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L

M

CONTENTS

PRECAUTIONS 4	Schematic	
Precautions for Supplemental Restraint System	Wiring Diagram — AUT/DP —	
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	Terminals and Reference Values for BCM	. 32
SIONER" 4	Terminals and Reference Values for Driver Seat	
Service Notice 4	Control Unit	. 33
Precautions for Work 4	Work Flow	
Trouble Diagnosis Precaution5	Preliminary Check	
PREPARATION 6	SETTING CHANGE FUNCTION	. 35
Special Service Tools6	CHECK POWER SUPPLY AND GROUND CIR-	
Commercial Service Tools 6	CUIT	. 36
SQUEAK AND RATTLE TROUBLE DIAGNOSES 7	CONSULT-II Function	. 39
Work Flow 7	CONSULT-IIBASICOPERATIONPROCEDURE	
CUSTOMER INTERVIEW7		. 39
DUPLICATE THE NOISE AND TEST DRIVE 8	IVMS COMMUNICATION INSPECTION	. 40
CHECK RELATED SERVICE BULLETINS 8	COMMUNICATION SYSTEM A	. 41
LOCATE THE NOISE AND IDENTIFY THE	COMMUNICATION SYSTEM B	. 42
ROOT CAUSE 8	COMMUNICATION SYSTEM C	. 42
REPAIR THE CAUSE8	WORK SUPPORT	. 43
CONFIRM THE REPAIR9	SELF-DIAGNOSIS RESULTS	. 43
Generic Squeak and Rattle Troubleshooting 9	DATA MONITOR	. 44
INSTRUMENT PANEL9	ACTIVE TEST	. 45
CENTER CONSOLE9	On Board Diagnosis	. 46
DOORS9	DIAGNOSIS ITEM	. 46
TRUNK 10	COMMUNICATION DIAGNOSIS	. 46
SUNROOF/HEADLINING10	COMMUNICATION SYSTEM A	. 48
SEATS 10	COMMUNICATION SYSTEM B	. 48
UNDERHOOD10	COMMUNICATION SYSTEM C	. 48
Diagnostic Worksheet11	SWITCH MONITOR	. 49
AUTOMATIC DRIVE POSITIONER13	ON BOARD DIAGNOSIS FOR AUTOMATIC	
System Description13	DRIVE POSITIONER	. 50
MANUAL OPERATION13	Symptom Chart	. 52
AUTOMATIC OPERATION13	Check Sliding Motor Circuit	. 54
FAIL-SAFE MODE 13	Check Reclining Motor Circuit	. 55
CANCEL OF FAIL-SAFE MODE14	Check Front Lifting Motor Circuit	. 56
MEMORY STORING14	Check Rear Lifting Motor Circuit	. 58
MEMORY SWITCH OPERATION15	Check Telescopic Motor Circuit	
TURNOUT OPERATION15	Check Tilt Motor Circuit	
RETURN OPERATION16	Check Sliding Sensor Circuit	
REAR POWER SEAT TURNOUT OPERATION 16	Check Reclining Sensor Circuit	
Component Parts and Harness Connector Location. 17	Check Front Lifting Sensor Circuit	

Check Rear Lifting Sensor Circuit66	WITHOUT HEATED SEAT118
Check Detention Switch Circuit67	Check Rear Door Switch Circuit119
Check Telescopic Sensor Circuit68	WITH HEATED SEAT119
Check Tilt Sensor Circuit69	WITHOUT HEATED SEAT120
Check Key Switch and Key Lock Solenoid Circuit 70	Check Rear Power Seat Sliding Sensor Circuit122
Check Front Door Switch (Driver Side) Circuit 72	WITH HEATED SEAT122
Check Vehicle Speed Signal	WITHOUT HEATED SEAT123
Check Seat Memory Switch Circuit	HEATED SEAT124
Check Sliding Switch Circuit	Component Parts and Harness Connector Location 124
Check Reclining Switch System78	System Description125
Check Front Lifting Switch Circuit80	FRONT HEATED SEAT125
Check Rear Lifting Switch Circuit82	REAR HEATED SEAT125
Check Telescopic Switch	Wiring Diagram — HSEAT —/Front Heated Seat.127
Check Tilt Switch	Schematic/Rear Heated Seat
Check Seat Memory Indicator lamp System 88	Wiring Diagram — HSEAT —/Rear Heated Seat .130
Check Lumber Support Circuit89	Terminals and Reference Values for Rear Power
Check Rear Power Seat Turnout Operation91	Seat Control Unit LH and RH135
POWER SEAT92	Work Flow135
Component Parts and Harness Connector Location 92	Trouble Diagnoses Symptom Chart136
System Description93	Check Heated Seat Power Supply Circuit137
FRONT POWER SEAT (PASSENGER SIDE)	Check Front Heated Seat Switch137
OPERATION93	Check Front Heated Seat Circuit 1138
REAR POWER SEAT LH AND REAR POWER	Check Front Heated Seat Circuit 2139
SEAT RH OPERATION94	Check Front Heated Seat Circuit 3141
REAR SEAT TURNOUT/RETURN FUNCTION 95	Check Front Heated Seat Switch Ground Circuit .142
Schematic96	Check Rear Power Seat Control Unit Power Supply
Wiring Diagram — SEAT —97	Circuit143
Terminals and Reference Values for Passenger	Check Rear Power Seat Control Unit Power Supply
Side Power Seat Switch103	and Ground Circuit144
Terminals and Reference Values for Rear Power	Check Rear Power Seat Switch (Heater Switch)
Seat Control Unit103	Ground Circuit145
Work Flow104	Check Rear Heated Seat Circuit 1145
	Check Rear Heated Seat Circuit 7145 Check Rear Heated Seat Circuit 2147
Trouble Diagnoses Symptom Chart	Check Rear Heated Seat Circuit 2147 Check Rear Heated Seat Circuit 3148
Check Power Seat Power Supply Circuit	
Check Front Power Seat Passenger Side Power	Check Rear Heated Seat Switch Low Circuit149
Supply Circuit105	Check Rear Heated Seat Switch High Circuit151
Check Front Power Seat Passenger Side Sliding	Check Rear Heated Seat Ground Circuit152
Circuit106	CLIMATE CONTROLLED SEAT153
Check Front Power Seat Passenger Side Reclining	Component Parts and Harness Connector Location 153
Circuit107	System Description154
Check Front Power Seat Passenger Side Front Lift-	Schematic157
ing Circuit108	Wiring Diagram — C/SEAT —158
Check Front Power Seat Passenger Side Rear Lift-	Terminal and Reference Value for Climate Con-
ing Circuit109	trolled Seat Control Unit163
Check Rear Power Seat Control Unit Power Supply	Work Flow164
and Ground Circuit109	Preliminary Check164
WITH HEATED SEAT109	Trouble Diagnoses Symptom Chart165
WITHOUT HEATED SEAT110	Check Climate Controlled Relay Power Supply Cir-
Check Rear Power Seat Sliding Motor Circuit111	cuit166
WITH HEATED SEAT111	Check Driver Side Climate Controlled Seat Control
WITHOUT HEATED SEAT112	Unit Power Supply and Ground Circuit167
Check Rear Power Seat Switch Circuit	Check Passenger Side Climate Controlled Seat
WITH HEATED SEAT113	Control Unit Power Supply and Ground Circuit168
WITHOUT HEATED SEAT114	Check Climate Controlled Seat "HEAT" Switch Cir-
Check Auto Return Cancel Switch Circuit 1 116	cuit170
WITH HEATED SEAT116	Check Climate Controlled Seat "COOL" Switch Cir-
WITH HEATED SEAT116 WITHOUT HEATED SEAT116	
	Check Climate Controlled Seet Temperature Diel 172
Check Auto Return Cancel Switch Circuit 2 117	Check Climate Controlled Seat Temperature Dial.172
WITH HEATED SEAT117	Check Climate Controlled Seat Temperature Dial

J

Κ

M

Α

В

С

D

Е

F

G

Н

Circuit 173
Check Climate Controlled Seat Switch Ground Cir-
cuit
cuit 175
Check Seat Cushion Thermal Electric Device Sen-
sor Circuit
Check Seatback Thermal Electric Device Circuit. 177
Check Seatback Thermal Electric Device Sensor
Circuit 178
Check Blower Motor Power Supply Circuit 178
Check Blower Motor Speed Control Circuit 180
Check Blower Motor Tachometer Signal Circuit 180
Check Climate Controlled Seat Control Unit 181
FRONT SEAT 182
Removal and Installation
DRIVER SIDE POWER SEAT 182
CLIMATE CONTROLLED SEAT 184
PASSENGER SIDE POWER SEAT 186
REMOVAL 187
INSTALLATION
Disassembly and Assembly 187
DISASSEMBLY OF SEATBACK TRIM AND PAD 187
ASSEMBLY OF SEATBACK TRIM AND PAD 189
REMOVAL OF SEATBACK ASSEMBLY 189
INSTALLATION OF SEATBACK ASSEMBLY 189
DISASSEMBLY OF SEAT CUSHION TRIM AND

PAD	. 189
ASSEMBLY OF SEAT CUSHION TRIMAND PAGE	189
CLIMATE CONTROLLED SEAT	. 190
REAR SEAT	. 191
Removal and Installation	. 191
MANUAL SEAT (BENCH SEAT)	. 191
POWER SEAT (SPLIT CUSHION)	. 192
CENTER SEATBACK ASSEMBLY	. 193
REMOVAL OF MANUAL SEAT (BENCH SEAT)	194
INSTALLATION OF MANUAL SEAT (BENCH	
SEAT)	. 194
REMOVAL OF POWER SEAT (SPLIT SEAT) .	. 194
INSTALLATION OF POWER SEAT (SPLIT	
SEAT)	. 195
Disassembly and Assembly	. 195
DISASSEMBLY OF SLIDING MOTOR & UNIT	. 195
ASSEMBLY OF SLIDING MOTOR & UNIT	. 196
DISASSEMBLY OF CENTER SEATBACK	
ASSEMBLY	. 196
ASSEMBLY OF CENTER SEATBACK ASSEM	-
BLY	. 197

PRECAUTIONS

PRECAUTIONS PFP:00001

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

NIS00126

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 Baq 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

NIS00128

- 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.

PRECAUTIONS

Trouble Diagnosis Precaution

NISO0129

- When carrying out the IVMS control unit input/output signal inspection, be sure to connect the checking adapter III (special service tool) to prevent incorrect diagnosis.
- With the battery connected, if each local control unit (LCU) connector is left disconnected for at least 1 minute, the IVMS control unit stores a communication inactive failure. After reconnecting the connector, any of the following steps shall be done. "Disconnect the IVMS control unit battery power supply" or "Using CONSULT-II, execute Erase memory".

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PREPARATION

PREPARATION PFP:00002

Special Service Tools

NIS0012A

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
(J-39570) Chassis ear	SIIAO993E	Locating the noise
(J-43980) NISSAN Squeak and Rattle Kit	SIIA0994E	Repairing the cause of noise

Commercial Service Tools

NIS0012B

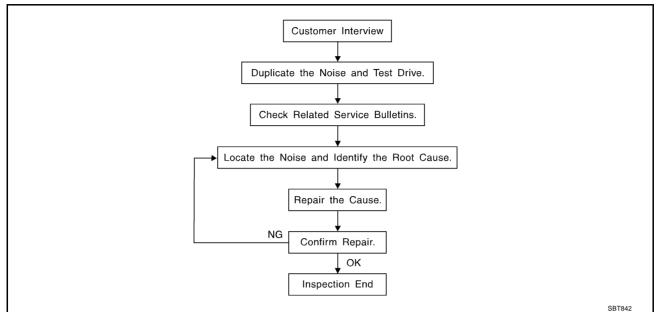
Tool name		Description
Engine ear	SIIAO995E	Locating the noise

Work Flow

PFP:00000

NISO012C

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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-11, "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-9</u>, "<u>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: 100×135 mm $(3.94 \times 5.31 \text{ in})/76884-71L01$: 60×85 mm $(2.36 \times 3.35 \text{ in})/76884-71L01$

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, 50×50 mm (1.97 \times 1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick, 50×50 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)

FELT CLOTHTAPE

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

 $68370-4B000: 15 \times 25 \text{ mm} (0.59 \times 0.98 \text{ in}) \text{ pad/}68239-13E00: 5 \text{ mm} (0.20 \text{ in}) \text{ wide tape roll}$

The following materials, not found in the kit, can also be used to repair squeaks and rattles.

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

Use when grease cannot be applied.

DUCT TAPE

Use to eliminate movement.

CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

Generic Squeak and Rattle Troubleshooting

Refer to Table of Contents for specific component removal and installation information.

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

- The cluster lid A and instrument panel
- 2. Acrylic lens and combination meter housing
- 3. Instrument panel to front pillar garnish
- 4. Instrument panel to windshield
- Instrument panel mounting pins
- 6. Wiring harnesses behind the combination meter
- 7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by 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.

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.

CENTER CONSOLE

Components to pay attention to include:

- 1. Shifter assembly cover to finisher
- 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
- Wiring harnesses tapping

Revision: 2005 November

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
- 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
- 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
- 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:

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

IS0012F



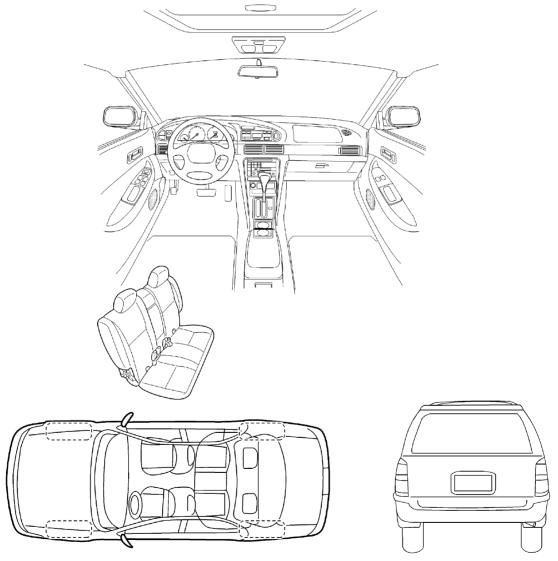
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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 véhicle.



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: II. WHEN DOES IT OCCUR? (check the boxes that apply) □ anvtime after sitting out in the sun ☐ 1st time in the morning ☐ when it is raining or wet ☐ only when it is cold outside ☐ dry or dusty conditions ☐ only when it is hot outside □ other: III. WHEN DRIVING: IV. WHAT TYPE OF NOISE? ☐ through driveways ☐ squeak (like tennis shoes on a clean floor) □ over rough roads ☐ creak (like walking on an old wooden floor) □ over speed bumps ☐ rattle (like shaking a baby rattle) ☐ only at about ____ mph ☐ knock (like a knock on a door) ☐ tick (like a clock second hand) ☐ on acceleration coming to a stop ☐ thump (heavy, muffled knock noise) □ buzz (like a bumble bee) ☐ on turns : left, right or either (circle) ☐ with passengers or cargo other: ☐ after driving miles or minutes TO BE COMPLETED BY DEALERSHIP PERSONNEL **Test Drive Notes:** Initials of person YES NO 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

AUTOMATIC DRIVE POSITIONER

PFP:28491

System Description

NIS0012F

The system automatically moves the driver seat and steering wheel to facilitate entry/exit to/from the vehicle by connecting the BCM (Body Control Module) to the driver seat control unit the multiple communication line. The BCM can also store the optimum driving positions (driver seat, steering wheel and door mirror position) for 2 people. If the driver is changes, one-touch operation allows changing to the other driving position.

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• The settings (ON/OFF) of the automatic tilt steering wheel and sliding seat (Entry/exiting function) at entry/exit can be changed as desired, using the display unit in the center of the instrument panel.

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MANUAL OPERATION

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The driving position (seat position, steering wheel position, door mirror position) can be adjusted with the power seat switch or ADP (Automatic Drive Positioner) steering switch.

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NOTE:

- The seat and steering wheel position can be manually operated with the ignition switch OFF.
- The door mirrors can be manually operated with the ignition switch in either ACC or ON.

AUTOMATIC OPERATION

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Function		Description		
Memory switch operation		The seat, steering wheel and door mirror move to the stored driving position by pushing memory sw		
Entry /	Return operation	At entry, the seat and steering wheel return from the exiting position to the previous driving position.		
Exiting function Turnout operatio		At exit, the seat moves backward, and the steering wheel moves forward and upward.		

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NOTE:

- Disconnecting the battery erases the stored memory.
- After connecting the battery, insert the key into the ignition cylinder and turn the driver door switch ON (open)→OFF (close)→ON (open), the Entry / exiting function becomes possible.

Auto operation stop conditions.

- When the vehicle speed becomes 7 km/h (4 MPH) or higher.
- When the manual switch is operated.

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- When any two or more switches among the setting switch, memory switch 1, or 2 are pressed simultaneously.
- When the tilt sensor or telescoping sensor malfunction is detected.
- When the A/T selector lever is shifted to a position other than P-position.

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NOTE:

During automatic operation, if the ignition switch is turned ON—START, the automatic operation is suspended. When the ignition switch returns to ON, it resumes.

FAIL-SAFE MODE

When the ignition switch is in the ON position, if any of the parts (indicated in the following chart) move more than the specified amount within a period "T" when no "ON" input is sent from any of the switches (indicated in the following chart), or an output from the automatic drive positioned is not produced, an output malfunction is sensed. Motor operation will be suspended automatically, and all automatic operations will be ineffective. (In this case, the motor will not operate manually).

OPERATED PORTION	Т	Allowable measurement	
Seat sliding	Approx. 2.5 sec.	Within 6 mm (0.24 in).	
Seat reclining	Same as above	Change angel within 2.22°	
Steering wheel	Same as above	Change angel within 1°	

Revision: 2005 November **SE-13** 2006 Q45

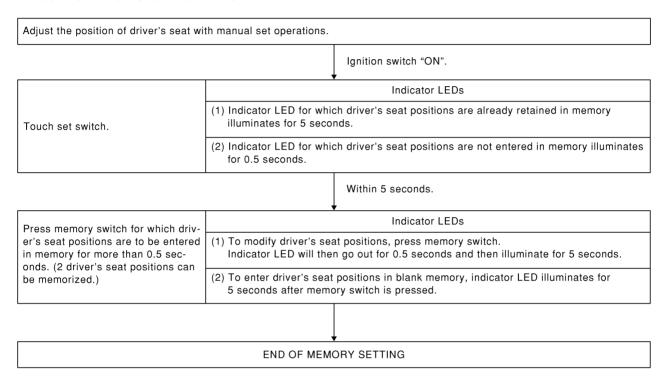
CANCEL OF FAIL-SAFE MODE

- The mode is cancelled when the selector lever is shifted to P-position from any other position.
- The mode can be cancelled with CONSULT-II.

MEMORY STORING

Store the 2 driving positions and shifts to the stored driving position with the memory switch.

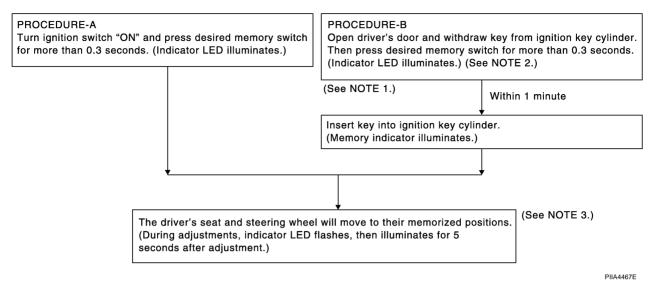
PROCEDURE FOR STORING MEMORY



SEL592W

MEMORY SWITCH OPERATION

SELECTING THE MEMORIZED POSITION



NOTE:

- Do not setting change as it will not operate. refer to SE-35, "SETTING CHANGE FUNCTION"
- Automatic turnout function will be performed.
- The driver's seat position and steering adjustment (see the following Table) operate simultaneously in the order of priority.

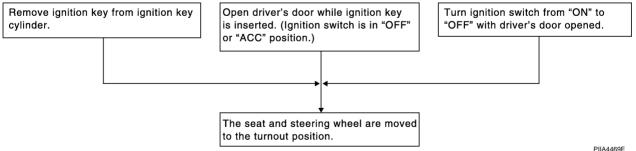
Priority	Function	Priority	Function
1	Seat sliding, (door mirror–LH/RH)*	4	Seat reclining
2	Steering wheel telescopic	5	Seat lifter–FR
3	Steering wheel tilt	6	Seat lifter–RR

^{*:} In conjunction with sliding the seat, the door mirrors are positioned. The mirror moves when the ignition switch is in ACC.

TURNOUT OPERATION

At exit, the seat and steering wheel are automatically moved to the turnout position.

- Seat: moves backward.
- Steering wheel: tilted upward and extended fully.



NOTE:

The seat sliding, steering wheel tilt, and telescoping are moved to the turnout position simultaneously.

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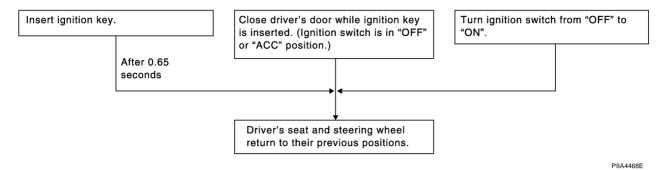
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RETURN OPERATION

When the seat and steering wheel are on the exiting positions, the following operation moves the seat and steering wheel to the previous position before the turnout operation.

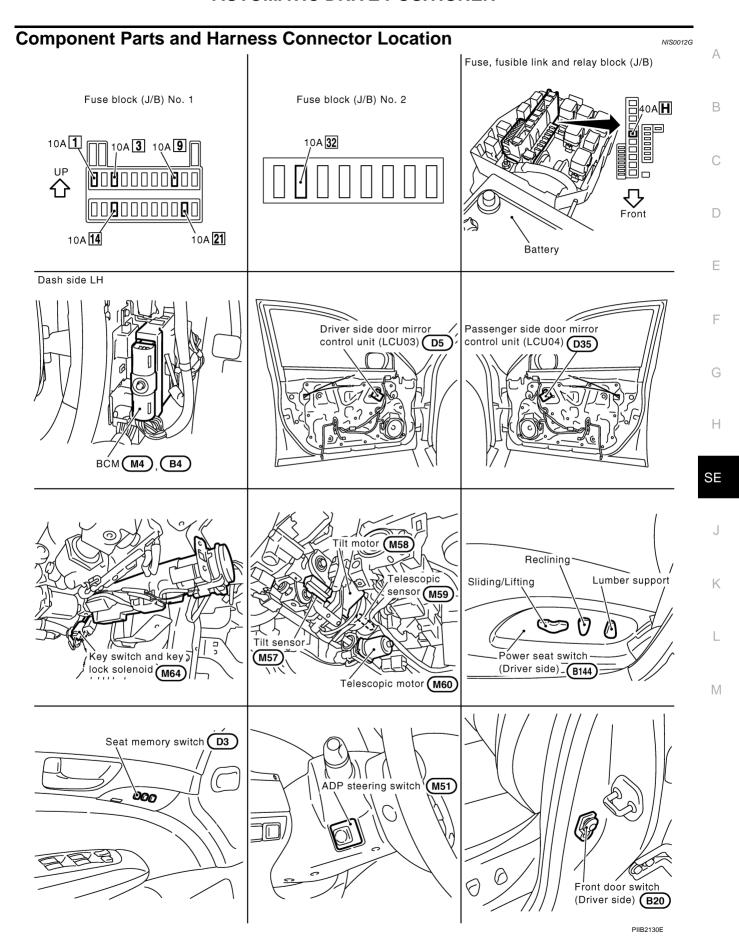


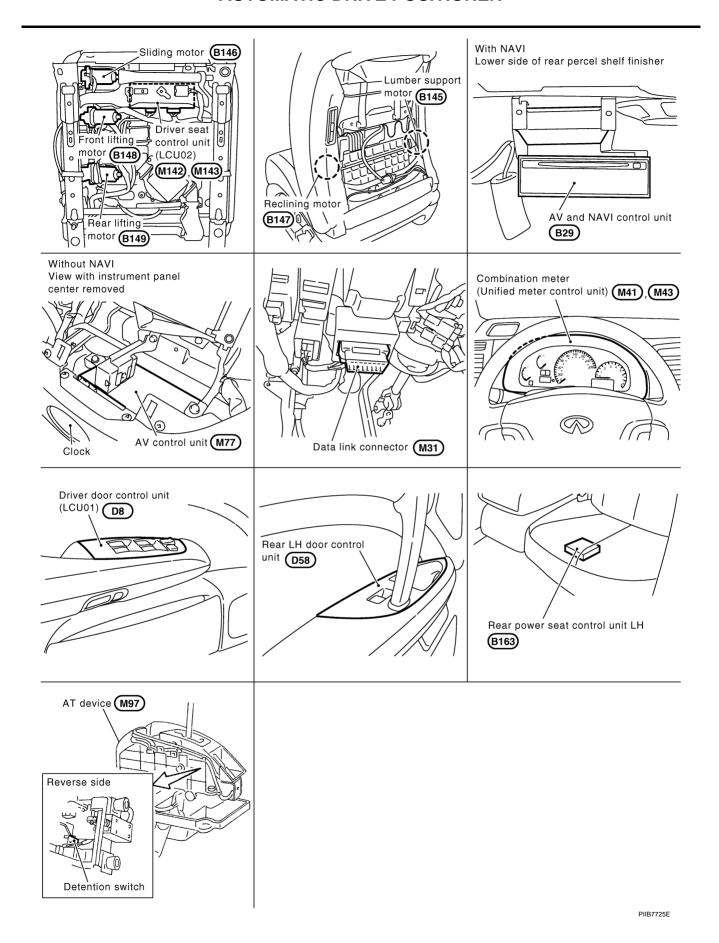
NOTE:

The seat sliding, steering wheel tilt, and telescoping return to the original positions simultaneously.

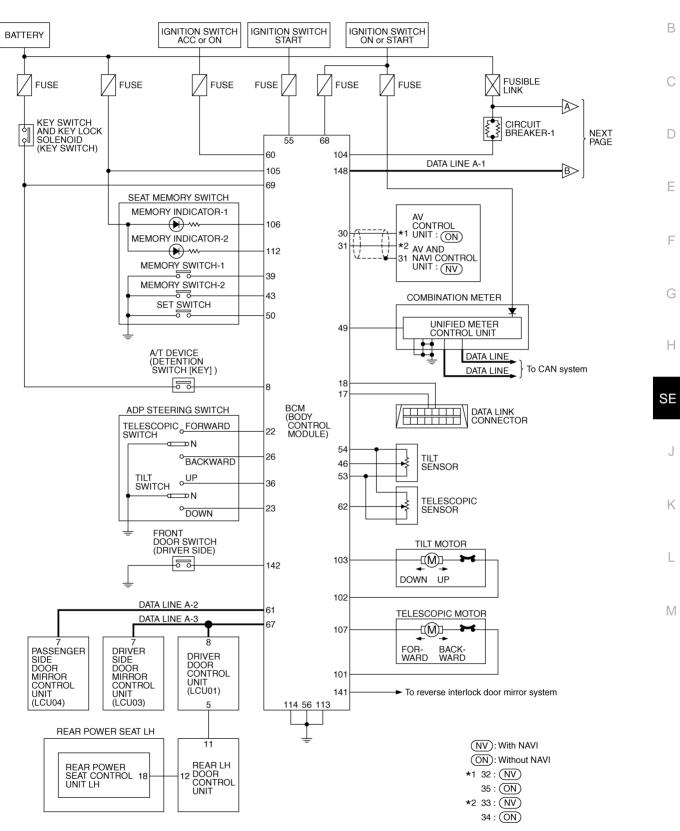
REAR POWER SEAT TURNOUT OPERATION

Rear power seat moves back ward with driver's seat at the same time in case turnout operation.



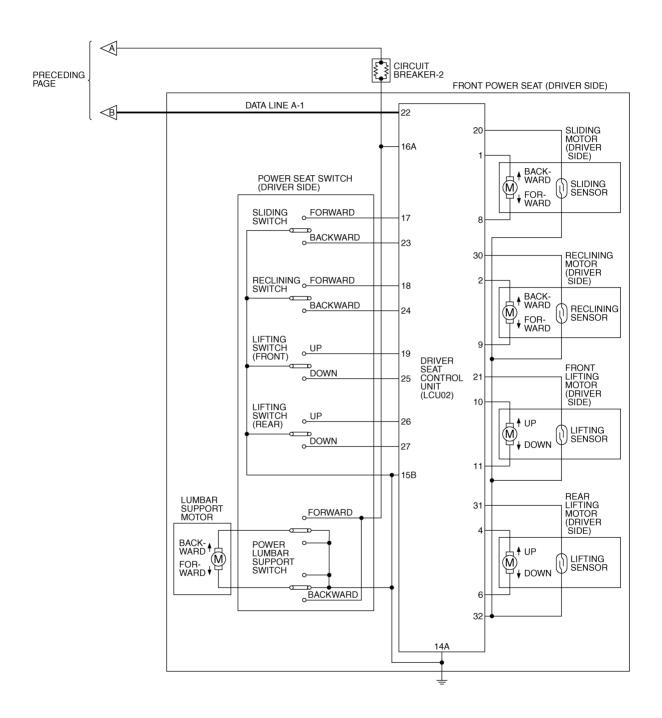


Schematic NIS0012H

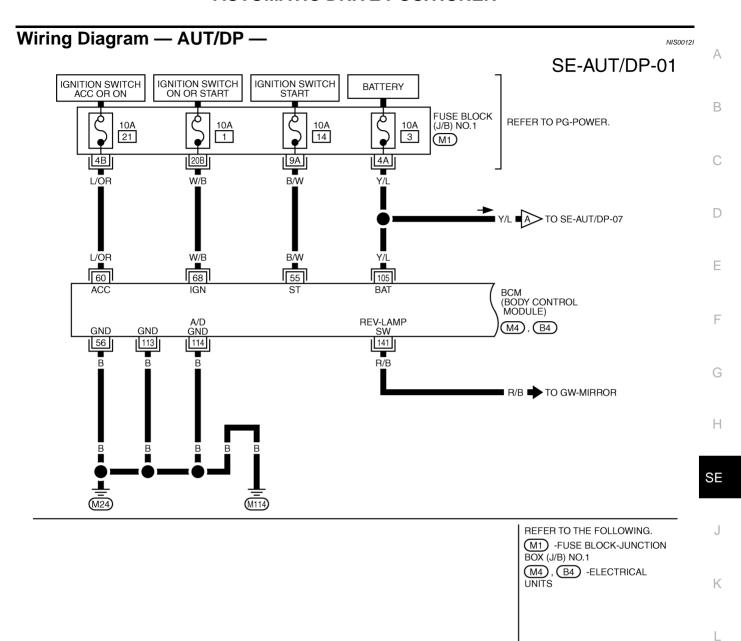


TIWM0723E

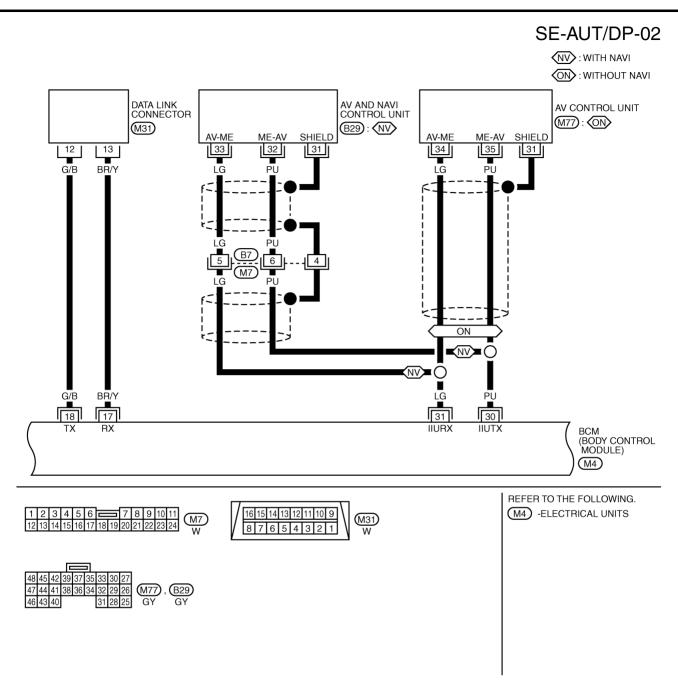
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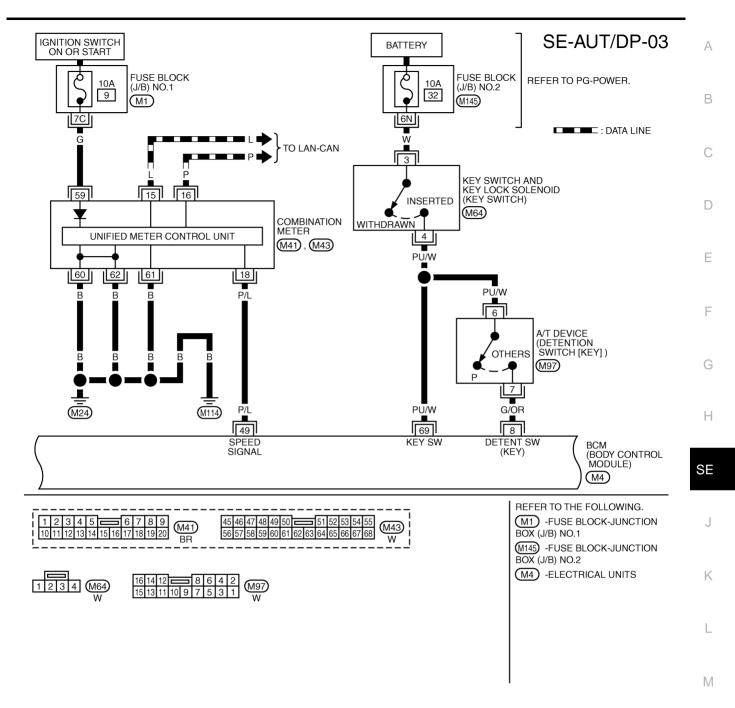
TIWM0274E



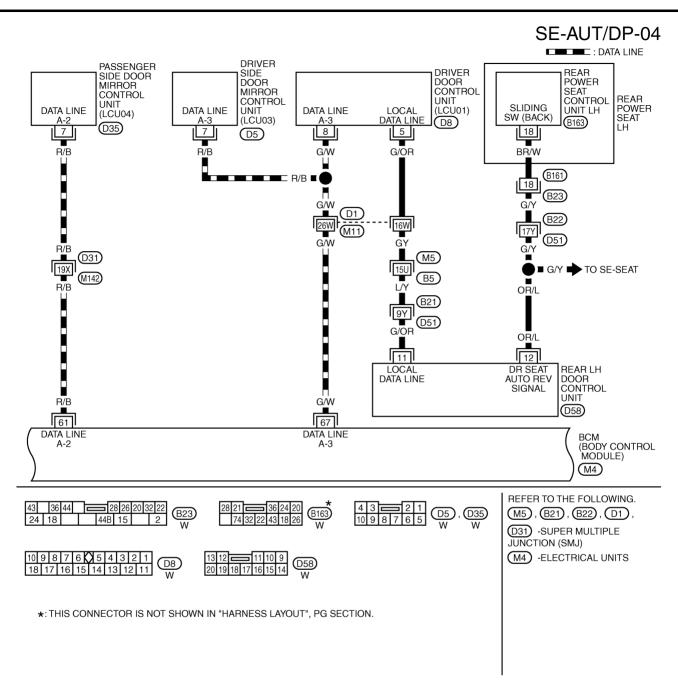
TIWM0724E



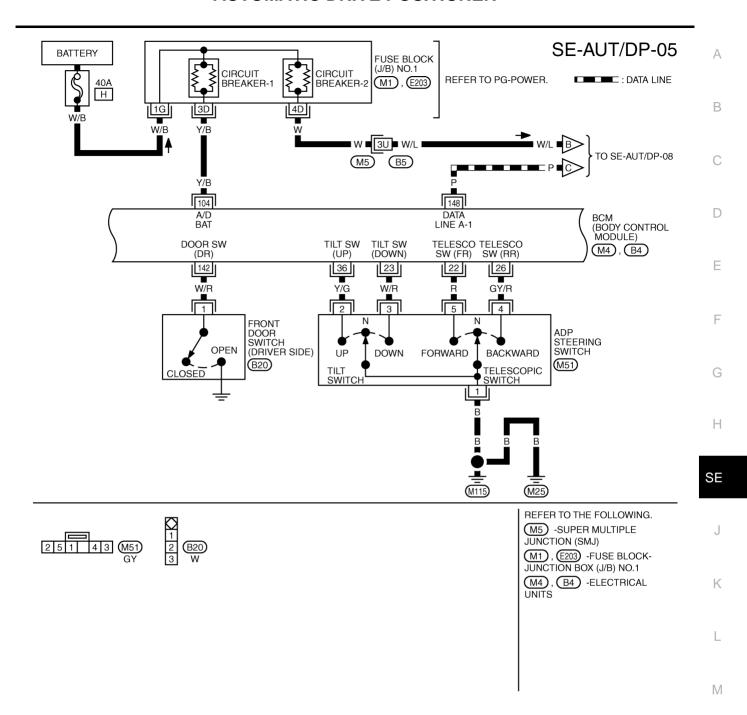
TIWM1577E



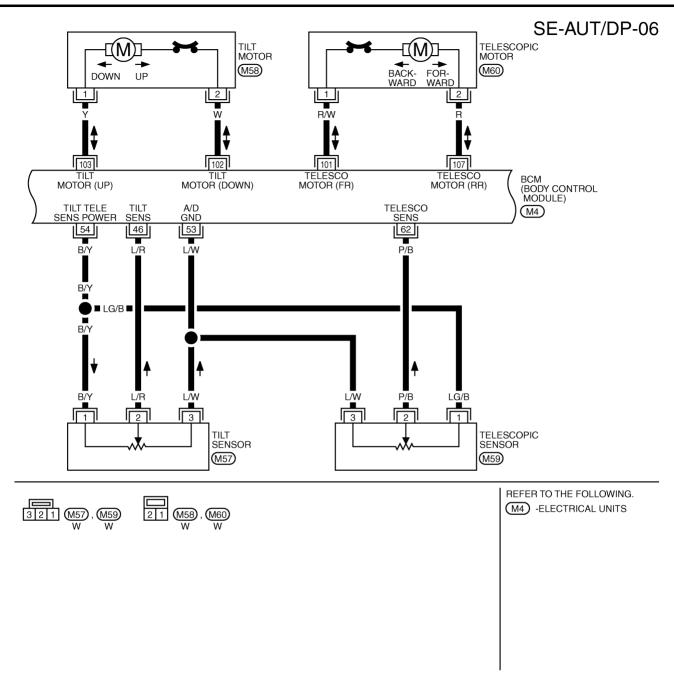
TIWM1578E



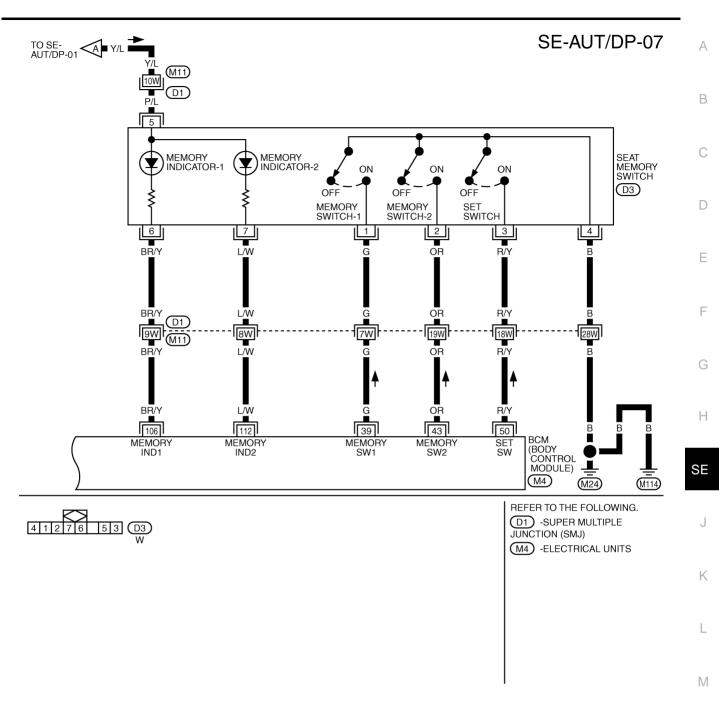
TIWM1579E



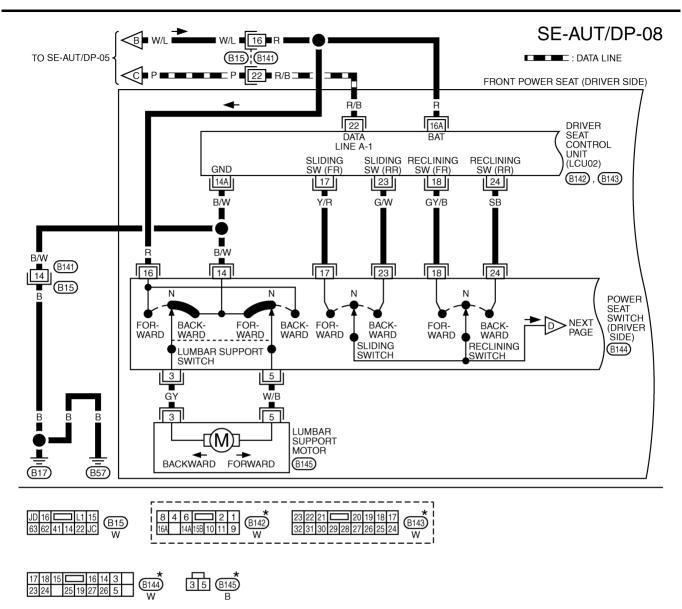
TIWM1580E



TIWM1581E

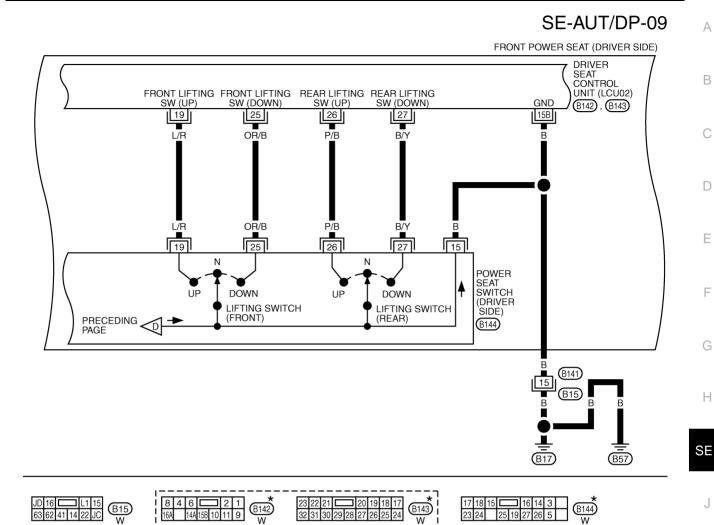


TIWM0730E



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

TIWM0731E



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

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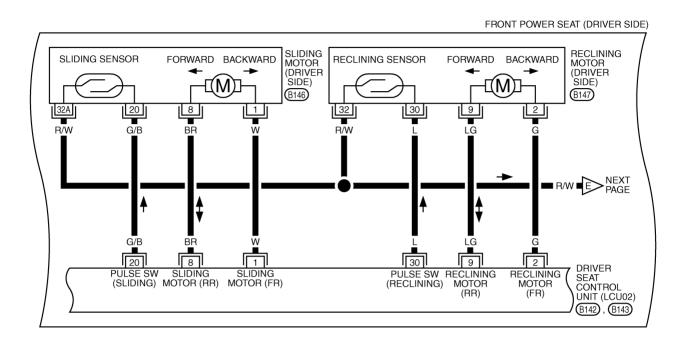
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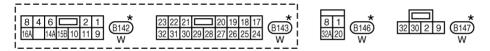
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TIWM0732E

