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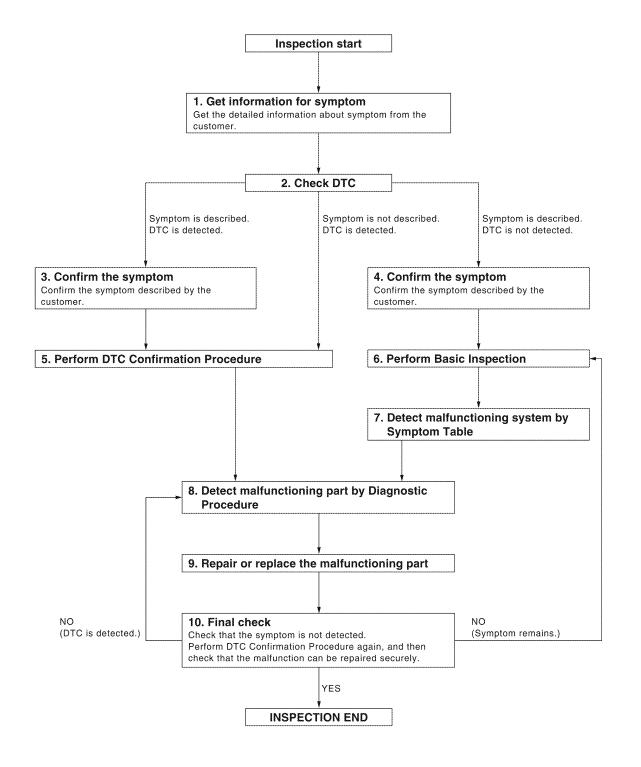
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# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

**WORK FLOW** 



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# **DIAGNOSIS AND REPAIR WORKFLOW**

# < BASIC INSPECTION >

< BASIC INSPECTION >	
1. GET INFORMATION FOR SYMPTOM	
Get the detailed information from the customer about the symptom (the condition and the environment wh the incident/malfunction occurred).	en
>> GO TO 2	
2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM	
Check "Self Diagnostic Result" with CONSULT-III.  Refer to ADP-123, "DTC Index".	
Is any symptom described and any DTC is displayed?	
Symptom is described, DTC is displayed.>>GO TO 3 Symptom is not described, DTC is displayed.>>GO TO 7 Symptom is described, DTC is not displayed.>>GO TO 4	
3. CONFIRM THE SYMPTOM	
Try to confirm the symptom described by the customer.	
>> GO TO 7	
4. CONFIRM THE SYMPTOM	
Try to confirm the symptom described by the customer.	
>> GO TO 5	
5. CHECK NORMAL OPERATING CONDITION	
Check normal operating condition. Refer to ADP-160, "Description".	
Is the incident normal operation?	
YES >> Inspection End. NO >> GO TO 6	
6. PERFORM BASIC INSPECTION	
Isolate the malfunctioning point with the basic inspection. Refer to ADP-7, "Preliminary Check".	_
>> GO TO 8  7. PERFORM DTC CONFIRMATION PROCEDURE	
Perform the confirmation procedure for the detected DTC. <u>Is the DTC displayed?</u>	
YES >> GO TO 9	
NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".	
8. PERFORM COMPONENT FUNCTION CHECK	
Perform the component function check for the isolated malfunctioning point.	
>> GO TO 9	
9. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE	
Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during to component diagnosis.	ne
>> GO TO 10	
10. REPAIR OR REPLACE	

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Repair or replace the malfunctioning part.

# **DIAGNOSIS AND REPAIR WORKFLOW**

#### < BASIC INSPECTION >

>> GO TO 11

# 11. FINAL CHECK

Perform the DTC confirmation procedure (if DTC is detected) or component function check (if no DTC is detected) again, and then check that the malfunction can be repaired securely.

### Are all malfunctions corrected?

YES >> Inspection End.
Symptom is detected.>> GO TO 4
DTC is detected.>> GO TO 7

### **INSPECTION AND ADJUSTMENT**

# < BASIC INSPECTION > INSPECTION AND ADJUSTMENT Α **Preliminary Check** INFOID:0000000004918575 1. FOREIGN OBJECTS В Check the following: objects on or behind the seats that could cause binding · objects under the seats that may be interfering with the seat's moving parts objects under pedals that may interfere with movement Are there any foreign objects that could be causing interference? YES >> Remove objects. D NO >> GO TO 2 2. WIRING CONNECTIONS Disconnect harness connectors. Check terminals for damage or loose connections. Reconnect harness connectors. Are any connectors damaged or loose? >> Repair or replace damaged parts. YES NO >> GO TO 3 3. POWER AND GROUND Check power supply and ground circuits for control unit. Refer to ADP-43, "DRIVER SEAT CONTROL UNIT: Diagnosis Procedure". Н Is the inspection result normal? YES >> Refer to ADP-123, "DTC Index". NO >> Repair or replace as necessary. Special Repair Requirement INFOID:0000000004918576 ADP Refer to Owner's Manual for Automatic Drive Positioner system operating instructions.

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#### PRE-INSPECTION FOR DIAGNOSTIC

#### < BASIC INSPECTION >

# PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

# 1. CHECK POWER SUPPLY AND DROUND CIRCUIT

Check the power supply and ground circuit as shown below.

- Driver seat control unit: Refer to <u>ADP-43</u>, "<u>DRIVER SEAT CONTROL UNIT</u>: <u>Diagnosis Procedure</u>".
- Automatic drive positioner control unit: Refer to <u>ADP-44</u>, "<u>AUTOMATIC DRIVE POSITIONER CONTROL</u> UNIT: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

# 2. CHECK MANUAL FUNCTION

Check the manual function operations by operating the relevant switches as shown below.

- Seat (slide, reclining, lifting front, lifting rear)
- Pedal assembly (forward, backward)
- Door mirror

#### Do all manual functions operate normally?

YES >> GO TO 3

NO (Seat, pedal, door mirror)>>Go to SYMPTOM 1, refer to <u>ADP-158, "Symptom Table"</u>. And, GO TO 4 if the result of SYMPTOM 1 is OK.

# $3.\,$ CHECK MEMORY FUNCTION 1

Register the seat positions (refer to Owner's Manual) and check that all parts of the seat, pedals, steering wheel and door mirrors move to their memory positions correctly.

#### Are the operations normal?

YES >> Check each malfunction according to the instruction of the SYMPTOM 4, refer to <u>ADP-158</u>, "Symptom Table".

No (memory indicator operates normally)>> Go to SYMPTOM 2, refer to ADP-158, "Symptom Table".

No (memory indicator does not operate normally either)>> GO TO 5

#### 4. CHECK MEMORY FUNCTION 2

Register the seat positions (refer to Owner's Manual) and check that all parts of the seat, pedals and door mirrors move to their memory positions correctly.

### Are the operations normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

NO >> GO TO 7

# CHECK SEAT MEMORY SWITCH/MEMORY INDICATOR

Check the seat memory switch/memory switch indicator of the SYMPTOM 5, refer to <u>ADP-158</u>, "Symptom <u>Table"</u>.

#### Is the inspection result normal?

YES >> GO TO 6

NO >> Repair or replace the malfunctioning part.

#### O. CHECK OPERATION CONDITION

Check the memory operation conditions (refer to <u>ADP-11, "AUTOMATIC DRIVE POSITIONER SYSTEM : System Description"</u>).

#### Are all operation conditions fulfilled?

YES >> Go to SYMPTOM 6, refer to ADP-158, "Symptom Table".

NO >> Fulfill the operation conditions. Refer to <u>ADP-11, "AUTOMATIC DRIVE POSITIONER SYSTEM :</u>
System Description".

# 7. CHECK MECHANISM

#### Check for the following.

Mechanism deformation or pinched foreign materials.

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# PRE-INSPECTION FOR DIAGNOSTIC

### < BASIC INSPECTION >

• Interference with other parts because of poor installation.

Is any malfunction present in the relevant parts?

YES >> Go to SYMPTOM 3, refer to ADP-158, "Symptom Table".

NO >> Repair or replace the malfunctioning part.

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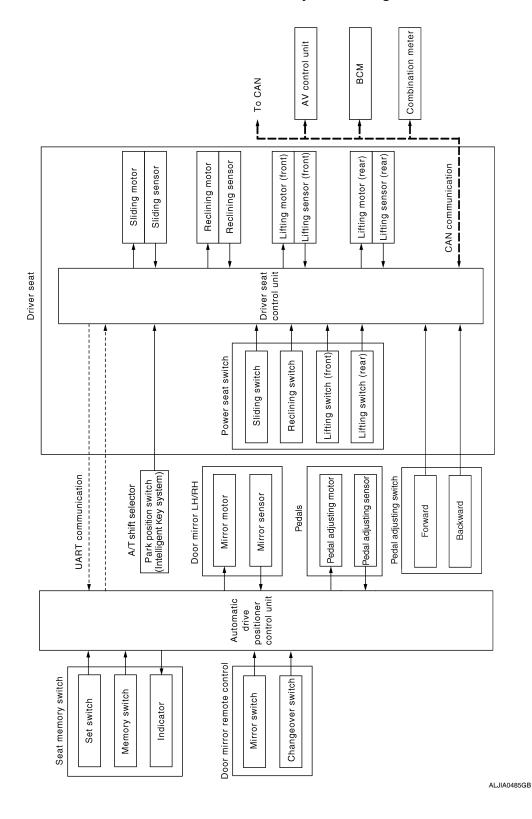
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# **FUNCTION DIAGNOSIS**

# AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

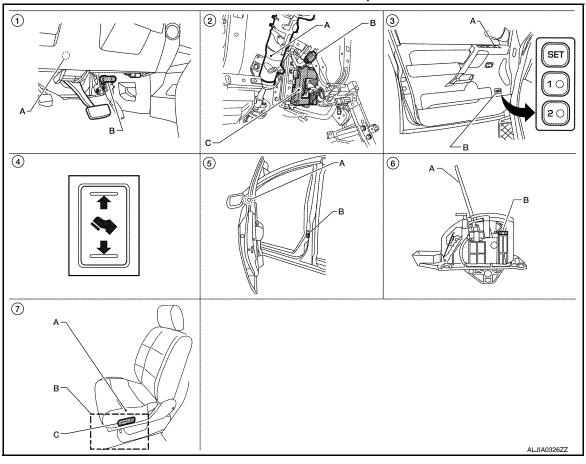
AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram

INFOID:0000000004918578



#### < FUNCTION DIAGNOSIS >

# AUTOMATIC DRIVE POSITIONER SYSTEM: Component Parts Location INFOID:000000004918579



- A. Automatic drive positioner control 2. unit M33, M34 B. Pedal adjusting motor assembly E109, E110
- Pedal adjusting switch M96
- A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207 B. Driver seat control unit B202,
  - B203 C. Power seat switch LH B208

- A. Steering column
  - B. Key switch and ignition knob switch M12
  - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107 B. Front door switch LH B8
  - C. Front door lock assembly LH (key cylinder switch) D14
- A. Door mirror remote control switch
  - B. Seat memory switch D5
- A. A/T selector lever B. A/T shift selector (park position switch (Intelligent Key system)) M203

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# AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

#### INFOID:0000000004918580

#### **OUTLINE**

The system automatically moves the driver seat, pedal assembly and door mirror position by the driver seat control unit and the automatic drive positioner control unit. The driver seat control unit corresponds with the automatic drive positioner control unit by UART communication.

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# < FUNCTION DIAGNOSIS >

Function		Description	
Manual function		The driving position (seat, pedal assembly and door mirror position) can be adjusted by using the power seat switch, pedal adjusting switch or door mirror remote control switch.	
Memory function		The seat, pedal assembly and outside mirror move to the stored driving position by pressing seat memory switch (1 or 2).	
Entry/Evit againt function	Exit	On exit, the seat moves backward.	
Entry/Exit assist function Entry		On entry, the seat returns from exiting position to the previous driving position.	
Intelligent Key interlock function	ion	Perform memory operation, exiting operation and entry operation by Intelligent Key unlock operation or driver side door request switch unlock operation.	

# AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:0000000004918581

### **CONTROL UNITS**

Item	Function	
Driver seat control unit	<ul> <li>Main unit of automatic drive positioner system</li> <li>It is connected to the CAN.</li> <li>It communicates with the automatic drive positioner control unit via UART communication.</li> </ul>	
Automatic drive positioner control unit	<ul> <li>It communicates with the driver seat control unit via UART communication.</li> <li>Perform various controls with the instructions of driver seat control unit.</li> <li>Perform the controls of the pedal adjusting, door mirror and the seat memory switch.</li> </ul>	
BCM	Transmit the following status to the driver seat control unit via CAN communication.  Front door LH: OPEN/CLOSE  Ignition switch position: ACC/ON  Door lock: UNLOCK (with Intelligent Key or remote keyless entry request switch operation)  Key ID  Key switch: Insert/Pull out Intelligent Key or ignition key  Starter: CRANKING/OTHER	
Combination meter	Transmit the vehicle speed signal to the driver seat control unit via CAN commucation.	
AV control unit	The setting change of auto drive positioner system can be performed on the display	
A/T shift selector (park position switch (Intelligent Key system))	Transmit the shift position signal (P range) to the driver seat control unit.	

### **INPUT PARTS**

#### Switches

Item	Function	
Key switch and ignition knob switch	The key switch is installed to detect the key inserted/removed status.	
Front door switch LH	Detect front door (driver side) open/close status.	
A/T shift selector (park position switch (Intelligent Key system))	Detect the P range position of A/T selector lever.	
Set switch	The registration and system setting can be performed with its operation.	
Seat memory switch 1/2	The registration and operation can be performed with its operation.	
Power seat switch	The following switch is installed.  Reclining switch  Lifting switch (front)  Lifting switch (rear)  Sliding switch  The specific parts can be operated with the operation of each switch.	

# < FUNCTION DIAGNOSIS >

Item	Function	
Pedal adjusting switch	The following switch is installed.  • Pedal forward  • Pedal backward  The specific parts can be operated with the operation of each switch.	
Door mirror remote control switch	The following switch is installed.  • Mirror switch  • Changeover switch  The specific parts can be operated with the operation of each switch.	

#### Sensors

Item	Function	
Door mirror sensor (LH/RH)	Detect the up/down and left/right position of outside mirror face.	
Pedal adjusting sensor	Detect the forward/backward position of pedal assembly.	
Lifting sensor (front)	Detect the up/down position of seat lifting (front).	
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).	
Reclining sensor	Detect the tilt of seatback.	
Sliding sensor	Detect the front/rear position of seat.	

# **OUTPUT PARTS**

Item	Function	
Door mirror motor (LH/RH)	Move the outside mirror face upward/downward and leftward/rightward.	
Pedal adjusting motor	Move the pedal assembly forward/backward.	
Lifting motor (front)	Move the seat lifting (front) upward/downward.	
Lifting motor (rear)	Move the seat lifting (rear) upward/downward.	
Reclining motor	Tilt and raise up the seatback.	
Sliding motor	Slide the seat forward/backward.	
Seat memory indicator	Illuminates or flashes according to the registration/operation status.	

# MANUAL FUNCTION

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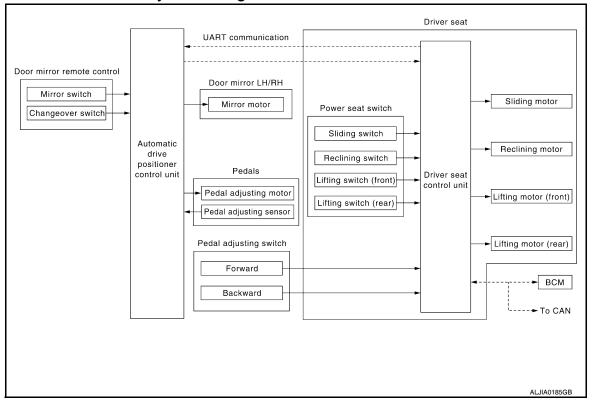
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#### < FUNCTION DIAGNOSIS >

# MANUAL FUNCTION: System Diagram

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# MANUAL FUNCTION: System Description

INFOID:0000000004918583

#### **OUTLINE**

The driving position (seat, pedal assembly and door mirror position) can be adjusted manually with power seat switch, pedal adjusting switch and door mirror remote control switch.

#### **OPERATION PROCEDURE**

- Turn ignition switch ON.
- Operate power seat switch, pedal adjusting switch or door mirror remote control switch.
- 3. The driver seat, pedal assembly or door mirror operates according to the operation of each switch.

#### **DETAIL FLOW**

#### Seat

Order	Input	Output	Control unit condition
1	Power seat switch (sliding, lifting, reclining)	_	The power seat switch signal is inputted to the driver seat control unit when the power seat switch is operated.
2	_	Motors (sliding, lifting, reclining)	The driver seat control unit outputs signals to each motor according to the power seat switch input signal.

#### Adjustable pedals

Order	Input	Output	Control unit condition
1	Pedal adjusting switch	_	The pedal adjusting switch signal is input to the automatic drive positioner control unit when the pedal adjusting switch is operated.

#### < FUNCTION DIAGNOSIS >

Order	Input	Output	Control unit condition
2	_	Motor	The automatic drive positioner control unit actuates the motor according to the operation of the pedal adjusting switch signal from the driver seat control unit.
3	Sensors (forward, backward)	_	The automatic drive positioner control unit recognizes any operation limit of each actuator via each sensor and will not operate the actuator anymore at that time.

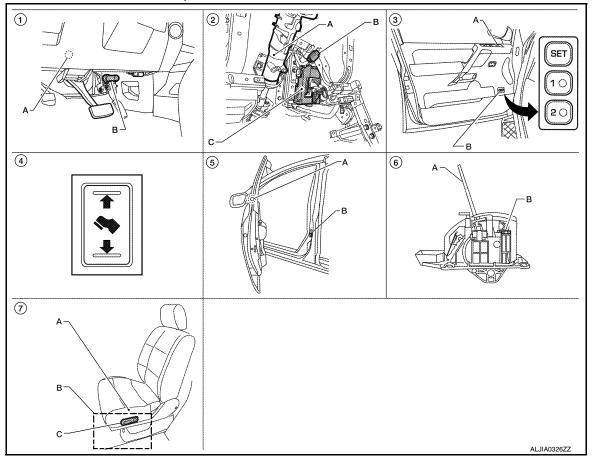
#### Door Mirror

Order	Input	Output	Control unit condition
1	Door mirror remote control switch	_	The door mirror remote control switch signal is inputted to the automatic drive positioner control unit when the door mirror remote control switch is operated.
2	_	Motors (Door mirror motor)	The automatic drive positioner control unit actuates each motor according to the operation of the door mirror remote control switch.

#### NOTE:

The door mirrors can be operated manually when ignition switch is in either ACC or ON position. The ignition switch signal (ACC/ON) is transmitted from BCM to the driver seat control unit via CAN communication and from the driver seat control unit to the automatic drive positioner control unit via UART communication.

# MANUAL FUNCTION: Component Parts Location



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#### < FUNCTION DIAGNOSIS >

- A. Automatic drive positioner control 2. unit M33, M34
  - B. Pedal adjusting motor assembly E109, E110
- 4. Pedal adjusting switch M96
- A. Steering column
   R. Key switch and ignition
  - B. Key switch and ignition knob switch M12
  - C. BCM M18, M19, M20 (view with instrument panel removed)
  - A. Door mirrror LH D4, RH D107
    - B. Front door switch LH B8
    - C. Front door lock assembly LH (key cylinder switch) D14
- A. Door mirror remote control switch D10
  - B. Seat memory switch D5
- A. A/T selector lever
   B. A/T shift selector (park position switch (Intelligent Key system))
   M203

- A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207
  - B. Driver seat control unit B202, B203
  - C. Power seat switch LH B208

# MANUAL FUNCTION: Component Description

INFOID:0000000004918585

#### **CONTROL UNITS**

Item	Function
Driver seat control unit	<ul> <li>Operates the specific seat motor with the signal from the power seat switch.</li> <li>Transmits the ignition switch signal (ACC/ON) via UART communication to the automatic drive positioner control unit.</li> <li>Transmits the pedal adjusting switch signal via UART communication to the automatic drive positioner control unit.</li> </ul>
Automatic drive positioner control unit	Operates the specific motor with the signal from driver seat control unit or door mirror remote control switch.
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication.  • Ignition position: ACC/ON

#### **INPUT PARTS**

#### Switches

Item	Function
Power seat switch	The following switch is installed.  Reclining switch  Lifting switch (front)  Lifting switch (rear)  Sliding switch  The specific parts can be operated with the operation of each switch.
Pedal adjusting switch	The following switch is installed.  • Pedal forward  • Pedal backward  The specific parts can be operated with the operation of each switch.
Door mirror remote control switch	The following switch is installed.  • Mirror switch  • Changeover switch  The specific parts can be operated with the operation of each switch.

#### Sensors

Item	Function
Pedal adjusting sensor	Detect the forward/backward position of pedal assembly.

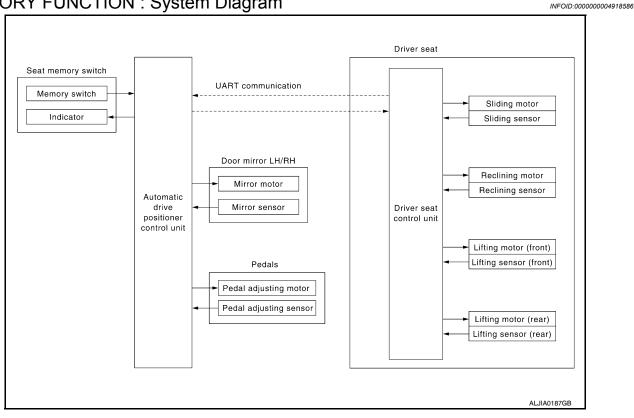
#### **OUTPUT PARTS**

#### < FUNCTION DIAGNOSIS >

Item	Function	
Door mirror motor (LH/RH)	Move the outside mirror face upward/downward and left/right.	
Pedal adjusting motor	Move the pedal assembly forward/backward.	
Lifting motor (front)	Move the seat lifter (front) upward/downward.	
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.	
Reclining motor	Tilt and raise up the seatback.	
Sliding motor	Slide the seat forward/backward.	

### MEMORY FUNCTION

# **MEMORY FUNCTION: System Diagram**



# MEMORY FUNCTION: System Description

**OUTLINE** 

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

#### NOTE:

Further information for the memory storage procedure. Refer to Owner's Manual.

#### OPERATION PROCEDURE

- Turn ignition switch ON.
- Press desired memory switch for more than 0.5 second.
- Front seat LH, pedal assembly and door mirror will move to the memorized position.

#### OPERATION CONDITION

Satisfy all of the following items. The memory function is not performed if these items are not satisfied.

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# < FUNCTION DIAGNOSIS >

Item	Request status
Ignition position	ON
Switch inputs Power seat switch Pedal adjusting switch Door mirror control switch Set switch Seat memory switch	OFF (Not operated)
A/T selector lever	P position

# **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	Memory switch	_	The memory switch signal is inputted to the automatic drive positioner control unit when memory switch 1 or 2 is operated.  Memory switch signal is input to driver seat control unit via UART communication.
2	_	Motors (seat, pedal adjusting, door mirror)	Driver seat control unit operates each motor of seat when it recognizes the memory switch pressed for 0.5 second or more and requests each motor operation to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.
		Memory switch Indicator	Driver seat control unit requests the flashing of memory indicator to automatic drive positioner control unit via UART communication while either of the motors is operating. The automatic drive positioner control unit illuminates the memory indicator.
3	Sensors (seat, pedal adjust- ing, door mirror)	_	Driver seat control unit judges the operating seat position with each seat sensor input. The positions of the adjustable pedals and outside mirror are monitored with each sensor signal that is input from auto drive positioner control unit via UART communication. Driver seat control unit stops the operation of each motor when each part reaches the recorded address.
4	_	Memory switch Indicator	Driver seat control unit requests the illumination of memory indicator to auto drive positioner control unit via UART communication after all motors stop. The auto driving positioner control unit illuminates the memory indicator for 5 seconds.

#### < FUNCTION DIAGNOSIS >

# MEMORY FUNCTION: Component Parts Location

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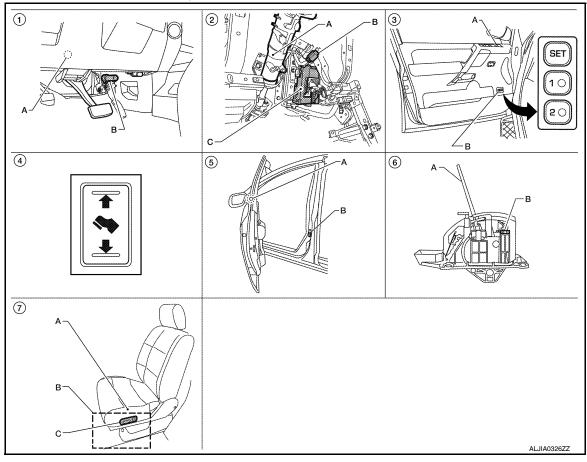
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- A. Automatic drive positioner control 2. unit M33, M34 B. Pedal adjusting motor assembly
- Pedal adjusting switch M96

E109, E110

- A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207
  - B. Driver seat control unit B202, B203
  - C. Power seat switch LH B208

- A. Steering column
  - B. Key switch and ignition knob switch M12
  - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107 B. Front door switch LH B8
  - C. Front door lock assembly LH (key cylinder switch) D14
- A. Door mirror remote control switch
  - B. Seat memory switch D5
- A. A/T selector lever B. A/T shift selector (park position switch (Intelligent Key system)) M203

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# MEMORY FUNCTION: Component Description

INFOID:0000000004918589

#### **CONTROL UNITS**

Item	Function
Driver seat control unit	<ul> <li>The address of each part is recorded.</li> <li>Operates each motor of seat to the registered position.</li> <li>Requests the operations of pedal assembly and door mirror to automatic drive positioner control unit.</li> </ul>
Automatic drive positioner control unit	Operates the pedal adjusting motor and door mirror with the instructions from the driver seat control.

#### **INPUT PARTS**

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# < FUNCTION DIAGNOSIS >

#### **Switches**

Item	Function
Memory switch 1/2	The registration and memory function can be performed with its operation.

#### Sensors

Item	Function
Door mirror sensor (LH/RH)	Detect the up/down and left/right position of outside mirror face.
Pedal adjusting sensor	Detect the forward/backward position of pedal assembly.
Lifting sensor (front)	Detect the up/down position of seat lifting (front).
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the front/rear position of seat.

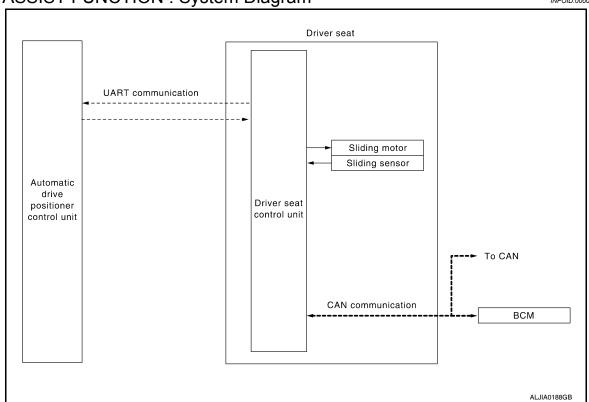
### **OUTPUT PARTS**

Item	Function
Door mirror motor (LH/RH)	Move the outside mirror face upward/downward and left/right.
Pedal adjusting motor	Move the pedal assembly forward/backward.
Lifting motor (front)	Move the seat lifter (front) upward/downward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.
Memory indicator	Illuminates or blinks according to the registration/operation status.

# **EXIT ASSIST FUNCTION**

# **EXIT ASSIST FUNCTION: System Diagram**

INFOID:0000000004918590



#### < FUNCTION DIAGNOSIS >

# **EXIT ASSIST FUNCTION: System Description**

INFOID:0000000004918591

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#### **OUTLINE**

When exiting, if the conditions are satisfied, the seat is moved backward from normal sitting position.

The seat slide amount at entry/exit operation can be changed.

#### NOTE:

- This function is set to OFF before delivery (initial setting).
- Further information for the system setting procedure. Refer to Owner's Manual.

#### **OPERATION PROCEDURE**

- 1. Open the driver door with ignition switch in OFF position.
- 2. Front seat LH will move to the exiting position.

#### **OPERATION CONDITION**

Satisfy all of the following items. The exit assist function is not performed if these items are not satisfied.

Item	Request status
Ignition switch	OFF
System setting [Entry/exit assist function]	ON
Initialization	Done
Switch inputs  Power seat switch  Pedal adjusting switch  Door mirror remote control switch  Set switch  Seat memory switch	OFF (Not operated)
A/T selector lever	P position

#### **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	Front door switch LH	_	Driver seat control unit receives front door switch LH signal (open) from BCM via CAN communication.
2	_	Motor (seat sliding)	Driver seat control unit operates the seat sliding motor, which recognizes that the front door LH is opened with ignition switch OFF.

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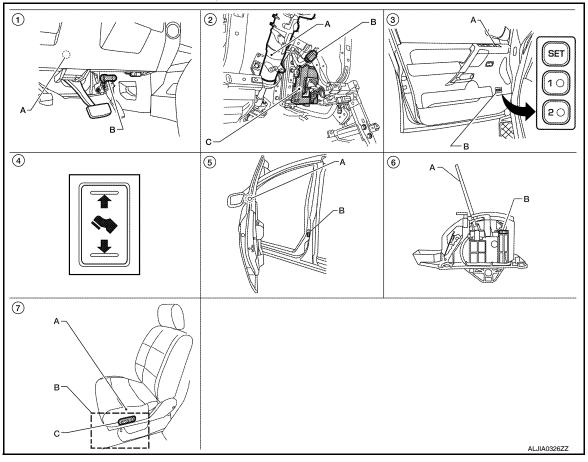
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# **EXIT ASSIST FUNCTION: Component Parts Location**

INFOID:0000000005199697



- A. Automatic drive positioner control 2. unit M33, M34
   B. Pedal adjusting motor assembly
- 4. Pedal adjusting switch M96

E109, E110

- A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207
  - B. Driver seat control unit B202, B203
  - C. Power seat switch LH B208

- A. Steering column
  - B. Key switch and ignition knob switch M12
  - C. BCM M18, M19, M20 (view with instrument panel removed)
- 6. A. Door mirrror LH D4, RH D107
  - B. Front door switch LH B8
  - C. Front door lock assembly LH (key cylinder switch) D14
- A. Door mirror remote control switch D10
  - B. Seat memory switch D5
- A. A/T selector lever
   B. A/T shift selector (park position switch (Intelligent Key system))
   M203

# **EXIT ASSIST FUNCTION: Component Description**

INFOID:0000000004918593

#### **CONTROL UNITS**

Item	Function
Driver seat control unit	Operates the seat sliding motor for a constant amount.
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication.  • Front door LH: OPEN/CLOSE

#### **INPUT PARTS**

**Switches** 

#### < FUNCTION DIAGNOSIS >

Item	Function
Front door switch LH	Detect front door LH open/close status.

