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#### **PRECAUTIONS**

PRECAUTIONS PFP:00001

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

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The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual

**WARNING:** 

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

### **Precautions for Work**

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- 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, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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### **PREPARATION**

PREPARATION PFP:00002

# **Special Service Tool**

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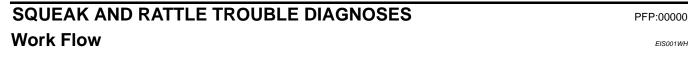
The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

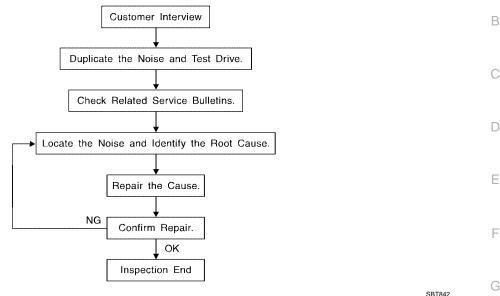
Tool number (Kent-Moore No.) Tool name		Description
— (J-39570) Chassis ear	SIIAO993E	Locating the noise
— (J-43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairing the cause of noise

# **Commercial Service Tool**

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(Kent-Moore No.) Tool name		Description
(J-39565) Engine ear	SIIA0995E	Locating the noise





#### **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 <a href="SE-9">SE-9</a>, "Diagnostic Worksheet"</a>. 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 affect 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 model, drive position on A/T model).
- 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: J-39565 and mechanic's 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 fasteners 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 SE-7, "Generic Squeak and Rattle Troubleshooting".

#### **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. 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 (3.94×5.31 in)/76884-71L01: 60×85 mm (2.36×3.35 in)/76884-71L02: 15×25mm(0.59×0.98 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,  $50\times50$  mm (1.97×1.97 in)/73982-50Y00: 10 mm (0.39 in) thick,  $50\times50$  mm (1.97×1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30×50 mm (1.18×1.97 in)

**FELT CLOTHTAPE** 

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

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

**UHMW (TEFLON) TAPE** 

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.

Note: 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:

- 1. 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
- 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 silicone 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
- 2. A/C control unit and cluster lid C
- 3. Wiring harnesses behind audio and A/C control unit

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

#### **DOORS**

Pay attention to the:

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

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the NISSAN Squeak and Rattle Kit (J-43980) to repair the noise.

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#### **TRUNK**

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

- Trunk lid bumpers out of adjustment
- 2. Trunk lid striker out of adjustment
- 3. The trunk lid torsion bars knocking together
- 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/HEADLINER

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

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

#### **OVERHEAD CONSOLE (FRONT AND REAR)**

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage. In addition look for:

- Loose harness or harness connectors.
- 2. Front console map/reading lamp lense loose.
- 3. Loose screws at console attachment points.

#### **SEATS**

When isolating seat noise it is 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:

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

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

#### **UNDERHOOD**

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

Causes of transmitted underhood noise include:

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

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

# **Diagnostic Worksheet**

EIS001WJ



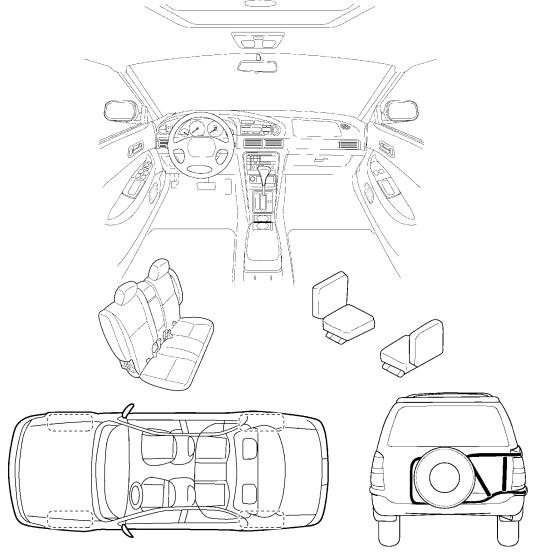
#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Nissan Customer:

We are concerned about your satisfaction with your Nissan vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Nissan 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 DOESTHE NOISE COME FROM? (circle the area of the vehicle)

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



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

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#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET- page 2 Briefly describe the location where the noise occurs: II. WHEN DOES IT OCCUR? (check the boxes that apply) □ anytime after sitting out in the sun ☐ 1<sup>st</sup> time in the morning ☐ when it is raining or wet ☐ dry or dusty conditions ☐ only when it is cold outside under only when it is hot outside u other: IV. WHAT TYPE OF NOISE? III. WHEN DRIVING: ☐ 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) ☐ on acceleration ☐ tick (like a clock second hand) coming to a stop ☐ thump (heavy, muffled knock noise) ☐ on turns : left, right or either (circle) □ buzz (like a bumble bee) ☐ with passengers or cargo u 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: \_\_\_\_

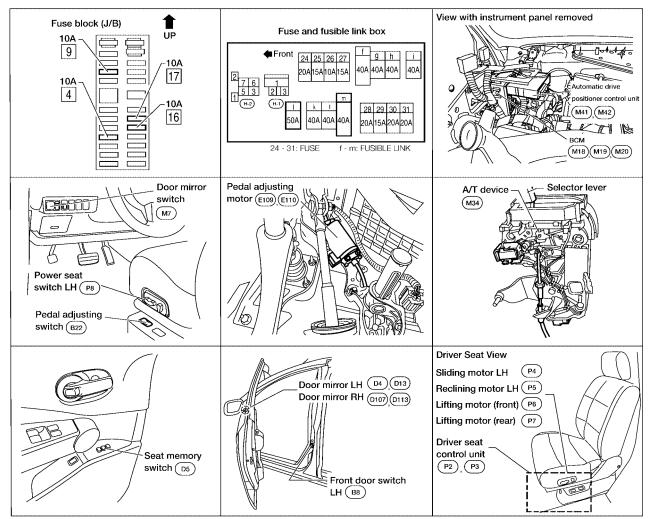
This form must be attached to Work Order

# **AUTOMATIC DRIVE POSITIONER**

#### PFP:28491

# **Component Parts And Harness Connector Location**

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# **Manual Operation**

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The driving position [seat position, pedal position (accelerator, brake) and door mirror position] can be adjusted with the power seat switch LH or pedal adjusting switch or door mirror switch.

#### NOTE:

- The door mirrors can be manually operated with the ignition switch turned to ACC or ON.
- Only when A/T selector lever is in P position, adjusting pedal operates (except when ignition switch turned to OFF).
- If A/T device (park switch) error is detected, manual adjustable pedal operation cannot be performed when ignition switch turns ON.

### **Automatic Operation**

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	Function Description		
Memory operation  The seat, pedal (accelerator, brake) and door mirror move to the stored drive tion by pushing seat memory switch (1 or 2).		The seat, pedal (accelerator, brake) and door mirror move to the stored driving position by pushing seat memory switch (1 or 2).	
Entry/Exit- ing function Entry operation		At Exit, the seat moves backward. (Exiting position)	
		At entry, the seat returns from Exiting position to the previous driving position before the Exiting operation.	
Keyfob interlock operation		Perform memory operation, turnout operation and return operation by pressing keyfob unlock button.	

#### NOTE:

- Disconnecting the battery erases the stored memory.
- After connecting the battery, insert the key into the ignition cylinder and turn the front door switch LH ON (open)→OFF (close)→ON (open), the Entry/Exiting function becomes possible.
- After Exiting operation is carried out, return operation can be operated.

Auto operation temporary stop conditions.	When ignition switch is turned to START during seat memory switch operation and return operation, seat memory switch operation and return operation is stopped.	
	When the vehicle speed becomes 7 km/h (4 MPH) or higher (memory switch operation and entry operation).	
	When the setting switch, seat memory switch 1 or 2 are pressed.	
	When A/T selector lever is in any position other than P.	
Auto operation stop conditions.	When the door mirror switch is operated (when ignition switch turned to ON).	
	When power seat switch turned ON.	
	When pedal adjusting switch turned ON.	
	When front seat sliding Entry/Exiting setting is OFF (entry/exiting operation).	

#### NOTE:

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

# **System Description**

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- The system automatically moves the front seat to facilitate entry/exit to/from the vehicle. The driver seat
  control unit can also store the optimum driving positions (front seat, pedal position and door mirror position) for 2 people. If the front seat is changed, one-touch operation allows changing to the other driving
  position.
- The settings (ON/OFF) of the automatic sliding seat (Entry/Exiting operation) at entry/exit can be changed
  as desired, using the display unit in the center of the instrument panel. The set content is transmitted by
  CAN communication, from display unit (without NAVI) or display control unit (with NAVI) to driver seat control unit.
- Using CONSULT-II, the seat slide amount at entry/exit setting can be changed.

#### **FAIL-SAFE MODE**

When any manual and automatic operations are not performed, if any motor operations of seats or pedals are detected for T2 or more, status is judged "Output error".

OPERATED PORTION	T2
Seat sliding	Approx. 0.1 sec.
Seat reclining	Same as above
Seat lifting (Front)	Same as above
Seat lifting (Rear)	Same as above
Pedal adjust	Same as above

#### **CANCEL OF FAIL-SAFE MODE**

The mode is cancelled when the A/T selector lever is shifted to P position from any other position.

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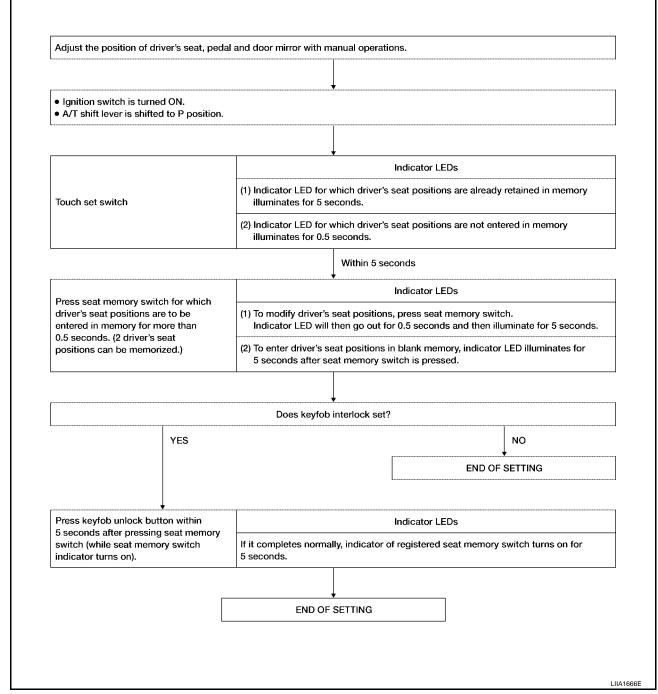
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#### MEMORY STORING AND KEYFOB INTERLOCK STORING

- Store the 2 driving positions and shifts to the stored driving position with the memory switch.
- Keyfob interlock function is set simultaneously with setting driving position memory. It can set driving position to memory position.



#### NOTE:

- If another keyfob inter lock function setting is performed by same key, the newly registered setting is valid.
- If a new memory string is performed to memory switch that already set keyfob interlock function, keyfob
  interlock function setting is reset.
- If the keyfob has not been previously programmed to the vehicle, keyfob interlock function cannot set.

#### **MEMORY OPERATION**

Selecting the memorized position.

Turn ignition switch "ON" and press desired seat memory switch for more than 0.5 seconds. (Indicator LED illuminates.)

The driver's seat, door mirror, accelerator pedal and brake pedal will move to their memorized positions. (During adjustments, indicator LED flashes, then illuminates for 5 seconds after adjustment.)

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#### NOTE:

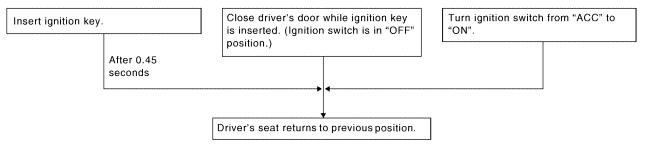
The front seat position and pedal adjustment functions (see the following table) operate simultaneously in the order of priority.

Priority	Function	Priority	Function
1	Seat sliding, (door mirror LH/RH)*	4	Seat lifter-FR
2	Pedal	5	Seat lifter-RR
3	Seat reclining		

<sup>\*:</sup> In conjunction with sliding the seat, the door mirrors are positioned.

#### **ENTRY OPERATION**

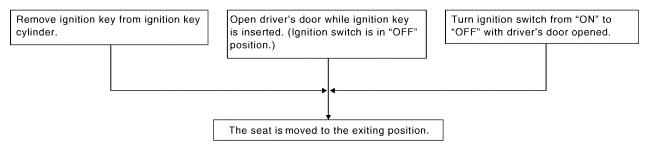
When the seat is in the exiting positions, the following operation moves the seat to the previous position before the exiting operation.



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#### **EXITING OPERATION**

At Entry/Exiting, the seat is automatically moved to the exiting position.



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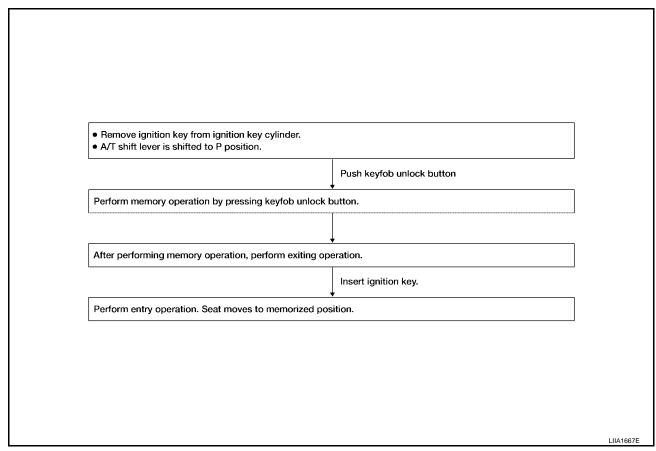
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#### **REVERSE TILT MIRROR**

When the door mirror switch is set to L or R and the transmission is shifted into reverse, the selected door mirror will tilt downward. The door mirror will return to the original position when the transmission is shifted to any position other than reverse, the door mirror switch is set to N or the ignition switch is turned OFF.

#### **KEYFOB INTERLOCK OPERATION**

 The system performs memory operation, exiting operation and return operation by pressing keyfob unlock button.



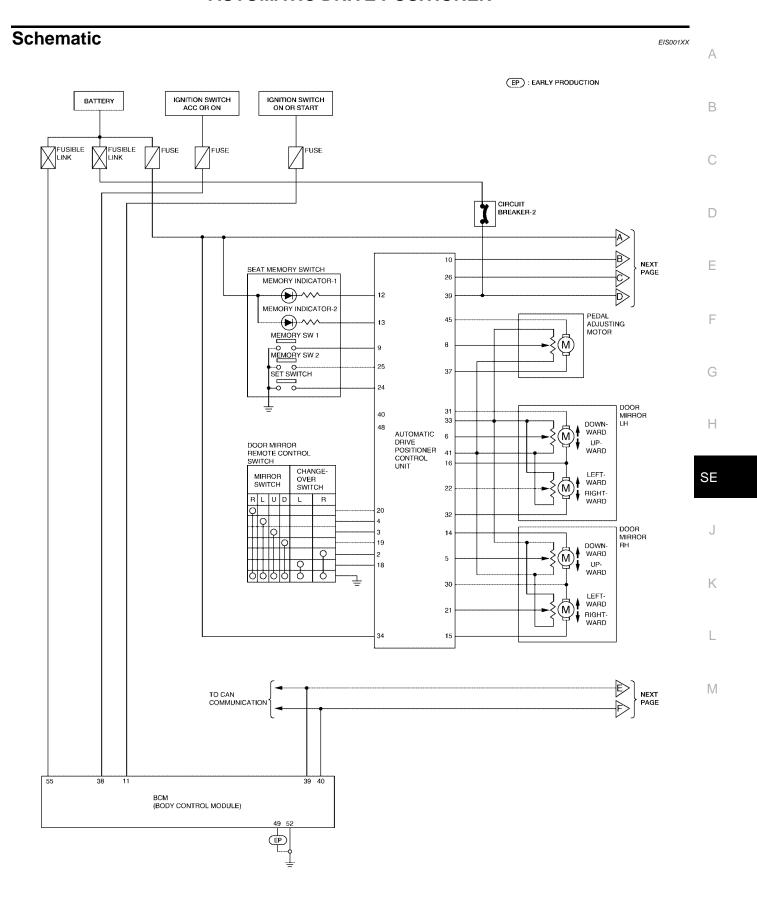
#### NOTE:

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

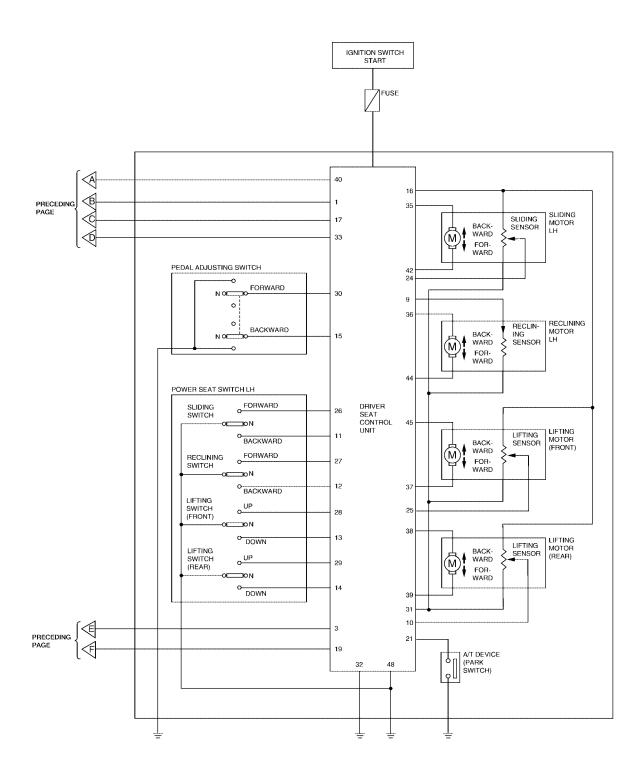
# **CAN Communication System Description**

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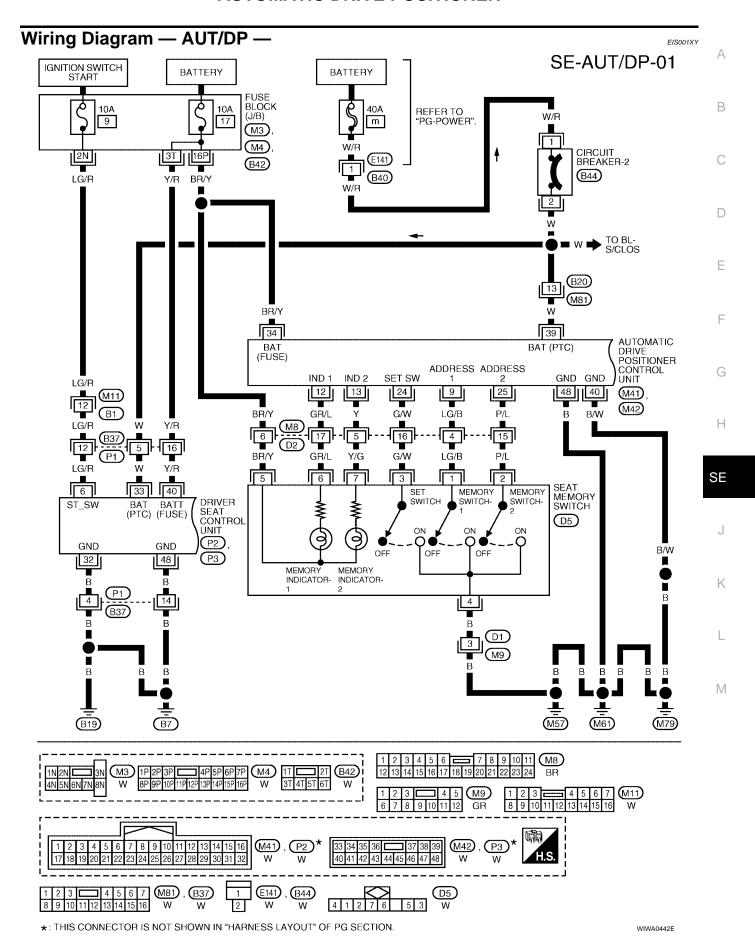
Refer to LAN-6, "CAN COMMUNICATION" .



