SECTION ADP В AUTOMATIC DRIVE POSITIONER С

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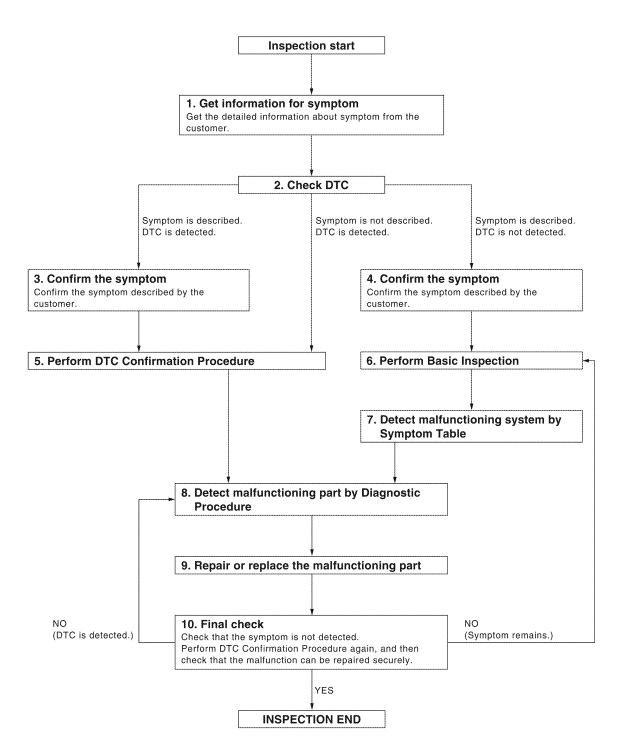
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< BASIC INSPECTION >

BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

WORK FLOW



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1. GET INFORMATION FOR SYMPTOM	
Get the detailed information from the customer about the symptom (the condition and the environment the incident/malfunction occurred).	nt wher
>> GO TO 2	
2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM	
Check "Self Diagnostic Result" with CONSULT-III. Refer to <u>ADP-112, "DTC_Index"</u> .	
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 <u>ADP-144, "Description"</u> .	
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.	
Is the DTC displayed?	
YES >> GO TO 9	
NO >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> . 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	

>> GO TO 10

10. REPAIR OR REPLACE

Repair or replace the malfunctioning part.

< 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	А
Preliminary Check	
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 	С
Are there any foreign objects that could be causing interference? YES >> Remove objects. NO >> GO TO 2	D
2. WIRING CONNECTIONS	Е
 Disconnect harness connectors. Check terminals for damage or loose connections. Reconnect harness connectors. 	F
<u>Are any connectors damaged or loose?</u> YES >> Repair or replace damaged parts.	I
NO >> GO TO 3 3. POWER AND GROUND	G
Check power supply and ground circuits for control unit. Refer to <u>ADP-47, "DRIVER SEAT CONTROL UNIT :</u> <u>Diagnosis Procedure"</u> .	Н
<u>Is the inspection result normal?</u> YES >> Refer to <u>ADP-112</u> , " <u>DTC_Index</u> ".	
NO >> Repair or replace as necessary.	
Special Repair Requirement	
Refer to Owner's Manual for Automatic Drive Positioner system operating instructions.	ADP

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< BASIC INSPECTION >

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

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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-47</u>, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".
- Automatic drive positioner control unit: Refer to <u>ADP-48, "AUTOMATIC DRIVE POSITIONER CONTROL</u> <u>UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

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-142, "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-142</u>, <u>"Symptom Table"</u>.

No (memory indicator operates normally)>> Go to SYMPTOM 2, refer to <u>ADP-142</u>, "<u>Symptom Table</u>". 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 <u>GI-38, "Intermittent Incident"</u>.

NO >> GO TO 7

5. CHECK SEAT MEMORY SWITCH/MEMORY INDICATOR

Check the seat memory switch/memory switch indicator of the SYMPTOM 5, refer to <u>ADP-142, "Symptom</u> <u>Table"</u>.

Is the inspection result normal?

YES >> GO TO 6

NO >> Repair or replace the malfunctioning part.

6. CHECK OPERATION CONDITION

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

Are all operation conditions fulfilled?

YES >> Go to SYMPTOM 6, refer to <u>ADP-142, "Symptom Table"</u>.

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

7. CHECK MECHANISM

Check for the following.

• Mechanism deformation or pinched foreign materials.