#### Sensors

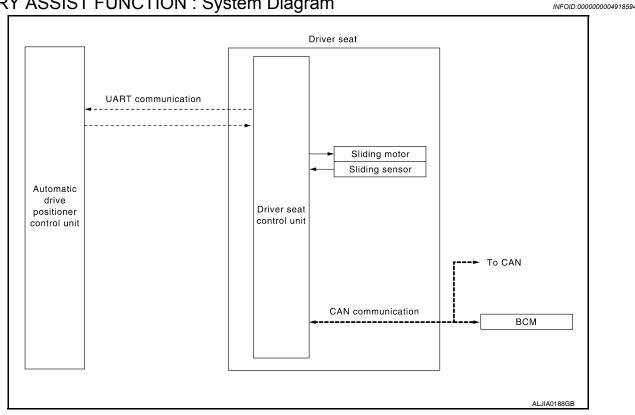
Item	Function
Sliding sensor	Detect the front/rear position of seat.

#### **OUTPUT PARTS**

Item	Function
Sliding motor	Slide the seat forward/backward.

# **ENTRY ASSIST FUNCTION**

# **ENTRY ASSIST FUNCTION: System Diagram**



# **ENTRY ASSIST FUNCTION: System Description**

#### **OUTLINE**

The seat is in the exiting position when either following condition (A or B) is satisfied, the seat returns from exiting position to the previous driving position.

#### NOTE:

- This function is set to OFF before delivery (initial setting).
- Further information for the system setting procedure. Refer to Owner's Manual.

#### OPERATION PROCEDURE

- A: Turn the ignition switch ON.
  - B: Turn the ignition switch from OFF to ACC after closing the driver door.
- Front seat LH will return from the exiting position to entry position.

#### OPERATION CONDITION

Satisfy all of the following items. The entry assist function is not performed if these items are not satisfied.

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### < FUNCTION DIAGNOSIS >

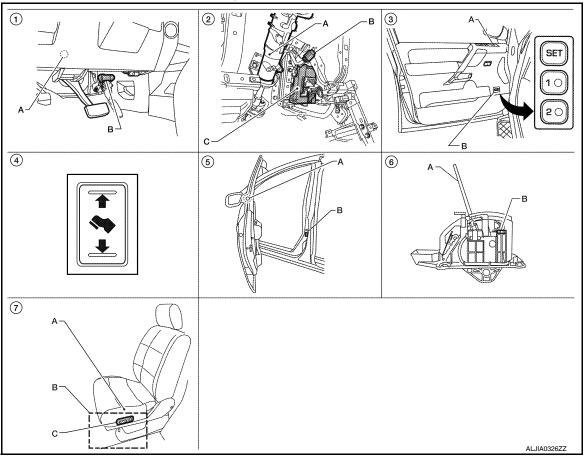
Item	Request status
Seat	The vehicle is not moved after performing the exit assist function.
Switch inputs     Power seat switch     Pedal adjusting switch     Door mirror control switch     Set switch     Memory switch	OFF (Not operated)
A/T selector lever	P position

# **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	Door switch/Ignition switch	_	Driver seat control unit receives the signals of ignition switch signal and front door switch from BCM via CAN communication.
	_	Motor (sliding)	Driver seat control unit operates the sliding motor when the operating conditions are satisfied.
2	Sensor (sliding)	_	Sensor monitors the operating positions of seat and then stops the operation of motor when seat reaches the recorded address.

# **ENTRY ASSIST FUNCTION: Component Parts Location**

INFOID:0000000005199698



#### < FUNCTION DIAGNOSIS >

- A. Automatic drive positioner control 2. unit M33, M34
  - B. Pedal adjusting motor assembly E109, E110
- 4. Pedal adjusting switch M96
- A. Steering column
   B. Key switch and ignition knob
   switch M12
  - C. BCM M18, M19, M20 (view with instrument panel removed)
- 5. A. Door mirrror LH D4, RH D107 B. Front door switch LH B8
  - C. Front door lock assembly LH (key cylinder switch) D14
- A. Door mirror remote control switch D10
  - B. Seat memory switch D5
- A. A/T selector lever
   B. A/T shift selector (park position switch (Intelligent Key system))

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 A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207

B. Driver seat control unit B202, B203

C. Power seat switch LH B208

# **ENTRY ASSIST FUNCTION: Component Description**

INFOID:0000000004918597

#### **CONTROL UNITS**

Item	Function
Driver seat control unit	According to the ignition signal and front door switch LH signal from BCM,  Operates the seat sliding motor for a constant amount.
BCM	Recognizes the following status and transmits it to the driver seat control unit via CAN communication.  Front door LH: OPEN/CLOSE  Ignition switch position: ACC/ON

#### **INPUT PARTS**

#### **Switches**

Item	Function
Front door switch LH	Detect front door LH open/close status.

#### Sensors

Item	Function
Sliding sensor	Detect the front/rear position of seat.

#### **OUTPUT PARTS**

Item	Function
Sliding motor	Slide the seat forward/backward.

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# **DIAGNOSIS SYSTEM (DRIVER SEAT C/U)**

### < FUNCTION DIAGNOSIS >

# DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

# **Diagnosis Description**

INFOID:0000000004918598

The auto drive positioner system can be checked and diagnosed for component operation with CONSULT-III. DIAGNOSTIC MODE

Diagnostic mode [AUTO DRIVE POS.]	Description
WORK SUPPORT	Changes the setting of each function.
SELF-DIAG RESULTS	Performs self-diagnosis for the auto drive positioner system and displays the results.
DATA MONITOR	Displays input signals transmitted from various switches and sensors to driver seat control unit in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	Drive each output device.
ECU PART NUMBER	Displays part numbers of driver seat control unit parts.

# **CONSULT-III Function**

INFOID:0000000004918599

SELF-DIAGNOSIS RESULTS Refer to <u>ADP-123</u>, "DTC <u>Index"</u>.

#### **DATA MONITOR**

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
SET SW	"ON/OFF"	×	×	ON/OFF status judged from the setting switch signal.
MEMORY SW1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal.
MEMORY SW2	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 2 signal.
SLIDE SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (forward) signal.
SLIDE SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (backward) signal.
RECLN SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (forward) signal.
RECLN SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (backward) signal.
LIFT FR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (up) signal.
LIFT FR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (down) signal.
LIFT RR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (up) signal.
LIFT RR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (down) signal.
MIR CON SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (up) signal.
MIR CON SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (down) signal.
MIR CON SW-RH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (passenger side) signal.
MIR CON SW-LH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (driver side) signal.

# DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

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# < FUNCTION DIAGNOSIS >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
MIR CHNG SW-R	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to right) signal.
MIR CHNG SW-L	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to left) signal.
PEDAL SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the pedal adjusting switch (forward) signal.
PEDAL SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the pedal adjusting switch (backward) signal.
DETENT SW	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal.
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON)/OFF (ACC, OFF) status judged from the ignition switch signal.
SLIDE PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
RECLN PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH U-D	"V"	_	×	Voltage input from door mirror sensor (passenger side) up/down is displayed.
MIR/SEN RH R-L	"V"	_	×	Voltage input from door mirror sensor (passenger side) left/right is displayed.
MIR/SEN LH U-D	"V"	_	×	Voltage input from door mirror sensor (driver side) up/down is displayed.
MIR/SEN LH R-L	"V"	-	×	Voltage input from door mirror sensor (driver side) left/right is displayed.
PEDAL SEN	"V"	_	×	Pedal position (voltage) judged from the pedal adjusting sensor signal is displayed.

# **ACTIVE TEST**

#### **CAUTION:**

When driving vehicle, do not perform active test.

Test item	Description
SEAT SLIDE	Activates/deactivates the sliding motor.
SEAT RECLINING	Activates/deactivates the reclining motor.
SEAT LIFTER FR	Activates/deactivates the lifting motor (front).
SEAT LIFTER RR	Activates/deactivates the lifting motor (rear).
PEDAL MOTOR	Activates/deactivates the pedal adjusting motor.
MIRROR MOTOR RH	Activates/deactivates the mirror motor (passenger side).
MIRROR MOTOR LH	Activates/deactivates the mirror motor (driver side).
MEMORY SW INDCTR	Turns ON/OFF the memory indicator.

#### **WORK SUPPORT**

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# DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

# < FUNCTION DIAGNOSIS >

Work item	Content	Item
		40 mm
SEAT SLIDE VOLUME SET	The amount of seat sliding for entry/exit assist can be selected from 3 items.	80 mm
	inom e kome.	150 mm
EXIT SEAT SLIDE SETTING	Entry/exit assist (seat) can be selected:	ON
EXIT SEAT SLIDE SETTING	ON (operated) – OFF (not operated)	OFF

### **U1000 CAN COMM CIRCUIT**

#### < COMPONENT DIAGNOSIS >

# **COMPONENT DIAGNOSIS**

# U1000 CAN COMM CIRCUIT

Description INFOID:0000000004918600 В

Refer to LAN-4, "System Description".

**DTC Logic** INFOID:0000000004918601

#### DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition	Possible cause
U1000	CAN COMM CIR- CUIT	<ul> <li>Driver seat control unit cannot communicate to other control units.</li> <li>Driver seat control unit cannot communicate for more than the specified time.</li> </ul>	Harness or connectors (CAN communication line is open or shorted)

### DTC CONFIRMATION PROCEDURE

### 1. STEP 1

Turn ignition switch ON and wait at least 3 seconds.

>> GO TO 2

# **2**. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

>> Perform diagnosis procedure. Refer to LAN-14, "Trouble Diagnosis Procedure". YES

NO >> Inspection End.

# Special Repair Requirement

Refer to Owner's Manual.

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### **B2112 SLIDING MOTOR**

#### < COMPONENT DIAGNOSIS >

# **B2112 SLIDING MOTOR**

Description INFOID:000000004918603

- The seat sliding motor is installed to the power seat frame assembly.
- The seat sliding motor is installed with the driver seat control unit.
- · Slides the seat frontward/rearward by changing the rotation direction of sliding motor.

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2112	SEAT SLIDE	The driver seat control unit detects the output of sliding motor output terminal for 0.1 second or more even if the sliding switch is not input.	Driver seat control unit

#### DTC CONFIRMATION PROCEDURE

# **1.** STEP 1

Turn ignition switch ON.

>> GO TO 2

# **2**. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-30, "Diagnosis Procedure".

NO >> Inspection End.

#### NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-38, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000004918605

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- 3. Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-30, "DTC Logic"</u>.

#### Is the DTC displayed again?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

# $oldsymbol{2}$ . CHECK COMPONENTS

Refer to ADP-74, "Component Function Check" and ADP-88, "Component Function Check".

>> Inspection End.

### **B2113 RECLINING MOTOR**

#### < COMPONENT DIAGNOSIS >

# **B2113 RECLINING MOTOR**

Description INFOID:0000000004918606

- The seat reclining motor is installed to the seatback assembly.
- The seat reclining motor is activated with the driver seat control unit.
- Tilts the seatback frontward/rearward by changing the rotation direction of reclining motor.

**DTC Logic** INFOID:0000000004918607

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2113	SEAT RECLINING	The driver seat control unit detects the output of re- clining motor output terminal for 0.1 second or more even if the reclining switch is not input.	Driver seat control unit

### DTC CONFIRMATION PROCEDURE

### 1. STEP 1

Turn ignition switch ON.

>> GO TO 2

### $\mathbf{2}$ .STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-31, "Diagnosis Procedure".

NO >> Inspection End.

#### NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-38, "Diagnosis Procedure".

# Diagnosis Procedure

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT-III.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-31, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

# 2. CHECK COMPONENTS

Refer to ADP-76, "Component Function Check" and ADP-90, "Component Function Check".

>> Inspection End.

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### **B2114 SEAT LIFTER FR**

#### < COMPONENT DIAGNOSIS >

# **B2114 SEAT LIFTER FR**

Description INFOID:00000000491860S

- The lifting motor (front) is installed to the power seat frame assembly.
- The lifting motor (front) is activated with the driver seat control unit.
- Tilts the seat front up/down by changing the rotation direction of lifting motor (front).

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2114	SEAT LIFTER FR	The driver seat control unit detects the output of lifting motor (front) output terminal for 0.1 second or more even if the lifting switch is not input.	Driver seat control unit

### DTC CONFIRMATION PROCEDURE

### 1. STEP 1

Turn ignition switch ON.

>> GO TO 2

### 2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <a href="ADP-32">ADP-32</a>, "Diagnosis Procedure".

NO >> Inspection End.

#### NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-38, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000004918611

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-32, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to <a href="GI-38">GI-38</a>, "Intermittent Incident".

# 2. CHECK COMPONENTS

Refer to ADP-78, "Component Function Check" and ADP-92, "Component Function Check".

>> Inspection End.

#### **B2115 SEAT LIFTER RR**

#### < COMPONENT DIAGNOSIS >

### **B2115 SEAT LIFTER RR**

Description INFOID:0000000004918612

- The lifting motor (rear) is installed to the power seat frame assembly.
- The lifting motor (rear) is activated with the driver seat control unit.
- Tilts the seat rear up/down by changing the rotation direction of lifting motor (rear).

DTC Logic INFOID:0000000004918613

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2115	SEAT LIFTER RR	The driver seat control unit detects the output of lifting motor (rear) output terminal for 0.1 second or more even if the lifting switch is not input.	Driver seat control unit

#### DTC CONFIRMATION PROCEDURE

### 1. STEP 1

Turn ignition switch ON.

>> GO TO 2

### $\mathbf{2}$ . STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-33, "Diagnosis Procedure"</u>.

NO >> Inspection End.

#### NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-38, "Diagnosis Procedure".

# Diagnosis Procedure

PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT-III.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-33, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

# 2. CHECK COMPONENTS

Refer to ADP-80, "Component Function Check" and ADP-94, "Component Function Check".

>> Inspection End.

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### **B2117 ADJ PEDAL MOTOR**

#### < COMPONENT DIAGNOSIS >

### **B2117 ADJ PEDAL MOTOR**

Description INFOID:000000004918615

- The pedal adjusting sensor is installed to pedal adjusting motor assembly.
- The resistance of pedal adjusting sensor is changed according to the forward/backward position of pedal assembly.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of pedal adjusting sensor resistance. Automatic drive positioner control unit calculates the pedal position from the voltage.

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2117	ADJ PEDAL MOTOR	When any manual or automatic operations are not performed, if motor operation is detected for 0.1 second or more, status is judged "Output error".	Harness and connectors     (pedal adjusting sensor circuit is opened/shorted, pedal adjusting sensor power supply circuit is opened/shorted.)     Pedal adjusting sensor

#### DTC CONFIRMATION PROCEDURE

### 1. STEP 1

Turn ignition switch ON.

>> GO TO 2

# 2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-34, "Diagnosis Procedure".

NO >> Inspection End.

# Diagnosis Procedure

INFOID:0000000004918617

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK PEDAL ADJUSTING MECHANISM

Check the following.

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

#### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part and check again.

# 2. CHECK FUNCTION

- 1. Turn ignition switch ON.
- Check "PEDAL MOTOR" in "Active test" mode with CONSULT-III.

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

### **B2117 ADJ PEDAL MOTOR**

#### < COMPONENT DIAGNOSIS >

#### Is the inspection result normal?

YES >> Pedal adjusting motor assembly circuit is OK.

NO >> GO TO 3

# ${f 3.}$ CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.
- Check continuity between automatic drive positioner control unit connector M34 (A) terminals 37, 45 and pedal adjusting motor assembly connector E109 (B) terminals 1, 2.

37 - 1 : Continuity should exist.45 - 2 : Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M34 (A) terminals 37, 45 and ground.

37 - Ground : Continuity should not exist.45 - Ground : Continuity should not exist.

#### Is the inspection result normal?

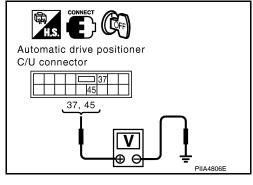
YES >> GO TO 4

NO >> Repair or replace harness.

# 4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Connec-	Terminals		Condition	Voltage (V)		
tor	(+)	(-)	Condition	(Approx.)		
M34	37	- Ground	Pedal adjusting switch ON (FORWARD operation)	Battery voltage		
			Other than above	0		
	45		Pedal adjusting switch ON (BACKWARD operation)	Battery voltage		
			Other than above	0		



### Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to ADP-167, "Removal and Installation".

NO >> GO TO 5

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-164. "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

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Revision: April 2009 ADP-35 2010 Armada

#### **B2120 ADJ PEDAL SENSOR**

#### < COMPONENT DIAGNOSIS >

# **B2120 ADJ PEDAL SENSOR**

Description INFOID:000000004918618

- · The pedal adjusting sensor is installed in the pedal adjusting motor assembly.
- The resistance of pedal adjusting sensor is changed according to the forward/backward position of pedal adjusting motor assembly.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of pedal adjusting sensor resistance. Automatic drive positioner control unit calculates the pedal assembly position from the voltage.

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2120	ADJ PEDAL SENSOR	The input voltage of pedal adjusting sensor is 0.5V or less or 4.5V or higher, for 0.5 seconds or more.	Harness and connectors     (Pedal adjusting sensor circuit is opened/shorted, pedal adjusting sensor power supply circuit is opened/shorted.)      Pedal adjusting sensor

#### DTC CONFIRMATION PROCEDURE

### **1**. STEP 1

Turn ignition switch ON.

>> GO TO 2

# 2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC is detected?

YES >> Perform diagnosis procedure. Refer to ADP-36, "Diagnosis Procedure".

NO >> Inspection End.

# Diagnosis Procedure

INFOID:0000000004918620

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK PEDAL ADJUSTING SENSOR SIGNAL

- 1. Turn ignition switch ON.
- Select "PEDAL SEN" in "Data monitor" mode with CONSULT-III.
- 3. Check the pedal adjusting sensor signal under the following condition.

Monitor item	Condition		Value
PEDAL SEN	Pedal position	Forward	0.5V
FEDAL SEN	redai position	Backward	4.5V

#### Is the value normal?

YES >> Pedal adjusting circuit is OK.

NO >> GO TO 2

# $oldsymbol{2}.$ CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

# **B2120 ADJ PEDAL SENSOR**

# < COMPONENT DIAGNOSIS >

- 1. Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.
- Check continuity between automatic drive positioner connector M33 (A) terminal 8, M34 (C) terminals 33 and 41 and pedal adjusting motor assembly connector E110 (B) terminals 3, 4, 5.

8 - 4 : Continuity should exist.
33 - 3 : Continuity should exist.
41 - 5 : Continuity should exist.

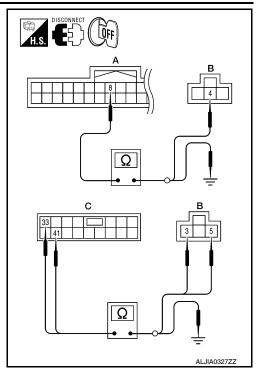
 Check continuity between automatic drive positioner control unit connector M33 (A) terminal 8, M34 (C) terminals 33 and 41 and ground.

8 - Ground : Continuity should not exist.33 - Ground : Continuity should not exist.41 - Ground : Continuity should not exist.

# Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-167</u>, "Removal and Installation".

NO >> Repair or replace harness.



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# **B2126 DETENT SW**

Description INFOID:0000000004918621

Park position switch is installed on A/T shift selector. It is turned OFF when the A/T selector lever is in P
position.

The driver seat control unit judges that the A/T selector lever is in P position if continuity does not exist in this
circuit.

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2126	DETENT SW	A/T selector lever is in P position and the vehicle speed of 7±4km/h is detected.	Harness and connectors     (Park position switch circuit is opened/shorted.)     Park position switch     Combination meter     (CAN communication )

# DTC CONFIRMATION PROCEDURE

# **1.** STEP 1

Drive the vehicle at 7±4km/h or more.

>> GO TO 2

# 2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-38</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

# Diagnosis Procedure

INFOID:0000000004918623

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK DTC

Check "Self diagnostic result" for BCM with CONSULT-III.

#### Are other DTCs detected?

YES >> Check the DTC.

NO >> GO TO 2

# 2. CHECK PARK POSITION SWITCH SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "DETENT SW" in "Data Monitor" mode with CONSULT-III.
- 3. Check detention switch signal under the following condition.

Monitor item	Con	Status	
DETENT SW	A/T selector lever	P position	OFF
	A I Selector level	Other than above	ON

#### Is the status normal?

YES >> A/T shift selector (park position switch) circuit is OK.

# **B2126 DETENT SW**

#### < COMPONENT DIAGNOSIS >

NO >> GO TO 3

# 3. CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH) HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T shift selector and driver seat control unit.
- Check continuity between driver seat control unit connector B202 (A) terminal 21 and A/T shift selector connector M203 (B) terminal 6

# 6 - 21 : Continuity should exist.

4. Check continuity between driver seat control unit connector B202 (A) terminal 21 and ground.

# 21 - Ground : Continuity should not exist.

# Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

# 4. CHECK PARK POSITION SWITCH

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

Term	inals	Condition	Continuity
5	6	P position	Yes
3	5 6	Other than P position	No

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace A/T shift selector. Refer to <u>TM-171</u>, "A/T Shift <u>Selector Removal and Installation"</u>.

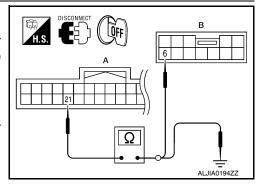
# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

# Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-164, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.



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# **B2128 UART COMMUNICATION LINE**

< COMPONENT DIAGNOSIS >

# **B2128 UART COMMUNICATION LINE**

Description INFOID:000000004918624

Driver seat control unit performs UART communication with the automatic drive positioner control unit using 2 communication lines, TX and RX line. Driver seat control unit receives the operation signals of pedal adjusting switch, door mirror remote control switch, set switch and memory switch and the position signals of adjustable pedal sensor and door mirror sensor from the automatic drive positioner control unit and transmits the operation request signal.

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2128	UART COMM	The communication between driver seat control unit and automatic drive positioner control unit is interrupted for a period of time.	<ul> <li>UART communication line (UART communication line is open or shorted)</li> <li>Driver seat control unit</li> <li>Automatic drive positioner control unit</li> </ul>

#### DTC CONFIRMATION PROCEDURE

# 1. STEP 1

Turn ignition switch ON.

>> GO TO 2

# 2. STEP 2

Operate pedal adjusting switch for more than 2 seconds.

>> GO TO 3

# 3. PROCEDURE 3

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-40, "Diagnosis Procedure".

NO >> Inspection End.

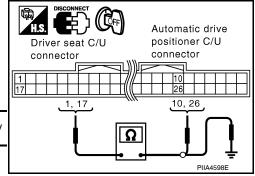
# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver seat control unit connector	ninal Automatic drive positioner control unit connector	Terminal	Continuity
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INFOID:0000000004918626

# **B2128 UART COMMUNICATION LINE**

# < COMPONENT DIAGNOSIS >

P202	1	M22	10	Voc
B202	17	M33	26	Yes

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

Driver seat control unit con- nector	Terminal		Continuity	
B202	1	Ground	No	
5202	17		140	

# Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

NO >> Repair or replace harness.

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# < COMPONENT DIAGNOSIS >

# POWER SUPPLY AND GROUND CIRCUIT

**BCM** 

BCM: Diagnosis Procedure

INFOID:0000000005199710

Regarding Wiring Diagram information, refer to BCS-50, "Wiring Diagram".

# 1. CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
57	Pattery power supply	22 (15A)
70	Battery power supply	F (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	59 (10A)

#### Is the fuse blown?

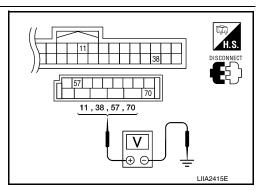
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

# 2. CHECK POWER SUPPLY CIRCUIT

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

Connector	Terminals		Power	Condition	Voltage (V) (Ap-	
Connector	(+)	(-)	source	Condition	prox.)	
M18	11	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage	
	38	Ground	Ignition power supply	Ignition switch ON or START	Battery voltage	
M20	57	Ground	Battery power supply	Ignition switch OFF	Battery voltage	
IVIZU	70	Ground	Battery power supply	Ignition switch OFF	Battery voltage	



# Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

# < COMPONENT DIAGNOSIS >

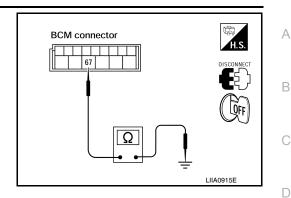
Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Connector Terminal		Continuity
M20	67		Yes

# Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



# DRIVER SEAT CONTROL UNIT

# DRIVER SEAT CONTROL UNIT: Diagnosis Procedure

INFOID:0000000004918628

#### NOTE:

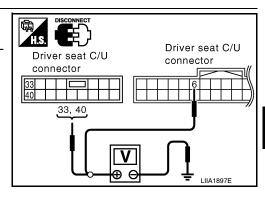
Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT-III.

Regarding Wiring Diagram information, refer ADP-108. "Wiring Diagram".

# 1. CHECK POWER SUPPLY CIRCUIT

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

	Terminals				
(+)	(+)		Power		Voltage (V)
Driver seat control unit connector	Terminal	(–)	source	Condition	(Approx.)
B202	6	Ground	START power sup- ply	Ignition switch START	Battery
D000	33	Ground	Battery	Ignition	voltage
B203	40		power sup- ply	switch OFF	



#### Is the inspection result normal?

YES >> GO TO 2

NO >> Check the following.

- · Repair or replace harness.
- · Circuit breaker.

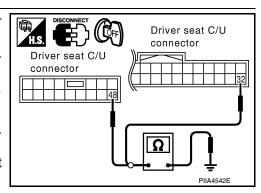
# 2. CHECK GROUND CIRCUIT

Check continuity between the driver seat control unit harness connector and ground.

Driver seat control unit connector	Terminal	0 1	Continuity
B202	32	Ground	Yes
B203	48		165

# Is the inspection result normal?

YES >> Driver seat control unit power supply and ground circuit are OK.



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#### < COMPONENT DIAGNOSIS >

NO >> Repair or replace harness.

# DRIVER SEAT CONTROL UNIT: Special Repair Requirement

INFOID:0000000004918629

# PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

#### >> Refer to Owner's Manual.

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

INFOID:0000000004918630

#### NOTE:

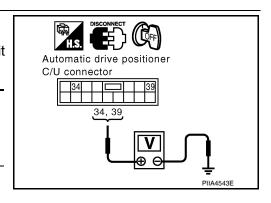
Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT-III.

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK POWER SUPPLY CIRCUIT

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

Te			
(+)	Voltage (V)		
Automatic drive positioner control unit connector Terminal		(-)	(Approx.)
M34	34	Ground	Battery voltage
WO4	39	Giouna	Dattery voltage



# Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

# 2. CHECK GROUND CIRCUIT

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

Automatic drive positioner control unit connector	Terminal		Continuity
M34	40	Ground	Yes
10104	48		163

# Automatic drive positioner C/U connector 40, 48 PIIA4544E

# Is the inspection result normal?

YES >> Automatic drive positioner control unit power supply and ground circuit are OK.

NO >> Repair or replace harness.

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Special Repair Requirement

#### INFOID:0000000004918631

# 1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

# < COMPONENT DIAGNOSIS >

>> Refer to Owner's Manual.

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# SLIDING SWITCH

Description INFOID:000000004918632

Sliding switch is equipped to the power seat switch LH on the seat cushion trim cover. The operation signal is input to the driver seat control unit when the sliding switch is operated.

# Component Function Check

INFOID:0000000004918633

# 1. CHECK FUNCTION

- 1. Select "SLIDE SW-FR", "SLIDE SW-RR" in "Data monitor" mode with CONSULT-III.
- 2. Check sliding switch signal under the following conditions.

Monitor item	Condition	Condition	
SLIDE SW-FR	Sliding switch (forward)	Operate	ON
SLIDE SW-FR	Sliding Switch (lorward)	Release	OFF
SLIDE SW-RR	Sliding switch (backward)	Operate	ON
SLIDE SW-RR	Sliding Switch (backward)	Release	OFF

# Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-46, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

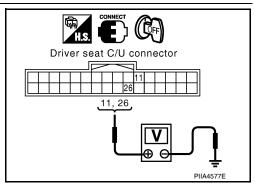
INFOID:0000000004918634

Regarding Wiring Diagram information, Refer to ADP-108. "Wiring Diagram".

# 1. CHECK SLIDING SWITCH SIGNAL

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

Driver seat control	Termi	nals	Condition		Voltage (V)			
unit connector	(+)	(–)	001	idition	(Approx.)			
	11				44		Operate (backward)	0
B202	11	Ground	Sliding	Release	Battery voltage			
5202	26	switch	Operate (forward)	0				
			Release	Battery voltage				



#### Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 2

# 2. CHECK SLIDING SWITCH CIRCUIT

# **SLIDING SWITCH**

#### < COMPONENT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Power seat switch LH connector	Terminal	Continuity
B202 (A)	11	B208 (B)	1	Yes
D202 (A)	26	D200 (B)	5	163

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

Driver seat control unit connector	Terminal		Continuity	
B202 (A)	11	Ground	No	
B202 (A)	26		INO	

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Is the inspection result normal?

