# CONTENTS

BASIC INSPECTION5		
DIAGNOSIS AND REPAIR WORK FLOW 5 WorkFlow		
SYSTEM DESCRIPTION6		
POWER SEAT       6         System Description       6         Component Parts Location       6         Component Description       7		
HEATED SEAT8System Diagram8System Description8Component Parts Location9Component Description9		
LUMBAR SUPPORT10System Description10Component Parts Location10Component Description10		
REAR SEATBACK RELEASE CONTROL       11         System Description       11         Component Parts Location       11         Component Description       11		
REAR SEATBACK POWER RETURN SYS-		
TEM12System Diagram12System Description12Component Parts Location15Component Description15		
DTC/CIRCUIT DIAGNOSIS16		
POWER SUPPLY AND GROUND CIRCUIT16		
REAR SEATBACK POWER RETURN CONTROL UNIT		

HEATED SEAT CONTROL UNIT16 HEATED SEAT CONTROL UNIT : Diagnosis Pro- cedure	F
HEATED SEAT SWITCH18 HEATED SEAT SWITCH : Diagnosis Procedure18	G
POWER RETURN SWITCH21	Н
LH	
RH22RH : Description22RH : Component Function Check22RH : Diagnosis Procedure22RH : Component Inspection23	SE K
REAR SEATBACK SWITCH25	L
LH	Μ
RH26RH : Description26RH : Component Function Check26RH : Diagnosis Procedure26RH : Component Inspection27	N
PRIMARY POSITION LIMIT SWITCH29	Р
LH	

SECTION SE

А

D

Е

SEAT c

RH	30
RH : Description	30
RH : Component Function Check	
RH : Diagnosis Procedure	
RH : Component Inspection	32
· · ·	

### RETURN COMPLETE LIMIT SWITCH ...... 33

LH	
LH : Description	
LH : Component Function Check	33
LH : Diagnosis Procedure	
LH : Component Inspection	34
RH	34
RH : Description	
RH : Component Function Check	
RH : Diagnosis Procedure	
RH : Component Inspection	
MOTOR SENSOR	37
LH	
LH : Description	
LH : Component Function Check	
LH : Diagnosis Procedure	37
RH	39
RH : Description	39
RH : Component Function Check	39
RH : Diagnosis Procedure	39
POWER RETURN MOTOR	40
POWER RETURN MOTOR	42
LH	42
LH : Description	42
LH : Component Function Check	
LH : Diagnosis Procedure	42
RH	43
RH : Description	
RH : Component Function Check	
RH : Diagnosis Procedure	
VEHICLE SPEED SIGNAL CIRCUIT	
Description	
Component Function Check	
Diagnosis Procedure	45
HEATED SEAT SWITCH	47
DRIVER SIDE : Description DRIVER SIDE : Component Function Check	
DRIVER SIDE : Component Function Check DRIVER SIDE : Diagnosis Procedure	
DRIVER SIDE : Diagnosis Flocedure	
	40
PASSENGER SIDE	
PASSENGER SIDE : Description	48
PASSENGER SIDE :	
Component Function Check	
PASSENGER SIDE : Diagnosis Procedure	
PASSENGER SIDE : Component Inspection	49

HEATED SEAT RELAY Description	
Component Function Check	51
Diagnosis Procedure Component Inspection	51
HEAT SENSOR	
DRIVER SIDE DRIVER SIDE : Description	
DRIVER SIDE : Component Function Check	53
DRIVER SIDE : Diagnosis Procedure	53
DRIVER SIDE : Component Inspection	
PASSENGER SIDE PASSENGER SIDE : Description	
PASSENGER SIDE : Component Function Check	
	55
PASSENGER SIDE : Diagnosis Procedure PASSENGER SIDE : Component Inspection	
SEAT CUSHION HEATER	58
DRIVER SIDE	
DRIVER SIDE : Description	
DRIVER SIDE : Component Function Check	
DRIVER SIDE : Diagnosis Procedure DRIVER SIDE : Component Inspection	
PASSENGER SIDE	
PASSENGER SIDE	
PASSENGER SIDE :	
Component Function Check	
PASSENGER SIDE : Diagnosis Procedure PASSENGER SIDE : Component Inspection	
SEATBACK HEATER	
DRIVER SIDE	
DRIVER SIDE : Description	
DRIVER SIDE : Component Function Check	
DRIVER SIDE : Diagnosis Procedure	62
PASSENGER SIDE : Description PASSENGER SIDE :	62
Component Function Check	62
PASSENGER SIDE : Diagnosis Procedure	62
HEATED SEAT SWITCH INDICATOR	64
DRIVER SIDE	
DRIVER SIDE : Description DRIVER SIDE : Component Function Check	
DRIVER SIDE : Component Function Check DRIVER SIDE : Diagnosis Procedure	
DRIVER SIDE : Component Inspection	64
PASSENGER SIDE	
PASSENGER SIDE : Description PASSENGER SIDE :	65
Component Function Check	65
PASSENGER SIDE : Diagnosis Procedure	65

PASSENGER SIDE : Component Inspection65
<b>POWER SEAT</b>
LUMBAR SUPPORT77 Wiring Diagram - LUMBAR SUPPORT SYSTEM77
REAR SEATBACK RELEASE CONTROL81 Wiring Diagram - REAR SEATBACK RELEASE CONTROL81
ECU DIAGNOSIS INFORMATION86
REAR SEAT BACK POWER RETURN CON-TROL UNIT86Reference Value86Wiring Diagram - REAR SEATBACK POWER RE-89TURN SYSTEM -89Fail-safe96
HEATED SEAT CONTROL UNIT
SYMPTOM DIAGNOSIS107
REAR SEATBACK POWER RETURN SYS- TEM DOES NOT OPERATE107
REAR SEATBACK POWER RETURN SYS-
REAR SEATBACK POWER RETURN SYS- TEM DOES NOT OPERATE
REAR SEATBACK POWER RETURN SYS-         TEM DOES NOT OPERATE         BOTH SIDES         BOTH SIDES : Diagnosis Procedure         107         LH
REAR SEATBACK POWER RETURN SYS- TEM DOES NOT OPERATE
REAR SEATBACK POWER RETURN SYS- TEM DOES NOT OPERATE107107BOTH SIDES107BOTH SIDES : Diagnosis Procedure107LH107LH : Diagnosis Procedure107RH108RH : Diagnosis Procedure108MALFUNCTION DETECTION BUZZER SOUNDS DURING POWER RETURN MO-
REAR SEATBACK POWER RETURN SYS- TEM DOES NOT OPERATEBOTH SIDES107BOTH SIDES : Diagnosis Procedure107LH107LH : Diagnosis Procedure107RH108RH : Diagnosis Procedure108MALFUNCTION DETECTION BUZZER SOUNDS DURING POWER RETURN MO- TOR INVERSE ROTATION110LH110
REAR SEATBACK POWER RETURN SYS- TEM DOES NOT OPERATE107BOTH SIDES
REAR SEATBACK POWER RETURN SYS- TEM DOES NOT OPERATE       107         BOTH SIDES       107         BOTH SIDES : Diagnosis Procedure       107         LH       107         LH : Diagnosis Procedure       107         RH       108         RH : Diagnosis Procedure       108         MALFUNCTION DETECTION BUZZER       108         MALFUNCTION DETECTION BUZZER       100         DOUDS DURING POWER RETURN MO-       110         LH       110         LH : Diagnosis Procedure       110         DET INVERSE ROTATION       110         LH : Diagnosis Procedure       110         LH : Diagnosis Procedure       110         DH : Diagnosis Procedure       110         RH : Diagnosis Procedure       110

ANTI-PINCH FUNCTION DOES NOT OPER-	
ATE	А
Diagnosis Procedure113	
HEATED SEAT DOES NOT OPERATE 114	В
BOTH SIDES	
DRIVER SIDE	С
PASSENGER SIDE	D
SEATBACK HEATER ONLY DOES NOT OP- ERATE	Е
DRIVER SIDE	F
PASSENGER SIDE	G
CANNOT ADJUST HEATED SEAT TEMPER- ATURE	G
DRIVER SIDE	Н
PASSENGER SIDE	
-	
HEATED SEAT SWITCH INDICATOR DOES NOT TURN ON	SE
	SE
NOT TURN ON	
NOT TURN ON118DRIVER SIDE118DRIVER SIDE : Diagnosis Procedure118PASSENGER SIDE118	
NOT TURN ON118DRIVER SIDE118DRIVER SIDE : Diagnosis Procedure118PASSENGER SIDE118PASSENGER SIDE : Diagnosis Procedure118	
NOT TURN ON118DRIVER SIDE118DRIVER SIDE : Diagnosis Procedure118PASSENGER SIDE118PASSENGER SIDE : Diagnosis Procedure118SQUEAK AND RATTLE TROUBLE DIAG- NOSES119Work Flow119Inspection Procedure121	K
NOT TURN ON118DRIVER SIDE118DRIVER SIDE : Diagnosis Procedure118PASSENGER SIDE118PASSENGER SIDE : Diagnosis Procedure118SQUEAK AND RATTLE TROUBLE DIAG- NOSES119Work Flow119Inspection Procedure121Diagnostic Worksheet123PRECAUTION125	K L M
NOT TURN ON118DRIVER SIDE118DRIVER SIDE118PASSENGER SIDE118PASSENGER SIDE118SQUEAK AND RATTLE TROUBLE DIAG- NOSES119Work Flow119Inspection Procedure121Diagnostic Worksheet123PRECAUTION125Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"125	K L M
NOT TURN ON118DRIVER SIDE118DRIVER SIDE118PASSENGER SIDE118PASSENGER SIDE118SQUEAK AND RATTLE TROUBLE DIAG- NOSES119Work Flow119Inspection Procedure121Diagnostic Worksheet123PRECAUTION125PRECAUTIONS125Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	K L M
NOT TURN ON118DRIVER SIDE118DRIVER SIDEDiagnosis Procedure118PASSENGER SIDEPASSENGER SIDEDiagnosis Procedure118SQUEAK AND RATTLE TROUBLE DIAG- NOSESNOSES119Work Flow119Inspection Procedure121Diagnostic Worksheet123PRECAUTION125Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"125Precautions for Removing Battery Terminal125Service Notice126	K L M N

CLIP LIST	 128
Clip List	 128

REMOVAL AND INSTALLATION	129
	120

FRUNT SEAT	. 129
Exploded View	129
Removal and Installation	132
Disassembly and Assembly	133

### REAR SEAT ...... 141

Exploded View	141
Removal and Installation	142
Disassembly and Assembly	144

### **REAR SEAT BACK POWER RETURN CON-**

TROL UNIT	
Exploded View	

HEATED SEAT CONTROL UNIT	149
Exploded View	
Removal and Installation	

POWER SEAT SWITCH	150
Exploded View	
Removal and Installation	150
LUMBAR SUPPORT SWITCH	151
Exploded View	151
Removal and Installation	151
HEATED SEAT SWITCH	152
Exploded View	152
Removal and Installation	
POWER RETURN SWITCH	
Exploded View	
Removal and Installation	153
REAR SEATBACK SWITCH	154
REAR SEATBACK SWITCH	
REAR SEATBACK SWITCH Exploded View Removal and Installation	154
Exploded View	154 154
Exploded View Removal and Installation	154 154 <b>155</b>

BASIC INSPECTION	
DIAGNOSIS AND REPAIR WORK FLOW	

WorkFlow INFOID:000000012173675	В
DETAILED FLOW	
1.OBTAIN INFORMATION ABOUT SYMPTOM	С
Interview the customer to obtain the malfunction information (conditions and environment when the malfunc- tion occurred) as much as possible when the customer brings the vehicle in.	D
>> GO TO 2.	
2. REPRODUCE THE MALFUNCTION INFORMATION	E
Check the malfunction on the vehicle that the customer describes. Inspect the relation of the symptoms and the condition when the symptoms occur.	_
>> GO TO 3.	F
3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS"	0
Use "Symptom diagnosis" from the symptom inspection result in step 2 and then identify where to start per- forming the diagnosis based on possible causes and symptoms.	G
>> GO TO 4.	Н
<b>4.</b> IDENTIFY THE MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"	
Perform the diagnosis with "Component diagnosis" of the applicable system.	
>> GO TO 5.	
5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS	SE
Repair or replace the specified malfunctioning parts.	
>> GO TO 6.	K
6.FINAL CHECK	I
Check that malfunctions are not reproduced when obtaining the malfunction information from the customer, referring to the symptom inspection result in step 2.	L
Are the malfunctions corrected? YES >> INSPECTION END NO >> GO TO 3.	Μ
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### < SYSTEM DESCRIPTION >

# SYSTEM DESCRIPTION POWER SEAT

### System Description

INFOID:000000012173676

BCM can operate regardless of the ignition switch position, because battery power is supplied at all times to power seat switch.

#### SLIDING OPERATION

While operating the sliding switch located in power seat switch, sliding motor operates and makes possible the seat front and back position adjustment.

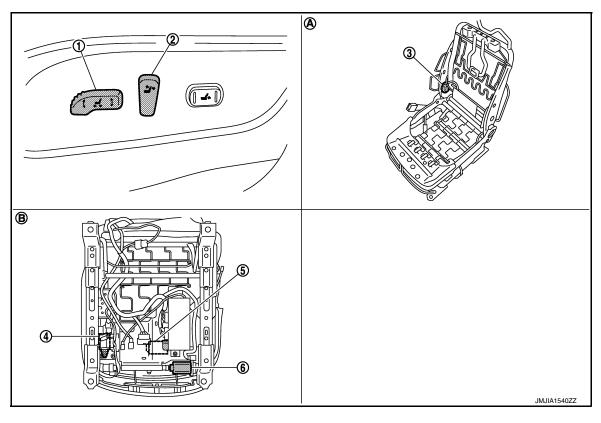
#### **RECLINING OPERATION**

While operating the reclining switch located in power seat switch, reclining motor operates and makes possible the seat back forward and backward position adjustment.

#### LIFTING OPERATION

While operating the lifting switch located in power seat switch, lifting motor operates and makes possible the seat cushion up and down position adjustment.

### Component Parts Location



- 1. Sliding switch and lifting switch
- 4. Lifting motor (rear)
- 2. Reclining switch
- 5. Lifting motor (front)
- A. View with seat cushion pad and seat B. back pad are removed.
- Backside of seat cushion
- 3. Reclining motor
- 6. Sliding motor

## **POWER SEAT**

### < SYSTEM DESCRIPTION >

# **Component Description**

INFOID:000000012173678

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Item	Function
BCM	Supplies at all times the power received from battery to power seat switch
Power seat switch	Built-in reclining switch, sliding switch and lifting switch, controls the power supplied to each motor
Reclining motor	With the power supplied from power seat switch, operates forward and backward movement of seatback
Sliding motor	With the power supplied from power seat switch, operates forward and backward slide of seat
Lifting motor (front/rear)	With the power supplied from power seat switch, operates up and down movement of seat cushion

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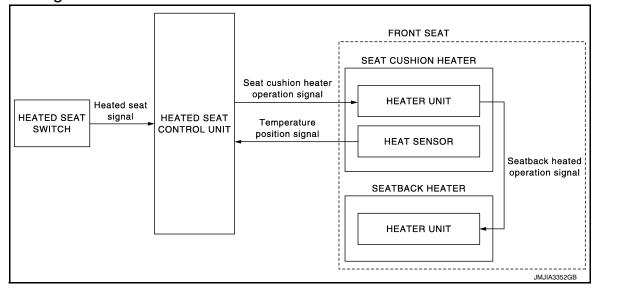
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### < SYSTEM DESCRIPTION > HEATED SEAT

System Diagram



## System Description

INFOID:000000012173680

INFOID:000000012173679

- Heated seat is activated by heated seat switch while ignition switch is ON, and has the function to warm seat cushion and seatback.
- Heated seat equips the 6-stage temperature adjustment function that adjusts temperature by operating heated seat switch to the optimal position.
- Heated seat equips a thermostat in heater unit to prevent heater unit overheating.

#### **OPERATION DESCRIPTION**

- When operating heated seat switch to any position between 1 and 6 while ignition switch is ON, indicator illuminates, heated seat control unit supplies power supply to heater unit, and warms seat cushion and seatback.
- Heat sensor that is built in seat cushion heater detects seat cushion heater temperature and outputs to heated seat control unit.
- Heated seat control unit monitors the heated seat switch position and heater sensor temperature, and interrupts power supply to heater unit when the heat sensor temperature reaches preset temperature.
- Heated seat control unit adjusts temperature to preset temperature by supplying or interrupting power supply to heater unit.

## **HEATED SEAT**

### < SYSTEM DESCRIPTION >

# **Component Parts Location**

INFOID:000000012173681

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2 3 (A) ₿ (5 [] ō JMJIA2336ZZ Heated seat switch 2. Seatback heater 3. Seat cushion heater Heated seat relay 5.

4. Α. Behind cluster lid C

1.

Heated seat control unit

Backside of seat cushion

Β.

**Component Description** 

INFOID:000000012173682

Item	Function	
Heated seat switch	<ul> <li>Adjusts heated seat temperature and deactivates heated seat</li> <li>Equips indicator that indicates the operating condition</li> </ul>	
Seat cushion heater	<ul> <li>Warms seat cushion</li> <li>Contains heater sensor that outputs seat cushion heater temperature to heated seat control unit</li> </ul>	
Seatback heater	Warms seatback	
Heated seat relay	Supplies power to the heated seat being controlled by ignition power supply	
Heated seat control unit	Controls heated seat temperature and is independently placed in each seat cushion (driver seat and passenger seat)	

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## LUMBAR SUPPORT

## < SYSTEM DESCRIPTION >

## LUMBAR SUPPORT

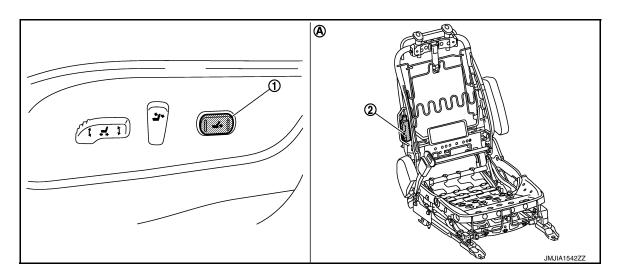
### System Description

- Lumbar support can operate regardless of the ignition switch position because battery power is supplied to it at all times.
- While operating the lumbar support switch, lumbar support motor operates which allows forward and backward operation of seatback support.

## Component Parts Location

INFOID:000000012173684

INFOID:000000012173683



- 1. Lumbar support switch
- 2. Lumbar support motor
- A. View with seat back pad is removed

## **Component Description**

Item	Function
Lumbar support switch	Controls the power supplied to lumbar support motor
Lumbar support motor	With the power supplied from lumbar support switch, operates forward and backward movement of seatback support device

## **REAR SEATBACK RELEASE CONTROL**

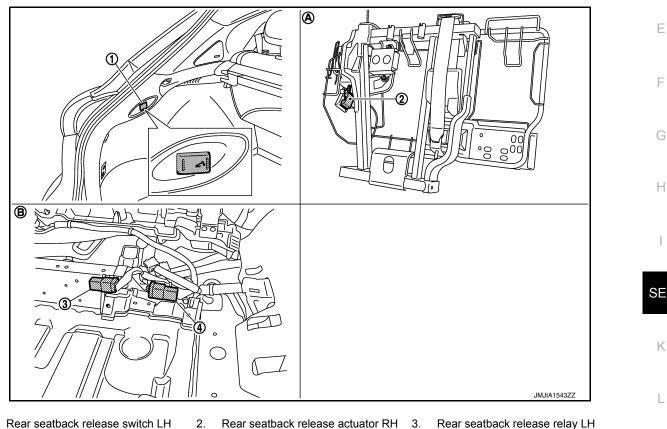
### < SYSTEM DESCRIPTION >

## REAR SEATBACK RELEASE CONTROL

## System Description

- Rear seatback release control is composed of rear seatback release switch and rear seatback release actu-В ator
- · When rear seatback release switch is pressed, the rear seatback release actuator operate in order to unlock the rear seatback lock
- When the rear seatback is unlocked, the spring located inside the rear seat device rebound, and the rear С seatback return to the fall down position

### **Component Parts Location**



1. Rear seatback release switch LH

**Component Description** 

Rear seatback release relay RH

Α. In seatback

4.

Β. Behind of rear seat RH

INFOID:000000012173688

Item Function Release the rear seatback when it is locked Rear seatback release switch Ο Rear seatback release actuator Pressed the rear seatback release switch to release the rear seatback when it is locked

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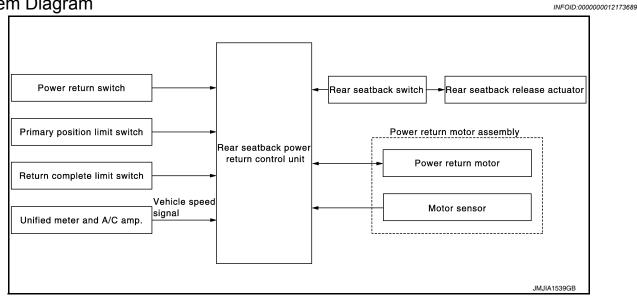
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INFOID:000000012173686

#### < SYSTEM DESCRIPTION >

## REAR SEATBACK POWER RETURN SYSTEM

### System Diagram



### System Description

INFOID:000000012173690

### DESCRIPTION

Rear Seatback Release Control

- Rear seatback release control is composed of rear seatback release switch and rear seatback release actuator
- When rear seatback switch is pressed in release direction, the rear seatback release actuator operate in order to unlock the rear seatback lock
- When the rear seatback is unlocked, the spring located inside the rear seat device rebound, and the rear seatback return to the fall down position.

Rear Seatback Power Return System

- The rear seat back power return system is the system that enables the return operation of the left and right rear seatbacks independently by pressing and holding the power return switch or the rear seatback switch in the UP direction.
- As for the safety mechanism, the reverse operation is performed if the switch is released during the return operation. The anti-pitch function is installed so that the automatic reverse operation is performed if the pinching of foreign materials between the left and right rear seatbacks is detected.

#### **OPERATION DESCRIPTION**

The rear seatback power return system consists of the sector gear that transmits the movement information of rear seatback power return control unit, power return switch, power return motor, motor sensor, primary position limit switch, return complete limit switch and power return motor.

#### **Return Operation Starting Condition**

The rear seat back return operation starts when all of the following conditions are satisfied.

- Vehicle speed 2 km/h (1 MPH) or less
- Return complete limit switch: ON
- The battery voltage is normal

Operation sequence	Rear seatback condition	Sector gear condition	Primary position limit switch	Return complete limit switch
1	Return completion position	Initial position	OFF	OFF
2	Fold-down position	Initial position	OFF	ON
3	Active	Return non-completion po- sition	$OFF\toON$	ON

#### < SYSTEM DESCRIPTION >

Operation sequence	Rear seatback condition	Sector gear condition	Primary position limit switch	Return complete limit switch
4	Return completion position	Return completion position	ON	OFF
5	Return completion position	Initial position	OFF	OFF

- In the condition that the rear seatback is raised (return completion position), the sector gear is in the initial position and the primary position limit switch and return complete limit switch are OFF.
- When the rear seatback to the fold-down position, the return complete limit switch turns ON, and the rear seatback power return control unit judges that the rear seatback is tilted (return non-completion position).
- When pressing and holding the power return switch or the rear seatback switch in the UP direction, the rear seatback power return control unit detects the power return ON signal and supplies the power to the power return motor. Then, the rear seatback power return control unit sounds the operation start buzzer.
- With the power supplied from the rear seat back power control unit, the power return motor rotates in the return direction. The rear seatback starts the return operation via the sector gear.
- When the sector gear starts rotating in the return direction, the primary position limit switch turns ON. The rear seatback power return control unit judges that the sector gear is in any position other than the initial position.
- When the rear seatback moves to the return position, the return complete limit switch turns OFF. The rear seatback power return control unit activates the return completion buzzer and stops the power return motor. Then, the rear seatback power return control unit reverses the power return motor after 0.2 seconds so that the sector gear returns to the initial position.
- When the sector gear returns to the initial position by reverse rotation of the power return motor, the primary position limit switch turns OFF. The rear seatback power return control unit stops the reverse operation of the power return motor. The return operation is completed.
- When releasing the switch during the return operation (both the primary position limit switch and return complete limit switch are ON), the rear seatback power return control unit detects the power switch OFF signal Н and returns the rear seatback to the fold-down position by the reverse rotation of the power return motor. When pushing the switch again during the reverse operation, the return operation restarts. NOTE:

Disconnect the battery with the sector gear in any position other than the initial position (primary position limit switch: ON). The sector gear is returned to the initial position when the battery is connected again.

#### ANTI-PINCH OPERATION

SE When the pinch between RH/LH rear seatbacks is detected during the return operation, the malfunction detecting buzzer sounds and the rear seatback returns to the fold-down position.

- If there is a pinching of foreign materials between the left and right rear seatbacks during the return opera-Κ tion (both the primary position limit switch and return complete switch are ON), the voltage pulse of motor sensor changes.
- · When inputting the pinching signal from the motor sensor, the rear seatback power return control unit sounds the malfunction detecting buzzer and stops the power return motor. Then, the rear seatback power return control unit reverses the power return motor after 0.2 second so that the rear seatback returns to the fold-down position.

#### SECTOR GEAR REVERSE STARTING CONDITION

If any of the following conditions are satisfied, the sector gear may be reversed.

- Rear seatback return is completed (return complete limit switch: OFF)
- Release the power return switch before completing the return
- Pinch detection
- Lock detection of power return motor

(Lock at normal rotation)

- · The rear seatback return is not completed within 60 seconds
- Detect the battery voltage malfunction during the return operation
- Return to the normal condition after detecting the battery voltage malfunction during the return operation
- P • The primary position limit switch does not turn OFF  $\rightarrow$  ON within the specified motor pulse number from starting the return operation.

### SECTOR GEAR REVERSE STOP CONDITION

If any of the following conditions are satisfied, the reverse operation stops.

- Sector gear initial position (primary position limit switch: OFF)
- Lock detection of power return motor (Lock during reverse operation)
- The sector gear initial position is not completed within 60 seconds

### **Revision: July 2016**

### **SE-13**

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#### < SYSTEM DESCRIPTION >

#### NOTE:

The battery voltage indicates the voltage between battery voltage (system) terminal 17 and GND (system) terminal 32 of rear seatback power return control unit. It is normal when the voltage is  $7.5 \pm 10\%$  or more. If it is less than the specified value, there is a malfunction.

#### POWER CONSUMPTION CONTROL SYSTEM

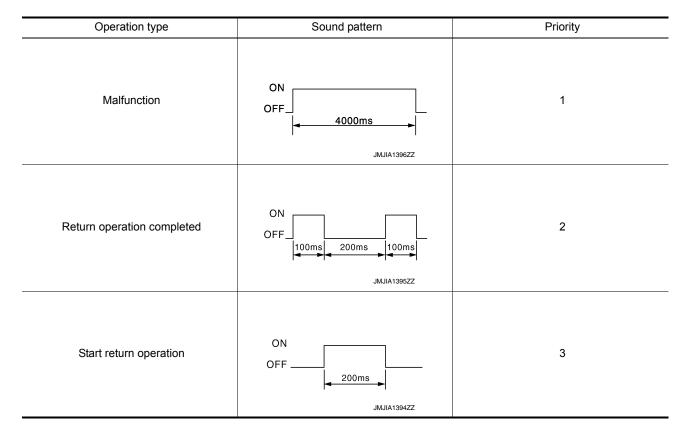
Rear seatback power return control unit incorporates a power consumption control function that reduces the power consumption according to the vehicle status.

#### Low Power Consumption Mode

If all of the following conditions are satisfied for 30 seconds period of time, the system shifts to the low power consumption mode.

