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# PRECAUTIONS

# PRECAUTIONS

**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 and SB section of this Service Manual.

#### WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death • in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

### **Service Notice**

- 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.

### Precautions for Work

- Κ 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.

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# PREPARATION

# PREPARATION

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# **Special Service Tools**

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

Tool number (Kent-Moore No.) Tool name		Description	
(J39570) Chassis ear	SIIA0993E	Locating the noise	
(J43980) NISSAN Squeak and Rattle Kit		Repairing the cause of noise	
Commercial Service T	ools	NIS0025M	
Tool name		Description	
Engine ear		Locating the noise	

SIIA0995E

# SQUEAK AND RATTLE TROUBLE DIAGNOSES PFP:00000 А **Work Flow** NIS0025N Customer Interview Duplicate the Noise and Test Drive. Check Related Service Bulletins. Locate the Noise and Identify the Root Cause. Repair the Cause. NG Confirm Repair. E OK Inspection End SBT842

### **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 customer's comments; refer to <u>SE-9</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, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics 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=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 bumble bee) Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon 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.

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### 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.

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-7, "Generic Squeak and Rattle Troubleshooting"</u>.

#### **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-43980) 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-43980). 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 $\times$ 1.97 in)	A
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.	В
UHMW (TEFLON) TAPE 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. SILICONE SPRAY	С
Use when grease cannot be applied. DUCT TAPE Use to eliminate movement.	D
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.	E
Generic Squeak and Rattle Troubleshooting	F
Refer to Table of Contents for specific component removal and installation information.	
INSTRUMENT PANEL	G
Most incidents are caused by contact and movement between:	
1. The cluster lid A and instrument panel	
2. Acrylic lens and combination meter housing	Н
3. Instrument panel to front pillar garnish	
4. Instrument panel to windshield	SE
5. Instrument panel mounting pins	02
6. Wiring harnesses behind the combination meter	
7. A/C defroster duct and duct joint	J
These incidents can usually be located by tapping or moving the components to duplicate the noise or by 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.	K
CAUTION:	
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.	L
CENTER CONSOLE	
Components to pay attention to include:	

Components to pay attention to include:

- 1. Shifter assembly cover to finisher
- 2. A/C control unit and cluster lid C
- 3. Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

### DOORS

Pay attention to the:

- 1. Finisher and inner panel making a slapping noise
- 2. Inside handle escutcheon to door finisher
- 3. Wiring harnesses tapping
- 4. Door striker out of alignment causing a popping noise on starts and stops

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-43980) to repair the noise.

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### TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for:

- 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

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 underhood 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.

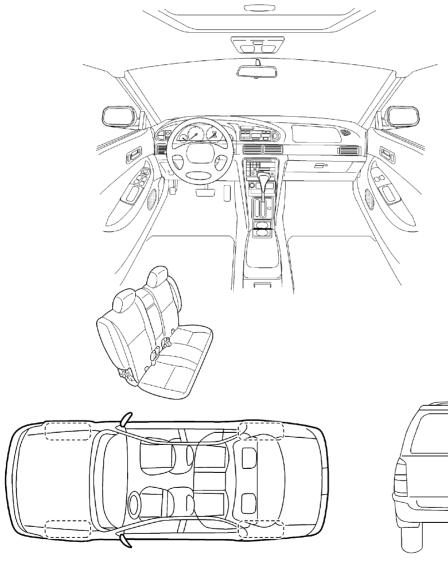
### **Diagnostic Worksheet**

### 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 advisor 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 the back 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.

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

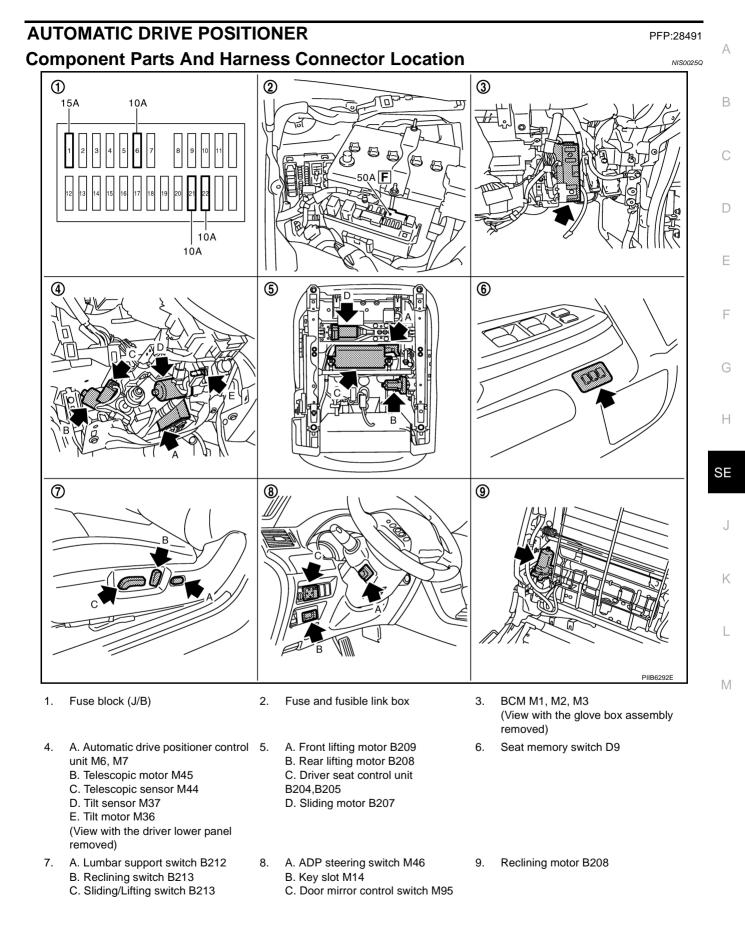
Briefly describe the location where the noise occurs:				
he boxes that apply)				
after sitting out in the sun when it is raining or wet dry or dusty conditions other:				
IV. WHAT TYPE OF NOISE?				
<ul> <li>squeak (like tennis shoes on a clean floor)</li> <li>creak (like walking on an old wooden floor)</li> <li>rattle (like shaking a baby rattle)</li> <li>knock (like a knock on a 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>				

#### TO BE COMPLETED BY DEALERSHIP PERSONNEL Test Drive Notes:

		<u>YES</u>	<u>NO</u>	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				
VIN:	Customer Name: _			
W.O. #:	Date:	_		

#### This form must be attached to Work Order

SBT844



### System Description

NIS0025R

- The system automatically moves the driver seat, steering and door mirror position by the driver seat control unit and the automatic drive positioner control unit. The driver seat control unit corresponds with the automatic drive positioner control unit via UART communication. The driver seat control unit can store the optimum driving positions (driver seat, steering and door mirror position) for 2 people. If the driver changes, one-touch operation allows changing to the other driving position.
- The driver seat, steering and door mirror position are adjusted automatically to the proper positions for the driver in different ways: MEMORY OPERATION, EXITING OPERATION, ENTRY OPERATION and INTELLIGENT KEY INTERLOCK OPERATION.

Function		nction	Description		
Manual operation			The driving position (seat, steering and door mirror position) can be adjusted with the power seat switch ADP steering switch or door mirror control switch.		
	Memory operation		The seat, steering and door mirror move to the stored driving position by pushing seat memory switch (1 or 2).		
Auto-	Entry/ Exiting function	Exiting operation	At exit, the seat moves backward and the steering wheel moves upward.		
matic operation		Entry operation	At entry, the seat and steering wheel returns from exiting position to the previous driving position before the exiting operation.		
	Intelligent Key interlock operation		Perform memory operation, exiting operation and entry operation by pressing Intel- ligent Key unlock button.		

### MANUAL OPERATION

The driving position (seat, steering and door mirror position) can be adjusted with the power seat switch, ADP steering switch and door mirror control switch.

#### NOTE:

The door mirrors can be manually operated with the ignition switch in either ACC or ON.

### MEMORY OPERATION

The driver seat control unit can store the optimum driving positions (seat, steering and door mirror position) for 2 people. If the front seat position is changed, one-touch (pressing desired memory switch for more than 0.5 second) operation allows changing to the other driving position.

#### **Operation procedure**

- 1. Turn ignition switch ON.
- 2. Press desired memory switch for 0.5 second. (Indicator LED illuminates.)
- 3. Driver seat, steering and door mirror will move to the memorized position. (Indicator LED blinks during adjustment, then illuminates for 5 seconds.)

### **Operation Condition**

If the following conditions are not satisfied, memory switch operation is not performed.

- Ignition switch is in ON position.
- Driver side power seat switch, ADP steering switch and door mirror control switch are not operated.
- Seat memory switch and set switch are not operated.
- Output malfunction is not detected.
- CAN and UART communications are normal.
- A/T selector lever position is in P position.
- Detention switch malfunction is not detected.
   [Detention switch malfunction is sensed when detention switch remains OFF, vehicle speed is higher than 7 km/H. (4 MPH).]
- Input voltage from tilt sensor and telescopic sensor are normal.

#### NOTE:

The memory operation operates following order.

	Order of priority	Operated portion
	1*	Seat sliding
	2	Steering telescopic
	3	Steering wheel tilt
	4	Seat reclining
	5	Seat lifter (front)
	6	Seat lifter (rear)
*: C	oor mirror operation starts with the start of seat sliding operation	
<b>St</b> 1. 2. 3.	Turn ignition switch to ON. Shift A/T selector lever to P position. Adjust position of driver seat, steering and mirror p	osition
,.  .	<ul><li>Press set switch.</li><li>Indicator LED for which driver seat positions ar onds.</li></ul>	e already retained in memory is illuminated for 5 sec- not retained in memory is illuminated for 0.5 second.
	<ul><li>ond within 5 seconds after pressing the set switch</li><li>To enter driver seat positions in blank memory, in</li></ul>	
5.		
	<ul> <li>If you need setting of INTELLIGENT KEY INTER</li> <li>If you don't need setting of INTELLIGENT KEY I Conform the operations of each part with the ME</li> </ul>	NTERLOCK OPERATION, the procedure is finished.
7.	Press intelligent key unlock button within 5 second (While memory switch LED is illuminated.)	s after pressing memory switch.
3.	Conform the operations of each part with MEMOR OPERATION.	Y OPERATION and INTELLIGENT KEY INTERLOCK
N	DTE:	
	Driving position is erased from the memory when b	battery cable is disconnected.

### **EXITING OPERATION**

When exiting, when the condition is satisfied, the seat is moved backward 40 mm (1.57 in) from normal sitting position and the steering is moved to the most upper position and front position.

The seat slide amount and the steering operation at entry/exit operation can be changed by set switch, CON-SULT-II and display (located in the instrument panel). Refer to <u>SE-16, "SETTING CHANGE FUNCTION"</u>.

### **Operation Condition**

• Ignition switch: OFF / Driver side door switch: ON (OPEN)

If the following conditions are not satisfied, exiting operation is not performed.

- Ignition switch is in OFF position.
- A/T selector lever position is in P position.
- Vehicle speed is less than 7 km/h. (4 MPH).
- Driver side power seat switch and ADP steering switch are not operated.
- Seat memory switch and set switch is not operated.
- Door mirror control switch is not operated at change over switch is in LH or RH position.
- Output malfunction is not detected.
- Detention switch malfunction is not detected.
   [Detention switch malfunction is sensed when detention switch remains OFF and vehicle speed is higher than 7 km/h. (4 MPH).]
- CAN communications are normal.
- Initialization has been done. Refer to <u>SE-16, "INITIALIZATION PROCEDURE"</u>.

### ENTRY OPERATION

When the seat is in the exiting position when either condition (1 or 2) is satisfied, the seat returns from exiting position to the previous driving position.

### **Operation Condition**

- 1. Ignition switch: ON
- 2. Ignition switch: ACC / Driver side door switch: OFF (CLOSE)

If the following conditions are not satisfied, entry operation is not performed.

- Ignition switch is in OFF position.
- A/T selector lever position is in P position.
- Vehicle speed is less than 7 km/h (4 MPH).
- Driver side power seat switch, ADP steering switch and door mirror control switch are not operated.
- Seat memory switch and set switch is not operated.
- Output malfunction is not detected.
- Detention switch malfunction is not detected.
   [Detention switch malfunction is sensed when detention switch remains OFF and vehicle speed is higher than 7 km/h (4 MPH).]
- CAN communications are normal.
- Exiting positions have not been changed during and after exiting operation.

### INTELLIGENT KEY INTERLOCK OPERATION

When pressing unlock button on Intelligent Key or request switch, the system performs memory operation, A exiting operation and entry operation.

#### **Operation procedure**

- 1. Press unlock button on Intelligent Key or request switch.
- 2. The system performs MEMORY OPERATION, and then performs EXITING OPERATION continually. **NOTE:**

### If the seat position is in memorized position before push unlock button, MEMORY OPEPATION dose not perform.

- 3. Turn ignition switch ON or close driver side door when ignition switch is in "ACC" position.
- 4. The system performs ENTRY OPERATION. (Seat and steering positions are moved to memorized positions. The memorize position is related to key ID.)

#### **Operation Condition**

If the following conditions are not satisfied, memory switch operation is not performed.

- Ignition switch is in OFF position.
- Driver side power seat switch and door mirror control switch are not operated.
- Seat memory switch and set switch are not operated.
- Output malfunction is not detected.
- CAN and UART communications are normal.
- A/T selector lever position is in P position.
- Detention position switch malfunction is not detected.
   [Detention position switch malfunction is sensed when detention switch remains OFF and vehicle speed is higher than 7 km/h (4 MPH).]

# Linking Intelligent Key to the Stored Memory Procedure

#### NOTE:

- If ignition switch turns ON in the middle of memory operation, the system does not perform exiting operation after memory operation.
- If ignition switch turns ON in the middle of exiting operation, entry operation starts at that time.
- If entry / exiting operation is cancelled, perform memory operation only.

### FAIL-SAFE MODE

If any of the parts move more than a period "T" without any switch operation, MEMORY OPERATION, EXIT-ING OPERATION, ENTRY OPERATION, INTELLIGENT KEY INTERLOCK OPERATION and the malfunction part of manual operations are not operated (output malfunction).

Operated portion	Т	
Seat sliding	Approx. 0.1 sec.	5.4
Seat reclining	Approx. 0.1 sec.	M
Seat lifter (front)	Approx. 0.1 sec.	
Seat lifter (rear)	Approx. 0.1 sec.	
Steering tilt	Approx. 0.1 sec.	

### Canceling Fail-safe Mode

The mode is cancelled by either of the following operations.

• When the selector lever is shifted to P position from any other position (detention switch is turned OFF).

В

D

F

F

SE

J

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L

### INITIALIZATION PROCEDURE

After reconnecting battery cable, perform initialization procedure A or B. If initialization has not been performed, EXITING OPERATION will not operate.

#### Procedure A

- 1. Turn ignition switch from ACC to OFF position.
- 2. Driver door switch is ON (open)  $\rightarrow$  OFF (close)  $\rightarrow$  ON (open).
- 3. END

#### **Procedure B**

- 1. Drive the vehicle at more than 25 km/h (16 MPH).
- 2. END

### SETTING CHANGE FUNCTION

The settings of the automatic driving positioner system can be changed, using CONSULT-II and the display unit in the center of the instrument panel.

Setting item	Content	CONSULT-II (WORK SUPPORT)	Display unit	Factory setting
	The distance at retain operation can be selected from the following 3 modes.	40 mm		×
Change seat sliding volume setting		80 mm		_
		150 mm		_
Change the Entry/Exit seat	The seat sliding turnout and return at entry/exit can be selected: ON (operated) – OFF (not operated)	ON	ON: Indicator lamp ON	×
slide function setting		OFF	OFF: Indicator lamp OFF	_
	Lift up and backward steering wheel at entry and exit can be selected: ON (operated) - OFF (not operated)	ON	ON: Indicator lamp ON	×
Change the Entry/Exit tilt steering wheel function setting		OFF	OFF: Indicator lamp OFF	
Reset custom settings	All settings to default.	_	Default: Setting button OFF	_

It is possible to set sliding driver seat for entry/exit of vehicle by pressing set switch.

Content	Setting change operation	Indicator LED
The seat sliding turnout and steering wheel up/backward at entry/exit can be operated.	Press the set switch for more than 10 seconds	Blinking twice
The seat sliding turnout and steering wheel up/backward at entry/exit can be not operated.		Blinking ones

# **CAN Communication System Description**

NIS0025S

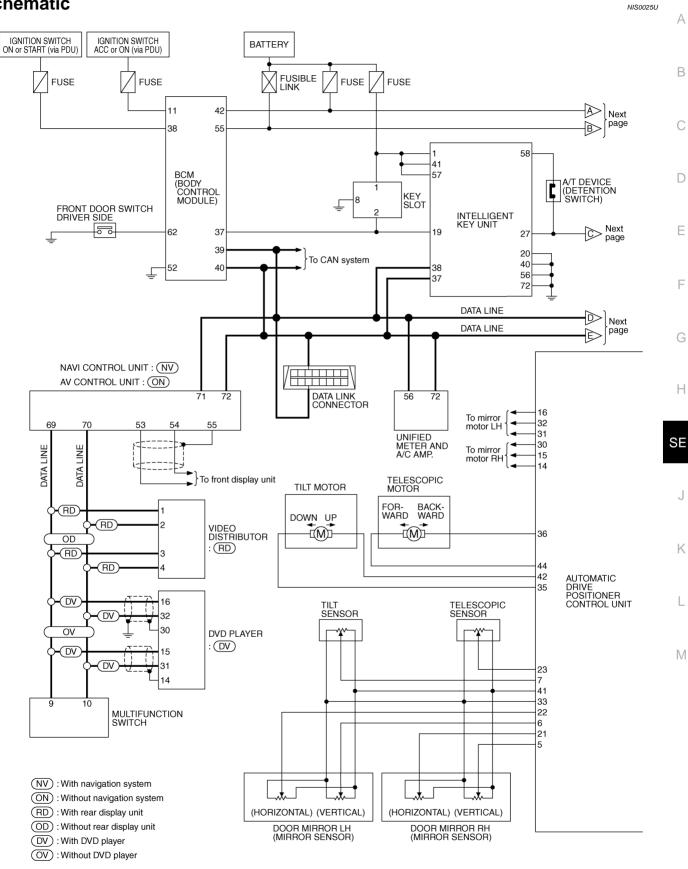
CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

# **CAN Communication Unit**

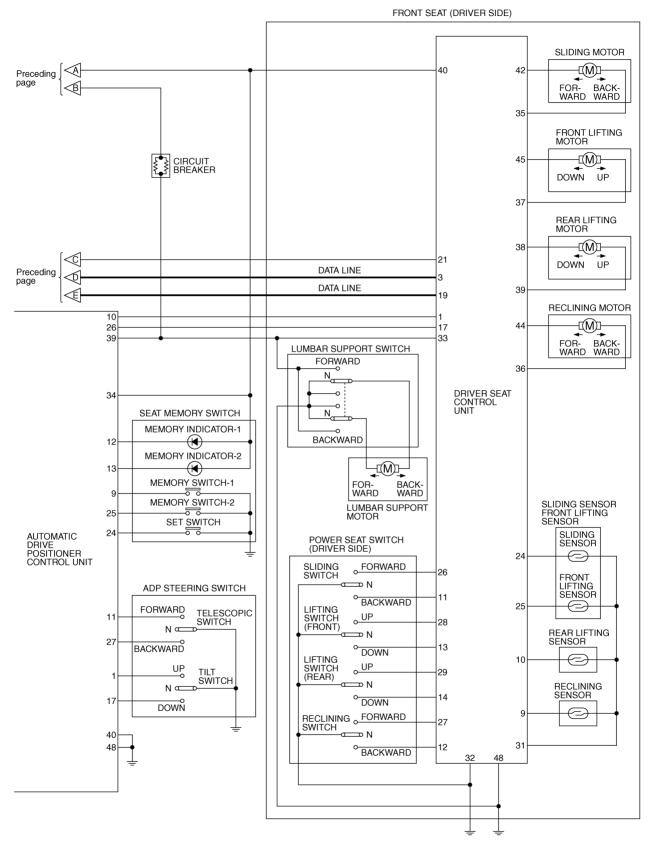
Refer to LAN-34, "CAN Communication Unit" .

NIS0025T

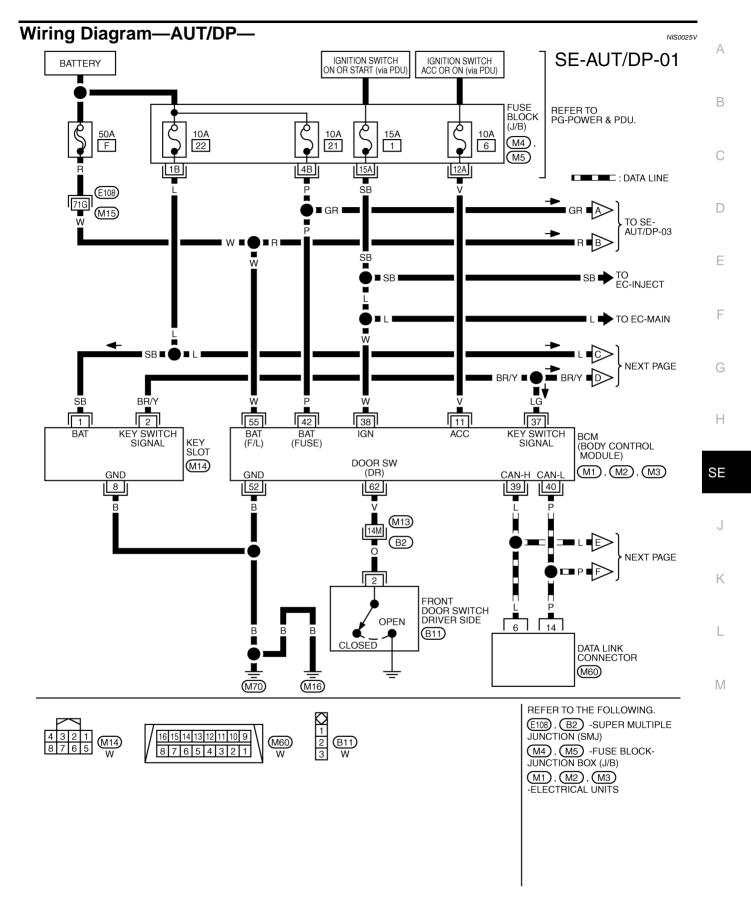
### Schematic



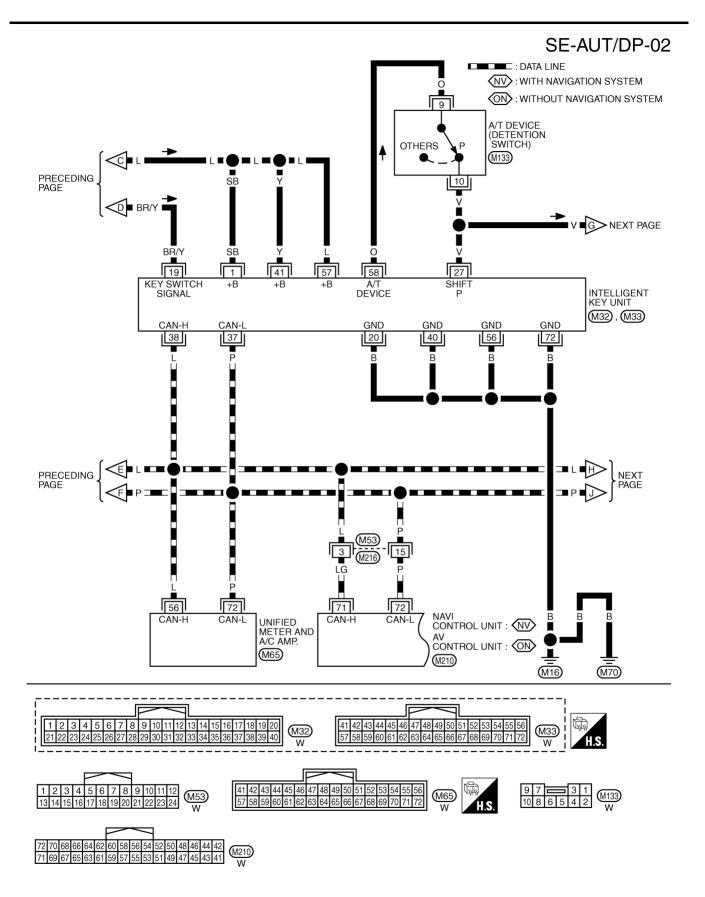
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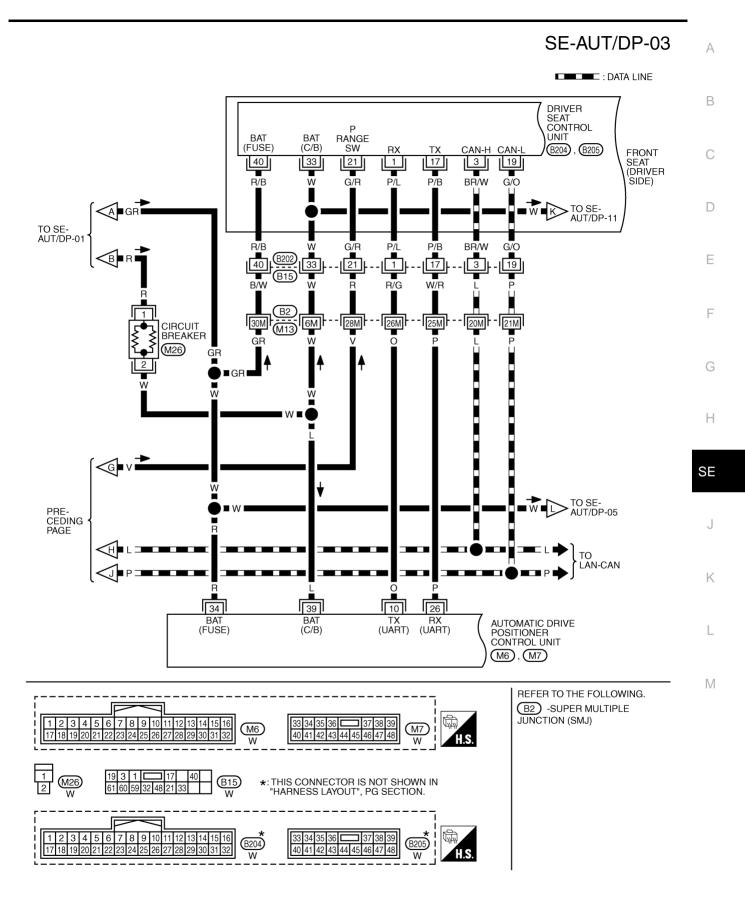
TIWT1372E



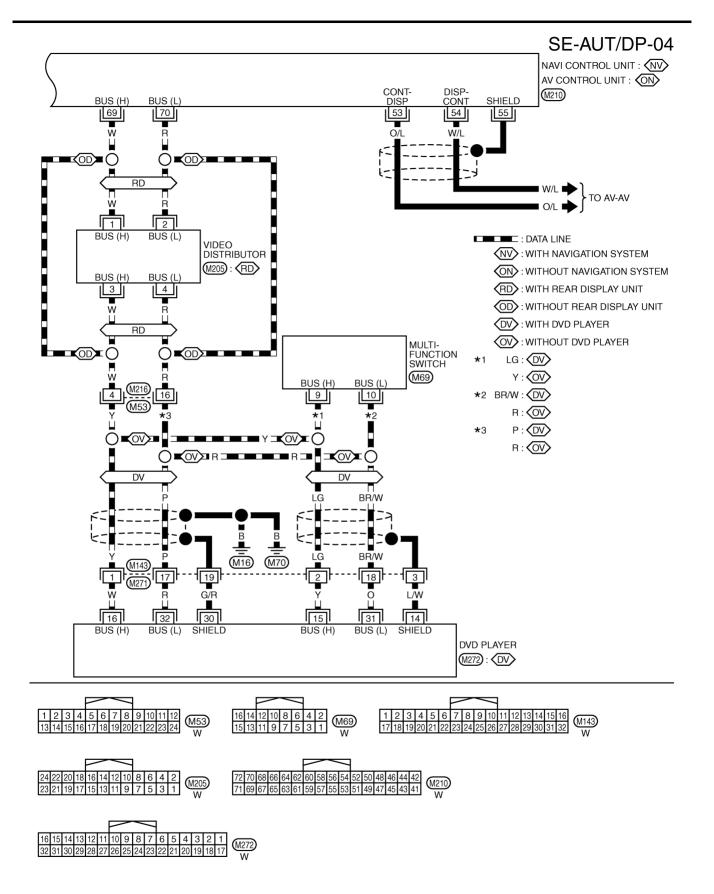
TIWT1373E



TIWT1374E

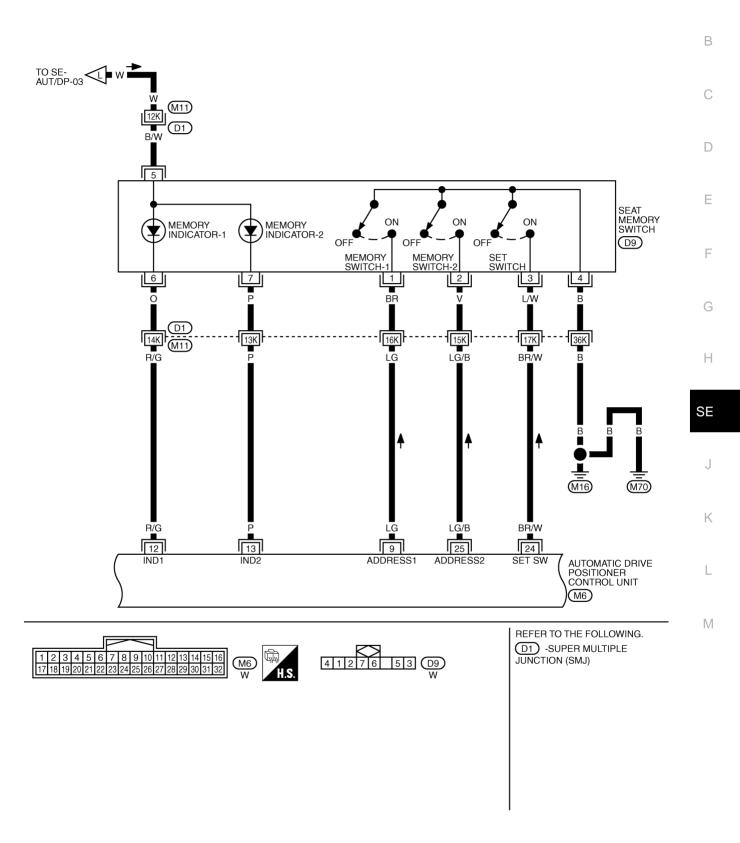


TIWT1375E

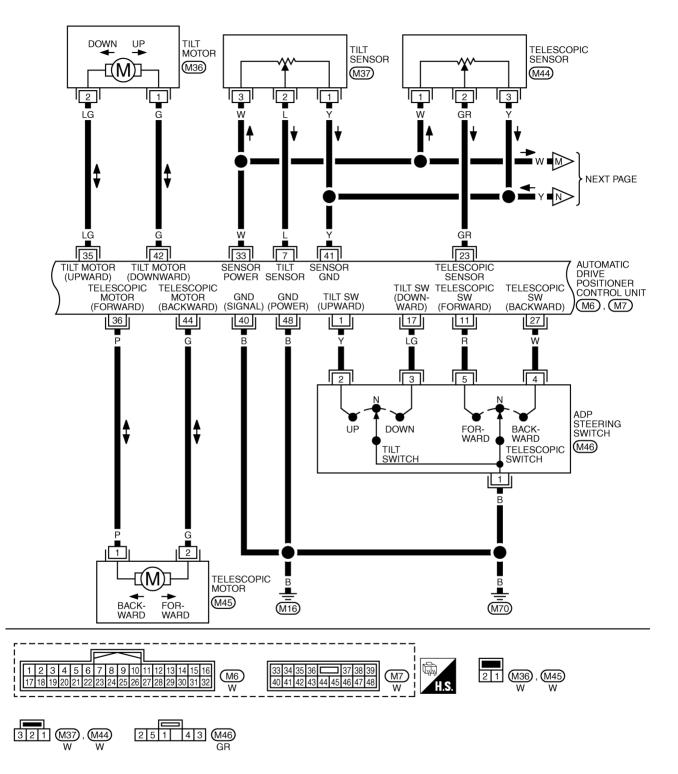


TIWT1376E

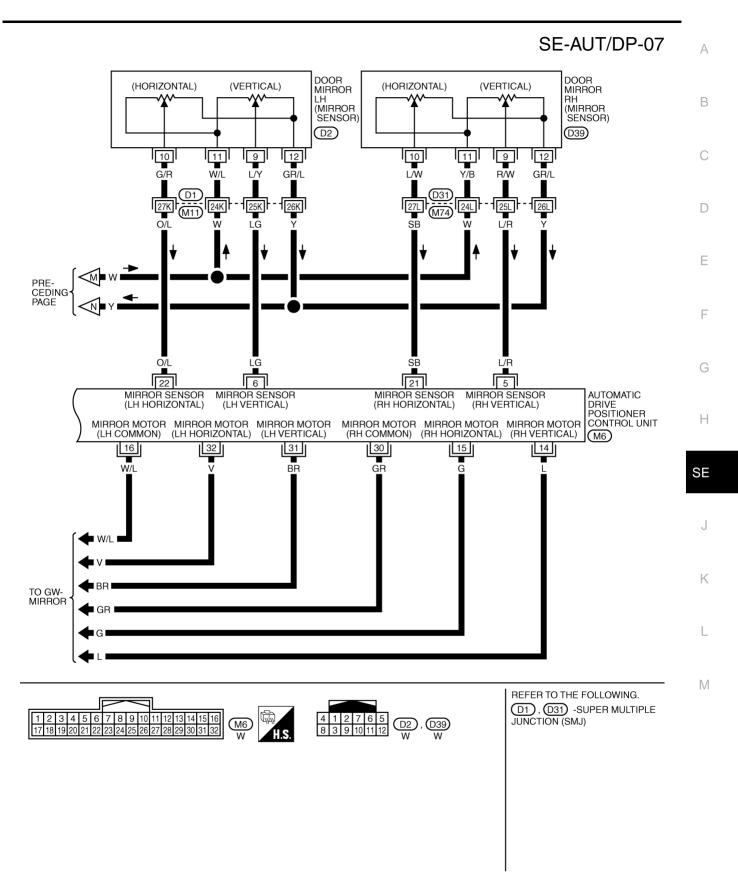
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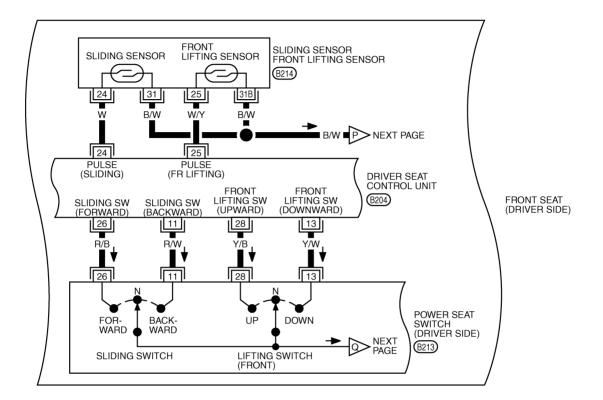
TIWT1377E