SE-29 Revision: 2005 November 2006 Q45

SE-AUT/DP-10

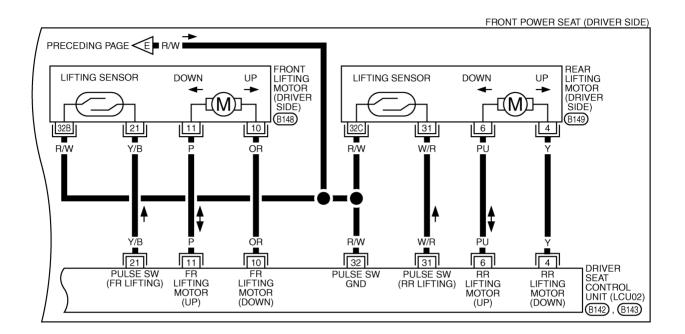




*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWM0085E

SE-AUT/DP-11





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

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Terminals and Reference Values for BCM

NIS0012J

Ter- minal	Wire Color	Item	Signal input/output	Co	ondition	Voltage (V) (Approx.)	
8	G/OR	Detente switch signal	Input	Insert the key	Selector lever in P-position	0	
0	0/010	Deterite switch signal	mpat	moert the key	Selector lever in other than P-position	Battery voltage	
17	BR/Y	Data link (RX line)	Output		_	_	
18	G/B	Data link (TX line)	Input		_	_	
22	R	Telescopic switch	Input	Telescoping	Forward operation	0	
		FR signal	mpat	switch	OFF	5	
23	W/R	Tilt switch	Input	Tilt switch	DOWN operation	0	
20	••///	DOWN signal	mpat	THE OWNER.	OFF	5	
26	GY/R	Telescopic switch	Input	Telescoping	Backward operation	0	
20	01/10	RR signal	mpat	switch	OFF	5	
30	PU	Monitor line (TX)	Output		_	-	
31	LG	Monitor line (RX)	Input		_	-	
36	Y/G	Tilt switch UP signal	Input	Tilt switch UP operation OFF		0	
00	.,0	The Switch Strongham	mpat			5	
39	G	Memory switch 1	Input	Memory switch 1		0	
00)	signal	mpat	OFF		5	
43	OR	Memory switch 2	Input	Memory switch 2	ON	0	
.0	011	signal	mpat	OFF		5	
46	L/R	Tilt sensor signal	Input	Tilt position, top		2	
		7.11. 001.001 0.g.1a.		Tilt position, bottom		4	
49	P/L	Vehicle speed signal (2-pulse)	Input	When vehicle speed is approx. 40 km/h (25 MPH)		(V) 6 4 2 0 	
50	R/Y	Seat memory setting switch signal	Input	Setting switch	ON OFF	0 5	
53	L/W	Tilt and telescopic sensor ground	_	Ignition switch ON		0	
54	B/Y	Tilt and telescopic sensor power supply	Input		_	5	
55	B/W	Ignition switch (START)	Input	Ignition switch (START position)		Battery voltage	
56	В	Ground	_		_	0	
60	L/OR	Ignition switch (ACC)	Input	Ignition switch (AC	CC or ON position)	Battery voltage	
61	R/B	Date line A-2	Input/Output		_	_	
62	D/D	Telescopic sensor	Input	Telescoping position	on, top	2	
62	P/B	signal	Input	Telescoping position	on, bottom	4	
67	G/W	Date line A-3	Input/Output		_	_	
68	W/B	Ignition switch (ON)	Input	Ignition switch (ON	N or START position)	Battery voltage	

Ter- minal	Wire Color	Item	Signal input/output	Condition		Voltage (V) (Approx.)
69	PU/W	Kay awitah aignal	lanut	Insert the key (ON)		Battery voltage
69	PU/W	Key switch signal	Input	Remove the key (OFF)	0
101	R/W	Telescopic motor	Output	Telescoping	Forward operation	Battery voltage
101	17/ 77	FR signal	Output	switch	OFF	0
102	W	Tilt motor DOWN	Output	Tilt switch	DOWN operation	Battery voltage
102	VV	signal	Output	THE SWILCH	OFF	0
103	Υ	Tilt motor LID gignel	Output	Tilt switch	UP operation	Battery voltage
103	Y	Tilt motor UP signal	Output	Till Switch	OFF	0
104	Y/B	Power supply for tilt and telescopic device	Input	_		Battery voltage
105	Y/L	Battery power supply	Input	_		Battery voltage
106	BR/Y	Power seat memory	Output	Output Indicator 1	ON	0
106	DR/ I	indicator 1 signal	Output	indicator i	OFF	Battery voltage
107	R	Telescopic motor	Output	Telescoping	Backward operation	Battery voltage
107	K	RR signal	Output	switch	OFF	0
112	L/W	Power seat memory	Output	Indicator 2	ON	0
112	L/ VV	indicator 2 signal	Output	mulcator 2	OFF	Battery voltage
113	В	Ground	_	Ignition switch ON		0
114	В	Ground for tilt and telescoping device	_	Ignition switch ON		0
142	W/R	Driver door switch	lanut	Driver door open (ON)		0
142	VV/K	signal	Input	Driver door closed	(OFF)	Battery voltage
148	Р	Data line A-1	Input/Output		_	_

Terminals and Reference Values for Driver Seat Control Unit

IIS00	12	K

Ter- minal	Wire Color	Item	Signal input/output	Condition		Voltage (V) (Approx.)
1 W	۱۸/	Sliding motor FR	Output	Sliding switch	Forward operation	Battery voltage
	VV	output signal			OFF	0
2	G	Reclining motor FR output signal	Output	Reclining switch	Forward operation	Battery voltage
	G				OFF	0
4	Υ	Rear lifting motor DOWN output signal	Output	Rear lifting switch	DOWN operation	Battery voltage
	ı				OFF	0
6 F	PU	Rear lifting motor UP output signal	Output	Rear lifting switch	UP operation	Battery voltage
	го				OFF	0
8 BR	DD	Sliding motor RR output signal	Output	Sliding switch	Backward operation	Battery voltage
	DIX				OFF	0
9 L	LG	Reclining motor RR output signal	Output	Reclining switch	Backward operation	Battery voltage
	LO				OFF	0
10	OR	Front lifting motor DOWN signal	Output	Front lifting switch	DOWN operation	Battery voltage
					OFF	0
11	Р	Front lifting motor UP output signal	Output	Front lifting switch	UP operation	Battery voltage
					OFF	0
14A	B/W	Ground		Ignition switch ON		0
15B	В	Giodila	_			

Revision: 2005 November SE-33 2006 Q45

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Ter- minal	Wire Color	Item	Signal input/output	Condition		Voltage (V) (Approx.)
16A	R	Battery power supply	Input	_		Battery voltage
		Sliding switch			Forward operation	0
17	Y/R	FR signal	Input	Sliding switch	OFF	5
		Reclining switch FR signal	Input	Reclining switch	Forward operation	0
18	GY/B				OFF	5
19	L/R	Front lifting switch	Input Front lifting		UP operation	0
	L/IX	UP signal	iliput	switch	OFF	5
20	G/B	Sliding sensor signal	Input	Sliding motor operation		(V) 6 4 2 0 ***50ms
				Other than above.		0 or 5
21	Y/B	Front lifting sensor signal	Input	Front lifting motor operation		(V) 6 4 2 0
				Other than above.		0 or 5
22	R/B	Data line A-1	Input/Output	_		_
23	G/W	Sliding switch RR signal	Input	Sliding switch	Backward operation	0
					OFF	5
24	SB	Reclining switch RR signal	Input	Reclining switch	Backward operation OFF	0 5
					DOWN operation	0
25	OR/B	Front lifting switch DOWN signal	Input	Front lifting switch	OFF	5
	P/B	Rear lifting switch UP signal	Input	Rear lifting switch	UP operation	0
26					OFF	5
27	В/Ү	Rear lifting switch DOWN signal	Input	Rear lifting bown operation of switch of the second of the	DOWN operation	0
					5	
30	L	Reclining sensor signal	Input	Reclining motor operation		(V) 6 4 2 0 **50ms
				Other than above		0 or 5

Ter- minal	Wire Color	Item	Signal input/output	Condition	Voltage (V) (Approx.)
31	W/R	Rear lifting sensor signal	Input	Rear lifting motor operation	(V) 6 4 2 0 ***50ms
				Other than above	0 or 5
32	R/W	Ground (sensor)	_	Ignition switch ON	0

Work Flow NIS00121 F

- 1. Check the symptom and customer's requests.
- Understand the system description. Refer to SE-13, "System Description".
- Perform the preliminary check. Refer to SE-35, "Preliminary Check".
- Perform the communication diagnosis.

With CONSULT-II, Refer to SE-40, "IVMS Communication Diagnosis".

Without CONSULT-II, refer to SE-46, "COMMUNICATION DIAGNOSIS".

Is the communication diagnosis result OK?

If OK. GO TO 7.

If NG, GO TO 5.

- Repair or replace depending on the diagnosis result.
- Perform the communication diagnosis again.

With CONSULT-II, refer to SE-40, "IVMS Communication Diagnosis"

Without CONSULT-II, refer to <u>SE-46</u>, "COMMUNICATION DIAGNOSIS".

Is the communication diagnosis result OK?

If OK, GO TO 7.

If NG, GO TO 5.

7. Perform the self-diagnosis.

With CONSULT-II, refer to SE-43, "SELF-DIAGNOSIS RESULTS".

Without CONSULT-II, refer to SE-50, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-TIONER".

Is the self-diagnosis result OK?

If OK, GO TO 11.

If NG, GO TO 8.

8. Repair or replace depending on the self-diagnosis result.

Perform the self-diagnosis again.

With CONSULT-II, refer to SE-43, "SELF-DIAGNOSIS RESULTS".

Without CONSULT-II, refer to SE-50, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-TIONER".

Is the self-diagnosis result OK?

If OK, GO TO 11.

If NG. GO TO 8.

- 10. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to SE-52. "Symptom Chart".
- 11. Does the automatic drive positioned system operate normally?

If it is normal, GO TO 12.

If it is not normal, GO TO 4.

12. Inspection end.

Preliminary Check SETTING CHANGE FUNCTION

NIS0012M

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

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SE-35 Revision: 2005 November 2006 Q45

Setting item	Content	CONSULT-II (WORK SUPPORT)	Display unit	Factory setting
	The applied parts at exit can be selected from the following 4 modes.	Mode 1 Steering wheel and seat		×
EXITING OPERATION		Mode 2 Steering wheel only		_
PART SET		Mode 3 Seat only		_
		Mode 4 No operation		_
Tilt Steering Wheel When	Tilt of the steering wheel at entry and exit can be selected: ON (operated)—OFF (not operated)	_	ON: Indicator lamp ON	×
Exiting Vehicle			OFF: Indicator lamp OFF	_
Sliding Driver Seat When	The seat sliding turnout and return at entry/exit can be selected: ON (operated)–OFF (not operated)	_	ON: Indicator lamp ON	×
Entry / Exiting Vehicle			OFF: Indicator lamp OFF	_

^{×:} Applicable -: Not applicable

NOTE

After the setting is registered, the new setting is effective, even if the battery is disconnected.

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSE

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

Unit	Signal name	Fuse No.	Location	
	Battery power	H (40A)	Fuse, fusible link and relay block (J/B)	
	battery power	3 (10A)		
ВСМ	ACC or ON power supply	21 (10A)	Fuse block (J/B) No.1	
	START power supply	14 (10A)		
	ON or START power supply	1 (10A)		

NOTE:

Refer to SE-17, "Component Parts and Harness Connector Location".

OK or NG

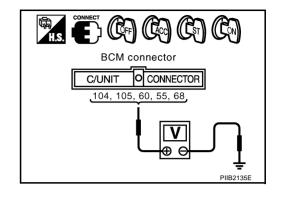
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to <u>PG-2</u>, <u>"POWER SUPPLY ROUTING"</u>.

2. CHECK POWER SUPPLY CIRCUIT (BCM)

Check voltage between BCM connector and ground.

Connector	Term (Wire		Condition	Voltage (V) (Approx.)
	(+)	(–)		
	104 (Y/B) 105 (Y/L)		Ignition switch OFF	
M4	60 (L/OR)	Ground	Ignition switch ACC or ON	Battery voltage
	55 (B/W)	Glound	Ignition switch START	Dattery voltage
	68 (W/B)		Ignition switch ON or START	



OK or NG

OK >> GO TO 3.

NG >> Check harness for open and short between BCM and fuse.

3. CHECK GROUND CIRCUIT (BCM)

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Check continuity between BCM connector M4 terminal 56, 113, 114 and ground.

56 (B) – Ground :Continuity should exist.

113 (B) – Ground :Continuity should exist.

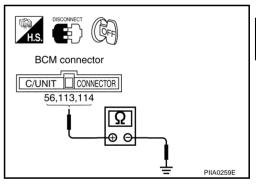
114 (B) – Ground :Continuity should exist.

OK or NG

NG

OK >> BCM circuit is OK. Check the driver seat control unit. GO TO 4.

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



4. CHECK POWER SUPPLY CIRCUIT (DRIVER SEAT CONTROL UNIT)

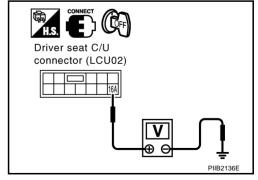
Check voltage between driver seat control unit connector B142 terminal 16A and ground.

16A (R) – Ground :Battery voltage.

OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness between driver seat control unit and fuse block (J/B) No. 1.



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5. CHECK GROUND CIRCUIT (DRIVER SEAT CONTROL UNIT)

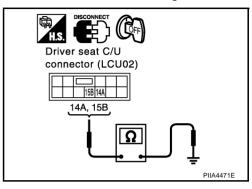
- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector.
- 3. Check continuity between the driver seat control unit connector B142 terminal 14A, 15B and ground.

14A (B/W) – Ground :Continuity should exist. 15B (B) – Ground :Continuity should exist.

OK or NG

OK >> Driver seat control unit circuit is OK.

NG >> Repair or place harness between driver seat control unit (LCU 02) and ground.



CONSULT-II Function

IS0012N

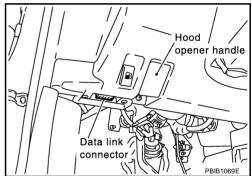
CONSULT-II executes the following functions by combining data received and transmits command transmission via the communication line from the BCM. IVMS communication inspection, work support by part, self-diagnosis, data monitor, and active test display.

IVMS diagnosis items	Inspection item, self-diagnosis mode	Content	
IVMS – COMM CHECK	IVMS – COMM DIAGNOSIS	Diagnoses a communication malfunction, inactive communication, and sleep malfunction in the communication line between the BCM and each LCU.	
COMM CHECK	WAKE - UP DIAGNOSIS	Diagnoses the wake-up signals output from each LCU.	
	WORK SUPPORT*	Changes the setting for each function.	
AUTO DRIVE	SELF- DIG RESULTS	Perform the self-diagnosis.	
POSITIONER	DATA MONITOR	Displays the input data of the BCM and each LCU on real-time basis.	
	ACTIVE TEST	Gives a drive signal to a load to check the operation.	
BCM PART NUMBER		Displays BCM part No.	

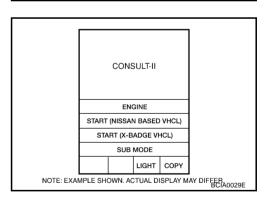
^{*:} For setting seat and steering functions only.

CONSULT-II BASIC OPERATION PROCEDURE

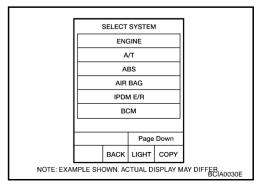
- 1. Turn ignition switch "OFF".
- 2. Connect "CONSULT-II" and CONSULT-II CONVERTER to data link connector.



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



5. Touch "IVMS" on the "SELECT SYSTEM" screen. If "IVMS" is not indicated, GI-37, "CONSULT-II Data Link Connector (DLC) Circuit".



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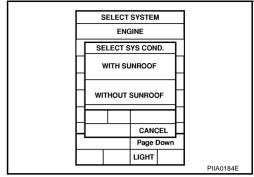
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- Check the model specification, and touch either "WITH SUN-ROOF" or "WITHOUT SUNROOF" on the "SELECT SYS COND" screen.
- 7. Touch "OK". If the selection is wrong, touch "CANCEL".
- 8. Select the desired part to be diagnosed on the "SELECT TEST ITEM" screen.



IVMS COMMUNICATION INSPECTION.

IVMS contains the IVMS communication diagnosis and wake-up diagnosis.

IVMS Communication Diagnosis

 The function also stores the communication malfunction records and inactive communication records, and displays the data on the CONSULT-II screen. (malfunction record diagnosis.)

NOTE:

Sleep is a power saving function when a vehicle is stationary (all BCM related electrical equipment: OFF, and the timer: OFF).

Malfunction CONSULT-II display item Diagnosis content		Diagnosis content	
Communication malfunction	function COMM DATA Communicating with each LCU is judged normal when communication is norm completed and when both transmitted data and received data are equal. In other cases, it is judged malfunctioning. If the communication is inactive, no diagnost result is displayed.		
Inactive communication	NO RESPONSE	Communicating with each LCU is judged normal when at least 1 communication i normally completed within 3 trials. In other cases, it is judged malfunctioning.	
Sleep malfunction	SLEEP	Check that each LCU switches to sleep mode.	
Communication malfunction*	PAST COMM DATA	The records when communication signal, malfunctions were continuously detected while the communication was normal are displayed, or a malfunction was detected during the sleep control in the past are displayed.	
Inactive communication* PAST NO RESPONSE The records when inactive communications were continuously detected v communication was normal are displayed.		The records when inactive communications were continuously detected while the communication was normal are displayed.	

^{*:} Malfunction item record

Operation Procedure

- Touch "IVMS-COMM CHECK" on "SELECT TEST ITEM".
- 2. Touch "IVMS-COMM DIAGNOSIS" on the "SELECT DIAG ITEM" screen.
- 3. Touch "START" on the "IVMS-COMM DIAGNOSIS" screen to start the diagnosis.
- 4. After the diagnosis is completed, the malfunctioning system name is displayed.
- 5. When the malfunctioning items are displayed, touch "PRINT" to keep the records.
- 6. Touch "ERASE".
- 7. Carry out the communication inspection again to check that any malfunctioning item is displayed.
- 8. Check the displayed items.

Wake-up Diagnosis.

The wake-up diagnosis is carried out when the BCM detects the wake-up signal from each local control unit (LCU). When the switch shown on the screen is operated as instructed, each local control unit (LCU) outputs the wake-up signal. If the BCM cannot detect the wake-up signal, it is judged malfunctioning. The malfunctioning local control unit (LCU) is displayed on the screen.

Operation Procedure

- Touch "IVMS-COMM CHECK" on the "SELECT TEST ITEM" screen.
- Touch "WAKE-UP DIAGNOSIS" on the "SELECT DIAG ITEM" screen.
- 3. Touch "START" on the "WAKE-UP DIAGNOSIS" screen to start the diagnosis.

- 4. Touch "NEXT" to select the local control unit (LCU) to be diagnosed.
- 5. Check that any malfunction is displayed. If necessary, touch "PRINT" to keep the record.
- Carry out the inspection of the malfunctioning item.

Trouble Diagnosis Chart

Malfunctioning item	Display unit	CONSULT-II IVMS communication diagnosis content	Self-diagnosis trouble code No.	Malfunctioning system and reference
		POWER WINDOW C/U-DR "COMMDATA"	24	
	One LCU is	DOOR MIRROR C/U-RH "COMMDATA"	27	Replace the displayed
	displayed.	DOOR MIRROR C/U-LH "COMMDATA"	37	LCU.
COMM DATA		POWER SEAT C/U-DR "COMMDATA"	47	
	Multiple LCU are displayed.	BCM "COMMFAIL1", "COMMFAIL2"	Displays in order of $24\rightarrow27\rightarrow37\rightarrow47\rightarrow$ and cycles from 24.	Communication system A: Refer to <u>SE-41</u> .
	One LCU is displayed.	POWER WINDOW C/U-DR "NORESPONSE"	25	Communication system B: Refer to <u>SE-42</u>
		DOOR MIRROR C/U-RH "NORESPONSE"	28	
NO		DOOR MIRROR C/U-LH "NORESPONSE"	38	
RESPONSE		POWER SEAT C/U-DR "NORESPONSE"	48	
	Multiple LCU are displayed.	BCM/HARNESS	Displays in order of $25\rightarrow28\rightarrow38\rightarrow48$ and cycles from 25.	Communication system C: Refer to SE-42.
	One LCU is displayed.	POWER WINDOW C/U-DR "SLEEP"		Replace the displayed LCU.
		DOOR MIRROR C/U-RH "SLEEP"	No self-diagnosis	
SLEEP malfunction		DOOR MIRROR C/U-LH "SLEEP"	function LCU.	
		POWER SEAT C/U-DR "SLEEP"		
	Multiple LCU are displayed.	All the above control units are displayed.	No self-diagnosis function	Communication system A: Refer to <u>SE-41</u> .

NOTE:

- For a specific local control unit (LCU), either "PAST COMM DATA" or "PAST NO RESPONSE" may be displayed instead of the above results. The data record, causes this, so erase the records.
 - (The display only shows the incident records, they are not malfunctions caused during the diagnosis. One possible cause is that an intermittent incident occurred.)
- Follow the steps below to erase the memory. Carry out either disconnect BCM battery power supply or erase memory with CONSULT-II.
- With the battery connected, if the local control unit (LCU) connector is disconnected and left for approximately 1 minute, the BCM stores "NO RESPONSE" record.

COMMUNICATION SYSTEM A

СНЕСК ВСМ

Replace the BCM with a known-good one, and carry out the communication diagnosis. Refer to SE-40, "IVMS Communication Diagnosis".

OK or NG

OK >> The harness and connector is checked, and it is normal, replace BCM

NG >> GO TO 2.

2. CHECK LCU

- Replace with the previously installed BCM.
- Replace the LCU with a known-good one, and carry out the communication diagnosis. Refer to SE-40, "IVMS Communication Diagnosis".

OK or NG

OK >> The harness and connector is checked, and it is normal, replace LCU

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

SE-41 Revision: 2005 November 2006 Q45

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COMMUNICATION SYSTEM B

1. CHECK HARNESS CONNECTOR

Check terminals (at the control unit and harness) on the malfunctioning LCU for disconnection, bend, loose connection, and other malfunctions.

OK or NG

OK >> GO TO 2.

NG >> Repair the terminals and connectors.

2. CHECK LCU

Replace the malfunctioning LCU with a known-good one, and carry out the communication diagnosis. Refer to SE-40, "IVMS Communication Diagnosis".

OK or NG

OK >> The harness and connector is checked, and it is normal, replace LCU

NG >> Repair the harness between the indicated LCU and BCM.

COMMUNICATION SYSTEM C

1. CHECK HARNESS CONNECTOR

Check terminals (at the control unit and harness) on BCM and LCU for disconnection, bend, loose connection, and other malfunctions.

OK or NG

OK >> GO TO 2.

NG >> Repair the terminals and connectors.

2. CHECK BCM

Replace the malfunctioning BCM with a known-good one, and carry out the communication diagnosis. Refer to <u>SE-40, "IVMS Communication Diagnosis"</u>.

OK or NG

OK >> The harness and connector is checked, and it is normal, replace BCM

NG >> Repair the harness between the LCU and BCM control.

WORK SUPPORT

Display Item List

Refer to SE-35, "SETTING CHANGE FUNCTION" .

SELF-DIAGNOSIS RESULTS

Display Item List

Malfunctioning system	Malfunction detecting condition	Diagnostic procedure	Reference page
SEAT SLIDE	When the sliding sensor pulse changes 2 times or less, while the sliding motor moves the seat backward for 2.5 seconds, and then forward for 2.5 seconds.	Sliding motor circuit check Sliding sensor circuit check	<u>SE-54</u> <u>SE-63</u>
SEAT RECLINING	When the reclining sensor pulse changes 2 times or less, while the reclining motor moves the seat forward for 2.5 seconds, and then backward for 2.5 seconds.	Reclining motor circuit check Reclining sensor circuit check	<u>SE-55</u> <u>SE-64</u>
SEAT LIFTER-FR	When the lifter sensor (front end) pulse changes 2 times or less, while the lifter motor (front end) moves the seat downward for 2.5 seconds, and then upward for 2.5 seconds.	Front lifting motor circuit check Front lifting sensor circuit check	<u>SE-56</u> <u>SE-65</u>
SEAT LIFTER-RR	When the lifter sensor (rear end) pulse changes 2 times or less, while the lifter motor (rear end) moves the seat downward for 2.5 seconds, and then upward for 2.5 seconds.	Rear lifting motor circuit check Rear lifting sensor circuit check	<u>SE-58</u> <u>SE-66</u>
STEERING TILT	,When the tilt sensor output voltage is 0.2V or less, while the tilt motor moves the steering wheel upward for 1 second, and then downward for 1 second.	Tilt motor circuit check Tilt sensor circuit check	<u>SE-61</u> <u>SE-69</u>
STEERING TELESCO	When the telescoping sensor output voltage is 0.2V or less. while the telescope motor moves the steering wheel forward for 1 second, and then backward for 1 second,	Telescopic motor circuit check Telescopic sensor circuit check	<u>SE-59</u> <u>SE-68</u>
DOOR MIRROR- LH-UP-DOWN	When LH door mirror sensor detects 0.2V or lower, or	Mirror sensor circuit check	GW-114
DOOR MIRROR- LH-L-R	4.5V or higher, for 0.5 seconds or more.	St. SSTISST SHOULD SHOULD	<u> </u>
DOOR MIRROR- RH-UP-DOWN	When RH door mirror sensor detects 0.2V or lower, or	Mirror sensor circuit check	CW 444
DOOR MIRROR- RH·L-R	4.5V or higher, for 0.5 seconds or more.	willtor sensor circuit check	<u>GW-114</u>
VEHICLE SPEED SENSOR	When the vehicle speed is less than 7 km/h (4 MPH) for 15 seconds after the diagnosis for the seat and steering wheel is completed.	Vehicle speed signal check	<u>SE-73</u>

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Auto Drive Positioner Incident Memory

It stores the incident records of the input/output system related to the auto driving position system, and displays them on the CONSULT-II screen.

Malfunctioning system	Malfunction detecting condition	Diagnostic procedure	Reference page
SEAT SLIDE "PAST OUTPUT FAIL"	If the following conditions are met, the seat sliding output system is judged malfunctioning. If there is no manual input in the past or any auto operation output, and then within 2.5 seconds the sliding sensor receives an input signal showing that the seat has slid by 6 mm or more.	Sliding motor circuit check Sliding sensor circuit check	<u>SE-54</u> <u>SE-63</u>
SEAT RECLINING "PAST OUTPUT FAIL"	If the following conditions are met, the seat reclining output system is judged malfunctioning. If there is no manual input in the past nor any auto operation output, and then within 2.5 seconds the reclining sensor receives an input signal showing that the seat has reclined by 2.22 or more.	Reclining motor circuit check Reclining sensor circuit check	<u>SE-55</u> <u>SE-64</u>
STEERING TILT "PAST OUTPUT FAIL"	If the following conditions are met, the steering tilt output system is judged malfunctioning. If there is no manual input in the past nor any auto operation output, and then within 2.5 seconds the steering tilt sensor receives an input signal showing that the steering wheel is tilted by 1° or more.	Tilt motor circuit check Tilt sensor circuit check	<u>SE-61</u> <u>SE-69</u>
DETENTION SW "PAST INPUT FAIL"	With the A/T selector lever in P-position (Detention switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input for at least 2 seconds, the detention switch input system is judged malfunctioning.	Detention switch circuit check	SE-67
TELESCO SENSOR "PAST"	If the voltage value detected by the telescopic sensor was 0.1V or less, or 4.9 V or more, the telescoping sensor is judged malfunctioning.	Telescopic sensor circuit check	SE-68
TILT SENSOR "PAST"	If the voltage value detected by the tilt sensor was 0.1V or less, or 4.9 V or more, the tilt sensor is judged malfunctioning.	Tilt sensor circuit check	<u>SE-69</u>

DATA MONITOR Display Item List

Monitor item [OPERATION or UNIT]		Contents	
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.	
RECLIN SW-FR	"ON/OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.	
RECLIN 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 lifter switch (UP) signal is displayed.	
LIFT FR SW-DN	"ON/OFF"	ON/OFF status judged from the FR lifter switch (DOWN) signal is displayed.	
LIFT RR SW-UP	"ON/OFF"	ON/OFF status judged from the RR lifter switch (UP) signal is displayed.	
LIFT RR SW-DN	"ON/OFF"	ON/OFF status judged from the RR lifter 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 s 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.	
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.	

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.
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.
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.
CANCEL SW	"ON/OFF"	Setting status is displayed with the display unit: "Active (ON)/inactive (OFF)"
DOOR SW DR	"ON/OFF"	ON (Door open) / OFF (door closed) status judged from the driver door switch is displayed.
VHCL SPEED SE	"7km/7km"	The present vehicle speed (less than 7 km/h (4 MPH), or 7 km/h (4 MPH) or higher) is displayed.
DETENT SW	"ON/OFF"	The selector lever position "ON (P position) / OFF (other than P position)" judged from the detention switch signal is displayed.
IGN ON SW	"ON/OFF"	Ignition key switch ON (IGN ON)/OFF (ignition switch START, ACC, or OFF) status judged from the ignition switch signal is displayed.
IGN ACC SW	"ON/OFF"	Ignition key switch ON (ACC or IGN ON)/ OFF (ignition switch START, or OFF) status judged from the ignition switch signal is displayed.
IGN START SW	"ON/OFF"	Ignition key switch ON (START, ON) /OFF (ignition switch IGN, ACC, or OFF) status judged from the ignition switch signal is displayed.
IGN KEY SW	"ON/OFF"	Key inserted (ON)/key removed (OFF) status judged from the key detection switch is displayed.
R POSITION SW	"ON/OFF"	R position (ON)/Other than R position of shift position signal from back-up lamp relay is displayed.
TILT SEN	"V"	The tilt position (voltage) judged from the tilt sensor signal is displayed.
TELESCO SEN	"V"	The telescoping position (voltage) judged from the telescoping sensor signal is displayed.
MIR/SE RH R-L	"ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from RH door mirror sensor output voltage (LH/RH) is displayed.
MIR/SE RH U-D	"ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from RH door mirror sensor output voltage (UP/DOWN) is displayed.
MIR/SE LH R-L	"ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from LH door mirror sensor output voltage (LH/RH) is displayed.
MIR/SE LH U-D	"ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from LH door mirror sensor output voltage (UP/DOWN) is displayed.

^{*:} Abnormal value indicates that the sensor output voltage is 0.2V or lower, or 4.5V or higher.

ACTIVE TEST 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 end lifter motor is activated by receiving the drive signal.	
SEAT LIFTER RR	The rear end lifter motor is activated by receiving the drive signal.	
MEMORY SW INDCTR	The memory switch indicator is lit 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.	

Revision: 2005 November **SE-45** 2006 Q45

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On Board Diagnosis

NIS00120

BCM can check each local unit (LCU), switches, loads, and malfunctions in communication with the self-diagnosis.

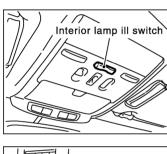
DIAGNOSIS ITEM

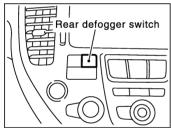
Diagnosis item	Description
Communication diagnosis It can check the communication line between BCM and each LCU, and also each LCU, for communication malfunction.	
Switch monitor	It can check the switch systems which send data to BCM and each LCU for a malfunction.
Self-diagnosis for auto drive positioner	Diagnosis malfunctions in each motor and sensor in the electrical load parts of the driver power seat system (sliding, reclining, and lifter [front/rear]), of the steering wheel system (tilt, telescoping), and of door mirror.

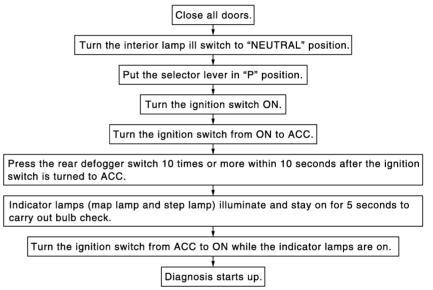
COMMUNICATION DIAGNOSIS

Check the communication between BCM and each local control unit (LCU).

Operation Procedure





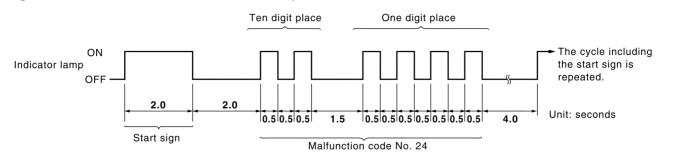


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Diagnosis Result Display

- The indicator lamps (the map lamp and step lamp) turn ON (illuminate) for 2 seconds and OFF (go off) for 2 seconds to indicate that the diagnosis has started, then indicate the diagnosis trouble code.
- To indicate the diagnosis trouble code, the indicator lamps illuminate or flash.
- At first, the lamps indicate the second place by ON/OFF with 0.5 second-interval, then OFF for 1.5 seconds. Next, they indicate the first place by ON/OFF with 0.5 second interval.
- If there are multiple malfunctioning parts, the lamps indicate them in sequence from the smallest diagnosis trouble code.
- The diagnosis results repeat until the diagnosis is cancelled.
- If a malfunction is indicated, carry out the communication diagnosis again to check that the same diagnosis trouble code is indicated.

Diagnosis Trouble Code Indication Example



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Trouble Diagnosis Chart

Malfunctioning item	Display unit	CONSULT-II IVMS communication diagnosis content	Self-diagnosis trouble code No.	Malfunctioning system and reference	
	POWER	POWER WINDOW C/U-DR "COMMDATA"	24		_
	One LCU is	DOOR MIRROR C/U-RH "COMMDATA"	27	Replace the displayed	
	displayed.	DOOR MIRROR C/U-LH "COMMDATA"	37	LCU.	
COMM DATA		POWER SEAT C/U-DR "COMMDATA"	47		
	Multiple LCUs are displayed	BCM"COMMFAIL1","COMMFAIL2"	Displays in order of $24\rightarrow27\rightarrow37\rightarrow47\rightarrow$ and cycles from 24.	Communication system A: Refer to SE-48.	_
		POWER WINDOW C/U-DR "NORESPONSE"	25		_
	One LCU is displayed.	DOOR MIRROR C/U-RH "NORESPONSE"	28	Communication system	
NO		DOOR MIRROR C/U-LH "NORESPONSE"	38	B: Refer to <u>SE-48</u> .	
RESPONSE		POWER SEAT C/U-DR "NORESPONSE"	48		ľ
	Multiple LCUs are displayed	BCM/HARNESS	Displays in order of $25\rightarrow28\rightarrow38\rightarrow48$ and cycles from 25.	Communication system C: Refer to SE-48.	= '
		POWER WINDOW C/U-DR "SLEEP"			_
	One LCU is	DOOR MIRROR C/U-RH "SLEEP"	No self-diagnosis	Replace the displayed LCU.	
SLEEP d malfunction	displayed.	DOOR MIRROR C/U-LH "SLEEP"	function		
		POWER SEAT C/U-DR "SLEEP"			
Multiple LCUs are displayed		All the above control units are displayed.	No self-diagnosis function	Communication system A: Refer to <u>SE-48</u> .	_

NOTE:

- For a specific local control unit (LCU), either "PAST COMM DATA" or "PAST NO RESPONSE" may be displayed instead of the
 above results. This is caused by the data record, so erase the records.
 (The display only shows the incident records, they are not malfunctions caused during the diagnosis. One possible cause is that an
 irreproducible incident occurred.)
- Follow the steps below to erase the memory.
 Carry out either disconnect BCM battery power supply or erase memory with CONSULT-II.
- With the battery connected, if the local control unit (LCU) connector is disconnected and left for approximately 1 minute, the BCM stores "NO RESPONSE" record.

Cancel Of Communication Diagnosis

If one of the following conditions is satisfied, the communication diagnosis is cancelled.

- When the ignition switch is turned OFF.
- The vehicle speed becomes 7 km/h (4 MPH) or higher.
- Ten minutes have passed since the diagnostic result indication start without no diagnosis cancel operation.

COMMUNICATION SYSTEM A

1. CHECK BCM

Replace the BCM with a known-good one, and carry out the communication diagnosis. Refer to <u>SE-46, "COM-MUNICATION DIAGNOSIS"</u> .

OK or NG

OK >> Replace BCM NG >> GO TO 2.

2. CHECK LCU

- 1. Replace with the previously installed BCM.
- 2. Replace the LCU with a known-good one, and carry out the communication diagnosis. Refer to <u>SE-46</u>, "COMMUNICATION DIAGNOSIS" .

OK or NG

OK >> Replace LCU

NG >> Repair the harness between the LCU and BCM.

COMMUNICATION SYSTEM B

1. CHECK HARNESS CONNECTOR

Check terminals (at the control unit and harness) on the malfunctioning LCU for disconnection, bend, poor connection and other malfunctions.

OK or NG

OK >> GO TO 2.

NG >> Repair the terminals and connectors.

2. CHECK LCU

Replace the malfunctioning LCU with a known-good one, and carry out the communication diagnosis. Refer to <u>SE-46, "COMMUNICATION DIAGNOSIS"</u> .

OK or NG

OK >> Replace LCU

NG >> Repair the harness between the indicated LCU and BCM.

COMMUNICATION SYSTEM C

1. CHECK HARNESS CONNECTOR

Check terminals (at the control unit and harness) on BCM and LCU for disconnection, bend, poor connection, and other malfunctions.

OK or NG

OK >> GO TO 2.

NG >> Repair the terminals and connectors.

2. CHECK BCM

Replace the malfunctioning BCM with a known-good one, and carry out the communication diagnosis. Refer to <u>SE-46, "COMMUNICATION DIAGNOSIS"</u> .

OK or NG

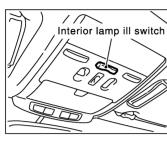
OK >> Replace BCM

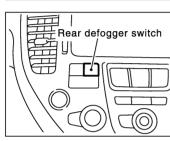
NG >> Repair the harness between the LCU and BCM control.

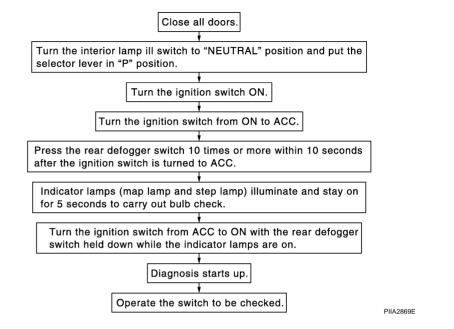
SWITCH MONITOR

Perform the diagnosis for the switch system input to each control unit.

Operation Procedure



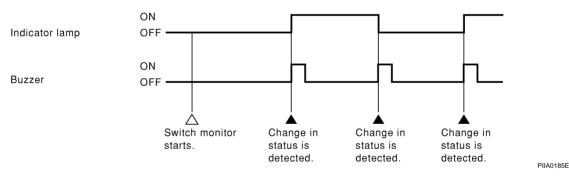




Diagnosis Result Display

 Detects the status change (switch ON/OFF operation) of the switch to be checked, and turns on/off the indicator lamps (the map lamp and step lamp). Also sounds the buzzer (the key remainder and light remainder) for 0.5 seconds.

If a malfunction is detected, no indicator lamp and buzzer react.



