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# PRECAUTIONS

# PRECAUTIONS

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

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

- 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

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.

# PREPARATION

# PREPARATION

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# **Special Service Tool**

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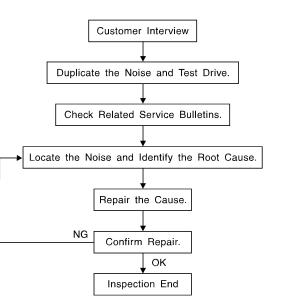
The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description
 (J-39570) Chassis ear	SIIA0993E	Locating the noise
– (J-43980) NISSAN Squeak and Rattle Kit	SIIA0994E	Repairing the cause of noise
Commercial Service Tool		EIS004F7
(Kent-Moore No.) Tool name		Description
(J-39565) Engine ear		Locating the noise

0

SIIA0995E

# SQUEAK AND RATTLE TROUBLE DIAGNOSES Work Flow



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#### **CUSTOMER INTERVIEW**

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to SE-9, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs. SE

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

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

#### **REPAIR THE CAUSE**

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- separate components by repositioning or loosening and retightening the component, if possible.
- insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A NISSAN Squeak and Rattle Kit (J-43980) is available through your authorized NISSAN Parts Department.

#### **CAUTION:**

Do not use excessive force as many components are constructed of plastic and may be damaged. 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: 15×25 mm (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, 50×50 mm (1.97×1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, 50×50 mm (1.97×1.97 in)

INSULATOR (Light foam block)

	345-71L00: 30 mm (1.18 in) thick, 30×50 mm (1.18×1.97 in) LT CLOTH TAPE	А
	ed to insulate where movement does not occur. Ideal for instrument panel applications.	A
	370-4B000: 15×25 mm (0.59×0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll. The following	
	terials not found in the kit can also be used to repair squeaks and rattles. MW (TEFLON) TAPE	В
	ulates where slight movement is present. Ideal for instrument panel applications.	
	ICONE GREASE ed instead of UHMW tape that will be visible or not fit.	С
	te: Will only last a few months.	C
SIL	ICONE SPRAY	
	e when grease cannot be applied. CT TAPE	D
-	e to eliminate movement.	
	NFIRM THE REPAIR	
	nfirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same	Е
	inditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.	
Ge	eneric Squeak and Rattle Troubleshooting	F
Re	fer to Table of Contents for specific component removal and installation information.	
INS	STRUMENT PANEL	G
Мо	st incidents are caused by contact and movement between:	0
	The cluster lid A and instrument panel	
	Acrylic lens and combination meter housing	$\vdash$
3.	Instrument panel to front pillar garnish	
4.	Instrument panel to windshield	
5.	Instrument panel mounting pins	SE
6.	Wiring harnesses behind the combination meter	
7.	A/C defroster duct and duct joint	J
	ese incidents can usually be located by tapping or moving the components to duplicate the noise or by	0
	ssing on the components while driving to stop the noise. Most of these incidents can be repaired by apply-	
nes	felt cloth tape or silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring har-	Κ
	UTION:	
Do	not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will to eable to recheck the repair.	L
CE	NTER CONSOLE	
	mponents to pay attention to include:	Μ
1.		IVI
2.	A/C control unit and cluster lid C	
3.	Wiring harnesses behind audio and A/C control unit	

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

#### DOORS

Pay attention to the:

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

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

#### TRUNK

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

- 1. Trunk lid bumpers out of adjustment
- 2. Trunk lid striker out of adjustment
- 3. The trunk lid torsion bars knocking together
- 4. A loose license plate or bracket

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

#### SUNROOF/HEADLINING

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

- 1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
- 2. Sun visor 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:

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

Cause of seat noise include:

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

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

#### UNDERHOOD

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

Causes of transmitted underhood noise include:

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

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

# **Diagnostic Worksheet**

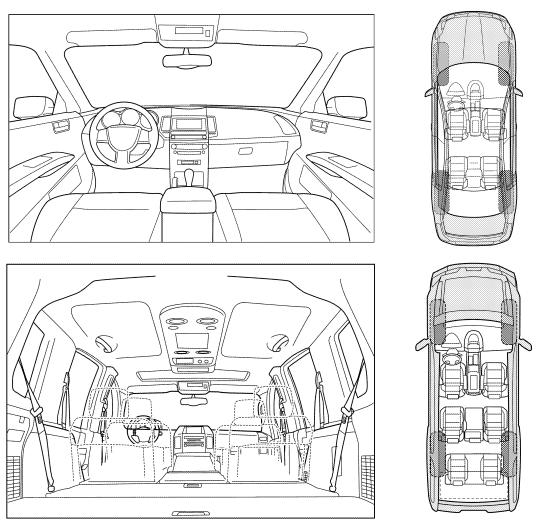
#### Dear Customer:

We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle 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.

#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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

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



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

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

Briefly describe the location where the noise occurs:

II.	II. WHEN DOES IT OCCUR? (please check the boxes that apply)					
	Anytime 1st time in the morning Only when it is cold outside Only when it is hot outside		After sitting out in the rain When it is raining or wet Dry or dusty conditions Other:			
III.	WHEN DRIVING:	IV.	WHAT TYPE OF NOISE			
	Through driveways Over rough roads Over speed bumps Only about mph On acceleration Coming to a stop On turns: left, right or either (circle) With passengers or cargo Other: After driving miles or minute		Squeak (like tennis shoes on a clean floor) Creak (like walking on an old wooden floor) Rattle (like shaking a baby rattle) Knock (like a knock at the door) Tick (like a clock second hand) Thump (heavy muffled knock noise) Buzz (like a bumble bee)			

#### TO BE COMPLETED BY DEALERSHIP PERSONNEL

#### Test Drive Notes:

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

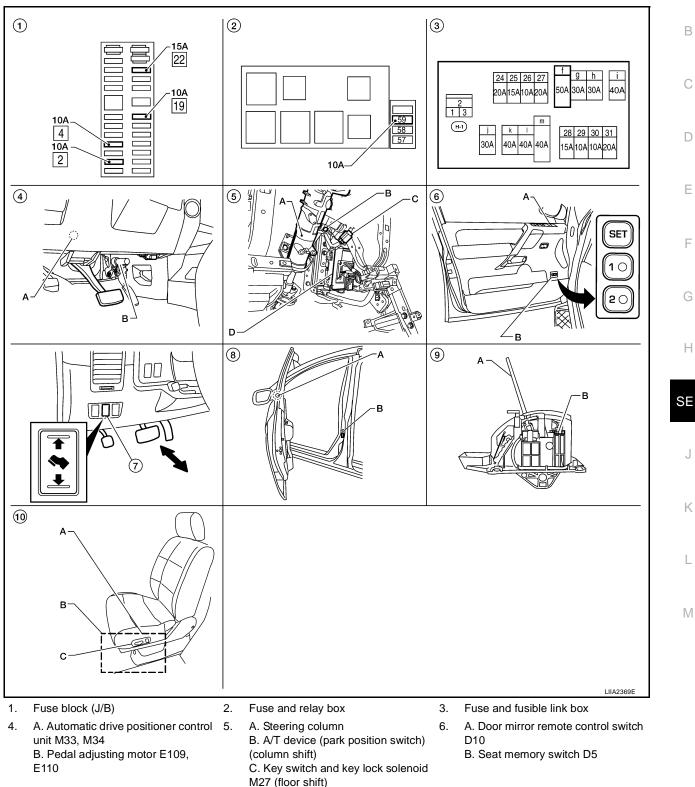
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# **AUTOMATIC DRIVE POSITIONER Component Parts And Harness Connector Location**

PFP:28491



EIS004FB



D. BCM M18, M19, M20 (View with instrument panel removed)

- 7. Pedal adjusting switch M96
- A. Door mirrror LH D4, RH D107 B. Front door switch LH B8
- A. A/T selector leverB. A/T device (park position switch)M203 (floor shift)

9.

- A. Sliding motor LH P4 (driver seat view), reclining motor LH P5, lifting motor (front) P6, lifting motor (rear) P7
   B. Driver seat control unit P2, P3
  - B. Driver seat control unit P2, P3 C. Power seat switch LH P8

# **System Description**

EIS004FE

- Refer to Owner's Manual for Automatic Drive Positioner system operating instructions.
- 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.

8.

	Function	Description
Memory ope	ration	The front seat LH, pedal (accelerator, brake) and door mirror move to the stored driv- ing position by pushing seat memory switch (1 or 2).
Entry/Exit-	Exiting operation	At exit, the seat moves backward. (Exiting position)
ing function	Entry operation	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 key- fob 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)  $\rightarrow$  OFF (close)  $\rightarrow$  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 remote control switch is operated (when ignition switch turned to ON).
	When power seat switch turned ON.
	When pedal adjusting switch turned ON.
	<ul> <li>When front seat sliding Entry/Exiting setting is OFF (entry/exiting operation).</li> </ul>

#### 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.

### 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

-	OPERATED PORTION	Τ2	٨
-	Seat lifting (Rear)	Same as above	A
-	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.

#### NOTE:

The front seat LH position and pedal adjustment functions (see the following table) operate simultaneously in <sup>C</sup> the order of priority.

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

\*: In conjunction with sliding the seat, the door mirrors are positioned.

### CAN Communication System Description

Refer to LAN-25, "CAN COMMUNICATION" .

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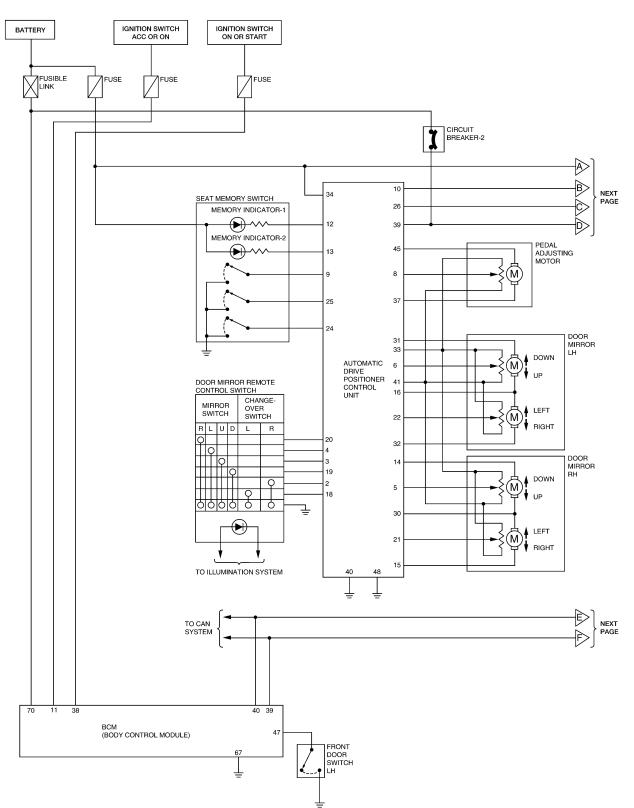
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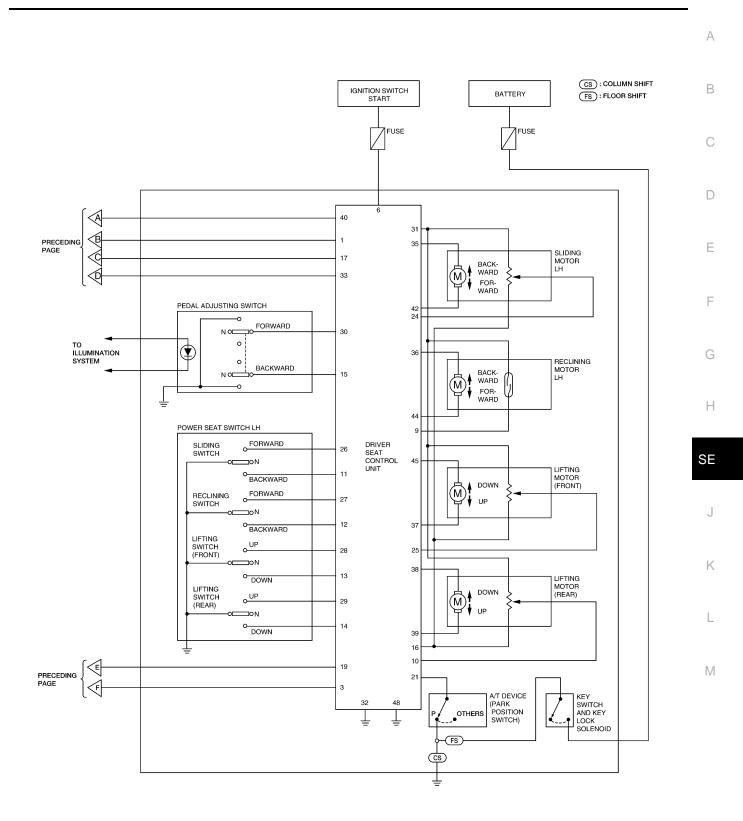
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## Schematic

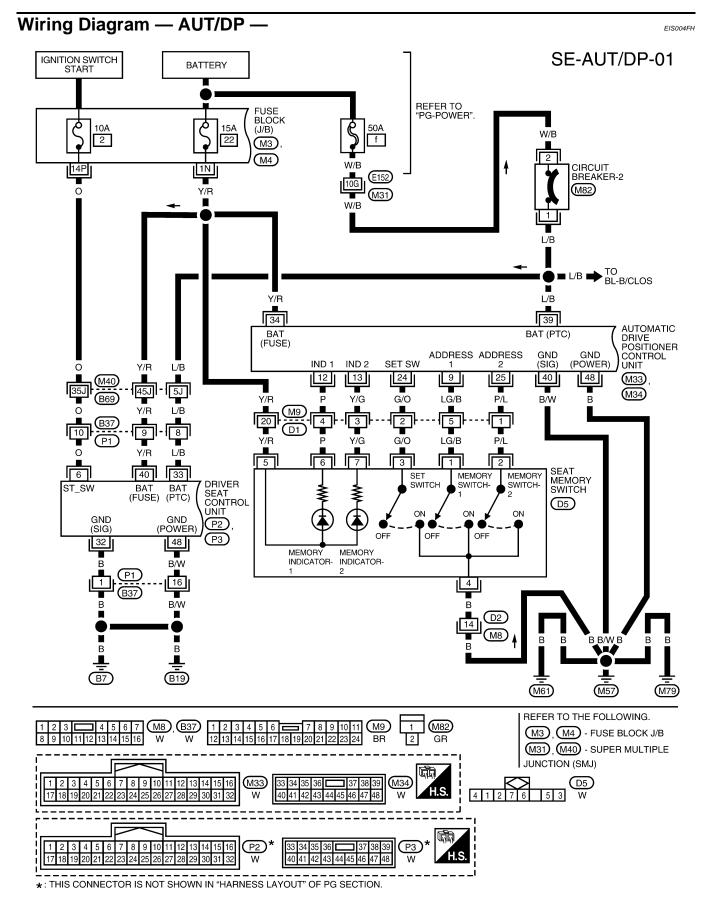


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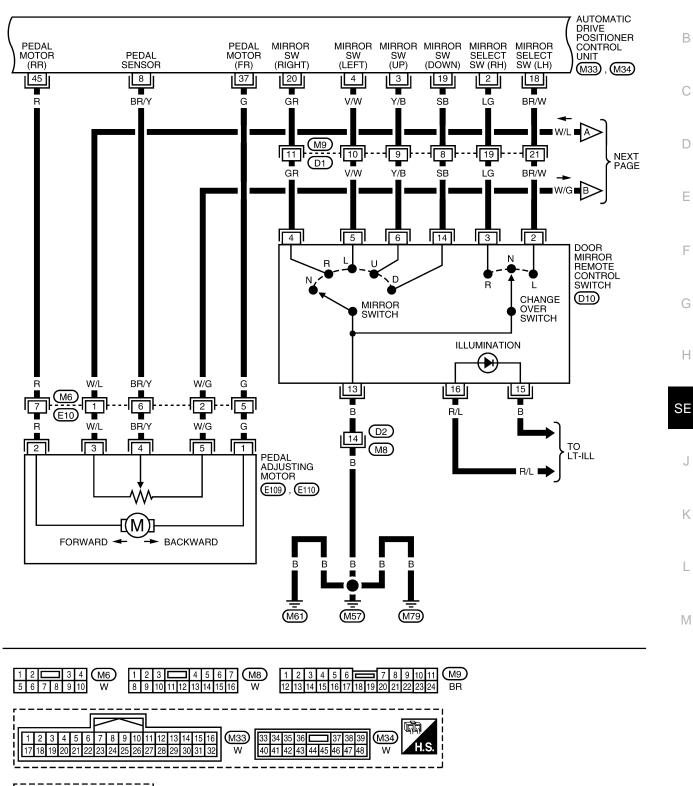
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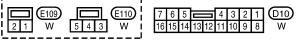


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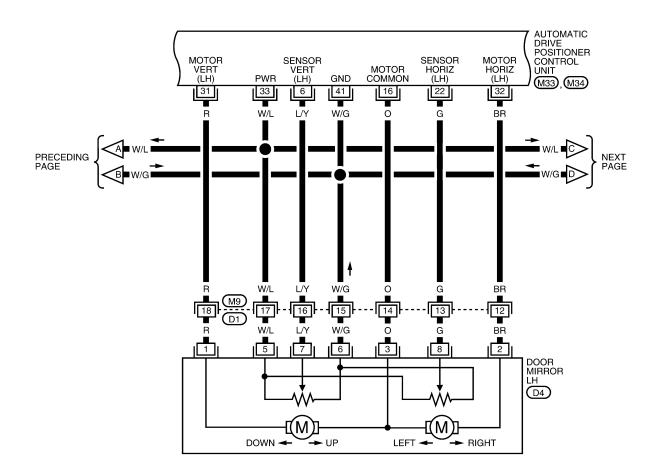


