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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

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

PFP:00002

# **Special Service Tool**

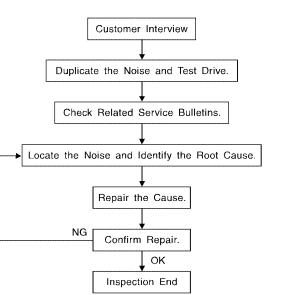
EIS001L3

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 Too	bl	EIS001L4
(Kent-Moore No.) Tool name		Description
(J-39565) Engine ear		Locating the noise

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
Us	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
Ins	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.	0
	e when grease cannot be applied. CT TAPE	D
-	e to eliminate movement.	
со	NFIRM THE REPAIR	Е
	nfirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same notitions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.	
Ge	eneric Squeak and Rattle Troubleshooting	F
Rei	fer to Table of Contents for specific component removal and installation information.	
		0
-	st incidents are caused by contact and movement between:	G
	The cluster lid A and instrument panel	
2.		Н
3.	Instrument panel to front pillar garnish	
4.		
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- felt cloth tape or silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring har-	
nes		Κ
СА	UTION:	
	not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will t be able to recheck the repair.	L
CE	NTER CONSOLE	
Co	mponents to pay attention to include:	M
1.		
	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.

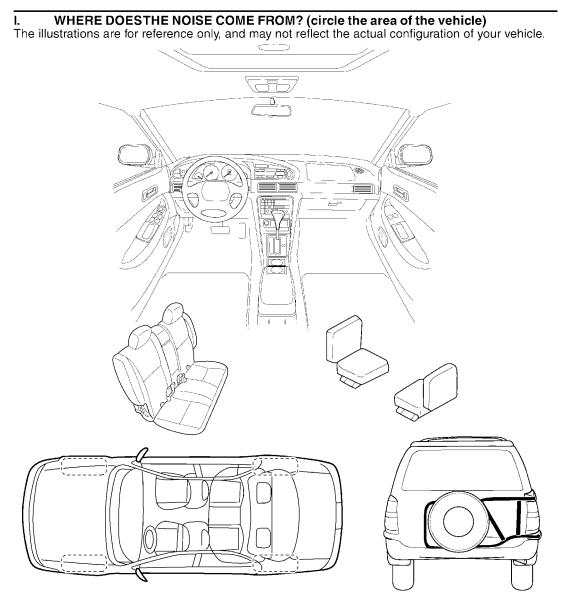
## **Diagnostic Worksheet**



#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Nissan Customer:

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



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

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

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

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

□ after driving \_\_\_\_\_ miles or \_\_\_\_\_ minutes

				Initials of namon	
		<u>YES</u>	<u>NO</u>	Initials of person performing	
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm repair					
VIN:	Customer Name: _				
W.O. #:	Date:	_			SBT844

## This form must be attached to Work Order

AUTOMATIC DRIVE POSITIONER	PFP:28491
System Description OPERATIVE CONDITION	EIS001NR
The drive position can be set in 2 ways, manually and automatically.	

## Manual Operation

The driving position [seat position, steering wheel position and door mirror position] can be adjusted with the power seat switch or ADP steering switch or door mirror remote control switch. **NOTE:** 

- The door mirrors can be manually operated with the ignition switch turned ACC or ON.
- If detection switch error is detected, manual adjustable pedal operation cannot be performed when ignition switch turns ON.

## **Automatic Operation**

Function Description		Description	
Memory operation		The seat, steering wheel and door mirror move to the stored driving position by push- ing memory switch (1 or 2).	
	Exiting operation	At exit, the seat moves backward and the steering wheel raises. (Exiting position)	I
Entry/Exit- ing function Entry operation		At entry, the seat and steering wheel entry from the exiting position to the previous driving position. before the exiting operation.	(
Key fob interlock operation		Perform memory operation, exiting operation and entry 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 driver door switch ON (open)→OFF (close)→ON (open), the Entry/ Exiting operation becomes possible.
- After exiting operation is carried out, entry operation can be operated.

Auto operation temporary stop conditions.	When ignition switch turns to START during memory switch operation and entry operation, memory switch operation and entry operation is stopped.
Auto operation stop conditions.	• When the vehicle speed becomes 7 km/h (4 MPH) or higher. (memory switch operation and entry operation)
	• When the setting switch, memory switch 1, or 2 are pressed.
	• When A/T selector lever is in any position other than P (A/T models).
	• When the parking brake switch is in the OFF position (M/T models)
	• When the door mirror remote control switch is operated (when ignition switch turned to ON).
	When power seat switch turned ON.
	When door mirror operates.
	<ul> <li>When driver seat sliding Entry/Exiting setting is OFF (entry/exiting operation).</li> </ul>

#### NOTE:

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

## SYSTEM DESCRIPTION

- The system automatically moves the driver seat and steering wheel to facilitate entry/exit to/from the vehicle. The automatic driver positioner control unit can also store the optimum driving positions (driver seat, steering wheel position and door mirror position) for 2 people. If the driver is changes, one-touch operation allows changing to the other driving position.
- The settings (ON/OFF) of the automatic sliding seat (Entry/Exiting operation) at entry/exit can be changed as desired, using the display unit in the center of the instrument panel.

## Fail- Safe Mode

When the ignition switch is in the ON position, if any of the parts (indicated in the following chart) move more than the specified amount within a period "T1" when no "ON" input is sent from any of the switches (indicated in the following chart), or an output from the automatic drive positioner is not produced, an output malfunction

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is sensed. Motor operation will be suspended automatically, and all automatic operations will be ineffective. (In this case, the motor will not operate manually).

OPERATED PORTION	T1
Seat sliding	Approx. 2.5 sec.
Seat reclining	Same as above
Seat lifting (Front)	Same as above
Seat lifting (Rear)	Same as above
Steering wheel	Same as above

## **Cancel of Fail-safe Mode**

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

## Memory Storing and Key Fob Interlock Storing

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

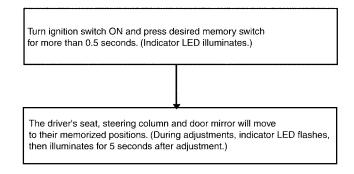
Adjust the position of driver's seat a	nd door mirror with manual operati	ion.		
<ul> <li>Ignition switch is turned ON.</li> <li>A/T selector lever is in P-position.</li> </ul>				
	(1) Indiantaul ED familiate daise	Indicator LEDs		_
Touch set swtich	(1) Indicator LED for which drive illuminates for 5 seconds.	a s seat positions are aread	dyn retained in memory	
(2) Indicator LED for which driver's seat positions are not entered in memory illuminates for 0.5 seconds.				
		Within 5 seconds		
Press memory switch for which driv-	•	Indicator LEDs		
er's seat positions are to be entered in memory for more than 0.5 sec- onds. (2 driver's seat positions can				
be memorized.)	(2) To enter driver's seat position 5 seconds after memory swit		or LED illuminates for	
	Does key fob interlo	ock set?		
	YES		NO	
		[	END OF SETTING	
Press key fob unlock button within 5 seconds after pressing memory		Indicator LEDs	· · · · · · · · · · · · · · · · · · ·	
switch (while memory switch indicator turns on).	If it completes normally, ind	licator of registered memory	y switch turns on for 5 seconds.	
	END OF	SETTING		

- NOTE:
- If another key fob inter lock function setting is performed by same key, newly registered setting is valid.
- If new memory string is performed to memory switch that already set key fob interlock function, key fob
  interlock function setting is reset.
- If key fob does not set previously, key fob interlock function cannot set.

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## **Memory Operation**

Selecting the memorized position.



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#### NOTE:

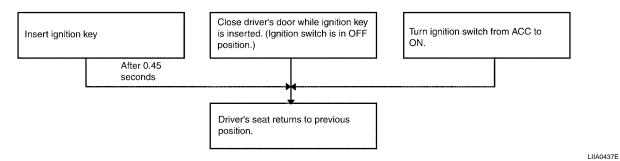
The driver's seat position and steering adjustment functions (see the following table) operate simultaneously in the order of priority.

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

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

## **Entry Operation**

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

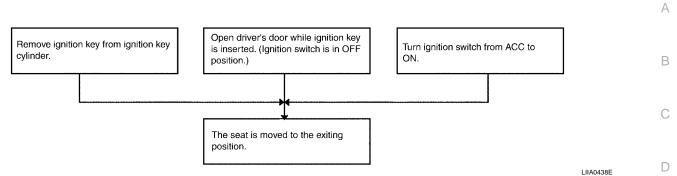


## **Exiting Operation**

At exit, the seat are automatically moved to the exiting position.

• Seat: moves backward

#### • Steering wheel: raises.



## Key Fob Interlock Operation

• Perform memory operation, exiting operation and entry operation by pressing key fob unlock button.

	Push key fob unlock button	
erform memory operation by pressing key fob unlock button.		
fter performing memory operation, perform exiting operation		
	Insert ignition key	
erform entry operation. Seat moves to memorized position.	*	

#### NOTE:

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

Μ

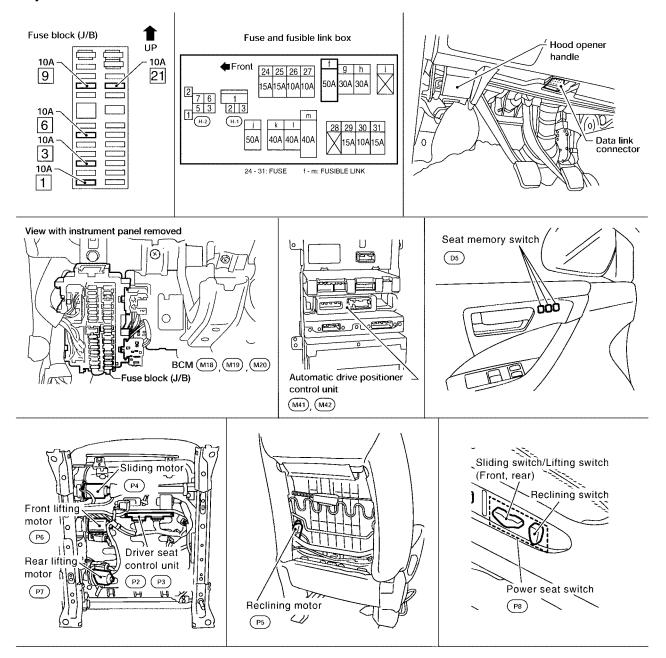
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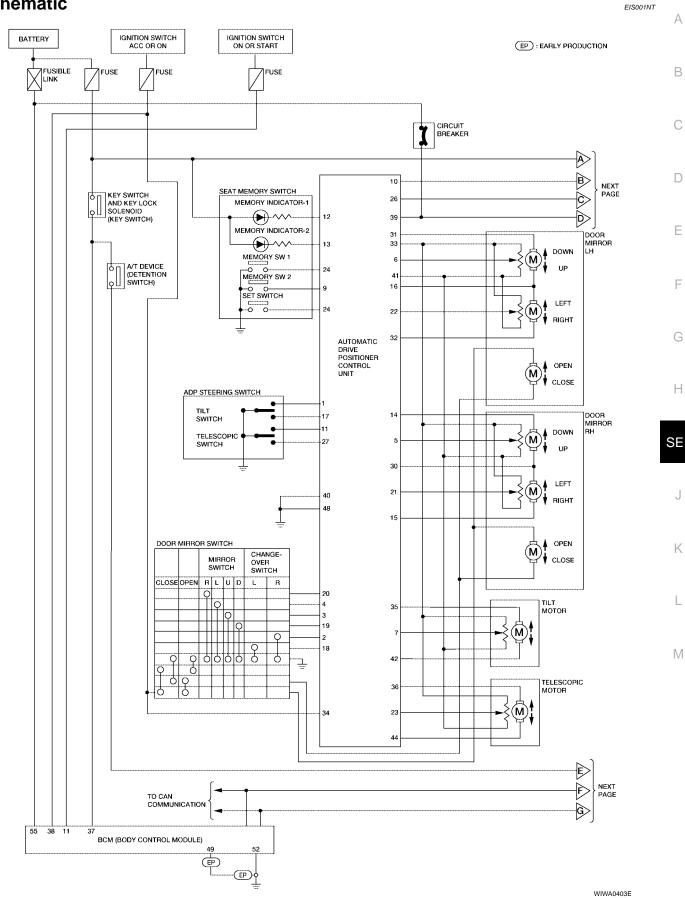
## **Component Parts and Harness Connector Location**

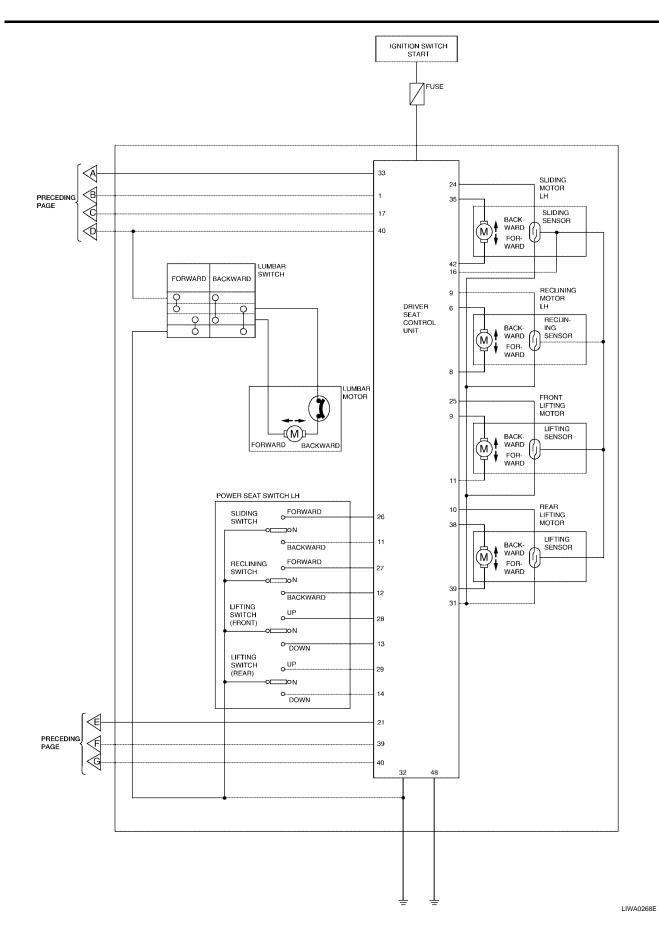


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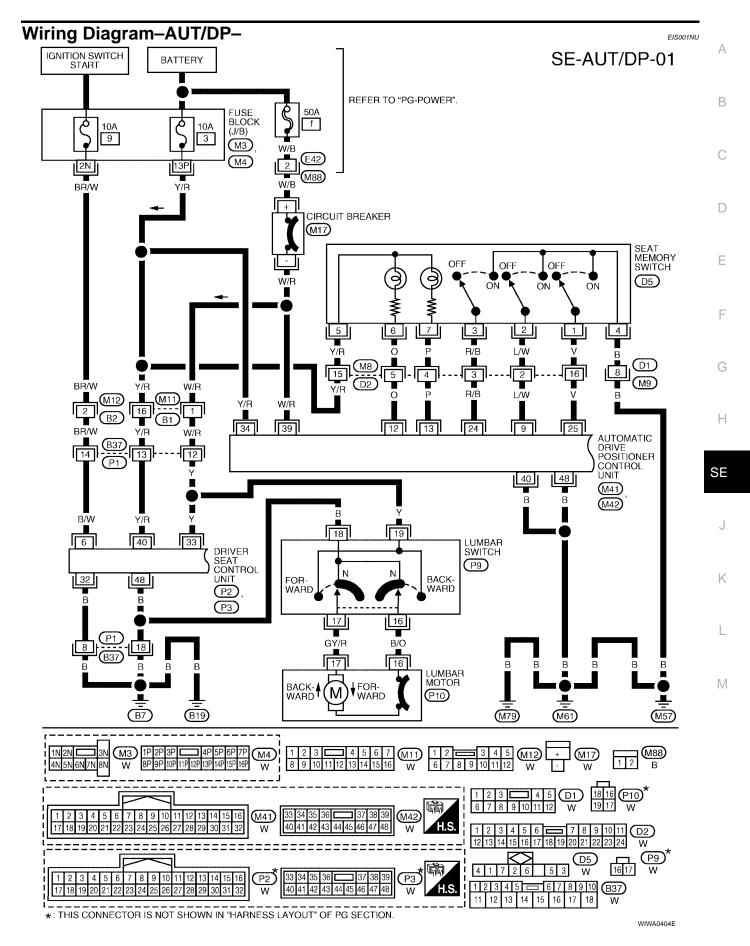
## Schematic

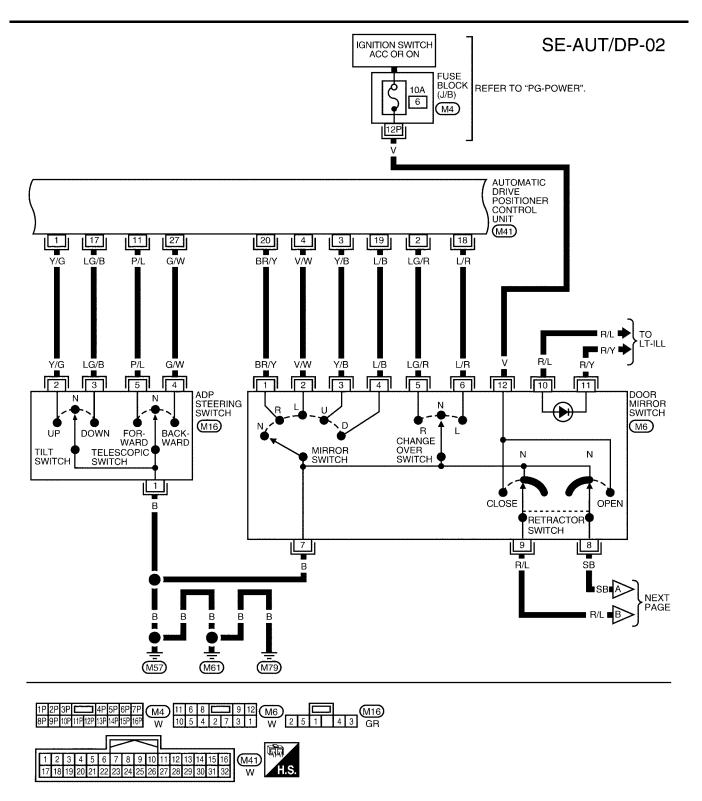




Revision: June 2004

2004 Maxima





LIWA0076E

SE-AUT/DP-03

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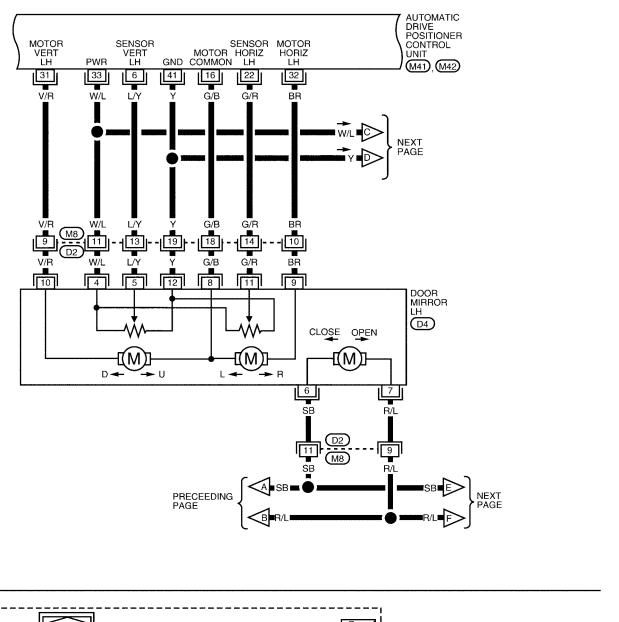
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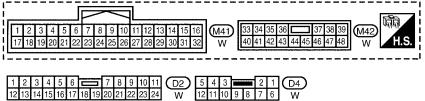
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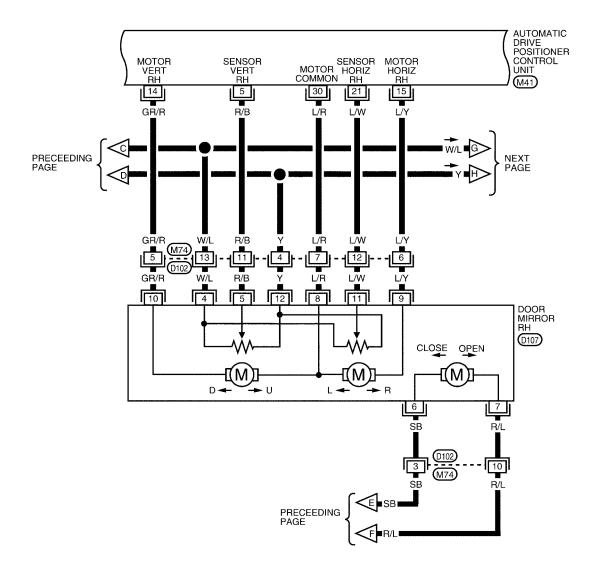
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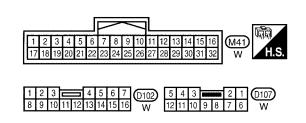