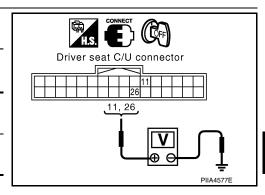
YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control unit	Termi	inals	Voltage (V)	
connector	(+)	(-)	(Approx.)	
B202	11	Ground	Battery voltage	
D202	26	Ground	Dattery voltage	



Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

# 4. CHECK SLIDING SWITCH

Refer to ADP-47, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to <u>SE-76, "Disassembly and Assembly"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace malfunctioning part.

# Component Inspection

1. CHECK SLIDING SWITCH

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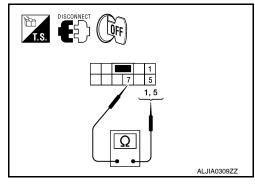
INFOID:0000000004918635

# **SLIDING SWITCH**

# < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH terminals.

Terminal Condition			Continuity	
Power sea	at switch LH			Continuity
	1	Sliding switch (backward)	Operate	Yes
7	7	Silding Switch (backward)	Release	No
,	5	Sliding switch (forward)	Operate	Yes
5	Siluling Switch (lorward)	Release	No	



# Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-76, "Disassembly and Assembly"</u>.

# **RECLINING SWITCH**

# < COMPONENT DIAGNOSIS >

# **RECLINING SWITCH**

Description INFOID:0000000004918636

Reclining switch is equipped to the power seat switch LH on the seat cushion trim cover. The operation signal is input to the driver seat control unit when the reclining switch is operated.

# Component Function Check

# INFOID:0000000004918637 1. CHECK FUNCTION

- Select "RECLN SW-FR", "RECLN SW-RR" in "Data monitor" mode with CONSULT-III.
- Check reclining switch signal under the following conditions.

Monitor item	Condition	Status	
RECLN SW-FR	Reclining switch (forward)	Operate	ON
RECLIN SW-FR	Reclining Switch (lorward)	Release	OFF
RECLN SW-RR	Poolining switch (hackward)	Operate	ON
RECLIN SW-RR	Reclining switch (backward)	Release	OFF

# Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-49, "Diagnosis Procedure".

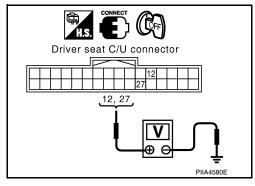
# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK RECLINING SWITCH SIGNAL

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

Driver seat	Tern	ninals	Condition		Voltage (V)		
control unit connector	(+)	(-)			(Approx.)		
	12	Cround	Ground Reclining switch	12		Operate (backward)	0
B202	Ground			Reclining	Release	Battery voltage	
D202	27			switch	Operate (forward)	0	
						Release	Battery voltage



# Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 2

# 2. CHECK RECLINING SWITCH CIRCUIT

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# **RECLINING SWITCH**

#### < COMPONENT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Power seat switch LH connector	Terminal	Continuity
B202 (A)	12	B208 (B)	3	Yes
D202 (A)	27	B200 (B)	4	163

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

H.S. DISCONNECT OFF	B 4 3 🗀
A   12   12   12   12   12   12   12   1	3,4
12,27	
25	ALJIA0310ZZ

Driver seat control unit connector	Terminal		Continuity
B202 (A)	12	Ground	No
	27		NO

#### Is the inspection result normal?

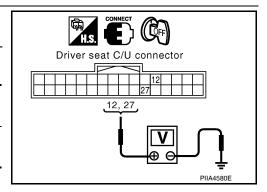
YES >> GO TO 3

NO >> Repair or replace harness.

# ${f 3}.$ CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control	Terminals		Voltage (V)	
unit connector	(+)	(-)	(Approx.)	
B202	12	Ground	Battery voltage	
5202	27	Ground	Dattery Voltage	



#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

# 4. CHECK RECLINING SWITCH

Refer to ADP-50, "Component Inspection".

## Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to SE-76, "Disassembly and Assembly".

# CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

# Component Inspection

INFOID:0000000004918639

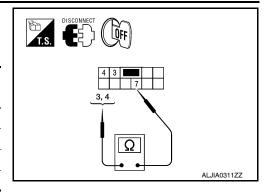
# 1. CHECK RECLINING SWITCH

# **RECLINING SWITCH**

# < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH terminals.

Terr	ninals	Condi	tion	Continuity	
Power sea	at switch LH	- Condition		Continuity	
	3	Reclining switch (backward)	Operate	Yes	
7	3		Release	No	
,	4	Reclining switch	Operate	Yes	
4	(forward)	Release	No		



# Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-76, "Disassembly and Assembly"</u>.

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# **LIFTING SWITCH (FRONT)**

#### < COMPONENT DIAGNOSIS >

# LIFTING SWITCH (FRONT)

Description INFOID:000000004918640

Lifting switch (front) is equipped to the power seat switch LH on the seat cushion trim cover. The operation signal is input to the driver seat control unit when the lifting switch (front) is operated.

# Component Function Check

INFOID:0000000004918641

# 1. CHECK FUNCTION

- 1. Select "LIFT FR SW-UP", "LIFT FR SW-DN" in "DATA MONITOR" mode with CONSULT-III.
- 2. Check lifting switch (front) signal under the following conditions.

Monitor item	Condition	Status	
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON
	Litting Switch from (up)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
LIFT FR SW-DN	Litting switch from (down)	Release	OFF

# Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-52, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

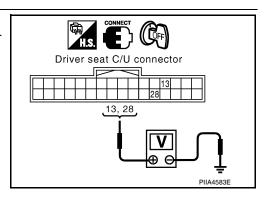
INFOID:0000000004918642

Regarding Wiring Diagram information, refer to ADP-108. "Wiring Diagram".

# 1. CHECK LIFTING SWITCH SIGNAL

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

Driver seat	Term	ninals	Condition		Voltage (V)
control unit connector	(+)	(-)			(Approx.)
	13 B202 Ground		Operate (down)	0V	
B202		Ground	Lifting switch	Release	Battery voltage
			(front)	Operate (up)	0V
	28			Release	Battery voltage



# Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 2

2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

# **LIFTING SWITCH (FRONT)**

#### < COMPONENT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Power seat switch LH connector	Terminal	Continuity
B202 (A)	13	P208 (P)	9	Yes
B202 (A)	28	B208 (B)	10	162

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

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A (13)	9, 10
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	ALJIA0312ZZ

Driver seat control unit connector	Terminal	_	Continuity	
B202 (A)	13	Ground	No	
B202 (A)	28		NO	

#### Is the inspection result normal?

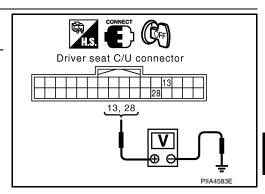
YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control unit	Term	inals	Voltage (V)
connector	(+)	(-)	(Approx.)
B202	13	Ground	Battery voltage
DZQZ	28	Giodila	battery voltage



#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

# 4. CHECK LIFTING SWITCH (FRONT)

Refer to ADP-53, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to <u>SE-76, "Disassembly and Assembly"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

# Component Inspection

1. CHECK LIFTING SWITCH (FRONT)

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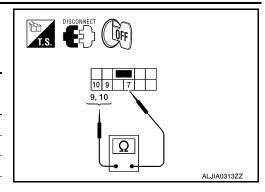
INFOID:0000000004918643

# **LIFTING SWITCH (FRONT)**

# < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH terminals.

Terr	minal	Condition		Continuity
Power sea	t switch LH	Condition		Continuity
	9	Lifting switch front (down)	Operate	Yes
7	9	Litting switch from (down)	Release	No
,	'		Operate	Yes
	10	Lifting switch front (up)	Release	No



# Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-76, "Disassembly and Assembly"</u>.

# LIFTING SWITCH (REAR)

#### < COMPONENT DIAGNOSIS >

# LIFTING SWITCH (REAR)

Description INFOID:0000000004918644

Lifting switch (rear) is equipped to the power seat switch LH on the seat cushion trim cover. The operation signal is inputted to the driver seat control unit when the lifting switch (rear) is operated.

# Component Function Check

# 1. CHECK FUNCTION

- 1. Select "LIFT RR SW-UP", "LIFT RR SW-DN" in "Data monitor" mode with CONSULT-III.
- 2. Check lifting switch (rear) signal under the following conditions.

Monitor item	Condition	Status	
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
LIFT RR SW-UP	Litting Switch real (up)	Release	OFF
LIFT RR SW-DN	Lifting quitab roor (down)	Operate	ON
LIFT RR SW-DN	Lifting switch rear (down)	Release	OFF

# Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-55</u>, "<u>Diagnosis Procedure</u>".

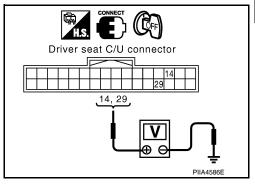
# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

Driver seat	Term	ninals	Condition		Voltage (V)
control unit connector	(+)	(-)			(Approx.)
	14		1.1	Operate (down)	0
B202	14	Ground	Lifting switch	Release	Battery voltage
29	Ground	(rear)	Operate (up)	0	
	29			Release	Battery voltage



#### Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 2

# 2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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Revision: April 2009 ADP-55 2010 Armada

# **LIFTING SWITCH (REAR)**

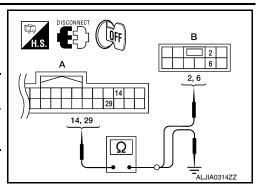
#### < COMPONENT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Power sear switch LH connector	Terminal	Continuity
B202 (A)	14	B208 (B)	2	Yes
B202 (A)	29	D200 (D)	6	163

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

Driver seat control unit connector	Terminal		Continuity
B202 (A)	14	Ground	No
D2U2 (A)	29	ľ	INU



#### Is the inspection result normal?

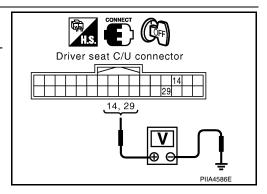
YES >> GO TO 3

NO >> Repair or replace harness.

# ${f 3}.$ CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control unit	Ter	minals	Voltage (V)	
connector	(+)	(-)	(Approx.)	
B202	14	Ground	Battery voltage	
5202	29	Giodila	Ballery Vollage	



#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

# 4. CHECK LIFTING SWITCH (REAR)

Refer to ADP-56, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to <u>SE-76, "Disassembly and Assembly"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

# Component Inspection

INFOID:0000000004918647

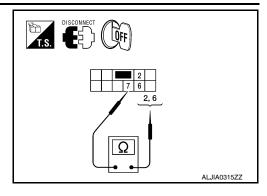
1. CHECK LIFTING SWITCH (REAR)

# **LIFTING SWITCH (REAR)**

# < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH terminals.

Terr	minal	Condition		Continuity
Power sea	ower seat switch LH			Continuity
	2	Lifting switch rear (down)	Operate	Yes
7	2	Litting switch rear (down)	Release	No
,	6	Lifting switch rear (up)	Operate	Yes
	0	Litting Switch rear (up)	Release	No



# Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-76, "Disassembly and Assembly"</u>.

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# PEDAL ADJUSTING SWITCH

#### < COMPONENT DIAGNOSIS >

# PEDAL ADJUSTING SWITCH

Description INFOID:000000004918648

Pedal adjusting switch is on the instrument panel. The operation signal is input to the driver seat control unit when the pedal adjusting switch is operated. The pedal adjusting switch signal is sent to the automatic drive positioner control unit via UART communication.

# Component Function Check

INFOID:0000000004918649

# 1. CHECK FUNCTION

- 1. Select "PEDAL SW-FR", "PEDAL SW-RR" in "Data monitor" mode with CONSULT-III.
- 2. Check pedal adjusting switch signal under the following conditions.

Monitor item	Condition		Status
PEDAL SW-FR	Pedal adjusting switch (forward)	Operate	ON
PEDAL SW-FR	redai adjusting switch (lorward)	Release	OFF
PEDAL SW-RR	Pedal adjusting switch (backward)	Operate	ON
FEDAL SW-RR	redai adjusting switch (backward)	Release	OFF

# Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-58. "Diagnosis Procedure"</u>.

# Diagnosis Procedure

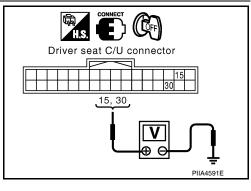
INFOID:0000000004918650

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK PEDAL ADJUSTING SWITCH SIGNAL

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

Driver seat	Terminals		On a dition		Voltage (V)	
control unit connector	(+)	(-)	Condition		(Approx.)	
	15	Ground just			Operate (backward)	0
B202	10		Pedal ad-	Release	Battery voltage	
D202	30		Orodina	switch	Operate (forward)	0
	30			Release	Battery voltage	



#### Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 2

# $oldsymbol{2}$ . CHECK PEDAL ADJUSTING SWITCH CIRCUIT

# PEDAL ADJUSTING SWITCH

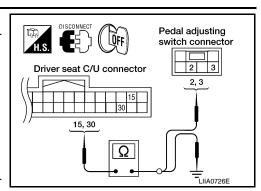
# < COMPONENT DIAGNOSIS >

- 1. Disconnect driver seat control unit and pedal adjusting switch.
- Check continuity between driver seat control unit harness connector and pedal adjusting switch harness connector.

Driver seat control unit connector	Terminal	Pedal adjusting switch connector	Terminal	Continuity
B202	15	M96	2	Yes
D202	30	IVISO	3	163

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

Driver seat control unit connector	Terminal		Continuity
B202	15	Ground	No
	30	-	



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Is the inspection result normal?

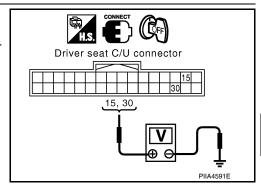
YES >> GO TO 3

NO >> Repair or replace harness.

# $oldsymbol{3}$ . CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control unit	Terminals		Voltage (V)	
connector	(+)	(-)	(Approx.)	
B202	15	Ground	Battery voltage	
B202	30	Ground	Battery voltage	



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Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

# f 4 . CHECK PEDAL ADJUSTING SWITCH

Refer to ADP-60, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace pedal adjusting switch. Refer to <a href="IP-11">IP-11</a>, "Exploded View".

# ${f 5}$ . CHECK PEDAL ADJUSTING SWITCH GROUND CIRCUIT

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

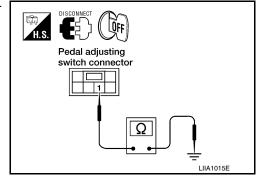
# 1 - Ground

: Continuity should exist.

# Is the inspection result normal?

YES >> GO TO 6

NO >> Repair or replace harness.



# 6. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

# PEDAL ADJUSTING SWITCH

# < COMPONENT DIAGNOSIS >

# Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

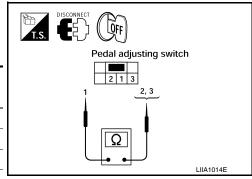
# Component Inspection

INFOID:0000000004918651

# 1. CHECK PEDAL ADJUSTING SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect pedal adjusting switch.
- 3. Check continuity between pedal adjusting switch terminals.

Ter	minal	Condition		Continuity
Pedal adjusting switch		Schallon		Continuity
'	2	Pedal adjusting switch	Operate	Yes
1	2	(backward)	Release	No
'	3	Pedal adjusting switch	Operate	Yes
	3	(forward)	Release	No



# Is the inspection result normal?

YES >> Inspection End.

NO >> Replace pedal adjusting switch. Refer to <a href="#">IP-11</a>, "Exploded View".

# **SEAT MEMORY SWITCH**

# < COMPONENT DIAGNOSIS >

# SEAT MEMORY SWITCH

Description INFOID:0000000004918652

The seat memory switch is installed on the front door LH trim. The operation signal is input to the automatic drive positioner control unit when the memory switch is operated.

# Component Function Check

# INFOID:0000000004918653

# 1. CHECK FUNCTION

- Select "MEMORY SW 1", "MEMORY SW 2", "SET SW" in "Data monitor" mode with CONSULT-III.
- Check seat memory switch signal under the following conditions.

Monitor item	Condition		Status
MEMORY SW1	Memory switch 1	Push	ON
	Memory Switch 1	Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
		Release	OFF
SET SW	Set switch	Push	ON
		Release	OFF

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-61</u>, "Diagnosis Procedure".

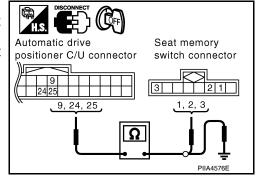
# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK MEMORY SWITCH CIRCUIT

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

Automatic drive positioner control unit connector	Terminal	Seat memory switch connector	Terminal	Continuity
	9		1	
M33	24	D5	3	Yes
	25		2	



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

Automatic drive positioner control unit connector	Terminal		Continuity
	9	Ground	
M33	24		No
	25		

#### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

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INFOID:0000000004918654

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# **SEAT MEMORY SWITCH**

#### < COMPONENT DIAGNOSIS >

# $\overline{2}$ . CHECK MEMORY SWITCH GROUND CIRCUIT

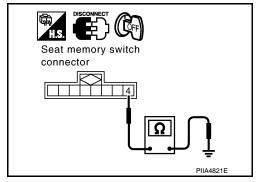
Check continuity between seat memory switch harness connector and ground.

Seat memory switch connector	Terminal	Ground	Continuity
D5	4		Yes

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.



# 3. CHECK SEAT MEMORY SWITCH

Refer to ADP-62, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch. Refer to ADP-165, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

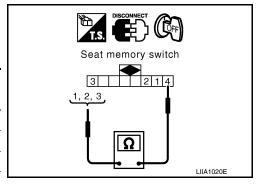
# Component Inspection

INFOID:0000000004918655

# 1. CHECK SEAT MEMORY SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch.
- 3. Check continuity between seat memory switch terminals.

Term Seat mem		Condition		Continuity
	1	Memory switch 1	Push	Yes
	'	Welliory Switch	Release	No
4	4 2 Memory switch	Memory switch 2	Push	Yes
7	2	Welliory Switch 2	Release	No
	3	Set switch	Push	Yes
	3	Set Switch	Release	No



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to ADP-165, "Removal and Installation".

#### < COMPONENT DIAGNOSIS >

# DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

INFOID:0000000004918656

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# CHANGEOVER SWITCH: Description

Changeover switch is integrated into door mirror remote control switch.

Changeover switch has three positions (L, N and R).

It changes door mirror motor operation by transmitting control signal to automatic drive positioner control unit.

# CHANGEOVER SWITCH: Component Function Check

#### INFOID:0000000004918657

# 1. CHECK CHANGEOVER SWITCH FUNCTION

Check the operation on "MIR CHNG SW-R" or "MIR CHNG SW-L" in "DATA MONITOR" mode with CON-SULT-III.

Refer to ADP-26, "CONSULT-III Function".

#### Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to ADP-63, "CHANGEOVER SWITCH: Diagnosis Procedure".

# CHANGEOVER SWITCH: Diagnosis Procedure

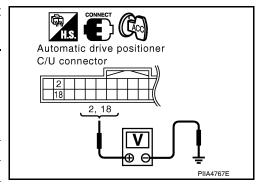
INFOID:0000000004918658

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK CHANGEOVER SWITCH SIGNAL

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

Terminals				
(+)			Change over switch	Voltage (V)
Automatic drive positioner control unit connector	Terminal	(-)	condition	(Approx.)
	2		RIGHT	0
M33	۷	Ground	Other than above	5
IVISS	18	Giouna	LEFT	0
	16		Other than above	5



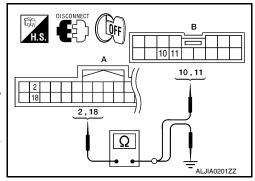
#### Is the inspection result normal?

YES >> GO TO 6 NO >> GO TO 2

# 2. CHECK HARNESS CONTINUITY

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

Automatic drive positioner control unit connector	Terminal	Door mirror re- mote control switch connector	Terminal	Continuity
M33 (A)	2	D10 (B)	11	Yes
WOS (A)	18	D 10 (B)	10	163



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#### < COMPONENT DIAGNOSIS >

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

Automatic drive positioner control unit connector	Terminal		Continuity
M22 (A)	2	Ground	No
M33 (A)	18		INO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# ${f 3}.$ CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

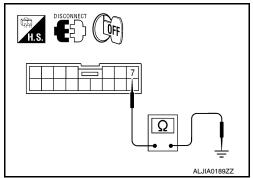
Check continuity between door mirror remote control switch connector and ground.

Door mirror remote control switch connector	Terminal	Ground	Continuity
D10	7		Yes

# Is the inspection result normal?

YES >> GO TO 4

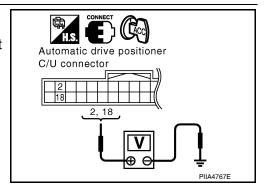
NO >> Repair or replace harness.



# 4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Termi			
(+)	Voltage (V)		
Automatic drive positioner control unit connector Terminal		(-)	(Approx.)
M33	2	Ground	5
IVIOO	18	Giouna	3



# Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

# 5. CHECK CHANGEOVER SWITCH

Check changeover switch.

Refer to ADP-65, "CHANGEOVER SWITCH: Component Inspection".

#### Is the inspection result normal?

YES >> Refer to GI-38, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to ADP-166, "Removal and Installation".

#### O. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

## < COMPONENT DIAGNOSIS >

# CHANGEOVER SWITCH: Component Inspection

#### INFOID:0000000004918659

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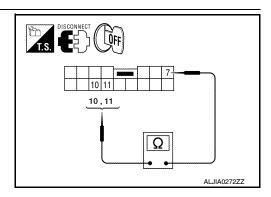
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# 1. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch.

Terminal  Door mirror remote control switch		Change over switch condition	Continuity
		Condition	-
10	7	LEFT	Yes
10		Other than above	No
11		RIGHT	Yes
11	Other than above	No	



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to ADP-166, "Removal and Installation".

# MIRROR SWITCH

# MIRROR SWITCH: Description

INFOID:0000000004918660

It operates angle of the door mirror face.

It transmits mirror face adjust operation to automatic drive positioner control unit.

# MIRROR SWITCH: Component Function Check

#### INFOID:0000000004918661

# 1. CHECK MIRROR SWITCH FUNCTION

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

Refer to ADP-26, "CONSULT-III Function".

#### Is the inspection result normal?

YES >> Mirror switch function is OK.

NO >> Refer to ADP-65, "MIRROR SWITCH: Diagnosis Procedure".

# MIRROR SWITCH: Diagnosis Procedure

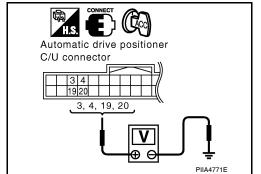
INFOID:0000000004918662

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK MIRROR SWITCH FUNCTION

1. Turn ignition switch to ACC.

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



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# < COMPONENT DIAGNOSIS >

Te	erminals			Voltage (V) (Approx.)	
(+)			Mirror switch		
Automatic drive positioner control unit connector	Terminal	(–)	Condition		
	3		UP	0	
		J		Other than above	5
	4	4	LEFT	0	
M33	19	7	Ground	Other than above	5
WIJJ		Giodila	DOWN	0	
	19		Other than above	5	
	20		RIGHT	0	
	20		Other than above	5	

#### Is the inspection result normal?

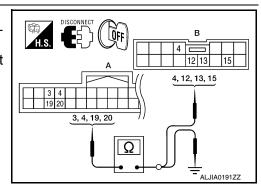
YES >> GO TO 6 NO >> GO TO 2

# 2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit and door mirror remote control switch.
- 3. Check continuity between automatic drive positioner control unit connector and door mirror remote control switch connector.

Automatic drive positioner control unit connector	Terminal	Door mirror remote control switch connector	Terminal	Continuity	
M33 (A)	3		15		
	4	D10 (B)	13	Yes	
	19		12	165	
	20		4		



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

Automatic drive positioner control unit connector	Terminal		Continuity	
	3	Ground		
M22 (A)	4		No	
M33 (A)	19		NO	
	20			

# Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. Check door mirror remote control switch ground circuit

#### < COMPONENT DIAGNOSIS >

Check continuity between door mirror remote control switch connector and ground.

Door mirror remote control switch connector	Terminal	Ground	Continuity
D10	7		Yes

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# Is the inspection result normal?

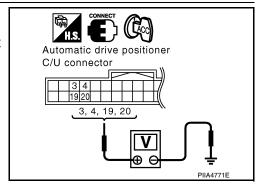
YES >> GO TO 4

NO >> Repair or replace harness.

# 4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Te				
(+)		Voltage (V)		
Automatic drive positioner control unit connector	Terminal	(-)	(Approx.)	
	3	Ground		
M33	4		5	
IVISS	19			
	20			



#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

# 5. CHECK MIRROR SWITCH

#### Check mirror switch.

Refer to ADP-67, "MIRROR SWITCH: Component Inspection".

#### Is the inspection result normal?

YES >> Refer to GI-38, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to ADP-166, "Removal and Installation".

#### 6. CHECK INTERMITTENT INCIDENT

#### Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

# Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

# MIRROR SWITCH: Component Inspection

# 1.CHECK MIRROR SWITCH

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INFOID:0000000004918663

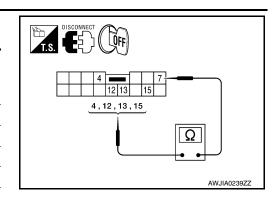
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# < COMPONENT DIAGNOSIS >

Check door mirror remote control switch.

Terminal  Door mirror remote  control switch		Mirror switch condition	Continuity
4		RIGHT	Yes
4		Other than above	No
13	7	LEFT	Yes
13		Other than above	No
15		UP	Yes
15	5	Other than above	No
12		DOWN	Yes
12		Other than above	No



# Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to ADP-166, "Removal and Installation".

# **POWER SEAT SWITCH GROUND CIRCUIT**

# < COMPONENT DIAGNOSIS >

# POWER SEAT SWITCH GROUND CIRCUIT

# Diagnosis Procedure

INFOID:0000000004918664

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Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK POWER SEAT SWITCH LH GROUND CIRCUIT

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

Power seat switch LH connector	Terminal	Ground	Continuity
B208	7		Yes

# ALJIA0316ZZ

# Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u>.

NO >> Repair or replace harness.

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Revision: April 2009 ADP-69 2010 Armada

# **DETENTION SWITCH**

Description INFOID:000000004918665

Park position switch is installed on A/T shift selector. It is turned OFF when the A/T selector lever is in P position. The driver seat control unit judges that the A/T selector lever is in P position if continuity does not exist in this circuit.

# Component Function Check

INFOID:0000000004918666

# 1. CHECK FUNCTION

- 1. Select "DETENT SW" signal in "Data monitor" mode with CONSULT-III.
- 2. Check park position switch signal under the following conditions.

Monitor item	Condition		Status
		P position	OFF
DETENT SW	A/T selector lever	Other than above	ON

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-70, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000004918667

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK DTC WITH "BCM"

Check "Self Diagnostic Result" for BCM with CONSULT-III.

#### Is any other DTC detected?

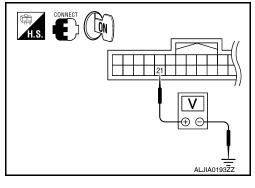
YES >> Check the DTC.

NO >> GO TO 2

# $oldsymbol{2}.$ CHECK PARK POSITION SWITCH INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Mechanical key must be removed from the key switch.
- 3. Check voltage between driver seat control unit harness connector and ground.

Driver seat	Terminal		O a a Riffe a		Voltage (V)
control unit connector	(+)	(-)	Condition		(Approx.)
B202	21	Ground	A/T selec-	P position	Battery volt- age
B202	21	Giodila	tor lever	Other than above	0V



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 3

# 3. CHECK PARK POSITION SWITCH CIRCUIT

# **DETENTION SWITCH**

## < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and A/T shift selector.
- 3. Check continuity between driver seat control unit harness connector (A) and A/T shift selector harness connector (B).

А		В		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B202	21	M203	6	Yes

4. Check continuity between driver seat control unit harness connector (A) and ground.

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A 21 21 21 21 21 21 21 21 21 21 21 21 21	6
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Α			Continuity	
Connector Terminal		Ground	Continuity	
B202	21		No	

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

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# FRONT DOOR SWITCH (DRIVER SIDE)

## < COMPONENT DIAGNOSIS >

# FRONT DOOR SWITCH (DRIVER SIDE)

Description INFOID:000000004918668

Detects front door LH open/close condition.

# Component Function Check

#### INFOID:0000000004918669

# 1. CHECK FUNCTION

- 1. Select "DOOR SW-DR" in "Data monitor" mode with CONSULT-III.
- 2. Check the front door switch LH signal under the following conditions.

Monitor item	Condition		Status
DOOR SW-DR	Front door switch LH	Open	ON
	FIORE GOOF SWILCH LA	Close	OFF

# Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-72, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000004918670

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

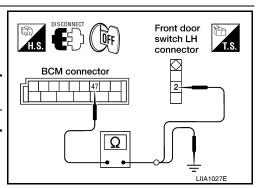
# 1. CHECK FRONT DOOR SWITCH LH CIRCUIT

- Disconnect BCM and front door switch LH.
- Check continuity between BCM connector and front door switch LH connector.

BCM connector	Terminal	Front door switch LH connector	Terminal	Continuity
M19	47	B8	2	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M19	47		No



#### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

# $2.\,$ CHECK FRONT DOOR SWITCH LH

Refer to ADP-73, "Component Inspection".

# Is the inspection result normal?

YES >> GO TO 3

NO >> Replace front door switch LH.

# $oldsymbol{3}.$ CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-60, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

# FRONT DOOR SWITCH (DRIVER SIDE)

#### < COMPONENT DIAGNOSIS >

# **Component Inspection**

#### INFOID:0000000004918671

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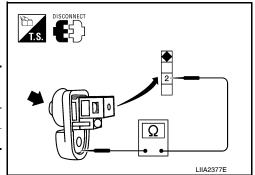
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# 1. CHECK FRONT DOOR SWITCH LH

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

Terminal		Condition		Continuity	
Front door switch LH		Condition	/I I	Continuity	
2	Ground part of	Front door switch	Pushed	No	
	door switch	LH	Released	Yes	



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front door switch LH.

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## SLIDING SENSOR

Description INFOID:000000004918672

- The sliding sensor is installed to the power seat frame assembly.
- The pulse signal is input to the driver seat control unit when sliding is performed.
- The driver seat control unit counts the pulse and calculates the sliding amount of the seat.