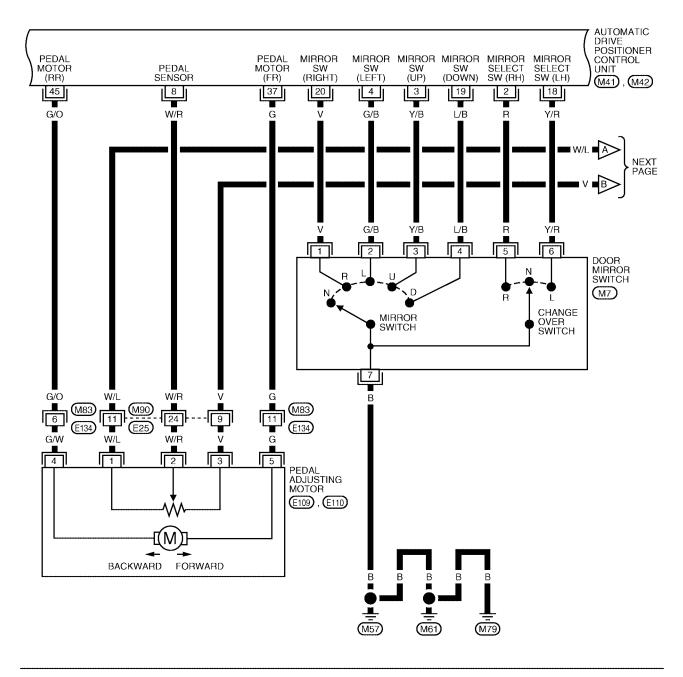
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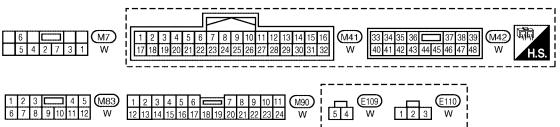


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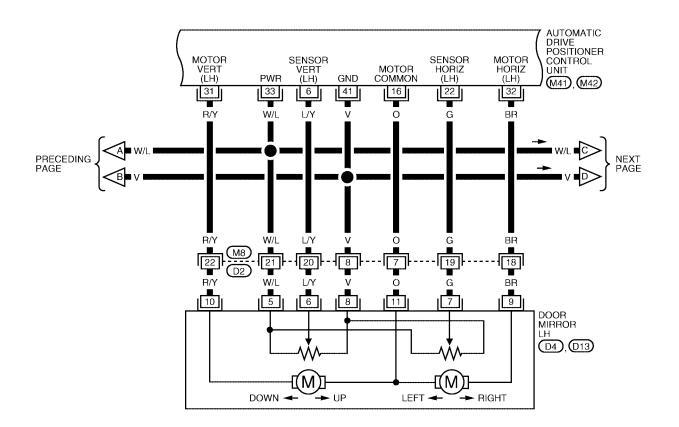
# SE-AUT/DP-02





LIWA0481E

# SE-AUT/DP-03



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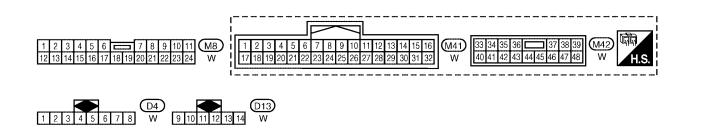
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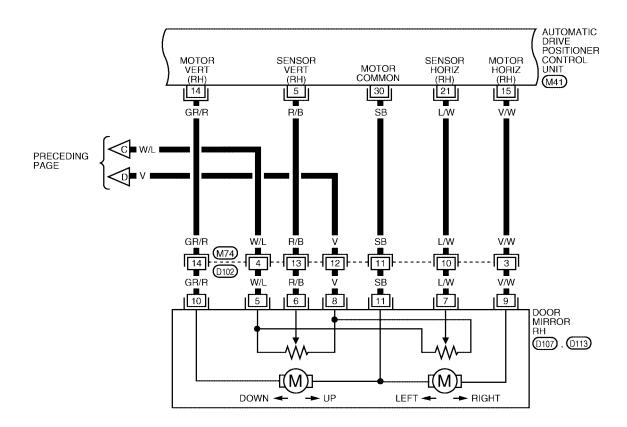
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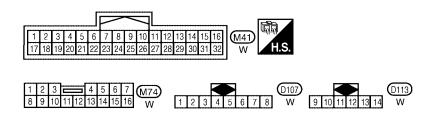
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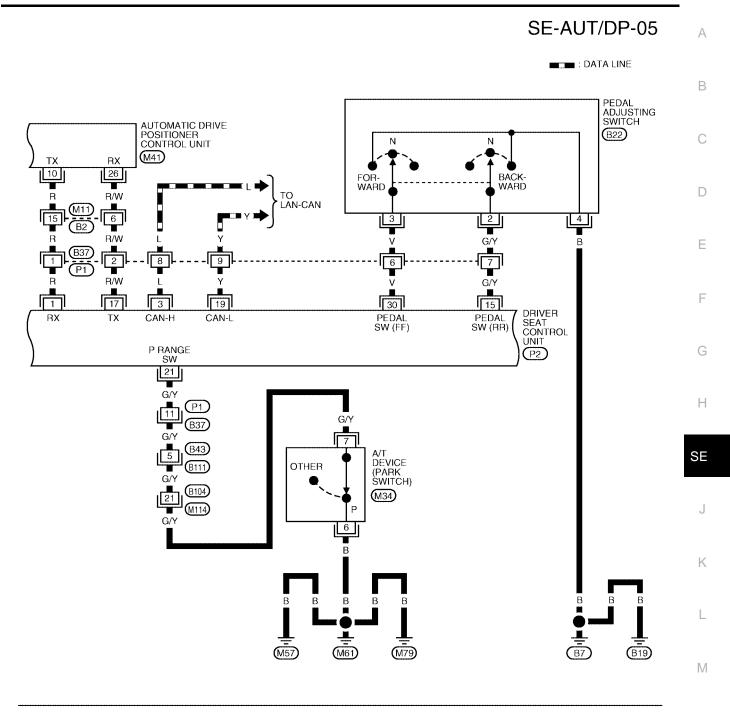
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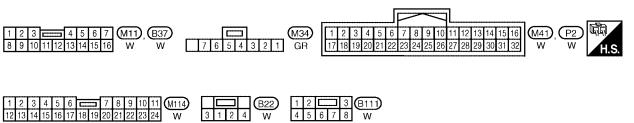
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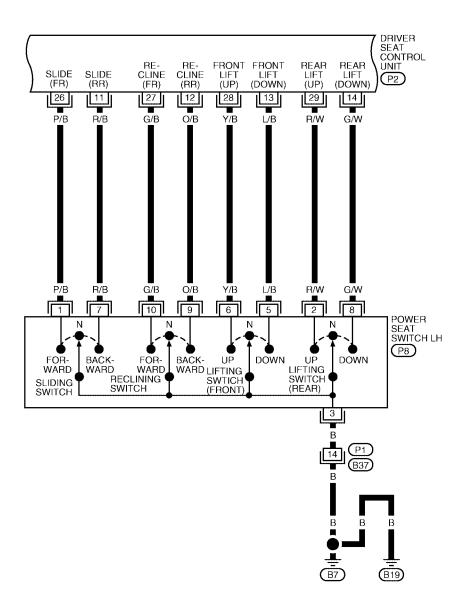
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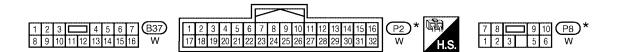




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# SE-AUT/DP-06



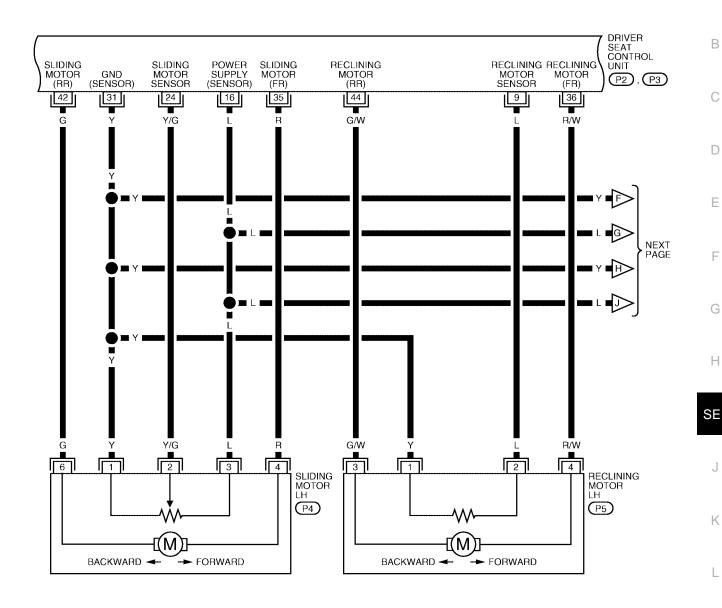


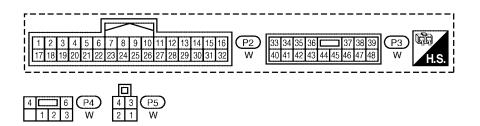
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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# SE-AUT/DP-07

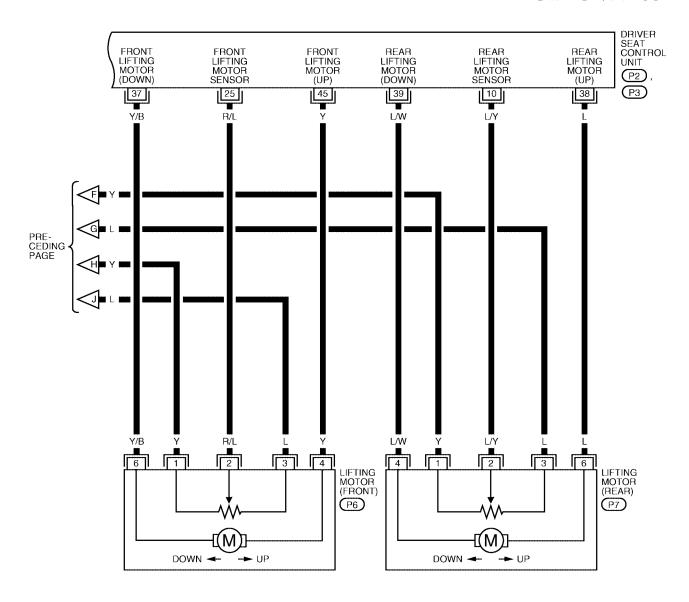
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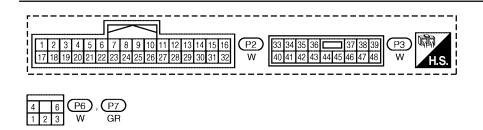




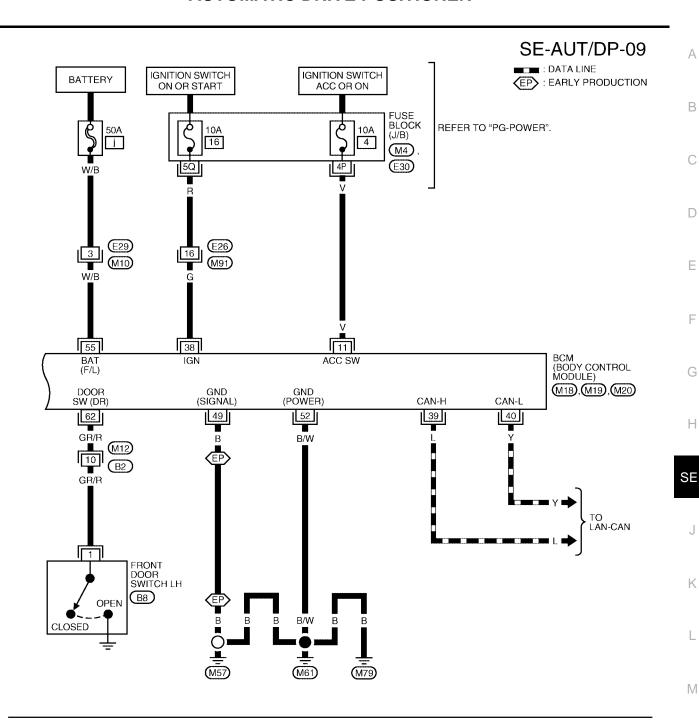
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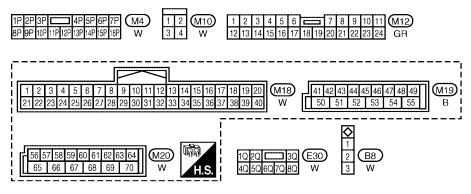
# SE-AUT/DP-08





LIWA0487E





WIWA0244E

# **Terminals and Reference Values for BCM**

EIS001XZ

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
11	V	Ignition switch (ACC or ON)	Ignition switch (ACC or ON position)	Battery voltage
38	R	Ignition switch (ON or START)	Ignition switch (ON or START position)	Battery voltage
39	L	CAN-H	_	_
40	Υ	CAN-L	_	_
49*	В	Ground (signal)	_	0
52	B/W	Ground (power)	_	0
55	W/B	Battery power supply (Fusible link)	_	Battery voltage
62	GR/R	Front door switch LH	ON (Open) → OFF (Closed)	0 → Battery voltage

<sup>\*:</sup> Early production

# **Terminals and Reference Values for Driver Seat Control Unit**

EIS001ZH

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
1	R	UART LINE (RX)	Pedal adjusting switch ON (FOR-WARD or BACKWARD operation)	(V) 6 4 2 0 1 ms
3	L	CAN-H	_	_
6	LG/R	Ignition switch (START)	Ignition switch (START position)	Battery voltage
9	L	Reclining sensor signal	ON (seat reclining motor operation)	(V) 6 4 2 0 
			Other than above	0 or 5
10	L/Y	Rear lifting sensor signal	ON (rear lifting motor operation)	(V) 6 4 2 0 **50ms
			Other than above	0 or 5
11 R/B	Sliding switch BACKWARD sig-	ON (seat sliding switch BACK-WARD operation)	0	
		nal	Other than above	Battery voltage
12	O/B	O/B Reclining switch BACKWARD signal	ON (seat reclining switch BACK-WARD operation)	0
			Other than above	Battery voltage

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
13	L/B	Front lifting switch DOWN signal	ON (front lifting switch DOWN operation)	0
			Other than above	Battery voltage
14	G/W	Rear lifting switch DOWN signal	ON (rear lifting switch DOWN operation)	0
			Other than above	Battery voltage
15	G/Y	Pedal adjusting switch BACK- WARD signal	ON (pedal adjusting switch BACK-WARD operation)	0
		WARD Signal	Other than above	Battery voltage
16	L	Seat sensor power	Igntion switch (ACC or ON position)	5
17	R/W	UART LINE (TX)	Pedal adjusting switch ON (FOR-WARD or BACKWARD operation)	(V) 6 4 2 0 2 ms
19	Y	CAN-L	_	<del></del>
			A/T selector lever in P position	0
21	G/Y	A/T device (park switch) signal	A/T selector lever in other than P position with key in ignition cylinder	Battery voltage
24	G	Seat sliding sensor signal	ON (seat sliding motor operation)	(V) 4 2 0 50 ms
			Other than above	0 or 5
25	R/L	Front lifting sensor signal	ON (front lifting motor operation)	(V) 6 4 2 0 **50ms
			Other than above.	0 or 5
26	P/B	Seat sliding switch FORWARD	ON (seat sliding switch FOR- WARD operation)	0
signal	Other than above	Battery voltage		
27	G/B	Seat reclining switch FOR- WARD signal	ON (seat reclining switch FOR-WARD operation)	0
		THE SIGNAL	Other than above	Battery voltage
28	Y/B	Front lifting switch UP signal	ON (front lifting switch UP operation)	0
		1	Other than above	Battery voltage

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TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)		
29	R/W	Rear lifting switch UP signal	ON (rear lifting switch UP operation)	0		
			Other than above	Battery voltage		
30	V	V	Pedal adjusting switch FOR- WARD signal	ON (pedal adjusting switch FOR-WARD operation)	0	
		WAIND Signal	Other than above	Battery voltage		
31	Y	Sensor ground	_	0		
32	В	Ground	_	0		
33	W	Battery power supply	_	Battery voltage		
35	R	Sliding motor FORWARD out-	Sliding switch FORWARD operation (Motor operated)	Battery voltage		
		put signal	Other than above	0		
36	R/W	R/W	R/W	Reclining motor FORWARD out-	Reclining switch FORWARD operation (Motor operated)	Battery voltage
		put signal	Other than above	0		
37	37 Y/B	Front lifting motor DOWN output signal	Front lifting switch DOWN operation (Motor operated)	Battery voltage		
			Other than above	0		
38	L	Rear lifting motor UP output sig-	Rear end lifting switch UP operation (Motor operated)	Battery voltage		
		nal	Other than above	0		
39	L/W	Rear lifting motor DOWN output	Rear end lifting switch DOWN operation (Motor operated)	Battery voltage		
		signal	Other than above	0		
40	Y/R	Battery power supply	_	Battery voltage		
42	G	G Sliding motor BACKWARD out-	Sliding switch BACKWARD operation (Motor operated)	Battery voltage		
		put signal	Other than above	0		
44	G/W	G/W Reclining motor BACKWARD	Reclining switch BACKWARD operation (Motor operated)	Battery voltage		
		output signal	Other than above	0		
45	Y	Front lifting motor UP output signal	Front lifting switch UP operation (Motor operated)	Battery voltage		
		nai	Other than above	0		
48	В	Ground	_	0		