TIWT1378E



TIWT1379E





\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

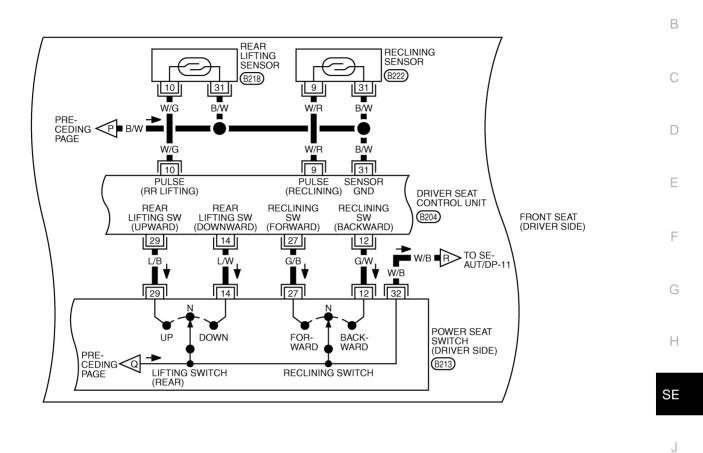
TIWT1380E

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L

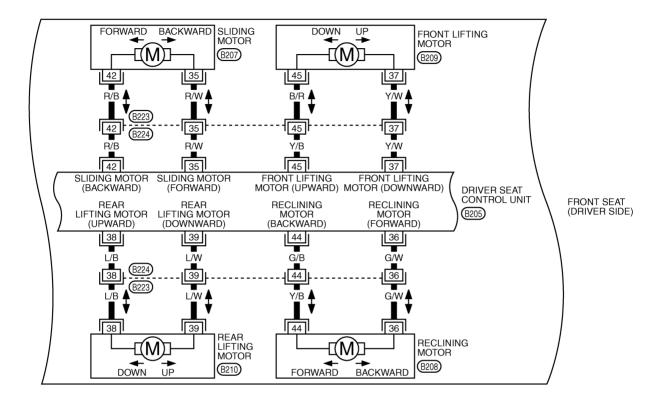
Μ

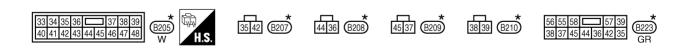




\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1381E

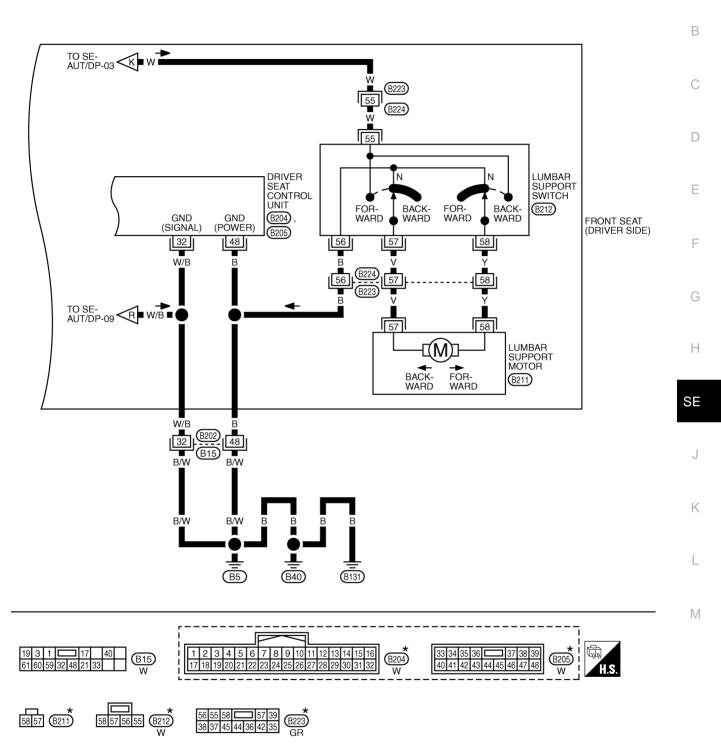




\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1382E

А



\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1383E

# **Terminals and Reference Values for BCM**

Termi- nal	Wire color	Item	Condition	Voltage (V) (Approx)
11	V	Power source (ACC)	Ignition switch (ACC or ON position)	Battery voltage
37 LG Key switc		Key switch ON (Key is inserted in key slot)	Battery voltage	
	LG	Key switch signal	Key switch OFF (Key is remove from key slot)	0
38	W	Power source (IGN)	Ignition switch (ON or START position)	Battery voltage
39	L	CAN-H		
40	Р	CAN-L		
42	Р	Power source (Fuse)	—	Battery voltage
52	В	Ground	—	0
55	W	Power source (Fusible link)	-	Battery voltage
62	V	Drive side door switch	$ON\;(Open)\toOFF\;(Closed)$	$0 \rightarrow Battery voltage$

# Terminals and Reference Value for Intelligent Key Unit

NIS0025X

NIS0025W

		Item		Condition	
Termi- nal	Wire Color		Ignition Switch Position	Operation or Conditions	Voltage (V) Approx.
1	SB	Power source (Fuse)	_	—	Battery voltage
19	BR/Y	Key switch signal	LOCK	Insert Intelligent Key into key slot.	Battery voltage
19	DR/ I	Rey Switch Signal	LUCK	Remove Intelligent Key from key slot.	0
20	В	Ground	ON	_	0
27	V	P range switch		Selector lever is in "P" position.	0
21	v			Other than above	Battery voltage
37	Р	CAN-L	_	_	_
38	L	CAN-H		_	_
40	В	Ground	ON	_	0
41	Y	Power source (Fuse)	_	—	Battery voltage
56	В	Ground	ON	_	0
57	L	Power source (Fuse)	_	_	Battery voltage
58	0	O A/T device power supply		Wake up state	Battery voltage
50	0			Sleep state	0
72	В	Ground	ON		0

# Terminals and Reference Values for Driver Seat Control Unit

fermi- nal	Wire color	ltem	Condition	Voltage (V) (Approx)
1	P/L	UART LINE (RX)	Tilt switch operated	(V) 6 2 0 2 0 2 0 2 0 2 0 4 2 0 2 0 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
3	BR/W	CAN-H	_	_
9	W/R	Reclining sensor signal	ON (seat reclining motor operation)	(V) 6 2 0 •••••••••••••••••••••••••••••••••
			Other than above	0 or 5
10	W/G	Rear lifting sensor signal	ON (rear lifting motor operation)	(V) 6 4 2 0 • • • • • • • • • • • • • • • • • • •
		Other than above	0 or 5	
11	R/W	Sliding switch backward signal	ON (seat sliding switch backward operation)	0
			Other than above	Battery voltage
12	G/W	Reclining switch backward signal	ON (seat reclining switch backward operation)	0
			Other than above	Battery voltage
13	Y/W	Front lifting switch DOWN signal	ON (front lifting switch DOWN opera- tion)	0
			Other than above	Battery voltage
14	L/W	Rear lifting switch DOWN signal	ON (rear lifting switch DOWN opera- tion)	0
			Other than above	Battery voltage
17	P/B	UART LINE (TX)	Tilt switch operated	(V) 6 2 0 
19	G/O	CAN-L	_	_
			A/T selector lever is in P position.	0
21	G/R	Detention switch signal	A/T selector lever is in other than P position.	Battery voltage

NIS0025Y

Termi- nal	Wire color	ltem	Condition	Voltage (V) (Approx)	
24	W	Seat sliding sensor signal	ON (seat sliding motor operation)	(V) 6 2 0 •••50ms SIIA0690J	
			Other than above	0 or 5	
25	W/Y	Front lifting sensor signal	ON (front lifting motor operation)	(V) 6 2 0 •••50ms SIIA0691J	
			Other than above	0 or 5	
26	R/B	Seat sliding switch forward signal	ON (seat sliding switch forward oper- ation)	0	
			Other than above	Battery voltage	
27	G/B	Seat reclining switch forward sig-	ON (seat reclining switch forward operation)	0	
		nal	Other than above	Battery voltage	
28	Y/B	Front lifting switch UP signal	ON (front lifting switch UP operation)	0	
20	1/0		Other than above	Battery voltage	
29	L/B	Rear lifting switch UP signal	ON (rear lifting switch UP operation) Other than above	0 Battery voltage	
31	B/W	Sensor ground		0	
32	W/B	Ground (signal)	_	0	
33	W	Power source (C/B)	_	Battery voltage	
35	R/W	Sliding motor forward output sig-	Sliding switch forward operation (Motor operated)	Battery voltage	
		nal	Other than above	0	
36	G/W	Reclining motor forward output	Reclining switch forward operation (Motor operated)	Battery voltage	
		signal	Other than above	0	
37	Y/W	Front lifting motor DOWN output	Front lifting switch down operation (Motor operated)	Battery voltage	
		signal	Other than above	0	
38	L/B	Rear lifting motor UP output sig-	Rear lifting switch up operation (Motor operated)	Battery voltage	
		nal	Other than above	0	
39	L/W	Rear lifting motor DOWN output	Rear lifting switch down operation (Motor operated)	Battery voltage	
		signal	Other than above	0	
40	R/B	Power source (Fuse)	—	Battery voltage	
42	R/B	Sliding motor backward output	Sliding switch backward operation (Motor operated)	Battery voltage	
		signal	Other than above	0	

Termi- nal	Wire color	Item	Condition	Voltage (V) (Approx)	A
44	G/B	Reclining motor backward output	Reclining switch backward operation (Motor operated)	Battery voltage	
		signal	Other than above	0	В
45	45 Y/B	Front lifting motor LIP output sig-		Battery voltage	
	nai		Other than above	0	С
48	В	Ground (power)		0	

# **Terminals and Reference Values for Automatic Drive Positioner Control Unit**

NIS0025Z

D

Termi- nal	Wire color	ltem	Condition	Voltage (V) (Approx)
4	X	Tilt autitab LID aignal	Tilt switch is UP operation	0
1	Y	Tilt switch UP signal	Other than above	5
5	L/R	Mirror sensor (RH vertical) signal	When mirror motor RH is UP or DOWN operation	Changes between 4.2 (close to perk) 0.5 (close to valley)
6	LG	Mirror sensor (LH vertical) signal	When mirror motor LH is UP or DOWN operation	Changes between 4.2 (close to perk) 0.5 (close to valley)
7	-	Tilt concer cignal	Tilt position : Top	1
1	L	Tilt sensor signal	Tilt position : Bottom	3.8
0		Manager av itali da si masl	Memory switch 1 ON	0
9	LG	Memory switch 1 signal	Other than above	5
10	0	UART LINE (TX)	Tilt switch operated	(V) 6 2 0 1 20 µs 1 SKIA0175E
11	R	Telescopic switch forward signal	When telescopic switch is forward oper- ation	0
		Signal	Other than above	5
12	R/G	Memory switch indictor 1 sig-	When illuminate indictor 1	1
12	N/G	nal	Other than above	Battery voltage
13	Р	Memory switch indictor 2 sig-	When illuminate indictor 2	1
13	Г	nal	Other than above	Battery voltage
14	L	Mirror motor RH UP signal	When mirror motor RH UP operation	Battery voltage
14	L	MITOL HOLOLINE OF SIGNAL	Other than above	0
15	G	Mirror motor RH LEFT signal	When mirror motor RH LEFT operation	Battery voltage
10	9		Other than above	0
		Mirror motor LH DOWN sig-		Battery voltage
16	14/2	nal	Other than above	0
10	W/L	Mirror motor LH RIGHT sig- nal	When mirror motor LH RIGHT opera- tion	Battery voltage
			Other than above	0
17	LG	Tilt switch DOWN signal	When tilt switch is DOWN position	0
17	LG		Other than above	5



Termi- nal	Wire color	Item	Condition	Voltage (V) (Approx)
21	SB	Mirror sensor (RH horizon- tal) signal	When mirror motor RH is LEFT or RIGHT operation	Changes between 3.5 (close to left edge) 0.5 (close to right edge)
22	O/L	Mirror sensor (LH horizontal) signal	When mirror motor LH is LEFT or RIGHT operation	Changes between 0.5 (close to left edge) 3.5 (close to right edge)
	GR Telescopic sensor input		Telescopic position : Top	4.6
23			Telescopic position : Bottom	0.4
24		Cat awitch airmal	Set switch ON	0
24	BR/W	Set switch signal	Other than above	5
25	LG/B	Momony quitch 2 gignal	Memory switch 2 ON	0
25	LG/B	Memory switch 2 signal	Other than above	5
26	Ρ	UART LINE (RX)	Tilt switch is operated	(V) 6 2 0 20 20 4 20 4 20 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
07	14/	Telescopic switch backward	Telescopic switch turned to backward	0
27	W	signal	Other than above	5
	Mirror motor RH DOWN sig-	When mirror motor RH DOWN opera- tion	Battery voltage	
30	GR	nal Mirror motor RH RIGTH sig- nal	Other than above	0
30	GR		When mirror motor RH RIGHT opera- tion	Battery voltage
			Other than above	0
31	BR	Mirror motor LLLLD signal	When mirror motor LH UP operation	Battery voltage
31	DK	Mirror motor LH UP signal	Other than above	0
32	V	Mirror motor LH LEFT signal	When mirror motor LH LEFT operation	Battery voltage
32	v	MITOI MOLOI LA LEFT SIGNAL	Other than above	0
33	W	Sensor power supply	_	5
34	R	Power source (Fuse)	_	Battery voltage
35	LG	Tilt motor UP signal	Tilt switch is UP operation	Battery voltage
00	20	The motor of Signal	Other than above	0
36	Р	Telescopic motor forward sig-	Telescopic switch is forward operation	Battery voltage
00	•	nal	Other than above	0
39	L	Power source (C/B)	—	Battery voltage
40	В	Ground	_	0
41	Y	Sensor ground		0
42	G	Tilt motor DOWN signal	Tilt switch is DOWN operation	Battery voltage
			Other than above	0
44	G	Telescopic motor backward signal	Telescopic switch is backward opera- tion	Battery voltage
		Signal	Other than above	0
48	В	Ground		0

# **CONSULT-II Function (AUTO DRIVE POS.)**

CONSULT-II can display each diagnostic item using the diagnostic test modes shown following.

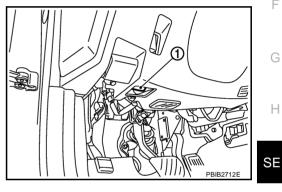
AUTO DRIVE POS. diagnostic mode	Description	В
WORK SUPPORT	Changes settings for each function.	
SELF-DIAG RESULTS	Displays driver seat control unit self-diagnosis results.	
DATA MONITOR	Displays driver seat control unit input/output data in real time.	С
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.	
ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.	
ECU PART NUMBER	Driver seat control unit part number can be read.	D

#### **CONSULT-II INSPECTION PROCEDURE**

#### **CAUTION:**

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

- Turn ignition switch "OFF". 1.
- Connect "CONSULT-II" and "CONSULT-II CONVERTER" to the 2. data link connector (1).



NIS00260

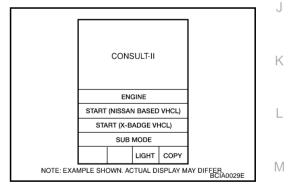
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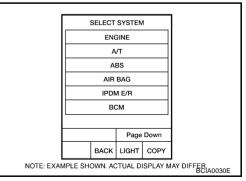
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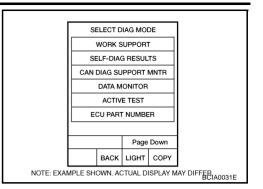
- Turn ignition switch "ON". 3.
- Touch "START (NISSAN BASED VHCL)". 4.



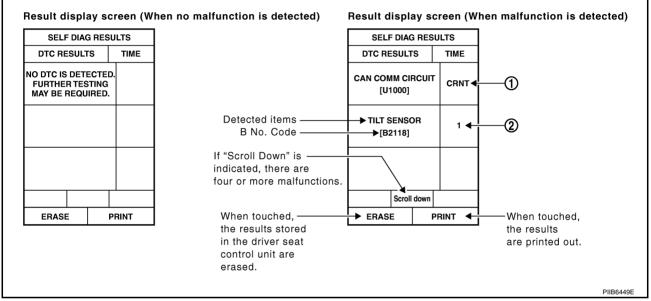
Touch "AUTO DRIVE POS". 5. If "AUTO DRIVE POS." is not indicated, refer to GI-40, "CON-SULT-II Data Link Connector (DLC) Circuit" .



 Select diagnosis mode.
 "DATA MONITOR", "ACTIVE TEST", "SELF-DIAG RESULTS", "ECU PART NUMBER", "CAN DIAG SUPPORT MNTR" and "WORK SUPPORT" are available.



### SELF-DIAGNOSIS RESULTS HOW TO READ SELF-DIAG RESULTS



#### NOTE:

- CAN communication malfunction and detention switch malfunction are displayed on "TIME". (1)
- If error is detected in the present, "CRNT" is displayed.
- If error is detected in the past (present error is not detected), "PAST" is displayed.
- If error has never been detected, nothing is displayed on "TIME".
- Any items other than CAN communication malfunction and detention switch malfunction are counted. (2)
- If error is detected, error detection frequency is displayed from "1" to "127" on "TIME".
- If error has never been detected, nothing is displayed on "TIME".
- Can clear the detected memory.
   Normal: Clear memory in normal condition, history is erased and nothing is displayed on "TIME".
   Error: Clear memory in error condition, error is detected again and "1" is displayed on "TIME".

### DISPLAY ITEM LIST

CONSULT-II display	ltem	Malfunction is detected when	Reference page
CAN COMM CIRC [U1000]	CAN communication	Malfunction is detected in CAN communication.	<u>SE-41</u>
SEAT SLIDE [B2112]	Seat slide motor	When any manual and automatic operations are not performed, if any motor operations of seat slide is detected for 0.1 second or more, status is judged "Output error".	<u>SE-44</u> <u>SE-52</u>
SEAT RECLINING [B2113]	Seat reclining motor	When any manual and automatic operations are not performed, if any motor operations of seat reclining is detected for 0.1 second or more, status is judged "Output error".	<u>SE-45</u> <u>SE-54</u>

CONSULT-II display	Item	Item Malfunction is detected when		A
SEAT LIFTER FR [B2114]	Seat lifting FR motor	When any manual and automatic operations are not performed, if any motor operations of seat lifting FR is detected for 0.1 second or more, status is judged "Output error".	<u>SE-46</u> <u>SE-56</u>	E
SEAT LIFTER RR [B2115]	Seat lifting RR motor	When any manual and automatic operations are not performed, if any motor operations of seat lifting RR is detected for 0.1 second or more, status is judged "Output error".	<u>SE-48</u> <u>SE-58</u>	(
TILT OUTPUT [B2116]	Tilt motor	When any manual and automatic operations are not performed, if any motor operations of seat tilt is detected for 0.1 second or more, status is judged "Output error".	<u>SE-50</u>	ſ
TILT SENSOR [B2118]	Tilt sensor	When driver seat control unit detects 0.1V or lower, or 4.9V or higher, from tilt sensor for 0.5 seconds or more.	<u>SE-62</u>	L
TELESCO SEN- SOR [B2119]	Telescopic sensor	When driver seat control unit detects 0.1V or lower, or 4.9V or higher, from telescopic sensor for 0.5 seconds or more.	<u>SE-60</u>	E
DETENT SW [B2126]	Detention SW	With the A/T selector lever in P position (Detente switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input the detention switch input system is judged malfunctioning.	<u>SE-85</u>	F
UART COMM [B2128]	UART communica- tion	Malfunction is detected in UART communication.	<u>SE-87</u>	(

#### DATA MONITOR SELECTIOM FROM MEMU

Monitor item [OPERATION or UNIT]		Contents
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.
MEMORY SW1	"ON/OFF"	ON/OFF status judged from the seat memory switch 1 signal is displayed.
MEMORY SW2	"ON/OFF"	ON/OFF status judged from the seat memory switch 2 signal is displayed.
SLIDE SW-FR	"ON/OFF"	ON/OFF status judged from the sliding switch (FR) signal is displayed.
SLIDE SW-RR	"ON/OFF"	ON/OFF status judged from the sliding switch (RR) signal is displayed.
RECLN SW-FR	"ON/OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.
RECLN SW-RR	"ON/OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.
LIFT FR SW-UP	"ON/OFF"	ON/OFF status judged from the FR lifting switch (UP) signal is displayed.
LIFT FR SW-DN	"ON/OFF"	ON/OFF status judged from the FR lifting switch (DOWN) signal is displayed.
LIFT RR SW-UP	"ON/OFF"	ON/OFF status judged from the RR lifting switch (UP) signal is displayed.
LIFT RR SW-DN	"ON/OFF"	ON/OFF status judged from the RR lifting switch (DOWN) signal is displayed.
MIR CON SW-UP	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (UP) signal is displayed.
MIR CON SW-DN	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (DOWN) signal is displayed.
MIR CON SW-RH	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (RIGHT) signal is displayed.
MIR CON SW-LH	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (LEFT) signal is displayed.
MIR CHNG SW-R	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (switching to RIGHT) signal is displayed.
MIR CHNG SW-L	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (switching to LEFT) signal is displayed.
TILT SW-UP	"ON/OFF"	ON/OFF status judged from the tilt switch (UP) signal is displayed.
TILT SW-DOWN	"ON/OFF"	ON/OFF status judged from the tilt switch (DOWN) signal is displayed.
TELESCO SW-FR	"ON/OFF"	ON/OFF status judged from the telescoping switch (FR) signal is displayed.
TELESCO SW-RR	"ON/OFF"	ON/OFF status judged from the telescoping switch (RR) signal is displayed.

Revision: 2006 January

Monitor item [OPERATION or UNIT]		Contents
DETENT SW	"ON/OFF"	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal is displayed.
STARTER SW	"ON/OFF"	Ignition key switch ON (START, ON) /OFF (IGN, ACC, or OFF) status judged from the ignition switch signal is displayed.
SLIDE PULSE	_	Value (32768) when battery connects is as standard. If it moves backward, the value increases. If it moves forward, the value decreases.
RECLN PULSE	_	Value (32768) when battery connects is as standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE	_	Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE	_	Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH U-D	"V"	Voltage output from RH door mirror sensor (UP/DOWN) is displayed.
MIR/SEN RH R-L	"V"	Voltage output from RH door mirror sensor (LH/RH) is displayed.
MIR/SEN LH U-D	"V"	Voltage output from LH door mirror sensor (UP/DOWN) is displayed.
MIR/SEN LH R-L	"V"	Voltage output from LH door mirror sensor (LH/RH) is displayed.

#### ACTIVE TEST

#### **CAUTION:**

#### During vehicle driving, do not perform active test.

#### NOTE:

If active test is performed, reset seat memory and key fob interlock drive positioner after performing work. **DISPLAY ITEM LIST** 

Test item	Description
TILT MOTOR	The tilt motor is activated by receiving the drive signal.
TELESCO MOTOR	The telescopic motor is activated by receiving the drive signal.
SEAT SLIDE	The sliding motor is activated by receiving the drive signal.
SEAT RECLINING	The reclining motor is activated by receiving the drive signal.
SEAT LIFTER FR	The front lifting motor is activated by receiving the drive signal.
SEAT LIFTER RR	The rear lifting motor is activated by receiving the drive signal.
MIRROR MOTOR RH	The RH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.
MIRROR MOTOR LH	The LH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.
MEMORY SW INDCTR	The memory switch indicator is lit by receiving the drive signal.

#### WORK SUPPORT

The seat slide amount at entry/exit operation setting can be changed by CONSULT-II. Refer to <u>SE-16, "SET-TING CHANGE FUNCTION"</u>.

### **Work Flow**

- NIS00261 А 1. Check the symptom and customer's requests. 2. Understand the system description. Refer to SE-12, "System Description" . Perform the self-diagnosis results, using CONSULT-II. Refer to SE-35, "CONSULT-II Function (AUTO 3. DRIVE POS.)" . 4. Repair or replace depending on the self-diagnostic results. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to SE-39, 5. С "Symptom Chart" . 6. Does the automatic drive positioned system operate normally? If it is normal, GO TO 8. D If it is not normal, GO TO 3.
- 7. INSPECTION END

## Symptom Chart

#### NOTE:

Always check the "Work flow" before performing diagnosis in the following table, Refer to SE-39, "Work Flow"

Symptom	Diagnoses / service procedure	Reference page
	1. BCM power supply and ground circuit check.	<u>SE-41</u>
All of automatic operation dose not operate.	2. Driver seat control unit power supply and ground cir- cuit check.	<u>SE-42</u>
	3. Automatic drive positioner control unit power supply and ground circuit check.	<u>SE-43</u>
Sliding function does not operate (automatically and man- ually).	Sliding motor circuit check	<u>SE-44</u>
Reclining function does not operate (automatically and manually).	Reclining motor circuit check	<u>SE-45</u>
Front lifting function does not operate (automatically and manually).	Front lifting motor circuit check	<u>SE-46</u>
Rear lifting function not operate (automatically and manually).	Rear lifting motor circuit check	<u>SE-48</u>
Tilt function does not operate (automatically and manu- ally).	Tilt motor circuit check	<u>SE-50</u>
Telescopic function does not operate (automatically and manually).	Telescopic motor circuit check	<u>SE-49</u>
Sliding function does not operate automatically.	Sliding sensor circuit check	<u>SE-52</u>
Reclining function does not operate automatically.	Reclining sensor circuit check	<u>SE-54</u>
Front lifting function does not operate automatically.	Front lifting sensor circuit check	<u>SE-56</u>
Rear lifting function does not operate automatically.	Rear lifting sensor circuit check	<u>SE-58</u>
Tilt function does not operate automatically.	Tilt sensor circuit check	<u>SE-62</u>
Telescopic function does not operate automatically.	Telescopic sensor circuit check	<u>SE-60</u>
Sliding function does not operate manually.	Sliding switch circuit check	<u>SE-68</u>
Reclining function does not operate manually.	Reclining switch circuit check	<u>SE-70</u>
Front lifting function does not operate manually.	Lifting switch (front) circuit check	<u>SE-72</u>
Rear lifting function does not operate manually.	Lifting switch (rear) circuit check	<u>SE-74</u>
Tilt function does not operate manually.	Tilt switch circuit check	<u>SE-78</u>
Telescopic function does not operate manually.	Telescopic switch circuit check	<u>SE-76</u>
All of seat operation dose not operate manually.	Power seat switch ground circuit check.	<u>SE-75</u>

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AUTOMATIC DRIVE POSITIONER					
Symptom	Diagnoses / service procedure	Reference page			
Only seat memory and set switch operation does not	1. Perform storing memory	<u>SE-13</u>			
operate.	2. Seat memory and set switch circuit check	<u>SE-80</u>			
Seat memory indicator lamps 1 and 2 do not illuminate.	Seat memory indicator lamp circuit check	<u>SE-81</u>			
	1. Check system setting.	<u>SE-16</u>			
Entry/Exiting operation does not operated.	2. Perform initialization.	<u>SE-16</u>			
	3. Front door switch (driver side) circuit check	<u>SE-86</u>			
	1. Door mirror sensor power supply and ground circuit check	<u>SE-83</u>			
LH or RH door mirror face does not produce the stored	2. Door mirror sensor LH circuit check	<u>SE-63</u>			
angle, during the memory operation.	3. Door mirror sensor RH circuit check	<u>SE-66</u>			
	4. Replace automatic drive positioner control unit	<u>SE-11</u>			
Intelligent key interlock operation does not operate. (Other automatic operation and Intelligent Key system are normal)	Perform storing memory	<u>SE-13</u>			

Lumber support circuit check

Lumber support does not operate

<u>SE-89</u>

### **CAN Communication Inspection Using CONSULT-II (Self-Diagnosis)**

### 1. SELF-DIAGNOSTIC RESULT CHECK

#### **CAUTION:**

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be B detected in self-diagnosis depending on control unit which carry out CAN communication.

- 1. Connect to CONSULT-II, and select "AUTO DRIVE POS." on the "SELECT DIAG SYSTEM" screen.
- 2. Select "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
- 3. Check display content in self-diagnostic results.

CONSULT-II display code	Diagnosis item	D
	INITIAL DIAG	
	TRANSMIT DIAG	
U1000	BCM/SEC	E
	METER/M&A	
	ТСМ	E

Contents displayed

No malfunction>>Inspection End.

Malfunction in CAN communication system>>After printing the monitor items, go to "CAN System". Refer to LAN-7, "Precautions When Using CONSULT-II"

#### **BCM Power Supply and Ground Circuit Check**

#### 1. CHECK FUSE

Check if any of the following fuses in the BCM are blown.

Unit	Power source	Fuse No.	SE
	Battery power supply	<b>F</b> (50A)	
BCM	Battery power supply	21 (10A)	I
BCIVI	Ignition switch ON or STRAT signal	1 (15A)	J
	Ignition switch ACC or ON signal	6 (10A)	

#### NOTE:

Refer to SE-11, "Component Parts And Harness Connector Location" .

#### OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to <u>PG-</u> <u>3, "POWER SUPPLY ROUTING CIRCUIT"</u>.

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# 2. CHECK POWER SUPPLY CIRCUIT (BCM)

- Turn ignition switch OFF. 1.
- 2. Disconnect BCM connector.
- 3. Check voltage between BCM connector and ground.

3. Check voltage between BCM connector and ground.					¢₩		
	Terminals			Voltage (V)	H.S.		
(	(+)		Condition of ignition				
BCM connector	Terminal	()	switch	(Approx.)		<u>11, 38, 42, 55</u>	
 M1	38		ON				
IVII	11	Ground	ACC	Battery voltage	-		
M2	42		Cround	OFF	Dattery voltage	(Cao)	
	55			OFF		PIIB6296E	

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace the harness between BCM and fuse.

### **3.** CHECK GROUND CIRCUIT (BCM)

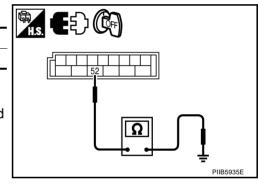
Check continuity between BCM connector and ground.

BCM connector Terminal Continuity Ground M2 52 Yes

#### OK or NG

OK >> BCM power supply and ground circuit are OK.

NG >> Repair or replace the harness between BCM and ground.

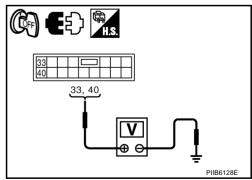


### **Driver Seat Control Unit Power Supply and Ground Circuit Check 1. CHECK POWER SUPPLY CIRCUIT**

NIS00265

- Turn ignition switch OFF. 1.
- Disconnect driver seat control unit connector. 2.
- 3. Check voltage between driver seat control unit connector and ground.

(+	-)		Voltage (V)	
Driver seat con- trol unit connector	Terminal	(-)	(Approx.)	
B205	33	Ground	Battery voltage	
B205	40	Giouna		



#### OK or NG

OK >> GO TO 2.

NG >> Check the following.

- Repair or replace harness between driver seat control unit and fuse block (J/B).
- Circuit breaker.

## 2. CHECK GROUND CIRCUIT

- Turn ignition switch OFF. 1.
- 2. Check continuity between the driver seat control unit connector and ground.

Driver seat control unit connector	Terminal		Continuity		D
B204	32	Ground	Vee		С
B205	48	-	Yes		
OK or NG				32, 48	
OK >> Driver seat control unit power supply and ground circuit					D

- are OK. NG
  - >> Repair or replace harness between driver seat control unit and ground.

# PIIB6129E Automatic Drive Positioner Power Supply and Ground Circuit Check

### **1. CHECK POWER SUPPLY CIRCUIT**

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit connector. 2.
- 3. Check voltage between automatic drive positioner control unit connector and ground.

Terminals					
(+)			Voltage (V)		
Automatic drive positioner control unit connector	Terminal	(-)	(Approx.)	<u>34</u> <u>39</u> <u>34, 39</u>	SE
M7	34	Ground	Battery voltage		
1017	39	Giouna			J
OK or NG					

#### UN OF ING

OK >> GO TO 2. NG

>> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).

## 2. CHECK GROUND CIRCUIT

Check continuity between the automatic drive positioner control unit connector and ground.

Automatic drive positioner control	Terminal		Continuity	
unit connector		Ground		
M7	40		Yes	40 48
M7	48		Tes	40, 48
OK or NG				
	atic drive positio	oner control unit p	ower supply and	

ground circuit are OK. >> Repair or replace harness between automatic drive NG positioner control unit and ground.

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## Sliding Motor Circuit Check

**1. CHECK SEAT SLIDING MECHANISM** 

Check the following.

- Operation malfunction caused by sliding rail deformation, pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the sliding motor or sliding rail connector rod
- Operation malfunction and interference with other parts by poor installation

OK or NG

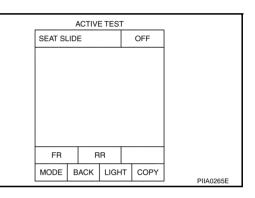
- OK >> GO TO 2.
- NG >> Repair or replace the malfunctioning part and check again.

## 2. CHECK FUNCTION

#### With CONSULT-II

Check operation with "SEAT SLIDE" in ACTIVE TEST.

Test item Desc	ription		
SEAT SLIDE The sliding motor is activated b	The sliding motor is activated by receiving the drive signal.		
OK or NG OK >> Sliding motor circuit is OK. NG >> GO TO 3.			



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## 3. CHECK SLIDING MOTOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and sliding motor connector.
- 3. Check continuity between driver seat control unit connector and sliding motor connector.

A		В	В	
Driver seat control unit connector	Terminal	Sliding motor connector	Terminal	Continuity
B205	35	B207	35	Yes
6205	42	6207	42	162

 Check continuity between driver seat control unit connector and ground.

-		
	Α	В
-		4235
E E	35, 42 <b>Ω</b>	35, 42 PIIB6132E

A				
Driver seat control unit connector	Terminal	Ground	Continuity	
B205	35		No	
B205	42	Ť	NO	

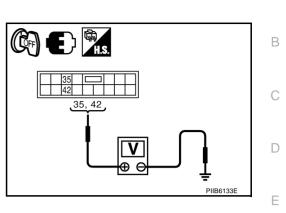
#### OK or NG

- OK >> GO TO 4.
- NG >> Repair or replace harness.

## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector.
- 2. Check voltage between driver seat control unit connector and ground.

Driver seat	Terminals			Voltage (V)	
control unit connector	(+)	(-)	Condition	(Approx.)	
	35		Sliding switch ON (FORWARD operation)	Battery voltage	
B205		Ground	Other than above	0	
B205 -	42	Sliding switch ON (BACKWARD operation)	Battery voltage		
			Other than above	0	



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#### OK or NG

OK >> Replace sliding motor.

NG >> Replace driver seat control unit.

## Reclining Motor LH Circuit Check

## 1. CHECK SEAT RECLINING MECHANISM

Check the following.

- Operation malfunction caused by an interference with the center pillar or center console
- Operation malfunction and interference with other parts by poor installation

#### OK or NG

OK >> GO TO 2.

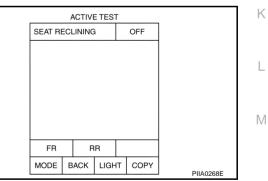
NG >> Repair or replace the malfunctioning part and check again.

## 2. CHECK FUNCTION

#### (P) With CONSULT-II

Check operation with "SEAT RECLINING" in ACTIVE TEST.

	•			
Test item SEAT RECLINING		Description		
		The reclining motor is activated by receiving the drive signal.		
OK or	NG			
OK NG		eclining motor circuit is OK. O TO 3.		



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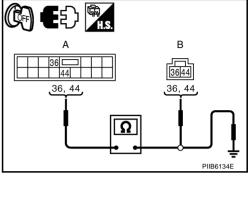
## 3. CHECK RECLINING MOTOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and reclining motor connector.
- 3. Check continuity between driver seat control unit connector and reclining motor connector.

A		В					
Driver seat control unit connector		Reclining motor connector	Terminal	Continuity			
B205	36	B208	36	Yes			
6205	44	B200	44	165			
1 Charle contin	wity hotwoo	n driver east and	4 Check continuity between driver cost control unit connector and				

 Check continuity between driver seat control unit connector and ground.