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# SE-AUT/DP-04





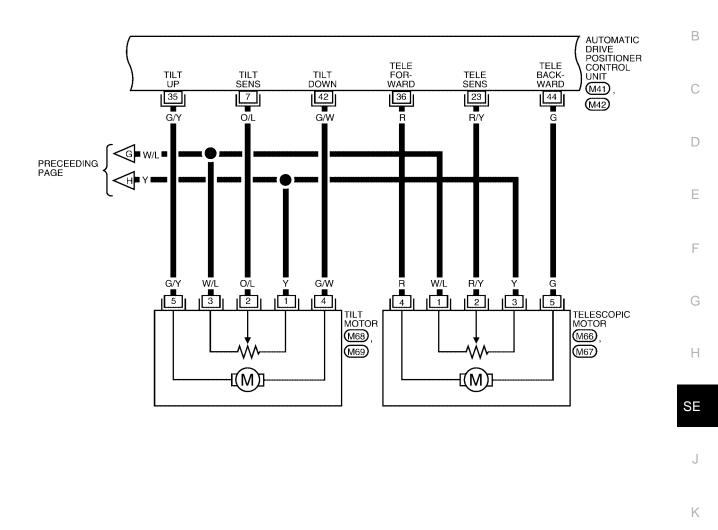
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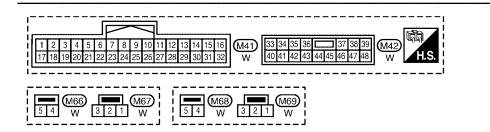
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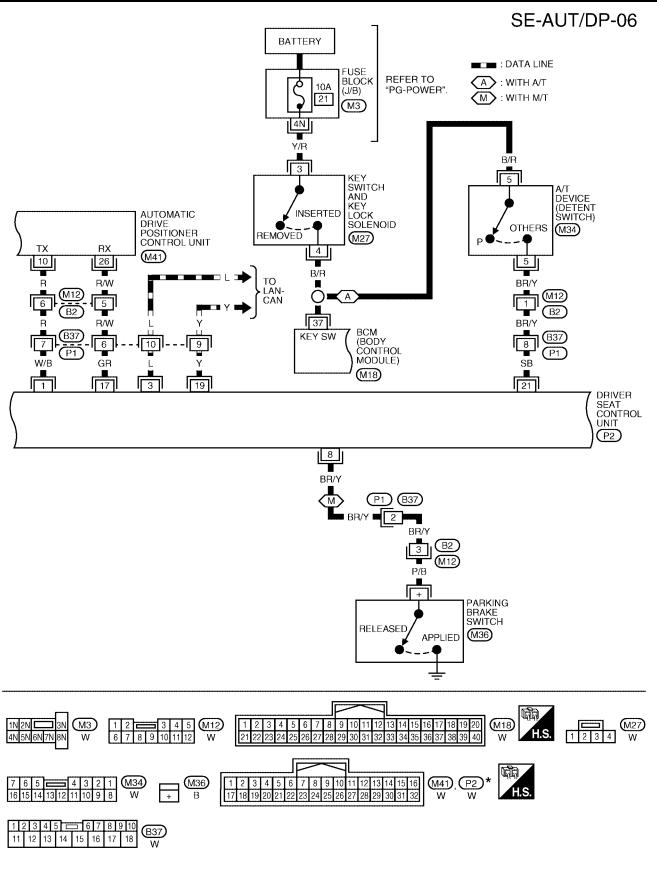
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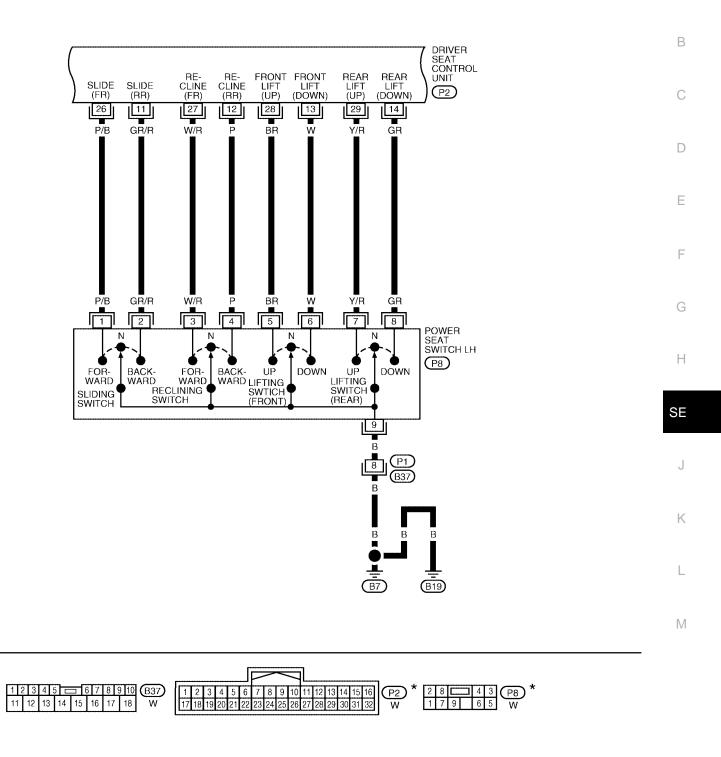


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

WIWA0405E

SE-AUT/DP-07

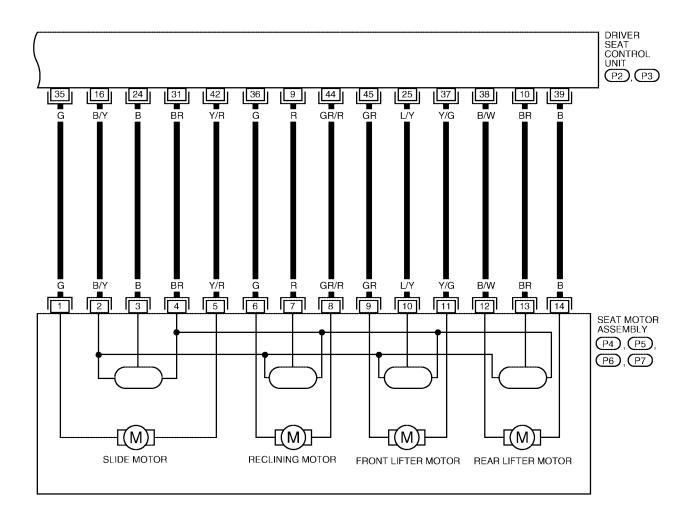
А

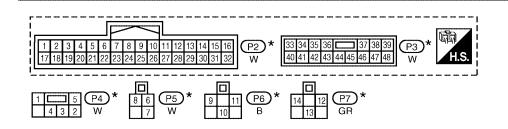


**\***: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

WIWA0406E

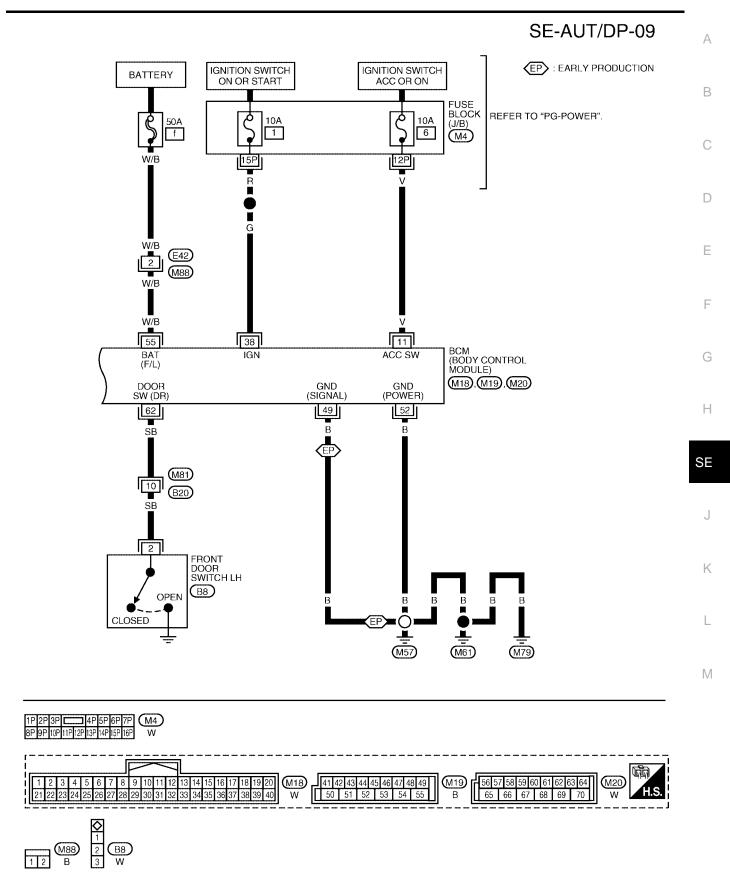
SE-AUT/DP-08





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

WIWA0407E



WIWA0408E

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

EIS001NV

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)	
1	W/B	UART LINE (RX)	—	_	
3	L	CAN-H	_	_	
6	B/W	Ignition switch (START)	Ignition switch (START position)	Battery voltage	
			Parking brake in ON position	0	
8	W	Parking brake switch signal	Parking brake in other than ON position With ignition key in ignition key cylinder	Battery voltage	
9	R	Reclining sensor signal	ON (seat reclining motor opera- tion)	(V) 6 4 2 0 ••••50ms SIIA0692J	
			Other than above	0 or 5	
10	BR	Rear end lifter sensor signal	ON (rear end lifting motor opera- tion)	(V) 4 2 0 • • • • 50ms SIIA0693J	
			Other than above	0 or 5	
11	11 GR/R Sliding switch BACKWARD sig- nal		ON (Sliding switch BACKWARD operation)	0	
			Other than above	Battery voltage	
12	Р	Reclining switch BACKWARD signal	ON (Reclining switch BACK- WARD operation)	0	
		Signal	Other than above	Battery voltage	
13	W	Front lifting switch DOWN signal	ON (front lifting switch DOWN operation)	0	
			Other than above	Battery voltage	
14	GR	Rear lifting switch DOWN signal	ON (rear lifting switch DOWN operation)	0	
			Other than above	Battery voltage	
16	B/Y	Power supply (ENCODER)	—	5	
17	GR	UART LINE (TX)	—	—	
19	Y	CAN-L	—	_	
			Selector lever P position	0	
21	SB Detent switch signal Selector lever tion With ignition k		Selector lever other than P posi- tion With ignition key in ignition key cylinder	Battery voltage	

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)	A
			ON (seat sliding motor operation)		
24	В	Sliding sensor signal	Other than above	(V) 6 4 2 0 0 50 ms	B
25	L/Y	Front end lifting sensor signal	ON (front end lifting motor opera- tion)	(V) 4 2 0 ••••50ms SIIA0691J	D
			Other than above.	0 or 5	F
26	P/B	Sliding switch FORWARD signal	ON (Sliding switch FORWARD operation)	0	
			Other than above	Battery voltage	G
27	W/R	Reclining switch FORWARD sig- nal	ON (Reclining switch FORWARD operation)	0	
		Tiai	Other than above	Battery voltage	Н
28	BR Front lifting switch UP signal		ON (front lifting switch UP opera- tion)	0	
			Other than above	Battery voltage	SE
29	Y/R	Rear lifting switch UP signal	ON (rear lifting switch UP opera- tion)	0	
			Other than above	Battery voltage	J
31	BR	Sensor ground	—	0	
32	B/W	Ground	—	0	K
33	Y	Battery power supply	—	Battery voltage	
35	G	Sliding motor FORWARD out- put signal	Sliding switch FORWARD opera- tion (Motor operated)	Battery voltage	L
			Other than above	0	
36	G	Reclining motor FORWARD out- put signal	Reclining switch FORWARD oper- ation (Motor operated)	Battery voltage	N
		Fac e.g. a.	Other than above	0	
37	Y/G	Front end lifting motor DOWN output signal	Front end lifting switch DOWN operation (Motor operated)	Battery voltage	
		output orginal	Other than above	0	
38	B/W	Rear end lifting motor UP output signal	Rear end lifting switch UP opera- tion (Motor operated)	Battery voltage	
			Other than above	0	
39	В	Rear end lifting motor DOWN output signal	Rear end lifting switch DOWN operation (Motor operated)	Battery voltage	
		· ····	Other than above	0	
40	Y/R	Battery power supply	—	Battery voltage	
42	Y/R	Sliding motor BACKWARD out- put signal	Sliding switch BACKWARD oper- ation (Motor operated)	Battery voltage	
		Paragna	OFF	0	

Terminal	Wire Color	ltem	Condition	Voltage (V) (Approx.)
44	GR/R Reclining motor BACKWARD		Reclining switch BACKWARD operation (Motor operated)	Battery voltage
		output signal	Other than above	0
45	GR	Front end lifting motor UP output	Front end lifting switch UP opera- tion (Motor operated)	Battery voltage
		signal	Other than above	0
48	BR	Ground	—	0

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

EIS001NY

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
4	N/C	Tilt quitch signal LID	UP operation	0
1	Y/G	Tilt switch signal UP Other than above		5
0	RH position		RH position	0
2	LG/R	Changeover switch signal RH	Other than above	5
0	V/D	Minnen er itele einere HUD	UP position	0
3	Y/B	Mirror switch signal UP	Other than above	5
4			LEFT position	0
4	V/W	Mirror switch signal LEFT	Other than above	5
5	R/B	Mirror sensor signal RH VER- TICAL	Door mirror RH UP or DOWN oper- ation	Changes between 3.4 and 0.6
6	L/Y	Mirror sensor signal LH VER- TICAL	Door mirror LH UP or DOWN opera- tion	Changes between 3.4 and 0.6
7	0/1		Tilt position TOP	2
7	O/L Tilt sensor input		Tilt position BOTTOM	4
0	1 444	Power seat memory switch 1	Memory switch 1 ON	0
9	L/W	signal Memory switch 1 OFF		5
10	R	UART LINE (TX)		_
44	D/I	Telescopic switch signal FOR-	FOREWARD operation	0
11	P/L	WARD	Other than above	0
10	0	Power seat memory switch	Memory switch 1 ON	1
12	0	indictor 1 signal	Memory switch 1 OFF	Battery voltage
40	Р	Power seat memory switch	Memory switch 2 ON	1
13	Р	indictor 2 signal	Memory switch 2 OFF	Battery voltage
14	GR/R	Mirror motor signal DUUD	UP operation	1.5 - Battery voltage
14	GR/R	Mirror motor signal RH UP	Other than above	0
45			LEFT operation	1.5 - Battery voltage
15	L/Y	Mirror motor signal RH LEFT	Other than above	0
		Mirror motor signal LH DOWN	DOWN operation	1.5 - Battery voltage
16	G/B	Mirror motor signal LH DOWN	Other than above	0
16	G/B	Mirror motor signal LH DICUT	RIGHT operation	1.5 - Battery voltage
		Mirror motor signal LH RIGHT	Other than above	0
17	LG/B		DOWN operation	0
17	LG/B	Tilt switch signal DOWN	Other than above	5

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)	
10			LH position	0	-
18	L/R	Changeover switch signal LH	Other than above	5	
			DOWN position	0	-
19	L/B	Mirror switch signal DOWN	Other than above	5	-
			RIGHT position	0	-
20	BR/Y	Mirror switch signal RIGHT	Other than above	5	-
21	L/W	Mirror sensor signal RH HORI- ZONTAL	Door mirror RH LEFT or RIGHT operation	Changes between 3.4 and 0.6	-
22	G/R	Mirror sensor signal LH HORI- ZONTAL	Door mirror LH LEFT or RIGHT operation	Changes between 3.4 and 0.6	-
22	D/V		Telescopic position TOP	2	-
23	R/Y	Telescopic sensor input	Telescopic position BOTTOM	4	-
24		Power and ant awitch sizes!	Set switch ON	0	-
24	R/B	Power seat set switch signal	Set switch OFF	5	-
05		Power seat memory switch 2	Memory switch 2 ON	0	-
25	V	signal	Memory switch 2 OFF	5	-
26	R/W	UART LINE (RX)			-
		Telescopic switch signal	BACKWARD operation	0	-
27	G/W	BACKWARD	Other than above	5	-
		Mirror motor signal RH DOWN	DOWN operation	1.5 - Battery voltage	-
	L/R	Mirror motor signal RH DOWN	Other than above	0	-
30			RIGHT operation	1.5 - Battery voltage	-
		Mirror motor signal RH RIGHT	Other than above	0	-
			UP operation	1.5 - Battery voltage	-
31	V/R	Mirror motor signal LH UP	Other than above	0	-
			LEFT operation	1.5 - Battery voltage	-
32	BR	Mirror motor signal LH LEFT	Other than above	0	-
33	W/L	Sensor power supply		5	-
34	Y/R	Battery power supply (FUSE)		Battery voltage	-
			UP operation	Battery voltage	-
35	G/Y	Tilt motor signal UP	Other than above	0	-
		Telescopic motor signal FOR-	FORWARD operation	Battery voltage	-
36	R	WARD	Other than above	0	-
39	W/R	Battery power supply	_	Battery voltage	-
40	В	Ground	_	0	-
41	Y	Sensor ground	_	0	-
			DOWN operation	Battery voltage	-
42	G/W	Tilt motor DOWN signal	Other than above	0	-
		Telescopic motor signal BACK-	BACKWARD operation	Battery voltage	-
44	G	WARD	Other than above	0	-
48	В	Ground		0	-

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

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
11	V	Ignition switch (ACC or ON)	Ignition switch (ACC or ON position)	Battery voltage
37	B/R	Ignition key switch (insert)	Key inserted $\rightarrow$ Key removed from key cylinder	Battery voltage $\rightarrow$ 0V
38	G	Ignition switch (ON or START)	Ignition switch (ON or START position)	Battery voltage
39	L	CAN-H	—	_
40	Y	CAN-L		_
49*	В	Ground		_
52	В	Ground		—
55	W/B	Battery power supply	—	Battery voltage
62	SB	Front door switch LH	Door Close (OFF) $\rightarrow$ Open (ON)	Battery voltage $\rightarrow$ 0V

\*: Early production

## Trouble Diagnosis WORK FLOW

- 1. Check the symptom and customer's requests.
- 2. Understand the system description. Refer to SE-11, "System Description" .
- 3. Perform the preliminary check, refer to SE-32, "PRELIMINARY CHECK" .
- 4. Check the self-diagnosis, results using CONSULT-II refer to <u>SE-37, "Self-diagnosis Results"</u>.
- 5. Repair or replace depending on the self-diagnostic results.
- 6. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-40</u>, <u>"SYMPTOM CHART"</u>.
- 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 position system can be changed, using CONSULT-II and the display in the center of the instrument panel.

 $\times$ : Applicable -: Not applicable

					••
Setting item	Content	CONSULT-II (WORK SUPPORT)	Display unit	Default setting	Factory setting
	The distance at retain opera-	40mm		×	×
SEAT SLIDE VOLUME SEAT	tion can be selected from the	80mm	_	_	—
	following 3 modes.	150mm		_	_
Sliding Driver Seat and Steering Wheel Raise	The seat sliding and steering wheel raise exiting and entry at entry/exit can be selected:	ON	ON: Indicator lamp ON	_	×
When Entry/ Exiting Vehicle	ON (operated)–OFF (not operated)	OFF	OFF: Indicator lamp OFF	×	_
Reset custom settings*	All settings to default.	_	Default: Setting button ON	—	—

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



EIS00101

EIS001P9

Content	Setting change operation	Indicator LEDs	Λ
The seat sliding and steering wheel raise turnout and return at entry/exit can be operated.		Blinking twice	A
The seat sliding and steering wheel raise turnout and return at entry/exit can be not oper- ated.	Press the set switch for than 10 seconds	Blinking once	В

\*: Setting of sliding driver seat and steering wheel raise 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.
- If setting change function cannot be set with CONSULT-II or display, refer to SE-35, "CONSULT-II FUNC-TION (AUTO DRIVE POS.)".
- If setting change function cannot be set with set switch, refer to SE-69, "SEAT MEMORY SWITCH CIR-CUIT INSPECTION" .

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

## **1. FUSE INSPECTION**

Check the following fuses and fusible link in the fuse block (J/B) and fuse and fusible link box.

Unit	Terminal No.	Signal name	No.	Location
	55	Battery power supply	f	Fuse and fuslible link box
BCM	11	ACC power supply	6	Fuse block (J/B)
	38	IGN power supply	1	Fuse block (J/B)

OK or NG

OK >> GO TO 2

NG >> Replace the fuse or fusible link.

# 2. POWER SUPPLY CIRCUIT INSPECTION

Disconnect BCM connector, and connect vehicle-side connector terminals shown below to positive probe and Κ body ground to negative probe. Measure voltage.

Unit	Terminal No.	Signal name	Ignition switch	Voltage	1
	55	Battery power supply	OFF	Battery voltage	L
BCM	11	ACC power supply	ACC	Battery voltage	
	38	IGN power supply	ON	Battery voltage	M

OK or NG

OK >> GO TO 3

NG >> Repair or replace harness.

# 3. GROUND CIRCUIT INSPECTION

Check continuity between BCM vehicle-side connector and body ground.

Unit	Terminal No.	Signal name	Ignition switch	Continuity
BCM	49*, 52	Ground	OFF	Yes

\*: Early production

OK or NG

OK >> Power supply and ground circuits are normal.

>> Repair or replace harness. NG

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## **Power Supply And Ground Circuit Inspection**

## 1. CHECK FUSE

Make sure any of the following fuse in the driver seat control unit and automatic drive positioner control unit are blown.

Unit	Power source	Fuse No.
	START power supply	9 (10A)
Driver seat control unit	Battery power supply	3 (10A)
		f (50A)

#### NOTE:

Refer to SE-16, "Component Parts and Harness Connector Location" .

#### OK or NG

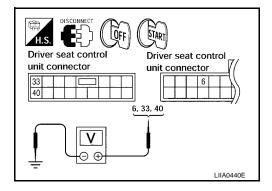
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to <u>SE-</u> 16, "Component Parts and Harness Connector Location" .

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

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

Connector		ninals color)	Power source condition		Voltage (V) (Approx)
	(+)	(-)	Source		(//pp/0/)
P3	33 (Y), 40 (Y/R)	Ground	Battery power supply	lgnition switch OFF	Battery voltage
P2	6 (B/W)	Ground	START power supply	lgnition switch START	Battery voltage



## OK or NG

OK >> GO TO 3.