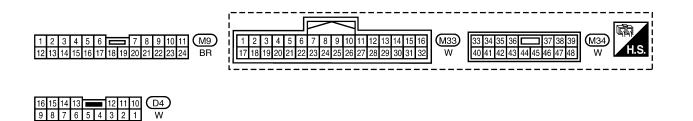
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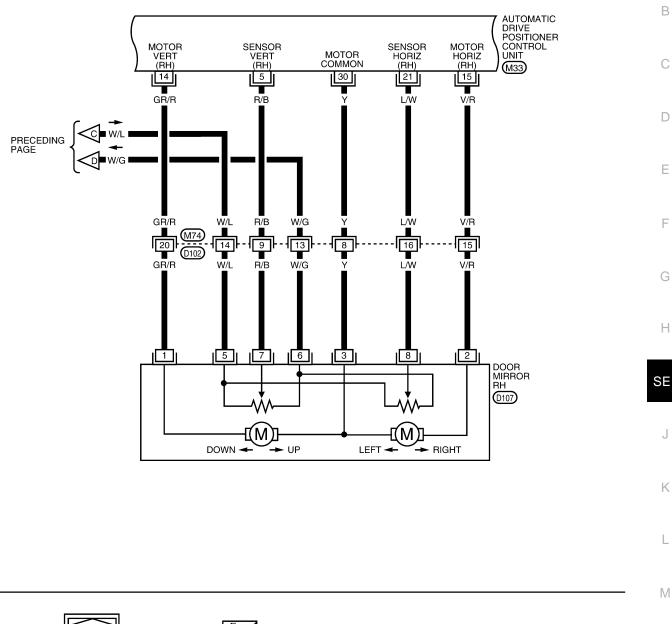


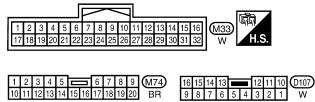


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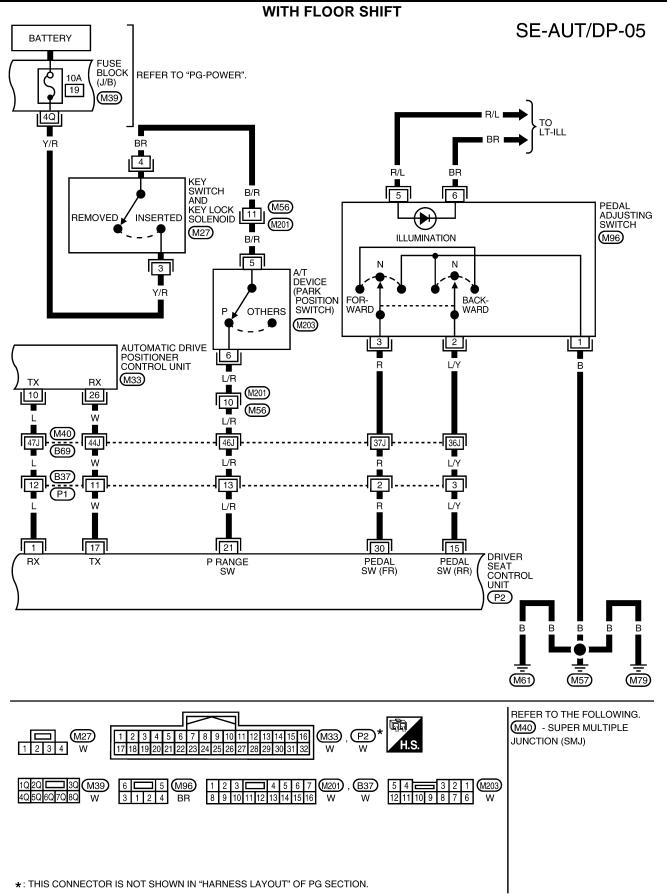
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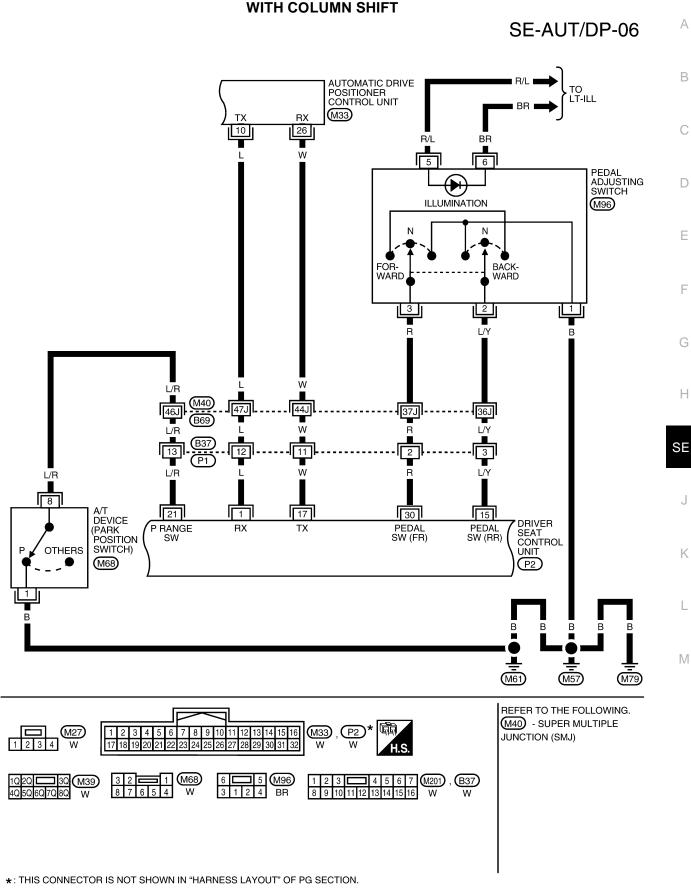


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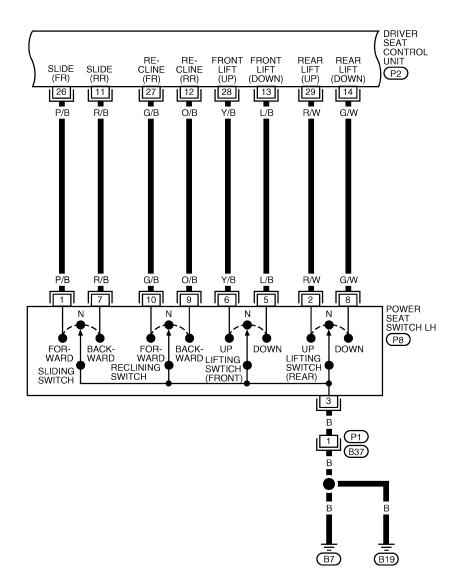


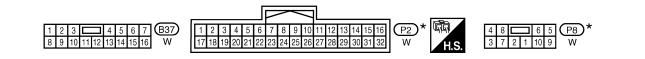
WIWA1368E





WIWA1369E

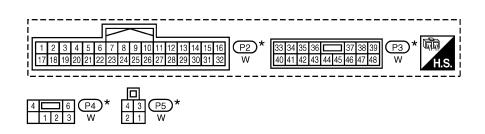




\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

LIWA0449E

DRIVER SEAT CONTROL UNIT SLIDING MOTOR (FR) SLIDING MOTOR SENSOR POWER SUPPLY (SENSOR) SLIDING MOTOR (RR) RECLINING MOTOR (RR) RECLINING RECLINING MOTOR MOTOR SENSOR (FR) GND (SENSOR) (P2), (P3) 9 31 44 36 35 24 16 42 v/w О/В Y/R L/R Y/G L/Y Y/G W NEXT PAGE SE О/В 4 Y/G v/w L/R L/Y Y/G W Y/R L/Y 3 2 2 3 6 SLIDING MOTOR LH RECLINING MOTOR LH (P4) (P5){(M) [(M) BACKWARD 🗲 - FORWARD FORWARD 🗲 - BACKWARD



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

LIWA0439E

SE-AUT/DP-08

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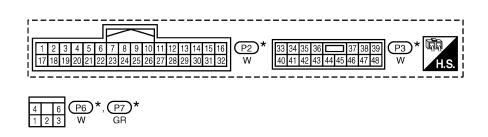
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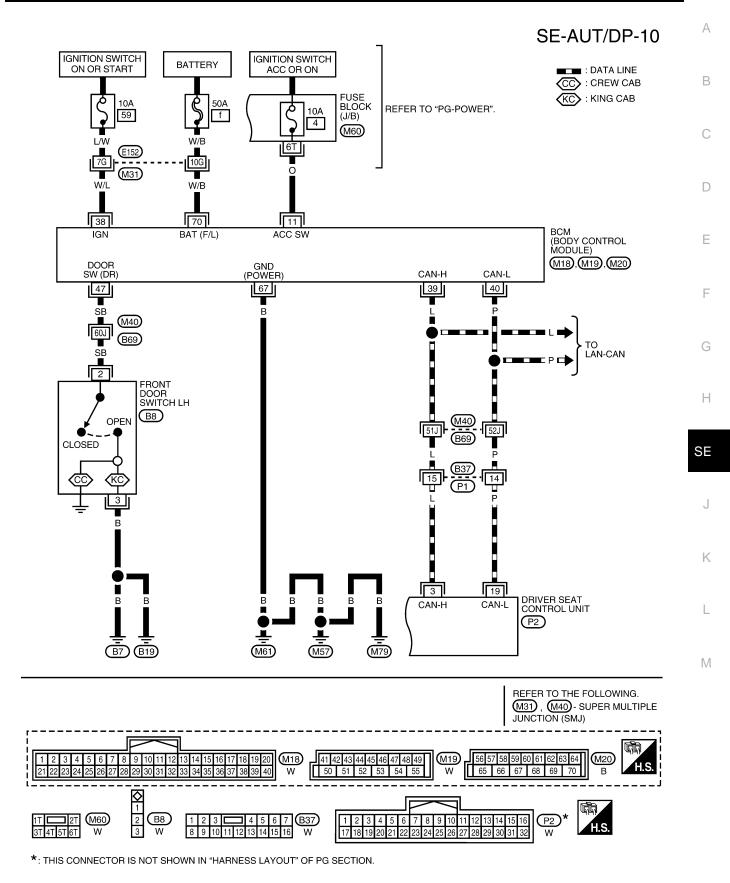
DRIVER SEAT CONTROL UNIT FRONT LIFTING MOTOR (DOWN) FRONT LIFTING MOTOR SENSOR FRONT LIFTING MOTOR (UP) REAR LIFTING MOTOR (DOWN) REAR LIFTING MOTOR SENSOR REAR LIFTING MOTOR (UP) (P2)25 10 38 37 45 39 (P3) LG T в/w ΒR GR γ W G PRE-CEDING PAGE L/Y в/w BR GR 4 LG W L/Y W W 2 3 2 3 LIFTING MOTOR (FRONT) LIFTING MOTOR (REAR) (P6)(P7) ([M]) {[M]} UP 🗲 - DOWN UP 🗲 - DOWN



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

LIWA0440E

SE-AUT/DP-09



WIWA1370E

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

WIRE VOLTAGE (V) TERMINAL ITEM CONDITION COLOR (Approx.) 0 Ignition switch (ACC or ON) Ignition switch (ACC or ON position) 11 Battery voltage Ignition switch (ON or START posi-38 W/L Ignition switch (ON or START) Battery voltage tion) 39 L CAN-H \_\_\_\_ Ρ CAN-L 40 47 Front door switch LH  $ON (Open) \rightarrow OFF (Closed)$ SB  $0 \rightarrow$  Battery voltage 67 В 0 Ground \_\_\_\_ 70 W/B Battery power supply Battery voltage

Terminals and Reference Values for Driver Seat Control Unit

EIS004FJ

EIS004FI

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)	
1	L	UART LINE (RX)	Pedal adjusting switch ON (FOR- WARD or BACKWARD operation)	(V) 6 4 2 0 1 ms PIIA4813E	
3	L	CAN-H	_	_	
6	0	Ignition switch (ON or START)	Ignition switch (ON or START position)	Battery voltage	
9	L/R	Reclining motor sensor signal	ON (seat reclining motor opera- tion)	(V) 4 2 0 •••50ms SIIA0692J	
			Other than above	0 or 5	
10	w	Rear lifting motor sensor signal	ON (rear lifting motor operation)	(V) 6 2 0 •••50ms SIIA0693J	
			Other than above	0 or 5	
11	R/B	Sliding switch BACKWARD sig- nal	ON (seat sliding switch BACK- WARD operation)	0	
			Other than above		
12	O/B	Reclining switch BACKWARD signal	ON (seat reclining switch BACK- WARD operation)	0	
			Other than above	Battery voltage	
13	L/B	Front lifting switch DOWN signal	ON (front lifting switch DOWN operation)	0	
			Other than above	Battery voltage	

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
14	G/W	Rear lifting switch DOWN signal	ON (rear lifting switch DOWN operation)	0
			Other than above	Battery voltage
15	L/Y	Pedal adjusting switch BACK-	ON (pedal adjusting switch BACK- WARD operation)	0
		WARD signal	Other than above	Battery voltage
16	W	Seat sensor power	Ignition switch ON	5
17	W	UART LINE (TX)	Pedal adjusting switch ON (FOR- WARD or BACKWARD operation)	(V) 6 4 2 0 2 ms PIIA4814E
19	Р	CAN-L	—	
			A/T selector lever in P position	0
21	L/R	A/T device (park position switch) signal	A/T selector lever other than P position with ignition key in ignition cylinder	Battery voltage
24	Y/G	Seat sliding motor sensor signal	ON (seat sliding motor operation)	(V) 4 2 0 50 ms PIIA3277E
			Other than above	0 or 5
25	LG	Front lifting motor sensor signal	ON (front lifting motor operation)	(V) 6 2 0 ••••50ms SIIA0691J
			Other than above.	0 or 5
26	P/B	Seat sliding switch FORWARD signal	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
		ייהועט אוומו ו	Other than above	Battery voltage
28	Y/B	Front lifting switch UP signal	ON (front lifting switch UP opera- tion)	0
			Other than above	Battery voltage
29	R/W	Rear lifting switch UP signal	ON (rear lifting switch UP opera- tion)	0
			Other than above	Battery voltage
30	R	Pedal adjusting switch FOR- WARD signal	ON (pedal adjusting switch FOR- WARD operation)	0
50 K	I WAND SIGILAR	Other than above	Battery voltage	

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
31	L/Y	Sensor ground	—	0
32	В	Ground	—	0
33	L/B	Battery power supply (PTC)	—	Battery voltage
35	V/W	Sliding motor FORWARD out- put signal	Sliding switch FORWARD opera- tion (Motor operated)	Battery voltage
			Other than above	0
36	Y/G	Reclining motor FORWARD out- put signal	Reclining switch FORWARD oper- ation (Motor operated)	Battery voltage
			Other than above	0
37	BR	Front lifting motor DOWN output signal	Front lifting switch DOWN opera- tion (Motor operated)	Battery voltage
		signai	Other than above	0
38	B/W	Rear lifting motor UP output sig- nal	Rear lifting switch UP operation (Motor operated)	Battery voltage
		Other than above		0
39	Y	Rear lifting motor DOWN output signal	Rear lifting switch DOWN opera- tion (Motor operated)	Battery voltage
		signai	Other than above	0
40	Y/R	Battery power supply	—	Battery voltage
42	O/B	Sliding motor BACKWARD out- put signal	Sliding switch BACKWARD oper- ation (Motor operated)	Battery voltage
			Other than above	0
44	Y/R	Reclining motor BACKWARD	Reclining switch BACKWARD operation (Motor operated)	Battery voltage
		output signal	Other than above	0
45	GR	Front lifting motor UP output sig- nal	Front lifting switch UP operation (Motor operated)	Battery voltage
			Other than above	0
48	B/W	Ground	_	0

# Terminals and Reference Values for Automatic Drive Positioner Control Unit

EIS004FK

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
2	LG	Changeover switch RH signal	Changeover switch in RH position	0
2	LG	Changeover switch RH signal	Other than above	5
3	V/P	Mirror owitch LID signal	Mirror switch in UP position	0
3	Y/B Mirror switch UP signal		Other than above	5
4	V/W	Mirror owitch LEET cignol	Mirror switch in LEFT position	0
4	V/VV	Mirror switch LEFT signal	Other than above	5
5	R/B	Mirror sensor (RH vertical) sig- nal	Mirror motor RH is operated UP or DOWN	Changes between 3.4 (close to peak) 0.6 (close to valley)
6	L/Y	Mirror sensor (LH vertical) sig- nal	Mirror motor LH is operated UP or DOWN	Changes between 3.4 (close to peak) 0.6 (close to valley)
8	BR/Y	Podel concertingut signal	Pedal position front end	0.5
8 BR/1	Pedal sensor input signal	Pedal position rear end	4.5	
9	LG/B	Seat memory switch 1 signal	Memory switch 1 ON	0
3	LG/D		Memory switch 1 OFF	5