Driver seat control unit connector	Terminal	Ground	Continuity	
B205	36		No	
B205	44		INU	



#### OK or NG

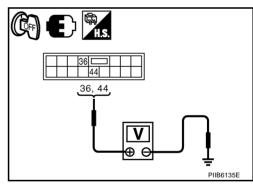
OK >> GO TO 4.

NG >> Repair or replace harness.

#### 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector.
- 2. Check voltage between driver seat control unit connector and ground.

Driver seat	Terminals			Voltage (V)
control unit connector	(+)	(-)	Condition	(Approx.)
	36	Ground	Reclining switch ON (FORWARD operation)	Battery voltage
B205			Other than above	0
B203 -	44		Reclining switch ON (BACKWARD operation)	Battery voltage
			Other than above	0



#### OK or NG

OK >> Replace reclining motor.

NG >> Replace driver seat control unit.

## Front Lifting Motor Circuit Check

1. CHECK FRONT END SEAT LIFTING MECHANISM

#### Check the following.

- Operation malfunction caused by lifter mechanism deformation, pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the front lifting motor or lead screws
- Operation malfunction and interference with other parts by installation
- OK or NG
- OK >> GO TO 2.
- NG >> Repair or replace the malfunctioning part and check again.

### **SE-46**

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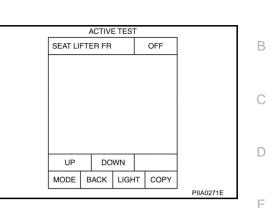
## 2. CHECK FUNCTION

#### (P) With CONSULT-II

Check operation with "SEAT LIFTER FR" in ACTIVE TEST.

Test item	Description
SEAT LIFTER FR	The front lifting motor is activated by receiving the drive signal.
OK or NG	

- OK >> Front lifting motor circuit is OK.
- NG >> GO TO 3.



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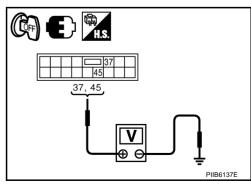
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## 3. CHECK FRONT LIFTING MOTOR CIRCUIT HARNESS CONTINUITY

- Turn ignition switch OFF. 1.
- 2. Disconnect driver seat control unit and front lifting motor connector.
- 3. Check continuity between driver seat control unit connector and front lifting motor connector.

А		В				
Driver seat control unit connector	Terminal	Front lifting motor connector	Terminal	Continuity	A	В
B205	37	B209	37	Yes		[37]45]
B203	45	B209	45	Tes	37, 45	37, 45
<ol> <li>Check continground.</li> </ol>	nuity betwee	en driver seat co	ntrol unit co	onnector and	Ω	
	А					PIIB6136E
Driver seat control connector	unit T	erminal	Ground	Continuity		1 1001302
B205		37		No		
D203		45		NO		
<u>OK or NG</u> OK >> GO NG >> Repa	TO 4. air or replac	e harness.				
4. CHECK DRI	VER SEAT	CONTROL UNIT	Γ ΟυΤΡυΤ	SIGNAL		
4 0 (1)						
		control unit conn				
<ol><li>Check volta ground.</li></ol>	ge between	driver seat con	itrol unit co	nnector and		

ground	•				
Driver seat	Term	inals		Voltage (V)	
control unit connector	control unit connector (+)		Condition	(Approx)	
B205	37 Ground	Lifting switch (front) ON (DOWN operation)	Battery voltage		
		Ground	Other than above	0	
	45	Ground	Lifting switch (front) ON (UP operation)	Battery voltage	
			Other than above	0	



### OK or NG

OK >> Replace front lifting motor.

NG >> Replace driver seat control unit.



## Rear Lifting Motor Circuit Check

### 1. CHECK REAR SEAT LIFTING MECHANISM

Check the following.

- Operation malfunction caused by lifter mechanism deformation or pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the rear lifting motor or lead screws
- Operation malfunction and interference with other parts by poor installation

#### OK or NG

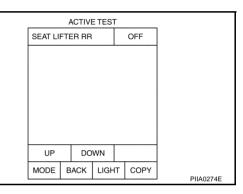
- OK >> GO TO 2.
- NG >> Repair or replace the malfunctioning part and check again.

## 2. CHECK FUNCTION

#### With CONSULT-II

Check operation with "SEAT LIFTER RR" in ACTIVE TEST.

Test item	Description
SEAT LIFTER RR	The rear lifting motor is activated by receiving the drive signal.
	ear lifting motor circuit is OK. O TO 3.

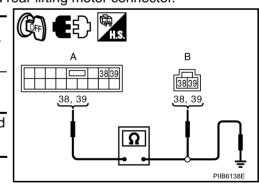


## 3. CHECK REAR LIFTING MOTOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and rear lifting motor connector.
- 3. Check continuity between driver seat control unit connector and rear lifting motor connector.

A		В		
Driver seat control unit connector	Terminal	Rear lifting motor connector	Terminal	Continuity
B205	38	B210	38	Yes
6205	39	- B210	39	162

4. Check continuity between driver seat control unit connector and ground.



Driver seat control unit connector	Terminal	Ground	Continuity	
B205	38		No	
B205	39		NO	

#### OK or NG

- OK >> GO TO 4.
- NG >> Repair or replace harness.

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## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector.
- 2. Check voltage between driver seat control unit connector and ground.

Driver	Term	ninals				В
seat con- trol unit connector	(+)	(–)	Condition	Voltage (V) (Approx.)		С
	38		Lifting switch (rear) ON (UP operation)	Battery voltage		
B205		Ground	Other than above	0		D
6205	39	Giouna	Lifting switch (rear) ON (DOWN operation)	Battery voltage		_
			Other than above	0	PIIB6139E	E

#### OK or NG

OK >> Replace rear lifting motor.

NG >> Replace driver seat control unit.

## **Telescopic Motor Circuit Check**

1. CHECK STEERING WHEEL TELESCOPIC MECHANISM

#### Check following.

- Operation malfunction caused by steering wheel telescopic mechanism deformation or pinched harness H or other foreign materials
- Operation malfunction and interference with other parts by poor installation

#### OK or NG

OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

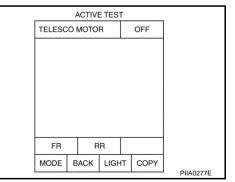
#### With CONSULT-II

Check operation with "TELESCO MOTOR" in ACTIVE TEST.

Test item	Description	Γ.
TELESCO MOTOR	The telescopic motor is activated by receiving the drive signal.	
OK or NG		

OK >> Steering telescopic motor circuit is OK.

NG >> GO TO 3.



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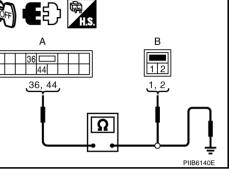
# $\overline{\mathbf{3.}}$ check telescopic motor harness continuity

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt motor and telescopic motor connector.
- 3. Check continuity between automatic drive positioner control unit connector and tilt motor and telescopic motor connector.

A	A		В		
Automatic drive positioner control unit connector	Terminal	Telescopic motor connector	Terminal	Continuity	
 M7	36	M45	1	Yes	<u>36, 44</u>
1017	44	10143	2	165	
4. Check contin	4. Check continuity between automatic drive positioner control unit				

 Check continuity between automatic drive positioner control unit connector and ground.

Automatic drive posi- tioner control unit con- nector	Terminal	Ground	Continuity	
M7	36		No	
1117	44		INU	



#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness between automatic drive positioner control unit and tilt motor and telescopic motor.

### 4. CHECK BCM OUTPUT SIGNAL

- 1. Connect the automatic drive positioner control unit connector.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Terminals		Telescopic switch	Voltage (V)	
(+)	(-)	condition	(Approx.)	
36	Crowned	FORWARD	Battery voltage	
		Other than above	0	
4.4	Giouna	BACKWARD	Battery voltage	
44		Other than above	0	
	(+)	(+) (–) 36 Ground	(+)     (-)     Telescopic switch condition       36     FORWARD       36     Other than above       44     BACKWARD	

#### OK or NG

OK >> Replace tilt and telescopic motor.

NG >> Replace automatic drive positioner control unit.

## **Tilt Motor Circuit Check**

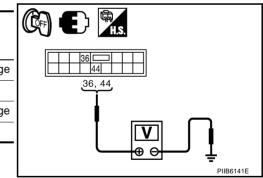
#### 1. CHECK STEERING WHEEL TILT MECHANISM

Check following.

- Operation malfunction caused by steering wheel tilt mechanism deformation or pinched harness and other foreign materials
- Operation malfunction and interference with other parts by poor installation

OK or NG

- OK >> GO TO 2.
- NG >> Repair the malfunctioning part.



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## 2. CHECK FUNCTION

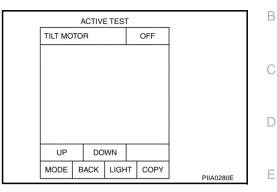
#### With CONSULT-II

Check operation with "TILT MOTOR" in ACTIVE TEST.

Test item	Description
TILT MOTOR	The tilt motor is activated by receiving the drive signal

#### OK or NG

- OK >> Steering tilt motor circuit is OK.
- NG >> GO TO 3.



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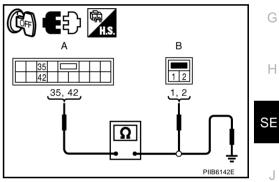
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## $3. \ \mathsf{CHECK} \ \mathsf{TILT} \ \mathsf{MOTOR} \ \mathsf{CIRCUIT} \ \mathsf{HARNESS} \ \mathsf{CONTINUITY}$

#### 1. Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit connector and tilt motor connector.
- 3. Check continuity between automatic drive positioner control unit connector and tilt motor connector.

		1		
A				
Automatic drive positioner control unit connector	Terminal	Tilt motor connector	Terminal	Continuity
M7	35	M36	2	Yes
	42	10150	1	163



4. Check continuity between automatic drive positioner control unit connector and ground.

Automatic drive posi- tioner control unit con- nector	Terminal	Ground	Continuity	
M7	35		No	
	42		INU	

OK or NG

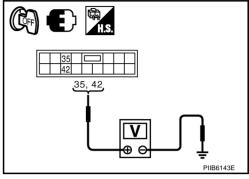
OK >> GO TO 4.

NG >> Repair or replace harness between automatic drive positioner control unit and tilt motor.

## 4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

- 1. Connect automatic drive positioner control unit connector and tilt motor connector.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic				
drive posi- tioner C/U connector	(+)	()	Tilt switch condition	Voltage (V) (Approx.)
	35		UP	Battery voltage
M7		Ground	Other than above	0
1017	42	Ground	DOWN	Battery voltage
	42		Other than above	0



#### OK or NG

OK >> Replace tilt motor.

NG >> Replace automatic drive positioner control unit.

## **Sliding Sensor Circuit Check**

### 1. CHECK FUNCTION

#### With CONSULT-II Check operation with "SLIDE PULSE" on the DATA MONITOR to make sure the pulse changes.

Monitor item [OPEI	RATION or UNIT]	Contents
SLIDE PULSE	_	The seat sliding position (pulse) judged from the sliding sensor signal is dis- played

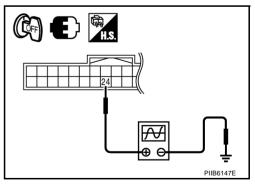
DATA MONITOR	
SELECT MONITOR ITEM	
SLIDE PULSE	
RECLN PULSE	
LIFT FR PULSE	
LIFT RR PULSE	
MIR/SEN RH U-D	
Page Up Page Down	
SETTING Numerical Display	
MODE BACK LIGHT COPY	DUA (5505
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### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- Check signal between driver seat control unit connector and ground, with oscilloscope.

Driver seat	Terminals		0	Signal
control unit connector	(+)	()	Condition	(Reference value)
B204	24	Ground	Sliding motor operation	(V) 6 2 0 50 ms FIIA3277E



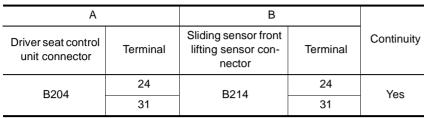
#### OK or NG

OK >> Sliding sensor circuit is OK.

NG >> GO TO 2.

## $\overline{2}$ . CHECK SLIDING SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and sliding sensor front lifting sensor connector.
- 2. Check continuity between driver seat control unit connector and sliding sensor front lifting sensor connector.



3. Check continuity between driver seat control unit connector and ground.

	A		
Driver seat control unit connector	Terminal	Ground	Continuity
B204	24		No
B204	31		NO

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

## 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

- 1. Connect driver seat control unit connector.
- 2. Check voltage between driver seat control unit connector and ground.

(-	+)		Voltage (V)
Driver seat con- trol unit connector	Terminal	()	(Approx.)
B204	24	Ground	5

#### OK or NG

OK >> Replace sliding sensor front lifting sensor.

NG >> Replace automatic drive positioner control unit.



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## **Reclining Sensor Circuit Check**

## 1. CHECK FUNCTION

#### With CONSULT-II

Check operation with "RECLN PULSE" on the DATA MONITOR to make sure the pulse changes.

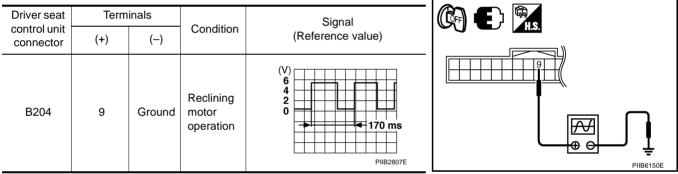
Monitor item [OPER	RATION or UNIT]	Contents
RECLN PULSE —		The seat reclining position (pulse) judged from the reclining sensor is displayed

DATA MONITOR						
SELECT MONITOR ITEM						
	SLIDE	PULSE	Ξ			
	RECLN	PULS	Е		]]	
	LIFT FR	PULS	Е			
	LIFT RR	PULS	E		]]	
MIR/SEN RH U-D				]		
Page Up Page Down						
SETTING Numerical Display						
MODE	BACK	LIGH	т	COPY	PIIA4558	-

#### **Without CONSULT-II**

1. Turn ignition switch OFF.

#### 2. Check signal between driver seat control unit connector and ground, with oscilloscope.



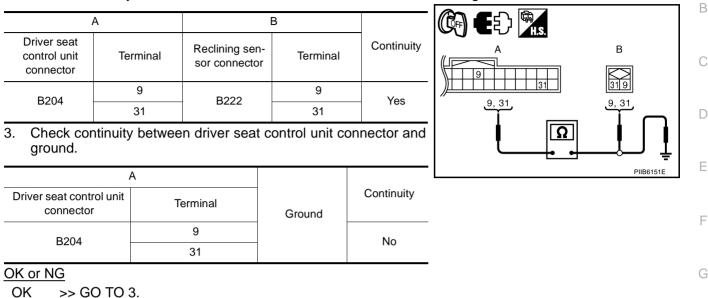
#### OK or NG

- OK >> Reclining sensor circuit is OK.
- NG >> GO TO Ž.

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## $\overline{2}$ . CHECK RECLINING MOTOR SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and reclining sensor connector.
- 2. Check continuity between driver seat control unit connector and reclining sensor connector.



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NG >> Repair or replace harness.

## 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

1. Connect driver seat control unit connector.

2. Check voltage between driver seat control unit connector and ground.

(•	+)		Voltage (V)
Driver seat control unit connector	Terminal	()	(Approx.)
B204	9	Ground	5

OK or NG

OK >> Replace reclining sensor.

NG >> Replace automatic drive positioner control unit.

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## **Front Lifting Sensor Circuit Check**

## 1. CHECK FUNCTION

#### (P) With CONSULT-II

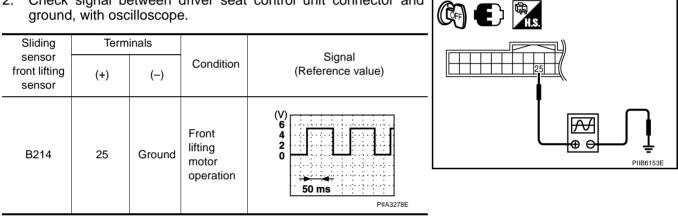
Check operation with "LIFT FR PULSE" on the DATA MONITOR to make sure the pulse changes.

Monitor item [OPER	ATION or UNIT]	Contents
LIFT FR PULSE	_	The front lifting position (pulse) judged from the lifting sensor (front) is dis- played

D	ATA MONITOR	
SELEC	vi	
5		
R	ECLN PULSE	
LI	FT FR PULSE	
LI	FT RR PULSE	
м		
Page Up		
SETTING		
MODE B	ACK LIGHT C	OPY PIIA4558E

#### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check signal between driver seat control unit connector and ground, with oscilloscope.



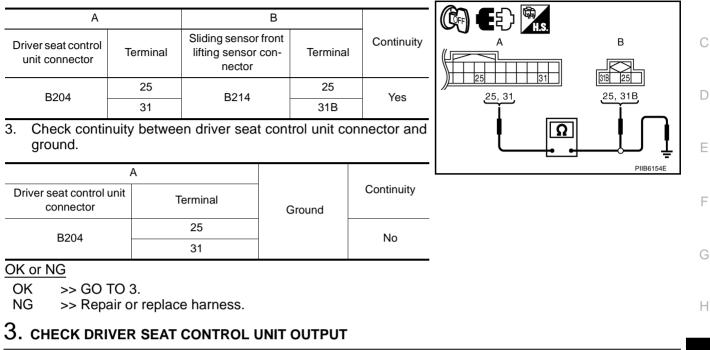
OK or NG

OK >> Sliding sensor front lifting sensor is OK.

>> GO TŎ 2. NG

## $\overline{2.}$ CHECK FRONT LIFTING MOTOR SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and sliding sensor front lifting sensor connector.
- 2. Check continuity between driver seat control unit connector and sliding sensor front lifting sensor connector.



- 1. Connect driver seat control unit connector.
- 2. Check voltage between driver seat control unit connector and ground.

(·	+)		Voltage (V)	
Driver seat control unit connector	Terminal	()	(Approx.)	
B204	B204 25		5	

#### OK or NG

OK >> Replace sliding sensor front lifting sensor.

NG >> Replace automatic drive positioner control unit.

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## **Rear Lifting Sensor Circuit Check**

### 1. CHECK FUNCTION

#### (I) With CONSULT-II

Check operation with "LIFT RR PULSE" on the DATA MONITOR to make sure pulse changes.

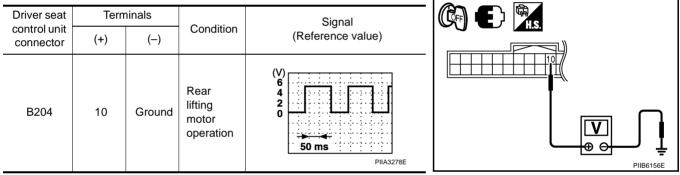
Monitor item [OPER	RATION or UNIT]	
LIFT RR PULSE	_	The rear lifting position (pulse) judged from the lifting sensor (rear) is displayed.

						.
	D/					
SEL	.EC	т мо	NITOR	: IT	ЕМ	
	S	LIDE	PULSE	Ξ		
	R	ECLN	PULS	Е		
	LI	FT FR	PULS	Е		
LIFT RR PULSE						
MIR/SEN RH U-D						
Page Up Page Down						
SETTIN	G					
MODE	в	АСК	PIIA4558E			
	Page U SETTIN	SELEC	SELECT MO SLIDE RECLN LIFT FR LIFT RF MIR/SEN Page Up Page SETTING Num Dis	SELECT MONITOR SLIDE PULSE RECLN PULS LIFT FR PULS LIFT RR PULS MIR/SEN RH U Page Up Page Down SETTING Numerical Display	SLIDE PULSE RECLN PULSE LIFT FR PULSE LIFT RR PULSE MIR/SEN RH U-D Page Up Page Down SETTING Numerical Display	SELECT MONITOR ITEM SLIDE PULSE RECLN PULSE LIFT FR PULSE LIFT RR PULSE MIR/SEN RH U-D Page Up Page Down SETTING Numerical Display

#### **Without CONSULT-II**

1. Turn ignition switch OFF.

#### 2. Check signal between driver seat control unit connector and ground, with oscilloscope.



OK or NG

OK >> Rear lifting sensor circuit is OK.

NG >> GO TO 2.

## $\overline{2.}$ CHECK REAR LIFTING MOTOR SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and rear lifting sensor connector.
- 2. Check continuity between driver seat control unit connector and rear lifting sensor connector.

A		В		
Driver seat control unit connector	Terminal	Rear lifting sensor connector	Terminal	Continuity
B204	10	B218	10	Yes
B204	31	D210	31	165

3. Check continuity between driver seat control unit connector and ground.

	A				
Driver seat control unit connector	Terminal	Ground	Continuity		
B204	10		No		
B204	31		NU		

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

## 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

1. Connect driver seat control unit connector.

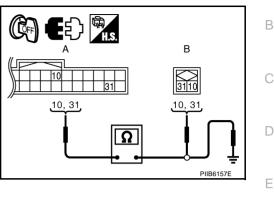
2. Check voltage between driver seat control unit connector and ground.

(·	+)		Voltage (V)	
Driver seat con- trol unit connector	Terminal	()	(Approx.)	
B204	10	Ground	5	

OK or NG

OK >> Replace rear lifting sensor.

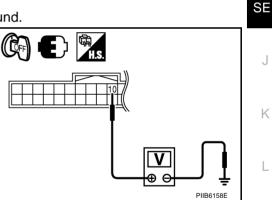
NG >> Replace automatic drive positioner control unit.



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## **Telescopic Sensor Circuit Check**

### 1. CHECK FUNCTION

#### (B) With CONSULT-II

Operate the telescopic switch with "TELESCO SEN" on the DATA MONITOR to make sure the voltage changes.

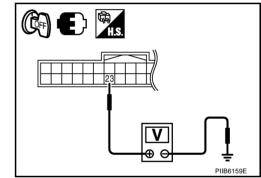
Monitor item [OPERATION or UNIT]		Contents	
TELESCO SEN	"V"	The telescoping position (voltage) judged from the tele- scoping sensor signal is displayed.	

	D	ata M	ONITO	R		
SEI	_EC	ст мо				
		TILT	SEN			
	т	ELES	CO SE	N		
	N	IIR/SE	RH R-	Ŀ		
MIR/SE RH U-D						
MIR/SE LH R-L						
Page Up Page Down						
SETTING Numerical Display						
MODE	В	ACK	LIGH	IT	COPY	PIIA0295E
						- 1A0235L

#### Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic	Term	inals		
drive posi- tioner con- nector	(+)	(–)	Condition	Voltage (V) (Approx.)
M6	23 Ground	Cround	Telescopic top position	4.6
		Telescopic bottom position	0.4	



#### OK or NG

- OK >> Telescopic sensor circuit is OK.
- NG >> GO TO 2.

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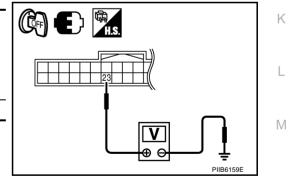
#### 2. CHECK HARNESS CONTINUITY А 1. Disconnect automatic drive positioner control unit connector and telescopic sensor connector. 2. Check continuity harness between automatic drive positioner В control unit connector and telescopic sensor connector. в A Automatic drive Continuity Telescopic sensor positioner control Terminal Terminal connector unit connector в M6 23 2 33 M44 1 Yes M7 41 3 23, 33, 41 1, 2, 3 F 3. Check continuity harness between automatic drive positioner control unit connector and ground. А E Automatic drive posi-Continuity tioner control unit con-Terminal Ω nector Ground M6 23 33 No Μ7 41 Н OK or NG PIIB6160E OK >> GO TO 3. NG >> Repair or replace harness. SE 3. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT J

- 1. Connect automatic drive positioner control unit connector.
- 2. Check voltage between automatic drive position control unit connector and ground.

(-	Voltage (V)		
Automatic drive positioner control unit connector	positioner control Terminal		(Approx.)
M6	23	Ground	5

#### OK or NG

- OK >> Replace telescopic sensor.
- NG >> Replace automatic drive positioner control unit.



## Tilt Sensor Circuit Check

## 1. CHECK TILT SENSOR

#### (P) With CONSULT-II

With "TILT SEN" on the DATA MONITOR, operate the tilt switch to make sure voltage changes.

Monitor item [OPERATION or UNIT]		Contents
TILT SEN	"V"	The tilt position (voltage) judged from the tilt sensor sig- nal is displayed.

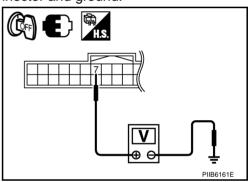
		D	ATA M	ONITC	R		
	SEI	LEC	ст мо				
			TILT	SEN			
	TELESCO SEN						
	MIR/SE RH R-L						
	MIR/SE RH U-D						
		N	1IR/SE	LH R-	L		
F	Page Up Page Down						
F	SETTING Numerical Display						
Γ	MODE	в	ACK LIGHT		COPY	DUADOOF	
							PIIA0295E

#### **Without CONSULT-II**

#### 1. Turn ignition switch OFF.

#### 2. Check voltage between automatic drive positioner control unit connector and ground.

	Tern	ninals		
drive posi- tioner con- trol unit connector	(+)	()	Condition	Voltage (V) (Approx.)
M6	7	Ground	Tilt top position	1
WO	I	Glound	Tilt bottom position	3.8



#### OK or NG

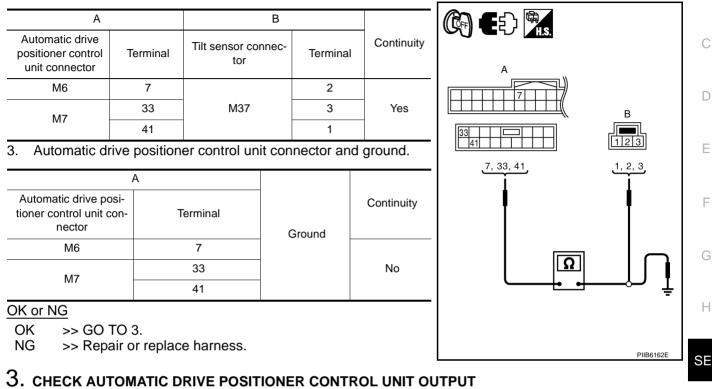
OK >> Tilt sensor circuit is OK.

NG >> GO TO 2.

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## 2. CHECK HARNESS

- 1. Disconnect automatic drive positioner control unit connector and tilt sensor connector.
- 2. Check continuity harness between automatic drive positioner control unit connector and tilt sensor connector.



- 1. Connect automatic drive positioner control unit connector.
- 2. Check voltage between automatic drive position control unit connector and ground.

(+)	)		Voltage (V)
Automatic drive positioner control unit connector	Terminal	()	(Approx.)
M6	7	Ground	5

#### OK or NG

OK >> Replace telescopic sensor.

NG >> Replace automatic drive positioner control unit.

## **Door Mirror Sensor LH Circuit Check**

### 1. CHECK DOOR MIRROR FUNCTION

#### Check the following items.

Operation malfunction in memory operation.

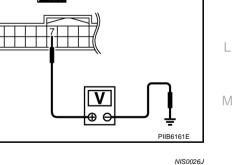
#### NOTE:

If a door mirror face position is set to an implausible angle, the set position may not be reproduced.

#### OK or NG

OK >> GO TO 2.

NG >> Repair or replace the malfunctioning parts, and check the symptom again.



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# 2. CHECK DOOR MIRROR LH SENSOR

With CONSULT-II
 Check that "VOLTAGE" is displayed on "MIR/SE\_LH\_R-L, MIR/SE\_LH\_U-D" in the DATA MONITOR.

Monitor item [OPERATION or UNIT]		Contents
MIR/ SEN LH R-L	"V"	Voltage output from door mirror LH sensor (LH/ RH) is displayed.
MIR/ SEN LH U-D	"V"	Voltage output from door mirror LH sensor (UP/ DOWN) is displayed.

DA	TA MONIT	OR	
SELEC	T MONITO		
LIF	T RR PUL	.SE	
MIF	R/SEN RH	U-D	
MIF	R/SEN RH	R-L	
MIF	R/SEN LH		
MI	R/SEN LH		
	Page Down		
SETTING	Numerical Display		
MODE B	ACK LIGH	HT COPY	PIIB6495E

#### **Without CONSULT-II**

1. Turn ignition switch to ACC.

#### 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic	Tern	ninals			
drive posi- tioner con- trol unit connector	(+)	()	Condition	Voltage (V) (Approx.)	
M6	22	Ground	Mirror motor is operated LEFT or RIGHT	Changes between 3.5 (close to right edge) – 0.5 (close to left edge)	
WO	6	Ground	Mirror motor is operated UP or DOWN	Changes between 4.2 (close to peak) – 0.5 (close to valley)	

OK or NG

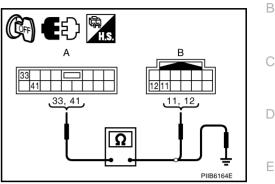
OK >> Mirror sensor LH circuit is OK.

NG >> GO TO 3.

## $\overline{3}$ . CHECK HARNESS CONTINUITY 1

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector and door mirror LH connector.
- 3. Check continuity between automatic drive positioner control unit connector and door mirror LH connector.

A		В		
Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
M7	33	D2	11	Yes
1117	41	02	12	165



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4. Check continuity between automatic drive positioner control unit connector and ground.

natic drive posi- control unit con- nector	Terminal	Ground	Continuity
 M7	33		No
1017	41		INU

#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

## 4. CHECK HARNESS CONTINUITY 2

1. Check continuity between automatic drive positioner control unit connector and door mirror LH connector.

A		В		
Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
M6	6	D2	9	Yes
WIO .	22	DZ	10	165

2. Check continuity between automatic drive positioner control unit connector and ground.

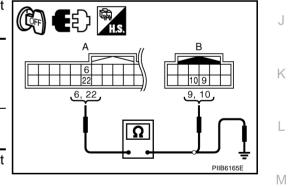
Automatic drive posi- tioner control unit con- nector	Terminal	Ground	Continuity	
M6	6		No	
	22		INU	

#### OK or NG

Revision: 2006 January

OK >> Replace door mirror LH.

NG >> Repair or replace harness.



## Door Mirror Sensor RH Circuit Check

## 1. CHECK DOOR MIRROR FUNCTION

Check the following items.

Operation malfunction in memory operation.

#### NOTE:

If a door mirror face position is set to an implausible angle, the set position may not be reproduced.

OK or NG

OK >> GO TO 2.

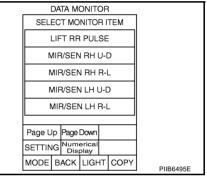
NG >> Repair or replace the malfunctioning parts, and check the symptom again.

## 2. CHECK DOOR MIRROR RH SENSOR

### With CONSULT-II

Check that "VOLTAGE" is displayed on "MIR/SE RH R-L, MIR/SE RH U-D" in the DATA MONITOR.

Monitor item [OPERATION or UNIT]		Contents
MIR/ SEN RH R-L	"V"	Voltage output from door mirror RH sensor (LH/ RH) is displayed.
MIR/ SEN RH U-D	"V"	Voltage output from door mirror RH sensor (UP/ DOWN) is displayed.



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## **Without CONSULT-II**

- 1. Turn ignition switch to ACC.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic	Terminals				
drive posi- tioner con- trol unit	(+)	(-)	Condition	Voltage (V) (Approx.)	
M6	21	- Ground	Mirror motor is operated UP or DOWN	Changes between 3.5 (close to left edge) – 0.5 (close to right edge)	
	5	Giouna	Mirror motor is operated UP or DOWN	Changes between 4.2 (close to peak) – 0.5 (close to valley)	

OK or NG

OK >> Mirror sensor RH circuit is OK.

NG >> GO TO 3.

3. CHECK HARN	ESS CO	NTINUITY 1					Δ
	omatic dr	ive positione				door mirror RH connector. connector and door mirror RH connector.	В
A			В			(Ca) <b>6</b> 5) 🖗	
Automatic drive positioner control unit connector	Terminal	Door mirror connecto		Terminal	Continuity		С
M7	33 41	D39		11 12	– Yes	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	D
4. Check continui connector and	ground.	en automatic	drive p	positioner	control unit		E
Automatic drive posi- tioner control unit con- nector		erminal ire Color)	Gi	round	Continuity	PIIB6164E	F
M7	33 41				No		G
OK or NG OK >> GO TO NG >> Repair <b>4. CHECK HARN</b>	or replac						Н
			drive p	positioner	control unit d	connector and door mirror RH connector.	SE
А			В				J
Automatic drive positioner control unit connector	Terminal	Door mirror connecto		Terminal	Continuity		K
M6	5 21	D39		9 10	Yes	(1)	1.4
2. Check continui connector and		en automatic	drive p	positioner	control unit		L
	А					PIIB6167E	Μ
Automatic drive posi- tioner control unit con- nector	- т	erminal	Ground		Continuity		
M6		5 21			No		
OK or NG							

OK >> Replace door mirror RH. >> Repair or replace harness.

NG

## Sliding Switch Circuit Check

## 1. CHECK FUNCTION

#### With CONSULT-II

With "SLIDE SW-FR, SLIDE SW-RR" on the DATA MONITOR, operate the sliding switch to check ON/OFF operation.

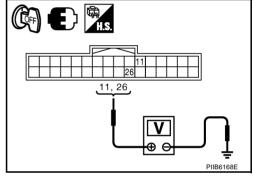
Monitor item [OPER- ATION or UNIT]		Contents
SLIDE SW- FR	"ON/ OFF"	ON / OFF status judged from the sliding switch (FR) sig- nal is displayed.
SLIDE SW- RR	"ON/ OFF"	ON / OFF status judged from the sliding switch (RR) signal is displayed.

	D	ata M	_			
SE	LEC	ст мо				
	ę	SLIDE				
	5	SLIDE	SW-RI	٦		
	F	ECLN	SW-F	R		
	R	ECLN	SW-R	R		
	L	FT FR	I SW-U	IP		
	Page Down					-
			erical play			1
MODE			LIGH	IT	COPY	PIIA0313E
						- FIAUSISE

#### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check voltage between driver seat control unit connector and ground.

Driver seat	Term	inal		Voltage (V)	
control unit connector	(+) (-)		Condition	(Approx.)	
B204	11		Sliding switch ON (BACKWARD oper- ation)	0	
		Ground	Other than above	Battery voltage	
	26	Ground	Sliding switch ON (FORWARD opera- tion)	0	
			Other than above	Battery voltage	



OK or NG

OK >> Sliding switch circuit is OK.

NG >> GO TO 2.

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## $\overline{2}$ . CHECK SLIDING SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch connector.
- 2. Check continuity between driver seat control unit connector and power seat switch connector.

A		В		
Driver seat control unit connector	Terminal	Power seat switch connector	Terminal	Continuity
B204	11	B213	11	Yes
B204	26	DZ15	26	163

3. Check continuity between driver seat control unit connector and ground.

Driver seat control unit connector	Terminal	Ground	Continuity	
B204	11		No	
B204	26		NO	

#### OK or NG

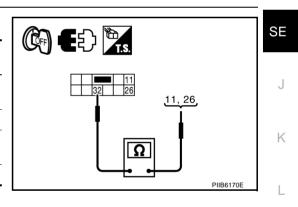
OK >> GO TO 3.

NG >> Repair or replace harness.

## 3. CHECK SLIDING SWITCH

#### Check continuity between power seat switch terminals.

Power seat switch	Terminal		Condition	Continuity
	11		Sliding switch ON (BACKWARD operation)	Yes
B213		32	Other than above	No
B213	26	32	Sliding switch ON (FORWARD operation)	Yes
			Other than above	No



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#### OK or NG

OK >> Replace driver seat control unit.

NG >> Replace power seat switch.

## **Reclining Switch Circuit Check**

## 1. CHECK FUNCTION

#### (B) With CONSULT-II

With "RECLN SW-FR, RECLN SW-RR" on the DATA MONITOR, operate the reclining switch to check ON/OFF operation.