- · Power return switch or rear seatback switch is OFF
- Power return motor does not operate
- Vehicle speed 2 km/h (1 MPH) or less
- If any of the following conditions are satisfied, the low power consumption mode is released.
- · When the power return switch or rear seatback switch is pressed
- When the change occurs to the pulse of vehicle speed sensor
- There are the following functions as the low power consumption mode.
- Turn the power supply of primary position limit switch and return complete limit switch to OFF
- Turn the power supply of the motor sensor to OFF when the power return motor is not operated

#### BUZZER OPERATION PATTERN AND ORDER OF PRIORITY



#### < SYSTEM DESCRIPTION >

### **Component Parts Location**

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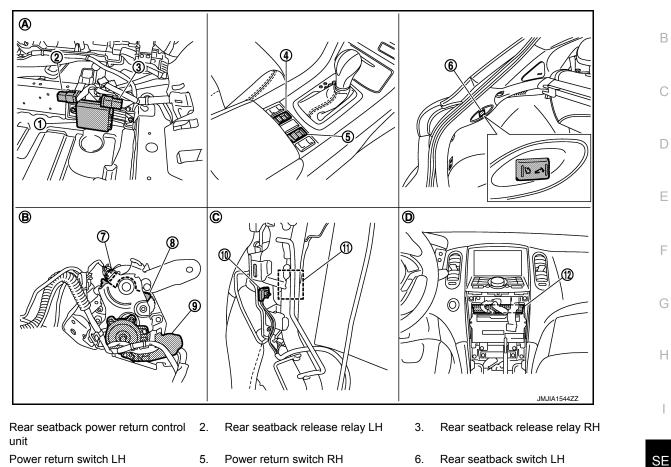
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- Power return switch LH 4.
- Primary position limit switch RH 7.
- 10. Return complete limit switch LH
- Α. Behind of rear seat RH
- Behind cluster lid C D.

1.

## **Component Description**

- Sector gear RH 8.
- 11. Rear seatback release actuator LH
- Β. In seat device

INFOID:000000012173692

Power return motor assembly RH

View with seatback pad is removed

12. Unified meter and A/C amp.

9.

C.

Item	Function	
Rear seatback power return control unit	Control the rear seatback power return system	
Power return motor	Operate the rear seatback	
Motor sensor	Detect the operation of power return motor	
Power return switch	Switch that performs the return operation	
Rear seatback switch	Performs the return operation or release the rear seatback when it is locked	
Rear seatback release actuator	Pressed the rear seatback release switch to release the rear seatback when it is locked	
Primary position limit switch	Detect the initial position of sector gear	
Return complete limit switch	Detect the return position of rear seatback	
Unified meter and A/C amp.	Transmit the vehicle speed signal	
Sector gear	Transmit the operation of power return motor to rear seatback	

< DTC/CIRCUIT DIAGNOSIS >

# DTC/CIRCUIT DIAGNOSIS POWER SUPPLY AND GROUND CIRCUIT REAR SEATBACK POWER RETURN CONTROL UNIT

## REAR SEATBACK POWER RETURN CONTROL UNIT : Diagnosis Procedure

INFOID:000000012173693

1.CHECK FUSE

Check that the following fuses are not fusing.

Terminal No.	Signal name	Fuse No.
16	Battery power supply	32 (30 A)
17		6 (10 A)

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 REAR SEATBACK POWER RETURN CONTROL UNIT POWER SUPPLY

#### 1. Turn ignition switch OFF.

2. Disconnect rear seatback power return control unit connector.

3. Check voltage between rear seatback power return control unit harness connector and ground.

	+) er return control unit	(-)	Voltage (Approx.)
Connector	Terminal		(Approx.)
B226	17	Ground	Battery voltage
B227	16	Giouna	Ballery Vollage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK REAR SEATBACK POWER RETURN CONTROL UNIT GROUND CIRCUIT

Check continuity between rear seatback power return control unit harness connector and ground.

Rear seatback po	wer return control unit		Continuity
Connector	Terminal	Ground	Continuity
B226	32	Ground	Existed
B227	13		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

HEATED SEAT CONTROL UNIT

### HEATED SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:000000012173694

## 1.CHECK FUSE

Check that the following fuse is not blown.

Signal name	Fuse No.
Battery power supply	35 (15 A)

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

### YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if fuse is blown.

## 2. CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY 1

- 1. Turn ignition switch OFF.
- 2. Disconnect heated seat control unit connector.
- 3. Turn ignition switch ON.

4. Check voltage between heated seat control unit harness connector and ground.

	(+)				
	Heated seat control unit		()	Voltage (V) (Approx.)	
Cor	nector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	D
Driver side	B439	60	Ground	Pattony voltago	
Passenger side	B462	00	Ground	Battery voltage	E

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

## **3.**CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT 1

- 1. Turn ignition switch OFF.
- 2. Disconnect heated seat relay.
- Check continuity between heated seat control unit harness connector and heated seat relay terminal connector.

F	leated seat control un	it	Heated	seat relay	Continuity
Conr	ector	Terminal	Connector	Terminal	Continuity
Driver side	B439	60	M70	2	Existed
Passenger side	B462	60	WI70	3	Existed

#### 4. Check continuity between heated seat control unit harness connector and ground.

	Heated seat control unit			Continuity
Со	nnector	Terminal	Ground	Continuity
Driver side	B439	60	Ground	Not existed
Passenger side	B462			NOL EXISTED

#### Is the inspection result normal?

YES >> Repair or replace harness between heated seat relay and fuse holder.

NO >> Repair or replace harness between heated seat control unit and heated seat relay.

### **4.**CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY 2

Check voltage between heated seat control unit harness connector and ground.

							N
He	(+) eated seat control	unit	(-)	Con	dition	Voltage (V) (Approx.)	
Conr	nector	Terminal				(ripprox.)	0
Driver side	B439				ON	Battery voltage	
Driver side	D439	- 66	Ground	Heated seat	OFF	0	D
Passenger side	B462	00	Ground	switch	ON	Battery voltage	P
Fassenger side	B402				OFF	0	

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 5.

**5.**CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT 2

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#### < DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect heated seat switch connector.
- 3. Check continuity between heated seat control unit harness connector and heated seat switch harness connector.

	Heated seat control ur	nit	Heated s	eat switch	Continuity
Coni	nector	Terminal	Connector	Terminal	Continuity
Driver side	B439	66	M177	1	Existed
Passenger side	B462		M178	I	LAISted

4. Check continuity between heated seat control unit harness connector and ground.

	Heated seat control uni	t		Continuity
Co	onnector	Terminal	Ground	Continuity
Driver side	B439	- 66	Giouna	Not existed
Passenger side	B462	00		NOI EXISIED

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK HEATED SEAT SWITCH

#### Check heated seat switch.

- Driver side: Refer to <u>SE-48, "DRIVER SIDE : Component Inspection"</u>.
  Passenger side: Refer to <u>SE-49, "PASSENGER SIDE : Component Inspection"</u>.

#### Is the inspection result normal?

- YES >> GO TO 8.
- NO >> Replace heated seat switch. Refer to SE-152, "Removal and Installation".

### 7.CHECK HEATED SEAT CONTROL UNIT GROUND CIRCUIT

#### 1. Turn ignition switch OFF.

2. Check continuity between heated seat control unit harness connector and ground.

	Heated seat control unit			Continuity
Со	nnector	Terminal	Ground	Continuity
Driver side	B439	59	Ground	Exists
Passenger side	B462	59		EXISIS

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

### 8.CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to GI-42, "Intermittent Incident".

### >> INSPECTION END HEATED SEAT SWITCH

### **HEATED SEAT SWITCH : Diagnosis Procedure**

INFOID:000000012173695

## 1.CHECK FUSE

Check that the following fuse is not blown.

Signal name	Fuse No.
Ignition power supply	3 (10 A)

< DTC/CIRCUIT DIAGNOSIS >

Disconnect heated Turn ignition switc Check voltage bet	h ON.		s connecto	r and g	round.	
	(+)					
	Heated seat switc	h			(-)	Voltage (V) (Approx.)
Con	nector	Terr	ninal			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Driver side	M177		5		Ground	Battery voltage
Passenger side	M178		5		Cround	Dattery voltage
Turn ignition switc Disconnect fuse bl Check continuity b	lock (J/B) connecte					B) harness connector
Н	eated seat switch			Fuse blo	ock (J/B)	Continuity
Connect	tor	Terminal	Connec	ctor	Terminal	Continuity
Driver side	M177	5	M1		2A	Existed
	M178					
Passenger side	-			1		
	-	at switch harn	ess connec	ctor and	d ground.	
Passenger side	-		ess connec	ctor and	d ground.	Continuity
Passenger side Check continuity b	between heated se	h	ess connec	ctor and		Continuity
Passenger side Check continuity b	between heated se Heated seat switc	h Terr	ninal	ctor and	d ground. Ground –	
Passenger side Check continuity b Con Driver side Passenger side	Heated seat switconnector M177 M178	h Terr		ctor and		Continuity Not existed
Passenger side Check continuity b Con Driver side Passenger side the inspection result 'ES >> GO TO 4.	petween heated se Heated seat switconnector M177 M178 normal? replace harness. PCK (J/B) h ON.	h Terr	ninal 5		Ground -	
Passenger side Check continuity b Con Driver side Passenger side the inspection result (ES >> GO TO 4. IO >> Repair or n .CHECK FUSE BLO Turn ignition switc Check voltage bet	between heated se Heated seat switconnector M177 M178 normal? replace harness. DCK (J/B) h ON. ween fuse block (	h Terr	ninal 5	< side) ;	Ground -	Not existed
Passenger side Check continuity b Con Driver side Passenger side the inspection result (ES >> GO TO 4. NO >> Repair or n CHECK FUSE BLO Turn ignition switc Check voltage bet	etween heated se Heated seat switconnector M177 M178 normal? replace harness. DCK (J/B) h ON. ween fuse block (	h Terr	ninal 5		Ground -	
Passenger side Check continuity b Con Driver side Passenger side the inspection result (ES >> GO TO 4. IO >> Repair or n CHECK FUSE BLO Turn ignition switc Check voltage bet	etween heated se Heated seat switc mector M177 M178 mormal? replace harness. PCK (J/B) h ON. ween fuse block ( (+) Fuse block (J/B) Tel	h Terr	ninal 5 (fuse block	< side) ;	Ground -	Not existed

Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

< DTC/CIRCUIT DIAGNOSIS >

>> INSPECTION END

< DTC/CIRCUIT DIAG					
POWER RETUR					
LH					
LH : Description					INFOID:000000012173696
Switch that performs the	e return operation.				
LH : Component F	Function Check				INFOID:000000012173697
1.CHECK POWER RE	TURN SWITCH (LH	) FUNCTIO	ON		
Check that the rear sea	. ,	n pressing	and holdir	ng the power ret	urn switch (LH).
<u>Is the inspection result</u> YES >> Power return	<u>normal?</u> rn switch (LH) is OK.				
	-21, "LH : Diagnosis	Procedure	<u>"</u> .		
LH : Diagnosis Pro	ocedure				INFOID:000000012173698
1.CHECK REAR SEA	FBACK POWER RET	TURN CON	NTROL UN	IIT INPUT SIGN	AL
	OFF. eturn switch (LH) cor reen power return sw		arness co	nnector and gro	und.
	(+)				Voltage (V/)
	r return switch (LH)		(-)		Voltage (V) (Approx.)
Connector M174	Termina 1	al		Ground	5
	atback power return o etween rear seatbac	control unit	t connecto		connector and power return
Rear seatback pow	er return control unit		Power retur	n switch (LH)	
Connector	Terminal	Conr	nector	Terminal	Continuity
B226	28	M	174	1	Existed
3. Check continuity be	etween rear seatback	power ret	urn contro	l unit harness co	onnector and ground.
Rear seatbac	k power return control uni	it			Continuity
Connector	Termina	al		Ground	
M226	28				Not existed
	ar seatback power re eplace harness. TURN SWITCH (LH	) GROUNI	) CIRCUIT	-	Removal and Installation".
Powe	r return switch (LH)				Continuity
Connector	Termina	al		Ground	Continuity
M174	2				Existed

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

#### YES >> GO TO 4.

NO >> Repair or replace harness.

**4.**CHECK POWER RETURN SWITCH (LH)

Check power return switch (LH).

Refer to SE-22, "LH : Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power return switch (LH). Refer to <u>SE-153</u>, "Removal and Installation".

**5.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

### LH : Component Inspection

INFOID:000000012173699

## 1.CHECK FRONT POWER RETURN SWITCH (LH)

1. Turn ignition OFF.

- 2. Disconnect power return switch (LH) connector.
- 3. Check power return switch (LH) terminals.

Power retur	n switch (LH)	Condition	Continuity
Terr	minal	Condition	
1	2	Power return switch (LH) is pressed	Existed
I	2	Power return switch (LH) is released	Not existed

Is the inspection result normal?

YES >> Power return switch (LH) is OK.

NO >> Replace power return switch (LH). Refer to <u>SE-153</u>, "Removal and Installation".

### RH

RH : Description

Switch that performs the return operation.

### **RH**: Component Function Check

## 1. CHECK POWER RETURN SWITCH (RH) FUNCTION

Check that the rear seatback (RH) rises when pressing and holding the power return switch (RH). Is the inspection result normal?

YES >> Power return switch (RH) is OK.

NO >> Refer to SE-22, "RH : Diagnosis Procedure".

## **RH** : Diagnosis Procedure

## 1. CHECK REAR SEATBACK POWER RETURN CONTROL UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect power return switch (RH) connector.

3. Check voltage between power return switch (RH) harness connector and ground.

	(+) Power return switch (RH)		Voltage (V) (Approx.)	
Connector	Terminal		(	
M175	1	Ground	5	

INFOID:000000012173700

INFOID:000000012173701

DTC/CIRCUIT DIAGN					
s the inspection result no	rmal?				
YES >> GO TO 3. NO >> GO TO 2.					
CHECK POWER RET	JRN SWITCH (RH)	CIRCUIT			
. Disconnect rear seath	oack power return co veen rear seatback	ontrol unit connecto		ector and power return	
Rear seatback power	eturn control unit	Power retu	ırn switch (RH)		
Connector	Terminal	Connector	Terminal	- Continuity	
B226	20	M175	1	Existed	
. Check continuity betw	veen rear seatback p	ower return contro	ol unit harness connec	tor and ground.	
Deer eestheeld			i		
-			Ground	Continuity	
Connector B226	Terminal 20		Ground	Not existed	
s the inspection result no					
heck continuity power re		rness connector ar	nd ground.		
	turn switch (RH)	Continuity			
Connector	Terminal		Ground		
M175 s the inspection result no	2			Existed	
YES >> GO TO 4. NO >> Repair or rep CHECK POWER RET Check power return switc	ace harness. JRN SWITCH (RH)				
Refer to <u>SE-23, "RH : Com</u>	ponent Inspection".				
Refer to <u>SE-23, "RH : Com</u> <u>s the inspection result no</u> YES >> GO TO 5. NO >> Replace powe	r <u>mal?</u> rrmal? er return switch (RH	). Refer to <u>SE-153</u>	, "Removal and Install	ation".	
Refer to <u>SE-23, "RH : Com</u> s the inspection result no YES >> GO TO 5.	r <u>mal?</u> rrmal? er return switch (RH	). Refer to <u>SE-153</u>	. "Removal and Install	ation".	
Refer to <u>SE-23, "RH : Com</u> <u>s the inspection result no</u> YES >> GO TO 5. NO >> Replace powe	rmal? rmal? er return switch (RH NT INCIDENT	). Refer to <u>SE-153</u>	. "Removal and Install	ation".	
Refer to <u>SE-23. "RH : Com</u> the inspection result no YES >> GO TO 5. NO >> Replace powe CHECK INTERMITTER Refer to <u>GI-42. "Intermitter</u> >> INSPECTION	rmal? rmal? NT INCIDENT nt Incident".	). Refer to <u>SE-153</u>	. "Removal and Install	<u>ation"</u> .	
Refer to SE-23. "RH : Comestion result no         Sthe inspection result no         YES       >> GO TO 5.         NO       >> Replace power         O.CHECK INTERMITTER         Refer to GI-42. "Intermitter	rmal? rmal? NT INCIDENT nt Incident".	). Refer to <u>SE-153</u>	. "Removal and Install	ation".	
Refer to <u>SE-23. "RH : Com</u> the inspection result no YES >> GO TO 5. NO >> Replace powe CHECK INTERMITTER Refer to <u>GI-42. "Intermitter</u> >> INSPECTION	rmal? er return switch (RH NT INCIDENT nt Incident". END spection	). Refer to <u>SE-153</u>	, "Removal and Install		
Refer to <u>SE-23. "RH : Com</u> the inspection result no YES >> GO TO 5. NO >> Replace powe CHECK INTERMITTER Refer to <u>GI-42. "Intermitte</u> >> INSPECTION RH : Component Ins	aponent Inspection". rmal? er return switch (RH NT INCIDENT nt Incident". END spection JRN SWITCH (RH)	nector.	. "Removal and Install		
Refer to <u>SE-23. "RH : Com</u> <u>s the inspection result no</u> YES >> GO TO 5. NO >> Replace powe <b>D</b> .CHECK INTERMITTER Refer to <u>GI-42. "Intermitte</u> >> INSPECTION RH : Component Ins .CHECK POWER RETU . Turn ignition OFF. . Disconnect power ret	inponent Inspection". Immal? er return switch (RH) NT INCIDENT Int Incident". END Spection JRN SWITCH (RH) urn switch (RH) cont witch (RH) terminals	nector.	. "Removal and Install		

1

2

Power return switch (RH) is pressed

Power return switch (RH) is released

Existed

Not existed

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Power return switch (RH) is OK.

NO >> Replace power return switch (RH). Refer to <u>SE-153, "Removal and Installation"</u>.

	REA	R SEATBAC	k Svvi	ICH	
< DTC/CIRCUIT DIAGNOSIS					
REAR SEATBACK S	WITCH				
LH					
LH : Description					INFOID:000000012173704
Switch that performs the return	n operation o	or release operati	on.		
LH : Component Functi	on Checl	k			INFOID:000000012173705
1. CHECK FUNCTION					
Check that the rear seatback (	LH) rises wh	nen pressing and	holding	the rear seatback	switch (LH) in UP direc-
tion. Is the inspection result normal	2				
YES >> Rear seatback sw		OK.			
NO >> Refer to <u>SE-25, "L</u>	<u>H : Diagnos.</u>	<u>is Procedure"</u> .			
LH : Diagnosis Procedu	re				INFOID:000000012173706
1.CHECK REAR SEATBACK		ETURN CONTRO	L UNIT	INPUT SIGNAL	
1. Turn ignition switch OFF.					
<ol> <li>Disconnect rear seatback</li> <li>Check voltage between re</li> </ol>			ess conr	nector and group	h
	(+)				Voltage (V)
Connector	atback switch (L	Terminal		(–)	(Approx.)
B52		2		Ground	5
Is the inspection result normal	?				
YES >> GO TO 3.					
NO $>>$ GO TO 2.					
2.CHECK REAR SEAT BACK			to r		
<ol> <li>Disconnect rear seatback</li> <li>Check continuity between switch (LH) harness connection</li> </ol>	rear seatba			unit harness con	nector and rear seatback
Rear seatback power retur	n control unit	R	ear seatba	ack switch (LH)	
Connector	Terminal	Connee	ctor	Terminal	Continuity
B226	28	B52		2	Existed
3. Check continuity between	rear seatba	ck power return c	ontrol ur	nit harness conne	ector and ground.
Rear seatback power	return control u	unit			Continuity
Connector	Term	ninal	Gro	ound	Continuity
B226	28	8			Not existed
Is the inspection result normal YES >> Replace rear seat	_	raturn control uni	Dofor f	to SE 1/8 "Pom	oval and Installation"
NO >> Repair or replace	harness.			10 <u>3L-140, Kem</u>	ovar and mstanation.
<b>3.</b> CHECK REAR SEATBACK	SWITCH (L	.H) GROUND CIF	RCUIT		
Check continuity rear seatback	k switch (LH	) harness connec	tor and g	ground.	
Rear seath	ack switch (LH	)			
Connector		Terminal	_	Ground	Continuity
B52		3		· · · · · · · · · · · · · · · · · · ·	Existed

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace harness.

**4.**CHECK REAR SEATBACK SWITCH (LH)

Check rear seatback switch (LH).

Refer to SE-26, "LH : Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace rear seatback switch (LH). Refer to <u>SE-155, "Removal and Installation"</u>.

**5.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

### LH : Component Inspection

INFOID:000000012173707

## 1.CHECK REAR SEATBACK SWITCH (LH)

### 1. Turn ignition switch OFF.

- 2. Disconnect rear seatback switch (LH) connector.
- 3. Check rear seatback switch (LH) terminals.

Rear seatbac	ck switch (LH)	Condition	Continuity	
Terr	minal	Condition		
2	3	Rear seatback switch (LH) is pressed in UP direction	Existed	
Z	5	Rear seatback switch (LH) is released in UP direction	Not existed	

Is the inspection result normal?

YES >> Rear seatback switch (LH) is OK.

NO >> Replace seatback return switch (LH). Refer to <u>SE-155, "Removal and Installation"</u>.

### RH

## RH : Description

Switch that performs the return operation or release operation.

## **RH** : Component Function Check

## 1.CHECK FUNCTION

Check that the rear seatback (RH) rises when pressing and holding the rear seatback switch (RH) in UP direction.

### Is the inspection result normal?

YES >> Rear seatback switch (RH) is OK.

NO >> Refer to <u>SE-26, "RH : Diagnosis Procedure"</u>.

## **RH** : Diagnosis Procedure

## 1. CHECK REAR SEATBACK POWER RETURN CONTROL UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect rear seatback switch (RH) connector.

3. Check voltage between rear seatback switch (RH) harness connector and ground.

INFOID:000000012173709

INFOID:000000012173708

### < DTC/CIRCUIT DIAGNOSIS >

(+)				
Rear seatback switch (RH)			(-)	Voltage (V)
Connector		minal		(Approx.)
B239		2	Ground	5
the inspection result normal? YES >> GO TO 3. NO >> GO TO 2. CHECK REAR SEATBACK SWITC	CH (RH) CIRCUI	г		
<ul> <li>Disconnect rear seatback power r</li> <li>Check continuity between rear se switch (RH) harness connector.</li> </ul>	eturn control uni	t connector.	unit harness conne	ctor and rear seatbacl
Rear seatback power return control	unit	Rear seatba	ack switch (RH)	Continuity
Connector Termin	al (	Connector	Terminal	
B226 20		B239	2	Existed
Rear seatback power return co	ntrol unit Terminal	Gro	ound	Continuity
B226	20			Not existed
heck continuity rear seatback switch Rear seatback switc		onnector and	ground.	
Connector	Terminal		Ground	Continuity
B239	3			Existed
s the inspection result normal?         YES       >> GO TO 4.         NO       >> Repair or replace harness         I.CHECK REAR SEATBACK SWITC         Check rear seatback switch (RH).         Refer to SE-27, "RH : Component Inspection result normal?         YES       >> GO TO 5.         NO       >> Replace rear seatback sw         J.CHECK INTERMITTENT INCIDEN         Refer to GI-42, "Intermittent Incident".         >> INSPECTION END	CH (RH) <u>pection"</u> . /itch (RH). Refer	to <u>SE-154, "F</u>	Removal and Install	ation".
RH : Component Inspection				INFOID:0000000121737

#### < DTC/CIRCUIT DIAGNOSIS >

Rear seatba	ck switch (RH)	Condition	Continuity	
Ter	minal	Condition	Continuity	
2	3	Rear seatback switch (RH) is pressed in UP direction	Existed	
۷	5	Rear seatback switch (RH) is released in UP direction	Not existed	

Is the inspection result normal?

YES >> Rear seatback switch (RH) is OK.

NO >> Replace rear seatback switch (RH). Refer to <u>SE-154, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOS		FUSITI	JN LIMIT SWITCH	
PRIMARY POSITIO		NITCH		
LH				
LH : Description				INFOID:000000012173712
Detect the initial position of s	ector gear (LH)			
LH : Component Funct	tion Check			INFOID:000000012173713
1. CHECK FUNCTION				
Check that the rear seatback back switch (LH) in UP direct Is the inspection result normal	tion.	en pressing	and holding the power re	eturn switch (LH) or rear seat-
YES >> Primary position NO >> Refer to <u>SE-29</u> .	limit switch (LH		<u>"</u> .	
LH : Diagnosis Proced	ure			INFOID:000000012173714
1.CHECK REAR SEATBAC	K POWER RET	FURN CON	ITROL UNIT INPUT SIGI	NAL
<ol> <li>Turn ignition switch OFF</li> <li>Disconnect primary position</li> </ol>	tion limit switch	(LH) conne		
(-	+)			
Primary position			(-)	Voltage (V) (Approx.)
Connector B512	Termin	al	Ground	Della se alla se
NOTE:	6		Crodina	Battery voltage
It is not low power consumpt <u>Is the inspection result norma</u> YES >> GO TO 3. NO >> GO TO 2.	al?			
2.CHECK PRIMARY POSIT	TION LIMIT SW	ITCH (LH)	SIGNAL CIRCUIT	
<ol> <li>Disconnect rear seatbac</li> <li>Check continuity betwee limit switch (LH) harness</li> </ol>	n rear seatback			onnector and primary position
Rear seatback power retu	rn control unit	Pri	mary position limit switch (LH)	Continuity
Connector	Terminal		nector Terminal	
B226	21		512 6	Existed
3. Check continuity betwee	ii leal Sealbach	t power ret		
Rear seatback pow	er return control un	it		Continuity
	Termin	al	Ground	
Connector				Not existed
B226	21			
B226 Is the inspection result norma YES >> Replace rear sea NO >> Repair or replace	<u>al?</u> atback power re e harness.			Removal and Installation".
B226 Is the inspection result norma YES >> Replace rear sea	<u>al?</u> atback power re e harness.			Removal and Installation".

## **PRIMARY POSITION LIMIT SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

Rear seatback power return control unit		Primary posit	ion limit switch (LH)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B226	31	B512	9	Existed
2. Check continuity be	etween rear seatback	power return cont	rol unit harness co	nnector and ground.
Rear seatbac	k power return control unit	t		Opertionity
Connector	Termina	I	Ground	Continuity
B226	31			Not existed
4.CHECK PRIMARY F Check primary position Refer to <u>SE-30. "LH : C</u> Is the inspection result YES >> GO TO 5.	limit switch (LH). omponent Inspection normal? rimary position limit <u>√iew"</u> .	<u>.</u> .	t device assemb	ly (LH)]. Refer to <u>SE-141</u> .
Refer to <u>GI-42, "Intermi</u> >> INSPECTIC LH : Component Ir COMPONENT INSPE	ON END			INFOID:00000001217371
1.CHECK PRIMARY F	POSITION LIMIT SWI	TCH (LH)		
1 Turn ignition owitch				

- 1. Turn ignition switch OFF.
- 2. Disconnect primary position limit switch (LH) connector.
- 3. Check primary position limit switch (LH) terminals.

Primary position	limit switch (LH)	Condition	Continuity	
Terr	ninal	Condition		
6	9	Primary position limit switch (LH) is pressed	Existed	
0	9	Primary position limit switch (LH) is released	Not existed	

#### Is the inspection result normal?

YES >> Primary position limit switch (LH) is OK.

NO >> Replace primary position limit switch (LH) [seat device assembly (LH)]. Refer to SE-141. "Exploded View".

RH

### **RH**: Description

Detect the initial position of sector gear (RH).

### **RH** : Component Function Check

## 1. CHECK FUNCTION

Check that the rear seatback (RH) rises when pressing and holding the power return switch (RH) or rear seatback switch (RH) in UP direction.

Is the inspection result normal?

#### **Revision: July 2016**

### **SE-30**

INFOID:000000012173717

## PRIMARY POSITION LIMIT SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

- YES >> Primary position limit switch (RH) is OK.
- NO >> Refer to <u>SE-31, "RH : Diagnosis Procedure"</u>.

### RH : Diagnosis Procedure

## 1. CHECK REAR SEATBACK POWER RETURN CONTROL UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

- 2. Connect primary position limit switch (RH) connector.
- 3. Check voltage between primary position limit switch (RH) harness connector and ground.

	(+) Primary position limit switch (RH)		Voltage (V) (Approx.)	D
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
B505	15	Ground	Battery voltage	E

#### NOTE:

It is not low power consumption mode.

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# **2.**CHECK PRIMARY POSITION LIMIT SWITCH (RH) SIGNAL CIRCUIT

- 1. Disconnect rear seatback power return control unit connector.
- 2. Check continuity between rear seatback power return control unit harness connector and primary position limit switch (RH) harness connector.