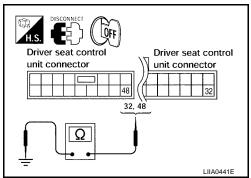
>> Check harness for open and short between driver seat control unit and fuse block (J/B). NG

# 3. CHECK GROUND CIRCUIT (DRIVER SEAT CONTROL UNIT)

- Turn ignition switch OFF. 1.
- Check continuity between the driver seat control unit connector P2 terminal 32 (B/W), P3 terminal 48 (BR) 2. and ground.
  - 32 (B/W) Ground
- : Continuity should exist.
- 48 (B) Ground
- : Continuity should exist.

## OK or NG

- OK >> Driver seat control unit circuit check is ON, GO TO 4.
- NG >> Repair or replace harness between driver seat control unit and ground.

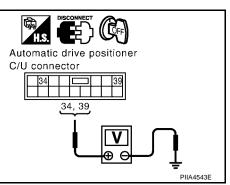


# 4. CHECK POWER SUPPLY CIRCUIT (AUTOMATIC DRIVE POSITIONER CONTROL UNIT)

- 1. Disconnect automatic drive positioner control unit connector.
- 2. Check voltage between automatic drive positioner control unit connector M42 terminal 34 (Y/R), 39 (W/R) and ground.
  - 34 (Y/R) Ground 39 (W/R) – Ground
- : Battery voltage
- : Battery voltage

## OK or NG

- OK >> GO TO 5.
- NG >> Repair or replace harness between driver seat control unit and fuse block (J/B).



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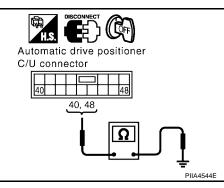
# 5. CHECK GROUND CIRCUIT (AUTOMATIC DRIVE POSITIONER CONTROL UNIT)

Check continuity between the automatic drive positioner control unit connector M42 terminal 40 (B), 48 (B) and ground.

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

#### OK or NG

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



## **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.	

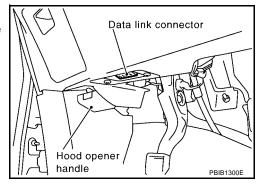
Revision: June 2004

## **CONSULT-II Inspection Procedure**

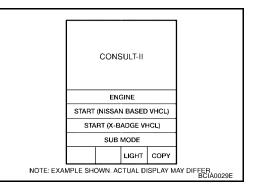
## **CAUTION:**

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

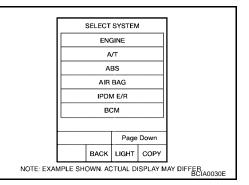
- 1. Turn ignition switch "OFF".
- 2. Connect "CONSULT-II" and "CONSULT-II CONVERTER" to the data link connector.



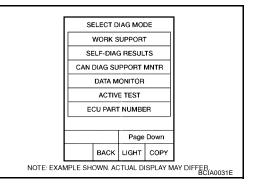
- 3. Turn ignition switch "ON".
- 4. Touch "START (NISSAN BASED VHCL)".



 Touch "AUTO DRIVE POS". If "AUTO DRIVE POS." is not indicated, refer to <u>GI-36, "CON-</u> <u>SULT-II Data Link Connector (DLC) Circuit"</u>.



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



#### Self-diagnosis Results DISPLAY ITEM LIST

ISPLAY ITEM LI	ST		
CONSULT-II display	Item	Malfunction is detected when	Reference page
CAN COMM CIRC [U1000]	CAN communication	Malfunction is detected in CAN communication.	<u>SE-39</u>
SEAT SLIDE [B2112]	Seat slide motor	When any manual and automatic operations are not performed, if any motor operations of seat slide is detected for 0.1 second or more, status is judged "Output error".	<u>SE-42</u> <u>SE-54</u>
SEAT RECLNING [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-43</u> <u>SE-55</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-45</u> <u>SE-56</u>
SEAT LIFTER-RR [B2115]	Seat lifting RR motor	When any manual and automatic operations are not performed, if any motor operations of seat lifting RR is detected for 0.1 second or more, status is judged "Output error".	<u>SE-46</u> <u>SE-57</u>
STEERING TILT [B2116]	Steering tilt motor	When any manual and automatic operations are not performed, if any motor operations of tilt is detected for 0.1 second or more, status is judged "Output error".	<u>SE-51</u>
TILT SENSOR [B2118]	Steering tilt sensor	When steering tilt sensor detects 0.5V or lower, or 4.5V or higher, for 0.5 seconds or more.	<u>SE-64</u>
STEERING TELE- SCO SENSOR [B2119]	Steering telescopic sensor	When steering telescopic sensor detects 0.5V or lower, or 4.5V or higher, for 0.5 seconds or more.	<u>SE-64</u>
DETENT SW [B2126]	Detente SW	With the A/T selector lever in P position (Detente switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input the detente switch input system is judged malfunctioning.	<u>SE-61</u>
PARKING BRAKE [B2127]	Parking brake	With parking brake use (Parking brake switch ON), if a vehicle speed of 7 km/h (4 MPH) or higher is input, the parking brake switch input system is judged malfunctioning.	<u>SE-62</u>
UART COMM [B2128]	UART communica- tion	Malfunction is detected in UART communication.	<u>SE-87</u>

#### NOTE:

- Parking brake malfunction will be detected when starting vehicle on grade or driving without releasing parking brake.
- 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 detection 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".

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#### Data Monitor CAN DIAGNOSIS SUPPORT MONITOR

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

#### **SELECTIOM FROM MENU**

Monitor item [OPERAT	[ION 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.	
RECLIN SW-RR	"ON/OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.	
LIFT FR SW-UP	"ON/OFF"	ON/OFF status judged from the FR lifter switch (UP) signal is displayed.	
LIFT FR SW-DN	"ON/OFF"	ON/OFF status judged from the FR lifter switch (DOWN) signal is displayed.	
LIFT RR SW-UP	"ON/OFF"	ON/OFF status judged from the RR lifter switch (UP) signal is displayed.	
LIFT RR SW-DN	"ON/OFF"	ON/OFF status judged from the RR lifter switch (DOWN) signal is displayed.	
MIR CON SW-UP	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (UP) signal is displayed.	
MIR CON SW-DN	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (DOWN) signal is displayed.	
MIR CON SW-RH	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (RIGHT) signal is displayed.	
MIR CON SW-LH	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (LEFT) signal s displayed.	
MIR CHNG SW-R	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (switching to RIGHT) signal is displayed.	
MIR CHNG SW-L	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (switching to LEFT) signal is displayed.	
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.	
TILT SW-UP	"ON/OFF"	ON/OFF status judged from the tilt adjusting switch (UP) signal is displayed.	
TELESCO SW-FR	"ON/OFF"	ON/OFF status judged from the telescopic adjusting switch (FR) signal is displayed.	
MEMORY SW1	"ON/OFF"	ON/OFF status judged from the seat memory switch 1 signal is displayed.	
MEMORY SW2	"ON/OFF"	ON/OFF status judged from the seat memory switch 2 signal is displayed.	
DETENT SW	"ON/OFF"	The selector lever position "ON (P position) / OFF (other than P position)" judged from the detention switch signal is displayed.	
STARTER SW	"ON/OFF"	Ignition key switch ON (START, ON) /OFF (ignition switch IGN, ACC, or OFF) status judged from the ignition switch signal is displayed.	
SLIDE PULSE	_	Value (32768) when battery connects is as standard. If it moves forward, the value increases. If it moves backward, the value decreases.	
RECLN PULSE	_	Value (32768) when battery connects is as standard. If it moves forward, the value increases. If it moves backward, the value decreases.	
LIFT FR PULSE		Value (32768) when battery connects is as standard. If it moves forward, the value increases. If it moves backward, the value decreases.	

	Monitor item [OPERATION or UNIT]		Contents	
LIFT RR PULSE —		_	Value (32768) when battery connects is as standard. If it moves forward, the value increases. If it moves backward, the value decreases.	1
	MIR/SEN RH R-L	"ON/OFF"	Voltage output from LH door mirror sensor (LH/RH) is displayed.	
	MIR/SEN RH U-D	"ON/OFF"	Voltage output from LH door mirror sensor (UP/DOWN) is displayed.	
	MIR/SEN LH R-L	"ON/OFF"	Voltage output from RH door mirror sensor (LH/RH) is displayed.	
	MIR/SEN LH U-D	"ON/OFF"	Voltage output from RH door mirror sensor (Up/DOWN) is displayed.	
	PARK BRAKE SW	"ON/OFF"	"ON/OFF" status from the parkng brake switch signal is displayed.	

#### Active Test

**CAUTION:** 

During vehicle driving, it does not perform active test.

#### NOTE:

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

Test item	Description	
SEAT SLIDE	The sliding motor is activated by receiving the drive signal.	
SEAT RECLINING	The reclining motor is activated by receiving the drive signal.	
SEAT LIFTER FR	The front end lifter motor is activated by receiving the drive signal.	
SEAT LIFTER RR	The rear end lifter motor is activated by receiving the drive signal.	
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.	S

#### CAN COMMUNICATION INSPECTION USING CONSULT-II (SELF-DIAGNOSIS)

#### **1. SELF-DIAGNOSTIC RESULT CHECK**

#### **CAUTION:**

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

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

CONSULT-II display code	Diagnostic item	
	INITIAL DIAG	
	TRANSMIT DIAG	
U1000	BCM	
	METER/M&A	
	ECM	

#### Contents diplayed.

No malfunction>>INSPECTION END

Malfunction in CAN communication system>>After printing the monitor items, go to "CAN System". Refer to <u>LAN-8, "CAN COMMUNICATION"</u>.

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#### SYMPTOM CHART

Symptom	Diagnoses / service procedure	Refer to page
	1.Sliding motor circuit inspection	<u>SE-42</u>
	2. Reclining motor circuit inspection	<u>SE-43</u>
A part of seat system does not operate (both automati-	3. Front lifter motor circuit inspection	<u>SE-45</u>
cally and manually).	4. Rear lifter motor circuit inspection	<u>SE-46</u>
	5. If the above systems are normal, replace the driver seat control unit	_
	1. Mirror motor LH circuit check	<u>SE-48</u>
A part of door mirror does not operate (both automatically	2. Mirror motor RH circuit check	<u>SE-49</u>
and manually).	3. If the above systems are normal, replace the auto- matic drive positioner control unit.	—
	1. Sliding sensor circuit inspection	<u>SE-54</u>
	2. Reclining sensor circuit inspection	<u>SE-55</u>
A part of seat system does not operate (only automatic	3. Front lifter sensor circuit inspection	<u>SE-56</u>
operation).	4. Rear lifter sensor circuit inspection	<u>SE-57</u>
	5. If the above systems are normal, replace the driver seat control unit	_
	1. Mirror sensor LH circuit check	<u>SE-58</u>
A part of door mirror system does not operate (only auto-	2. Mirror sensor RH circuit check	<u>SE-60</u>
matic operation).	3. If the above systems are normal, replace the auto- matic drive positioner control unit.	_
	1. Detention switch circuit inspection	<u>SE-61</u>
	2. Key switch and key lock solenoid circuit inspection	<u>SE-66</u>
	3. UART communication line circuit inspection	<u>SE-87</u>
All the automatic operations do not operate.	4. Tilt sensor circuit inspection	<u>SE-65</u>
	5. Telescopic sensor circuit inspection	<u>SE-64</u>
	6. If all the above systems are normal, replace the auto- matic drive positioner control unit.	_
	1. Sliding switch circuit inspection	<u>SE-71</u>
	2. Reclining switch circuit inspection	<u>SE-72</u>
A part of seat system does not operate (only manual	3. Front lifter switch circuit inspection	<u>SE-74</u>
operation).	4. Rear lifter switch circuit inspection	<u>SE-75</u>
	5. If the above systems are normal, replace the driver seat control unit	-
	1. Seat sensor power supply and ground inspection	<u>SE-41</u>
	2. Sliding sensor circuit inspection	<u>SE-54</u>
Seat function does not operate (only automatic opera-	3. Reclining sensor circuit inspection	<u>SE-55</u>
ion).	4. Front lifter sensor circuit inspection	<u>SE-56</u>
	5. Rear lifter sensor circuit inspection	<u>SE-57</u>
	6. If the above systems are normal, replace the driver seat control unit	_
	1. Door mirror remote control switch (change over switch) circuit inspection	<u>SE-77</u>
A part of door mirror does not operate (only manual oper- ation).	2. Door mirror remote control switch (mirror switch) switching circuit inspection	<u>SE-79</u>
	3. If the above systems are normal, replace the auto- matic drive positioner control unit	_

Symptom	Diagnoses / service procedure	Refer to page	•
	1. Seat memory switch circuit inspection	<u>SE-69</u>	-
Only memory switch operation.	2. If the above systems are normal, replace the driver seat control unit	_	-
	1. Seat memory indicator lamp circuit inspection	<u>SE-85</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.	-	-
The Entry/Exiting does not operated when door is opened	1. Driver door switch circuit inspection	<u>SE-68</u>	-
and closed. (The Entry/Exiting operates with key switch)	2. If all the above systems are normal, replace the BCM.	-	-
The loss feb interleak function does not energied	1. Key fob interlock function inspection	<u>BL-38</u>	-
The key fob interlock function does not operated.	2. Hall the above systems are normal, replace the BCM	-	-
Only seat system does not operate (only manual opera- tion).	1. Power seat switch ground circuit inspection	<u>SE-76</u>	-

#### SEAT SENSOR POWER SUPPLY AND GROUND INSPECTION

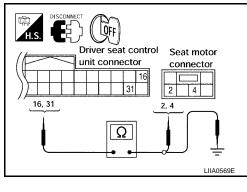
# 1. CHECK SEAT SENSOR HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and seat motor assembly.
- 3. Check continuity between driver seat control unit connector P2 terminals 16 (B/Y), 31 (BR) and seat motor assembly P4 terminals 2 (B/Y), 4 (BR).

16 (B/Y) - 2 (B/Y)31 (BR) – 4 (BR)

: Continuity should exist. : Continuity should exist.

- 4. Check continuity between driver seat control unit connector P2 terminals 16 (B/Y), 31 (BR) and ground.
  - 16 (B/Y) Ground
  - 31 (BR) Ground
- : Continuity should not exist. : Continuity should not exist.



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#### OK or NG

OK >> GO TO 2.

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

# 2. CHECK SEAT SENSOR POWER SUPPLY

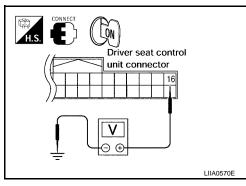
- 1. Connect driver seat control unit.
- 2. Turn ignition switch ON.
- Check voltage between driver seat control unit connector P2 ter-3. minal 16 (B/Y) and ground.

#### 16 (B/Y) – Ground

OK or NG

: Battery voltage.

- OK >> GO TO 3.
- NG >> Replace driver seat control unit.



# 3. CHECK SEAT SENSOR GROUND CIRCUIT

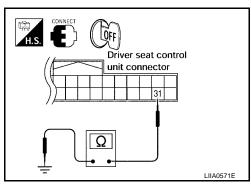
- 1. Turn ignition switch OFF.
- 2. Check continuity between driver seat control unit connector P2 terminal 31 (BR) and ground.

#### 31 (BR) – Ground

: Continuity should not exist.

OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Replace driver seat control unit.



#### SLIDING MOTOR CIRCUIT INSPECTION

# 1. CHECK SEAT SLIDING MECHANISM

Check the following.

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

#### OK or NG

OK >> GO TO 2.

NG >> Repair the 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.

	ACTI	VE TES	Т		
SEAT SI	IDE			OFF	
FR		RR			
MODE	BACK	LIGH	łΤ	COPY	
			_		PIIA0265E

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

ĜO TO 3.

OK or NG

OK >> Sliding motor circuit is OK.

NG >> GO TŎ 3.

# 3. CHECK SLIDING MOTOR HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and sliding motor connector.
- 3. Check continuity between driver seat control unit connector P3 terminals 35 (G), 42 (Y/R) and sliding motor connector P4 terminals 1 (G), 5 (Y/R).
  - 35 (G) 1 (G) 42 (Y/R) – 5 (Y/R)
- : Continuity should exist.

: Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

4. Check continuity between driver seat control unit connector P3 terminals 35 (G), 42 (Y/R) and ground.

35 (G) – Ground

42 (Y/R) – Ground

OK or NG

OK >> GO TO 4.

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

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

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx)
	(+)	()		(Applox)
P3	35 (G) Ground 42 (Y/R)	Ground	Sliding switch ON (FR operation)	Battery voltage
			Sliding switch OFF	0
		Giouna	Sliding switch ON (RR operation)	Battery voltage
			Sliding switch OFF	0

#### OK or NG

OK >> Replace sliding motor.

NG >> Replace driver seat control unit.

#### **RECLINING MOTOR CIRCUIT INSPECTION**

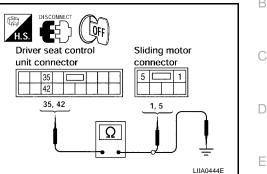
#### 1. CHECK SEAT RECLINING MECHANISM

#### 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.



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H.S. Driver seat control unit connector

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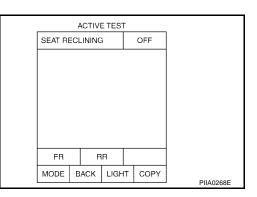
LIIA0445E

# 2. CHECK FUNCTION

#### (I) With CONSULT-II

Check operation with "SEAT RECLINING" in ACTIVE TEST.

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



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

ĞO TO 3.

#### OK or NG

OK >> Reclining motor circuit is OK.

NG >> GO TO 3.

#### 3. CHECK RECLINING MOTOR HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and reclining motor connector.
- 3. Check continuity between driver seat control unit connector P3 terminals 36 (G), 44 (GR/R) and reclining motor connector P5 terminals 6 (G), 8 (BR/R).

36 (G) – 6 (G)

44 (GR/R) – 8 (GR/R)

: Continuity should exist. : Continuity should exist.

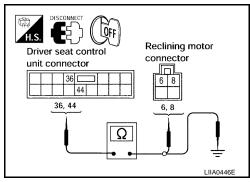
4. Check continuity between driver seat control unit connector P3 terminals 36 (G), 44 (GR/R) and ground.

36 (G) – Ground

- 44 (GR/R) Ground
- : Continuity should not exist. : Continuity should not exist.

OK or NG

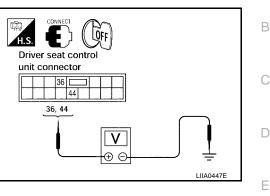
- OK >> GO TO 4.
- NG >> Repair or replace harness between driver seat control unit and reclining motor.



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

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(–)		(Applox)
Ρ3	36 (G) 44 (GR/	Ground	Reclining switch ON (FR operation)	Battery voltage
			Reclining switch OFF	0
			Reclining switch ON (RR operation)	Battery voltage
	R)		Reclining switch OFF	0



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#### OK or NG

OK >> Replace reclining motor.

NG >> Replace driver seat control unit.

#### FRONT LIFTING MOTOR CIRCUIT INSPECTION

#### 1. CHECK FRONT END SEAT LIFTING MECHANISM

Check the following.

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

#### OK or NG

OK >> GO TO 2.

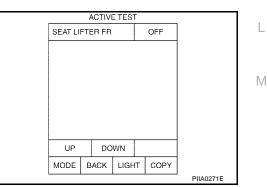
NG >> Repair the malfunctioning part and check again.

#### 2. CHECK FUNCTION

#### With CONSULT-II

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

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



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

ĞO TO 3.

OK or NG

OK >> Front lifting motor circuit is OK.

NG >> GO TO 3.

# 3. CHECK FRONT LIFTING MOTOR HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and front lifting motor connector.
- 3. Check continuity between driver seat control unit connector P3 terminals 37 (Y/G), 45 (GR) and front lifting motor connector P6 terminals 9 (GR), 11 (Y/G).

37 (Y/G) – 11 (Y/G) 45 (GR) – 9 (GR)

- : Continuity should exist. : Continuity should exist.
- Check continuity between driver seat control unit connector P3 4 terminals 37 (Y/G), 45 (GR) and ground.
  - 37 (Y/G) Ground
- : Continuity should not exist.
- 45 (GR) Ground
- : Continuity should not exist.

# OK or NG

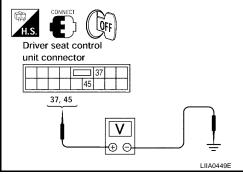
OK >> GO TO 4.

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

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

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

Connector	Terminals (Wire color)		Condition	Voltage (V)
	(+)	(-)		(Approx)
Ρ3	45 (GR) 37 (Y/G)	Ground	Front lifting switch ON (UP operation)	Battery voltage
			Front lifting switch OFF	0
			Front lifting switch ON (DOWN operation)	Battery voltage
			Front lifting switch OFF	0



Front lifting motor

LIIA0448E

connector

9, 11

11 9

Driver seat control

37, 45

45

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unit connector

#### OK or NG

OK >> Replace front lifting motor.

NG >> Replace driver seat control unit.

#### REAR LIFTING MOTOR CIRCUIT INSPECTION

# 1. CHECK REAR END SEAT LIFTING MECHANISM

Check the following.

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

#### OK or NG

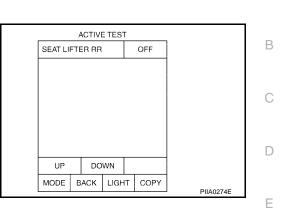
- OK >> GO TO 2.
- NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

#### (I) With CONSULT-II

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

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



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

ĞO TO 3.

#### OK or NG

OK >> Rear lifting motor circuit is OK.

NG >> GO TO 3.

#### 3. CHECK REAR LIFTING MOTOR HARNESS CONTINUITY

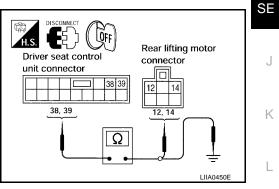
- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and rear lifting motor connector.
- 3. Check continuity between driver seat control unit connector P3 terminals 38 (B/W), 39 (B) and lifting motor connector P7 terminals 12 (B/W), 14 (B).