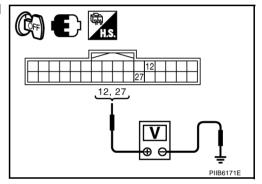
Monitor item TION or U	-	Contents
RECLN SW "ON/ -FR OFF"		ON/OFF status judged from the reclining switch (FR) signal is displayed.
RECLIN S W–RR	"ON/ OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.

	D.	ata M	ONITC	R			
SELECT MONITOR ITEM							
	SLIDE SW-FR						
	5	SLIDE	SW-RI	٦			
	F	ECLN	SW-F	R			
	R	ECLN	SW-R	R			
	L	FT FF	I SW-U	IP			
	Page Down						
SETTING Numerica Display							
MODE			IT	COPY	(	PIIA0313E	
							FIROSISE

### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check voltage between driver seat control unit connector and ground.

Driver seat	Term	inals	Condition	Voltage (V) (Approx.)	
control unit	(+)	(-)	Condition		
B204	12		Reclining switch ON (BACKWARD oper- ation)	0	
		Ground	Other than above	Battery voltage	
	27		Reclining switch ON (FORWARD opera- tion)	0	
			Other than above	Battery voltage	



#### OK or NG

OK >> Reclining switch circuit is OK.

NG >> GO TO 2.

NIS0026M

## $\overline{2}$ . CHECK RECLINING SWITCH CIRCUIT HARNESS CONTINUITY

- Disconnect driver seat control unit and power seat switch connector. 1.
- 2. Check continuity between driver seat control unit connector and power seat switch connector.

A		В		
Driver seat control unit connector	Terminal	Power seat switch connector	Terminal	Continuity
B204	12	B213	12	Yes
6204	27	6215	27	165

3. Check continuity between driver seat control unit connector and ground.

Driver seat control unit connector	Terminal	Ground	Continuity	
B204	12		No	
B204	27		NO	

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

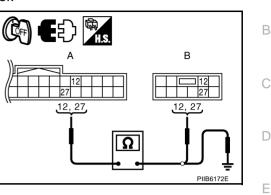
## **3.** Reclining switch inspection

#### Check continuity between power seat switch as follows. **CH E**D **X** SE Power seat Terminal Condition Continuity switch Reclining switch ON (BACKWARD Yes operation) 12, 27 12 Other than above No B213 32 Κ Reclining switch ON (FORWARD Yes Ω operation) 27 Other than above No PIIB6173E

#### OK or NG

OK >> Replace driver seat control unit.

NG >> Replace power seat switch.



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## Lifting Switch (Front) Circuit Check

## 1. CHECK FUNCTION

#### B With CONSULT-II

With "LIFT FR SW-UP, LIFT FR SW-DN" on the DATA MONITOR, operate the lifting switch (front) to check ON/OFF operation.

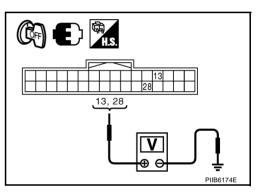
Monitor item [OPERA- TION or UNIT]		Contents
LIFT FR SW- DN	"ON/ OFF"	ON / OFF status judged from the FR lifter switch (DOWN) signal is displayed.
LIFT FR SW- UP	"ON/ OFF"	ON / OFF status judged from the FR lifter switch (UP) signal is displayed.

	D.	ATA M	ONITO	R		_
SE	LEC	ст мо				
	LI	FT FR				
	LI	FT RF	SW-U	IP		
	LI	FT RR	SW-D	N		
	М	R CO	۱SM-۱	JP		
	МІ	R CON	1 SW-[	ΟN		
Page Up Page Down						
SETTING Numerical Display				]		
MODE	В	ACK	LIGH	П	COPY	PIIA0323E

### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check voltage between driver seat control unit connector and ground.

Driver seat control unit connector	Terminals		<b>a</b>	Voltage (V)
	(+)	(-)	Condition	(Approx.)
B204	13	Ground	Lifting switch (front) ON (DOWN operation)	0
			Other than above	Battery voltage
	28		Lifting switch (front) ON (UP operation)	0
			Other than above	Battery voltage



#### OK or NG

OK >> Lifting switch (front) circuit is OK.

NG >> GO TO 2.

NIS0026N

# $\overline{2.}$ check lifting switch (front) circuit harness continuity

- 1. Disconnect driver seat control unit and power seat switch connector.
- 2. Check continuity between driver seat control unit connector and power seat switch connector.

A		В		
Driver seat control unit connector	Terminal	Power seat switch connector	Terminal	Continuity
B204	13	B213	13	Yes
D204	28	- B215	28	165

3. Check continuity between driver seat control unit connector and ground.

Driver seat control unit connector	Terminal	Ground	Continuity
B204	13		No
B204	28		NO

#### OK or NG

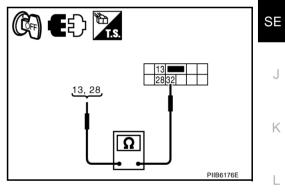
OK >> GO TO 3.

NG >> Repair or replace harness.

# 3. CHECK LIFTING SWITCH (FRONT)

Check continuity between power seat switch as follows.

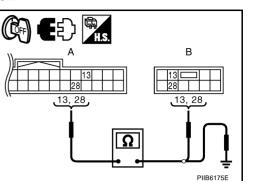
Power seat switch	Terminals		Condition	Continuity
	13		Lifting switch (front) ON (DOWN operation)	Yes
B213		22	Other than above	No
	28	32	Lifting switch (front) ON (UP operation)	Yes
			Other than above	No



#### OK or NG

OK >> Replace driver seat control unit.

NG >> Replace power seat switch.



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# Lifting Switch (Rear) Circuit Check

### 1. CHECK FUNCTION

#### (B) With CONSULT-II

With "LIFT RR SW-UP, LIFT RR SW-DN" on the DATA MONITOR, operate the lifting switch (rear) to check ON/OFF operation.

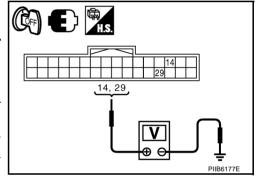
Monitor item [OPE UNIT]	RATION or	Contents	
LIFT RR SW-UP "ON/OFF"		Operation (ON)/open (OFF) status judged from the RR lifter switch (UP) signal is dis- played.	
LIFT RR SW-DN "ON/OFF"		Operation (ON)/open (OFF) status judged from the RR lifter switch (DOWN) signal is displayed.	

	D.	ata M				
SE	LEC	ст мо	EM			
	LI	FT FR	SW-D	N		
	LI	FT RF	SW-L	IP		
	LI	FT RR	SW-D	N		
	MIR CON SW-UP					
	MIR CON SW-DN					
Page U	Page Up Page Down				-	
SETTIN	G	G Numerical Display				]
MODE	в	ACK LIGH		IT	COPY	PIIA0323E

### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check voltage between driver seat control unit connector and ground.

Driver	Termi	inals			
seat con- trol unit connector	(+)	()	Condition	Voltage (V) (Approx.)	
14			Lifting switch (rear) ON (DOWN operation)	0	
P204	D004	Ground	Other than above	Battery voltage	
B20429	Giouna	Lifting switch (rear) ON (UP operation)	0		
			Other than above	Battery voltage	



#### OK or NG

OK >> Lifting switch (rear) circuit is OK.

NG >> GO TO 2.

NIS00260

# $\overline{2.}$ CHECK LIFTING SWITCH (REAR) CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and power seat switch connector.
- 2. Check continuity between driver seat control unit connector and power seat switch connector.

A		В		
Driver seat control unit connector	Terminal	Power seat switch connector	Terminal	Continuity
B204	B204		14	Yes
6204	29	B213	29	165

3. Check continuity between driver seat control unit connector and ground.

Driver seat control unit connector	Terminal	Ground	Continuity	
B204	14		No	
6204	29		INU	

### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

# 3. CHECK LIFTING SWITCH (REAR)

#### Check continuity between power seat switch as follows.

Power seat switch	Terminals		Condition	Continuity
	14		Lifting switch (rear) ON (DOWN operation)	Yes
B213		32	Other than above	No
	29	32	Lifting switch (rear) ON (UP operation)	Yes
			Other than above	No



OK >> Replace driver seat control unit.

NG >> Replace power seat switch.

### Power Seat Switch Ground Circuit Check 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

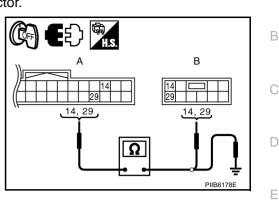
- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Check continuity between power seat switch connector and ground.

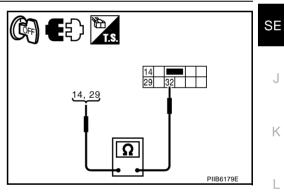
Power seat switch connector	Terminal	Ground	Continuity
B213	32		Yes

### OK or NG

OK >> Replace driver seat control unit.

NG >> Repair or replace harness.



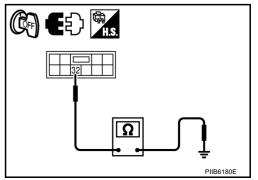




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## **Telescopic Switch Circuit Check**

### 1. CHECK FUNCTION

### (B) With CONSULT-II

With "TELESCO SW-FR, TELESCO SW-RR" on the DATA MONITOR, operate the ADP steering switch to check ON/OFF operation.

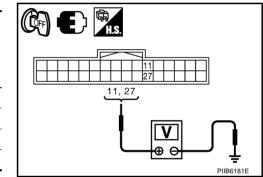
Monitor ite OPERATION o		Contents	
TELESCO SW-FR "ON/OFF"		(ON/OFF) status judged from the telescoping switch (FR) signal is displayed.	
TELESCO SW-RR	"ON/OFF"	(ON/OFF) status judged from the telescoping switch (RR) signal is displayed.	

DATA MONITOR						
SELECT MONITOR ITEM						
	ΤE	LESC	o sw-	FR		
	ΤE	LESC	o sw-	RR		
		TILT S	SW-UP			
	Т	LT SV	/-DOW	'N		
	Μ	IEMOF	RY SW	1		
Page Up Page Down						
SETTING Numerical Display						
MODE BACK LIGHT			IT	COPY	PIIA0315E	
						FIA0315E

#### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic	Terminals			
drive posi- tioner con- trol unit connector	(+)	(-)	Telescopic switch condition	Voltage (V) (Approx.)
	11		FORWARD	0
M6		Ground	Other than above	5
MO	27	Giouna	BACKWARD	0
	21		Other than above	5



### OK or NG

OK >> Telescopic switch circuit is OK.

NG >> GO TO 2.

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# $\overline{2}$ . CHECK TELESCOPIC CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
- 2. Check continuity between automatic drive positioner control unit connector and ADP steering switch connector.

	А		В		
_	Automatic drive positioner control unit connector	Terminal	ADP steering switch connector	Terminal	Continuity
-	M6	11	M46	5	Yes
	1010	27	10140	4	163

3. Check continuity between automatic drive positioner control unit connector and ground.

A				
Automatic drive positioner control unit connector	Terminal Ground		Continuity	
M6	11		No	
IVIO	27		NO	

### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

### 3. CHECK TELESCOPIC SWITCH

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ADP steering switch operate, check continuity ADP steering switch.

 ADP

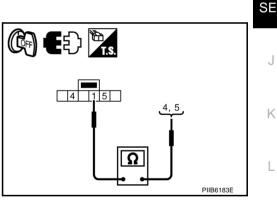
 steering

 switch

 FORWARD

Yes

ADP steering switch condition	Continuity	
FORWARD	Yes	
Other than above	No	
BACKWARD	Yes	•
Other than above	No	



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#### OK or NG

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OK >> GO TO 4.

NG >> Replace ADP steering switch.

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### 4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

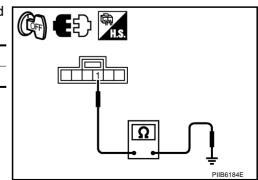
Check continuity between ADP steering switch connector and ground.

ADP steering switch connector	Terminal	Ground	Continuity
M46	1	Cround	Yes

#### OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Replace or replace harness.



# **Tilt Switch Circuit Check**

### 1. CHECK FUNCTION

#### (P) With CONSULT-II

With "TILT SW-UP, TILT SW-DOWN" on the DATA MONITOR, operate the ADP steering switch to check ON/ OFF operation.

Monitor item [OPERATION or UNIT]		Contents	
TILT SW-UP "ON/OFF"		(ON/OFF) status judged from the tilt switch (UP) signal is displayed.	
TILT SW-DOWN	"ON/OFF"	(ON/OFF) status judged from the tilt switch (DOWN) signal is displayed.	

	D	ata M	ONITC	R		
SE	LEC	ст мо	NITOF	R IT	EM	
	ΤE	LESC	o sw-	FR		
	ΤE	LESC	o sw-	RR		
		TILT S	SW-UP			
	Т	LT SV	/-DOW	'N		
	Μ	IEMOF	RY SW	1		
Page U	р	Page	Down			
SETTIN	G		erical play			
MODE	В	ACK	LIG⊦	IT	COPY	PIIA0315E
						FIA0313E

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### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Auto-	Term	inals			
matic drive posi- tioner control unit con- nector	(+)	()	Tilt switch condition	Voltage (V) (Approx.)	
	1		UP	0	
M6	1	Ground	Other than above	5	
17		Giouna	DOWN	0	PIIB6185E
	17		Other than above	5	

#### OK or NG

OK >> Tilt switch circuit is OK.

NG >> GO TO 2.

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# $\overline{2}$ . CHECK TILT SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
- 2. Check continuity between automatic drive positioner control unit connector and ADP steering switch connector.

A		В		
Automatic drive positioner control unit connector	Terminal	ADP steering switch connector	Terminal	Continuity
M6	1	M46	2	Yes
WO	17	10140	3	103

3. Check continuity between automatic drive positioner control unit connector and ground.

Automatic drive posi- tioner control unit connector	Terminal	Ground	Continuity
M6	1		No
WO	17		NO

### OK or NG

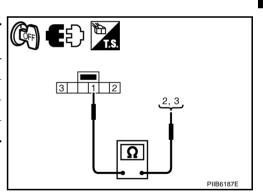
OK >> GO TO 3.

NG >> Repair or replace harness.

### 3. CHECK ADP TILT STEERING SWITCH



ADP steer- ing switch	Terminal		ADP steering switch condition	Continuity
	2		UP	Yes
M46		4	Other than above	No
10140	2		DOWN	Yes
3			Other than above	No



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#### OK or NG

OK >> GO TO 6.

NG >> Replace ADP steering switch.

### 4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

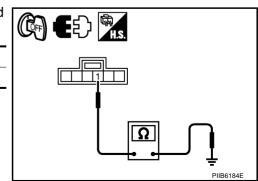
Check continuity between ADP steering switch connector and ground.

ADP steering switch connector	Terminal	Ground	Continuity
M46	1	Cround	Yes

#### OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Repair or replace harness.



# Seat Memory and Set Switch Circuit Check

### 1. CHECK FUNCTION

### B With CONSULT-II

With "SET SW, MEMORY SW1, MEMORY SW2" on the DATA MONITOR, operate the switch to check ON/OFF operation.

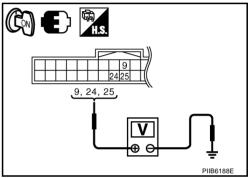
Monitor item [OPERATION or UNIT]		Contents
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.
MEMORY SW1	"ON/OFF"	ON/OFF status judged from the seat memory switch 1 signal is displayed.
MEMORY SW2	"ON/OFF"	ON/OFF status judged from the seat memory switch 2 signal is displayed.

DA	TA M	ONIT	ЭF	1		
SELEC	т мо	NITO	RI	TEM		
	SET SW					
м	EMOR	RY SV	V1			
м	MEMORY SW2					
s	SLIDE SW-FR					
S	SLIDE SW-RR					
	1					
	Page					
SETTING	Num Dis	erical olay				
MODE E	ACK	LIGH	IT	COP	γ	MIIB0690E

### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic Terminals				
drive posi- tioner con- trol unit connector	(+)	(-)	Condition	Voltage [V] (Approx.)
	9 M6 24 Ground		Memory switch 1: ON	0
		Cround	Other than above	5
Me			Set switch: ON	0
IVIO		Ground	Other than above	5
	25	05	Memory switch 2: ON	0
	25		Other than above	5



### OK or NG

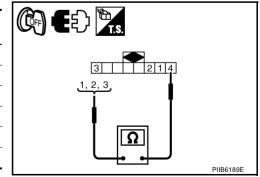
OK >> Seat memory switch circuit is OK.

NG >> GO TO 2.

# 2. CHECK SEAT MEMORY SWITCH

- 1. Disconnect seat memory switch connector.
- 2. Operate the setting switch and seat memory switch.
- 3. Check continuity between seat memory switch as follows.

Seat memory switch	Terminal		Condition	Continuity
	1	Memory switch 1 ON	Yes	
			Memory switch 1: OFF	No
D9 2 3	2	4	Memory switch 2: ON	Yes
	4	Memory switch 2: OFF	No	
	3		Set switch: ON	Yes
			Set switch: OFF	No



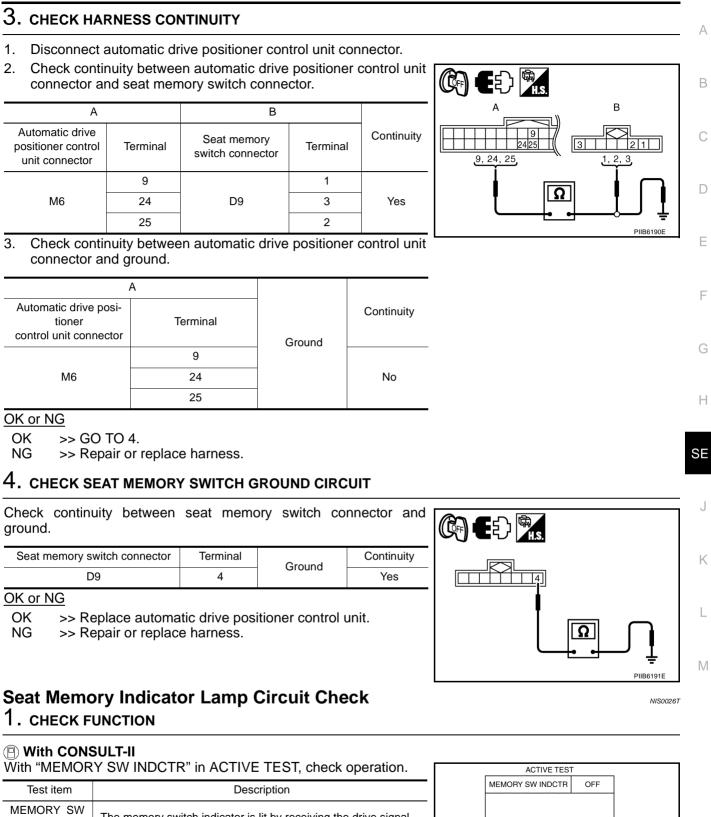
### OK or NG

OK >> GO TO 3.

NG >> Replace seat memory switch.

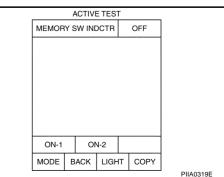
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# **AUTOMATIC DRIVE POSITIONER**



Test item	Description
MEMORY SW INDCTR	The memory switch indicator is lit by receiving the drive signal.
OK or NG	

OK >> Seat memory switch indicator lamp circuit is OK. NG >> GO TO 2.



# AUTOMATIC DRIVE POSITIONER

# $\overline{2.}$ CHECK SEAT MEMORY INDICATOR LAMP POWER SYUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch connector.
- 3. Check voltage between seat memory switch connector and ground.

(-	+)		Voltage (V)
Seat memory switch connector	Terminal	()	(Approx.)
D9	5	Ground	Battery voltage

### OK or NG

OK >> GO TO 3.

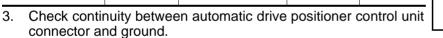
NG >> Check the following.

- 10A fuse [No.18, Located in the fuse block (J/B)]
- Harness for open or short between seat memory switch and fuse.

# 3. CHECK SEAT MEMORY INDICATOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector.
- 2. Check continuity between automatic drive positioner control unit connector and seat memory switch connector.

А		В		
Automatic drive positioner control unit connector	Terminal	Seat memory switch connector	Terminal	Continuity
M6	12	D9	6	Yes
WO	13	53	7	163



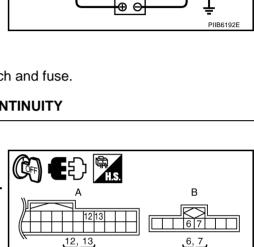
Automatic drive posi- tioner control unit connector	Terminal	Ground	Continuity
M6	12		No
	13		NO

OK or NG

OK >> GO TO 4.

Revision: 2006 January

NG >> Repair or replace harness.



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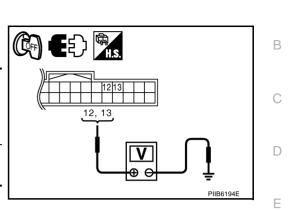
v

(QFF)

### 4. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

- 1. Connect seat memory switch connector.
- 2. Check continuity between automatic drive positioner control unit connector and ground.

(-	+)		Voltage (V)	
Seat memory switch connector	Terminal	()	(Approx.)	
M6	12	Ground	Pottony voltago	
WIO	13	Ground	Battery voltage	



### OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Replace seat memory switch.

### **Door Mirror Sensor Power Supply and Ground Circuit Check** 1. CHECK DOOR MIRROR SENSOR CIRCUIT HARNESS CONTINUITY

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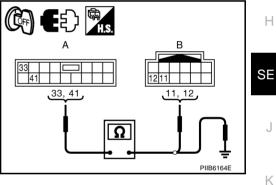
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- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror (LH and RH) connector.
- 3. Check continuity between automatic drive positioner control unit connector and door mirror connector LH/RH.

A	A		В		
Automatic drive positioner control unit connector	Terminal	Door mirror connector	Terminal	Continuity	
M7	33	D2 (LH)	11	Yes	
1417	41	D39 (RH)	12	165	



4. Check continuity between automatic drive positioner control unit connector and ground.

A			
Automatic drive positioner control unit connector	Terminal	Ground	Continuity
 M7	33		No
1117	41		INU

#### OK or NG

OK >> GO TO 2.

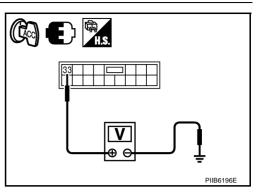
NG >> Repair or replace harness.

## **AUTOMATIC DRIVE POSITIONER**

# 2. CHECK MIRROR SENSOR POWER SUPPLY

- Connect automatic drive positioner control unit connector. 1.
- 2. Turn ignition switch to ACC.
- 3. Check voltage between automatic drive positioner control unit connector and ground.

(-	+)		Voltage (V)
Automatic drive positioner control unit connector	Terminal	(-)	(Approx.)
M6	33	Ground	5



### OK or NG

OK >> GO TO 3.

NG >> Replace automatic drive positioner control unit.

# 3. CHECK MIRROR SENSOR GROUND CIRCUIT

Turn ignition switch OFF. 1.

Automatic drive positioner

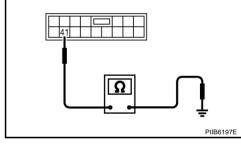
control unit connector M6

2. Check continuity between automatic drive positioner control unit connector and ground.

automatic	drive positione		
Terminal	Ground	Continuity	
41		Yes	
	d		

### OK or NG

- OK >> Door mirror power supply and ground circuit are OK.
- NG >> Replace automatic drive positioner control unit.



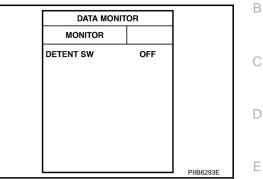
# A/T Device (Detention Switch) Circuit Check

### 1. CHECK FUNCTION

#### With CONSULT-II

Check that when the A/T selector lever is in P position, "DETENT SW" on the DATA MONITOR becomes OFF.

Monitor item [OPERATION or UNIT]		Contents
Detention SW	"ON/ OFF"	The selector lever position "P position (OFF)/other than P position (ON)" judged from the detention switch signal is displayed.



### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check voltage between driver seat control unit connector and ground.

Driver seat	Terminal		Condition of A/T	Voltage (V)	
control unit connector	(+)	(-)	selector lever	(Approx.)	
M204	21	Ground	P position	0	
WI204	21 Ground		Other than above	Battery voltage	

### OK or NG

OK >> A/T device (detention switch) circuit is OK. NG >> GO TO 2.

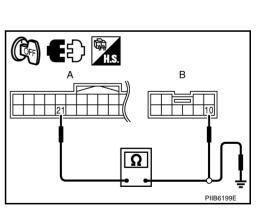
# 2. CHECK A/T DEVICE (PARK POSITION SWITCH) HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T device and driver seat control unit connector.
- 3. Check continuity between A/T device connector and driver seat control unit connector.

A		В		
Driver seat control unit connector	Terminal	A/T device connector	Terminal	Continuity
M204	21	M133	10	Yes

4. Check continuity between driver seat control unit connector and ground.

Driver seat control unit connector	Terminal	Ground	Continuity
M204	21		No



#### OK or NG

OK >> GO TO 3.

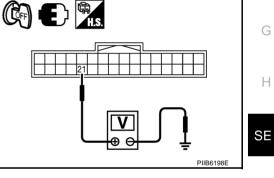
NG >> Repair or replace harness.

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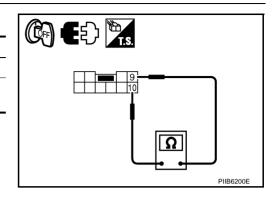
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# $\overline{\mathbf{3}}$ . CHECK PARK POSITION SWITCH

Check continuity between A/T device (detention switch) as follows.

A/T device	Terminals		Condition	Continuity
			P position	Yes
M133	9	10	Other than P position	No



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### OK or NG

- OK >> Check the condition of the harness and the connector.
- NG >> Replace A/T device.

### Front Door Switch (Driver Side) Circuit Check 1. CHECK DOOR SWITCH INPUT SIGNAL

#### 1. Turn ignition switch OFF.

Check voltage between BCM connector and ground. 2.

	Terminals					
(·	+)		Door condition		Voltage (V)	
BCM connec- tor	Terminal	()			(Approx.)	
М3	62	Ground	Driver side	OPEN	0	
	02	Clound	Diverside	CLOSE	Battery voltage	
OK or NG						

### OK or NG

OK >> Door switch circuit is OK.

NG >> GO TO 2.

### 2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF. 1.
- 2. Disconnect BCM and door switch (driver side) connector.
- Check continuity between BCM connector and door switch (driver side) connector. 3.

or switch		
nnector	Terminal	Continuity
B11	2	Yes
	B11	_

Α				Continuity	Ω		]
BCM connec	tor	Terminal	Ground	Continuity			l
M3		62		No		PIIB629	94E

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



# 3. CHECK DOOR SWITCH

Check continuity door switch (driver side).

Terr	minal	Door switch	Continuity	
Door switch		Door Switch	Continuity	
2	Ground part of	Pushed	No	
	door switch	Released	Yes	

#### OK or NG

OK >> GO TO 4.

NG >> Replace door switch (driver side).

### 4. CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM connector.
- 2. Check voltage between BCM connector ground.

	Terminal			
(- BCM connector	(+) BCM connector Terminal		Voltage (V) (Approx.)	
M3	62	Ground	Battery voltage	

#### OK or NG

OK >> Check the condition of the harness and the connector. NG

>> Replace BCM.

# **UART Communication Line Circuit Check**

### 1. CHECK UART LINE HARNESS

в 10 26 1, 17 10, 26

- Turn ignition switch OFF. 1.
- 2. Disconnect driver seat control unit and automatic drive positioner control unit connector.
- 3. Check continuity between driver seat control unit connector and automatic drive positioner connector.

А		В			
Driver seat control unit connector Terminal		Automatic drive positioner control Terminal unit connector		Continuity	
B204	1	M6	10	Yes	
B204	17	MO	26	res	

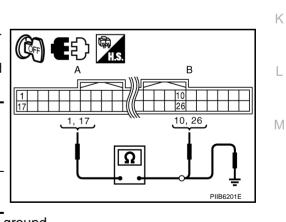
Check continuity between driver seat control unit connector and ground. 4.

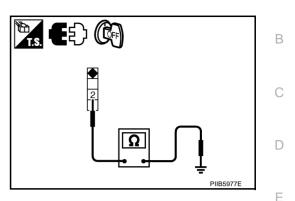
	A		
Driver seat control unit connector	Terminal	Ground	Continuity
B204	1		No
B204	17		NO

### OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness.





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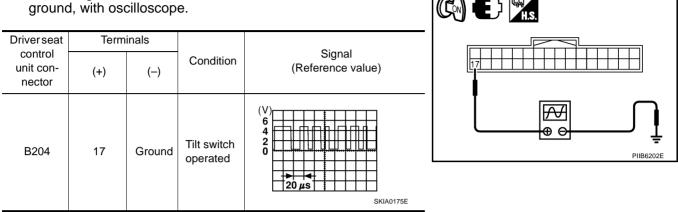
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# $\overline{2}$ . CHECK UART LINE INPUT/OUTPUT SIGNAL 1

- 1. Connect driver seat control unit and automatic drive positioner control unit connector.
- 2. Turn ignition switch ON.
- 3. Check signal between driver seat control unit connector and ground, with oscilloscope.



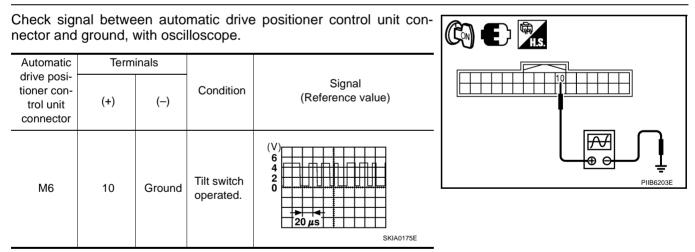
### OK or NG

OK >> GO TO 3.

NG >> Check the following.

- When voltage wave form does not appear with a constant voltage (approx. 5V), replace driver seat control unit.
- When voltage wave form does not appear with a constant voltage (approx. 0V), replace automatic drive positioner control unit.

# 3. CHECK UART LINE INPUT/OUTPUT SIGNAL 2



### OK or NG

OK >> GO TO 4.

NG >> Check the following.

- When voltage wave form does not appear with a constant voltage (approx. 5V), replace automatic drive positioner control unit.
- When voltage wave form does not appear with a constant voltage (approx. 0V), replace driver seat control unit.

### 4. CHECK DRIVER SEAT CONTROL UNIT

Does the automatic drive positioner operate when the driver seat control unit is exchanged?

## **AUTOMATIC DRIVE POSITIONER**

#### OK or NG

- OK >> Replace driver seat control unit.
- NG >> Replace automatic drive positioner control unit.

## Lumber Support Circuit Check

### 1. CHECK LUMBER SUPPORT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect lumber support switch connector.
- 3. Check voltage between lumber support switch connector and ground.

	Terminals		
(+	+)		Voltage (V)
Lumbar support switch connector	Terminal	()	(Approx.)
B212	55	Ground	Battery voltage

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OK or NG

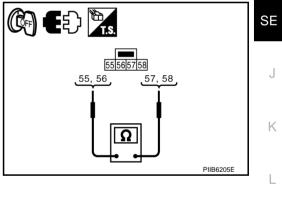
OK >> GO TO 2. NG

>> Repair or replace harness between fuse block (J/B) and lumber support switch.

# 2. CHECK LUMBER SUPPORT SWITCH

Check continuity lumber support switch connector.

Lumbar support switch	Terr	minal	Condition of lumbar support switch	Continuity
		57	FORWARD	Yes
	55	57	Other than above	No
		58	BACKWARD	Yes
B212			Other than above	No
D212 =		67	FORWARD	No
		57	Other than above	Yes
	56	50	BACKWARD	No
		58	Other than above	Yes



OK or NG

OK >> GO TO 3.

NG >> Replace lumber support switch.

# $\overline{\mathbf{3}}$ . CHECK LUMBER SUPPORT MOTOR HARNESS

- 1. Disconnect lumber support motor connector.
- 2. Check continuity between lumber support switch connector and lumber support motor connector.

A		В			
Lumbar support switch connector	Terminal	Lumbar support motor connector	Terminal	Continuity	
B212	57	B211	57	Yes	
DZTZ	58	DZTI	58	162	

3. Check continuity between lumber support switch connector and ground.

A				
Lumbar support switch connector	Terminal	Ground	Continuity	
B212	57		No	
DZTZ	58	-	INU	

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

### 4. CHECK LUMBER SUPPORT SWITCH GROUND CIRCUIT

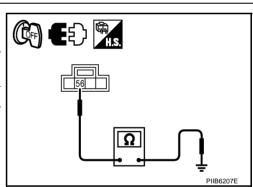
Check continuity between lumber support switch connector and ground.

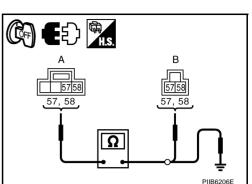
Lumbar support switch connector	Terminal	Ground	Continuity
B212	56		Yes

#### OK or NG

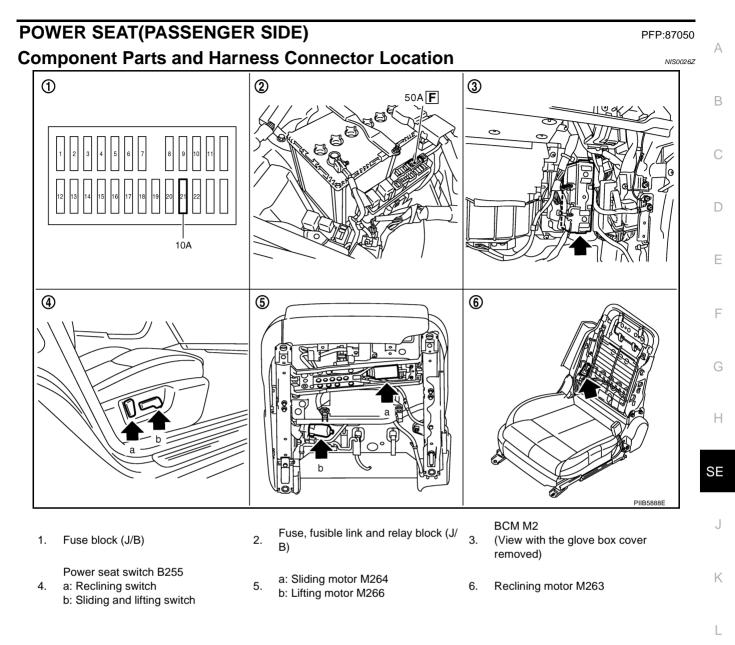
OK >> Check the condition of the harness and connector.

NG >> Repair or replace harness between lumber support switch and ground.