PRE-INSPECTION FOR DIAGNOSTIC

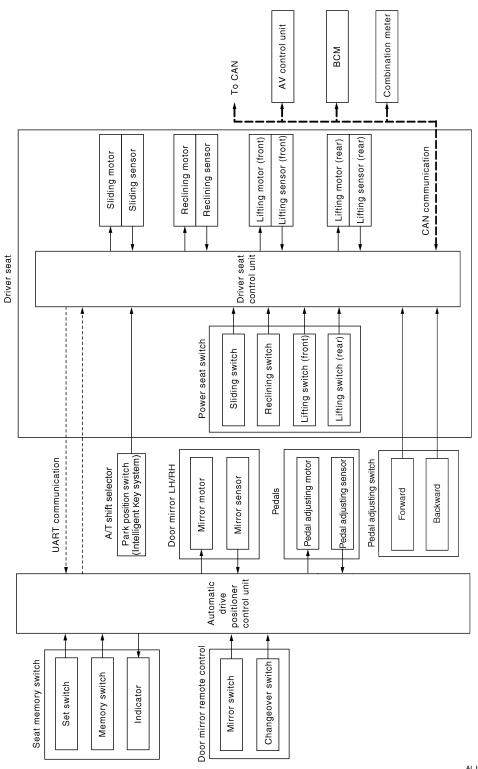
< BAS	IC INSPECTION >	
	erence with other parts because of poor installation.	_
	malfunction present in the relevant parts?	A
YES	>> Go to SYMPTOM 3, refer to <u>ADP-142, "Symptom Table"</u> .	
NO	>> Repair or replace the malfunctioning part.	В
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< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

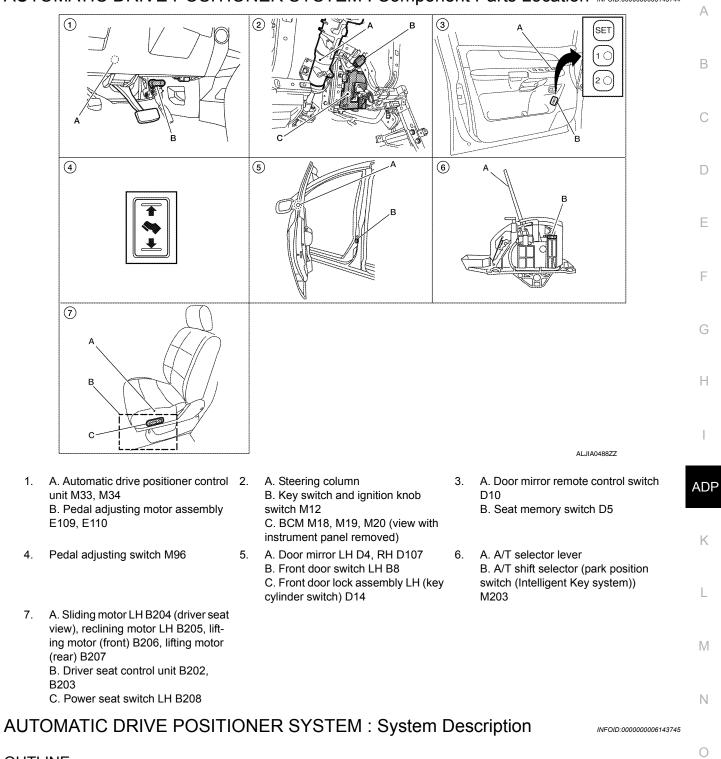
AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram



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< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location INFOLD:000000006143744



OUTLINE

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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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< SYSTEM DESCRIPTION >

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/Exit assist function	Exit	On exit, the seat moves backward.
	Entry	On entry, the seat returns from exiting position to the previous driving position.
Intelligent Key interlock function		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

CONTROL UNITS

Item	Function
Driver seat control unit	 Main unit of automatic drive positioner system It is connected to the CAN. It communicates with the automatic drive positioner control unit via UART communication.
Automatic drive positioner control unit	 It communicates with the driver seat control unit via UART communication. Perform various controls with the instructions of driver seat control unit. Perform the controls of the pedal adjusting, door mirror and the seat memory switch.
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 communi- cation.
AV control unit	The setting change of auto drive positioner system can be performed on the display.
A/T shift selector (park position switch (In- telligent 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 (In- telligent 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.