38 (B/W) – 12 (B/W) 39 (B) – 14 (B) : Continuity should exist. : Continuity should exist.

- 4. Check continuity between driver seat control unit P3 terminals 38 (L), 39 (Y) and ground.
  - 38 (B/W) Ground
  - 39 (B) Ground
- : Continuity should not exist.
- : Continuity should not exist.

#### OK or NG

- OK >> GO TO 4. NG >> Repair or
  - >> Repair or replace harness between driver seat control unit and rear lifting motor.





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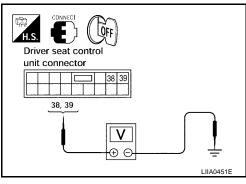
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#### 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V)
Connocion	(+)	(-)	Condition	(Approx)
P3	38 (B/W) Gr 39 (B)	Ground	Rear lifting switch ON (UP operation)	Battery voltage
			Rear lifting switch OFF	0
		Giouna	Rear lifting switch ON (DOWN operation)	Battery voltage
			Rear lifting switch OFF	0



#### OK or NG

OK >> Replace rear lifting motor.

NG >> Replace driver seat control unit.

#### MIRROR MOTOR LH CIRCUIT INSPECTION

#### 1. CHECK MIRROR MOTOR LH 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 mirror motor or lead screws
- Operation malfunction and interference with other parts by poor installation

#### OK or NG

OK >> GO TO 2.

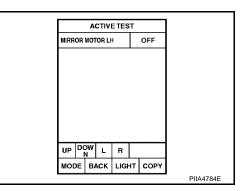
NG >> Repair the malfunctioning part and check again.

#### 2. CHECK FUNCTION

#### With CONSULT-II

Check operation with MIRROR MOTOR LH" in ACTIVE TEST.

Test item	Description
MIRROR	The rear end lifter motor is activated by receiving the drive sig-
MOTOR LH	nal.



# Without CONSULT-II GO TO 3. OK or NG

OK >> Mirror motor LH circuit is OK.

NG >> GO TO 3.



- 1. Turn ignition switch OFF.
- 2. Disconnect memory automatic drive positioner control unit connector and door mirror LH connector.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 16 (G/B), 31 (V/R), 32 (BR) and door mirror LH connector D4 terminals 8 (G/B), 9 (BR), 10 (V/R).
  - 16 (G/B) 8 (G/B)
- : Continuity should exist. : Continuity should exist.
  - 31 (V/R) 10 (V/R) 32 (BR) – 9 (BR)
- : Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M41 terminals 16 (G/B), 31 (V/R), 32 (BR) and ground.
  - 16 (G/B) Ground
  - 31 (V/R) Ground
  - 32 (BR) Ground
- : Continuity should not exist. : Continuity should not exist.

: Continuity should not exist.

Automatic drive positioner Automatic drive positioner C/U connector 16, 31, 32 16, 31, 32 10, 31, 31 10, 31, 31 10, 31,

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#### OK or NG

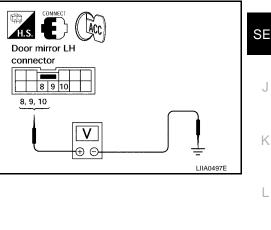
OK >> GO TO 4.

NG >> Repair or replace harness between automatic drive positioner control unit and door mirror LH.

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

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx)
	(+)	()		(Applox)
	8 (G/B)	Ground	When motor is DOWN or RIGHT operation	Battery voltage
D4 9 (BR) 10 (V/R)			Mirror motor LH OFF	0
	9 (BR)		When motor is LEFT opera- tion	Battery voltage
			Mirror motor LH OFF	0
	10 (V/R)		When motor is UP opera- tion	Battery voltage
			Mirror motor LH OFF	0



#### OK or NG

OK >> Replace doo mirror LH.

NG >> Replace automatic drive positioner control unit.

#### MIRROR MOTOR RH CIRCUIT INSPECTION

#### 1. CHECK MIRROR MOTOR RH 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 mirror motor or lead screws
- Operation malfunction and interference with other parts by poor installation

#### OK or NG

OK >> GO TO 2.

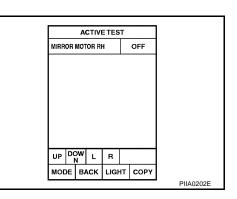
NG >> Repair the malfunctioning part and check again.

#### 2. CHECK FUNCTION

#### (I) With CONSULT-II

Check operation with MIRROR MOTOR RH" in ACTIVE TEST.

Test item	Description
MIRROR	The rear end lifter motor is activated by receiving the drive sig-
MOTOR RH	nal.



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

ĞO TO 3.

#### OK or NG

OK >> Mirror motor RH circuit is OK.

NG >> GO TO 3.

#### **3.** CHECK MIRROR MOTOR RH HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect memory automatic drive positioner control unit connector and door mirror RH connector.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 14 (GR/R), 15 (L/Y), 30 (L/R) and door mirror RH connector D107 terminals 8 (L/R), 9 (L/Y), 10 (GR/R).

- : Continuity should exist.
- : Continuity should exist.
- : Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M41 terminals 14 (GR/R), 15 (L/Y), 30 (L/R) and ground.
  - 14 (GR/R) Ground
- : Continuity should not exist.

: Continuity should not exist.

- 15 (L/Y) Ground
- : Continuity should not exist.
- 30 (L/R) Ground

#### OK or NG

- OK >> GO TO 4.
- NG >> Repair or replace harness between automatic drive positioner control unit and door mirror RH.

H.S. Door mirror RH connector

> 8 9 10 8, 9, 10

> > **∨** ⊕ ⊕

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

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(Applox)
D107	8 (L/R)	Ground	When motor is DOWN or RIGHT operation	Battery voltage
			Mirror motor RH OFF	0
	9 (L/Y) 10 (GR/		When motor is LEFT opera- tion	Battery voltage
			Mirror motor RH OFF	0
			When motor is UP opera- tion	Battery voltage
	R)		Mirror motor RH OFF	0

#### OK or NG

OK >> Replace door mirror RH.

NG >> Replace automatic drive positioner control unit.

#### STEERING WHEEL TELESCOPIC CIRCUIT INSPECTION

#### 1. CHECK STEERING WHEEL TELESCOPIC ADJUSTING MECHANISM

Check the following.

- Operation malfunction caused by pedal adjusting mechanism deformation or pinched harness or other SE foreign materials
- Operation malfunction and interference with other parts by poor installation

#### OK or NG

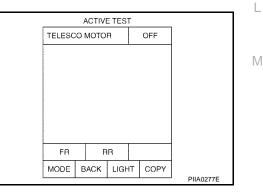
- OK >> GO TO 2.
- NG >> Repair the malfunctioning part and check again.

#### 2. CHECK FUNCTION

#### With CONSULT-II

Check operation with "TELESCO MOTOR" in ACTIVE TEST.

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



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

GO TO 3.

OK or NG

OK >> Steering wheel telescopic motor circuit is OK.

NG >> GO TO 3.

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# 3. CHECK STEERING WHEEL TELESCOPIC MOTOR HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and steering wheel telescopic motor connector.
- 3. Check continuity between automatic drive positioner control unit connector M42 terminals 36 (R), 44 (G) and steering wheel telescopic motor connector M66 terminals 4 (R), 5 (G).
  - 36 (R) 4 (R) 44 (G) – 5 (G)
- : Continuity should exist. : Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M42 terminals 36 (R), 44 (R) and ground.
  - 36 (R) Ground
  - 44 (G) Ground
- : Continuity should not exist.
- : Continuity should not exist.

#### OK or NG

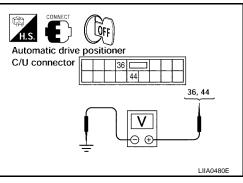
OK >> GO TO 4. NG >> Repair or

>> Repair or replace harness between automatic drive positioner control unit and steering wheel telescopic motor.

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

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(Αρρίοχ)
M42	36 (R) Ground 44 (G)		Telescopic switch ON (FR operation)	Battery voltage
		Ground	Telescopic switch OFF	0
		Ground	Telescopic switch ON (RR operation)	Battery voltage
			Telescopic switch OFF	0



Steering wheel

connector

4 5

4, 5

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telescopic motor

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Automatic drive positioner

36, 44

36 ⊏ 44

C/U connector

#### OK or NG

- OK >> Replace steeing wheel telescopic motor.
- NG >> Replace automatic drive positioner control unit.

#### STEERING WHEEL TILT CIRCUIT INSPECTION

# 1. CHECK STEERING WHEEL TILT 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.

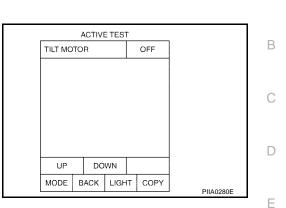
NG >> Repair the malfunctioning part and check again.

#### 2. CHECK FUNCTION

#### (P) With CONSULT-II

Check operation with "TILT MOTOR" in ACTIVE TEST.

Test item	Description
TILT MOTOR	The pedal adjust motor is activated by receiving the drive signal.



#### Without CONSULT-II

ĞO TO 3.

#### OK or NG

OK >> Steering wheel tilt motor circuit is OK.

NG >> GO TO 3.

#### $3.\,$ check steering wheel motor harness continuity

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and steering wheel tilt motor connector. 2.
- 3. Check continuity between automatic drive positioner control unit connector M42 terminals 35 (G/Y), 42 (G/ W) and steering wheel tilt motor connector M68 terminals 4 (G/W), 5 (G/Y).

35 (G/Y) – 5 (G/Y) 42 (G/W) – 4 (G/W) : Continuity should exist. : Continuity should exist.

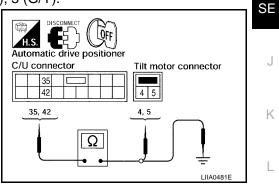
Check continuity between automatic drive positioner control unit 4. connector M42 terminals 35 (G/Y), 42 (G/W) and ground.

- 35 (G/Y) Ground
- : Continuity should not exist. 42 (G/W) – Ground
  - : Continuity should not exist.

#### OK or NG

OK >> GO TO 4.

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



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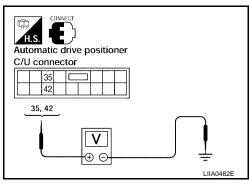
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#### 4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(–)		(Applox)
M42 -	35 (G/Y)		Tilt switch ON (UP operation)	Battery voltage
		Ground	Tilt switch OFF	0
	42 (G/W)	Giounu	Tilt switch ON (DOWN operation)	Battery voltage
			Tilt switch OFF	0



#### OK or NG

OK >> Replace steering wheel tilt motor.

NG >> Replace automatic drive positioner control unit.

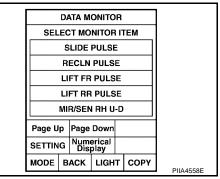
#### SLIDING SENSOR CIRCUIT INSPECTION

#### 1. CHECK FUNCTION

#### (D) With CONSULT-II

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

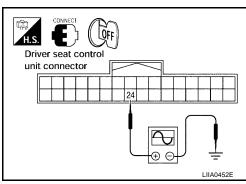
Monitor item [OPE]	RATION or UNIT]	Contents
SLIDE PULSE		The seat sliding position (pulse) judged from the sliding sensor signal is dis- played



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

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

Connector	-	inals color)	Condition	Signal
	(+)	(–)		
P2	24 (B)	Ground	Sliding motor operation	(V) 6 4 2 0 50 ms FIIA3277E



OK or NG

OK >> Sliding sensor circuit is OK.

NG >> GO TO 2.

# 2. CHECK SLIDING SENSOR HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and sliding motor connector.
- 2. Check continuity between driver seat control unit connector P2 terminal 24 (B) and sliding motor P4 terminal 3 (B).

24 (B) – 3 (B)

#### : Continuity should exist.

 Check continuity between driver seat control unit P2 terminal 24 (B) and ground.

#### 24 (B) – Ground

#### : Continuity should not exist.

#### OK or NG

NG

- OK >> Replace sliding motor.
  - >> Repair or replace harness between driver seat control unit and sliding motor.

#### **RECLINING SENSOR CIRCUIT INSPECTION**

#### 1. CHECK FUNCTION

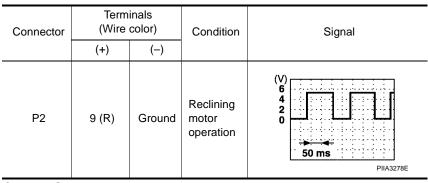
#### With CONSULT-II

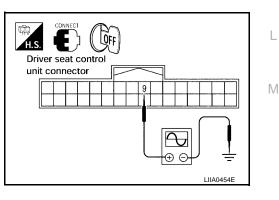
Check operation with "RECLINING PULSE" on the DATA MONITOR to make sure the pulse changes.

Monitor item [POEF	RATION or UNIT]	Contents	DATA MONITOR
RECLN PULSE	_	The seat reclining position (pulse) judged from the reclining sensor is displayed	SELECT MONITOR ITEM
		from the reclining sensor is displayed	RECLN PULSE
			LIFT FR PULSE

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

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





MIR/SEN RH U-D

Page Up Page Down
SETTING Numerical
Display
MODE BACK LIGHT COPY

#### OK or NG

OK >> Reclining sensor circuit is OK.

NG >> GO TO 2.

Driver seat control unit connector Unit connector



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# 2. CHECK RECLINING SENSOR HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and reclining motor connector.
- 2. Check continuity between driver seat control unit connector P2 terminal 9 (R) and reclining motor connector P5 terminal 7 (R).

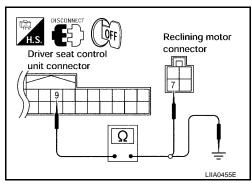
9 (R) - 7 R)

: Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 9 (R) and ground.

9 (R) – Ground

: Continuity should not exist.



#### OK or NG

OK >> Replace reclining motor.

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

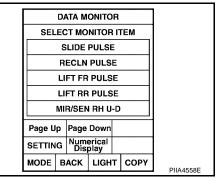
#### FRONT LIFTING SENSOR CIRCUIT INSPECTION

#### 1. CHECK FUNCTION

#### With CONSULT-II

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

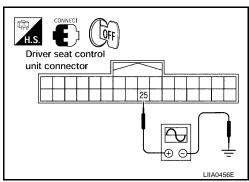
LIFT FR PULSE — The front lifting position (pulse) judged from the front lifting sensor is displayed	Monitor item [OPER	ATION or UNIT]	Contents
	LIFT FR PULSE	_	



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

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

Connector	Term (Wire	inals color)	Condition	Signal
	(+)	(-)		
P2	25 (L/Y)	Ground	Front lift- ing motor operation	(V) 6 2 0 50 ms PIIA3278E



#### OK or NG

OK >> Front lifting sensor is OK.

NG >> GO TO 2.

# 2. CHECK FRONT LIFTINGS HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and front lifting motor connector.
- 2. Check continuity between driver seat control unit connector P2 terminal 25 (L/Y) and front lifting motor connector P6 terminal 10 (L/Y).

: Continuity should exist.

Check continuity between driver seat control unit connector P2 terminals 25 (L/Y) and ground.

#### 25 (L/Y) – Ground

#### : Continuity should not exist.

#### OK or NG

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

#### REAR LIFTING SENSOR CIRCUIT INSPECTION

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

#### (P) With CONSULT-II

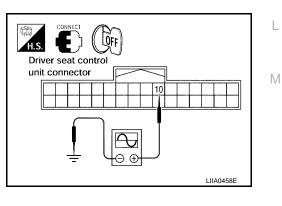
Check operation with "LIFT RP PULSE" on the DATA MONITOR to make sure pulse changes.

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

$\otimes$	Without CONSULT-II
4	Turn ignition quitab OE

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

Connector	Term (Wire		Condition	Signal
	(+)	(-)		
P2	10 (BR)	Ground	Rear lift- ing motor operation	(V) 6 4 2 0 50 ms PIIA3278E

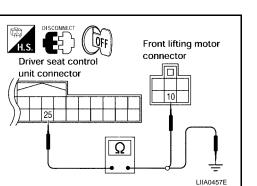


#### OK or NG

OK >> Rear lifting sensor circuit is OK.

NG >> GO TO 2.





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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

# 2. CHECK REAR LIFTING SENSOR HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and rear lifting motor connector.
- 2. Check continuity between driver seat control unit connector P2 terminal 10 (BR) and rear lifting motor connector P7 terminal 10 (BR).

: Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 10 (BR) and ground.

#### 10 (BR) – Ground

#### : Continuity should not exist.

#### OK or NG

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

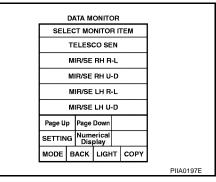
#### MIRROR SENSOR LH CIRCUIT INSPECTION

#### 1. CHECK MIRROR SENSOR LH INPUT/OUTPUT SIGNAL

#### (I) With CONSULT-II

Check operation with "MIR/SE LH R-L, MIR/SE LH U-D" on the DATA MONITOR to make sure pulse changes.

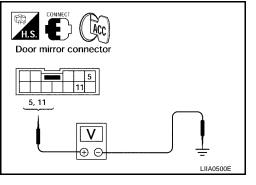
Monitor item [OPE	RATION or UNIT	
MIR/SEN LH R-L	"V"	Voltage output from LH door mirror sensor (LH/RH) is displayed.
MIR/SEN LH U-D	"V"	Voltage output from LH door mirror sensor (UP/DOWN) is displaced.



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

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

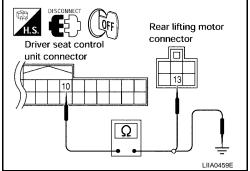
Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		(Applox.)
D4	5 (L/Y)	Ground	When motor is UP or DOWN operation	Changes between 3.4 - 0.6
D4	11 (G/R)		When motor is LEFT or RIGHT operation	Changes between 3.4 - 0.6



#### OK or NG

OK >> Mirror sensor LH circuit is OK.

NG >> GO TO 2.



# 2. CHECK HARNESS CONTINUITY 1

- 1. Disconnect automatic drive positioner control unit connector and door mirror LH connector.
- 2. Check continuity between automatic drive positioner control unit connector M42 terminals 33 (W/L), 41 (Y) and door mirror LH connector D4 terminals 4 (W/L), 12 (LG).
  - 33 (W/L) 4 (W/L) 41 (Y) – 12 (LG)
- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between driver seat control unit connector M42 terminals 33 (W/L), 41 (Y) and ground.
  - 33 (W/L) Ground
  - 41 (Y) Ground
- : Continuity should not exist.
- : Continuity should not exist.

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between automatic drive positioner control unit and door mirror LH.

# 3. CHECK HARNESS CONTINUITY 2

- 1. Disconnect automatic drive positioner control unit connector and door mirror LH connector.
- 2. Check continuity between automatic drive positioner control unit connector M41 terminals 6 (L/Y), 22 (G/R) and door mirror LH connector D4 terminals 5 (L/Y), 11 (G/R).

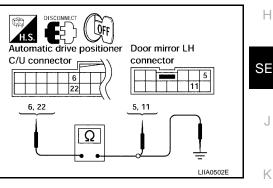
6 (L/Y) – 5 (L/Y) 22 (G/R) – 11 (G/R)

- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between driver seat control unit connector M41 terminals 6 (L/Y), 22 (G/R) and ground.

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

#### OK or NG

- OK >> Replace door mirror LH.
- NG >> Repair or replace harness between automatic drive positioner control unit and door mirror LH.



OFF

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Door mirror connector

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12

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Automatic drive positioner

C/U connector

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41

33, 41

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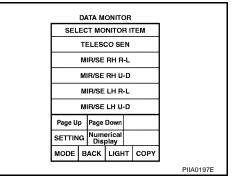
#### MIRROR SENSOR RH CIRCUIT INSPECTION

#### 1. CHECK MIRROR SENSOR RH INPUT/OUTPUT SIGNAL

#### (P) With CONSULT-II

Check operation with "MIR/SE RH R-L, MIR/SE RH U-D" on the DATA MONITOR to make sure pulse changes.

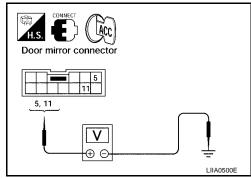
Monitor item [OPERATION or UNIT		
MIR/SEN RH R-L	"V"	Voltage output from RH door mirror sensor (RH/RH) is displayed.
MIR/SEN RH U-D	"V"	Voltage output from RH door mirror sensor (UP/DOWN) is displaced.



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

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

Connector	Term (Wire		Condition	Voltage (V) (Approx.)
	(+) (-)			(Αρριοχ.)
D107	5 (R/B)	Ground	When motor is UP or DOWN operation	Changes between 3.4 - 0.6
0107	11 (L/W)	Crodina	When motor is LEFT or RIGHT operation	Changes between 3.4 - 0.6



#### OK or NG

- OK >> Mirror sensor RH circuit is OK.
- NG >> GO TO 2.

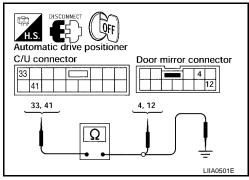
#### 2. CHECK HARNESS CONTINUITY 1

- Disconnect automatic drive positioner control unit connector and door mirror RH connector. 1.
- 2. Check continuity between automatic drive positioner control unit connector M42 terminals 33 (W/L), 41 (Y) and door mirror RH connector D4 terminals 4 (W/L), 12 (LG).

```
33 (W/L) - 4 (W/L)
```

- : Continuity should exist.
- 41 (Y) 12 (LG)
- : Continuity should exist.
- 3. Check continuity between driver seat control unit connector M42 terminals 33 (W/L), 41 (Y) and ground.
  - 33 (W/L) Ground
- : Continuity should not exist.
- 41 (Y) Ground
- : Continuity should not exist.