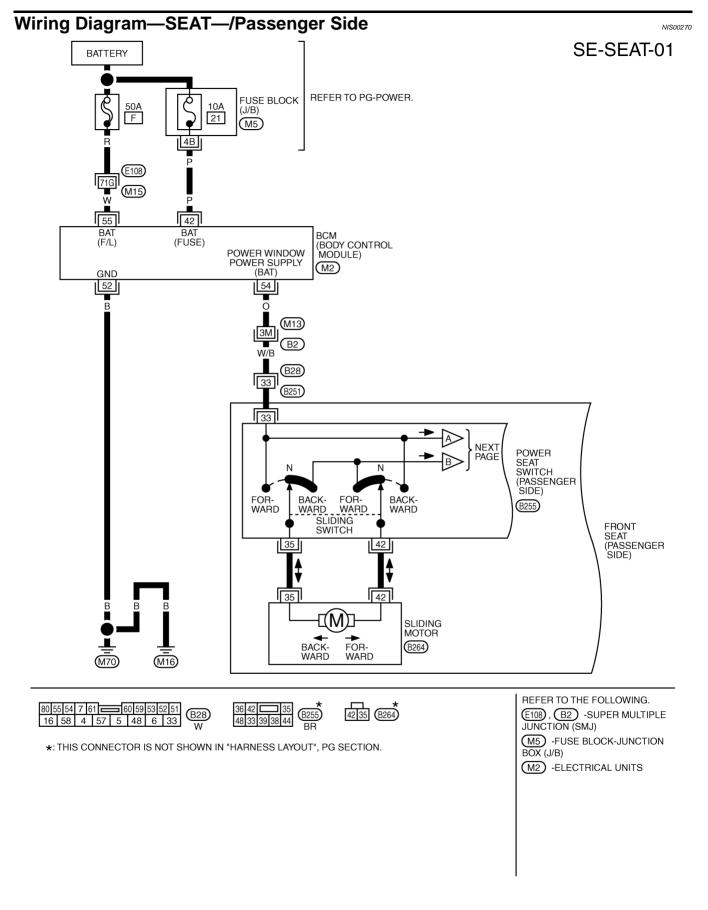


### **POWER SEAT(PASSENGER SIDE)**



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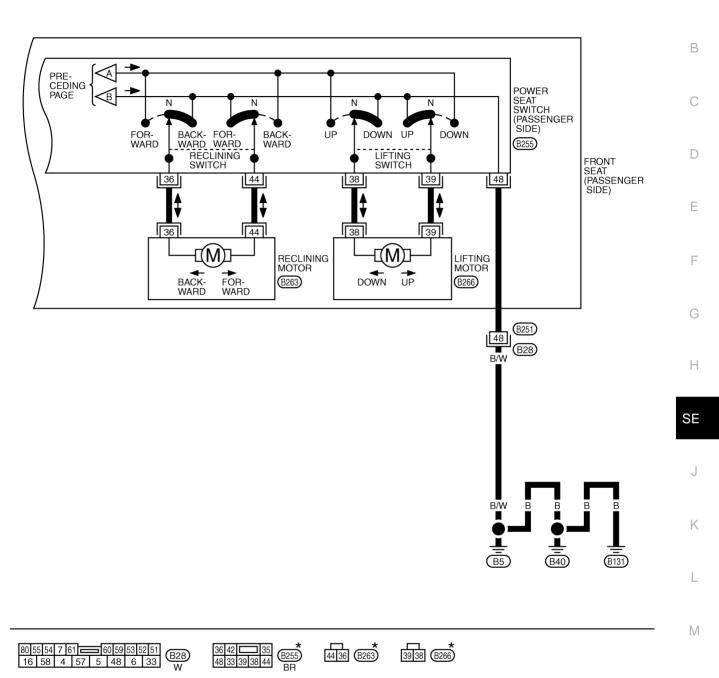
### **POWER SEAT(PASSENGER SIDE)**



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\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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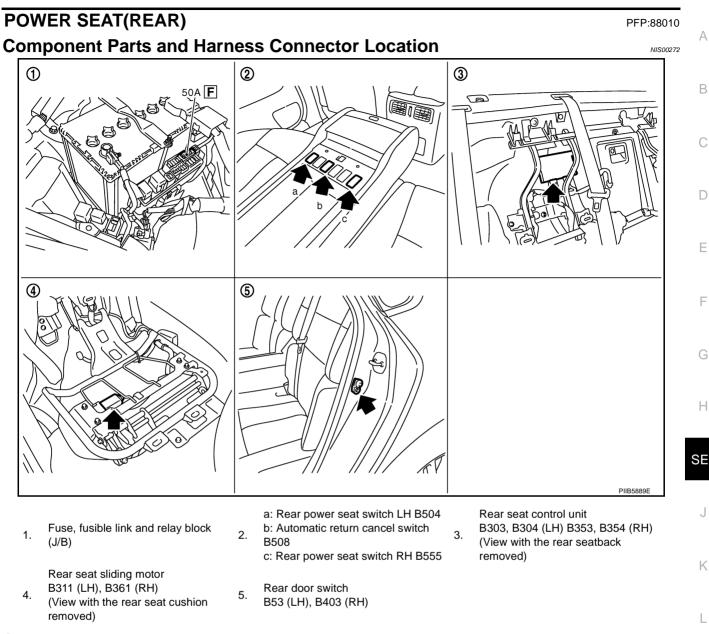
# POWER SEAT(PASSENGER SIDE)

## **Terminals and Reference Values for BCM**

Terminal	Wire color	Item	Condition	Voltage [V] (Approx.)
42	Р	Power source (Fuse)	—	Battery voltage
52	В	Ground	—	0
54	0	Power window power supply (BAT)	_	Battery voltage
55	W	Power source (F/L)	—	Battery voltage

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# **POWER SEAT(REAR)**



### **System Description**

The rear power seat (LH / RH) retreats when the auto return cancel switch is turned on and each door is  $_{\rm M}$  opened.

When the rear power seat switch turned on, or auto return cancel switch is canceled, an auto return is discontinued.

Power is all time supplied

- through 50A fusible link [letter F, located in the fuse block (J/B)],
- to rear LH seat control unit, rear RH seat control unit terminal 1.

### REAR POWER SEAT LH AND RH OPERATION

When rear power seat switch is forward, ground is supplied

- to rear seat control unit terminal 10,
- through rear power seat switch terminal 2,
- through rear power seat switch terminal 3,
- through body grounds B5, B40, B131.

When rear seat control unit receives power seat switch forward signal, power is supplied

- through rear seat control unit terminal 2,
- to rear seat sliding motor terminal 3.

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Then ground is supplied

- through rear seat sliding motor terminals 5,
- through body grounds B5, B40, B131.

When power and ground are supplied, rear power seat slide moves forward. When rear power seat switch is backward, ground is supplied

- to rear seat control unit terminal 15,
- through rear power seat switch terminal 1,
- through rear power seat switch terminal 3,
- through body grounds B5, B40, B131.

When rear seat control unit receives power seat switch backward signal, power is supplied

- to rear seat control unit terminal 7,
- through rear seat sliding motor terminal 4.

Then ground is supplied

- through rear seat sliding motor terminals 5,
- through body grounds B5, B40, B131.

When power and ground are supplied, rear power seat slide moves backward.

### **REAR SEAT RETREAT FUNCTION**

When rear door open, ground is supplied

- to rear seat control unit terminal 16,
- through rear door switch terminal 2,

When rear seat control unit receives automatic return cancel switch ON and rear door switch open signal, power is supplied

- through rear seat control unit terminal 7,
- to rear seat sliding motor terminal 4.

Then ground is supplied

- through rear seat sliding motor terminals 5,
- through body grounds B5, B40, B131.

When power and ground are supplied, rear power seat slide moves backward. When rear seat sliding motor is operated, ground is supplied

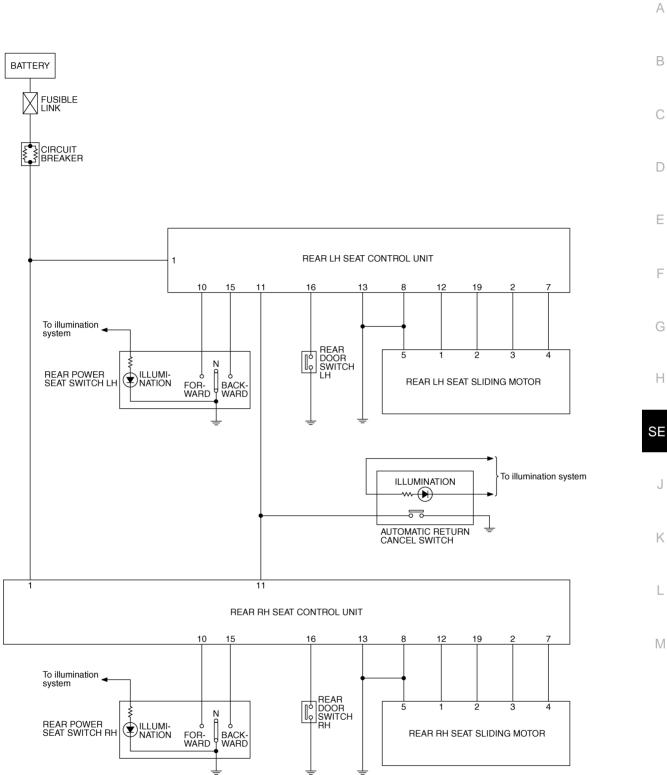
- to rear seat control unit terminal 12,
- through rear seat sliding motor terminal 1,
- through rear seat sliding motor terminal 2,
- through rear seat control unit terminal 19,
- through rear seat control unit terminals 13,
- through body grounds B5, B40, B131.

Then rear seat control unit receives rear power seat sliding sensor signal.

The rear power seat control unit controls the seat position of the system operation with the signal.

### **POWER SEAT(REAR)**

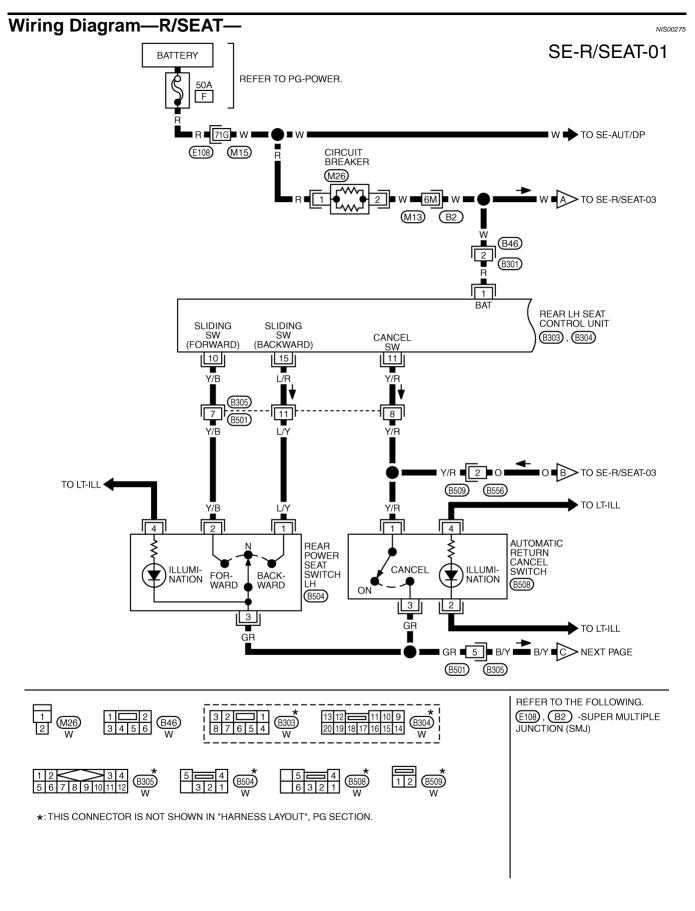
Schematic



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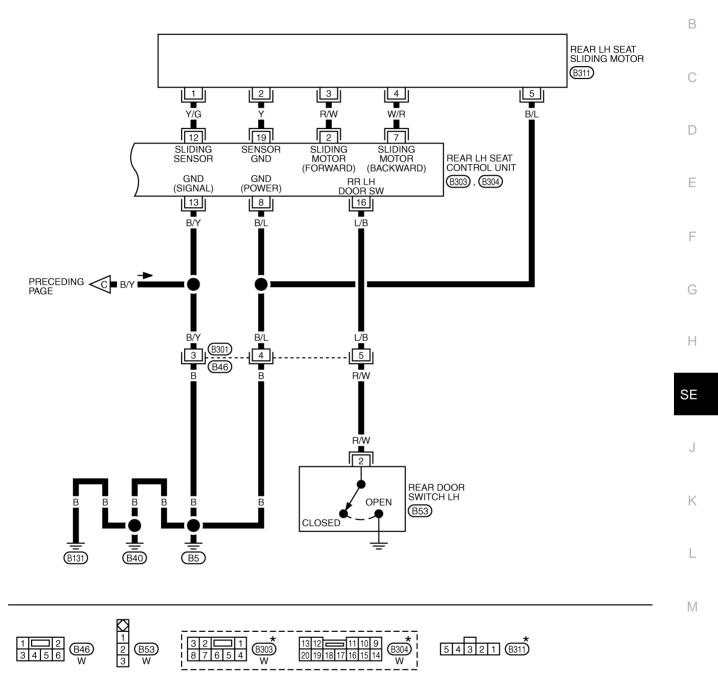
### **POWER SEAT(REAR)**



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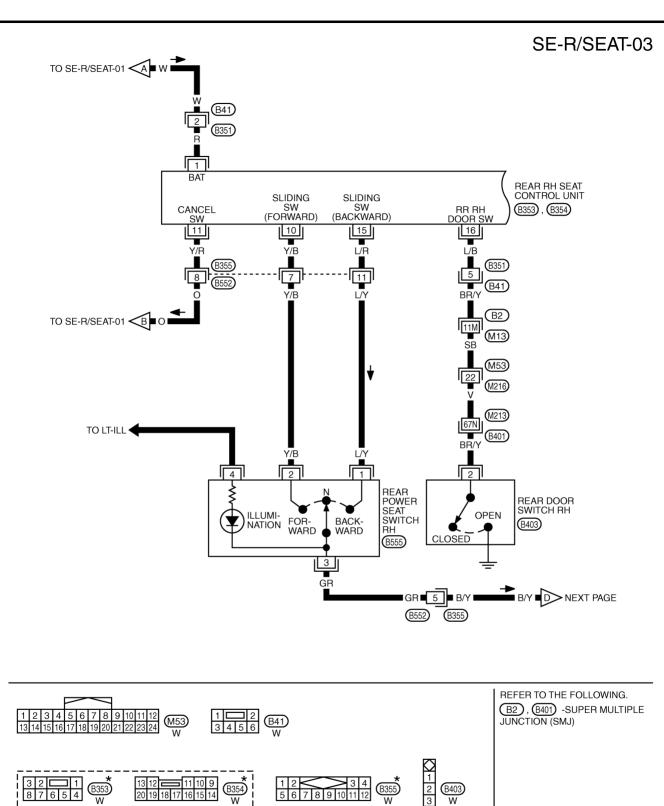
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\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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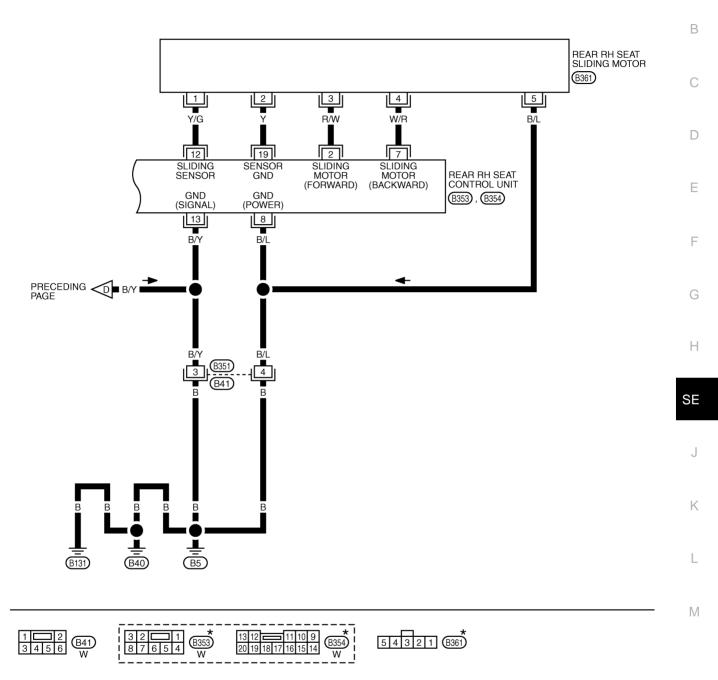
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5 4 3 2 1 (B555) W

\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

SE-R/SEAT-04

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\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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# **POWER SEAT(REAR)**

# Terminals and Reference Values for Rear Seat Control Unit

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Terminal	Wire Color	ltem	Condition	Voltage (V) (Approx.)
1	R	Power source (BAT)	—	Battery voltage
2	R/W	Sliding motor forward signal	When sliding switch forward is operated	Battery voltage
2	r./vv	Shung motor forward signal	Other than above	0
7		D. Cliding motor bookward signal	When sliding switch backward is operated	Battery voltage
/	W/R Sliding motor backward signal	Other than above	0	
8	B/L	Ground (power)		0
10	Y/B	Cliding owitch forward signal	When sliding switch forward is operated.	0
10	I/D	Sliding switch forward signal	Other than above.	Battery voltage
11	Y/R	Cancel switch signal	Cancel switch ON	5
	1/1	Cancel Switch Signal	Cancel switch CANCEL	0
12	Y/G	Sliding sensor signal	Sliding device active	(V) 6 4 2 0 •••••50ms SIIA0690J
			Sliding device inactive	0 or 5
13	B/Y	Ground (signal)	—	0
15	L/R	Sliding switch backward signal	When sliding switch backward is operated.	0
15	L/K	Shung Switch Dackward Signal	Other than above	Battery voltage
16	L/B	Poor door switch signal	Rear door open (ON)	0
10	L/D	Rear door switch signal	Rear door close (OFF)	Battery voltage
19	Y	Sensor ground	_	0

# **POWER SEAT(REAR)**

### **Work Flow**

- 1. Check the symptom and customer's requests.
- 2. Understand the outline of system. Refer to SE-95, "System Description" .
- 3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-103</u>, <u>"Trouble Diagnoses Symptom Chart"</u>.
- 4. Does rear power seat operate normally? YES: GO TO 5, NO: GO TO 4.
- 5. INSPECTION END.

### Trouble Diagnoses Symptom Chart

• Check that other systems using the signal of the following systems operate normally.

Symptom	Diagnoses / service procedure	Refer to page
Rear power seat LH, RH do not operate.	Rear power seat power supply circuit inspection	<u>SE-103</u>
Rear power seat LH or RH sliding switch does not operate moreover, retreat function does not operate if the door is	1. Rear seat control unit power supply and ground circuit inspection	<u>SE-104</u>
opened	2. Rear seat sliding motor circuit inspection	<u>SE-105</u>
Rear power seat LH or RH does not operate, but retreat func- tion operates when the door is opened	Rear power seat switch circuit inspection	<u>SE-106</u>
Rear power seat LH and RH retreat function does not operate, but operates by sliding switch	Automatic return cancel switch inspection	<u>SE-109</u>
	1. Rear door switch circuit inspection	<u>SE-110</u>
Rear power seat LH or RH retreat function does not operate, but operates by a sliding switch	2. Automatic return cancel switch circuit inspec- tion	<u>SE-108</u>
	3. Rear seat sliding sensor circuit inspection	<u>SE-111</u>

# Rear Power Seat Power Supply Circuit Inspection 1. CHECK FUSIBLE LINK

Check 50A fusible link (letter **F** located in the fuse and fusible link box). **NOTE:** Refer to <u>SE-95, "Component Parts and Harness Connector Location"</u>. <u>OK or NG</u>

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to <u>PG-</u> <u>3, "POWER SUPPLY ROUTING CIRCUIT"</u>.

### 2. CHECK CIRCUIT BREAKER

Check circuit breaker.	
NOTE:	
Refer to PG-3, "POWER SUPPLY ROUTING CIRCUIT".	
OK or NG	

OK >> Check the condition of the harness and connector.

NG >> Replace the circuit breaker.

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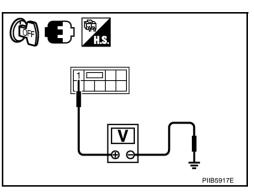
# Rear Seat Control Unit Power Supply and Ground Circuit Inspection

## 1. CHECK REAR SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

#### 1. Turn ignition switch OFF.

2. Check voltage between rear seat control unit connector and ground.

	Terminal			
(+	+)		Voltage (V)	
Rear seat control unit connector	Terminal	()	(Approx.)	
B303 (LH) B353 (RH)	1	Ground	Battery voltage	



### OK or NG

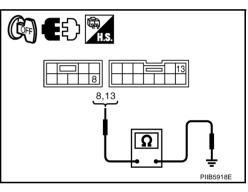
OK >> GO TO 2.

NG >> Repair or replace harness between circuit breaker and rear seat control unit.

### 2. CHECK REAR POWER SEAT CONTROL UNIT GROUND CIRCUIT

- 1. Disconnect rear seat control unit connector.
- 2. Check continuity between rear seat control unit connector and ground.

-			
Rear seat control unit connector	Terminal		Continuity
B303 (LH) B353 (RH)	8	Ground	Yes
B304 (LH) B354 (RH)	13		res



#### OK or NG

- OK >> Rear seat control unit power supply and ground circuit is OK.
- NG >> Repair or replace harness between rear seat control unit and ground.

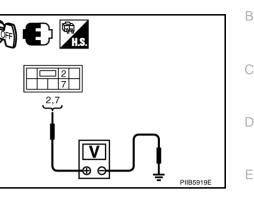
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# **POWER SEAT(REAR)**

# **Rear Seat Sliding Motor Circuit Inspection**

- 1. CHECK REAR SEAT SLIDING MOTOR POWER SUPPLY
- Turn ignition switch OFF. 1.
- 2. Check voltage between rear seat control unit connector and ground.

Terminal						
(+)					Voltage (V)	
Rear seat control unit connector	Terminal	()	Condition		(Approx.)	
	2	Ground	Rear power seat switch	Forward	Battery voltage	
B303 (LH)			Other than a	bove.	0	
B353 (RH)	7	Ground	Rear power seat switch	Backward	Battery voltage	
			Other than above.		0	



### OK or NG

OK >> GO TO 2.

NG >> Replace rear seat control unit.

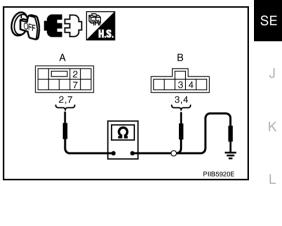
# 2. CHECK REAR SEAT SLIDING MOTOR HARNESS

- 1. Disconnect rear seat control unit and rear seat sliding motor connector.
- Check continuity between rear seat control unit connector and 2. rear seat sliding motor connector.

A		В		
Rear seat control unit connector	Terminal	Rear seat sliding motor connector	Terminal	Continuity
B303 (LH)	2	B311 (LH)	3	Yes
B353 (RH)	7	B361 (RH)	4	162

3. Check continuity between rear seat control unit connector and ground.

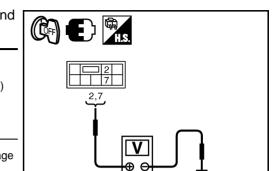
A		Continuity		
Rear seat control unit connector	Terminal	Ground	Continuity	
B303 (LH)	2		No	
B353 (RH)	7		NO	



#### OK or NG

OK >> Replace rear seat sliding motor.

NG >> Repair or replace harness between rear seat control unit and rear seat sliding motor.



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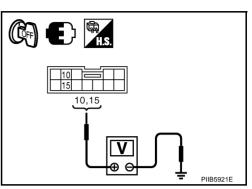
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# Rear Power Seat Switch Circuit Inspection

- 1. CHECK REAR POWER SEAT SWITCH POWER SUPPLY
- 1. Turn ignition switch OFF.
- 2. Check voltage between rear seat control unit connector and ground.

Terminal						
(+	(+)				Voltage (V)	
Rear seat control unit connector	Terminal	()	Condition		(Approx.)	
	10	10 Ground 15	Rearpower seat switch	Forward	0	
B304 (LH)			Other than a	bove.	Battery voltage	
B354 (RH)	15		Rearpower seat switch	Backward	0	
			Other than a	bove.	Battery voltage	



#### OK or NG

OK >> Replace rear seat control unit.

NG >> GO TO 2.

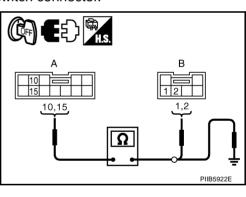
# 2. CHECK REAR POWER SEAT SWITCH HARNESS

- 1. Disconnect rear seat control unit connector and rear power seat switch connector.
- 2. Check continuity between rear seat control unit connector and rear power seat switch connector.

A		В		
Rear seat control unit connector	Terminal	Rear power seat switch connector	Terminal	Continuity
B304 (LH)	10	B504 (LH)	2	Yes
B354 (RH)	15	B555 (RH)	1	165

3. Check continuity between rear seat control unit connector and ground.

A		Continuity		
Rear seat control unit connector	Terminal	Ground	Continuity	
B304 (LH)	10		No	
B354 (RH)	15			



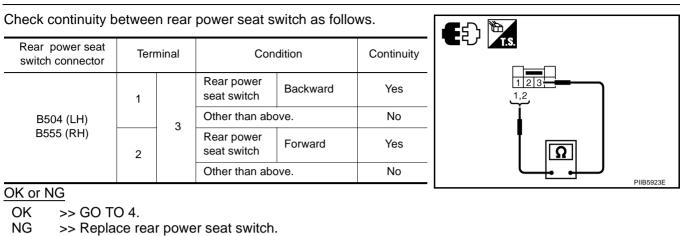
OK or NG

OK >> GO TO 3.

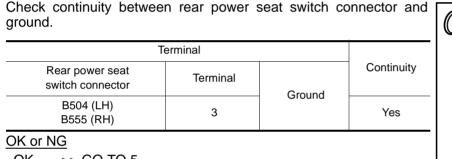
NG >> Repair or replace harness between rear seat control unit and rear power seat switch.

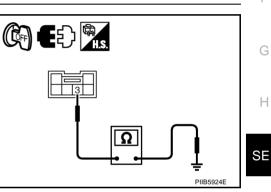
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### 4. CHECK REAR POWER SEAT SWITCH GROUND CIRCUIT





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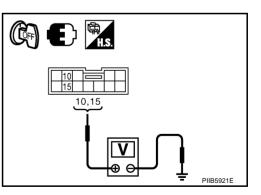
OK >> GO TO 5.

NG >> Repair or replace harness between rear power seat switch and ground.

### 5. CHECK REAR POWER SEAT SWITCH POWER SUPPLY-2

- 1. Connect rear seat control unit connector.
- 2. Check voltage between rear seat control unit connector and ground.

(+	·)		Voltage (V)	
Rear seat control unit connector	Terminal	()	(Approx.)	
B304 (LH)	10	Ground	Pattony voltago	
B354 (RH)	15	Ground	Battery voltage	



#### OK or NG

OK >> Check the condition of the harness and connector.

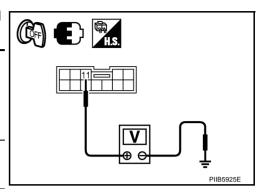
NG >> Replace rear seat control unit.

# Automatic Return Cancel Switch Circuit Inspection

### 1. CHECK AUTOMATIC RETURN CANCEL SWITCH POWER SUPPLY-1

- 1. Turn ignition switch OFF.
- 2. Check voltage between rear seat control unit connector and ground.

Terminal				
(+)				Voltage (V)
Rear seat control unit connector	Terminal	()	Condition	(Approx.)
B304 (LH) B354 (RH)	11	Ground	Automatic return cancel switch ON and, rear door open	5
			Other than above.	0



### OK or NG

OK >> Automatic return cancel switch circuit is OK.

NG >> GO TO 2.

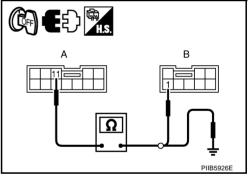
# 2. CHECK AUTOMATIC RETURN CANCEL SWITCH HARNESS

- 1. Disconnect rear seat control unit connector and automatic return cancel switch connector.
- 2. Check continuity between rear seat control unit connector and automatic return cancel switch connector.

А		В		
Rear seat control unit connector	Terminal	Automatic return cancel switch connector	Terminal	Continuity
B304 (LH) B354 (RH)	11	B508	1	Yes

3. Check continuity between rear seat control unit connector and ground.

А		Continuity	
Rear seat control unit connector	Terminal	Ground	Continuity
B304 (LH) B354 (RH)	11		No



### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between rear seat control unit and automatic return cancel switch.

NIS0027D

## **3.** CHECK AUTOMATIC RETURN CANCEL SWITCH POWER SUPPLY-2

- 1. Connect rear seat control unit connector.
- 2. Check voltage between rear seat control unit connector and ground.

	Terminals		
(-	+)	Voltage (V)	
Rear seat control unit connector	(-)		(Approx.)
B304 (LH) B354 (RH)	11	Ground	5

#### OK or NG

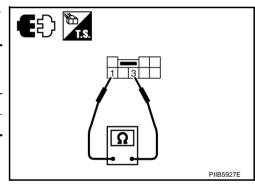
OK >> Check the condition of the harness and connector.

NG >> Replace rear seat control unit.

### Automatic Return Cancel Switch Inspection 1. CHECK AUTOMATIC RETURN CANCEL SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic return cancel switch connector.
- 3. Check continuity between automatic return cancel switch as follows.

Automatic return cancel switch connector	Terr	ninal	Conditic	n	Continuity
B508	1	3	Automatic return	CANCEL	Yes
B300	1	3	cancel switch	ON	No



#### OK or NG

OK >> GO TO 2.

NG >> Replace automatic return cancel switch.

### 2. CHECK AUTOMATIC RETURN CANCEL SWITCH GROUND HARNESS

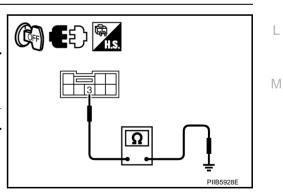
Check continuity between automatic return cancel switch connector and ground.

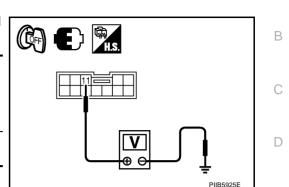
Т	erminal		
Automatic return cancel switch connector	Terminal	Ground	Continuity
B508	3		Yes

#### OK or NG

OK >> Check the harness and connector.

NG >> Repair or replace harness between automatic return cancel switch and ground.





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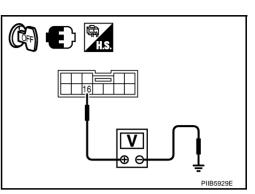
NIS0027E

## **Rear Door Switch Circuit Inspection**

### 1. CHECK REAR DOOR SWITCH POWER SUPPLY-1

- 1. Turn ignition switch OFF.
- 2. Check voltage between rear seat control unit connector and ground.

	Terminal			
(+)			0	Voltage (V)
Rear seat control unit connector	Terminal	()	Condition	(Approx.)
B304 (LH)	16	Ground	Rear door open.	0
B354 (RH)	10	Cround	Rear door closed.	Battery voltage



#### OK or NG

OK >> Rear door switch circuit is OK.

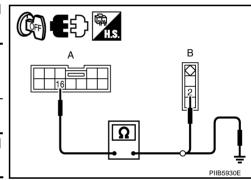
NG >> GO TO 2.

## 2. CHECK REAR DOOR SWITCH HARNESS

- 1. Disconnect rear seat control unit connector and rear door switch connector.
- 2. Check continuity between rear seat control unit connector and rear door switch connector.

A		В		
Rear seat control unit connector	Terminal	Rear door switch connector	Terminal	Continuity
B304 (LH) B354 (RH)	16	B53 (LH) B403 (RH)	2	Yes

3. Check continuity between rear seat control unit connector and ground.



А			Continuity
Rear seat control unit connector	Terminal	Ground	Continuity
B304 (LH) B354 (RH)	16		No

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between rear seat control unit and rear door switch.

### 3. Check rear door switch

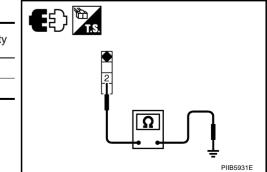
Check continuity between rear door switch and ground.

Rear door switch connector	Terminal		Condition	Continuity
B53 (LH)	2	Ground	Rear door open.	Yes
B403 (RH)	2	Giouna	Rear door closed.	No

#### OK or NG

OK >> GO TO 4.

NG >> Replace rear door switch.



## 4. CHECK REAR DOOR SWITCH POWER SUPPLY-2

- 1. Connect rear seat control unit connector.
- 2. Check voltage between rear seat control unit connector and ground.

	Terminals				
(-	+)		Voltage (V)		
Rear seat control unit connector	Terminal	(–) (Appro			
B304 (LH) B354 (RH)	16	Ground	Battery voltage		

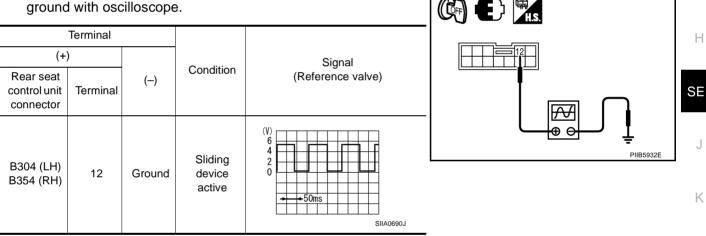
#### OK or NG

OK >> Check the condition of the harness and connector.

NG >> Replace rear seat control unit.

## Rear Seat Sliding Sensor Circuit Inspection 1. CHECK REAR SEAT SLIDING SENSOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Check signal between rear seat control unit connector and ground with oscilloscope.



#### OK or NG

OK >> Check the condition of the harness and connector.

NG >> GO TO 2.

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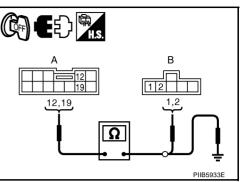
## 2. CHECK REAR SEAT SLIDING SENSOR HARNESS

- 1. Disconnect rear seat control unit connector and rear seat sliding motor connector.
- 2. Check continuity between rear seat control unit connector and rear seat sliding motor connector.

A		В		
Rear seat control unit connector	Terminal	Rear seat sliding motor connector	Terminal	Continuity
B304 (LH)	12	B311 (LH)	1	Yes
B354 (RH)	19	B361 (RH)	2	162

3. Check continuity between rear seat control unit connector and ground.

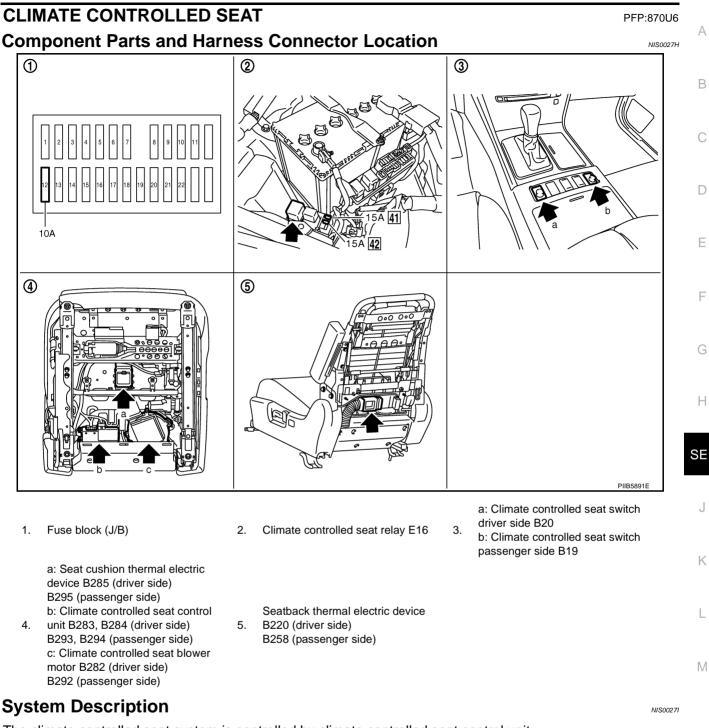
A			Continuity
Rear seat control unit connector	Terminal	Ground	Continuity
B304 (LH)	12	Giodila	No
B354 (RH)	19		NO



OK or NG

OK >> Replace rear seat sliding motor.