Rear seatback pow	er return control unit	Primary position limit switch (RH)		Continuity
Connector	Terminal	Connector Terminal		Continuity
B226	22	B505	15	Existed

3. Check continuity between rear seatback power return control unit harness connector and ground.

Rear seatback power return control unit			Continuity	-
Connector	Terminal	Ground	Continuity	ŀ
B226	22		Not existed	_

Is the inspection result normal?

YES	>> Replace rear seatback	power return control unit. Re	efer to <u>SE-148,</u>	"Removal and Installation".
-----	--------------------------	-------------------------------	------------------------	-----------------------------

NO >> Repair or replace harness.

## ${f 3.}$ CHECK PRIMARY POSITION LIMIT SWITCH (RH) GROUND CIRCUIT

1. Check continuity between rear seatback power return control unit harness connector and primary position limit switch (RH) harness connector.

N	Continuity	Primary position limit switch (RH)		ear seatback power return control unit	
	Continuity	Terminal	Connector	Terminal	Connector
0	Existed	14	B505	23	B226

#### 2. Check continuity between rear seatback power return control unit harness connector and ground.

Rear seatback power	Rear seatback power return control unit		Continuity	Р
Connector	Terminal	Ground	Continuity	
B226	23		Not existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

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### **PRIMARY POSITION LIMIT SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

### 4. CHECK PRIMARY POSITION LIMIT SWITCH (RH)

Check primary position limit switch (RH). Refer to <u>SE-32</u>, "RH : Component Inspection".

Relef to <u>SE-32, RH. Component Inspection</u>

## Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace primary position limit switch (RH) [seat device assembly (RH)]. Refer to <u>SE-141,</u> <u>"Exploded View"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

#### **RH** : Component Inspection

INFOID:000000012173719

#### COMPONENT INSPECTION

## 1. CHECK PRIMARY POSITION LIMIT SWITCH (RH)

1. Turn ignition switch OFF.

2. Disconnect primary position limit switch (RH) connector.

3. Check primary position limit switch (RH) terminals.

Primary position	limit switch (RH)	Condition	Continuity	
Terr	minal	Condition		
14	15	Primary position limit switch (RH) is pressed	Existed	
14	15	Primary position limit switch (RH) is released	Not existed	

Is the inspection result normal?

YES >> Primary position limit switch (RH) is OK.

NO >> Replace primary position limit switch (RH) [seat device assembly (RH)]. Refer to <u>SE-141.</u> <u>"Exploded View"</u>.

< DTC/CIRCUIT DIAGNOSIS >

RETURN COMPLE	TE LIMIT S'	WITCH			
H					
H : Description					INFOID:000000012173720
etect the return completion	n position of rear	seatback (	_H).		
H : Component Fund	ction Check	-			INFOID:000000012173721
.CHECK FUNCTION					
			and halding the n	ower return	witch (LU) or roor cost
heck that the rear seatbac ack switch (LH) in UP dire		ii pressing	and noiding the p	ower return	Switch (LH) of Teal Seal-
the inspection result norn					
YES >> Return complet NO >> Refer to <u>SE-33</u>	te limit switch (LH	) is OK. Procedure			
H : Diagnosis Proce	_	recourc	-		
					INFOID:000000012173722
.CHECK REAR SEATBA	CK POWER RET	URN CON	TROL UNIT INPU	IT SIGNAL	
. Turn ignition switch OF 2. Disconnect rear seatba 3. Check voltage between	ck lock assembly			onnector and	l ground.
	(+)				
Rear seatback I	ock assembly (LH)		(-)		Voltage (V) (Approx.)
Connector	Termina	l			
t is not low power consump			Ground		Battery voltage
OTE: is not low power consumptions the inspection result norm YES >> GO TO 3. NO >> GO TO 2. CHECK RETURN COMF Disconnect rear seatbal Check continuity betwee lock assembly (LH) har	otion mode. nal? PLETE LIMIT SW ick power return c een rear seatback ness connector.	control unit	SIGNAL CIRCUI connector. urn control unit h	arness conr	Battery voltage ector and rear seatback
IOTE: t is not low power consumptions the inspection result norm YES >> GO TO 3. NO >> GO TO 2. CHECK RETURN COMP Disconnect rear seatback. Check continuity betwee lock assembly (LH) har Rear seatback power ret	otion mode. nal? PLETE LIMIT SW ick power return c een rear seatback ness connector.	control unit power ret Rear	SIGNAL CIRCUI connector. urn control unit h seatback lock assem	arness conr	
IOTE: t is not low power consumptions the inspection result norm YES >> GO TO 3. NO >> GO TO 2. CHECK RETURN COMF Disconnect rear seatback Check continuity betwee lock assembly (LH) har Rear seatback power retto Connector	otion mode. nal? PLETE LIMIT SW ick power return c een rear seatback ness connector. turn control unit Terminal	control unit c power ret Rear Conn	SIGNAL CIRCUI connector. urn control unit h seatback lock assem	arness conr bly (LH) Ferminal	ector and rear seatback Continuity
IOTE: t is not low power consumptions the inspection result norm YES >> GO TO 3. NO >> GO TO 2. CHECK RETURN COMF Disconnect rear seatbat Check continuity betwee lock assembly (LH) har Rear seatback power retto Connector B226	otion mode. nal? PLETE LIMIT SW tock power return c een rear seatback ness connector. turn control unit Terminal 29	control unit c power ret Rear Conn B5	SIGNAL CIRCUI connector. urn control unit h seatback lock assem ector	arness conr bly (LH) Terminal 8	ector and rear seatback Continuity Existed
IOTE:         is not low power consumptions         is the inspection result norm         YES       >> GO TO 3.         NO       >> GO TO 2.         CHECK RETURN COMF         Disconnect rear seatbac         Check continuity betwee         lock assembly (LH) har         Rear seatback power ret         Connector         B226         Check continuity betwee	otion mode. nal? PLETE LIMIT SW ick power return c een rear seatback ness connector. turn control unit Terminal 29 een rear seatback	control unit c power ret Rear Conn B5 power retu	SIGNAL CIRCUI connector. urn control unit h seatback lock assem ector	arness conr bly (LH) Terminal 8	ector and rear seatback Continuity Existed
IOTE:         t is not low power consumptions         s the inspection result norm         YES       >> GO TO 3.         NO       >> GO TO 2.         CHECK RETURN COMF         Disconnect rear seatback         Check continuity betwee         lock assembly (LH) har         Rear seatback power ret         Connector         B226         Check continuity betwee         Rear seatback power	otion mode. nal? PLETE LIMIT SW tock power return co een rear seatback ness connector. turn control unit Terminal 29 een rear seatback wer return control unit	control unit c power ret Rear Conn B5 power retu	SIGNAL CIRCUI connector. urn control unit h seatback lock assem ector 13 Irn control unit ha	arness conr bly (LH) Terminal 8	ector and rear seatback Continuity Existed
NOTE:         t is not low power consumplies the inspection result norm         s the inspection result norm         YES       >> GO TO 3.         NO       >> GO TO 2.         CHECK RETURN COMF         Disconnect rear seatbac         Check continuity betwee         lock assembly (LH) har         Rear seatback power ret         Connector         B226         8. Check continuity betwee	otion mode. nal? PLETE LIMIT SW ick power return c een rear seatback ness connector. turn control unit Terminal 29 een rear seatback	control unit c power ret Rear Conn B5 power retu	SIGNAL CIRCUI connector. urn control unit h seatback lock assem ector	arness conr bly (LH) Terminal 8	ector and rear seatback Continuity Existed ctor and ground.

#### < DTC/CIRCUIT DIAGNOSIS >

Rear seatback po	wer return control unit	Rear seatback lo	ck assembly (LH)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B226	31	B513	9	Existed

Rear seatback po	wer return control unit		Continuity
Connector	Terminal	Ground	Continuity
B226	31		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK RETURN COMPLETE LIMIT SWITCH (LH)

Check return complete limit switch (LH).

#### Refer to SE-34, "LH : Component Inspection".

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace return complete limit switch (LH) [rear seatback lock assembly (LH)]. Refer to <u>SE-141,</u> <u>"Exploded View"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

### LH : Component Inspection

### COMPONENT INSPECTION

## 1. CHECK RETURN COMPLETE LIMIT SWITCH (LH)

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seatback lock assembly (LH) connector.
- 3. Check rear seatback lock assembly (LH) terminals.

Rear seatback lo	ock assembly (LH)	Condition	Continuity	
Terr	minal	Condition	Continuity	
0	0	Return complete limit switch (LH) is pressed	Existed	
0	9	Return complete limit switch (LH) is released	Not existed	

#### Is the inspection result normal?

YES >> Return complete limit switch (LH) is OK.

- NO >> Replace return complete limit switch (LH) [rear seatback lock assembly (LH)]. Refer to <u>SE-141</u>, <u>"Exploded View"</u>.
- RH

### RH : Description

Detect the return completion position of rear seatback (RH).

### **RH** : Component Function Check

## **1.**CHECK FUNCTION

Check that the rear seatback (RH) rises when pressing and holding the power return switch (RH) or rear seatback switch (RH) in UP direction.

Is the inspection result normal?

#### Revision: July 2016

INFOID:000000012173723

INFOID:000000012173724

#### < DTC/CIRCUIT DIAGNOSIS >

- YES >> Return complete limit switch (RH) is OK.
- NO >> Refer to <u>SE-35, "RH : Diagnosis Procedure"</u>.

### RH : Diagnosis Procedure

## 1. CHECK REAR SEATBACK POWER RETURN CONTROL UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

- 2. Disconnect rear seatback lock assembly (RH) connector.
- 3. Check voltage between rear seatback lock assembly (RH) harness connector and ground.

(+	(+)			_
Rear seatback loo	ck assembly (RH)	()	Voltage (V) (Approx.)	D
Connector	Terminal		()	
B506	13	Ground	Battery voltage	E

#### NOTE:

It is not low power consumption mode.

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## $2. \mathsf{CHECK} \ \mathsf{RETURN} \ \mathsf{COMPLETE} \ \mathsf{LIMIT} \ \mathsf{SWITCH} \ (\mathsf{RH}) \ \mathsf{SIGNAL} \ \mathsf{CIRCUIT}$

- 1. Disconnect rear seatback power return control unit connector.
- 2. Check continuity between rear seatback power return control unit harness connector and rear seatback lock assembly (RH) harness connector.

Rear seatback pow	atback power return control unit Rear seatback lo		ck assembly (RH)	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
B226	30	B506	13	Existed	

3. Check continuity between rear seatback power return control unit harness connector and ground.

Rear seatback power return control unit			Continuity	-
Connector	Terminal	Ground	Continuity	
B226	30		Not existed	

Is the inspection result normal?

YES	>> Replace rear seatback	power return control unit	Refer to SE-148	"Removal and Installation".
160				<u>Itemetal and metallation</u> .

NO >> Repair or replace harness.

## 3.CHECK RETURN COMPLETE LIMIT SWITCH (RH) GROUND CIRCUIT

1. Check continuity between rear seatback power return control unit harness connector and rear seatback lock assembly (RH) harness connector.

N	Continuity	Rear seatback lock assembly (RH)		Rear seatback power return control unit	
	Continuity	Terminal	Connector	Terminal	Connector
0	Existed	14	B506	23	B226

#### 2. Check continuity between rear seatback power return control unit harness connector and ground.

Rear seatback power	er return control unit		Continuity	Р
Connector Terminal		Ground	Continuity	
B226	23		Not existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

А

В

Н

SE

Μ

< DTC/CIRCUIT DIAGNOSIS >

### **4.**CHECK RETURN COMPLETE LIMIT SWITCH (RH)

Check return complete limit switch (RH).

Refer to SE-36, "RH : Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace return complete limit switch (RH) [rear seatback lock assembly (RH)]. Refer to <u>SE-141,</u> <u>"Exploded View"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

### RH : Component Inspection

INFOID:000000012173727

#### COMPONENT INSPECTION

# 1. CHECK RETURN COMPLETE LIMIT SWITCH (RH)

1. Turn ignition switch OFF.

2. Disconnect rear seatback lock assembly (RH) connector.

3. Check rear seatback lock assembly (RH) terminals.

Rear seatback lock assembly (RH)		Condition	Continuity
Terr	minal	Condition	Continuity
13	14	Return complete limit switch (RH) is pressed	Existed
	14	Return complete limit switch (RH) is released	Not existed

Is the inspection result normal?

YES >> Return complete limit switch (RH) is OK.

NO >> Replace return complete limit switch (RH) [rear seatback lock assembly (RH)]. Refer to <u>SE-141.</u> <u>"Exploded View"</u>.

< DTC/CIRCU	JIT DIAGNOS	SIS >			SLINGUI	<b>`</b>			
MOTOR S	SENSOR								Δ
LH									А
LH : Descr	iption							INFOID:000000012173728	В
Detect the op	eration condition	on of powe	r return mo	otor (L	_H).				D
LH : Comp	onent Fund	tion Che	eck					INFOID:000000012173729	C
<b>1</b> .CHECK FL	JNCTION								C
			s when pre	ssing	and holdir	ng the power	return sv	vitch (LH) or rear seat-	D
	H) in UP direction on result norm								
YES >> M	lotor sensor (L	H) is OK.	n na in Dana		. 11				Е
	efer to <u>SE-37,</u>		nosis Proc	eaure	<u>.</u> .				
LH : Diagn								INFOID:000000012173730	F
	OTOR SENSO		JTPUT SIG	NAL					
	ion switch OFI Itage between		ack power	retur	n control ur	nit harness c	onnector	and ground.	G
	_							5	
Rear seatbac	(+) k power return cc	ntrol unit	()		Condit	tion		Voltage (V)	Н
Connecto	-		( )		Contai			(Approx.)	
									1
							(V) 6		_
			- ·		ing the power ) operation	return motor	2 0		SE
B227	1	)	Ground				-	→	
								JMKIA0070GB	K
					en pinching be ts occurs	etween LH/RH	The above expanded	e pulse width should be	
Is the inspecti	on result norm	al?							L
	io to 7. io to 2.								
2.CHECK M		R (LH) SIC	GNAL CIRC	CUIT					M
					nector and	rear seatbac	ck power	return control unit con-	
nector. 2. Check co	ntinuitv betwe	en power re	eturn motor	asse	embly (LH)	harness con	nector an	d rear seatback power	Ν
	ntrol unit harne							- · · · · · · · · · · · · · · · · · · ·	
Rear sea	atback power retu	rn control uni	it	Pov	ver return mo	tor assembly (L	H)	Continuity	0
Conne		Terminal			nector	Termir	nal		
B22		10	oturo moto:		511	4	noctor cr	Existed	Р
3. Check co	ntinuity betwe			asse			mector an		-
	ear seatback pow	1						Continuity	
	nnector 3227		Terminal 10		-	Ground		Not existed	
			-						

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

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

**3.**CHECK MOTOR SENSOR (LH) POWER SUPPLY

1. Connect rear seatback power return control unit connector.

2. Check voltage between power return motor assembly (LH) harness connector and ground.

(+)					
Power return mo	Power return motor assembly (LH)		Condition	Voltage (V) (Approx.)	
Connector	Terminal			(	
B511	3	Ground	When the power return switch is operated	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

**4.**CHECK MOTOR SENSOR (LH) POWER SUPPLY CIRCUIT

1. Disconnect rear seatback power return control unit connector.

2. Check continuity between rear seatback power return control unit harness connector and power return motor assembly (LH) harness connector.

Rear seatback power return control unit		Power return mo	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
B227	11	B511	3	Existed	

3. Check continuity between rear seatback power return control unit harness connector and ground.

Rear seatback pow	er return control unit		Continuity
Connector	Terminal	Ground	Continuity
B227	11		Not existed

Is the inspection result normal?

YES >> Replace rear seatback power return control unit. Refer to <u>SE-148, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5.CHECK MOTOR SENSOR (LH) GROUND CIRCUIT 1

1. Disconnect rear seatback power return control unit connector.

2. Check continuity between power return motor assembly harness connector and ground.

Rear seatback pow	er return control unit	Power return mo	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B227	9	B511	5	Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

**Ó.**CHECK MOTOR SENSOR (LH) GROUND CIRCUIT 2

1. Connect rear seatback power return control unit connector.

2. Check continuity between rear seatback power return control unit harness connector and ground.

Rear seatback pow	er return control unit		Continuity
Connector	Terminal	Ground	Continuity
B227	9		Existed

Is the inspection result normal?

YES >> Replace motor sensor (LH) [seat device assembly (LH)]. Refer to <u>SE-141, "Exploded View"</u>.

NO >> Replace rear seatback power return control unit. Refer to <u>SE-148</u>, "Removal and Installation".

< DTC/CIRCUIT D	IAGNOSIS >				
7.CHECK INTERI	MITTENT INCIDE	NT			
Refer to GI-42, "Int	ermittent Incident	<u></u> .			
>> INSPE	CTION END				
RH : Descriptio	n				INFOID:000000012173731
Detect the operatio	n condition of po	wer returr	n motor (RH).		
RH : Compone	nt Function C	heck			INFOID:000000012173732
1.CHECK FUNCT	ION				
Check that the rear back switch (RH) ir Is the inspection re	UP direction.	ses wher	pressing and holdin	ng the power return	switch (RH) or rear seat-
	sensor (RH) is Oł o <u>SE-39, "RH : D</u>		Procedure".		
RH : Diagnosis					INFOID:000000012173733
<b>1</b> .снеск мотон			SIGNAL		
1. Turn ignition sv	witch OFF.		wer return control u	nit harness connect	or and ground.
(·	+)				
	er return control unit	(-)	Condi	tion	Voltage (V) (Approx.)
Connector	Terminal				
B227	2	Groun	During the power (RH) operation		(V) 6 2 0 10 ms JMKIA0070GB
			When pinching be seats occurs	etween LH/RH The at	oove pulse width should be
Is the inspection re	sult normal?				
YES >> GO TO NO >> GO TO					
NO 33 GO IC 2.СНЕСК МОТОР		SIGNAL	CIRCUIT		
				rear seatback pow	er return control unit con-
nector. 2. Check continui		r return m	. ,		and rear seatback power
Rear seatback	power return control	unit	Power return mo	tor assembly (RH)	Continuity
Connector	Termina	al	Connector	Terminal	

3. Check continuity between power return motor assembly (RH) harness connector and ground.

2

B227

B504

18

Existed

### < DTC/CIRCUIT DIAGNOSIS >

Rear seatback pow	er return control unit		Continuity
Connector	Terminal	Ground	Continuity
B227	2		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK MOTOR SENSOR (RH) POWER SUPPLY

### 1. Connect rear seatback power return control unit connector.

2. Check voltage power return motor assembly (RH) harness connector and ground.

	(+) Power return motor assembly (RH)				
			(-)	Condition	Voltage (V) (Approx.)
	Connector	Terminal			
_	B504	17	Ground	When the power return switch is operated	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### **4.**CHECK MOTOR SENSOR (RH) POWER SUPPLY CIRCUIT

1. Disconnect rear seatback power return control unit connector.

2. Check continuity between rear seatback power return control unit harness connector and power return motor assembly (RH) harness connector.

Rear seatback pow	er return control unit	Power return mot	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B227	3	B504	17	Existed

3. Check continuity between rear seatback power return control unit harness connector and ground.

Rear seatback pow	er return control unit		Continuity
Connector	Terminal	Ground	Continuity
B227	3	-	Not existed

Is the inspection result normal?

YES >> Replace rear seatback power return control unit. Refer to <u>SE-148. "Removal and Installation"</u>. NO >> Repair or replace harness.

**5.**CHECK MOTOR SENSOR (RH) GROUND CIRCUIT 1

1. Disconnect rear seatback power return control unit connector.

2. Check continuity between power return motor assembly harness connector and power return motor assembly (RH) harness connector.

Rear seatback pow	er return control unit	Power return mo	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B227	1	B504	19	Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

**6.**CHECK MOTOR SENSOR (LH) GROUND CIRCUIT 2

1. Connect rear seatback power return control unit connector.

2. Check continuity between rear seatback power return control unit harness connector and ground.

### < DTC/CIRCUIT DIAGNOSIS >

1		-	Continuity
Connector	Terminal	Ground	
B227	1		Existed
> Replace rear sea	ensor (RH) [seat device a tback power return contro	ssembly (RH)]. Refer to <u>SE</u> ol unit. Refer to <u>SE-148. "R</u>	-141, "Exploded View" emoval and Installatio
K INTERMITTENT I			
GI-42, "Intermittent Ir	ncident".		
>> INSPECTION EN	ID		

< DTC/CIRCUIT DIAGNOSIS >

## POWER RETURN MOTOR

LH

LH : Description

Operate the rear seatback.

LH : Component Function Check

## **1.**CHECK FUNCTION

Check that the rear seatback (LH) rises when pressing and holding the power return switch (LH) or rear seatback switch (LH) in UP direction.

Is the inspection result normal?

YES >> Power return motor (LH) is OK. NO >> Refer to SE-42, "LH : Diagnosis Procedure".

## LH : Diagnosis Procedure

INFOID:000000012173736

INFOID:000000012173734

INFOID:000000012173735

# 1. CHECK POWER RETURN MOTOR (LH) INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check voltage between power return motor assembly (LH) harness connector and ground.

(+) Power return motor assembly (LH)				
		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
	1		During the power return motor (LH) reverse operation	Battery voltage
B511		Onerred	Other than the above	0
BOTT	Ground	Ground	During the power return motor (LH) return op- eration	Battery voltag
			Other than the above	0

### Is the inspection result normal?

YES >> Replace power return motor assembly (LH) [seat device assembly (LH)]. Refer to <u>SE-141.</u> <u>"Exploded View"</u>.

NO >> GO TO 2.

2. CHECK POWER RETURN MOTOR (LH) CIRCUIT

- 1. Disconnect rear seatback power return control unit connector and power return motor assembly (LH) connector.
- 2. Check continuity between rear seatback power return control unit harness connector and power return motor assembly (LH) harness connector.

Rear seatback power return control unit		Power return motor a	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
B227	5	B511	1	Existed	
DZZI	6	B311	2	Existed	

3. Check continuity between rear seatback power return control unit harness connector and ground.

Rear seatback power return control unit			Continuity	
Connector	Terminal	Ground	Continuity	
B227	5	Ground	Not existed	
	6		INDI EXISIEU	

Is the inspection result normal?

# **POWER RETURN MOTOR**

< C	TC/CIRCUIT DIAG	NOSIS >					
N R	O >> Repair or re	ar seatback pov eplace harness.		rol unit. Refer to S	E-148, "Removal ar	nd Installation".	А
Rŀ	I: Description					INFOID:000000012173737	В
Ор	erate the rear seatba	ack.					
Rŀ	I: Component	Function Ch	neck			INFOID:000000012173738	С
1.	CHECK FUNCTION						
bad	eck that the rear sea ck switch (RH) in UP	direction.	s when pressin	g and holding the	power return switch	(RH) or rear seat-	D
		rn motor (RH) is E-43, "RH : Diag		<u>re"</u> .			Е
Rŀ	I : Diagnosis Pre	ocedure				INFOID:000000012173739	F
1.	CHECK POWER RE	ETURN MOTOR	R (RH) INPUT S	SIGNAL			
1. 2.	Turn ignition switch	OFF.			s connector and grou	und.	G
-	(+)						
-	Power return motor	assembly (RH)	(—)	Co	ndition	Voltage (V) (Approx.)	Н
-	Connector	Terminal				(Approx.)	
		20		operation	urn motor (RH) reverse	Battery voltage	I
	B504 -	21	Ground	Other than the above		0	SE
				eration	urn motor (RH) return op-	Battery voltage	ΟL
-				Other than the above	9	0	K
Y N	"Exploded	ower return mo <u>View"</u> .			e assembly (RH)].	Refer to <u>SE-141,</u>	L
1. 2.	nector.	etween rear se	atback power		oower return motor a t harness connector	,	M
-	Rear seatback pow	Rear seatback power return control unit		Power return motor a	ssembly (RH)	Continuity	
_	Connector	Termina		Connector	Terminal	Continuity	0
	B227	7 8		B504	20 21	Existed	0
3.	Check continuity be	etween rear sea	tback power re	eturn control unit h	harness connector ar	nd ground.	Ρ
-	Rear seatbac	ck power return con	trol unit			Continuity	
-	Connector		Terminal	Ground			
	B227		7	_		ot existed	

Is the inspection result normal?

8

## **POWER RETURN MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

>> Replace rear seatback power return control unit. Refer to <u>SE-148</u>, "Removal and Installation". >> Repair or replace harness. YES

NO

## **VEHICLE SPEED SIGNAL CIRCUIT**

< DTC/CIRCUIT DIA		ICLE SP	CED SIGNAL		
VEHICLE SPE		L CIRC	UIT		
Description					INFOID:000000012173740
Transmits vehicle spe	ed signal to rea	r seatback	k power return con	trol unit.	
Component Fund	ction Check				INFOID:000000012173741
1.CHECK FUNCTIO	N				(
in UP direction. <u>Is the inspection resu</u> YES >> Vehicle s NO >> Refer to <u>s</u>	<u>lt normal?</u> peed signal circ SE-45, "Diagnos	uit is OK.		e power return swit	ch or rear seatback switch
Diagnosis Proce 1.check vehicle					INFOID:000000012173742
<ol> <li>Check speed me <u>Is the inspection resu</u> YES &gt;&gt; GO TO 2         </li> </ol>	ter operate norr I <u>t normal?</u> <u>MWI-4, "Work flu</u> SPEED INPUT	nally. <u>ow"</u> . SIGNAL	turn control unit ha	arness connector a	and ground.
(+)					
Rear seatback power		(-)	Conditio	n	Voltage (V) (Approx.)
B226	Terminal	Ground	When vehicle speed prox.40 km/h (25MF	d is ap-	NOTE: um voltage may be 12V due cifications (connected units)
Is the inspection resu					Γ
YES >> GO TO 3 NO >> Refer to <u>1</u> <b>3.</b> CHECK VEHICLE	<u> WWI-4, "Work fl</u>		Т		1
	seatback power between power				and A/C amp. connector.
	ower return control			and A/C amp.	Continuity
Connector	Termina	1	Connector	Terminal	-

4. Check continuity between rear seatback power return control unit harness connector and ground.

24

B226

M66

28

Existed

# **VEHICLE SPEED SIGNAL CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

Rear seatback power	er return control unit		Continuity	
Connector	Terminal	rminal Ground	Continuity	
B226	24	_	Not existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42. "Intermittent Incident".

>> INSPECTION END

		ΠΕΑΙ	ED SEAL SWITCH			
< DTC/CIRCUIT	DIAGNOSIS	>				
HEATED SE	AT SWITC	CH				
DRIVER SIDE	Ξ					А
DRIVER SIDE	E : Descripti	on			INFOID:000000012173743	В
Adjusts heated se	at temperature	e and deactivat	tes heated seat.			D
DRIVER SIDE	E : Compon	ent Functio	n Check		INFOID:000000012173744	
	•					С
<b>1</b> .CHECK HEAT						
Check that heated tion.	d seat warms f	to preset temp	erature when operating h	eated seat switch to	the optimal posi-	D
Is the inspection r	esult normal?					
		function is OK.				Е
			<u>Diagnosis Procedure"</u> .			
DRIVER SIDE	: Diagnosi	s Procedure	е		INFOID:000000012173745	F
1.CHECK HEAT	ED SEAT CON		NPUT SIGNAL			Г
1. Turn ignition						0
<ol> <li>Disconnect he</li> <li>Turn ignition s</li> </ol>		trol unit conne	ctor.			G
		ted seat contro	ol unit harness connector	and ground.		
(+	-)					Н
	control unit	(-)	Conditi	on	Voltage (V)	
Connector	Terminal				(Approx.)	
				OFF	0	_
				1 (Min. temperature)	12.24	SE
				2	12.33	
B439	67	Ground	Heated seat switch position	3	12.49	
				4	12.63	Κ
				5	12.76	
				6 (Max. temperature)	12.90	L
Is the inspection r		aircuit in OK				

YES >> Heated seat switch circuit is OK.

NO >> GO TO 2.

# 2. CHECK HEATED SEAT SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect heated seat switch connector.
- 3. Check continuity between heated seat switch harness connector and heated seat control unit harness connector.