# Terminals and Reference Values for Automatic Drive Positioner Control Unit EISCO121

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
2	L/R	Changeover switch RH signal	Changeover switch in RH position	0
2	L/IX	Changeover Switch IXTT Signal	Other than above	5
3	Y/B	Mirror switch UP signal	Mirror switch in UP position	0
3 1/6	Will of Switch OF Signal	Other than above	5	
4	G/B	Mirror switch LEFT signal	Mirror switch in LEFT position	0
4	G/B	WIITOI SWILCTI LEFT SIGNAL	Other than above	5
5	R/B	Mirror sensor (RH vertical) signal	Mirror motor RH is UP or DOWN operation	Changes between 3.4 (close to peak) 0.6 (close to valley)

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
6	L/Y	Mirror sensor (LH vertical) signal	Mirror motor LH is UP or DOWN operation	Changes between 3.4 (close to peak) 0.6 (close to valley)
	W/D	De del concer innut signal	Pedal position front end	0.5
8	W/R	Pedal sensor input signal	Pedal position rear end	4.5
	1.0/5	Power seat memory switch 1	Memory switch 1 ON	0
9	LG/B	signal	Memory switch 1 OFF	5
10	R	UART LINE (TX)	Pedal adjusting switch ON (FOR-WARD or BACKWARD operation)	(V) 6 4 2 0 1 ms
12	GR/L	Power seat memory switch	Memory switch 1 ON	0
	OIV.L	indictor 1 signal	Memory switch 1 OFF	Battery voltage
13	Υ	Power seat memory switch	Memory switch 2 ON	0
15	'	indictor 2 signal	Memory switch 2 OFF	Battery voltage
14	GR/R	Mirror motor RH UP signal	Mirror motor RH UP operation	1.5 - Battery voltage
14	GR/R	Will of Motor KH OF Signal	Other than above	0
15	V/W	Mirror motor RH LEFT signal	Mirror motor RH LEFT operation	1.5 - Battery voltage
15	V/VV		Other than above	0
		Mirror motor LH DOWN signal	Mirror motor LH DOWN operation	1.5 - Battery voltage
16	0	WIIITOI MOIOI LA DOWN SIGNAI	Other than above	0
10	U	Mirror motor I H RIGHT signal	Mirror motor LH RIGHT operation	1.5 - Battery voltage
		Mirror motor LH RIGHT signal	Other than above	0
18	Y/R	//D Changeaver switch I H signal	Changeover switch in LH position	0
10	1/1	Changeover switch LH signal	Other than above	5
19	L/B	Mirror switch DOWN signal	Mirror switch in DOWN position	0
19	L/B	WIIITOI SWILCIT DOWN SIGNAI	Other than above	5
20	V	Mirror switch RIGHT signal	Mirror switch in RIGHT position	0
20	v	Will of Switch Kiofff Signal	Other than above	5
21	L/W	Mirror sensor (RH horizontal) signal	Mirror motor RH is LEFT or RIGHT operation	Changes between 3.4 (close to left edge) 0.6 (close to right edge)
22	G	Mirror sensor (LH horizontal) signal	Mirror motor LH is LEFT or RIGHT operation	Changes between 3.4 (close to left edge) 0.6 (close to right edge)
24	G/W	Dower and not quitab aignal	Set switch 1 ON	0
24	G/VV	Power seat set switch signal	Set switch 1 OFF	5
25	P/L	Power seat memory switch 2	Memory switch 2 ON	0
25	F/L	signal	Memory switch 2 OFF	5
26	R/W	UART LINE (RX)	Pedal adjusting switch ON (FOR-WARD or BACKWARD operation)	(V) 6 4 2 0 2 ms

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TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)			
		Missas mates DLL DOWN signal	Mirror motor RH DOWN operation	1.5 - Battery voltage			
30	SB	Mirror motor RH DOWN signal	Other than above	0			
30	28	Mirror motor DH DICHT aignal	Mirror motor RH RIGHT operation	1.5 - Battery voltage			
		Mirror motor RH RIGHT signal	Other than above	0			
31	R/Y	Missas mater I I I I D signal	Mirror motor LH UP operation	1.5 - Battery voltage			
31	R/Y	Mirror motor LH UP signal	Other than above	0			
32	D.D.	DD	BR	DD	Misses mater IIII FFT aireal	Mirror motor LH LEFT operation	1.5 - Battery voltage
32	BK	Mirror motor LH LEFT signal	Other than above	0			
33	W/L	Sensor power supply	_	5			
34	BR/Y	Battery power supply	_	Battery voltage			
37	G	Pedal adjust motor FORWARD signal	Pedal adjust motor FORWARD operation (Motor operated)	Battery voltage			
			Other than above	0			
39	W	Battery power supply	_	Battery voltage			
40	B/W	Ground	_	0			
41	V	Sensor ground	_	0			
45	G/O	Pedal adjust motor BACK- WARD signal	Pedal adjust motor BACKWARD operation (Motor operated)	Battery voltage			
		WARD Signal	Other than above	0			
48	В	Ground	_	0			

Work Flow

- 1. Check the symptom and customer's requests.
- 2. Understand the system description. Refer to SE-12, "System Description".
- 3. Perform the preliminary check. Refer to SE-33, "Preliminary Check".
- 4. Check the self-diagnosis, results using CONSULT-II. Refer to <u>SE-36, "CONSULT-II Function (AUTO DRIVE POS.)"</u>.
- 5. Repair or replace depending on the self-diagnostic results.
- 6. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-40</u>, <u>"Symptom Chart"</u>.
- 7. Does the automatic drive positioner system operate normally? If it is normal, GO TO 8. If it is not normal, GO TO 3.
- 8. Inspection End.

# Preliminary Check SETTING CHANGE FUNCTION

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

×: Applicable -: Not applicable

Setting item	Content	CONSULT-II (WORK SUPPORT)	Display unit	Default setting	Factory setting
	The distance at exiting opera-	40mm		×	×
SEAT SLIDE VOLUME SET	tion can be selected from the following 3 modes.	80mm	_	_	_
<del>-</del> -		150mm		_	_
Sliding Front Seat When Entry/Exiting	The seat sliding turnout and return at entry/exit can be selected: ON (operated)-OFF (not operated)	ON	ON: Indicator lamp ON	_	×
Vehicle		OFF	OFF: Indicator lamp OFF	×	_
Reset custom settings*	All settings to default.	_	Default: Setting button ON	_	_

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

Content	Setting change operation	Indicator LEDs	
The seat sliding turnout and return at entry/exit can be operated.		Blinking twice	
The seat sliding turnout and return at entry/exit cannot be operated.	Press the set switch for more than 10 seconds	Blinking once	

<sup>\*:</sup> Setting of sliding front seat for entry/exit of vehicle is ON at factory-shipment. But if custom settings are reset, setting turns OFF.

#### NOTE:

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

#### POWER SUPPLY AND GROUND CIRCUIT INSPECTION

# 1. CHECK BCM FUSES

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

Unit	Power source	Fuse No.
	Battery power supply	<b>j</b> (50A)
BCM	ON or START power supply	16 (10A)
	ACC or ON power supply	4 (10A)

#### NOTE:

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

#### OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to <u>SE-11, "Component Parts And Harness Connector Location"</u>.

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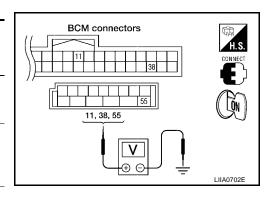
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# 2. CHECK BCM POWER SUPPLY CIRCUIT

- 1. Disconnect BCM connector.
- 2. Check voltage between BCM connector and ground.

Connector	Terminals (Wire color)		Power source	Condition	Voltage (V) (Approx.)
	(+)	(-)	Source		(дриох.)
M20	55 (W/B)	Ground	Battery power supply	Ignition switch OFF	Battery voltage
M19	38 (R)	Ground	Ignition power supply	Ignition switch ON or START	Battery voltage
	11 (V)	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage



#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

# 3. CHECK BCM GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Check continuity between BCM connector M19 terminals 49 (early production), 52 and ground.

49 (B) - Ground

: Continuity should exist.

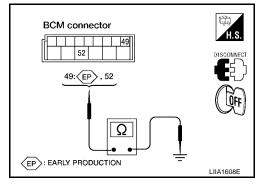
52 (B) - Ground

: Continuity should exist.

#### OK or NG

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

NG >> Repair or replace harness.



# 4. CHECK FUSES

Check if any of the following fuses for the driver seat control unit and automatic drive positioner control unit are blown.

Unit	Power source	Fuse No.
	START power supply	9 (10A)
Driver seat control unit	Battery power supply	17 (10A)
	Battery power supply	<b>m</b> (40A)

#### NOTE:

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

#### OK or NG

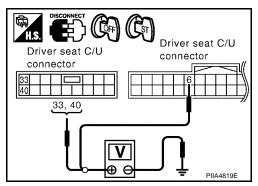
OK >> GO TO 5.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to <u>SE-11, "Component Parts And Harness Connector Location"</u>.

# 5. CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

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

Connector	_	ninals color)	Power source	Condition	Voltage (V) (Approx.)
	(+)	(-)	Source		(Дрргох.)
P3	33 (W), 40 (Y/R)	Ground	Battery power supply	Ignition switch OFF	Battery voltage
P2	6 (LG/R)	Ground	START power supply	Ignition switch START	Battery voltage



#### OK or NG

OK >> GO TO 6.

NG >> Repair or replace harness.

# 6. CHECK DRIVER SEAT CONTROL UNIT GROUND CIRCUIT

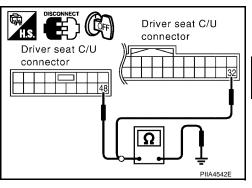
- 1. Turn ignition switch OFF.
- 2. Check continuity between the driver seat control unit connector P2 terminals 32, 48 and ground.

32 (B) - Ground : Continuity should exist. 48 (B) - Ground : Continuity should exist.

#### OK or NG

OK >> Driver seat control unit circuit check is OK, GO TO 7.

>> Repair or replace harness. NG



# 7. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT POWER SUPPLY CIRCUIT

- Disconnect automatic drive positioner control unit connector.
- 2. Check voltage between automatic drive positioner control unit connector M42 terminals 34, 39 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V)	
	(+)	(–)		(Approx.)	
M42	34 (BR/Y)	Ground	Ignition switch OFF	Battery voltage	
IVI42	39 (W)	Ground	Ignition switch OFF	Battery voltage	

# Automatic drive positioner C/U connector 34, 39 PIIA4543F

#### OK or NG

OK >> GO TO 8.

NG >> Repair or replace harness.

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# 8. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT GROUND CIRCUIT

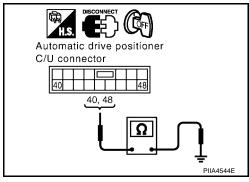
Check continuity between the automatic drive positioner control unit connector M42 terminals 40, 48 and ground.

40 (B/W) – Ground : Continuity should exist. 48 (B) – Ground : Continuity should exist.

#### OK or NG

OK >> Automatic drive positioner control unit circuit is OK.

NG >> Repair or replace harness.



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

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

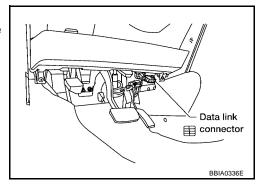
AUTO DRIVE POS. diagnostic mode	Description
WORK SUPPORT	Supports inspections and adjustments. Commands are transmitted to the driver seat control unit for setting the status suitable for required operation, input/output signals are received from the driver seat control unit and received data is displayed.
SELF-DIAG RESULTS	Displays driver seat control unit self-diagnosis results.
DATA MONITOR	Displays driver seat control unit input/output data in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
ECU PART NUMBER	Driver seat control unit part number can be read.

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

#### **CAUTION:**

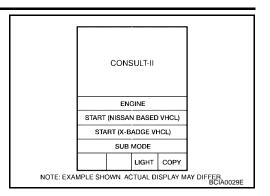
If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carries out CAN communication.

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



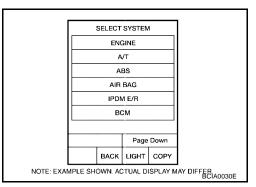
3. Turn ignition switch ON.

4. Touch "START (NISSAN BASED VHCL)".

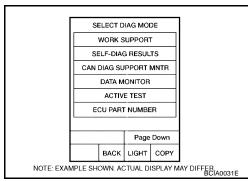


5. Touch "AUTO DRIVE POS".

If "AUTO DRIVE POS." is not indicated, refer to GI-37, "CON-SULT-II Data Link Connector (DLC) Circuit".



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



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# SELF-DIAGNOSIS RESULTS DISPLAY ITEM LIST

CONSULT-II display	ltem	Malfunction is detected when	Reference page
CAN COMM CIRC [U1000]	CAN communication	Malfunction is detected in CAN communication.	SE-40
SEAT SLIDE [B2112]	Seat slide motor	When any manual and automatic operations are not performed, if any motor operations of seat slide is detected for 0.1 second or more, status is judged "Output error".	SE-42 SE-53
SEAT RECLINING [B2113]	Seat reclining motor	When any manual and automatic operations are not performed, if any motor operations of seat reclining is detected for 0.1 second or more, status is judged "Output error".	SE-43 SE-54
SEAT LIFTER FR [B2114]	Seat lifting FR motor	When any manual and automatic operations are not performed, if any motor operations of seat lifting FR is detected for 0.1 second or more, status is judged "Output error".	<u>SE-44</u> <u>SE-55</u>
SEAT LIFTER RR [B2115]	Seat lifting RR motor	When any manual and automatic operations are not performed, if any motor operations of seat lifting RR is detected for 0.1 second or more, status is judged "Output error".	<u>SE-46</u> <u>SE-56</u>
ADJ PEDAL MOTOR [B2117]	Pedal adjust motor	When any manual and automatic operations are not performed, if motor operations of seat pedal is detected for 0.1 second or more, status is judged "Output error".	<u>SE-47</u> <u>SE-57</u>
ADJ PEDAL SEN- SOR [B2120]	Pedal adjust sensor	When pedal adjust sensor detects 0.5V or lower, or 4.5V or higher, for 0.5 seconds or more.	<u>SE-57</u>
DETENT SW [B2126]	Park SW	With the A/T selector lever in P position (Park switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input the park switch input system is judged malfunctioning.	<u>SE-77</u>
UART COMM [B2128]	UART communica- tion	Malfunction is detected in UART communication.	<u>SE-79</u>

#### NOTE:

- If park switch error is detected, manual adjustable pedal operation cannot be performed when ignition switch turns ON.
- The displays of CAN communication and park switch display error detecting condition from memory erase to the present on "TIME".
- If error is detected in the past and present error is detected, "CRNT" is displayed.
- If error is detected in the past and present error is not detected, "PAST" is displayed.
- If error has never been detected, nothing is displayed on "TIME".
- Any items other than CAN communication and park switch count error detection frequency occurred after erase history to "1-127".
- If error was detected in the past, error detection frequency from memory erase to the present is displayed on "TIME".
- If error has never been detected, nothing is displayed on "TIME".
- Can clear the detected memory.

Normal: Clear memory in normal condition, history is erased and nothing is displayed on "TIME". Error: Clear memory in error condition, error is detected again and "1" is displayed on "TIME".

#### **DATA MONITOR**

#### **CAN DIAGNOSIS SUPPORT MONITOR**

Monitor item [UNIT]		Contents
INITIAL DIAG [OK/NG]		When CAN communication circuit is malfunctioning, it displays "NG".
TRANSMIT DIAG	[OK/UNKWN]	
ВСМ	[OK/UNKWN]	Displays [OK/UNKWN] condition of the CAN communication judged by each sig-
METER/M&A	[OK/UNKWN]	nal input.
ECM	[OK/UNKWN]	

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ELECTIOM FROM MEMU  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.		
RECLN SW-FR	"ON/OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.		
RECLN SW-RR	"ON/OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.		
LIFT FR SW-UP	"ON/OFF"	ON/OFF status judged from the FR 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 switch (UP) signal is displayed.		
MIR CON SW-DN	"ON/OFF"	ON/OFF status judged from the door mirror switch (DOWN) signal is displayed.		
MIR CON SW-RH	"ON/OFF"	ON/OFF status judged from the door mirror switch (RIGHT) signal is displayed.		
MIR CON SW-LH	"ON/OFF"	ON/OFF status judged from the door mirror switch (LEFT) signal s displayed.		
MIR CHNG SW-R	"ON/OFF"	ON/OFF status judged from the door mirror switch (switching to RIGHT) signal is displayed.		
MIR CHNG SW-L	"ON/OFF"	ON/OFF status judged from the door mirror switch (switching to LEFT) signal is displayed.		
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.		
PEDAL SW-FR	"ON/OFF"	ON/OFF status judged from the pedal adjusting switch (FR) signal is displayed.		
PEDAL SW-RR	"ON/OFF"	ON/OFF status judged from the pedal adjusting switch (RR) 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.		
DETENT SW	"ON/OFF"	The A/T selector lever position "OFF (P position) / ON (other than P position)" judged from the park switch signal is displayed.		
STARTER 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.		
SLIDE PULSE	_	Value (32768) when battery connects is as standard. If it moves BACKWARD, the value increases. If it moves FORWARD, the value decreases.		
RECLN PULSE	_	Value (32768) when battery connects is as standard. If it moves BACKWARD, the value increases. If it moves FORWARD, the value decreases.		
LIFT FR PULSE	_	Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.		
LIFT RR PULSE	_	Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.		
MIR/SEN RH R-L	"V"	Voltage output from RH door mirror sensor (LH/RH) is displayed.		
MIR/SEN RH U-D	"V"	Voltage output from RH door mirror sensor (UP/DOWN) is displayed.		
MIR/SEN LH R-L	"V"	Voltage output from LH door mirror sensor (LH/RH) is displayed.		
MIR/SEN LH U-D	"V"	Voltage output from LH door mirror sensor (UP/DOWN) is displayed.		
PEDAL SEN	"V"	The pedal position (voltage) judged from the pedal adjust sensor signal is displayed.		

#### **ACTIVE TEST**

#### **CAUTION:**

During vehicle driving, do not perform active test.

#### NOTE:

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

Test item	Description
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.
PEDAL MOTOR	The pedal adjust 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.

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

EIS001ZM

## 1. SELF-DIAGNOSTIC RESULT CHECK

#### **CAUTION:**

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

- Connect to CONSULT-II, and select "AUTO DRIVE POS" on the "SELECT SYSTEM" screen.
- 2. Select "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
- 3. Check U1000 displayed in self-diagnostic results.

#### OK or NG

OK >> Inspection end.

NG >> Refer to LAN-4, "Precautions When Using CONSULT-II".