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)	
10	L	UART LINE (TX) WARD or BACKWARD operation		(V) 6 4 2 0 1 ms PIIA4813E	
12	Р	Seat memory switch indictor 1	Memory switch 1 ON	0	-
•=	•	signal	Memory switch 1 OFF	Battery voltage	_
13	Y/G	Seat memory switch indictor 2	Memory switch 2 ON	0	
15	1/6	signal	Memory switch 2 OFF	Battery voltage	
	00/0		Mirror motor RH is operated UP	1.5 - Battery voltage	
14	GR/R	Mirror motor RH UP signal	Other than above	0	•
			Mirror motor RH is operated LEFT	1.5 - Battery voltage	•
15	V/R	Mirror motor RH LEFT signal	Other than above	0	
			Mirror motor LH is operated DOWN	1.5 - Battery voltage	•
		Mirror motor LH DOWN signal	Other than above	0	•
16	0		Mirror motor LH is operated RIGHT	1.5 - Battery voltage	•
		Mirror motor LH RIGHT signal	Other than above	0	
			Changeover switch in LH position	0	
18	BR/W	Changeover switch LH signal	Other than above	-	- 1
				5	-
19	SB	Mirror switch DOWN signal	Mirror switch in DOWN position	0	-
			Other than above	5	-
20	GR	Mirror switch RIGHT signal	Mirror switch in RIGHT position	0	-
		_	Other than above	5	_
21	L/W	Mirror sensor (RH horizontal) signal	Mirror motor RH is operated LEFT or RIGHT	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 operated LEFT or RIGHT	Changes between 3.4 (close to left edge) 0.6 (close to right edge)	
<u>.</u>	0/0		Set switch 1 ON	0	•
24	G/O	Seat memory set switch signal	Set switch 1 OFF	5	
			Memory switch 2 ON	0	•
25	P/L	Seat memory switch 2 signal	Memory switch 2 OFF	5	
26	w	UART LINE (RX)	Pedal adjusting switch ON (FOR- WARD or BACKWARD operation)	(V) 6 4 2 0 2 ms PIIA4814E	
		Mirror motor RH DOWN signal	Mirror motor RH is operated DOWN	1.5 - Battery voltage	-
30	Y		Other than above	0	
		Mirror motor RH RIGHT signal	Mirror motor RH is operated RIGHT	1.5 - Battery voltage	_
			Other than above	0	_
31	R	Mirror motor LH UP signal	Mirror motor LH is operated UP	1.5 - Battery voltage	_
			Other than above	0	

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
00	DD		Mirror motor LH is operated LEFT	1.5 - Battery voltage
32	BR	Mirror motor LH LEFT signal	Other than above	0
33	W/L	Sensor power supply	_	5
34	Y/R	Battery power supply	—	Battery voltage
37	37 G	Pedal adjusting motor FOR-	Pedal adjusting motor FORWARD operation (Motor operated)	Battery voltage
		WARD signal	Other than above	0
39	L/B	Battery power supply		Battery voltage
40	B/W	Ground		0
41	W/G	Sensor ground		0
45	R	Pedal adjusting motor BACK- WARD signal	Pedal adjusting motor BACKWARD operation (Motor operated)	Battery voltage
		Other than above	0	
48	В	Ground	_	0

### **Work Flow**

EIS004FL

- 1. Check the symptom and customer's requests.
- 2. Understand the system description. Refer to <u>SE-12, "System Description"</u>.
- 3. Perform the preliminary check. Refer to <u>SE-31, "Preliminary Check"</u>.
- 4. Check the self-diagnosis, results using CONSULT-II. Refer to <u>SE-34, "CONSULT-II Function (AUTO</u> <u>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-38</u>, <u>"Symptom Chart"</u>.
- 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

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

			×: Appl	icable -: No	ot applicable	В
Setting item	Content	CONSULT-II (WORK SUPPORT)	Display unit	Default setting	Factory setting	
	The distance at exiting opera-	40mm		×	×	С
SEAT SLIDE VOLUME SET	tion can be selected from the	ted from the 80mm —			_	
	following 3 modes.	3 modes. 150mm			_	D
Sliding Front Seat	The seat sliding turnout and	ON	ON: Indicator lamp ON		×	D
When Entry/ Exiting Vehicle	return at entry/exit can be selected: ON (operated)–OFF (not operated)	OFF	OFF: Indicator lamp OFF	×	_	E
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 oper- ated.	Press the set switch for more than 10 seconds	Blinking twice	G
The seat sliding turnout and return at entry/exit can not be operated.		Blinking once	F

\*: 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 AND FUSIBLE LINK

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

Unit	Power source	Fuse No.	
	Battery power supply	<b>f</b> (50A)	
BCM	ON or START power supply	59 (10A)	
	ACC or ON power supply	4 (10A)	

#### NOTE:

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

#### OK or NG

>> GO TO 2. OK

Revision: October 2006

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

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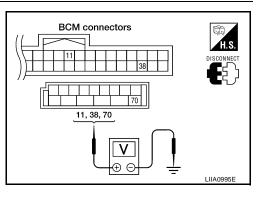
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# 2. CHECK BCM POWER SUPPLY CIRCUIT

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

Connector	Term	inals	Power	Ignition	Voltage (V)
Connector	(+)	(-)	source	switch	(Approx.)
M20	70		Battery power supply	_	Battery voltage
M18	38	Ground	ON or START power supply	ON or START	Battery voltage
IVI I O	11	1	ACC or ON power supply	ACC or ON	Battery voltage



#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace the harness.

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

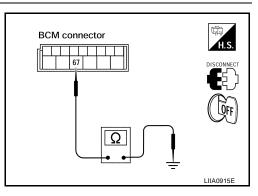
Check continuity between BCM connector M20 terminal 67 (B) and ground.

#### 67 - 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 the harness.



## 4. CHECK DRIVER SEAT CONTROL UNIT FUSES AND FUSIBLE LINK

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

Unit	Power source	Fuse No.
Driver seat control unit	START power supply	2 (10A)
Driver seat control unit and automatic	Battery power supply	22 (15A)
drive positioner control unit	Battery power supply	f (50A)

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

Connector	Terminals		Power	Ignition	Voltage (V)
	(+) (-)		source	switch	(Approx.)
P3	33	Ground	Battery power supply	_	Battery voltage
FJ	40		Battery power supply	_	Battery voltage
P2	6		START power supply	START	Battery voltage



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 terminal 32, P3 terminal 48 and ground.
  - 32 Ground

: Continuity should exist.

48 - Ground

: Continuity should exist.

#### OK or NG

- OK >> Driver seat control unit circuit check is OK. Check automatic drive positioner control unit. GO TO 7.
- NG >> Repair or replace harness.

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

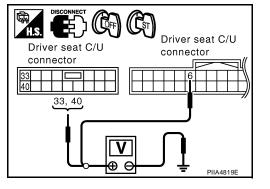
- 1. Disconnect automatic drive positioner control unit.
- 2. Check voltage between automatic drive positioner control unit connector M34 terminals 34, 39 and ground.

Connector	Term	ninals	Ignition	Voltage (V) (Approx.)	
	(+)	(-)	switch		
M34	34	Ground	OFF	Battery voltage	
	10134	39	Giouna	OFF	Battery voltage

#### OK or NG

OK >> GO TO 8.

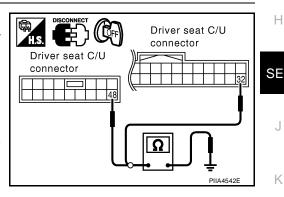
NG >> Repair or replace harness.

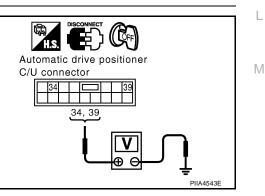


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### 8. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT GROUND CIRCUIT

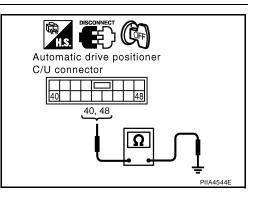
Check continuity between the automatic drive positioner control unit connector M34 terminals 40, 48 and ground.

- 40 Ground
- : Continuity should exist.
- 48 Ground

: Continuity should exist.

OK or NG

- OK >> Automatic drive positioner control unit circuit is OK.
- NG >> Repair or replace harness.



EIS004FN

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

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

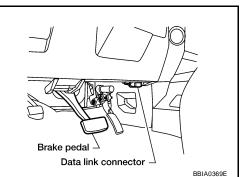
AUTO DRIVE POS. diagnostic mode	Description		
WORK SUPPORT	Supports inspections and adjustments. Commands are transmitted to the driver seat control unit for setting the status suitable for required operation, input/output signals are received from the driver seat control unit and received data is displayed.		
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:

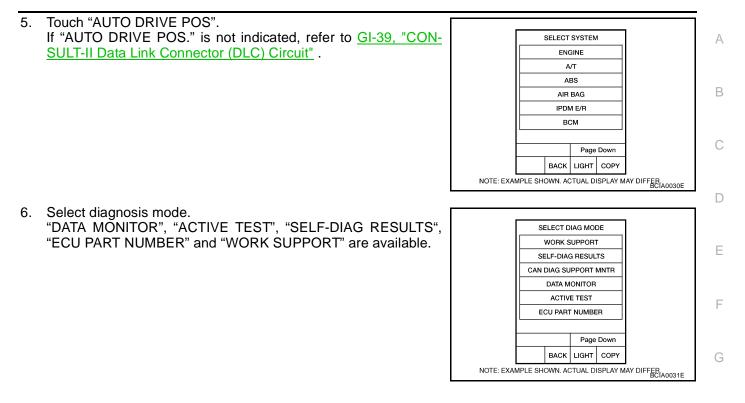
If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carries out CAN communication.

- 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)".

	CONSULT-II				
	ENGINE				
	START (NISSAN BASED VHCL)				
	START (X-BADGE VHCL)				
	SUB MODE				
			LIGHT	COPY	
NOTE: EXAMPLE SHOWN. ACTUAL DISPLAY MAY DIFFER. BCIA0029E					



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#### SELF-DIAGNOSIS RESULTS DISPLAY ITEM LIST

CONSULT-II display	Item	Malfunction is detected when	Reference page
CAN COMM CIRC [U1000]	CAN communication	Malfunction is detected in CAN communication.	LAN-25
SEAT SLIDE [B2112]	Seat slide motor	When any manual and automatic operations are not performed, if any motor operations of seat slide is detected for 0.1 second or more, status is judged "Output error".	<u>SE-40</u> <u>SE-49</u>
SEAT RECLINING [B2113]	Seat reclining motor	When any manual and automatic operations are not performed, if any motor operations of seat reclining is detected for 0.1 second or more, status is judged "Output error".	<u>SE-41</u> <u>SE-50</u>
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-42</u> <u>SE-51</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-44</u> <u>SE-52</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-45</u> <u>SE-53</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-53</u>
DETENT SW [B2126]	Park SW	With the A/T selector lever in P position (park position switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input the park position switch input system is judged malfunctioning.	<u>SE-74</u>
UART COMM [B2128]	UART communica- tion	Malfunction is detected in UART communication.	<u>SE-78</u>

#### NOTE:

- If park position switch error is detected, manual adjustable pedal operation cannot be performed when ignition switch turns ON.
- The displays of CAN communication and detection 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".

# AUTOMATIC DRIVE POSITIONER

# DATA MONITOR SELECTIOM FROM MENU

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 is 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 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.		
DETENT SW	"ON/OFF"	The A/T selector lever position "OFF (P position)/ON (other than P position)" judged from the park position switch signal is displayed.		
STARTER SW	"ON/OFF"	Ignition 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.		

А

## ACTIVE TEST

#### **CAUTION:**

During vehicle driving, do not perform active test.

NOTE:

If active test is performed, reset automatic drive positioner seat memory 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 lifting motor (front) is activated by receiving the drive signal.	
SEAT LIFTER RR	The lifting motor (rear) is activated by receiving the drive signal.	
PEDAL MOTOR	The pedal adjusting 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) 1. SELF-DIAGNOSTIC RESULT CHECK

EIS004FO

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

CONSULT-II display code	Diagnosis item
	INITIAL DIAG
U1000	TRANSMIT DIAG
	ECM
	IPDM E/R
	METER/M&A
	I-KEY

## Contents displayed

No malfunction>>Inspection End

Malfunction in CAN communication system>>After printing the monitor items, go to "CAN System". Refer to LAN-3, "Precautions When Using CONSULT-II"

# Symptom Chart

 Symptom
 Diagnoses / service procedure
 Refer to page

 Diagnoses / service procedure
 1. Preliminary check
 SE-31

 2. CAN communication inspection using CONSULT-II (self-diagnosis)
 2. CAN communication inspection using CONSULT-II (self-diagnosis)
 SE-38

 3. If the above systems are normal, check display system
 Navigation system
 AV-89

EIS004FP

# AUTOMATIC DRIVE POSITIONER

Symptom	Diagnoses / service procedure	Refer to page	
	1. Sliding motor circuit inspection	<u>SE-40</u>	-
	2. Reclining motor circuit inspection	<u>SE-41</u>	-
A part of seat system does not operate (both automati-	3. Lifting motor (front) circuit inspection	<u>SE-42</u>	_
cally and manually).	4. Lifting motor (rear) circuit inspection	<u>SE-44</u>	_
	5. If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>	-
	1. Pedal adjusting motor circuit inspection	<u>SE-45</u>	_
A part of pedal adjust and door mirror does not operate	2. Mirror motor LH circuit check	<u>SE-46</u>	
both automatically and manually).	3. Mirror motor RH circuit check	<u>SE-48</u>	_
	4. If the above systems are normal, replace the automatic drive positioner control unit.	<u>SE-11</u>	_
	1. Sliding sensor circuit inspection	<u>SE-49</u>	_
	2. Reclining sensor circuit inspection	<u>SE-50</u>	-
A part of seat system does not operate (only automatic	3. Lifting sensor (front) circuit inspection	<u>SE-51</u>	-
operation).	4. Lifting sensor (rear) circuit inspection	<u>SE-52</u>	-
	5. If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>	-
	1. Mirror sensor LH circuit check	<u>SE-54</u>	_
A part of door mirror system does not operate (only	2. Mirror sensor RH circuit check	<u>SE-56</u>	_
automatic operation).	3. If the above systems are normal, replace the automatic drive positioner control unit.	<u>SE-11</u>	-
	1. A/T device (park position switch) circuit inspection	<u>SE-74</u>	_
	2. UART communication line circuit inspection	<u>SE-78</u>	-
All of the automatic operations do not operate.	3. Pedal adjusting sensor circuit inspection	<u>SE-53</u>	-
	4. If all the above systems are normal, replace the auto- matic drive positioner control unit.	<u>SE-11</u>	_
	1. Sliding switch circuit inspection	<u>SE-58</u>	_
	2. Reclining switch circuit inspection	<u>SE-60</u>	_
A part of seat system does not operate (only manual	3. Lifting switch (front) circuit inspection	<u>SE-61</u>	_
operation).	4. Lifting switch (rear) circuit inspection	<u>SE-63</u>	-
	5. If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>	_
	1. Pedal adjusting switch circuit inspection	<u>SE-65</u>	-
A part of podal adjust and door mirror doop not an artic	2. Door mirror remote control switch (change over switch) circuit inspection	<u>SE-67</u>	_
A part of pedal adjust and door mirror does not operate only manual operation).	3. Door mirror remote control switch (mirror switch) switch- ing circuit inspection	<u>SE-68</u>	-
	4. If the above systems are normal, replace the automatic drive positioner control unit	<u>SE-11</u>	_
	1. Seat memory switch circuit inspection	<u>SE-70</u>	-
Automatic drive positioner system does not operate only memory switch operation).	2. If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>	_
	1. Seat memory indicator lamp circuit inspection	<u>SE-72</u>	-
Seat memory indicator lamps 1 and 2 do not illuminate.	2. 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-76</u>	-
and closed (the Entry/Exiting operates with key switch).	2. If all the above systems are normal, replace the BCM.	BCS-20	-

# AUTOMATIC DRIVE POSITIONER

Symptom	Diagnoses / service procedure	Refer to page
Door mirror system does not operate (only manual oper- ation).	1. Door mirror remote control switch ground circuit inspec- tion	<u>SE-70</u>
Door mirror system does not operate (only automatic operation).	1. Door mirror sensor power supply and ground circuit inspection	<u>SE-73</u>
Seat system does not operate (only manual operation).	1. Power seat switch ground circuit inspection	<u>SE-64</u>
Sliding Motor Circuit Inspection		EIS004

# 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

## 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.

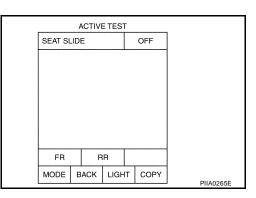
## **Without CONSULT-II**

## GO TO 3.

## OK or NG

OK >> Sliding motor circuit is OK.

NG >> GO TO 3.



# 3. CHECK SLIDING MOTOR CIRCUIT HARNESS CONTINUITY

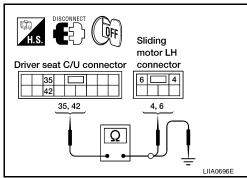
- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and sliding motor LH.
- 3. Check continuity between driver seat control unit connector P3 terminals 35, 42 and sliding motor connector P4 terminals 4, 6.
  - 35 6

: Continuity should exist.

42 - 4

- : Continuity should exist.
- 4. Check continuity between driver seat control unit connector P3 terminals 35, 42 and ground.
  - 35 Ground 42 - Ground
- : Continuity should not exist. : Continuity should not exist.

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





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

Connector -	Terminals		Condition	Voltage (V)	
	(+)	(-)	Condition	(Approx.)	
P3 –	35	Ground	Sliding switch ON (FORWARD operation)	Battery voltage	
			Other than above	0	
			Sliding switch ON (BACKWARD operation)	Battery voltage	
			Other than above	0	

## OK or NG

- OK >> Replace sliding motor LH. Refer to SE-88, "FRONT SEAT" .
- NG >> Replace driver seat control unit. Refer to <u>SE-88, "FRONT SEAT"</u>.