- OK or NG
- OK >> GO TO 3.
- NG >> Repair or replace harness between automatic drive positioner control unit and door mirror RH.



<b>3.</b> CHECK HARNESS CONTINUITY 2	3.	CHECK I	HARNESS	<b>CONTINUITY 2</b>
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- 1. Disconnect automatic drive positioner control unit connector and door mirror RH connector.
- Check continuity between automatic drive positioner control unit connector M41 terminals 5 (R/B), 21 (L/W) and door mirror RH connector D4 terminals 5 (L/Y), 11 (G/R).
  - 5 (R/B) 5 (L/Y) 21 (L/W) – 11 (G/R)
- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between driver seat control unit connector M41 terminals 5 (R/B), 21 (L/W) and ground.
  - 5 (R/B) Ground

21 (L/W) – Ground

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

#### OK or NG

- OK >> Replace door mirror RH.
- NG >> Repair or replace harness between automatic drive positioner control unit and door mirror RH.

#### A/T DEVICE (DETENT SWITCH) CIRCUIT INSPECTION (A/T MODEL ONLY)

#### 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 selector lever position "P position (OFF)/other than P position (ON)" judged from the detent switch signal is displayed.

C	DATA MONITOR						
SELE	SELECT MONITOR ITEM						
N	MEMORY SW 2						
	CANC	EL SW	/				
	DOOR	SW-DF	٦				
V	VHCL SPEED SE						
	DETENT SW						
Page Up	Page Up Page						
SETTING	Num Dis						
MODE E	BACK	LIGH	IT	COPY			

**Without CONSULT-II** 

#### GO TO 2.

#### OK or NG

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

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

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T device (detent switch) connector and key switch and key lock solenoid connector.
- Check continuity between A/T device (detent switch) connector M34 terminal 5 and key switch and key lock solenoid connector M27 terminal 4.

#### 5 (B/R) – 4 (B/R)

#### : Continuity should exist.

4. Check continuity between A/T device (detent switch) connector M34 terminal 5 and ground.

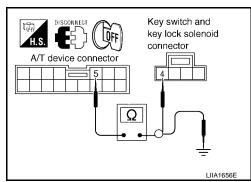
#### 5 (B/R) – Ground

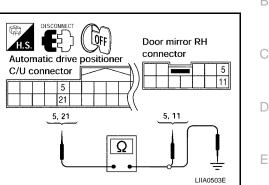
: Continuity should not exist.

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.





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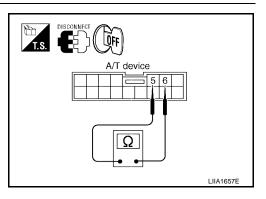
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# 3. CHECK A/T DEVICE (DETENT SWITCH)

Check continuity between detent switch as follows.

Connector	Terminals		Condition	Continuity
Connector	(+)	(-)	Condition	Continuity
		6	P position	No
M34	5		Other than Pposition	Yes



#### OK or NG

OK >> GO TO 4.

NG >> Replace A/T device (detent switch).

#### 4. CHECK A/T DEVICE (DETENT SWITCH) SIGNAL HARNESS

- 1. Disconnect driver seat control unit connector.
- 2. Check continuity between driver seat control unit connector P2 terminal 21 and A/T device (detent switch) connector M34 terminal 6.

```
21 (SB) - 6 (BR/Y)
```

: Continuity should exist.

3. Check continuity between driver seat control unit connector B303 terminal 21 and ground.

21 (SB) – Ground

: Continuity should not exist.

#### OK or NG

- OK >> Replace driver seat control unit.
- NG >> Repair or replace harness.



# 1. CHECK FUNCTION

#### With CONSULT-II

Check that when the parking brake is released, "PARKING BRAKE" on the DATA MONITOR becomes OFF.

Monitor item [OPERATION or UNIT]		Contents
PARKING BRAKE	"ON/ OFF"	The parking brake is released (OFF)/parking brake is engaged (ON)" judged from the parking brake switch signal is displayed.

SELECT TEST ITEM	
MEMORY SW 2	
CANCEL SW	
DOOR SW-DR	
VHCL SPEED SE	
PARKING BRAKE	
	LIIA0572E

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

GO TO 2.

OK or NG

OK >> Parking brake switch circuit is OK.

NG >> GO TO 2.

H.S. DISCONNECT Driver seat control A/T device	
unit connector	

# 2. CHECK PARKING BRAKE SWITCH SWITCH HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect parking brake switch connector and drive seat control unit connector.
- Check continuity between parking brake switch connector M36 terminal + (P/B) and driver seat control unit connector P2 terminal 8 (W).
  - + (P/B) 8 (W)



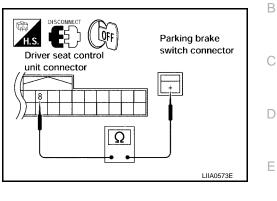
#### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness between parking brake switch and driver seat control unit.

# 3. CHECK DETENTION SWITCH

Check continuity between parking brake switch as follows.

#### Terminals Connector Condition Continuity (+) (-) Parking brake Continuity should not released exist. Ground M34 + Parking brake Continuity should engaged exist.



Parking brake

switch connector

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# OK or NG

- OK >> INSPECTION END
- NG >> Replace parking brake switch.

#### STEERING WHEEL TELESCOPIC SENSOR CIRCUIT INSPECTION

# 1. CHECK FUNCTION

#### With CONSULT-II

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

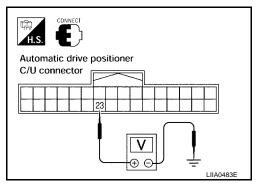
Monitor item [OPERA- TION or UNIT]		Contents
TELESCO SEN	"V"	The telescopic position (voltage) judged from the tele- scopic sensor signal is displayed.

D	DATA MONITOR				
SELEC	ст мо				
	TILT				
Т	ELESC				
N	IIR/SE	RH R-	Ŀ		
M	MIR/SE RH U-D				
N	MIR/SE LH R-L				
Page Up	Page Up Page Dow				
SETTING	SETTING Num				-
MODE B			т	COPY	1
L					PIIA0295E

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

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

Connector (Wire color)			Condition	Voltage (V) (Approx)
	(+)	(-)		(Applox)
M41	23 (P/V)	23 (R/Y) Ground	Pedal front end position	0.6
10141	23 (N/T)		Pedal back end position	4.5



#### OK or NG

- OK >> Steering wheel telescopic sensor circuit is OK.
- NG >> GO TO 2.

# 2. CHECK HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit and steeing wheel telescopic sensor connector.
- 2. Check continuity between automatic drive positioner connector M41, M42 terminals 23 (R/Y), 33 (W/L), 41 (Y) and steering wheel telescopic sensor connector M67 terminals 1 (W/L), 2 (R/Y), 3 (Y).

23 (R/Y) – 2 (R/Y)	: Continuity should exist.
33 (W/L) – 1 (W/L)	: Continuity should exist.
41 (Y) – 3 (Y)	: Continuity should exist.

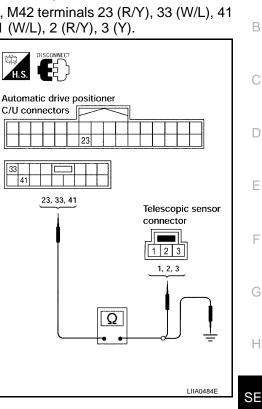
: Continuity should exist.

3. Check continuity between automatic drive positioner control unit connectors M41, M42 terminals 23 (R/Y), 33 (W/L), 41 (Y) and ground.

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

#### OK or NG

- OK >> Replace steering wheel telescopic motor.
- NG >> Repair or replace harness between automatic drive positioner and steering wheel telescopic sensor.



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#### STEERING WHEEL TILT SENSOR CIRCUIT INSPECTION

#### 1. CHECK FUNCTION

#### (P) With CONSULT-II

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

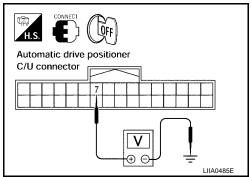
Monitor item [OPERA- TION or UNIT]		Contents
TILT SEN	"V"	The tilt position (voltage) judged from the tilt sensor sig- nal is displayed.

[	DATA M	ONITC	R	
SELE	CT MC	NITOF	RIT	EM
	TILT	SEN		
	TELES	CO SE	N	
ſ	MIR/SE	RH R-	-L	
٩	/IR/SE	RH U-	Đ	
1	MIR/SE	LH R-	۰L	
Page Up	Page	Down		
SETTING		erical play		
MODE I	BACK	LIGH	łT	COPY
1				1

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

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

Connector	Term (Wire		Condition	Voltage (V) (Approx)	
	(+) (-)			(Αρρίοχ)	
M41	M44 7 (00/l) 0	Ground	Pedal front end position	0.6	
10141	7 (OR/L)	Ground	Pedal back end position	4.5	





#### OK or NG

- OK >> Steering wheel tilt sensor circuit is OK.
- NG >> GO TO 2.

# 2. CHECK HARNESS CONTINUITY

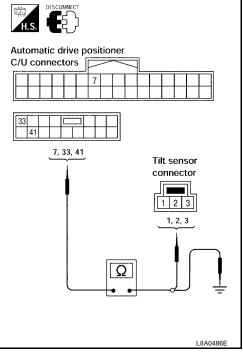
- 1. Disconnect automatic drive positioner control unit and steering wheel tilt sensor connector.
- 2. Check continuity between automatic drive positioner connector M41, M42 terminals 7 (OR/L), 33 (W/L), 41 (Y) and steering wheel tilt sensor connector M69 terminals 1 (Y), 2 (OR/L), 3 (W/L).

7 (OR/L) – 2 (OR/L)	: Continuity should exist.
33 (W/L) – 3 (W/L)	: Continuity should exist.
41 (Y) – 1 (Y)	: Continuity should exist.

- 3. Check continuity between automatic drive positioner control unit connectors M41, M42 terminals 7 (OR/L), 33 (W/L), 41 (Y) and ground.
  - 7 (OR/L) Ground 33 (W/L) – Ground
- : Continuity should not exist.
- : Continuity should not exist.
- 41 (Y) Ground : Continuity should not exist.

#### OK or NG

- OK >> Replace steering wheel tilt motor.
- NG >> Repair or replace harness between automatic drive positioner and steering wheel tilt sensor.



#### KEY SWITCH AND KEY LOCK SOLENOID CIRCUIT INSPECTION

#### 1. CHECK KEY SWITCH AND KEY LOCK SOLENOID

#### With CONSULT-II

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

Monitor item [C TION or UI		Contents
IGN KEY SW	"ON/ OFF"	Key inserted (ON)/key removed (OFF) status judged from the key-in detection switch is displayed.

	D.	ata M	ONITC	R		
SEI	_EC	ст мо				
		IGN C				
		IGN A	cc sw	I		
	IC	GN ST/	ART SI	N		
		IGN K				
	R	POSIT	TION S	W		
Page Up Page Down						
SETTING Numerical Display						
MODE BACK LIGHT COPY						PIIA0298E
						- FIA0298E

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

ĞO TO 2.

OK or NG

OK >> Key switch and key lock solenoid circuit is OK.

NG >> GO TO 2.

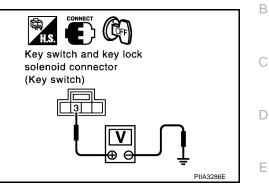
# 2. KEY SWITCH AND KEY LOCK SOLENOID (KEY SWITCH) POWER SUPPLY CIRCUIT INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect key switch connector and key lock solenoid connector.
- 3. Check voltage between key switch and key lock solenoid connector M27 terminal 3 (Y/R) and ground.
  - 3 (Y/R) Ground

: Battery voltage.

#### OK or NG

- OK >> GO TO 3.
- NG >> Check harness between key switch and key lock solenoid and fuse.



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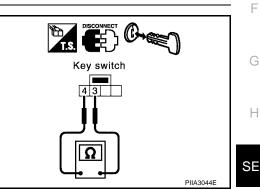
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# 3. CHECK KEY SWITCH AND KEY LOCK SOLENOID (KEY SWITCH)

Check continuity between key switch and key lock solenoid (key switch) as follows.

Connector	Term	ninals	Condition	Continuity
Connector	(+)	(-)	Condition	Continuity
M27	3	4	Key is inserted in ignition key cylinder.	Yes
11127	5	-	Key is removed from ignition key cylinder.	No



OK or NG

OK >> GO TO 4.

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

#### 4. CHECK HARNESS CONTINUITY

- 1. Disconnect key switch and key lock solenoid (key switch) connector and BCM connector.
- 2. Check continuity between key switch and key lock solenoid (key switch) connector M27 terminal 4 (B/R) ⊥ and BCM connector M18 terminal 37 (B/R).

$$4 (B/R) - 37 (B/R)$$

: Continuity should exist.

3. Check continuity between key switch and key lock solenoid (key switch) connector M27 terminal 4 (B/R) and ground.

#### 4 (B/R) – Ground

: Continuity should not exist.

#### OK or NG

- OK >> Key switch and key lock solenoid circuit is OK.
- NG >> Repair or replace harness between key switch and key lock solenoid (key switch) and BCM.

Key switch and key lock solenoid connector (Key switch)
LIIA0461E

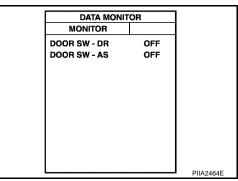
#### FRONT DOOR SWITCH (DRIVER SIDE) CIRCUIT INSPECTION

#### **1. CHECK DOOR SWITCH INPUT SIGNAL**

#### (I) With CONSULT-II

Check door switches ("DOOR SW-DR" and "DOOR SW-AS" ) in "DATA MONITOR" mode with CONSULT-II.

Monitor item	Condition		
DOOR SW-DR	OPEN	: ON	
DOOR 3W-DR	CLOSE	: OFF	



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

Check voltage between BCM connector and ground.

Item	Connector	Terminals (	Wire color)	Condition	Voltage (V)	G.
nom	Connector	(+)	(-)	Condition	(Approx.)	H.S CONNEG
Front LH	M20	62 (SB)	Ground	OPEN	0	E
	IVIZ0	02 (36)	Ground	CLOSE	Battery voltage	R
OK or NG						QFI
	Door swite					
NG >>	• GO TO 2.					

# 2. CHECK DOOR SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect door switch and BCM connector.
- 3. Check continuity between front door switch LH connector B8 (LH) terminal 2 and BCM connector M18 terminal 62.

#### Front LH

#### 2 (SB) -62 (SB)

:Continuity should exist.

4. Check continuity between door switch LH connector B8 (LH) terminal 2 and ground.

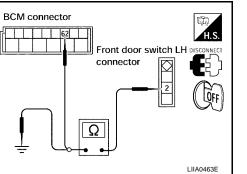
#### 2 (SB) – Ground

:Continuity should not exist.

#### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



LIIA0462E

# 3. CHECK DOOR SWITCH

Check continuity between front door switch LH terminal 2 and body ground part of door switch.

Т	erminal	Door switch	Continuity
2	Body ground part	Pushed	No
	of door switch	Released	Yes
OK or NG			

OK >> Further inspection is necessary. Refer to symptom chart.

NG >> Replace malfunction door switch.

# Door switch connector

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# SEAT MEMORY SWITCH CIRCUIT INSPECTION

# 1. CHECK FUNCTION

#### With CONSULT-II

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

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

	DATA MONITOR					
MONITO	R					
SLIDE SI SLIDE SI RECLN S RECLN S LIFT FR LIFT FR	W-RR SW-FR SW-RR SW-UP SW-DN		OFF OFF OFF OFF OFF OFF			
LIFT RR SET SW			OFF OFF			
all aw		Page	Down			
		REC	ORD			
MODE	BACK	LIGHT	COPY			
MONITO		ONITOR				
TELESCO TELESCO TILT SW- TILT SW-	O SW-RF		OFF OFF OFF OFF			
MEMORY	Y SW 1		OFF			
CANCEL DOOR S' VHCL SF	W-DR		OFF OFF <7km/			
Page	Up	Page	Down			
REC			ORD			
MODE BACK LIGHT			COPY			
				PIIA0309		

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

ĞO TO 2.

OK or NG

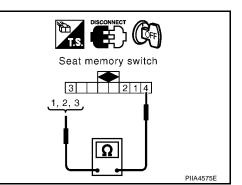
OK >> Seat memory switch circuit is OK.

NG >> GO TO 2.

# 2. CHECK SEAT MEMORY SWITCH

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

Con-	Tern	ninal	Condition	Continuity					
nector	(+)	(-)	Condition	Continuity					
	3		Set switch: ON	Continuity should exist.					
	5		Set switch: OFF	Continuity should not exist.					
D5	Dr. o	2	0	2	C	C	2 4	Memory switch 1 ON	Continuity should exist.
Do			Memory switch 1: OFF	Continuity should not exist.					
			Memory switch 2: ON	Continuity should exist.					
			Memory switch 2: OFF	Continuity should not exist.					



OK or NG

OK >> GO TO 3.

NG >> Replace seat memory switch.

#### **3.** CHECK HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit connector M41 terminals 9 (L/W), 24 (R/B), 25 (V) and seat memory switch connector D5 terminals 1 (V), 2 (L/W), 3 (R/B).

9 (L/W) – 2 (L/W)
24 (R/B) – 3 (R/B)
25 (V) – 1 (V)

- : Continuity should exist.
- : Continuity should exist.
- : Continuity should exist.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 9 (L/W), 24 (R/B), 25 (V) and ground.
  - 9 (L/W) Ground
  - 24 (R/B) Ground
  - 25 (V) 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 between automatic drive positioner control unit and seat memory switch.

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

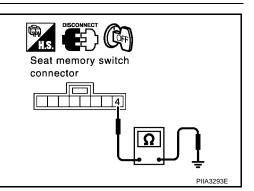
Check continuity between seat memory switch D5 terminal 4 (B) and ground.

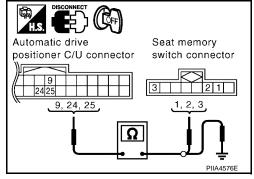
#### 4 (B) – Ground

: Continuity should exist.

#### OK or NG

- OK >> Replace automatic drive positioner control unit.
- NG >> Repair or replace harness between seat memory switch and ground.





#### SLIDING SWITCH CIRCUIT INSPECTION

#### 1. CHECK FUNCTION

#### (P)With CONSULT-II

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

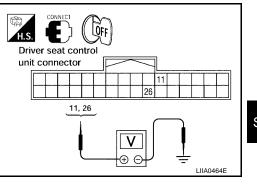
Monitor item [OPER- ATION or UNIT]		Contents
SLIDE SW- FR	"ON/ OFF"	ON / OFF status judged from the sliding switch (FR) sig- nal is displayed.
SLIDE SW- RR	"ON/ OFF"	ON / OFF status judged from the sliding switch (RR) signal is displayed.

		D	ATA M		R						В
	SE		ст мо			EM	]				
		Ş	SLIDE	SW-FF	3						
	SLIDE SW-RR									С	
RECLN SW-FR											
	RECLN SW-RR										
	LIFT FR SW-UP							D			
	· · · · · · · · · · · · · · · · · · ·		Page	Down							
	SETTIN	G		erical olay							
	MODE	E	ACK	LIG⊦	IT	COPY		P	'IIA0313	F	E
									11/10010	-	

#### Without CONSULT-II

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

Connector	onnector (Wire o		Condition	Voltage (V) (Approx)
	(+)	(-)		
P2 –	11 (GR/R)	Ground	Sliding switch ON(RR operation)	0
			Sliding switch OFF	Battery voltage
	26 (P/B)	Ground	Sliding switch ON(FR operation)	0
	. ,		Sliding switch OFF	Battery voltage



#### OK or NG

OK >> Sliding switch circuit is OK.

NG >> GO TO 2.

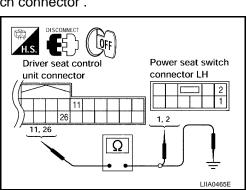
#### 2. CHECK POWER SEAT SWITCH HARNESS CONTINUITY

- Disconnect driver seat control unit connector and power seat switch connector.
- Check continuity between driver seat control unit connector P2 2. terminals 11 (GR/R), 26 (P/B) and power seat switch connector P8 terminals 1 (P/B), 2 (GR/R).

- : Continuity should exist. : Continuity should exist.
- Check continuity between driver seat control unit connector P2 3. terminals 11 (GR/R), 26 (P/B) and ground.
  - 11 (GR/R) Ground 26 (P/B) – Ground
- : Continuity should not exist. : Continuity should not exist.

#### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness between driver seat control unit and power seat switch.



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# 3. CHECK SLIDING SWITCH

Check continuity between power seat switch as follows.

Connector	Terminal		Condition	Continuity
(+)		(-)		
P8	1	9	Sliding switch ON (RR operation)	Yes
			Sliding switch OFF	No
	2		Sliding switch ON (FR operation)	Yes
	2		Sliding switch OFF	No

#### OK or NG

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

NG >> Replace power seat switch.

#### **RECLINING SWITCH INSPECTION**

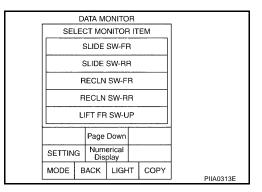
1. CHECK FUNCTION

#### With CONSULT-II

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

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

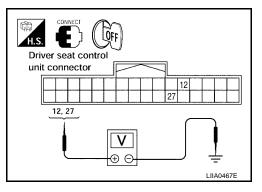
Power seat switch LH	
9 1, 2	
	LIIA0466E



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

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

Terminals (Wire color)			Quanditiera	Voltage (V)
Connector	Term	inal	Condition	(Approx)
Connector	(+)	(-)		
P2 -	12 (D)		Reclining switch ON (RR operation)	0
	12 (P)		Reclining switch OFF	Battery voltage
	27 (W/R)	Ground	Reclining switch ON (FR operation)	0
	27 (W/R)		Reclining switch OFF	Battery voltage



#### OK or NG

OK >> Reclining switch circuit is OK.