# Component Function Check

INFOID:0000000004918673

# 1. CHECK FUNCTION

- 1. Select "SLIDE PULSE" in "Data monitor" mode with CONSULT-III.
- 2. Check sliding sensor signal under the following conditions.

Monitor item	Condition		Valve
		Operate (forward)	Change (increase)
SLIDE PULSE	Seat sliding	Operate (backward)	Change (decrease)
		Release	No change

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <a href="ADP-74">ADP-74</a>, "Diagnosis Procedure".

## Diagnosis Procedure

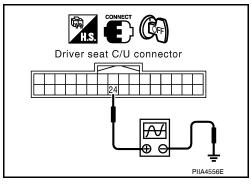
INFOID:0000000004918674

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK SLIDING SENSOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Read voltage signal between driver seat control unit harness connector and ground with osiloscope.

Terminals							
(+)							
Driver's seat control unit	Termi- nal	(–)	Condition				Voltage signal
B202	24	Ground	Seat sliding	Operate	(V) 6 4 2 0 50 ms		
				Other than above	0 or 5		



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

# 2. CHECK SLIDING SENSOR CIRCUITS

#### **SLIDING SENSOR**

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit and sliding motor LH.
- Check continuity between driver seat control unit harness connector and sliding motor LH harness connector.

Driver seat control unit connector	Terminal	Sliding motor LH connector	Terminal	Continuity	
	16		3		
B202 (A)	24	B204 (B)	4	Yes	
	31		2		

2, 3, 4 16, 24, 31

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

Driver seat control unit connector	Terminal		Continuity
	16	Ground	
B202 (A)	24		No
	31		

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK SEAT OPERATION

- Connect driver seat control unit and sliding motor LH.
- Check seat operation (except sliding operation) with memory function.

#### Is the inspection result normal?

- YES >> Replace sliding motor LH. (Built in power seat frame assembly). Refer to <u>SE-76, "Disassembly</u> and Assembly".
- >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation". NO

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part. ADP

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## RECLINING SENSOR

Description INFOID.000000004918675

- The reclining motor is installed to the seatback assembly.
- The pulse signal is inputted to the driver seat control unit when the reclining is operated.
- The driver seat control unit counts the pulse and calculates the reclining amount of the seat.

# Component Function Check

INFOID:0000000004918676

# 1. CHECK FUNCTION

- 1. Select "RECLN PULSE" in "Data monitor" mode with CONSULT-III.
- 2. Check reclining sensor signal under the following conditions.

Monitor item	Condition		Value
	ECLN PULSE Seat reclining	Operate (forward)	Change (increase)
RECLN PULSE		Operate (backward)	Change (decrease)
		Release	No change

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-76, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

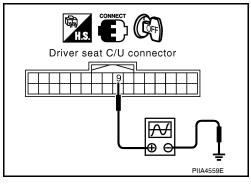
INFOID:0000000004918677

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK RECLINING SENSOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Read voltage signal between driver seat control unit harness connector and ground with oscilloscope.

٦	Terminals						
(+)							
Driver seat con- trol unit	Termi- nal	(-)	Condition		(-) Condition Volta		Voltage signal
B202	9	Ground	Seat reclin- ing	Operate	(V) 6 4 2 0 ***50ms		
				Other than above	0 or 5		



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

# 2. CHECK RECLINING SENSOR CIRCUIT

#### **RECLINING SENSOR**

#### < COMPONENT DIAGNOSIS >

- 1. Disconnect driver seat control unit and reclining motor LH.
- 2. Check continuity between driver seat control unit harness connector and reclining motor LH harness connector.

Driver seat control unit connector	Terminal	Reclining motor connector	Terminal	Continuity	
B202 (A)	9	B205 (B)	1	Yes	
D202 (A)	31	D200 (B)	4		

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

H.S. DISCONNECT OFF
A 1, 4
9, 31 Ω = ALJIA0318ZZ

Driver seat control unit connector	Terminal		Continuity
B202 (A)	9	Ground	No
B202 (A)	31		NO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK SEAT OPERATION

- 1. Connect driver seat control unit and reclining motor LH connector.
- 2. Check seat operation (except reclining operation) with memory function.

#### Is the operation normal?

YES >> Replace reclining motor LH. (Built in power seat frame assembly). Refer to <u>SE-76. "Disassembly and Assembly"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-163, "Removal and Installation"</u>.

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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## LIFTING SENSOR (FRONT)

#### < COMPONENT DIAGNOSIS >

# LIFTING SENSOR (FRONT)

**Description** 

- The lifting sensor (front) is installed to the power seat frame assembly.
- The pulse signal is input to the driver seat control unit when the lifting (front) is operated.
- The driver seat control unit counts the pulse and calculates the lifting (front) amount of the seat.

# Component Function Check

INFOID:0000000004918679

# 1. CHECK FUNCTION

- 1. Select "LIFT FR PULSE" in "Data monitor" mode with CONSULT-III.
- 2. Check the lifting sensor (front) signal under the following conditions.

Monitor item	Condition		Value
		Operate (up)	Change (increase)
LIFT FR PULSE S	Seat lifting (front)	Operate (down)	Change (decrease)
		Release	No change

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-78, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

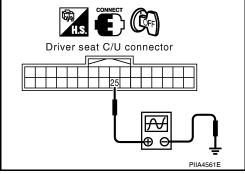
INFOID:0000000004918680

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK LIFTING SENSOR (FRONT) SIGNAL

- 1. Turn ignition switch OFF.
- 2. Read the voltage signal between driver seat control unit harness connector and ground with an oscilloscope.

Terminals							
(+)							
Driver seat con- trol unit connector	Termi- nal	(–)	Condition		(-) Condition Voltage sign		Voltage signal
B202	25	Ground	Seat lifting (front)	Oper- ate	(V) 6 4 2 0 **50ms		
				Other than above	0 or 5		



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

# LIFTING SENSOR (FRONT)

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit and lifting motor (front).
- Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

Driver seat control unit connector	Terminal	Lifting motor (front) connector	Terminal	Continuity
	16		3	
B202 (A)	25	B206 (B)	4	Yes
	31		2	

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

H.S. DISCONNECT OFF
A 2, 3, 4 2, 3, 4
16, 25, 31 Ω ———————————————————————————————————

Driver seat control unit connector	Terminal		Continuity
	16	Ground	
B202 (A)	25		No
	31		

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK SEAT OPERATION

- Connect driver seat control unit and lifting motor (front) connector.
- Check seat operation [except lifting (front) operation] with memory function.

#### Is the operation normal?

- YES >> Replace lifting motor (front). (Built in power seat frame assembly). Refer to SE-76, "Disassembly and Assembly".
- NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part. ADP

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# LIFTING SENSOR (REAR)

#### < COMPONENT DIAGNOSIS >

# LIFTING SENSOR (REAR)

Description INFOID:000000004918681

- The lifting sensor (rear) is installed to the power seat frame assembly.
- The pulse signal is input to the driver seat control unit when the lifting (rear) is operated.
- The driver seat control unit counts the pulse and calculates the lifting (rear) amount of the seat.

# Component Function Check

INFOID:0000000004918682

# 1. CHECK FUNCTION

- 1. Select "LIFT RR PULSE" in "Data monitor" mode with CONSULT-III.
- 2. Check lifting sensor (rear) signal under the following conditions.

Monitor item	Condition		Value
		Operate (up)	Change (increase)
LIFT RR PULSE	Seat lifting (rear)	Operate (down)	Change (decrease)
		Release	No change

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-80, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

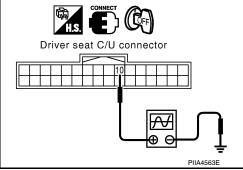
INFOID:0000000004918683

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK LIFTING SENSOR (REAR) SIGNAL

- Turn ignition switch OFF.
- 2. Read voltage signal between driver seat control unit harness connector and ground with oscilloscope.

Т	erminals						
(+)	)						
Driver seat con- trol unit connector	Termi- nal	(-)	Condition		(-) Condition Voltage		Voltage signal
B202	10	Ground	Seat lifting (rear)	Operate Other	(V) 6 4 2 0		
				than above	0 or 5		



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

2. CHECK LIFTING SENSOR (REAR) CIRCUIT

# LIFTING SENSOR (REAR)

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit and lifting motor (rear).
- Check the continuity between driver seat control unit harness connector and lifting motor (rear) harness connector.

Driver seat control unit connector	Terminal	Lifting motor (rear) connector	Terminal	Continuity
	10		4	
B202 (A)	16	B207 (B)	3	Yes
	31		2	

2, 3, 4 10, 16, 31 Ω

Check the continuity between driver seat control unit harness connector and ground.

Driver seat control unit connector	Terminal		Continuity	
	10	Ground		
B202 (A)	16		No	
	31			

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK SEAT OPERATION

- Connect driver seat control unit and lifting motor (rear) connector.
- Check the seat operation [except lifting (rear) operation] with memory function.

#### Is the operation normal?

- YES >> Replace lifting motor (rear). (Built in power seat frame assembly). Refer to <u>SE-76, "Disassembly</u> and Assembly".
- >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation". NO

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

## Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

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#### PEDAL ADJUSTING SENSOR

#### < COMPONENT DIAGNOSIS >

## PEDAL ADJUSTING SENSOR

Description INFOID:0000000004918684

- The pedal adjusting sensor is installed to the pedal adjusting motor assembly.
- The resistance of pedal adjusting sensor is changed according to the forward/backward position of pedal assembly.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of pedal adjusting sensor resistance. Automatic drive positioner control unit calculates the pedal assembly position from the voltage.

# Component Function Check

INFOID:0000000004918685

# 1. CHECK FUNCTION

- 1. Select "PEDAL SEN" in "Data monitor" mode with CONSULT-III.
- 2. Check the pedal sensor signal under the following condition.

Monitor item	Con	Value	
PEDAL SEN Peda	Pedal position	Forward	0.5V
	r cuai position	Backward	4.5V

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-82, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

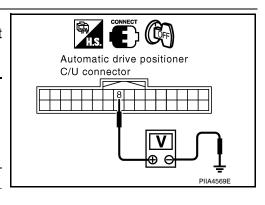
INFOID:0000000004918686

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK PEDAL ADJUSTING SENSOR SIGNAL

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

Terminal						
(+)					Voltage (V)	
Automatic drive position- er control unit	Terminal	(-)	Condition		(Approx.)	
N400	0	0	Pedal as-	Forward	0.5	
M33	8	Ground	sembly position	Backward	4.5	



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

# 2. CHECK PEDAL ADJUSTING SENSOR CIRCUIT

#### PEDAL ADJUSTING SENSOR

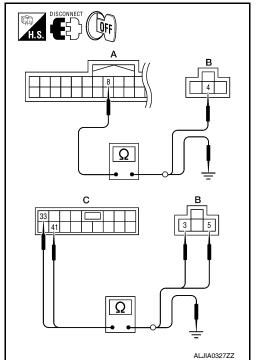
#### < COMPONENT DIAGNOSIS >

- 1. Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.
- Check continuity between automatic drive positioner control unit harness connector and pedal adjusting motor assembly harness connector.

Automatic drive positioner control unit connector	Terminal	Pedal adjusting motor assembly connector	Terminal	Continuity
M33 (A)	8		4	
M24 (C)	33	E110 (B)	3	Yes
M34 (C)	41		5	

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

Automatic drive positioner control unit connector	Terminal		Continuity
M33 (A)	8	Ground	
M24 (C)	33		No
M34 (C)	41		



Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK DOOR MIRROR OPERATION

- 1. Connect automatic drive positioner control unit and pedal adjusting motor assembly.
- 2. Turn ignition switch ON.
- 3. Check door mirror operation with memory function.

#### Is the operation normal?

- YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-167</u>, "Removal and Installation".
- NO >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

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#### < COMPONENT DIAGNOSIS >

# MIRROR SENSOR DRIVER SIDE

# DRIVER SIDE : Description

INFOID:0000000004918687

- The mirror sensor LH is installed to the door mirror LH.
- The resistance of 2 sensors (horizontal and vertical) is changed when the door mirror LH is operated.
- Automatic drive positioner control unit calculates the door mirror position according to the change of the voltage of 2 sensor input terminals.

# DRIVER SIDE: Component Function Check

INFOID:0000000004918688

# 1. CHECK FUNCTION

- 1. Select "MIR/SEN LH U-D", "MIR/SEN LH R-L" in "Data monitor" with CONSULT-III.
- 2. Check mirror sensor (driver side) signal under the following condition.

Monitor item	Condition		Value
MIR/SEN LH U-D		Close to peak	3.4V
	Dana mimoral III	Close to valley	0.6V
MIR/SEN LH R-L	DOOL HIIITOLEH	Close to right edge	3.4V
IVIIIVOLIN LITTI-L		Close to left edge	0.6V

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-84, "DRIVER SIDE : Diagnosis Procedure"</u>.

## DRIVER SIDE: Diagnosis Procedure

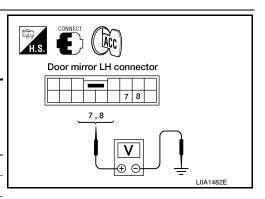
INFOID:0000000004918689

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK DOOR MIRROR LH SENSOR SIGNAL

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

Т	erminals										
(+)				Condition Voltage (V)							
Door mirror LH connector	Terminal	(–)	33.13.13		(Approx.)						
	7			Close to peak	3.4						
D4	,	Ground	Door mirror	Close to valley	0.6						
D4	8	Giodila	Giodila	Giodila	Giodila	Giodila	Giodila	Giodila	LH	Close to right edge	3.4
	8			Close to left edge	0.6						



#### Is the inspection result normal?

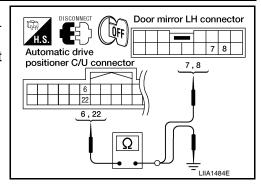
YES >> GO TO 5. NO >> GO TO 2.

# $oldsymbol{2}$ . CHECK DOOR MIRROR LH SENSOR CIRCUIT 1

#### < COMPONENT DIAGNOSIS >

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

Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
M33	6	D4	7	Yes
IVIOO	22	D4	8	103



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

Automatic drive positioner control unit connector	Terminal	Our set	Continuity
M33	6	Ground	No
WOO	22		NO

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

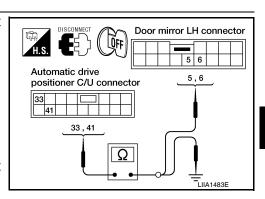
# ${f 3}.$ CHECK DOOR MIRROR LH SENSOR CIRCUIT 2

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

Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
M34	33	D4	5	Voc
IVI34	41	D4	6	Yes

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

Automatic drive positioner control unit connector	Terminal		Continuity
NO.4	33	Ground	No
M34	41		INO



#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK PEDAL ADJUSTING OPERATION

- Connect driver seat control unit connector and door mirror LH connector.
- Turn ignition switch ON.
- Check pedal adjusting operation with memory function.

#### Is the operation normal?

YES >> Replace door mirror actuator LH. Refer to MIR-22, "Mirror Actuator".

>> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation". NO

## CHECK INTERMITTENT INCIDENT

#### Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

>> Repair or replace the malfunctioning part. NO

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#### < COMPONENT DIAGNOSIS >

#### PASSENGER SIDE

## PASSENGER SIDE : Description

INFOID:0000000004918690

- The mirror sensor RH is installed to the door mirror RH.
- The resistance of 2 sensors (horizontal and vertical) is changed when the door mirror RH is operated.
- Automatic drive positioner control unit calculates the door mirror position according to the change of the voltage of 2 sensor input terminals.

## PASSENGER SIDE: Component Function Check

INFOID:0000000004918691

# 1. CHECK FUNCTION

- 1. Select "MIR/SEN RH U-D", "MIR/SEN RH R-L" in "Data monitor" with CONSULT-III.
- 2. Check the mirror sensor RH signal under the following conditions.

Monitor item	Condition		Value
MIR/SEN RH U-D		Close to peak	3.4V
	Close to valley	0.6V	
MIR/SEN RH R-L	DOOLIIIIIOI KH	Close to right edge	3.4V
		Close to left edge	0.6V

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-86, "PASSENGER SIDE : Diagnosis Procedure"</u>.

## PASSENGER SIDE: Diagnosis Procedure

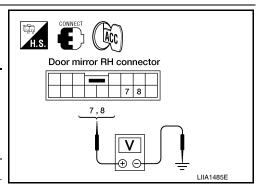
INFOID:0000000004918692

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK DOOR MIRROR RH SENSOR SIGNAL

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

Terminals						
(+)				Voltage (V)		
Doormirror RH con- nector	Terminal	(–)	Condition		(Approx.)	
	7	7		Close to peak	3.4	
D107		Ground	Door mirror	Close to valley	0.6	
D107		0.000	RH	Close to right edge	3.4	
	8			Close to left edge	0.6	



#### Is the inspection result normal?

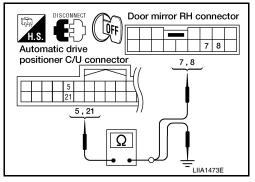
YES >> GO TO 5 NO >> GO TO 2

# 2. CHECK DOOR MIRROR RH SENSOR HARNESS CONTINUITY

#### < COMPONENT DIAGNOSIS >

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

Automatic drive posi- tioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity
M33	5	D107	7	Yes
IVISS	21	5107	8	res



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

Automatic drive positioner control unit connector	Terminal	0	Continuity
M33	5	Ground	No
IVIOO	21		NO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3.check door mirror RH sensor power supply circuit

Check continuity between automatic drive positioner control unit harness connector and door mirror RH harness connector.

Automatic drive positioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity
M34	33	D107	5	Yes
IVI34	41	5107	6	res

Check continuity between automatic drive positioner control un harness connector and ground.

	positioner C/U connector	5,6
_	33 41	
nit	33,41 \Q	LIIA1486E
_		

Automatic drive

Automatic drive positioner control unit connector	Terminal		Continuity
M34	33	Ground	No
IVI3 <del>4</del>	41		NO

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

## 4. CHECK PEDAL ADJUSTING OPERATION

- Connect driver seat control unit connector and door mirror RH connector.
- Turn ignition switch ON.
- Check pedal adjusting operation with memory function.

#### Is the operation normal?

YES >> Replace door mirror actuator. Refer to MIR-22, "Mirror Actuator".

NO >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

#### CHECK INTERMITTENT INCIDENT

#### Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

>> Repair or replace the malfunctioning part. NO

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Door mirror RH connector

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#### SLIDING MOTOR

Description INFOID:000000004918693

- The sliding motor LH is installed to the power seat frame assembly.
- The sliding motor LH is installed with the driver seat control unit.
- The seat is slid forward/backward by changing the rotation direction of sliding motor LH.

# Component Function Check

INFOID:0000000004918694

# 1. CHECK FUNCTION

- 1. Select "SEAT SLIDE" in "Active test" mode with CONSULT-III.
- 2. Check the sliding motor LH operation.

Test Item		Description	
	OFF		Stop
SEAT SLIDE	FR	Seat sliding	Forward
	RR		Backward

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-88, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

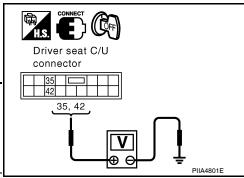
INFOID:0000000004918695

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK SLIDING MOTOR LH POWER SUPPLY

- Turn the ignition switch OFF.
- 2. Perform "Active test" ("SEAT SLIDE") with CONSULT-III
- 3. Check voltage between driver seat control unit harness connector and ground.

	Terminal				
(+)					Voltage (V)
Driver seat control unit connector	Terminal	(-)	Test Item		(Approx.)
			OFF	0	
	35		FR (forward)	Battery voltage	
B203		Ground	SEAT	RR (backward)	0
D203		Giodila	SLIDE	OFF	0
42	42			FR (forward)	0
			RR (backward)	Battery voltage	



#### Is the inspection result normal?

YES >> Replace sliding motor LH. (Built in power seat frame assembly). Refer to <u>SE-76, "Disassembly and Assembly"</u>.

NO >> GO TO 2

# $oldsymbol{2}$ . CHECK SLIDING MOTOR LH CIRCUIT

#### **SLIDING MOTOR**

#### < COMPONENT DIAGNOSIS >

- 1. Disconnect driver seat control unit and sliding motor LH.
- 2. Check continuity between driver seat control unit harness connector and sliding motor LH harness connector.

Driver seat control unit connector	Terminal	Sliding motor LH connector	Terminal	Continuity
B203 (A)	35	B204 (B)	5	Yes
	42	D20 <del>1</del> (D)	1	163

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

H.S. DISCONNECT OFF
A B 1 1 5 35, 42 1, 5
ALJIA0321ZZ

Driver seat control unit connector	Terminal	_	Continuity
B203 (A)	35	Ground	No
	42		No

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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## **RECLINING MOTOR**

**Description** 

- The reclining motor LH is installed to the seatback assembly.
- The reclining motor LH is activated with the driver seat control unit.
- The seatback is reclined forward/backward by changing the rotation direction of reclining motor LH.

# Component Function Check

INFOID:0000000004918697

# 1. CHECK FUNCTION

- 1. Select "SEAT RECLINING" in "Active test" mode with CONSULT-III.
- 2. Check the reclining motor LH operation.

Test Item		Description	
	OFF		Stop
SEAT RECLINING	FR	Seat reclining	Forward
	RR		Backward

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-90, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

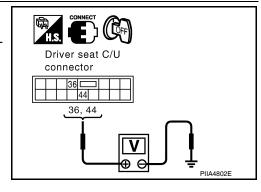
INFOID:0000000004918698

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK RECLINING MOTOR LH POWER SUPPLY

- Turn the ignition switch OFF.
- 2. Perform "Active test" ("SEAT RECLINING") with CONSULT-III
- Check voltage between driver seat control unit harness connector and ground.

	Terminal				
(+	-)		Test Item		Voltage (V) (Approx.)
Driver seat con- trol unit connector	Terminal	(-)			
				OFF	0
	36			FR (forward)	Battery voltage
B203		Ground	SEAT RE-	RR (backward)	0
D203		Giouna	CLINING	OFF	0
	44			FR (forward)	0
				RR (backward)	Battery voltage
		14	10		



## Is the inspection result normal?

YES >> Replace reclining motor LH. (Built in seatback assembly). Refer to <u>SE-76, "Disassembly and Assembly"</u>.

NO >> GO TO 2

# 2. CHECK RECLINING MOTOR LH CIRCUIT

#### **RECLINING MOTOR**

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit connector and reclining motor
   I H
- 2. Check continuity between driver seat control unit harness connector and reclining motor harness connector.

Driver seat control unit connector	Terminal	Reclining motor LH connector	Terminal	Continuity
B203 (A)	36	B205 (B)	2	Yes
B203 (A)	44	B205 (B)	3	163

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

H.S. DISCONNECT OFF
A B 2 3
36, 44 Ω
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Driver seat control unit connector	Terminal		Continuity
B203 (A)	36	Ground	No
	44	=	No

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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### LIFTING MOTOR (FRONT)

#### < COMPONENT DIAGNOSIS >

# LIFTING MOTOR (FRONT)

Description INFOID:00000000491869S

- The lifting motor (front) is installed to the power seat frame assembly.
- The lifting motor (front) is activated with the driver seat control unit.
- The lifter (front) is moved upward/downward by changing the rotation direction of lifting motor (front).

# Component Function Check

INFOID:0000000004918700

# 1. CHECK FUNCTION

- Select "SEAT LIFTER FR" in "Active test" mode with CONSULT-III.
- 2. Check the lifting motor (front) operation.

Test Item		Description	
	OFF		Stop
SEAT LIFTER FR	UP	Seat lifting (front)	Upward
	DWN		Downward

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-92, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

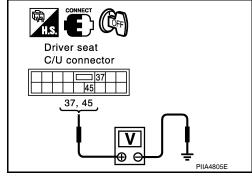
INFOID:0000000004918701

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Perform "Active test" ("SEAT LIFTER FR") with CONSULT-III.
- 3. Check voltage between driver seat control unit harness connector and ground.

Terminal (+)					
					Voltage (V)
Driver seat control unit connector	Terminal	(-)	Test Item		(Approx.)
				OFF	0
	37			UP	0
B203		Ground	SEAT LIFTER	DWN (down)	Battery voltage
B203		Giodila	FR	OFF	0
	45			UP	Battery voltage
				DWN (down)	0



#### Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in power seat frame assembly). Refer to <u>SE-76, "Disassembly</u> and Assembly".

NO >> GO TO 2

# 2. CHECK LIFTING MOTOR (FRONT) CIRCUIT

# **LIFTING MOTOR (FRONT)**

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit and lifting motor (front) connectors.
- 2. Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

Driver seat control unit connector	Terminal	Lifting motor (front) connector	Terminal	Continuity
B203 (A)	37	B206 (B)	1	Yes
B203 (A)	45	B200 (B)	5	163

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

	H.S. DISCONNECT
	А В
	37 1 5
	37, 45
•	ALJIA0323ZZ

Driver seat control unit connector	Terminal		Continuity
B203 (A)	37	Ground	No
D203 (A)	45		INO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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## **LIFTING MOTOR (REAR)**

#### < COMPONENT DIAGNOSIS >

# LIFTING MOTOR (REAR)

Description INFOID:000000004918702

- The lifting motor (rear) is installed to the power seat frame assembly.
- The lifting motor (rear) is activated with the driver seat control unit.
- The seat lifter (rear) is moved upward/downward by changing the rotation direction of lifting motor (rear).

# Component Function Check

INFOID:0000000004918703

# 1. CHECK FUNCTION

- Select "SEAT LIFTER RR" in "Active test" mode with CONSULT-III.
- 2. Check the lifting motor (rear) operation.

Test Item		Description		
	OFF		Stop	
SEAT LIFTER RR	UP	Seat lifting (rear)	Upward	
	DWN		Downward	

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-94, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

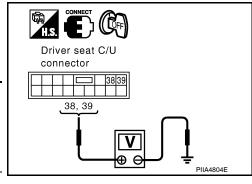
INFOID:0000000004918704

Regarding Wiring Diagram information, refer to ADP-108, "Wiring Diagram".

# 1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Perform "Active test" ("SEAT LIFTER RR") with CONSULT-III
- Check voltage between driver seat control unit harness connector and ground.

Terminal					
(+)					Voltage (V)
Driver seat control unit connector	Terminal	(-)	Test Item		(Approx.)
				OFF	0
	38	Ground		UP	Battery voltage
B203			Ground SEAT LIFTER RR	DWN (down)	0
6203		Giodila		OFF	0
	39			UP	0
				DWN (down)	Battery voltage



#### Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in power seat frame assembly). Refer to <u>SE-76, "Disassembly</u> and Assembly".

NO >> GO TO 2

# 2. CHECK LIFTING MOTOR (REAR) CIRCUIT

# **LIFTING MOTOR (REAR)**

#### < COMPONENT DIAGNOSIS >

- 1. Disconnect driver seat control unit and lifting motor (rear).
- 2. Check continuity between driver seat control unit harness connector and lifting motor (rear) harness connector.

Driver seat control unit connector	Terminal	Lifting motor (rear) connector	Terminal	Continuity
B203 (A)	38	B207 (B)	5	Yes
B200 (A)	39	D207 (D)	1	163

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

H.S. DISCONNECT (OFF)
A B
38,39
Ω
ALJIA0324ZZ

Driver seat control unit connector	Terminal		Continuity
B203 (A)	38	Ground	No
B203 (A)	39	-	NO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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# PEDAL ADJUSTING MOTOR

Description INFOID:000000004918708

- · The pedal adjusting motor is installed to the pedal adjusting motor assembly.
- The pedal adjusting motor is activated with the automatic drive positioner control unit.
- The pedal assembly is adjusted forward/backward by changing the rotation direction of pedal adjusting motor.

## Component Function Check

INFOID:0000000004918706

# 1. CHECK FUNCTION

- 1. Select "ADJ PEDAL MOTOR" in "Active test" mode with CONSULT-III.
- 2. Check the pedal adjusting motor operation.

Test item		Description		
	OFF		Stop	
ADJ PEDAL MOTOR	FR	Pedal adjusting motor	Forward	
	RR		Backward	

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-96, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

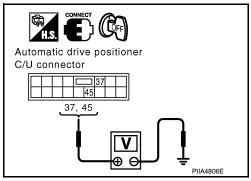
INFOID:0000000004918707

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK PEDAL ADJUSTING MOTOR POWER SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Perform "Active test" ("ADJ PEDAL MOTOR") with CONSULT-III.
- 3. Check voltage between automatic drive positioner control unit harness connector and ground.

Terminal						
(+)						
Automatic drive posi- tioner con- trol unit connector	Terminal	(-)	Test Item		Voltage (V) (Approx.)	
			OFF	0		
	37 Ground	Cround	ADJ PED- AL MOTOR	RR (backward)	0	
M34				FR (forward)	Battery voltage	
IVIO		Ground		OFF	0	
			RR (backward)	Battery voltage		
			FR (forward)	0		



#### Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-167</u>. "Removal and Installation".

NO >> GO TO 2

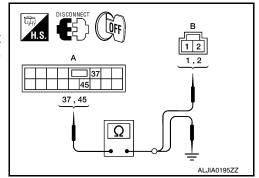
# $oldsymbol{2}$ . CHECK PEDAL ADJUSTING MOTOR CIRCUIT

#### PEDAL ADJUSTING MOTOR

#### < COMPONENT DIAGNOSIS >

- 1. Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.
- 2. Check continuity between automatic drive positioner control unit harness connector and pedal adjusting motor assembly harness connector.

Automatic drive positioner control unit connector	Terminal	Pedal adjusting motor assembly connector	Terminal	Continuity
M34 (A)	37	E109 (B)	1	Yes
WO <del>T</del> (A)	45	E109 (B)	2	103



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

Automatic drive positioner control unit connector	Terminal	0	Continuity
M34 (A)	37	Ground	No
1VIO4 (A)	45		NO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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# **DOOR MIRROR MOTOR**

Description INFOID:000000004918708

It makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies.

# Component Function Check

INFOID:0000000004918709

# 1. CHECK DOOR MIRROR MOTOR FUNCTION

Check the operation with "MIRROR MOTOR RH" and "MIRROR MOTOR LH" in "ACTIVE TEST" mode with CONSULT-III

Refer to ADP-26, "CONSULT-III Function".