# **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

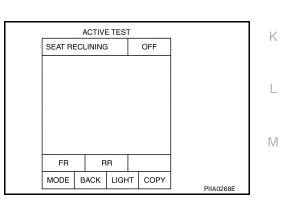
Check operation with "SEAT RECLINING" in ACTIVE TEST.

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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Driver seat C/U connector

35, 42

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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.
- 3. Check continuity between driver seat control unit connector P3 terminals 36, 44 and reclining motor LH connector P5 terminals 3.4.
  - 36 4 44 - 3

- : Continuity should exist.
- : Continuity should exist.
- Check continuity between driver seat control unit connector P3 4. terminals 36, 44 and ground.
  - 36 Ground
  - 44 Ground

#### : Continuity should not exist. : Continuity should not exist.

OK or NG

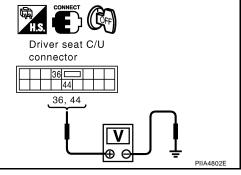
OK >> GO TO 4.

NG >> Repair or replace harness.

# 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals		Condition	Voltage (V)
	(+)	(-)	Condition	(Approx.)
P3 -	36	Ground	Reclining switch ON (FORWARD operation)	Battery voltage
			Other than above	0
			Reclining switch ON (BACKWARD operation)	Battery voltage
			Other than above	0



## OK or NG

- OK >> Replace reclining motor LH. Refer to <u>SE-88, "FRONT SEAT"</u>
- NG >> Replace driver seat control unit. Refer to SE-88, "FRONT SEAT" .

# Lifting Motor (Front) Circuit Inspection

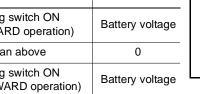
## 1. CHECK SEAT LIFTING (FRONT) MECHANISM

Check the following.

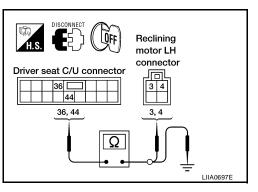
- Operation malfunction caused by lifter mechanism deformation, pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the lifting motor (front) or lead screws
- Operation malfunction and interference with other parts by installation

OK or NG

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



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# 2. CHECK FUNCTION

#### (B) 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.

## **Without CONSULT-II**

ĞO TO 3.

OK or NG

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

NG >> GO TO 3.

# ACTIVE TEST SEAT LIFTER FR OFF UP DOWN MODE BACK LIGHT COPY PIIA0271E

DISCONNECT

Driver seat C/U connector

37, 45

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motor (front)

connector

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

- 1. 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	-	6
45	-	4

## : Continuity should exist.

- : Continuity should exist.
- 4. Check continuity between driver seat control unit connector P3 terminals 37, 45 and ground.
  - 37 Ground 45 - Ground

: Continuity should not exist.

: Continuity should not exist.

#### OK or NG

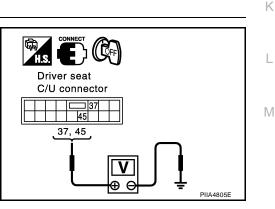
OK >> GO TO 4.

NG >> Repair or replace harness.

## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

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



## OK or NG

- OK >> Replace lifting motor (front). Refer to <u>SE-88, "FRONT SEAT"</u>
- NG >> Replace driver seat control unit. Refer to <u>SE-88, "FRONT SEAT"</u>.

# Lifting Motor (Rear) Circuit Inspection

# 1. CHECK SEAT LIFTING (REAR) 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

## With CONSULT-II

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

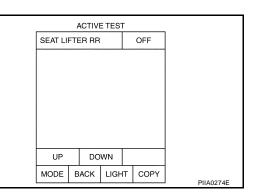
Test item	Description
SEAT LIFTER RR	The lifting motor (rear) is activated by receiving the drive signal.

# **Without CONSULT-II**

ĞO TO 3.

## OK or NG

OK >> Lifting motor (rear) circuit is OK. NG >> GO TO 3.



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

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

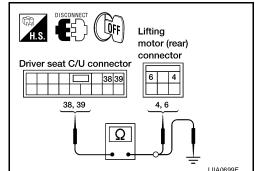
39 - 4

## : Continuity should exist. : Continuity should exist.

- 4. Check continuity between driver seat control unit P3 terminals 38, 39 and ground.
  - 38 Ground
- : Continuity should not exist.
- 39 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		Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
	38		Lifting switch (rear) ON (UP operation)	Battery voltage
P3		Ground	Other than above	0
39	Ground	Lifting switch (rear) ON (DOWN operation)	Battery voltage	
			Other than above	0

#### OK or NG

- OK >> Replace lifting motor (rear). Refer to <u>SE-88, "FRONT SEAT"</u>.
- NG >> Replace driver seat control unit. Refer to <u>SE-88</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.

# 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.

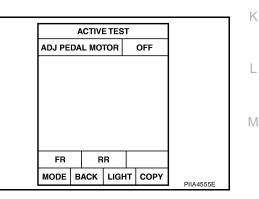
## **Without CONSULT-II**

ĞO TO 3.

OK or NG

- OK >> Pedal adjusting motor circuit is OK.
- NG >> GO TO 3.

Revision: October 2006



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Driver seat C/U connector

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# AUTOMATIC DRIVE POSITIONER

# 3. CHECK PEDAL ADJUSTING MOTOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and pedal 2. adjusting motor.
- 3. Check continuity between automatic drive positioner control unit connector M34 terminals 37, 45 and pedal adjusting motor connector E109 terminals 1, 2.
  - 37 1

: Continuity should exist.

45 - 2

- : Continuity should exist.
- Check continuity between automatic drive positioner control unit 4. connector M34 terminals 37, 45 and ground.
  - 37 Ground 45 - Ground

: Continuity should not exist. : Continuity should not exist.

## OK or NG

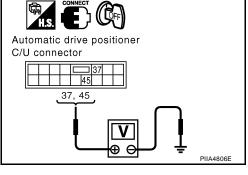
OK >> GO TO 4. NG

>> Repair or replace harness.

# 4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals		Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
	37	Ground	Pedal adjusting switch ON (FORWARD opera- tion)	Battery voltage
M34			Other than above	0
45	Clound	Pedal adjusting switch ON (BACKWARD oper- ation)	Battery voltage	
			Other than above	0



## OK or NG

- OK >> Replace adjustable accelerator pedal assembly. Refer to ACC-3, "ADJUSTABLE ACCELERA-TOR PEDAL ASSEMBLY" .
- NG >> Replace automatic drive positioner control unit.

# Mirror Motor LH Circuit Check

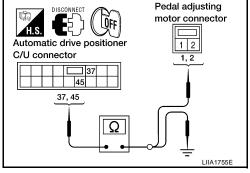
1. CHECK DOOR MIRROR LH MECHANISM

## 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.



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# 2. CHECK FUNCTION

#### (B) 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**

ĞO TO 3.

#### OK or NG

OK >> Mirror motor LH circuit is OK. NG >> GO TO 3.

 $|G\rangle >> GO | O | 3.$ 

# 3. CHECK DOOR MIRROR MOTOR LH CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror LH.
- 3. Check continuity between automatic drive positioner control unit connector M33 terminals 16, 31, 32 and door mirror LH connector D4 terminals 1, 2, 3.
  - 16 3
  - 31 1
  - 32 2

- : Continuity should exist. : Continuity should exist.
- : Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M33 terminals 16, 31, 32 and ground.
  - 16 Ground
  - 31 Ground
  - 32 Ground
- : Continuity should not exist.
- : Continuity should not exist.
- : Continuity should not exist.

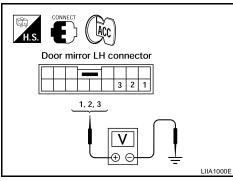
## OK or NG

- 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	Teri	minals	Condition	Voltage (V)	
Connector	(+)	(-)	Condition	(Approx.)	
	1		When motor is operated UP	1.5 - Battery voltage	
	I		Other than above	0	
D4 2 3	2	Ground	When motor is operated LEFT	1.5 - Battery voltage	
		Ground	Other than above	0	
	3	When motor is operated DOWN or RIGHT	1.5 - Battery voltage		
		Other than above	0		

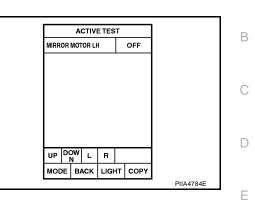


OK or NG

OK >> Replace door mirror LH. Refer to <u>GW-124, "Door Mirror Assembly"</u>.

NG >> Repair or replace harness.



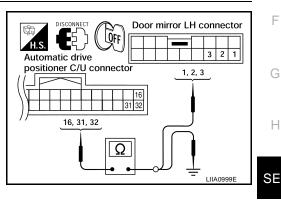


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# AUTOMATIC DRIVE POSITIONER

# **Mirror Motor RH Circuit Check**

# 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

>> GO TO 2. OK

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

# 2. CHECK FUNCTION

## (P) 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.

# **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

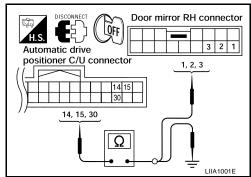
- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror RH.
- Check continuity between automatic drive positioner control unit 3. connector M33 terminals 14, 15, 30 and door mirror RH connector D107 terminals 1, 2, 3.
  - 14 1
  - 15 2
  - 30 3

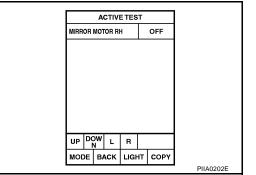
- : Continuity should exist. : Continuity should exist.
- : Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M33 terminals 14, 15, 30 and ground.
  - 14 Ground 15 - Ground
- : Continuity should not exist.
- 30 Ground
- : Continuity should not exist.

: Continuity should not exist.

#### OK or NG

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





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Door mirror RH connector .

1, 2, 3

# 4. CHECK MIRROR MOTOR SIGNAL

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

Connector	Terminals		Condition	Voltage (V)
Connector	(+)		Condition	(Approx.)
	1		Mirror motor is operated UP	1.5 - Battery voltage
D107 2		Ground	Other than above	0
	2		Mirror motor is operated LEFT	1.5 - Battery voltage
			Other than above	0
	3		Mirror motor is operated DOWN or RIGHT	1.5 - Battery voltage
			Other than above	0

#### OK or NG

OK >> Replace door mirror RH. Refer to GW-124, "Door Mirror Assembly".

NG >> Repair or replace harness.

# **Sliding Sensor Circuit Inspection**

## **1. CHECK FUNCTION**

## (B) With CONSULT-II

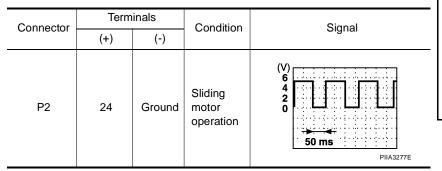
Check operation with "SLIDE PULSE" on the DATA MONITOR to make sure the pulse changes.

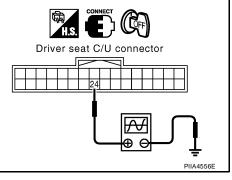
Monitor item [OPERATION or UNIT]		Contents
SLIDE PULSE	_	The seat sliding position (pulse) judged from the sliding sensor signal is displayed

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 Display	]
MODE BACK LIGHT COPY	PIIA4558E
	<ul> <li>FIIA4336E</li> </ul>

## **Without CONSULT-II**

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

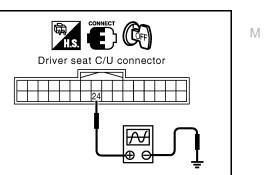




OK or NG

OK >> Sliding sensor circuit is OK.

NG >> GO TO 2.



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Revision: October 2006

# 2. CHECK SLIDING MOTOR SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and sliding motor LH.
- 2. Check continuity between driver seat control unit connector P2 terminals 16, 24, 31 and sliding motor P4 terminals 1, 2, 3.
  - 16 3 : Continuity should exist.
  - 24 2 : Continuity should exist.
  - 31 1 : Continuity should exist.
- Check continuity between driver seat control unit P2 terminals 24, 31 and ground.
  - 16 Ground
  - 24 Ground
  - 31 Ground
- : Continuity should not exist. : Continuity should not exist

: Continuity should not exist.

OK or NG

OK >> Replace sliding motor LH. Refer to <u>SE-88, "FRONT SEAT"</u>.

NG >> Repair or replace harness.

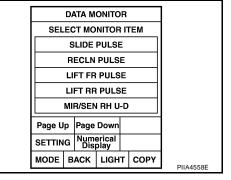
# **Reclining Sensor Circuit Inspection**

1. CHECK FUNCTION

## (P) With CONSULT-II

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

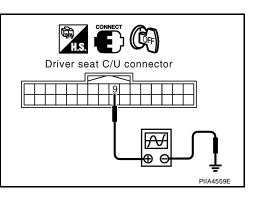
Monitor item [OPERATION or UNIT]		Contents
RECLN PULSE	_	The seat reclining position (pulse) judged from the reclining sensor is displayed



## **Without CONSULT-II**

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

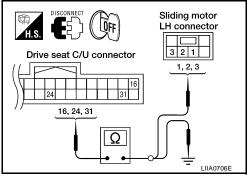
Connector	Terminals		Condition	Signal
Connector	(+)	(-)	Condition	Signal
P2	9	Ground	Reclining motor operation	(V) 6 4 2 0 50 ms



## OK or NG

OK >> Reclining sensor circuit is OK.

NG >> GO TO 2.



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# 2. CHECK RECLINING MOTOR SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and reclining motor LH.
- 2. Check continuity between driver seat control unit connector P2 terminals 9, 31 and reclining motor LH connector P5 terminals 1, 2.
  - : Continuity should exist.
  - : Continuity should exist.
- Check continuity between driver seat control unit connector P2 3. terminals 9, 31 and ground.
  - 9 Ground

9 - 1

31 - 2

- 31 Ground
- : Continuity should not exist.
- : Continuity should not exist.

OK or NG

OK

- >> Replace reclining motor LH. Refer to SE-88, "FRONT SEAT" .
- NG >> Repair or replace harness.

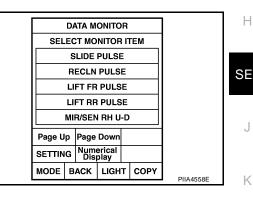
# Lifting Sensor (Front) Circuit Inspection

# **1. CHECK FUNCTION**

## (P) With CONSULT-II

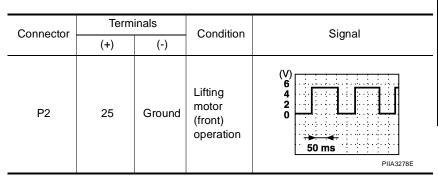
Check operation with "LIFT FR PULSE" on the DATA MONITOR to make sure the pulse changes.

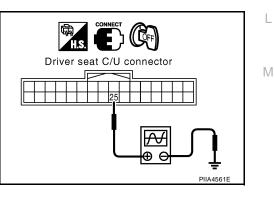
Monitor item [OF UNI]		Contents		
LIFT FR PULSE	_	The front lifting position (pulse) judged from the lifting sensor (front) is displayed		



## **Without CONSULT-II**

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

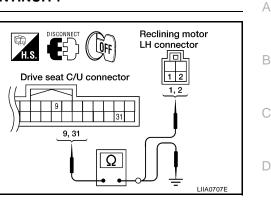




## OK or NG

OK >> Lifting sensor (front) is OK.

NG >> GO TO 2.



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# 2. CHECK LIFTING MOTOR (FRONT) 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 3 : Continuity should exist.
  - 25 2 : Continuity should exist.
  - 31 1 : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 16, 25, 31 and ground.
  - 16 Ground 25 - Ground
- : Continuity should not exist.
- 31 Ground
- : Continuity should not exist. : Continuity should not exist.

OK or NG

OK >> Replace lifting motor (front). Refer to <u>SE-88, "FRONT SEAT"</u>.

NG >> Repair or replace harness.

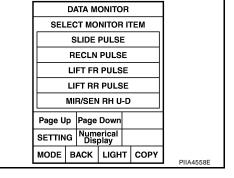
# Lifting Sensor (Rear) Circuit Inspection

1. CHECK FUNCTION

## (I) With CONSULT-II

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

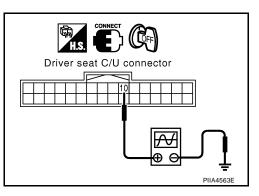
Monitor item [OPER	ATION or UNIT]	
LIFT RR PULSE	_	The rear lifting position (pulse) judged from the lifting sensor (rear) is displayed.



## **Without CONSULT-II**

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

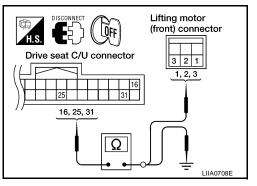
Connector	Term	inals	Condition	Signal		
Connector	(+)	(-)	Condition	Signal		
P2	10	Ground	Lifting motor (rear) operation	(V) 6 4 2 0 50 ms PIIA3278E		



## OK or NG

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

NG >> GO TO 2.



: Continuity should not exist.

: Continuity should not exist.

# 2. CHECK LIFTING MOTOR (REAR) SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and lifting motor (rear).
- Check continuity between driver seat control unit connector P2 2. terminals 10, 16, 31 and lifting motor (rear) connector P7 terminals 1, 2, 3.
  - 10 2 : Continuity should exist.
  - 16 3 : Continuity should exist.
  - 31 1 : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 10, 16, 31 and ground.
  - 10 Ground
  - 16 Ground
- : Continuity should not exist.
- 31 Ground

OK or NG >> Replace lifting motor (rear). Refer toSE-88, "FRONT SEAT" .