Diagnosis Item

The status of the switch (except the ignition switch, interior lamp switch, and map lamp switch) input to each control unit can be monitored.

Control unit	Item	
	Detention switch	
	Steering wheel position switch (telescopic switch and tilt switch)	
BCM	Seat memory switch (memory switch 1, memory switch 2, and setting switch)	
	Driver door switch	
	Door mirror remote control switch	
	Slide switch (FR/RR)	
Driver seat control unit	Reclining switch (FR/RR)	
Driver seat control unit	Front end lifting switch (UP/DOWN)	
	Rear end lifting switch (UP/DOWN)	

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Revision: 2005 November SE-49 2006 Q45

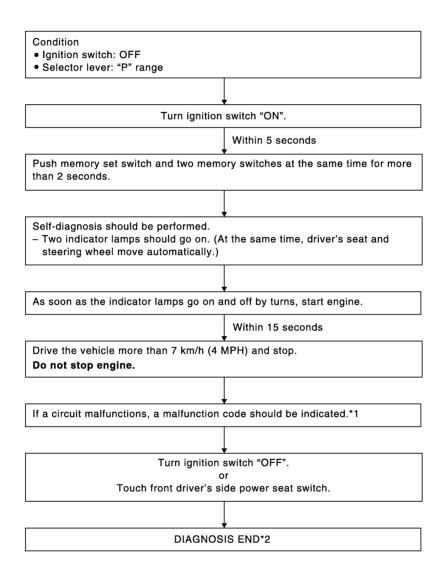
Cancel Of Switch Monitor

If one of the following conditions is satisfied, the switch monitor is cancelled.

- When the ignition switch is turned OFF.
- The vehicle speed becomes 7 km/h (4 MPH) or higher.

ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER

Check the operations of the auto drive positioner system.



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^{*1:} If no malfunction is indicated, On board diagnosis for automatic drive positioner will end after the vehicle speed sensor diagnosis is performed.

^{*2:} Diagnosis ends after self-diagnostic results have been indicated for 10 minutes if left unattended.

Diagnostic Result Display

• The malfunctioning items are indicated by how many times LEDs on the seat memory switches 1 and 2 flash simultaneously.

Code No.	Detected items	Indication of seat memory switches 1 and 2	Explanation B
1	Seat sliding	IND1, IND2	-
2	Seat reclining	IND1, IND2	While the seat motors are moving for 2.5 seconds, if the number of seat sliding/reclining/lifting
3	Seat lifting front	IND1, IND2	sensor pulses changes 2 times or less, the seat device is determined
4	Seat lifting rear	IND1, IND2	to be malfunctioning.
5	Steering telescopic	IND1, IND2	While the steering motors are moving, if the steering sensor output changes
6	Steering tilt	IND1, IND2	0.2 volts or less, the steering device is determined to be malfunctioning.
7	Door mirrors (upper and lower)	IND1, IND2	When output voltage of either LH or RH door mirror sensor continues at less than 0.2V or more than 4.5V for 0.5 seconds or more, the door mirror is determined to be malfunctioning.
8	Door mirrors (LH and RH)	IND1, IND2	When output voltage of either LH or RH door mirror sensor continues at less than 0.2V or more than 4.5V for 0.5 seconds or more, the door mirror is determined to be malfunctioning.
9	Vehicle speed sensor circuit	IND1, IND2	If the vehicle speed sensor output of less than 7 km/h (4 MPH) is detected, the vehicle speed sensor is determined to be malfunctioning.
-	No malfunction in the above items	SW2 IND 0.5 sec. 5 sec.	L

- If the vehicle speed is less than 7 km/h (4 MPH) for 15 seconds after the diagnosis for the seat and steering wheel systems were completed, the vehicle speed signal is judged malfunctioning.
- If LH door mirror is malfunctioning, only indicator lamp on the memory switch 1 flashes, and if RH door mirror is malfunctioning, only indicator lamp on the memory switch 2 flashes.
- When all the diagnosis are finished normally, the indicator lamps on the memory switches 1 and 2 go off after the vehicle speed signal diagnosis.
- If there are multiple malfunctioning parts, the lamps indicate them in sequence from the smallest diagnosis trouble code.
- The diagnosis results repeat until the diagnosis mode is cancelled.

Symptom Chart	ı		NIS0012
Symptom		Diagnoses / service procedure	Refer to page
	1.	Check sliding motor circuit	<u>SE-54</u>
	2.	Check reclining motor circuit	<u>SE-55</u>
A part of seat system does not operate (both automatically and manually).	3.	Check front lifting motor circuit	<u>SE-65</u>
(com and many and many)	4.	Check rear lifting motor circuit	SE-58
	5.	If the above systems are normal, replace the BCM	_
	1.	Check telescopic motor circuit	<u>SE-59</u>
A part of steering wheel system does not operate (both automatically and manually).	2.	Check tilt motor circuit	<u>SE-61</u>
(,	3.	If the above systems are normal, replace the BCM	_
	1.	Check door mirror remote control switch (changeover switch) circuit	<u>GW-108</u>
Door mirrors cannot be actuated in both automatic and manual modes.	2.	Check door mirror remote control switch (mirror switch) system	<u>GW-111</u>
	3.	If the above systems are normal, replace the BCM	_
	1.	Check sliding sensor circuit	SE-63
	2.	Check reclining sensor circuit	SE-64
A part of seat system does not operate	3.	Check front lifting sensor circuit	SE-65
(only automatic operation).	4.	Check rear lifting sensor circuit	SE-66
	5.	If the above systems are normal, replace the driver seat control unit	_
	1.	Check back-up input signal circuit in R position	<u>GW-110</u>
Door mirrors cannot be actuated in automatic mode.	2.	Check mirror sensors circuit	<u>GW-114</u>
Door militors cannot be actuated in automatic mode.	3.	If the above systems are normal, replace the door mirror control unit	_
		Check detention switch circuit	SE-67
	2.	Check telescopic sensor circuit	SE-68
All the automatic operations do not operate.	3.	Check tilt sensor circuit	SE-69
	4.	Check vehicle speed signal	SE-73
	5.	If all the above systems are normal, replace the BCM	_
0	1.	Check seat memory switch circuit	<u>SE-75</u>
Seat or steering wheel memory does not work.	2.	If the above systems are normal, replace the BCM	_
	1.	Check sliding switch circuit	SE-76
	2.	Check reclining switch circuit	SE-78
	3.	Check front lifting switch circuit	SE-80
	4.	Check rear lifting switch circuit	SE-82
Only 22-2-1-1	5.	Check telescopic switch circuit	SE-84
Only manual operation does not operate.		Check tilt system switch circuit	SE-86
		Check door mirror remote control switch (mirror switch) circuit	<u>GW-111</u>
	8.	If all the above systems are normal, replace the driver seat control unit for the seat system, the BCM for the steering wheel system	_
The entry / exiting does not operated when door is	1.	Check seat memory indicator lamp circuit	SE-88
opened and closed (The entry / exiting operates with key switch)	2.	If the above systems are normal, replace the BCM	_

Symptom	Diagnoses / service procedure	Refer to page
Cook manner, in director lamper 4 and 2 do not illuminate	Check front door switch (driver side) circuit	SE-72
Seat memory indicator lamps 1 and 2 do not illuminate.	2. If the above systems are normal, replace the BCM	_
	Check detention switch circuit	SE-67
	2. Check key switch and key lock solenoid circuit	SE-70
	3. Check seat memory switch circuit	SE-75
Auto driving position system self-diagnosis does not	Check seat memory indicator lamp circuit	SE-88
work. (With out CONSULT-II)	5. Check vehicle speed signal	SE-73
	6. If all the above systems are normal, retry the self-diagnosis. If the self-diagnosis are still disable, check the driver seat control unit connector and terminals for looseness and damage	_
Lumber support motor does not operated.	Check lumber support circuit	SE-89
Turnout operation of rear power seat LH does not operate, bat rear power seat can be operated by rear power seat switch.	Check rear power seat turnout operation.	SE-91

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Check Sliding Motor Circuit

1. CHECK SEAT SLIDING MECHANISM

Check the following.

- Operation malfunction caused by sliding rail deformation or 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.

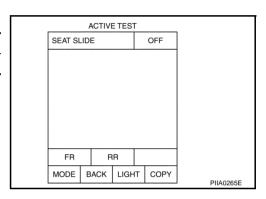
NG >> Repair the malfunction part and check again.

2. CHECK FUNCTION

(P)With CONSULT-II

Check operation with "SEAT SLIDE" in ACTIVE TEST.

Test item	Description
SEAT SLIDE	The sliding motor is activated by receiving the drive signal.



NIS0012Q

Without CONSULT-II

Perform the on-board diagnosis. Refer to <u>SE-50</u>, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER".

OK or NG

OK >> System is OK.

NG >> GO TO 3.

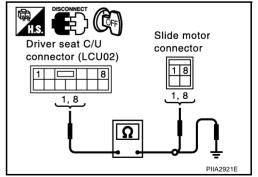
3. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and sliding motor connector.
- Check continuity between driver seat control unit connector B142 terminals 1, 8 and sliding motor connector B146 terminals 1, 8.

1 (W) – 1 (W) : Continuity should exist. 8 (BR) – 8 (BR) : Continuity should exist.

 Check continuity between driver seat control unit connector B142 terminals 1, 8 and ground.

> 1 (W) – Ground :Continuity should not exist. 8 (BR) – Ground :Continuity should not exist.



OK or NG

OK >> GO TO 4.

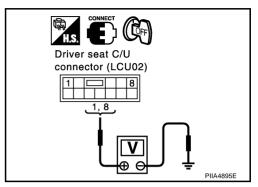
NG >> Repair or replace harness between driver seat control unit and sliding motor.

Revision: 2005 November SE-54 2006 Q45

4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
	1 (W) ————————————————————————————————————	Ground	Sliding switch (forward operation)	Battery voltage
B142			Sliding switch OFF	0
D142		Giodila	Sliding switch (backward operation)	Battery voltage
	-		Sliding switch OFF	0



OK or NG

OK >> Replace sliding motor.

NG >> Replace driver seat control unit.

Check Reclining Motor Circuit

1. CHECK SEAT RECLINING MECHANISM

Check 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.

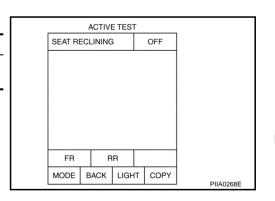
NG >> Repair the malfunction part and check again.

2. CHECK FUNCTIONAL

(P)With CONSULT-II

Check operation with "SEAT RECLINING" in ACTIVE TEST.

Test item	Description
SEAT RECLINING	The reclining motor is activated by receiving the drive signal.



Without CONSULT-II

Perform the self-diagnosis. Refer to <u>SE-50, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-</u>TIONER".

OK or NG

OK >> System is OK.

NG >> GO TO 3.

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Revision: 2005 November **SE-55** 2006 Q45

3. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and reclining motor connector.
- 3. Check continuity between driver seat control unit connector B142 terminals 2, 9 and reclining motor connector B147 terminals 2, 9.

2 (G) – 2 (G) : Continuity should exist. 9 (LG) – 9 (LG) : Continuity should exist.

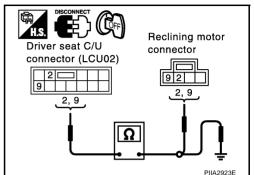
4. Check continuity between driver seat control unit connector B142 terminals 2, 9 and ground.

2 (G) – Ground :Continuity should not exist. 9 (LG) – Ground :Continuity should not exist.

OK or NG

OK >> GO TO 4.

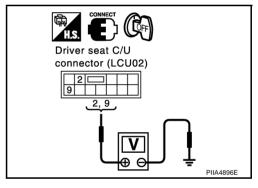
NG >> Repair or replace harness between driver seat control unit and reclining motor.



4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
	2 (G) Ground 9 (LG)	Ground	Reclining switch (forward operation)	Battery voltage
B142			Reclining switch OFF	0
D142		Reclining switch (backward operation)	Battery voltage	
			Reclining switch OFF	0



OK or NG

OK >> Replace reclining motor.

NG >> Replace driver seat control unit.

Check Front Lifting Motor Circuit

1. CHECK FRONT 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 lifter motor or lead screws
- Operation malfunction and interference with other parts by installation

OK or NG

OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

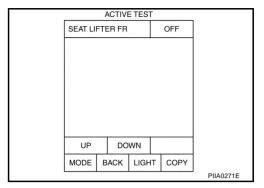
NIS0012S

$\overline{2}$. CHECK FUNCTION

With CONSULT-II

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

Test item	Description
SEAT LIFTER FR	The front end lifter motor is activated by receiving the drive signal.



Without CONSULT-II

Perform the on-board diagnosis. Refer to <u>SE-50, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-TIONER"</u> .

OK or NG

OK >> System is OK. NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector and front lifting motor connector.

3. Check continuity between driver seat control unit connector B142 and terminals 10, 11 and front lifting motor connector B148 terminals 10, 11.

10 (OR) – 10 (OR) : Continuity should exist. 11 (P) – 11 (P) : Continuity should exist.

4. Check continuity between driver seat control unit connector B142 and terminals 10, 11 and ground.

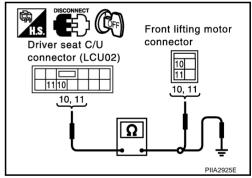
10 (OR) – Ground :Continuity should not exist. 11 (P) – Ground :Continuity should not exist.

OK or NG

NG

OK >> GO TO 4.

>> Repair or replace harness between driver seat control unit and front lifting motor.



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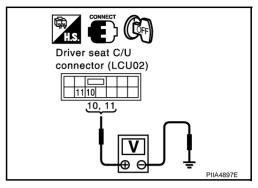
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4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector and front lifting motor connector.
- 2. Check voltage between driver seat control unit connector.

Connector	Terminals (Wire color) Condition	Condition	Voltage (V) (Approx.)	
	(+)	(-)		(Арргох.)
	10 (OR) Gr		Front end lifting switch (DOWN operation)	Battery voltage
B142		Ground	Front end lifting switch OFF	0
D142		Sibulia	Front end lifting switch (UP operation)	Battery voltage
			Front end lifting switch OFF	0



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OK or NG

OK >> Replace front lifting motor.

NG >> Replace driver seat control unit.

Check Rear Lifting Motor Circuit

1. CHECK REAR LIFTING MECHANISM

Check following items.

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

OK or NG

OK >> GO TO 2.

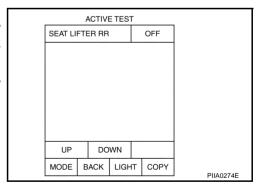
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

(II) With CONSULT-II

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

-	Test item	Description
_	SEAT LIFTER RR	The rear end lifter motor is activated by receiving the drive signal.



Without CONSULT-II

Perform the on-board diagnosis. Refer to <u>SE-50, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-TIONER"</u>.

OK or NG

OK >> System is OK.

NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and rear lifting motor connector.
- Check continuity between driver seat control unit connector B142 terminals 4, 6 and lifting motor connector B149 terminals 4, 6.

4(Y) - 4(Y): Continuity should exist. 6 (PU) - 6 (PU): Continuity should exist.

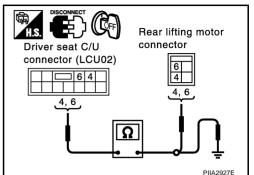
Check continuity between driver seat control unit B142 terminals 4, 6 and ground.

> 4 (Y) - Ground :Continuity should not exist. 6 (PU) - Ground :Continuity should not exist.

OK or NG

OK >> GO TO 4.

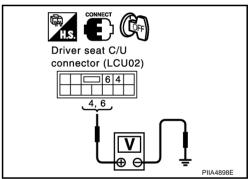
NG >> Repair or replace harness between driver seat control unit and rear lifting motor.



4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- Connect driver seat control unit and rear lifting motor.
- Check voltage between driver seat control unit connector.

Connector		inals color)	Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрыск.)
	6 (PU) 4 (Y)	Ground	Rear end lifting switch (UP operation)	Battery voltage
B142			Rear end lifting switch OFF	0
D142			Rear end lifting switch (DOWN operation)	Battery voltage
			Rear end lifting switch OFF	0



OK or NG

OK >> Replace rear lifting motor.

NG >> Replace driver seat control unit.

Check Telescopic Motor Circuit

1. CHECK STEERING WHEEL TELESCOPIC MECHANISM

Check following.

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

OK or NG

>> GO TO 2. OK

NG >> Repair the malfunctioning part and check again.

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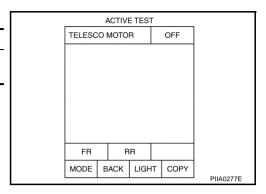
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$\overline{2}$. CHECK FUNCTION

(P) With CONSULT-II

Check operation with "TELESCO MOTOR" in ACTIVE TEST.

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



W Without CONSULT-II

Perform the on-board diagnosis. Refer to <u>SE-50, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-</u>TIONER".

OK or NG

OK >> System is OK.

NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and telescopic motor connector.
- 3. Check continuity between BCM connector M4 terminals 101, 107 and telescopic motor connector M60 terminals 1, 2.

101 (R/W) - 1 (R/W) : Continuity should exist. 107 (R) - 2 (R) : Continuity should exist.

Check continuity between BCM connector M4 terminals 101, 107 and ground.

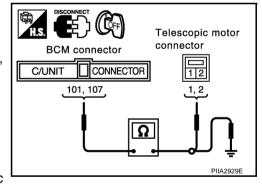
> 101 (R/W) – Ground :Continuity should not exist. 107 (R) – Ground :Continuity should not exist.

OK or NG

NG

OK >> GO TO 4.

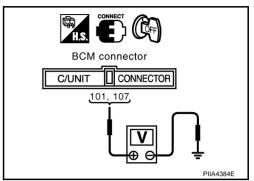
>> Repair or replace harness between BCM and telescopic motor.



4. CHECK BCM OUTPUT SIGNAL

- 1. Connect the BCM connector and telescopic motor connector.
- 2. Check voltage between BCM connector.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
M4 _	101 (R/W)	Ground	Telescopic switch (forward operation)	Battery voltage
			Telescopic switch OFF	0
			Telescopic switch (backward operation)	Battery voltage
			Telescopic switch OFF	0



OK or NG

OK >> Replace telescopic motor.

NG >> Replace BCM.

Check Tilt Motor Circuit

1. CHECK STEERING WHEEL TILT MECHANISM

Check following.

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

OK or NG

OK >> GO TO 2.

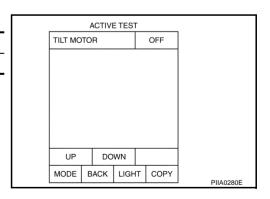
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

(II) 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.



⊗ Without CONSULT-II

Perform the on-board diagnosis. Refer to <u>SE-50, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-TIONER"</u>.

OK or NG

OK >> System is OK.

NG >> GO TO 3.

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$\overline{3}$. Check harness continuity

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector and tilt motor connector.
- 3. Check continuity between BCM connector M4 terminals 102, 103 and tilt motor connector M58 terminals 1, 2.

102 (W) - 2 (W) : Continuity should exist. 103 (Y) - 1 (Y) : Continuity should exist.

4. Check continuity between BCM connector M4 terminals 102, 103 and ground.

102 (W) – Ground :Continuity should not exist. 103 (Y) – Ground :Continuity should not exist.

OK or NG

OK >> GO TO 4.

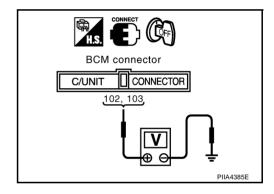
NG >> Repair or replace harness between BCM and tilt motor.

BCM connector C/UNIT CONNECTOR 102, 103 1, 2 PIIA3266E

4. CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM connector and tilt motor connector.
- 2. Check voltage between BCM connector.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
	102 (W)	Ground	Tilt switch (DOWN operation)	Battery voltage
M4			Tilt switch OFF	0
IVI			Tilt switch (UP operation)	Battery voltage
			Tilt switch OFF	0



OK or NG

OK >> Replace tilt motor.

NG >> Replace BCM.

Check Sliding Sensor Circuit

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1. CHECK SLIDING SENSOR MECHANISM

Check the operation malfunction caused by sliding rail deformation or parts are loose.

OK or NG

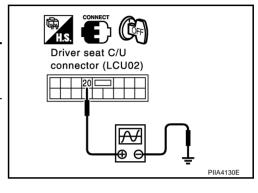
OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

2. CHECK SLIDING SENSOR INPUT/OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Signal (Reference valve)
	(+)	(-)		(ixeletetice valve)
B143	20 (G/B)	Ground	Sliding motor operation	(V) 6 4 2 0 50 ms



OK or NG

OK >> System is OK. NG >> GO TO 3.

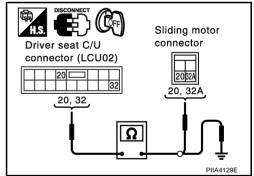
3. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and sliding motor connector.
- 2. Check continuity between driver seat control unit connector B143 terminals 20, 32 and sliding motor B146 terminals 20, 32A.

20 (G/B) – 20 (G/B) : Continuity should exist. 32 (R/W) – 32A (R/W) : Continuity should exist.

3. Check continuity between driver seat control unit B143 terminals 20, 32 and ground.

20 (G/B) – Ground :Continuity should not exist.
32 (R/W) – Ground :Continuity should not exist.



OK or NG

OK >> Replace sliding motor.

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

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Revision: 2005 November SE-63

Check Reclining Sensor Circuit

1. CHECK RECLINING SENSOR MECHANISM

Check the operation malfunction caused by reclining mechanism deformation or parts are loose.

OK or NG

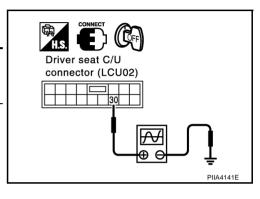
OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

2. CHECK RECLINING SENSOR INPUT/OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Signal (Reference value)	
	(+)	(-)		(IXelelelice value)	
B143	30 (L)	Ground	Reclining motor operation	(V) 6 4 2 0 50 ms	



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OK or NG

OK >> System is OK. NG >> GO TO 3.

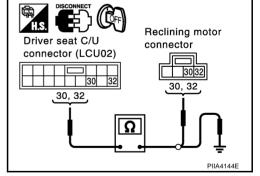
3. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and reclining motor connector.
- 2. Check continuity between driver seat control unit connector B143 terminals 30, 32 and reclining motor connector B147 terminals 30, 32.

30 (L) – 30 (L) : Continuity should exist. 32 (R/W) – 32 (R/W) : Continuity should exist.

Check continuity between driver seat control unit connector B143 terminals 30, 32 and ground.

> 30 (L) – Ground :Continuity should not exist. 32 (R/W) – Ground :Continuity should not exist.



OK or NG

OK >> Replace reclining motor.

NG >> Repair or replace harness between driver seat control unit and reclining motor.

Check Front Lifting Sensor Circuit

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1. CHECK FRONT LIFTING SENSOR MECHANISM

Check the operation malfunction caused by lifter mechanism deformation or parts are loose.

OK or NG

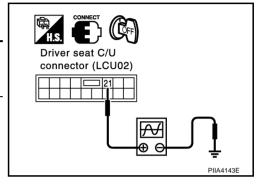
OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

2. CHECK FRONT LIFTING SENSOR INPUT/OUTPUT SIGNAL

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

Connector	Terminals (Wire color) Condition		Condition	Signal (Reference value)	
	(+)	(-)		(IXelelelice value)	
B143	21 (Y/B)	Ground	Front lifting motor operation	(V) 6 4 2 0 50 ms	



OK or NG

OK >> System is OK.

NG >> GO TO 3.

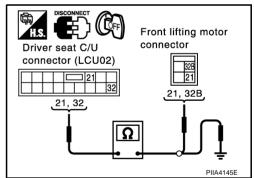
3. CHECK HARNESS CONTINUITY

- Disconnect driver seat control unit connector and front lifting motor connector.
- Check continuity between driver seat control unit connector B143 terminals 21, 32 and front lifting motor connector B148 terminals 21, 32B.

21 (Y/B) – 21 (Y/B) : Continuity should exist. 32 (R/W) – 32B (R/W) : Continuity should exist.

3. Check continuity between driver seat control unit connector B143 terminals 21, 32 and ground.

21 (Y/B) – Ground :Continuity should not exist.
32 (R/W) – Ground :Continuity should not exist.



OK or NG

OK >> Replace front lifting motor.

NG >> Repair or replace harness between driver seat control unit and front lifting motor.

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Check Rear Lifting Sensor Circuit

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1. CHECK REAR LIFTING SENSOR MECHANISM

Check the operation malfunction caused by lifter mechanism deformation or parts are loose. OK or NG

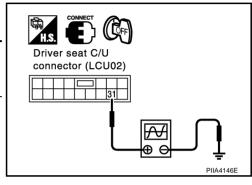
OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

2. CHECK REAR LIFTING SENSOR INPUT/OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Signal (Reference value)
	(+)	(–)		(
B143	31 (W/R)	Ground	Rear lifting motor operation	(V) 6 4 2 0 ***50ms



OK or NG

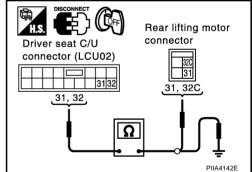
OK >> System is OK. NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY

- Disconnect driver seat control unit connector and rear lifting motor connector.
- 2. Check continuity between driver seat control unit connector B143 terminals 31, 32 and rear lifting motor connector B149 terminals 31, 32C.

31 (W/R) – 31 (W/R) : Continuity should exist. 32 (R/W) – 32C (R/W) : Continuity should exist.

- 3. Check continuity between driver seat control unit connector B143 terminals 31, 32 and ground.
 - 31 (W/R) Ground :Continuity should not exist. 32 (R/W) – Ground :Continuity should not exist.



OK or NG

OK >> Replace rear lifting motor.

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

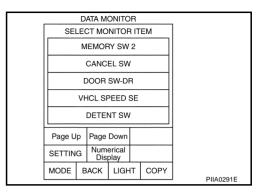
Check Detention Switch Circuit

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 ON.

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



®Without CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the A/T selector lever to check. Refer to SE-49, "SWITCH MONITOR".

OK or NG

OK >> System is OK.

NG >> GO TO 2.

2. CHECK DETENTION SWITCH POWER SUPPLY CIRCUIT HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T device (detention switch) connector and key switch and key lock solenoid connector.
- 3. Check continuity harness between A/T device (detention switch) connector M97 terminal 6 and key switch and key lock solenoid connector M64 terminal 4.

6 (PU/W) – 4 (PU/W) : Continuity should exist.

 Check continuity harness between A/T device (detention switch) connector M97 terminal 6 and ground.

6 (PU/W) – Ground :Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between A/T device (detention switch) and key switch and key lock solenoid.

Key switch and key lock solenoid connector (Key switch) (Detention switch (key))

3. CHECK DETENTION SWITCH

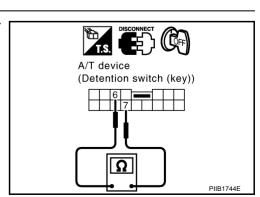
Check continuity between A/T device (detention switch) connector M97 terminal 6 and 7.

Connector	Term	inals	Condition	Continuity
M97	6 7		P-position	No
IVIST	0	7	Other than P-position	Yes

OK or NG

OK >> GO TO 4.

NG >> Replace detention switch.



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4. CHECK DETENTION SWITCH SIGNAL HARNESS

- Disconnect BCM connector.
- Check continuity between BCM connector M4 terminal 8 and A/T device (detention switch) connector M97 terminal 7.

8 (G/OR) – 7(G/OR) : Continuity should exist.

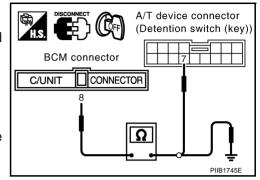
3. Check continuity harness between BCM connector M4 terminal 8 and ground.

8 (G/OR) – Ground : Continuity should not exist.

OK or NG

OK >> Replace BCM.

NG >> Repair or replace harness between BCM and A/T device (detention switch).



NIS00131

Check Telescopic Sensor Circuit

1. CHECK STEERING WHEEL TILT MECHANISM

Check the operation malfunction caused by sTeering wheel tilt mechanism deformation or parts are loose. OK or NG

OK >> GO TO 2.

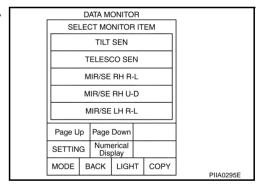
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

(P)With CONSULT-II

Operate the telescopic switch with "TELESCO SEN" on the DATA MONITOR to check that the voltage changes.

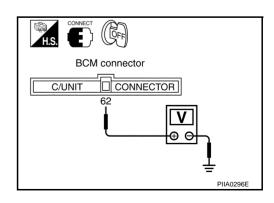
Monitor [OPERATION		Contents
TELESCO SEN	"V"	The telescoping position (voltage) judged from the telescoping sensor signal is displayed.



Without CONSULT-II

- Turn ignition switch OFF.
- Check voltage between BCM connector and ground.

Connector	Term (Wire		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
MA	M4 62 (P/B)	Ground	Telescopic top position	2
1014			Telescopic bottom position	4



OK or NG

OK >> System is OK.

NG >> GO TO 3.

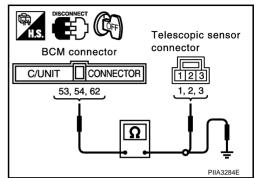
3. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM connector and telescopic sensor connector.
- 2. Check continuity harness between BCM connector M4 terminals 53, 54, 62 and telescopic sensor connector M59 terminals 1, 2, 3.

53 (L/W) – 3 (L/W) : Continuity should exist.
54 (B/Y) – 1 (LG/B) : Continuity should exist.
62 (P/B) – 2 (P/B) : Continuity should exist.

3. Check continuity harness between BCM connector M4 terminals 53, 54, 62 and ground.

53 (L/W) – Ground : Continuity should not exist.
 54 (B/Y) – Ground : Continuity should not exist.
 62 (P/B) – Ground : Continuity should not exist.



OK or NG

OK >> Replace telescopic sensor.

NG >> Repair or replace harness between BCM and telescopic sensor.

Check Tilt Sensor Circuit

1. CHECK TILT STEERING MECHANISM

Check the operation malfunction caused by steering wheel tilt melanism deformation or parts are loose. OK or NG

OK >> GO TO 2.

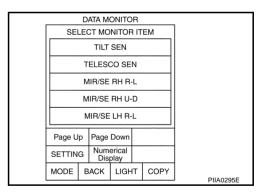
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

(P)With CONSULT-II

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

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



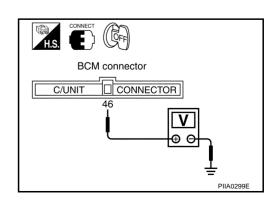
Without CONSULT-II

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Applox.)
M4	46 (L/R)	Ground	Tilt top position	2
	46 (L/K)	Giouna	Tilt bottom position	4

OK or NG

OK >> System is OK. NG >> GO TO 3.



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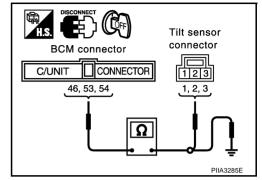
3. CHECK HARNESS

- Disconnect BCM connector and tilt sensor connector.
- 2. Check continuity harness between BCM connector M4 terminals 46, 53, 54 and tilt sensor connector M57 terminals 1, 2, 3.

46 (L/R) – 2 (L/R) : Continuity should exist. 53 (L/W) – 3 (L/W) : Continuity should exist. 54 (B/Y) – 1 (B/Y) : Continuity should exist.

3. BCM connector M4 terminals 46, 53, 54 and ground.

46 (L/R) – Ground : Continuity should not exist.
 53 (L/W) – Ground : Continuity should not exist.
 54 (B/Y) – Ground : Continuity should not exist.



OK or NG

OK >> Replace tilt sensor.

NG >> Repair or replace harness between BCM and tilt sensor.

Check Key Switch and Key Lock Solenoid Circuit

1. CHECK KEY SWITCH AND KEY LOCK SOLENOID

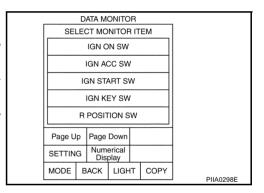
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(P) With CONSULT-II

With "IGN KEY SW" on the DATA MONITOR, Check ON/OFF operation.

Monitor item [OPERATION or UNIT]		Contents
IGN KEY SW	"ON/ OFF"	Key inserted (ON)/key removed (OFF) status judged from the key detection switch is displayed.



(R) Without CONSULT-II

Check voltage between BCM connector ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
M4	69 (PU/W)	ground	Remove the key	0
	09 (F0/W)	ground	Insert the key	Battery voltage

BCM connector C/UNIT CONNECTOR 69 W BCM CONNECTOR C/UNIT CONN

OK or NG

OK >> System is OK.

NG >> GO TO 2.

2. CHECK FUSE

Check if any of the following fuses is blown.

Power source	Fuse No.	Unit
BAT power supply	32 (10A)	Fuse block (J/B) No. 2

NOTE:

Refer to SE-17, "Component Parts and Harness Connector Location".

OK or NG

OK >> GO TO 3.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to <u>PG-2</u>, <u>"POWER SUPPLY ROUTING"</u>.

3. CHECK KEY SWITCH AND KEY LOCK SOLENOID POWER SUPPLY CIRCUIT

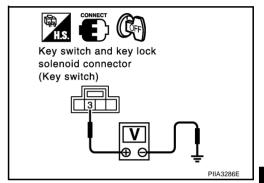
- 1. Turn ignition switch OFF,
- 2. Check voltage between key switch and key lock solenoid connector M64 terminal 3 and ground.

: Battery voltage.

OK or NG

OK >> GO TO 4.

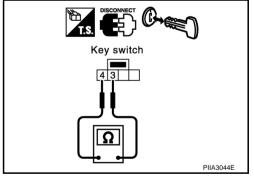
NG >> Check harness between key switch and key lock solenoid and fuse.



4. CHECK KEY SWITCH

- Disconnect key switch connector.
- 2. Check continuity between key switch connector M64 terminal 3 and 4.

Connector	onnector Terminals		Condition	Continuity
M64 3	3 4	Key is inserted in ignition key cylinder	Yes	
		Key is removed from ignition key cylinder	No	



OK or NG

OK >> GO TO 5.

NG >> Replace key switch and key lock solenoid (key switch) switch.

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5. CHECK HARNESS CONTINUITY

- 1. Disconnect key switch and key lock solenoid connector and BCM connector.
- 2. Check continuity between key switch and key lock solenoid connector M64 terminal 4 and BCM connector M4 terminal 69.

4 (PU/W) - 69 (PU/W) : Continuity should exist.

Check continuity between key switch and key lock solenoid connector M64 terminal 4 and ground.

> 4 (PU/W) - Ground : Continuity should not exist.

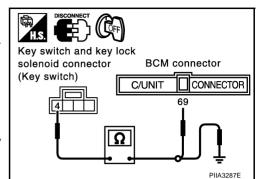
OK or NG

OK

>> Check the condition of the harness and connector.

NG

>> Repair or replace harness between key switch and key lock solenoid and BCM.



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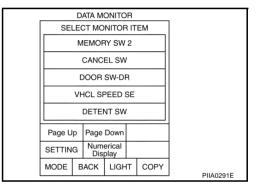
Check Front Door Switch (Driver Side) Circuit

1. CHECK FUNCTION

(P) With CONSULT-II

With "DOOR SW DR" on the DATA MONITOR, check ON/OFF operation when the driver door is open and closed.

Monitor item [OPERATION or UNIT]		Contents	
DOOR SW DR	"ON/ OFF"	Door open (ON)/door closed (OFF) status judged from the driver door switch is displayed.	



₩ Without CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and open and close the driver door to check. Refer to SE-49, "SWITCH MONITOR".

OK or NG

OK >> System is OK. NG >> GO TO 2.

2. CHECK FRONT DOOR SWITCH (DRIVER SIDE)

- 1. Turn ignition switch OFF.
- 2. Disconnect door switch (driver side) connector.
- Check continuity between (driver side) door switch connector B20 terminal 1 and ground part of door switch.

Connector	Terminals		Condition	Continuity
B20	1	Ground part of	With the front door switch (driver side) pressed	No
	'	door switch	With the front door switch (driver side) released	No Yes

Door switch PIIA3351E

OK or NG

OK >> GO TO 3.

NG >> Replace door switch (driver side).

3. CHECK HARNESS CONTINUITY

- Disconnect BCM connector.
- 2. Check continuity between BCM connector M4 terminal 142 and front door switch connector B20 terminal 1.

142 (W/R) – 1 (W/R) : Continuity should exist.

3. Check continuity between BCM connector M4 terminal 142 and ground.

142 (W/R) – Ground : Continuity should not exist.

OK or NG

OK >> Replace BCM.

NG >> Repair or replace harness between BCM and front door switch (driver side).

Front door switch (Driver side) BCM connector C/UNIT CONNECTOR 142 PIIA3346E

Check Vehicle Speed Signal

1. CHECK SYMPTOM

Check that the speedometer in the combination meter operates normally.

OK or NG

OK >> GO TO 2.

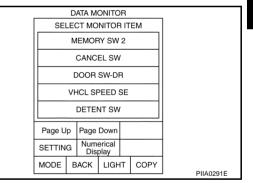
NG >> Check vehicle speed signal. Refer to <u>DI-7, "COMBINATION METERS"</u>.

2. CHECK FUNCTION

(P)With CONSULT-II

With "VHCL SPEED SE" on the DATA MONITOR, Check vehicle speed signal.

Monitor item [OPERATION or UNIT]		Contents
VHCL SPEED SE	"7km/ 7km"	The present vehicle speed (less than 7 km/h (4 MPH), or 7 km/h (4 MPH) or higher) is displayed.



Without CONSULT-II

Perform the on-board diagnosis. Refer to <u>SE-50, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-</u>TIONER".

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OK or NG

OK >> System is OK.

NG >> GO TO 3.

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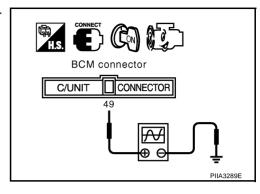
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$\overline{3}$. CHECK VEHICLE SPEED INPUT/OUTPUT

- 1. Start the engine.
- 2. Check signal between BCM connector and ground, with oscilloscope.

Connector	_	Terminals (Wire color)		Signal (Reference value)
	(+)	(-)		(Noterende Value)
M4	49 (P/L)	Ground	Vehicle speed is approx.40 km/h (25 MPH)	(V) 6 4 2 0 50 ms



OK or NG

OK >> Replace BCM.

NG >> GO TO 4.

4. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and combination meter connector.
- 3. Check continuity between BCM connector M4 terminal 49 and combination meter connector M41 terminal 18.

49 (P/L) – 18 (P/L) : Continuity should exist.

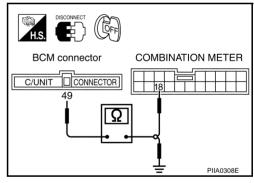
Check continuity between BCM connector M4 terminal 49 and ground.

49 (P/L) – Ground : Continuity should not exist.

OK or NG

OK >> Check meter control unit <u>DI-16, "HOW TO PROCEED</u> WITH TROUBLE DIAGNOSIS"

NG >> Repair or replace harness between BCM and combination meter.



2006 Q45

Check Seat Memory Switch Circuit

1. CHECK FUNCTION

(I) With CONSULT-II

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

Monitor [OPERATION		Contents
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.
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.

				1	
	DATA M	ONITOR			
MONITO	PR				
SLIDE S			OFF OFF		
RECLN			OFF		
RECLN			OFF		
LIFT FR	SW-UP SW-DN		OFF OFF		
	SW-UP		OFF		
LIFT RE	SW-DN		OFF		
SET SW	'		OFF		
		Page	Down		
		REC	ORD		
MODE	BACK	LIGHT	COPY		
	DATA M	ONITOR			
MONITO	R				
	O SW-FF		OFF		
	O SW-RF	3	OFF		
TILT SW TILT SW			OFF OFF		
MEMOF			OFF		
MEMOF			OFF		
CANCE			OFF		
DOOR S			OFF		
	PEED SE		<7km/		
Pag	e Up	Page	Down		
		REC	ORD		
MODE	BACK	LIGHT	COPY		
				PIIA0309E	

⋈ Without CONSULT-II

Carry out "switch monitor" in the on-board diagnosis function, and operate "Setting switch, memory switch 1, memory switch 2" to check. Refer to <u>SE-49</u>, "SWITCH MONITOR".

OK or NG

OK >> System is OK. NG >> GO TO 2.

2. CHECK SEAT MEMORY SWITCH

- 1. Turn ignition switch OFF.
- Disconnect seat memory switch connector.
- Check continuity between seat memory switch connector and ground.

Connector	Terminals		Condition	Continuity
	3		Set switch: ON	Yes
	3		Set switch: OFF	No
D3	4	4	Memory switch 1 ON	Yes
DS	'	4	Memory switch 1: OFF	No
	2		Memory switch 2: ON	Yes
			Memory switch 2: OFF	No

Seat memory switch 1, 2, 3

OK or NG

OK >> GO TO 3.

NG >> Replace seat memory switch.

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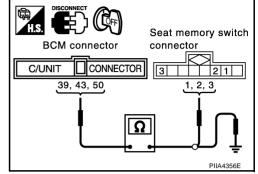
3. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM connector M4 terminals 39, 43, 50 and seat memory switch connector D3 terminals 1, 2, 3.

39 (G) – 1 (G) : Continuity should exist. 43 (OR) – 2 (OR) : Continuity should exist. 50 (R/Y) – 3 (R/Y) : Continuity should exist.

3. Check continuity between BCM connector M4 terminals 39, 43, 50 and ground.

39 (G) – Ground : Continuity should not exist.
 43 (OR) – Ground : Continuity should not exist.
 50 (R/Y) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness between BCM and seat memory switch.