## **Symptom Chart**

EIS001ZN

Symptom	Diagnoses / se	ervice procedure	Refer to page
	1. Preliminary check		SE-33
	CAN communication inspection using CONSULT-II (self-diagnosis)		<u>SE-40</u>
Only setting change function cannot be set with display.	3. If the above systems are normal, check display system	Integrated display system (with out NAVI)	<u>AV-89</u>
		Navigation system (with NAVI)	<u>AV-118</u>
	Sliding motor circuit inspection		SE-42
	Reclining motor circuit inspection		SE-43
A part of seat system does not operate (both automati-	3. Lifting motor (front) circuit inspection		SE-44
cally and manually).	4. Lifting motor (rear) circuit inspection		SE-46
	5. If the above systems are normal, replace the driver seat control unit		<u>SE-11</u>
	Pedal adjusting motor circuit inspection		SE-47
A part of pedal adjust and door mirror does not operate (both automatically and manually).	2. Mirror motor LH circuit check		SE-49
	3. Mirror motor RH circuit check		SE-50
	If the above systems are normal, replace the automatic drive positioner control unit.		<u>SE-11</u>

Symptom	Diagnoses / service procedure	Refer to page
	Sliding sensor circuit inspection	SE-53
	Reclining sensor circuit inspection	SE-54
A part of seat system does not operate (only automatic	3. Lifting sensor (front) circuit inspection	<u>SE-55</u>
pperation).	Lifting sensor (rear) circuit inspection	<u>SE-56</u>
	If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>
	Mirror sensor LH circuit check	SE-58
A part of door mirror system does not operate (only	2. Mirror sensor RH circuit check	SE-60
automatic operation).	3. If the above systems are normal, replace the automatic drive positioner control unit.	<u>SE-11</u>
	1. Park switch circuit inspection	<u>SE-77</u>
	UART communication line circuit inspection	SE-79
All of the automatic operations do not operate.	Pedal adjusting sensor circuit inspection	SE-57
	If all the above systems are normal, replace the automatic drive positioner control unit.	<u>SE-11</u>
	Sliding switch circuit inspection	<u>SE-62</u>
	Reclining switch circuit inspection	SE-63
A part of seat system does not operate (only manual	Lifting switch (front) circuit inspection	SE-65
peration).	4. Lifting switch (rear) circuit inspection	SE-66
	If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>
	Pedal adjusting switch circuit inspection	SE-68
	2. Door mirror switch (change over switch) circuit inspection	<u>SE-70</u>
a part of pedal adjust and door mirror does not operate only manual operation).	Door mirror switch (mirror switch) switching circuit inspection	<u>SE-71</u>
	4. If the above systems are normal, replace the automatic drive positioner control unit	<u>SE-11</u>
	Seat memory switch circuit inspection	<u>SE-73</u>
Only memory switch operation.	If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>
	Seat memory indicator lamp circuit inspection	<u>SE-75</u>
Seat memory indicator lamps 1 and 2 do not illuminate.	If all the above systems are normal, replace the driver seat control unit.	<u>SE-11</u>
The Entry/Exiting does not operate when door is opened	1. Front door switch circuit inspection	<u>SE-78</u>
and closed. The Entry/Exiting operates with key switch)	2. If all the above systems are normal, replace the BCM.	BCS-19
Only door mirror system does not operate (only manual operation).	1.Door mirror switch ground circuit inspection	<u>SE-72</u>
Only door mirror system does not operate (only autonatic operation).	Door mirror sensor power supply and ground circuit inspection	<u>SE-76</u>
Only seat system does not operate (only manual operaion).	Power seat switch ground circuit inspection	<u>SE-67</u>
	1. Mirror switch is not in L or R position.	
Reverse tilt mirrors do not operate.	2. CAN communication inspection using CONSULT-II (self-diagnosis)	<u>SE-40</u>
	Door mirror sensor power supply and ground circuit inspection	<u>SE-76</u>

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## **Sliding Motor Circuit Inspection**

#### 1. CHECK SEAT SLIDING MECHANISM

Check the following.

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

#### OK or NG

OK >> GO TO 2.

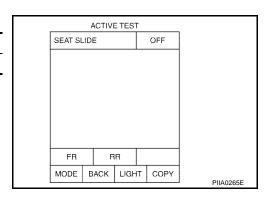
NG >> Repair the malfunctioning part and check again.

## 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.



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#### Without CONSULT-II

ĞO TO 3.

#### OK or NG

OK >> Sliding motor circuit is OK.

NG >> GO TO 3.

## 3. CHECK SLIDING MOTOR CIRCUIT HARNESS CONTINUITY

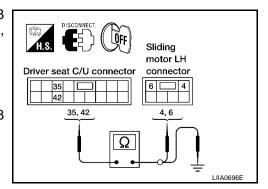
- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and sliding motor LH.
- 3. Check continuity between driver seat control unit connector P3 terminals 35, 42 and sliding motor connector B307 terminals 4, 6.

35 (R) – 4 (R) : Continuity should exist.

42 (G) – 6 (G) : Continuity should exist.

4. Check continuity between driver seat control unit connector P3 terminals 35, 42 and ground.

35 (R) – Ground : Continuity should not exist. 42 (G) – Ground : Continuity should not exist.



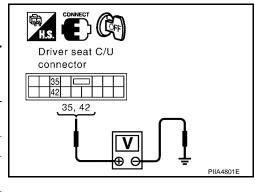
#### OK or NG

OK >> GO TO 4.

## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дриох.)
Р3	35 (R)	R) Ground	Sliding switch ON (FORWARD operation)	Battery voltage
			Other than above	0
	42 (G)	Giodila	Sliding switch ON (BACKWARD operation)	Battery voltage
		Other than above	0	



#### OK or NG

OK >> Replace sliding motor. Refer to <u>SE-89, "FRONT SEAT"</u>.

NG >> Replace driver seat control unit. Refer to <u>SE-89</u>, "FRONT SEAT".

### **Reclining Motor LH Circuit Inspection**

## 1. CHECK SEAT RECLINING MECHANISM

Check the following.

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

#### OK or NG

OK >> GO TO 2.

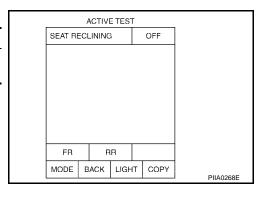
NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

#### (P) With CONSULT-II

Check operation with "SEAT RECLINING" in ACTIVE TEST.

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



#### **⋈** Without CONSULT-II

GO TO 3.

#### OK or NG

OK >> Reclining motor LH circuit is OK.

NG >> GO TO 3.

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# 3. CHECK RECLINING MOTOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and reclining motor LH.
- Check continuity between driver seat control unit connector P3 terminals 36, 44 and reclining motor LH connector P5 terminals 3, 4.

36 (R/W) - 4 (R/W): Continuity should exist. 44 (G/W) - 3 (G/W) : Continuity should exist.

Check continuity between driver seat control unit connector P3 terminals 36, 44 and ground.

> **36 (R/W) – Ground** : Continuity should not exist. 44 (G/W) - Ground : Continuity should not exist.

#### OK or NG

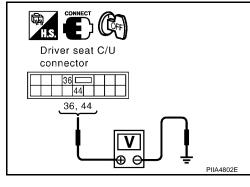
OK >> GO TO 4.

NG >> Repair or replace harness.

## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V)
	(+)	(-)		(Approx.)
	36 (R/W)	36 (R/W) Ground 44 (G/W)	Reclining switch ON (FORWARD operation)	Battery voltage
P3			Other than above	0
13			Reclining switch ON (BACKWARD operation)	Battery voltage
			Other than above	0



Reclining

motor LH connector

3, 4

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Driver seat C/U connector

36, 44

36 E 44

#### OK or NG

OK >> Replace reclining motor. Refer to SE-89, "FRONT SEAT".

>> Replace driver seat control unit. Refer to <u>SE-89, "FRONT SEAT"</u>. NG

## **Lifting Motor (Front) Circuit Inspection**

CHECK FRONT END SEAT LIFTING MECHANISM

Check the following.

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

#### OK or NG

OK >> GO TO 2.

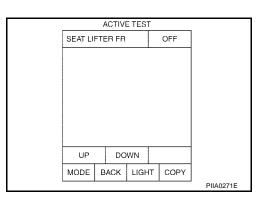
NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

#### (II) With CONSULT-II

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

Test item	Description
SEAT LIFTER FR	The lifting motor (front) is activated by receiving the drive signal.



#### (X) Without CONSULT-II

GO TO 3.

#### OK or NG

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

NG >> GO TO 3.

# 3. CHECK LIFTING MOTOR (FRONT) CIRCUIT HARNESS CONTINUITY

Turn ignition switch OFF.

2. Disconnect driver seat control unit and lifting motor (front).

3. Check continuity between driver seat control unit connector P3 terminals 37, 45 and lifting motor (front) connector P6 terminals 4, 6.

37 (Y/B) - 6 (Y/B) : Continuity should exist. 45 (Y) - 4 (Y) : Continuity should exist.

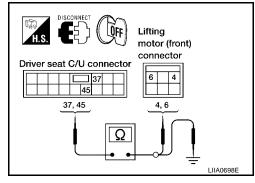
 Check continuity between driver seat control unit connector P3 terminals 37, 45 and ground.

37 (Y/B) – Ground : Continuity should not exist. 45 (Y) – Ground : Continuity should not exist.

#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



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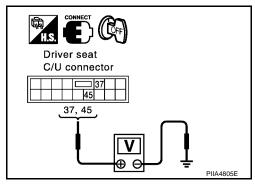
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## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
P3	37 (Y/B)	- Ground	Lifting switch (front) ON (DOWN operation)	Battery voltage
			Other than above	0
	45 (Y)	Giodila	Llifting switch (front) ON (UP operation)	Battery voltage
			Other than above	0



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#### OK or NG

OK >> Replace lifting motor (front). Refer to <u>SE-89</u>, "FRONT SEAT".

NG >> Replace driver seat control unit. Refer to <u>SE-89</u>, "FRONT SEAT".

## **Lifting Motor (Rear) Circuit Inspection**

1. CHECK REAR SEAT LIFTING MECHANISM

Check the following.

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

#### OK or NG

OK >> GO TO 2.

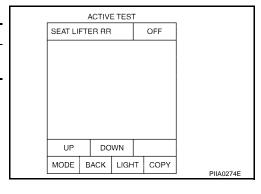
NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

#### (P) With CONSULT-II

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

Test item	Description
SEAT LIFTER RR	The lifting motor (rear) is activated by receiving the drive signal.



#### Without CONSULT-II

GO TO 3.

#### OK or NG

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

NG >> GO TO 3.

# 3. CHECK LIFTING MOTOR (REAR) CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and lifting motor (rear).
- Check continuity between driver seat control unit connector P3 terminals 38, 39 and lifting motor (rear) connector P7 terminals 4, 6.

38 (L) – 6 (L) : Continuity should exist. 39 (L/W) – 4 (L/W) : Continuity should exist.

 Check continuity between driver seat control unit P3 terminals 38, 39 and ground.

38 (L) – Ground : Continuity should not exist.
39 (L/W) – Ground : Continuity should not exist.

#### OK or NG

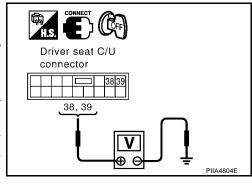
OK >> GO TO 4.

NG >> Repair or replace harness.

## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit and lifting motor (rear).
- 2. Check voltage between driver seat control unit connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V)	
	(+)	(-)		(Approx.)	
	38 (L)		Lifting switch (rear) ON (UP operation)	Battery voltage	
P3 -		Ground	Other than above	0	
	39 (L/W)		Lifting switch (rear) ON (DOWN operation)	Battery voltage	
	. ,		Other than above	0	



#### OK or NG

OK >> Replace lifting motor (rear). Refer to <u>SE-89</u>, "FRONT SEAT"

NG >> Replace driver seat control unit. Refer to <u>SE-89</u>, "FRONT SEAT".

## **Pedal Adjusting Motor Circuit Inspection**

#### 1. CHECK PEDAL ADJUSTING MECHANISM

Check the following.

- Operation malfunction caused by pedal adjusting 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.

Driver seat C/U connector

Oriver seat C/U connector

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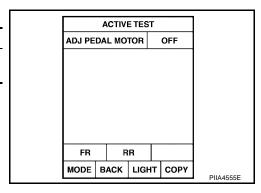
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## 2. CHECK FUNCTION

#### (P) With CONSULT-II

Check operation with "PEDAL" in ACTIVE TEST.

Test item	Description
ADJ PEDAL MOTOR	The pedal adjusting motor is activated by receiving the drive signal.



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

GO TO 3.

OK or NG

OK >> Pedal adjusting motor circuit is OK.

NG >> GO TO 3.

## 3. CHECK PEDAL ADJUSTING MOTOR CIRCUIT HARNESS CONTINUITY

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit and pedal adjusting motor.

3. Check continuity between automatic drive positioner control unit connector M42 terminals 37, 45 and pedal adjusting motor connector E109 terminals 4, 5.

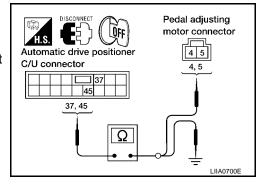
37 (G) – 5 (G) : Continuity should exist. 45 (G/O) – 4 (G/W) : Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M42 terminals 37, 45 and ground.

37 (G) – Ground : Continuity should not exist. 45 (G/O) – Ground : Continuity should not exist.

#### OK or NG

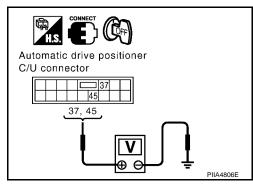
OK >> GO TO 4.



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

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(Арргох.)	
	37 (G)		Pedal adjusting switch ON (FORWARD operation)	Battery voltage	
			Other than above	0	
M42	45 (G/O)	Ground	Pedal adjusting switch ON (BACKWARD opera- tion)	Battery voltage	
			Other than above	0	



#### OK or NG

OK >> Replace pedal adjusting motor. Refer to <u>SE-81, "Removal and Installation"</u>.

NG >> Replace automatic drive positioner control unit.

#### **Mirror Motor LH Circuit Check**

## 1. CHECK DOOR MIRROR LH MECHANISM

Check the following items.

Operation malfunction caused by a foreign object caught in door mirror face edge.

#### OK or NG

OK >> GO TO 2

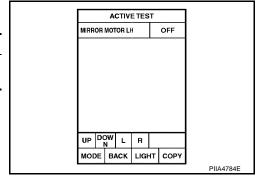
NG >> Repair the malfunctioning parts, and check the symptom again.

## 2. CHECK FUNCTION

#### With CONSULT-II

Check the operation with "MIRROR MOTOR LH" in the ACTIVE TEST.

Test item	Description
MIRROR MOTOR LH	The mirror motor LH moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.



#### **⋈** Without CONSULT-II

**GO TO 3.** 

#### OK or NG

OK >> Mirror motor LH circuit is OK.

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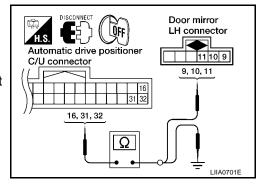
# 3. CHECK MIRROR MOTOR LH CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror LH.
- Check continuity between automatic drive positioner control unit connector M41 terminals 16, 31, 32 and door mirror LH connector D13 terminals 9, 10, 11.

16 (O) - 11 (O): Continuity should exist.31 (R/Y) - 10 (R/Y): Continuity should exist.32 (BR) - 9 (BR): Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M41 terminals 16, 31, 32 and ground.

16 (O) – Ground : Continuity should not exist.
 31 (R/Y) – Ground : Continuity should not exist.
 32 (BR) – Ground : Continuity should not exist.



#### OK or NG

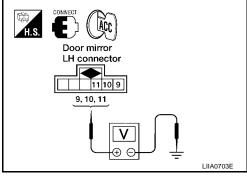
OK >> GO TO 4.

NG >> Repair or replace harness.

## 4. CHECK MIRROR MOTOR SIGNAL

- 1. Turn ignition switch to ACC.
- 2. Check voltage between door mirror LH connector and ground.

Connector	(Wire	ninals color)	Condition	Voltage (V) (Approx.)
	(+)			
	10 (R/Y)		Mirror motor is operated UP	1.5 - Battery voltage
	D13 9 (BR)	Ground	Other than above	0
D13			Mirror motor is operated LEFT	1.5 - Battery voltage
			Other than above	0
11 (O)		Mirror motor is operated DOWN or RIGHT	1.5 - Battery voltage	
	(0)		Other than above	0



#### OK or NG

OK >> Replace door mirror LH. Refer to <u>GW-108</u>, "<u>Door Mirror Assembly</u>".

NG >> Repair or replace harness.

## Mirror Motor RH Circuit Check

EIS001ZU

#### 1. CHECK DOOR MIRROR RH MECHANISM

Check the following items.

Operation malfunction caused by a foreign object caught in door mirror face edge.

#### OK or NG

OK >> GO TO 2.

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

## 2. CHECK FUNCTION

(II) With CONSULT-II

Check the operation with "MIRROR MOTOR RH" in the ACTIVE TEST.

Test item	Description
MIRROR MOTOR RH	The mirror motor RH moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.

ACTIVE TEST	
MIRROR MOTOR RH	OFF
UP DOW L R	
MODE BACK LIGHT	COPY
	PIIA0202E

#### **⋈** Without CONSULT-II

GO TO 3.

OK or NG

OK >> Mirror motor RH circuit is OK.

NG >> GO TO 3.

## 3. CHECK DOOR MIRROR RH CIRCUIT HARNESS CONTINUITY

Turn ignition switch OFF.
 Disconnect automatic drive positioner control unit and door mirror RH connector.

3. Check continuity between automatic drive positioner control unit connector M41 terminals 14, 15, 30 and door mirror RH connector D113 terminals 9, 10, 11.

14 (GR/R) – 10 (GR/R) : Continuity should exist. 15 (V/W) – 9 (V/W) : Continuity should exist. 30 (SB) – 11 (SB) : Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M41 terminals 14, 15, 30 and ground.

14 (GR/R) – Ground : Continuity should not exist.
 15 (V/W) – Ground : Continuity should not exist.
 30 (SB) – Ground : Continuity should not exist.

# Automatic drive positioner C/U connector 14, 15, 30 14, 15, 30 LIIA0704E

#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

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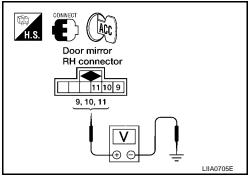
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# 4. CHECK MIRROR MOTOR SIGNAL

- 1. Turn ignition switch to ACC.
- 2. Check voltage between door mirror RH connector and ground.

Connector	onnector Termin		Condition	Voltage (V) (Approx.)
	(+)	(-)		(F-F-19711)
	10 (GR/R)		Mirror motor is operated UP	1.5 - Battery voltage
D113		Ground	Other than above	0
	9 (V/W)		Mirror motor is operated LEFT	1.5 - Battery voltage
			Other than above	0
			Mirror motor is operated DOWN or RIGHT	1.5 - Battery voltage
			Other than above	0



#### OK or NG

OK >> Replace door mirror motor RH. Refer to <u>GW-108</u>, "<u>Door Mirror Assembly</u>" .