#### Is the inspection result normal?

YES >> Door mirror motor function is OK.

NO >> Refer to <u>ADP-98, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

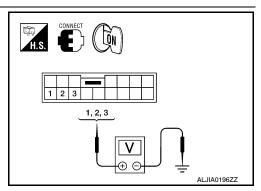
INFOID:0000000004918710

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

	Terminals				
(+)	(+)		Door mirror re- mote control	Voltage (V)	
Door mirror connector	Terminal	(-)	switch condition	(Approx.)	
	1		UP	Battery voltage	
	'		Other than above	0	
D4 (LH)	2	Ground	LEFT	Battery voltage	
D107 (RH)	2	Giodila	Other than above	0	
	3		DOWN / RIGHT	Battery voltage	
	3		Other than above	0	



#### Is the inspection result normal?

YES >> Refer to ADP-100, "Component Inspection".

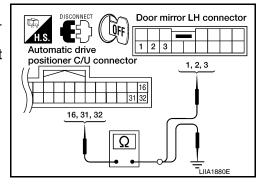
NO >> GO TO 2

# $oldsymbol{2}$ . CHECK HARNESS CONTINUITY

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

Door mirror LH

Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
	16		3	
M33	31	D4	1	Yes
	32		2	



#### **DOOR MIRROR MOTOR**

#### < COMPONENT DIAGNOSIS >

Door mirror RH

Automatic drive posi- tioner control unit con- nector	Terminal	Door mirror RH connector	Terminal	Continuity
	14		1	
M33	15	D107	2	Yes
	30		3	

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

Door mirror LH

Bool Hillion Elli			
Automatic drive position- er control unit connector	Terminal		Continuity
	16	Ground	
M33	31		No
	32		
Door mirror RH			
Automatic drive position- er control unit connector	Terminal		Continuity
	14	Ground	
M33	15		No
	30		

# Is the inspection result normal?

YES >> GO TO 3

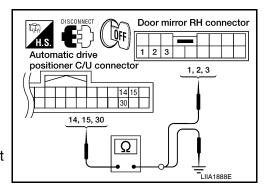
NO >> Repair or replace harness.

# 3. Check automatic drive positioner control unit output signal

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

Door mirror LH

Terminals			
(+)		Mirror switch	Voltage (V)
Terminal	(-)	condition	(Approx.)
16		DOWN / RIGHT	Battery voltage
10		Other than above	0
21	Ground	UP	Battery voltage
31	Giodila	Other than above	0
22		LEFT	Battery voltage
32		Other than above	0
		Terminal (-)  16  31 Ground	Terminal  (-)  Mirror switch condition  16  DOWN / RIGHT Other than above UP Other than above LEFT



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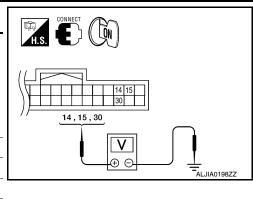
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#### **DOOR MIRROR MOTOR**

#### < COMPONENT DIAGNOSIS >

Door mirror R	Н			
Terminals				
(+)				
Automatic drive positioner control unit connector	Terminal	(-)	Mirror switch con- dition	Voltage (V) (Approx.)
	14		UP	Battery voltage
	17		Other than above	0
M33	15	Ground	LEFT	Battery voltage
WIJJ	13	Ground	Other than above	0
	20		DOWN / RIGHT	Battery voltage
	30		Other than above	0



#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-164, "Removal and Installation"</u>.

# 4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-100, "Component Inspection".

#### Is the inspection result normal?

YES >> Refer to GI-38, "Intermittent Incident".

NO >> Replace door mirror actuator. Refer to MIR-22, "Mirror Actuator".

# Component Inspection

INFOID:0000000004918711

# 1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to MIR-22, "Mirror Actuator".

#### Is the inspection result normal?

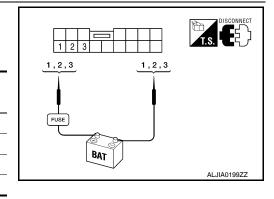
YES >> GO TO 2

NO >> Replace door mirror actuator. Refer to MIR-22, "Mirror Actuator".

# 2. CHECK DOOR MIRROR MOTOR-II

- Turn ignition switch OFF.
- 2. Disconnect door mirror.
- 3. Apply 12V to each power supply terminal of door mirror motor.

Door mirror connector	Terminal		Operational direction	
	(+)	(-)	Operational direction	
D4 (LH) D107 (RH)	3	2	RIGHT	
	2	3	LEFT	
	1	3	UP	
	3	1	DOWN	



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror actuator. Refer to MIR-20, "Door Mirror Assembly".

#### **SEAT MEMORY INDICATOR LAMP**

#### < COMPONENT DIAGNOSIS >

## SEAT MEMORY INDICATOR LAMP

Description INFOID:000000004918712

• The seat memory switch is installed on the driver side door trim. The operation signal is inputted to the automatic drive positioner control unit when the memory switch is operated.

• The status of automatic drive positioner system can be checked according to the illuminating/flashing status.

# Component Function Check

# 1. CHECK FUNCTION

- 1. Select "MEMORY SW INDCTR" in "Active test" mode with CONSULT-III.
- 2. Check the memory indicator operation.

Test item	1	Descript	ion
	OFF		OFF
MEMORY SW INDCTR	ON-1	Memory switch indicator	Indicator 1: ON
	ON-2	1	Indicator 2: ON

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-101, "Diagnosis Procedure"</u>.

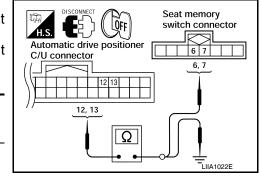
# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

# 1. CHECK SEAT MEMORY INDICATOR CIRCUIT

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and seat memory switch.
- 3. Check continuity between automatic drive positioner control unit harness connector and seat memory switch harness connector.

Automatic drive positioner control unit connector	Terminal	Seat memory switch connector	Terminal	Continuity
M33	12	D5	6	Yes
WISS	13	D3	7	163



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

Automatic drive position- er connector	Terminal		Continuity
M33	12	Ground	No
IVISS	13		NO

#### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

# 2. CHECK MEMORY INDICATOR POWER SUPPLY

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Revision: April 2009 ADP-101 2010 Armada

#### **SEAT MEMORY INDICATOR LAMP**

#### < COMPONENT DIAGNOSIS >

Check voltage between seat memory switch harness connector and ground.

Seat memory switch	Termir	nals	Voltage (V)	
connector	(+) (-)		(Approx.)	
D5	5	Ground	Battery voltage	

# Seat memory switch connector | Seat memory switch connector |

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Check the following.

- Fuse
- · Harness for open or short between memory indicator and fuse.

# 3. CHECK MEMORY INDICATOR

Refer to ADP-102, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch. Refer to ADP-165, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

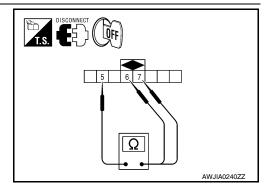
## Component Inspection

INFOID:0000000004918715

# 1. CHECK SEAT MEMORY INDICATOR

- 1. Disconnect seat memory switch.
- 2. Check continuity between seat memory switch terminals.

Terr		
Seat men	Continuity	
(+)	(-)	
6	5	Yes
7	3	163



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to ADP-165, "Removal and Installation".

## < ECU DIAGNOSIS >

# **ECU DIAGNOSIS**

# DRIVER SEAT CONTROL UNIT

Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Conc	lition	Value/Status
SET SW	Set switch	Push	ON
JET OW	Oct Switch	Release	OFF
MEMORY SW1	Memory switch 1	Push	ON
ILIVIORT SWI	Welliory Switch 1	Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
WEWORT 3W2	Welliory Switch 2	Release	OFF
SLIDE SW-FR	Sliding switch (front)	Operate	ON
JUDE SW-IIK	Sliding switch (nont)	Release	OFF
SLIDE SW-RR	Sliding switch (rear)	Operate	ON
DEIDE SW-KK	Sliding switch (rear)	Release	OFF
DECLN SW/ ED	Poolining switch (front)	Operate	ON
RECLN SW-FR	Reclining switch (front)	Release	OFF
RECLN SW-RR	Reclining switch (rear)	Operate	ON
ALOLIN SVV-KK	reclining switch (rear)	Release	OFF
JIFT FR SW-UP	Lifting quitch front (up)	Operate	ON
JET EK SW-OF	Lifting switch front (up)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
IFI FR SW-DN		Release	OFF
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
FI RR SW-UP		Release	OFF
IFT RR SW-DN	Lifting quitch roor (down)	Operate	ON
IFT KK SW-DN	Lifting switch rear (down)	Release	OFF
MIR CON SW-UP	Mirror switch	Up	ON
AIR CON SW-OF	WIIITOI SWILCII	Other than above	OFF
AID CON SW DN	Mirror switch	Down	ON
MIR CON SW-DN	WIIITOI SWILCII	Other than above	OFF
MIR CON SW-RH	Mirror switch	Right	ON
	IVIIITOI SWILCIT	Other than above	OFF
MIR CON SW-LH	Mirror switch	Left	ON
MIN OON OW-LIT	MILLOL PARICIT	Other than above	OFF
//IR CHNG SW-R	Changeover switch	Right	ON
		Other than above	OFF
//IR CHNG SW-L	Changeover switch	Left	ON
OI II O OVV-L	Shangeover switch	Other than above	OFF
PEDAL SW-FR	Pedal adjusting switch	Forward	ON
	i caai aajasiing swittii	Other than above	OFF
PEDAL SW-RR	Pedal adjusting switch	Backward	ON
LDAL OWNIN	i coai adjusting switch	Other than above	OFF

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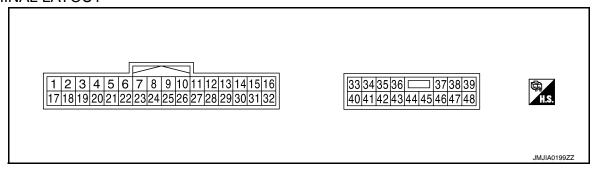
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#### < ECU DIAGNOSIS >

Monitor Item	Condit	Value/Status	
DETENT SW	A/T selector lever	P position	OFF
	A I Selector level	Other than above	ON
STARTER SW	Ignition position	Cranking	ON
STARTER SW	Igrillion position	Other than above	OFF
	Seat sliding	Forward	The numeral value decreases
SLIDE PULSE		Backward	The numeral value increases
		Other than above	No change to numeral value
		Forward	The numeral value decreases
RECLN PULSE	Seat reclining	Backward	The numeral value increases
		Other than above	No change to numeral value
	Seat lifter (front)	Up	The numeral value decreases
LIFT FR PULSE		Down	The numeral value increases
		Other than above	No change to numeral value
	Seat lifter (rear)	Up	The numeral value decreases
LIFT RR PULSE		Down	The numeral value increases
		Other than above	No change to numeral value
MID/OFN BILLIA	Door mirror (passenger side)	Close to peak	3.4
MIR/SEN RH U-D		Close to valley	0.6
MIR/SEN RH R-L	Door mirror (passenger side)	Close to left edge	3.4
WIR/SEN RH R-L		Close to right edge	0.6
MID/CEN III II D	Door mirror (driver side)	Close to peak	3.4
MIR/SEN LH U-D		Close to valley	0.6
MID/CEN III D I	Door without (d.f. accepts)	Close to left edge	0.6
MIR/SEN LH R-L	Door mirror (driver side)	Close to right edge	3.4
DEDAL CEN	De del mesition	Forward	0.5
PEDAL SEN	Pedal position	Backward	4.5

## **TERMINAL LAYOUT**



PHYSICAL VALUES

# < ECU DIAGNOSIS >

Terminal No.		\A/:	Description				Voltors (A)	
+	-	Wire color	Signal name	Input/ Output	Condition		Voltage (V) (Approx)	
1	Ground	W	UART LINE (RX)	Input	Ignition switch ON		(V) 6 4 2 0 1 ms	
3	_	L/B	CAN-H	_	_		_	
6	Ground	R	Ignition switch (START)	Input	Ignition switch	OFF START	0 Battery voltage	
9	Ground	R/B	Reclining sensor sig- nal	Input	Seat reclining	Operate	(V) 6 4 2 0 **50ms	
						Stop	0 or 5	
10	Ground	B/R	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	(V) 6 4 2 0 **50ms	
						Stop	0 or 5	
11	Ground	Y/R	Sliding switch back- ward signal	Input	Sliding switch	Operate (back- ward)	0	
						Release	Battery voltage	
12	Ground	L/W	Reclining switch back- ward signal	Input	Reclining switch	Operate (back- ward)	0	
						Release	Battery voltage	
13	3 Ground V Lifting switch (front)	Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0		
		Somm Signal			Release	Battery voltage		
14	Ground	P/L	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0	
			Ŭ,			Release	Battery voltage	
15	Ground	SB	Pedal switch backward signal	Input	Pedal switch	Operate (back- ward)	0	
						Release	Battery voltage	
16	Ground	R/W	Sensor power supply	Output			5	

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Terminal No.		Mino	Description				\/altaga (\/\)	
+	-	Wire color	Signal name	Input/ Output	Condition		Voltage (V) (Approx)	
17	Ground	Y/R	UART LINE (TX)	Output	Ignition switch ON		(V) 6 4 2 0 2 ms	
19	_	G	CAN-L		_		<del></del>	
21	Ground	L	A/T shift selector (park position switch (Intelligent Key system))	Input	A/T selector lever	P position  Except P position	0 Battery voltage	
24	Ground	R/L	Sliding sensor signal	Input	Seat sliding	Operate	(V) 6 4 2 0 50 ms	
						Stop	0 or 5	
25	Ground	Y/G	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	(V) 6 4 2 0 ***50ms	
						Stop	0 or 5	
26	Ground	L/R	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0	
						Release	Battery voltage	
27	Ground	V/W	Reclining switch for- ward signal	Input	Reclining switch	Operate (forward)	0	
						Release	Battery voltage	
28	Ground	BR/Y	Lifting switch (front) up signal	Input	Seat lifting switch (front)	Operate (up)	0	
			Ŭ		( The state of	Release	Battery voltage	
29	Ground	G/R	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0	
			J 5		(.50.)	Release	Battery voltage	
30	Ground	L/Y	Pedal switch forward signal	Input	Pedal switch	Operate (forward)	0	
						Release	Battery voltage	
31	Ground	GR/R	Sensor ground		_		0	
32	Ground	G/W	Ground (signal)	_			0	
33	Ground	W/B	Battery power source (C/B)	Input	_		Battery voltage	

# < ECU DIAGNOSIS >

	Term	ninal No.	Wire	Description		Condition		Voltage (V)	
	+	-	color	Signal name	Input/ Output			Voltage (V) (Approx)	
;	35	Ground	R/G	Sliding motor forward output signal	Output	Output Seat sliding		Battery voltage	
				output signal			Release	0	
;	36	Ground	L	Reclining motor for- ward output signal	Output	Output Seat reclining	Operate (forward)	Battery voltage	
				ward output signal			Release	0	
;	37	Ground	В	Lifting motor (front) down output signal	Output	out Seat lifting (front)	Operate (down)	Battery voltage	
				down output signal			Stop	0	
;	38	Ground	GR	Lifting motor (rear) up output signal	Output	utput Seat lifting (rear)	Operate (up)	Battery voltage	
				output signal			Stop	0	
;	39 Ground	Ground	l R	R Lifting motor (rear) down output signal	Output	Output Seat lifting (rear)	Operate (down)	Battery voltage	
				down output signal		Stop	0		
•	40	Ground	G	Power source (Fuse)	Input	_		Battery voltage	
	42	Ground	R/Y	Sliding motor back- ward output signal	Output	Seat sliding	Operate (back- ward)	Battery voltage	
							Stop	0	
	44 Groun	44	Ground	G/B	Reclining motor back- ward output signal	Output	tput Seat reclining	Operate (back- ward)	Battery voltage
							Stop	0	
	45	Ground	G/Y	Lifting motor (front) up output signal	Output	utput Seat lifting (front)	Operate (up)	Battery voltage	
				output signal			Stop	0	
	48	Ground	В	Ground (power)	_	_		0	

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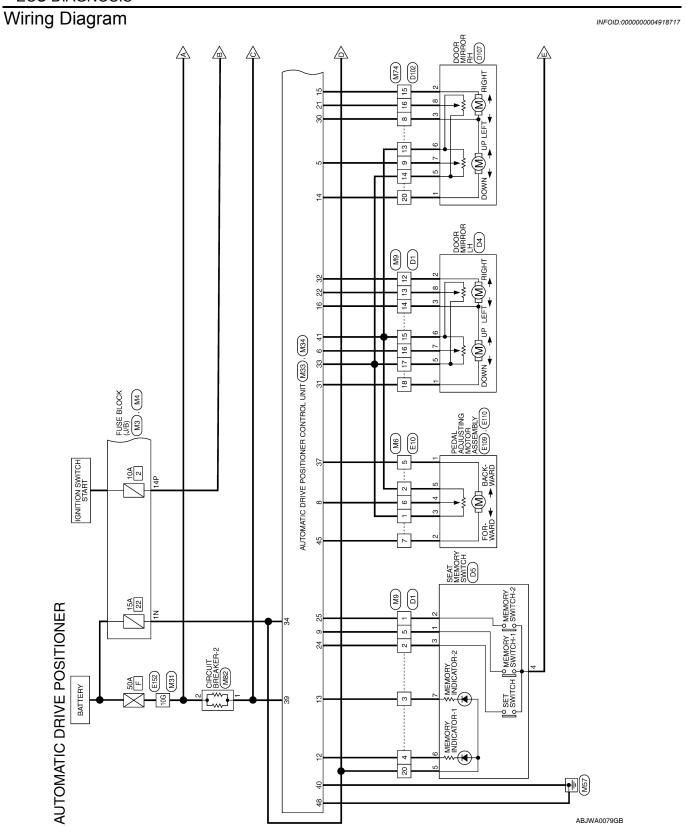
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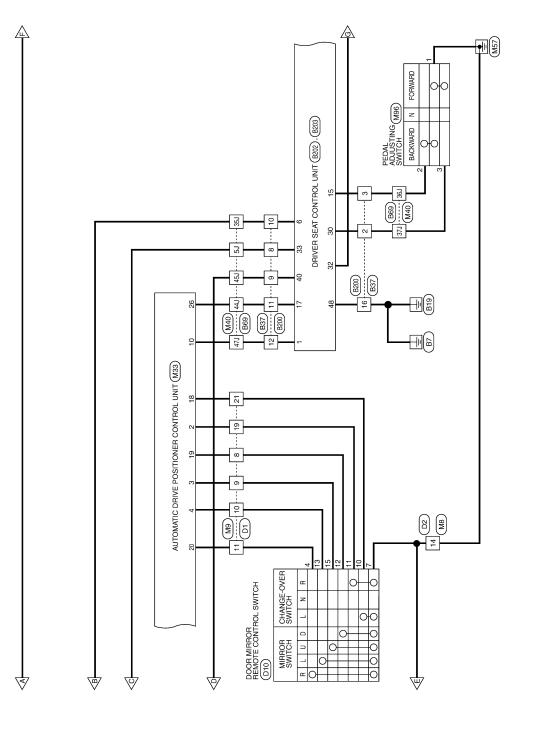
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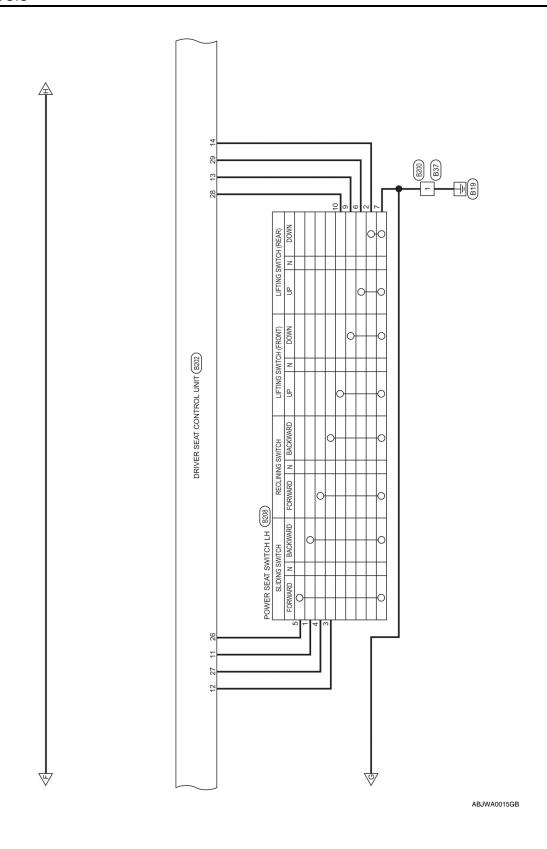
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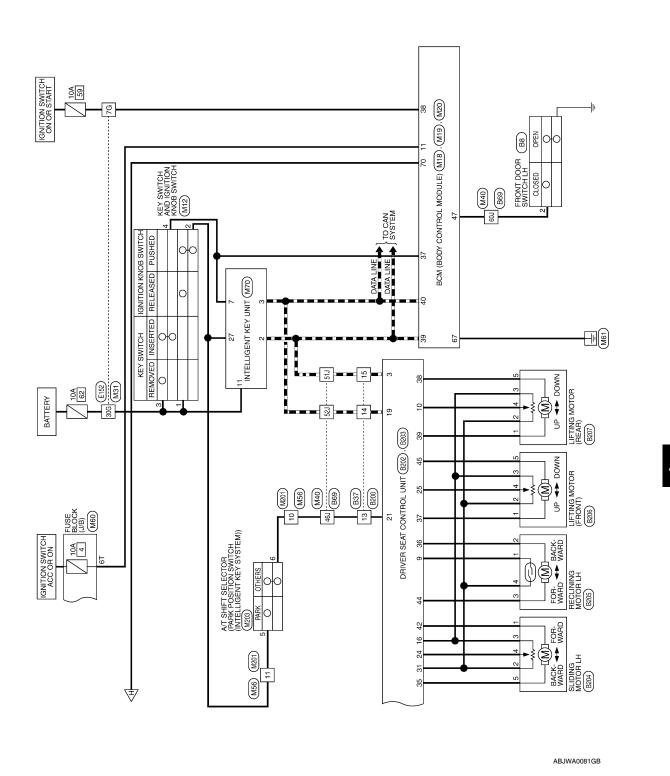
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Connector Name WIRE TO WIRE Connector Color WHITE

Connector No. M6

# AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	M3
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE

Connector No. M4
Connector Name FUSE BLOCK (J/B)

Connector Color WHITE

ector No.	M3
ector Name	ector Name FUSE BLOCK (J/B)
ector Color WHITE	WHITE
	3N



Signal Name	_	
Color of Wire	Y/R	
Terminal No.	N N	

Signal Name	1	ı	ı	1	1
Color of Wire	M/L	W/G	g	BR/Y	œ
Terminal No. Wire	-	2	5	9	7

<u></u>		
Signal Name	1	
Color of Wire	0	
Terminal No.	14P	

Terminal No.	Color of Wire	Signal Name
8	as	ı
6	Y/B	1
10	M/A	1
=	ВЭ	1
12	BB	ı
13	9	ı
14	0	1
15	9/M	-
16	$\lambda \Pi$	_
17	T/M	ı
18	В	1
19	97	1
20	H/Y	_
21	BR/W	ı

	WIRE TO WIRE	BROWN	7     6     5     4     3     2     1       20     19     18     17     16     15     14     13     12	Signal Name	ı	ı	ı	ı	-
. M9		_	10 9 8 23 22 21	Color of Wire	P/L	g/0	Y/G	۵	LG/B
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	-	2	က	4	5

	Connector Name WIRE TO WIRE	ITE	7 6 5 4 3 2 1 16 15 14 13 12 11 10 9 8	Signal Name	ı
. M8	ame WIF	olor WH	7 6 5 11 15 14	Color of Wire	В
Connector No.	Connector Na	Connector Color WHITE	语.S.	erminal No.	14

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BCM (BODY CONTROL MODULE) WHITE	53   54   55   58   56   56	Signal Name	DOOR SW (DR)			Signal Name	1	ı	ı				
	41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	Color of Wire	SB			Color of Wire	W/L	M/B	>				
Connector Name Connector Color	明.S.	Terminal No.	47			Terminal No.	7G	10G	30G				
<u>o 10</u>		39 40					•						
Connector Name BCM (BODY CONTROL MODULE)  Connector Color WHITE	11 12 13 14 15 16 17 18	33 34 35 36 37 38 nal Name	ACC SW	KEY SW	CAN-H	M31			56 46 36 26 16 106 96 86 76 66	21G 20G 19G 18G 17G 16G 15G 14G 13G 12G 11G 30G 29G 28G 27G 26G 25G 24G 23G 22G	41G 40G 39G 38G 37G 36G 35G 34G 33G 32G 31G 50G 49G 48G 47G 46G 45G 44G 43G 42G	61G 60C 59G 58C 57G 56G 55G 54G 53G 52G 51G 70C 69G 68G 67G 66G 65G 64G 63G 62G	756 746 736 726 716 806 796 776 776
ne BCM (B MODUL or WHITE	8 2 2 9 10	27 28 29 29 slor of Wire	0	B/B				<b>⊣</b> ∣	5 01	216 206 196 186	41G 40G 39G 38C 50G 49G 48C	31G 60G 59G 58C 70G 69G 68C	75 88
Connector Name Connector Color	H.S.	23 24 25 nal No.		37	36	Connector No.	Connector Color		H.S.				
										Г			
Connector Name   KEY SWITCH AND   IGNITION KNOB SWITCH   Connector Color   GRAY	3 4 5 6	Signal Name	1	1 1	1	of the control of the	MODULE)	CK	56   57   58   59   60   61   62   63   64         65   66   67   68   69   70		Signal Name	GND (POWEH) BAT (F/L)	
ame KEY SI IGNITION Slor GRAY	2 -	Color of Wire	>	R/B >	B/B	M20	MOD	olor BLACK	56 57 56	-	3>	M//B	
Connector Name Connector Color	H.S.	Terminal No.	-	2 0	9 4	Connector No.		Connector Color		_	S	79	

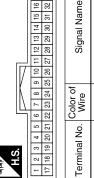
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Signal Name	HORIZONTAL_SENS	HORIZONTAL_SENS	1	SET_SW	MEMORY2_SW	RX	1	1	1	RH_MTR_(COM)	LH_MTR_(UP-DWN)	LH_MTR_(LT)
Color of Wire	N/	9	I	9/0	P/L	M	_	_	_	У	В	BR
Terminal No.	21	22	23	24	25	56	27	28	29	30	31	32

Signal Name	VERTICAL_SENS_LH	ı	PEDAL_POTENTION	PEDAL_POTENTION	XT	_	MEMORY1_IND	MEMORY2_IND	RH_MTR_(UP-DN)	RH_MTR (LT)	LH_MTR_(COM)	-	MIR_SELECT_SW_LH	MIR_MANU_SW_DN	MIR_MANU_SW_RH
Color of Wire	ΓΛ	ı	BR/Y	LG/B	٦	I	Ь	Y/G	GR/R	N/R	0	1	BR/W	SB	GR
Terminal No. Color of Wire	9	7	8	6	10	11	12	13	14	15	16	17	18	19	20

Signal Name	-	_	PEDAL RR OUT	-	I	GND(POWER)
Color of Wire	-	_	В	_	-	В
Terminal No.	43	44	45	46	47	48

Connector No.	M33
Connector Name	Connector Name AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Color WHITE	WHITE



Terminal No.	Color of Wire	Signal Name
1	_	-
2	ГG	MIR_SELECT_SW_RH
3	Y/B	MIR_MANU_SW_UP
4	M/A	MIR_MANU_SW_LH
5	R/B	VERTICAL_SENS_RH

M34	Connector Name   AUTOMATIC DRIVE   POSITIONER CONTROI	WHITE	
Connector No.	Connector Name	Connector Color WHITE	





Signal Name	MEMORY(POT_FEED	BAT_(FUSE)	_	ı	FORWARD	ı	BAT(PTC)	GND(SIG)	MEMORY(POT_RET	ı
Color of Wire	M/L	Y/R	_	1	ŋ	ı	L/B	B/W	W/G	1
Terminal No.	33	34	35	36	37	38	39	40	41	42

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				1			Φ	T								10 1		e e									В
70 WIRE		4 5 6 7					Signal Name		1					TO WIRE		9 8 7 6 5 4 3 2 20 19 18 17 16 15 14 13 12 11		Signal Name	ı	1	1	ı	1	ı	ı		С
Connector No. M56 Connector Name WIRE TO WIRE		1 2 3	8 9 10 11				Color of Wire	L/R	R/B				o. M74	Connector Name WIRE TO WIRE Connector Color BROWN	-	9 8 7 6 20 19 18 17		Color of Wire	>	B/B	M/G	M/L	N/R	M	GR/R		D
Connector No.			S				Terminal No.	10	=				Connector No.	Connector Name Connector Color		是 H.S.		Terminal No.	8	6	13	14	15	16	20		Е
																	19 20	39 40									F
lame														Y UNIT			16 17 18	35 36 37 38 39 40	Omely	למווס	Ŧ	그	INPUT	_	/ INPUT		G
Signal Name	1	1	_	1	1	I	I	I	I	1				Connector Name INTELLIGENT KEY UNIT Connector Color WHITE			11 12	29 30 31 32 33 34 35	omoly longing	מושורים ומושורים	CAN-H	CAN-L	KEY SW INPUT	BAT	PUSH SW INPUT		Н
Color of Wire	0	Μ.	В	Μ	Y/R	L/R	7	Г	Д	SB			o. M70	ame INTELL olor WHITE			6 7 8	26 27 28	Color of		_	ا ۵	B/B	>	R/B		I
Terminal No.	35.1	36J	37J	44)	45J	46J	47J	51J	52J	609			Connector No.	Connector Name Connector Color		品.	m	27 22 23 24 25	- ON locaions		2	က	2	11	27		ADI
		Г													7												K
				7. 6.	U 14J 13J 12J 11J		J 34J 33J 32J 31J	J 44J 43J 42J	1 541 531 521 51.1	J 64J 63J 62J	L17 L27 L77 L37 L77			(3/B)				:	Signal Name	1							L
M40 WIRE TO WIRE	<u>.</u>		2		213 203 199 189 173 169 153 154 133	30J 29J 28J 27J 26J 25J 24J 23J	41.1 40.1 39.1 38.1 37.1 36.1 35.1 34.1 33.1	50 49 48 47 46 45 44 43	58.1 57.1 56.1 55	70, 69, 68, 67, 66, 65, 64, 63	75J 74J 73J 72J 71J 80J 78J 77J 76J		0	FUSE BLOCK (WHITE		2T											M
					21 20 19	307 597	41.1 40.1 39.1	500 490	61.1 60.1 59.	70, 69			or No. M60			27		Color of	>	0							Ν
Connector No. Connector Color		E	E S										Connector No.	Connector Name Connector Color		是 H.S.			l erminal No.	19							0
												I											Δ	ABJIA	.02550	3B	Р