4. CHECK SEAT MEMORY SWITCH GROUND CIRCUIT

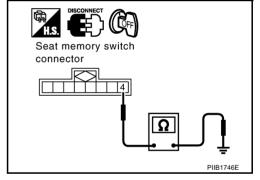
Check continuity at harness between seat memory switch D3 terminal 4 and ground.

4 (B) – Ground : Continuity should exist.

OK or NG

OK >> Replace BCM.

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



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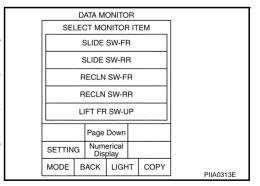
Check Sliding Switch Circuit

1. CHECK FUNCTION

(P) With CONSULT-II

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

		•
Monitor item [OPERATION or UNIT]		Contents
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.



(R) Without CONSULT-II

Carry out "SWITCH MONITOR" in the on-board diagnosis function, and operate the sliding switch to check. Refer to SE-49, "SWITCH MONITOR".

OK or NG

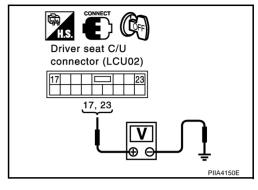
OK >> Replace the driver seat control unit.

NG >> GO TO 2.

2. CHECK SLIDING SWITCH INPUT/OUTPUT

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
	17 (Y/R)	Ground	Sliding switch ON (forward operation)	0
B143			Sliding switch OFF	5
D143	23 (G/W)		Sliding switch ON (backward operation)	0
			Sliding switch OFF	5



OK or NG

OK >> System is OK. NG >> GO TO 3.

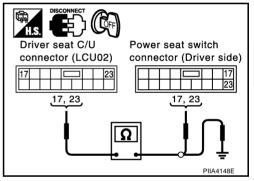
3. CHECK HARNESS CONTINUITY

- Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- Check continuity between driver seat control unit connector B143 terminals 17, 23 and driver power seat switch connector B144 terminals 17, 23.

17 (Y/R) - 17 (Y/R): Continuity should exist. 23 (G/W) - 23 (G/W) : Continuity should exist.

Check continuity between driver seat control unit connector B143 terminals 17, 23 and ground.

> 17 (Y/R) - Ground : Continuity should not exist. 23 (G/W) - Ground : Continuity should not exist.



OK or NG

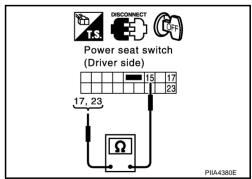
OK >> GO TO 4.

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

4. CHECK SLIDING SWITCH

Check continuity between driver seat control unit connector B144 terminal 17, 23 and 15.

Connector	Terminals		Condition	Continuity
	17 B144		Sliding switch ON (forward operation)	Yes
D111		15	Sliding switch OFF	No
D144			Sliding switch ON (backward operation)	Yes
			Sliding switch OFF	No



OK or NG

OK >> GO TO 5.

NG >> Replace driver power seat switch.

SE-77 Revision: 2005 November 2006 Q45

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5. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between power seat switch (driver side) connector B144 terminal 15 and ground.

> 15 (B) - Ground : Continuity should exist.

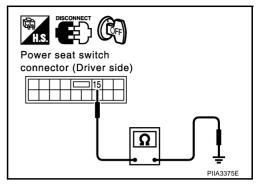
OK or NG

OK

>> Check the condition of the harness and connector.

NG

>> Repair or replace harness between driver seat switch and ground.



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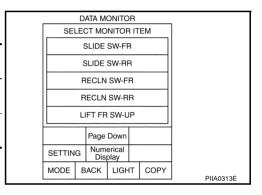
Check Reclining Switch System

1. CHECK FUNCTION

(P) With CONSULT-II

With "RECLINING SW-FR, RECLINING SWRR" on the DATA MON-ITOR, operate the reclining switch to check ON/OFF operation.

Monitor item [OPERATION or I		Contents
RECLN SW - FR	"ON/ OFF"	Operation (ON)/open (OFF) status judged from the reclining switch (FR) signal is displayed.
RECLN SW - RR	"ON/ OFF"	Operation (ON)/open (OFF) status judged from the reclining switch (RR) signal is displayed.



Without CONSULT-II

Carry out "SWITCH MONITOR" in the on-board diagnosis function, and operate the reclining switch to check. Refer to SE-49, "SWITCH MONITOR"

OK or NG

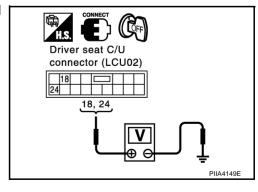
OK >> Replace the driver seat control unit.

NG >> GO TO 2.

2. CHECK RECLINING SWITCH INPUT/OUTPUT

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
	18 (GY/B)	Ground	Reclining switch ON (forward operation)	0
B143 -			Reclining switch OFF	5
	24 (SB)		Reclining switch ON (backward operation)	0
			Reclining switch OFF	5



OK or NG

OK >> System is OK.

NG >> GO TO 3.

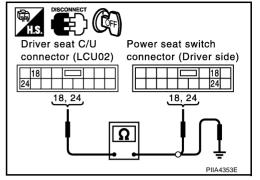
$\overline{3}$. Check harness continuity

- 1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- Check continuity between driver seat control unit connector B143 terminals 18, 24 and power seat switch (driver side) connector B144 terminals 18, 24,

18 (GY/B) - 18 (GY/B) :Continuity should exist. 24 (SB) - 24 (SB):Continuity should exist.

Check continuity between driver seat control unit connector B143 terminals 18, 24 and ground.

> 18 (GY/B) - Ground :Continuity should not exist. 24 (SB) - Ground :Continuity should not exist.



OK or NG

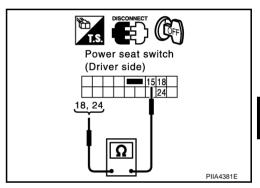
OK >> GO TO 4.

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

4. CHECK RECLINING SWITCH

Check continuity between driver seat control unit connector B144 terminal 18, 24 and 15.

Connector	Terminals		Condition	Continuity
	18 B14424		Reclining switch ON (forward operation)	Yes
B111		15	Reclining switch OFF	No
D144			Reclining switch ON (backward operation)	Yes
		Reclining switch OFF	No	



OK or NG

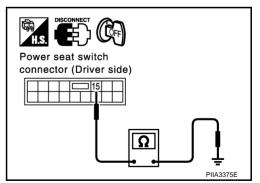
OK >> GO TO 5.

NG >> Replace power seat switch (driver side).

CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between power seat switch B144 terminal 15 and ground.

> 15 (B) - Ground : Continuity should exist.



OK or NG

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

NG >> Repair or replace harness between power seat switch (driver side) and ground. В

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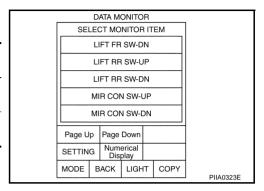
Check Front Lifting Switch Circuit

1. CHECK FUNCTION

(P) With CONSULT-II

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

Monitor item [OPERATION or I		Contents
LIFT FR SW - DN	"ON/ OFF"	Operation (ON)/open (OFF) status judged from the FR lifter switch (DOWN) signal is displayed.
LIFT RR SW – UP	"ON/ OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (UP) signal is displayed.



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⋈ Without CONSULT-II

Carry out "SWITCH MONITOR" in the on-board diagnosis function, and operate the front lifting switch to check. Refer to <u>SE-49</u>, "SWITCH MONITOR".

OK or NG

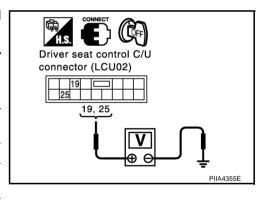
OK >> Replace the driver seat control unit.

NG >> GO TO 2

2. CHECK FRONT LIFTING SWITCH INPUT/OUTPUT

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Αρρίολ.)
	19 (L/R)	Ground	Front lifting switch ON (UP operation)	0
B143			Front lifting switch OFF	5
D143	25 (OR/B)		Front lifting switch ON (DOWN operation)	0
			Front lifting switch OFF	5



OK or NG

OK >> System is OK.

NG >> GO TO 3.

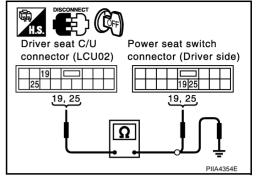
$\overline{3}$. Check harness continuity

- 1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- 2. Check continuity between driver seat control unit connector B143 terminals 19, 25 and driver seat switch connector B144 terminals 19, 25.

19 (L/R) – 19 (L/R) : Continuity should exist. 25 (OR/B) – 25 (OR/B) : Continuity should exist.

3. Check continuity between driver seat control unit connector B143 terminals 19, 25 and ground

19 (L/R) – Ground : Continuity should not exist.
 25 (OR/B) – Ground : Continuity should not exist.



OK or NG

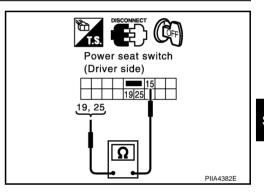
OK >> GO TO 4.

NG >> Repair or replace harness between driver seat control unit and power seat switch (driver side).

4. CHECK FRONT END LIFTING SWITCH

Check continuity between driver seat control unit connector B144 terminal 19, 25 and 15.

Connector	Terminals		Condition	Continuity
19	19		Front lifting switch ON (UP operation)	Yes
B144	D144	15	Front lifting switch OFF	No
25	13	Front lifting switch ON (DOWN operation)	Yes	
		Front lifting switch OFF	No	



OK or NG

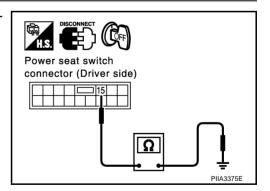
OK >> GO TO 5.

NG >> Replace power seat switch (driver side).

5. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between power seat switch connector B144 terminal 15 and ground.

15 (B) – Ground : Continuity should exist.



OK or NG

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

NG >> Repair or replace harness between power seat switch (driver side) and ground.

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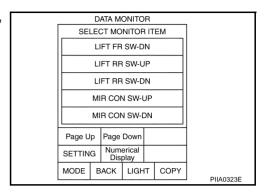
Check Rear Lifting Switch Circuit

1. CHECK FUNCTION

(II) With CONSULT-II

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

Monitor ite [OPERATION o		Contents
LIFT RR SW-UP	"ON/ OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (UP) signal is displayed.
LIFT RR SW-DN	"ON/ OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (DOWN) signal is displayed.



NIS0013A

⋈ Without CONSULT-II

Carry out "SWITCH MONITOR" in the on-board diagnosis function, and operate the rear lifting switch to check. Refer to <u>SE-49</u>, "SWITCH MONITOR".

OK or NG

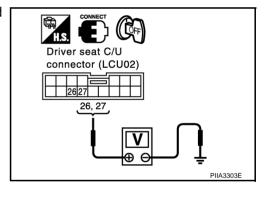
OK >> Replace the driver seat control unit.

NG >> GO TO 2.

2. CHECK REAR LIFTING SWITCH INPUT/OUTPUT

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
	26 (P/B)	Ground	Rear lifting switch ON (UP operation)	0
B143			Rear lifting switch OFF	5
D143	27 (B/Y)		Rear lifting switch ON (DOWN operation)	0
	()		Rear lifting switch OFF	5



OK or NG

OK >> System is OK.

NG >> GO TO 3.

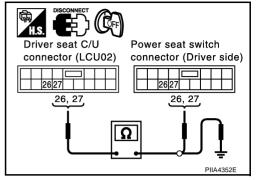
$\overline{3}$. Check harness continuity

- 1. Disconnect driver seat control unit connector and driver power seat switch connector.
- Check continuity between driver seat control unit connector B143 terminals 26, 27 and power seat switch (driver side) connector B144 terminals 26, 27,

26 (P/B) - 26 (P/B) : Continuity should exist. 27 (B/Y) - 27 (P/Y): Continuity should exist.

Check continuity between driver seat control unit connector B143 terminals 26, 27 and ground.

> : Continuity should not exist. 26 (P/B) - Ground 27 (B/Y) - Ground : Continuity should not exist.



OK or NG

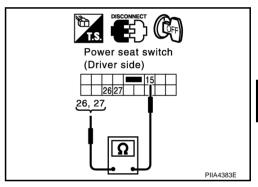
OK >> GO TO 4.

NG >> Repair or replace harness between driver seat control unit and driver power seat switch (driver side).

4. CHECK REAR LIFTING SWITCH

Check continuity between driver seat control unit connector B144 terminal 26, 27 and 15.

Connector	Terminals		Condition	Continuity
B144	26		Rear lifting switch ON (UP operation)	Yes
		15	Rear lifting switch OFF	No
	27	13	Rear lifting switch ON (DOWN operation)	Yes
		Rear lifting switch OFF	No	



OK or NG

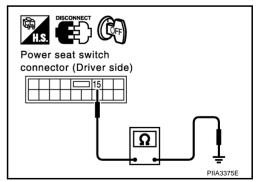
OK >> GO TO 5.

NG >> Replace power seat switch (driver side).

5. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between power seat switch connector B144 terminal 15 and ground.

> 15 (B) - Ground : Continuity should exist.



OK or NG

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

NG >> Repair or replace harness between power seat switch (driver side) and ground.

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Check Telescopic Switch

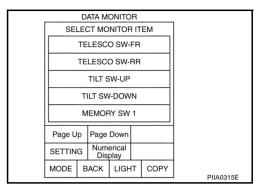
1. CHECK FUNCTION

NIS0013B

(P) With CONSULT-II

With "TELESCO SW-FR, TELESCO SWRR"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"	Operation (ON)/open (OFF) status judged from the telescoping switch (FR) signal is displayed.
TELESCO SW-RR	"ON/OFF"	Operation (ON)/open (OFF) status judged from the telescoping switch (RR) signal is displayed.



⋈ Without CONSULT-II

Carry out "SWITCH MONITOR" in the on-board diagnosis function, and operate the ADP steering switch to check. Refer to <u>SE-49</u>, "SWITCH MONITOR".

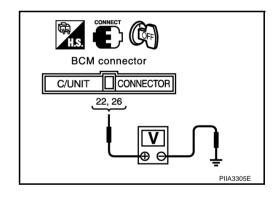
OK or NG

OK >> System is OK. NG >> GO TO 2.

2. CHECK TELESCOPIC SWITCH INPUT/OUTPUT

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
	22 (R)		Telescopic switch ON (forward operation)	0
M4		Ground	Telescopic switch OFF	5
IVI4	26 (GY/R)		Telescopic switch ON (backward operation)	0
			Telescopic switch OFF	5



OK or NG

OK >> System is OK. NG >> GO TO 3.

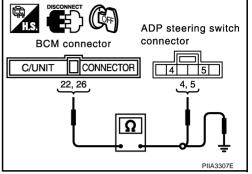
3. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM connector and ADP steering switch connector.
- 2. Check continuity between BCM connector M4 terminals 22, 26 and ADP steering switch connector M51 terminals 4, 5.

22 (R) – 5 (R) : Continuity should exist. 26 (GY/R) – 4 (GY/R) : Continuity should exist.

3. Check continuity between BCM connector M4 terminals 22, 26 and ground.

22 (R) – Ground : Continuity should not exist. 26 (GY/R) – Ground : Continuity should not exist.



OK or NG

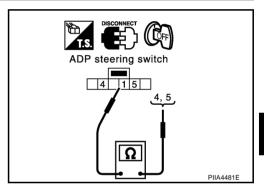
OK >> GO TO 4.

NG >> Repair or replace harness between BCM and ADP steering switch.

4. CHECK TELESCOPIC SWITCH

Check continuity between ADP steering switch connector M51 terminal 4, 5 and 1.

Connector	Terminals		Condition	Continuity
M51 5	4	1	Telescopic switch ON (backward operation)	Yes
			Telescopic switch OFF	No
	5		Telescopic switch ON (forward operation)	Yes
		Telescopic switch OFF	No	



OK or NG

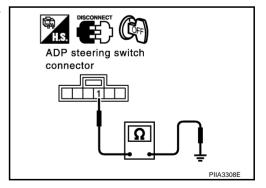
OK >> GO TO 5.

NG >> Replace ADP steering switch.

5. CHECK ADP STEERING SWITCH GROUND CIRCUIT

Check continuity between ADP steering switch connector M51 terminal 1 and ground.

1 (B) – Ground :Continuity should exist.



OK or NG

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

NG >> Replace or replace harness between ADP steering switch and ground.

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Check Tilt Switch

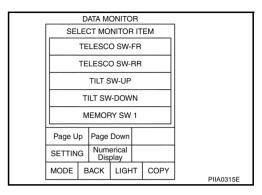
1. CHECK FUNCTION

NIS0013C

(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 i [OPERATION		Contents
TILT SW-UP	"ON/OFF"	Operation (ON)/open (OFF) status judged from the tilt switch (UP) signal is displayed.
TILT SW-DOWN	"ON/OFF"	Operation (ON)/open (OFF) status judged from the tilt switch (DOWN) signal is displayed.



Without CONSULT-II

Carry out "SWITCH MONITOR" in the on-board diagnosis function, and operate the ADP steering switch to check. Refer to SE-49, "SWITCH MONITOR".

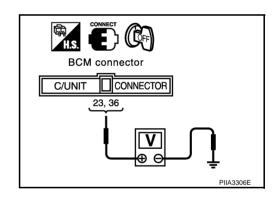
OK or NG

OK >> System is OK. NG >> GO TO 2.

2. Check adp steering switch (tilt) input/output

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
M4	23 (W/R)	Ground	Tilt switch ON (DOWN operation)	0
			Tilt switch OFF	5
	36 (Y/G)	Ground	Tilt switch ON (UP operation)	0
			Tilt switch OFF	5



OK or NG

OK >> System is OK. NG >> GO TO 3.

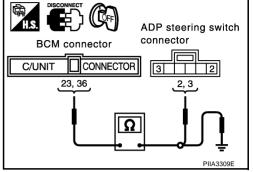
3. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM connector and ADP steering switch connector.
- 2. Check continuity between BCM connector M4 terminals 23, 36 and ADP steering switch connector M51 terminals 2, 3.

23 (W/R) – 3 (W/R) : Continuity should exist. 36 (Y/G) – 2 (Y/G) : Continuity should exist.

Check continuity between BCM connector M4 terminals 23, 36 and ground.

> 23 (W/R) – Ground : Continuity should not exist. 36 (Y/G) – GRound : Continuity should not exist.



OK or NG

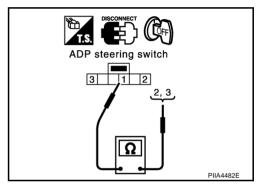
OK >> GO TO 4.

NG >> Repair or replace harness between BCM and ADP steering switch.

4. CHECK ADP TILT STEERING SWITCH

Check continuity between ADP steering switch connector M51 terminal 2, 3 and 1.

Connector	Terminals		Condition	Continuity
M51 3	2		Tilt switch ON (UP operation)	Yes
	1	Tilt switch OFF	No	
		Tilt switch ON (DOWN operation)	Yes	
		Tilt switch OFF	No	



OK or NG

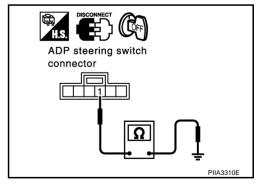
OK >> GO TO 5.

NG >> Replace ADP steering switch.

5. CHECK ADP STEERING SWITCH GROUND CIRCUIT

Check continuity between ADP steering switch connector M51 terminal 1 and ground.

1 (B) – Ground : Continuity should exist.



OK or NG

OK >> Check the harness and connector.

NG >> Repair or replace harness between ADP steering switch and ground.

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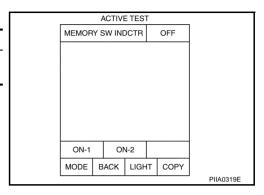
Check Seat Memory Indicator lamp System

1. CHECK FUNCTION

(P)With CONSULT-II

With "MEMORY SW INDCTR" in ACTIVE TEST, Check operation.

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



NIS0013D

Without CONSULT-II

GO TO 2.

OK or NG

OK >> System is OK. NG >> GO TO 2.

2. CHECK FUSE

Check 10A fuse [No.3, located in fuse block (J/B)]

NOTE:

Refer to SE-17, "Component Parts and Harness Connector Location".

OK or NG

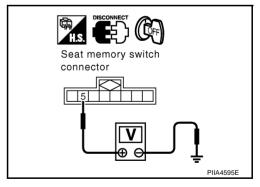
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-2, "POWER SUPPLY ROUTING".

3. CHECK SEAT MEMORY SWITCH POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch connector.
- Check voltage between seat memory switch connector D3 terminal 5 and ground.

5 (P/L) – Ground : Battery voltage.



OK or NG

OK >> GO TO 4

NG >> Repair or replace harness between fuse block (J/B) and seat memory switch.

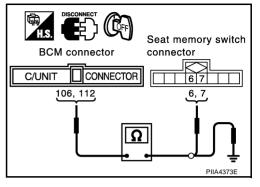
4. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM connector M4 terminals 106, 112 and seat memory switch connector D3 terminals 6, 7.

106 (BR/Y) - 6 (BR/Y): Continuity should exist.112 (L/W) - 7 (L/W): Continuity should exist.

 Check continuity between BCM connector M4 terminals 106, 112 and ground.

106 (BR/Y) – Ground : Continuity should not exist.
 112 (L/W) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness between BCM and memory switch.

5. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

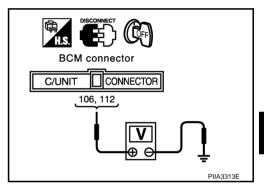
Check voltage between BCM connector M4 terminals 106, 112 and ground.

106 (BR/Y) – Ground : Battery voltage. 112 (L/W) – Ground : Battery voltage.

OK or NG

OK >> Replace BCM.

NG >> Replace seat memory switch.



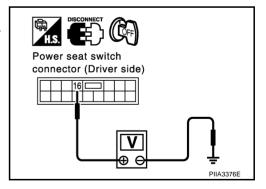
NIS0013E

Check Lumber Support Circuit

1. CHECK LUMBER SUPPORT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front power seat switch (driver side) connector.
- 3. Check voltage between power seat switch (driver side) connector B144 terminal 16 and ground.

16 (R) – Ground : Battery voltage.



OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness between fuse block (J/B) and power seat switch (Driver side).

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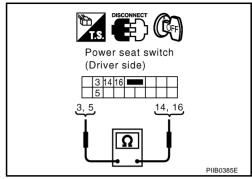
Revision: 2005 November SE-89 2006 Q45

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$\overline{2}$. CHECK LUMBER SUPPORT SWITCH

Check continuity power seat switch connector B144 terminal 14, 16 and 3 or 5.

Connector	Terminal		Condition	Continuity
B144	3	16	Lumber support switch forward	
	3	14	Lumber support switch backward	Yes
	5 16	16	Lumber support switch backward	163
		14	Lumber support switch forward	



OK or NG

OK >> GO TO 3.

NG >> The harness and connector is checked, and it is normal, replace power seat switch.

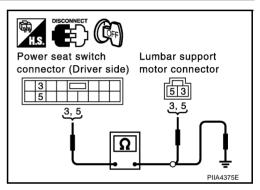
3. CHECK LUMBER SUPPORT MOTOR HARNESS

- 1. Disconnect lumber support motor connector.
- Check continuity between power seat switch connector (driver side) B144 terminal 3, 5 and lumber support motor connector B145 terminal 3, 5.

3 (GY) – 3 (GY) :Continuity should exist. 5 (W/B) – 5 (W/B) :Continuity should exist.

Check continuity between power seat switch connector (driver side) B144 terminal 3, 5 and ground.

> 3 (GY) – Ground :Continuity should not exist. 5 (W/B) – Ground :Continuity should not exist.



OK or NG

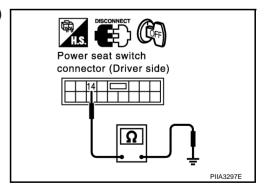
OK >> GO TO 4.

NG >> Repair or replace harness between power seat switch (driver side) and lumber support motor.

4. CHECK LUMBER SUPPORT SWITCH

Check continuity between power seat switch connector (driver side) B144 terminal 14 and ground.

14 (B/W) – Ground : Continuity should exist.



OK or NG

OK >> Check harness and connector.

NG >> Repair or replace harness between power seat switch (driver side) and ground.

Check Rear Power Seat Turnout Operation

NIS0013F

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1. CHECK REAR POWER SEAR CONDITION

Front power window main switch operation normally when the power window is operated? OK or NG

OK >> GO TO 2.

NG >> Check the power window system <u>GW-16, "POWER WINDOW SYSTEM"</u>.

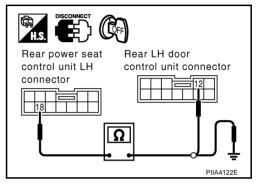
2. CHECK REAR POWER SEAT CONTROL UNIT HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear LH door control unit connector and rear power seat control unit LH connector.
- Check continuity between rear power seat control unit LH connector B163 terminal 18 and rear LH door control unit connector D58 terminal 12.

18 (BR/W) – 12 (OR/L) :Continuity should exist.

Check continuity between rear power seat control unit LH connector B163 terminal 18 and ground.

18 (BR/W) – Ground :Continuity should not exist.



OK or NG

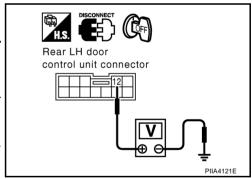
OK >> GO TO 3.

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

3. CHECK REAR POWER SEAT AUTO RETURN SIGNAL

- Connect rear power seat control unit LH connector.
- Check voltage between rear LH door control unit connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Αρρίοχ.)
D58	12	Ground	Driver side seat auto return operation (backward)	0
	(OR/L) Ground		When driver side seat auto return stops	Battery voltage



OK or NG

OK >> Replace rear power seat control unit LH.

NG >> Replace rear LH door control unit.

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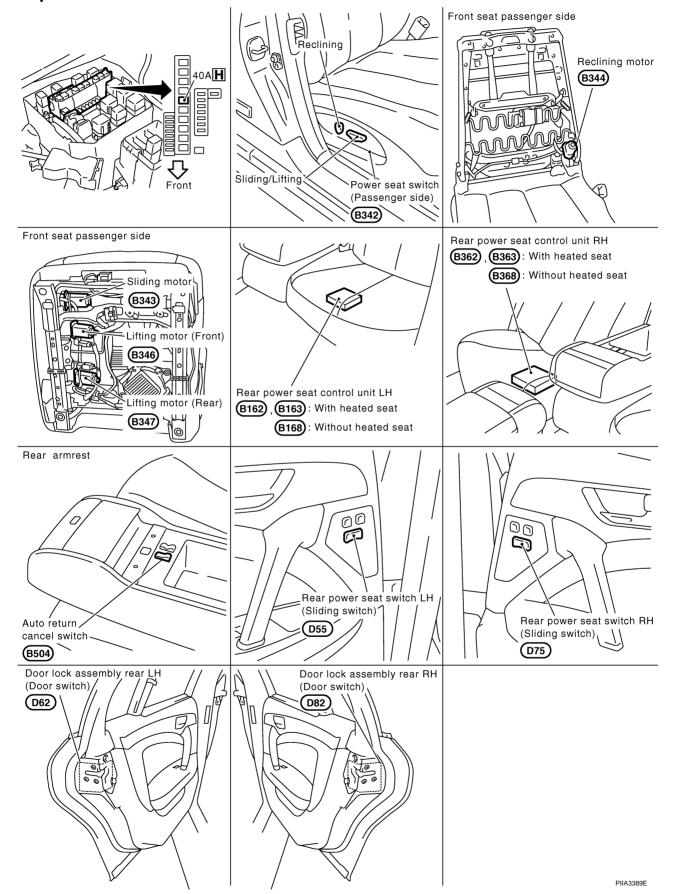
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POWER SEAT PFP:87016

Component Parts and Harness Connector Location

NIS0013H



System Description

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The rear power seat (LH / RH) retreats when the auto return cancel switch is turned on and each door is opened.

When the slide switch turned on, or auto return cancel switch is canceled, an auto return is discontinued.

The LH seat moves backward when the driver seat is moved backward by the auto driving position system. Refer to SE-13, "System Description".

Power is all times supplied

- through 40A fusible link [letter H, located in the fuse block (J/B)],
- to front power seat passenger side terminal 16, and
- to rear power seat control unit LH, rear power seat control unit RH terminal 2.

FRONT POWER SEAT (PASSENGER SIDE) OPERATION

When sliding switch is forward, power is supplied

- through power seat switch terminal 1,
- to sliding motor terminal 1.

Then ground is supplied

- to sliding motor terminal 8,
- through power seat switch terminal 8.
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat slide moves forward.

When sliding switch is backward, power is supplied

- through power seat switch terminal 8,
- to sliding motor terminal 8.

Then ground is supplied

- to sliding motor terminal 1,
- through power seat switch terminal 1,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

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

When reclining switch is forward, power is supplied

- through power seat switch terminal 2,
- to reclining motor terminal 2.

Then ground is supplied

- to reclining motor terminal 9,
- through power seat switch terminal 9,
- through power seat switch terminal 15A.
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat reclining moves forward.

When reclining switch is backward, power is supplied

- through power seat switch terminal 9,
- to reclining motor terminal 9.

Then ground is supplied

- to reclining motor terminal 2,
- through power seat switch terminal 2,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat reclining moves backward.

This seat does reclining backward.

When front lifting switch is upward, power is supplied

through power seat switch terminal 11,

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to front lifting motor terminal 11.

Then ground is supplied

- to front lifting motor terminal 10,
- through power seat switch terminal 10,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat front lifting moves upward.

This seat does front lifting upward.

When front lifting switch is downward, power is supplied

- through power seat switch terminal 10,
- to front lifting motor terminal 10.

Then ground is supplied

- to front lifting motor terminal 11,
- through power seat switch terminal 11,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat front lifting moves downward.

This seat does front lifting downward.

When rear lifting switch is upward, power is supplied

- through power seat switch terminal 6,
- to rear lifting motor terminal 6.

Then ground is supplied

- to rear lifting motor terminal 4,
- through power seat switch terminal 4,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat rear lifting moves upward. When rear lifting switch is downward, power is supplied

- through power seat switch terminal 4,
- to rear lifting motor terminal 4.

Then ground is supplied

- to rear lifting motor terminal 6,
- through power seat switch terminal 6,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat rear lifting moves downward.

REAR POWER SEAT LH AND REAR POWER SEAT RH OPERATION

When rear power seat sliding switch is forward, ground is supplied

- to rear power seat control unit terminal 24,
- through power seat switch terminal 7 (RH), 8 (LH),
- through power seat switch terminal 2,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

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

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

Then ground is supplied

- to rear power seat sliding motor terminal 11,
- through rear power seat control unit terminal 11,
- through rear power seat control unit terminals 15,

through body grounds B17, B57 (LH) B217, B256 (RH).

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

This seat does slide forward.

When rear power seat sliding switch is backward, ground is supplied

- to rear power seat control unit terminal 18,
- through power seat switch terminal 7 (LH), 8 (RH),
- through power seat switch terminal 2,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

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

- to rear power seat sliding motor terminal 11,
- through rear power seat control unit terminal 11.

Then ground is supplied

- to rear power seat sliding motor terminal 4,
- through rear power seat control unit terminal 4,
- through rear power seat control unit terminals 15,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

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

REAR SEAT TURNOUT/RETURN FUNCTION

When auto return cancel switch ON and rear door open, ground is supplied

- to rear power seat control unit terminal 43,
- through door lock assembly rear (Door switch) terminal 1,
- through door lock assembly rear (Door switch) terminal 2,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

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

- through rear power seat control unit terminal 11,
- to rear power seat sliding motor terminal 11.

Then ground is supplied

- to rear power seat sliding motor terminal 4.
- through rear power seat control unit terminal 4,
- through rear power seat control unit terminals 15,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

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

When rear power seat sliding motor is operated, ground is supplied

- to rear power seat control unit terminal 21,
- through rear power seat sliding motor terminal 21,
- through rear power seat sliding motor terminal 74,
- through rear power seat control unit terminal 74.
- through rear power seat control unit terminals 28,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

Then power 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.

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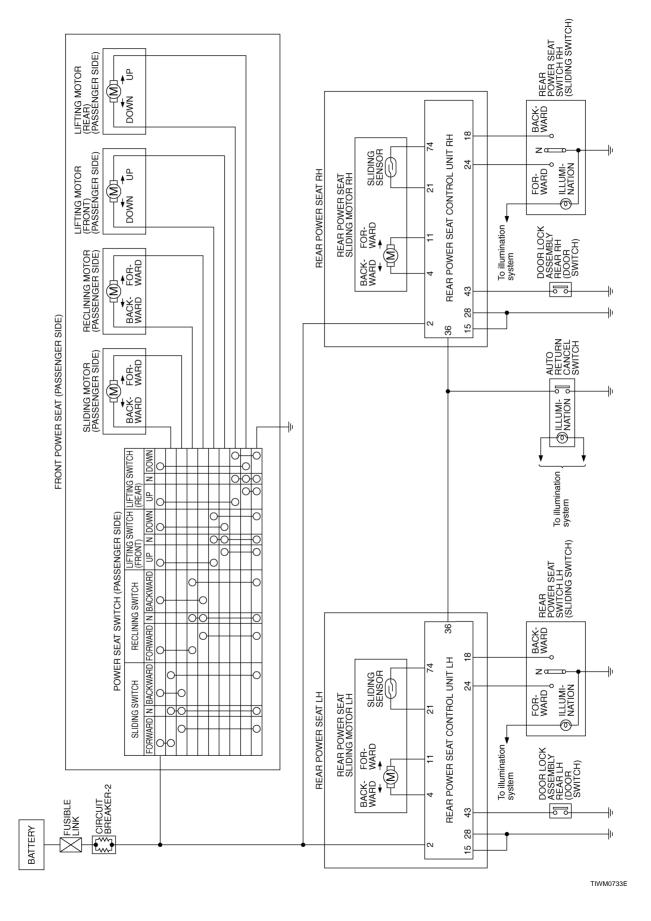
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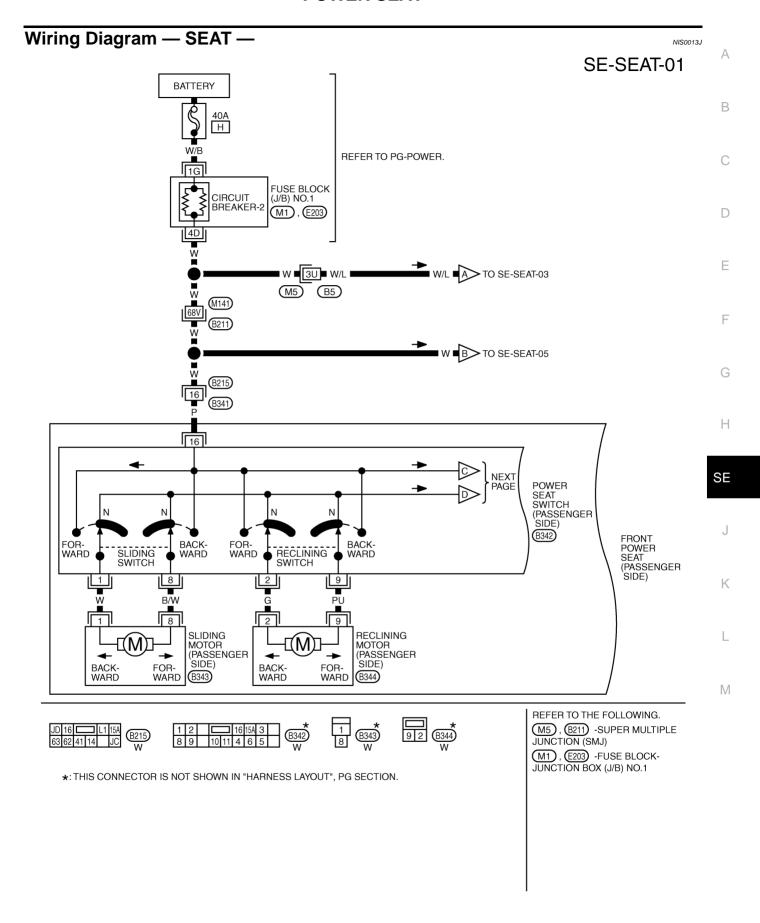
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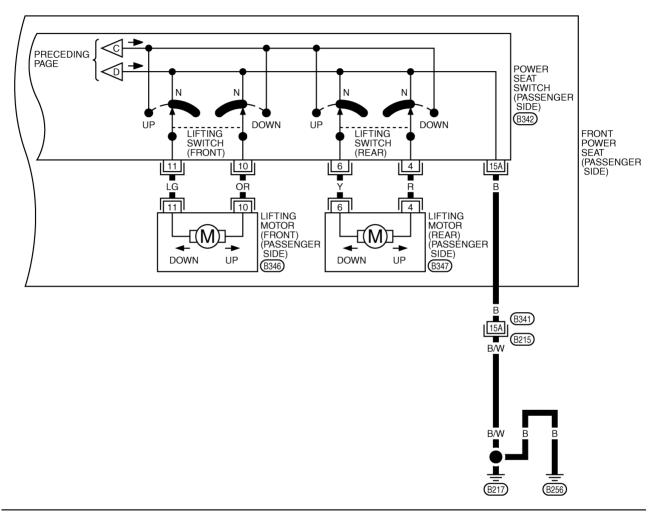
Schematic

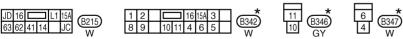




TIWM1582E

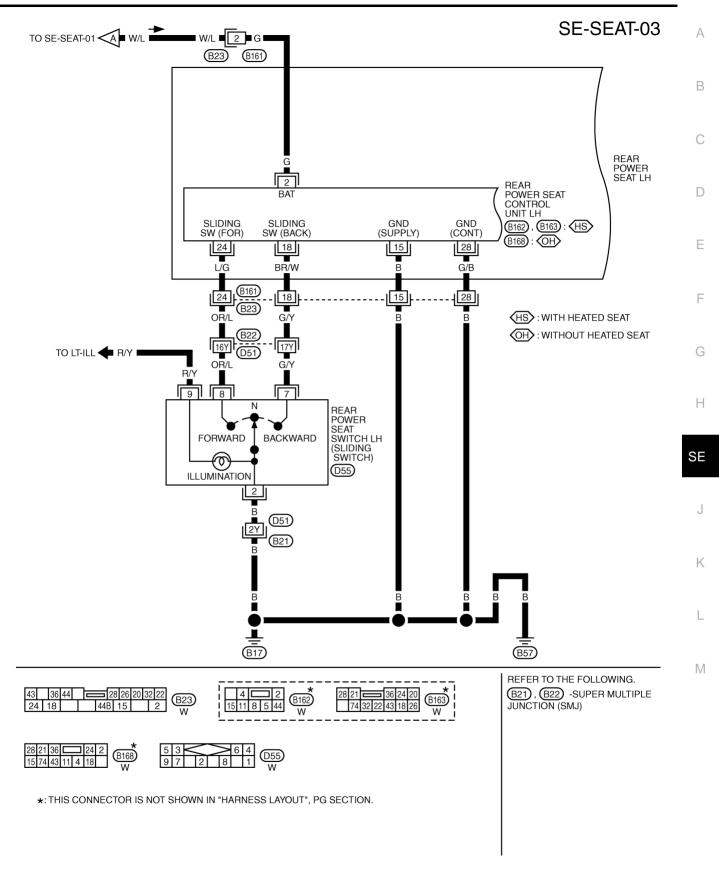
SE-SEAT-02



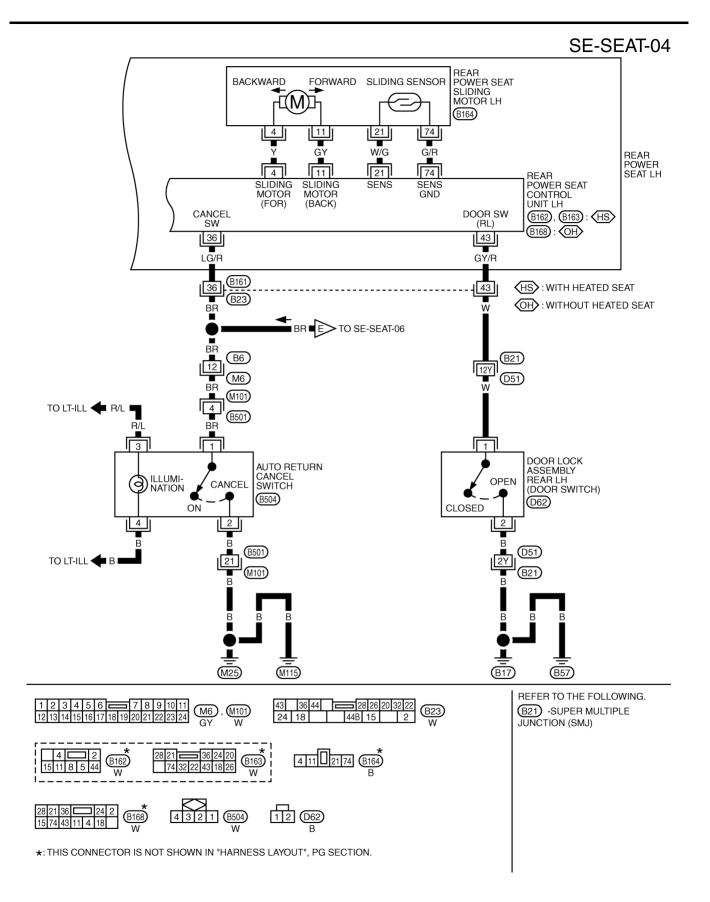


 $\star:$ THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

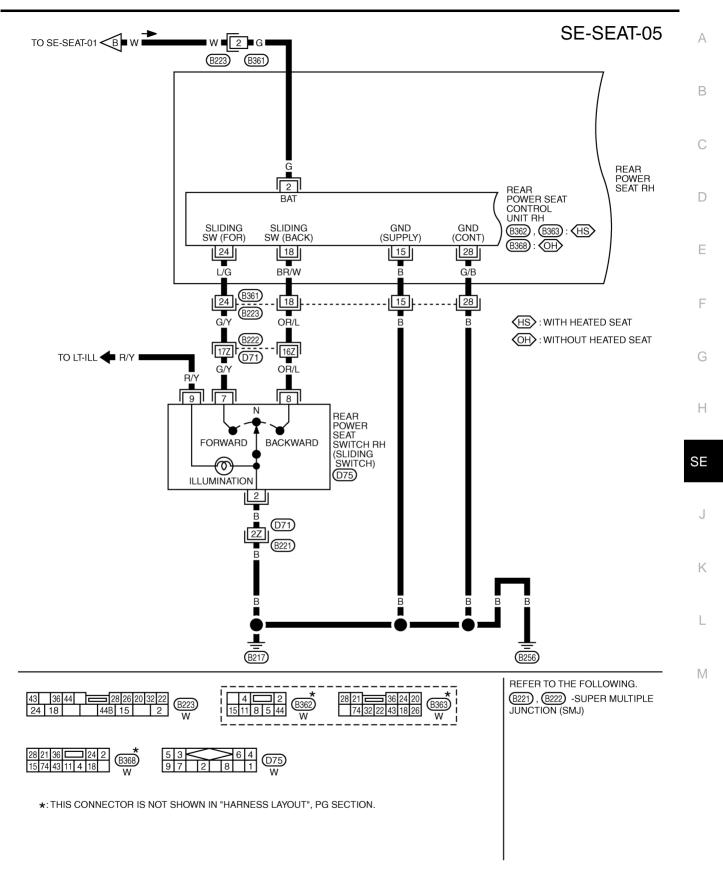
TIWM1395E



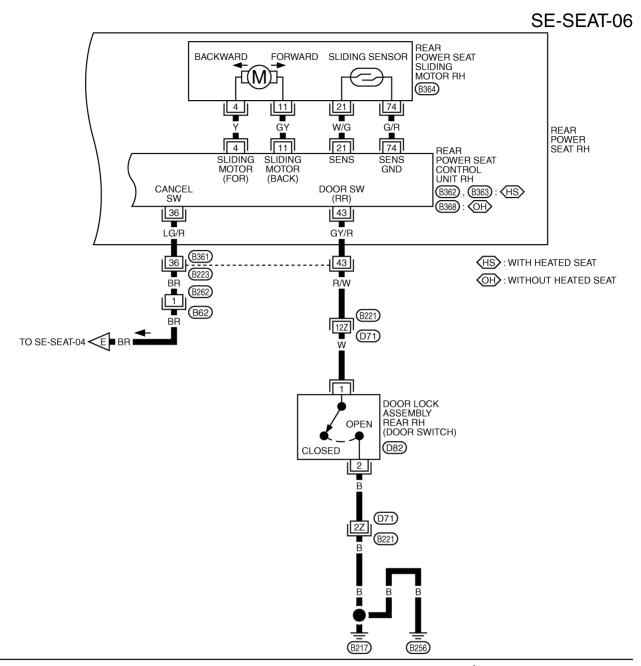
TIWM0736E

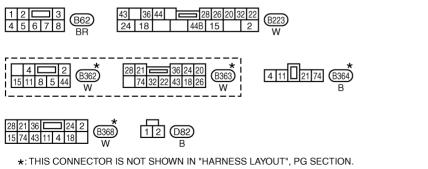


TIWM0737E



TIWM1583E





REFER TO THE FOLLOWING.