## **Sliding Sensor Circuit Inspection**

#### 1. CHECK FUNCTION

(P) With CONSULT-II

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

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

DATA MONITOR  SELECT MONITOR ITEM  SLIDE PULSE  RECLN PULSE  LIFT FR PULSE  LIFT RR PULSE  MIR/SEN RH U-D  Page Up Page Down  SETTING Numerical						
SLIDE PULSE  RECLN PULSE  LIFT FR PULSE  LIFT RR PULSE  MIR/SEN RH U-D  Page Up Page Down	D	ATA M	ONITO	R		
RECLN PULSE  LIFT FR PULSE  LIFT RR PULSE  MIR/SEN RH U-D  Page Up Page Down	SELECT MONITOR ITEM					
LIFT FR PULSE  LIFT RR PULSE  MIR/SEN RH U-D  Page Up Page Down	SLIDE PULSE					
LIFT RR PULSE MIR/SEN RH U-D  Page Up Page Down OCTIVE Numerical	F	RECLN	PULS	E		
Page Up Page Down	L	IFT FR	PULS	Ε		
Page Up Page Down	LIFT RR PULSE					
CETTING Numerical	MIR/SEN RH U-D					
SETTING Numerical	Page Up Page Down					
SETTING Display	SETTING	Num Dis	erical play			
MODE BACK LIGHT COPY	MODE E	BACK	LIGH	т]	COPY	DUA 45505

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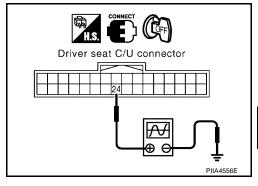
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#### **⋈** Without CONSULT-II

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

Connector	Term (Wire	inals color)	Condition	Signal
	(+)	(–)		
P2	24 (Y/G)	Ground	Sliding motor operation	(V) 6 4 2 0 50 ms



#### OK or NG

OK >> Sliding sensor circuit is OK.

NG >> GO TO 2.

## 2. CHECK SLIDING SENSOR CIRCUIT HARNESS CONTINUITY

- Disconnect driver seat control unit connector and sliding motor LH connector.
- 2. Check continuity between driver seat control unit connector P2 terminals 16, 24, 31 and sliding motor P4 terminals 1, 2, 3.

16 (L) – 3 (L)

: Continuity should exist.

24 (Y/G) - 2 (Y/G)

: Continuity should exist.

31(Y) - 1(Y)

: Continuity should exist.

3. Check continuity between driver seat control unit P2 terminals 16, 24, 31 and ground.

16 (L) – Ground

: Continuity should not exist.

24 (Y/G) – Ground

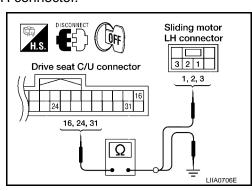
: Continuity should not exist.

31 (Y) - Ground

: Continuity should not exist.

#### OK or NG

OK >> Replace sliding motor. Refer to <u>SE-89, "FRONT SEAT"</u>.



## **Reclining Sensor Circuit Inspection**

#### 1. CHECK FUNCTION

(P) With CONSULT-II

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

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

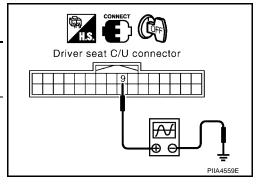
DATA MONITOR	
SELECT MONITOR ITEM	
SLIDE PULSE	
RECLN PULSE	
LIFT FR PULSE	
LIFT RR PULSE	
MIR/SEN RH U-D	
Page Up Page Down	
SETTING Numerical Display	
MODE BACK LIGHT COPY	DUA 45505
	PIIA4558E

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#### **⋈** Without CONSULT-II

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

Connector	Terminals (Wire color)		Condition	Signal
	(+)	(-)		
P2	9 (L)	Ground	Reclining motor operation	(V) 6 4 2 0 50 ms



#### OK or NG

OK >> Reclining sensor circuit is OK.

NG >> GO TO Ž.

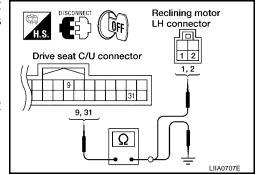
## 2. CHECK RECLINING SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and reclining motor LH.
- Check continuity between driver seat control unit connector P2 terminals 9, 31 and reclining motor LH connector B311 terminals 1, 2.

9 (L) – 2 (L) : Continuity should exist. 31 (Y) – 1 (Y) : Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 9, 31 and ground.

9 (L) – Ground : Continuity should not exist. 31 (Y) – Ground : Continuity should not exist.



#### OK or NG

OK >> Replace reclining motor. Refer to <u>SE-89</u>, "FRONT SEAT".

## **Lifting Sensor (Front) Circuit Inspection**

#### 1. CHECK FUNCTION

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(P) With CONSULT-II

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

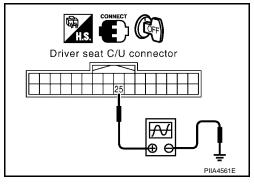
Monitor item [OPER	ATION or UNIT]	Contents
LIFT FR PULSE	_	The front lifting position (pulse) judged from the lifting sensor (front) is displayed

DATA MONITOR	
SELECT MONITOR ITEM	
SLIDE PULSE	
RECLN PULSE	
LIFT FR PULSE	
LIFT RR PULSE	
MIR/SEN RH U-D	
Page Up Page Down	
SETTING Numerical Display	
MODE BACK LIGHT COPY	PIIA4558E
	F IIA4556L

**⋈** Without CONSULT-II

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

Connector	Terminals (Wire color)		Condition	Signal
	(+)	(-)		
P2	25 (R/L)	Ground	Lifting motor (front) operation	(V) 6 4 2 0 50 ms



OK or NG

OK >> Front lifting sensor is OK.

NG >> GO TO 2.

## 2. CHECK FRONT LIFTING SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and lifting motor (front).
- 2. Check continuity between driver seat control unit connector P2 terminals 16, 25, 31 and lifting motor (front) connector P6 terminals 1, 2, 3.

16 (L) – 3 (L)

: Continuity should exist.

25 (R/L) - 2 (R/L)

: Continuity should exist.

31(Y) - 1(Y)

: Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 16, 25, 31 and ground.

16 (L) - Ground

: Continuity should not exist.

25 (R/L) – Ground

: Continuity should not exist.

31 (Y) - Ground

: Continuity should not exist.

# Drive seat C/U connector Drive seat C/U connector

#### OK or NG

OK >> Replace lifting motor (front). Refer to SE-89, "FRONT SEAT".

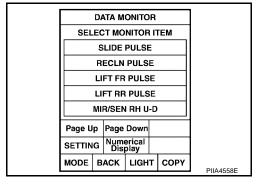
## Lifting Sensor (Rear) Circuit Inspection

#### 1. CHECK REAR END LIFTING SENSOR INPUT/OUTPUT SIGNAL

#### (P) With CONSULT-II

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

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

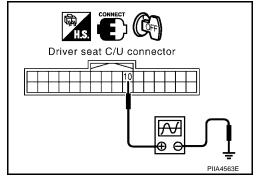


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#### **⋈** Without CONSULT-II

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

Connector	Terminals (Wire color)		Condition	Signal
	(+)	(-)		
P2	10 (L/Y)	Ground	Lifting motor (rear) operation	(V) 6 4 2 0 50 ms



#### OK or NG

OK >> Rear lifting sensor circuit is OK.

NG >> GO TO 2.

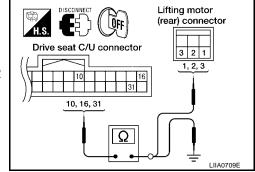
## 2. CHECK REAR LIFTING SENSOR CIRCUIT HARNESS CONTINUITY

- Disconnect driver seat control unit and lifting motor (rear).
- 2. Check continuity between driver seat control unit connector P2 terminals 10, 16, 31 and lifting motor (rear) connector P7 terminals 1, 2, 3.

10 (L/Y) - 2 (L/Y): Continuity should exist.16 (L) - 3 (L): Continuity should exist.31 (Y) - 1 (Y): Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 10, 16, 31 and ground.

10 (L/Y) – Ground : Continuity should not exist.
 16 (L) – Ground : Continuity should not exist.
 31 (Y) – Ground : Continuity should not exist.



#### OK or NG

OK >> Replace lifting motor (rear). Refer to SE-89, "FRONT SEAT".

## **Pedal Adjusting Sensor Circuit Inspection**

## 1. CHECK FUNCTION

#### (II) With CONSULT-II

Operate the pedal adjusting switch with "PEDAL SEN" on the DATA MONITOR to make sure the voltage changes.

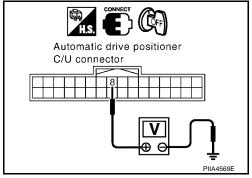
Monitor item [OPERA- TION or UNIT]		Contents
PEDAL SEN	"V"	The pedal adjusting position (voltage) judged from the pedal adjust sensor signal is displayed.

	DATA MONITOR
SE	ELECT MONITOR ITEM
	MIR/SEN RH U-D
	MIR/SEN RH R-L
	MIR/SEN LH U-D
	MIR/SEN LH R-L
	PEDAL SEN
Page	Up Page Down
SETT	ING Numerical Display
MODE	BACK LIGHT COPY

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

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дриох.)
M41	M41 8 (W/R)	Ground	Pedal front end position	0.5
17141			Pedal back end position	4.5



#### OK or NG

OK >> Pedal adjusting sensor circuit is OK.

NG >> GO TO 2. SE

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# 2. CHECK PEDAL ADJUSTING SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit and pedal adjusting sensor.
- 2. Check continuity between automatic drive positioner connector M41, M42 terminals 8, 33, 41 and pedal adjusting sensor connector E110 terminals 1, 2, 3.

8 (W/R) - 2 (W/R) : Continuity should exist. 33 (W/L) - 1 (W/L) : Continuity should exist. 41 (V) - 3 (V) : Continuity should exist.

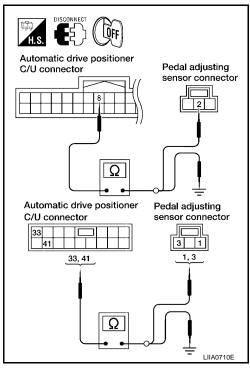
3. Check continuity between automatic drive positioner control unit connector M41, M42 terminals 8, 33, 41 and ground.

8 (W/R) – Ground : Continuity should not exist. 33 (W/L) – Ground : Continuity should not exist. 41 (V) – Ground : Continuity should not exist.

#### OK or NG

OK >> Replace pedal adjusting motor. Refer to <u>SE-81</u>, <u>"Removal and Installation"</u>.

NG >> Repair or replace harness.



## **Mirror Sensor LH Circuit Check**

## 1. CHECK DOOR MIRROR FUNCTION

Check the following items.

Operation malfunction in memory control

#### NOTE:

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

#### OK or NG

OK >> GO TO 2.

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

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## 2. CHECK MIRROR SENSOR INSPECTION

#### (P) With CONSULT-II

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

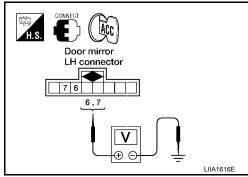
Monitor item [OPERATION or UNIT]		Contents
MIR/ SEN LH R-L	"V"	Voltage output from door mirror LH sensor (LH/RH) is displayed.
MIR/ SEN LH U-D	"V"	Voltage output from door mirror LH sensor (UP/DOWN) is displayed.

#### DATA MONITOR SELECT MONITOR ITEM TELESCO SEN MIR/SE RH R-L MIR/SE RH U-D MIR/SE LH R-L MIR/SE LH U-D Page Up Page Down SETTING Numerical Display MODE BACK LIGHT COPY PIIA0197E

#### **⊗** Without CONSULT–II

- Turn ignition switch to ACC.
- Check voltage between door mirror LH connector and ground.

Con-	Terminals	(Wire color)	Condition	Voltage (V)	
nector	(+) (-)		Condition	(Approx.)	
D4	7 (G)	Ground	When motor is LEFT or RIGHT operation	Changes between 3.4 (close to right edge) – 0.6 (close to left edge)	
D4	6 (L/Y)	Ground	When motor is UP or DOWN operation	Changes between 3.4 (close to peak) – 0.6 (close to valley)	



#### OK or NG

OK >> Mirror sensor LH is OK.

NG >> GO TO 3.

## 3. CHECK HARNESS CONTINUITY 1

1. Disconnect automatic drive positioner control unit and door mirror LH.

2. Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and door mirror LH connector D2 terminals 5, 8.

33 (W/L) - 5 (W/L) : Continuity should exist.

41 (V) - 8 (V) : Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and ground.

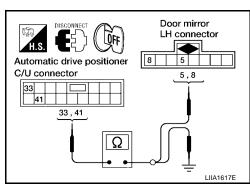
> 33 (W/L) – Ground : Continuity should not exist.

> 41 (V) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



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## 4. CHECK HARNESS CONTINUITY 2

- 1. Disconnect automatic drive positioner control unit and door mirror LH.
- 2. Check continuity between automatic drive positioner control unit connector M41 terminals 6, 22 and door mirror LH connector D4 terminals 6, 7.

6 (L/Y) – 6 (L/Y) : Continuity should exist. 22 (G) – 7 (G) : Continuity should exist.

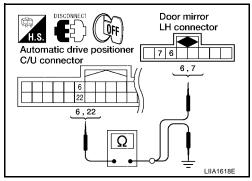
3. Check continuity between automatic drive positioner control unit connector M41 terminals 6, 22 and ground.

6 (L/Y) – Ground : Continuity should not exist. 22 (G) – Ground : Continuity should not exist.

#### OK or NG

OK >> Replace door mirror LH. Refer to <u>GW-108, "Door Mirror Assembly"</u>.

NG >> Repair or replace harness.



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#### Mirror Sensor RH Circuit Check

#### 1. CHECK DOOR MIRROR FUNCTION

Check the following items.

Operation malfunction in memory control

#### NOTE:

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

#### OK or NG

OK >> GO TO 2.

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

## 2. CHECK MIRROR SENSOR INSPECTION

#### (P) With CONSULT-II

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

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

#### 

DATA MONITOR

SELECT MONITOR ITEM

#### **⋈** Without CONSULT–II

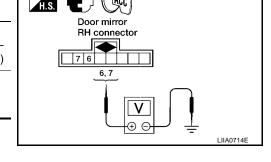
- 1. Turn ignition switch to ACC.
- Check voltage between door mirror RH connector and ground.

Con- nector	Terminals	(Wire color)	Condition	Voltage(V)
	(+)	(-)	Condition	(Approx.)
D107	7 (L/W)	Ground	When motor is LEFT or RIGHT operation	Changes between 3.4 (close to left edge) – 0.6 (close to right edge)
D107 -	6 (R/B)	Oround	When motor is UP or DOWN operation	Changes between 3.4 (close to peak) – 0.6 (close to valley)

#### OK or NG

OK >> Mirror sensor RH is OK.

NG >> GO TO 3.



# 3. CHECK HARNESS CONTINUITY 1

- 1. Disconnect automatic drive positioner control unit and door mirror RH.
- Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and door mirror RH connector D107 terminals 5, 8.

33 (W/L) – 5 (W/L) : Continuity should exist. 41 (V) – 8 (V) : Continuity should exist.

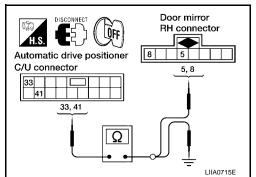
3. Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and ground.

33 (W/L) – Ground : Continuity should not exist.
 41 (V) – Ground : Continuity should not exist.

#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



## 4. CHECK HARNESS CONTINUITY 2

- 1. Disconnect automatic drive positioner control unit and door mirror RH.
- Check continuity between automatic drive positioner control unit connector M41 terminals 5, 21 and door mirror RH connector D107 terminals 6, 7.

5 (R/B) – 6 (R/B) : Continuity should exist. 21 (L/W) – 7 (L/W) : Continuity should exist.

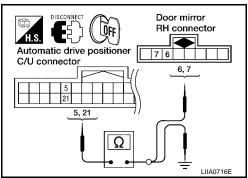
Check continuity between automatic drive positioner control unit connector M41 terminals 5, 21 and ground.

5 (R/B) – Ground : Continuity should not exist. 21 (L/W) – Ground : Continuity should not exist.

#### OK or NG

OK >> Replace door mirror RH. Refer to <u>GW-108, "Door Mirror</u> Assembly".

NG >> Repair or replace harness.



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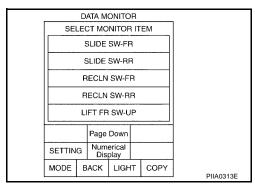
## **Sliding Switch Circuit Inspection**

#### 1. CHECK FUNCTION

#### (II) With CONSULT-II

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

Monitor item   ATION or U	•	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.

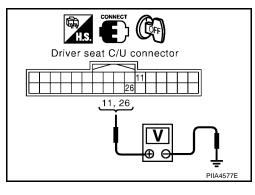


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#### **Without CONSULT-II**

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

Connector	Term (Wire		Condition	Voltage (V) (Approx.)	
	(+)	(-)			
	11 (R/B)	Ground	Sliding switch ON (BACKWARD operation)	0	
P2			Other than above	Battery voltage	
FZ ·	26 (P/B)	Giodila	Sliding switch ON (FORWARD operation)	0	
			Other than above	Battery voltage	



#### OK or NG

OK >> Sliding switch circuit is OK.

NG >> GO TO 2.

## 2. CHECK SLIDING SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch LH connector.
- Check continuity between driver seat control unit connector P2 terminals 11, 26 and power seat switch LH connector P8 terminals 1, 7.

11 (R/B) – 7 (R/B) : Continuity should exist. 26 (P/B) – 1 (P/B) : Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 11, 26 and ground.

11 (R/B) – Ground : Continuity should not exist. 26 (P/B) – Ground : Continuity should not exist.

# Power seat switch LH connector Driver seat C/U connector 1,7 11, 26

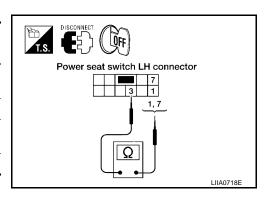
#### OK or NG

OK >> GO TO 3.

# 3. CHECK SLIDING SWITCH

Check continuity between power seat switch LH as follows.

Connector	Terminal		Condition	Continuity
Connector	(+)	(-)	Condition	Continuity
	7		Sliding switch ON (BACKWARD operation)	Yes
P8		3	Other than above	No
го	1	3	Sliding switch ON (FORWARD operation)	Yes
			Other than above	No



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#### OK or NG

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

NG >> Replace power seat switch LH. Refer to SE-89, "FRONT SEAT".

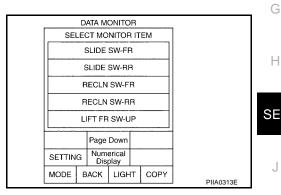
## **Reclining Switch Inspection**

#### 1. CHECK FUNCTION

(P) With CONSULT-II

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

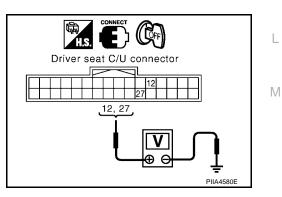
Monitor item [OPE or UNIT]	RATION	Contents
RECLN SW-FR	"ON/ OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.
RECLN SW-RR	"ON/ OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.



#### **⊗** Without CONSULT-II

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

Connector	Term (Wire		Condition	Voltage (V) (Approx.)	
	(+)	(-)			
	12 (O/B)	Ground	Reclining switch ON (BACKWARD operation)	0	
P2			Ground	Other than above	Battery voltage
12	27 (G/B)		Reclining switch ON (FORWARD operation)	0	
			Other than above	Battery voltage	



#### OK or NG

OK >> Reclining switch circuit is OK.