NG >> Repair or replace harness between rear seat control unit and rear seat sliding motor.



The climate controlled seat system is controlled by climate controlled seat control unit. Heating and cooling are possible for a thermal electric device (heat conversion machine).

#### NOTE:

- The climate controlled seat system is downed when the temperature sensor set as the seat cushion and the seat back's thermal electric device machine detects 20 °C (68 °F)or more of mutual differences of temperature.
- In this case, by turning off ignition switch, system down is canceled and it can be reused by turning on ignition switch again.
- The climate controlled seat blower keep low speed for approximately 60 seconds after turning the climate controlled seat switch.

#### **CAUTION:**

• The thermal electric device has the character in which, as for an opposite side. one side becomes high temperature at the time of low temperature.

• At the time of work, please turn OFF a switch, and carry it out after checking that the thermal electric device has got cold.

Power is at all times supplied

- through 15A fuse [No. 41 located in the fuse fusible link and relay unit]
- to climate controlled seat relay terminals 5.
- through 15A fuse [No. 42 located in the fuse fusible link and relay unit]
- to climate controlled seat relay terminals 7.

When the ignition switch turned to ON or START position, Power is supplied

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to climate controlled seat relay terminal 2.

Then ground is supplied

- to climate controlled seat relay terminal 1,
- through body grounds E22 and E43.

Then climate controlled seat relay is energized. When climate controlled seat relay is turned to ON, Power is supplied,

- through climate controlled seat relay terminal 3,
- to climate controlled seat control unit (passenger side) terminal 2 and 4.
- through climate controlled seat relay terminal 6,
- to climate controlled seat control unit (driver side) terminal 2 and 4.

When climate controlled switch select HEAT, ground is supplied

- through climate controlled seat switch terminal 1 and 3,
- to climate controlled seat control unit terminal 10.

Then, the climate controlled seat control unit receives climate controlled seat switch HEAT signal. When climate controlled seat switch select COOL, ground is supplied

- through climate controlled seat switch terminal 1 and 2,
- to climate controlled seat control unit terminal 20,

Then, the climate controlled seat control unit receives climate controlled switch COOL signal. When blower motor rotates, signal is transmitted

- to climate controlled seat control unit terminal 18,
- through climate controlled seat blower motor terminal 1.

This is climate controlled seat blower motor tachometer signal.

When climate controlled seat control unit receives climate controlled seat switch signal and tachometer signal, Power is supplied

- to climate controlled seat blower motor terminal 4,
- through climate controlled seat control unit terminal 17.

This is blower motor revolution control signal.

When blower motor receivers blower motor revolution control signal, Power is supplied

• through climate controlled seat control unit terminal 14,

• to climate controlled seat blower motor terminal 2.

When number of rotations correspond signal, Ground is supplied

- to climate controlled seat blower motor terminal 3,
- through climate controlled seat control unit terminal 7,
- through climate controlled seat control unit terminal 3,
- through body grounds B5, B40 and B131.

Then motor revolution is controlled.

When the ignition switch turned to ON or START position, Power is supplied

• 1	to seat cushion thermal electric device terminal 1,	
• 1	through climate controlled seat control unit terminal 22.	А
Ther	n ground is supplied	
• 1	to climate controlled seat control unit terminal 21,	D
• 1	through seat cushion thermal electric device terminal 2,	В
Whe cush	n the climate controlled seat control unit recognizes seat cushion thermal electric device sensor signal. In climate controlled seat control unit recognizes climate controlled seat switch HEAT signal and, seat nion thermal electric device sensor signal, er is supplied	С
• 1	to seat cushion thermal electric device terminal 4,	
• 1	through climate controlled seat control unit terminal 5.	D
Ther	n ground is supplied	
• 1	through seat cushion thermal electric device terminal 6,	
• 1	to climate controlled seat control unit terminal 6,	E
• 1	through climate controlled seat control unit terminal 3,	
• 1	through body grounds B5, B40 and B131.	F
cush	in climate controlled seat control unit recognizes climate controlled seat switch COOL signal and seat ion thermal electric device sensor signal, er is supplied	
	to seat cushion thermal electric device terminal 6,	G
	through climate controlled seat control unit terminal 6.	
	n ground is supplied	Н
	through seat cushion thermal electric device terminal 4,	
	to climate controlled seat control unit terminal 5.	
		SE
	through body grounds B5, B40 and B131.	
	In the ignition switch turned to ON or START position,	
	er is supplied	J
	to seatback thermal electric device terminal 1,	
• 1	through climate controlled seat control unit terminal 23.	17
	n ground is supplied	К
	to climate controlled seat control unit terminal 24,	
	through seatback thermal electric device terminal 2,	I
	through climate controlled seat control unit terminal 3,	
	through body grounds B5, B40 and B131.	
Ther Whe therr	n the climate controlled seat control unit recognizes seatback thermal electric device sensor signal. In climate controlled seat control unit recognizes climate controlled seat switch HEAT signal and seatback mal electric device sensor signal, er is supplied	Μ
• 1	to seatback thermal electric device terminal 4,	
• 1	through climate controlled seat control unit terminal 15,	
grou	nd is supplied	
• 1	to climate controlled seat control unit terminal 16,	
• 1	through seatback thermal electric device terminal 6,	
• 1	through climate controlled seat control unit terminal 3,	
	through body grounds B5, B40 and B131.	
	seatback thermal electric device generates heat wind is warmed.	
Whe therr	In climate controlled seat control unit recognizes climate controlled seat switch COOL signal and seatback mal electric device sensor signal, er is supplied	
	to seatback thermal electric device terminal 6.	

• to seatback thermal electric device terminal 6,

- through climate controlled seat control unit terminal 16,
- ground is supplied
- to climate controlled seat control unit terminal 15,
- through seatback thermal electric device terminal 4,
- through climate controlled seat control unit terminal 3,
- through body grounds B5, B40 and B131.

When climate controlled switch selects HEAT, Power is supplied

- to climate controlled seat switch terminal 5,
- through climate controlled seat control unit terminal 8.

Ground is supplied

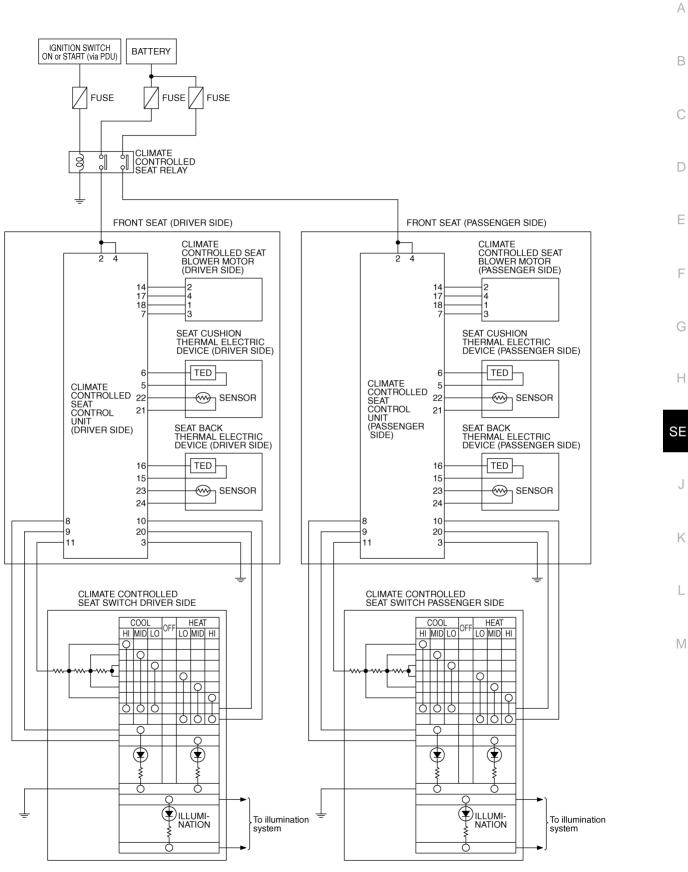
- to the climate controlled seat switch terminal 6,
- through body grounds B5, B40 and B131.

Then climate controlled seat switch HEAT indicator is energized. When climate controlled switch select COOL, Power is supplied

- to climate controlled seat switch terminal 4,
- through climate controlled seat control unit terminal 9.
- Ground is supplied
- to the climate controlled seat switch terminal 6,
- through body grounds B5, B40 and B131.

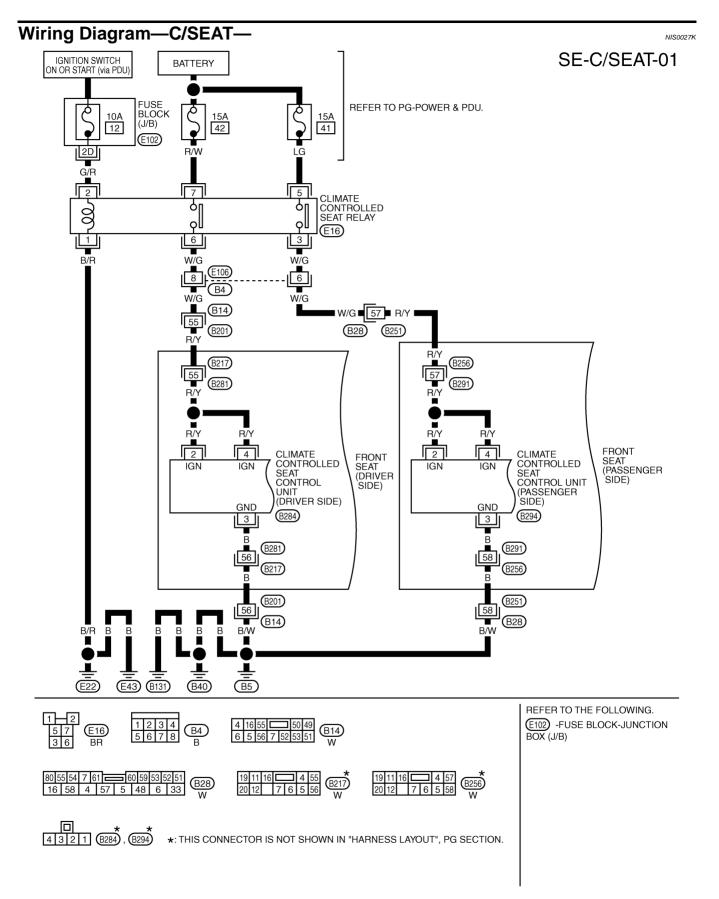
Then climate controlled seat switch COOL indicator is energized.

#### Schematic

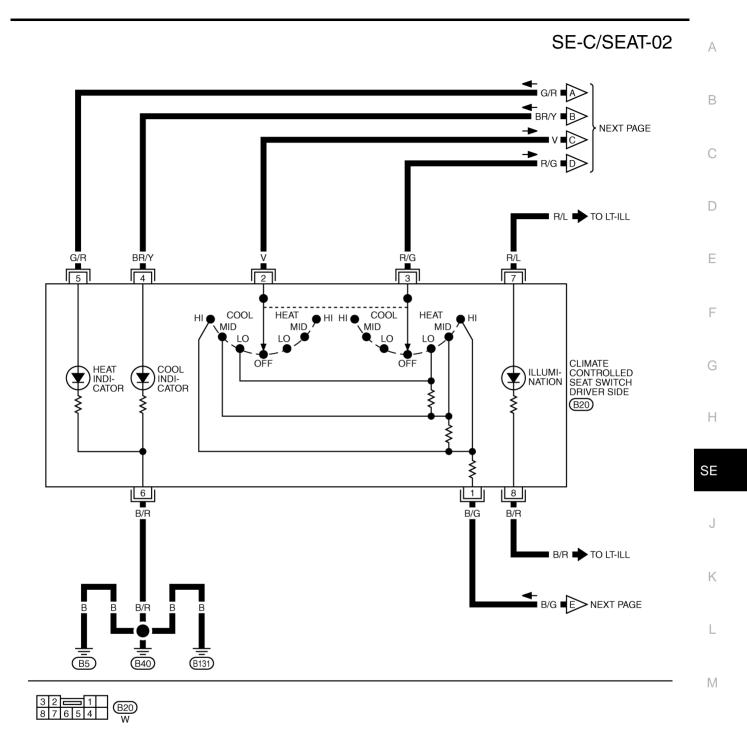


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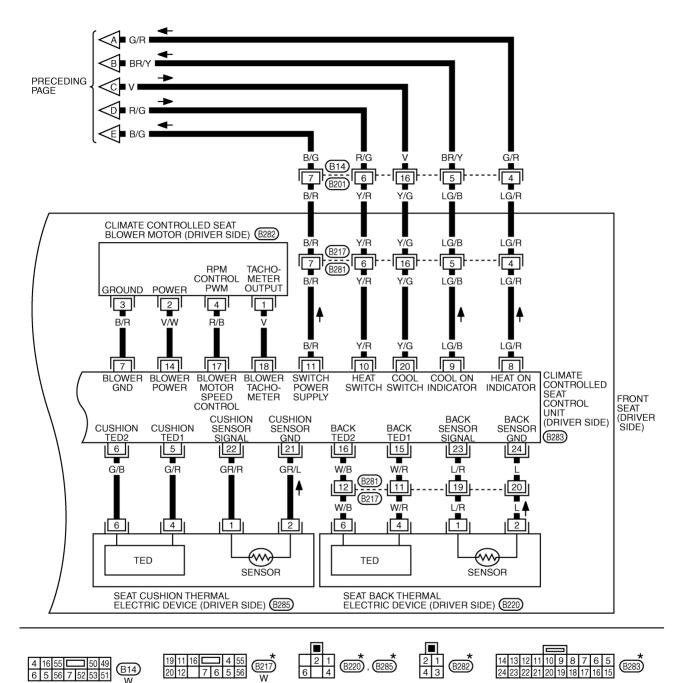


TIWT1392E



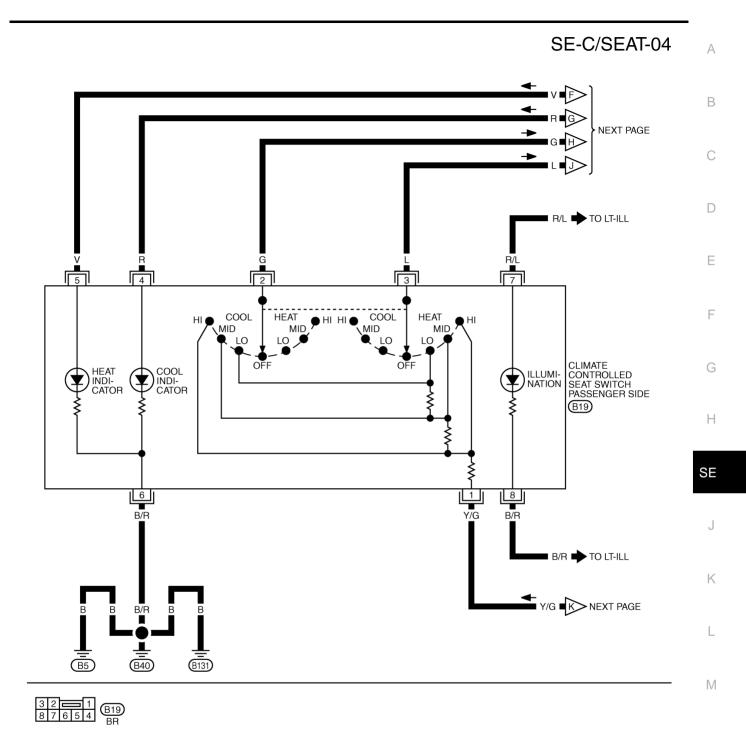
TIWT1393E

### SE-C/SEAT-03



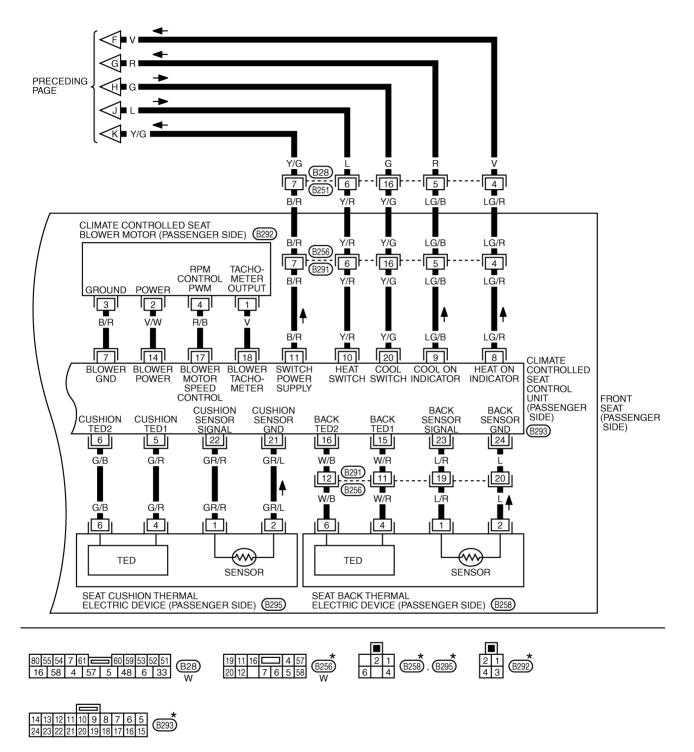
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1394E



TIWT1395E

### SE-C/SEAT-05



\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1396E

## Terminal and Reference Value for Climate Controlled Seat Control Unit

Terminal	Wire Color	ltem		Condition	Voltage (V) (Approx)
2	R/Y	Ignition switch power supply	Ignition switch ON or START		Battery voltage
3	В	Ground		<u> </u>	0
4	R/Y	Ignition switch power supply	Ignition switch ON c	r START	Battery voltage
5	G/R	Seat cushion thermal electric	Ignition switch ON	Climate controlled seat switch select HEAT	0 – Battery voltage
5	G/K	device power supply (HEAT)	or START	Climate controlled seat switch select OFF	0
6	G/B	Seat cushion thermal electric	Ignition switch ON	Climate controlled seat switch select COOL	0 – Battery voltage
0	0,0	device power supply (COOL)	or START	Climate controlled seat switch select OFF	0
7	B/R	Blower motor ground		—	0
8	LG/R	HEAT switch indicator signal	Ignition switch ON	Climate controlled seat switch select HEAT	Battery voltage
0	LG/R	TIEAT SWIGH INGIGAUT SIGNAL	or START	Climate controlled seat switch select OFF	0
0	LG/B	COOL switch indicator signal	Ignition switch ON	Climate controlled seat switch select COOL	Battery voltage
9	LG/B		or START	Climate controlled seat switch select OFF	0
10			Ignition switch ON	Climate controlled seat switch select HEAT	0
10	Y/R	HEAT switch signal	or START	Climate controlled seat switch select OFF	Battery voltage
11	B/R	Climate controlled seat switch power supply	Ignition switch ON or START		Battery voltage
14	V/W	Blower motor power supply	Ignition switch ON	Climate controlled seat switch select HEAT or COOL	5.5 – Battery voltage
14	V/VV	Blower motor power supply	or START	Climate controlled seat switch select OFF	0
15	W/R	Seatback thermal electric	Ignition switch ON	Climate controlled seat switch select HEAT	0 – Battery voltage
15	VV/IX	device power supply (HEAT)	or START	Climate controlled seat switch select OFF	0
16	W/B	Seatback thermal electric	Ignition switch ON	Climate controlled seat switch select COOL	0 – Battery voltage
16	vv/B	device power supply (COOL)	or START	Climate controlled seat switch select OFF	0
47	D/D	Blower motor speed control	Ignition switch ON	Climate controlled seat switch select HEAT or COOL	4.5 - 8.0
17	R/B	signal	or START	Climate controlled seat switch select OFF	0
40		Blower motor tachometer sig-	Ignition switch ON	Climate controlled seat switch select HEAT or COOL	4.5 - 8.0
18	V	nal	or START	Climate controlled seat switch select OFF	Battery voltage
00	N/2		Ignition switch ON	Climate controlled seat switch select COOL	0
20 Y/G COOL switch signal		COOL switch signal	or START	Climate controlled seat switch select OFF	Battery voltage

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Terminal	Wire Color	Item	Condition	Voltage (V) (Approx)
21	GR/L	Seat cushion thermal electric device sensor ground	Ignition switch ON	0
22	22 GR/R Seat cushion thermal electric device sensor signal	Blower motor operated	0.5 - 4	
22		device sensor signal	Ignition switch OFF	0
22	L/R	Seatback thermal electric	Blower motor operated	0.5 - 4
23	L/R	device sensor signal	Ignition switch OFF	0
24	L	Seatback thermal electric device sensor ground	Ignition switch ON	0

### Work Flow

- 1. Check the symptom and customer's requests.
- 2. Understand the outline of system. Refer to SE-113, "System Description" .
- 3. Perform the preliminary check. Refer to SE-124, "Preliminary Check" .
- 4. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-125</u>, <u>"Trouble Diagnoses Symptom Chart"</u>.
- 5. Does climate controlled seat operate normally? YES: GO TO 6, NO: GO TO 4.
- 6. INSPECTION END.

## **Preliminary Check**

### **1. CHECK DUCT AND FILTER**

Check the following.

- Is that there no foreign body in the blower motor filter.
- Is that there no foreign body in the duct.

#### OK or NG

- OK >> Preliminary check is OK.
- NG >> The foreign body is removed.

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## **Trouble Diagnoses Symptom Chart**

#### NOTE:

Make sure other systems using the signal of the following systems operate normally.

Symptom	Diagnoses / service procedure	Refer to page	-
Climate controlled seat do not operate (Neither the driver's side nor passenger's side operate).	1. Climate controlled seat control unit power supply cir- cuit check.	<u>SE-126</u>	_
	1. Climate controlled seat control unit power supply and ground circuit inspection.	<u>SE-127</u>	_
All the driver side or passenger side climate controlled seat do not operate.	2. Climate controlled seat switch power supply circuit inspection	<u>SE-130</u>	
	3. Climate controlled seat blower motor circuit inspection.	<u>SE-140</u>	-
	4. Replace climate controlled seat control unit.	<u>SE-113</u>	-
	1. Climate controlled seat switch power supply circuit inspection	<u>SE-130</u>	
Climate controlled seat blower motor speed cannot adjust.	2. Climate controlled seat switch circuit inspection	<u>SE-131</u>	-
	3. Climate controlled seat control unit inspection.	<u>SE-142</u>	-
	4. Replace climate controlled seat blower motor.	<u>SE-113</u>	-
The climate controlled seat dose not operates when the switch is done in HEAT or COOL.	Climate controlled seat switch circuit inspection.	<u>SE-131</u>	_
	1. Seat cushion thermal electric device sensor circuit inspection.	<u>SE-137</u>	-
When the climate controlled seat switch is turned on,	2. Seat cushion thermal electric device circuit inspection	<u>SE-135</u>	-
operation stops at nose (When the climate controlled seat switch is in HEAT or COOL mode after ignition switch is	3. Seatback thermal electric device sensor circuit inspec- tion.	<u>SE-139</u>	-
turned ON again, the motor operates).	4. Seatback thermal electric device circuit inspection	<u>SE-136</u>	
	5. Climate controlled seat blower motor circuit inspection.	<u>SE-140</u>	
	6. Replace Climate controlled seat control unit	<u>SE-113</u>	-
The climate controlled seat switch indicator do not oper- ated with HEAT or COOL position	Climate controlled seat switch indicator circuit inspection	<u>SE-133</u>	-

NOTE:

- The climate controlled seat blower keep low speed for approximately 60 seconds turning the switch.
- The climate controlled seat system is downed when the temperature sensor set as the seat cushion and the seatback's thermal electric device machine detects 20 °C (68°F) or more of mutual differences of temperature.

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## Climate Controlled Seat Control Unit Power Supply Circuit Check

### 1. CHECK FUSE

Check 10A fuse [No. 12, located in fuse block (J/B)]

#### NOTE:

Refer to SE-113, "Component Parts and Harness Connector Location" .

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to <u>PG-</u> <u>3, "POWER SUPPLY ROUTING CIRCUIT"</u>.

### 2. CHECK CLIMATE CONTROLLED SEAT RELAY POWER SUPPLY CIRCUIT

- 1. Disconnect climate controlled seat relay connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between climate controlled seat relay harness connector and ground.

(+)	)		Voltage (V)
Climate controlled seat relay connector	Terminal	(-)	(Approx.)
E16	2	Ground	Battery voltage

#### OK or NG

NG

OK >> GO TO 3.

>> Repair or replace harness between fuse block (J/B) and climate controlled seat relay.

## 3. CHECK CLIMATE CONTROLLED SEAT RELAY

Check continuity climate controlled seat relay.

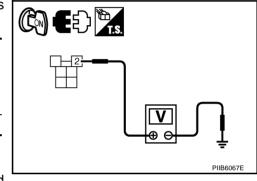
,			,		
Climate controlled seat relay connector	Terr	minal	Condition	Continuity	
	3	5	12V direct current supply between terminals 1and 2	Yes	
E16			No current supply	No	
E 10	6	7	12V direct current supply between terminals 1and 2	Yes	SEC202B
			No current supply	No	

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OK or NG

OK >> GO TO 4.

NG >> Replace climate controlled seat relay.



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## 4. CHECK CLIMATE CONTROLLED SEAT RELAY GROUND CIRCUIT

- Turn ignition switch OFF. 1.
- 2. Check continuity between climate controlled seat relay connector and around.

Т			
Climate controlled seat relay connector	Terminal	Ground	Continuity
E16	1		Yes

#### OK or NG

OK >> Check the condition of the harness and connector.

NG >> Repair or replace harness between climate controlled seat relay and ground.

#### Climate Controlled Seat Control Unit Power Supply and Ground Circuit Inspection NIS0027Q

## 1. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

- Disconnect climate controlled seat control unit connector. 1.
- Turn ignition switch ON. 2.
- 3. Check voltage between climate controlled seat control unit connector and ground.

		Н		
erminal				
		Voltage (V)		
Terminal	()	(Approx.)		SE
2				
4	Ground	Battery voltage		J
	erminal	Terminal (–) 2	Terminal (-) Voltage (V) (Approx.)	ierminal Voltage (V) (Approx.) 2 4 Ground Battery voltage

#### OK or NG

OK >> GO TO 6. NG >> GO TO 2.

### 2. CHECK FUSE

- Check 15A fuse [No. 42, located in fuse, fusible link and relay unit] (Driver side)
- Check 15A fuse [No. 41, located in fuse, fusible link and relay unit] (Passenger side)

#### NOTE:

Refer to SE-113, "Component Parts and Harness Connector Location" .

#### OK or NG

- OK >> GO TO 3.
- NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-3, "POWER SUPPLY ROUTING CIRCUIT" .

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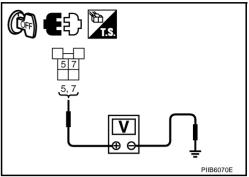
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## $\overline{\mathbf{3.}}$ check climate controlled seat relay power supply circuit

- Turn ignition switch OFF. 1.
- 2. Disconnect climate controlled seat relay.
- 3. Check voltage between climate controlled seat relay connector and ground.

(+)			Voltage (V)	
Climate controlled seat relay connector	Terminal	()	(Approx.)	
E16	5	Ground	Battery voltage	
L 10	7	Ground	Dattery voltage	

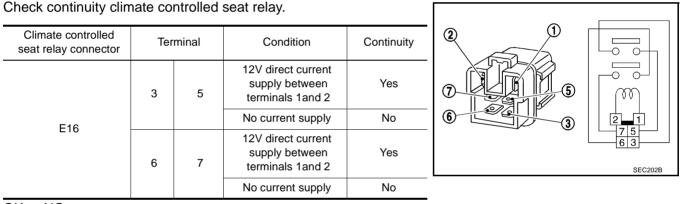


#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness between climate controlled seat relay and ground.

#### 4. CHECK CLIMATE CONTROLLED SEAT RELAY



Check continuity climate controlled seat relay.

OK or NG

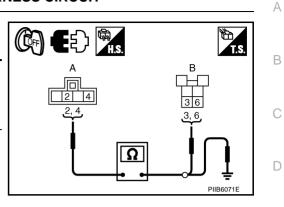
>> GO TO 5. OK

NG >> Replace climate controlled seat relay.

## 5. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT HARNESS CIRCUIT

1. Check continuity between climate controlled seat control unit connector and climate controlled seat relay connector.

А		В		
Climate controlled seat control unit connector	seat control unit Terminal		Terminal	Continuity
B284	2	E16	6	
(driver side)	4		0	Yes
B294	2		res	
(passenger side)	4		3	



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2. Check continuity between climate controlled seat control unit connector and ground.

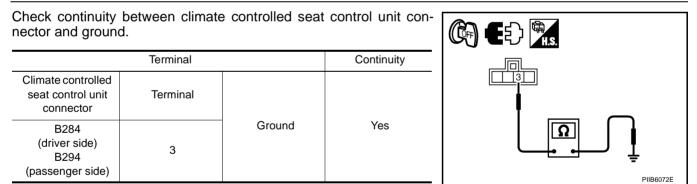
A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B284 (driver side)	2		No
B294 (passenger side)	4		NO

#### OK or NG

OK >> Check the condition of the harness and connector.

NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat relay.

### 6. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT GROUND CIRCUIT



#### OK or NG

OK >> Climate controlled seat control unit power supply and ground circuit is OK.

NG >> Repair or replace harness between climate controlled seat control unit and ground.

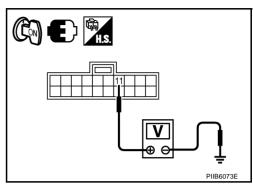
## Climate Controlled Seat Switch Power Supply Circuit Inspection

### 1. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY

#### 1. Turn ignition switch ON.

2. Check voltage between climate controlled seat control unit and ground.

(+	-)		Voltage (V)	
Climate controlled seat control unit connector	Terminal	()	(Approx.)	
B283 (driver side) B293 (passenger side)	11	Ground	Battery voltage	



#### OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat control unit.

## 2. CHECK CLIMATE CONTROLLED SEAT SWITCH POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit and climate controlled seat switch connector.
- 3. Check continuity between climate controlled seat control unit connector and climate controlled seat switch connector.
- Driver side

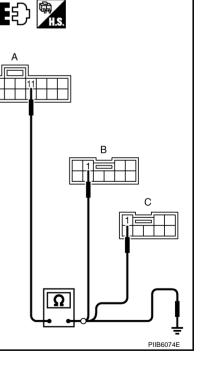
#### А в Climate controlled Climate controlled Continuity seat control unit Terminal seat switch Terminal connector connector B283 11 E20 1 Yes Passenger side

•	 90.	0.00	

A		С		
Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity
B293	11	E19	1	Yes

4. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	11	Ground	Continuity
B283 (driver side) B293 (passenger side)			No



#### OK or NG

- OK >> Climate controlled seat control unit power supply circuit is OK.
- NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat switch.

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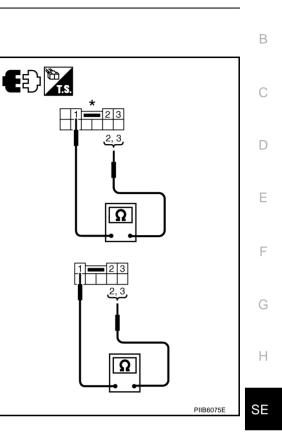
## Climate Controlled Seat Switch Circuit Inspection

- 1. CHECK CLIMATE CONTROLLED SEAT SWITCH
- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat switch connector.
- 3. Check continuity between climate controlled seat switch.

Climate controlled seat switch connector	Terr	ninal	Condition		Continuity
B20		3	Climate controlled seat switch	HEAT	Yes
(driver side)*	1	Other than abo		ove.	No
B19 (passenger side)	2	Climate controlled seat switch	COOL	Yes	
		Other than above.		No	

#### OK or NG

- OK >> GO TO 2.
- NG >> Replace climate controlled seat switch.



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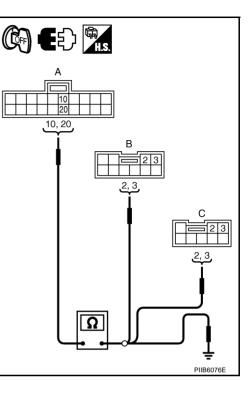
## 2. CHECK CLIMATE CONTROLLED SEAT SWITCH HARNESS CIRCUIT

- 1. Disconnect climate controlled seat control unit connector.
- 2. Check continuity between climate controlled seat control unit connector and climate controlled seat switch connector.
- Driver side

А	А		В		
Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity	
B283	10	E20	3	Yes	
5205	20	220	2	163	

#### Passenger side

А		С		
Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity
B293	10	E19	3	Yes
B293	20	L19	2	165



3. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	lerminal		Continuity
B283 (driver side)	10		No
B293 (passenger side)	20		INO

#### OK or NG

OK >> Replace climate controlled seat control unit.

NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat switch.

(Approx.)

0

Battery voltage

0

## **Climate Controlled Seat Switch Indicator Circuit Inspection**

Condition

Other than above.

Other than above.

HEAT

COOL

## 1. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT CUIRCUIT

1. Turn ignition switch ON.

Terminal

Terminal

8

9

(+)

Climate

controlled

seat control unit connector

B283 (driver side)

B293

(passenger

side)

2. Check voltage between climate controlled seat switch connector and ground.

Climate

Climate

controlled

seat switch

controlled

seat switch

#### В Voltage (V) 8, 9 D e e Е Battery voltage PIIB6077E

#### OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat control unit.

(-)

Ground

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Revision: 2006 January

## $\overline{2}$ . CHECK CLIMATE CONTROLLED SEAT SWITCH HARNESS CURCUIT

1. Turn ignition switch OFF.

А

Terminal

8

9

Climate

controlled seat

control unit

connector

B293

2. Disconnect climate controlled seat switch and climate controlled seat control unit connector.

С

Terminal

5

4

Climate controlled

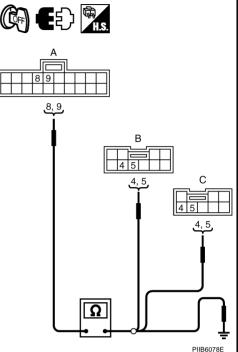
seat switch

connector

E19

- 3. Check continuity between climate controlled seat control unit connector and climate controlled seat switch.
- Driver side

_					
_	A		В		
-	Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity
-	B283	8	E20	5	Yes
	B203	9	L20	4	165
-	- Passenger s	side			



4. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B283 (driver side)	8	-	No
B293 (passenger side)	9		INU

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat switch.

Continuity

Yes

## $\overline{\mathbf{3.}}$ check climate comtrolled seat swich indicator

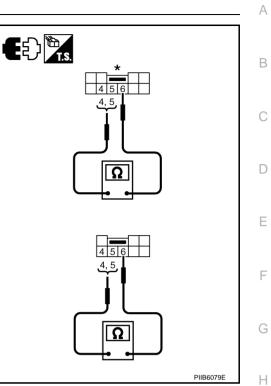
Check continuity between climate controlled seat switch.

Climate controlled seat switch connector	Terminal		Continuity
	(+)	()	
B20 (driver side)* B19 (passenger side)	4	6	No
	5	0	
	6	4	Yes
	0	5	Tes

#### OK or NG

OK >> Check the condition of the harness and the connector.

NG >> Replace climate controlled seat switch.

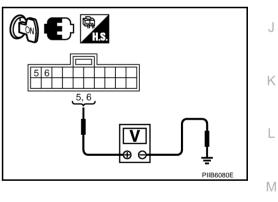


## Seat Cushion Thermal Electric Device Circuit Inspection

#### 1. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE POWER SUPPLY CIRCUIT

- 1. Turn ignition switch ON.
- 2. Check voltage between climate controlled seat control unit connector and ground.