B221) -SUPER MULTIPLE
JUNCTION (SMJ)

TIWM0739E

Terminals and Reference Values for Passenger Side Power Seat Switch	
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Termi- nal	Wire Color	Item	Signal input/output	Condition	Voltage (V) (Approx.)
1	4 10/	Cliding motor forward signal	Output	When sliding switch forward is operated	Battery voltage
1	W	Sliding motor forward signal	Output	Other than above	0
2	G	Reclining motor forward signal	Output	When reclining switch forward is operated	Battery voltage
2	G	Reclining motor forward signal	Output	Other than above	0
4	R	Rear lifting motor DOWN signal	Output	When rear lifting switch DOWN is operated	Battery voltage
4	K	Real litting motor DOWN signal	Output	Other than above	0
6	0 1/	Rear lifting motor UP signal	Output	When rear lifting switch UP is operated	Battery voltage
6 Y	Real litting motor or signal	Output	Other than above.	0	
8 B/W	Sliding motor backward signal	Output	When sliding switch backward is operated	Battery voltage	
0	D/ VV	Siluling motor backward signal	Output	Other than above	0
9	9 PU Reclining motor backward signa		Output	When reclining switch backward is operated	Battery voltage
9	го	Reclining motor backward signal	Output	Other than above	0
10	OR	Front lifting motor DOM/N cignal	Output	When front lifting switch DOWN is operated	Battery voltage
10	OK	Front lifting motor DOWN signal		Other than above	0
11	LG	Front lifting motor LID cignal	Output	When front lifting switch UP is operated.	Battery voltage
!!	11 LG	Front lifting motor UP signal		Other than above	0
15A	В	Ground	_	_	0
16	Р	BAT power supply	Input	_	Battery voltage

Terminals and Reference Values for Rear Power Seat Control Unit

S

Ter- minal	Wire Color	Item	Signal input/output	Condition	Voltage (V) (Approx.)
2	G	BAT power supply	Input	_	Battery voltage
4	Υ	Sliding motor forward signal	Output	When sliding switch forward is operated	Battery voltage
			l	Other than above	0
11	GY	Sliding motor backward signal	Output	When sliding switch backward is operated	Battery voltage
			-	Other than above	0
15	В	Ground	_	_	0
18 BR/W Sliding switch backward signa	Sliding switch backward signal	Input	When sliding switch backward is operated	0	
	-		Other than above	Battery voltage	
21	W/G	Sliding sensor signal	Input	Sliding device active	(V) 6 4 2 0 ***50ms
			Sliding device inactive	0 or 5	
24	L/G	Sliding switch forward signal	Input	When sliding switch forward is operated	0
				Other than above.	Battery voltage
28	G/B	Ground	_	_	0

Revision: 2005 November **SE-103** 2006 Q45

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Ter- minal	Wire Color	Item	Signal input/output	Condition	Voltage (V) (Approx.)
			Cancel switch ON with rear door (LH) open	5	
36	36 LG/R	Cancel switch signal	Input	Cancel switch ON with rear door (LH) close	0
			Cancel switch CANCEL	0	
43	10 0)//5	Deep deep witch (LLI) singel	la a cot	Rear door (LH) open (ON)	0
43 GY/R	Rear door switch (LH) signal	Input	Rear door (LH) close (OFF)	Battery voltage	
74	G/R	Ground (sensor system)	_	_	0

Work Flow

- 1. Check the symptom and customer's requests.
- 2. Understand the outline of system. Refer to <a>SE-93, "System Description".
- 3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-104</u>, <u>"Trouble Diagnoses Symptom Chart"</u>.
- 4. Does power seat operate normally? YES: GO TO 5, NO: GO TO 4.
- 5. INSPECTION END.

Trouble Diagnoses Symptom Chart

NIS0013N

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

Symptom	Diagnoses / service procedure	Refer to page
Front power seat passenger side and rear power seat LH, RH do not operate.	Check power seat power supply circuit	<u>SE-105</u>
Front power seat passenger side does not operate, but rear power seat is operated.	Check front power seat passenger side power supply circuit	<u>SE-105</u>
Front power seat passenger side does not do the sliding.	Check front power seat passenger side sliding circuit	SE-106
Front power seat passenger side does not do the reclining.	Check front power seat passenger side reclining circuit	SE-107
Front power seat passenger side front does not do the front lifting.	Check front power seat passenger side front lifting circuit	<u>SE-108</u>
Front power seat passenger side rear does not do the rear lifting.	Check front power seat passenger side rear lifting circuit	SE-109
Rear power seat LH or RH sliding switch does not operate	Check rear power seat control unit power supply and ground circuit	SE-109
moreover, turnout/return function does not operate if the door is opened.	Check rear power seat sliding motor circuit	SE-111
	Replace rear power seat sliding motor	_
Rear power seat LH or RH does not operate but turnout/ return function operates when the door is opened.	Check rear power seat switch circuit	<u>SE-113</u>
Rear power seat LH and RH turnout/return function do not operate, but operate by sliding switch.	Check auto return cancel switch circuit 2	<u>SE-117</u>
	Check rear door switch circuit	SE-119
Rear power seat LH or RH turnout/return function does not	Check auto return cancel switch circuit 1	SE-116
operated, but operates by a sliding switch.	Check rear power seat sliding sensor circuit	SE-122
	4. Replace rear power seat control unit	_

Check Power Seat Power Supply Circuit

1. CHECK FUSIBLE LINK

Check 40A fusible link (letter H located in the fuse and fusible link box).

NOTF:

Refer to SE-92, "Component Parts and Harness Connector Location".

OK or NG

OK >> Check the condition of the harness.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-2, "POWER SUPPLY ROUTING".

Check Front Power Seat Passenger Side Power Supply Circuit

1. CHECK FRONT POWER SEAT PASSENGER SIDE POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect front power seat passenger side switch connector.
- Check voltage between front power seat passenger side switch connector B342 terminal 16 and ground.

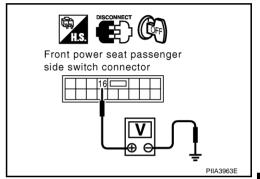
16 (P) - Ground

: Battery voltage

OK or NG

OK >> GO TO 2.

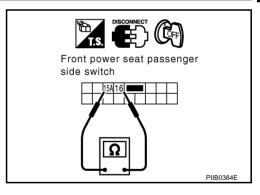
NG >> Repair or replace harness between fuse and fusible link box and front power seat passenger side switch.



2. CHECK POWER SEAT SWITCH

Check continuity between front power seat passenger side switch connector.

Terr	minal	Condition	Continuity
	16 15A	Sliding switch turn forward and backward	Yes
		Reclining switch turn forward and backward	Yes
16		Lifting switch (front) fully up and fully down	Yes
		Lifting switch (rear) fully up and fully down	Yes
		Other than above	No



OK or NG

OK >> GO TO 3.

NG >> Replace front power seat passenger side switch.

3. CHECK FRONT POWER SEAT PASSENGER SIDE GROUND CIRCUIT

Check continuity between front power seat passenger side switch connector B342 terminal 15A and ground.

15A (B) - Ground

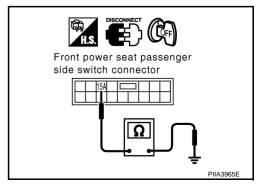
:Continuity should exist.

OK or NG

OK >> Check connector.

NG

>> Repair or replace harness between front power seat passenger side switch and ground.



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SE-105 Revision: 2005 November 2006 Q45

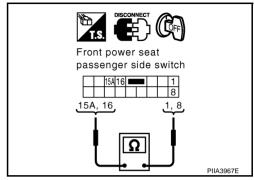
Check Front Power Seat Passenger Side Sliding Circuit

NIS0013Q

1. CHECK POWER SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front power seat passenger side switch connector.
- 3. Check continuity between front power seat passenger side switch as follows.

Terr	minal	Condition	Continuity
	15A	Sliding switch backward	Yes
1	16	Sliding switch forward	Yes
	15A, 16	Other than above	No
	15A	Sliding switch forward	Yes
8	16	Sliding switch backward	Yes
	15A, 16	Other than above	No



OK or NG

OK >> GO TO 2.

NG >> Replace front power seat passenger side switch.

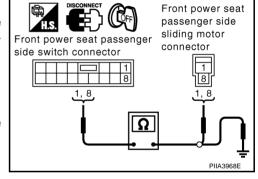
2. CHECK SLIDING MOTOR HARNESS

- 1. Disconnect sliding motor connector.
- Check continuity between front power seat passenger side switch connector B342 terminals 1, 8 and sliding motor connector B343 terminals 1, 8.

1 (W) – 1 (W) :Continuity should exist. 8 (B/W) – 8 (B/W) :Continuity should exist.

Check continuity between front power seat passenger side switch connector B342 terminal 1, 8 and ground.

1 (W) – Ground :Continuity should not exist. 8 (B/W) – Ground :Continuity should not exist.



OK or NG

OK >> Replace sliding motor.

NG >> Repair or replace harness between front power seat passenger side switch and sliding motor.

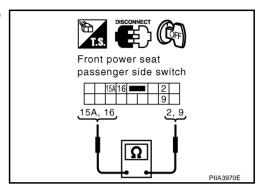
Check Front Power Seat Passenger Side Reclining Circuit

NIS0013R

1. CHECK POWER SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front power seat passenger side switch connector.
- 3. Check continuity between front power seat passenger side switch as follows.

Te	rminal	Condition	Continuity
	15A	Reclining switch backward	Yes
2	16	Reclining switch forward	Yes
	15A, 16	Other than above	No
	15A	Reclining switch forward	Yes
9	16	Reclining switch backward	Yes
	15A, 16	Other than above	No



OK or NG

OK >> GO TO 2.

NG >> Replace front power seat passenger side switch.

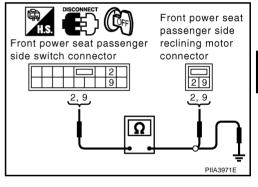
2. CHECK RECLINING MOTOR HARNESS

- 1. Disconnect reclining motor connector.
- 2. Check continuity between front power seat passenger side switch connector B342 terminals 2, 9 and reclining motor connector B344 terminals 2, 9.

2 (G) – 2 (G) :Continuity should exist 9 (PU) – 9 (PU) :Continuity should exist

Check continuity between front power seat passenger side switch connector B342 terminals 2, 9 and ground.

> 2 (G) – Ground :Continuity should not exist 9 (PU) – Ground :Continuity should not exist



OK or NG

OK >> Replace reclining motor.

NG >> Repair or replace harness between front power seat passenger side switch and reclining motor.

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Revision: 2005 November SE-107 2006 Q45

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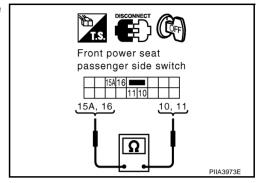
Check Front Power Seat Passenger Side Front Lifting Circuit

NIS0013S

1. CHECK POWER SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front power seat passenger side switch connector.
- 3. Check continuity between front power seat passenger side switch as follows.

Te	rminal	Condition	Continuity
	15A	Front lifting switch up	Yes
10	16	Front lifting switch down	Yes
	15A, 16	Other than above	No
	15A	Front lifting switch down	Yes
11	16	Front lifting switch up	Yes
	15A, 16	Other than above	No



OK or NG

OK >> GO TO 2.

NG >> Replace front power seat passenger side switch.

2. CHECK FRONT LIFTING MOTOR HARNESS

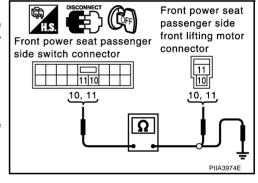
- 1. Disconnect front lifting motor connector.
- 2. Check continuity between front power seat passenger side switch connector B342 terminals 10, 11 and front lifting motor connector B346 terminals 10, 11.

10 (OR) – 10 (OR) :Continuity should exist. 11 (LG) – 11 (LG) :Continuity should exist.

Check continuity between front power seat passenger side switch connector B342 terminals 10, 11 and ground.

10 (OR) – Ground :Continuity should not exist.

11 (LG) – Ground :Continuity should not exist.



OK or NG

OK >> Replace front lifting motor.

NG >> Repair or replace harness between front power seat passenger side switch and front lifting motor.

Check Front Power Seat Passenger Side Rear Lifting Circuit

NIS0013T

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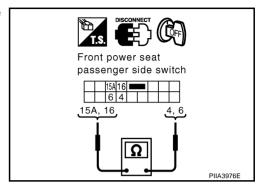
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1. CHECK POWER SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front power seat passenger side switch connector.
- 3. Check continuity between front power seat passenger side switch as follows.

Te	rminal	Condition	Continuity
	15A	Rear lifting switch up	Yes
4	16	Rear lifting switch down	Yes
	15A, 16	Other than above	No
	15A	Rear lifting switch down	Yes
6	16	Rear lifting switch up	Yes
†	15A, 16	Other than above	No



OK or NG

OK >> GO TO 2.

NG >> Replace front power seat passenger side switch.

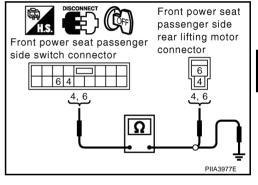
2. CHECK REAR LIFTING MOTOR HARNESS

- Disconnect rear lifting motor connector.
- 2. Check continuity between front power seat passenger side switch connector B342 terminals 4, 6 and rear lifting motor connector B347 terminals 4, 6.

4 (R) – 4 (R) :Continuity should exist. 6 (Y) – 6 (Y) :Continuity should exist.

3. Check continuity between front power seat passenger side switch connector B342 terminals 4, 6 and ground.

4 (R) – Ground :Continuity should not exist. 6 (Y) – Ground :Continuity should not exist.



OK or NG

OK >> Replace rear lifting motor.

NG >> Repair or replace harness between front power seat passenger side switch and rear lifting motor.

Check Rear Power Seat Control Unit Power Supply and Ground Circuit WITH HEATED SEAT

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1. CHECK REAR POWER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

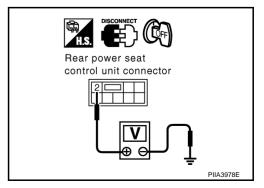
- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector.
- 3. Check voltage between rear power seat control unit connector B162 (LH), B362 (RH) terminal 2 and ground.

2 (G) – Ground : Battery voltage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness between fuse block (J/B) No.1 and rear power seat control unit.



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$\overline{2}$. CHECK REAR POWER SEAT CONTROL UNIT GROUND CIRCUIT

 Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminals 15 and ground.

15 (B) - Ground

:Continuity should exist.

Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminals 28 and ground.

28 (B) - Ground

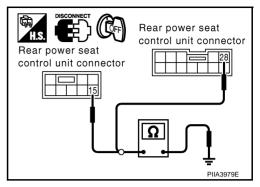
:Continuity should exist.

OK or NG

OK

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

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



WITHOUT HEATED SEAT

1. CHECK REAR POWER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector.
- 3. Check voltage between rear power seat control unit connector B168 (LH), B368 (RH) terminal 2 and ground.

2 (G) - Ground

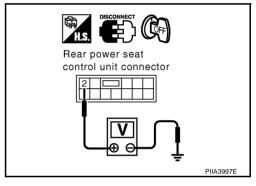
: Battery voltage

OK or NG

OK >> GO TO 2.

NG >> I

>> Repair or replace harness between fuse block (J/B) No.1 and rear power seat control unit.



2. CHECK REAR POWER SEAT CONTROL UNIT GROUND CIRCUIT

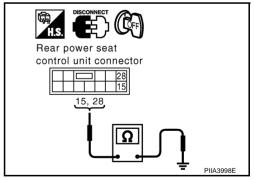
Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminals 15, 28 and ground.

15 (B) – Ground :Continuity should exist 28 (G/B) – Ground :Continuity should exist

OK or NG

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

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



Check Rear Power Seat Sliding Motor CircuitWITH HEATED SEAT

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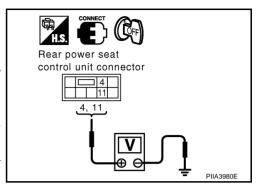
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1. CHECK REAR POWER SEAT SLIDING MOTOR POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
B162 (LH) B362 (RH)	4 (Y)	Ground	Rear power seat switch (sliding switch) forward	Battery voltage
			Rear power seat switch (sliding switch) OFF	0
			Rear power seat switch (sliding switch) backward	Battery voltage
			Rear power seat switch (sliding switch) OFF	0



OK or NG

OK >> Rear power seat sliding motor circuit is OK.

NG >> GO TO 2.

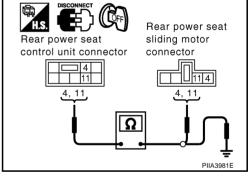
2. CHECK REAR POWER SEAT SLIDING MOTOR HARNESS

- 1. Disconnect rear power seat control unit connector and rear power seat sliding motor connector.
- 2. Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 4, 11 and rear power seat sliding motor connector B164 (LH), B364 (RH) terminal 4, 11.

4 (Y) – 4 (Y) :Continuity should exist. 11 (GY) – 11 (GY) :Continuity should exist.

3. Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 4, 11 and ground.

4 (Y) – Ground :Continuity should not exist. 11 (GY) – Ground :Continuity should not exist.



OK or NG

OK >> Replace rear power seat sliding motor.

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

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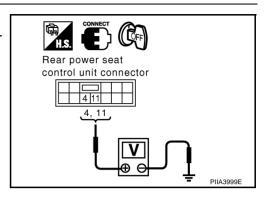
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WITHOUT HEATED SEAT

1. CHECK REAR POWER SEAT SLIDING MOTOR POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрыск.)
	4 (Y)	Ground	Rear power seat switch (sliding switch) forward	Battery voltage
B168 (LH) B368 (RH)			Rear power seat switch (sliding switch) OFF	0
			Rear power seat switch (sliding switch) backward	Battery voltage
	11 (01)		Rear power seat switch (sliding switch) OFF	0



OK or NG

OK >> Rear power seat sliding motor circuit is OK.

NG >> GO TO 2.

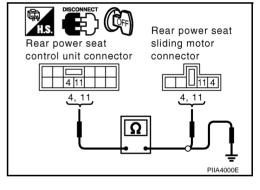
2. CHECK REAR POWER SEAT SLIDING MOTOR HARNESS

- Disconnect rear power seat control unit connector and rear power seat sliding motor connector.
- Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 4, 11 and rear power seat sliding motor connector B164 (LH), B364 (RH) terminal 4, 11.

4 (Y) – 4 (Y) :Continuity should exist 11 (GY) – 11 (GY) :Continuity should exist

Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 4, 11 and ground.

> 4 (Y) – Ground :Continuity should not exist 11 (GY) – Ground :Continuity should not exist



OK or NG

OK >> Replace rear power seat sliding motor.

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

Check Rear Power Seat Switch Circuit WITH HEATED SEAT

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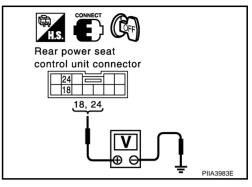
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1. CHECK REAR POWER SEAT SWITCH POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+) (-)			(дриох.)
B163 (LH) B363 (RH)	18 (BR/W)	Ground	Rear power seat switch (sliding switch) backward	0
			Rear power seat switch (sliding switch) OFF	Battery voltage
			Rear power seat switch (sliding switch) forward	0
	24 (L/G)		Rear power seat switch (sliding switch) OFF	Battery voltage



OK or NG

OK >> Rear power seat switch circuit check is OK.

NG >> GO TO 2.

2. Check rear power seat switch harness

- Disconnect rear power seat control unit connector and rear power seat switch connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 18, 24 and rear power seat switch connector D55 (LH), D75 (RH) terminal 7, 8.



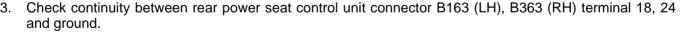
18 (BR/W) - 7 (G/Y):Continuity should exist

24 (L/G) - 8 (OR/L)

:Continuity should exist

RH

18 (BR/W) - 8 (OR/L) :Continuity should exist 24 (L/G) - 7 (G/Y) :Continuity should exist

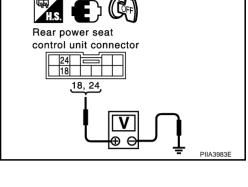


18 (BR/W) - Ground :Continuity should not exist 24 (L/G) - Ground :Continuity should not exist

OK or NG

OK >> GO TO 3.

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



Rear power seat control unit connector

18, 24

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Rear power seat

switch connector

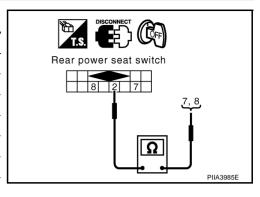
7, 8

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$\overline{3}$. CHECK REAR POWER SEAT SWITCH

Check continuity between rear power seat switch as follows.

-	Termin	al	Condition Continu	
	7 LH 8		Rear power seat switch (sliding switch) backward	Yes
			Rear power seat switch (sliding switch) OFF	No
LII			Rear power seat switch (sliding switch) forward	Yes
			Rear power seat switch (sliding switch) OFF	No
	7 RH		Rear power seat switch (sliding switch) forward	Yes
ВП			Rear power seat switch (sliding switch) OFF	No
ΝП	8	Rear power seat switch (sliding switch) backward	Yes	
	8		Rear power seat switch (sliding switch) OFF	No



OK or NG

OK >> GO TO 4.

NG >> Replace rear power seat switch.

4. CHECK REAR POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between rear power seat switch connector D55 (LH), D75 (RH) terminal 2 and ground.

2 (B) - Ground

:Continuity should exist

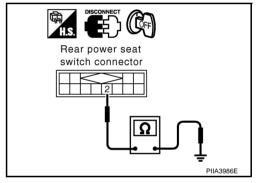
OK or NG

NG

OK >>

>> Replace rear power seat control unit.

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

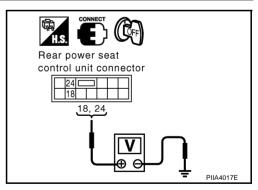


WITHOUT HEATED SEAT

1. CHECK REAR POWER SEAT SWITCH POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		(дрргох.)
B168 (LH) B368 (RH)	18 (BR/W)	Ground	Rear power seat switch (sliding switch) backward	0
			Rear power seat switch (sliding switch) OFF	Battery voltage
			Rear power seat switch (sliding switch) forward	0
	24 (L/G)		Rear power seat switch (sliding switch) OFF	Battery voltage



OK or NG

OK >> Rear power seat switch circuit is OK.

NG >> GO TO 2.

$\overline{2}$. CHECK REAR POWER SEAT SWITCH HARNESS

- Disconnect rear power seat control unit connector and rear power seat switch connector.
- 2. Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 18, 24 and rear power seat switch connector D55 (LH), D75 (RH) terminal 7, 8.

LH

18 (BR/W) – 7 (G/Y) :Continuity should exist 24 (L/G) – 8 (OR/L) :Continuity should exist

RH

18 (BR/W) - 8 (OR/L) :Continuity should exist 24 (L/G) - 7 (G/Y) :Continuity should exist

3. Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 18, 24 and ground.

18 (BR/W) – Ground :Continuity should not exist 24 (L/G) – Ground :Continuity should not exist

OK or NG

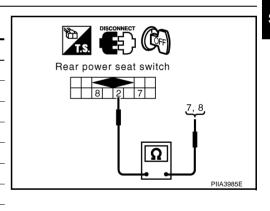
OK >> GO TO 3.

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

3. CHECK REAR POWER SEAT SWITCH

Check continuity between rear power seat switch as follows.

	Termin	al	Condition Conti	
	7		Rear power seat switch (sliding switch) backward	Yes
LH	,		Rear power seat switch (sliding switch) OFF	No
LII	8 8		Rear power seat switch (sliding switch) forward	Yes
			Rear power seat switch (sliding switch) OFF	No
	7		Rear power seat switch (sliding switch) forward	Yes
RH	,		Rear power seat switch (sliding switch) OFF	No
8			Rear power seat switch (sliding switch) backward	Yes
	0		Rear power seat switch (sliding switch) OFF	No



Rear power seat

control unit connector

18, 24

OK or NG

OK >> GO TO 4.

NG >> Replace rear power seat switch.

4. CHECK REAR POWER SEAT SWITCH GROUND CIRCUIT

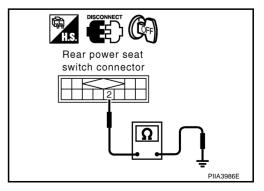
Check continuity between rear power seat switch connector D55 (LH), D75 (RH) terminal 2 and ground.

2 (B) – Ground :Continuity should exist

OK or NG

OK >> Replace rear power seat control unit.
NG >> Repair or replace harness between

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



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Rear power seat

switch connector

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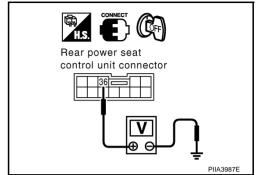
Check Auto Return Cancel Switch Circuit 1 WITH HEATED SEAT

NIS0013X

1. CHECK AUTO RETURN CANCEL SWITCH POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(дриох.)	
B163 (LH) B363 (RH)	36 (LG/R)	Ground	Auto return cancel switch ON and, rear door LH open	5	
	30 (ES/IX) Glodila		Other than above	0	



OK or NG

OK >> Auto return cancel switch circuit check is OK.

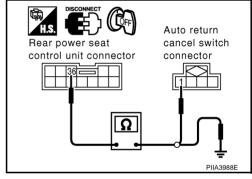
NG >> GO TO 2.

2. CHECK REAR POWER SEAT SWITCH HARNESS

- Disconnect rear power seat control unit connector and auto return cancel switch connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 36 and auto return cancel switch connector B504 terminal 1.

3. Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 36 and ground.





OK or NG

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

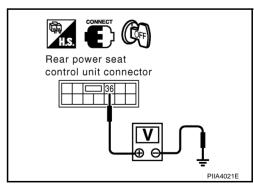
NG >> Repair or replace harness between rear power seat control unit and auto return cancel switch.

WITHOUT HEATED SEAT

1. CHECK AUTO RETURN CANCEL SWITCH POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
(+)		(-)		
B168 (LH) B368 (RH)	36 (LG/R)) Ground	Auto return cancel switch ON and, rear door open	5
D300 (KII)			Other than above	0
014				



OK or NG

OK >> Auto return cancel switch circuit check is OK.

NG >> GO TO 2.

$\overline{2}$. CHECK AUTO CANCEL SWITCH HARNESS

- Disconnect rear power seat control unit connector and auto return cancel switch connector.
- Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 36 and auto return cancel switch connector B504 terminal 1.

36 (LG/R) – 1 (BR) :Continuity should exist

3. Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 36 and ground.

36 (LG/R) – Ground :Continuity should not exist

Rear power seat control unit connector PIIA4022E

OK or NG

OK >> Check the harness and connector.

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

Check Auto Return Cancel Switch Circuit 2 WITH HEATED SEAT

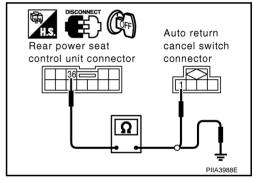
1. CHECK AUTO RETURN CANCEL SWITCH HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector and auto return cancel switch connector.
- 3. Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 36 and auto return cancel switch connector B504 terminal 1.

36 (LG/R) – 1 (BR) :Continuity should exist

 Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 36 and ground.

36 (LG/R) – Ground :Continuity should not exist



OK or NG

OK >> GO TO 2.

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

2. CHECK AUTO RETURN CANCEL SWITCH

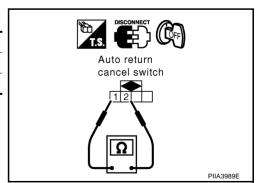
Check continuity between auto cancel switch as follows.

Terr	minal	Condition	Continuity
1	2	Auto return cancel switch cancelled	Yes
		Auto return cancel switch ON	No

OK or NG

OK >> GO TO 3.

NG >> Replace auto return cancel switch.



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3. CHECK AUTO RETURN CANCEL SWITCH GROUND HARNESS

Check continuity between auto return cancel switch connector B504 terminal 2 and ground.

2 (B) – Ground :Continuity should exist

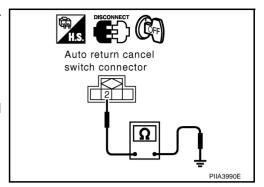
OK or NG

OK

>> Check the harness and connector.

NG

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



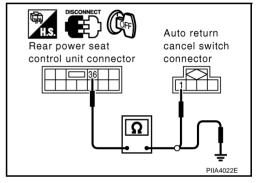
WITHOUT HEATED SEAT

1. CHECK REAR AUTO RETURN CANCEL SWITCH HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear power seat control unit connector and auto return cancel switch connector.
- 3. Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 36 and auto return cancel switch connector B504 terminal 1.

 Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 36 and ground.

36 (LG/R) - Ground :Continuity should not exist



OK or NG

OK >> GO TO 2.

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

2. CHECK AUTO RETURN CANCEL SWITCH

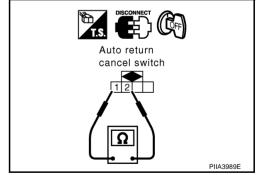
Check continuity between auto cancel switch as follows.

Terr	minal	Condition	Continuity
1	1 2	Auto return cancel switch cancelled	Yes
		Auto return cancel switch ON	No

OK or NG

OK >> GO TO 3.

NG >> Replace auto return cancel switch.



$\overline{3}$. CHECK AUTO RETURN CANCEL SWITCH GROUND HARNESS

Check continuity between auto return cancel switch connector B504 terminal 2 and ground.

2 (B) - Ground

:Continuity should exist

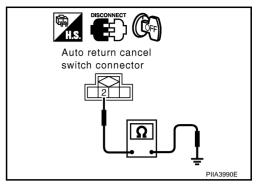
OK or NG

OK

>> Check the harness and connector.

NG

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



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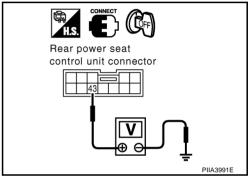
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Check Rear Door Switch Circuit WITH HEATED SEAT

1. CHECK REAR DOOR SWITCH POWER SUPPLY

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

Connector	_	ninal color)	Condition	Voltage (V) (Approx.)	
	(+)	(-)		(Арргох.)	
B163 (LH)	43 (GY/R)	Ground	Rear door open	0	
B363 (RH)	363 (RH) 43 (GY/R)		Rear door closed	Battery voltage	



OK or NG

OK >> Rear door switch circuit check is OK.

NG >> GO TO 2.

2. CHECK DOOR SWITCH HARNESS

- Disconnect rear power seat control unit connector and door lock assembly (door switch) connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 43 and door lock assembly (door switch) connector D62 (LH), D82(RH) terminal 1.

Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 43 and ground.



:Continuity should not exist

Door lock assembly Rear power seat (Door switch) control unit connector connector PIIA3992E

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between rear power seat control unit and door lock assembly (door switch).

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$\overline{3}$. CHECK DOOR SWITCH

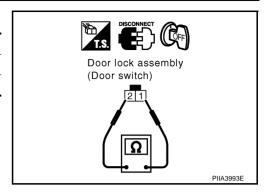
Check continuity between door lock assembly connector as follows.

Terminal		Condition	Continuity
1	2	Door switch ON	Yes
ı	2	Door switch OFF	No

OK or NG

OK >> GO TO 4.

NG >> Replace door lock assembly.



4. CHECK DOOR SWITCH HARNESS

Check continuity between door lock assembly connector D62 (LH), D82 (RH) terminal 2 and ground.

2 (B) - Ground

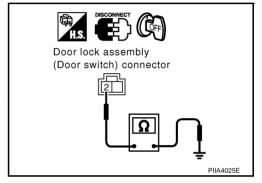
:Continuity should exist

OK or NG

NG

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

>> Repair or replace harness between door lock assembly and ground.

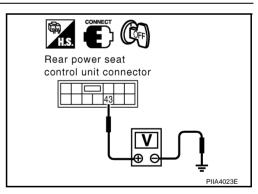


WITHOUT HEATED SEAT

1. CHECK REAR DOOR SWITCH POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(Αρρίολ.)	
B168 (LH)	43 (GY/R)	Ground	rear door open	0	
B368 (RH)	43 (01/10)	Ground	rear door closed	Battery voltage	



OK or NG

OK >> Replace door switch circuit check is OK.

NG >> GO TO 2.

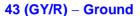
$\overline{2}$. CHECK DOOR SWITCH HARNESS

- 1. Disconnect rear power seat control unit connector and door lock assembly (door switch) connector.
- Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 43 and door lock assembly (door switch) connector D62 (LH), D82(RH) terminal 1.

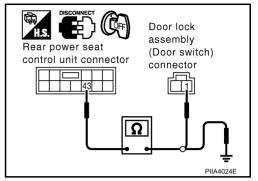


:Continuity should exist

3. Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 43 and ground.



:Continuity should not exist



OK or NG

OK

>> GO TO 3.

NG >> Repair or replace harness between rear power seat control unit and door lock assembly (door switch).

3. CHECK CANCEL SWITCH

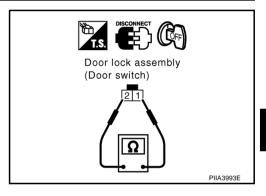
Check continuity between door lock assembly connector as follows.

Terr	ninal	Condition	Continuity
1	2	Door switch ON	Yes
	1 2	Door switch OFF	No

OK or NG

OK >> GO TO 4.

NG >> Replace door lock assembly.



4. CHECK REAR POWER SEAT SWITCH HARNESS

Check continuity between door lock assembly connector D62 (LH), D82 (RH) terminal 2 and ground.

:Continuity should exist

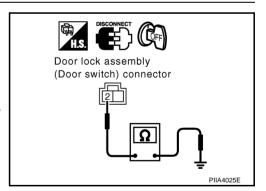
OK or NG

OK :

>> Check the condition of the harness and connector.

NG

>> Repair or replace harness between door lock assembly and ground.



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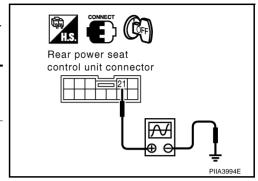
Check Rear Power Seat Sliding Sensor CircuitWITH HEATED SEAT

NIS00140

1. CHECK REAR POWER SEAT SLIDING SENSOR POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Signal (Reference valve)	
	(+)	(-)		(Notoronoe valve)	
B163 (LH) B363 (RH)	21 (W/G)	Ground	Rear power seat switch (sliding switch) forward or backward	(V) 6 4 2 0 ***50ms	



OK or NG

OK >> Rear power seat sliding sensor circuit check is OK.

NG >> GO TO 2.

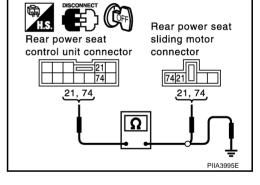
2. CHECK REAR POWER SEAT SLIDING SENSOR HARNESS

- Disconnect rear power seat control unit connector and rear power seat sliding motor sensor connector.
- 2. Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 21, 74 and rear power seat sliding motor connector B164 (LH), B364 (RH) terminal 21, 74.

21 (W/G) – 21 (W/G) :Continuity should exist. 74 (G/R) – 74 (G/R) :Continuity should exist.

 Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 21, 74 and ground.

21 (W/G) – Ground :Continuity should not exist. 74 (G/R) – Ground :Continuity should not exist.



OK or NG

OK >> Replace rear power seat sliding motor.

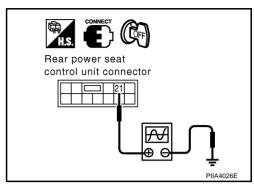
NG >> Repair or replace harness between rear power seat control unit and rear power seat sliding motor.

WITHOUT HEATED SEAT

1. CHECK REAR POWER SEAT SLIDING SENSOR POWER SUPPLY

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

	Ter	minal			
Connector	(Wire color)		Condition	Signal (Reference valve)	
	(+)	(-)		(ixelelelice valve)	
B168 (LH) B368 (RH)	21 (W/G)	Ground	Rear power seat switch (sliding switch) forward or backward	(V) 6 4 2 0 ****50ms	



OK or NG

OK >> Rear power seat sliding sensor circuit check is OK.

NG >> GO TO 2.

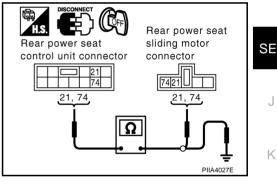
2. Check rear power seat sliding sensor harness

- Disconnect rear power seat control unit connector and rear power seat sliding motor sensor connector.
- Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 21, 74 and rear power seat sliding motor connector B164 (LH), B364 (RH) terminal 21, 74.

21 (W/G) - 21 (W/G) :Continuity should exist 74 (G/R) - 74 (G/R) :Continuity should exist

Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 21, 74 and ground.

> 21 (W/G) - Ground :Continuity should not exist 74 (G/R) - Ground :Continuity should not exist



OK or NG

OK >> Replace rear power seat sliding motor.