NG >> GO TO 2.

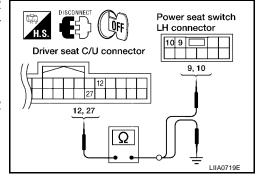
# 2. CHECK RECLINING SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and power seat switch LH.
- Check continuity between driver seat control unit connector P2 terminals 12, 27 and power seat switch LH connector P8 terminals 9, 10.

12 (O/B) – 9 (O/B) : Continuity should exist. 27 (G/B) – 10 (G/B) : Continuity should exist.

Check continuity between driver seat control unit connector P2 terminals 12, 27 and ground.

> 12 (O/B) – Ground : Continuity should not exist. 27 (G/B) – Ground : Continuity should not exist.



#### OK or NG

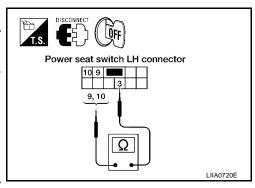
OK >> GO TO 3.

NG >> Repair or replace harness.

## 3. RECLINING SWITCH INSPECTION

Check continuity between power seat switch LH as follows.

Connector	Terminal		Condition	Continuity	
Connector	(+)	(-)	Condition	Continuity	
	9		Reclining switch ON (BACKWARD operation)	Yes	
P8		3	Other than above	No	
го	10	Reclining switch ON (FORWARD operation)	Yes		
		Other than above	No		



#### OK or NG

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

NG >> Replace power seat switch LH. Refer to <u>SE-89, "FRONT SEAT"</u>.

## **Lifting Switch (Front) Circuit Inspection**

#### 1. CHECK FUNCTION

#### (II) With CONSULT-II

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

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

DATA MONITOR							_
	SEI	_E(	ст мо	NITOF	lT	EM	
		LI	FT FR	SW-D	N		
		L.I	FT RE	SW-U	Р		
		LI	FT RA	SW-D	N		
		МІ	R COI	v SW-l	JP		
		MI	R CO	1 SW-[	DΝ		
	Page U	р	Page	Down			
	SETTING Numerical Display						
	MODE BACK LIGHT COPY					PIIA0323E	
							- FIIAU323E

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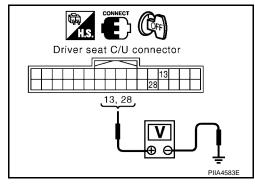
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#### **⋈** Without CONSULT-II

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

Connector	Term (Wire		Condition	Voltage (V) (Approx.)	
	(+)	(-)			
	13 (L/B)		Lifting switch (front) ON (DOWN operation)	0	
P2		Ground	Other than above	Battery voltage	
ΓZ	28 (Y/B)	Giodila	Lifting switch (front) ON (UP operation)	0	
			Other than above	Battery voltage	



#### OK or NG

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

NG >> GO TO 2.

# 2. CHECK LIFTING SWITCH (FRONT) CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and power seat switch LH.
- Check continuity between driver seat control unit connector P2 terminals 13, 28 and power seat switch LH connector P2 terminals 5, 6.

13 (L/B) – 5 (L/B) : Continuity should exist. 28 (Y/B) – 6 (Y/B) : Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 13, 28 and ground

13 (L/B) – Ground : Continuity should not exist. 28 (Y/B) – Ground : Continuity should not exist.

# Power seat switch LH connector Driver seat C/U connector 5, 6 13, 28

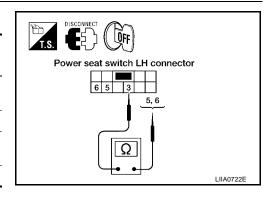
#### OK or NG

OK >> GO TO 3.

# 3. CHECK LIFTING SWITCH (FRONT)

Check continuity between power seat switch LH as follows.

Connector	Terminals		Condition	Continuity
Connector	(+)	(-)	Condition	Continuity
	5	- 3	Lifting switch (front) ON (DOWN operation)	Yes
P8 6			Other than above	No
	6		Lifting switch (front) ON (UP operation)	Yes
			Other than above	No



#### OK or NG

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

NG >> Replace power seat switch LH. Refer to <u>SE-89</u>, "FRONT SEAT".

## Lifting Switch (Rear) Circuit Inspection

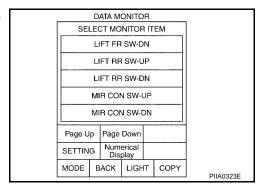
## 1. CHECK FUNCTION

EIS00205

#### (P) 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.

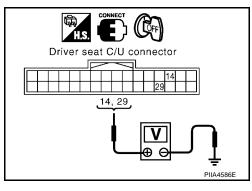
Monitor item [OPERATION or UNIT]		Contents
LIFT RR SW-UP	"ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (UP) signal is displayed.
LIFT RR SW-DN	"ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (DOWN) signal is displayed.



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

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

Connector	Term (Wire		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
	14 (G/W)		Lifting switch (rear) ON (DOWN operation)	0
P2 29 (R/W)	Ground	Other than above	Battery voltage	
		Lifting switch (rear) ON (UP operation)	0	
			Other than above	Battery voltage



#### OK or NG

OK >> Rear lifting switch circuit is OK.

NG >> GO TO 2.

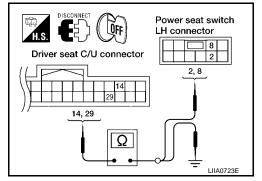
# 2. CHECK LIFTING SWITCH (REAR) CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and power seat switch LH.
- Check continuity between driver seat control unit connector P2 terminals 14, 29 and power seat switch connector P8 terminals 2, 8.

14 (G/W) – 8 (G/W) : Continuity should exist. 29 (R/W) – 2 (R/W) : Continuity should exist.

Check continuity between driver seat control unit connector P2 terminals 14, 29 and ground.

> 14 (G/W) – Ground : Continuity should not exist. 29 (R/W) – Ground : Continuity should not exist.



#### OK or NG

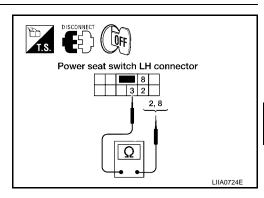
OK >> GO TO 3.

NG >> Repair or replace harness.

# 3. CHECK LIFTING SWITCH (REAR)

Check continuity between power seat switch LH as follows.

Connector	Connector Terminals (+) (-		Condition	Continuity
Connector			Condition	Continuity
	8		Lifting switch (rear) ON (DOWN operation)	Yes
P8		3	Other than above	No
2	2	3	Lifting switch (rear) ON (UP operation)	Yes
		Other than above	No	



#### OK or NG

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

NG >> Replace power seat switch LH. Refer to <u>SE-89</u>, "FRONT SEAT".

## **Power Seat Switch Ground Inspection**

#### 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

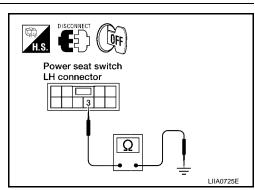
Check continuity between power seat switch LH connector B305 terminal 3 and ground.

3 (B) – Ground : Continuity should exist.

#### OK or NG

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

NG >> Repair or replace harness.



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Revision: January 2005

## **Pedal Adjusting Switch Circuit Inspection**

#### 1. CHECK FUNCTION

(P) With CONSULT-II

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

Monitor item [OPEI UNIT]	RATION or	Contents
PEDAL SW-FR	"ON/OFF"	Operation (ON)/open (OFF) status judged from the pedal adjusting switch (FR) signal is displayed.
PEDAL SW-RR	"ON/OFF"	Operation (ON)/open (OFF) status judged from the pedal adjusting switch (RR) signal is displayed.

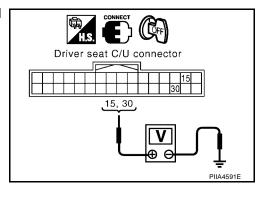
	DATA M	ONITOR		
SEL	ECT MO	NITOR I	TEM	
	MIR CHI	IG SW-R	1	
	MIR CHI	NG SW-L		
	PEDAL	SW-FR		
	PEDAL	SW-RR		
DETENT SW				
Page U				
SETTING Numerical Display				
MODE	BACK	LIGHT	СОРУ	PIIA4590E

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

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
	15 (G/Y)	Y)	Pedal adjusting switch ON (BACKWARD operation)	0
P2		Ground	Other than above	Battery voltage
30 (V)	Glound	Pedal adjusting switch ON (FORWARD opera- tion)	0	
	i	ı	Other than above	Battery voltage



#### OK or NG

OK >> Pedal adjusting switch circuit is OK.

NG >> GO TO 2.

# 2. CHECK PEDAL ADJUSTING SWITCH CIRCUIT HARNESS CONTINUITY

- Disconnect driver seat control unit and pedal adjusting switch.
- Check continuity between driver seat control unit connector P2 terminals 15, 30 and pedal adjusting switch connector B22 terminals 2, 3.

15 (G/Y) – 2 (G/Y) : Continuity should exist. 30 (V) – 3 (V) : Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 15, 30 and ground.

15 (G/Y) – Ground : Continuity should not exist. 30 (V) – Ground : Continuity should not exist.

# Pedal adjusting switch connector Driver seat C/U connector 2, 3 15, 30 \[ \textstyle{\Omega} \textstyle{

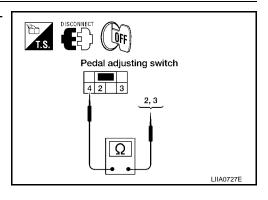
#### OK or NG

OK >> GO TO 3.

# 3. check pedal adjusting switch

Check continuity between pedal adjusting switch terminals as follows.

Connector	Terminals		Condition	Continuity
Connector	(+)	(-)	Condition	Continuity
	2	4	Pedal adjusting switch ON (BACKWARD operation)	Yes
B22	P.22		Other than above	No
3	3		Pedal adjusting switch ON (FORWARD operation)	Yes
		Other than above	No	



#### OK or NG

OK >> GO TO 4.

NG >> Replace pedal adjusting switch.

## 4. CHECK PEDAL ADJUSTING SWITCH GROUND CIRCUIT

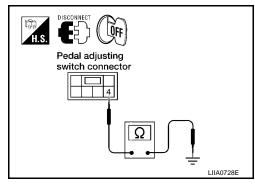
Check continuity between pedal adjusting switch connector B22 terminal 4 and ground.

: Continuity should exist.

#### OK or NG

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

NG >> Repair or replace harness.



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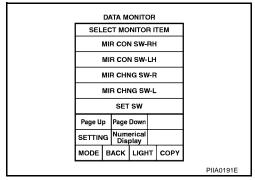
# Door Mirror Switch (Changeover Switch) Circuit Check 1. CHECK FUNCTION

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#### (F)With CONSULT-II

Check the operation on "MIR CHNG SW-R" or "MIR CHNG SW-L" in the DATA MONITOR.

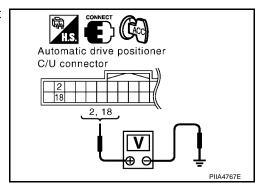
Monitor item [OPEI UNIT]	RATION or	Contents
MIR CHNG SW-R	"ON/OFF"	ON/OFF status judged from the door mirror switch (switching to RIGHT) signal is displayed.
MIR CHNG SW-L	"ON/OFF"	ON/OFF status judged from the door mirror switch (switching to LEFT) signal is displayed.



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

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

Connector	Connector Terminals (Wire color) (+) (-)		Condition	Voltage (V)
Connector			Condition	(Approx.)
	2 (L/R)		Changeover switch RIGHT position	0
M41 18 (Y)		Ground 18 (Y)	Other than above	5
	18 (Y)		Changeover switch LEFT position	0
			Other than above	5



#### OK or NG

OK >> Door mirror switch (changeover switch) is OK.

NG >> GO TO 2.

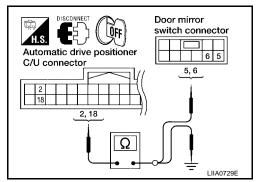
# 2. CHECK DOOR MIRROR SWITCH CIRCUIT HARNESS CONTINUITY

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror switch.
- Check continuity between automatic drive positioner control unit connector M41 terminals 2, 18 and door mirror switch connector M7 terminals 5, 6.

2 (L/R) – 5 (L/R) : Continuity should exist. 18 (Y/R) – 6 (Y/R) : Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M41 terminals 2, 18 and ground.

2 (L/R) – Ground : Continuity should not exist. 18 (Y/R) – Ground : Continuity should not exist.



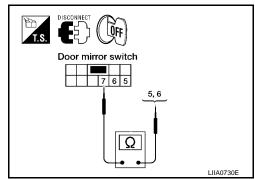
#### OK or NG

OK >> GO TO 3.

# $3.\,$ check door mirror switch (changeover switch)

Check continuity between door mirror switch terminals as follows.

Connector	Connector		Condition	Continuity
Connector	(+)	(-)	Condition	Continuity
	5		Changeover switch RIGHT position	Yes
M7 6		7	Other than above	No
	,	Changeover switch LEFT position	Yes	
		Other than above	No	



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#### OK or NG

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

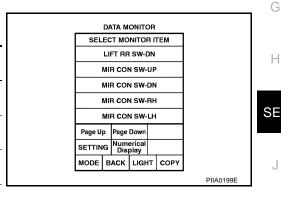
NG >> Replace door mirror switch.

## **Door Mirror Switch (Mirror Switch) Circuit Check** 1. CHECK DOOR MIRROR SWITCH (MIRROR SWITCH) SIGNAL

(P) With CONSULT-II

"MIR CON SW-UP/DN" Check the operation on and "MIR CON SW-RH/LH" in the DATA MONITOR.

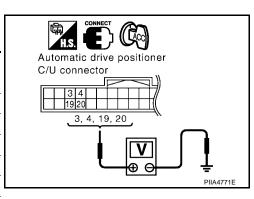
Monitor item [OPEI UNIT]	RATION or	Contents
MIR CON SW-UP	"ON/OFF"	ON/OFF status judged from the door mirror switch (UP) signal is displayed.
MIR CON SW-DN	"ON/OFF"	ON/OFF status judged from the door mirror switch (DOWN) signal is displayed.
MIR CON SW-RH	"ON/OFF"	ON/OFF status judged from the door mirror switch (RIGHT) signal is displayed.
MIR CON SW-LH	"ON/OFF"	ON/OFF status judged from the door mirror switch (LEFT) signal is displayed.



#### **⋈** Without CONSULT-II

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

Connector	Terminals (Wire color)		Condition	Voltage (V)
	(+)	(-)	Condition	(Approx.)
M41	3 (Y/B)	- Ground	Mirror switch UP operation	0
			Other than above	5
	4 (G/B)		Mirror switch LEFT operation	0
			Other than above	5
	19 (L/B)		Mirror switch DOWN operation	0
			Other than above	5
	20 (V)		Mirror switch RIGHT operation	0
			Other than above	5



#### OK or NG

OK >> Door mirror switch (mirror switch) circuit is OK.

NG >> GO TO 2.

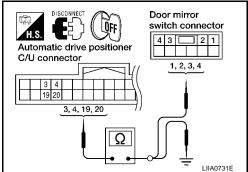
# 2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror switch.
- Check continuity between automatic drive positioner control unit connector M41 terminals 3, 4, 19, 20 and door mirror switch connector M66 terminals 1, 2, 3, 4.

3 (Y/B) - 3 (Y/B): Continuity should exist. 4 (G/B) - 2 (G/B): Continuity should exist. 19 (L/B) - 4 (L/B) : Continuity should exist. 20 (V) - 1 (V) : Continuity should exist.

Check continuity between automatic drive positioner control unit connector M41 terminals 3, 4, 19, 20 and ground.

> 3 (Y/B) - Ground : Continuity should not exist. 4 (G/B) - Ground : Continuity should not exist. 19 (L/B) - Ground : Continuity should not exist. 20 (V) - Ground : Continuity should not exist.



#### OK or NG

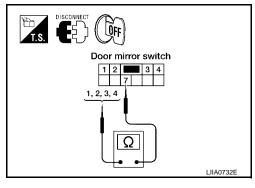
OK >> GO TO 3.

NG >> Repair or replace harness.

## $3.\,$ check door mirror switch (mirror switch)

Check continuity between door mirror switch terminals as follows.

Connector	Terminals		Switch condition	Continuity
M7	1	7	Mirror switch RIGHT operation	Yes
			Other than above	No
	2		Mirror switch LEFT operation	Yes
			Other than above	No
	3		Mirror switch UP operation	Yes
			Other than above	No
	4		Mirror switch DOWN operation	Yes
			Other than above	No



#### OK or NG

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

NG >> Replace door mirror switch.

## **Door Mirror Switch Ground Circuit Inspection**

#### CHECK DOOR MIRROR SWITCH GROUND CIRCUIT

Check continuity between door mirror switch connector M7 terminal 7 and ground.

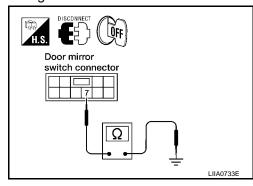
7 (B) - Ground

: Continuity should exist.

#### OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness.

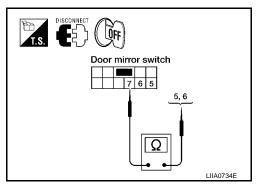


FISO020A

### 2. check door mirror switch (changeover switch)

Check continuity between door mirror switch terminals as follows.

Connector	Term	ninals	Condition	Continuity	
Connector	(+) (-)		Condition	Continuity	
	5		Changeover switch RIGHT position	Yes	
M7		7	Other than above	No	
IVI 7	6	,	Changeover switch LEFT position	Yes	
		-	Other than above	No	



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#### OK or NG

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

NG >> Replace door mirror switch.

#### **Seat Memory Switch Circuit Inspection**

#### 1. CHECK FUNCTION

#### (P) With CONSULT-II

With "SET SW, MEMORY SW 1, MEMORY SW 2" on the DATA MONITOR, operate the switch to check ON/OFF operation.

Monitor item [OP UNIT		Contents			
MEMORY SW 1	"ON/OFF"	ON/OFF status judged from the seat memory switch 1 signal is displayed.			
MEMORY SW 2	"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.			

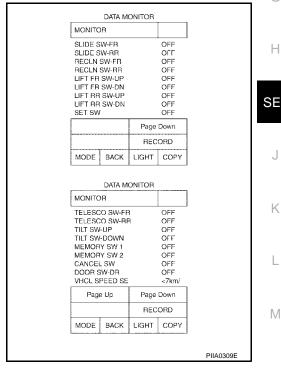
#### **W** Without CONSULT-II

GO TO 2.

#### OK or NG

OK >> Seat memory switch circuit is OK.

NG >> GO TO 2.

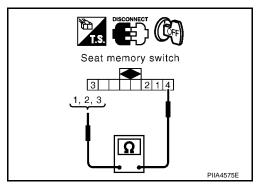


**SE-73** 2004 Quest Revision: January 2005

#### 2. CHECK SEAT MEMORY SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch.
- 3. Operate the setting switch and seat memory switch.
- 4. Check continuity between seat memory switch terminals as follows.