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11	RE TO WIRE	IE	1 3 2 1	16 15 14 13 12 11 10 9 8	Signal Name	ı	1
. M201	me WIF	lor WH	7 6 5 4	16 15 14 1	Color of Wire	L/R	R/B
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE		H.S.	Terminal No. Wire	10	11
	IUSTING				gnal Name	1	ı

			1			
61	Connector Name PEDAL ADJUSTING MOTOR ASSEMBLY	AY		Signal Name	ı	1
. E109	me PEI ASS	lor GR.		Color of Wire	5	œ
Connector No.	Connector Na	Connector Color GRAY	麻 H.S.	Terminal No. Wire	1	2

9	PEDAL ADJUSTING SWITCH	BROWN	0 0	Signal Name	-	I	ı
. M96		_	[10] 4]	Color of Wire	В	∖	æ
Connector No.	Connector Name	Connector Color	原 H.S.	Terminal No.	ļ	2	3

	_	_							
	WIRE TO WIRE	ІТЕ		Signal Name	I	I	I	_	_
. E10	_	or WH	6 2	Color of Wire	M/L	M/G	G	BR/Y	В
Connector No.	Connector Name	Connector Color WHITE	同 H.S.	Terminal No.	٦	2	5	9	

21	CIRCUIT BREAKER-2	ІТЕ		Signal Name	I	ı
. M82		lor WHITE		Color of Wire	L/B	W/B
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	-	2

Connector No.	). M203	3
Connector Name	ame (WI'	A/T SHIFT SELECTOR (WITH INTELLIGENT KEY SYSTEM)
Connector Color WHITE	olor   WH	ITE
同 H.S.	6 7 8	8 9 10 11 12
Terminal No.	Color of Wire	Signal Name
5	B/B	ı
9	WП	1

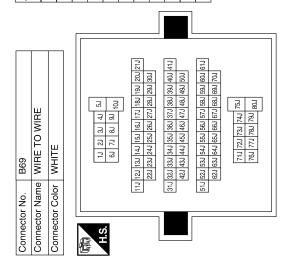
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																												А
Signal Name	1	I	1											Signal Name	I	ı	1	1	1	ı	1	1	1	ı	ı	1		С
Color of Wire	M	M/B	>											Color of	) B	æ	5	L/B	Y/R	0	W		L/R	Ь	_	B/W	-	D
Terminal No.	76	10G	30G											Terminal No.	-	2	က	80	6	10	11	12	13	14	15	16		Е
																												F
					_ [	19G 20G 21G	396 406 416	49G 50G	59G 60G 61G	69G 70G	(5)	(5)																G
E152 WIRE TO WIRE	<u>.</u> Н			1G 2G 3G 4G 5G 6G 7G 8G 9G 10G		11G   12G   13G   14G   15G   16G   17G   18G   19G   21G     22G   22	246 356 356 386	426 436 446 456 466 476 486 496 506	34G 55G 56G 57G 58G	62G 63G 64G 65G 66G 67G 68G 69G 70G	716 726 736 746 756	66 776 786 796 800			TO WIRE	ш		3 2 1	16 15 14 13 12 11 10 9 8									Н
9						11G 12G 13G	316 306 336	426 436	51G 52G 53G 5	62G 63G	[2]			No. B37		Color WHITE		7 6 5 4	16 15 14 10									1
Connector No.	Connector Color		僵	H.S.										Connector No.	Connector	Connector Color		E		į.								AD
			1			_			I															7				K
SNITS	SEMBLY						Signal Name	1	ı	1					R SWITCH LH							Signal Name	1					L
10 II.GA IAD.II	MOTOR ASSEMBLY	GRAY		3 4 5											FRONT DOOR SWITC	III.	[	> -	2	m								M
Connector No. E110		Connector Color GF	F	<u> </u>	[	-	Terminal No. Wire	3 W/L	4 BR/Y	5 W/G					-	Connector Color   WH		ď	5		10 10 10 10 10 10 10 10 10 10 10 10 10 1	Terminal No. Wire	2 SB					N
Conr	<u>.</u> )	Conr		H.S.			Term							Conn	Conn	Con	1					Term						0
													'														ABJIA0257GB	P

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00	WIRE TO WIRE	IITE	11 12 13 14 15 16 7	Signal Name	1	ı	ı	ı	1	1	ı	ı	ı	ı	ı	ı
. B200	-	lor WHITE	1 2 3 8 9 10	Color of Wire	G/W	≥	SB	M/B	g	æ	Y/R	≯	_	G	L/B	В
Connector No.	Connector Name	Connector Color	·····································	Terminal No.	-	2	က	80	6	10	Ξ	12	13	14	15	16

	_				_						
Signal Name	_	1	ı	ı	1	ı	_	=	_	-	I
Color of Wire	I/B	0	₹	æ	Μ	Y/R	L/R	٦	Т	Ь	SB
erminal No.	5.1	35J	36J	37.1	44)	45J	46J	47J	51J	52J	601



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### **DRIVER SEAT CONTROL UNIT**

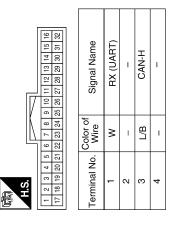
Signal Name	CAN-L	ı	P RANGE SW	-	_	PULSE (SLIDE)	PULSE (FRONT LIFTER)	SLIDE SW (FORWARD)	RECLINER SW (FORWARD)	FRONT LIFTER SW (UPWARD)	REAR LIFTER SW (UPWARD)	PEDAL SW( FORWARD)	GND (SENSOR GND)	GND (SIGNAL)
Color of Wire	G	I	٦	-	_	R/L	Y/G	L/R	N/N	BR/Y	G/R	$\sim$	GR/R	G/W
Terminal No.	19	20	21	22	23	24	25	26	27	28	59	30	31	32

Terminal No.	Color of Wire	Signal Name
45	У/9	FRONT LIFTER MOTOR (UPWARD)
46	1	1
47	-	1
48	В	GND (POWER)

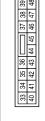
Signal Name	ı	START SW	ı	I	PULSE (RECLINER)	PULSE (REAR LIFTER)	SLIDE SW (BACKWARD)	RECLINER SW (BACKWARD)	FRONT LIFTER SW (DOWNWARD)	REAR LIFTER SW (DOWNWARD)	PEDAL SW (BACKWARD)	POWER SUPPLY (ENCODER)	TX (UART)	_
Color of Wire	1	œ	ı	I	B/B	B/R	Y/R	N/I	>	P/L	SB	R/W	Y/R	ı
erminal No.	5	9	7	8	6	10	11	12	13	14	15	16	17	18

Signal Name	BAT (PTC)	ı	SLIDE MOTOR (FORWARD)	RECLINER MOTOR (FORWARD)	FRONT LIFTER MOTOF (DOWNWARD)	REAR LIFTER MOTOR (UPWARD)	REAR LIFTER MOTOR (DOWNWARD)	BAT (FUSE)	_	SLIDE MOTOR (BACKWARD)	-	RECLINER MOTOR (BACKWARD)
Color of Wire	W/B	-	R/G	Г	В	GR	Ж	В	_	R/Y	_	G/B
Terminal No.	33	34	35	36	37	38	39	40	41	42	43	44

Connector No.	B202
Connector Name	Connector Name   DRIVER SEAT CONTROL   UNIT
Connector Color WHITE	WHITE



B203	Connector Name   DRIVER SEAT CONTROL UNIT	WHITE	
Connector No.	Connector Name	Connector Color WHITE	





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	(FRONT) TIC DRIVE	
B206	Connector Name (WITH AUTOMATIC DRIVE POSITIONER)	GRAY
Connector No.	Connector Name	Connector Color GRAY
	H RIVE	

	Signal Name	_	ı	_	
	Color of Wire	В	GR/R	B/W	1
1	ninal No. Color of Wire	1	2	3	

GR

Signal Name	ı	ı	I	ı	I	I	I	ı	I	1
	Y/R	P/L	M	W/N	L/R	G/R	B/W	1	^	BR/Y
Terminal No.	-	2	က	4	2	9	7	8	6	10

Connector No.	B205
Connector Name	Connector Name (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color WHITE	WHITE



Signal Namo	-	ı	1	_
Color of Wire	R/B	_	G/B	GR/R
Terminal No.	-	2	က	4

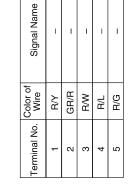
-	I		8	POWER SEAT SWIT (WITH AUTOMATIC POSITIONER)	III.
G/B	GR/R		B208	PO\ IWI POS	×
9	5		٥.		Į.
3	4		nnector No.	nnector Name	nnector Color   WHITE

-5~			=	_
K O H			-	9
R SEAT AUTOM IONER)			2	9
POWER SEAT (WITH AUTOM POSITIONER)			П	7
OWE WITH SOSIT	WHITE		Ш	8
ÓξÖ	J		3	6
	_		4	10
Ψ			_	
-	0			
<u>~</u>	ᅙ			
r Name	Color			
_	ı	l		
-	-			



B204	SLIDING MOTOR LH Connector Name (WITH AUTOMATIC DRIVE POSITIONER)	звау	
Connector No.	Connector Name	Connector Color GRAY	





B207	Connector Name (WITH AUTOMATIC DRIVE POSITIONER)	GRAY	
Connector No.	Connector Name	Connector Color   GRAY	





Signal Name	-	-	-	1	-
Color of Wire	В	GR/R	B/W	Y/G	G/Y
Terminal No.	1	2	3	4	5

ABJIA0260GB

### **DRIVER SEAT CONTROL UNIT**

onnector No.		L CONTRACTOR	Te	Terminal No.	Color of Wire	Signal Name	Connector No.	D2	
onnector Name		WIRE TO WIRE		6	Y/B	ı	Connector Name WIRE TO WIRE	WIRE 10 WIRE	
	_			10	W/N	1			
	0 3	7 8 0 10 11		=	GR	1		2 2	
12 12	13 14 15	16 17 18 19 20 21 22		12	BB	ı	8	10 11 12 13 14	
2				13	ŋ	I			
	to rolo	u.		14	0	1			
erminal No.	Wire	Signal Name		15	M/G	1			
-	P/L	ı		16	S	1	Terminal No. Wire	re Signal Name	
2	0/9	1		17	M/L	ı	14	- В	
3	Y/G	1		18	æ	1			
4	۵	1		19	P.	1			
5	LG/B	1		20	Y/R	1			
8	SB	ı		21	BR/W	ı			
onnector No.	o. D4		<u> </u> 8	Connector No.	D5		Connector No.	D10	
		H I BUBBUR I H	3   2	el notoera	SEAT	Connector Name SEAT MEMOBY SWITCH	Connector Name	DOOR MIRROR BEMOTE	
onnector Name		(WITH AUTOMATIC DRIVE POSITIONER)	3  8	Connector Color	or WHITE		Connector Color	CONTROL SWITCH	
onnector Color		WHITE		Æ					
H.S.	10 11 12	4 5 6 7 8 9	Í	H.S.	3 2	2 7 4 1	H.S.	3 4 5 6 7	
erminal No.	Color of Wire	f Signal Name	Te	Terminal No.	Color of Wire	Signal Name	Color of Terminal No. Wire	r of Signal Name	
-	<u> </u>			-	LG/B	SET 1	4	GR –	
2	BR	ı		2	P/L	SET 2	7	В –	
3	0	1		3	0/9	SET SW	10 BR	BR/W –	
5	M/L	ı		4	В	GND		1	
9	M/G	ı		2	Y/R	I	12 S	SB -	

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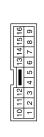
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W/G B/B

ω

M/L

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Signal Name	ı	1	ı	I	-	_	1
Color of Wire	<b>\</b>	B/B	M/G	M/L	N/R	MΠ	GR/R
Terminal No.	8	6	13	14	15	16	20

Connector No.	9.		5	D102								
Connector Name WIRE TO WIRE	lam	Ф	⋝	<u></u>	<u> </u>	0	⋚	Ш				
Connector Color BROWN	Solo	_	盟	õ	Š	_						
Á		[		$\  \ $		۲	ή	$\  \ $	li	ll		_
	-	N	က	2 3 4 5	ū	H		6 7	7	8	6	
Į	10 11 12 13 14 15 16 17 18 19 20	11	12	13	14	15	16	17	18	19	20	

Fail Safe INFOID:0000000004918718

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The fail-safe mode may be activated if the following symptoms are observed.

### FAIL-SAFE MODE

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

### **DRIVER SEAT CONTROL UNIT**

### < ECU DIAGNOSIS >

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

### NOTE:

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

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

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

### CANCEL OF FAIL-SAFE MODE

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

DTC Index

CONSULT-III	Tim	ing <sup>*1</sup>		
display	Current mal- function	Previous mal- function	Item	Reference page
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-29
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-30
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-31
SEAT LIFTER FRONT [B2114]	0	1-39	Seat lifting motor front output	ADP-34
SEAT LIFTER REAR [B2115]	0	1-39	Seat lifting motor rear output	ADP-34
ADJ PEDAL MOTOR [B2117]	0	1-39	Pedal adjusting motor output	ADP-34
ADJ PEDAL SENSOR [B2120]	0	1-39	Pedal adjusting sensor input	ADP-34
DETENT SW [B2126]	0	1-39	Park position switch condition	ADP-38
UART COMM [B2128]	0	1-39	UART communication	ADP-40

<sup>\*1:</sup> 

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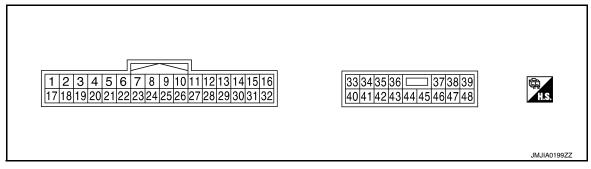
<sup>• 0:</sup> Current malfunction is present

<sup>• 1-39:</sup> Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset to 1 if any malfunction is detected again, the normal operation is resumed and the ignition switch is turned from OFF to ON.

### AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

### **TERMINAL LAYOUT**



### PHYSICAL VALUES

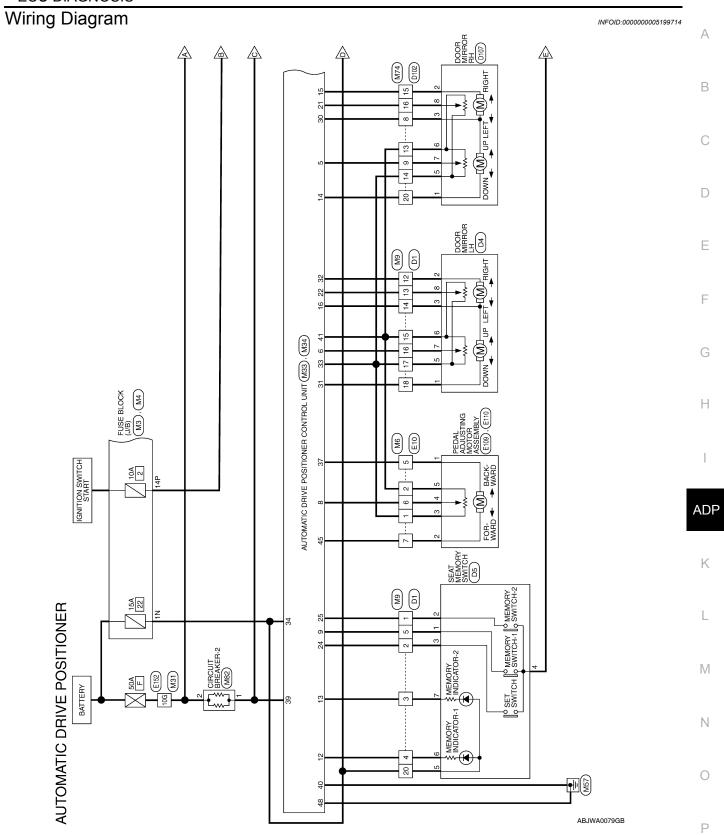
Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
			Changeover switch RH		Changeover	RH	0
2	Ground	LG	signal	Input	switch position	Neutral or LH	5
3	Ground	Y/B	Mirror switch up signal	Input	Mirror switch	Operated (up)	0
3	Ground	1/6	Militor switch up signal	прис	WIIITOI SWITCH	Other than above	5
4	Ground	V/W	Mirror switch left signal	Input	Mirror switch	Operated (left)	0
4	Ground	V/VV	Will of Switch left Signal	прис	WIIITOI SWITCH	Other than above	5
5	Ground	R/B	Door mirror sensor (RH)	Input	Door mirror RH	Peak	3.4
5	Ground	R/D	up/down signal	IIIput	position	Valley	0.6
6	Ground	L/Y	Door mirror sensor (LH)	Input	Door mirror LH	Peak	3.4
O	Ground	L/ I	up/down signal	iiiput	position	Valley	0.6
8	Ground	BR/Y	Pedal sensor input sig-	Input	Pedal sensor	Forward	0.5
O	Ground	DIVI	nal	iiiput	i edal selisoi	Backward	4.5
						Push	0
9	Ground	LG/B	Memory switch 1 signal	Input	Memory switch 1	Other than above	5
10	Ground	L	UART LINE (TX)	Out- put	Ignition switch ON	I	(V) 6 4 2 0 1 ms
12	Ground	Р	Memory indicator 1 sig- nal	Out- put	Memory indictor	Illuminate Other than above	0 Battery voltage

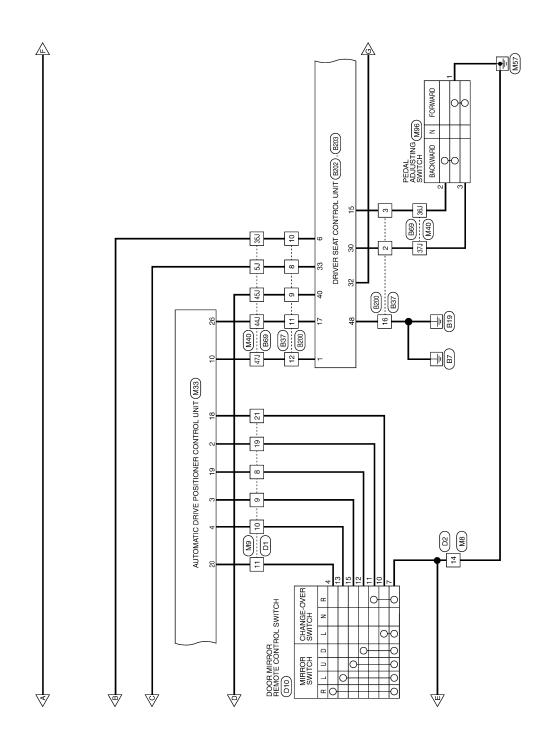
### < ECU DIAGNOSIS >

Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
			Momony indicates 0 six	O: :4	Momentinalists	Illuminate	0
13	Ground	Y/G	Memory indicator 2 sig- nal	Out- put	Memory indictor 2	Other than above	Battery voltage
14	Ground	GR/R	Door mirror motor (RH)	Out-	Door mirror RH	Operate (up)	1.5 - Battery voltage
14	Ground	Orare	up output signal	put	Boot millor Kit	Other than above	0
15	Ground	V/R	Door mirror motor (RH)	Out-	Door mirror RH	Operate (left)	1.5 - Battery voltage
.0	Ciduita	VIIX	left output signal	put	2001 Hillion IVI	Other than above	0
			Door mirror motor (LH)			Operate (down)	1.5 - Battery voltage
16	Ground	0	down output signal	Out-	Door mirror (LH)	Other than above	0
10	C. Guriu	J	Door mirror motor (LH)	put	200. Hillor (E11)	Operate (right)	1.5 - Battery voltage
			right output signal			Other than above	0
			Changeover switch LH	_	Changeover	LH	0
18	Ground	BR/W	signal	Input	switch position	Neutral or RH	5
19	Ground	SB	Mirror switch down sig-	Input	Mirror switch	Operate (down)	0
10	Oround	00	nal	прис	Will Of SWILOT	Other than above	5
20	Ground	GR	Mirror switch right signal	Input	Mirror switch	Operate (right)	0
20	Ciduita	JI.	roi ownori rigint oighai	прис	or ownor	Other than above	5
21	Ground	L/W	Door mirror sensor (RH)	Input	Door mirror RH	Left edge	3.4
- '	C. Garia		left/right signal	put	position	Right edge	0.6
22	Ground	G	Door mirror sensor (LH)	Input	Door mirror LH	Left edge	0.6
			left/right signal	•	position	Right edge	3.4
24	Ground	G/O	Set switch signal	Input	Set switch	Push	0
<b>4</b> 4	Giound	GIU	OGI SWIIGH SIGHAL	прис	GEL SWILCH	Other than above	5
25	Ground	P/L	Memory switch 2 signal	Input	Memory switch 2	Push	0
20	Giound	r/L	Memory Switch 2 Signal	iriput	Memory Switch 2	Other than above	5
26	Ground	W	UART LINE (RX)	Input	Ignition switch ON	I	(V) 6 4 2 0 2 ms

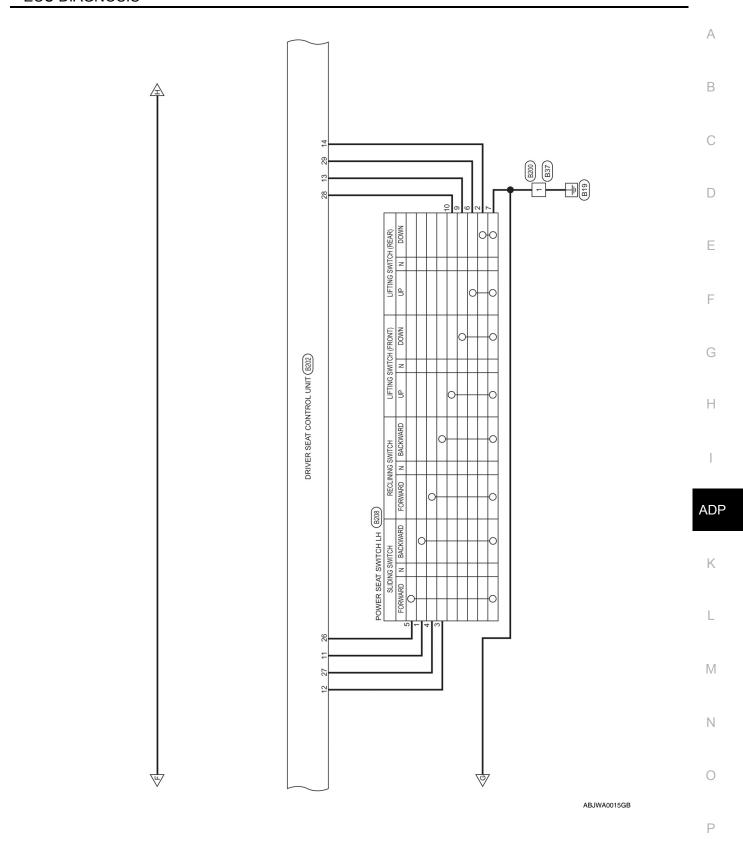
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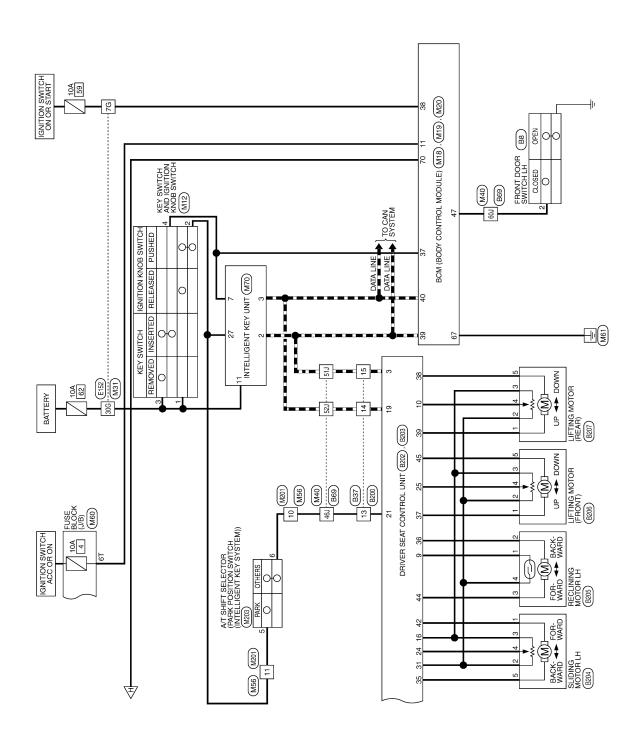
	'INI		D d. e				
Terr	minal No.		Description	T			
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
			Door mirror motor (RH)			Operate (down)	1.5 - Battery voltage
30	Ground	Y	down output signal	Out-	Door mirror (RH)	Other than above	0
30	Ground	ı	Door mirror motor (RH)	put	Door Hillfor (KH)	Operate (right)	1.5 - Battery voltage
			right output signal			Other than above	0
31	Ground	R	Door mirror motor (LH)	Out-	Door mirror (LH)	Operate (up)	1.5 - Battery voltage
31	Ground	IX	up output signal	put	Door Hillror (Err)	Other than above	0
32	Ground	BR	Door mirror motor (LH)	Out-	Door mirror (LH)	Operate (left)	1.5 - Battery voltage
32	Ground	DIX	left output signal	put	Door Hillion (Err)	Other than above	0
33	Ground	W/L	Sensor power supply	Input	_		5
34	Ground	Y/R	Battery power source	Input	_		Battery voltage
37	Ground	G	Pedal adjusting motor	Out-	Pedal adjusting	Operate (forward)	Battery voltage
37	Ground	G	forward output signal	put	motor	Other than above	0
39	Ground	L/B	Battery power source		_		Battery voltage
40	Ground	B/W	Ground	_	_		0
41	Ground	W/G	Sensor ground	_	_		0
45	Ground	R	Pedal adjusting motor backward output signal	Out-	Pedal adjusting motor	Operate (back- ward)	Battery voltage
			backwaiu output signal	μαι	motor	Other than above	0
48	Ground	В	Ground	_	_		0





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### < ECU DIAGNOSIS >

Connector Name WIRE TO WIRE Connector Color WHITE

Connector No.

# AUTOMATIC DRIVE POSITIONER CONNECTORS

M4	onnector Name FUSE BLOCK (J/B)	WHITE
Connector No.	Connector Name	Connector Color WHITE
M3	onnector Name FUSE BLOCK (J/B)	connector Color WHITE
ю.	lame	Color

	K (J/B)		
M3	FUSE BLOC	WHITE	
Connector No.	Connector Name FUSE BLOCK (J/B)	Connector Color WHITE	





Signal Name	I	
Color of Wire	Y/R	
Ferminal No.	N.	