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

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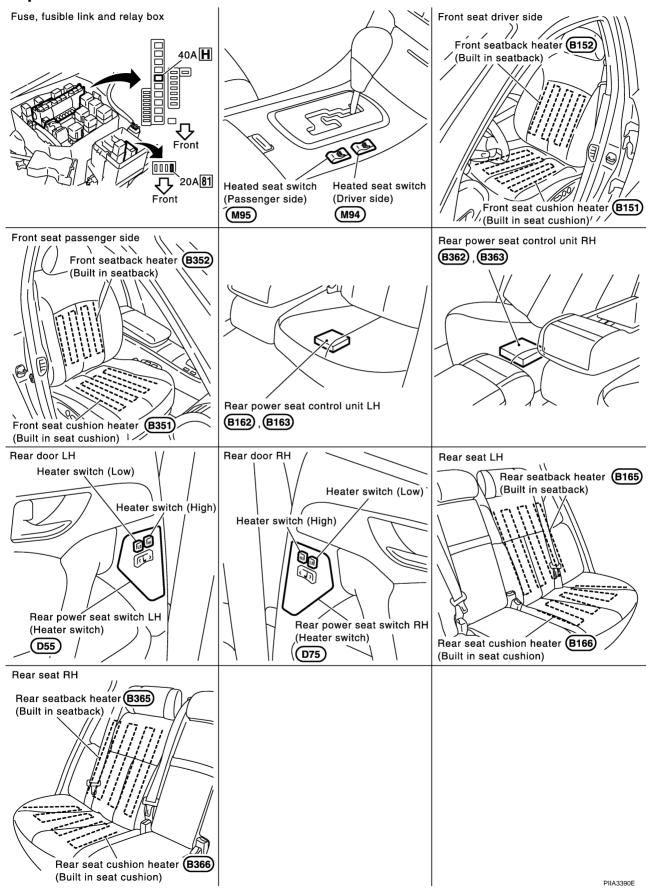
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HEATED SEAT PFP:87335

Component Parts and Harness Connector Location

NIS00149



HEATED SEAT System Description 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 times supplied through 40A fusible link [Letter H, located in the fuse block (J/B)], to rear power seat control unit LH and rear power seat control unit RH terminal 2. With the ignition switch to ON or START position, power is supplied through 20A fuse [No. 81, located in the fuse block (J/B)] to front heated seat switch (driver side, passenger side) terminal 1, and to rear power seat control unit LH, RH terminal 44, to rear power seat switch (heater switch) terminal 1 FRONT HEATED SEAT When front heated seat switch (driver side, passenger side) is LOW position, power is suppled through heated seat switch terminal 2, through front seatback heater terminal 62, through front seatback heater terminal C, to front seat cushion heater terminal C. Then ground is suppled to front seat cushion heater terminal 15C, through body grounds B17 and B57(driver side), B217 and B256 (passenger side). With power and ground supplied front seatback heater and front seat cushion heater. are operated. When front heated seat switch driver side, passenger side is HIGH position, power is supplied through front heated seat switch terminal 3, through front seatback heater terminal 63, through front seatback heater terminal C, to front seat cushion heater terminal C Then ground is suppled to front seat cushion heater terminal 15C, through body grounds B17 and B57(driver side), B217 and B256 (passenger side). to front seatback heater terminal 62, through heated seat switch terminal 2, through heated seat switch terminal 4, through body grounds M25 and M115. With power and ground supplied, front heated seat generates heat more than the time of LOW position. When heated seat switch (driver side, passenger side) is LOW or HIGH position, ground is supplied through heated seat switch terminal 4,

through body grounds M25 and M115.

With power and ground supplied, front heated seat switch indicator is illuminated.

REAR HEATED SEAT

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

- to rear power seat control unit terminal 32,
- through rear power seat switch (heater switch) terminal 5 (LH), 6 (RH),
- through rear power seat switch (heater switch) terminal 2,
- through body grounds B17 and B57 (LH), B217 and B256 (RH)

Then rear power seat control unit recognizes that heater switch is LOW position.

When heater seat switch is LOW position, power is supplied

through rear power seat control unit terminal 8,

SE-125 Revision: 2005 November 2006 Q45

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- through rear seatback heater terminal 8,
- through rear seatback heater terminal A,
- to rear seat cushion heater terminal A.

Then ground is suppled

- to rear seat cushion heater terminal 15B.
- through body grounds B17 and B57 (LH), B217 and B256 (RH).

With power and ground supplied, rear seatback heater and front seat cushion heater is.

When heater seat switch is in LOW position, ground is supplied

- to power seat switch (heater switch) terminal 3 (LH), 4 (RH),
- through rear power seat control unit terminal 26,
- through rear power seat control unit terminal 15,
- through body grounds B17 and B57 (LH), B217 and B256 (RH).

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

- to rear power seat control unit terminal 22,
- through rear power seat switch (heater switch) terminal 6 (LH), 5 (RH),
- through rear power seat switch (heater switch) terminal 2,
- through body grounds B17 and B57 (LH), B217 and B256 (RH)

Then rear power seat control unit recognizes that heater switch is in HIGH position.

When heater seat switch is in HIGH position, power is supplied

- through rear power seat control unit terminal 5,
- through rear seatback heater terminal 5,
- through rear seatback heater terminal A,
- to rear seat cushion heater terminal A.

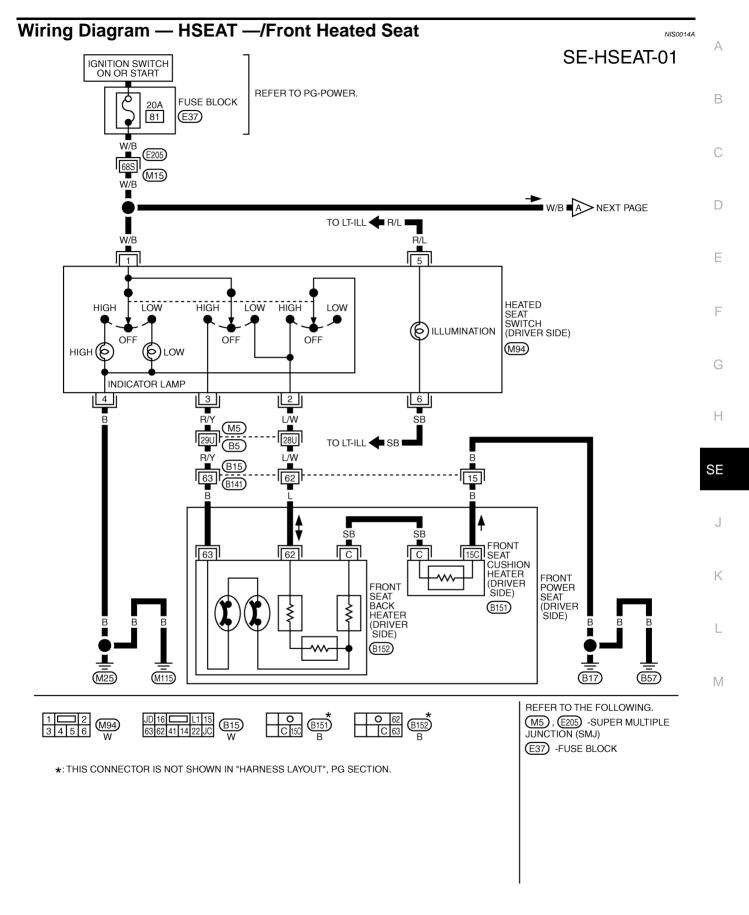
Then ground is suppled

- to rear seat cushion heater terminal 15B.
- through body grounds B17 and B57 (LH), B217 and B256 (RH).
- to rear seat back heater terminal 8,
- through rear power seat control unit terminal 8,
- through rear power seat control unit terminal 15,
- through body grounds B17 and B57 (LH), B217 and B256 (RH).

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

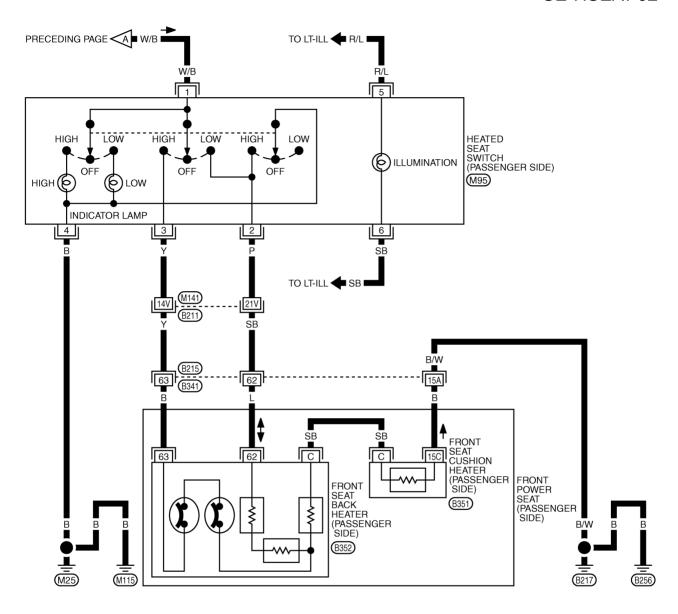
- to power seat switch (heater switch) terminal 4 (LH), 3 (RH).
- through rear power seat control unit terminal 20,
- through rear power seat control unit terminal 15,
- through body grounds B17 and B57 (LH), B217 and B256 (RH).

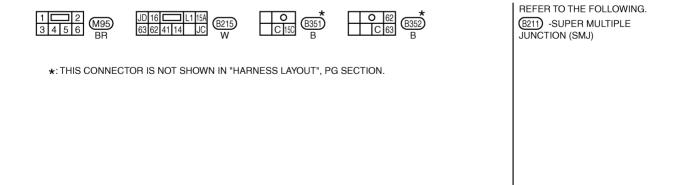
With power and ground supplied rear heated seat switch HIGH position indicator is illuminated.



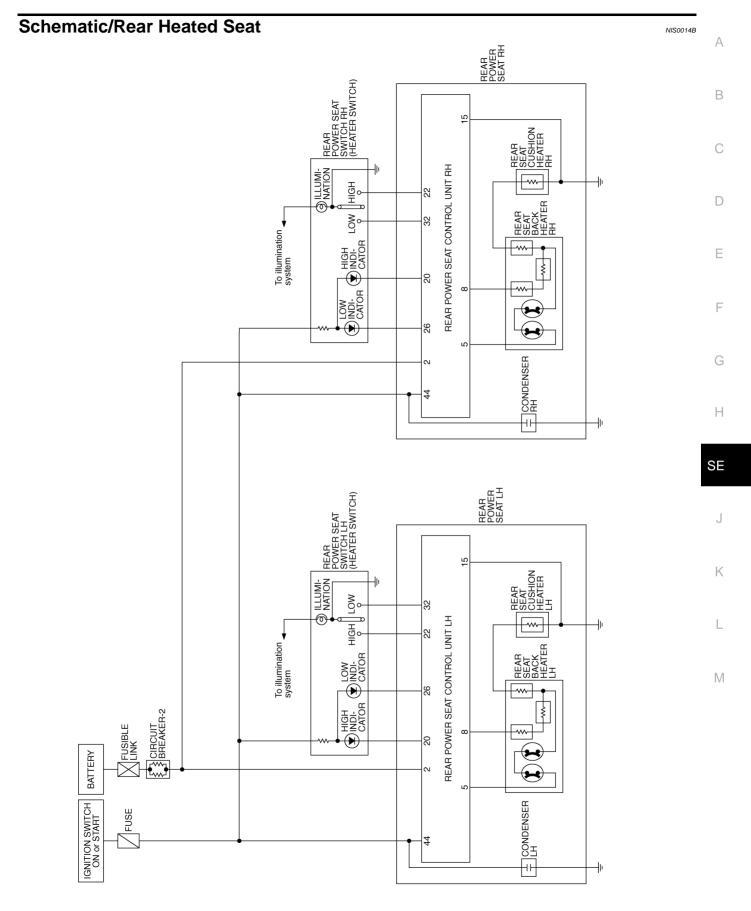
TIWM0740E

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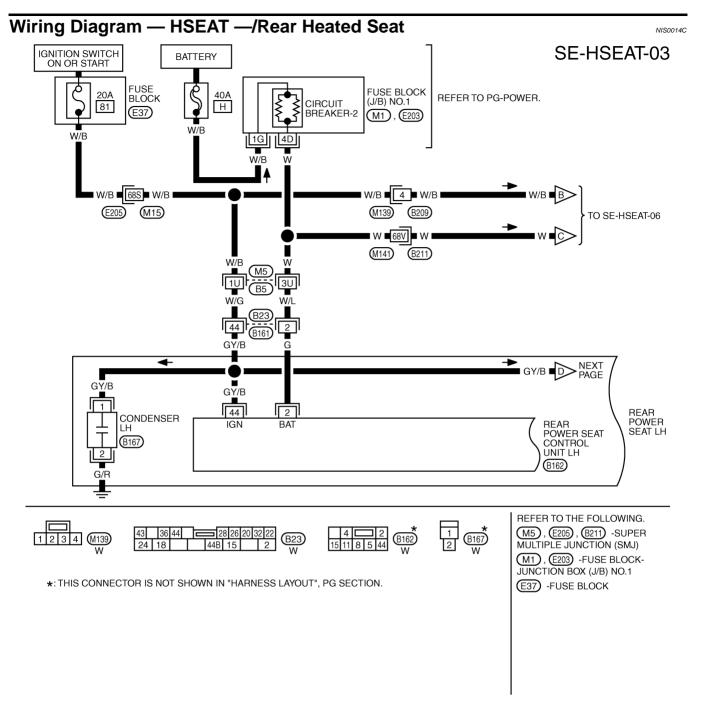




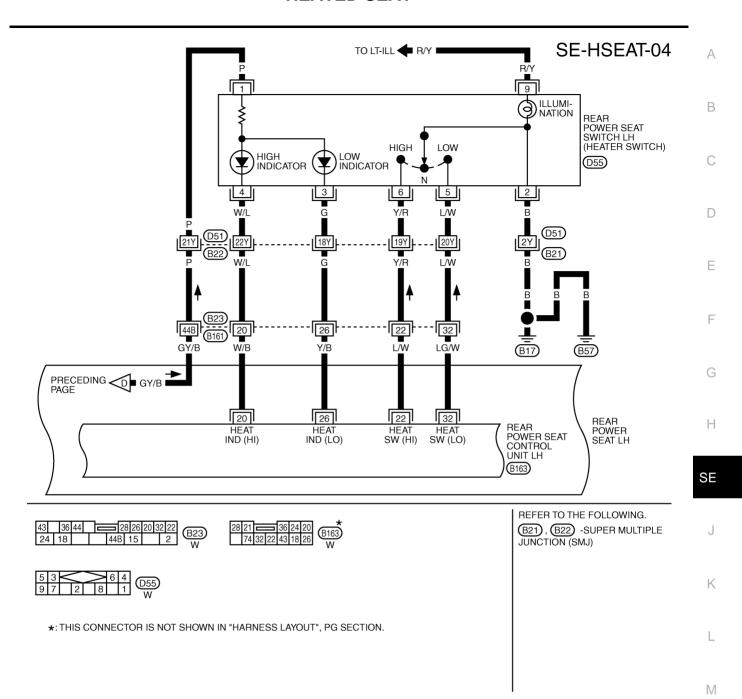
TIWM1584E



TIWM0130E

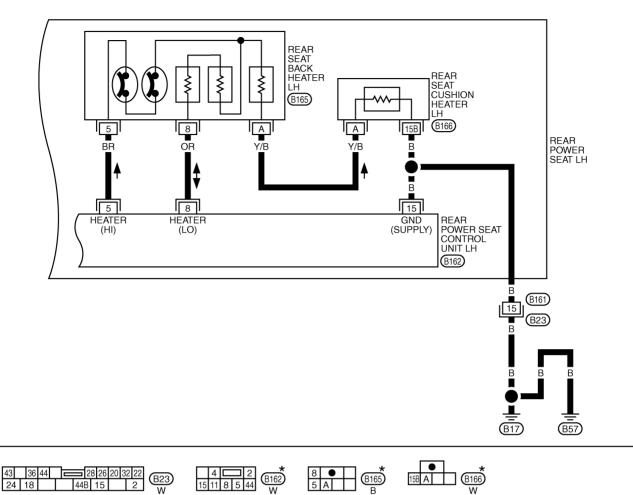


TIWM1585E



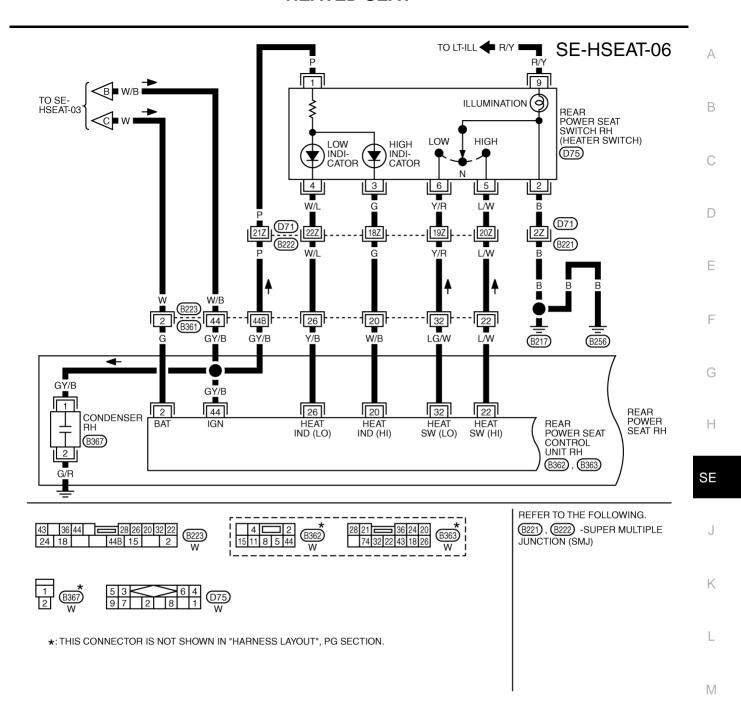
TIWM0743E

SE-HSEAT-05



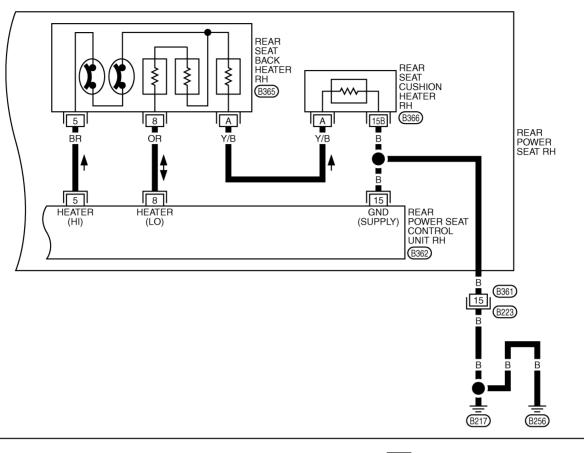
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWM0744E



TIWM1586E

SE-HSEAT-07





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

TIWM0746E

Terminals and Reference Values for Rear Power Seat Control Unit LH and RH

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Terminal	Wire Color	Item	Signal input/output	Condition	Voltage (V) (Approx.)		
2	G	Power source (Fusible link)	Input	_	Battery voltage		
F	BR	Heater Hi signal	lanut	Heater Hi operation	Battery voltage		
5	DK	Heater Hi signal	Input	Other than above	0		
				Heater Lo operation	Battery voltage		
8	OR	Heater Lo signal	Input	_	0		
				Other than above	0		
15	В	Ground	_	_	0		
20	20 W/B	Heater indicator Hi signal	Output -	Heater Hi operation (lit)	1		
20	VV/D			Other than above	Battery voltage		
22	L/W	Heater switch–Hi signal	Input	Heater switch (Hi) – ON (pressed)	0		
22	L/VV	Ticalci Swilch-ITI Signal		Troater owner i'n orginal	input	Heater switch (Hi) – OFF	5
26	V/D	Heater indicator Le signal	Output	Heater Lo operation (lit)	1		
20	1/0	Y/B Heater indicator Lo signal	Output	Other than above	Battery voltage		
22	20 1044 11	Heater awitch Le signal	lanut	Heater switch (Lo) – ON (pressed)	0		
32 LG/W	Heater switch-Lo signal	Input	Heater switch (Lo) - OFF	Battery voltage			
44	GY/B	IGN power supply	Input	_	Battery voltage		

Work Flow

- 1. Check the symptom and customer's requests.
- 2. Understand the outline of system. Refer to SE-125, "System Description".
- 3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-136</u>, <u>"Trouble Diagnoses Symptom Chart"</u>.
- 4. Does heated seat operate normally? YES: GO TO 5, NO: GO TO 3.
- 5. INSPECTION END.

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Trouble Diagnoses Symptom Chart

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

Symptom	Diagnoses / service procedure	Refer to page
Front heated seat driver side, passenger side and rear heated seat LH, RH do not operate.	Check heated seat power supply circuit	<u>SE-137</u>
Front heated seat driver side or passenger side does not operate.	Check front heated seat switch	<u>SE-137</u>
Front heated seat driver side or passenger side do not operate with LOW position and, seat cushion is not heated with HIGH position.	Check front heated seat circuit 1	<u>SE-138</u>
Front heated seat driver side or passenger side do not operate with LOW position but seat cushion are heated with HIGH position.	Check front heated seat circuit 2	SE-139
Front heated seat driver side or passenger side do not operate with HIGH position, seat cushion and seatback is heated with LOW position.	Check front heated seat circuit 3	<u>SE-141</u>
Front heated seat with HIGH position is not warmer than LOW position.	Check front heated seat switch ground circuit	SE-142
Rear heater seat LH and RH do not operated.	Check rear power seat control unit power supply circuit	<u>SE-143</u>
	Check rear power seat control unit power supply and ground circuit	<u>SE-144</u>
Rear heater seat LH or RH do not operate.	Check rear power seat switch (Heater switch) ground circuit	<u>SE-145</u>
	3. Replace rear power seat control unit	_
Rear heated seat LH or RH do not operate with LOW position and, seat cushion is do not heated with HIGH position.	Check rear heated seat circuit 1	<u>SE-145</u>
Rear heated seat LH or RH do not operate with LOW position but seat cushion is heated with HIGH position.	Check rear heated seat circuit 2	<u>SE-147</u>
Rear heated seat LH or RH do not operate with HIGH position, seat cushion and seat back are heated with LOW position.	Check rear heated seat circuit 3	<u>SE-148</u>
Rear heated seat LH or RH switch LOW position do not operate and, when	Check rear heated seat switch LOW circuit	SE-149
heated seat switch HIGH position, seat back and seat cushion is heated.	2. Check rear heated seat switch HIGH circuit	<u>SE-151</u>
Rear heated seat with HIGH position is not warmer than LOW position.	Check rear heated seat ground circuit	<u>SE-152</u>

Check Heated Seat Power Supply Circuit

1. CHECK FUSIBLE LINK

Check 20A fuse (No.81, located in fuse block).

NOTE:

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Refer to SE-124, "Component Parts and Harness Connector Location".

OK or NG

OK >> Check the condition of the harness.

>> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-2, "POWER SUPPLY ROUTING".

Check Front Heated Seat Switch

1. CHECK FRONT HEATED SEAT POWER SUPPLY CIRCUIT

- 1. Disconnect front heated seat switch connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between front heated seat switch connector M94 (driver side), M95 (passenger side) terminal 1 and ground.

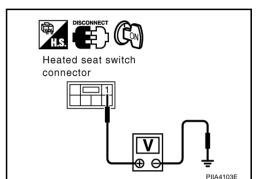
1 (W/B) - Ground

: Battery voltage

OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness between fuse block and front heated seat switch.



2. CHECK FRONT HEATED SEAT SWITCH

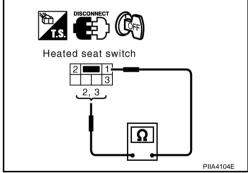
- Turn ignition switch OFF.
- 2. Check continuity between front heated seat switch as follows.

Tern	minal	Condition	Continuity
	2	Front heated seat switch LOW	Yes
1	3	Front heated seat switch HIGH	Yes
	2, 3	Other than above	No

OK or NG

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

NG >> Replace front heated seat switch.



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Check Front Heated Seat Circuit 1

1. CHECK FRONT HEATED SEAT SWITCH

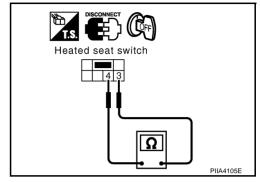
- 1. Turn ignition switch OFF.
- 2. Disconnect front heated seat switch connector.
- 3. Check continuity between front heated side power seat switch.

Terr	minal	Condition	Continuity
3	3 4	Front heated seat switch LOW	Yes
		Other than above	No

OK or NG

OK >> GO TO 2.

NG >> Replace front heated seat switch.

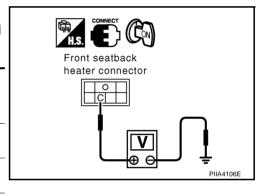


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2. CHECK FRONT SEAT BACK HEATER CIRCUIT

- Connect front heated seat switch connector.
- 2. Turn ignition switch ON.
- Check voltage between front seatback heater connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(Applox)
B152 (Driver side) B352 (Passenger side)			Turn ignition switch ON Front heated seat switch LOW	6.5
	C (SB)	C (SB) Ground	Turn ignition switch ON Front heated seat switch HIGH	6.5
			Front heated seat switch OFF	0



OK or NG

NG

OK >> GO TO 6.

>> When turn ignition switch ON and heated switch ON (LOW, HIGH), check the following.

- When voltage is approx. 0V GO TO 3.
- When voltage is approx. 12V GO TO 4.

3. CHECK FRONT SEAT CUSHION HEATER HARNESS

- 1. Turn ignition switch OFF.
- Disconnect front seatback heater connector and front seat cushion heater connector.
- 3. Check continuity between front seatback heater connector B152 (Driver side), B352 (Passenger side) terminal C and ground.

C (SB) – Ground

:Continuity should exist

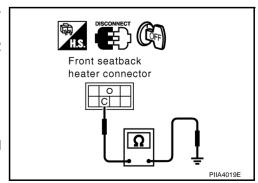
OK or NG

NG

OK >> Rep

>> Replace rear seat back.

>> Repair or replace harness between front seat back and font seat cushion.



4. CHECK FRONT SEAT CUSHION HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2 Disconnect front seatback heater connector and front seat cushion heater connector.
- Check continuity between front seatback heater connector B152 (Driver side), B352 (Passenger side) terminal C and front seat cushion heater connector B151 (Driver side), B351 (Passenger side) terminal C.

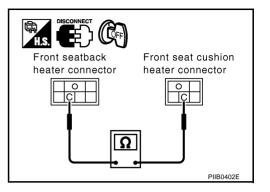
:Continuity should exist

OK or NG

OK >> GO TO 5.

NG

>> Repair or replace harness between front seat back and font seat cushion.



5. CHECK FRONT SEAT CUSHION GROUND HARNESS

Check continuity between front seat cushion heater connector B151 (Driver side), B351 (Passenger side) terminal 15C and ground.

15C (B) - Ground

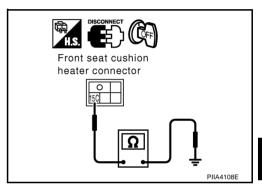
:Continuity should exist

OK or NG

OK >> GO TO 6.

NG

>> Repair or replace harness between front seat cushion heater and ground.



6. CHECK FRONT SEAT CUSHION

Does the heater operate normally when the seat cushion is exchanged?

Does seat cushion get warm?

YES >> Replace rear seatback.

>> Check connector for damage or loose connection. NO

Check Front Heated Seat Circuit 2

1. CHECK FRONT SEATBACK HEATER 1

- 1. Turn ignition switch ON.
- Check voltage between front heated seat switch and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
M94 (Driver side)	2 (L/W)		Turn ignition switch ON Front heated seat switch LOW	Battery voltage
,		Ground	Front heated seat switch OFF	0
M95 (Passenger side)	2 (P)	Siouila	Turn ignition switch ON Front heated seat switch LOW	Battery voltage
			Front heated seat switch OFF	0

Heated seat switch connector PIIA4109F

OK or NG

OK >> GO TO 3. NG >> GO TO 2.

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$\overline{2}$. CHECK FRONT HEATED SEAT SWITCH

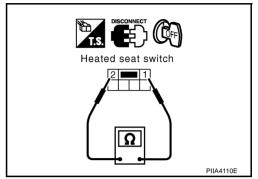
- 1. Turn ignition switch OFF.
- 2. Disconnect front heated seat switch connector.
- 3. Check continuity between front heated seat switch as follows.

Terminal		Condition	Continuity
1	2	Front heated seat switch LOW	Yes
		Other than above	No

OK or NG

OK >> Check connector for damage or loose connection.

NG >> Replace front heated seat switch.



3. CHECK FRONT SEATBACK HEATER HARNESS

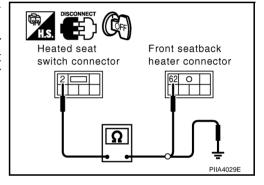
- 1. Turn ignition switch OFF.
- 2. Disconnect front heated seat switch connector and front seatback heater connector.
- Check continuity between front heated seat switch connector M94(driver side), M95 (passenger side) terminal 2 and front seatback heater connector B152(driver side), B352(passenger side) terminal 62.



2 (L/W) – 62 (L) : Continuity should exist

Passenger side

2 (P) – 62 (L) : Continuity should exist



Check continuity between front heated seat switch connector M94(driver side), M95 (passenger side) terminal 2 and ground.

Driver side

2 (L/W) – Ground : Continuity should not exist

Passenger side

2 (P) – Ground : Continuity should not exist

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness between front heated seat switch and front seatback heater.

4. CHECK FRONT SEATBACK HEATER

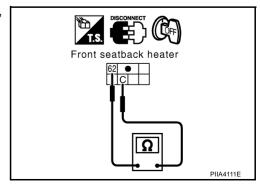
Check continuity between front seatback heater B152 (driver side), B352 (passenger side) terminal C and 62.

C (SB) – 62 (L) : Continuity should exist

OK or NG

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

NG >> Replace front seatback heater.



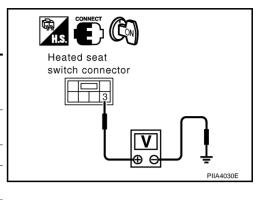
Check Front Heated Seat Circuit 3

1. CHECK FRONT HEATED SEAT SWITCH

1. Turn ignition switch ON.

2. Check voltage between front heated seat switch and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(лрргох.)
M94 (Driver side)	3 (R/Y)	- Ground	Turn ignition switch ON Front heated seat switch HIGH	Battery voltage
			Front heated seat switch OFF	0
M95 (Passenger side)	3 (Y)		Turn ignition switch ON Front heated seat switch HIGH	Battery voltage
			Front heated seat switch OFF	0



OK or NG

OK >> GO TO 3. NG >> GO TO 2.

2. CHECK FRONT HEATED SEAT SWITCH

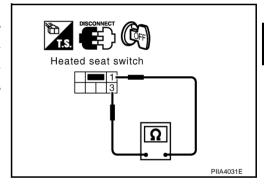
- 1. Turn ignition switch OFF.
- 2. Disconnect front heated seat switch connector.
- 3. Check continuity between front heated seat switch as follows.

Terminal		Condition	Continuity
1	3	Front heated seat switch HIGH	Yes
		Other than above	No

OK or NG

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

NG >> Replace front heated seat switch.



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Heated seat

switch connector

Front seatback

heater connector

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$\overline{3}$. CHECK FRONT SEATBACK HEATER HARNESS

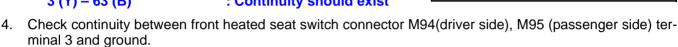
- 1. Turn ignition switch OFF.
- 2. Disconnect front heated seat switch connector and front seatback heater connector.
- Check continuity between front heated seat switch connector M94(driver side), M95 (passenger side) terminal 3 and front seatback heater connector B152(driver side), B352(passenger side) terminal 63.

Driver side

: Continuity should exist 3(R/Y) - 63(B)

Passenger side

3(Y) - 63(B): Continuity should exist



Driver side

3 (R/Y) - Ground : Continuity should not exist

Passenger side

3 (Y) - Ground : Continuity should not exist

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness between front heated seat switch and front seatback heater.

4. CHECK FRONT SEATBACK HEATER

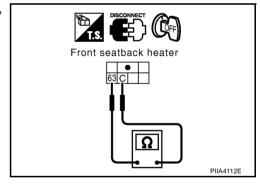
Check continuity between front seatback heater B152 (driver side), B352 (passenger side) terminal C and 63.

> C (SB) - 63 (B): Continuity should exist

OK or NG

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

NG >> Replace front seatback heater.



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Check Front Heated Seat Switch Ground Circuit

1. CHECK FRONT HEATED SEAT SWITCH

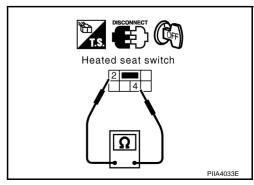
- Turn ignition switch OFF. 1.
- 2. Disconnect front heated seat switch connector.
- Check continuity between front heated seat switch as follows. 3.

Terminal		Condition	Continuity
2	4	Front heated seat switch HIGH	Yes
		Other than above	No

OK or NG

OK >> GO TO 2.

NG >> Replace front heated seat switch.



2. CHECK FRONT HEATED SEAT SWITCH GROUND HARNESS

Check continuity between front heated seat switch connector M94 (Driver side), M95 (passenger side) terminal 4 and ground.

4 (B) - Ground

:Continuity should exist

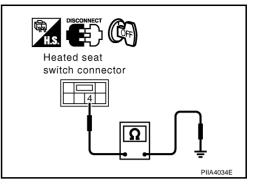
OK or NG

OK

>> Check connector for damage or loose connection.

NG

>> Repair or replace harness between front heated seat switch and ground.



Check Rear Power Seat Control Unit Power Supply Circuit

1. CHECK REAR POWER SEAT OPERATION

Does the rear power seat operate normally?

YES or NO

YFS >> GO TO 4.

>> GO TO 2. NO

2. CHECK FUSIBLE LINK

Check 40A fusible link (letter **H** located in the fuse and fusible link box).

NOTE:

Refer to SE-124, "Component Parts and Harness Connector Location".

OK or NG

OK >> GO TO 3.

>> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-NG 2. "POWER SUPPLY ROUTING".

3. CHECK REAR POWER SEAT CONTROL UNIT BATTERY POWER SUPPLY CIRCUIT

- Disconnect rear power seat control unit connector.
- Check voltage between rear power seat control unit connector B162 (LH), B362 (RH) terminal 2 and ground.

2 (G) - Ground

: Battery voltage

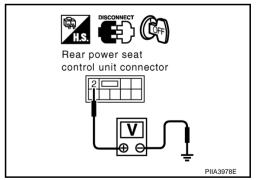
OK or NG

OK

>> Check the condition of the harness connector.

NG

>> Repair or replace harness between fuse block (J/B) and rear power seat control unit.



4. CHECK REAR POWER SEAT CONTROL UNIT IGNITION POWER SUPPLY CIRCUIT

- Turn ignition switch ON.
- Check voltage between rear power seat control unit connector B162 (LH), B362 (RH) connector terminal 44 and ground.

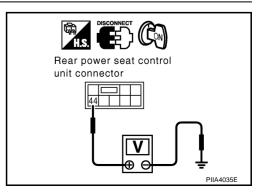
44 (GY/B) - Ground : Battery voltage

OK or NG

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

NG

>> Repair or replace harness between fuse block (J/B) and rear power seat control unit.



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Check Rear Power Seat Control Unit Power Supply and Ground Circuit

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1. CHECK REAR POWER SEAR OPERATION

Does the rear power seat operate normally?

YES or NO

YES >> GO TO 4.

NO >> GO TO 2.

2. CHECK REAR POWER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector.
- 3. Check voltage between rear power seat control unit connector B162 (LH), B362 (RH) terminal 2 and ground.

2 (G) - Ground

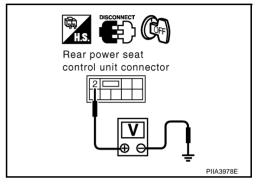
: Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair

>> Repair or replace harness between fuse block (J/B) and rear power seat control unit.



3. CHECK REAR POWER SEAT CONTROL UNIT GROUND CIRCUIT

Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 15 and ground.

15 (B) - Ground

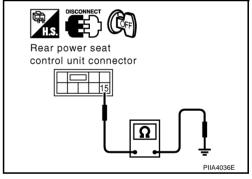
:Continuity should exist

OK or NG

OK >> Replace rear power seat control unit.

NG

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



4. CHECK REAR POWER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

- 1. Disconnect rear power seat control unit connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between rear power seat control unit B162 (LH), B362 (RH) connector terminal 44 and ground.

44 (GY/B) - Ground

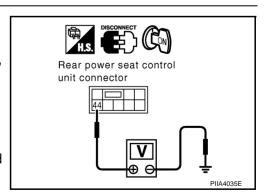
: Battery voltage

OK or NG

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

NG

>> Repair or replace harness between fuse block (J/B) and rear power seat control unit.



Check Rear Power Seat Switch (Heater Switch) Ground Circuit

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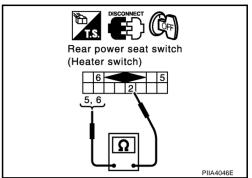
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1. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH)

- Turn ignition switch OFF.
- 2. Disconnect rear power seat switch (heater switch) connector.
- Check continuity between rear power seat switch (heater switch) as follows.

Terr	minal	Condition	Continuity
5		Rear heater switch HIGH	Yes
3	2	Other than above	No
6	2	Rear heater switch LOW	Yes
6		Other than above	No



OK or NG

OK >> GO TO 2.

>> Replace rear power seat switch (Heater switch). NG

$oldsymbol{2}$. Check rear power seat switch (heater switch) ground circuit

Check continuity between rear power seat switch (heater switch) connector D55 (LH), D75 (RH) terminal 2 and ground.

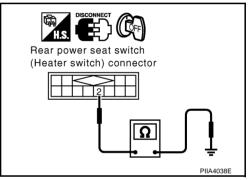
2 (B) - Ground

:Continuity should exist

OK or NG

OK >> Rear power seat switch (heater switch) ground circuit check is OK.

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

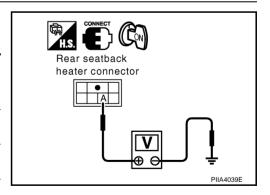


Check Rear Heated Seat Circuit 1

1. CHECK REAR SEAT CUSHION HEATER POWER SUPPLY

- Turn ignition switch ON.
- Check voltage between rear seatback heater and ground.

			Voltage (V) (Approx.)	
(+)	(-)		(Арргох.)	
		Turn ignition switch ON Heater switch LOW	6.0	
A (Y/B) Grou	Ground	Turn ignition switch ON Heater switch HIGH	6.0	
		Heater switch OFF	0	
	. ,	, , , , ,	A (Y/B) Ground Turn ignition switch ON Heater switch LOW Turn ignition switch ON Heater switch HIGH	



OK or NG

OK >> GO TO 5.

NG >> When turn ignition switch ON and heater switch LOW position or HIGH position check the follow-

- When voltage is approx. 0V, GO TO 2.
- When voltage is approx. 12V, GO TO 3.

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$\overline{2}$. CHECK REAR SEAT CUSHION HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seatback heater connector.
- 3. Check continuity between rear seatback connector B165 (LH), B365 (RH) terminal A and ground.

:Continuity should not exist

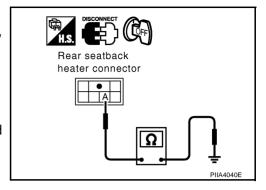
OK or NG

OK

>> Replace rear seatback heater.

NG

>> Repair or replace harness between rear seatback and rear seat cushion.



3. CHECK REAR SEAT CUSHION HEATER HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear seatback heater connector and rear seat cushion heater connector.
- Check continuity between rear seatback connector B165 (LH), B365 (RH) terminal A and rear seat cushion heater connector B166 (LH), B366 (RH) terminal A.

$$A(Y/B) - A(Y/B)$$

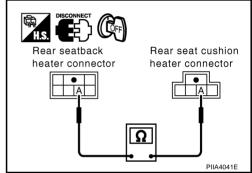
:Continuity should exist

OK or NG

OK >> GO TO 4.

NG >> Repair of

>> Repair or replace harness between rear seatback heater and rear seat cushion heater.



4. CHECK REAR SEAT CUSHION HEATER GROUND CIRCUIT

Check continuity between rear seat cushion heater connector B166 (LH), B366 (RH) terminal 15B and ground.

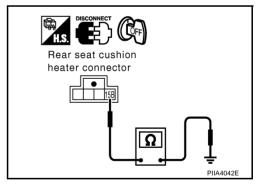
:Continuity should exist

OK or NG

OK >> Rear rear heated seat cushion circuit inspection is OK.

NG

>> Repair or replace harness between rear seat cushion heater and ground.



5. CHECK FRONT SEAT CUSHION

Does the heater operate normally when the seat cushion is exchanged? Does seat cushion get warm?

YES >> Replace rear seat cushion.

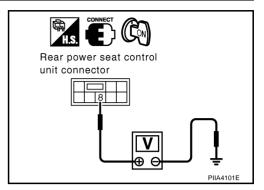
NO >> Check connector for damage or loose connection.

Check Rear Heated Seat Circuit 2

1. CHECK REAR SEATBACK HEATER POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(Арргох.)	
B162 (LH) B362 (RH)	` ' 8 (OR) Ground		Turn ignition switch ON Heater switch LOW	Battery voltage	
B302 (RH)			Heater switch OFF	0	



OK or NG

OK >> GO TO 3. NG >> GO TO 2

2. CHECK REAR SEATBACK HEATER HARNESS

- Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector.
- Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 8 and ground.

8 (OR) - Ground

:Continuity should not exist

OK or NG

OK NG

>> Replace rear power seat control unit.

>> Repair or replace harness between rear seat control unit and seatback heater.

Rear power seat control unit connector PIIA4102E

3. CHECK REAR SEATBACK HEATER HARNESS

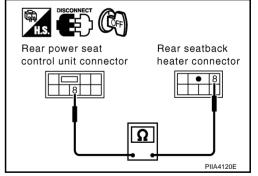
- 1. Turn ignition switch OFF.
- Disconnect rear power seat control unit connector and rear seatback heater connector.
- Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 8 and rear seatback heater connector B165 (LH), B365 (RH) terminal 8.

:Continuity should exist

OK or NG

OK >> GO TO 4.

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



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4. CHECK REAR SEATBACK HEATER

Check continuity between rear seatback heater B165 (LH), B365 (RH) terminal A and 8.

$$A (Y/B) - 8 (OR)$$

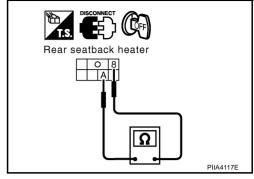
: Continuity should exist

OK or NG

OK >

>> Check the condition of the harness and connector.