OK NG >> Repair or replace harness.

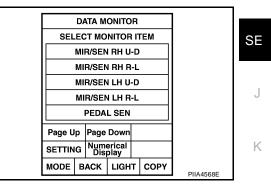
# Pedal Adjusting Sensor Circuit Inspection

**1. CHECK FUNCTION** 

## (P) With CONSULT-II

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

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



## Without CONSULT-II

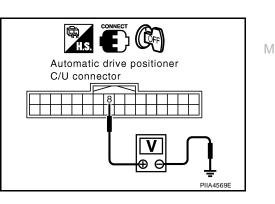
- Turn ignition switch OFF. 1.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

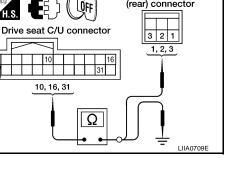
Connector	Connector		Condition	Voltage (V)	
Connector	(+)	(-)	Condition	(Approx.)	
M33	8	Ground	Pedal front end position	0.5	
WIJJ	10133 0		Pedal back end position	4.5	

## OK or NG

OK >> Pedal adjusting sensor circuit is OK.

NG >> GO TO 2.





DISCONNECT

Lifting motor

(rear) connector

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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 M33, M34 terminals 8, 33, 41 and pedal adjusting sensor connector E110 terminals 3, 4, 5.
  - 8 4 : Continuity should exist.
  - 33 3

: Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

- 41 5 : Continuity should exist.
- 3. Check continuity between automatic drive positioner control unit connector M33, M34 terminals 8, 33, 41 and ground.
  - 8 Ground
  - 33 Ground : Continuity should not exist.
  - 41 Ground

## OK or NG

- OK >> Replace adjustable accelerator pedal assembly. Refer to <u>ACC-3</u>, "ADJUSTABLE ACCELERATOR PEDAL <u>ASSEMBLY"</u>.
- NG >> Repair or replace harness.

# **Mirror Sensor LH Circuit Check**

# 1. CHECK DOOR MIRROR FUNCTION

Check the following items.

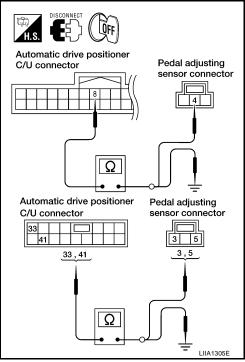
Operation malfunction in memory control

## 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.



# 2. CHECK MIRROR SENSOR

#### (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 [OPE UNIT]	RATION or	Contents
MIR/SE LH R-L	"V"	Voltage output from door mirror LH sensor (LH/ RH) is displayed.
MIR/SE LH U-D	"V"	Voltage output from door mirror LH sensor (UP/ DOWN) is displayed.

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SEL	EC	г мо	NITO	r I	ТЕМ				D
	ΤЕ	LESC	O SE	N					
MIR/SE RH R-L									
	MIF	R/SE	RH U	-D					С
MIR/SE LH R-L									
	MI	R/SE	LH U	-D					
Page U	p	Page	Down						D
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## **Without CONSULT-II**

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

Con-	Con- Terminals		Condition	Voltage (V)		
nector	nector (+) (-)	Condition	(Approx.)			
D4	7	Ground	Mirror motor is operated UP or DOWN	Changes between 3.4 (close to peak) – 0.6 (close to valley)		
D4 8	8	Ground	Mirror motor is operated LEFT or RIGHT	Changes between 3.4 (close to right edge) – 0.6 (close to left edge)		

OK or NG

OK >> Mirror sensor LH is OK.

NG >> GO TO 3.

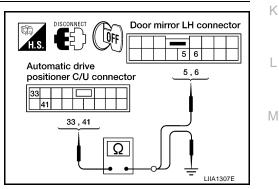
# 3. CHECK HARNESS CONTINUITY 1

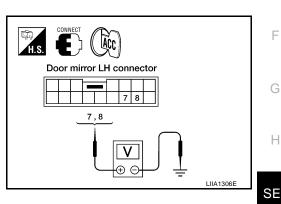
- Turn ignition switch OFF. 1.
- 2. Disconnect automatic drive positioner control unit and door mirror LH.
- 3. Check continuity between automatic drive positioner control unit connector M34 terminals 33, 41 and door mirror LH connector D4 terminals 5, 6.
  - 33 5 41 - 6
- : Continuity should exist.
- : Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M34 terminals 33, 41 and ground.
  - 33 Ground
  - 41 Ground
- : Continuity should not exist.

: Continuity should not exist.

#### OK or NG

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





# 4. CHECK HARNESS CONTINUITY 2

- 1. Check continuity between automatic drive positioner control unit connector M33 terminals 6, 22 and door mirror LH connector D4 terminals 7, 8.
  - 6 7 : Continuity should exist.
  - 22 8 : Continuity should exist.
- 2. Check continuity between automatic drive positioner control unit connector M33 terminals 6, 22 and ground.
  - 6 Ground
  - 22 Ground
- : Continuity should not exist.
- : Continuity should not exist.

## OK or NG

- OK >> Replace door mirror LH. Refer to <u>GW-124</u>, "Door Mirror Assembly".
- NG >> Repair or replace harness.

# Mirror Sensor RH Circuit Check

1. CHECK DOOR MIRROR FUNCTION

Check the following items.

Operation malfunction in memory control

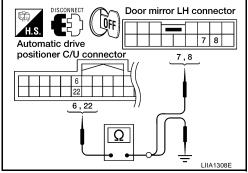
## NOTE:

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

#### (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 [OPE UNIT]	RATION or	Contents
MIR/SE RH R-L	"V"	Voltage output from door mirror RH sensor (LH/ RH) is displayed.
MIR/SE RH U-D	"V"	Voltage output from door mirror RH sensor (UP/ DOWN) is displayed.

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SELE	ЕСТ М	оліто	R ľ	ТЕМ					D
	TELESCO SEN								
MIR/SE RH R-L									
	MIR/SI	E RH U	-D						С
MIR/SE LH R-L									
	MIR/SI	E LH U	-D						
Page Up	Page	e Down							
SETTIN		nerical splay							D
MODE	BACK	LIGH	łΤ	СОРҮ					
						F	PIIA01	97E	
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## **Without CONSULT-II**

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

Con-	Tern	ninals	Voltage(V)		
nector	or (+) (-)		Condition	(Approx.)	
D107	7	Ground	Mirror motor is operated UP or DOWN	Changes between 3.4 (close to peak) – 0.6 (close to valley)	
D1078	8	Cround	Mirror motor is operated LEFT or RIGHT	Changes between 3.4 (close to left edge) – 0.6 (close to right edge)	

OK or NG

OK >> Mirror sensor RH is OK.

NG >> GO TO 3.

# 3. CHECK HARNESS CONTINUITY 1

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror RH.
- Check continuity between automatic drive positioner control unit connector M34 terminals 33, 41 and door mirror RH connector D107 terminals 5, 6.
  - 33 5

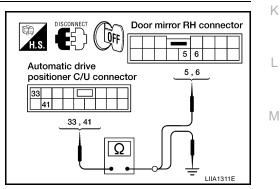
41 - 6

- : Continuity should exist.
- : Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M34 terminals 33, 41 and ground.
  - 33 Ground
  - 41 Ground
- : Continuity should not exist.

: Continuity should not exist.

#### OK or NG

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



ACC Door mirror RH connector 78 7,8 ⊕ ∈ LIIA1309E

# 4. CHECK HARNESS CONTINUITY 2

- 1. Check continuity between automatic drive positioner control unit connector M33 terminals 5, 21 and door mirror RH connector D107 terminals 7, 8.
  - 5 7 : Continuity should exist.
  - 21 8 : Continuity should exist.
- 2. Check continuity between automatic drive positioner control unit connector M33 terminals 5, 21 and ground.
  - 5 Ground
  - 21 Ground
- : Continuity should not exist.
- : Continuity should not exist.

## OK or NG

- OK >> Replace door mirror RH. Refer to <u>GW-124</u>, "Door Mirror Assembly".
- NG >> Repair or replace harness.

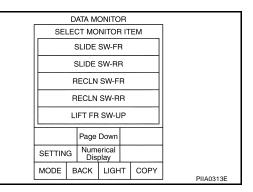
# **Sliding Switch Circuit Inspection**

## 1. CHECK FUNCTION

## With CONSULT-II

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

Monitor item [OP UNI]		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.

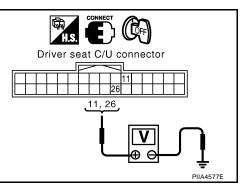


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## **Without CONSULT-II**

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

Connector	Connector Terminal (+) (-)		Condition	Voltage (V) (Approx.)	
Connector			Condition		
	11		Sliding switch ON (BACKWARD oper- ation)	0	
P226	G	Ground	Other than above	Battery voltage	
	26	Ground	Sliding switch ON (FORWARD opera- tion)	0	
			Other than above	Battery voltage	



#### OK or NG

OK >> Sliding switch circuit is OK.

NG >> GO TŎ 2.

Door mirror RH connector Automatic drive positioner C/U connector 6,22 6,22 LIIA1312E

# 2. CHECK SLIDING SWITCH CIRCUIT HARNESS CONTINUITY

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

- : Continuity should exist.
- 26 1 : Continuity should exist.
  3. Check continuity between driver seat control unit connector P2
  - terminals 11, 26 and ground.
    - 11 Ground
    - 26 Ground

## : Continuity should not exist.

: Continuity should not exist.

#### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.

# 3. CHECK SLIDING SWITCH

Check continuity between power seat switch LH terminals as follows.

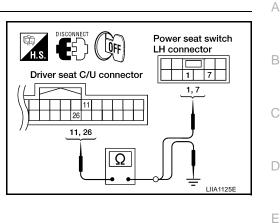
Term	inals	Condition	Continuity
7		Sliding switch ON (BACKWARD operation)	Yes
'	3	Other than above	No
1	5	Sliding switch ON (FORWARD operation)	Yes
1	Other than above	No	

OK or NG

NG

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

>> Replace power seat switch LH. Refer to <u>SE-88</u>, "Removal and Installation".



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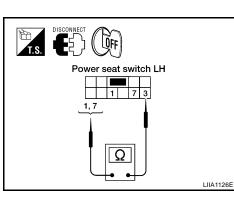
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# **Reclining Switch Inspection**

## **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.

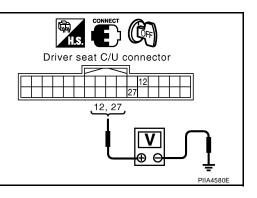
Monitor item [OPE UNIT]		Contents
RECLN SW-FR	"ON/OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.
RECLN SW-RR	"ON/OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.

	DATA M		_		
SE	LECT MC	NITOF	EM		
	SLIDE				
	SLIDE				
RECLN SW-FR					
	RECLN				
LIFT FR SW-UP					
Page Down					
SETTIN		Numerical Display			
MODE	BACK	LIGH	IT	COPY	PIIA0313E
					FILAUSTSE

## **Without CONSULT-II**

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

Connector	Terminals		Condition	Voltage (V)	
Connocion	(+)	(-)	Contailion	(Approx.)	
	12		Reclining switch ON (BACKWARD operation)	0	
P227		Ground	Other than above Battery voltage		
	27	Giodila	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

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

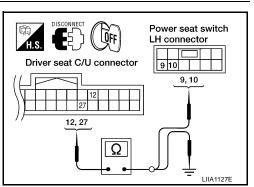
: Continuity should exist.

27 - 10

- : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 12, 27 and ground.
  - 12 Ground
- : Continuity should not exist.
- 27 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 terminals as follows.

Term	ninals	Condition	Continuity
9		Reclining switch ON (BACKWARD operation)	Yes
	Other than above	No	
10	3	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-88, "Removal and Installation"</u>.

# Lifting Switch (Front) Circuit Inspection 1. CHECK FUNCTION

## 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 [OPE UNIT]	ERATION or	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.

	D.	ATA M	ONITO	R		_	
SE	SELECT MONITOR ITEM						
	LIFT FR SW-DN						
	LIFT RR SW-UP						
	LIFT RR SW-DN						
	MIR CON SW-UP						
	М	R CON	1 SW-[	DN			
Page U	Page Up Page Down					1	
SETTING Numerical Display							
MODE	В	ACK	LIGH	т	COPY		PIIA0323E
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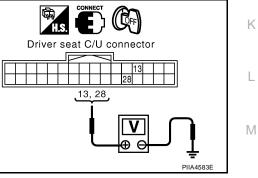
LIIA1128E

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# **Without CONSULT-II**

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

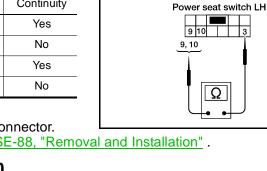
Connector	Connector (+) (-)		Condition	Voltage (V)	
Connector			Condition	(Approx.)	
	13		Lifting switch (front) ON (DOWN operation)	0	
P2 —		Ground Other than above	Battery voltage		
	28		Lifting switch (front) ON (UP operation)	0	
			Other than above	Battery voltage	



OK or NG

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

NG >> GO TO 2.



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	MIR CON SW-DN					
Page Up		Page Down				-
SETTIN	G	Numerical Display				
MODE	В	ACK	LIGH	Т	COPY	]

# $2. \ \text{CHECK LIFTING SWITCH (FRONT) CIRCUIT HARNESS CONTINUITY}$

- 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.
  - : Continuity should exist.
  - : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 13, 28 and ground
  - 13 Ground

13 - 5

28 - 6

- 28 Ground
- : Continuity should not exist. : Continuity should not exist.

## OK or NG

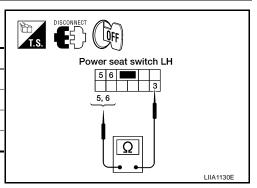
OK >> GO TO 3.

NG >> Repair or replace harness.

# 3. CHECK LIFTING SWITCH (FRONT)

Check continuity between power seat switch LH terminals as follows.

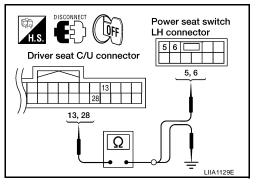
Terminals		Condition	Continuity
5	5	Lifting switch (front) ON (DOWN operation)	Yes
0	3	Other than above	No
6		Lifting switch (front) ON (UP operation)	Yes
0		Other than above	No



<u>OK or NG</u>

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

NG >> Replace power seat switch LH. Refer to <u>SE-88, "Removal and Installation"</u>.



# Lifting Switch (Rear) Circuit Inspection

## **1. CHECK FUNCTION**

#### (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.

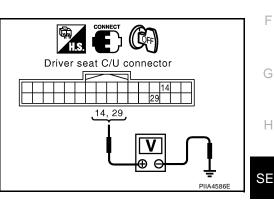
Monitor item [OP UNIT		Contents
LIFT RR SW-UP	"ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (UP) signal is displayed.
LIFT RR SW- DN	"ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (DOWN) signal is dis- played.

#### В DATA MONITOR SELECT MONITOR ITEM LIFT FR SW-DN LIFT RR SW-UP LIFT RR SW-DN MIR CON SW-UP MIR CON SW-DN Page Up Page Down Numerical Display SETTING MODE BACK LIGHT COPY Ε PIIA0323E

## **Without CONSULT-II**

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

Connector	Term	inals	Condition	Voltage (V)	
Connector	(+)	(-)	Condition	(Approx.)	
	14	Ground	Lifting switch (rear) ON (DOWN operation)	0	
P2			Other than above	Battery voltage	
ΓZ	29	Ground	Lifting switch (rear) ON (UP operation)	0	
			Other than above	Battery voltage	



## OK or NG

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

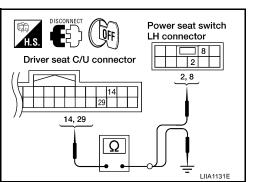
NG >> GO TO 2.

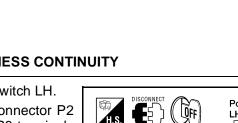
# 2. CHECK LIFTING SWITCH (REAR) CIRCUIT HARNESS CONTINUITY

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

29 - 2

- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 14, 29 and ground.
  - 14 Ground
- 29 Ground
- : Continuity should not exist. : Continuity should not exist.
- OK or NG
- OK >> GO TO 3.
- NG >> Repair or replace harness.





Revision: October 2006

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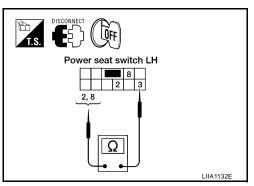
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# 3. CHECK LIFTING SWITCH (REAR)

Check continuity between power seat switch LH terminals as follows.

Term	inals	Condition	Continuity
8		Lifting switch (rear) ON (DOWN operation)	Yes
0	3	Other than above	No
2		Lifting switch (rear) ON (UP operation)	Yes
2		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-88, "Removal and Installation"</u>.

# Power Seat Switch Ground Inspection

# 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH connector P8 terminal 3 and ground.

#### 3 - Ground

: Continuity should exist.

## OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Repair or replace harness.

Disconnect E.S. Disconnect Dower seat switch LH connector LIA1133E

# Pedal Adjusting Switch Circuit Inspection

## 1. CHECK FUNCTION

#### (B) With CONSULT-II

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

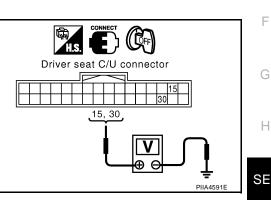
Monitor item [OPE UNIT]		Contents
PEDAL SW-FR	"ON/OFF"	Operation (ON)/open (OFF) status judged from the pedal adjusting switch (FR) signal is displayed.
PEDAL SW-RR	"ON/OFF"	Operation (ON)/open (OFF) status judged from the pedal adjusting switch (RR) signal is displayed.

	_	
DATA MONITOR		
SELECT MONITOR ITEM		
MIR CHNG SW-R		
MIR CHNG SW-L		
PEDAL SW-FR		
PEDAL SW-RR		
DETENT SW		
Page Up Page Down		
SETTING Numerical Display	]	
MODE BACK LIGHT COPY	PIIA4590E	
	FIIA4590E	

# **Without CONSULT-II**

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

Connector	Term	inals	Condition	Voltage (V)	
Connector	(+)	(-)	Condition	(Approx.)	
	15	Ground	Pedal adjusting switch ON (BACKWARD operation)	0	
P2			Other than above	Battery voltage	
FZ	30	Giouna	Pedal adjusting switch ON (FORWARD operation)	0	
			Other than above	Battery voltage	



## OK or NG

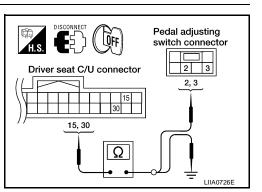
OK >> Pedal adjusting switch circuit is OK.

NG >> GO TO 2.

# 2. CHECK PEDAL ADJUSTING SWITCH CIRCUIT HARNESS CONTINUITY

- 1. 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 M96 terminals 2, 3.
  - 15 2 30 - 3

- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 15, 30 and ground.
  - 15 Ground
- : Continuity should not exist.
- 30 Ground
- : Continuity should not exist.
- OK or NG
- OK >> GO TO 3.
- NG >> Repair or replace harness.



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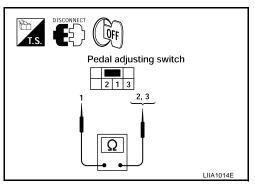
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# 3. CHECK PEDAL ADJUSTING SWITCH

Check continuity between pedal adjusting switch terminals as follows.

Terminals		Condition	Continuity
2		Pedal adjusting switch ON (BACWARD operation)	Yes
2	1	Other than above	No
3		Pedal adjusting switch ON (FORWARD operation)	Yes
3		Other than above	No



<u>OK or NG</u>

## OK >> GO TO 4.

NG >> Replace pedal adjusting switch. Refer to <u>IP-10, "INSTRUMENT PANEL ASSEMBLY"</u>.

# 4. CHECK PEDAL ADJUSTING SWITCH GROUND CIRCUIT

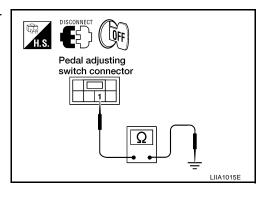
Check continuity between pedal adjusting switch connector M96 terminal 1 and ground.

#### 1 - Ground

: Continuity should exist.

#### OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Repair or replace harness.



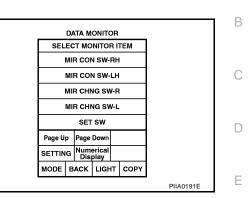
# **Door Mirror Remote Control Switch (Changeover Switch) Circuit Check**

## **1. CHECK FUNCTION**

#### (P)With CONSULT-II

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

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



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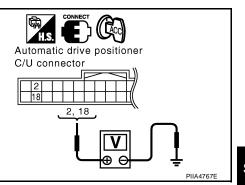
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## Without CONSULT-II

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

Connector	Term	ninals	Condition	Voltage (V) (Approx.)
Connector	(+)	(-)	Condition	
M33	2	Ground	Changeover switch RIGHT position	0
			Other than above	5
	18	Ground	Changeover switch LEFT position	0
			Other than above	5



## OK or NG

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

NG >> GO TO 2.

# 2. CHECK DOOR MIRROR REMOTE CONTROL SWITCH CIRCUIT HARNESS CONTINUITY

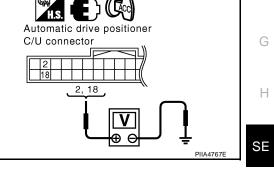
- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and door mir-2. ror remote control switch.
- 3. Check continuity between automatic drive positioner control unit connector M33 terminals 2, 18 and door mirror remote control switch connector D10 terminals 2. 3.
  - 2 3 18 - 2

- : Continuity should exist.
- : Continuity should exist.
- Check continuity between automatic drive positioner control unit 4. connector M33 terminals 2, 18 and ground.
  - 2 Ground
- : Continuity should not exist.
- 18 Ground
- : Continuity should not exist.

#### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.

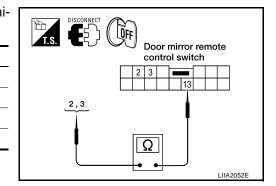
Door mirror remote control switch connector LOFF H.S. 2 Automatic drive positioner C/U connector 2,3 18 2.18 LIIA1821E



# 3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH (CHANGEOVER SWITCH)

Check continuity between door mirror remote control switch terminals as follows.

Term	ninals	Condition	Continuity
3		Changeover switch RIGHT position	Yes
5	13	Other than above	No
2		Changeover switch LEFT position	Yes
Z		Other than above	No



## OK or NG

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

NG >> Replace door mirror remote control switch.

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

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## (P) With CONSULT-II

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

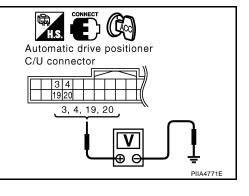
Monitor item [OPEF UNIT]	RATION or	Contents
MIR CON SW-UP	"ON/OFF"	ON/OFF status judged from the mirror switch (UP) signal is displayed.
MIR CON SW-DN	"ON/OFF"	ON/OFF status judged from the mirror switch (DOWN) signal is displayed.
MIR CON SW-RH	"ON/OFF"	ON/OFF status judged from the mirror switch (RIGHT)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

	-			-				
DATA MONITOR								
SEL	EC	т мо	NITO	R I	ТЕМ			
	LII	FT RR	SW-D	DN				
	мι	R COI	sw-	UP				
	MI	R COM	ISW-	DN				
	MI	R COM	ISW-	RH	I			
	мι	R COI	v sw-	LH				
Page U	р	Page	Down					
SETTING Numerical Display								
MODE BACK LIGHT COPY								
						PIIA0199E		

# **Without CONSULT-II**

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

Connector	Term	ninals	Condition	Voltage (V) (Approx.)
	(+)	(-)	Condition	
	3		Mirror switch UP operation	0
	5	Ground	Other than above	5
	4		Mirror switch LEFT operation	0
M33			Other than above	5
MISS	19		Mirror switch DOWN operation	0
			Other than above	5
	20		Mirror switch RIGHT operation	0
	20		Other than above	5



## OK or NG

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

NG >> GO TO 2.

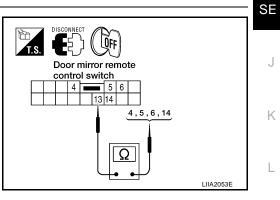
# 2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror remote control switch.
- 3. Check continuity between automatic drive positioner control unit connector M33 terminals 3, 4, 19, 20 and door mirror remote control switch connector D10 terminals 4, 5, 6, 14.
  - 3 6: Continuity should exist.4 5: Continuity should exist.19 14: Continuity should exist.20 4: Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M33 terminals 3, 4, 19, 20 and ground.
  - 3 Ground
- : Continuity should not exist. : Continuity should not exist.
- a : Con
- 19 Ground 20 - Ground
- : Continuity should not exist. : Continuity should not exist.
  - : Continuity should
- OK or NG
- OK >> GO TO 3.
- NG >> Repair or replace harness.

# 3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH (MIRROR SWITCH)

Check continuity between door mirror remote control switch terminals as follows.

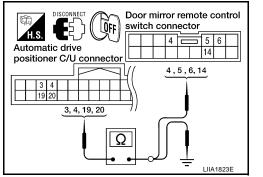
Terminals		Switch condition	Continuity
4		Mirror switch RIGHT operation	Yes
4	5 13 	Other than above	No
-		Mirror switch LEFT operation	Yes
5		Other than above	No
6 14		Mirror switch UP operation	Yes
		Other than above	No
		Mirror switch DOWN operation	Yes
		Other than above	No



OK or NG

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

NG >> Replace door mirror remote control switch.



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- d : Continuity should not exist.
- 4 Ground

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H.S.

E;

T.S.

QFF

3

Door mirror remote control switch

13

switch connector

QFF

13

Door mirror remote control

# **Door Mirror Remote Control Switch Ground Circuit Inspection** 1. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

- Turn ignition switch OFF. 1.
- 2. Disconnect door mirror remote control switch.
- Check continuity between door mirror remote control switch con-3. nector D10 terminal 7 and ground.

#### 13 - Ground

## : Continuity should exist.

#### OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness.

# 2. CHECK DOOR MIRROR REMOTE CONTROL SWITCH (CHANGEOVER SWITCH)

Check continuity between door mirror remote control switch terminals as follows.

Terminals		Condition	Continuity
3	- 13	Changeover switch RIGHT position	Yes
		Other than above	No
2	- 13	Changeover switch LEFT position	Yes
		Other than above	No

## OK or NG

OK >> Check the condition of the harness and the connector. NG >> Replace door mirror remote control 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.

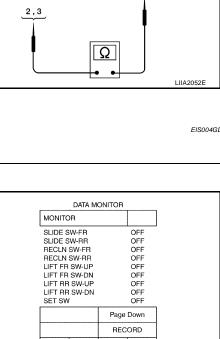
Monitor item [OPERATION or UNIT]		Contents
MEMORY SW 1	"ON/OFF"	ON/OFF status judged from the seat memory switch 1 signal is displayed.
MEMORY SW 2	"ON/OFF"	ON/OFF status judged from the seat memory switch 2 signal is displayed.
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.

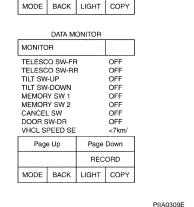
#### **Without CONSULT-II**

ĞO TO 2.

OK or NG

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





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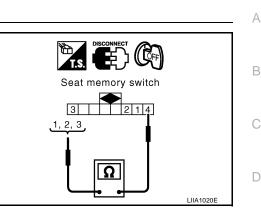
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# AUTOMATIC DRIVE POSITIONER

# 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 as follows.

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



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#### OK or NG

OK >> GO TO 3.

NG >> Replace seat memory switch.

# 3. CHECK HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit.
- 2. Check continuity between automatic drive positioner control unit connector M33 terminals 9, 24, 25 and seat memory switch connector D5 terminals 1, 2, 3.

: Continuity should exist.
: Continuity should exist.
: Continuity should exist.

- 3. Check continuity between automatic drive positioner control unit connector M33 terminals 9, 24, 25 and ground.
  - 9 Ground
  - 24 Ground
  - 25 Ground
- 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 - Ground

: Continuity should exist.

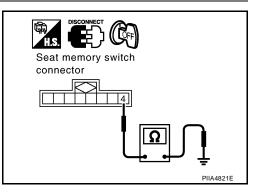
: Continuity should not exist.

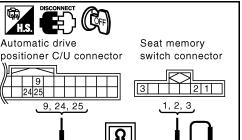
: Continuity should not exist.

: Continuity should not 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

#### (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**

GO 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.
- 3. Check voltage between seat memory switch connector D5 terminal 5 and ground.

#### 5 - Ground

## : Battery voltage

## OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

# 3. CHECK SEAT MEMORY INDICATOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit.
- 3. Check continuity between automatic drive positioner control unit connector M33 terminals 12, 13 and seat memory switch connector D5 terminals 6, 7.
  - 12 6
  - 13 7

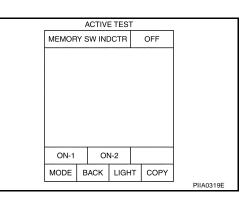
## : Continuity should exist. : Continuity should exist.

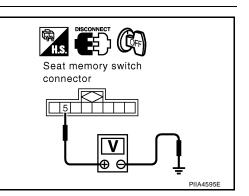
- 4. Check continuity between automatic drive positioner control unit connector M33 terminals 12, 13 and ground.
  - 12 Ground
  - 13 Ground
- : Continuity should not exist.

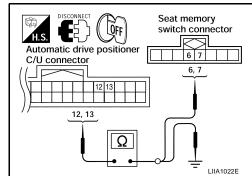
: Continuity should not exist.

#### OK or NG

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







# AUTOMATIC DRIVE POSITIONER

# 4. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

- 1. Connect seat memory switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between automatic drive positioner control unit connector M33 terminals 12, 13 and ground.
  - 12 Ground
- : Battery voltage
- 13 Ground
- : Battery voltage

### OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Replace seat memory switch.

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

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit.
- Check continuity between automatic drive positioner control unit connector M34 terminals 33, 41 and door mirror connector D4 (LH), D107 (RH) terminals 5, 6.
  - 33 5

41 - 6

# : Continuity should exist.

- : Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M34 terminals 33, 41 and ground.
  - 33 Ground 41 - Ground

: Continuity should not exist. : Continuity should not exist.

# OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness.

# 2. CHECK MIRROR SENSOR POWER SUPPLY

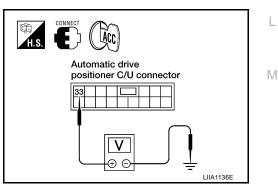
- 1. Connect automatic drive positioner control unit and door mirror LH.
- 2. Turn ignition switch to ACC.
- 3. Check voltage between automatic drive positioner control unit connector M34 terminal 33 and ground.

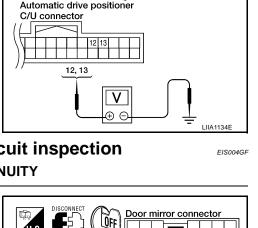
### 33 - Ground

: Approx. 5V

### OK or NG

- OK >> GO TO 3.
- NG >> Replace automatic drive positioner control unit.





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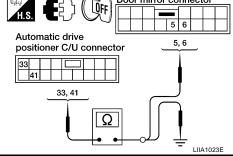
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# 3. CHECK MIRROR SENSOR GROUND CIRCUIT

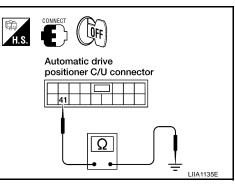
- 1. Turn ignition switch OFF.
- 2. Check continuity between automatic drive positioner control unit connector M34 terminal 41 and ground.

### 41 - Ground

: Continuity should exist.

### OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Replace automatic drive positioner control unit.



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# A/T Device (Park Position Switch) Circuit Inspection (Floor Shift)

# 1. CHECK FUNCTION

# With CONSULT-II

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

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

# DATA MONITOR SELECT MONITOR ITEM CANCEL SW CANCEL SW DOOR SW-DR VHCL SPEED SE DETENT SW Page Up Page Down SETTING Numerical Display MODE BACK LIGHT COPY PILA0291E

# **Without CONSULT-II**

ĞO TO 2.

### OK or NG

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

NG >> GO TO 2.

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

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T device and driver seat control unit.
- 3. Check continuity between A/T device connector M203 terminal 6 and driver seat control unit connector P2 terminal 21.

### 6 - 21

### : Continuity should exist.

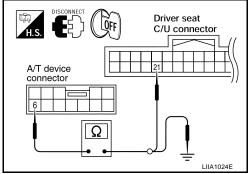
4. Check continuity between A/T device connector M203 terminal 6 and ground.

### 6 - Ground

: Continuity should not exist.

### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.



# 3. CHECK A/T DEVICE

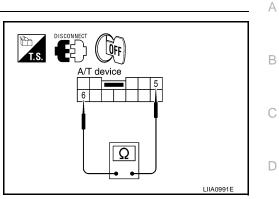
Check continuity between A/T device (park position switch) terminals as follows.

Terminals		Condition	Continuity
5	6	P position	No
		Other than P position	Yes

OK or NG

OK >> A/T device is OK.

NG >> Replace A/T device.



DATA MONITOR

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

DETENT SW

Numerical

Display

BACK LIGHT

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Page Up Page Down

SETTING

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# A/T Device (Park Position Switch) Circuit Inspection (Column Shift) 1. CHECK FUNCTION

### With CONSULT-II

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

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

# **Without CONSULT-II**

ĞO TO 2.

### OK or NG

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

NG >> GO TO 2.

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

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T device and driver seat control unit.
- 3. Check continuity between A/T device connector M68 terminal 8 and driver seat control unit connector P2 terminal 21.

### 8 - 21

### : Continuity should exist.

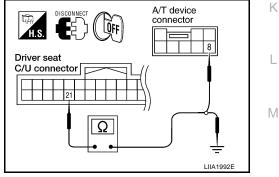
4. Check continuity between driver seat control unit connector P2 terminal 21 and ground.

### 21 - Ground

: Continuity should not exist.

### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.



# 3. CHECK A/T DEVICE

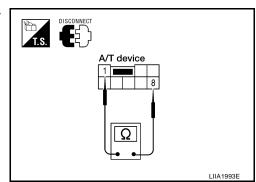
Check continuity between A/T device (park position switch) as follows.

Terminals		Condition	Continuity
1	8	P position	No
1		Other than P position	Yes

OK or NG

OK >> A/T device is OK.

NG >> Replace A/T device.



DATA MONITOR

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

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# Front Door Switch LH Circuit Inspection (King Cab) 1. CHECK FUNCTION

# (P) 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"		Door open (ON)/door closed (OFF) status judged from the front door switch is displayed.