< SYSTEM DESCRIPTION >

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. 	B
Door mirror remote control switch	The following switch is installed.Mirror switchChangeover switchThe specific parts can be operated with the operation of each switch.	С

Sensors

		D
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.	E
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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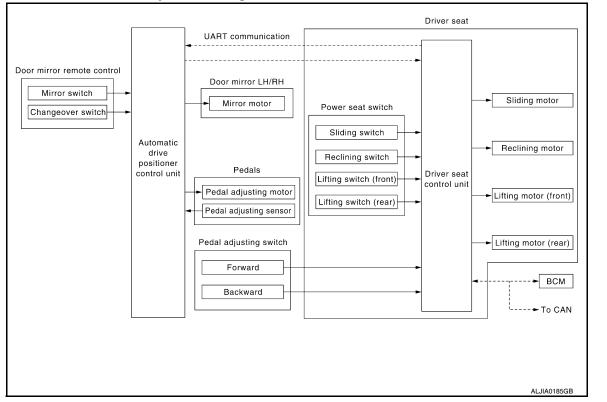
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< SYSTEM DESCRIPTION >

MANUAL FUNCTION : System Diagram



MANUAL FUNCTION : System Description

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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

- 1. Turn ignition switch ON.
- 2. 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, reclin- ing)	_	The power seat switch signal is inputted to the driver seat control unit when the power seat switch is operated.
2	_	Motors (sliding, lifting, reclin- ing)	The driver seat control unit outputs signals to each motor accord- ing 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.

< SYSTEM DESCRIPTION >

Order	Input	Output	Control unit condition	٥
2	_	Motor	The automatic drive positioner control unit actuates the motor ac- cording to the operation of the pedal adjusting switch signal from the driver seat control unit.	A
3	Sensors (forward, backward)	_	The automatic drive positioner control unit recognizes any oper- ation limit of each actuator via each sensor and will not operate the actuator anymore at that time.	В

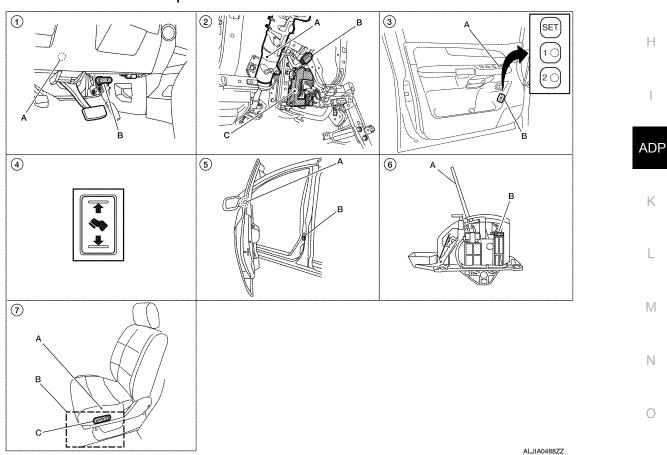
Door Mirror

Order	Input	Output	Control unit condition	
1	Door mirror remote control switch	_	The door mirror remote control switch signal is inputted to the au- tomatic 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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< SYSTEM DESCRIPTION >

1. A. Automatic drive positioner control 2. A. Steering column 3. A. Door mirror remote control switch unit M33, M34 B. Key switch and ignition knob D10 switch M12 B. Pedal adjusting motor assembly B. Seat memory switch D5 E109, E110 C. BCM M18, M19, M20 (view with instrument panel removed) Pedal adjusting switch M96 A. Door mirror LH D4, RH D107 A. A/T selector lever 4. 5. 6. B. Front door switch LH B8 B. A/T shift selector (park position C. Front door lock assembly LH (key switch (Intelligent Key system)) cylinder switch) D14 M203 A. Sliding motor LH B204 (driver seat 7. 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

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CONTROL UNITS

Item	Function
Driver seat control unit	 Operates the specific seat motor with the signal from the power seat switch. Transmits the ignition switch signal (ACC/ON) via UART communication to the automatic drive positioner control unit. Transmits the pedal adjusting switch signal via UART communication to the automatic drive positioner control unit.
Automatic drive positioner control unit	Operates the specific motor with the signal from driver seat control unit or door mir- ror remote control switch.
BCM	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.