NG >> Replace rear seatback heater.



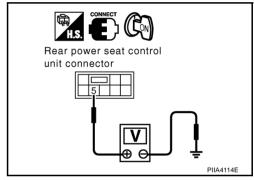
NIS0014R

Check Rear Heated Seat Circuit 3

1. CHECK REAR SEATBACK HEATER POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(дрргох.)	
B162 (LH) B362 (RH)	/ 5 (BR) (i	Ground	Turn ignition switch ON Heater switch HIGH	Battery voltage	
B362 (RH)	` '		Heater switch OFF	0	



OK or NG

OK >> GO TO 3.

NG >> GO TO 2.

2. CHECK REAR SEATBACK HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector and rear seatback heater connector.
- Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 5 and ground.

5 (BR) – Ground

:Continuity should not exist

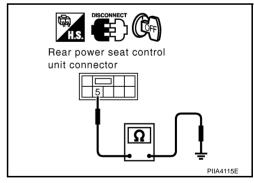
OK or NG

OK

>> Replace rear power seat control unit.

NG

>> Repair or replace harness between rear power seat control unit and rear seatback heater.



3. CHECK REAR SEATBACK HEATER HARNESS

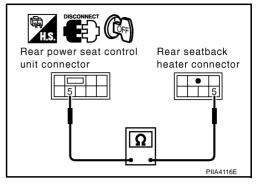
- 1. Turn ignition switch OFF.
- Disconnect rear power seat control unit connector and rear seatback heater connector.
- Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 5 and rear seatback heater connector B165 (LH), B365 (RH) terminal 5.

:Continuity should exist

OK or NG

OK >> GO TO 4.

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



4. CHECK REAR SEATBACK HEATER

Check continuity between rear seatback heater B165 (LH), B365 (RH) terminal A and 5.

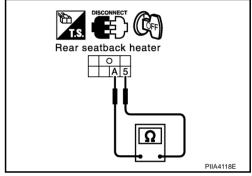
$$A(Y/B) - 5(BR)$$

: Continuity should exist

OK or NG

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

NG >> Replace rear seatback heater.



NIS0014S

Check Rear Heated Seat Switch Low Circuit

1. CHECK REAR HEATER SWITCH POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(Αρρίολ.)	
B163 (LH) B363 (RH)	32 (LG/W)	Ground	Turn ignition switch ON Heater switch LOW	0	
B303 (KH)			Heater switch OFF	5	

Rear power seat control unit connector

OK or NG

OK >> Repla

>> Replace rear power seat control unit.

>> When turn ignition switch ON and heater switch LOW, check the following.

- When voltage is approx. 0V, GO TO 2.
- When voltage is approx. 5V, GO TO 3.

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2. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH) HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector and rear power seat switch (heater switch) connector.
- 3. Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 32 and ground.

32 (LG/W) – Ground

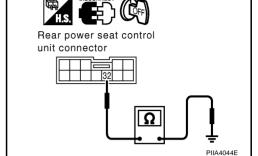
:Continuity should not exist

OK or NG

OK

>> Replace rear power seat control unit.

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



3. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH) HEATER HARNESS

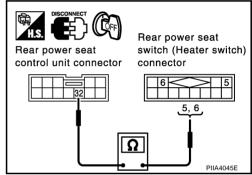
- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector and rear power seat switch (heater switch) connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 32 and rear power seat switch (heater switch) connector D55 (LH), D75 (RH) terminal 5 (LH), 6 (RH).

Rear seat LH

32 (LG/W) – 5 (L/W) :Continuity should exist

Rear seat RH

32 (LG/W) – 6 (Y/R) :Continuity should exist



OK or NG

OK >> GO TO 4.

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

4. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH)

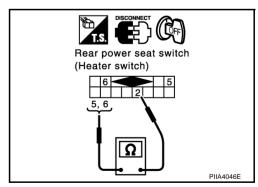
Check continuity between rear power seat switch (heater switch).

Terr	minal	Condition	Continuity
5 (LH)	2	Rear heater switch LOW	Yes
6 (RH) ²	Other than above	No	

OK or NG

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

NG >> Replace rear power seat switch (heater switch).

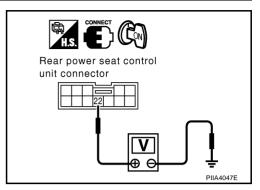


Check Rear Heated Seat Switch High Circuit

1. CHECK REAR HEATER SWITCH POWER SUPPLY

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(дрргох.)	
B163 (LH) B363 (RH)	22 (L/W)	Ground	Turn ignition switch ON Heater switch HIGH	0	
B363 (RH)	22 (L/W) Ground		Heater switch OFF	5	



OK or NG

OK >> Rear heated seat HIGH circuit inspection is OK.

NG >> When turn ignition switch ON and heater switch HIGH, check the following.

- When voltage is approx. 0V, GO TO 2.
- When voltage is approx. 5V, GO TO 3.

2. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH) HEATER HARNESS

- Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 22 and ground.

22 (L/W) - Ground

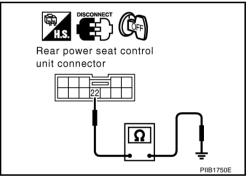
:Continuity should not exist

OK or NG

OK >> Replace rear power seat control unit.

NG

>> Repair or replace harness between rear power seat control unit and rear power seat switch (heater switch).



Rear power seat

control unit connector

3. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH) HEATER HARNESS

- Turn ignition switch OFF. 1.
- Disconnect rear power seat control unit connector and rear power seat switch (heater switch) connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 22 and rear power seat switch (heater switch) connector D55 (LH), D75 (RH) terminal 5 (RH), 6 (LH).

Rear seat LH

22 (L/W) - 6 (Y/R):Continuity should exist

Rear seat RH

22 (L/W) - 5 (L/W):Continuity should exist

OK or NG

NG

OK >> GO TO 4.

> >> Repair or replace harness between rear power seat control unit and rear power seat switch (heater switch).

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Rear power seat

connector

switch (Heater switch)

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4. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH)

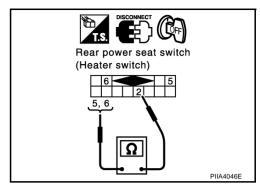
Check continuity between rear power seat switch (heater switch).

Terr	minal	Condition	Continuity
5 (RH)	5 (RH) 6 (LH) 2	Rear heater switch HIGH	Yes
6 (LH)		Other than above	No

OK or NG

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

NG >> Replace front power seat switch (heater switch).



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Check Rear Heated Seat Ground Circuit

1. CHECK REAR SEATBACK HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector.
- 3. Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 8 and 15.

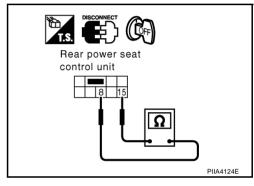
8 (OR) -15 (B)

:Continuity should exist

OK or NG

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

NG >> Replace rear power seat control unit.



CLIMATE CONTROLLED SEAT

PFP:870U6

NIS0014W

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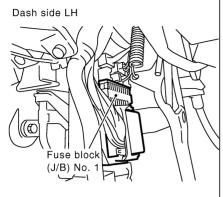
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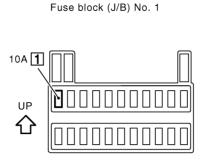
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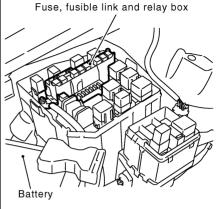
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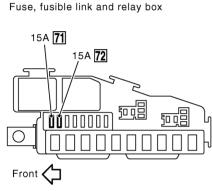
Component Parts and Harness Connector Location

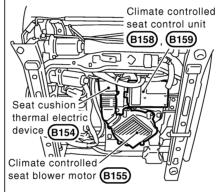




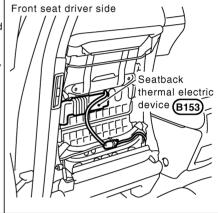




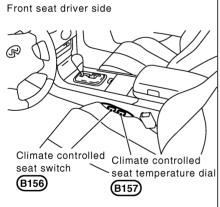


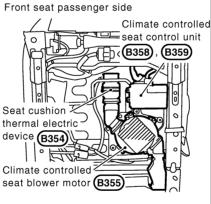


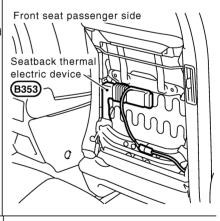
Front seat driver side





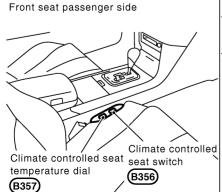


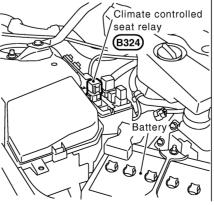






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PIIB7726E

System Description

NIS0014V

The climate controlled seat system is controlled by climate controlled seat control unit. Heating and cooling are possible for a Thelma 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 temperature switch or the dial.

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. 71, and 72, located in the fuse fusible link and relay unit]
- to climate controlled seat relay terminals 5 and 7.

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

- through 10A fuse [No. 1, located in the fuse block (J/B)]
- to climate controlled seat relay terminal 2, and
- to climate controlled seat control unit (driver side and passenger side) terminal JD.

Then ground is supplied

- to climate controlled seat relay terminal 1,
- through body grounds E42, and E 62.

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 driver side climate controlled seat control unit terminal JB.

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

- through climate controlled seat relay terminal 6,
- to passenger side climate controlled seat control unit terminal JB.

When climate controlled switch select "HEAT", ground is supply

- through climate controlled seat switch terminal J6,
- to climate controlled seat control unit terminal J6.
- through climate controlled seat switch terminal JCA,
- through body grounds B17 and B57.

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

- through climate controlled seat switch terminal J16,
- to climate controlled seat control unit terminal J16.
- through climate controlled seat switch terminal JCA,
- through body grounds B17 and B57.

Then, the climate controlled control unit receives climate controlled switch "COOL" signal. When the climate controlled seat control unit receives climate controlled seat switch signal, power is supply

- to climate controlled seat temperature dial terminal J7,
- through climate controlled seat control unit terminal J7.

And then ground is supplied

- through climate controlled seat control unit terminal J15,
- to climate controlled seat temperature dial terminal J15.

Then, the climate controlled seat control unit receives climate controlled seat temperature dial signal.

When blower motor rotates, signal is transmitted

- to climate controlled seat control unit terminal J14.
- through climate controlled seat blower motor terminal J14.

This is climate controlled seat blower motor tachometer signal.

When climate controlled seat control unit receives climate controlled seat switch (HEAT, COOL) signal, climate controlled seat temperature dial signal and tachometer signal.

Power is supplied

- to climate controlled seat blower motor terminal J13,
- through climate controlled seat control unit terminal J13.

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 J10,
- to climate controlled seat blower motor terminal J10.

When number of rotations correspond signal,

Ground is supplied

- to climate controlled seat blower motor terminal J3,
- through climate controlled seat control unit terminal J3.
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

Then motor revolution is controlled.

When the ignition switch turned to ON or START position,

Power is supplied

- to climate controlled seat cushion thermal electric device terminal J18.
- through climate controlled seat control unit terminal J18.

Then ground is supplied

- to climate controlled seat control unit terminal J17,
- through climate controlled seat cushion thermal electric device terminal J17,

Then the climate controlled seat control unit recognizes seat cushion thermal electric device sensor signal. When climate controlled control unit recognizes climate controlled switch "HEAT" signal and, seat cushion thermal electric device sensor signal,

Power is supplied

- to climate controlled seat cushion thermal electric device terminal J1,
- through climate controlled seat control unit terminal J1.

Then ground is supplied

- through climate controlled seat cushion thermal electric device terminal J2,
- to climate controlled seat control unit terminal J2,
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

When climate controlled control unit recognizes climate controlled switch "COOL" signal and, climate controlled seat cushion thermal electric device sensor signal,

Power is supplied

- to climate controlled seat cushion thermal electric device terminal J2,
- through climate controlled seat control unit terminal J2.

- to climate controlled seat control unit terminal J1.
- through climate controlled seat control unit terminal JC,

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Then ground is supplied

- through climate controlled seat cushion thermal electric device terminal J1,

SE-155 Revision: 2005 November 2006 Q45

through body grounds B217 and B256.

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

- to climate controlled seatback thermal electric device terminal J19.
- through climate controlled seat control unit terminal J19.

Then ground is supplied

- to climate controlled seat control unit terminal J20.
- through climate controlled seatback thermal electric device terminal J20,
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

Then the climate controlled seat control unit recognizes seatback thermal electric device sensor signal. When climate controlled control unit recognizes climate controlled switch "HEAT" signal and climate controlled seatback thermal electric device sensor signal,

Power is supplied

- to climate controlled seatback thermal electric device terminal J11,
- through climate controlled seat control unit terminal J11,

ground is supplied

- to climate controlled seat control unit terminal J12,
- through climate controlled seatback thermal electric device terminal J12,
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

this climate controlled seatback thermal electric device generates heat wind is warmed.

When climate controlled control unit recognizes climate controlled switch "COOL" signal and climate controlled seatback thermal electric device sensor signal,

Power is supplied

- to climate controlled seatback thermal electric device terminal J12,
- through climate controlled seat control unit terminal J12,

ground is supplied

- to climate controlled seat control unit terminal J11,
- through climate controlled seatback thermal electric device terminal J11.
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

When climate controlled switch selects "HEAT",

Power is supplied

- to climate controlled seat switch terminal J4,
- through climate controlled seat control unit terminal J4.

Ground is supplied

- to the climate controlled seat switch terminal JCA,
- through body grounds B17 and B57.

Then climate controlled seat switch "HEAT" indicator is energized.

When climate controlled switch select "COOL",

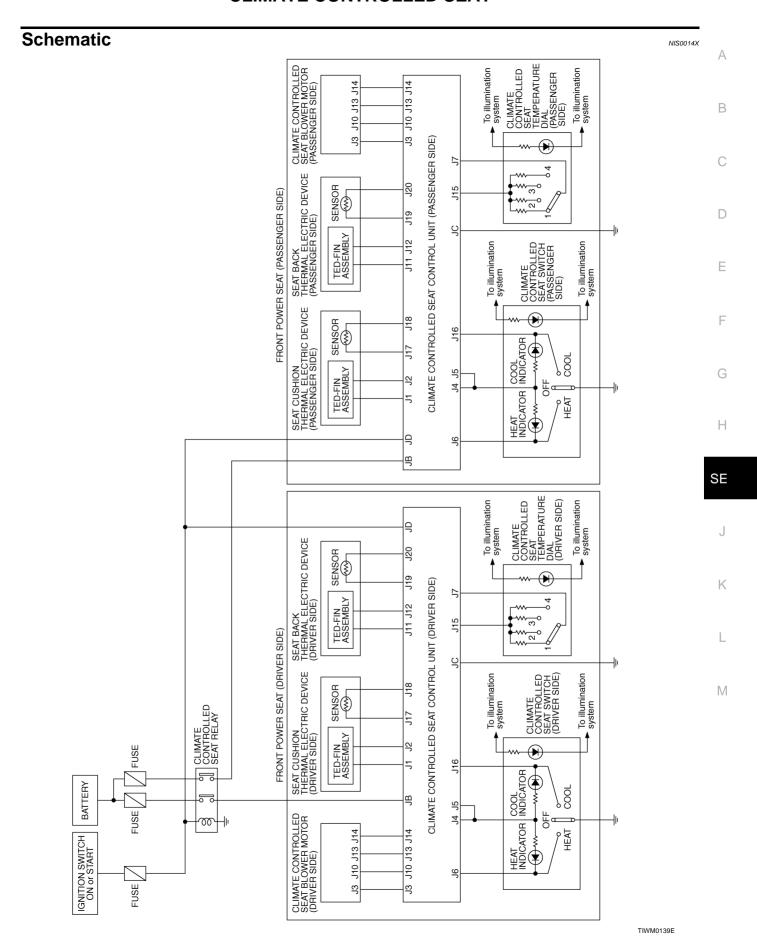
Power is supplied

- to climate controlled seat switch terminal J5.
- through climate controlled seat control unit terminal J5.

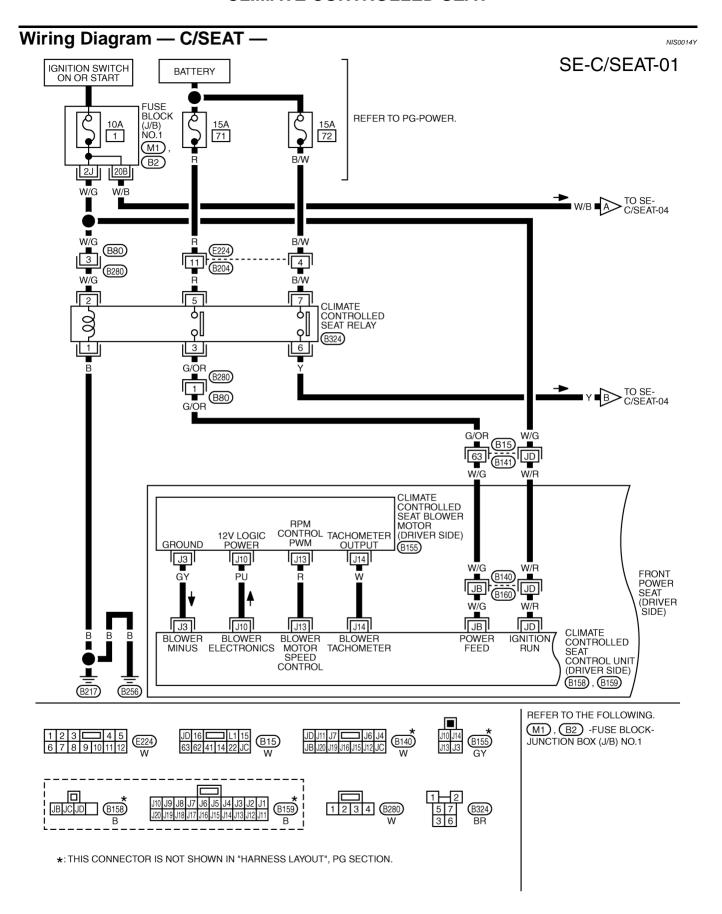
Ground is supplied

- to the climate controlled seat switch terminal JCA,
- through body grounds B17 and B57.

Then climate controlled seat switch "COOL" indicator is energized.

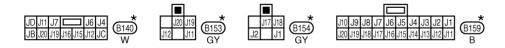


Revision: 2005 November **SE-157** 2006 Q45



TIWM1587E

SE-C/SEAT-02 CUSHION THERMAL ELECTRIC SENSOR TED-FIN <₩**) ASSEMBLY** (DRIVER SIDE) J1 Y/G J18 J17 J2 B/R G/R W/L B/R G/R W/L Y/G J18 J17 J2 J1 CLIMATE CONTROLLED SEAT CONTROL CUSHION CUSHION CUSHION CUSHION TED2 TED1 RETURN **SIGNAL BACK** BACK (DRIVER SIDE) BACK BACK TED2 SENSOR RETURN SENSOR TFD1 (B159) SIGNAL J12 J11 J19 J20 FRONT POWER SEAT (DRIVER SIDE) B/R PU/W L/OR R/L B/R PU/W J12 L/OR J19 J20 (B160) J11 L/OR (B140) PU/W B/R R/L PU/W L/OR J19 R/L J20 B/R SEAT BACK THERMAL ELECTRIC DEVICE (DRIVER SIDE) TED-FIN (W) ASSEMBLY



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

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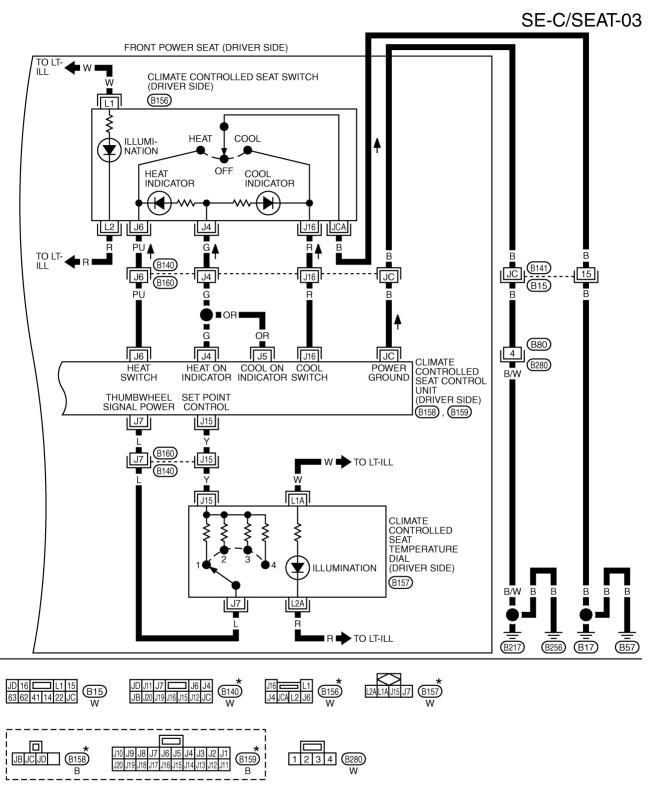
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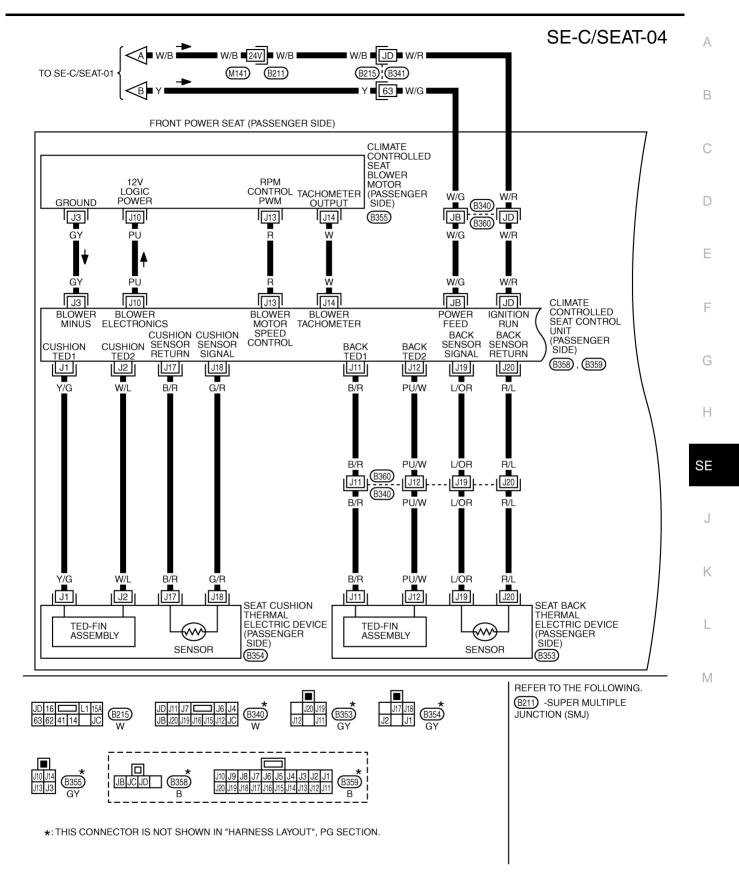
SENSOR

(B153)

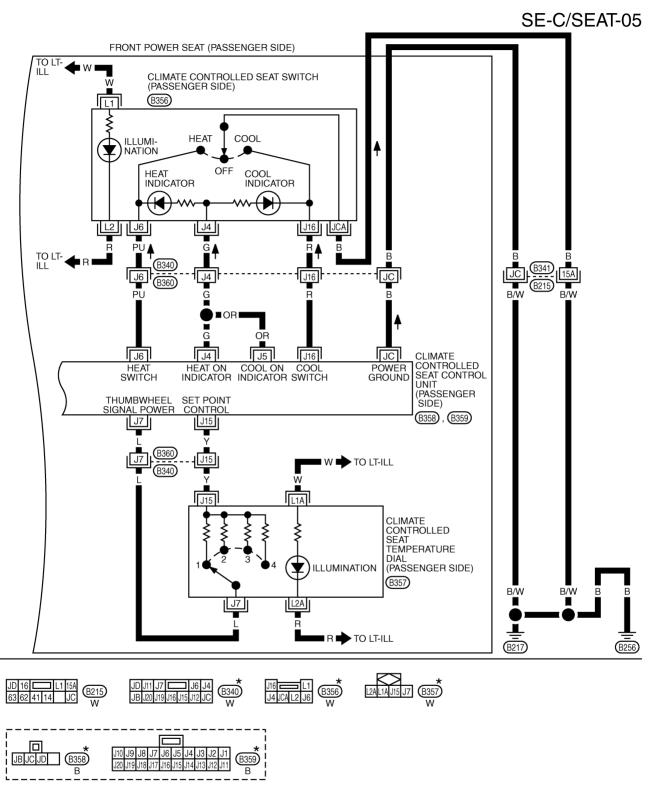


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWM1398E



TIWM1588E



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

TIWM1399E

JB JC JD J1	W/G B W/R Y/G	Ignition switch power supply Ground Ignition switch power supply	Input —	Ignition switch (Condition									
JD J1	W/R		_	Ignition switch ON or START		Battery voltage								
J1		Ignition switch power supply			_	0								
	Y/G		Input	Ignition switch (ON or START	Battery voltage								
	f/G	Seat cushion thermal electric	lanut	Ignition switch	Climate controlled seat switch select "HEAT"	0 – Battery voltage								
J2		device power supply (HEAT)	Input	ON or START	Climate controlled seat switch select "OFF"	0								
02	W/L	Seat cushion thermal electric	Input	Ignition switch	Climate controlled seat switch select "COOL"	0 – Battery voltage								
	VV/L	device power supply (COOL)	при	ON or START	Climate controlled seat switch select "OFF"	0								
J3	GY	Ground	_		_	0								
J4	G	"HEAT" switch indicator signal	Output	Ignition switch	Climate controlled seat switch select "HEAT"	Battery voltage								
J+		TIEM SWILLI IIIUICALUI SIYIIAI	Output	ON or START	Climate controlled seat switch select "OFF"	0								
J5	OR	"COOL" switch indicator signal	Output	Ignition switch	Climate controlled seat switch select "COOL"	Battery voltage								
33	OIX	SOCE Switch indicator signal	Output	ON or START	Climate controlled seat switch select "OFF"	0								
J6	PU	"HEAT" switch signal		Ignition switch	Climate controlled seat switch select "HEAT"	0								
30	TO TIETH SWIGHTSIGHE						. ~~	r ***	r		•	r	ON or START	Climate controlled seat switch select "OFF"
J7	L	Temperature dial power supply	Input	Ignition switch ON or START	temperature dial 1 – 4	7.1 – 11.4								
				Ignition switch (OFF	0								
14.0	D.I.			Ignition switch	Climate controlled seat switch select "HEAT" or "COOL" temperature dial 1 – 4	5.5 – Battery voltage								
J10	PU	Blower motor power supply	Input	ON OF START	Climate controlled seat switch select "OFF"	Battery voltage								
				Ignition switch (OFF	0								
J11	B/R	Seatback thermal electric	Input	Ignition switch	Climate controlled seat switch select "HEAT"	0 – Battery voltage								
511	<i>D</i> /1\	device power supply (HEAT)	mput	ON or START	Climate controlled seat switch select "OFF"	0								
J12	PU/W	Seatback thermal electric	Input	Ignition switch	Climate controlled seat switch select "COOL"	0 – Battery voltage								
012	1 0/ ۷۷	device power supply (COOL)	iiiput	ON or START	Climate controlled seat switch select "OFF"	0								
J13	R	Blower motor speed control signal	Input	Ignition switch	Climate controlled seat switch select "HEAT" or "COOL" temperature dial 1 – 4	4.5 – 9.5								
		S.gridi		SIT OF STAIL	Climate controlled seat switch OFF	0								
J14	W	Blower motor tachometer	Output	Ignition switch	Climate controlled seat switch select "HEAT" or "COOL"	5 – 7								
014	vv	signal	σαιραί	ON or START	Climate controlled seat switch select "OFF"	Battery voltage								

SE-163 Revision: 2005 November 2006 Q45

Ter- minal	Wire Color	Item	Signal input/output		Condition	
J15	J15 Y Temperature dial signal		Input	Ignition switch ON or START	temperature dial 1 – 4	0 – 5
				Ignition switch (OFF	0
J16	R	"COOL" switch signal	Input	Ignition switch	Climate controlled seat switch select "COOL"	0
310	K	GOOL SWILCH SIGNAL	mpat	ON or START	Climate controlled seat switch select "OFF"	Battery voltage
J17	B/R	Seat cushion thermal electric device sensor ground	_	Ignition switch ON		0
J18	G/R	Seat cushion thermal electric	Input	Ignition switch (ON or START	0.5 – 4
310	G/IX	device sensor signal	input	Ignition switch OFF		0
J19	L/OR	Seatback thermal electric	Input	Ignition switch (ON or START	0.5 – 4
319	LOK	device sensor signal	input	Input Ignition switch OFF		0
J20	R/L	Seatback thermal electric device sensor ground	Input	Ignition switch (Ignition switch ON	

Work Flow

- 1. Check the symptom and customer's requests.
- 2. Understand the outline of system. Refer to SE-154, "System Description".
- 3. Perform the preliminary check. Refer to SE-164, "Preliminary Check".
- 4. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-165</u>, "Trouble Diagnoses Symptom Chart".
- 5. Does climate controlled seat operate normally? YES: GO TO 6, NO: GO TO 4.
- 6. INSPECTION END.

Preliminary Check

NIS00151

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.

Trouble Diagnoses Symptom Chart

NIS00152

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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).	Check climate controlled seat relay power supply circuit	<u>SE-166</u>
	Check driver side climate controlled seat control unit power supply and ground circuit	<u>SE-167</u>
All the driver side climate controlled seat do not operate	2. Check climate controlled seat temperature dial circuit	<u>SE-173</u>
(Passenger side operates).	3. Check climate controlled seat switch ground circuit	<u>SE-174</u>
	4. Check blower motor power supply circuit	<u>SE-178</u>
	5. Replace blower motor assembly	_
	Check passenger side climate controlled seat control unit power supply and ground circuit	<u>SE-168</u>
All the passenger side climate controlled seat do not	2. Check climate controlled seat temperature dial circuit	SE-173
operate (Driver side operates)	3. Check climate controlled seat switch ground circuit	SE-174
	4. Check blower motor power supply circuit	SE-178
	5. Replace blower motor assembly	-
	Check climate controlled temperature dial	SE-172
Blower motor speed cannot adjust.	2. Check climate controlled seat control unit	<u>SE-181</u>
	3. Replace blower motor assembly	_
The climate controlled seat dose not operates when the switch is done in "HEAT" (The wind rises when the switch is in "COOL" mode).	Check climate controlled seat "HEAT" switch circuit	SE-170
The climate controlled seat dose not operates when the switch is done in "COOL" (The wind rises when the switch is in "HEAT" mode).	Check climate controlled seat "COOL" switch circuit	SE-171
	Check seat cushion thermal electric device sensor circuit	<u>SE-176</u>
When the climate controlled seat switch is turned on,	2. Check seat cushion thermal electric device circuit	<u>SE-175</u>
operation stops at nose (When the climate controlled seat switch is in "HEAT" or "COOL" mode after ignition switch is	3. Check seatback thermal electric device sensor circuit	<u>SE-178</u>
urned ON again, the motor operates).	Check seatback thermal electric device circuit	<u>SE-177</u>
	5. Check blower motor speed control circuit	<u>SE-180</u>
	6. Check blower motor tachometer signal circuit	<u>SE-180</u>
	7. Replace Climate controlled seat control unit	_

NOTE:

- The climate controlled seat blower keep low speed for approximately 60 seconds turning the switch or the dial.
- 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.

Check Climate Controlled Relay Power Supply Circuit

NIS00153

1. CHECK FUSE

Check 10A fuse [No. 1, located in fuse block (J/B)]

NOTE:

NG

Refer to SE-153, "Component Parts and Harness Connector Location".

OK or NG

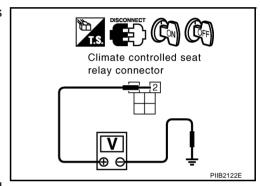
OK >> GO TO 2.

>> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-2, "POWER SUPPLY ROUTING".

2. CHECK SEAT RELAY POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat relay connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between climate controlled seat relay harness connector B324 terminal 2 and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V)	
	(+)	(-)			
B32/	B324 2 (W/G) Ground -		Turn ignition switch ON	Battery voltage	
D324			Turn ignition switch OFF	0	



OK or NG

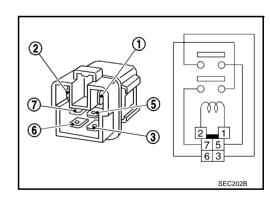
OK >> GO TO 3.

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

3. CHECK CLIMATE CONTROLLED SEAT RELAY

- 1. Turn ignition switch OFF.
- 2. Remove climate controlled seat relay.
- 3. Check continuity between terminals 3 and 5, 6 and 7.

Terr	minal	Condition	Continuity
3	5	12V direct current supply between terminals 1 and 2	Yes
		No current supply	No
6	7	12V direct current supply between terminals 1 and 2	Yes
		No current supply	No



OK or NG

OK >> GO TO 4.

NG >> Replace climate controlled seat relay.

4. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT GROUND CIRCUIT

Check continuity between climate controlled seat relay connector B324 terminal 1 and ground.

1 (B) - Ground

: Continuity should exist

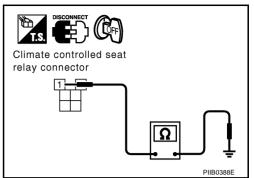
OK or NG

OK

>> Climate controlled seat relay power supply circuit check is OK.

NG

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



Check Driver Side Climate Controlled Seat Control Unit Power Supply and Ground Circuit

1. CHECK FUSE

Check 15A fuse [No. 71, located in fuse, fusible link and relay unit]

NOTE

Refer to SE-153, "Component Parts and Harness Connector Location".

OK or NG

NG

OK >> GO TO 2.

>> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-2, "POWER SUPPLY ROUTING".

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

- Turn ignition switch OFF.
- 2. Disconnect climate controlled seat relay.
- Check voltage between climate controlled seat relay connector B324 terminal 5 and ground.

5 (R) – Ground

: Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

Climate controlled seat relay connector

3. CHECK CLIMATE CONTROLLED SEAT RELAY

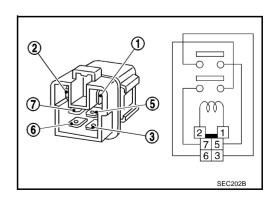
- Remove climate controlled seat relay.
- 2. Check continuity between terminals 3 and 5.

Terr	minal	Condition	Continuity
3	5	12V direct current supply between terminals 1 and 2	Yes
		No current supply	No

OK or NG

OK >> GO TO 4.

NG >> Replace climate controlled seat relay.



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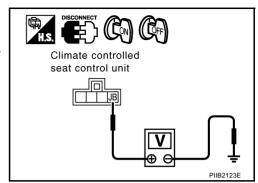
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NIS00154

4. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT 2

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(дрыох)
B158	JB (W/G)	Ground	Turn ignition switch ON	Battery voltage
B158	3B (W/G)	Ground	Turn ignition switch OFF	0



OK or NG

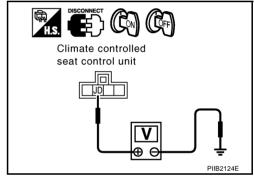
OK >> GO TO 5.

NG >> Repair or replace harness.

5. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(Αρρίολ)
B158	ID (W/P)	Ground	Turn ignition switch ON	Battery voltage
B 158	JD (W/R) Ground		Turn ignition switch OFF	0



OK or NG

OK >> GO TO 6.

NG >> Repair or replace harness.

6. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT GROUND CIRCUIT

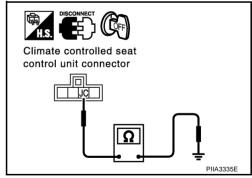
- 1. Turn ignition switch OFF.
- 2. Check continuity between climate controlled seat control unit connector B158 terminal JC and ground.

: Continuity should exist

OK or NG

OK >> Driver side climate controlled seat control unit power supply and ground circuit check is OK.

NG >> Repair or replace harness.



Check Passenger Side Climate Controlled Seat Control Unit Power Supply and Ground Circuit

1. CHECK FUSE

Check 10A fuse [No. 72, located in fuse, fusible link and relay unit]

NOTE:

Refer to SE-153, "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 PG-2, "POWER SUPPLY ROUTING".

Revision: 2005 November **SE-168** 2006 Q45

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

- 1. Turn ignition switch OFF.
- 2. Check voltage between climate controlled seat relay connector B324 terminal 7 and ground.

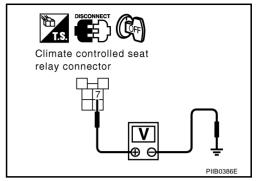
7 (B/W) – Ground

: Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



3. CHECK CLIMATE CONTROLLED SEAT RELAY

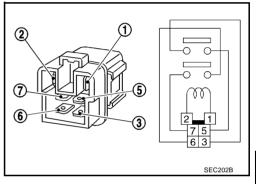
- 1. Remove climate controlled seat relay.
- 2. Check continuity between terminals 6 and 7.

Terr	minal	Condition	Continuity
6	7	12V direct current supply between terminals 1 and 2	Yes
		No current supply	No

OK or NG

OK >> GO TO 4.

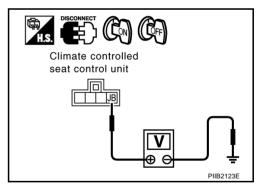
NG >> Replace air conditioning seat relay.



4. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT 2

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(Αρρίολ)
B158	JB (W/G)	Ground	Turn ignition switch ON	Battery voltage
B158	3B (W/G)	Giodila	Turn ignition switch OFF	0



OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness.

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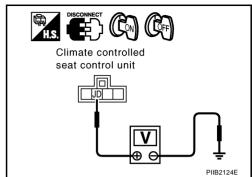
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5. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(дрргох)
B158	JD (W/R)	Ground	Turn ignition switch ON	Battery voltage
B158	3D (VV/IX)	Sibulia	Turn ignition switch OFF	0



OK or NG

OK >> GO TO 6.

NG >> Repair or replace harness.

6. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT GROUND CIRCUIT

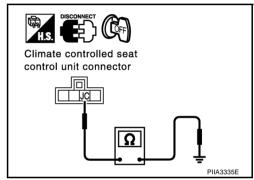
- 1. Turn ignition switch OFF.
- 2. Check continuity between climate controlled seat control unit connector B358 terminal JC and ground.

:Continuity should exist

OK or NG

OK >> Passenger side climate controlled seat unit power supply circuit and ground check is OK.

NG >> Repair or replace harness.



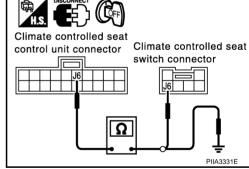
NIS00156

Check Climate Controlled Seat "HEAT" Switch Circuit

1. CHECK CLIMATE CONTROLLED SEAT HEAT SWITCH HARNESS CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit and climate controlled seat switch connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J6 and climate controlled seat switch connector B156 (driver side), B356 (passenger side) terminal J6.

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J6 and ground.



J6 (PU) – Ground

:Continuity should not exist.

OK or NG

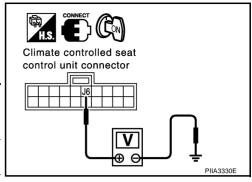
OK >> GO TO 2.

NG >> Repair or replace harness.

2. CHECK CLIMATE CONTROLLED SEAT HEAT SWITCH POWER SUPPLY CIRCUIT

- 1. Connect climate controlled seat control unit connector and climate controlled seat switch.
- 2. Turn ignition switch ON.
- Turn climate controlled seat switch "HEAT".
- 4. Check voltage between climate controlled seat control unit connector and body ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
B159 (Driver side)	J6 (PU)	Ground	Turn climate controlled seat switch "HEAT"	0
B359 (Passenger side)	, ,	Giodila	Climate controlled seat switch "OFF"	Battery voltage



OK or NG

OK >> Replace climate controlled seat control unit.

NG >> GO TO 3.

3. CHECK CLIMATE CONTROLLED SEAT HEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat switch connector.
- Check continuity between climate controlled seat switch as follows.

Terr	minal	Condition	Continuity
J6	JCA	Climate controlled seat switch HEAT position	Yes
	JOA	Climate controlled seat switch OFF	No

OK or NG

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

NG >> Replace climate controlled seat switch.

Check Climate Controlled Seat "COOL" Switch Circuit

1. CHECK CLIMATE CONTROLLED SEAT COOL SWITCH HARNESS CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit and climate controlled seat switch connector.

SE-171

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J16 and climate controlled seat switch connector B156 (driver side), B356 (passenger side) terminal J16.

4. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J16 and ground.

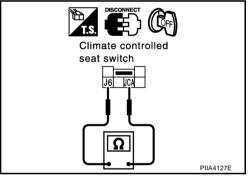


OK or NG

OK >> GO TO 2.

Revision: 2005 November

NG >> Repair or replace harness.

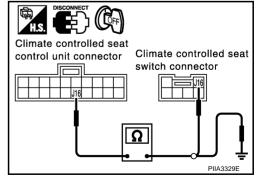


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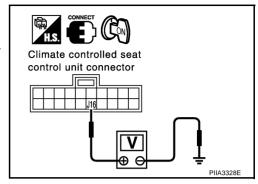
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$\overline{2}$. CHECK CLIMATE CONTROLLED SEAT COOL SWITCH POWER SUPPLY CIRCUIT

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
B159 (Driver side)	J16 (R)	Ground	Climate controlled seat switch COOL	0
B359 (Passenger side)	310 (11)	Oround	Climate controlled seat switch OFF	Battery voltage



Climate controlled seat switch

OK or NG

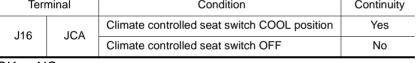
OK >> Replace climate controlled seat control unit.