NG >> GO TO 2.

# 2. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch connector.
- 2. Check continuity between driver seat control unit connector P2 terminals 12 (P), 27 (W/R) and power seat switch connector P8 terminals 3 (W/R), 4 (P).

12(P) - 4(P)27 (W/R) – 3 (W/R) : Continuity should exist. : Continuity should exist.

Check continuity between driver seat control unit connector P2 3. terminals 12 (P), 27 (W/R) and ground.

12 (P) – Ground

27 (W/R) – Ground

: Continuity should not exist.

: Continuity should not exist.

#### OK or NG

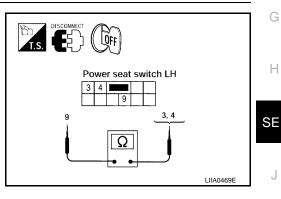
OK >> GO TO 3.

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

### 3. RECLINING SWITCH INSPECTION

Check continuity between driver seat switch as follows.

Connector	Terr	ninal	Condition	Continuity		
Connector	(+)	(-)				
	4	4		Reclining switch ON (RR operation)	Yes	
4	4	9	Reclining switch OFF	No		
P8	0	0	c		Reclining switch ON (FR operation)	Yes
	3		Reclining switch OFF	No		



Driver seat control

unit connector

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Power seat switch

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connector I H

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#### OK or NG

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

NG >> Replace power seat switch.

### FRONT LIFTING SWITCH CIRCUIT INSPECTION

### 1. CHECK FUNCTION

#### (B) With CONSULT-II

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

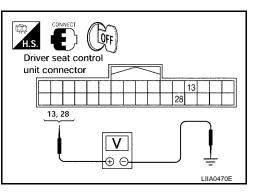
Monitor item [OPERA- TION or UNIT]		Contents
LIFT FR SW- DN	"ON/ OFF"	ON / OFF status judged from the FR lifter switch (DOWN) signal is displayed.
LIFT RR SW- UP	"ON/ OFF"	ON / OFF status judged from the RR lifter switch (UP) signal is displayed.

-	D	ata M	ONITO	R		
SELECT MONITOR ITEM						
LIFT FR SW-DN						
	LI	FT RB	SW-L	IP		
	LI	FT RR	SW-D	N		
MIR CON SW-UP						
MIR CON SW-DN						
Page Up Page Down						
SETTING Numerical Display						
MODE	В	ACK	LIG⊦	п	COPY	PIIA0323E
SETTING Numerical Display					PIIA0323E	

### **Without CONSULT-II**

- 1. Turn ignition switch OFF.
- 2. Check voltage between driver seat control unit P2 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(Applox)
	13 (W)	Ground	Front lifting switch ON (DOWN operation)	0
P2			Front lifting switch OFF	Battery voltage
ΓZ	28 (BR)		Front lifting switch ON (UP operation)	0
			Front lifting switch OFF	Battery voltage



### OK or NG

OK >> Front lifting switch circuit is OK.

NG >> GO TO 2.

### 2. CHECK POWER SEAT SWITCH HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch connector .
- Check continuity between driver seat control unit connector P2 terminals 13 (W), 28 (BR) and driver seat switch connector P8 terminals 5 (BR), 6 (W).
  - 13 (W) 6 (W) 28 (BR) – 5 (BR)
- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 13 (OR/B), 28 (L/R) and ground
  - 13 (W) Ground

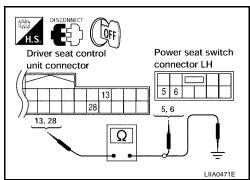
28 (BR) – Ground

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

#### OK or NG

OK >> GO TO 3.

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



# 3. CHECK FRONT LIFTING SWITCH

Check continuity between driver seat switch as follows.

Connector	Term	inals	Condition	Continuity
Connector	(+)	()		
B305	13	32A	Front lifting switch ON (DOWN operation)	Yes
			Front lifting switch OFF	No
	28	32A	Front lifting switch ON (UP operation)	Yes
			Front lifting switch OFF	No

### OK or NG

OK >> Check the harness and connector.

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

### **REAR LIFTING SWITCH CIRCUIT INSPECTION**

### 1. CHECK FUNCTION

#### (P) With CONSULT-II

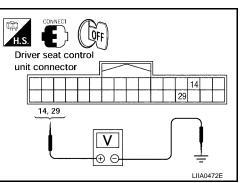
With "LIFT RR SW-UP, LIFT RR SW-DN" on the DATA MONITOR, operate the rear lifting switch to check ON/OFF operation.

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

### **Without CONSULT-II**

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(Αρριοχ)
	14 (GR)	- Ground	Rear lifting switch ON (DOWN operation)	0
P2			Rear lifting switch OFF	Battery volt- age
			Rear lifting switch ON (UP operation)	0
	29 (Y/R)		Rear lifting switch OFF	Battery volt- age



#### OK or NG

OK >> Rear end seat lifting switch circuit is OK.

NG >> GO TO 2.

	LIIA0494E
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

Display

BACK LIGHT

COPY

Page Up Page Down Numerical

SETTING

MODE

Power seat switch LH 9

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# 2. CHECK POWER SEAT SWITCH HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch connector.
- 2. Check continuity between driver seat control unit connector P2 terminals 14 (GR), 29 (Y/R) and power seat switch connector P8 terminals 7 (Y/R), 8 (GR).
  - 14 (GR) 8 (GR) 29 (Y/R) – 7 (Y/R)
- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 14 (GR), 29 (Y/R) and ground.
  - 14 (Y/R) Ground
  - 29 (W/G) Ground
- : Continuity should not exist.
- : Continuity should not exist.

#### OK or NG

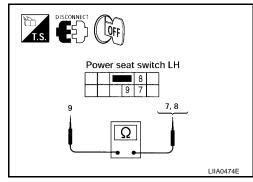
OK >> GO TO 3.

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

### 3. CHECK REAR LIFTING SWITCH

Check continuity between driver seat switch as follows.

Connector	Terminals		Condition	Continuity
Connector	(+)	(-)	Condition	Continuity
	8	- 9	Rear lifting switch ON (DOWN operation)	Yes
P8			Rear lifting switch OFF	No
Põ			Rear lifting switch ON (UP operation)	Yes
			Rear lifting switch OFF	No



#### OK or NG

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

NG >> Replace power seat switch.

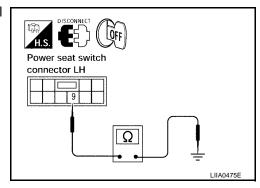
### POWER SEAT SWITCH GROUND INSPECTION

### 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between power seat switch connector P8 terminal 9 (B/W) and ground.

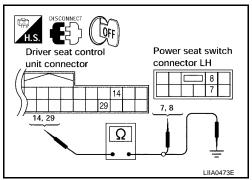
### 9 (B/W) – Ground

: Continuity should exist.



#### OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Repair or replace harness between power seat switch and ground.



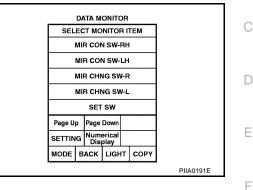
### DOOR MIRROR REMOTE CONTROL SWITCH (CHANGEOVER SWITCH) CIRCUIT CHECK

### 1. CHECK FUNCTION

#### With CONSULT-II

Check operation with "MIR CHNG SW - R, MIR CHNG SW - L" on the DATA MONITOR to make sure pulse hanges.

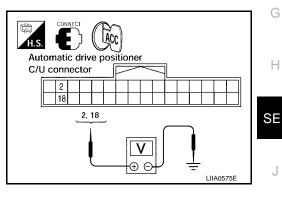
Monitor item [OPEF	RATION or UNIT	
"MIR CHNG SW - R	"ON/OFF"	ON/OFF status judged from the door mir- ror remote control switch (switching to RIGHT) signal is displayed.
MIR CHNG SW - L	"ON/OFF"	ON/OFF status judged from the door mir- ror remote control switch (switching to LEFT) signal is displayed.



### **Without CONSULT-II**

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

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



### OK or NG

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

NG >> GO TO 2.

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

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector and door mirror LH connector.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 2 (LG/R), 18 (L/ R) and door mirror LH connector D4 terminals 5 (LG/R), 6 (L/R).

2(LG/R) - 5(LG/R)18 (L/R) - 6 (L/R)

- : Continuity should exist. : Continuity should exist.
- Check continuity between driver seat control unit connector M41 4. terminals 2 (LG/R), 18 (L/R) and ground.
  - 2 (LG/R) Ground
- : Continuity should not exist.
- 18 (L/R) Ground
- : Continuity should not exist.

#### OK or NG

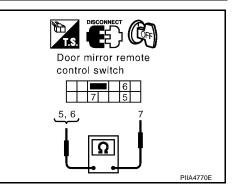
OK >> GO TO 3.

NG >> Repair or replace harness between automatic drive positioner control unit and door mirror LH.

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

Check voltage between automatic drive positioner control unit as follows.

Connector	Terminals (Wire color)		Condition	Continuity
	(+) (-)			
	5	7	Changeover switch RIGHT position	YES
M66			Changeover switch neutral position	NO
	6		Changeover switch LEFT position	YES
			Changeover switch neutral position	NO



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Door mirror remote

control switch

5,6

PIIA4768E

connector

Automatic drive positioner

2, 18

C/U connector

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OK or NG

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

NG >> Replace door mirror remote control switch.

### DOOR MIRROR REMOTE CONTROL SWITCH (MIRROR SWITCH) CIRCUIT CHECK

### 1. CHECK FUNCTION

#### (P) With CONSULT-II

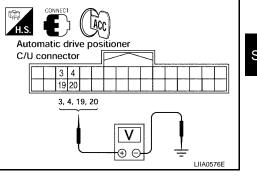
В Check operation with MIR CON SW-UP/DN, MIR CON SW-RH/LH" on the DATA MONITOR to make sure pulse changes.

Monitor item [OPEF	RATION or UNIT	
MIR CON SW-UP	"ON/OFF"	ON/OFF status judged from the door mir- ror remote control switch (UP) signal is dis- played.
MIR CON SW-DN	"ON/OFF"	ON/OFF status judged from the door mir- ror remote control switch (DOWN) signal is displayed.
MIR CON SW-RH	"ON/OFF"	ON/OFF status judged from the door mir- ror remote control switch (RIGHT) signal is displayed.
MIR CON SW-LH	"ON/OFF"	ON/OFF status judged from the door mir- ror remote control switch (LEFT) signal is displayed.

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

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(Applox.)	
	3 (Y/B)		Mirror switch UP opera- tion	0	
	3(1/D)		Mirror switch neutral operation	5	
	4 (V/W) M41	Ground		Mirror switch LEFT operation	0
M41			Mirror switch neutral operation	5	
	40 (L (D)		Mirror switch DOWN operation	0	
	19 (L/B)		Mirror switch neutral operation	5	
	20 (BR/		Mirror switch RIGHT operation	0	
	Y)		Mirror switch neutral operation	5	



DATA MONITOR SELECT MONITOR ITEM LIFT RR SW-DN MIR CON SW-UP MIR CON SW-DN

MIR CON SW-RH MIR CON SW-LH Page Up Page Down

SETTING Numerical Display MODE BACK LIGHT COPY

### OK or NG

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

NG >> GO TO 2.

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

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector and door mirror remote control switch connector.
- Check continuity between automatic drive positioner control unit connector M41 terminals 3 (Y/B), 4 (V/W), 19 (L/B), 20 (BR/Y) and door mirror remote control switch connector m6 terminals 1 (BR/Y), 2 (V/W), 3 (Y/B), 4 (L/B).
  - 3 (Y/B) 3 (Y/B)
  - 4 (V/W) 2 (V/W)
  - 19 (L/B) 4 (L/B)
  - 20 (BR/Y) 1 (BR/Y)
- : Continuity should exist.
- 4. Check continuity between driver seat control unit connector M41 terminals 3 (Y/B), 4 (V/W), 19 (L/B), 20 (BR/Y) and ground.
  - 3 (Y/B) Ground
- : Continuity should not exist. : Continuity should not exist.

: Continuity should not exist.

: Continuity should not exist.

- 4 (V/W) Ground
- 19 (L/B) Ground
- 20 (BR/Y) Ground

Automatic drive positioner C/U connector 3, 4, 19, 20 0, 4, 19, 20 0, 4, 19, 20 0, 4, 19, 20 0, 1, 2, 3, 4 0, 1, 2, 3,

#### OK or NG

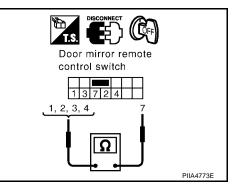
OK >> GO TO 3.

NG >> Repair or replace harness between automatic drive positioner control unit and door mirror remote control switch.

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

Check continuity between door mirror remote control switch as follows.

Connector	Term (Wire		Condition	Continuity
	(+)	(-)		
	1		Mirror switch RIGHT operation	YES
	1		Mirror switch neutral operation	NO
2 M6 3	2	- 7	Mirror switch LEFT operation	YES
	2		Mirror switch neutral operation	NO
	3		Mirror switch UP opera- tion	YES
	5		Mirror switch neutral operation	NO
	4		Mirror switch DOWN operation	YES
			Mirror switch neutral operation	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 GROUND CIRCUIT CHECK

### 1. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

Check continuity between door mirror remote control switch connector M6 terminal 7 (B) and ground.

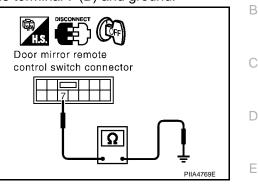
7 (B) – Ground

: Continuity should exist.

#### OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness between door mirror remote control switch and ground.



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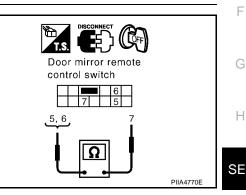
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### 2. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

ows.	,			
	Terminals (Wire color)		Condition	Continuity
	(+)	(–)		
M6	5 	- 7	Changeover switch RIGHT position	YES
			Changeover switch neutral position	NO
			Changeover switch LEFT position	YES
		Changeover switch neutral position	NO	

Check continuity between door mirror remote control switch as fol-



### OK or NG

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

### STEERING WHEEL TELESCOPIC SWITCH CIRCUIT INSPECTION

### 1. CHECK FUNCTION

#### (B) With CONSULT-II

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

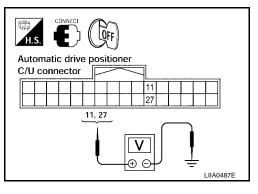
Monitor item [OPEI UNIT]	RATION or	Contents
TELESCO SW-FR	"ON/OFF"	Operation (ON)/open (OFF) status judged from the telescopic switch (FR) signal is displayed.
TELESCO SW-RR	"ON/OFF"	Operation (ON)/open (OFF) status judged from the telescopic switch (RR) signal is displayed.

	data M	ONITC	R		_
SELECT MONITOR ITEM					
TELESCO SW-FR					
Т	ELESC	o sw-	RR		
	TILT S	SW-UP			
TILT SW-DOWN					
	MEMOI	RY SW	1		
Page Up Page Down					-
SETTING Numerical Display					
MODE	BACK	LIG⊦	ŧΤ	COPY	DUADALSE
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#### **Without CONSULT-II**

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx)
	(+)	(-)		(Applox)
M41 -	11 (P/L) Gr 27 (G/W)		Telescopic switch ON (RR operation)	0
		Ground	Telescopic switch OFF	5
			Telescopic switch ON (FR operation)	0
			Telescopic switch OFF	5



#### OK or NG

OK >> ADP steering wheel telescopic switch circuit is OK.

NG >> GO TO 2.

### 2. CHECK ADP STEERING WHEEL TELESCOPIC SWITCH HARNESS CONTINUITY

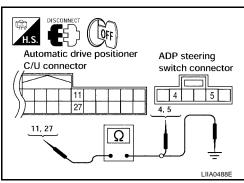
- 1. Disconnect automatic drive positioner control unit connector and ADP steering wheel telescopic switch connector.
- Check continuity between automatic drive positioner control unit connector M41 terminals 11 (P/L), 27 (G/W) and ADP steering wheel telescopic switch connector M16 terminals 4 (G/W), 5 (P/ L).

11 (P/L) – 5 (P/L) 27 (G/W) – 4 (G/W)

- : Continuity should exist.
- : Continuity should exist.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 11 (P/L), 27 (G/W) and ground.
  - 11 (P/L) Ground
- : Continuity should not exist. : Continuity should not exist.
- 27 (G/W) Ground : Continuity sho

OK or NG

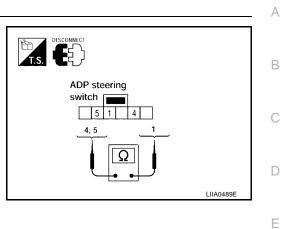
- OK >> GO TO 3.
- NG >> Repair or replace harness between automatic drive positioner control unit and ADP steering wheel telescopic switch.



# 3. CHECK ADP STEERING WHEEL TELESCOPIC SWITCH

Check continuity between ADP steering wheel telescopic switch as follows.

Connector	Terminals		Condition	Continuity
Connector	(+)	(-)	Condition	Continuity
	4		Telescopic switch ON (RR operation)	Yes
M16		1	Telescopic switch OFF	No
WIG	5		Telescopic switch ON (FR operation)	Yes
			Telescopic switch OFF	No



#### OK or NG

OK >> GO TO 4.

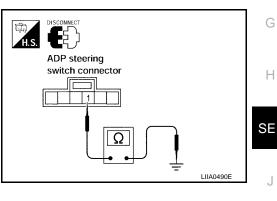
NG >> Replace ADP steering wheel telescopic switch.

### 4. CHECK ADP STEERING WHEEL TELESCOPIC SWITCH GROUND CIRCUIT

Check continuity between ADP steering wheel telescopic switch connector M16 terminal 1 (B) and ground.

#### 1 (B) – Ground

: Continuity should exist.



#### OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Replace or replace harness between ADP steering wheel telescopic switch and ground.

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### STEERING WHEEL TILT SWITCH CIRCUIT INSPECTION

### 1. CHECK FUNCTION

#### (B) With CONSULT-II

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

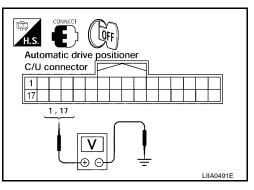
Monitor item [OPEF UNIT]	RATION or	Contents
TILT SW-UP	"ON/OFF"	Operation (ON)/open (OFF) status judged from the tilt switch (FR) signal is displayed.
TILT SW-DOWN	"ON/OFF"	Operation (ON)/open (OFF) status judged from the tilt switch (RR) signal is displayed.

D	ATA MONITO	)R	
SELEC	OT MONITOR		
TE	LESCO SW-		
TE	LESCO SW-	RR	
	TILT SW-UP		
Т	ILT SW-DOW		
М	IEMORY SW	1	
Page Up	Page Down		
SETTING	Numerical Display		
MODE B	ACK LIGH	PIIA0315E	
			FIAUSTSE

### **Without CONSULT-II**

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

Connector	Terminals (Wire color)		Condition	Voltage (V)	
	(+)	(-)		(Approx)	
	1 (Y/G) M41 Ground 17 (LG/B)	Cround	Tilt switch ON (UP operation)	0	
M41			Tilt switch OFF	5	
1014-1		Tilt switch ON (DOWN operation)	0		
			Tilt switch OFF	5	



### OK or NG

OK >> ADP steering wheel tilt switch circuit is OK.

NG >> GO TO 2.

### 2. CHECK ADP STEERING WHEEL TILT SWITCH HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering wheel tilt switch connector.
- 2. Check continuity between automatic drive positioner control unit connector M41 terminals 1 (Y/G), 17 (LG/B) and ADP steering wheel tilt switch connector M16 terminals 2 (Y/G), 3 (LG/B).

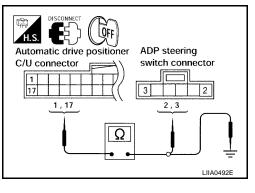
```
1 (Y/G) – 2 (Y/G)
```

- 17 (LG/B) 3 (LG/B)
- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 1 (P/L), 17 (LG/B) and ground.

#### 17 (LG/B) - Ground



: Continuity should not exist.



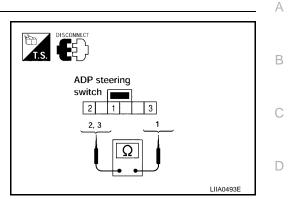
### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness between automatic drive positioner control unit and ADP steering wheel tilt switch.



Check continuity between ADP steering wheel tilt switch as follows.

Connector	Term	inals	Condition	Continuity	
	(+)	(-)	Condition		
	2		Tilt switch ON (UP operation)	Yes	
	2		Tilt switch OFF	No	
M16	3	1	Tilt switch ON (DOWN opera- tion)	Yes	
			Tilt switch OFF	No	



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#### OK or NG

OK >> GO TO 4.

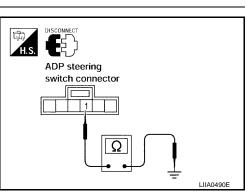
NG >> Replace ADP steering wheel tilt switch.

### 4. CHECK ADP STEERING WHEEL TILT SWITCH GROUND CIRCUIT

Check continuity between ADP steering wheel tilt switch connector M16 terminal 1 (B) and ground.

1 (B) – Ground

: Continuity should exist.



#### OK or NG

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

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

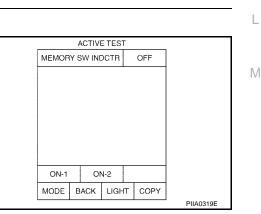
### SEAT MEMORY INDICATOR LAMP CIRCUIT INSPECTION

### 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**

ĞO TO 2.

OK or NG

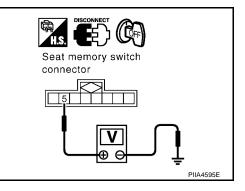
OK >> Seat memory indicator lamp circuit is OK.