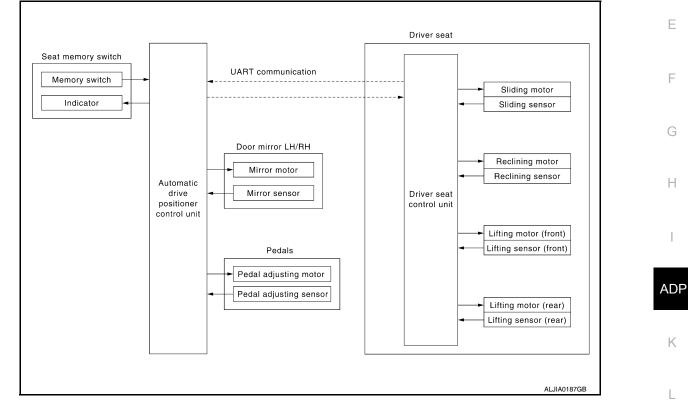
OUTPUT PARTS

< SYSTEM DESCRIPTION >

Item	Function	А
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.	В
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.	
Reclining motor	Tilt and raise up the seatback.	С
Sliding motor	Slide the seat forward/backward.	

MEMORY FUNCTION





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

- 1. Turn ignition switch ON.
- 2. Press desired memory switch for more than 0.5 second.
- 3. 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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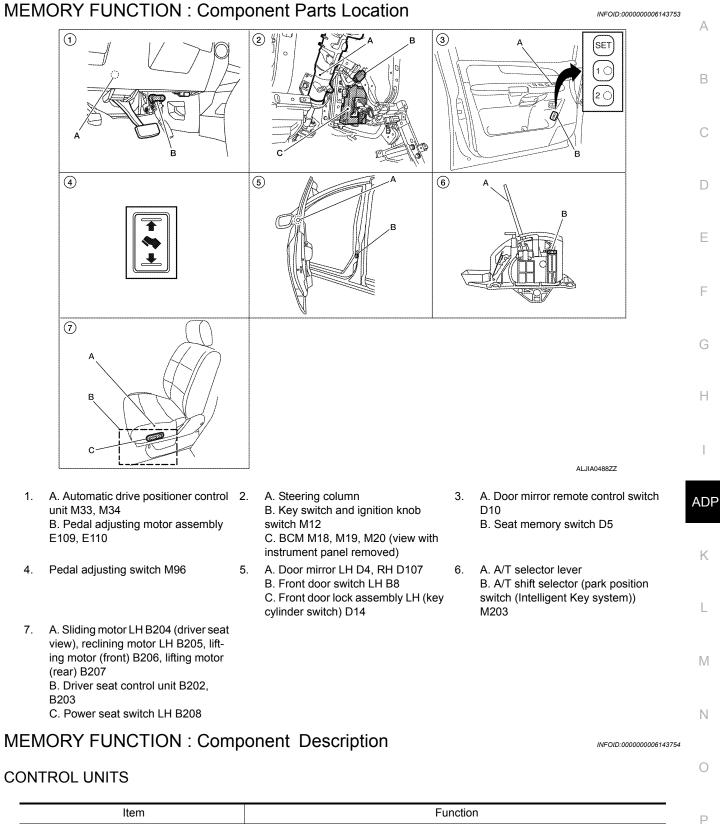
< SYSTEM DESCRIPTION >

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 recogniz- es 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 op- erates each motor.
		Memory switch Indica- tor	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 con- trol 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 reach- es the recorded address.
4	_	Memory switch Indica- tor	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.

< SYSTEM DESCRIPTION >



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

< SYSTEM DESCRIPTION >

Switches

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

Sensors

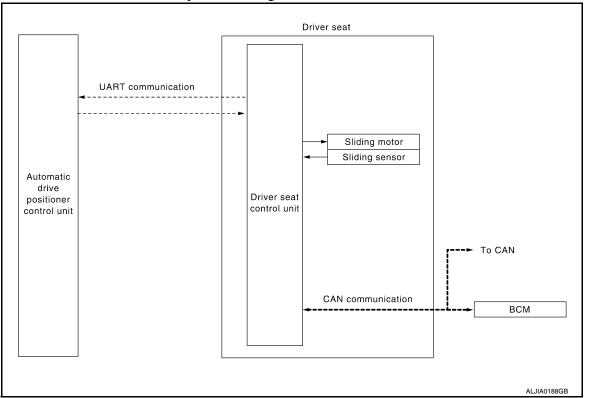
Item	Function
Door mirror sensor (LH/RH)	Detect the up/down and left/right position of outside mirror face.
Pedal adjusting sensor	Detect the forward/backward position of pedal assembly.
Lifting sensor (front)	Detect the up/down position of seat lifting (front).
Lifting sensor (rear)	Detect the up/down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



< SYSTEM DESCRIPTION >

EXIT ASSIST FUNCTION : System Description INFOID:000000006143756 А 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. В 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** Open the driver door with ignition switch in OFF position. 1. Front seat LH will move to the exiting position. 2. D OPERATION CONDITION Satisfy all of the following items. The exit assist function is not performed if these items are not satisfied. Ε Item Request status OFF Ignition switch F System setting [Entry/exit assist function] ON Initialization Done Switch inputs · Power seat switch · Pedal adjusting switch OFF · Door mirror remote control switch (Not operated) · Set switch Н · Seat memory switch 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 recog- nizes that the front door LH is opened with ignition switch OFF.	