NG >> GO TO 3.

3. CHECK CLIMATE CONTROLLED SEAT COOL SWITCH

- Turn ignition switch OFF.
- 2. Disconnect climate controlled seat switch connector.
- 3. Check continuity between climate controlled seat switch as follows.

Terr	minal	Condition	Continuity
J16	JCA	Climate controlled seat switch COOL position	Yes
310	JCA	Climate controlled seat switch OFF	No



OK or NG

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

NG >> Replace climate controlled seat switch.

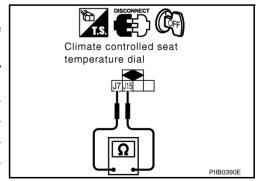
Check Climate Controlled Seat Temperature Dial 1. CHECK CLIMATE CONTROLLED SEAT TEMPERATURE DIAL

NIS00158

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- Turn ignition switch OFF.
- Disconnect climate controlled seat temperature dial connector. 2.
- Check continuity between climate controlled seat temperature dial as follows.

Ter	minal	Condition	Continuity(Ω) (Approx)
		Temperature dial 1st	2370
J7	J15	Temperature dial 2nd	1100
37	313	Temperature dial 3rd	619
		Temperature dial 4th	237



OK or NG

OK >> Climate controlled seat temperature dial check is OK.

NG >> Replace climate controlled seat temperature dial.

Check Climate Controlled Seat Temperature Dial Circuit

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1. CHECK CLIMATE CONTROLLED SEAT TEMPERATURE DIAL HARNESS

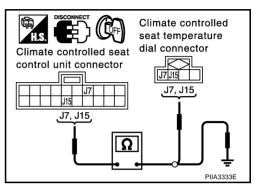
- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and climate controlled seat temperature dial connector.
- 3. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J7, J15 and climate controlled seat temperature dial connector B157 (driver side), B357 (passenger side) terminal J7, J15.

J7 (L) – J7 (L) J15 (Y) – J15 (Y) : Continuity should exist : Continuity should exist

4. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J7, J15 and ground.

J7 (L) – Ground J15 (Y) – Ground : Continuity should not exist

: Continuity should not exist



OK or NG

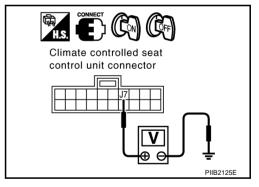
OK >> GO TO 2.

NG >> Repair or replace harness.

2. CHECK CLIMATE CONTROLLED SEAT TEMPERATURE DIAL POWER SUPPLY CIRCUIT

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

Connector	Terminal (Wire color)		Condition	Voltage (V)
	(+)	(-)		(•)
B159 (Driver side) B359 (Passenger side)		Ground	temperature dial 1 – 4	7.1 – 11.4
	J7 (L)		Turn ignition switch OFF	0



OK or NG

OK

NG

>> Climate controlled seat temperature dial circuit check is OK.

>> When turn ignition ON and temperature dial adjust, check the following

- When voltage is approx 12V, GO TO 3
- When voltage is approx 0V, Replace climate controlled seat control unit.

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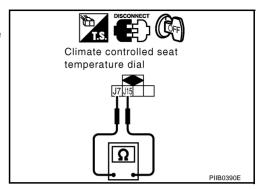
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3. CHECK CLIMATE CONTROLLED SEAT TEMPERATURE DIAL

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat temperature dial connector.
- Check continuity between climate controlled seat temperature dial as follows.

Terminal		Condition	Continuity(Ω) (Approx)
J7 J15	Temperature dial 1st	2370	
	11.5	Temperature dial 2nd	1100
	313	Temperature dial 3rd	619
		Temperature dial 4th	237



OK or NG

OK >> Replace climate controlled seat control unit.

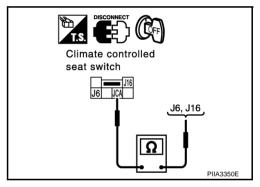
NG >> Replace climate controlled seat temperature dial.

Check Climate Controlled Seat Switch Ground Circuit

1. CHECK CLIMATE CONTROLLED SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat switch connector.
- Check continuity between climate controlled seat switch as follows.

Ter	minal	Condition	Continuity
	I.G.	Climate controlled seat switch HEAT position	Yes
JCA	Climate controlled seat switch OFF	No	
J16	Climate controlled seat switch COOL position	Yes	
	Climate controlled seat switch OFF	No	



NIS0015A

OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat switch.

2. CHECK CLIMATE CONTROLLED SEAT SWITCH GROUND CIRCUIT

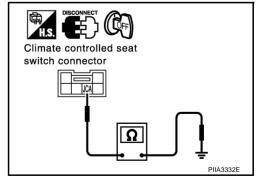
Check continuity between climate controlled seat switch connector B156 (driver side), B356 (passenger side) terminal JCA and ground.

:Continuity should exist.

OK or NG

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

NG >> Repair or replace harness.



Check Seat Cushion Thermal Electric Device Circuit

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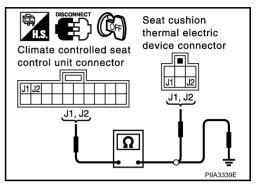
1. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE HARNESS Turn ignition switch OFF.

- 2. Disconnect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- Check continuity between climate controlled seat control unit 3. connector B159 (driver side), B359 (passenger side) terminal J1. J2 and climate controlled seat temperature dial connector B154 (driver side), B354 (passenger side) terminal J1, J2.

J1 (Y/G) - J1 (Y/G) : Continuity should exist J2 (W/L) - J2 (W/L): Continuity should exist

Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J1, J2 and ground.

> J1 (Y/G) - Ground : Continuity should not exist J2 (W/L) - Ground : Continuity should not exist



OK or NG

1.

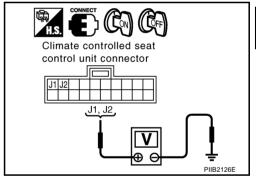
OK >> GO TO 2.

NG >> Repair or replace harness.

$oldsymbol{2}.$ CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE POWER SUPPLY CIRCUIT

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(–)		(πρριοχ)
B159 (Driver side) B359 (Passenger side)	J1 (Y/G)	- Ground -	Turn ignition switch ON, climate controlled seat switch turn "HEAT"	0 – Battery voltage
			Turn ignition switch OFF	0
	J2 (WL)		Turn ignition switch ON, climate controlled seat switch turn "COOL"	0 – Battery voltage
			Turn ignition switch OFF	0



OK or NG

OK >> Seat cushion Thelma electric device circuit check is OK.

NG >> Replace seat cushion thermal electric device. SE

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Check Seat Cushion Thermal Electric Device Sensor Circuit

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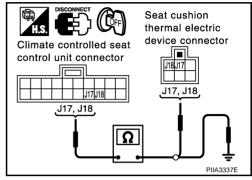
1. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE HARNESS

- 1. Turn ignition switch OFF.
- Disconnect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- 3. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J17, J18 and climate controlled seat temperature dial connector B154 (driver side), B354 (passenger side) terminal J17, J18.

J17 (B/R) - J17 (B/R) : Continuity should exist J18 (G/R) - J18 (G/R) : Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J17, J18 and ground.

> J17 (B/R) – Ground : Continuity should not exist J18 (G/R) – Ground : Continuity should not exist



OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness.

2. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE SENSOR

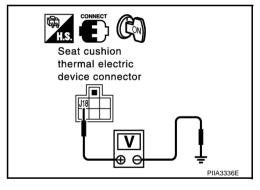
- 1. Connect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- 2. Turn ignition switch ON.
- Check voltage between seat cushion thermal electric device connector B154 (driver side), B354 (passenger side) terminal J18 and body ground.

J18 (G/R) – Ground : 0.5V – 4V (Approx.)

OK or NG

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

NG >> Replace seat cushion thermal electric device.



Check Seatback Thermal Electric Device Circuit

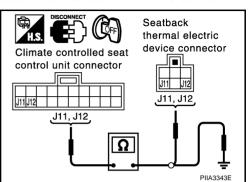
1. CHECK SEATBACK THERMAL ELECTRIC DEVICE HARNESS

- 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 B159 (driver side), B359 (passenger side) terminal J11, J12 and seatback thermal electric device connector B153 (driver side), B353 (passenger side) terminal J11, J12.

J11 (B/R) – J11 (B/R) : Continuity should exist J12 (PU/W) – J12 (PU/W) : Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J11, J12 and ground.

> J11 (B/R) – Ground : Continuity should not exist J12 (PU/W) – Ground : Continuity should not exist



OK or NG

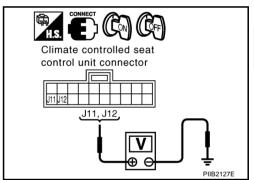
OK >> GO TO 2.

NG >> Repair or replace harness.

2. CHECK SEATBACK THERMAL ELECTRIC DEVICE POWER SUPPLY CIRCUIT

- Connect climate controlled seat control unit connector and seatback thermal electric device connector.
- Check voltage between climate controlled seat control unit connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(–)		(Applox)
B159 (Driver side) B359 (Passenger side)	J11 (B/R)	Ground	Turn ignition switch ON, climate controlled seat switch turn "HEAT	0 – Battery voltage
			Turn ignition switch OFF	0
	J12 (PU/W)		Turn ignition switch ON, climate controlled seat switch turn "COOL"	0 – Battery voltage
			Turn ignition switch OFF	0



OK or NG

OK >> Seatback thermal electric device circuit check is OK.

NG >> Replace seat cushion thermal electric device.

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Check Seatback Thermal Electric Device Sensor Circuit

1. CHECK SEATBACK THERMAL ELECTRIC DEVICE HARNESS

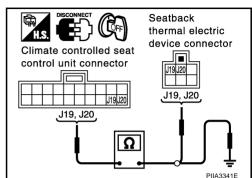
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- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and seatback thermal electric device connector.
- 3. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J19, J20 and seatback thermal electric device connector B153 (driver side), B353 (passenger side) terminal J19, J20.

J19 (L/OR) – J19 (L/OR) : Continuity should exist J20 (R/L) – J20 (R/L) : Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J19, J20 and ground.

> J19 (L/OR) – Ground : Continuity should not exist J20 (R/L) – Ground : Continuity should not exist



OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness.

2. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE SENSOR

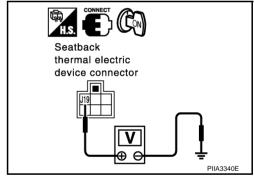
- 1. Connect climate controlled seat control unit connector and seatback thermal electric device connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between seat cushion thermal electric device connector B153 (driver side), B353 (passenger side) terminal J19 and ground.

J19 (L/OR) – Ground : 0.5V – 4V (Approx)

OK or NG

OK >> Seatback thermal electric device sensor circuit inspection is OK.

NG >> Replace seatback thermal electric device.



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Check Blower Motor Power Supply Circuit

1. CHECK BLOWER MOTOR HARNESS

- 1. Turn ignition switch OFF.
- Disconnect climate controlled seat control unit and blower motor connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J10 and blower motor connector B155 (driver side), B355 (passenger side) terminal J10.

J10 (PU) – J10 (PU) : Continuity should exist

4. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J10 and ground.

J10 (PU) – Ground : Continuity should not exist

Climate controlled seat control unit connector blower motor connector

OK or NG

OK >> GO TO 2.

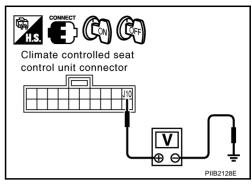
NG >> Repair or replace harness.

Revision: 2005 November **SE-178** 2006 Q45

2. CHECK BLOWER MOTOR POWER SUPPLY CIRCUIT

- Connect climate controlled seat control unit connector and blower motor connector.
- Check voltage between climate controlled seat control unit connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V)
	(+)	(-)		(Approx)
B159 (Driver side) B359 (Passenger side)	J10 (PU)	Ground	Turn ignition switch ON Climate controlled seat switch "HEAT" or "COOL"	5.5 – Battery voltage
			Turn ignition switch OFF	0



OK or NG

OK >> GO TO 3.

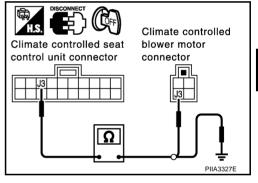
NG >> Replace climate controlled seat control unit.

3. CHECK BLOWER MOTOR GROUND HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and blower motor connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J 3 and blower motor connector B155 (driver side), B355 (passenger side) terminal J3.

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J3 and ground.





OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

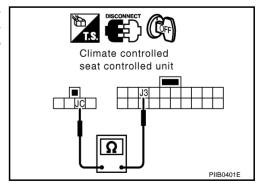
4. CHECK BLOWER MOTOR GROUND HARNESS

Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J3 and climate controlled seat control unit connector B158 (driver side), B358 (passenger side) terminal JC.

OK or NG

OK >> Blower motor circuit check is OK.

NG >> Replace climate controlled seat control unit.



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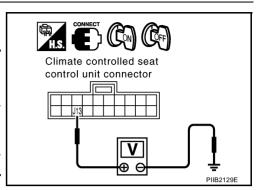
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Check Blower Motor Speed Control Circuit

1. CHECK BLOWER MOTOR SPEED CONTROL SIGNAL CIRCUIT

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(дрргох)
B159 (Driver side) B359	J13 (R)	Ground	Turn ignition switch ON Climate controlled seat switch "HEAT" or "COOL"	4.5 – 9.5
(Passenger side)			Turn ignition switch OFF	0



OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat control unit.

2. CHECK BLOWER MOTOR HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and blower motor connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J13 and blower motor connector B155 (driver side), B355 (passenger side) terminal J13.

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J13 and ground.

J13 (R) – Ground : Continuity should not exist

Climate controlled seat control unit connector

OK or NG

OK >> Blower motor control circuit check is OK.

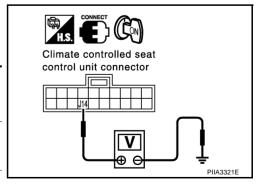
NG >> Repair or replace harness.

Check Blower Motor Tachometer Signal Circuit

1. CHECK BLOWER MOTOR TACHOMETER SIGNAL CIRCUIT

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(дрргох)
B159 (Driver side) B359 (Passenger side)	J14 (W)	Ground	Climate controlled seat switch "HEAT" or "COOL" temperature dial 1 – 4	5 – 7
			Climate controlled seat switch OFF	0



OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat blower motor.

Revision: 2005 November **SE-180** 2006 Q45

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CLIMATE CONTROLLED SEAT

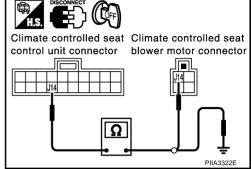
$\overline{2}$. CHECK BLOWER MOTOR HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and blower motor connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J14 and blower motor connector B155 (driver side), B355 (passenger side) terminal J14.

J14 (W) – J14 (W) : Continuity should exist

4. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J14 and ground.

J14 (W) – Ground : Continuity should not exist



OK or NG

OK >> Blower motor tachometer signal circuit check is OK.

NG >> Repair or replace harness.

Check Climate Controlled Seat Control Unit

CHECK THE CLIMATE CONTROLLED SEAT CONTROL UNIT

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 check is OK.

NO >> Replace climate controlled seat control unit.

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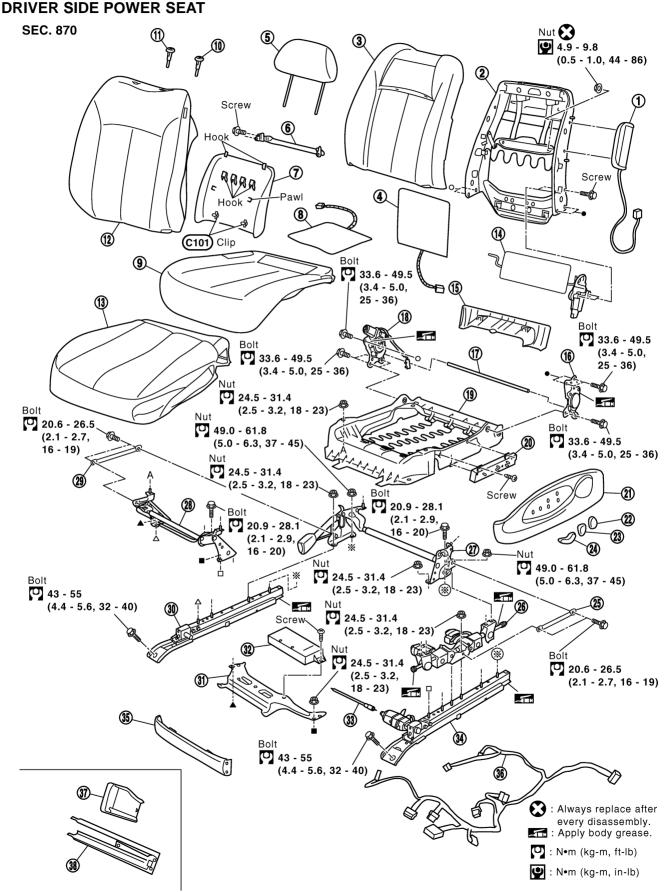
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FRONT SEAT PFP:87000

Removal and Installation

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Side air bag module 2. Seatback frame Seatback pad 1. 3. 4. 5. Headrest 6. Seatback heater unit Seatback grip belt Seatback board 7. 8. Seat cushion heater unit 9. Seat cushion pad 10. Headrest holder (locked) 11. Headrest holder (free) Seatback trim 12. 13. Seat cushion trim Seat lumbar unit Seat cushion rear finisher 14. 15. Reclining device (LH) Reclining device rod Reclining device (RH) 16. 17. 18. 19. Seat cushion frame 20. Power seat switch 21. Seat cushion outer finisher 22. Lumbar support switch knob 23. Reclining switch knob 24. Slide-lifter switch knob 25. Seat cushion rod (LH) 26. Lifter motor unit assembly 27. Seat lifter link bracket (rear) Seat lifter link bracket (front) Inner sliding assembly 28. 29. Seat cushion rod (RH) 30. 31. Seat control unit bracket 32. Driver seat control unit 33. Flexible wire Outer sliding assembly Seat cushion front finisher Power seat harness 35. 36. 37. Front leg cover (LH/RH) 38. Rear leg cover (LH/RH)

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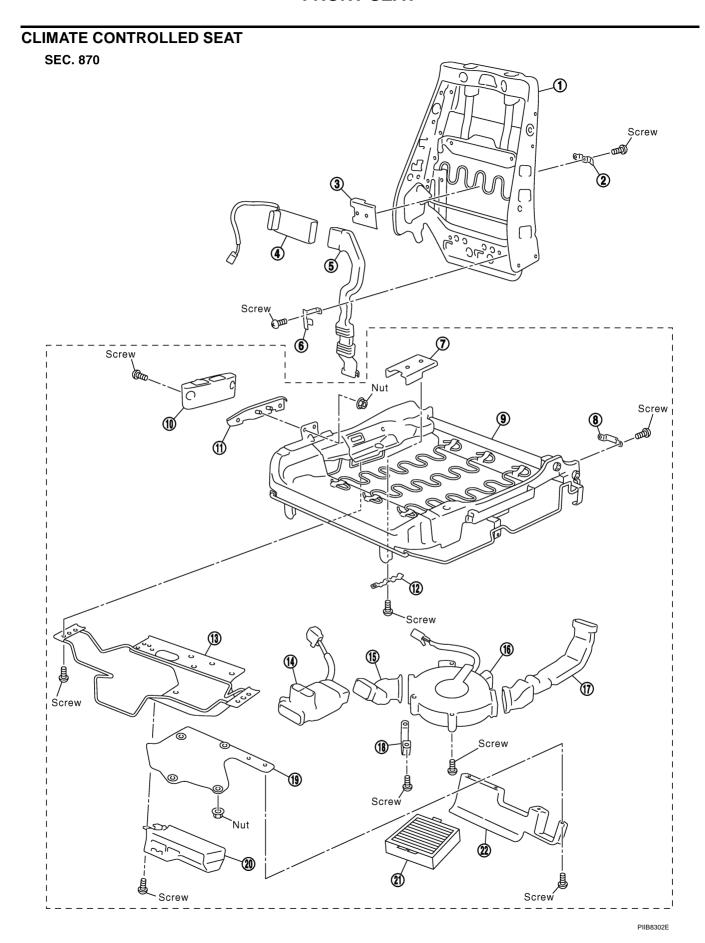
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1	Seatback frame	2.	Seatback outer bracket	3.	Seatback inner bracket
1.	Seatback frame	۷.	Seatback outer bracket	ა.	Seatback inner bracket
4.	Seatback thermal electric device	5.	Seatback duct	6.	Seatback duct upper bracket
7.	Seat cushion inner bracket	8.	Seatback duct lower bracket	9.	Seat cushion frame
10.	Climate controlled seat switch	11.	Climate controlled seat switch bracket	12.	Seat cushion outer bracket
13.	Seat cushion mounting upper bracket	14.	Seat cushion thermal electric device	15.	Seat cushion front duct
16.	Climate controlled seat blower motor	17.	Seat cushion rear duct	18.	Seat cushion duct lower bracket
19.	Seat cushion mounting lower bracket	20.	Climate controlled seat control box	21.	Climate controlled seat filter
22.	Seat cushion rear duct cover				

CAUTION:

Do not disassembly the component parts of only front passenger seat in the dotted lines shown in the figure below.

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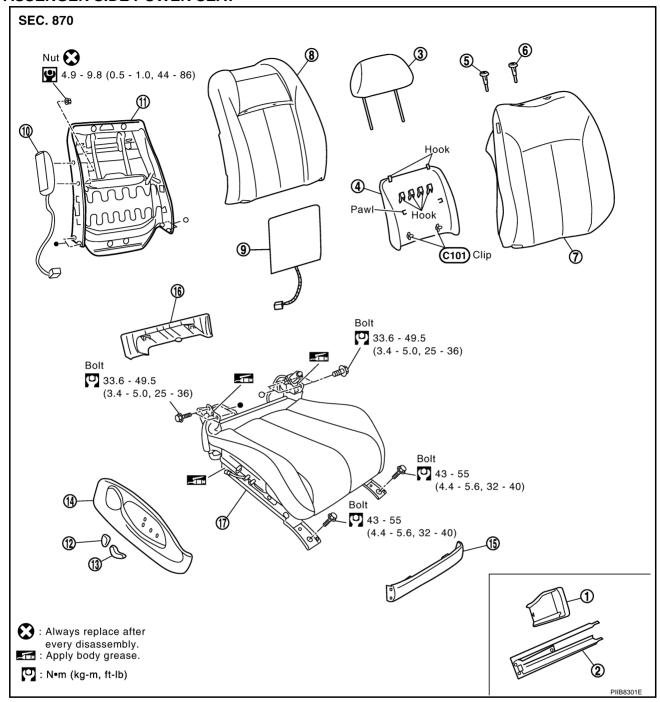
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PASSENGER SIDE POWER SEAT



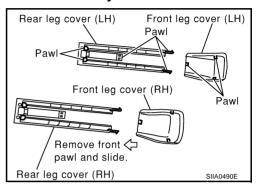
- 1. Front leg cover (LH/RH)
- 4. Seatback board
- 7. Seatback trim
- 10. Side air bag module
- 13. Slide-lifter switch knob
- 16. Seat cushion rear finisher
- 2. Rear leg cover (LH/RH)
- 5. Headrest holder (free)
- 8. Seatback pad
- 11. Seatback frame
- 14. Seat cushion outer finisher
- 17. Seat cushion complete
- 3. Headrest
- 6. Headrest holder (locked)
- 9. Seatback heater unit
- 12. Reclining switch knob
- 15. Seat cushion front finisher

REMOVAL

When removing or installing the seat trim, carefully handle it to keep dirt out and avoid damage.

CAUTION:

- Before removing the front seat, turn the ignition switch off, disconnect both battery cables and wait and least 3 minutes.
- When checking the power seat circuit for continuity using a circuit tester, do not confuse its connector with the side air bag module connector. Such an error may cause the air bag to deploy.
- Do not drop, tilt, or bump the side air bag module installing in the seat. Always handle it with care.
- 1. Remove the front leg cover and rear leg cover. (LH/RH)



NOTE:

- Slide the seat backward, and disconnect the front tabs on the front leg cover. Then move the cover toward the rear of the vehicle, and pull up to remove.
- Slide the seat forward, then disengage the tabs on the front LH/RH of the rear leg cover and tabs engaged into the rail. Then pull the cover toward the rear of the vehicle.
- 2. Slide the seat until the body mounting bolts are visible and a tool can be inserted.

NOTE:

When disassembling the driver seat after removal, set the front/rear cushion lifter to the top position.

- 3. Remove the body mounting bolts.
- Remove the seat belt anchor bolt. Refer to SB-3, "Removal and Installation of Front Seat Belt".
- 5. Disconnect both battery cables.
- 6. Remove the harness connector for the side air bag module.
- 7. Remove the power seat harness connector and vehicle harness fixing clip out of the vehicle.

NOTE:

When removing and installing, using shop clothes, protect the parts from damage where it may interfere with others.

INSTALLATION

Install in the reverse order of removal.

NOTE:

Be sure to insert the rear end tab of the rear leg cover under the rail.

Disassembly and Assembly DISASSEMBLY OF SEATBACK TRIM AND PAD

NOTE:

Be sure to set the front/rear cushion lifter to the top position.

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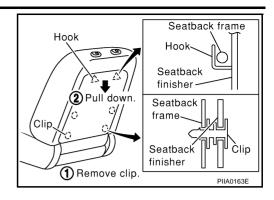
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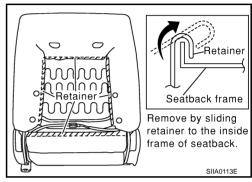
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Remove the seatback board from the back of the seatback.



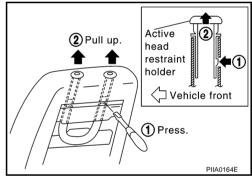
2. Remove the retainer.



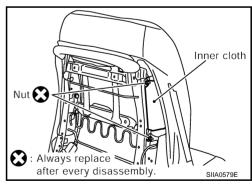
3. From the back of the seatback, press the headrest holder tab of the stay pipe hole to disengage. Then pull the headrest holder up to remove.

NOTE:

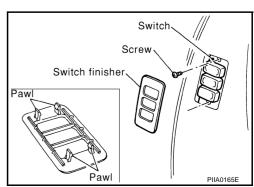
Before installing the headrest holder, check its orientation (front/rear and left/right).



4. Remove the stay securing the inner cloth.



5. Remove the switch finisher at the side of the seatback. (passenger side seat only)



Remove the seat heater harness connector. After removing the seatback trim and pad, remove the hog ring to separate the trim, pad, and seatback heater unit.

ASSEMBLY OF SEATBACK TRIM AND PAD

Assemble in the reverse order of disassembly.

REMOVAL OF SEATBACK ASSEMBLY

- After completing the steps 1 and 2 of "SEATBACK TRIM AND PAD", remove the harness connectors for the reclining motor and lumbar support motor (driver seat only).
- 2. Pull out the harness connector for the side air bag from the seat cushion.
- 3. Remove the reclining device mounting bolts on the seatback frame, and remove the seatback assembly. NOTE:

When assembling the seatback frame, make sure that the reclining device are locked on both sides, and be sure to temporarily tighten the bolts, then tighten them finally.

INSTALLATION OF SEATBACK ASSEMBLY

Install in the reverse order of removal.

DISASSEMBLY OF SEAT CUSHION TRIM AND PAD

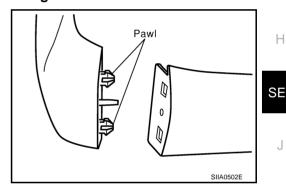
CAUTION:

Do not disassemble front passenger seat cushion assembly.

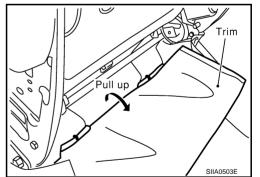
Always replace as an assembly.

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

- 1. Remove the front seat cushion finisher (front and rear).
- Remove the power seat switch knob.
- 3. Remove the front seat cushion finisher (outer).



- 4. Remove the power seat switch assembly.
- Partially pull off the trim at the rear of the seat cushion forward, and remove the hog rings on the seat cushion pad.



- 6. Remove the retainer on the seat cushion frame, then remove the harness connector for the seat heater.
- After removing the seat cushion trim and pad, remove the hog rings to separate the trim and pad and the seat cushion heater unit.

ASSEMBLY OF SEAT CUSHION TRIM AND PAD

Assemble in the reverse order of disassembly.

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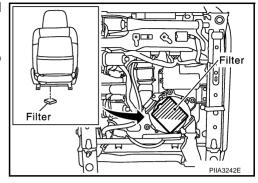
CLIMATE CONTROLLED SEAT

Blower Filter Replacement

Put your hand behind front seat cushion, pull filter downward and remove it. Replace filter with a new one.

NOTE

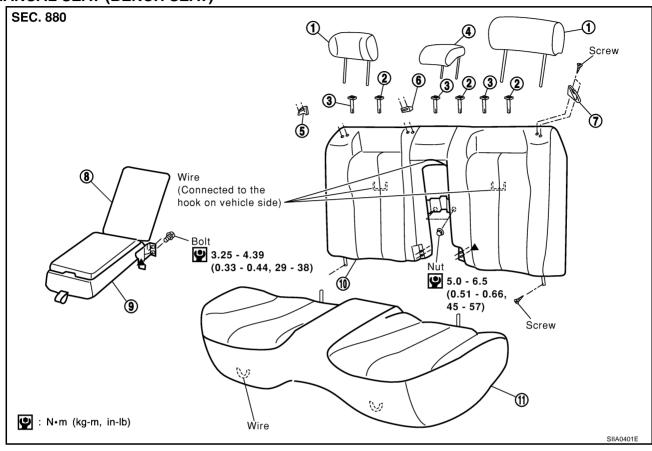
- When replacing, be sure to set the front/rear driver seat lifter to the top position.
- When installing, do not confuse up-down direction of the filter.



REAR SEAT PFP:88300

Removal and Installation MANUAL SEAT (BENCH SEAT)

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- 1. Headrest (RH/LH)
- 4. Headrest (center)
- 7. Seat belt guide (LH)
- 10. Rear seatback trim and pad
- 2. Headrest holder (locked)
- 5. Seat belt guide (RH)
- 8. Rear seatback board
- 11. Rear seat cushion trim and pad
- B. Headrest holder (free)
- 6. Seat belt guide (center)
- 9. Rear seat armrest

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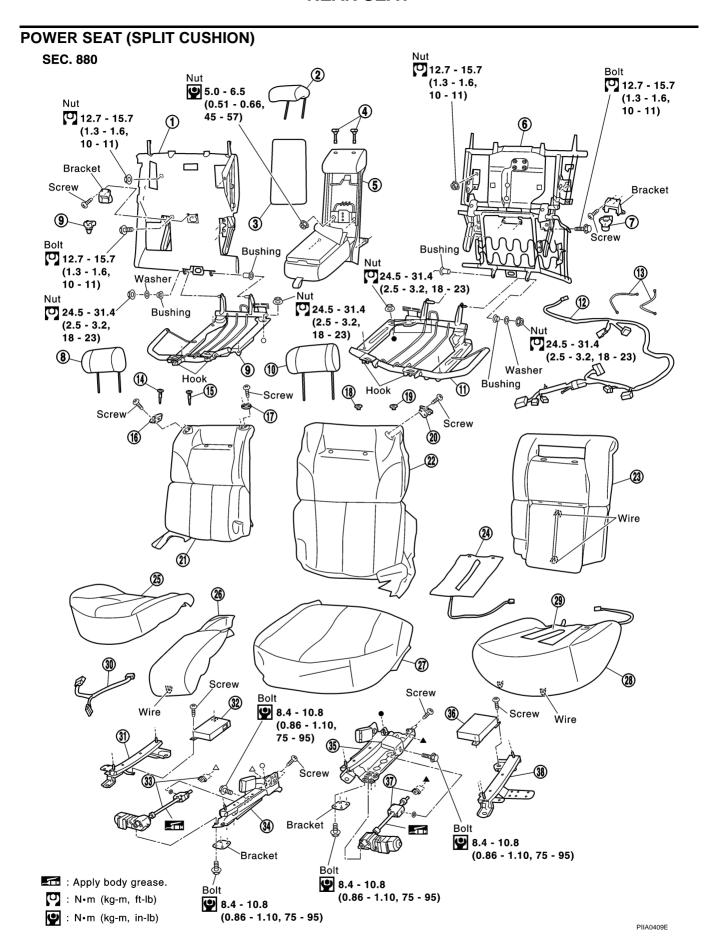
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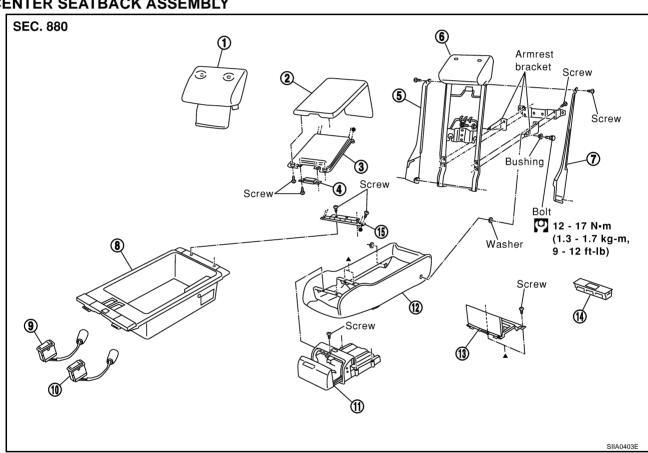
REAR SEAT

- 1. Rear seatback frame (RH)
- 4. Headrest holder
- Rear seat hook 7.
- 10. Headrest (LH)
- 13. Ground harness
- Seat belt guide (RH)
- Headrest holder (power LH)
- Seatback trim (LH) 22.
- 25. Seat cushion trim and pad (RH)
- 28. Seat cushion pad (LH)
- 31. Rear seat slide, outer (RH)
- 34. Rear seat slide, inner (RH)
- 37. Sliding motor unit (LH)

- Headrest (center) 2.
- 5. Rear center seatback assembly
- Headrest (RH) 8.
- Rear seat cushion frame (LH) 11.
- Headrest holder (free) 14.
- 17. Seat belt guide (center)
- 20. Seat belt guide (LH)
- Seatback pad (LH) 23.
- 26. Seat cushion trim and pad (center)
- 29. Seat cushion heater unit
- 32. Power seat control unit (RH)
- 35. Rear seat slide, inner (LH)
- Rear seat slide, outer (LH) 38.

- 3. Rear seatback board
- 6. Rear seatback frame (LH)
- Rear seat cushion frame (RH) 9.
- Rear power seat harness A 12.
- Headrest holder (locked) 15.
- 18. Headrest holder (power RH)
- 21. Seatback trim and pad (RH)
- Seatback heater unit 24.
- 27. Seat cushion trim (LH)
- 30. Rear power seat harness B
- 33. Sliding motor unit (RH)
- 36. Seat control unit (LH)

CENTER SEATBACK ASSEMBLY



- Rear seatback trim (center) 1.
- 4. Armrest lid lock
- 7. Seatback side screen (LH)
- 10. Seat switch
- 13. Switch lid

- Armrest lid assembly 2.
- 5. Seatback side screen (RH)
- 8. Armrest tray box
- 11. Cup holder
- Rear control switch assembly
- Armrest lid finisher 3.
- 6. Rear seat center back frame and pad
- 9. TV and sunshade switch
- 12. Armrest frame and pad
- 15. Lid hinge

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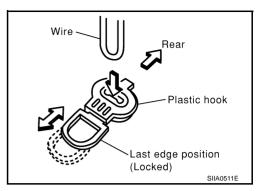
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REMOVAL OF MANUAL SEAT (BENCH SEAT)

1. Pull the lock at the front bottom of the seat cushion forward and pull the seat cushion upward to release the wire from the plastic hook, then pull the seat cushion forward to remove.



- Partially remove the seatback board to disconnect the harness connector and remove the nuts on the sunshade switch.
- Remove the RH and LH screws on the seatback.
- 4. Slide the seatback upward to pull off the wire from the vehicle-side hook, and remove the seatback.
- 5. After removing, remove the hog ring to separate the trim and pad.

INSTALLATION OF MANUAL SEAT (BENCH SEAT)

Install in the reverse order of removal.

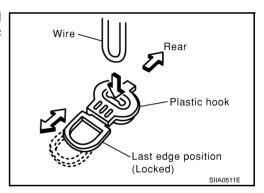
REMOVAL OF POWER SEAT (SPLIT SEAT)

NOTE:

Remove the LH and RH seat before removing the center seat.

Center Seat

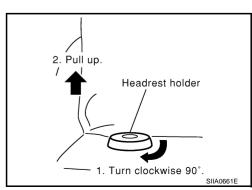
1. Pull the lock at the front bottom of the seat cushion forward, and pull the seat cushion upward to release the wire from the plastic hook.



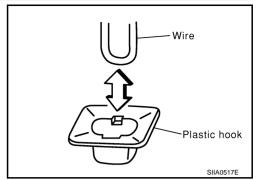
- 2. Remove the Velcro fastener at the rear of the seat cushion trim, and pull the seat cushion trim forward to remove.
- 3. Partially remove the seatback board to disconnect the harness connectors for rear control switch and rear seat control unit.
- 4. Remove the nuts and slide the center seatback assembly upward to remove.
- 5. After removing, remove the hog ring to separate the trim and pad.

RH/LH Seat

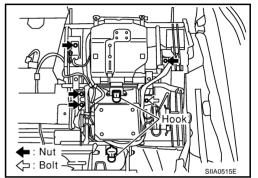
- 1. Remove the headrest holders at the right and left.
 - For the RH seat, remove the headrest, and turn the headrest holder toward the front of the vehicle by 90° to remove.
 - For the LH seat, move the headrest to the lower limit to remove it. Then insert a slotted screwdriver into the hole on the headrest holder to pull up. Release the tab on the headrest holder to remove the headrest holder.



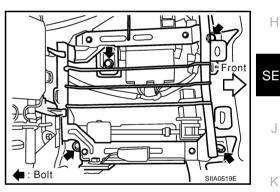
Raise the bottom of the seat cushion to release the wire from the plastic hook then pull the seat cushion forward to remove. (For the LH seat, disconnect the harness connector for the seat heater).



- Access the hooks from between the seatback pad and rear seatback frame, and pull them downward to remove the wire. Then, slide the seatback upward to remove.
- 4. Remove nuts and bolts to remove the power unit frame assembly.



5. Remove the mounting bolts and disconnect the vehicle-side harness connector on the seat cushion frame.



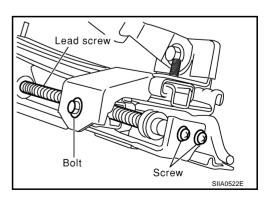
6. After removing, remove the hog ring to separate the trim and pad, and rear seat heater unit (only LH-side).

INSTALLATION OF POWER SEAT (SPLIT SEAT)

Install in the reverse order of removal.

Disassembly and Assembly DISASSEMBLY OF SLIDING MOTOR & UNIT

1. Remove mounting bolts and screws on the lead screw unit.



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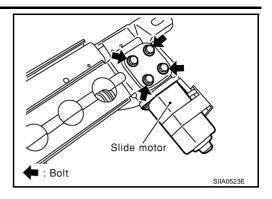
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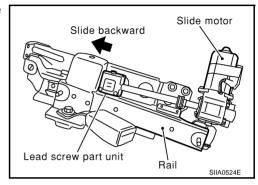
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Remove the sliding motor mounting bolt.



- 3. Slide the unit mounting bracket backward (on seat belt buckle side) to make space to take the unit out.
- 4. Pull the sliding motor and unit out of the unit mounting bracket.



ASSEMBLY OF SLIDING MOTOR & UNIT

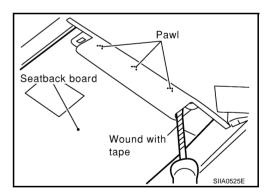
Assemble in the reverse order of disassembly.

NOTE:

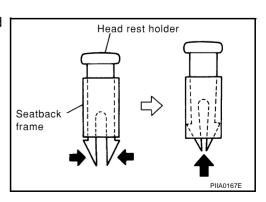
When installing the sliding rail to the seat cushion frame, slide the outer rail until it aligns to the inner rail, then install it.

DISASSEMBLY OF CENTER SEATBACK ASSEMBLY

1. Remove the seatback board.



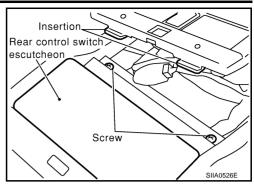
- 2. Remove the seatback side screen at the right and left.
- 3. Remove the armrest bracket.
- 4. Remove the hog ring on the rear seatback trim (center) and headrest holder.



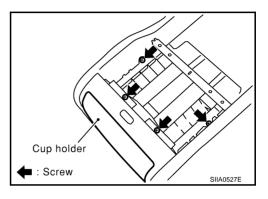
5. Remove the armrest lid hinge and armrest lid lock.

REAR SEAT

- 6. Release the tabs on the armrest box, and disconnect the connectors for various switches.
- 7. Release the tab for each switch from the armrest box to separate.
- 8. Disconnect the connector for the rear control switch to remove the switch lid and rear control switch.



9. Remove the cup holder assembly.



ASSEMBLY OF CENTER SEATBACK ASSEMBLY

Assemble in the reverse order of disassembly.

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REAR SEAT