Те	rminal					
(+)	(+)					
Climate controlled seat control unit connector	Terminal	()	Condition		Voltage (V) (Approx.)	
B283	5	5 Ground	Climate controlled seat switch	HEAT	0 - Battery voltage	
(driver side) B293			Other than a	above.	0	
(passenger side)	6		Climate controlled seat switch	COOL	0 - Battery voltage	
			Other than a	above.	0	



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#### OK or NG

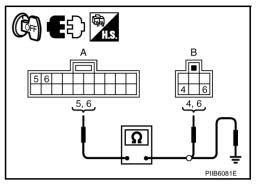
OK >> Seat cushion thermal electric device circuit is OK.

NG >> GO TO 2.

## $\overline{2}$ . CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- 3. Check continuity between climate controlled seat control unit connector and seat cushion thermal electric device connector.

A		В		
Climate controlled seat control unit connector	Terminal	Seat cushion thermal electric device connector	Terminal	Continuity
B283	5	B285	4	
(driver side) B293 (passenger side)	6	(driver side) B295 (passenger side)	6	Yes



4. Check continuity between climate controlled seat control unit connector and ground.

А			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B283 (driver side)	5	-	No
B293 (passenger side)	6		NO

#### OK or NG

OK >> Check the condition of the harness and the connector.

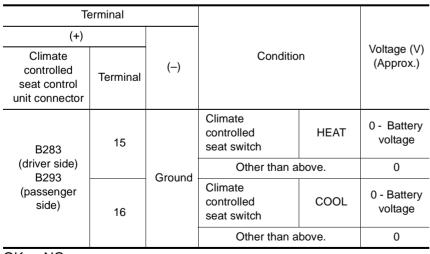
NG >> Repair or replace harness between climate controlled seat control unit and seat cushion thermal electric device.

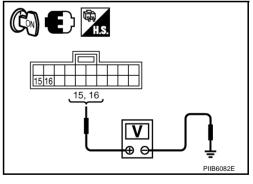
## **Seatback Thermal Electric Device Circuit Inspection**

#### NIS0027V

#### 1. CHECK SEATBACK THERMAL ELECTRIC DEVICE POWER SUPPLY CIRCUIT

- 1. Turn ignition switch ON.
- Check voltage between climate controlled seat control unit connector and ground.





#### <u>OK or NG</u>

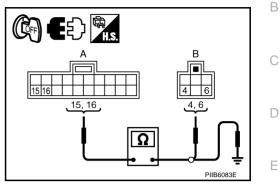
OK >> Seatback thermal electric device circuit is OK.

NG >> GO TO 2.

## 2. CHECK SEATBACK THERMAL ELECTRIC DEVICE HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and seatback thermal electric device connector.
- 3. Check continuity between climate controlled seat control unit connector and seatback thermal electric device connector.

А		В		
Climate controlled seat control unit connector	Terminal	Seatback thermal electric device connector	Terminal	Continuity
B283	15	B285	4	
(driver side) B293 (passenger side)	16	(driver side) B295 (passenger side)	6	Yes



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4. Check continuity between climate controlled seat control unit connector and ground.

А		Ground	
Climate controlled seat control unit connector	Terminal		Continuity
B283 (driver side)	15		No
B293 (passenger side)	16		NO

#### OK or NG

NG

OK >> Check the condition of the harness and the connector.

>> Repair or replace harness between climate controlled seat control unit and seatback thermal electric device.

# Seat Cushion Thermal Electric Device Sensor Circuit Inspection

### 1. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT CIRCUIT

- 1. Turn ignition switch ON.
- 2. Check voltage between climate controlled seat control unit connector and ground.

	5				
-	Terminal				
(+)					
Climate controlled seat control unit connector	Terminal	()	Condition	Voltage (V) (Approx.)	
B283 (driver side) B293 (passenger side)	22	Ground	Blower motor operated	0.5 - 4	

## OK or NG

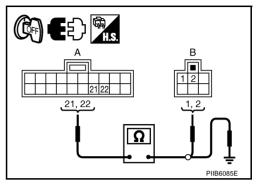
OK >> Climate controlled seat control unit circuit is OK.

NG >> GO TO 2.

## $\overline{2.}$ CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE SENSOR HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- 3. Check continuity between climate controlled seat control unit connector and seat cushion thermal electric device connector.

А		В		
Climate controlled seat control unit connector	Terminal	Seat cushion thermal electric device connector	Terminal	Continuity
B283	21	B285	2	
(driver side) B293 (passenger side)	22	(driver side) B295 (passenger side)	1	Yes



4. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B283 (driver side)	21	-	No
B293 (passenger side)	22		INU

#### OK or NG

NG

OK >> GO TO 3.

>> Repair or replace harness between climate controlled seat control unit and seat cushion thermal electric device.

## 3. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE SENSOR

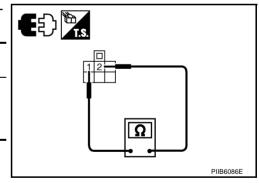
Check resistance between seat cushion thermal electric device connector.

Seat cushion thermal electric device connector	Terminal		Resistance (KΩ) (Approx.)
B220 (driver side) B258 (passenger side)	1	2	2

#### OK or NG

OK >> Check the condition of the harness and the connector.

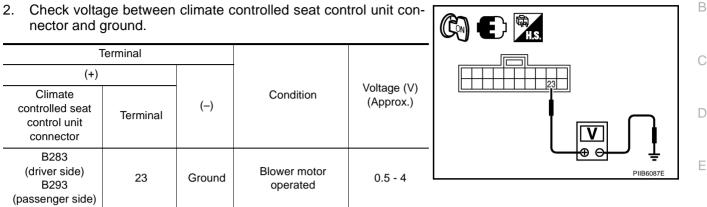
NG >> Replace seat cushion thermal electric device.



## Seatback Thermal Electric Device Sensor Circuit Inspection

### 1. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT CIRCUIT

1. Turn ignition switch ON.



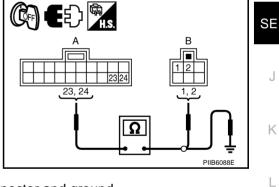
#### OK or NG

OK >> Climate controlled seat control unit circuit is OK. NG >> GO TO 2.

## 2. CHECK SEATBACK THERMAL ELECTRIC DEVICE SENSOR HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and seatback thermal electric device connector.
- 3. Check continuity between climate controlled seat control unit connector and seatback thermal electric device connector.

_					
	А		В		
	Climate controlled seat control unit connector	Terminal	Seatback thermal electric device connector	Terminal	Continuity
	B283	23	B220	1	
	(driver side) B293 (passenger side)	24	(driver side) B258 (passenger side)	2	Yes



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4. Check continuity between climate controlled seat control unit connector and ground.

А			
Climate controlled seat control unit connector	Terminal	Terminal 23 24	Continuity
B283 (driver side)	23		No
B293 (passenger side)	24		No

## OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between climate seat control unit and seatback thermal electric device.

ED

## $\overline{\mathbf{3.}}$ check seatback thermal electric device sensor

Check resistance between seatback thermal electric device connector.

Seatback thermal electric device connector	Terminal		Resistance (KΩ) (Approx.)
B220 (driver side) B258 (passenger side)	1	2	2

#### OK or NG

OK >> Check the condition of the harness and the connector.

NG >> Replace seatback thermal electric device.

### Climate Controlled Seat Blower Motor Circuit Inspection

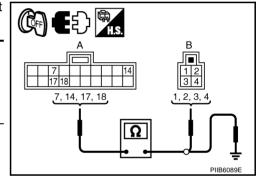
NIS0027Y

PIIB6086E

### 1. CHECK CLIMATE CONTROLLED SEAT BLOWER MOTOR CIRCUIT HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit and climate controlled seat blower motor connector.
- 3. Check continuity between climate controlled seat control unit connector and climate controlled seat blower motor connector.

А		В		
Climate controlled seat control unit connector	Terminal	Climate controlled seat blower motor connector	Terminal	Continuity
B283	7	B282	3	
(driver side)	14	(driver side)	2	Yes
B293 (passenger side)	17	B292 (passenger side)	4	163
(passeriger side)	18	(passeriger side)	1	



Ω

4. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal		Continuity
B283	7	Ground	
(driver side) B293 (passenger side)	14		No
	17		
	18		

OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat blower motor.

Voltage (V)

(Approx.)

5.5 -

Battery voltage

0

## $\overline{2}$ . CHECK CLIMATE CONTROLLED SEAT BLOWER MOTOR POWER SUPPLY CIRCUIT

1. Connect climate controlled seat control unit connector and blower motor connector.

Condition

2. Turn ignition switch ON.

Terminal

Terminal

14

(+)

Climate

controlled

seat control unit connector B283

(driver side)

B293

(passenger

side)

3. Check voltage between climate controlled seat control unit connector and ground.

Climate

controlled

seat switch

Other than above.

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#### OK or NG

OK >> GO TO 3.

NG >> Replace climate controlled seat control unit.

(-)

Ground

## 3. CHECK CLIMATE CONTROLLED SEAT BLOWER MOTOR SPEED CONTROL SIGNAL CIRCUIT

HEAT or

COOL

Check voltage between climate controlled seat control unit connector and ground.

-							
Terminal (+)			-				SE
Climate controlled seat control unit connector	Terminal	()	Condition		Voltage (V) (Approx.)		
B283 (driver side) B293	17	Ground	Climate controlled seat switch	HEAT or COOL	4.5 - 8.0		K
(passenger side)			Other than above.		0		L

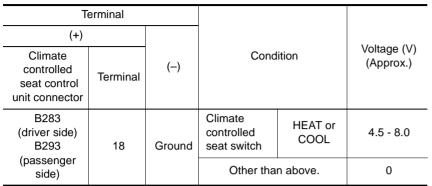
OK or NG

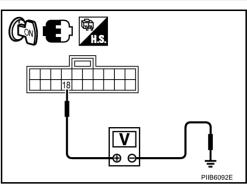
OK >> GO TO 4.

NG >> Replace climate controlled seat control unit.

## 4. CHECK CLIMATE CONTROLLED SEAT BLOWER MOTOR TACHOMETER SIGNAL CIRCUIT

Check voltage between climate controlled seat control unit connector and ground.





#### OK or NG

OK >> Climate controlled seat blower motor circuit is OK.

NG >> Replace climate controlled seat blower motor.

### Climate Controlled Seat Control Unit Inspection 1. CHECK THE CLIMATE CONTROLLED SEAT CONTROL UNIT

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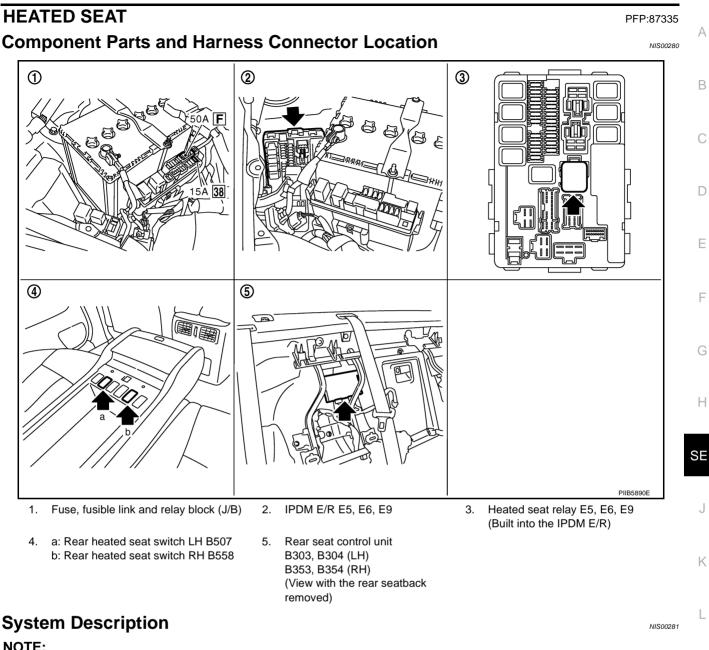
Does the heater operate normally when the driver side or passenger side climate controlled seat control unit is exchanged?

#### YES or NO

YES >> Climate controlled seat control unit is OK.

NO >> Replace climate controlled seat control unit.

## **HEATED SEAT**



- NOTE:
- When handling seat, be extremely careful not to scratch heating unit
- To replace heating unit, seat trim and pad should be separated.
- Do not use any organic solvent, such as thinner, benzene, alcohol, etc. to clean trims.

Power is all time supplied

- to rear LH seat control unit and rear RH seat control unit terminal 1.
- through 50A fusible link [Letter F, located in the fuse block (J/B)],
- to IPDM E/R (heated seat relay) terminal 14.
- through 15A fuse [No.38, located in the fuse block (J/B)].

With the ignition switch to ON or START position, power is supplied

- to rear LH seat control unit terminal 4 and
- to rear heated seat switch LH terminal 6.
- through IPDM E/R (heated seat relay) terminal 12
- to rear RH seat control unit terminal 4 and
- to rear heated seat switch RH terminal 6
- through IPDM E/R (heated seat relay) terminal 9.

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## **HEATED SEAT**

When rear heated seat switch (LH, RH) is LOW position, ground is suppled

- to rear seat control unit terminal 18,
- through rear heated seat switch terminal 2,
- through rear heated seat switch terminal 3,
- through body grounds B5, B40 and B131

Then rear seat control unit recognizes that rear heated seat switch is LOW position. When rear heated seat switch is LOW position, power is supplied

- through rear seat control unit terminal 6,
- through rear seat cushion heater terminal 2,
- through rear seat cushion heater terminal 3,
- to rear seatback heater terminal 1.

Then ground is suppled

- to rear seatback heater terminal 2.
- through body grounds B5, B40 and B131.

With power and ground supplied, rear heated seat is operated.

When rear heated seat switch is in LOW position, ground is supplied

- to rear heated seat switch terminal 5,
- through rear seat control unit terminal 14,
- through rear seat control unit terminal 13,
- through body grounds B5, B40 and B131.

With power and ground supplied, rear heated seat switch LOW position indicator is illuminated When rear heated seat switch (LH, RH) is in HIGH position, ground is suppled

- to rear seat control unit terminal 17,
- through rear heated seat switch terminal 1,
- through rear heated seat switch terminal 3,
- through body grounds B5, B40 and B131

Then rear seat control unit recognizes that rear heated seat switch is in HIGH position. When rear heated seat switch is in HIGH position, power is supplied

- through rear seat control unit terminal 5,
- through rear seat cushion heater terminal 1,
- through rear seat cushion heater terminal 3,
- to rear seatback heater terminal 1.

Then ground is suppled

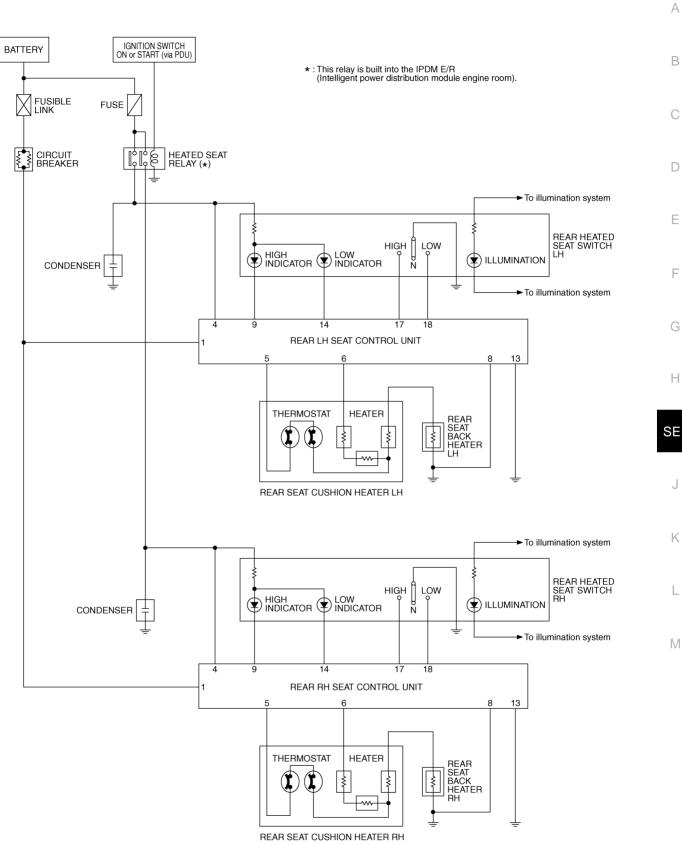
- to rear seatback heater terminal 2.
- through body grounds B5, B40 and B131.
- to rear seat cushion heater terminal 2,
- through rear seat control unit terminal 6,
- through rear seat control unit terminal 8,
- through body grounds B5, B40 and B131.

With power and ground supplied, rear heated seat generates heat more than the time of LOW position. When rear heated seat switch is in HIGH position, ground is supplied

- to rear heated seat switch terminal 4,
- through rear seat control unit terminal 9,
- through rear seat control unit terminal 13,
- through body grounds B5, B40 and B131.

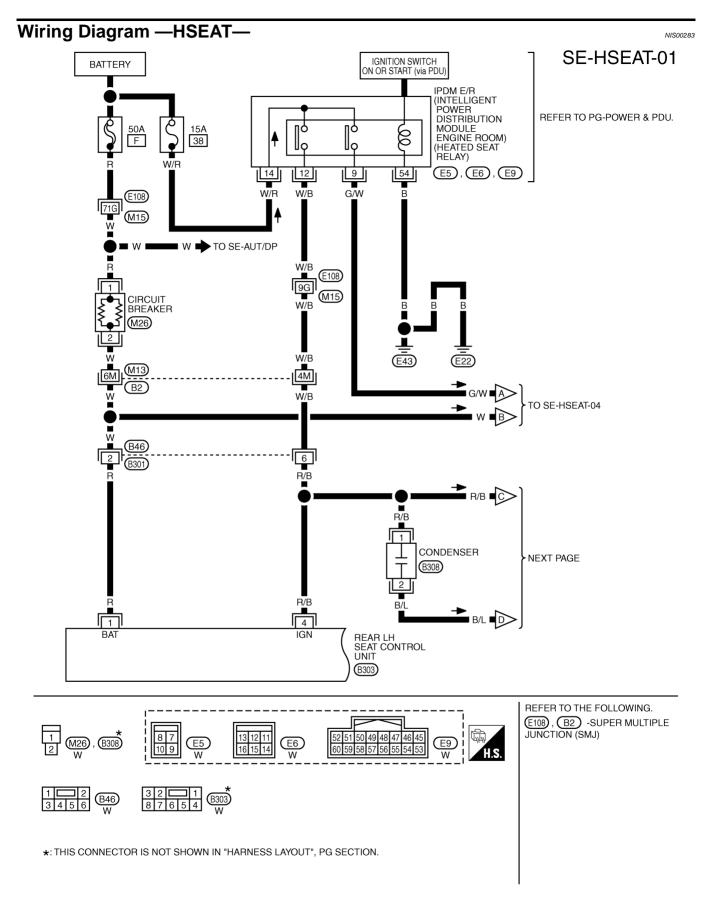
With power and ground supplied rear heated seat switch HIGH position indicator is illuminated.

## Schematic



TIWT1397E

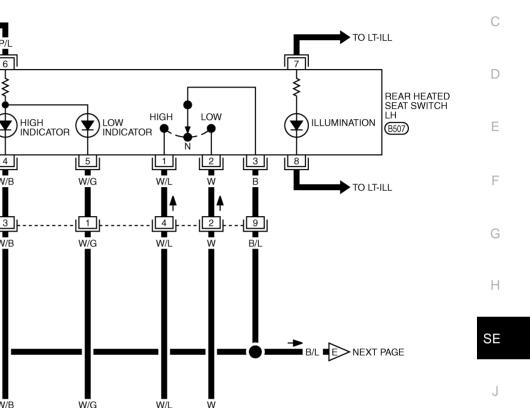
NIS00282

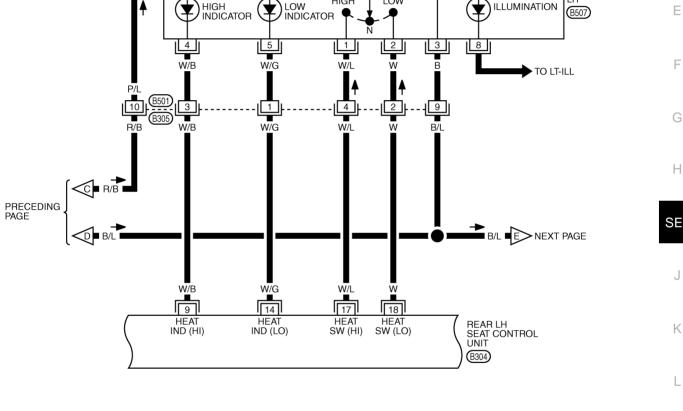


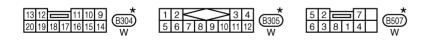
TIWT1398E

А

В



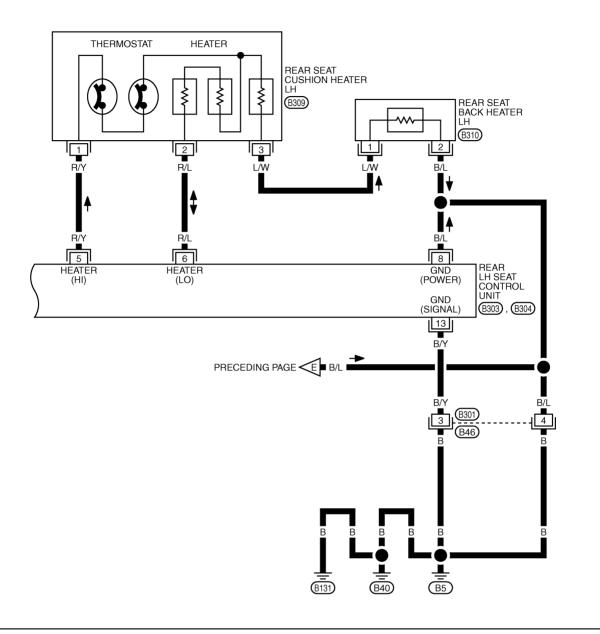


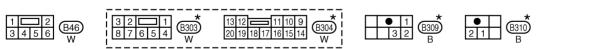


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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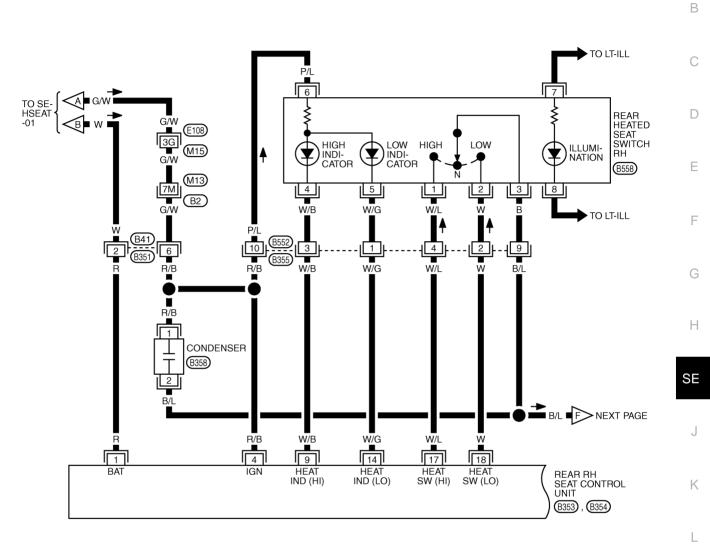




\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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REFER TO THE FOLLOWING. (E108), (B2) -SUPER MULTIPLE JUNCTION (SMJ)

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13 12

**=** 11 10 9

20 19 18 17 16 15 14

(B354

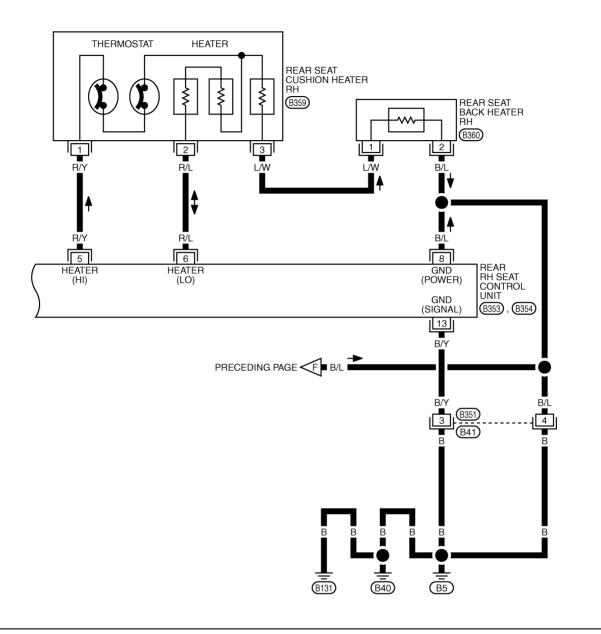
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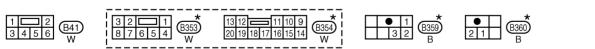
3 2 **1** 8 7 6 5 4

\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1401E

1 2 3 4 5 6 B41 W





\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1402E

Terminal	Wire color	Item	em Condition	Voltage (V) (Approx.)
1	R	Power source (BAT)	_	Battery voltage
4	R/B	Power source (IGN)	—	Battery voltage
5 R/Y	DW	Cast haster III sizzal	Seat heater HI operation	Battery voltage
	R/Y Seat heater HI signal	Other than above	0	
6	R/L Seat heater LO signal		Seat heater LO operation	Battery voltage
6	K/L	R/L Seat heater LO signal	Other than above	0
8	B/L	Ground (power)	_	0
0	W/B		Heater HI operation (lit)	0
9	VV/B	Heated seat indicator HI signal	Other than above	Battery voltage
13	B/Y	Ground (signal)	_	0
14			Heater LO operation (lit)	0
14	W/G	Heated seat indicator LO signal	Other than above	Battery voltage
47	14/4		Heated seat switch (HI) – ON (pressed)	0
17	W/L	Heated seat switch HI signal	Heated seat switch (HI) – OFF	Battery voltage
10	14/	Heated east quitable Q signal	Heated seat switch (LO) – ON (pressed)	0
18	vv	W Heated seat switch LO signal	Heated seat switch (LO) – OFF	Battery voltage

## **Work Flow**

- Check the symptom and customer's requests. 1.
- 2. Understand the outline of system. Refer to SE-143, "System Description" .
- According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to SE-151, 3. "Trouble Diagnoses Symptom Chart" .
- Does heated seat operate normally? YES: GO TO 5, NO: GO TO 3. 4.
- 5. INSPECTION END.

## **Trouble Diagnoses Symptom Chart**

Check that other systems using the signal of the following systems operate normally.

Symptom	Diagnoses / service procedure	Refer to page
Rear heated seat LH and RH does not operate.	Rear heated seat power supply and ground circuit inspection	<u>SE-152</u>
	1. Rear seat control unit power supply and ground circuit inspection	<u>SE-153</u>
Rear heated seat LH or RH do not operate.	2. Rear heated seat switch circuit inspection	<u>SE-155</u>
	3.Rear seatback heater circuit inspection	<u>SE-161</u>
	4.Replace rear LH or RH seat control unit	<u>SE-143</u>
Beer bested seet do not aparate with LO or HI position	1. Rear heated seat switch circuit inspection	<u>SE-155</u>
Rear heated seat do not operate with LO or HI position.	2. Rear heated seat circuit inspection	<u>SE-160</u>
Rear heated seat LH or RH indicator do not operate.	Rear heated seat indicator power supply cir- cuit inspection	<u>SE-157</u>
Rear heated seat indicator do not operate with LO or HI posi- tion	Rear heated seat indicator circuit inspection	<u>SE-158</u>

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# **Rear Heated Seat Power Supply and Ground Circuit Inspection**

## 1. CHECK FUSIBLE LINK AND FUSE

- Check 50A fusible link (letter F located in the fuse and fusible link box).
- Check 15A fuse (No.38, located in fuse block).
- Check circuit breaker.

#### NOTE:

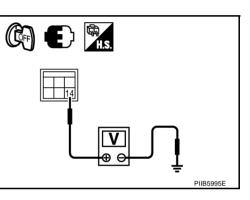
Refer to <u>SE-143, "Component Parts and Harness Connector Location"</u>. OK or NG

- OK >> GO TO 2.
- NG >> If fuse or circuit breaker is blown, be sure to eliminate cause of malfunction before installing new fuse or new circuit breaker, refer to <u>PG-3</u>, <u>"POWER SUPPLY ROUTING CIRCUIT"</u>.

# 2. CHECK HEATED SEAT RELAY POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Check voltage between IPDM E/R (heated seat relay) connector and ground.

(+)			Voltage (V)	
IPDM E/R (heated seat relay) connector	Terminal	()	(Approx.)	
E6 14		Ground	Battery voltage	



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#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between fuse block (J/B) and IPDM E/R (heated seat relay).

# 3. CHECK HEATED SEAT RELAY GROUND CIRCUIT

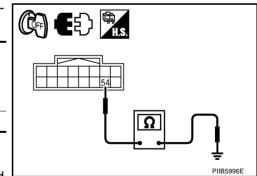
- 1. Disconnect IPDM E/R (heated seat relay) connector.
- Check continuity between IPDM E/R (heated seat relay) connector and ground.

Т			
IPDM E/R (heated seat relay) connector	Terminal	Ground	Continuity
E9	54		Yes

#### OK or NG

OK >> Check the condition of the harness and connector.

NG >> Repair or replace harness between IPDM E/R (heated seat relay) and ground.

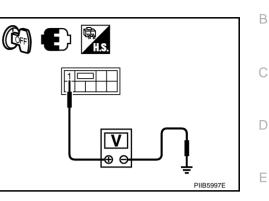


# Rear Seat Control Unit Power Supply and Ground Circuit Inspection

1. CHECK REAR SEAT CONTROL UNIT POWER SUPPLY CIRCUIT (BAT)

2. Check voltage between rear seat control unit connector and ground.

(•	+)		Voltage (V)	
Rear seat control unit connector	Terminal	()	(Approx.)	
B303 (LH) B353 (RH)	1	Ground	Battery voltage	



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#### OK or NG

NG

1.

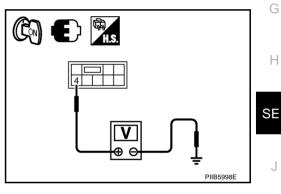
OK >> GO TO 2.

>> Repair or replace harness between circuit breaker and rear seat control unit.

# 2. CHECK REAR SEAT CONTROL UNIT POWER SUPPLY CIRCUIT (IGN)

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

(•	+)		Voltage (V)
Rear seat control unit connector	Terminal	()	(Approx.)
B303 (LH) B353 (RH)	4	Ground	Battery voltage



OK or NG

OK >> GO TO 4. NG >> GO TO 3.

Κ

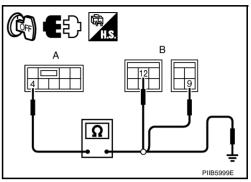
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# $\overline{\mathbf{3.}}$ check rear seat control unit harness

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R (heated seat relay) and rear seat control unit connector.
- 3. Check continuity between IPDM E/R (heated seat relay) connector and rear seat control unit connector.

А		В		
Rear seat control unit connector	Terminal	IPDM E/R (heated seat relay) connector	Terminal	Continuity
B303 (LH)	4	E6	12	Yes
B353 (RH)	4	E5	9	163



4. Check continuity between rear seat control unit connector and ground.

А		Continuity		
Rear seat control unit connector	Terminal	Ground	Continuity	
B303 (LH) B353 (RH)	4		No	

#### OK or NG

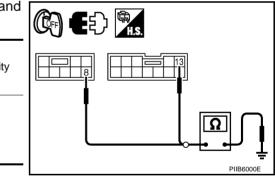
OK >> GO TO 4.

NG >> Repair or replace harness between rear seat control unit and IPDM E/R (heated seat relay).

## 4. CHECK REAR SEAT CONTROL UNIT GROUND CIRCUIT

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

Те			
Rear seat control unit connector	Terminal		Continuity
B303 (LH) B353 (RH)	8	Ground	Yes
B304 (LH) B354 (RH)	13	1	163



#### OK or NG

OK >> Rear seat control unit power supply and ground circuit is OK.

NG >> Repair or replace harness between rear seat control unit and ground.

Voltage (V)

(Approx.)

0

5

0

5

# Rear Heated Seat Switch Circuit Inspection

- 1. CHECK REAR HEATED SEAT SWITCH POWER SUPPLY-1
- 1. Turn ignition switch ON.

Terminal

Terminal

17

18

(+)

Rear seat

control unit

connector

B304 (LH)

B354 (RH)

2. Check voltage between rear seat control unit connector and ground.

Condition

Other than above.

Other than above.

HIGH

LOW

Rear heated

seat switch

Rear heated

seat switch

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#### OK or NG

OK >> Rear heated seat switch circuit is OK.

(-)

Ground

NG >> GO TO 2.

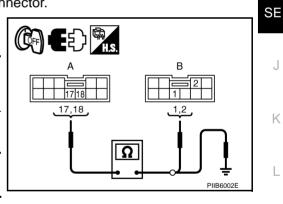
# 2. CHECK REAR HEATED SEAT SWITCH HARNESS

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

A		В		
Rear seat control unit connector	Terminal	Rear heated seat switch connector	Terminal	Continuity
B304 (LH)	17	B507 (LH)	1	Yes
B354 (RH)	18	B558 (RH)	2	162

4. Check continuity between rear seat control unit connector and ground.

A		Continuity	
Rear seat control unit connector	Terminal	Ground	Continuity
B304 (LH)	17	Ground	No
B354 (RH)	18		NO

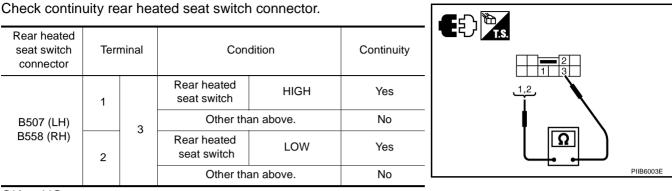


#### OK or NG

OK >> GO TO 3.

NG >> Replace or replace harness between rear seat control unit and rear heated seat switch.

# $\overline{\mathbf{3}}$ . CHECK REAR HEATED SEAT SWITCH



#### OK or NG

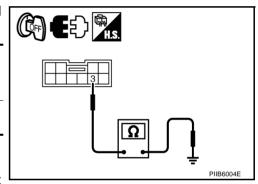
OK >> GO TO 4.

NG >> Replace rear heated seat switch.

## 4. CHECK REAR HEATED SEAT SWITCH GROUND CIRCUIT

Check continuity between rear heated seat switch connector and ground.

Ţ			
Rear heated seat switch connector	Terminal	Ground	Continuity
B507 (LH) B558 (RH)	3		Yes



#### OK or NG

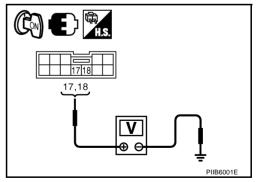
OK >> GO TO 5. NG >> Replace of

>> Replace or replace harness between rear heated seat switch and ground.

# 5. CHECK REAR HEATED SEAT SWITCH POWER SUPPLY-2

- 1. Connect rear seat control unit.
- 2. Turn ignition switch ON.
- Check voltage between rear seat control unit connector and ground.