NG >> GO TO 2.

# 2. CHECK SEAT MEMORY SWITCH POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch connector.
- 3. Check voltage between seat memory switch connector D5 terminal 5 (Y/R) and ground.

5 (Y/R) – Ground : Battery voltage



### OK or NG

OK >> GO TO 3.

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

### 3. CHECK HARNESS CONTINUITY

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

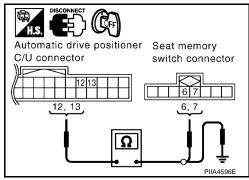
12 (OR) – 6 (OR) 13(P) - 7(P)

: Continuity should exist. : Continuity should exist.

Check continuity between automatic drive positioner control unit 3. connector M41 terminals 12 (GR/L), 13 (Y/G) and ground.

12 (OR) – Ground

- 13 (P) Ground
- : Continuity should not exist. : Continuity should not exist.



### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness between automatic drive positioner control unit and memory switch.

### 4. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

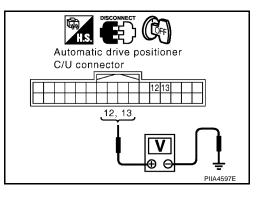
- 1. Connect seat memory switch connector.
- 2. Check voltage between automatic drive positioner control unit connector M41 terminals 12 (GR/L), 13 (Y/G) and ground.
  - 12 (OR) Ground
- 13 (P) Ground

### : Battery voltage

: Battery voltage

### OK or NG

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



### **UART COMUNICATION LINE CIRCUIT INSPECTION**

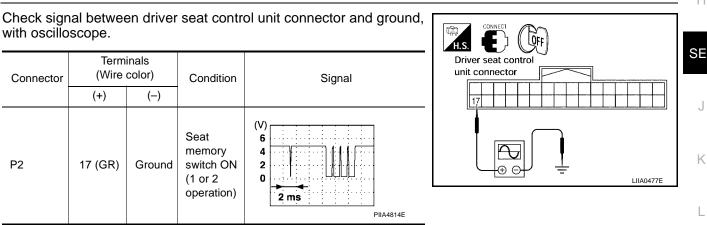
### 1. CHECK UART LINE HERNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and automatic drive positioner control unit connector.
- 3. Check continuity between driver seat control unit connector P2 terminal 1 (W/B), 17 (GR) and automatic drive positioner connector M41 terminal 10 (R), 26 (R/W).
  - 1 (W/B) 10 (R)
- : Continuity should exist.
- 17 (GR) 26 (R/W) : Continuity should exist.
- Check continuity between driver seat control unit connector P2 4. terminal 1 (W/B), 17 (GR) and ground.
  - 1 (W/B) Ground
  - 17 (GR) Ground
- : Continuity should not exist. : Continuity should not exist.

#### OK or NG

- OK >> GO TO 2.
- NG >> Repair or replace harness between driver seat control unit and automatic drive positioner control unit.

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



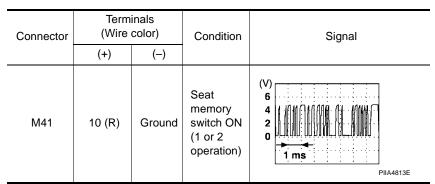
#### OK or NG

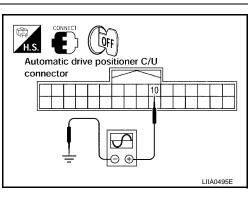
OK >> GO TO 3.

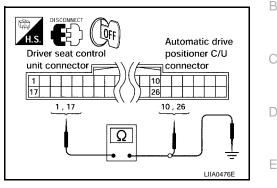
NG >> Replace driver seat control unit.

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

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









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#### OK or NG

- OK >> GO TO 4.
- NG >> Replace automatic driver positioner control unit.

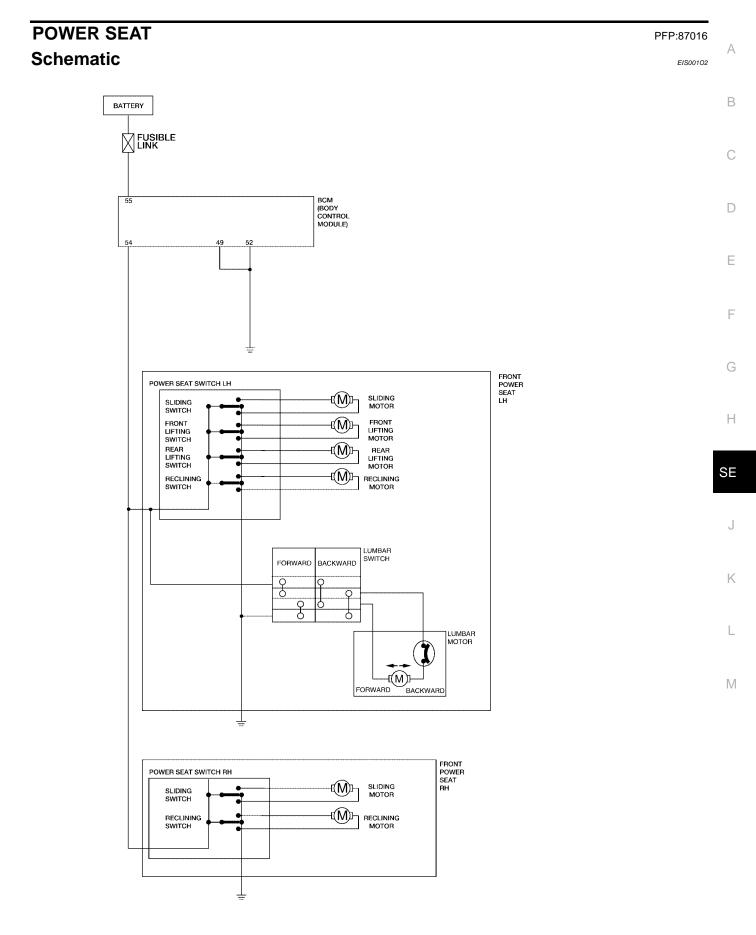
### 4. CHECK DRIVER SEAT CONTROL UNIT

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

#### OK or NG

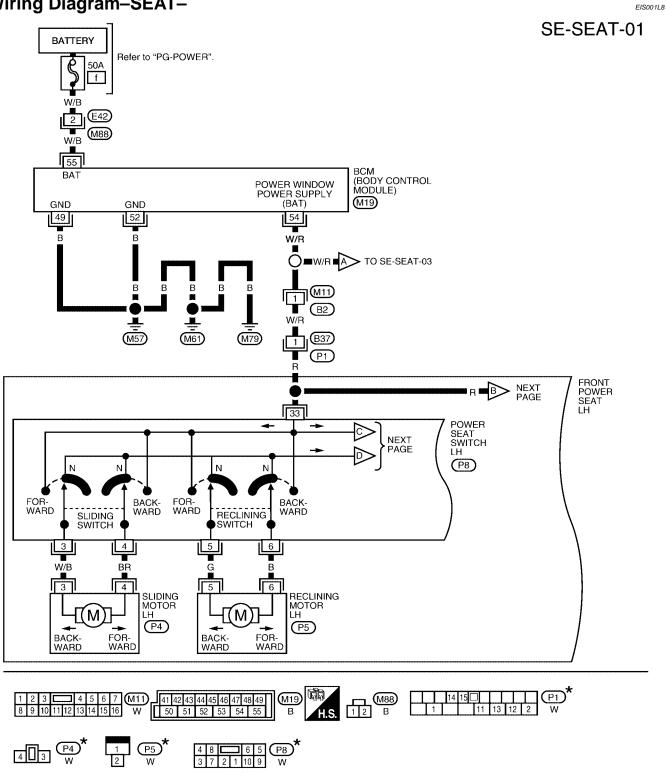
- OK >> Replace automatic drive positioner control unit.
- NG >> Replace driver seat control unit.

### **POWER SEAT**



LIWA0270E

### Wiring Diagram–SEAT–

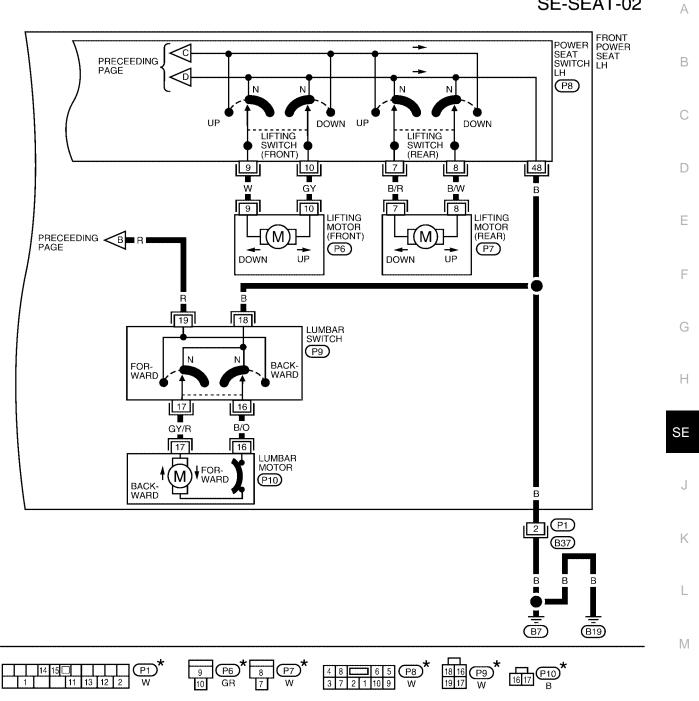


\* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

LIWA0271E

### **POWER SEAT**

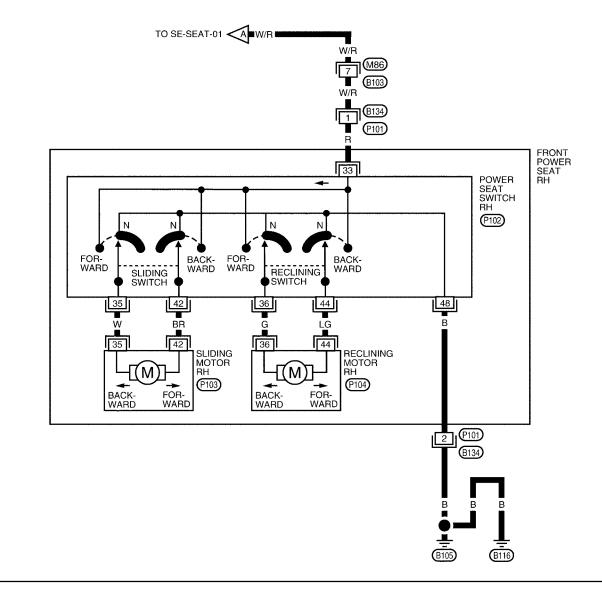
SE-SEAT-02



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

LIWA0272E

SE-SEAT-03





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

LIWA0087E

### **HEATED SEAT**

### **HEATED SEAT** Description When handling seat, be extremely careful not to scratch heating unit. To replace heating unit, seat trim and pad should be separated. Do not use any organic solvent, such as thinner, benzene, alcohol, etc. to clean trim. Seatback trim Heating unit Trim temperature Increasing to Decreasing to Ð 35 - 45 (95 - 113) °C (°F) 25 - 35 (77 - 95) Ð Thermostat OFF operation Seat cushion

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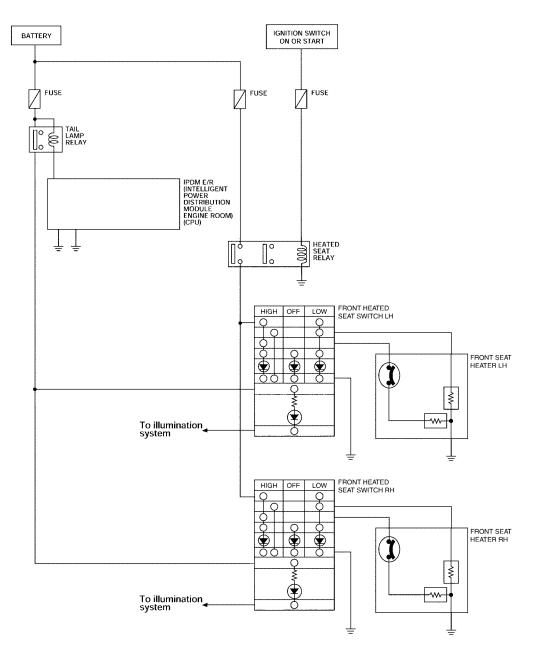
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trim

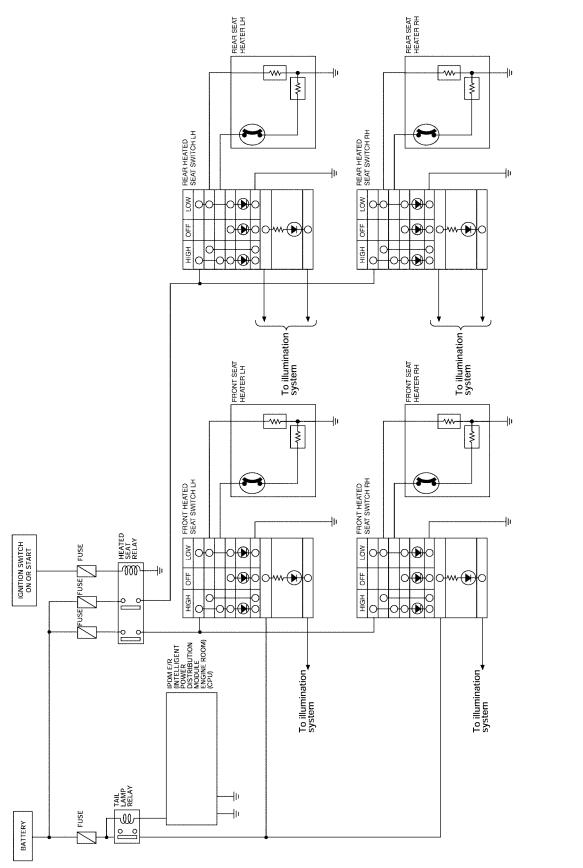
#### Schematic WITH FRONT LEFT AND RIGHT HEATED SEATS



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### WITH FRONT AND REAR HEATED SEATS



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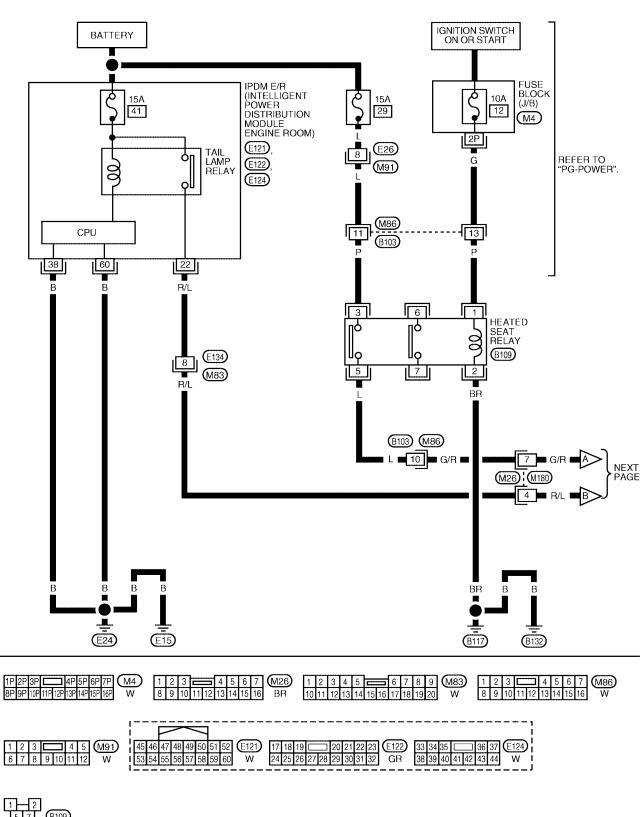
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### Wiring Diagram–HSEAT– WITH FRONT LEFT AND RIGHT HEATED SEATS

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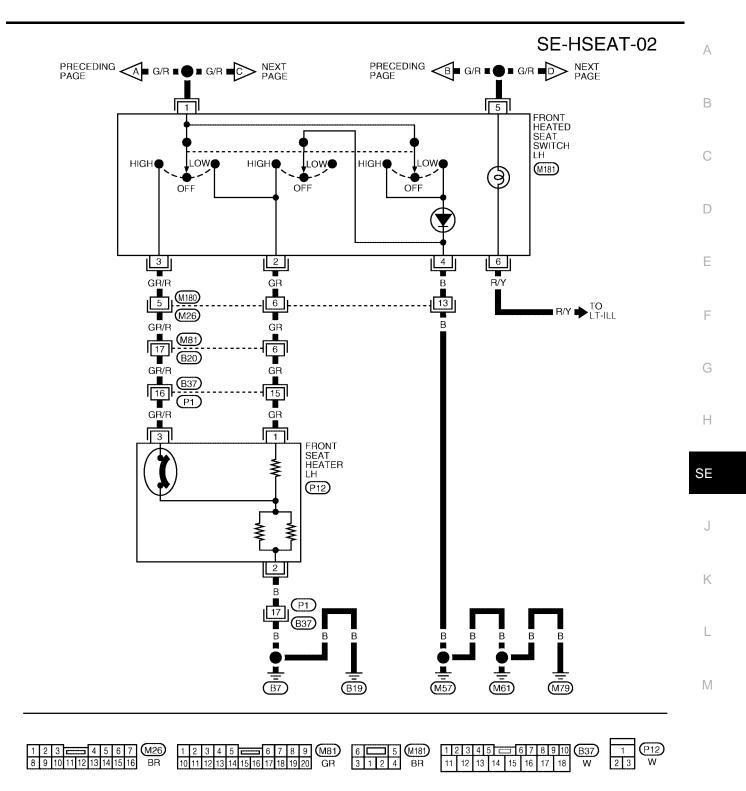
SE-HSEAT-01