\*:Refer to SE-37, "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

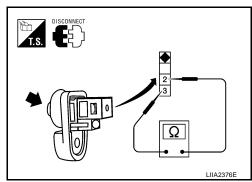
- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch LH.
- Check continuity between front door switch LH terminals 2 and 3.

Terminals		Condition	Continuity
2	3	With the front door switch LH pressed	No
2	5	With the front door switch LH released	Yes

### OK or NG

OK >> GO TO 3.

NG >> Replace front door switch LH.



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Revision: October 2006

# AUTOMATIC DRIVE POSITIONER



- 1. Disconnect BCM.
- 2. Check continuity between BCM connector M19 terminal 47 and front door switch LH connector B8 terminal 2.

47 - 2

: Continuity should exist.

3. Check continuity between BCM connector M19 terminal 47 and ground.

### 47 - Ground

: Continuity should not exist.

### OK or NG

- OK >> Front door switch LH circuit is OK.
- NG >> Repair or replace harness.

# Front Door Switch LH Circuit Inspection (Crew Cab)

# 1. CHECK FUNCTION

### (B) 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"	Door open (ON)/door closed (OFF) status judged from the front door switch is displayed.

### \*:Refer to <u>SE-37, "DATA MONITOR"</u> .

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

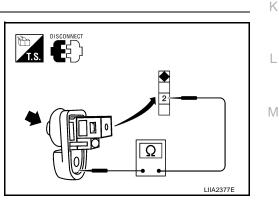
- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch LH.
- 3. Check continuity between front door switch LH terminal 2 and body ground part of front door switch.

Terminals		Condition	Continuity
2	Ground	With the front door switch LH pressed	No
2	Giouna	With the front door switch LH released	Yes

OK or NG

OK >> GO TO 3.

NG >> Replace front door switch LH.



# DATA MONITOR SELECT MONITOR ITEM MEMORY SW 2 CANCEL SW DOOR SW-DR VHCL SPEED SE DETENT SW Page Up Page Up Numerical Display MODE BACK LIGHT

DISCONNECT

BCM connector

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Front door

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# **AUTOMATIC DRIVE POSITIONER**

# 3. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM.
- 2. Check continuity between BCM connector M19 terminal 47 and front door switch LH connector B8 terminal 2.

47 - 2

: Continuity should exist.

3. Check continuity between BCM connector M19 terminal 47 and ground.

### 47 - Ground

### : Continuity should not exist.

### OK or NG

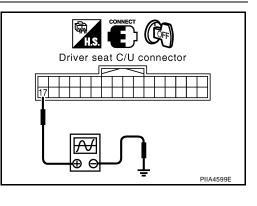
- OK >> Front door switch LH circuit is OK.
- NG >> Repair or replace harness.

# **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.

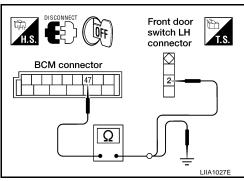
Connector	Terminals		Condition	Signal
Connector	(+)	(-)	Condition	Oighai
P2	17	Ground	Pedal adjusting switch ON (FOR- WARD or BACK- WARD operation)	(V) 6 4 2 0 2 ms PIIA4814E



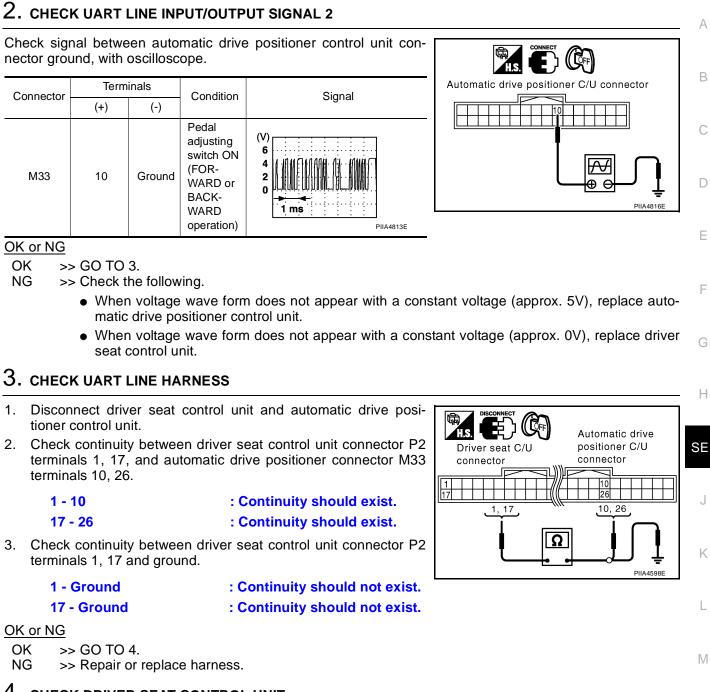
# OK or NG

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.



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# 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.

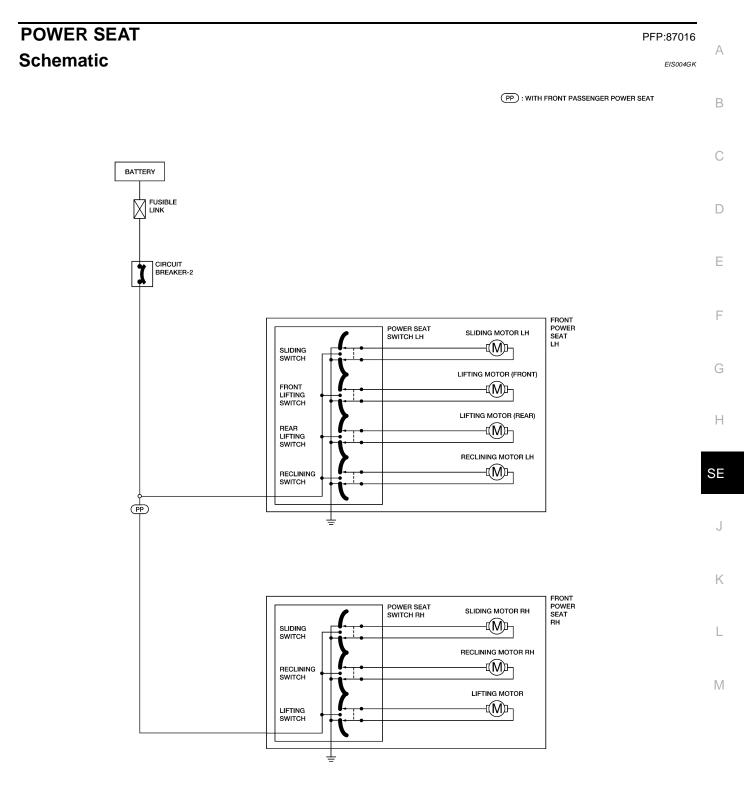
# AUTOMATIC DRIVE POSITIONER

# **Removal and Installation**

Refer to <u>ACC-3, "ACCELERATOR CONTROL SYSTEM"</u> and <u>BR-6, "BRAKE PEDAL"</u>.

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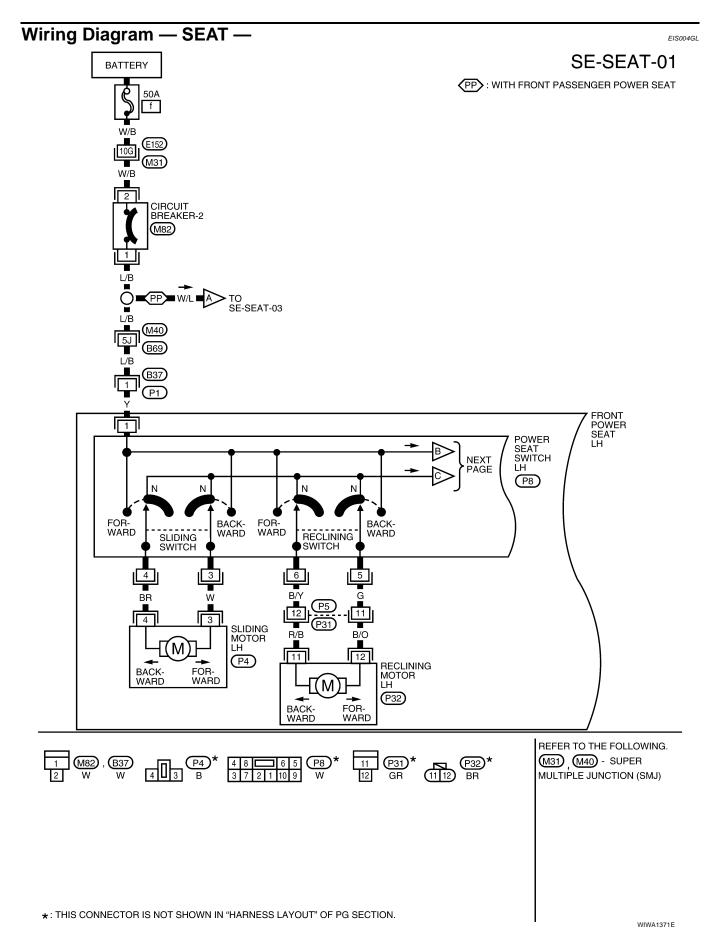
# **POWER SEAT**



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2006 Titan

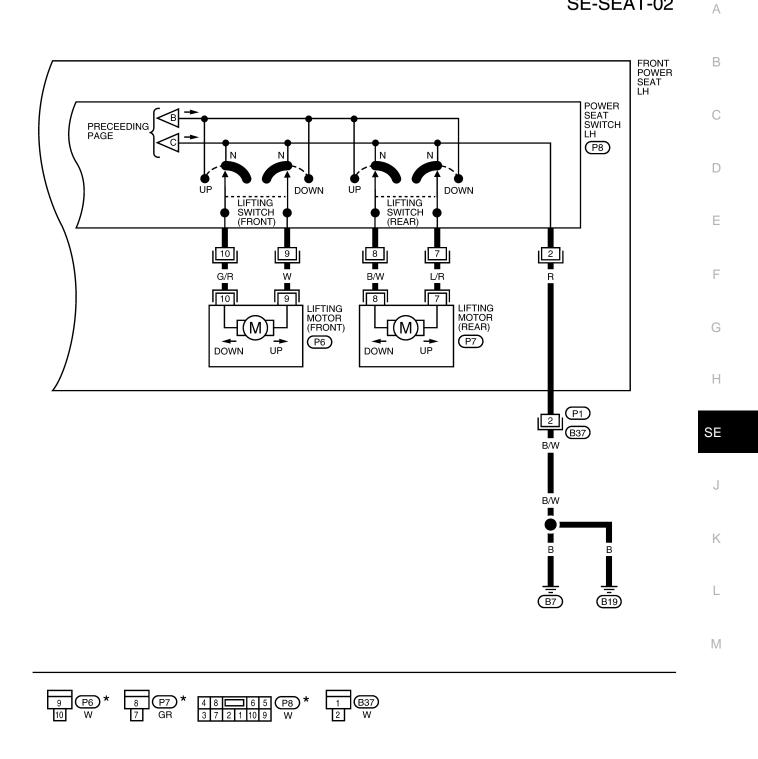
# **POWER SEAT**



Revision: October 2006

# **POWER SEAT**

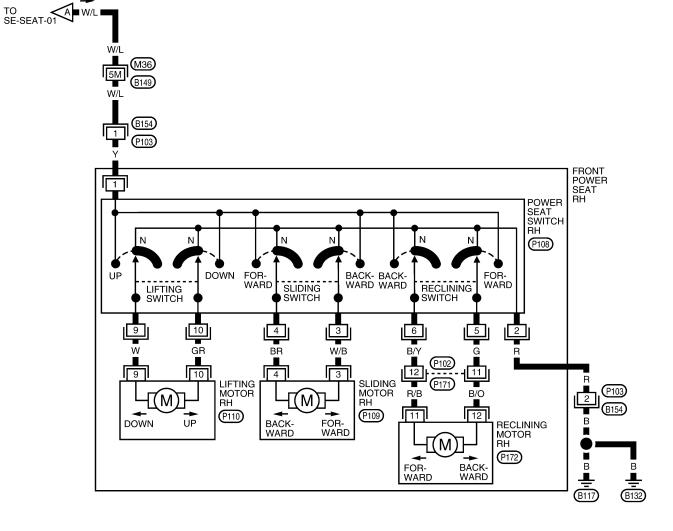
SE-SEAT-02



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

WIWA1372E





SE-SEAT-03

# **HEATED SEAT**

# HEATED SEAT

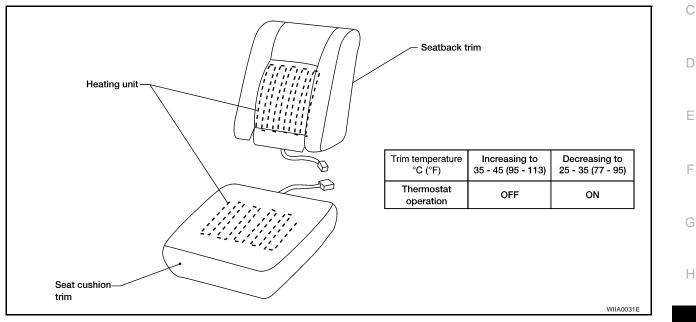
Description

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- When handling seat, be extremely careful not to scratch heating unit.
- Front passenger seat cushion and seatbacks equipped with air bags cannot be disassembled. They are replaced as assemblies only.
- Do not use any organic solvent, such as thinner, benzene, alcohol, etc. to clean trim.



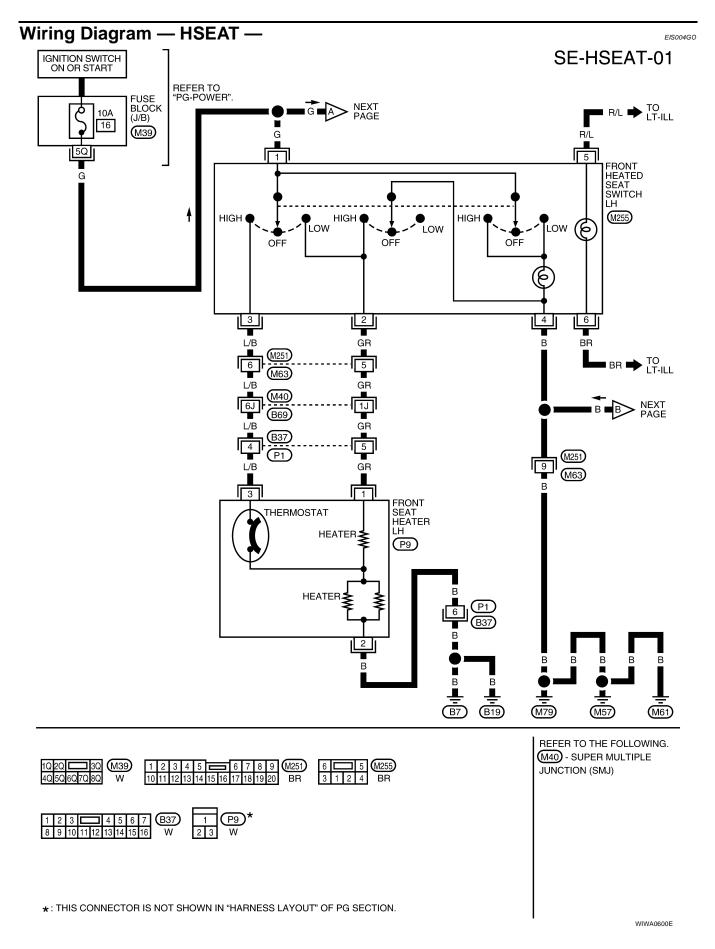
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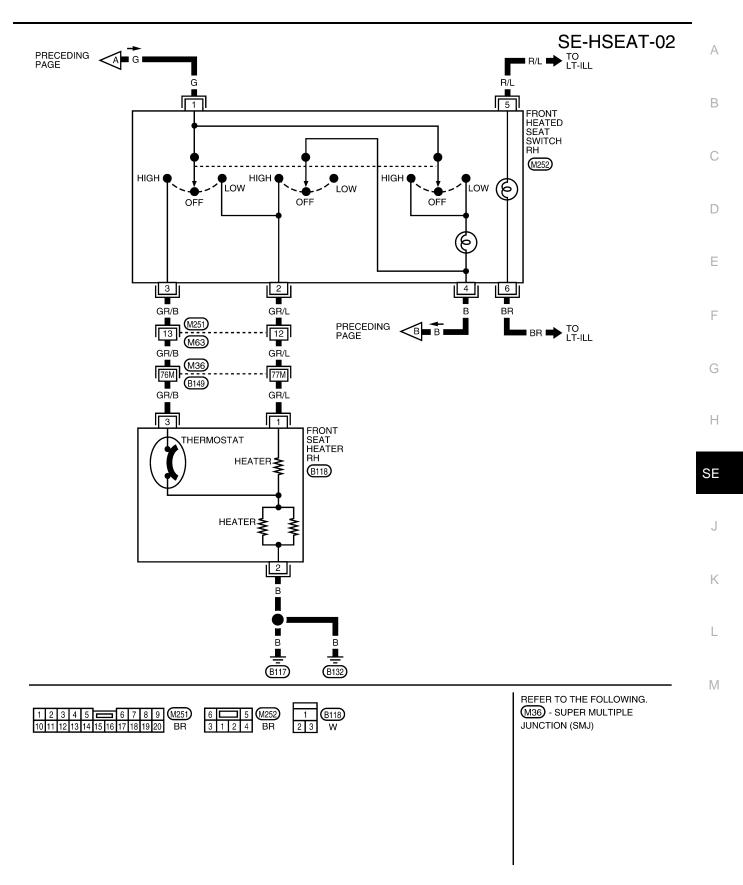
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# **HEATED SEAT**



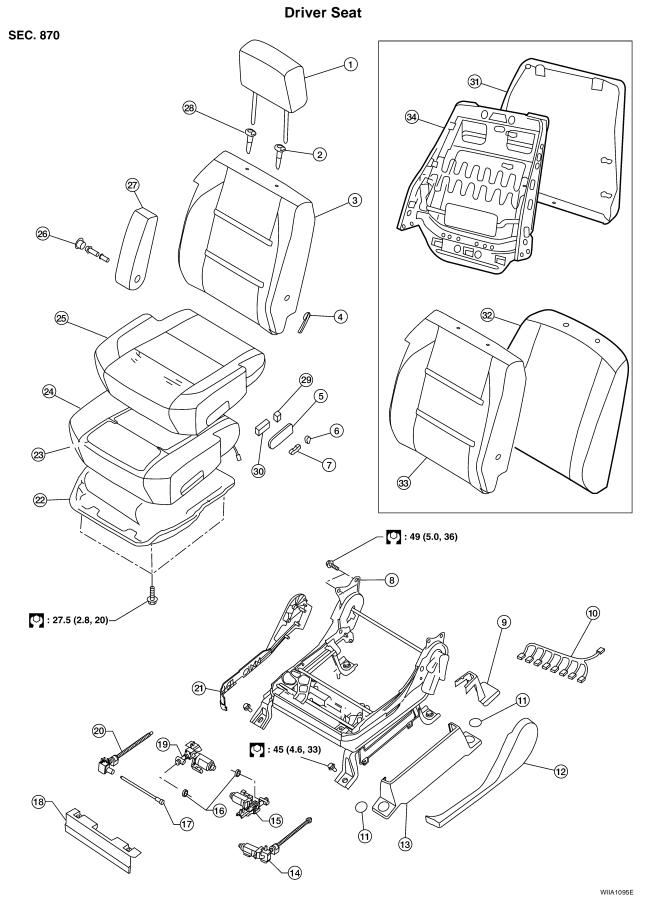


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# FRONT SEAT Removal and Installation

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### Headrest 1.

