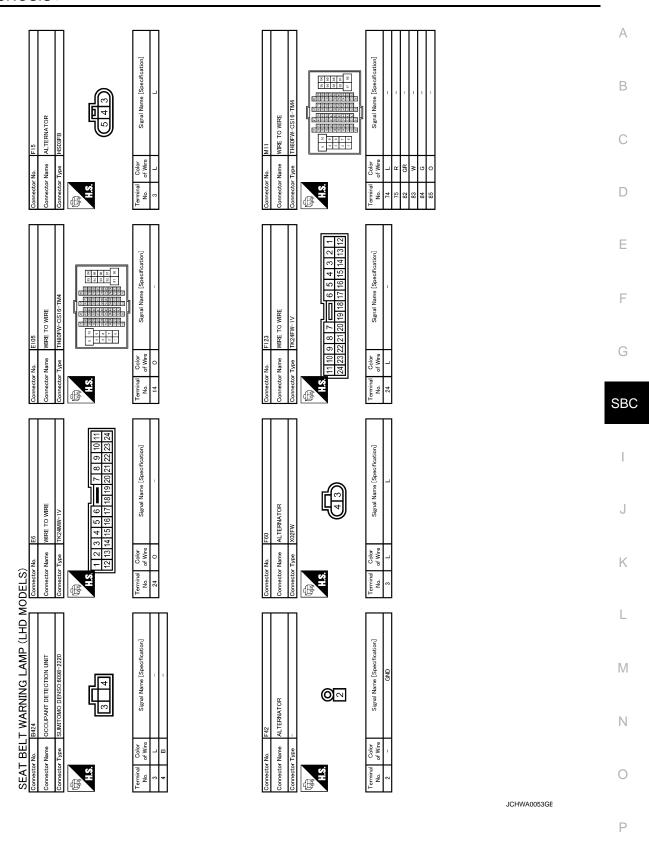


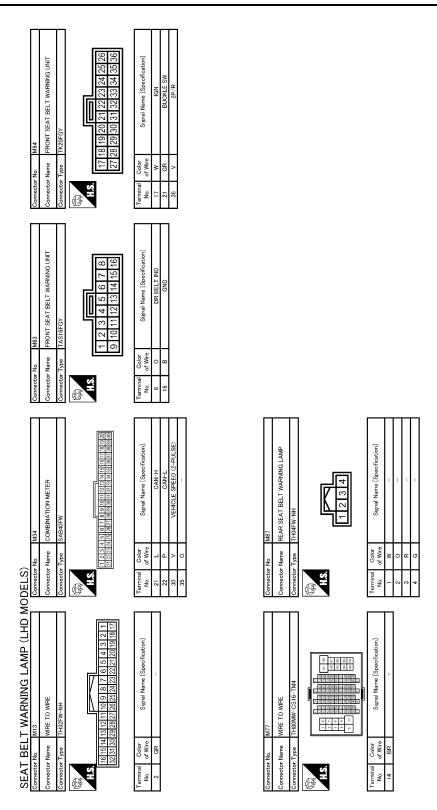
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FRONT SEAT BELT WARNING LAMP DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >				
SYMPTOM DIAGNOSIS	А			
FRONT SEAT BELT WARNING LAMP DOES NOT ILLUMINATE				
Diagnosis Procedure	В			
1. CHECK FRONT SEAT BELT BUCKLE SWITCH (DRIVER SIDE)				
Check font seat belt buckle switch. Refer to SBC-10, "DRIVER SIDE: Component Function Check" or SBC-13, "PASSENGER SIDE: Component Function Check".	С			
Is the inspection result normal? YES >> GO TO 2.	D			
NO $>>$ Repair or replace the malfunctioning parts. 2.CHECK FRONT SEAT BELT WARNING LAMP	Е			
Check front seat belt warning lamp. Refer to SBC-21, "Component Function Check".				
Is the inspection result normal?	F			
YES >> GO TO 3. NO >> Repair or repalace the malfunctioning parts.	G			
3.CHECK POWER SUPPLY AND GROUND CIRCUIT	O			
Check front seat belt warning unit power supply and ground circuit. Refer to SBC-8, "FRONT SEAT BELT WARNING UNIT: Diagnosis Procedure".	SBC			
Is the inspection result normal? YES >> GO TO 4.				
NO >> Repair or replace the malfunctioning parts.				
4.CONFIRM THE OPERATION				
Confirm the operation again.	J			
Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".				
NO >> GO TO 1.	K			
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REAR SEAT BELT WARNING LAMP DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

REAR SEAT BELT WARNING LAMP DOES NOT ILLUMINATE

Diagnosis Procedure

INFOID:0000000001279944

1. CHECK REAR SEAT BELT BUCKLE SWITCH

Check rear seat belt buckle switch.

Refer to <u>SBC-17</u>, "<u>REAR LH</u>: <u>Component Function Check"</u> or <u>SBC-19</u>, "<u>REAR RH AND CENTER</u>: <u>Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR SEAT BELT WARNING LAMP

Check rear seat belt warning lamp circuit.

Refer to SBC-23, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check rear seat belt warning unit power supply and ground circuit.

Refer to SBC-8, "REAR SEAT BELT WARNING UNIT: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

FRONT SEAT BELT WARNING LAMP DOES NOT TURN OFF

<pre></pre>	
FRONT SEAT BELT WARNING LAMP DOES NOT TURN OFF	А
Diagnosis Procedure	
1. CHECK FRONT SEAT BELT BUCKLE SWITCH	В
Check font seat belt buckle switch. Refer to <u>SBC-10</u> , " <u>DRIVER SIDE</u> : Component Function Check" or <u>SBC-13</u> , " <u>PASSENGER SIDE</u> : Component Function Check". Is the inspection result normal?	С
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts. 2.CHECK FRONT SEAT BELT WARNING LAMP	D
Check front seat belt warning lamp. Refer to SBC-21, "Component Function Check".	Е
Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	F
3.CONFIRM THE OPERATION Confirm the operation again.	G
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-39, "Intermittent Incident"</u> . NO >> GO TO 1.	SBC
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	M

SBC-59

REAR SEAT BELT WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

REAR SEAT BELT WARNING LAMP DOES NOT TURN OFF

Diagnosis Procedure

INFOID:0000000001279948

1. CHECK REAR SEAT BELT BUCKLE SWITCH

Check rear seat belt buckle switch.

Refer to <u>SBC-17</u>, "REAR LH: Component Function Check" or <u>SBC-19</u>, "REAR RH AND CENTER: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK ALTERNATOR SIGNAL CIRCUIT

Check alternator signal circuit.

Refer to SBC-27, "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 result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

SEAT BELT WARNING CHIME DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

SEAT BELT WARNING CHIME DOES NOT SOUND Α Diagnosis Procedure INFOID:0000000001534878 1. CHECK FRONT SEAT BELT BUCKLE SWITCH (DRIVER SIDE) В Check font seat belt buckle switch. Refer to SBC-10, "DRIVER SIDE: Component Function Check" or SBC-13, "PASSENGER SIDE: Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. D 2.CHECK VEHICLE SPEED SIGNAL Check vehicle speed signal circuit. Е Refer to SBC-25, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. F NO >> Repair or replace the malfunctioning parts. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check front seat belt warning unit power supply and ground circuit. Refer to SBC-8, "FRONT SEAT BELT WARNING UNIT: Diagnosis Procedure". Is the inspection result normal? SBC YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4.COMFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check internal incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. K L M Ν Р

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

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

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIRBAG".
- Do not 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.