Signal Name	I	I	I	ı	I
Color of Wire	M/L	W/G	В	BR/Y	ш
Terminal No. Wire	-	2	2	9	7

Signal					
Color of Wire	M/L	M/G	ŋ	BR/Y	Я
Terminal No.	1	2	5	9	7

Signal Name	I	
Color of Wire	0	
Terminal No.	14P	

	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Signal Name	I	1	ı	I	ı	1	ı	ı	I	ı	1	1	I	ı
Color of Wire	SB	Y/B	W/N	GR	BR	B	0	W/G	₹	M/L	Я	ГG	Y/R	BR/W
Terminal No.	8	6	10	Ξ	12	13	14	15	16	17	18	19	20	21

Connector No.	o. M9	
Connector Name		WIRE TO WIRE
Connector Color		BROWN
H.S.	10 9 8 23 22 21	7 6 5 4 3 2 1 20 19 18 17 16 15 14 13 12
Terminal No.	Color of Wire	Signal Name
-	P/L	ı
2	9/0	ı
င	Y/G	ı
4	Ь	ı
5	LG/B	_

WIRE TO WIRE
WHITE
7 6 5 4 3 2 1 16 15 14 13 12 11 10 9 8
Signal Name
ı

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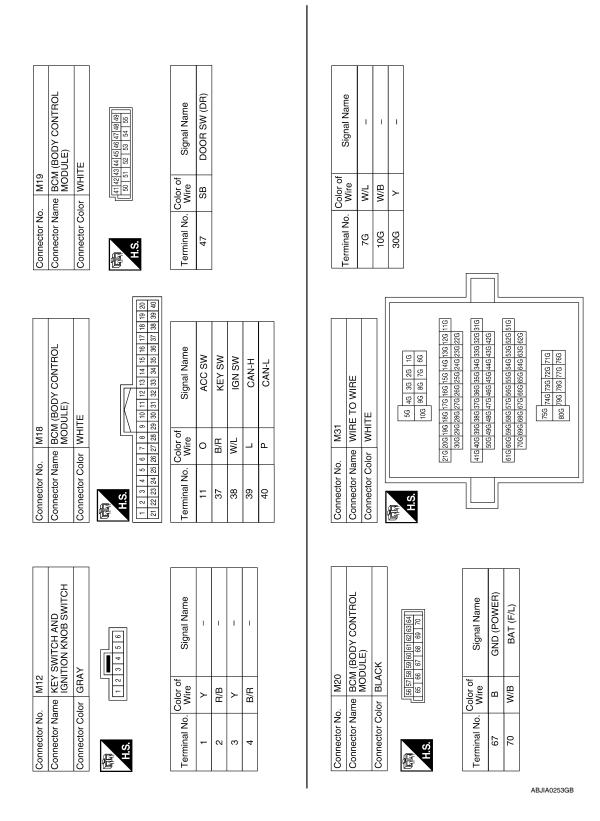
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### < ECU DIAGNOSIS >

Signal Name	HORIZONTAL_SENS	HORIZONTAL_SENS	ı	SET_SW	MEMORY2_SW	RX	ı	-	1	RH_MTR_(COM)	LH_MTR_(UP-DWN)	LH_MTR_(LT)
	HORIZ	HORIZ		0)	MEN					RH_I	LH_M	
Color of Wire	MΠ	9	ı	0/9	٦/d	Μ	_	-	-	Ь	œ	НB
Terminal No.	21	22	23	24	25	56	27	28	29	30	31	32

	-														
Signal Name	VERTICAL_SENS_LH	ı	PEDAL_POTENTION	PEDAL_POTENTION	XT	-	MEMORY1_IND	MEMORY2_IND	RH_MTR_(UP-DN)	RH_MTR (LT)	LH_MTR_(COM)	ı	MIR_SELECT_SW_LH	MIR_MANU_SW_DN	MIR_MANU_SW_RH
Color of Wire	L/Y	1	BR/Y	LG/B	Τ	-	Ь	Y/G	GR/R	V/R	0	_	BR/W	SB	GR
Terminal No. Color of Wire	9	7	8	6	10	11	12	13	14	15	16	17	18	19	20

_
Connector Name   AUTOMATIC DRIVE   POSITIONER CONTROL UNIT
Connector Color WHITE
4 5 6 7 8 20 21 22 23 24
Color of Wire
1
LG
Y/B
W/N
R/B

Signal Name	1	-	PEDAL RR OUT	1	I	GND(POWER)
Color of Wire	-	_	В	_	-	В
Terminal No.	43	44	45	46	47	48
	Terminal No. Wire Signal Name					

onnector No.	M34
onnector Name	onnector Name AUTOMATIC DRIVE POSITIONER CONTROL UNIT
onnector Color WHITE	WHITE

Connector No Connector Na Connector Co	H.S.
----------------------------------------------	------

	of Signal Name	L   MEMORY(POT_FEED)	RAT_(FUSE)	ı	1	FORWARD	ı	3 BAT(PTC)	V GND(SIG)	3   MEMORY(POT_RET)	1
	Color of Wire	M/L	Y/R	ı	1	ß	ı	L/B	B/W	W/G	1
П.Э.	Terminal No.	33	34	35	36	37	38	39	40	41	42

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Connector No. M56 Connector Name WIRF TO WIRE	Connector Color WHITE		[1 2 3	8 9 10 11 12 13 14			-	Terminal No.   Signal Name   Signal Name					-	Connector Color   BROWN	原本 H.S.		Terminal No. Wire Signal Name	\ \ 8	9 R/B –	13 W/G –	14 W/L –	15 V/R –	16 L/W –	20 GR/R –
Terminal No. Wire Signal Name	5J L/B –	351 0 -	- \/\ \/\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	37J R –	- M M	45J Y/R –	46J L/R –	47J L –	51J L –	52J P –	- RB		Connector No. M70 Connector Name INTELLIGENT KEY UNIT	Connector Color   WHITE	是 H.S.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	[21] 22 [23] 24 [25] 26 [27] 28 [29] 30 [31] 32 [33] 34 [35] 36 [37] 38 [39] 40]	Terminal No Color of Signal Name	wire	، ر	٦ (	B/H KEY (	> <u>(</u>	2/ K/B PUSH SW INPUT
Connector No. M40 Connector Name WIRE TO WIRE	WHITE	_		50 40 30 20 10	10 91 81 7.1 6.1	11 100   100   101   124   134   131   101   100   100   100					10   10   10   10   10   10   10   10	75J 77J 77J 77J 77J 77J 76J 80J 75J 77J 77J 76J	Connector No. M60 Connector Name FUSE BLOCK (J/B)	Connector Color   WHITE	(T)		Color of	al No. Wire Signal	- O 19					02556

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### < ECU DIAGNOSIS >

				А
		TOR		В
M201 Ime WIRE TO WIRE  NOT WHITE  7 6 5 4	Signal Name	Connector No. E109 Connector Name PEDAL ADJUSTING MOTOR ASSEMBLY Connector Color GRAY	Signal Name	С
M201 Ime WIRE T Ilor WHITE 7 6 5 4   C	Color of Wire L/R R/B	E109 PEDAL ASSEM GRAY	Color of Wire G G G	D
Connector No. M201  Connector Name WIRE TO WIRE  Connector Color WHITE  T 6 5 4	Terminal No. Col	Connector No. Connector Name Connector Color	Terminal No. Col	E
				F
Q	am e		9 E	G
M96 PEDAL ADJUSTING SWITCH BROWN	Signal Name	E10 WIRE TO WIRE WHITE	Signal Name	Н
	Color of Wire B B B L/Y		Wire W/L W/G W/G BR/Y BR/Y	
Connector No. Connector Color	Terminal No.	Connector No. Connector Color H.S.	Terminal No.	AD
				K
EAKER-2	Signal Name - -	M203   Art Shift Selector (With Intelligent Key System)   WHITE   1 2 3	Signal Name	L
CUIT BR	) 	HIFT SE HIFT SE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE HINTE	Sign	M
M82	No. Color of Wire L/B W/B	No. M203 Name (WITH II Color WHITE	Color of Wire R/B L/R	N
Connector No. Connector Name Connector Color	Terminal No.	Connector No. Connector Name Connector Color H.S.	Terminal No.	0
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Signal Name	1	ı	1								Signal Name	1	1	1	1	1	ı	1	ı	1	ı	1	ı
Color of Wire	<b>M</b>	M/B	>								Color of Wire	В	œ	5	L/B	Y/R	0	>	_	R/J	۵	_	B/W
Terminal No.	76	10G	30G					]			Terminal No.	-	0	ო	∞	თ	10	-	12	13	14	15	16
Connector No. E152 Connector Name WIRE TO WIRE		_		1.6 26 36 46 56 66 76 86 96 10G	116 126 136 146 156 166 176 186 196 206 216	22G   23G   24G   25G   25G   27G   28G   29G   30G	31G 32G 33G 33G 33G 33G 33G 33G 33G 43G 41G 42G 43G 44G 45G 46G 47G 48G 49G 50G	510 526 536 546 556 566 576 586 596 600 616	62G 63G 64G 65G 66G 67G 68G 69G 70G	716   726   736   746   756   757   756   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759   759	Connector No. B37	Competer Color WINE IO WINE			7 6 5 4 - 3 2 1	16 15 14 13 12 11 10	G. L.						
Connector Name PEDAL AD:ILISTING	MOTOR ASSEMBLY	Connector Color GRAY		H.S.		Terminal No. Wire Signal Name	1	4 BR/Y –	5 W/G –		Connector No. B8 Connector Name FBONT DOOR SWITCH I H				ď		8	30,000	Terminal No.   Wire   Signal Name	2 SB -			

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### < ECU DIAGNOSIS >

0	WIRE TO WIRE	TE	4     5     6     7       11     12     13     14     15     16	Signal Name	ı	I	I	I	ı	1	_	-	1	1	I	1
. B200	-	lor WHITE	1 2 3 8 8 9 10	Color of Wire	G/W	≤	SB	M/B	g	æ	Y/R	Μ	_	တ	LB	В
Connector No.	Connector Name	Connector Color	是 H.S.	Terminal No.	-	2	က	80	6	10	#	12	13	14	15	16

Signal Name	1	1	ı	ı	1	1	1	_	ı	1	1
Color of Wire	L/B	0	ζ	œ	M	Y/R	L/R	٦	٦	Ь	SB
Terminal No.	5.1	35J	36J	37.1	447	45J	46J	47J	51J	52J	607

		, [		
WIRE TO WIRE	WHITE		1.0   22   33   4.0   50   100   110   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   121   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120	5.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (25.0 (2
Connector Name	Connector Color		H.S.	716

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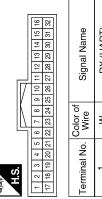
					_	_	_					-	_	
Signal Name	CAN-L	_	P RANGE SW	-	1	PULSE (SLIDE)	PULSE (FRONT LIFTER)	SLIDE SW (FORWARD)	RECLINER SW (FORWARD)	FRONT LIFTER SW (UPWARD)	REAR LIFTER SW (UPWARD)	PEDAL SW( FORWARD)	GND (SENSOR GND)	GND (SIGNAL)
Color of Wire	5	I	٦	ı	I	R/L	Y/G	L/R	M/N	BR/Y	G/R	₹	GR/R	G/W
Terminal No.	19	20	21	22	23	24	25	56	22	28	59	30	31	32

Terminal No.	Color of Wire	Signal Name
45	G/Y	FRONT LIFTER MOTOR (UPWARD)
46	_	1
47	_	1
48	В	GND (POWER)

	Т						<u> </u>							
Signal Name	1	START SW	ı	ı	PULSE (RECLINER)	PULSE (REAR LIFTER)	SLIDE SW (BACKWARD	RECLINER SW (BACKWARD)	FRONT LIFTER SW (DOWNWARD)	REAR LIFTER SW (DOWNWARD)	PEDAL SW (BACKWARD)	POWER SUPPLY (ENCODER)	TX (UART)	ı
Color of Wire	1	В	1	1	R/B	B/R	Y/R	L/W	>	P/L	SB	B/W	Y/R	1
Ferminal No.	5	9	7	8	6	10	11	12	13	14	15	16	17	18

Ferminal No.	Color of Wire	Signal Name
33	M/B	BAT (PTC)
34	ı	1
35	R/G	SLIDE MOTOR (FORWARD)
36		RECLINER MOTOR (FORWARD)
37	В	FRONT LIFTER MOTOR (DOWNWARD)
38	GR	REAR LIFTER MOTOR (UPWARD)
39	В	REAR LIFTER MOTOR (DOWNWARD)
40	Э	BAT (FUSE)
41	ı	ı
42	R/Y	SLIDE MOTOR (BACKWARD)
43	1	-
44	G/B	RECLINER MOTOR (BACKWARD)

Connector No.	B202
Connector Name	Connector Name DRIVER SEAT CONTROL UNIT
Connector Color WHITE	WHITE



Signal Name	RX (UART)	I	CAN-H	_
Color of Wire	8	I	L/B	-
Terminal No. Wire	-	2	3	4

B203	ector Name DRIVER SEAT CONTRO	WHITE	
ector No.	ector Name	ector Color WHITE	

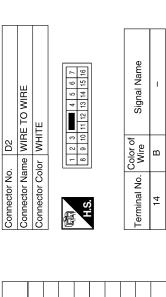


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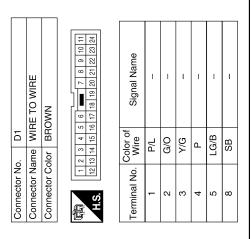
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É	DRIVE		0						Ф																	В
CTOM	CIT TING MOTON (TRONT) (WITH AUTOMATIC DRIVE POSITIONER) GRAY	2	Signal Name	1	ı	1	1	ı	Signal Name	ı	1	ı	ı	I	-	1	1	ı	1							С
		1 2 8	Color of Wire	Œ	GR/R	B/W	В	GR	Color of Wire	Y/R	P/L	L/W	W/N	L/R	G/R	B/W	1	>	BR/Y							D
Connector No.	Connector Name	H.S.	Terminal No.	-	2	က	4	5	Terminal No.	-	2	က	4	2	9	7	8	6	10							Е
0	0  0		<u> </u>	<u> </u>	I					1		1	1						1	J						F
	C DRIVE		me						-	CDRIVE																G
CAN	MECLINING MOTOR LA (WITH AUTOMATIC DRIVE POSITIONER) WHITE	4	Signal Name	ı	ı	1	1		+ V	WITH AUTOMATIC DRIVE	TIONER)	u		7 6 5												Н
		~	Color of Wire	R/B		G/B	GR/R				-	II IL AA		10 9 8	1											I
Connector No.	Connector Name	F.S.	Terminal No.	-	2	က	4		Connector No.	Connector Name			<b>E</b>		Ġ.H.											AD
				1								7											1			K
	SCIDING MOLON LINE (WITH AUTOMATIC DRIVE POSITIONER) GRAY	[B]	Signal Name	ı	ı	ı	-	1	MOTOR (REAR)	(WITH AUTOMATIC DRIVE	ZET)		ſ	2		4	Signal Name	1	-	1	Ι	ı				L
B204		1 4 6 8	Color of Wire	R/Υ	GR/R	B/W	R/L	B/G	B207		-	_		1 2 3 4		Color of	Vire	В	GR/R	R/W	Y/G	G/Y				M
Connector No.	Connector Name		Terminal No. V	1	2 G		4 F	5 F	Connector No.	Connector Name	Connector Color			(G	1		erminai No.   W	_	2 GI	3 R	4 Y	5				N
Conn	Conr	原 H.S.	Term						Conn	Conn	C		E	HS		F	l erm					Α	ABJIA02	260GB		0
																										Р

Revision: April 2009 ADP-139 2010 Armada



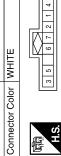
Signal Name	ı	ı	1	ı	ı	ı	1	ı	ı	1	1	1	ı
Color of Wire	Y/B	W/W	GR	BR	G	0	W/G	$\Gamma$	M/L	В	ГС	Y/R	BR/W
Terminal No.	6	10	=	12	13	14	15	16	17	18	19	20	21



Connector No.	D10
Connector Name	Connector Name DOOR MIRROR REMOT CONTROL SWITCH
Connector Color BROWN	BROWN

DO	Connector Name   DOOR MIRROR REMOT    CONTROL SWITCH	BROWN		3 4 5 5 6 7	2 ±	Signal Name	Ι	Ī	-	-	_	_	
			_	2 0	D	Color of Wire	GR	В	BR/W	ГG	SB	M/A	
Connector Name Connector Color  H.S.  Terminal No. Color  7  7  10  BI 11  11  12  4	Connector Na	Connector Co			H.S.		4	7	10	11	12	13	

Connector No.	D5
Connector Name	Connector Name   SEAT MEMORY SWITC
Connector Color WHITE	WHITE
H.S.	5 6 7 2 1 4



Signal Name	SET 1	SET 2	SET SW	GND	I	IND1	IND2
Color of Wire	LG/B	P/L	G/O	В	Y/R	Ь	Y/G
Terminal No.	-	2	က	4	2	9	7

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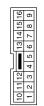
	3 14 15 16
世	1112 1314
WHITE	1112
Connector Color	H.S.

DOOR MIRROR LH (WITH AUTOMATIC DRIVE POSITIONER)

Connector Name

4

Connector No.



Signal Name	1	ſ	_	ı	1	I	ı
Color of Wire	В	BR	0	M/L	M/G	$\Gamma \lambda$	В
rminal No.	1	2	3	5	9	7	8

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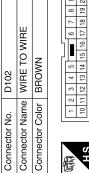
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**ADP-141** Revision: April 2009



DOOR MIRROR RH (WITH AUTOMATIC DRIVE POSITIONER)

D107

Connector No.

WHITE

Connector Color Connector Name

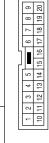
Signal Name

Color of Wire GR/R

Terminal No.

//R

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Signal Name	ı	ı	ı	ı	I	I	ı
Color of Wire	>	B/B	M/G	M/L	N/R	MΠ	GR/R
Terminal No.	8	6	13	14	15	16	20

W/G M/L

R/B

8

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# **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS >

# **BCM (BODY CONTROL MODULE)**

Reference Value

### VALUES ON THE DIAGNOSIS TOOL

AIR COND SW	Monitor Item	Condition	Value/Status
AC switch ON	AIR COND SW	A/C switch OFF	OFF
AUT LIGHT SYS         Outside of the room is bright         ON           AUTO LIGHT SW         Lighting switch OFF         OFF           Lighting switch OFF         OFF           Lighting switch OFF         ON           BACK DOOR SW         Back door closed         OFF           Back door opened         ON           CARGO LAMP SW         Cargo lamp switch OFF         OFF           CDL LOCK SW         Door lock/unlock switch does not operate         OFF           CDL UNLOCK SW         Press door lock/unlock switch to the LOCK side         ON           DOOR SW-AS         Front door SW does not operate         OFF           Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AB         Front door SW does not operate         OFF           Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AB         Front door SW does not operate         OFF           Pront door PR dosed         OFF           Front door LH closed         OFF           Pront door LH closed         OFF           Rear door RH closed         OFF <t< td=""><td>AIN COND SW</td><td>A/C switch ON</td><td>ON</td></t<>	AIN COND SW	A/C switch ON	ON
Outside of the room is bright	ALIT LICHT SVS	Outside of the room is dark	OFF
AUTO LIGHT SW	AUI LIGHT STS	Outside of the room is bright	ON
Lighting switch AUTO	ALITO LICHT SW	Lighting switch OFF	OFF
BACK DOOR SW         Back door opened         ON           CARGO LAMP SW         Cargo lamp switch OFF         OFF           CDL LOCK SW         Door lock/unlock switch does not operate         OFF           CDL UNLOCK SW         Press door lock/unlock switch to the LOCK side         ON           CDL UNLOCK SW         Door lock/unlock switch does not operate         OFF           Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           Front door RH opened         ON           DOOR SW-DR         Front door LH closed         OFF           Front door LH opened         ON           DOOR SW-RL         Rear door LH closed         OFF           Rear door LH opened         ON         ON           BOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON         ON           Engine stopped         OFF         OFF           Rear door RH opened         ON         ON           Engine stopped         OFF         OFF           Front of glamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front soglamp switch OFF         OFF           Front wiper switc	AUTO LIGHT SW	Lighting switch AUTO	ON
Back door opened         ON           CARGO LAMP SW         Cargo lamp switch OFF         OFF           CDL LOCK SW         Door lock/unlock switch does not operate         OFF           Press door lock/unlock switch to the LOCK side         ON           CDL UNLOCK SW         Door lock/unlock switch does not operate         OFF           Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           Front door RH opened         ON           DOOR SW-DR         Front door LH closed         OFF           Front door LH closed         OFF           Rear door LH opened         ON           DOOR SW-RL         Rear door LH closed         OFF           Rear door LH opened         ON           DOOR SW-RR         Rear door RH opened         ON           ENGINE RUN         Engine stopped         OFF           Engine stopped         OFF           Engine stopped         OFF           Engine running         ON           Front fog lamp switch OFF         OFF           Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper switch OFF         OFF           Front w	BACK DOOD SW	Back door closed	OFF
CARGO LAMP SW         Cargo lamp switch ON         ON           CDL LOCK SW         Door lock/unlock switch does not operate         OFF           Press door lock/unlock switch to the LOCK side         ON           CDL UNLOCK SW         Door lock/unlock switch does not operate         OFF           Press door lock/unlock switch does not operate         OFF           ON         OFF           Press door lock/unlock switch does not operate         OFF           ON         OFF           Pront door RH closed         OFF           Prent door RH closed         OFF           Rear door RH closed         OFF           Rear door LH closed         OFF           Rear door RH closed         OFF <tr< td=""><td>BACK DOOR SW</td><td>Back door opened</td><td>ON</td></tr<>	BACK DOOR SW	Back door opened	ON
Cargo lamp switch ON         ON           CDL LOCK SW         Door lock/unlock switch does not operate         OFF           Press door lock/unlock switch to the LOCK side         ON           CDL UNLOCK SW         Door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           Front door LH closed         OFF           Front door LH closed         OFF           DOOR SW-DR         Front door LH closed         OFF           BOOR SW-RL         Rear door LH opened         ON           Rear door LH opened         ON         ON           BOOR SW-RR         Rear door RH closed         OFF           Rear door RH closed         OFF         OFF           Rear door RH opened         ON         ON           Engline stopped         OFF         OFF           Front glamp switch OFF         OFF         OFF           Front fog lamp switch OFF         OFF         OFF           Front washer switch OFF         OFF         OFF           Front washer switch OFF         OFF         OFF           Front wiper switch OFF         OFF         OFF           Front wiper switch OFF         OFF         OFF           Front wiper s	CARCO LAMB CW	Cargo lamp switch OFF	OFF
CDL LOCK SW         Press door lock/unlock switch to the LOCK side         ON           CDL UNLOCK SW         Door lock/unlock switch does not operate         OFF           Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           DOOR SW-DR         Front door LH closed         OFF           Front door LH closed         OFF           DOOR SW-RR         Rear door LH closed         OFF           Rear door LH closed         OFF           Rear door RH closed         OFF           Bengine stopped         OFF           Engine stopped         OFF           Engine running         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper switch OFF         OFF <td>CARGO LAIMP SW</td> <td>Cargo lamp switch ON</td> <td>ON</td>	CARGO LAIMP SW	Cargo lamp switch ON	ON
CDL UNLOCK SW         Press door lock/unlock switch does not operate         OFF           DOOR SW-AS         Front door RH closed         OFF           DOOR SW-AS         Front door RH opened         ON           DOOR SW-DR         Front door LH closed         OFF           DOOR SW-DR         Rear door LH opened         ON           DOOR SW-RL         Rear door LH opened         ON           DOOR SW-RR         Rear door LH opened         ON           BOOR SW-RR         Rear door RH opened         ON           ENGINE RUN         Engine stopped         OFF           Engine stopped         OFF           Engine running         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front wiper switch OFF         OFF	ODL LOOK OW	Door lock/unlock switch does not operate	OFF
CDL UNLOCK SW         Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           Front door RH opened         ON         OFF           DOOR SW-DR         Front door LH closed         OFF           DOOR SW-RL         Rear door LH closed         OFF           Rear door LH opened         ON         ON           DOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON         ON           ENGINE RUN         Engine stopped         OFF           Engine stopped         OFF         OFF           Front fog lamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper	CDL LOCK SW	Press door lock/unlock switch to the LOCK side	ON
Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           Front door RH opened         ON         ON           DOOR SW-DR         Front door LH closed         OFF           BOOR SW-RL         Rear door LH closed         OFF           Rear door LH opened         ON         ON           BOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON         ON           ENGINE RUN         Engine stopped         OFF           Engine stopped         OFF         OFF           Front fog lamp switch OFF         OFF           Front fog lamp switch ON         ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front washer switch OFF         OFF         OFF           Front wiper switch OFF         OFF         OFF           Front wipe		Door lock/unlock switch does not operate	OFF
DOOR SW-AS         Front door RH opened         ON           DOOR SW-DR         Front door LH closed         OFF           Front door LH opened         ON         OFF           DOOR SW-RL         Rear door LH closed         OFF           Rear door RH closed         OFF         ON           Rear door RH opened         ON         ON           ENGINE RUN         Engine stopped         OFF           Engine running         ON         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch ON         ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front washer switch OFF         OFF         OFF           Front wiper switch OFF         OFF         OFF	CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	ON
Front door RH opened	DOOD OW 40	Front door RH closed	OFF
DOOR SW-DR         Front door LH opened         ON           DOOR SW-RL         Rear door LH closed         OFF           Rear door LH opened         ON           DOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON           ENGINE RUN         Engine stopped         OFF           Engine running         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front washer switch ON         ON           FR WIPER LOW         Front wiper switch OFF         OFF           Front wiper switch HI         ON           FR WIPER INT         Front wiper switch OFF         OFF           Front wiper switch INT         ON           Any position other than front wiper stop position         OFF           Front wiper stop position         ON           When hazard switch is not pressed         OFF	DOOR SW-AS	Front door RH opened	ON
Front door LH opened		Front door LH closed	OFF
DOOR SW-RL         Rear door LH opened         ON           DOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON           ENGINE RUN         Engine stopped         OFF           Engine running         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front washer switch ON         ON           FR WIPER LOW         Front wiper switch OFF         OFF           Front wiper switch INT         ON           Any position other than front wiper stop position         OFF           Front wiper stop position         ON           When hazard switch is not pressed         OFF	DOOR SW-DR	Front door LH opened	ON
Rear door LH opened	DOOR SW-RL	Rear door LH closed	OFF
DOOR SW-RR         Rear door RH opened         ON           ENGINE RUN         Engine stopped         OFF           Engine running         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front wiper switch ON         ON         ON           FR WIPER LOW         Front wiper switch OFF         OFF           Front wiper switch OFF         OFF         OFF           Front wiper switch OFF         OFF         OFF           FR WIPER INT         Front wiper switch INT         ON           FR WIPER STOP         Any position other than front wiper stop position         OFF           HAZARD SW         When hazard switch is not pressed         OFF		Rear door LH opened	ON
Rear door RH opened	DOOR SW-RR	Rear door RH closed	OFF
Engine running  Front fog lamp switch OFF  Front fog lamp switch ON  FR WASHER SW  Front washer switch OFF  Front washer switch ON  FR WIPER LOW  Front wiper switch OFF  Front wiper switch LO  Front wiper switch OFF  Front wiper switch INT  ON  Any position other than front wiper stop position  Front wiper stop position  When hazard switch is not pressed  OFF		Rear door RH opened	ON
Engine running	ENCINE DUN	Engine stopped	OFF
FR FOG SW         Front fog lamp switch ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front washer switch ON         ON           FR WIPER LOW         Front wiper switch OFF         OFF           Front wiper switch LO         ON         ON           FR WIPER HI         Front wiper switch OFF         OFF           Front wiper switch OFF         OFF         OFF           Front wiper switch OFF         OFF         OFF           Front wiper switch INT         ON         ON           FR WIPER STOP         Any position other than front wiper stop position         OFF           HAZARD SW         When hazard switch is not pressed         OFF	ENGINE RUN	Engine running	ON
Front fog lamp switch ON	ED EOC CW	Front fog lamp switch OFF	OFF
FR WASHER SW Front washer switch ON  FR WIPER LOW Front wiper switch OFF Front wiper switch LO  FR WIPER HI Front wiper switch OFF Front wiper switch HI ON  FR WIPER INT Front wiper switch OFF Front wiper switch OFF Front wiper switch INT ON  Any position other than front wiper stop position FR WIPER STOP HAZARD SW When hazard switch is not pressed  OFF  OFF OFF OFF OFF OFF OFF ON  ON  O	FR FOG SW	Front fog lamp switch ON	ON
Front washer switch ON  FR WIPER LOW  Front wiper switch OFF Front wiper switch LO  ON  Front wiper switch OFF Front wiper switch OFF Front wiper switch HI  ON  FR WIPER INT Front wiper switch OFF Front wiper switch OFF Front wiper switch OFF Front wiper switch INT ON  Any position other than front wiper stop position  FR WIPER STOP  Any position  When hazard switch is not pressed  OFF  OFF  OFF  OFF  OFF  OFF  OFF  O	ED MACHED OM	Front washer switch OFF	OFF
FR WIPER LOW Front wiper switch LO ON FR WIPER HI Front wiper switch OFF Front wiper switch HI ON FR WIPER INT Front wiper switch OFF Front wiper switch INT ON Any position other than front wiper stop position FR WIPER STOP HAZARD SW Front wiper switch is not pressed OFF OFF OFF OFF OFF OFF OFF OFF OFF OF	FR WASHER SW	Front washer switch ON	ON
Front wiper switch LO  Front wiper switch OFF  Front wiper switch HI  ON  FR WIPER INT  Front wiper switch OFF  Front wiper switch OFF  Front wiper switch INT  ON  Any position other than front wiper stop position  FR WIPER STOP  Any position other than front wiper stop position  HAZARD SW  Front wiper switch is not pressed  OFF	ED WIDED LOW	Front wiper switch OFF	OFF
FR WIPER INT Front wiper switch HI ON FR WIPER INT Front wiper switch OFF Front wiper switch INT ON Any position other than front wiper stop position FR WIPER STOP Front wiper stop position ON When hazard switch is not pressed OFF	FR WIPER LOW	Front wiper switch LO	ON
Front wiper switch HI  FR WIPER INT  Front wiper switch OFF  Front wiper switch INT  ON  Any position other than front wiper stop position  FR WIPER STOP  Any position other than front wiper stop position  OFF  Front wiper stop position  ON  When hazard switch is not pressed  OFF	ED WIDED III	Front wiper switch OFF	OFF
FR WIPER INT Front wiper switch INT ON  Any position other than front wiper stop position Front wiper stop position ON  HAZARD SW When hazard switch is not pressed OFF	FR WIPER HI	Front wiper switch HI	ON
Front wiper switch INT ON  Any position other than front wiper stop position OFF  Front wiper stop position ON  When hazard switch is not pressed OFF	ED WIDED INT	Front wiper switch OFF	OFF
FR WIPER STOP Front wiper stop position ON When hazard switch is not pressed OFF	FR WIFER INI	Front wiper switch INT	ON
Front wiper stop position ON  When hazard switch is not pressed OFF  HAZARD SW	ED WIDED STOP	Any position other than front wiper stop position	OFF
HAZARD SW	FK WIPEK STUP	Front wiper stop position	ON
When hazard switch is pressed ON	HAZADD CW/	When hazard switch is not pressed	OFF
	HAZARD SW	When hazard switch is pressed	ON