- 4. Lumbar support lever
- 7. Slide switch knob
- 10. Driver seat wiring harness
- 13. Outer pedestal finisher
- 16. Bushing
- 19. Front lifter motor
- Seat cushion frame 22.
- 25. Seat cushion trim cover
- Headrest holder 28.
- 31. Seatback board (without side air bag) 32. Seatback pad (without side air bag)

- 2. Headrest holder with multi position lock 3.
- 5. Power seat switch escutcheon
- 8. Driver power seat frame assembly
- Bolt cover 11.
- 14. Slide motor
- 17. Drive cable
- 20. Slide gear
- Seat cushion heating element 23.
- 26. Armrest bolt cover
- 29. Recliner switch

- Seatback assembly (with side air bag)
- 6. Recliner switch knob
- 9. LH outer leg cover
- 12. Seat cushion outer finisher
- 15. Rear lifter motor
- 18. Seat cushion front finisher
- 21. Seat cushion inner finisher
- Seat cushion pad 24.
- 27. Armrest assembly
- 30. Seat slide switch
- 33. Seatback trim cover (without side air bag)

34. Seatback frame (without side air bag)

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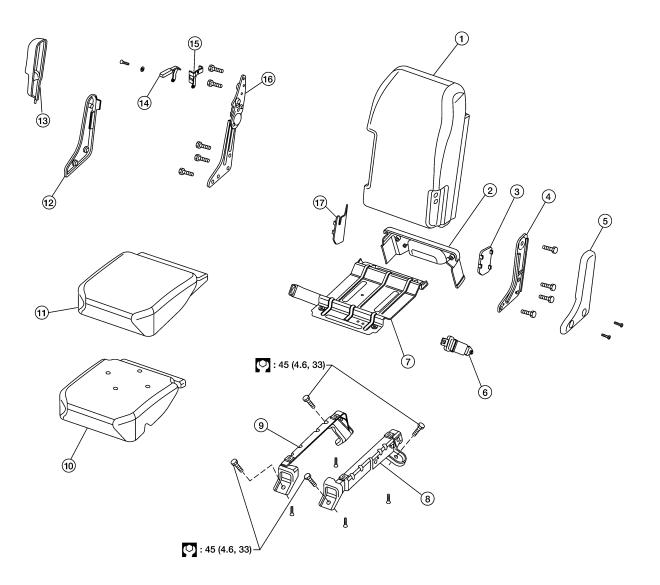
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**Center Seat** 



- 1. Armrest assembly
- 4. Armrest support
- 2. Rear hinge cover
- 5. Armrest bolt cover

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- 3. Inboard armrest support cover
- 6. Seat belt tongue

**SE-90** 

- 7. Center seat pan
- 10. Seat cushion pad
- 13. Upper armrest pivot cover
- 16. Armrest pivot arm

- 8. LH pedestal support
- 11. Seat cushion cover
- 14. Armrest pivot release lever
- 17. Inboard lower pivot cover
- 9. RH pedestal support
- 12. Lower armrest pivot cover
- 15. Armrest release bracket

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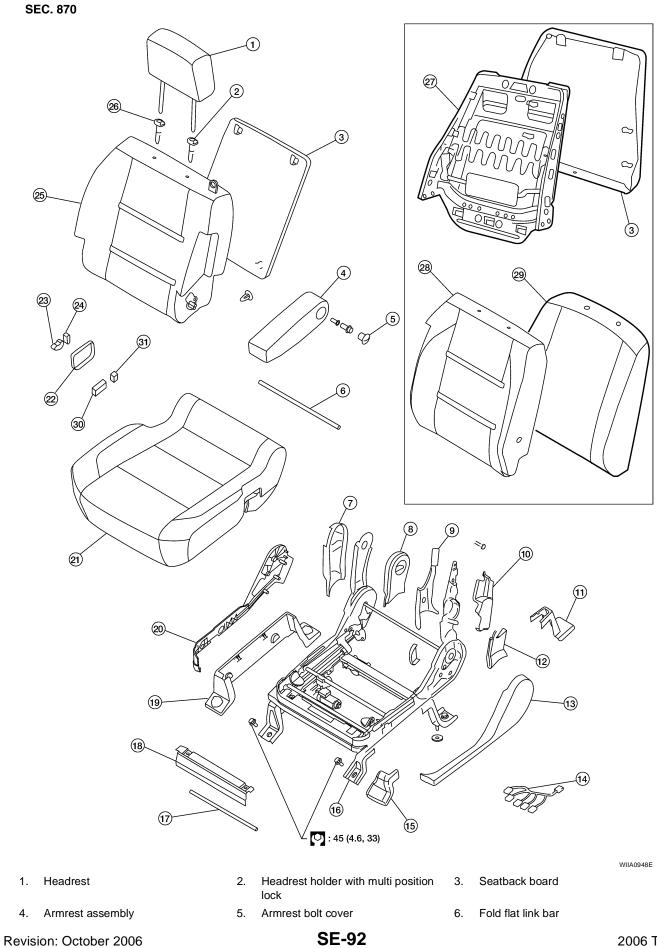
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**Passenger Seat** 



14. Passenger seat wiring harness

20. Seat cushion outer finisher

- 7. Outboard reclining arm outer cover 8.
- 10. Latch cover
- 13. Seat cushion inner cover
- 16. Power seat frame assembly
- 19. Outer pedestal finisher
- 22. Power seat switch escutcheon
- 25. Seatback assembly
- 28. Seatback trim cover without side air 29. Seatback pad without side air bag bad
- 31. Seat slide switch

# REMOVAL

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

11. LH outer leg cover

17. NVH assembly

23. Slide switch knob

26. Headrest holder

### **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 Occupant Classification System sensor and control module. Do not disassemble front passenger seat cushion assembly or remove trim as this will affect the Occupant Classification System calibration.
- Always replace passenger seat cushion as an assembly.
- Slide the seat until the four seat to body bolts are visible and a tool can be inserted. 1. 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.
- 4. Remove the four seat to body bolts.
- Disconnect the power seat harness connectors and remove the seat from the vehicle. 5 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.

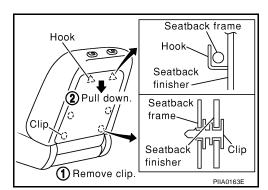
### Disassembly and Assembly SEATBACK TRIM AND PAD

### NOTE:

Only complete outboard seatback assemblies can be replaced on vehicles equipped with side air bags. NOTE:

Be sure to set the front/rear cushion lifter to the top position.

1. Remove the seatback board from the back of the seatback.



- Outboard reclining arm inner cover 9. Inboard reclining arm inner cove 12. Outboard reclining arm inner cover
  - 15. Inner front leg cover
  - 18. Seat cushion front finisher
  - 21. Seat cushion assembly
  - 24. Recliner switch knob
  - 27. Seatback frame without side air bag

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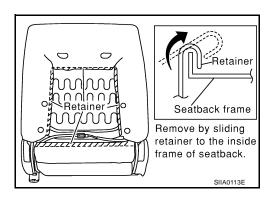
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30. Recliner switch

2. Remove the retainer.



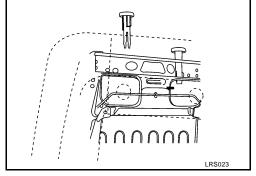
- 3. Remove the headrest.
- 4. From inside of the seatback, squeeze the headrest holder tabs at the base of the stay pipe and pull the up to remove.

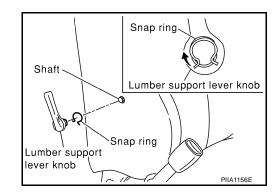
Remove the snap ring and the lumbar support lever knob.

### NOTE:

5.

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





### 6. CAUTION:

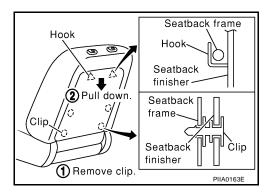
On the passenger seat during installation, the wire harness clips must be installed in the holes they were originally in.

### Do not add additional clips.

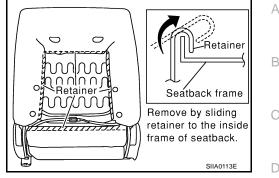
Disconnect the seatback heater harness. Remove the seatback trim and pad assembly. Remove the hog ring to separate the seatback trim from the pad and the heater unit.

### **REMOVAL OF SEATBACK ASSEMBLY**

1. 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 seatback bolts (2 for each side) and seatback assembly.



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# INSTALLATION OF SEATBACK ASSEMBLY

• Installation is in the reverse order of removal.

### SEAT CUSHION TRIM AND PAD

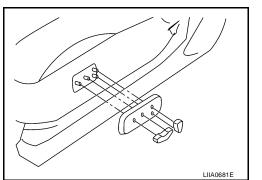
### **CAUTION:**

- Front passenger seat is equipped with Occupant Classification System sensor and control module. Do not disassemble front passenger seat cushion assembly or remove 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 installed 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.

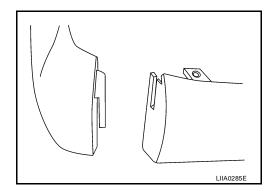
### NOTE:

If the vehicle has been involved in a collision the seat must be inspected for damage. Refer to <u>SRS-57, "COL-LISION DIAGNOSIS"</u>.

1. Remove the power seat switch knobs and power seat switch escutcheon (or recline knobs on manual seat).

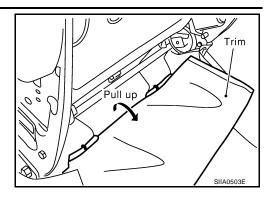


2. Remove the front seat cushion finisher (inner).



3. Remove the power seat switch screws (or lift knobs on manual seats).

4. Remove four bolts and the seat cushion assembly.



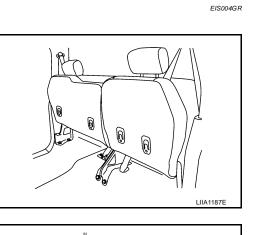
- 5. Remove the retainer on the seat cushion frame, then remove the harness connector for the seat heater.
- 6. On the drivers seat only, after removing the seat cushion trim and pad, remove the hog rings to separate the trim cover from the pad and seat cushion heater unit.

# **REAR SEAT**

# Removal and Installation REMOVAL

- 1. Lift the seat cushion into the stowed position.
- 2. Remove the seatbelt and seat anchor bolts.

3. Release the seatback and remove the seat.



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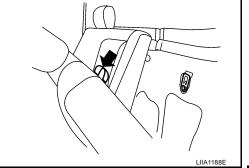
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# INSTALLATION

Installation is in the reverse order of removal.

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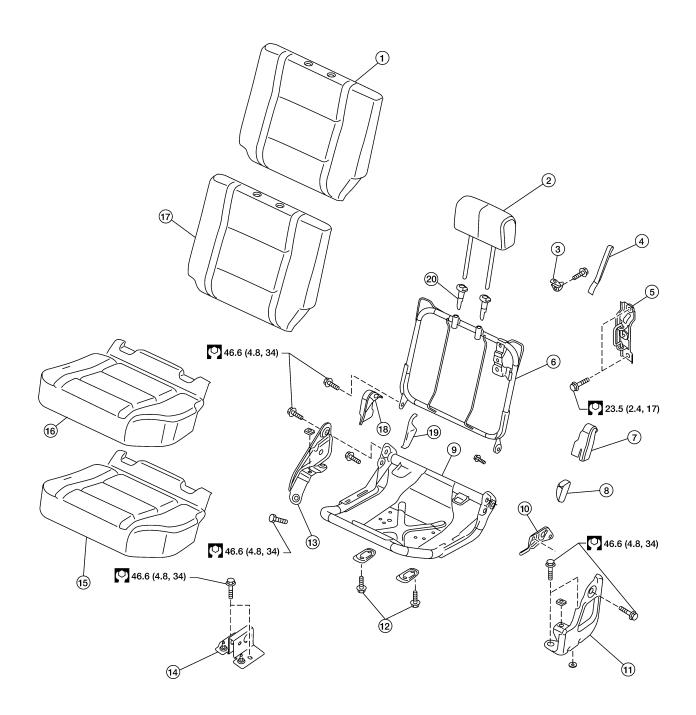
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# **Disassembly and Assembly**

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# **REAR SEAT**

- 1. Seatback pad
- 4. Seatback latch release strap
- 7. Outboard pivot cover
- 10. Seat cushion release assembly
- 13. Inboard seat support
- 16. Seat cushion trim
- 19. Inner inboard pivot cover

- 2. Headrest
- 5. Seatback latch striker
- 8. Release lever handle
- 11. Outboard seat support
- 14. Rear seat bracket
- 17. Seatback trim
- 20. Headrest guide

- 3. Seatback latch
- 6. Seatback frame
- 9. Seat cushion frame
- 12. Grocery bag hooks
- 15. Seat cushion pad
- 18. Inboard outer pivot cover

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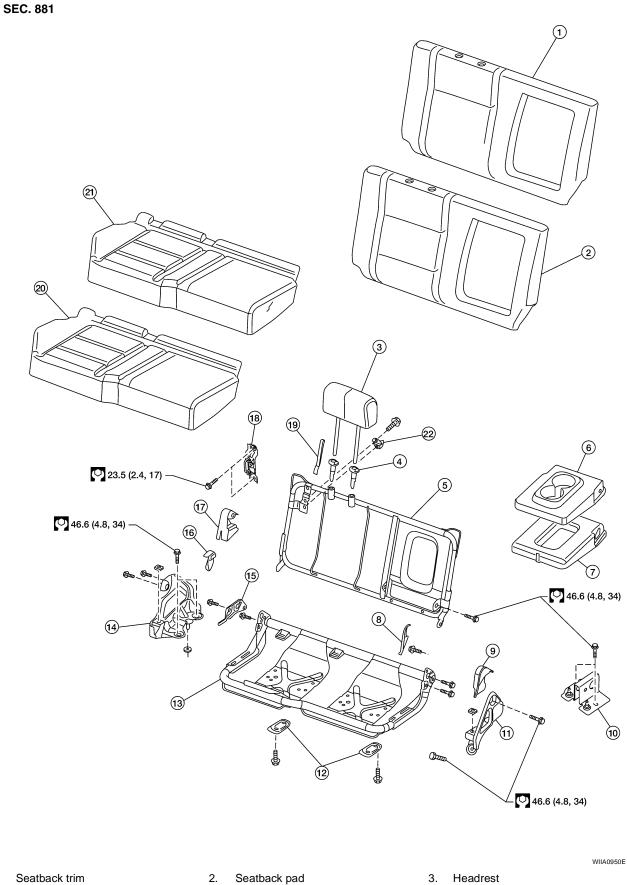
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# **REAR SEAT**

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- Seatback trim 1.
- Locking headrest guide 4.

6.

Arm rest trim

Seatback frame

5.

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- 7. Arm rest pad and frame
- 10. Rear seat bracket
- 13. Seat cushion frame
- 16. Seat cushion release handle
- 19. Seatback release strap
- 22. Seatback latch assembly
- 8. Inner inboard hinge cover
- 11. Inboard seatback pivot anchor
- 14. Outboard seatback pivot anchor
- Outboard pivot cover
   Seat cushion pad
- Outer inboard hinge cover
   Grocery bag hooks
- 15. Seat cushion release lever
- 18. Seatback striker assembly
- 21. Seat cushion trim

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