(-	+)		Voltage (V) (Approx.)	
Rear seat control unit connector	Terminal	()		
B304 (LH)	17	Ground	5	
B354 (RH)	18	Ground	5	



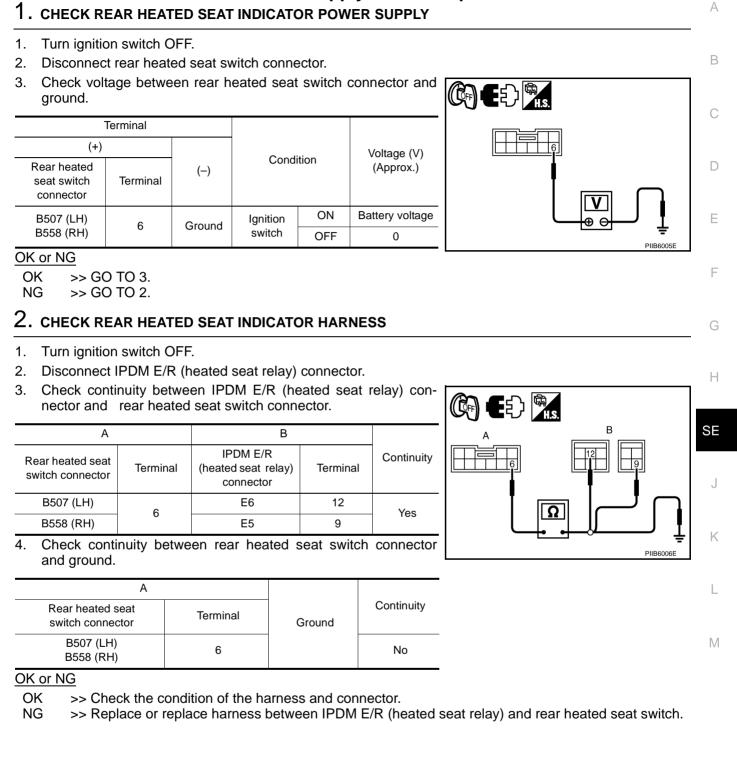
#### OK or NG

OK >> Check the condition of the harness and connector.

NG >> Replace rear seat control unit.

		ator Power		Inspection
1				





# $\overline{\mathbf{3}}$ . CHECK REAR HEATED SEAT SWITCH

Check continuity rear heated seat switch connector.

Rear heated seat	Termi	Continuity	
switch connector	(+)	(-)	Continuity
	4	6	Yes
B507 (LH) B558 (RH)	5	0	163
	6	4	No
	0	5	NO

#### OK or NG

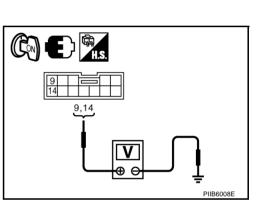
OK >> Check the condition of the harness and connector.

NG >> Replace rear heated seat switch.

# Rear Heated Seat Indicator Circuit Inspection 1. CHECK REAR SEAT CONTROL UNIT POWER SUPPLY

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

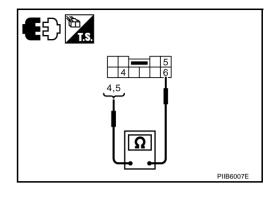
Te	erminal					
(+)					Voltage (V)	
Rear seat control unit connector	Terminal	()	Condition		(Approx.)	
	9	Rear heate seat swite		HIGH	0	
B304 (LH)		Cround	Ground	Other than	above.	Battery voltage
B354 (RH)	14	Ground	Rear heated seat switch	LOW	0	
			Other than	above.	Battery voltage	



OK or NG

OK >> Replace rear heated seat switch.

NG >> GO TO 2.



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# $\overline{2}$ . CHECK REAR HEATED SEAT INDICATOR HARNESS

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

	A		В		
	Rear heated seat switch connector	Terminal	Rear seat control unit connector	Terminal	Continuity
_	B507 (LH)	4	B304 (LH)	9	Yes
	B558 (RH)	5	B354 (RH)	14	163

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

A			
Rear heated seat switch connector	Terminal	Ground	Continuity
B507 (LH)	4		No
B558 (RH)	5		NO

#### OK or NG

OK >> GO TO 3.

NG >> Replace or replace harness between rear heated seat switch and rear seat control unit.

# 3. CHECK REAR HEATED SEAT SWITCH

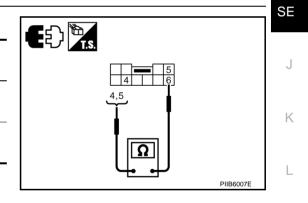
Check continuity rear heated seat switch connector.

Rear heated seat	Teri	minal	Continuity	
switch connector	(+)	(-)	Continuity	
	4	6	Yes	
B507 (LH)	5	0	165	
B558 (RH)	6	4	No	
	0	5	Ĩ	

#### OK or NG

OK >> Replace rear seat control unit.

NG >> Replace rear heated seat switch.



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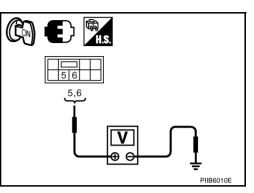
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# **Rear Heated Seat Circuit Inspection**

# 1. CHECK REAR SEAT CONTROL UNIT

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

Т	erminal					
(+)		Voltage		<b>•</b> • • • •		
Rear seat control unit connector	Terminal	()	Condition		(Approx.)	
	5		Rear heated seat switch	HIGH	Battery voltage	
B303 (LH)		Ground	Other than	above.	0	
B353 (RH)	6	Ground	Rear heated seat switch	LOW	Battery voltage	
			Other than	above.	0	



#### OK or NG

OK >> GO TO 2.

NG >> Replace rear seat control unit.

# 2. CHECK REAR SEAT HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seat control unit and rear seat cushion heater connector.
- 3. Check continuity between rear seat control unit connector and rear seat cushion heater connector.

А		В	В	
Rear seat control unit connector	Terminal	Rear seat cushion heater connector	Terminal	Continuity
B303 (LH)	5	B309 (LH)	1	Yes
B353 (RH)	6	B359 (RH)	2	165

4. Check continuity between rear seat control unit connector and ground.

А			
Rear seat control unit connector	lerminal		Continuity
B303 (LH)	5		No
B353 (RH)	6		No



OK >> GO TO 3.

NG >> Replace or replace harness between rear seat control unit and rear seat cushion heater.

nnector.	
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	1 • 2
5,6	1,2
<u>Ω</u>	
	<u>I</u>

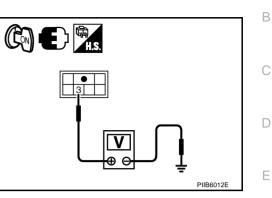
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# 3. CHECK REAR SEAT HEATER CIRCUIT

- 1. Connect rear seat control unit and rear seat cushion heater connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between rear seat cushion heater connector and ground.

Terminal						
(+)			<b>o</b> 111		Voltage (V)	
Rear seat cushion heater connector	Terminal	()	Condition		(Approx.)	
			Rear heated	HIGH	Battery voltage	
B309 (LH) B359 (RH)	3	Ground	seat switch	LOW	6	
			Other than	above.	0	



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#### OK or NG

OK >> Check the condition of the harness and connector.

NG >> Replace rear seat cushion heater.

# **Rear Seatback Heater Circuit Inspection**

## 1. CHECK REAR SEAT HEATER CIRCUIT

- Turn ignition switch ON. 1.
- 2. Check voltage between rear seat cushion heater connector and ground.

Terminal						
(+)					Voltage (V)	
Rear seat cushion heater connector	Terminal	()	Condition		(Approx.)	
B309 (LH) B359 (RH)	3 Groun		Rear heated	HIGH	Battery voltage	
		Ground	seat switch	LOW	6	
			Other than above.		0	

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OK or NG

OK >> GO TO 2.

NG >> Replace rear seat cushion heater.

# 2. CHECK REAR SEAT HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seat cushion heater and rear seatback heater connector.
- Check continuity between rear seat cushion heater connector and rear seatback heater connector.

А		В		
Rear seat cushion heater connector	Terminal	Rear seatback heater connector	Terminal	Continuity
B309 (LH) B359 (RH)	3	B310 (LH) B360 (RH)	1	Yes

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

A				
Rear seat cushion heater connector	Terminal	Ground	Continuity	
B309 (LH) B359 (RH)	3		No	

#### OK or NG

OK >> GO TO 3.

NG >> Replace or replace harness rear seat cushion heater and rear seatback heater.

# 3. CHECK REAR SEAT HEATER GROUND CIRCUIT

Check continuity between rear seatback heater connector and ground.

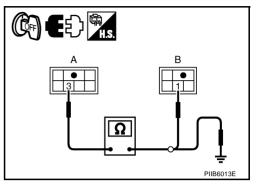
Ţ			
Rear seatback heater connector	Terminal	Ground	Continuity
B310 (LH) B360 (RH)	2	- Ground -	Yes

# 

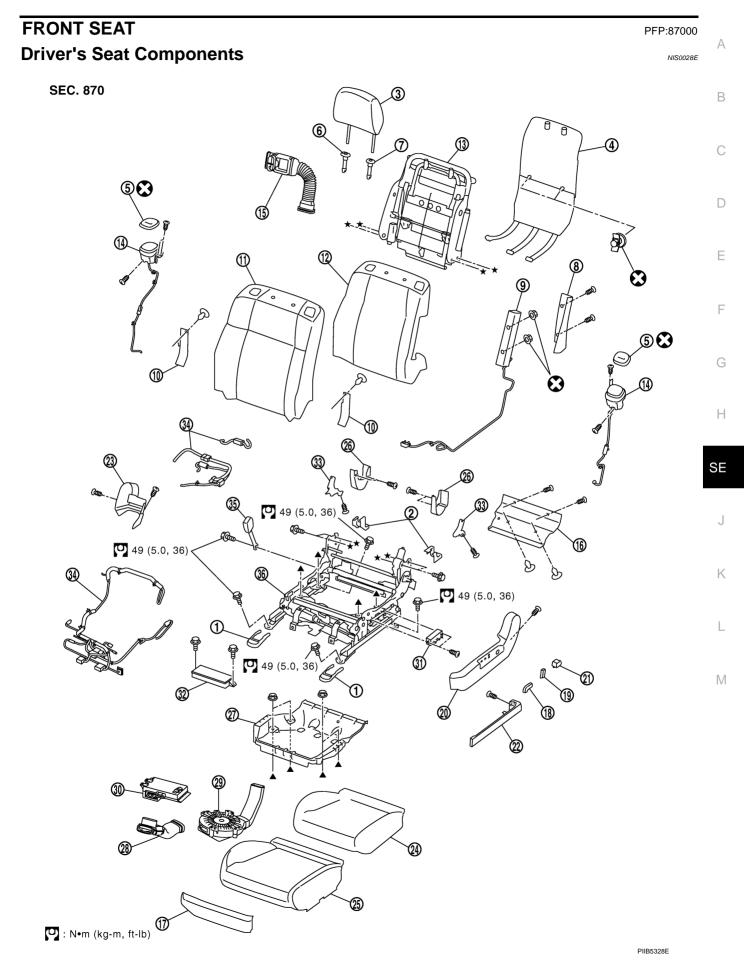
#### OK or NG

OK >> Replace rear seatback heater. NG >> Replace or replace harness r

>> Replace or replace harness rear seatback heater and ground.



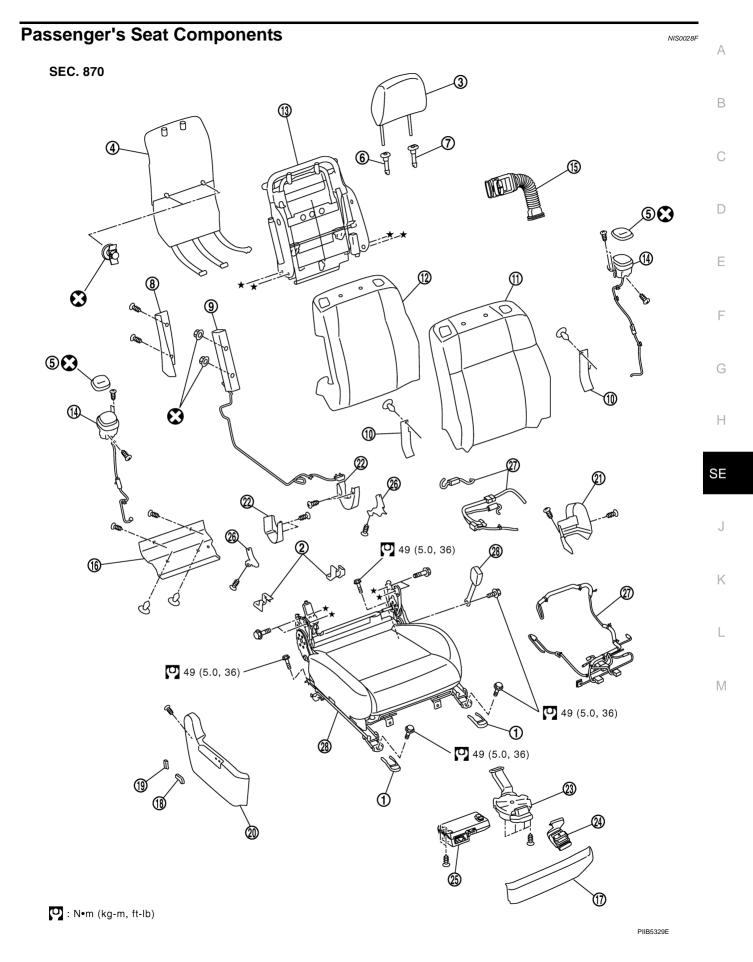
**FRONT SEAT** 



- 1. Front leg cover
- 4. Seatback board
- 7. Headrest holder (locked)
- 10. Reclining device cover
- 13. Seatback frame
- 16. Seat cushion rear finisher (Climate controlled seat model)
- 19. Seat reclining switch knob
- 22. Seat cushion lower finisher
- 25. Seat cushion trim
- 28. Seat cushion thermal electrical device (TED) assembly
- 31. Seat control switch
- 34. Seat harness

- 2. Rear leg cover
- Seat speaker grill
   Seatback upper finisher
- Seatback trim
   Seat speaker
- 17. Seat cushion front finisher
- 20. Seat cushion outer finisher
- 23. Seat cushion inner finisher
- 26. Seat cushion finisher B
- 29. Blower motor assembly
- 32. Driver seat control unit
- 35. Seat belt buckle

- 3. Headrest
- 6. Headrest holder (free)
- 9. Side air bag module
- 12. Seatback pad
- 15. Seatback thermal electrical device (TED) assembly
- 18. Seat slide switch knob
- 21. Lumber support switch assembly
- 24. Seat cushion pad
- 27. Seat cushion frame
- 30. Climate controlled seat control unit
- 33. Seat cushion finisher C
- 36. Seat adjuster assembly



- Front leg cover 1.
- 4. Seatback board
- Headrest holder (locked) 7.
- 10. Reclining device cover
- Seatback frame 13.
- 16. Seat cushion rear finisher (Climate controlled seat model)
- 19. Seat reclining switch
- 22. Seat cushion finisher B
- 25. Climate controlled seat control unit
- 28. Seat belt buckle

- 2. Rear leg cover
- 5. Seat speaker grill 8.
- Seatback upper finisher
- Seatback trim 11.
- Seat speaker 14.
- 17. Seat cushion front finisher
- 20. Seat cushion outer finisher
- 23. Blower motor assembly
- 26. Seat cushion finisher C
- 29. Seat cushion assembly

- Headrest 3.
- 6. Headrest holder (free)
- 9. Side air bag module
- 12. Seatback pad
- 15. Seatback thermal electrical device (TED) assembly
- 18. Seat cushion slide switch
- 21. Seat inner finisher
- 24. Seat cushion thermal electrical device (TED) assembly
- 27. Seat harness assembly

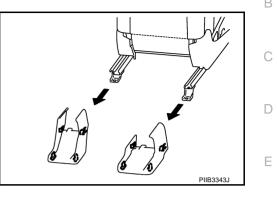
# Removal and Installation

## CAUTION:

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

## REMOVAL

- 1. Pull rear leg cover backward while opening outside to remove the rear leg cover.
- 2. Remove the mounting bolts on the back side of the front seat.



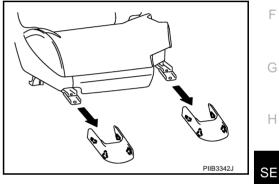
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- 3. Pull rear leg cover forward while opening outside to remove the front leg cover.
- 4. Remove the mounting bolts on the front side of the front seat.

5. Disconnect harness connector under the seat and remove harness securing clips. **CAUTION:** 

Before removal, be sure to turn ignition switch OFF, disconnect both battery cables, and then wait  $\int$  for at least 3 minutes.

- 6. Set seatback in a standing position.
- 7. Remove the headrest.
- 8. Remove seat from the vehicle.

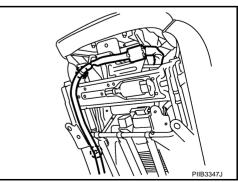
## CAUTION:

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

# INSTALLATION

Install in the reverse order of removal. Be careful of the following two points.

- Before installation, be sure to turn ignition switch OFF, disconnect both battery cables, and then wait for at least 3 minutes.
- Clamp the harness in position.



# Disassembly and Assembly SEATBACK

#### Disassembly

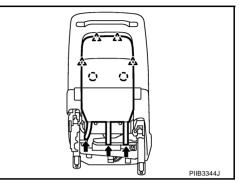
1. Remove seatback trim and seatback pad.

#### NOTE:

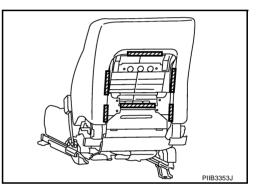
Seatback trim and seatback pad can be removed without removing seatback assembly from seat body.

- Remove the retainer from the lower side of seatback board.
- Disconnect the clips and pawls, and then remove the seatback board.

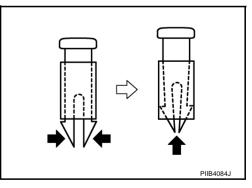
<u>∕</u>\_: Pawl (\_): Clip



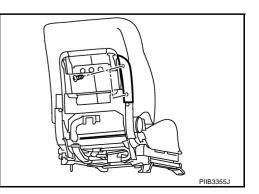
- Remove the seatback hinge mounting bolts.
- Remove the retainer on the back side of the seatback.



- Remove the seat speaker grills. (Applied 5.1 ch BOSE studio surround® system models.) Refer to <u>AV-287, "Seat Speaker"</u>.
- Remove the headrest holder.
   CAUTION: Before installing headrest holder, check its orientation (front/rear and right/left).



- Disconnect the clip, and then remove the reclining device cover.
- Remove the screws, and then remove the seatback upper finisher.

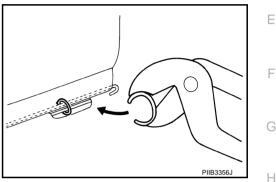


- Remove the bracket mounting nuts.
- Remove seatback trim and pad from seatback frame.
- Remove the hog rings to separate the trim and pad.
- 2. Remove seatback frame.
  - Remove seat speaker. (Applied 5.1 ch BOSE studio surround® system models) Refer to <u>AV-287, "Seat Speaker"</u>.
  - Remove the bands, and then remove seatback thermal electrical device (TED) assembly.
  - Remove the seat harness assembly from seatback assembly.
  - Remove the bolts, and then remove seatback frame from seat cushion frame.

#### Assembly

Assemble in the reverse order of disassembly. Be careful of the following one point.

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



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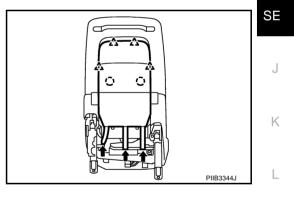
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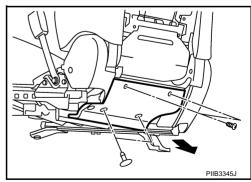
#### SEAT CUSHION

#### Disassembly

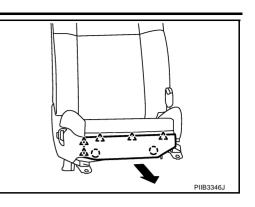
- 1. Remove the seatback trim and seatback pad.
  - Remove the retainer from the lower side of seatback board.
  - Disconnect the clip and pawl, and then remove seatback board.
    - <u>^</u>: Pawl
    - (\_): Clip



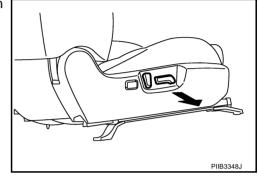
• Remove the screws and disconnect the clips, and then remove the seat cushion rear finisher. (Climate controlled seat model)



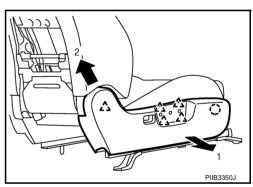
Remove the seat cushion front finisher.
 ∴ : Pawl
 ( ): Clip



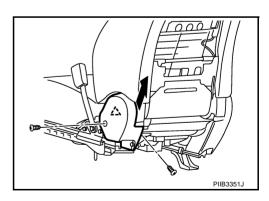
 Remove the seat reclining switch knob and seat slide switch knob.



- Pull seat cushion outer finisher forward, and then disconnect the pawls and clips.
  - ∠\_\_`: Pawl
  - (\_): Clip
- Lift the rear part of the seat cushion outer finisher backward, and then remove the seat cushion outer finisher.



- Remove the harness connector clamp of lumber support switch.
- Removal the lumber support switch.
- Remove the seat cushion inner finisher.
   ∠\_: Pawl



- Remove the retainers from the lower side of front seat. (Driver's seat only)
- Remove the hog rings to separate the trim and pad. (Driver's seat only)
- 2. Remove the nuts, and then remove the seat cushion frame. (Driver's seat only)
- 3. Remove each unit which is attached to seat cushion frame and seat adjuster assembly.
  - Remove the screws, and then remove the climate controlled seat control unit.
  - Remove the screws, and then remove the blower motor.
  - Remove the bands, and then remove the seat cushion thermal electrical device (TED) assembly.



- Remove driver's seat control unit. (Driver's seat only)
- Remove the driver seat control switch.

- Remove seat cushion finisher B and seat cushion finisher C.
- Remove seat harnesses.

#### Assembly

Assemble in the reverse order of disassembly. Be careful of the following two points.

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

• Clamp the harness in position.

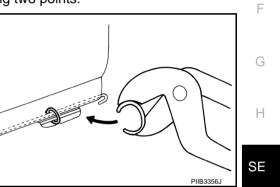
# CLIMATE CONTROLLED SEAT

#### Blower Filter Replacement

Put your hand behind front seat cushion, pull filter downward and remove it. Replace filter with a new one.

#### NOTE:

- When replacing, be sure to set the front seat lifter to the top position.
- When installing, do not confuse up-down direction of the filter.

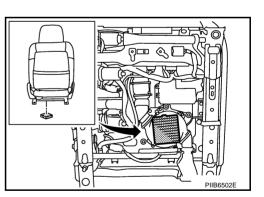


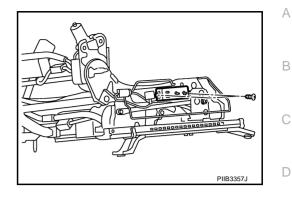
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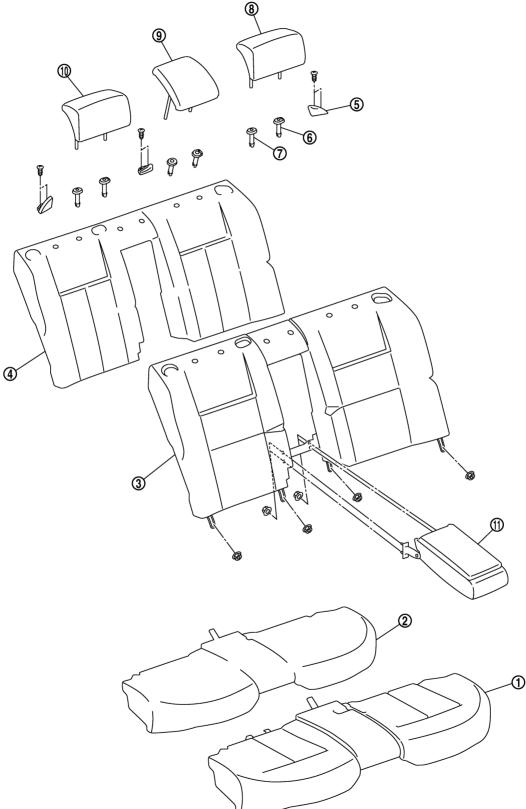
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# REAR SEAT Bench Seat Components

SEC. 880



PIIB3362J

- 1. Seat cushion trim
- 4. Seatback trim
- 7. Headrest holder (free)
- 10. Headrest (right)

- 2. Seat cushion pad
- 5. Seat belt guide
- 8. Headrest (left)
- 11. Armrest

- 3. Seatback pad
- 6. Headrest holder (locked)
- 9. Headrest (center)

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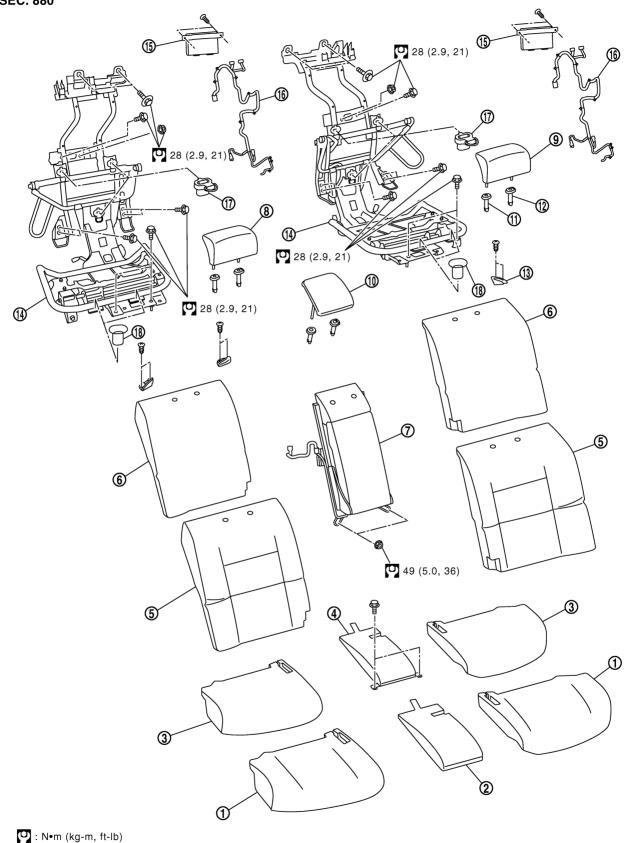
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# **REAR SEAT**

# Power Seat (Split Type) Components

PIIB3365J

SEC. 880



# **REAR SEAT**

- 1. Seat cushion side trim
- 4. Seat cushion center pad
- 7. Seatback center
- 10. Headrest (center)
- 13. Seat belt guide
- 16. Rear seat harness

- 2. Seat cushion center trim
- 5. Seatback trim
- 8. Headrest (right)
- 11. Headrest holder (free)
- 14. Rear seat frame
- 17. Seatback hook

- 3. Seat cushion side pad
- 6. Seatback pad
- 9. Headrest (left)
- 12. Headrest holder (locked)
- 15. Rear seat control unit
- 18. Seat cushion hook

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## **Removal and Installation**

#### **CAUTION:**

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

#### **BENCH SEAT**

#### Removal

- 1. Remove seat cushion.
  - Pull the lock lever at the front bottom of the seat cushion forward (1 for each side), and pull the seat cushion upward to release the wire from the seat cushion hook, then pull the seat cushion forward to remove.
  - Remove the seat cushion from the vehicle.
- 2. Remove seat back.
  - Remove the nuts under seatback.
  - Lift up seatback assembly from underneath, and then remove seatback assembly from seatback hook that is fixed to the vehicle.
  - Remove the headrest.
  - Remove the seatback from the vehicle.

#### Installation

- Install in the reverse order of removal. Be careful of the following one point.
- Securely engage the upper wire on the back side of seatback with seat hook.

#### **POWER SEAT**

#### Removal

Remove seat cushion side.

Remove the seat cushion center.

3. Remove seatback side.

seatback hook.

(): Seatback hook

Disconnect the harness connector.

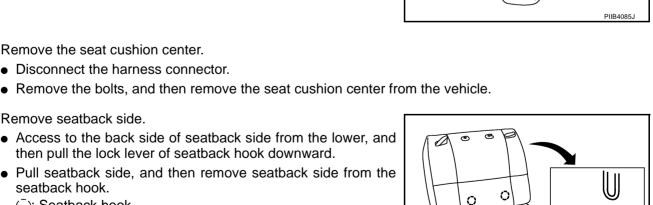
 Lift seat cushion side up, disengage the seat cushion hook, and then remove the seat cushion side.

Access to the back side of seatback side from the lower, and

Pull seatback side, and then remove seatback side from the

then pull the lock lever of seatback hook downward.

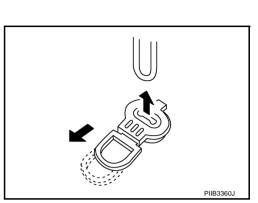
Remove the seat cushion side from the vehicle.



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Lift up seatback side from underneath, and then remove seatback side from seatback hook.





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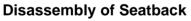
Disconnect the harness connector.	
Remove the headrest.	А
<ul> <li>Remove the seatback side from the vehicle.</li> </ul>	
4. Remove seatback center.	D
<ul> <li>Disconnect the harness connector.</li> </ul>	В
<ul> <li>Remove the seatback center mounting bolts and nuts.</li> </ul>	
<ul> <li>Remove the seatback center from the vehicle.</li> </ul>	С
5. Remove the rear seat frame.	0
<ul> <li>Disconnect the harness connector.</li> </ul>	
<ul> <li>Remove the bolts and nuts, and then remove the rear seat frame.</li> </ul>	D
Installation	
Install in the reverse order of removal.	E
Disassembly and Assembly BENCH SEAT	∟ NIS0028L
Disassembly of Seat Cushion	F

Remove the hog rings to separate the trim and pad.

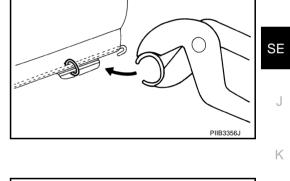
#### Assembly of Seat Cushion

Assemble in the reverse order of disassembly. Be careful of the following one point.

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

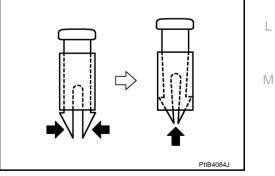


1. Remove the headrest holder.



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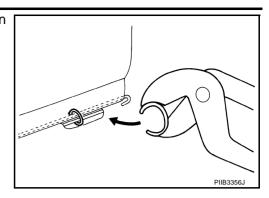


- 2. Remove the seat belt guide.
- 3. Remove the hog rings to separate the trim and pad.

#### Assembly of Seatback

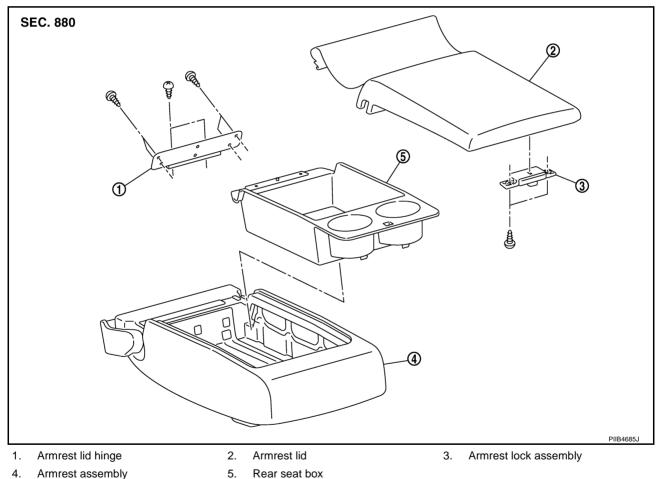
Assemble in the reverse order of disassembly. Be careful of the following one point.

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



#### **Disassembly of Armrest**

- 1. Remove the armrest from seatback.
  - Remove the retainer from the side of armrest lid in the back.
  - Remove the armrest mounting nuts on the back of seatback.
- 2. Disassemble the armrest.

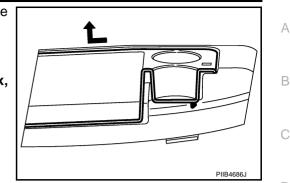


- Remove the screws, and then remove armrest lid hinge.
- Remove the armrest lid.
- Remove screws, and then remove the armrest lock assembly from the armrest lid.

• Pull the rear seat box rearward and lift up, and then remove rear seat box from the armrest assembly.

#### CAUTION:

- When removing, check that front tab is not damaged.
- If the tab is damaged when removing the rear seat box, replace rear seat box with a new one.



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#### **Assembly of Armrest**

Assemble in the reverse order of disassembly.

#### **POWER SEAT**

#### **Disassembly of Seat Cushion**

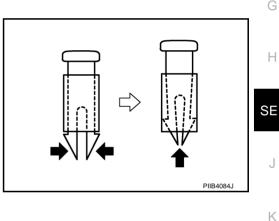
Remove the hog rings to separate the trim and pad.

#### **Assembly of Seat Cushion**

Assemble in the reverse order of disassembly.

#### **Disassembly of Seatback**

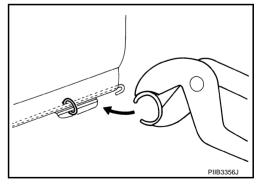
- 1. Remove the headrest holder.
- 2. Remove the seat belt guide.
- 3. Remove the hog rings to separate the trim and pad.



#### Assembly of Seatback

Assemble in the reverse order of disassembly. Be careful of the following one point.

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



#### **Disassembly of Seat Frame**

- 1. Disconnect the harness connectors, remove the screws, and then remove the rear seat control unit.
- 2. Remove the seatback hook and seat cushion hook.

#### Assembly of Seat Frame

Assemble in the reverse order of removal.

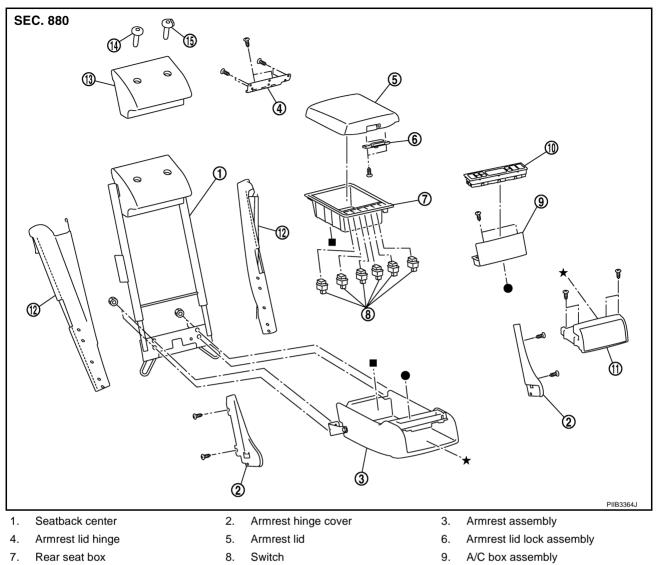
#### **Disassembly of Armrest**

- 1. Remove the armrest from seatback center.
  - Remove the retainer from the side of armrest lid in the back.
  - Remove the armrest mounting nuts on the back of seatback.



## **REAR SEAT**

2. Disassemble the armrest.



- 10. Rear seat control
- 13. Seatback center trim
- Switch
   Cup holder
- .
  - 14. Headrest holder (free)
- Seatback center side trim
   Headrest holder (locked)
- Remove the screws, and then remove the armrest hinge cover.
- Remove the screws, and then remove the armrest lid hinge.
- Remove the armrest lid.
- Remove the screws, and then remove the armrest lid lock assembly from the armrest lid.
- Remove the rear seat box.
- Remove all switches from the rear seat box.
- Remove the screws, and then remove the A/C box assembly.
- Remove the screws, and then remove the cup holder.
- Remove the hog rings, and then remove the seat back center side trim.
- Remove the headrest holder, and then remove the seatback center trim.

#### Assembly of Armrest

Assemble in the reverse order of removal.