# **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status	
_IGHT SW 1ST	Lighting switch OFF	OFF	-
IGHT SW 1ST	Lighting switch 1st	ON	
HEAD LAMP SW1	Headlamp switch OFF	OFF	
	Headlamp switch 1st	ON	
HEAD LAMP SW2	Headlamp switch OFF	OFF	
	Headlamp switch 1st	ON	(
II DE AM CM	High beam switch OFF	OFF	
HI BEAM SW	High beam switch HI	ON	
CNI ONI CVA	Ignition switch OFF or ACC	OFF	
GN ON SW	Ignition switch ON	ON	
ON OW OAN	Ignition switch OFF or ACC	OFF	
GN SW CAN	Ignition switch ON	ON	
NT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7	
1	LOCK button of Intelligent Key is not pressed	OFF	
-KEY LOCK <sup>1</sup>	LOCK button of Intelligent Key is pressed	ON	
4	UNLOCK button of Intelligent Key is not pressed	OFF	
-KEY UNLOCK <sup>1</sup>	UNLOCK button of Intelligent Key is pressed	ON	
KEY CYL LK-SW	Door key cylinder LOCK position	ON	<del></del>
	Door key cylinder other than LOCK position	OF	
	Door key cylinder UNLOCK position	ON	
EY CYL UN-SW	Door key cylinder other than UNLOCK position	ON	
KEY ON SW	Mechanical key is removed from key cylinder	OFF	
	Mechanical key is inserted to key cylinder	ON	
	LOCK button of key fob is not pressed	OFF	A
EYLESS LOCK <sup>2</sup>	LOCK button of key fob is pressed	ON	
	UNLOCK button of key fob is not pressed	OFF	
EYLESS UNLOCK <sup>2</sup>	UNLOCK button of key fob is pressed	ON	
DIL PRESS SW	Ignition switch OFF or ACC     Engine running	OFF	
	Ignition switch ON	ON	
	Bright outside of the vehicle	Close to 5V	
PTICAL SENSOR	Dark outside of the vehicle	Close to 0V	
	Other than lighting switch PASS	OFF	
ASSING SW	Lighting switch PASS	ON	
	Return to ignition switch to LOCK position	OFF	
PUSH SW <sup>1</sup>	Press ignition switch	ON	
REAR DEF SW	Rear window defogger switch OFF	OFF	
	Rear window defogger switch ON	ON	
	LOCK/UNLOCK buttons of key fob not pressed at same time	OFF	
RKE LCK-UNLCK	LOCK/UNLOCK buttons of key fob pressed at same time	ON	
	UNLOCK button of key fob is not pressed	OFF	
RKE KEEP UNLK	UNLOCK button of key fob is pressed	ON	
	Rear washer switch OFF	OFF	
RR WASHER SW	Toda Washer Switch Of I	O. 1	

**ADP-143** Revision: April 2009 2010 Armada

# **BCM (BODY CONTROL MODULE)**

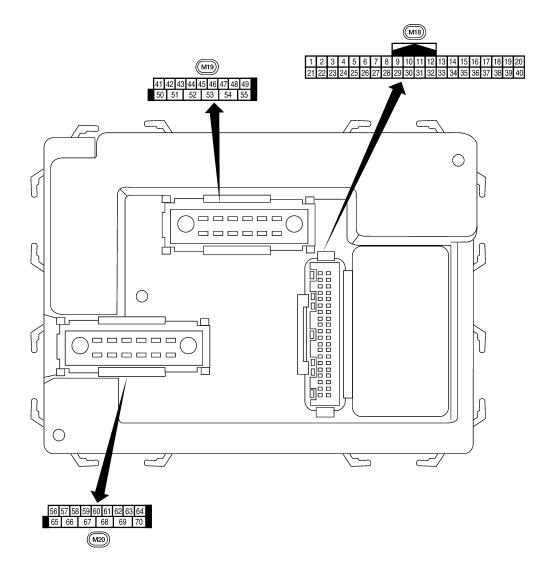
### < ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
RR WIPER INT	Rear wiper switch OFF	OFF
KK WIFEK IIVI	Rear wiper switch INT	ON
RR WIPER ON	Rear wiper switch OFF	OFF
RR WIFER ON	Rear wiper switch ON	ON
RR WIPER STOP	Rear wiper stop position	OFF
KK WIFEK STOP	Other than rear wiper stop position	ON
RR WIPER STP2	Rear wiper stop position	OFF
	Other than rear wiper stop position	ON
TONK ODNO SW	When back door opener switch is not pressed	OFF
TRNK OPNR SW	When back door opener switch is pressed	ON
TURN SIGNAL L	Turn signal switch OFF	OFF
	Turn signal switch LH	ON
TURN SIGNAL R	Turn signal switch OFF	OFF
TURN SIGNAL R	Turn signal switch RH	ON
VEHICLE SPEED	While driving	Equivalent to speedometer reading

<sup>1:</sup> With Intelligent Key

<sup>2:</sup> With remote keyless entry system

Terminal Layout



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Physical Values

			Signal		Measuring condition	
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
1	BR/W	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage
'	DIV/VV	nation	Output	Oli	Door is unlocked (SW ON)	0V
2	SB	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5291E
3	G/Y	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0
4	Y	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ***5ms SKIAS291E
5	G/B	Combination switch input 2				
6	V	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 → • 5ms SKIA5292E
		Daniel defende			Rear window defogger switch ON	0V
9	GR/R	Rear window defogger switch	Input	ON	Rear window defogger switch OFF	5V
10	G	Hazard lamp flash	Input	OFF	ON (opening or closing)  OFF (other than above)	0V Battery voltage
11	0	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
12	R/L	Front door switch RH	Input	OFF	ON (open) OFF (closed)	0V Battery voltage
13	GR	Rear door switch RH	Input	OFF	ON (open) OFF (closed)	0V Battery voltage
15	L/W	Tire pressure warning check connector	Input	OFF	<del>-</del>	5V
18	Р	Remote keyless entry receiver and optical sensor (ground)	Output	OFF	_	0V

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			Signal		Measuring condition	
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
19	V/W	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 +
20	G/W	Remote keyless entry	Input	OFF	Stand-by (keyfob buttons released)	(V) 6 4 2 0 *********************************
20	3,11	receiver (signal)	mput	OI I	When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 1 0 + 50 ms
21	G	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, the return to battery voltage.
22	W/V	BUS	_	_	Ignition switch ON or power window timer operates	(V) 15 10 5 0 200 ms
23	G/O	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, the return to battery voltage.
					Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	0V
26	Y/L	Rear wiper auto stop switch 2	Input	ON	Forward sweep (counterclock- wise direction)	Fluctuating
					B Position (full counterclock- wise stop position)	Battery voltage
					Reverse sweep (clockwise direction)	Fluctuating
27	W/R	Compressor ON sig-	Input	ON	A/C switch OFF	5V
	2.7.1	nal	pat	0.1	A/C switch ON	0V

# < ECU DIAGNOSIS >

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
28	L/R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
20	Liik	Tronc blower monitor	mpat	O.V	Front blower motor ON	0V
29	W/B	Hazard switch	Input	OFF	ON	0V
	•••	Tidzara ewiteri	mpat	0	OFF	5V
32	R/G	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 *** 5ms
33	R/Y	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 * 5ms SKIA5292E
34	L	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5291E
35	O/B	Combination switch output 2				(V)
36	R/W	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	6 4 2 0 → +5ms SKIA5292E
37 <sup>1</sup>	B/R	Key switch and igni-	Input	OFF	Intelligent Key inserted	Battery voltage
57	2,,,	tion knob switch	pat	J. 1	Intelligent Key inserted	0V
37 <sup>2</sup>	B/R	Key switch and key lock solenoid	Input	OFF	Key inserted	Battery voltage
	14/4			011	Key inserted	0V
38	W/L	Ignition switch (ON)	Input	ON	_	Battery voltage
39	L	CAN I	_	_	_	_
40	Р	CAN-L	_		Class hatch once	0
42	GR	Glass hatch ajar switch	Input	ON	Glass hatch open Glass hatch closed	Battery
		Back door switch			ON (open)	0V
43	R/B	(without power back door) or back door latch (door ajar switch) (with power back door)	Input	OFF	OFF (closed)	Battery voltage

# < ECU DIAGNOSIS >

	\//iro		Signal		Measuring condition	Deference value or waveform
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
					Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	Battery voltage
44	0	Rear wiper auto stop switch 1	Input	ON	Forward sweep (counterclockwise direction)	Fluctuating
					B Position (full counterclockwise stop position)	0V
					Reverse sweep (clockwise direction)	Fluctuating
47	SB	Front door switch LH	Input	OFF	ON (open)	0V
	<u> </u>	TOTAL GOOD SWILLITED	IIIput		OFF (closed)	Battery voltage
48	R/Y	Rear door switch LH	Input	OFF	ON (open)	0V
-10	1 1 1	. todi dooi switch En	iiiput	O1 1	OFF (closed)	Battery voltage
49	R	Cargo lamp	Output	OFF	Any door open (ON)	0V
		- 390	- Carpar		All doors closed (OFF)	Battery voltage
51	G/Y	Trailer turn signal (right)	Output	ON	Turn right ON	(V) 15 10 5 0 500 ms
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON	(V) 15 10 5 0 500 ms
					Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	0V
54	Υ	Rear wiper output cir- cuit 2	Input	ON	Forward sweep (counterclockwise direction)	0V
					B Position (full counterclockwise stop position)	Battery voltage
					Reverse sweep (clockwise direction)	Battery voltage
55	SB	Rear wiper output cir-	Output	ON	OFF	0
• •		cuit 1	- 46,222		ON	Battery voltage
56	R/G	Battery saver output	Output	OFF	30 minutes after ignition switch is turned OFF	0V
				ON	_	Battery voltage
57	Y/R	Battery power supply	Input	OFF	_	Battery voltage

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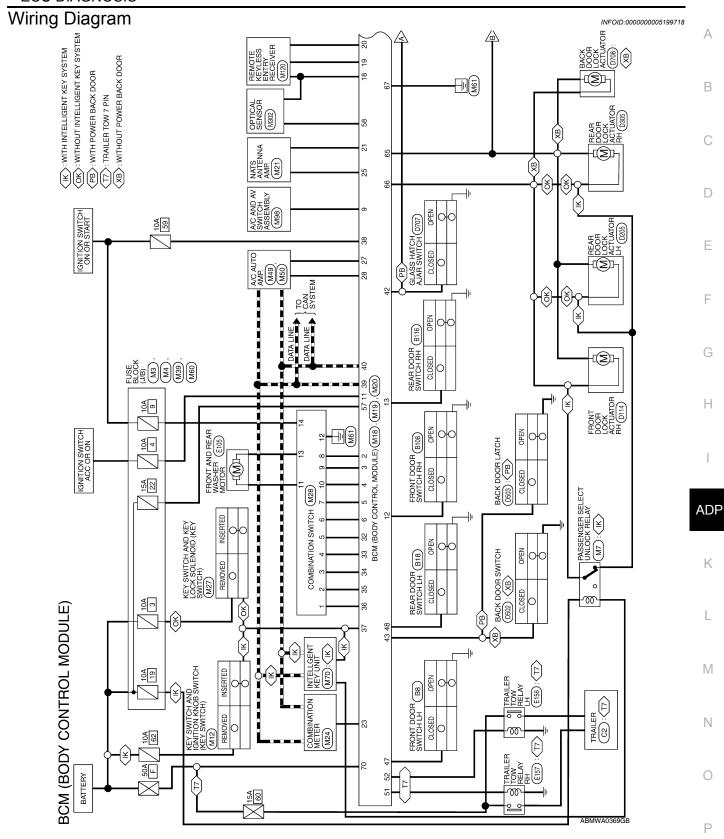
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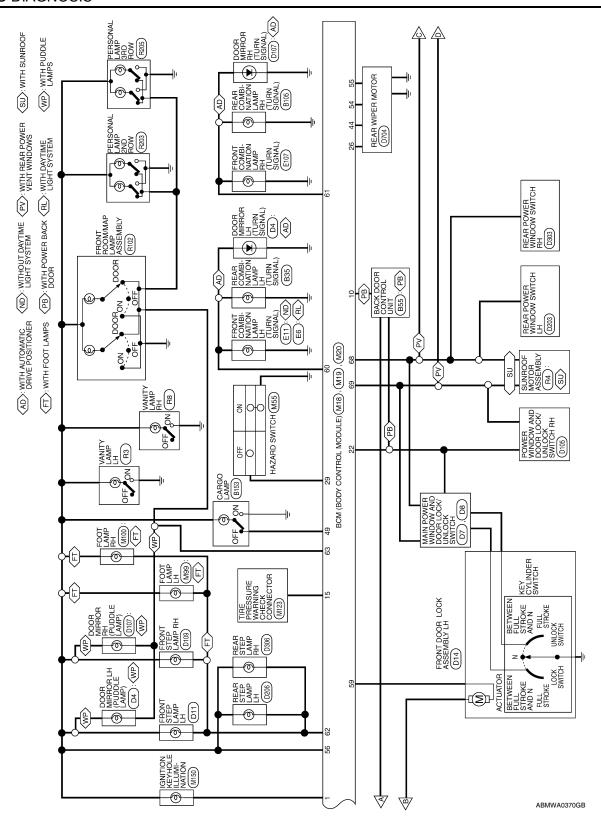
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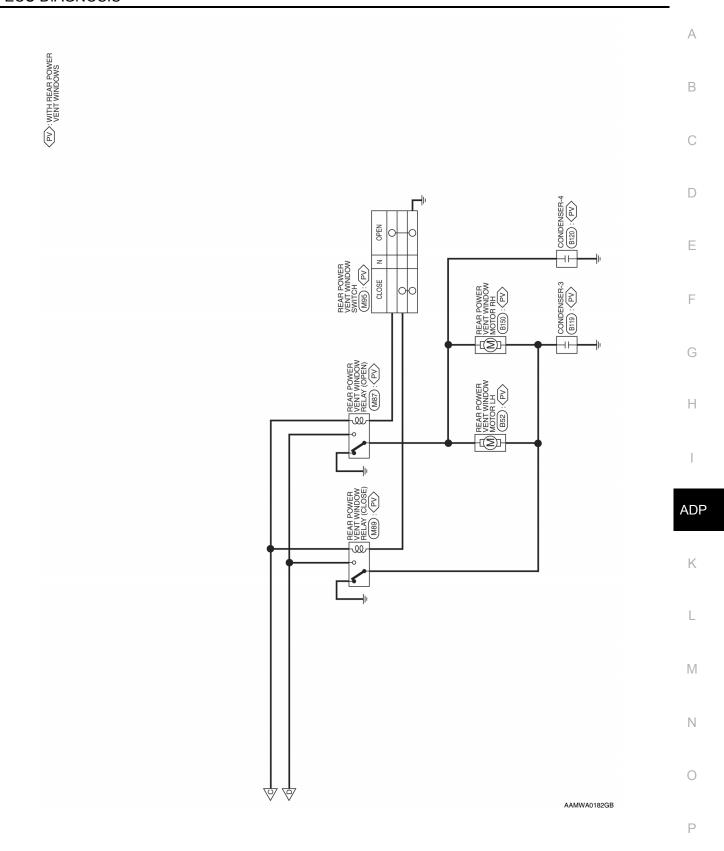
			Signal		Measuring condition	
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
58	W/R	Optical sensor	Input	ON	When optical sensor is it nated	lumi- 3.1V or more
30	VV/IX	Optical Scrisor	прис	014	When optical sensor is n minated	ot illu-
F0		Front door lock as-	Outout	OFF	OFF (neutral)	0V
59	G	sembly LH actuator (unlock)	Output	OFF	ON (unlock)	Battery voltage
60	G/B	Turn signal (left)	Output	ON	Turn left ON	(V) 15 10 5 0
61	G/Y	Turn signal (right)	Output	ON	Turn right ON	(V) 15 10 5 0
62	R/W	Step lamp LH and RH	Output	OFF	ON (any door open)	0V
		Stop lamp Errana run	Catpat	0	OFF (all doors closed)	Battery voltage
63	L	Interior room/map lamp	Output	OFF	Any door switch ON (ope	
	V	All door lock actuators	Outout	OFF	OFF (neutral)	0V
65	V	(lock)	Output	OFF	ON (lock)	Battery voltage
66	G/Y	Front door lock actuator RH, rear door lock actuators LH/RH and back door lock actuator (unlock)	Output	OFF	OFF (neutral) ON (unlock)	0V  Battery voltage
67	В	Ground	Input	ON	_	0V
					Ignition switch ON	Battery voltage
					Within 45 seconds after tion switch OFF	Battery voltage
68	W/L	Power window power supply (RAP)	Output	_	More than 45 seconds at nition switch OFF	ter ig-
					When front door LH or F open or power window to operates	
69	W/R	Power window power supply	Output	_	_	Battery voltage
70	W/B	Battery power supply	Input	OFF	_	Battery voltage

<sup>1:</sup> With Intelligent Key system

<sup>2:</sup> With remote keyless entry system





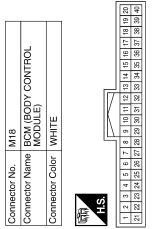


# BCM (BODY CONTROL MODULE) CONNECTORS

M19	BCM (BODY CONTBO	MODULE)	WHITE	
Connector No.	Connector Name		Connector Color WHITE	
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Signal Name		GLASS HATCH SW	BACK DOOR SW	REAR WIPER AUTO STOP SW1	ı	I	DOOR SW (DR)	DOOR SW (RL)	LUGGAGE LAMP OUTPUT	-	TRAILER FLASHER OUTPUT (RIGHT)	TRAILER FLASHER OUTPUT (LEFT)	ı	REAR WIPER MOTOR OUTPUT 2	REAR WIPER MOTOR OUTPUT 1
Color of Wire		GR	R/B	0	ı	1	SB	R/Υ	æ	1	G/Y	G/B	1	>	SB
Terminal No. Wire	41	42	43	44	45	46	47	48	49	20	51	52	53	54	55

Terminal No.	Color of Wire	Signal Name
16	-	1
17	-	I
18	۵	KEYLESS AND AUTO LIGHT SENSOR GND
19	M/N	KEYLESS TUNER POWER SUPPLY OUTPUT
20	G/W	KEYLESS TUNER SIGNAL
21	ŋ	IMMOBILIZER ANTENNA SIGNAL (CLOCK)
22	N/W	ANTI-PINCH SERIAL LINK (RX,TX)
23	0/9	SECURITY INDICATOR OUTPUT
24	1	1
25	BR	IMMOBILIZER ANTENNA SIGNAL (RX,TX)
26	Y/L	REAR WIPER AUTO STOP SW2
27	W/R	AIRCON SW
28	L/R	BLOWER FAN SW
29	M/B	HAZARD SW
30	ı	ī
31	ı	1
32	B/G	OUTPUT 5
33	R/Υ	OUTPUT 4
34	Γ	OUTPUT 3
35	O/B	OUTPUT 2
36	A/W	OUTPUT 1
37	B/R	KEY SW
38	M/L	IGN SW
39	٦	CAN-H
40	۵	CAN-L



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POWER WINDOW POWER SUPPLY (BAT)

W/R

69

BAT (F/L)

W/B

2

POWER WINDOW POWER SUPPLY (LINKED TO RAP)

W/L В

68

# Fail Safe

#### Fail-safe index

BCM performs fail-safe control when any DTC listed below is detected.

Connector Name | COMBINATION SWITCH Connector Color WHITE M28 Connector No.





- IA le si seni e T	Color of	
i erminai No.	Wire	olgnal Name
-	R/W	INPUT 1
2	O/B	INPUT 2
က	_	INPUT 3
4	R/Υ	INPUT 4
5	B/G	INPUT 5
9	>	OUPUT 1
7	G/B	OUPUT 2
8	SB	OUPUT 5
6	G/Y	OUPUT 4
10	<b>X</b>	OUPUT 3
#	M/A	WASHER MOT
12	В	GND
13	W/R	WASHER MOT
14	R/L	IGN

AUTO LIGHT SENSOR INPUT 2

BAT (FUSE)

Y/R

DOOR UNLOCK OUTPUT (DR)

Q

59

BATTERY SAVER

OUTPUT

56 57 58

Signal Name

Color of Wire

Terminal No.

OB

DOOR LOCK OUTPUT

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65

64

DOOR UNLOCK OUTPUT (OTHER)

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99 67

GND (POWER)

ROOM LAMP OUTPUT

63

STEP LAMP OUTPUT

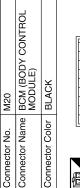
FLASHER OUTPUT (RIGHT)

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61

FLASHER OUTPUT (LEFT)

9







#### < ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.

# DTC Inspection Priority Chart

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If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	U1000: CAN COMM CIRCUIT
2	<ul> <li>B2190: NATS ANTENNA AMP</li> <li>B2191: DIFFERENCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> <li>B2013: STRG COMM 1</li> <li>B2552: INTELLIGENT KEY</li> <li>B2590: NATS MALFUNCTION</li> </ul>
3	C1729: VHCL SPEED SIG ERR C1735: IGNITION SIGNAL
4	<ul> <li>C1708: [NO DATA] FL</li> <li>C1709: [NO DATA] FR</li> <li>C1710: [NO DATA] RR</li> <li>C1711: [NO DATA] RL</li> <li>C1712: [CHECKSUM ERR] FL</li> <li>C1713: [CHECKSUM ERR] FR</li> <li>C1714: [CHECKSUM ERR] RR</li> <li>C1715: [CHECKSUM ERR] RR</li> <li>C1716: [PRESSDATA ERR] FL</li> <li>C1717: [PRESSDATA ERR] FR</li> <li>C1718: [PRESSDATA ERR] RR</li> <li>C1719: [PRESSDATA ERR] RR</li> <li>C1720: [CODE ERR] FL</li> <li>C1721: [CODE ERR] FR</li> <li>C1722: [CODE ERR] RR</li> <li>C1723: [CODE ERR] RR</li> <li>C1724: [BATT VOLT LOW] FL</li> <li>C1725: [BATT VOLT LOW] RR</li> <li>C1727: [BATT VOLT LOW] RL</li> <li>C1727: [BATT VOLT LOW] RL</li> </ul>

DTC Index

#### NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
   → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
   remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
   OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	BCS-33
B2013: STRG COMM 1	_	_	_	SEC-28

# < ECU DIAGNOSIS >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	-
B2190: NATS ANTENNA AMP	_	_	_	SEC-31 (with I- Key), SEC-134 (without I-Key)	-
B2191: DIFFERENCE OF KEY	_	_	_	SEC-34 (with I- Key), SEC-137 (without I-Key)	-
B2192: ID DISCORD BCM-ECM	_	_	_	SEC-35 (with I- Key), SEC-138 (without I-Key)	_
B2193: CHAIN OF BCM-ECM	_	_	_	SEC-37 (with I- Key), SEC-140 (without I-Key)	-
B2552: INTELLIGENT KEY	_	_	_	SEC-39	-
32590: NATS MALFUNCTION	_	_	_	SEC-40	-
C1708: [NO DATA] FL	_	_	_	<u>WT-14</u>	-
C1709: [NO DATA] FR	_	_	_	<u>WT-16</u>	-
C1710: [NO DATA] RR	_	_	_	<u>WT-16</u>	-
C1711: [NO DATA] RL	_	_	_	<u>WT-16</u>	•
C1712: [CHECKSUM ERR] FL	_	_	_	<u>WT-16</u>	•
C1713: [CHECKSUM ERR] FR	_	_	_	<u>WT-16</u>	-
C1714: [CHECKSUM ERR] RR	_	_	_	<u>WT-16</u>	-
C1715: [CHECKSUM ERR] RL	_	_	_	<u>WT-16</u>	
C1716: [PRESSDATA ERR] FL	_	_	_	<u>WT-18</u>	
C1717: [PRESSDATA ERR] FR	_	_	_	<u>WT-16</u>	-
C1718: [PRESSDATA ERR] RR	_	_	_	<u>WT-16</u>	
C1719: [PRESSDATA ERR] RL	_	_	_	<u>WT-16</u>	•
C1720: [CODE ERR] FL	_	_	_	<u>WT-16</u>	-
C1721: [CODE ERR] FR	_	_	_	<u>WT-16</u>	-
C1722: [CODE ERR] RR	_	_		<u>WT-16</u>	_
C1723: [CODE ERR] RL	_	_		<u>WT-16</u>	_
C1724: [BATT VOLT LOW] FL	_	_		<u>WT-16</u>	_
C1725: [BATT VOLT LOW] FR	_	_		<u>WT-16</u>	_
C1726: [BATT VOLT LOW] RR	_	_		<u>WT-16</u>	_
C1727: [BATT VOLT LOW] RL	_	_	_	<u>WT-16</u>	
C1729: VHCL SPEED SIG ERR	_	_		<u>WT-19</u>	_
C1735: IGN_CIRCUIT_OPEN	_	_	_	_	

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# SYMPTOM DIAGNOSIS

# ADP SYSTEM SYMPTOMS

Symptom Table

#### NOTE:

Always perform the "Basic Inspection" before performing diagnosis in the following table. Refer to <u>ADP-4.</u> "Work Flow".

#### SYMPTOM 1

Symptom		Diagnosis procedure	Reference page
	Sliding operation	Check sliding switch.	ADP-46
	Reclining operation	Check reclining switch.	ADP-49
Manual functions (for specific part) do not operate	Lifting operation (front)	Check lifting switch (front).	ADP-52
	Lifting operation (rear)	Check lifting switch (rear).	ADP-55
	Pedal operation	Check pedal adjusting switch.	ADP-58
		2. Check pedal adjusting sensor.	ADP-82
	Door mirror operation	1. Changeover switch.	ADP-63
		2. Mirror switch	ADP-65
	All parts of seat	Check power seat switch ground circuit.	ADP-69

#### SYMPTOM 2

Symptom		Diagnosis procedure	Reference page
	Sliding operation	Check sliding sensor.	ADP-74
	Reclining operation Check reclining sensor.		ADP-76
Memory functions (for specific part) do not operate	Lifting operation (front)	ifting operation (front) Check lifting sensor (front).	
	Lifting operation (rear)	Check lifting sensor (rear).	ADP-80
	Pedal operation	Check pedal adjusting sensor.	ADP-82
	Door mirror operation	Check door mirror sensor.	Driver side:  ADP-84  Passenger side:  ADP-86

#### SYMPTOM 3

Symptom		Diagnosis procedure	Reference page
Memory functions and manual functions (for specific part) do not operate	Sliding operation	Check sliding motor.	ADP-88
	Reclining operation	Check reclining motor.	ADP-90
	Lifting operation (front)	Check lifting motor (front).	ADP-92
	Lifting operation (rear)	Check lifting motor (rear).	ADP-94
	Pedal operation	Check pedal adjusting motor.	ADP-96
	Door mirror operation	Check door mirror motor.	ADP-98

#### SYMPTOM 4

# **ADP SYSTEM SYMPTOMS**

## < SYMPTOM DIAGNOSIS >

Symptom	Diagnosis procedure	Reference page
	Check system setting.	ADP-21
Entry/Exit assist function does not operate.	2. Perform initialization.	ADP-22
	3. Check front door switch (driver side).	ADP-72
Intelligent Key interlock function does not operate.	Check door lock function.	DLK-23
(Other automatic operations and Intelligent Key system are normal)	2. Perform memory storing.	ADP-11

# SYMPTOM 5

Symptom	Diagnosis procedure	Reference page
Memory indicators 1 and/or 2 do not illuminate.	Check seat memory switch.	ADP-61
internory indicators i and/or 2 do not indiminate.	Check seat memory indicator.	ADP-101

#### SYMPTOM 6

Symptom	Diagnosis procedure	Reference page
Memory operation does not operate.	Check A/T shift selector (park position switch).	ADP-70

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## **NORMAL OPERATING CONDITION**

## < SYMPTOM DIAGNOSIS >

# NORMAL OPERATING CONDITION

Description INFOID:0000000004918727

The following symptoms are normal operations, and they do not indicate a malfunction.

Symptom	Cause	Action to take	Reference page
	No initialization has been performed.	Perform initialization.	ADP-20
Entry/Exit assist function does not operate.	Entry/exit assist function is disabled.  NOTE: The entry/exit assist function is disabled before delivery (initial setting).	Change the settings.	ADP-23
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function excution.	Perform the memory function.	ADP-23
			Memory function: ADP-17
Memory function, entry/exit assist function or Intelligent Key interlock function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Exit assist function: <u>ADP-21</u>
			Entry assist function: ADP-23
			Intelligent Key interlock function: ADP-11

# **PRECAUTION**

### **PRECAUTIONS**

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRF-TFNSIONER"

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 SR 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 SR 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 WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### **WARNING:**

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

#### NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYS-
- · Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

#### OPERATION PROCEDURE

Connect both battery cables.

#### NOTE:

- Supply power using jumper cables if battery is discharged.
- Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
- 3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
- Perform the necessary repair operation.

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#### **PRECAUTIONS**

#### < PRECAUTION >

- 5. When the repair work is completed, return the ignition switch to the "LOCK" position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
- Perform a self-diagnosis check of all control units using CONSULT-III.

Precaution 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.

#### **DRIVER SEAT CONTROL UNIT**

< REMOVAL AND INSTALLATION >

# REMOVAL AND INSTALLATION

# DRIVER SEAT CONTROL UNIT

## Removal and Installation

#### INFOID:000000005151443

#### **REMOVAL**

#### NOTE:

The driver seat control unit is part of the driver seat.

- 1. Remove the driver seat. Refer to <a>SE-53</a>, "Removal and Installation".
- 2. Disconnect driver seat control unit electrical connector.
- 3. Remove driver seat control unit from driver seat.

#### **INSTALLATION**

Installation is in the reverse order of removal.

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#### **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

< REMOVAL AND INSTALLATION >

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## Removal and Installation

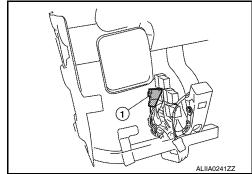
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#### **REMOVAL**

#### **CAUTION:**

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

- 1. Disconnect the battery negative terminal.
- 2. Remove the instrument driver lower panel. Refer to IP-12, "Removal and Installation".
- 3. Remove the screw from the automatic drive positioner control unit (1).
- 4. Remove automatic drive positioner control unit (1) from bracket and disconnect electrical connectors.



#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

Clamp the harness in position.

#### NOTE:

After installing the automatic drive positioner control unit, perform additional service when disconnecting battery negative terminal. Refer to <u>ADP-7</u>, "Special Repair Requirement".

## **SEAT MEMORY SWITCH**

## < REMOVAL AND INSTALLATION >

# **SEAT MEMORY SWITCH**

# Removal and Installation

INFOID:0000000004918734

Refer to <u>INT-11</u>, "Removal and Installation" for removal and installation of seat memory switch.

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## DOOR MIRROR REMOTE CONTROL SWITCH

< REMOVAL AND INSTALLATION >

# DOOR MIRROR REMOTE CONTROL SWITCH

# Removal and Installation

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The door mirror remote control switch is part of the power window switch assembly. Refer to <u>INT-11</u>, "Removal and <u>Installation"</u> for removal and installation of door mirror remote control switch.

## PEDAL ADJUSTING MOTOR

#### < REMOVAL AND INSTALLATION >

# PEDAL ADJUSTING MOTOR

# Removal and Installation

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Refer to <u>ACC-4, "Removal and Installation"</u> for accelerator pedal and <u>BR-19, "Removal and Installation"</u> for brake pedal when removing pedal adjusting motors.

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