	Continuity	t control unit	Heated seat control unit		Heated seat switch	
	Continuity	Terminal	Connector	Terminal	Connector	
- Р	Existed	67	B439	2	M177	

4. Check continuity between heated seat switch harness connector and ground.

Heated seat switch			Continuity
Connector	Terminal	Ground	Continuity
M177	2		Not existed

Is the inspection result normal?

Μ

Ν

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK HEATED SEAT SWITCH

Check heated seat switch.

Refer to <u>SE-48, "DRIVER SIDE : Component Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace heated seat switch. Refer to <u>SE-152</u>, "Removal and Installation".

**4.**CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u>.

### >> INSPECTION END

### **DRIVER SIDE : Component Inspection**

INFOID:000000012173746

# 1.CHECK FRONT HEATED SEAT SWITCH

1. Turn ignition OFF.

2. Disconnect heated seat switch connector.

3. Check resistance between heated seat switch terminals as follows.

	eat switch minal	Condition		Resistance (KΩ) (Approx.)
	1		ON	0
		Heated seat switch position	OFF	$\infty$
	2		1 (Min. temperature)	2.400
5			2	1.800
5			3	1.200
			4	0.910
			5	0.620
			6 (Max. temperature)	0.348

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace heated seat switch. Refer to <u>SE-152</u>, "Removal and Installation". PASSENGER SIDE

PASSENGER SIDE : Description

Adjusts heated seat temperature and deactivates heated seat.

PASSENGER SIDE : Component Function Check

**1**.CHECK HEATED SEAT SWITCH FUNCTION

Check that heated seat warms to preset temperature when operating heated seat switch to the optimal position.

Is the inspection result normal?

YES >> Heated seat switch function is OK.

NO >> Refer to <u>SE-48</u>, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

**1.**CHECK HEATED SEAT CONTROL UNIT INPUT SIGNAL

Revision: July 2016

INFOID:000000012173749

INFOID:000000012173747

INFOID:000000012173748

### < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.

- 2. Disconnect heated seat control unit connector.
- 3. Turn ignition switch ON.

4. Check voltage between heated seat control unit harness connector and ground.

(-	+)					E	
Heated seat	t control unit	(-)	Condition			Voltage (V) (Approx.)	
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	C	
				OFF	0		
				1 (Min. temperature)	12.24		
				2	12.33		
B462	B462 67 Gr	Ground	Heated seat switch position	3	12.49		
					4	12.63	E
				5	12.76		
				6 (Max. temperature)	12.90		

Is the inspection result normal?

YES >> Heated seat switch circuit is OK.

NO >> GO TO 2.

# 2. CHECK HEATED SEAT SWITCH CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect heated seat switch connector.
- 3. Check continuity between heated seat switch harness connector and heated seat control unit harness connector.

	Continuity	t control unit	Heated sea	eat switch	Heated se
_	Continuity	Terminal	Connector	Terminal	Connector
S	Existed	67	B462	2	M178

4. Check continuity between heated seat switch harness connector and ground.

Heated se	eat switch		Continuity	K
Connector	Terminal	Ground	Not eviated	-
M178	2	_	Not existed	
the inspection result norm	al?			L

Connector	Terminal	Ground	Net a fate d
M178	2	-	Not existed
Is the inspection result n	ormal?		
YES >> GO TO 3. NO >> Repair or re			
<b>3.</b> CHECK HEATED SE	AT SWITCH		
Check heated seat swite Refer to <u>SE-49, "PASSE</u>	h. NGER SIDE : Component Ins	pection".	
Is the inspection result n	ormal?		
YES >> GO TO 4. NO >> Replace hea 4.CHECK INTERMITTE	ited seat switch. Refer to <u>SE</u>	152. "Removal and Installa	<u>tion"</u> .
Check intermittent incide Refer to <u>GI-42, "Intermit</u>			
>> INSPECTIO	N END		
PASSENGER SIDE	: Component Inspection	on	INFOID:000000012173750
1.CHECK FRONT HEA	TED SEAT SWITCH		

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### < DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition OFF.
- 2. Disconnect heated seat switch connector.
- 3. Check resistance between heated seat switch terminals as follows.

	eat switch ninal	Conditi	on	Resistance (KΩ) (Approx.)
	1		ON	0
			OFF	x
			1 (Min. temperature)	2.400
5		Heated seat switch position	2	1.800
5	2	Healed Seal Switch position	3	1.200
			4	0.910
			5	0.620
			6 (Max. temperature)	0.348

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace heated seat switch. Refer to <u>SE-152, "Removal and Installation"</u>.

# HEATED SEAT RELAY

		ILD SLAI KL		
< DTC/CIRCUIT DIAGNOS	IS >			
HEATED SEAT REL	.AY			
Description				INFOID:000000012173751
Power is supplied to the hea	ted seat using ig	nition power supply	control	
Component Function (				INFOID:000000012173752
				INFOID.000000012173752
1.CHECK HEATED SEAT F				
Check that heated seat warr tion.	ns to preset tem	perature when ope	erating heated seat	switch to the optimal posi-
Is the inspection result norma	al?			
YES >> Heated seat rela				
NO >> Refer to <u>SE-51,</u>	"Diagnosis Proce	edure"		
Diagnosis Procedure				INFOID:000000012173753
1.CHECK HEATED SEAT F	RELAY POWER	SUPPLY		
1. Turn ignition switch OFF				
<ol> <li>Disconnect heated seat</li> <li>Turn ignition switch ON.</li> </ol>	relay.			
<ol> <li>Turn ignition switch ON.</li> <li>Check voltage between</li> </ol>	heated seat relay	/ terminal connecto	or and ground.	
			-	
·)				Voltage (V)
Connector	seat relay Terminal	1	()	(Approx.)
M70	2		Ground	Battery voltage
is the inspection result norma			0.00.00	
YES >> GO TO 3.				
NO >> GO TO 2.				
2.CHECK HEATED SEAT F		SUPPLY CIRCUIT		
<ol> <li>Turn ignition switch OFF</li> <li>Disconnect fuse block (J</li> </ol>				
		lay terminal conne	ctor and fuse block	(J/B) harness connector.
Heated seat re	av	Fusa	block (J/B)	
Connector	Terminal	Connector	Terminal	Continuity
M70	2	M1	2A	Existed
4. Check continuity betwee	n heated seat re	lay terminal conne	ctor and ground.	
Heated	seat relay			
Connector	Terminal	1	Ground	Continuity
M70	2			Not existed
Is the inspection result norma	al?	ŀ	I	
YES >> GO TO 5.				
NO >> Repair or replace				
3.CHECK HEATED SEAT F				
1. Turn ignition switch OFF	•			

Turn ignition switch OFF.
 Check continuity between heated seat relay terminal connector and ground.

# LEATED GEAT DEL AV

Heated seat relay					Continuity
	Connector	Terminal	Grour	nd	
	M70	1			Existed
YES > NO >	<ul> <li>&gt; GO TO 4</li> <li>&gt; Repair of</li> </ul>	ult normal? 4. r replace harness. SEAT RELAY			
lefer to <u>S</u> the insp YES >	> Heated s	elay. nponent Inspection". ult normal? seat relay is OK. heated seat relay.			
	•	ITTENT INCIDENT			
Refer to <u>G</u>		cident. <u>'mittent Incident''</u> . TION END			
	nent Insp				INFOID:000000012173
		SEAT RELAY			
2. Disco		tch OFF. ed seat relay. v between heated seat relay terminal	S.		
	minal	Condition	Continuity	(3)	
Terr	_	12 V direct current supply between termi- nals 1 and 2.	Existed	<b>1</b>	
Terr 3	5				
	5	No current supply	Not existed		3

< DTC/CIRCUIT DIAG	NOSIS >					
HEAT SENSOR						А
DRIVER SIDE						7.1
DRIVER SIDE : De	escription				INFOID:000000012173755	В
Detects seat cushion he	eater temperature an	d outputs t	o heated s	eat control unit.		
DRIVER SIDE : Co	omponent Funct	ion Cheo	ck		INFOID:000000012173756	C
1. CHECK FUNCTION						0
	warms to preset ten	nperature v	when oper	ating heated seat	switch to the optimal posi-	D
tion. Is the inspection result r	normal?					
YES >> Heat senso	r function is OK.					Е
NO >> Refer to <u>SE</u>	-51, "Diagnosis Proc	edure"				
DRIVER SIDE : Di	agnosis Procedu	ure			INFOID:000000012173757	_
1.CHECK HEAT SENS	OR INPUT SIGNAL					F
1. Turn ignition switch	ON.					
2. Check voltage betw	veen heated seat cor	itrol unit ha	arness con	nector and ground		G
(+	+)					
Heated seat	t control unit	(	—)	Condition	Voltage (V) (Approx.)	Н
Connector	Terminal					
				OFF	0	
				1 (Min. temperature)	10.87 - 11.02 10.93 - 11.07	
B439	69	Gro	ound	3	11.04 – 11.17	SE
5100	00			4	11.13 – 11.26	ŰL
				5	11.22 – 11.34	
				6 (Max. temperature		Κ
NOTE:				, i	, 	
		wn as per	the followir	ng list depending o	on heater unit temperature.	L
Is the inspection result r						
YES >> Heat senso NO >> GO TO 2.	r function is OK.					D. 4
2.CHECK HEAT SENS						Μ
1. Turn ignition switch						
2. Disconnect heated	seat control unit con					Ν
<ol> <li>Check continuity be connector.</li> </ol>	etween heated seat	control uni	it harness	connector and se	at cushion heater harness	
						0
Heated seat	t control unit		Seat cush	nion heater	Continuity	
Connector	Terminal	Conr	nector	Terminal		
B439	69		140	69	Existed	Ρ
4. Check continuity be	etween heated seat o	ontrol unit	harness co	onnector and grou	nd.	
Heate	ed seat control unit				Continuity	
Connector	Termin	al	4	Ground	Continuity	

Connector Terminal Ground B439 69 Is the inspection result normal?

Not existed

### < DTC/CIRCUIT DIAGNOSIS >

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

## **3.**CHECK HEAT SENSOR POWER SUPPLY

### 1. Turn ignition switch ON.

2. Check voltage between seat cushion heater harness connector and ground.

Seat cus	(+) Seat cushion heater		Voltage (V) (Approx.)	
Connector	Terminal		( FF - )	
B440	66	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

**4.**CHECK HEAT SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect heated seat switch connector.
- 3. Check continuity between heated seat control unit harness connector and seat cushion heater harness connector.

Heated s	eat switch	Seat cush	nion heater	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M177	1	B440	66	Existed

4. Check continuity between heated seat control unit harness connector and ground.

Heated s	eat switch		Continuity
Connector	Terminal	Ground	Not existed
M177	1	-	NOL EXISTED

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

**5.**CHECK HEAT SENSOR

Check heat sensor. Refer to SE-54, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace seat cushion heater. Refer to <u>SE-129, "Exploded View"</u>.

**6.**CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

### >> INSPECTION END

### **DRIVER SIDE : Component Inspection**

1.CHECK HEAT SENSOR

1. Turn ignition switch OFF.

2. Disconnect seat cushion heater connector.

3. Check resistance between seat cushion heater terminals as follows.

**Revision: July 2016** 

INFOID:000000012173758

### < DTC/CIRCUIT DIAGNOSIS >

Seat cushic	on heater	Conditio	n	Resistance (KΩ)
Termi	nal			(Approx.)
66	69	When heat sensor temperature	e is 25°C (77°F)	9.9 – 10.1
<b>NOTE:</b> Resistance value of	changes according	g to temperature.		
the inspection result	normal?			
YES >> INSPECTI		n Defende OF 400 "Evel	e de el Miennil	
NO >> Replace se ASSENGER SI		r. Refer to <u>SE-129, "Explo</u>		
ASSENGER SIE	DE : Descriptio	on		INFOID:000000012173759
etects seat cushion h	eater temperature	e and outputs to heated s	eat control unit.	
		ent Function Check		
ASSENGER SIL				INFOID:000000012173760
CHECK HEATER S	ENSOR FUNCTI	ON		
Check that heated sea	at warms to prese	t temperature when opera	ating heated seat sw	vitch to the optimal posi-
ion.				
s the inspection result				
	or function is OK. E-51, "Diagnosis	Procedure"		
	-			
PASSENGER SIE	E . Diagnosis	Procedure		INFOID:000000012173761
<b>I</b> .CHECK HEAT SEN	ISOR INPUT SIGI	NAL		
. Turn ignition switc	h ON.			
		control unit harness con	nector and ground.	
	(.)			
	(+)		Condition	Voltage (V)
	at control unit	(-)	Condition	(Approx.)
Connector	Terminal			1
			OFF	0
			OFF 1 (Min. temperature)	0 10.87 - 11.02

(+	-)			
Heated seat control unit		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			OFF	0
			1 (Min. temperature)	10.87 – 11.02
			2	10.93 - 11.07
B462	69	69 Ground	3	11.04 – 11.17
			4	11.13 – 11.26
		5	11.22 – 11.34	
			6 (Max. temperature)	11.31 – 11.43

### NOTE:

Voltage is repeated within the value shown as per the following list depending on heater unit temperature. Is the inspection result normal?

YES >> heat sensor function is OK.

NO >> GO TO 2.

2. CHECK HEAT SENSOR CIRCUIT

Turn ignition switch OFF. 1.

2. Disconnect heated seat control unit connector and seat cushion heater connector.

3. Check continuity between heated seat control unit harness connector and seat cushion heater harness connector.

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### < DTC/CIRCUIT DIAGNOSIS >

Heated sea	t control unit	Seat cushion heater Connector Terminal			
Connector	Terminal				
B462	69	B463	69	Existed	

4. Check continuity between heated seat control unit harness connector and ground.

Heated seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B462	69		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# $\mathbf{3}.$ CHECK HEAT SENSOR POWER SUPPLY

### 1. Turn ignition switch ON.

2. Check voltage between seat cushion heater harness connector and ground.

(	(+) Seat cushion heater		Voltage (V) (Approx.)
Seat cus			
Connector	Terminal		(
B463	66	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

**4.**CHECK HEAT SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect heated seat switch connector.

3. Check continuity between heated seat control unit harness connector and seat cushion heater harness connector.

Heated s	Heated seat switch		Seat cushion heater		
Connector	Terminal	Connector Terminal		Continuity	
M178	1	B463	66	Existed	

4. Check continuity between heated seat control unit harness connector and ground.

Heated s	I seat switch		Continuity	
Connector	Terminal	Ground	Not existed	
M178	1		Not existed	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

**5.**CHECK HEAT SENSOR

Check heat sensor. Refer to SE-57, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace seat cushion heater. Refer to <u>SE-129, "Exploded View"</u>.

**6.**CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to GI-42, "Intermittent Incident".

< DTC/CIRCUIT	DIAGNOSIS >
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## >> INSPECTION END

# PASSENGER SIDE : Component Inspection

INFOID:0000000012173762

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# 1.CHECK HEAT SENSOR

## 1. Turn ignition switch OFF.

2. Disconnect seat cushion heater connector.

3. Check resistance between seat cushion heater terminals as follows.

	nion heater minal	Condition	Resistance (KΩ) (Approx.)	
66 69		When heat sensor temperature is 25°C (77°F)	9.9 – 10.1	
IOTE: Resistance value c	hanges according	to temperature.		

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat cushion heater. Refer to <u>SE-129, "Exploded View"</u>.

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< DTC/CIRCUIT DIAGNOSIS >

# SEAT CUSHION HEATER **DRIVER SIDE**

**DRIVER SIDE** : Description

Warms the seat cushion.

DRIVER SIDE : Component Function Check

1. CHECK SEAT CUSHION HEATER FUNCTION

Check that heated seat warms to preset temperature when operating heated seat switch to the optimal position.

Is the inspection result normal?

YES >> Seat cushion heater function is OK.

>> Refer to SE-58, "DRIVER SIDE : Diagnosis Procedure". NO

DRIVER SIDE : Diagnosis Procedure

1. CHECK SEAT CUSHION HEATER INPUT SIGNAL

#### 1. Turn ignition switch OFF.

- Disconnect seat cushion heater connector. 2.
- Turn ignition switch ON. 3.
- 4. Check voltage between seat cushion heater harness connector and ground.

(	+) nion heater	()	Condition		Voltage (V) (Approx.)
Connector	Terminal				V FF - 7
B440	68	Cround	Heated seat	Operated	0 – Battery voltage
D440	00	Ground	nealed seal	Other than the above	0

### NOTE:

Voltage is repeated within the value shown as per the following list depending on heater unit temperature. Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK SEAT CUSHION HEATER CIRCUIT

1. Turn ignition switch OFF.

Disconnect heated seat control unit connector. 2.

Check continuity between seat cushion heater harness connector and heated seat control unit harness 3. connector.

Seat cush	Seat cushion heater		Heated seat control unit	
Connector	Terminal	Connector Terminal		Continuity
B440	68	B439	68	Existed

Check continuity between seat cushion heater harness connector and ground. 4.

Seat cushion heater			Continuity
Connector	Terminal	Ground	Continuity
B440	68		Not existed

Is the inspection result normal?

YES >> Replace heated seat control unit. Refer to SE-149, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK SEAT CUSHION HEATER

INFOID-000000012173763

INFOID:000000012173764

INFOID:000000012173765

# SEAT CUSHION HEATER

< DTC/CIRCUIT DIAGNOS	IS >		
Check seat cushion heater.		e e tie e ll	
Refer to <u>SE-59</u> , "DRIVER SID Is the inspection result norma		<u>Dection"</u> .	A
YES >> GO TO 4.			
		to SE-129, "Exploded View".	В
4.CHECK SEAT CUSHION	HEATER GROUND	CIRCUIT	
Check continuity between se	at cushion heater ha	arness connector and ground.	С
Seat cush	ion heater		Continuity
Connector	Terminal	Ground	D
B440	59		Existed
Is the inspection result norma YES >> GO TO 5.			Е
NO >> Repair or replace			
5. CHECK INTERMITTENT	INCIDENT		F
Check intermittent incident.	un cial o máll		F
Refer to GI-42, "Intermittent I			
>> INSPECTION EI	ND		G
DRIVER SIDE : Comp	onent Inspectio	n	INFOID:000000012173766
			H
1.CHECK SEAT CUSHION			_
<ol> <li>Turn ignition switch OFF.</li> <li>Disconnect seat cushion</li> <li>Check resistance between</li> </ol>	heater connector a	nd seatback heater connector. ter terminals as follows.	I
Seat cushion heate	er		Resistance SE
Terminal		Condition	(Ω) (Approx.)
59	68 When hear	t sensor temperature is 20°C (68°F)	2.6 – 3.0 K
NOTE:			N N
Resistance value change		perature.	
Is the inspection result norma YES >> INSPECTION EI	<u>al (</u>		
			L
		o SE-129, "Exploded View".	L
NO >> Replace seat cus PASSENGER SIDE		o SE-129, "Exploded View".	L
	shion heater. Refer t	to <u>SE-129, "Exploded View"</u> .	
PASSENGER SIDE PASSENGER SIDE : [	shion heater. Refer t	to <u>SE-129, "Exploded View"</u> .	Μ
PASSENGER SIDE PASSENGER SIDE : D Warms the seat cushion.	shion heater. Refer t Description		INFOID:000000012173767 N
PASSENGER SIDE PASSENGER SIDE : D Warms the seat cushion. PASSENGER SIDE : C	shion heater. Refer t Description Component Fur	nction Check	INFOID:000000012173767
PASSENGER SIDE PASSENGER SIDE : D Warms the seat cushion. PASSENGER SIDE : C 1.CHECK SEAT CUSHION	shion heater. Refer t Description Component Fur HEATER FUNCTIO	nction Check	M INFOID:000000012173767 N INFOID:000000012173768
PASSENGER SIDE PASSENGER SIDE : D Warms the seat cushion. PASSENGER SIDE : C 1.CHECK SEAT CUSHION	shion heater. Refer t Description Component Fur HEATER FUNCTIO	nction Check	M INFOID:000000012173767 N INFOID:000000012173768 O switch to the optimal posi-
PASSENGER SIDE PASSENGER SIDE : D Warms the seat cushion. PASSENGER SIDE : O 1.CHECK SEAT CUSHION Check that heated seat warm	shion heater. Refer t Description Component Fur HEATER FUNCTIO	nction Check	M INFOID:000000012173767 N INFOID:000000012173768
PASSENGER SIDE         PASSENGER SIDE : I         Warms the seat cushion.         PASSENGER SIDE : O         1.CHECK SEAT CUSHION         Check that heated seat warr         tion.         Is the inspection result normation         YES       > Seat cushion heat	shion heater. Refer t Description Component Fur HEATER FUNCTIO ns to preset tempera al? ater function is OK.	nction Check N ature when operating heated seat	M INFOID:000000012173767 N INFOID:000000012173768 O switch to the optimal posi-
PASSENGER SIDE         PASSENGER SIDE : D         Warms the seat cushion.         PASSENGER SIDE : O         1.CHECK SEAT CUSHION         Check that heated seat warm         tion.         Is the inspection result normal         YES       >> Seat cushion heat         NO       >> Refer to SE-59.	shion heater. Refer t Description Component Fur HEATER FUNCTIO ns to preset tempera al? ater function is OK. 'PASSENGER SIDE	nction Check N ature when operating heated seat seat seat seat seat seat seat seat	INFOID:000000012173767 N INFOID:000000012173768 O switch to the optimal posi-
PASSENGER SIDE         PASSENGER SIDE : I         Warms the seat cushion.         PASSENGER SIDE : I         Warms the seat cushion.         PASSENGER SIDE : I         Output         I.CHECK SEAT CUSHION         Check that heated seat warm tion.         Is the inspection result normal YES         NO       >> Refer to SE-59.         PASSENGER SIDE : I	shion heater. Refer t Description Component Fur HEATER FUNCTIO ns to preset tempera al? ater function is OK. <u>PASSENGER SIDE</u> Diagnosis Proce	nction Check N ature when operating heated seat a E : Diagnosis Procedure". edure	M INFOID:000000012173767 N INFOID:000000012173768 O switch to the optimal posi-
PASSENGER SIDE         PASSENGER SIDE : D         Warms the seat cushion.         PASSENGER SIDE : O         1.CHECK SEAT CUSHION         Check that heated seat warm         tion.         Is the inspection result normal         YES       >> Seat cushion heat         NO       >> Refer to SE-59.	shion heater. Refer t Description Component Fur HEATER FUNCTIO ns to preset tempera al? ater function is OK. <u>PASSENGER SIDE</u> Diagnosis Proce	nction Check N ature when operating heated seat a E : Diagnosis Procedure". edure	INFOID:000000012173767 N INFOID:000000012173768 O switch to the optimal posi-

# SEAT CUSHION HEATER

### < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.

- 2. Disconnect seat cushion heater connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between seat cushion heater harness connector and ground.

(+	-)		Condition		Voltage (V)
Seat cush	ion heater	(—)			(Approx.)
Connector	Terminal				
B463	68	Ground	Heated seat	Operated	0 – Battery voltage
0400	00	Ground	Healeu Seal	Other than the above	0

### NOTE:

Voltage is repeated within the value shown as per the following list depending on heater unit temperature. Is the inspection result normal?

YES >> GO TO 3. NO >> GO TO 2.

2. CHECK SEAT CUSHION HEATER CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect heated seat control unit connector.

3. Check continuity between seat cushion heater harness connector and heated seat control unit harness connector.

Seat cush	nion heater	Heated sea	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B463	68	B462	68	Existed

4. Check continuity between seat cushion heater harness connector and ground.

Seat cush	iion heater		Continuity				
Connector	Terminal	Ground	Continuity				
B463	68		Not existed				

Is the inspection result normal?

YES >> Replace heated seat control unit. Refer to <u>SE-149</u>, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK SEAT CUSHION HEATER

Check seat cushion heater.

Refer to <u>SE-61</u>, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat cushion heater. Refer to <u>SE-129. "Exploded View"</u>.

4.CHECK SEAT CUSHION HEATER GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Check continuity between seat cushion heater harness connector and ground.

Seat cush	nion heater		Continuity
Connector	Terminal	Ground	Continuity
B463	59		Existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

**5.**CHECK INTERMITTENT INCIDENT

Check intermittent incident.

## SEAT CUSHION HEATER

< DTC/CIRCUIT DIAGNOSIS >

Refer to GI-42, "Intermittent Incident".

### >> INSPECTION END

## PASSENGER SIDE : Component Inspection

INFOID:000000012173770 B

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# **1.**CHECK SEAT CUSHION HEATER

1. Turn ignition switch OFF.

2. Disconnect seat cushion heater connector and seatback heater connector.

3. Check resistance between seat cushion heater terminals as follows.

Seat cus	hion heater		Resistance
Ter	minal	Condition	(Ω) (Approx.)
59	cushion heater Terminal 68 Wh	When heat sensor temperature is 20°C (68°F)	2.6 - 3.0
NATE	4		

### NOTE:

Resistance value changes according to temperature.

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat cushion heater. Refer to <u>SE-129, "Exploded View"</u>.

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## SEATBACK HEATER

< DTC/CIRCUIT DIAGNOSIS >

# SEATBACK HEATER DRIVER SIDE

**DRIVER SIDE : Description** 

Warms the seat back heater.

DRIVER SIDE : Component Function Check

## **1.**CHECK SEATBACK HEATER FUNCTION

Check that heated seat warms to preset temperature when operating heated seat switch to the optimal position.

Is the inspection result normal?

YES >> Seatback heater function is OK.

NO >> Refer to <u>SE-62, "DRIVER SIDE : Diagnosis Procedure"</u>.

## **DRIVER SIDE : Diagnosis Procedure**

## **1.**CHECK SEATBACK HEATER

### 1. Turn ignition switch OFF.

- 2. Disconnect seatback heater connector.
- 3. Check resistance between seatback heater terminals.

	Seatback heater			Resistance
Connector	Terr	ninal	Condition	(Ω) (Approx.)
B442	1	2	When heat sensor temperature is $20^{\circ}C$ ( $68^{\circ}F$ )	4.0 - 4.7

### NOTE:

Resistance value changes according to temperature.

### Is the inspection result normal?

YES >> Replace seat cushion heater. Refer to <u>SE-129</u>, "Exploded View".

NO >> Replace seatback heater. Refer to <u>SE-129, "Exploded View"</u>.

### PASSENGER SIDE

## PASSENGER SIDE : Description

Warms the seat back heater.

## PASSENGER SIDE : Component Function Check

## **1**.CHECK SEATBACK HEATER FUNCTION

Check that heated seat warms to preset temperature when operating heated seat switch to the optimal position.

Is the inspection result normal?

YES >> Seatback heater function is OK.

NO >> Refer to <u>SE-62</u>, "PASSENGER SIDE : Diagnosis Procedure".

## PASSENGER SIDE : Diagnosis Procedure

## **1.**CHECK SEATBACK HEATER

1. Turn ignition switch OFF.

- 2. Disconnect seatback heater connector.
- 3. Check resistance between seatback heater terminals.

INFOID:0000000012173775

INFOID:000000012173773

INFOID:000000012173771

INFOID:000000012173772

INFOID:000000012173774

INFOID:000000012173776

# SEATBACK HEATER

### < DTC/CIRCUIT DIAGNOSIS >

Connector B465 IOTE: Resistance value inspection resu	Seatback heater		Condition	Resistance (Ω)					
	Innector     Terminal     Condition       3465     1     2     When heat sensor temperature is 20°C (6)		(Approx.)						
	1	2	When heat sensor temperature is 20°C (68°F)	4.0 – 4.7					
	alue changes a	ccordina to tem	perature.						
		g	F						
>> Repla	ice seat cushio	n heater. Refer	to <u>SE-129, "Exploded View"</u> .						
>> Repla	ce seatback he	eater. Refer to S	SE-129, "Exploded View".						

Р

## **HEATED SEAT SWITCH INDICATOR**

< DTC/CIRCUIT DIAGNOSIS >

## HEATED SEAT SWITCH INDICATOR DRIVER SIDE

**DRIVER SIDE : Description** 

Illuminates the indicator that indicates the operating status of heated seat.

DRIVER SIDE : Component Function Check

**1.**CHECK HEATED SEAT SWITCH INDICATOR FUNCTION

Check that the related indicator lamp illuminates when heated seat switch is turned ON.

Is the inspection result normal?

YES >> Heated seat switch indicator function is OK.

NO >> Refer to <u>SE-64, "DRIVER SIDE : Diagnosis Procedure"</u>.