Con-	Terminal		Condition	Continuity		
nector	(+)	(-)	Condition	Continuity		
D5	1		Memory switch 1 ON	Yes		
			Memory switch 1: OFF	No		
	2 4	4	Memory switch 2: ON	Yes		
		Memory switch 2: OFF	No			
	3		Set switch: ON	Yes		
	3		Set switch: OFF	No		



#### OK or NG

OK >> GO TO 3.

NG >> Replace seat memory switch. Refer to <u>EI-28, "Front Door"</u>.

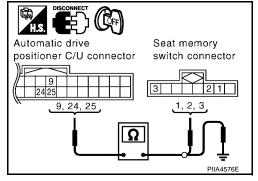
#### 3. CHECK HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit.
- Check continuity between automatic drive positioner control unit connector M41 terminals 9, 24, 25 and seat memory switch connector D5 terminals 1, 2, 3.

9 (LG/B) – 1 (LG/B) : Continuity should exist. 24 (G/W) – 3 (G/W) : Continuity should exist. 25 (P/L) – 2 (P/L) : Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M41 terminals 9, 24, 25 and ground.

9 (LG/B) – Ground : Continuity should not exist. 24 (G/W) – Ground : Continuity should not exist. 25 (P/L) – Ground : Continuity should not exist.



#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

#### 4. CHECK SEAT MEMORY SWITCH GROUND CIRCUIT

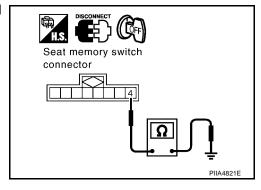
Check continuity between seat memory switch D5 terminal 4 and ground.

4 (B) – Ground : Continuity should exist.

#### OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Repair or replace harness.



#### **Seat Memory Indicator Lamp Circuit Inspection**

#### 1. CHECK FUNCTION

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(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.

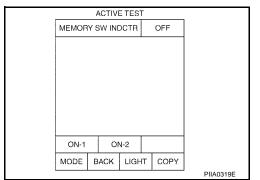
#### **⋈** Without CONSULT-II

ĞO TO 2.

#### OK or NG

OK >> Seat memory switch indicator lamp circuit is OK.

NG >> GO TO 2.



#### 2. CHECK SEAT MEMORY SWITCH POWER SUPPLY CIRCUIT

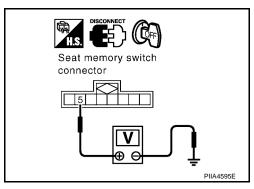
- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch.
- Turn ignition switch ON.
- 4. Check voltage between seat memory switch connector D5 terminal 5 and ground.

5 (BR/Y) - Ground : Battery voltage

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



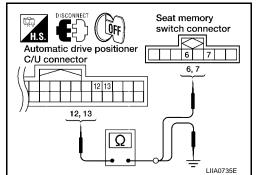
#### 3. CHECK SEAT MEMORY INDICATOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit.
- Check continuity between automatic drive positioner control unit connector M41 terminals 12, 13 and seat memory switch connector D5 terminals 6, 7.

12 (GR/L) - 6 (GR/L) : Continuity should exist. 13 (Y) - 7 (Y/G) : Continuity should exist.

Check continuity between automatic drive positioner control unit connector M41 terminals 12, 13 and ground.

> 12 (GR/L) – Ground : Continuity should not exist. 13 (Y) – Ground : Continuity should not exist.



#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

#### 4. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

Check voltage between automatic drive positioner control unit connector M41 terminals 12, 13 and ground.

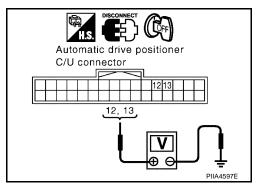
12 (GR/L) – Ground : Battery voltage 13 (Y) – Ground : Battery voltage

#### OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Replace seat memory switch. Refer to El-2:

>> Replace seat memory switch. Refer to <a>El-28</a>, "Front Door".



EIS0020D

#### **Door Mirror Sensor Power Supply and Ground Circuit inspection**

#### 1. CHECK DOOR MIRROR SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit and door mirror (LH and RH).
- 2. Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and door mirror LH connector D4 LH, D107 RH terminals 5, 8.

33 (W/L) - 5 (W/L) : Continuity should exist. 41 (V) - 8 (V) : Continuity should exist.

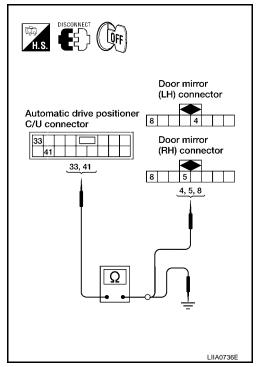
Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and ground.

> 33 (W/L) - Ground : Continuity should not exist. 41 (V) - Ground : Continuity should not exist.

#### OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness.



#### 2. CHECK MIRROR SENSOR POWER SUPPLY

- 1. Connect automatic drive positioner control unit and door mirror LH.
- 2. Turn ignition switch to ACC.
- 3. Check voltage between automatic drive positioner control unit connector M42 terminal 33 and ground.

33 (W/L) - Ground : Approx. 5V

#### OK or NG

OK >> GO TO 3.

NG >> Replace automatic drive positioner control unit.

#### 3. CHECK MIRROR SENSOR GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Check continuity between automatic drive positioner control unit connector M42 terminal 41 and ground.

41 (V) - Ground

: Continuity should exist.

#### OK or NG

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

NG >> Replace automatic drive positioner control unit.

#### A/T Device (Park Switch) Circuit Inspection

#### 1. CHECK FUNCTION

(II) With CONSULT-II

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

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

#### **⋈** Without CONSULT-II

GO TO 2.

OK or NG

OK >> A/T device (park switch) circuit is OK.

NG >> GO TO 2.

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

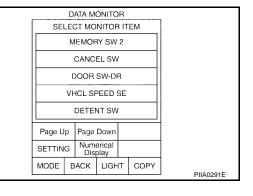
- 1. Turn ignition switch OFF.
- 2. Disconnect A/T device and driver seat control unit.
- Check continuity between A/T device (park switch) connector M34 terminal 7 and driver seat control unit connector P2 terminal 21.

 Check continuity between A/T device (park switch) connector M57 terminal 5 and ground.

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



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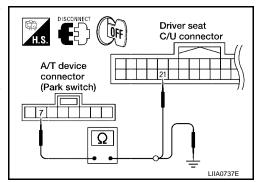
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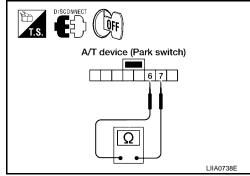


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#### 3. CHECK DETENTION SWITCH

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

Connector	Terminals		Condition	Continuity	
Connector	(+)	(-)	Condition	Continuity	
			P position	No	
M34	6	7	Other than P position	Yes	



DATA MONITOR

SELECT MONITOR ITEM MEMORY SW 2 CANCEL SW DOOR SW-DR VHCL SPEED SE DETENT SW

Page Down

Numerical Display

BACK LIGHT COPY

Page Up

SETTING

MODE

EIS0020G

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#### OK or NG

OK >> A/T device is OK. NG >> Replace A/T device.

#### **Front Door Switch LH Circuit Inspection**

#### 1. CHECK FUNCTION

#### (II) With CONSULT-II

Touch "BCM" with "DOOR SW-DR" on the DATA MONITOR, check ON/OFF operation when the front door is open and closed.

Monitor item [OPERA- TION or UNIT]		Contents		
DOOR SW-DR	"ON/ OFF"			

<sup>\*:</sup>Refer to SE-38, "DATA MONITOR" .

#### ₩ Without CONSULT-II

GO TO 2.

#### OK or NG

OK >> Front door switch LH circuit is OK.

NG >> GO TO 2.

#### 2. CHECK FRONT DOOR SWITCH LH

- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch.
- Check continuity between front door switch LH terminal i and ground part of door switch as follows.

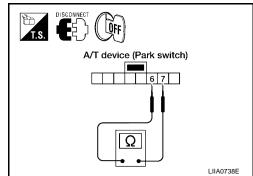
Connec-	Tern	ninals	Condition	Continuity
tor	(+)	(-)	Condition	
Do	4	Ground	With the front door switch LH pressed	No
B8 1 Ground		Giodila	With the front door switch LH released	Yes

# Door switch Ω

#### OK or NG

OK >> GO TO 3.

NG >> Replace front door switch LH.



## 3. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM.
- 2. Check continuity between BCM connector M20 terminal 62 and front door switch LH connector B8 terminal 1.

62 (GR/R) – 1 (GR/R) : Continuity should exist.

Check continuity between BCM connector M20 terminal 62 and ground.

62 (GR/R) – Ground : Continuity should not exist.

#### OK or NG

OK >> Front door switch LH circuit is OK.

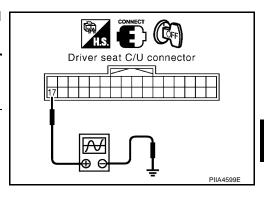
NG >> Repair or replace harness.

#### **UART Communication Line Circuit Inspection**

#### 1. CHECK UART LINE INPUT/OUTPUT SIGNAL 1

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

Connector	Term (Wire		Condition	Signal
	(+)	(-)		
P2	17 (R/W)	Ground	Pedal adjusting switch ON (FOR- WARD or BACK- WARD operation)	(V) 6 4 2 0 2 ms



OK or NG

OK >> GO TO 2.

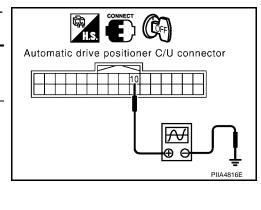
NG >> Check the following.

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

#### 2. CHECK UART LINE INPUT/OUTPUT SIGNAL 2

Check signal between automatic front positioner control unit connector ground, with oscilloscope.

	T.		ı				
Connector	Term (Wire		Condition	Signal			
	(+)	(-)					
M41	10 (R)	Ground	Pedal adjusting switch ON (FOR- WARD or BACK- WARD operation)	(V) 6 4 2 0 1 ms			



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Front door

switch LH connector

BCM connector

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#### OK or NG

OK

>> GO TO 3.

NG >> Check the following.

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

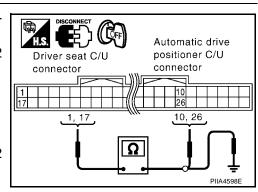
#### 3. CHECK UART LINE HARNESS

- Disconnect driver seat control unit and automatic drive positioner control unit.
- Check continuity between driver seat control unit connector P2 terminals 1, 17 and automatic drive positioner connector M41 terminals 10, 26.

1 (R) – 10 (R) : Continuity should exist. 17 (R/W) – 26 (R/W) : Continuity should exist.

Check continuity between driver seat control unit connector P2 terminals 1, 17 and ground.

> 1 (R) – Ground : Continuity should not exist. 17 (R/W) – Ground : Continuity should not exist.



#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

#### 4. CHECK DRIVER SEAT CONTROL UNIT

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

#### OK or NG

OK >> Replace driver seat control unit.

NG >> Replace automatic drive positioner control unit.

# Removal and Installation Refer to ACC-2, "ACCELERATOR CONTROL SYSTEM" and BR-6, "BRAKE PEDAL".

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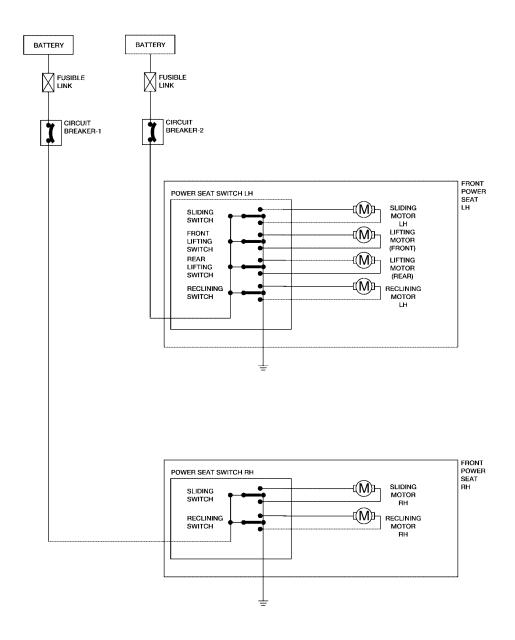
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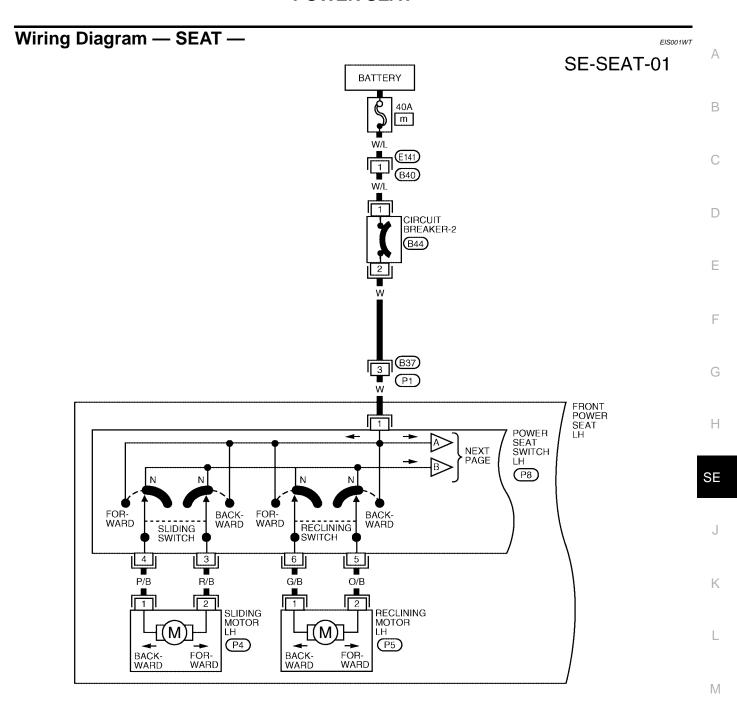
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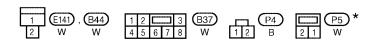
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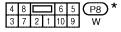
POWER SEAT PFP:87016

**Schematic** EIS001WS





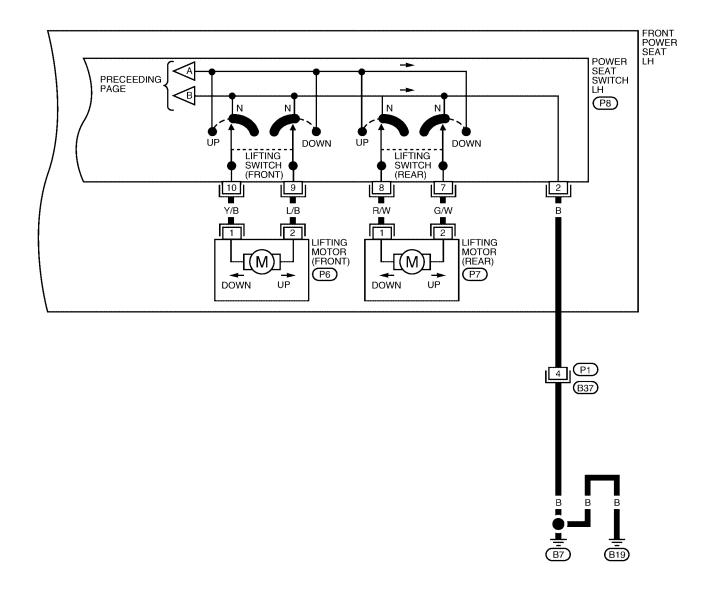


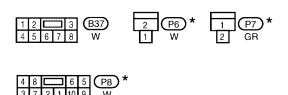


★: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

LIWA0489E

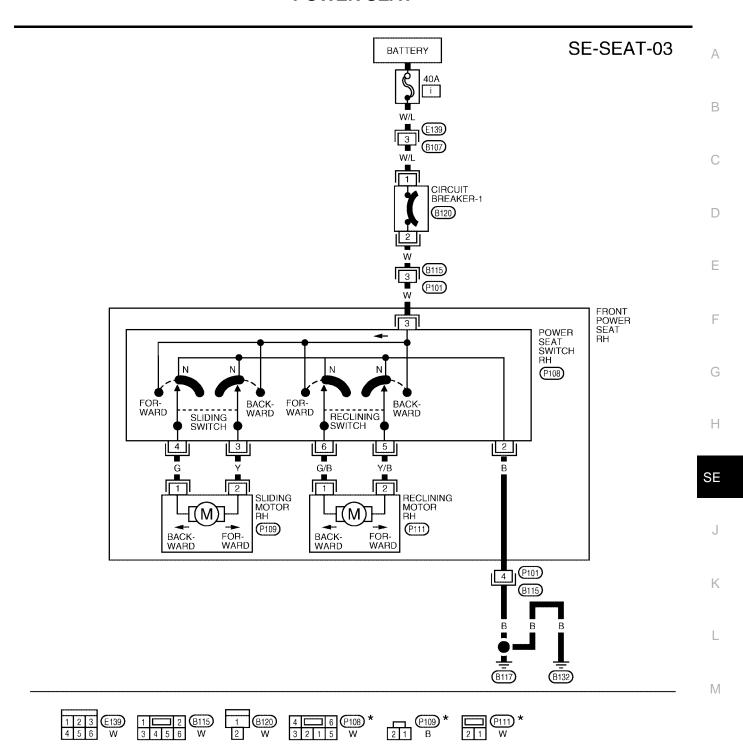
#### SE-SEAT-02





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

WIWA0891E



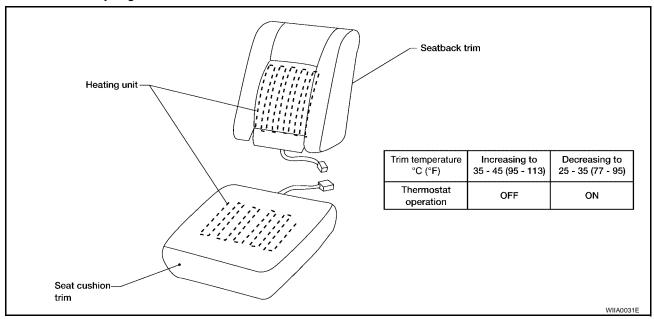
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

LIWA0514E

HEATED SEAT PFP:87335

Description

- 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 trim.