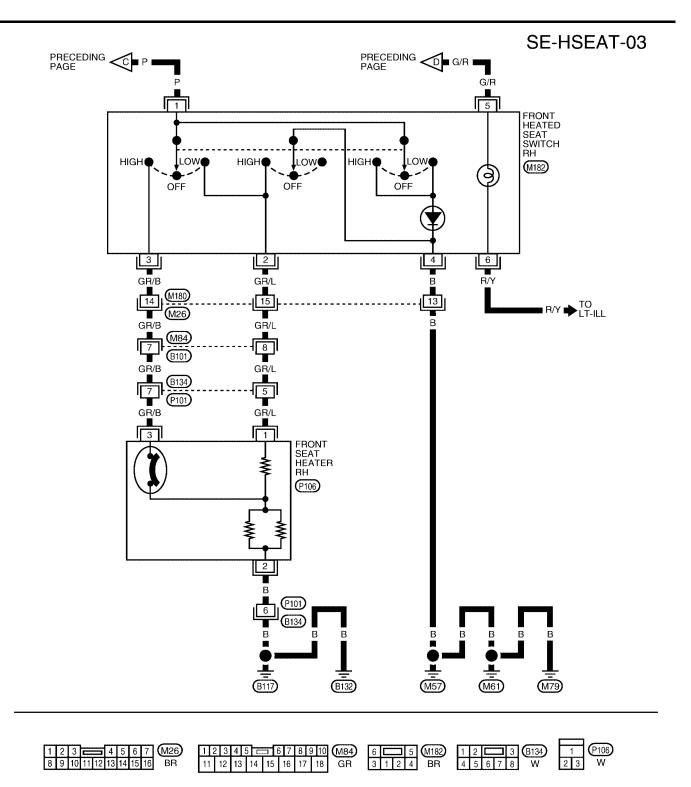
1 2 5 7 3 6 B109 BR

WIWA0409E

### **HEATED SEAT**



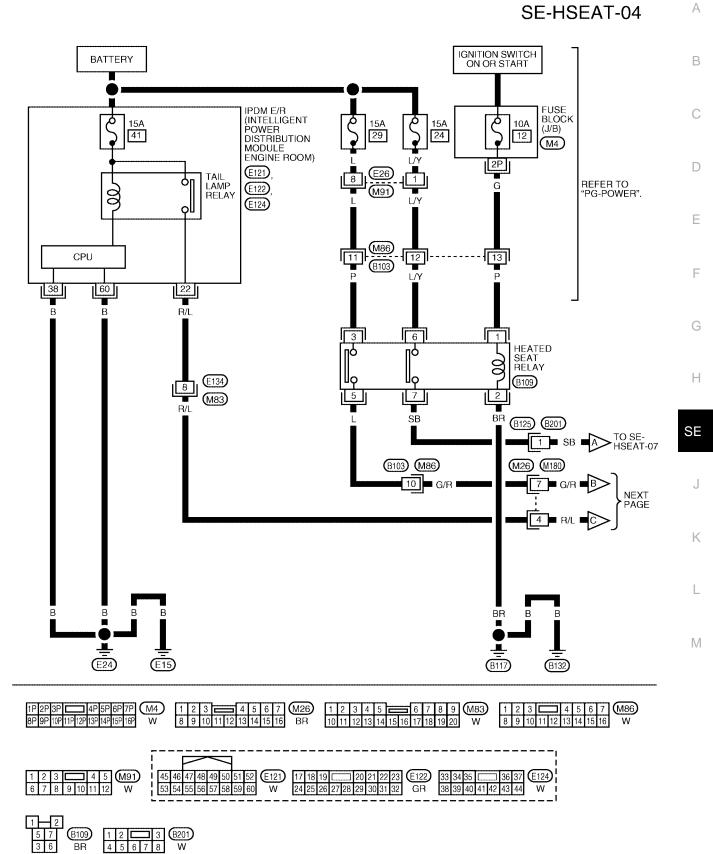
WIWA0410E



WIWA0868E

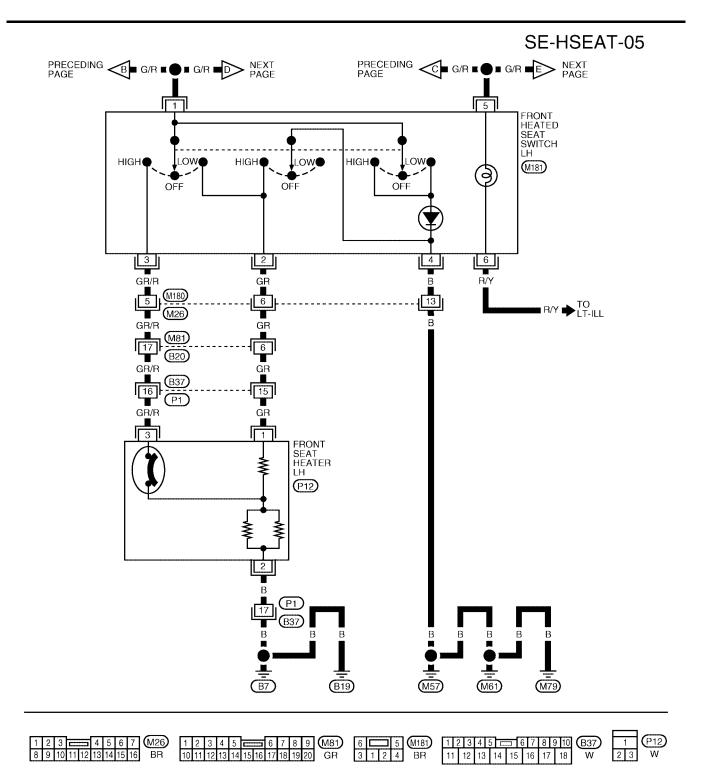
### **HEATED SEAT**

#### WITH FRONT AND REAR HEATED SEATS

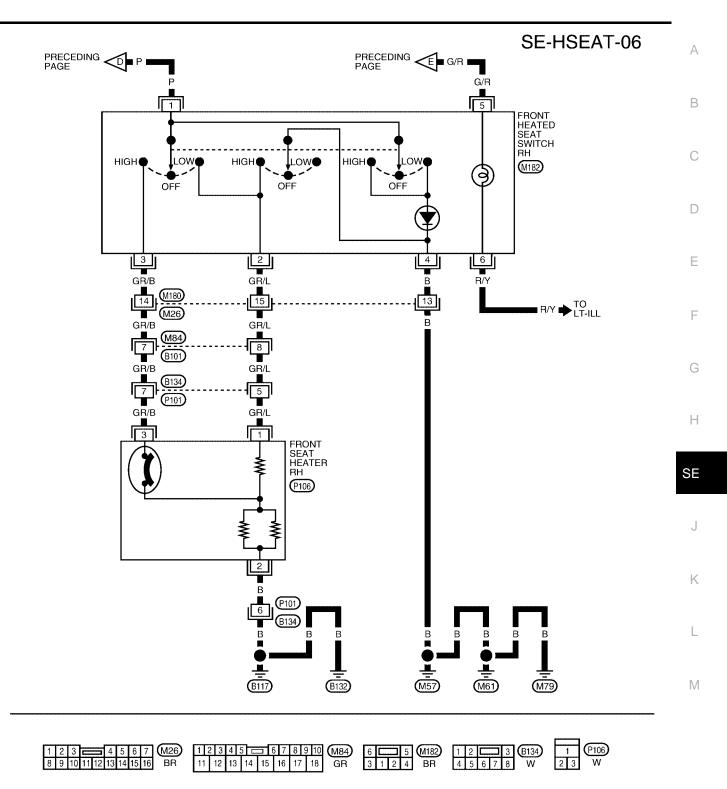


WIWA0412E

### **HEATED SEAT**

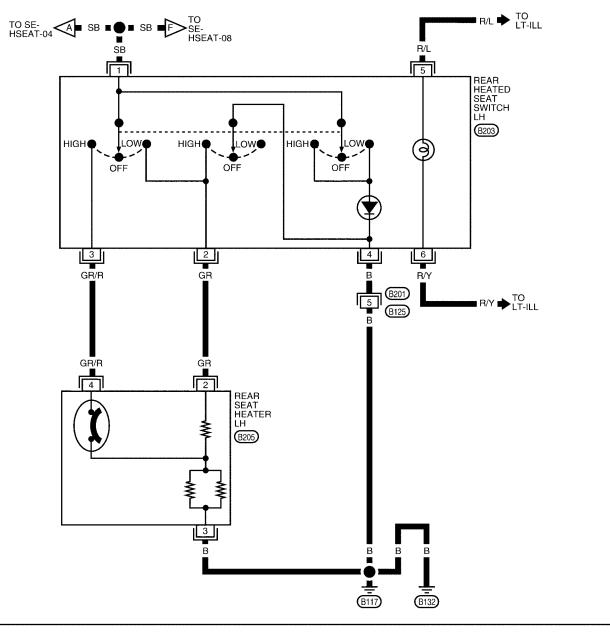


WIWA0413E



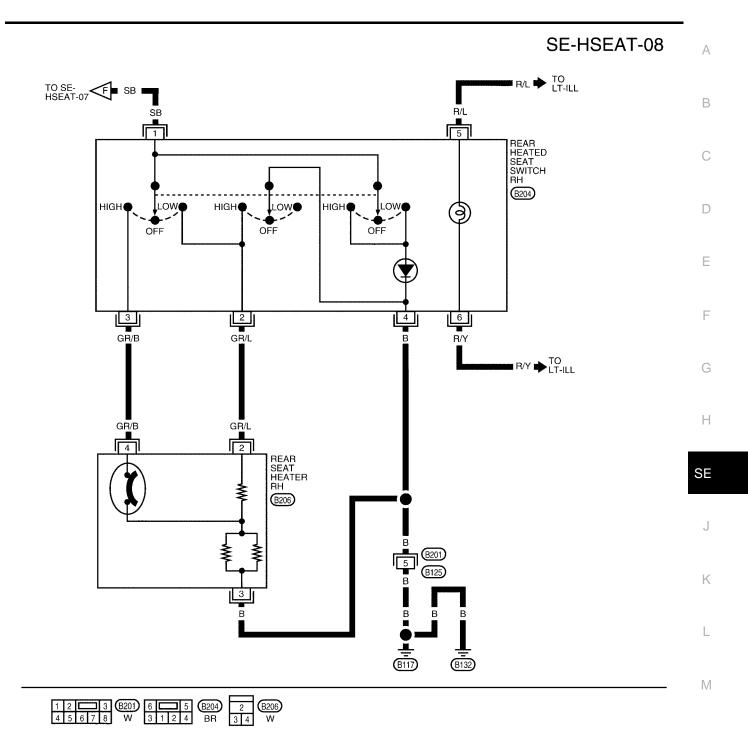
WIWA0869E

SE-HSEAT-07



[	1	2	2 🖂 3		B201 6				5	(B203)	2	(B205)	
[	4	5		7			3	1	2	4	BR	34	W

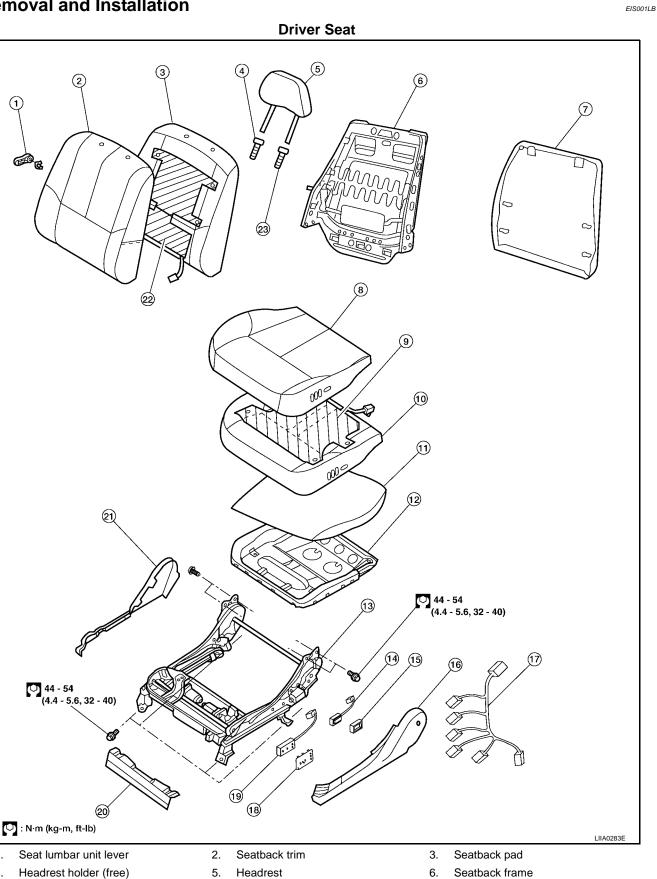
LIWA0096E



LIWA0097E

### **FRONT SEAT Removal and Installation**

PFP:87000



- 4. Seatback board
- 7.

1.

**SE-104** 

Seat cushion trim

9.

Seat cushion heater unit

8.

- 10. Seat cushion pad
- 13. Driver seat frame assembly
- 16. Seat cushion outer finisher
- 19. Power seat switch
- 22 Seatback heater unit

- 11. Silk film bag
- 14. Power lumbar support switch (optional)
- Driver power seat harness
   Seat cushion front finisher

23 Headrest holder (locked)

- Seat cushion frame
   power lumbar support switch finisher
  - . ..
- 18. power seat switch finisher
- 21. Seat cushion inner finisher

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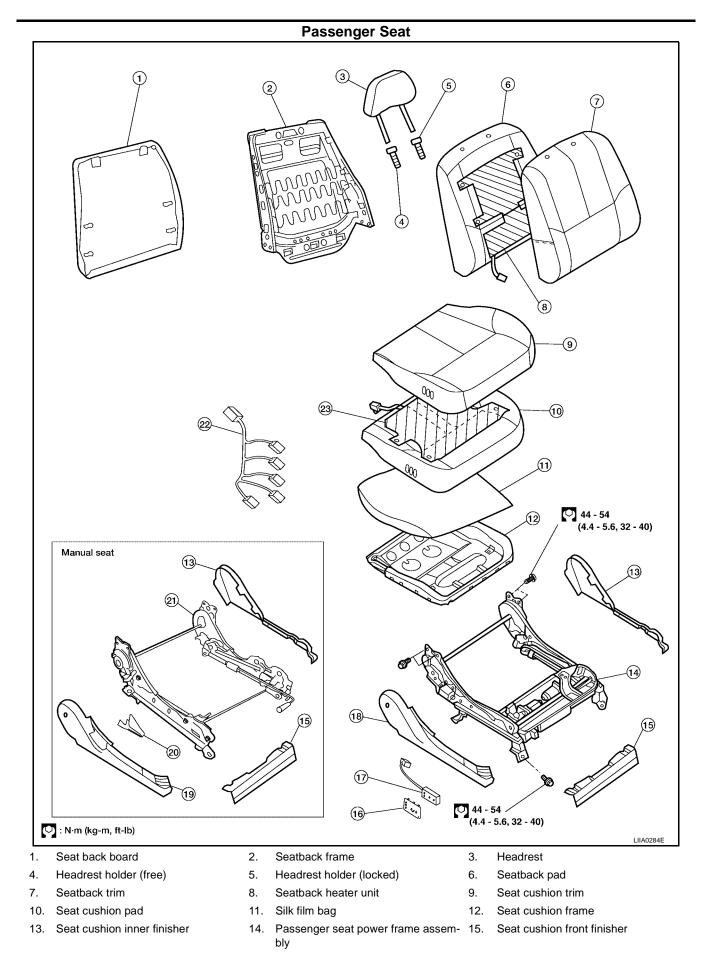
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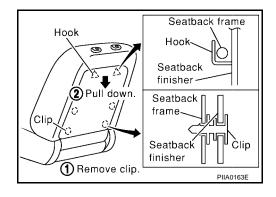
16.	Power seat switch finisher	17.	Power seat switch	18.	Seat cushion outer finisher (power seat)	A	
19.	Seat cushion outer finisher (manual seat)	20.	Seatback manual recline handle	21.	Passenger seat manual frame assembly		
22.	Passenger power seat harness	23.	Seat cushion heater unit			[	
REM	OVAL						
Whe	n removing or installing the seat	t trim	, handle it carefully to keep di	rt out a	and avoid damage.	(	
CAU	TION:				-		
	Before removing the front se vait and least 3 minutes.	at, t	urn the ignition switch off,	disco	nnect both battery cables and	[	
	When checking the power sea nector with the side air bag m				tester, do not confuse its con- cause the air bag to deploy.		
	Do not drop, tilt, or bump the care.	side	e air bag module while insta	lling	the seat. Always handle it with	E	
• /	After front side air bag modul	e inf	lates, front seatback asseml	bly m	ust be replaced.		
1. 5	Slide the seat until the four body	/ mo	unting bolts are visible and a t	ool ca	n be inserted.	F	
1	NOTE:		-				
	When disassembling the drive	er se	at after removal, set the front/	rear c	ushion lifter to the top position.		
2. [							
3. F	Remove the harness connector	for th	ne side air bag module.				
4. F	Remove the four body mounting	j bolt	S.				
5. F	Remove the power seat harness	s cor	nector and vehicle harness five	king cl	ip from the vehicle.	ŀ	
١	<b>NOTE:</b> When removing and installing, u vith other parts.	ise s	hop cloths to protect the parts	from (	damage where they may interfere	SI	
INST	ALLATION						
•	nstall in the reverse order of rer	nova	d.				
1	NOTE:					,	
E	Be sure to insert the rear end ta	b of	the rear leg cover under the ra	ul.			
	assembly and Assembl TBACK TRIM AND PAD	<b>y</b>			ElS001LC	ŀ	
Rem	NING: oval of front side air bag mo ule prior to disposal of seatba			ow de	eployment of front side air bag	I	

#### NOTE:

Only complete 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.

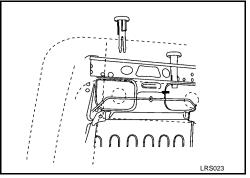


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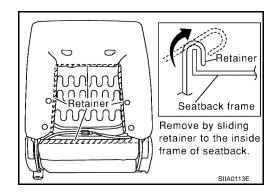
2. From the back of the seatback, press the headrest holder tabs at the base of the stay pipe to disengage. Then pull the headrest holder up to remove.

#### NOTE:

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



3. Remove the retainer.



4. Remove the seat heater harness connector. After removing the seatback trim and pad, remove the hog ring to separate the trim from the pad and the seatback heater unit.

### **REMOVAL OF SEATBACK ASSEMBLY**

- 1. After completing the steps 1 and 2 of "Seatback Trim and Pad", remove the harness connectors for the reclining motor and lumbar support motor (driver seat only).
- 2. Pull out the harness connector for the side air bag from the seat cushion.
- 3. Remove the reclining device mounting bolts (2 for each side) on the seatback frame, and remove the seatback assembly.

#### NOTE:

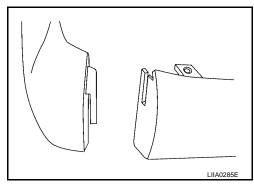
When assembling the seatback frame, make sure that the reclining device is locked on both sides, and be sure to temporarily tighten the bolts, then finish tightening them.

### INSTALLATION OF SEATBACK ASSEMBLY

• Install in the reverse order of removal.

### SEAT CUSHION TRIM AND PAD

- 1. Remove the power seat switch knob (or recline knob on manual seat).
- 2. Remove the front seat cushion finisher (inner).

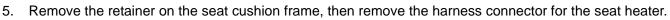


3. Remove the three power seat switch assembly screws (or lift knobs on manual seats).

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Pull up

4. Remove four bolts retaining the seat cushion assembly, remove seat cushion assembly.



6. After removing the seat cushion trim and pad, remove the hog rings to separate the trim from the pad and seat cushion heater unit.

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Trim

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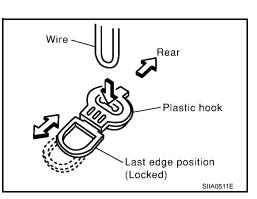
### REAR SEAT

# Removal and Installation REMOVAL

- 1. Pull the lock at the front bottom of the seat cushion forward (1 for each side), and pull the seat cushion upward to release the wire from the plastic hook, then pull the seat cushion forward to remove.
- 2. Remove the RH and LH screws on the seatback.
- 3. Slide the seatback upward to pull off the wire from the wire from the vehicle-side hook, and remove the seatback.
- 4. After removing, remove the hog ring to separate the trim and pad.

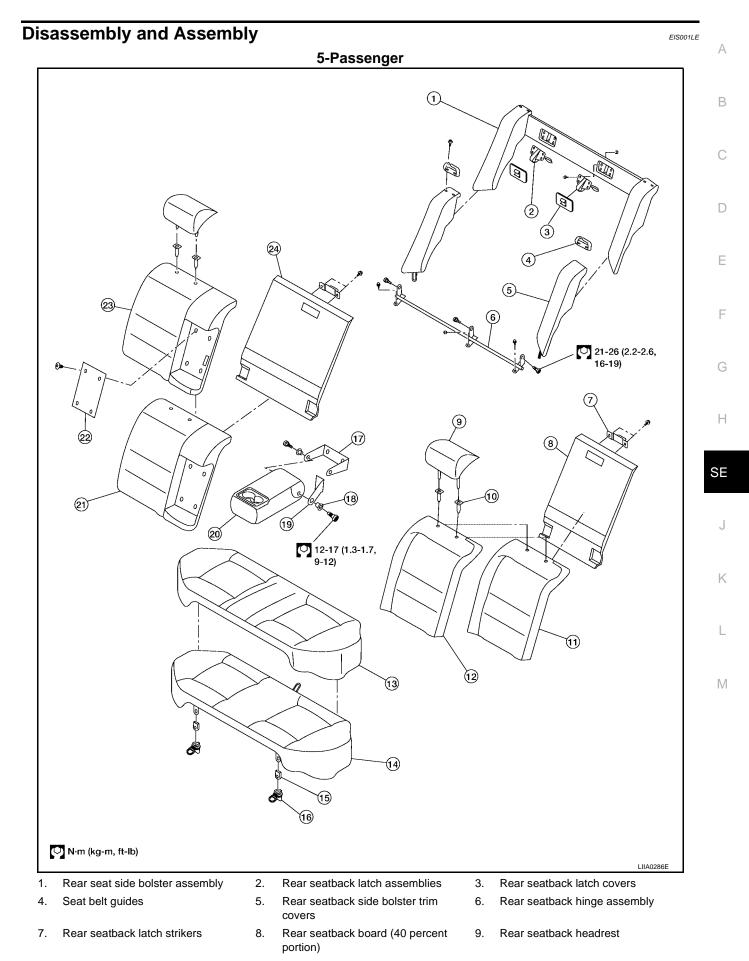
### INSTALLATION

• Install in the reverse order of removal.



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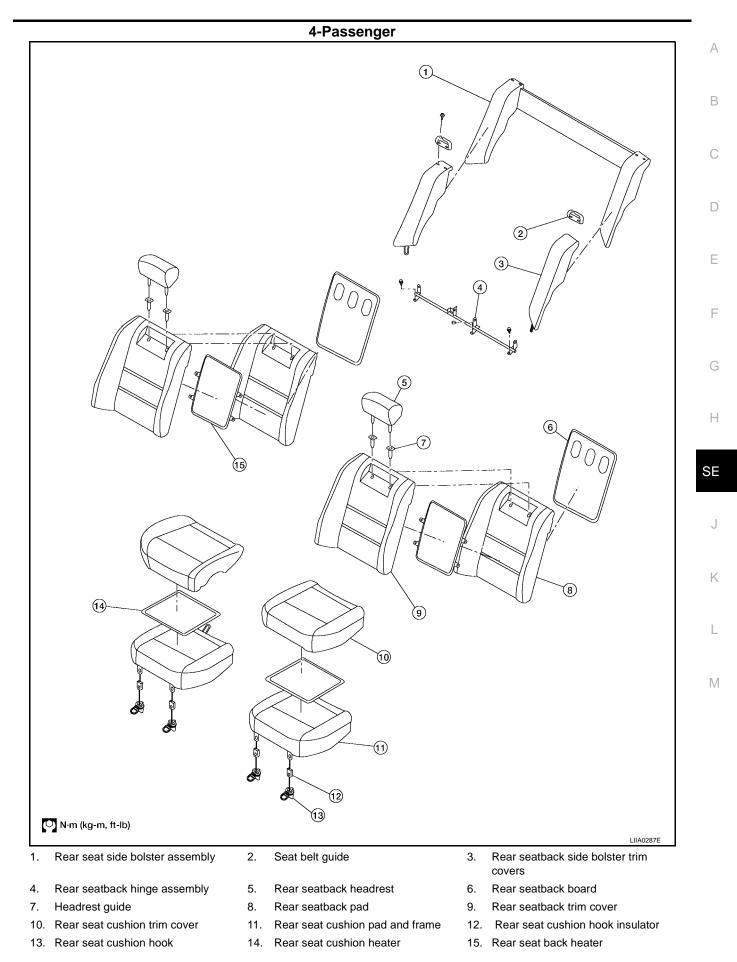
**REAR SEAT** 



### **REAR SEAT**

- 10. Headrest guide
- 13. Rear seat cushion trim cover
- 16. Rear seat cushion hook
- 19. Armrest bracket cover
- 22. Armrest lid board assembly
- 11. Rear seatback pad (40 percent portion)
- 14. Rear seat cushion pad and frame
- 17. Armrest bracket
- 20. Rear seat armrest assembly
- 23. Rear seatback trim cover (60 percent 24 portion
- 12. Rear seatback trim cover (40 percent portion)
- 15. Rear seat cushion hook insulator
- 18. Bushing
- 21. Rear seatback pad (60 percent portion)
  - Rear seatback board (60 percent portion)

### **REAR SEAT**



SE-113