**DRIVER SIDE : Diagnosis Procedure** 

# 1. CHECK HEATED SEAT SWITCH INDICATOR GROUND CIRCUIT

- 1. Turn ignition switch OFF
- 2. Disconnect heated seat switch connector.

3. Check continuity between heated seat switch harness connector and ground.

Heated s	eat switch		Continuity
Connector	Terminal	Ground	Continuity
M177	6		Existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK HEATED SEAT SWITCH

### Check heated seat switch. Refer to SE-64. "DRIVER SIDE : Component Inspection".

Refer to <u>SE-64, "DRIVER SIDE : Component Insp</u>

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace heated seat switch. Refer to <u>SE-152, "Removal and Installation"</u>.

**3.**CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

>> INSPECTION END

## **DRIVER SIDE : Component Inspection**

INFOID:000000012173780

## **1.**CHECK HEATED SEAT SWITCH

- 1. Turn ignition OFF.
- 2. Disconnect heated seat switch connector.
- 3. Set the heated seat switch ON.
- 4. Check continuity between heated seat switch terminals as follows.

Heated se	eat switch									
Tern	Terminal									
(+)*	(–)*									
5	6	Existed								
6	5	Not existed								

INFOID:000000012173777

INFOID:000000012173778

INFOID:000000012173779

# HEATED SEAT SWITCH INDICATOR

	HEATED SEAT SW	ITCH INDICATOR	
< DTC/CIRCUIT DIAGNOS	S >		
*For a digital tester. <b>NOTE:</b>			
• Use a tester that can perfor	m LED (light-emitting diod	le) measurement.	
• The polarity (+ and –) rever	• •	an analog tester.	
Is the inspection result normal YES >> INSPECTION EN			
NO >> Replace heated		52, "Removal and Installat	<u>ion"</u> .
PASSENGER SIDE			
PASSENGER SIDE : D	escription		INFOID:000000012173781
Illuminates the indicator that	ndicates the operating sta	itus of heated seat.	
PASSENGER SIDE : C	component Function	Check	INFOID:000000012173782
1.CHECK FUNCTION			
Check that the related indicat	or lamp illuminates when	heated seat switch is turne	ed ON.
Is the inspection result norma	•		
	ch indicator function is OK		
	PASSENGER SIDE : Diag	unosis mocedule.	
PASSENGER SIDE : D	0		INFOID:000000012173783
<b>1.</b> CHECK HEATED SEAT S	WITCH INDICATOR GRO	UND CIRCUIT	
<ol> <li>Turn ignition switch OFF</li> <li>Disconnect heated seats</li> </ol>	witch connector		
		ess connector and ground.	
Heated se	eat switch		
Connector	Terminal	Ground	Continuity
M178	6		Existed
Is the inspection result norma	<u>ll?</u>		
YES >> GO TO 2. NO >> Repair or replace	harness		
2.CHECK HEATED SEAT S			
Check heated seat switch.			
Refer to <u>SE-65, "PASSENGE</u>		<u>ection"</u> .	
Is the inspection result norma	<u>  ?</u>		
YES >> GO TO 3. NO >> Replace heated	seat switch. Refer to <u>SE-1</u>	52, "Removal and Installat	tion".
3. CHECK INTERMITTENT	NCIDENT		
Check intermittent incident.			
Refer to <u>GI-42, "Intermittent I</u>	<u>ncident"</u> .		
>> INSPECTION EN	1D		
PASSENGER SIDE : C	component Inspectio	n	INFOID:000000012173784
1.CHECK HEATED SEAT S	WITCH		
1. Turn ignition OFF.			
<ol> <li>Disconnect heated seats</li> <li>Set the heated seat swite</li> </ol>			

3. Set the heated seat switch ON.

4. Check continuity between heated seat switch terminals.

# HEATED SEAT SWITCH INDICATOR

### < DTC/CIRCUIT DIAGNOSIS >

Heated s	Heated seat switch											
Terr	Terminal											
(+)*	(-)*											
5	6	Existed										
6	5	Not existed										

\*For a digital tester.

NOTE:

• Use a tester that can perform LED (light-emitting diode) measurement.

• The polarity (+ and –) reverses when checking using an analog tester.

Is the inspection result normal?

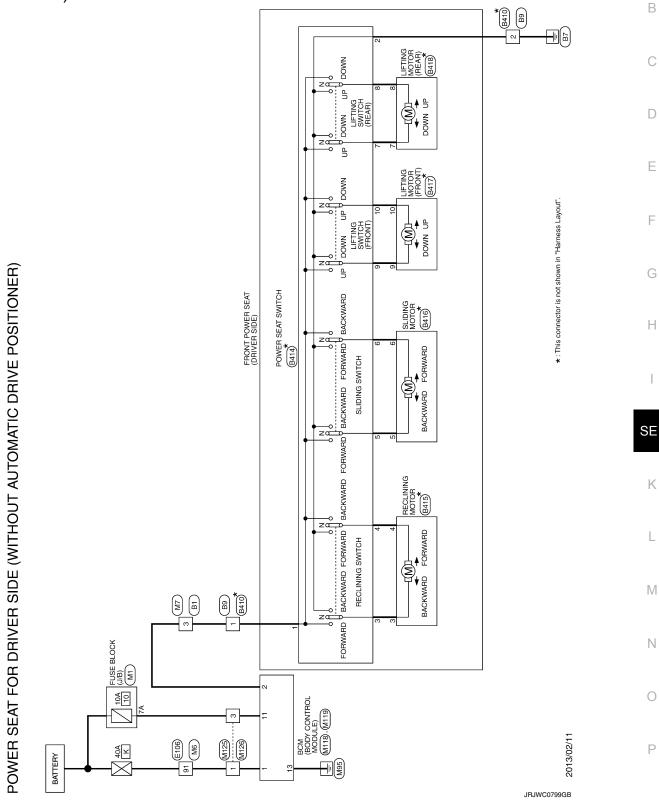
YES >> Heated seat switch is OK.

NO >> Replace heated seat switch. Refer to <u>SE-152, "Removal and Installation"</u>.

## **POWER SEAT**

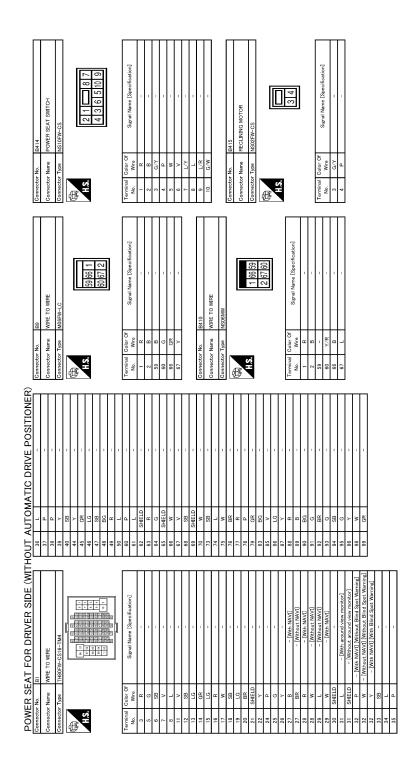
# POWER SEAT

Wiring Diagram - POWER SEAT FOR DRIVER SIDE (WITHOUT AUTOMATIC DRIVE POSITIONER) -



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# **POWER SEAT**



JRJWD2721GB

	A
- (Without ICC) - (Without ICC) - (With IC	В
	С
78         BR           79         L           79         L           79         L           81         B1           82         B2           83         B1           84         C           85         C           86         B1           87         C           88         C           89         C           89         C           89         C           89         C           89         C           90         SHELD           91         C           92         SHELD           93         SHELD           93         SHELD           94         L           95         SHELD           93         SHELD           94         L           95         L           96         SHELD           97         N           93         SHELD           94         L           95         L           96         L           97         N           97	D
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# POWER SEAT

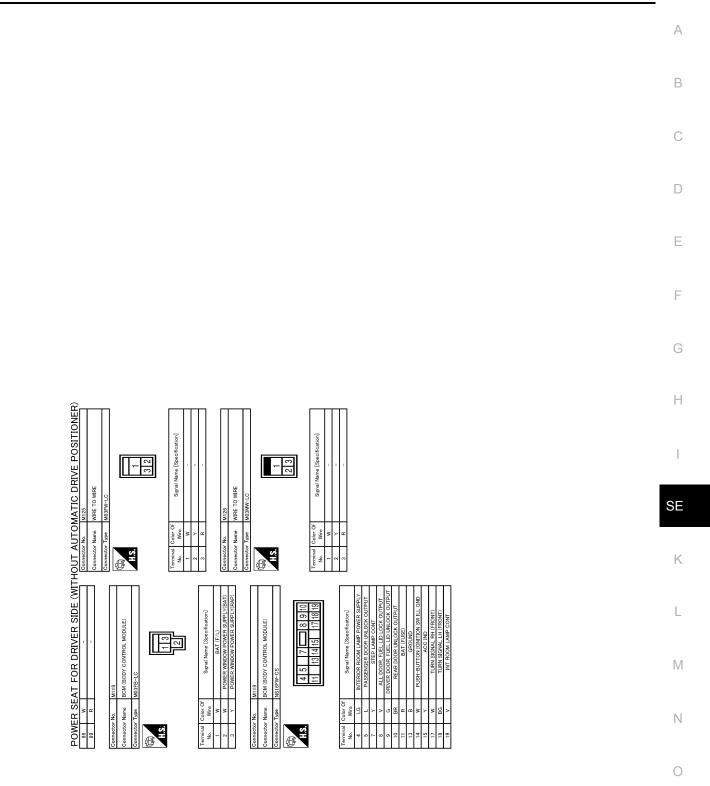
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POWER SEAT FOR DRIVER SIDE (WITHOU	WIRE TO WIRE	TH80MW-CS16-TM4			10	8 0	8				Signal Name [Specification]							1		1	-	-	-	-	-	-	1		1	1	1				-	-	-	-	1	-	1	1	1	1	-	-
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< DTC/CIRCUIT DIAGNOSIS >

# **POWER SEAT**

### < DTC/CIRCUIT DIAGNOSIS >

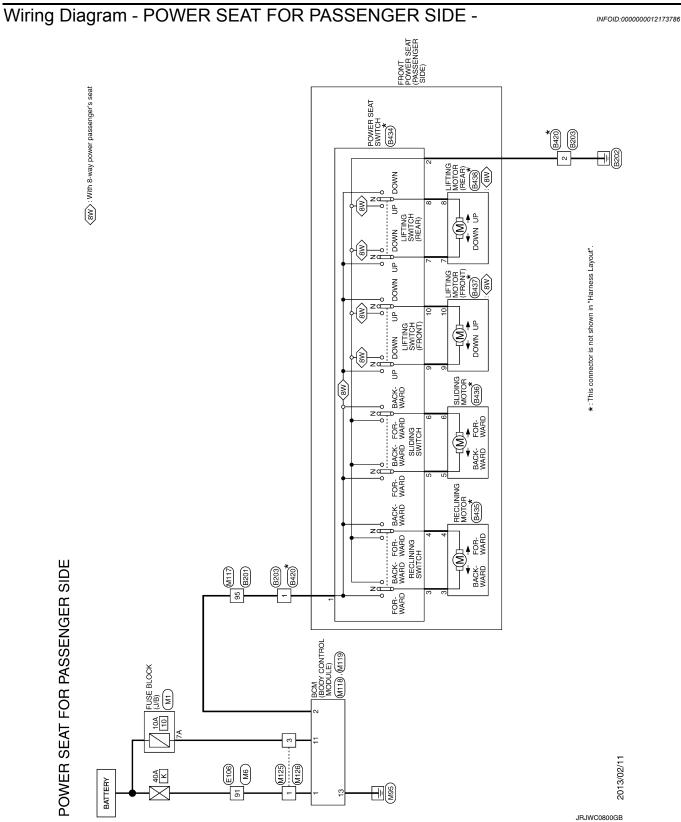


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## **POWER SEAT**





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Connector Name     E       Connector Name     E       Connector Name     V       No.     E       1     No.	G
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B203       WIRE TO WIRE       WIRE TO WIRE       USE Stand Manuel (Sacaffactor)         Stand       MORENT-LO       USE Stand Manuel (Sacaffactor)       USE Stand Manuel (Sacaffactor)	SE
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BOWER SAT FOR DASSENGER SIDE         Connector Nam       WILL OF DASSENGER SIDE         Connector Nam       WILL OF NAM       WILL OF NAM         Connector Nam       MILL OF NAM       MILL OF NAM         Connector Nam       MILL OF NAM       MILL OF NAM         Connector Nam       MILL OF NAM       MILL OF NAM       MILL OF NAM         Connector Nam       MILL OF NAM       Sense Nam       MILL OF NAM       MILL OF NAM         Connector Nam       MILL OF NAM       Sense Nam       MILL OF NAM       MILL OF NAM         Connector Nam       MILL OF NAM       MILL OF NAM       MILL OF NAM       MILL OF NAM         Connector Nam       MILL OF NAM       MILL OF NAM       MILL OF NAM       MILL OF NAM         Connector Nam       MILL OF NAM       MILL OF NAM       MILL OF NAM       MILL OF NAM         Connector Nam       MILL OF NAM       MILL OF NAM       MILL OF NAM <th< td=""><td>L</td></th<>	L
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JRJWD2726GB

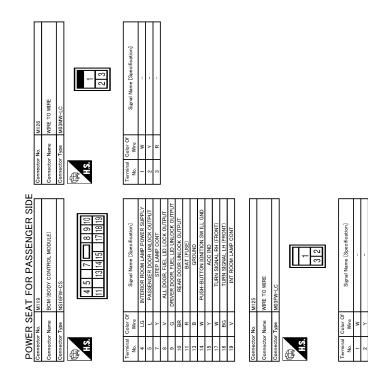
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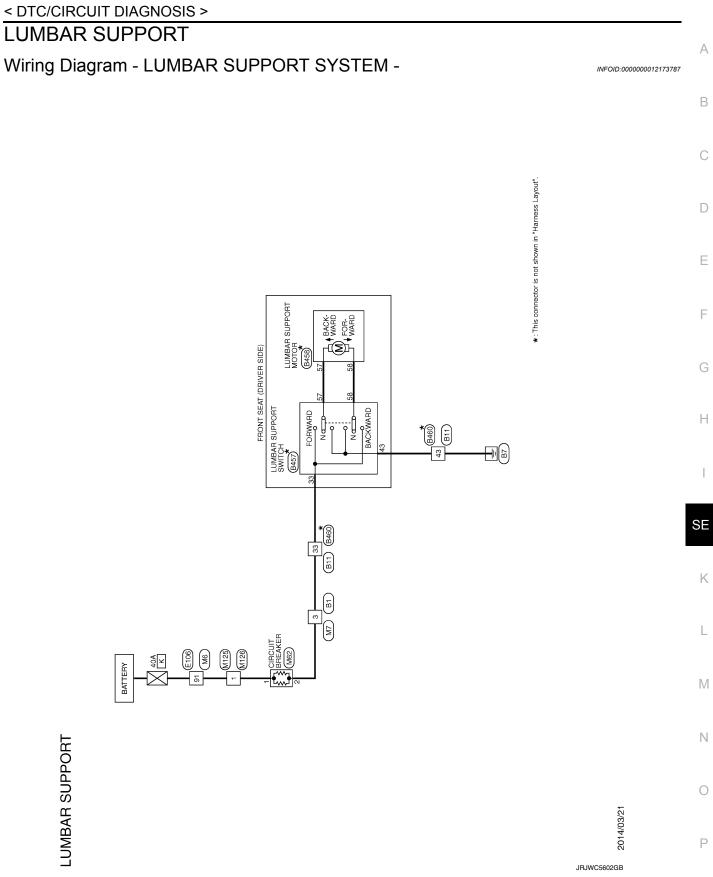
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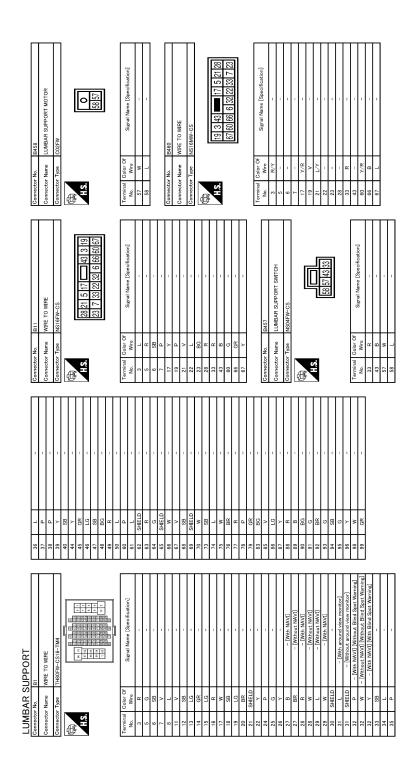
### **Revision: July 2016**



JRJWD2728GB



## LUMBAR SUPPORT



JRJWD2729GB

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M BR		
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LUMBAR SUPPORT

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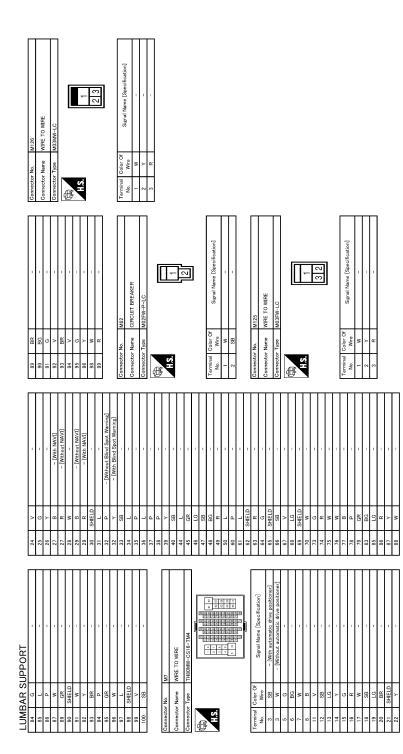
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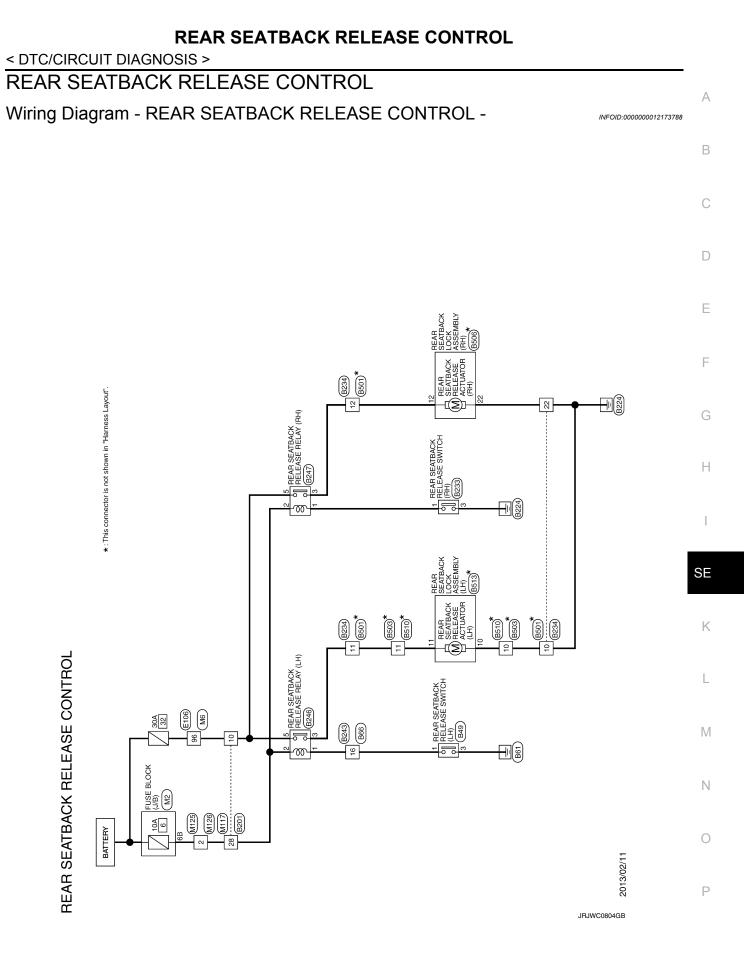
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### LUMBAR SUPPORT



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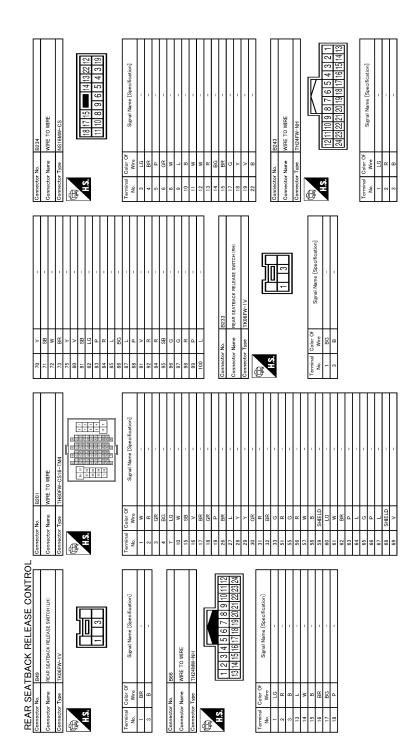


**Revision: July 2016** 

2016 QX50

# REAR SEATBACK RELEASE CONTROL

#### < DTC/CIRCUIT DIAGNOSIS >



JRJWD2748GB

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	С
10         B         1           1         0         0         0           Connector No.         B11         0         0           Connector No.         B11         0         0           Miler         No.         No.         No.           Miler         No.         No.         No.           Miler         No.         No.         No.           No.         No.         No.         No.	D
	E
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E 10 WINE E 10 WINE E 10 WINE Signal Name [Specification] Signal Name [Specification] Signal Name [Specification]	I
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# REAR SEATBACK RELEASE CONTROL

### < DTC/CIRCUIT DIAGNOSIS >

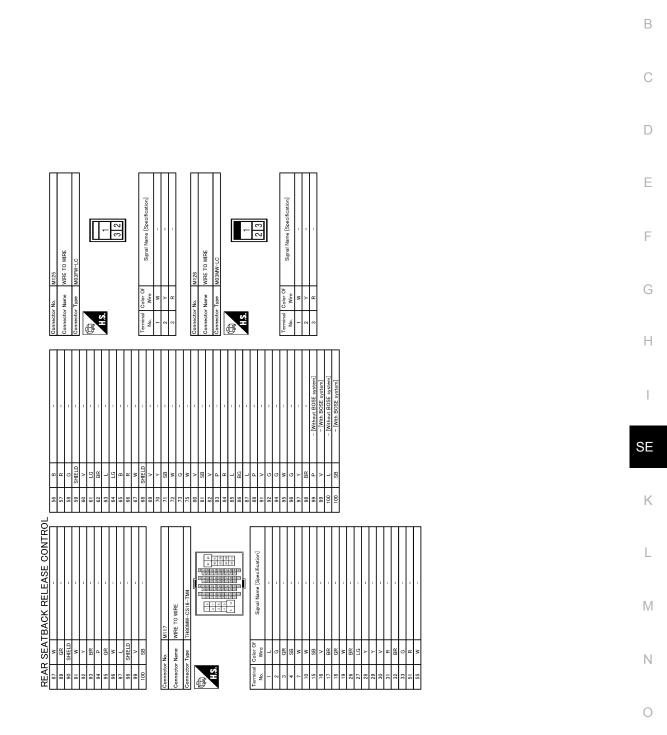
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JRJWD2750GB

# REAR SEATBACK RELEASE CONTROL

< DTC/CIRCUIT DIAGNOSIS >



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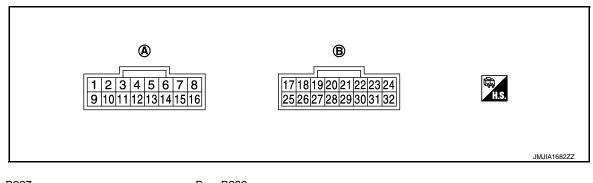
< ECU DIAGNOSIS INFORMATION >

# ECU DIAGNOSIS INFORMATION REAR SEAT BACK POWER RETURN CONTROL UNIT

### **Reference Value**

INFOID:000000012173789

**TERMINAL LAYOUT** 



A. B227

B. B226

### PHYSICAL VALUES

Rear seat back power return control unit

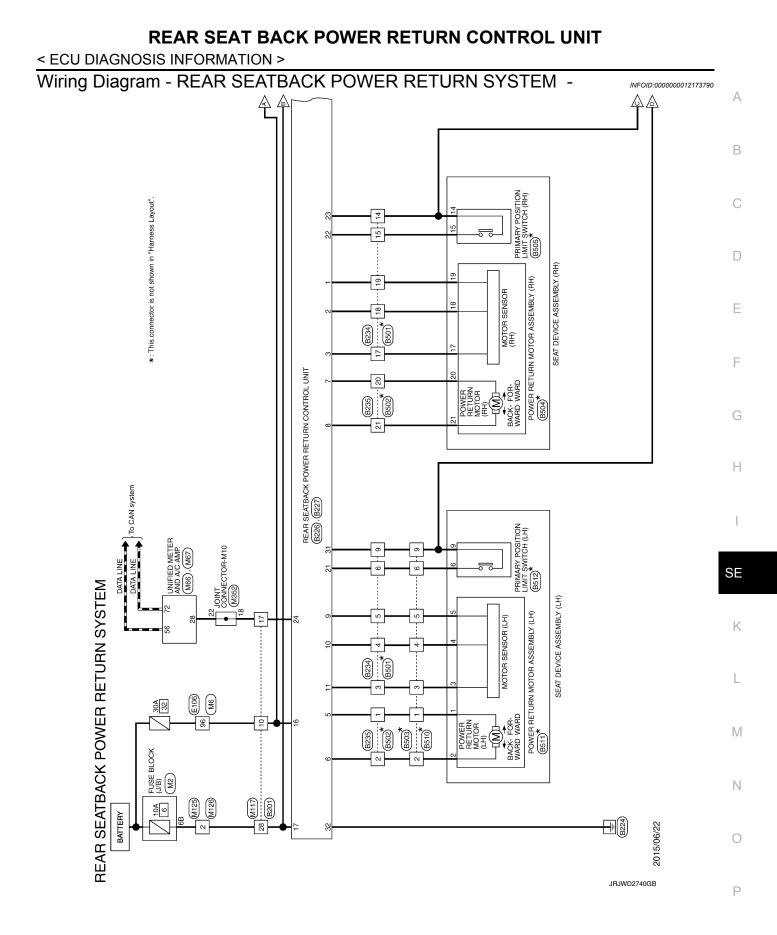
Terminal No. (Wire color)		Description		Condition	Voltage (V)
(+)	(-)	Signal name	Input/ Output	Condition	(Approx.)
1 (V)	Ground	Ground (Motor sensor RH)		_	0
2 (Y)	Ground	Motor sensor (RH) input signal	Input	When the power return motor (RH) is operated	(V) 6 4 2 0 10 ms JMKIA0070GB
				When the pinch occurs	The above pulse width should be expanded
3 (G)	Ground	Motor sensor (RH) Power sup- ply	Input	When the power return motor is operated	Battery voltage
5 (GR)	Ground	Power return motor (LH) back- ward signal	Output	When the power return motor (LH) performs reverse operation	Battery voltage
(GR)		waru signai		Other than the above	0
6	Ground	Power return motor (LH) for-	Output	When the power return motor (LH) performs return operation	Battery voltage
(L)		ward signal		Other than the above	0
7 (SB)	Ground	Power return motor (RH) back- ward signal	Output	When the power return motor (RH) performs reverse operation	Battery voltage
(36)		waru signai		Other than the above	0
8 (R)	Ground	Power return motor (RH) for- ward signal	Output	When the power return motor (RH) performs return operation	Battery voltage
(11)				Other than the above	0
9 (P)	Ground	Ground (Motor sensor LH)	—	_	0