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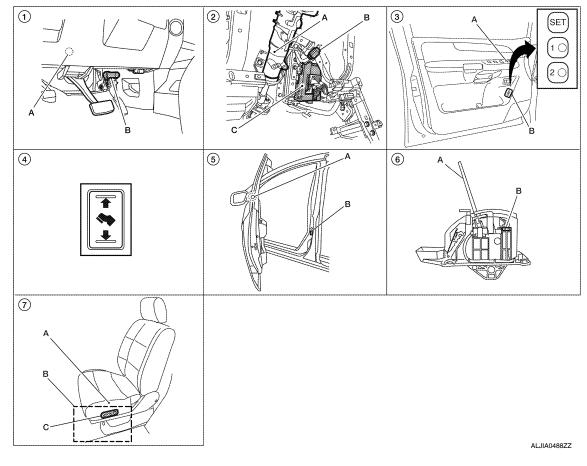
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DP

< SYSTEM DESCRIPTION >

EXIT ASSIST FUNCTION : Component Parts Location

INFOID:000000006143757



- A. Automatic drive positioner control 2. unit M33, M34
 B. Pedal adjusting motor assembly E109, E110
- 4. 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 mirror LH D4, RH D107
 B. Front door switch LH B8
 C. Front door lock assembly LH (key cylinder switch) D14
- 3. 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:000000006143758

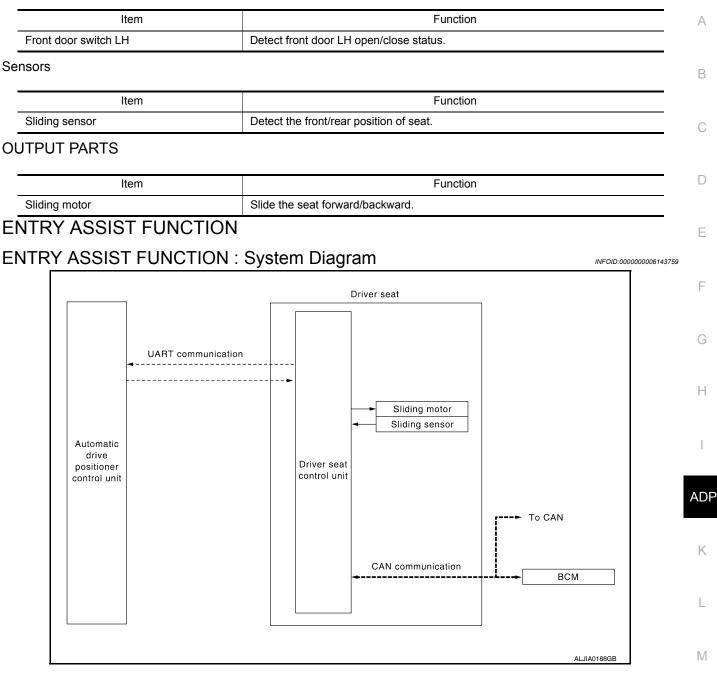
CONTROL UNITS

Item	Function
Driver seat control unit	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

INPUT PARTS

Switches

< SYSTEM DESCRIPTION >



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

- 1. A: Turn the ignition switch ON.
- B: Turn the ignition switch from OFF to ACC after closing the driver door.
- 2. 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.