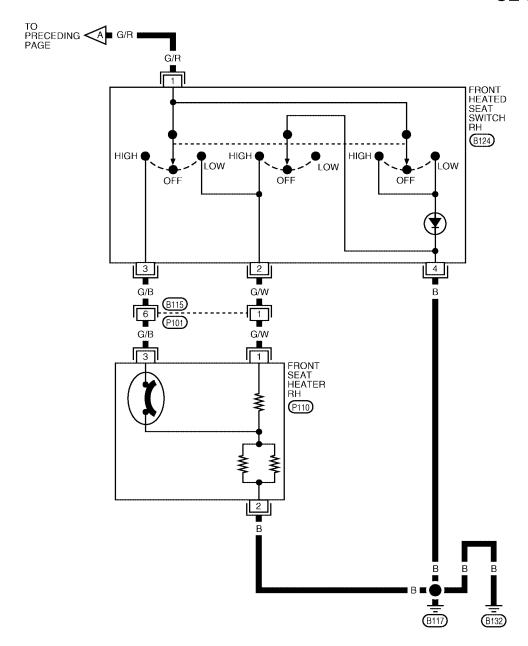


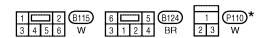
#### Wiring Diagram — HSEAT — Α SE-HSEAT-01 IGNITION SWITCH ON OR START **BATTERY** В FUSE BLOCK (J/B) REFER TO "PG-POWER". 12 (M4) C 2P ■ G/R ■ A NEXT 1 D HEATED SEAT SWITCH LH 19 Е (B64) HIGH ( HIGH ( LOW LOW LOW OFF OFF OFF HEATED SEAT RELAY 3 4 G/B (B109) Н (B37) G/B G/W SE 3 FRONT SEAT HEATER (P9) K M (B7) 3 B111 7 8 W 1 2 **C** 4 5 6

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

WIWA0892E

#### SE-HSEAT-02





LIWA0490E

<sup>\*:</sup> THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

# **FRONT SEAT** PFP:87000 **Removal and Installation** EIS001WX **Power Driver Seat** В SEC. 870 С D Е Н SE 49 (5.0, 36) 45 (4.6, 35) M 45 (4.6, 35) \*Tighten seat cushion to frame bolts in the order below. Bottom view. Outer ③ ③ RH LH

LIIA0686E

N·m (kg-m, ft-lb)

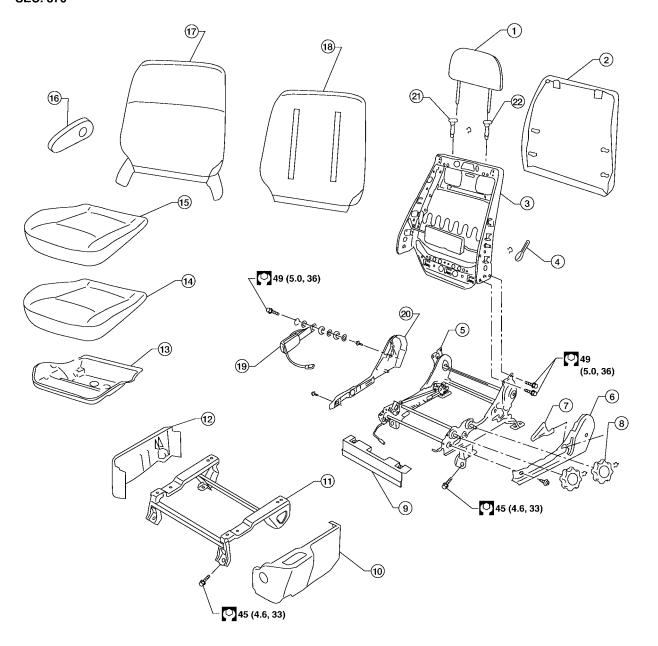
- 1. Headrest
- 4. Seat cushion heater unit
- 7. Seat cushion frame
- 10. Driver seat power frame assembly
- 13. Outer pedestal finisher
- 16. Inner pedestal finisher
- 19. Seat cushion inner finisher
- 22. Armrest assembly
- 25. Headrest holder with locking clip

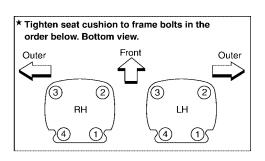
- 2. Seatback board
- 5. Seat cushion pad
- 8. RH inner hinge cover
- 11. Seat cushion outer finisher
- 14. Sub woofer
- 17. Pedestal
- 20. Driver seat wiring harness
- 23. Armrest bolt cover
- 26. Headrest holder with multi position lock

- 3. Seat cushion trim cover
- 6. Silk film bag
- 9. LH inner hinge cover
- 12. Power seat switch
- 15. Seat cushion front finisher
- 18. Driver seat control unit
- 21. Cup holder assembly
- 24. Seatback assembly
- 27. Lumbar support lever knob

#### **Manual Driver Seat**

SEC. 870





: N·m (kg-m, ft-lb)

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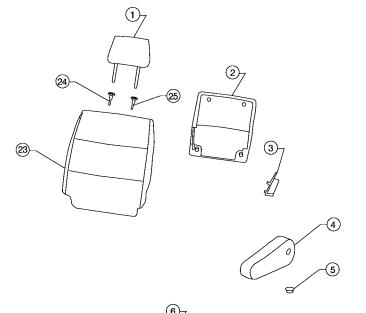
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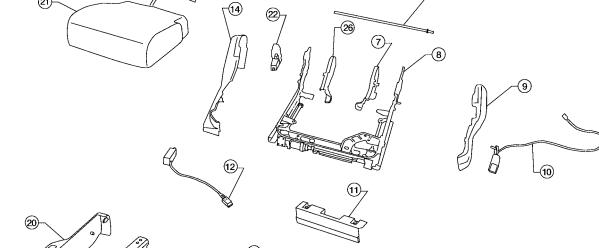
- 1. Headrest
- 4. Lumbar support lever knob
- 2. Seatback board
- 5. Driver seat frame assembly
- 3. Seatback frame
- 6. Seat cushion outer finisher

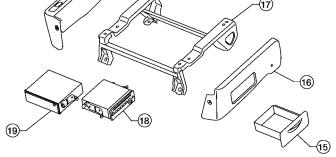
- 7. Recliner release handle
- 10. Outer pedestal finisher
- 13. Seat cushion frame
- 16. Armrest assembly
- 19. Seat belt buckle assembly
- 22. Headrest holder with multi position lock
- 8. Seat cushion adjusting knobs
- 11. Pedestal
- 14. Seat cushion pad
- 17. Seatback trim cover
- 20. Seat cushion inner finisher
- 9. Seat cushion front finisher
- 12. Inner pedestal finisher
- 15. Seat cushion trim cover
- 18. Seatback pad
- 21. Headrest holder with locking clip

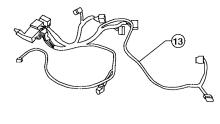
#### Power Passenger Seat

SEC. 870









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- 1. Headrest
- 4. Armrest assembly
- 2. Seatback board
- 5. Armrest bolt cover
- 3. Purse hook
- 6. Recliner link bar

7.	RH inner hinge cover	8.	Passenger seat power frame assembly	9.	Seat cushion inner finisher
10.	Seat belt assembly	11.	Seat cushion front finisher	12.	Power seat switch
13.	Passenger power seat harness	14.	Seat cushion outer finisher	15.	Storage bin
16.	Inner pedestal finisher	17.	Pedestal	18.	DVD player
19.	NAVI control unit	20.	Outer pedestal finisher	21.	Seat cushion assembly
22.	Recliner motor	23.	Seatback assembly	24.	Headrest holder with locking clip
25.	Headrest holder with multi position lock	26.	LH inner hinge cover		

# **Manual Passenger Seat** SEC. 870 22 15

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1. Headrest

4. Armrest assembly

2. Seatback board

5. Armrest bolt cover

3. Purse hook

6. Recliner link bar

7.	LH inner hinge cover	8.	Seat frame assembly	9.	Seat cushion inner finisher
10.	Seat cushion assembly	11.	Inner pedestal finisher	12.	NAVI control unit
13.	Seat cushion front finisher	14.	Pedestal	15.	Outer pedestal finisher
16.	DVD player	17.	Wiring harness	18.	Seat cushion outer finisher
19.	RH inner hinge cover	20.	Recliner handle	21.	Lumbar support handle
22.	Seatback trim cover	23.	Headrest holder with locking clip	24.	Headrest holder with multi position lock
25.	Seatback pad	26.	Seatback frame		

#### **REMOVAL**

When removing or installing the seat trim, handle it carefully to keep dirt out and avoid damage.

#### **CAUTION:**

- Before removing the front seat, turn the ignition switch off, disconnect both battery cables and wait at 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 while installing the seat. Always handle it with care.
- After front side air bag module inflates, front seatback assembly must be replaced.
- Front passenger seat is equipped with an Occupant Classification System sensor and control
  module. Do not disassemble front passenger seat cushion assembly or remove the trim as this
  will affect the Occupant Classification System calibration.
- Always replace passenger seat cushion as an assembly.
- 1. Slide the seat until the four body mounting bolts are visible and a tool can be inserted.

#### NOTE:

- If disassembling the seat after removal, set the front/rear cushion lifters to the top position.
- 2. Disconnect both battery cables and wait at least 3 minutes.
- 3. Disconnect the side air bag module harness connector.
- Remove the four body mounting bolts.
- 5. Disconnect the power seat harness connectors and remove the seat from the vehicle.

#### NOTE:

When removing and installing the seat, use shop cloths to protect the vehicle from damage.

#### **INSTALLATION**

Installation is in the reverse order of removal.

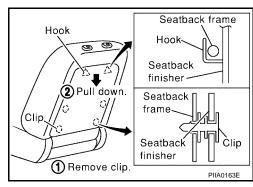
# Disassembly and Assembly SEATBACK TRIM AND PAD

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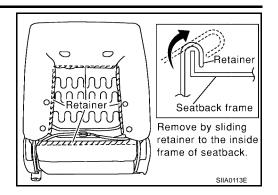
#### NOTE:

Only complete seatback assemblies can be replaced on vehicles equipped with side air bags. Be sure to set the front/rear cushion lifter to the top position.

Remove the seatback board from the back of the seatback.



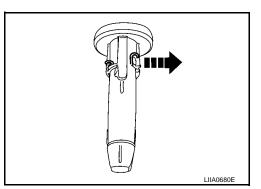
2. Remove the retainer.



3. Remove the headrest.

#### NOTE:

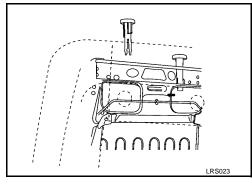
The spring clip on the RH headrest holder must be released to remove the headrest from the seat back.



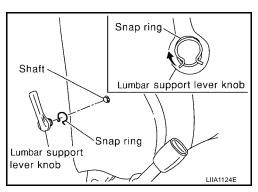
4. From inside of the seatback, squeeze the headrest holder tabs at the base of the stay pipe and pull the up to remove.

#### NOTE:

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



5. Remove the snap ring and the lumbar support lever knob.



6. Disconnect the seatback heater harness. On seats not equipped with side air bags, remove the seatback trim and pad assembly. Remove the hog ring to separate the seatback trim from the pad and the heater unit.

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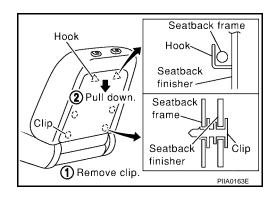
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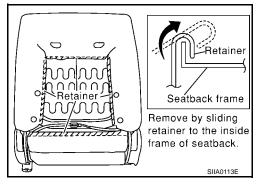
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#### REMOVAL OF SEATBACK ASSEMBLY

Remove the seatback board from the back of the seatback.



- 2. Remove the retainer.
- 3. Remove the side air bag harness connector from the seat cushion.
- 4. Remove the mounting bolts (2 for each side) and seatback assembly.



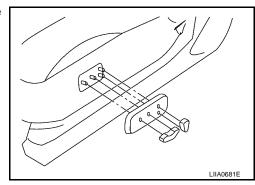
#### INSTALLATION OF SEATBACK ASSEMBLY

Installation is in the reverse order of removal.

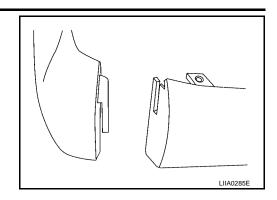
#### **SEAT CUSHION TRIM AND PAD**

#### **CAUTION:**

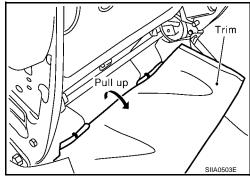
- Front passenger seat is equipped with an Occupant Classification System sensor and control
  module. Do not disassemble front passenger seat cushion assembly or remove the trim as this
  will affect the Occupant Classification System calibration.
- Always replace passenger seat cushion as an assembly.
- When removed, the passenger seat cushion must always be placed pan side UP to prevent damage.
- During installation, the wire harness clips must be reinstalled in the holes they were originally in.
   Do not add additional clips.
- The Occupant Classification System control module can only be replaced as part of the seat cushion assembly.
- Remove the power seat switch knobs and trim plate (or recline knobs on manual seat).



2. Remove the front seat cushion finisher (inner).



- 3. Remove the power seat switch screws (or lift knobs on manual seats).
- 4. Remove four bolts and the seat cushion assembly.
- 5. Release the trim retainer from the seat cushion frame, then remove the harness connector for the seat heater.
- 6. For driver seat only, after removing the seat cushion assembly, remove the hog rings to separate the trim cover from the pad and seat cushion heater unit.



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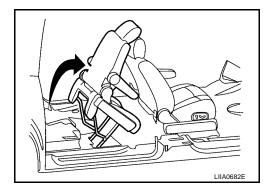
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REAR SEAT PFP:88300

# Removal and Installation SECOND ROW

#### Removal

- 1. Lift handle and tilt seat forward.
- 2. Remove seat base trim cover.
- 3. Remove seat anchor bolts and seat assembly.
- 4. Remove seat striker covers and seat strikers.



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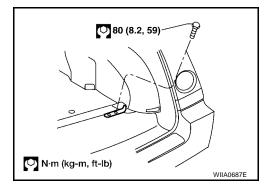
#### Installation

Installation is in the reverse order of removal.

#### **THIRD ROW**

#### Removal

- 1. Retract the seat into the cargo floor position.
- 2. Remove the hinge bolts from the seat assembly.
- 3. Remove the seat assembly.



#### Installation

Installation is in the reverse order of removal.

#### **Disassembly and Assembly**

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#### Second row

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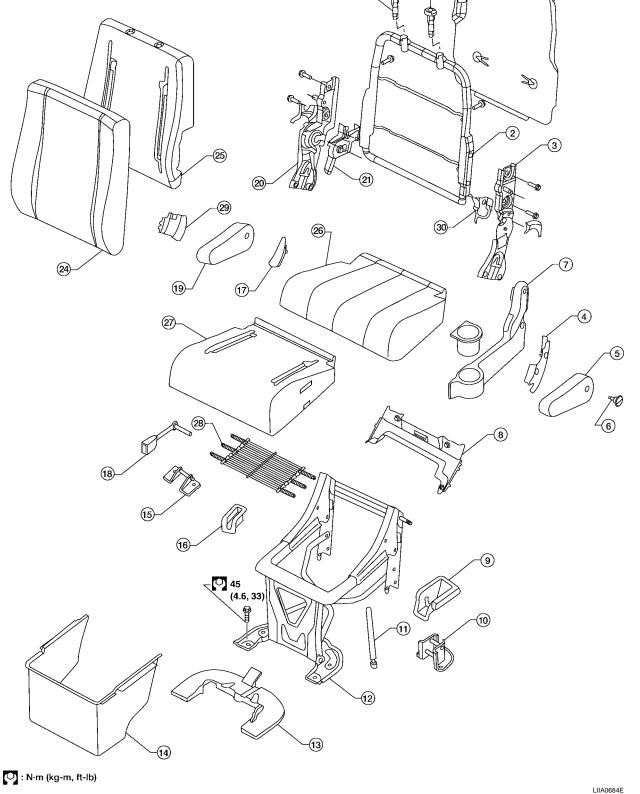
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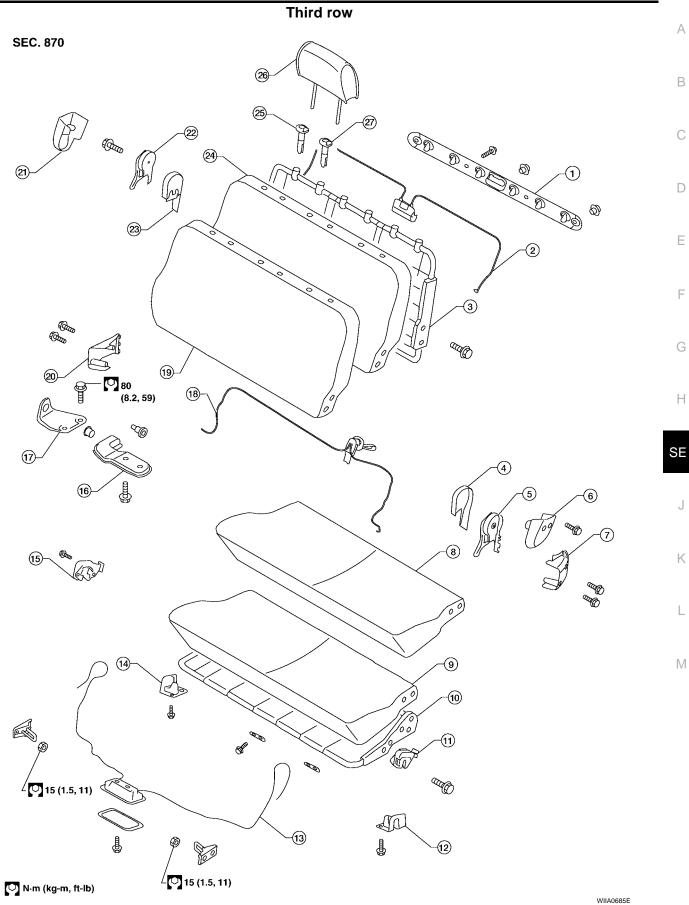
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#### **REAR SEAT**

1.	Seatback	2.	Seatback frame	3.	Seatback hinge LH
4.	LH seatback hinge cover	5.	LH arm rest	6.	Armrest bolt cover
7.	LH cushion hinge cover	8.	Isofix cover	9.	LH seat anchor cover
10.	LH seat anchor striker	11.	Lift assist cylinder	12.	Seat base and hinge assembly
13.	Seat base trim cover	14.	Seat base apron	15.	RH seat anchor striker
16.	RH seat anchor cover	17.	RH cushion hinge cover	18.	Seat belt buckle
19.	RH armrest	20.	RH hinge	21.	RH inner recliner cover
22.	RH headrest guide	23.	LH headrest guide	24.	Seatback trim cover
25.	Seatback pad	26.	Seat cushion trim cover	27.	Seat cushion pad
28.	Flexmat assembly	29.	RH seatback hinge cover	30.	LH inner recliner cover



Revision: January 2005

Hook assembly

Inner LH hinge cover

5. LH seatback hinge

Seatback release handle and cable

Seatback frame assembly 3.

LH upper hinge cover

#### **REAR SEAT**

- 7. LH lower hinge cover
- 10. Seat cushion frame assembly
- 13. Seat lock cable assembly
- 16. Seat assembly hinge
- 19. Seatback trim cover
- 22. RH seatback hinge
- 25. Locking headrest guide

- 8. Seat cushion trim cover
- 11. LH seat lock assembly
- 14. RH seat lock cover
- 17. Seat assembly hinge anchor
- 20. RH lower hinge cover
- 23. Inner RH hinge cover
- 26. Headrest guide

- 9. Seat cushion pad
- 12. LH seat lock cover
- 15. RH seat lock assembly
- 18. Assist strap and release assembly
- 21. RH upper hinge cover
- 24. Seatback pad
- 27. Headrests