#### < ECU DIAGNOSIS INFORMATION >

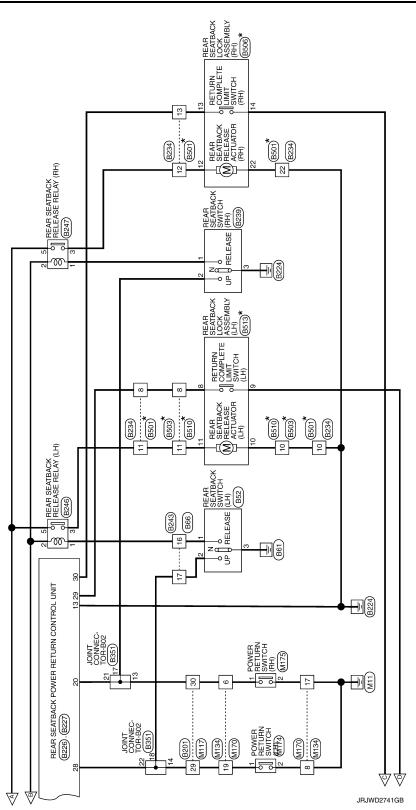
Terminal No. (Wire color)		Description					
(+)	(–)	Signal name	Input/ Output	Condition	Voltage (V) (Approx.)		
10 (BR)	Ground	Motor sensor (LH) input signal	Input	When the power return motor (LH) is operated	(V) 6 4 2 0 10 ms JMKIA0070GB		
				When the pinch occurs	The above pulse width should be expanded		
11 (LG)	Ground	Motor sensor (LH) Power sup- ply	Input	When the power return motor is operated	Battery voltage		
13 (B)	Ground	Ground (power)	_	_	0		
16 (W)	Ground	Battery power supply (power)	Input	_	Battery voltage		
17 (Y)	Ground	Battery power supply (system)	Input	_	Battery voltage		
20 (P)	Ground	Power return switch (RH) or rear seatback switch (RH) in	Input	When pressing the power return switch (RH) or rear seatback switch (RH) in UP direction	0		
		UP direction input signal		Other than the above	5		
21 (GR)	Ground	Primary position limit switch (LH) input signal	Input	When the sector gear (LH) is in the initial position (other than low power consumption mode)	Battery voltage		
				Other than the above	0		
22 (BR)	Ground	Primary position limit switch (RH) input signal	Input	When the sector gear (RH) is in the initial position (other than low power consumption mode)	Battery voltage		
				Other than the above	0		
23 (BG)	Ground	Ground (limit switch RH)	—	_	0		
24 (BR)	Ground	Vehicle speed signal (8-pulse)	Input	When vehicle speed is ap- prox.40 km/h (25MPH)	NOTE: Maximum voltage may be 12 V due to specifications (connected units) (V) 6 4 2 0 • • • 20ms SKIA6649J		
28 (LG)	Ground	Power return switch (LH) or rear seatback switch in UP di- rection input signal	Input	When pressing the power return switch (LH) or rear seatback switch in UP direction	0		
				Other than the above	5		
29 (W)	Ground	Return complete limit switch (LH) input signal	Input	When the rear seatback (LH) is in the return completion position (other than low power consump- tion mode)	Battery voltage		
				Other than the above	0		

#### < ECU DIAGNOSIS INFORMATION >

	ninal No. re color)	Description		Condition	Voltage (V)
(+)	(-)	Signal name	Input/ Output	Condition	(Approx.)
30 (R)	Ground	Return complete limit switch (RH) input signal	Input	When the rear seatback (RH) is in the return completion position (other than low power consump- tion mode)	Battery voltage
				Other than the above	0
31 (L)	Ground	Ground (limit switch LH)		_	0
32 (B)	Ground	Ground (system)			0



< ECU DIAGNOSIS INFORMATION >



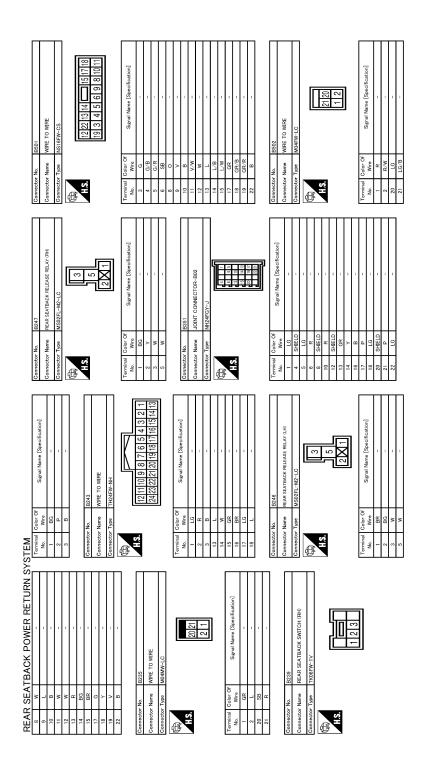
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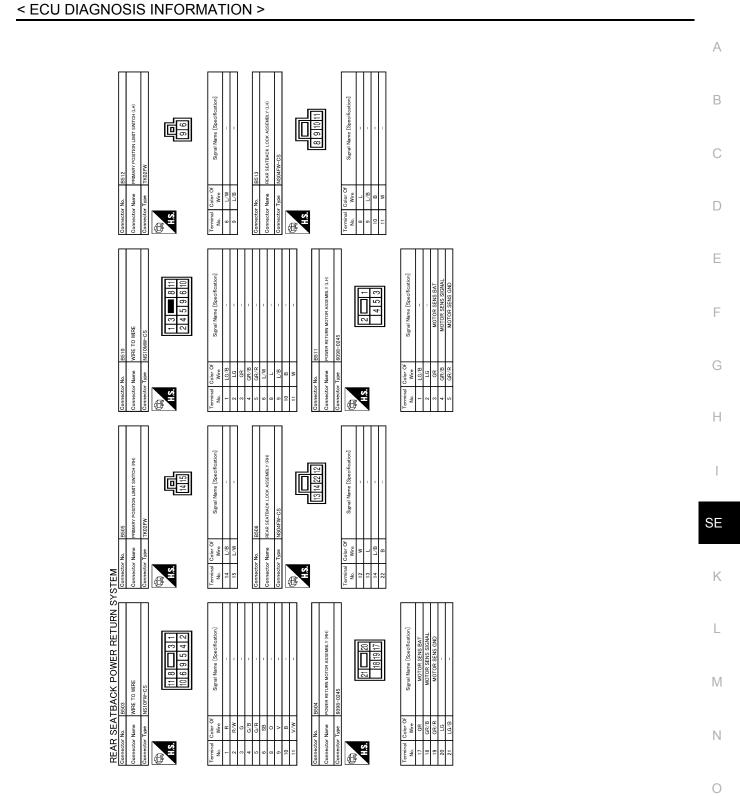
# REAR SEAT BACK POWER RETURN CONTROL UNIT < ECU DIAGNOSIS INFORMATION >

### < ECU DIAGNOSIS INFORMATION >



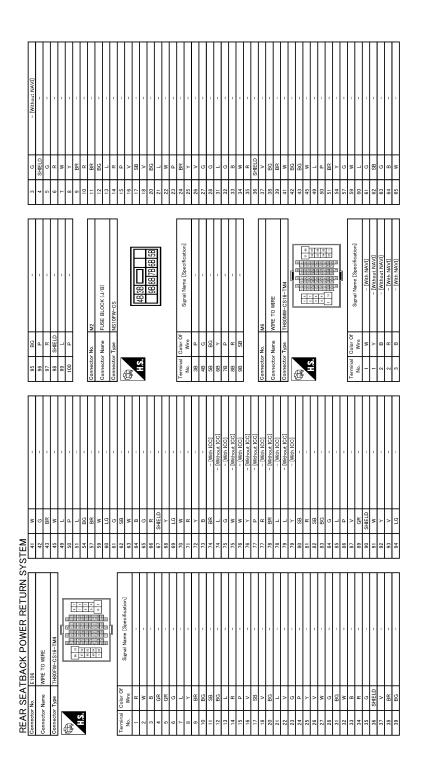
JRJWD2743GB

REAR SEAT BACK POWER RETUR	N CONTROL UNIT



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JRJWD2745GB

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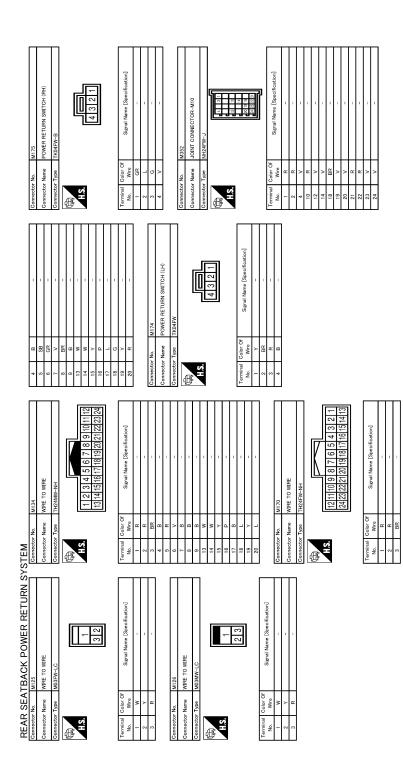
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### REAR SEAT BACK POWER RETURN CONTROL UNIT < ECU DIAGNOSIS INFORMATION >

### < ECU DIAGNOSIS INFORMATION >



JRJWD2747GB

INFOID:000000012173791

Even if the automatic return control is inactivated, the fold-down and manual return operations can be performed

Fail-safe

### < ECU DIAGNOSIS INFORMATION >

Possible location of malfunction	Diagnosis mode	Corrective action
Return complete limit switch "ON" mal- function	The return completion position cannot be de- tected	Detect the lock with the rear seatback power return control unit, and then re- verse the power return motor
Return complete limit switch "OFF" mal- function	The automatic return cannot be performed because the return completion position is mis-recognized	The manual return operation can be per- formed
Primary position limit switch "ON" mal- function	The initial position of the sector gear cannot be detected	Detect the lock with the rear seatback power return control unit, and then stop the power return motor * If the above condition is repeated for 4 times, stop the subsequent automatic re- turn operation. However, the manual re- turn operation can be performed
Primary position limit switch "OFF" mal- function	The initial position of the sector gear is mis- recognized (The sector gear reverse operation cannot be performed)	<ul> <li>Return the sector gear to the initial position if the primary position limit switch is not turned to ON after starting the return (Lock detection)</li> <li>The manual return operation can be performed</li> </ul>
Sensor malfunction (fixed to High or Low)	The motor lock is mis-recognized because the pulse does not change	<ul> <li>If the pulse does not change completely after starting the motor operation, return the sector gear to the initial position</li> <li>The manual return operation can be performed</li> </ul>

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### **HEATED SEAT CONTROL UNIT**

### < ECU DIAGNOSIS INFORMATION >

# HEATED SEAT CONTROL UNIT

### **Reference Value**

INFOID:000000012173792



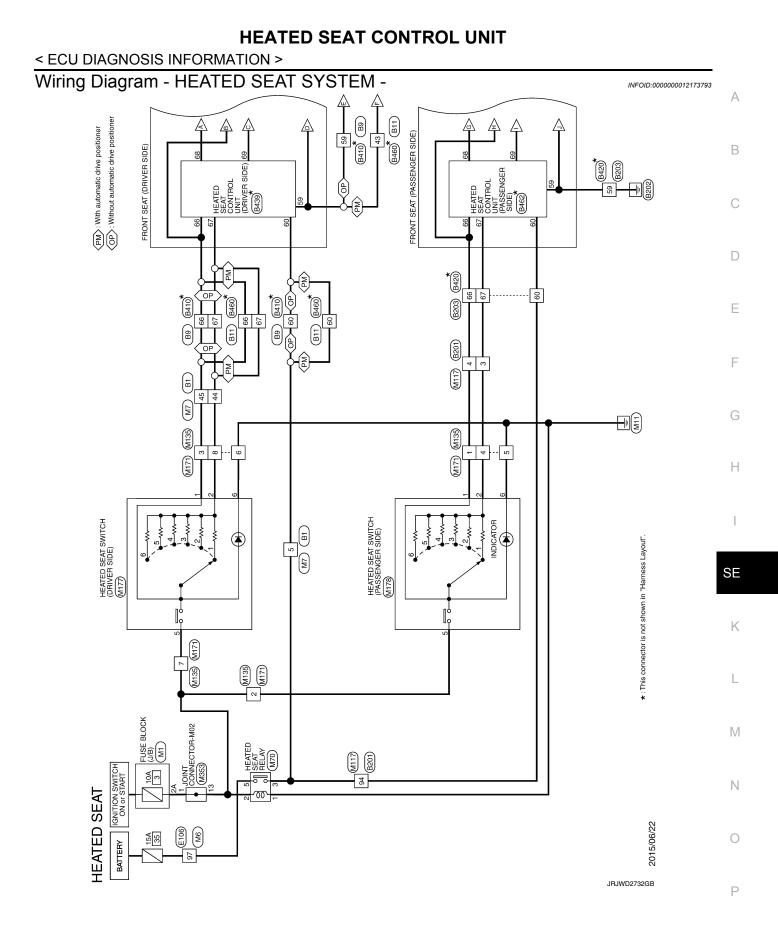


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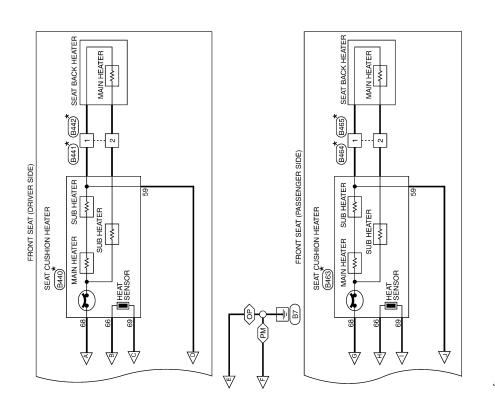
### PHYSICAL VALUES

	nal No. color)	Description			Condition	Voltage (V)
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)
59 (Y)	Ground	Ground	_		_	0
60 (Y/R)	Ground	IGN power supply	Input	Ignition switch	OFF or ACC	0
					ON	Battery voltage
66 (B)	Ground	Heated seat operation sig- nal	Input	Heated seat	Operate	Battery voltage
	Giounu				Other than the above	0
		Heated seat switch signal	Input	Heated seat switch	OFF	0
					1 (Min. temperature)	12.24
					2	12.33
67 (L)	Ground				3	12.49
					4	12.63
					5	12.76
					6 (Max. temperature)	12.90
68 (R/W)	Ground	Seat cushion heater pow- er supply	Output	Heated seat	Operate	0 – Battery voltage
					Other than the above	0
	Ground	Heat sensor signal	Input	Heated seat switch	OFF	0
69 (R)					1 (Min. temperature)	10.87 – 11.02*
					2	10.93 – 11.07*
					3	11.04 – 11.17*
					4	11.13 – 11.26*
					5	11.22 – 11.34*
					6 (Max. temperature)	11.31 – 11.43*

\*: Voltage is repeated within the value shown as per the following list depending on heater unit temperature.



< ECU DIAGNOSIS INFORMATION >



JRJWD2733GB

66 GR	Transition         Marrie         Second         Marrie           1000         Ww         Image: Second         Im	
Gometer No. B9 Connector Nume Connector Type M06FW-LIC B9661 B0672	Terminal No.         Confection No.         Signal Name (Secrification)           No.         No.         Signal Name (Secrification)           2         8         -           2         8         -           2         8         -           2         8         -           67         7         -           67         7         -           67         9         -           67         9         -           67         9         -           67         9         -           68         11         -           7         7         2         13           7         7         13         2         13           7         7         9         -         -           19         7         7         -         -           10         9         -         -         -           11         7         9         -         -           11         7         13         -         -           12         13         -         -         -           13         1         - <td></td>	
36         L           33         P         P           33         P         P           39         P         P           39         Y         P           46         S         P           45         S         P           46         LG         P           47         S         P           48         LG         P           48         LG         P           48         LG         P           48         LG         P           48         P         P           49         P         P           1         S         P           1         S         P	00         D         L           01         D         L         D           02         D         L         D         L           03         D         L         D         L         D         L           03         D         L         D         D         L         D         D         L           04         D </td <td></td>	
HEATED SEAT Geneetor Nun Connector Nun Connector Type International Internat	Terminal         Galor Of No.         Signal Name (Seerification)           0.0         R         -         -           1         V         -         -         -           1         V         -         -         -         -           11         V         -         -         -         -         -           11         V         -         -         -         -         -         -           11         V         - <t< td=""><td></td></t<>	

HEATED SEAT CONTROL UNIT

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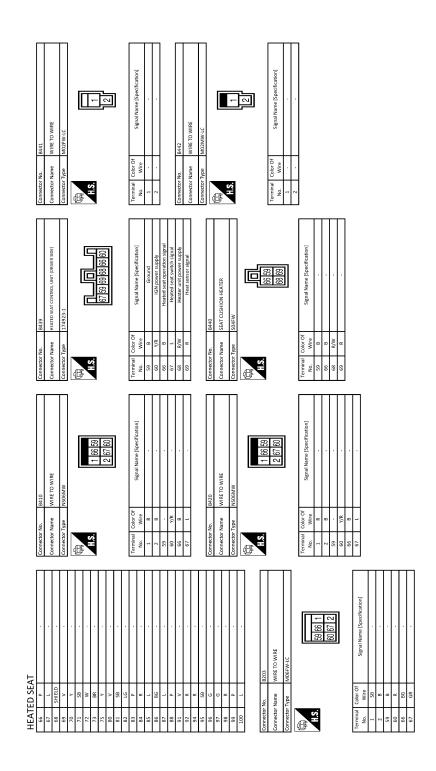
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## HEATED SEAT CONTROL UNIT

#### < ECU DIAGNOSIS INFORMATION >



JRJWD4947GB

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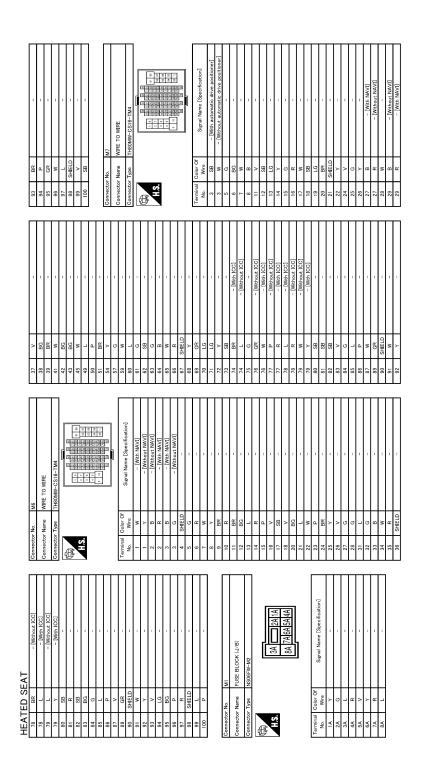
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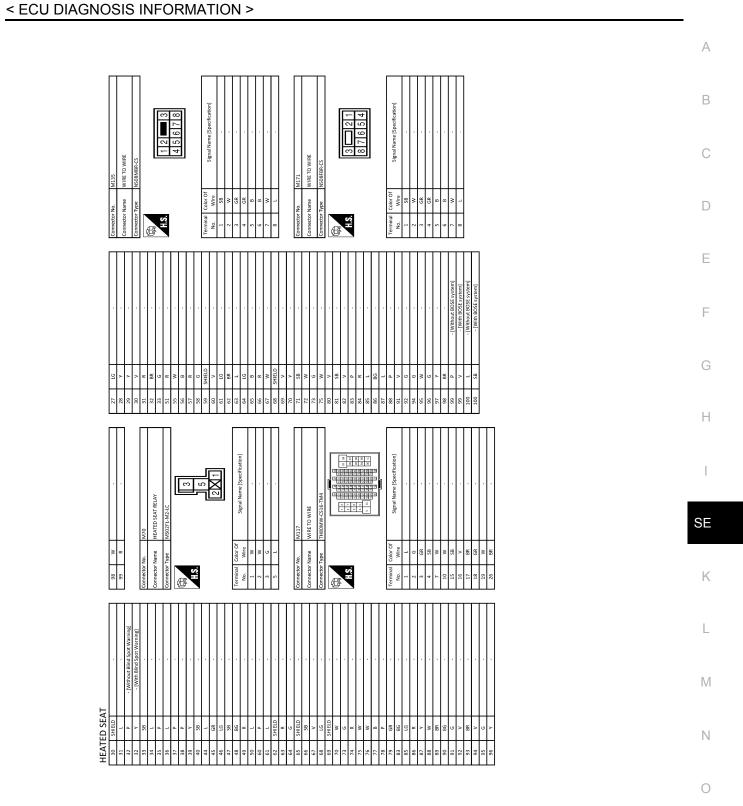
## HEATED SEAT CONTROL UNIT < ECU DIAGNOSIS INFORMATION >

#### < ECU DIAGNOSIS INFORMATION >



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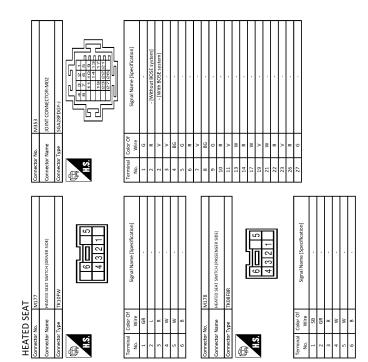
# HEATED SEAT CONTROL UNIT



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< ECU DIAGNOSIS INFORMATION >



JRJWD4949GB

REAR SEATBACK POWER RETURN SYSTEM DOES NOT OPERATE < SYMPTOM DIAGNOSIS >	
SYMPTOM DIAGNOSIS	-
REAR SEATBACK POWER RETURN SYSTEM DOES NOT OPERATE	А
BOTH SIDES	
BOTH SIDES : Diagnosis Procedure	B 14
1. CHECK POWER SUPPLY AND GROUND CIRCUIT	С
Check power supply and ground circuit.	-
Refer to <u>SE-16, "REAR SEATBACK POWER RETURN CONTROL UNIT : Diagnosis Procedure"</u> . <u>Is the inspection result normal?</u>	D
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	Е
2.CHECK VEHICLE SPEED SIGNAL CIRCUIT	
Check vehicle speed signal circuit. Refer to <u>SE-45</u> , "Component Function Check".	
<u>Is the inspection result normal?</u>	F
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	G
3.CONFIRM THE OPERATION	_
Confirm the operation again.	Н
<u>Is the inspection result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	
NO >> GO TO 1.	
LH	
LH : Diagnosis Procedure	-
1.PERFORM POWER RETURN SWITCH AND REAR SEATBACK SWITCH	SE
Perform power return switch and rear seatback switch.	-
From which power return switch (or rear seatback switch) does the seat return operation occur?	K
POWER RETURN SWITCH>>GO TO 2. REAR SEATBACK SWITCH>>GO TO 3.	
BOTH SIDES>>GO TO 4.	L
2.CHECK POWER RETURN SWITCH (LH)	
Check power return switch (LH). Refer to <u>SE-21, "LH : Component Function Check"</u> .	M
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	Ν
<b>3.</b> CHECK REAR SEATBACK SWITCH (LH)	
Check rear seatback switch (LH).	0
Refer to <u>SE-25, "LH : Component Function Check"</u> .	
Is the inspection result normal?	Р
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	1
4. CHECK POWER RETURN MOTOR (LH)	
Check power return motor (LH).	-
Refer to SE-42, "LH : Component Function Check".	
Is the inspection result normal?	

Revision: July 2016

# REAR SEATBACK POWER RETURN SYSTEM DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

- YES >> GO TO 5.
- NO >> Repair or replace the malfunctioning parts.

**5.**CHECK RETURN COMPLETE LIMIT SWITCH (LH)

Check return complete limit switch (LH).

Refer to SE-33, "LH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

**6.**CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>. NO >> GO TO 1. RH

**RH** : Diagnosis Procedure

INFOID:000000012173796

**1.**PERFORM POWER RETURN SWITCH AND REAR SEATBACK SWITCH

Perform power return switch and rear seatback switch.

From which power return switch (or rear seatback switch) does the seat return operation occur?

POWER RETURN SWITCH>>GO TO 2. REAR SEATBACK SWITCH>>GO TO 3. BOTH SIDES>>GO TO 4.

2. CHECK POWER RETURN SWITCH (RH)

Check power return switch (RH). Refer to SE-22, "RH : Component Function Check".

le the inequetion result normal?

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

**3.**CHECK REAR SEATBACK SWITCH (RH)

Check rear seatback switch (RH).

Refer to SE-26, "RH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

**4.**CHECK POWER RETURN MOTOR (RH)

Check power return motor (RH).

Refer to SE-43, "RH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

**5.**CHECK RETURN COMPLETE LIMIT SWITCH (RH)

Check return complete limit switch (RH).

Refer to SE-34, "RH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

**6.**CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

### REAR SEATBACK POWER RETURN SYSTEM DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

YES NO	>> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u> . >> GO TO 1.	A
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### MALFUNCTION DETECTION BUZZER SOUNDS DURING POWER RETURN MO-TOR INVERSE ROTATION

< SYMPTOM DIAGNOSIS > MALFUNCTION DETECTION BUZZER SOUNDS DURING POWER RE-TURN MOTOR INVERSE ROTATION LH LH : Diagnosis Procedure INFOID:000000012173797 **1.**CHECK RETURN COMPLETE LIMIT SWITCH (LH) Check return complete limit switch (LH). Refer to SE-33, "LH : Component Function Check". Is the inspection result normal? YES >> GO TO 2. >> Repair or replace the malfunctioning parts. NO 2.CHECK PRIMARY POSITION LIMIT SWITCH (LH) Check primary position limit switch (LH). Refer to SE-29, "LH : Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. **3.**CHECK POWER RETURN MOTOR (LH) Check power return motor (LH). Refer to SE-42, "LH : Component Function Check". 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 inspection result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. RH **RH** : Diagnosis Procedure INFOID:000000012173798 **1.**CHECK RETURN COMPLETE LIMIT SWITCH (RH) Check return complete limit switch (RH). Refer to SE-34, "RH : Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.  $\mathbf{2}$ .CHECK PRIMARY POSITION LIMIT SWITCH (RH) Check primary position limit switch (RH). Refer to SE-30, "RH : Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK POWER RETURN MOTOR (RH) Check power return motor (RH). Refer to SE-43, "RH : Component Function Check". Is the inspection result normal? YES >> GO TO 4.

### MALFUNCTION DETECTION BUZZER SOUNDS DURING POWER RETURN MO-TOR INVERSE ROTATION

< SYMPTOM DIAGNOSIS >	
NO >> Repair or replace the malfunctioning parts.	А
4.CONFIRM THE OPERATION	~
Confirm the operation again.	
Is the inspection result normal?	В
YES >> Check intermittent incident. Refer to $GI-42$ . NO >> GO TO 1.	<u>"Intermittent Incident"</u> .
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### DOES NOT RETURN BUT MALFUNCTION DETECTION BUZZER SOUNDS

#### < SYMPTOM DIAGNOSIS > DOES NOT RETURN BUT MALFUNCTION DETECTION BUZZER SOUNDS LH LH : Diagnosis Procedure INFOID:000000012173799 **1.**CHECK PRIMARY POSITION LIMIT SWITCH (LH) Check primary position limit switch (LH). Refer to <u>SE-29, "LH : Component Function Check"</u>. Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2. CHECK MOTOR SENSOR (LH) Check motor sensor (LH). Refer to SE-37, "LH : 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? >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". YES NO >> GO TO 1. RH **RH** : Diagnosis Procedure INFOID:000000012173800 **1.**CHECK PRIMARY POSITION LIMIT SWITCH (RH) Check primary position limit switch (RH). Refer to SE-29, "LH : Component Function Check". Is the inspection result normal? YES >> GO TO 2. >> Repair or replace the malfunctioning parts. NO 2. CHECK MOTOR SENSOR (RH) Check motor sensor (RH). Refer to SE-39, "RH : Component Function Check". 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.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

### ANTI-PINCH FUNCTION DOES NOT OPERATE

<u>Is the inspection result normal?</u> YES >> Replace rear seatback power return control unit. Refer to <u>SE-148</u> , " <u>Removal and Installation</u> ". NO >> Repair or replace the malfunctioning parts.	< SYMPTOM DIAGNOSIS >	
Diagnosis Procedure       NFOID 20000012173901         1. CHECK MOTOR SENSOR (LH)       B         Check motor sensor (LH).       Refer to SE-37, "LH : Component Function Check".         Is the inspection result normal?       YES         YES       >> GO TO 2.         NO       >> Repair or replace the malfunctioning parts.         2. CHECK MOTOR SENSOR (RH)       D         Check motor sensor (RH).       Refer to SE-39, "RH : Component Function Check".         Is the inspection result normal?       YES         YES       >> Replace rear seatback power return control unit. Refer to SE-148. "Removal and Installation".         NO       >> Repair or replace the malfunctioning parts.	ANTI-PINCH FUNCTION DOES NOT OPERATE	Δ
Check motor sensor (LH).         Refer to SE-37, "LH : Component Function Check".         Is the inspection result normal?         YES >> GO TO 2.         NO >> Repair or replace the malfunctioning parts. <b>2</b> .CHECK MOTOR SENSOR (RH)         Check motor sensor (RH).         Refer to SE-39, "RH : Component Function Check".         Is the inspection result normal?         YES >> Replace rear seatback power return control unit. Refer to SE-148. "Removal and Installation".         NO >> Repair or replace the malfunctioning parts.	Diagnosis Procedure	1
Refer to SE-37, "LH : Component Function Check".       G         Is the inspection result normal?       YES >> GO TO 2.         NO >> Repair or replace the malfunctioning parts.       D         2.CHECK MOTOR SENSOR (RH)       D         Check motor sensor (RH).       Refer to SE-39, "RH : Component Function Check".         Is the inspection result normal?       YES >> Replace rear seatback power return control unit. Refer to SE-148. "Removal and Installation".         NO >> Repair or replace the malfunctioning parts.       F	1.CHECK MOTOR SENSOR (LH)	В
YES       >> GO TO 2.         NO       >> Repair or replace the malfunctioning parts.         2.CHECK MOTOR SENSOR (RH)         Check motor sensor (RH).         Refer to SE-39, "RH : Component Function Check".         Is the inspection result normal?         YES       >> Replace rear seatback power return control unit. Refer to SE-148, "Removal and Installation".         NO       >> Repair or replace the malfunctioning parts.		
NO       >> Repair or replace the malfunctioning parts.       D         2.CHECK MOTOR SENSOR (RH)       D         Check motor sensor (RH).       Refer to SE-39, "RH : Component Function Check".         Is the inspection result normal?       YES         YES       >> Replace rear seatback power return control unit. Refer to SE-148, "Removal and Installation".         NO       >> Repair or replace the malfunctioning parts.	· · ·	С
Check motor sensor (RH).       Refer to SE-39, "RH : Component Function Check".       E         Is the inspection result normal?       YES >> Replace rear seatback power return control unit. Refer to SE-148, "Removal and Installation".       E         NO >> Repair or replace the malfunctioning parts.       F	NO >> Repair or replace the malfunctioning parts.	D
YES >> Replace rear seatback power return control unit. Refer to <u>SE-148. "Removal and Installation"</u> . NO >> Repair or replace the malfunctioning parts.	Check motor sensor (RH).	E
NO >> Repair or replace the malfunctioning parts.	·	
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< SYMPTOM DIAGNOSIS >

### HEATED SEAT DOES NOT OPERATE BOTH SIDES

BOTH SIDES : Diagnosis Procedure

INFOID:000000012173802

1.CHECK HEATED SEAT SWITCH POWER SUPPLY

Check heated seat switch power supply. Refer to <u>SE-18, "HEATED SEAT SWITCH : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK HEATED SEAT RELAY

Check heated seat relay. Refer to <u>SE-51, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{3}.$  CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check heated seat switch power supply and ground circuit. Refer to <u>SE-16</u>, "HEATED SEAT CONTROL 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 inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u>.

NO >> GO TO 1.

### DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:000000012173803

1. CHECK HEATED SEAT SWITCH POWER SUPPLY

Check heated seat switch power supply.

Refer to <u>SE-18</u>, "HEATED SEAT SWITCH : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check heated seat switch power supply and ground circuit.

Refer to SE-16, "HEATED SEAT CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK HEATED SEAT SWITCH

Check heated seat switch.

Refer to SE-47, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### HEATED SEAT DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	
4.CHECK SEAT CUSHION HEATER	А
Check seat cushion heater.	~
Refer to <u>SE-58, "DRIVER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u>	В
YES >> GO TO 5.	D
NO >> Repair or replace the malfunctioning parts. 5.CONFIRM THE OPERATION	
<u></u>	С
Confirm the operation again. <u>Is the inspection result normal?</u>	
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	D
NO >> GO TO 1. PASSENGER SIDE	
	E
PASSENGER SIDE : Diagnosis Procedure	
1.CHECK HEATED SEAT SWITCH POWER SUPPLY	F
Check heated seat switch power supply. Refer to SE-18, "HEATED SEAT SWITCH : Diagnosis Procedure".	
Is the inspection result normal?	G
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2. CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT	Н
Check heated seat switch power supply and ground circuit.	
Refer to SE-16, "HEATED SEAT CONTROL UNIT : Diagnosis Procedure".	
<u>Is the inspection result normal?</u> YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	SE
3.CHECK HEATED SEAT SWITCH	
Check heated seat switch. Refer to <u>SE-48, "PASSENGER SIDE : Component Function Check"</u> .	K
Is the inspection result normal?	
YES >> GO TO 4.	I
NO >> Repair or replace the malfunctioning parts.	
4.CHECK SEAT CUSHION HEATER Check seat cushion heater.	
Refer to <u>SE-59, "PASSENGER SIDE : Component Function Check"</u> .	M
Is the inspection result normal?	
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	Ν
5. CONFIRM THE OPERATION	
Confirm the operation again.	0
Is the inspection result normal?	
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> . NO >> GO TO 1.	Ρ

#### SEATBACK HEATER ONLY DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

# SEATBACK HEATER ONLY DOES NOT OPERATE DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure
1.CHECK SEATBACK HEATER
Check seatback heater. Refer to <u>SE-62, "DRIVER SIDE : Component Function Check"</u> .
Is the inspection result normal?
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. <b>2.</b> CONFIRM THE OPERATION
Confirm the operation again.
Is the inspection result normal?
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .
NO >> GO TO 1. PASSENGER SIDE
PASSENGER SIDE : Diagnosis Procedure
1.CHECK SEATBACK HEATER
Check seatback heater. Refer to <u>SE-62, "PASSENGER SIDE : Component Function Check"</u> .

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-42, "Intermittent Incident".

NO >> GO TO 1.

INFOID:000000012173806

< SYMPTOM DIAGNOSIS > CANNOT ADJUST HEATED SEAT TEMPERATURE DRIVER SIDE	
DRIVER SIDE : Diagnosis Procedure	INFOID:000000012173807
1.CHECK HEATED SEAT SWITCH	
Check heated seat switch.         Refer to SE-47, "DRIVER SIDE : Component Function Check".         Is the inspection result normal?         YES       >> GO TO 2.         NO       >> Repair or replace the malfunctioning parts.	
2.CHECK HEAT SENSOR	
Check heat sensor. Refer to <u>SE-53, "DRIVER SIDE : Description"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
3.CONFIRM THE OPERATION	
Confirm the operation again. <u>Is the inspection result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> . NO >> Replace heated seat control unit. Refer to <u>SE-149, "Removal and Installation"</u> . PASSENGER SIDE	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000012173808
1.CHECK HEATED SEAT SWITCH	
Check heated seat switch. Refer to <u>SE-48. "PASSENGER SIDE : Component Function Check"</u> .	
<u>Is the inspection result normal?</u> YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2.CHECK HEAT SENSOR	
Check heat sensor. Refer to <u>SE-55, "PASSENGER SIDE : Diagnosis Procedure"</u> . Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. <b>3.</b> CONFIRM THE OPERATION	
Confirm the operation again.	
Is the inspection result normal?         YES       >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".         NO       >> Replace heated seat control unit. Refer to SE-149, "Removal and Installation".	

### HEATED SEAT SWITCH INDICATOR DOES NOT TURN ON

< SYMPTOM DIAGNOSIS >

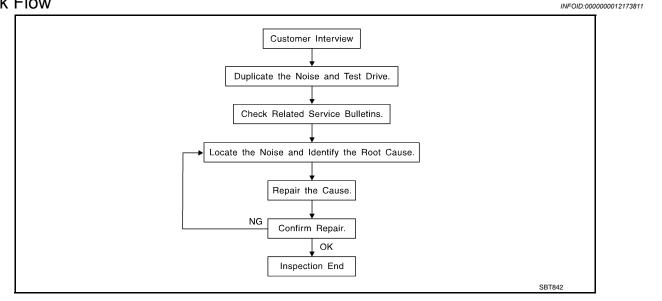
# HEATED SEAT SWITCH INDICATOR DOES NOT TURN ON DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure	INFOID:000000012173809
1.CHECK HEATED SEAT SWITCH INDICATOR	
Check heated seat switch indicator. Refer to <u>SE-64, "DRIVER SIDE : Component Function Check"</u> .	
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 <u>GI-42, "Intermittent Incident"</u> . NO >> GO TO 1.	
PASSENGER SIDE	
PASSENGER SIDE PASSENGER SIDE : Diagnosis Procedure	INFOID:000000012173810
	INFOID:000000012173810
PASSENGER SIDE : Diagnosis Procedure         1.CHECK HEATED SEAT SWITCH INDICATOR         Check heated seat switch indicator.	INFOID:000000012173810
PASSENGER SIDE : Diagnosis Procedure         1.CHECK HEATED SEAT SWITCH INDICATOR         Check heated seat switch indicator.         Refer to SE-65, "PASSENGER SIDE : Component Function Check".	INFOID:000000012173810
PASSENGER SIDE : Diagnosis Procedure          1.CHECK HEATED SEAT SWITCH INDICATOR         Check heated seat switch indicator.         Refer to <u>SE-65, "PASSENGER SIDE : Component Function Check"</u> .         Is the inspection result normal?	INFOID:000000012173810
PASSENGER SIDE : Diagnosis Procedure          1.CHECK HEATED SEAT SWITCH INDICATOR         Check heated seat switch indicator.         Refer to SE-65, "PASSENGER SIDE : Component Function Check".         Is the inspection result normal?         YES       >> GO TO 2.	INFOID:000000012173810
PASSENGER SIDE : Diagnosis Procedure         1.CHECK HEATED SEAT SWITCH INDICATOR         Check heated seat switch indicator.         Refer to SE-65, "PASSENGER SIDE : Component Function Check".         Is the inspection result normal?         YES       >> GO TO 2.         NO       >> Repair or replace the malfunctioning parts.	INFOID:000000012173810
$\begin{array}{l} \mbox{PASSENGER SIDE : Diagnosis Procedure} \\ \mbox{1.check heated seat SWITCH INDICATOR} \\ \mbox{Check heated seat switch indicator.} \\ \mbox{Refer to } \underline{SE-65, "PASSENGER SIDE : Component Function Check".} \\ \mbox{Is the inspection result normal?} \\ \mbox{YES } >> GO TO 2. \\ \mbox{NO } >> \mbox{Repair or replace the malfunctioning parts.} \\ \mbox{2.conFIRM THE OPERATION} \end{array}$	INFOID:000000012173810
PASSENGER SIDE : Diagnosis Procedure         1.CHECK HEATED SEAT SWITCH INDICATOR         Check heated seat switch indicator.         Refer to SE-65, "PASSENGER SIDE : 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.	INFOID:000000012173810
$\begin{array}{l} \mbox{PASSENGER SIDE : Diagnosis Procedure} \\ \mbox{1.check heated seat SWITCH INDICATOR} \\ \mbox{Check heated seat switch indicator.} \\ \mbox{Refer to } \underline{SE-65, "PASSENGER SIDE : Component Function Check".} \\ \mbox{Is the inspection result normal?} \\ \mbox{YES } >> GO TO 2. \\ \mbox{NO } >> \mbox{Repair or replace the malfunctioning parts.} \\ \mbox{2.conFIRM THE OPERATION} \end{array}$	INFOID:000000012173810

#### < SYMPTOM DIAGNOSIS >

### SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### Work Flow



#### CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to <u>SE-123</u>, "<u>Diagnostic Worksheet</u>". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics SE are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak (Like tennis shoes on a clean floor)
   Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces
   a higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping
- Creak (Like walking on an old wooden floor)
   Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle (Like shaking a baby rattle) Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock (Like a knock on a door)
   Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick (Like a clock second hand)
   Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump (Heavy, muffled knock noise) Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz (Like a bumblebee) Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on the person. A noise that you may judge
   as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when you confirm the repair.

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#### < SYMPTOM DIAGNOSIS >

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models).
- 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.
- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
- If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

#### CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TSB relates to the symptom, follow the procedure to repair the noise.

#### LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

- 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J-39570, Engine Ear and mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- Removing the components in the area that you suspect the noise is coming from. Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- Tapping or pushing/pulling the component that you suspect is causing the noise.
   Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- Feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
- Placing a piece of paper between components that you suspect are causing the noise.
- Looking for loose components and contact marks. Refer to <u>SE-121</u>, "Inspection Procedure".

#### REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- Separate components by repositioning or loosening and retightening the component, if possible.
- Insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J-50397) is available through your authorized Nissan Parts Department.

#### CAUTION:

# Do not use excessive force as many components are constructed of plastic and may be damaged. NOTE:

Always check with the Parts Department for the latest parts information.

The following materials are contained in the Nissan Squeak and Rattle Kit (J-50397). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100  $\times$  135 mm (3.94  $\times$  5.31 in)/76884-71L01: 60  $\times$  85 mm (2.36  $\times$  3.35 in)/76884-

71L02:15  $\times$  25 mm (0.59  $\times$  0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick, 50  $\times$  50 mm (1.97  $\times$  1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick, 50  $\times$  50 mm (1.97  $\times$  1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30  $\times$  50 mm (1.18  $\times$  1.97in)

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

68370-4B000: 15  $\times$  25 mm (0.59  $\times$  0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll The following materials, not found in the kit, can also be used to repair squeaks and rattles.

UHMW (TEFLON) TAPE

< SYMPTOM DIAGNOSIS >	
Insulates where slight movement is present. Ideal for instrument panel applications.	
SILICONE GREASE Used in place of UHMW tape that will be visible or not fit. Will only last a few months.	A
SILICONE SPRAY	
Use when grease cannot be applied. DUCT TAPE	В
Use to eliminate movement.	
CONFIRM THE REPAIR	
Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.	С
Inspection Procedure	D
Refer to Table of Contents for specific component removal and installation information.	
INSTRUMENT PANEL	Е
Most incidents are caused by contact and movement between:	
1. The cluster lid A and instrument panel	
2. Acrylic lens and combination meter housing	F
3. Instrument panel to front pillar garnish	
4. Instrument panel to windshield	G
5. Instrument panel mounting pins	0
6. Wiring harnesses behind the combination meter	
<ol> <li>A/C defroster duct and duct joint These incidents can usually be located by tapping or moving the components to duplicate the noise or by</li> </ol>	Н
pressing on the components while driving to stop the noise. Most of these incidents can be repaired by	
applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.	1
CAUTION:	1
Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.	SE
CENTER CONSOLE	
Components to pay attention to include:	
1. Shifter assembly cover to finisher	K
2. A/C control unit and cluster lid C	
3. Wiring harnesses behind audio and A/C control unit	L
The instrument panel repair and isolation procedures also apply to the center console.	
DOORS	
Pay attention to the:	Μ
<ol> <li>Finisher and inner panel making a slapping noise</li> <li>Inside handle escutcheon to door finisher</li> </ol>	
3. Wiring harnesses tapping	Ν
<ol> <li>4. Door striker out of alignment causing a popping noise on starts and stops</li> </ol>	
Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-50397) to repair the noise.	0
TRUNK	
Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for:	Р
1. Trunk lid dumpers out of adjustment	
2. Trunk lid striker out of adjustment	

- 3. The trunk lid torsion bars knocking together
- 4. A loose license plate or bracket

#### < SYMPTOM DIAGNOSIS >

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

#### SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

- 1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
- 2. Sunvisor shaft shaking in the holder
- 3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

#### SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

- 1. Headrest rods and holder
- 2. A squeak between the seat pad cushion and frame
- 3. The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

#### **UNDERHOOD**

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted under hood noise include:

- 1. Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- 4. Loose radiator mounting pins
- 5. Hood bumpers out of adjustment
- 6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

< SYMPTOM DIAGNOSIS >

#### **Diagnostic Worksheet**



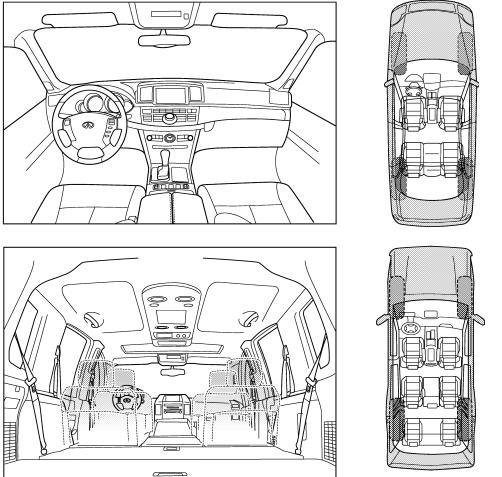
**SQUEAK & RATTLE DIAGNOSTIC WORKSHEET** 

#### Dear Infiniti Customer:

We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service consultant or technician to ensure we confirm the noise you are hearing.

#### I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs. PIIB8741E

**Revision: July 2016** 

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#### < SYMPTOM DIAGNOSIS >

#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

II. WHEN DOES IT OCCUR? (please check the boxes that apply)				
<ul> <li>anytime</li> <li>1st time in the morning</li> <li>only when it is cold outside</li> </ul>	<ul> <li>after sitting out in the rain</li> <li>when it is raining or wet</li> <li>dry or dusty conditions</li> </ul>			
<ul> <li>only when it is hot outside</li> <li>III. WHEN DRIVING:</li> </ul>	U other:			
<ul> <li>through driveways</li> <li>over rough roads</li> <li>over speed bumps</li> <li>only about mph</li> <li>on acceleration</li> <li>coming to a stop</li> <li>on turns: left, right or either (circle)</li> <li>with passengers or cargo</li> </ul>	<ul> <li>squeak (like tennis shoes on a clean floor)</li> <li>creak (like walking on an old wooden floor)</li> <li>rattle (like shaking a baby rattle)</li> <li>knock (like a knock at the door)</li> <li>tick (like a clock second hand)</li> <li>thump (heavy, muffled knock noise)</li> <li>buzz (like a bumble bee)</li> </ul>			
other: miles or minu	tes			

#### TO BE COMPLETED BY DEALERSHIP PERSONNEL

**Test Drive Notes:** 

	YES	NO	Initials of person performing
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm repair			
		me:	

# < 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. 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.

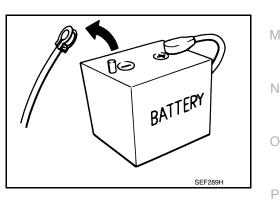
- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious 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

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	YD25DDTi	: 2 minutes
D4D engine	: 20 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		
V9X 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:

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### 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.

#### Service Notice

INFOID:000000012173816

- When removing or installing various parts, place a cloth or padding onto the vehicle body to prevent scratches.
- Handle trim, molding, instruments, grille, etc. carefully during removing or installing. Be careful not to oil or damage them.
- Apply sealing compound where necessary when installing parts.
- When applying sealing compound, be careful that the sealing compound does not protrude from parts.
- When replacing any metal parts (for example body outer panel, members, etc.), be sure to take rust prevention measures.

#### Precaution for Work

INFOID:000000012173817

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- · Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.

Then rub with a soft and dry cloth.

- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

### PREPARATION

**Revision: July 2016** 

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here. -

**Special Service Tool** 

< PREPARATION >

PREPARATION

PREPARATION

Tool number (Kent-Moore No.) Tool name		Description	С
(J-39570) Chassis ear		Locates the noise	D
(J-50397)	SIA0993E	Denoire the serves of poice	F
NISSAN Squeak and Rattle Kit Commercial Service Tool	SIIA0994E	Repairs the cause of noise	H
		INFOID:000000012173819	I
Tool name		Description	

lool name		Description	SE
Engine ear	SIIA0995E	Locates the noise	K

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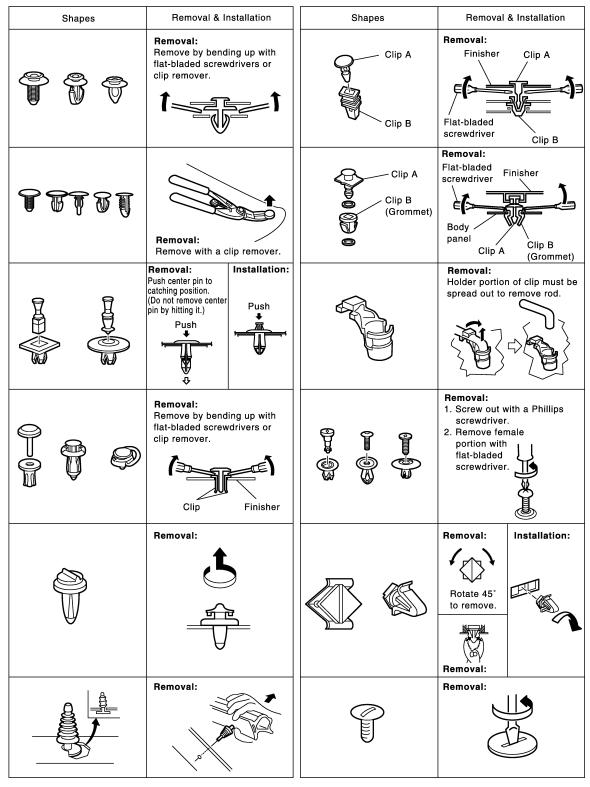
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### < PREPARATION > CLIP LIST

# Clip List

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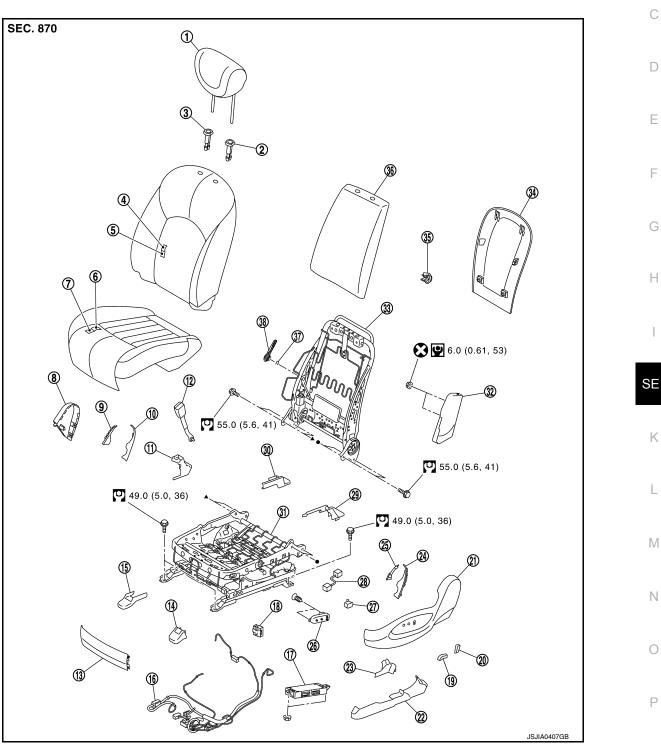


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### < REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION FRONT SEAT

### Exploded View

DRIVER SEAT



- 1. Headrest
- 4. Seatback trim
- 7. Seat cushion pad
- 2. Headrest holder (locked)
- 5. Seatback pad
- 8. Seat cushion inner finisher outside
- 3. Headrest holder (free)
- 6. Seat cushion trim
- 9. Seat cushion inner finisher inside (front)

**Revision: July 2016** 

SE-129

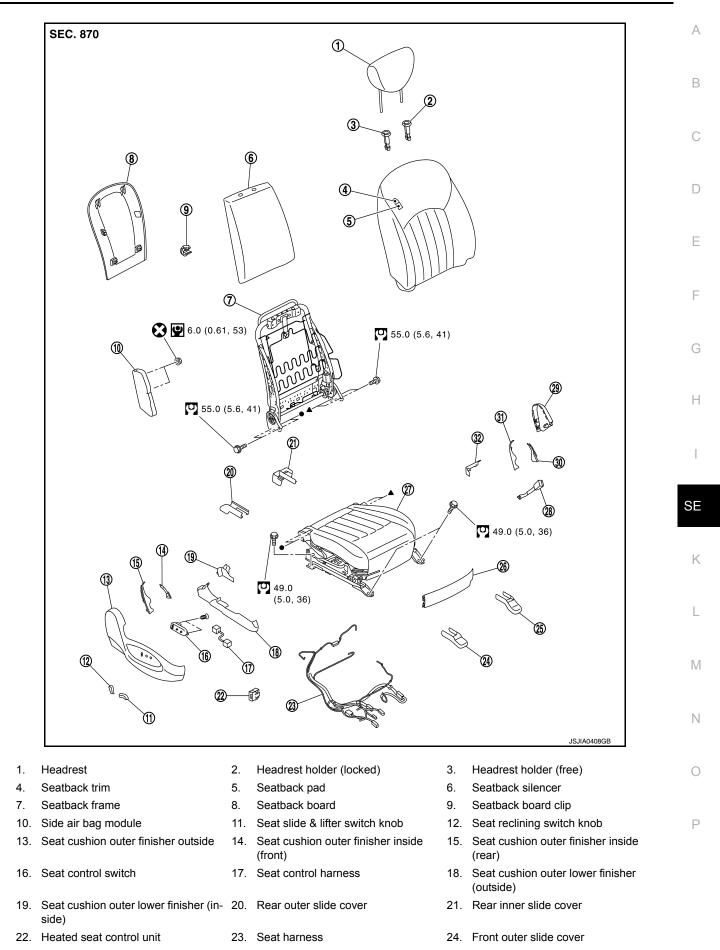
#### < REMOVAL AND INSTALLATION >

10.	Seat cushion inner finisher inside (rear)	11.	Seat cushion inner lower finisher	12.	Seat belt buckle		
13.	Seat cushion front finisher	14.	Front outer slide cover	15.	Front inner slide cover		
16.	Seat harness	17.	Driver seat control unit	18.	Heated seat control unit		
19.	Seat slide & lifter switch knob	20.	Seat reclining switch knob	21.	Seat cushion outer finisher outside		
22.	Seat cushion outer lower finisher (outside)	23.	Seat cushion outer lower finisher (inside)	24.	Seat cushion outer finisher inside (rear)		
25.	Seat cushion outer finisher inside (front)	26.	Seat control switch	27.	Lumbar support switch		
28.	Seat control harness	29.	Rear outer slide cover	30.	Rear inner slide cover		
31.	Seat cushion frame	32.	Side air bag module	33.	Seatback frame		
34.	Seatback board	35.	Seatback board clip	36.	Seatback silencer		
37.	37. Snap ring 38.		Manual lumber support lever knob				
Always replace after every disassembly.							
🖸 : N·m (kg-m, ft-lb)							
Ŷ	∶ N·m (kg-m, in-lb)						
ullet, $llet$ : Indicates that the part is connected at points with same symbol in actual vehicle.							

#### PASSENGER SEAT



#### < REMOVAL AND INSTALLATION >



**Revision: July 2016** 

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#### < REMOVAL AND INSTALLATION >

- 25. Front inner slide cover 28. Seat belt buckle
- 26. Seat cushion front finisher
- 29. Seat cushion inner finisher outside
- 31. Seat cushion inner finisher inside 32. Seat cushion inner finisher lower
- Always replace after every disassembly.
- : N·m (kg-m, ft-lb)

(rear)

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●, ▲ : Indicates that the part is connected at points with same symbol in actual vehicle

### Removal and Installation

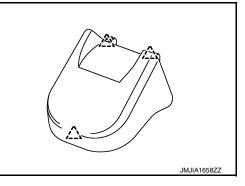
#### REMOVAL

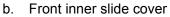
#### CAUTION:

#### When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the headrest.
- Remove the front slide cover.
- a. Front outer slide cover
  - Slide the seat to the rear-most position.
  - Pull up the front edge of the front slide cover to release the pawls.
  - Slide the front slide cover forward to release the pawls.

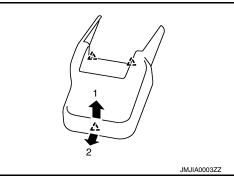
∠\_\_\_\_: Pawl





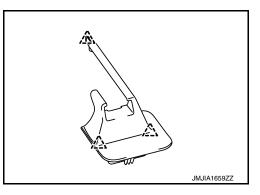
- Slide the seat to the rear-most position.
- · Pull up the front edge of the front slide cover to release the pawls.
- · Slide the front slide cover forward to release the pawls.

2 : Pawl



- 3. Remove the mounting bolts on the front side of the front seat.
- Remove the rear slide cover.
- a. Rear outer slide cover
  - Slide the seat to the front-most position.
  - · Pull up the rear edge of the rear outer slide cover to release the pawls.
  - · Open the front end of the rear outer slide cover to release the pawls.

♪へ :Pawl



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(front)

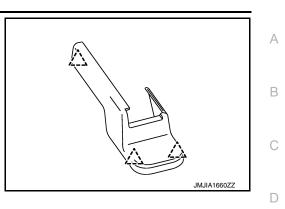
27. Seat cushion assembly

30. Seat cushion inner finisher inside

#### < REMOVAL AND INSTALLATION >

- b. Rear inner slide cover
  - Slide the seat to the front-most position.
  - Pull up the rear edge of the rear inner slide cover to release the pawls.
  - Slide the rear inner slide cover rearward to release the pawls.

<u>^</u>	•	Pawl
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- 5. Remove the mounting bolts on the rear side of the front seat.
- 6. Set seatback in a standing position.
- Disconnect harness connector under the seat and remove harness securing clips. CAUTION: Before removal, turn ignition switch OFF, disconnect battery negative terminal, and then wait for at least 3 minutes.
- 8. Remove seat from the vehicle.

#### **CAUTION:**

- When removing and installing, use shop cloths to protect parts from damage.
- When removing and installing, 2 workers are required so as to prevent it from dropping.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

• Before installation, turn ignition switch OFF, disconnect both battery cables, and then wait for at least 3 minutes.

#### Clamp the harness in position. NOTE:

After installing the front seat, perform additional service when removing battery negative terminal.(Automatic drive positioner model only) Refer to <u>ADP-8</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGA-</u><u>TIVE TERMINAL : Description</u>".

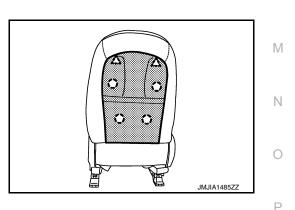
#### **Disassembly and Assembly**

#### SEATBACK

#### Disassembly

- 1. Remove the seatback board.
  - Remove the clips and pawls, and then pull out seatback board.
  - Pull down the seatback board to release the upper pawls.

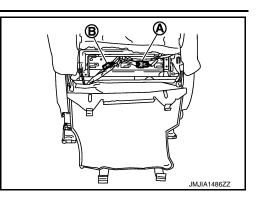




- 2. Remove the seatback trim retainer and seatback trim band from seat cushion frame.
- 3. Disconnect the harness connectors and remove the harness clamps.

### < REMOVAL AND INSTALLATION >

• Disconnect the reclining motor harness connector (A) and lumbar support harness connector (Power lumber support seat only) (B).



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• Disconnect the seatback heater seat harness connector (C).

• Remove the harness clamps, and then side air bag module harness (D).

4. Remove the metal clips and pawls, and then pull out seat cushion front finisher.

### , : Pawl

[ ] : Metal clip

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5. Remove the seat cushion outer finisher.

9.

### FRONT SEAT

#### < REMOVAL AND INSTALLATION >

- Remove the seat slide & lifter switch knob and seat reclining switch knob.
- Remove the clips, metal clips and pawls, and then pull out seat cushion outer finisher outside.
- Disconnect the seat slide & lifter, seat reclining and lumbar support switch (Power lumber support seat only) harness connectors.

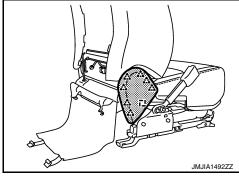


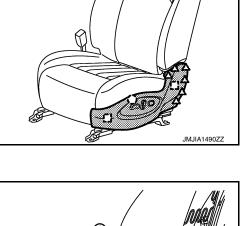
- ∠\_\_\_\_: Pawl
- : Metal clip
- Remove the seat cushion outer finisher inside front (1) and rear (2).

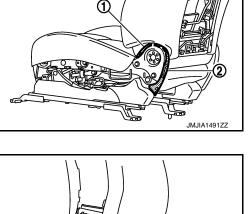
- 7. Remove the metal clip and pawls, and then pull out seat cushion inner finisher outside.
  - · Pawl □□□□: Metal clip
- Remove the seat cushion inner finisher inside front (1) and rear (2).

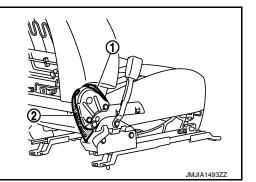
Remove the lumber support lever knob. (Manual lumber support seat only)











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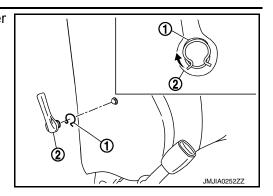
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#### < REMOVAL AND INSTALLATION >

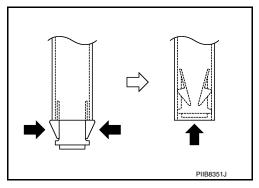
Pull snap ring (1) upward, and remove lumber support lever knob (2) from seatback frame. Using a hook and pick tool.



- 10. Remove the seatback trim and seatback pad.
  - Remove the headrest holder.

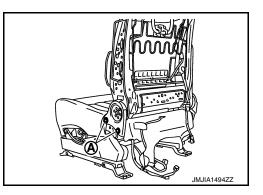
CAUTION:

Before installing headrest holder check its orientation. (front/rear and right/left)



- Remove the side air bag module.
- Remove the seatback trim and seatback pad from the seatback frame.
- Remove the hog rings, and separate the seatback trim and seatback pad.
- 11. Remove the seatback silencer.
- 12. Remove the seatback frame.

Remove the seatback frame mounting bolts (A) and then remove the seatback frame.



Assembly

Assemble in the reverse order of disassembly.

#### **CAUTION:**

Install the hog rings of seatback trim in position, and then securely connect the trim or trim cord with the pad side wire.

#### SEAT CUSHION

#### Disassembly

#### CAUTION:

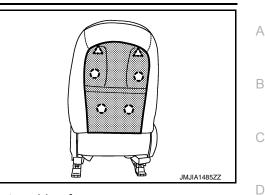
Never disassemble front passenger seat cushion assembly.

Always replace as an assembly.

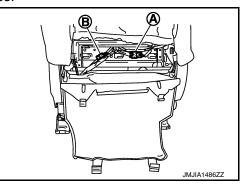
For front passenger seat service parts, refer to the service part catalogue.

#### < REMOVAL AND INSTALLATION >

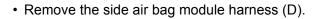
- 1. Remove the seatback board.
  - Remove the clips and pawls, and then pull out seatback board.
  - Pull down the seatback board to release the upper pawls.
    - (\_) : Clip
    - 2 : Pawl

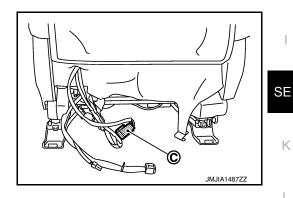


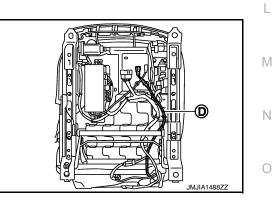
- 2. Remove the seatback trim retainer and seatback trim band from seat cushion frame.
- 3. Disconnect the harness connectors and remove the harness clamps.
  - Disconnect the reclining motor harness connector (A) and lumbar support harness connector (B) (Power lumber support seat only).



• Disconnect the seatback heater seat harness connector (C).







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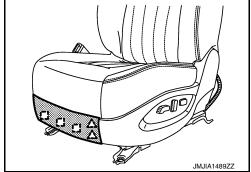
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#### < REMOVAL AND INSTALLATION >

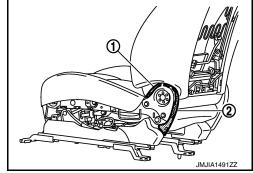
- 4. Remove the metal clips and pawls, and then pull out seat cushion front finisher.
  - 2 : Pawl
  - : Metal clip



- 5. Remove the seat cushion outer finisher.
  - Remove the seat slide & lifter switch knob and seat reclining switch knob.
  - Remove the clips, metal clips and pawls, and then pull out seat cushion outer finisher outside.
  - Disconnect the seat slide & lifter, seat reclining and lumbar support switch (Power lumber support seat only) harness connectors.



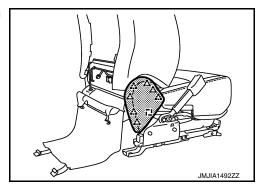
6. Remove the seat cushion outer finisher inside front (1) and rear (2).



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7. Remove the metal clip and pawls, and then pull out seat cushion inner finisher outside.





#### < REMOVAL AND INSTALLATION >

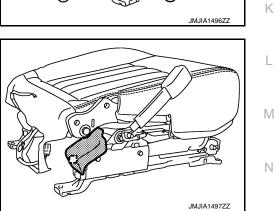
8. Remove the seat cushion inner finisher inside front (1) and rear (2).

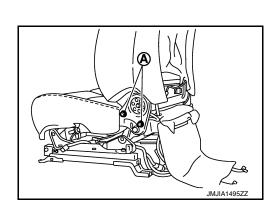
9. Remove the seatback assembly. Remove the seatback assembly mounting bolts (A).

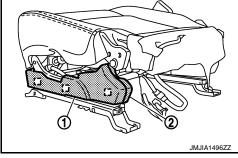
- 10. Remove the metal clips, and then pull out seat cushion outer lower finisher outside (1) and inside (2).
  - : Metal clip []]

- 11. Remove the seat cushion inner lower finisher.
  - : Metal clip

12. Remove the seat cushion trim and seat cushion pad. (Without occupant classification system control unit model)









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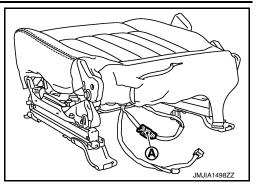
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#### < REMOVAL AND INSTALLATION >

- Disconnect the seat cushion heater unit harness connector (A).
- Remove the seat cushion trim retainer.
- Remove the hog rings, and separate the seat cushion trim and seat cushion pad.



- 13. Remove the seat belt buckle. Refer to <u>SB-8, "SEAT BELT BUCKLE : Removal and Installation"</u>.
- 14. Remove the driver seat control unit (with automatic drive positioner seat only). Refer to <u>ADP-221</u>. <u>"Removal and Installation"</u>.
- 15. Remove the heated seat control unit. Refer to SE-149, "Removal and Installation".

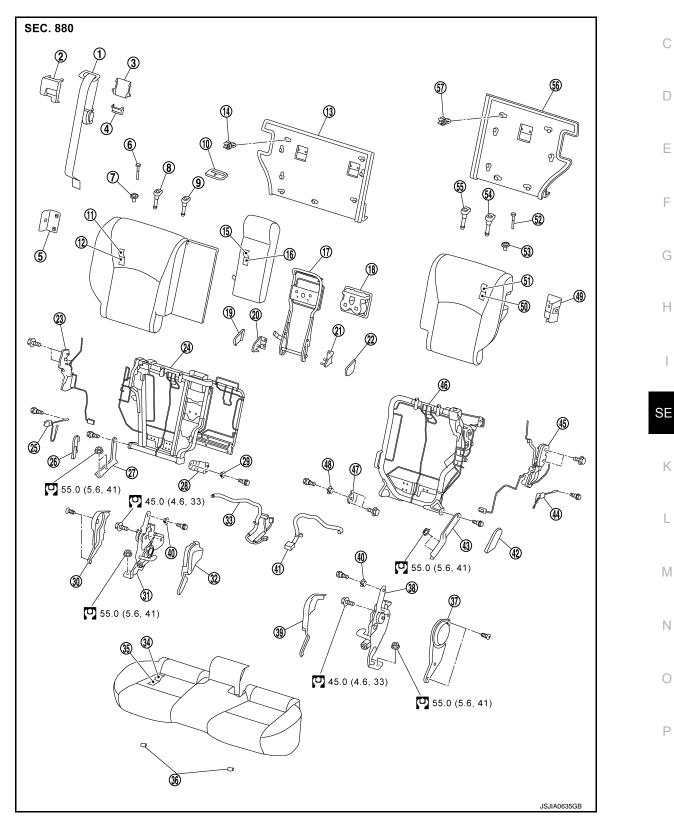
Assembly

Assemble in the reverse order of disassembly.

**CAUTION:** Install the hog rings of seat cushion trim in position, and then securely connect the trim or trim cord with the pad side wire.

Exploded View

REAR SEAT



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Center seat belt retractor cover

Rear seatback lock cover RH

Headrest holder (free)

14. Rear seatback board clip RH

23. Rear seatback lock assembly RH

Reclining device inner cover RH

29. Rear seatback hinge bush RH

11. Rear seatback trim RH

17. Armrest frame

20. Armrest bracket RH

#### < REMOVAL AND INSTALLATION >

- 1. Rear center seat belt
- 4. Seat belt guide (lower)
- Rear seatback lock knob finisher RH 8. 7
- 10. Seat belt finisher
- 13. Rear seatback board RH
- 16. Armrest pad
- 19. Armrest bracket cover RH
- 22. Armrest bracket cover LH
- 25. Rear seat belt hook RH
- 28. Rear seatback hinge bracket RH
- 31. Reclining device assembly RH
- 34. Rear seat cushion trim
- 37. Reclining device outer cover LH
- 40. Reclining device bush
- 43. Rear seatback hinge LH
- 46. Rear seatback frame LH
- 49. Rear seatback lock cover LH
- 52. Rear seatback lock knob LH
- 55. Headrest holder (free)
- : N·m (kg-m, ft-lb)

### Removal and Installation

#### REMOVAL

#### CAUTION:

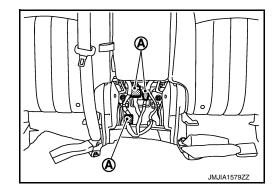
#### When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the seat cushion.
  - Pull the lock lever (1) at the front bottom of the seat cushion forward (1 for each side), and pull the seat cushion upward to release the wire (2) from the seat cushion hook. Then pull the seat cushion forward the remove
  - Remove the seat cushion from vehicle.

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- Remove the seatback. 2.
  - Remove the luggage floor finisher front LH and RH. Refer to <u>INT-33, "Exploded View"</u>.
  - Disconnect the rear seat harness connectors.
  - With power return seat model LH seatback

Disconnect the rear seat harness connectors (A).



35. Rear seat cushion pad 38. Reclining device assembly LH

32.

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5.

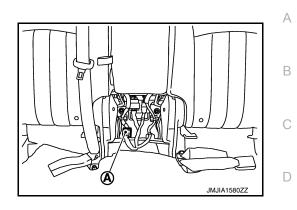
- 41. Rear seat harness LH
- 44. Rear seat belt hook LH
- 47. Rear seatback hinge bracket LH
- 50. Rear seatback pad LH
- 53. Rear seatback lock knob finisher LH 54. Headrest holder (locked)
- 56. Rear seatback board LH

- 3. Seat belt guide (upper)
- 6. Rear seatback lock knob RH
- Headrest holder (locked) 9
- Rear seatback pad RH 12.
- 15. Armrest trim
- 18. Cup holder
- 21. Armrest bracket LH
- 24 Rear seatback frame RH
- 26. Rear seatback hinge outer cover RH 27. Rear seatback hinge RH
  - Reclining device outer cover RH 30.
  - 33. Rear seat harness RH
  - 36. Rear seat cushion hook
  - Reclining device inner cover LH 39.
  - 42. Rear seatback hinge outer cover LH
  - 45. Rear seatback lock assembly LH
  - 48. Rear seatback hinge bush LH
  - 51. Rear seatback trim LH

  - 57. Rear seatback board clip LH

#### < REMOVAL AND INSTALLATION >

RH seatback Disconnect the rear seat harness connector (A).



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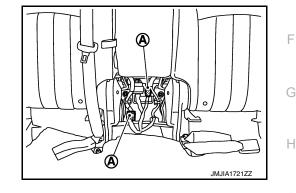
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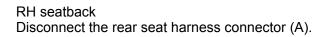
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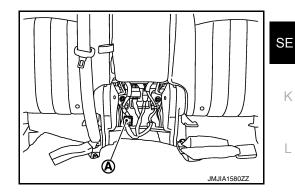
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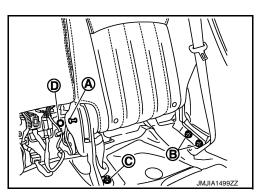
 Without power return seat model LH seatback
 Disconnect the rear seat harness connectors (A).







- Push the seatback lock pin (A).
- Remove the seatback mounting nuts (B), (C) and bolt (D).
- Remove the center seat belt anchor bolt. (RH seatback only) Refer to <u>SB-11, "SEAT BELT RETRACTOR : Exploded View"</u>.
- Remove the seatback from vehicle.

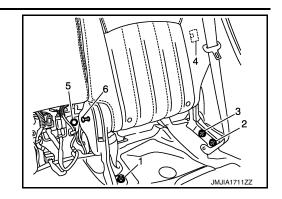


INSTALLATION

**Revision: July 2016** 

#### < REMOVAL AND INSTALLATION >

- 1. Install the rear seatback mounting nuts (1), (2), (3).
- 2. Lock the seatback striker (4).
- 3. Install the rear seatback mounting bolt (5).
- 4. Pull the rear seatback lock pin (6).



#### **CAUTION:**

- When removing and installing, use shop cloths to protect parts from damage.
- When removing and installing, 2 workers are required so as to prevent it from dropping.

**Disassembly and Assembly** 

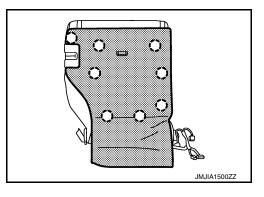
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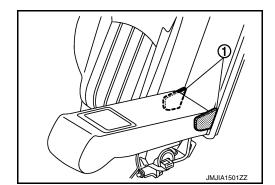
#### SEATBACK

Disassembly

1. Remove the clips, and then pull out seatback board.

(\_) : Clip





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- 2. Remove the armrest.
  - Remove the armrest hinge covers (1).

• Remove the arm rest mounting bolts (A), nuts (B) and hog rings (C), and then remove the armrest.

#### < REMOVAL AND INSTALLATION >

RH seatback

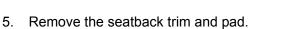
- 3. Remove the seatback device assembly.
  - Remove the seatback trim fixing hog rings.
  - Disconnect the seatback lock harness connector. LH seatback
    - Disconnect the seatback lock harness connector (A).

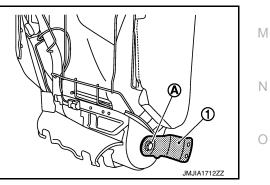
Disconnect the seatback lock harness connector (B).

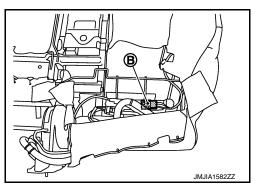


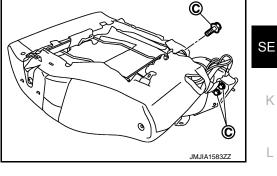
• Remove the seatback device. Remove the seatback device mounting bolts (C).

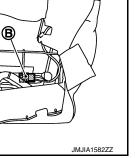
4. Remove the hinge bracket mounting bolt (A), and then remove the hinge bracket (1).











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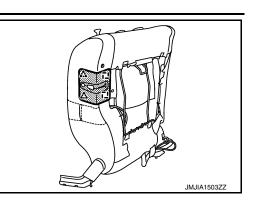
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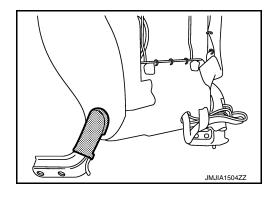
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#### < REMOVAL AND INSTALLATION >

- Remove the metal clips and pawls, and then pull out seatback lock cover.
  - ∴ : Pawl



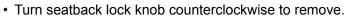
• Remove the seatback hinge outer cover.



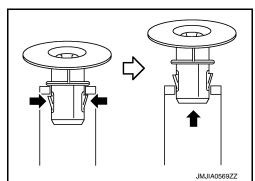
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 Remove the seatback hinge. Remove the seatback hinge mounting bolt (A).



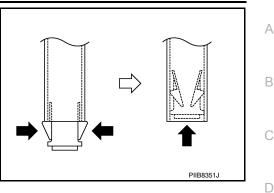
• Push the seatback lock knob finisher pawl upward though the seatback pad and the seatback frame to remove it.



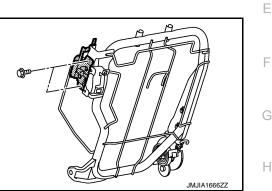
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#### < REMOVAL AND INSTALLATION >

 Remove the headrest holder.
 CAUTION: Before installing headrest holder check its orientation. (front/rear and right/left)



- Remove the seatback trim and pad.
- Remove the hog rings to separate the seatback trim and seatback pad.
- 6. Remove the seatback lock assembly. Remove the seatback lock assembly mounting bolts.



7. Remove the rear center seat belt. Refer to SB-11, "SEAT BELT RETRACTOR : Exploded View".

#### Assembly

Assemble in the reverse order of disassembly.

#### **CAUTION:**

Install the hog rings of seatback trim in position, and then securely connect the trim or trim cord with the seatback frame.

#### SEAT CUSHION

Disassembly Remove the hog rings to separate the trim and pad.

#### Assembly

Assemble in the reverse order of disassembly.

### CAUTION:

Install the hog rings of seat cushion trim in position, and then securely connect the trim or trim cord with the seat cushion pad wire.

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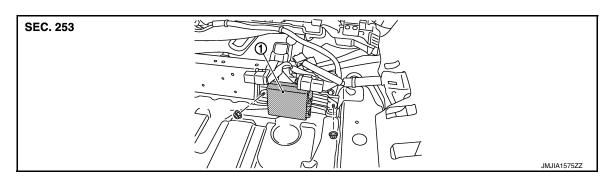
### REAR SEAT BACK POWER RETURN CONTROL UNIT

< REMOVAL AND INSTALLATION >

### REAR SEAT BACK POWER RETURN CONTROL UNIT

### **Exploded View**

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1. Rear seatback power return control unit

### Removal and Installation

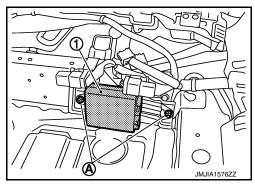
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### REMOVAL

#### CAUTION:

#### When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the luggage floor finisher assembly (front). Refer to INT-34, "Removal and Installation".
- 2. Remove mounting nuts (A).
- 3. Remove rear seatback power return control unit (1).



INSTALLATION Install in the reverse order of removal. CAUTION: Be sure to clamp the harness to the right place.

### HEATED SEAT CONTROL UNIT

< R	EMOVAL AND INSTALLATION >		
HE	EATED SEAT CONTROL UNIT		A
Ex	ploded View	INFOID:000000012173829	A
Ref	fer to <u>SE-129, "Exploded View"</u> .		В
Re	moval and Installation	INFOID:000000012173830	
	MOVAL UTION:		С
	en removing and installing, use shop cloths to protect parts from damage. Remove the front seat. Disconnect heated seat control unit connector.		D
3.	Remove the heated seat control unit from the heated seat control unit stay. Refer to <u>SE-and Installation</u> ".	<u>132, "Removal</u>	E
Inst CA	INSTALLATION Install in the reverse order of removal. CAUTION:		F
AIw	vays clamp the harness to the right place.		G

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< REMOVAL AND INSTALLATION >

POWER SEAT SWITCH

**Exploded View** 

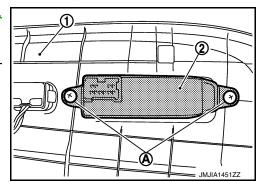
Refer to SE-129, "Exploded View".

Removal and Installation

## REMOVAL

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the seat cushion outer finisher (1). Refer to <u>SE-132.</u> <u>"Removal and Installation"</u>.
- 2. Remove the screws (A).
- 3. Remove the power seat switch (2) from the seat cushion outer finisher.



INSTALLATION Install in the reverse order of removal. CAUTION: Be sure to clamp the harness to the right place. INFOID:000000012173831

### LUMBAR SUPPORT SWITCH

#### < REMOVAL AND INSTALLATION >

### LUMBAR SUPPORT SWITCH

#### **Exploded View**

Refer to SE-129, "Exploded View".

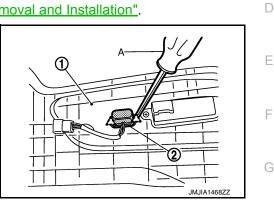
Removal and Installation

# REMOVAL CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the seat cushion outer finisher (1). Refer to SE-132, "Removal and Installation".
- 2. Remove the lumbar support switch (2) from the seat cushion outer finisher with remover tool (A).

2 : Pawl



INSTALLATION Install in the reverse order of removal. CAUTION: Be sure to clamp the harness to the right place.

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### < REMOVAL AND INSTALLATION >

### HEATED SEAT SWITCH

### **Exploded View**

Refer to IP-23, "Exploded View".

Removal and Installation

# REMOVAL

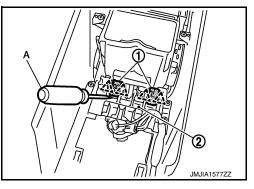
#### When removing and installing, use shop cloths to protect from damage.

- 1. Remove the console body assembly. Refer to IP-24, "Removal and Installation".
- 2. Remove heated seat switch (1) from switch bracket (2) with remover tool (A).

کے : Pawl

#### NOTE:

The same procedure is also performed for passenger side.



INSTALLATION

Install in the reverse order of removal.

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### **POWER RETURN SWITCH**

### < REMOVAL AND INSTALLATION > POWER RETURN SWITCH Exploded View

Refer to IP-23, "Exploded View".

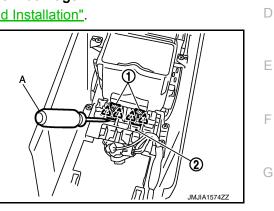
Removal and Installation

# REMOVAL CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the console body assembly. Refer to IP-24, "Removal and Installation".
- 2. Remove power return switch (1) from switch bracket (2) with remover tool (A).

2 : Pawl



INSTALLATION Install in the reverse order of removal.

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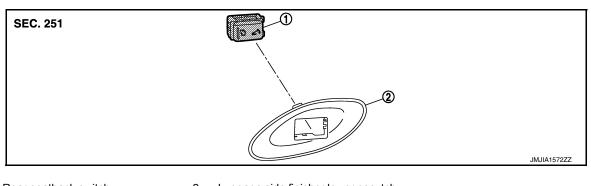
### **REAR SEATBACK SWITCH**

#### < REMOVAL AND INSTALLATION >

REAR SEATBACK SWITCH

### **Exploded View**

INFOID:000000012173839



- 1. Rear seatback switch
- 2. Luggage side finisher lower escutcheon

### Removal and Installation

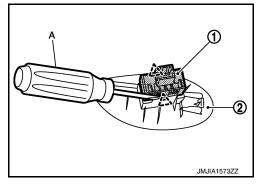
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### REMOVAL

#### **CAUTION:**

#### When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the luggage side finisher lower escutcheon. Refer to INT-34, "Removal and Installation".
- 2. Remove rear power return switch (1) from luggage side finisher lower escutcheon (2) with remover tool (A).
  - 2 : Pawl



INSTALLATION Install in the reverse order of removal.

### **REAR SEATBACK RELEASE SWITCH**

#### < REMOVAL AND INSTALLATION >

### REAR SEATBACK RELEASE SWITCH

### **Exploded View**

1.

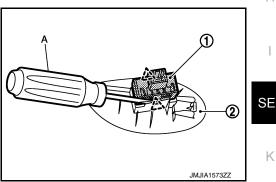
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### Removal and Installation

#### REMOVAL CAUTION: When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the luggage side finisher lower escutcheon. Refer to INT-34, "Removal and Installation".
- 2. Remove rear power return switch (1) from luggage side finisher lower escutcheon (2) with remover tool (A).
  - ,^\_\_: Pawl







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