ADP-23

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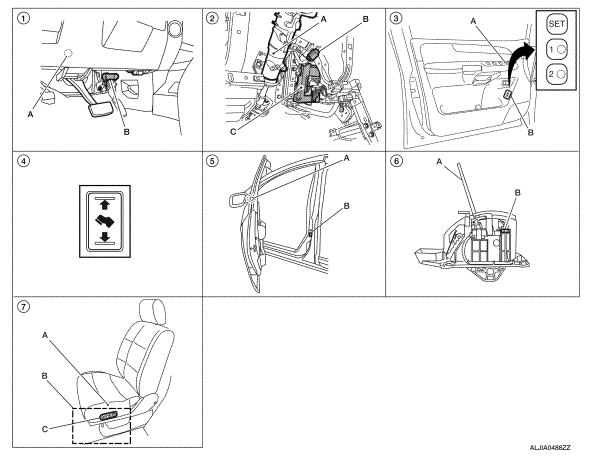
< SYSTEM DESCRIPTION >

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.
2	_	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



< SYSTEM DESCRIPTION >

1.	A. Automatic drive positioner control unit M33, M34 B. Pedal adjusting motor assembly E109, E110	2.	A. Steering column B. Key switch and ignition knob switch M12 C. BCM M18, M19, M20 (view with instrument panel removed)	3.	A. Door mirror remote control switch D10 B. Seat memory switch D5	A
4.	Pedal adjusting switch M96	5.	A. Door mirror LH D4, RH D107B. Front door switch LH B8C. Front door lock assembly LH (key cylinder switch) D14	6.	A. A/T selector lever B. A/T shift selector (park position switch (Intelligent Key system)) M203	С
7.	A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lift- ing motor (front) B206, lifting motor (rear) B207 B. Driver seat control unit B202,					D
	B203 C. Power seat switch LH B208					E
		. ~	omponent Description			

ENTRY ASSIST FUNCTION : Component Description

INFOID:000000006143762

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ADP

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.	
ВСМ	 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	L
Sliding sensor	Detect the front/rear position of seat.	

OUTPUT PARTS

Item	Function	
Sliding motor	Slide the seat forward/backward.	Ν

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:000000006143763

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 DIAGNOSTIC RESULT	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 con- trol 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 IDENTIFICATION	Displays part numbers of driver seat control unit parts.	

CONSULT-III Function

SELF-DIAGNOSIS RESULTS Refer to <u>ADP-112, "DTC 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)

< SYSTEM DESCRIPTION >

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 (for- ward) 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) sta- tus 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	Ν
SEAT SLIDE	Activates/deactivates the sliding motor.	
SEAT RECLINING	Activates/deactivates the reclining motor.	
SEAT LIFTER FR	Activates/deactivates the lifting motor (front).	0
SEAT LIFTER RR	Activates/deactivates the lifting motor (rear).	
PEDAL MOTOR	Activates/deactivates the pedal adjusting motor.	P
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)

< SYSTEM DESCRIPTION >

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
		150 mm
EXIT SEAT SLIDE SETTING	Entry/exit assist (seat) can be selected:	ON
EAT SEAT SLIDE SETTING	ON (operated) – OFF (not operated)	OFF

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM CIRCUIT

Description

Refer to LAN-4, "System Description".

DTC Logic

DTC DETECTION LOGIC

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

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?

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

NO >> Inspection End.

Special Repair Requirement

Refer to Owner's Manual.

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< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

Description

INFOID:000000006143768

- 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

INFOID:000000006143769

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 slid- ing 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 <u>ADP-30, "Diagnosis Procedure"</u>.

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-42. "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000006143770

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

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- 3. Erase the DTC.
- 4. 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 <u>GI-38, "Intermittent Incident"</u>.

2. CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+) Sliding motor		()	Voltage (V)
Connector	Terminals	(-)	(Approx.)
B204	1 5	Ground	0
Connect driver seat cor	or short to voltage. CONTROL UNIT OUTPUT	Γ SIGNAL arness connector and ground	1.
(+	+)		
Driver seat	control unit	()	Voltage (V) (Approx.)
Connector	Terminals		(
B203	35 42	Ground	0
efer to <u>GI-38, "Intermittent</u> >> Inspection End			
efer to <u>GI-38, "Intermittent</u> >> Inspection End			

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2113 RECLINING MOTOR

Description

INFOID:000000006143771

- · 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:000000006143772

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.	

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 <u>ADP-32, "Diagnosis Procedure"</u>.
- NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-42, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000006143773

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

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-32</u>, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

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

2. CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+) Reclining motor			Voltage (V)
Reclining moto	Terminals	()	(Approx.)
B205	2	Ground	0
	TROL UNIT OUTPUT	F SIGNAL	
(+)		_	Voltage (V)
Driver seat contro		(-)	(Approx.)
B203	Terminals 36 44	Ground	0
>> Inspection End.			

B2114 SEAT LIFTER FR

< DTC/CIRCUIT DIAGNOSIS >

B2114 SEAT LIFTER FR

Description

INFOID:000000006143774

INFOID:000000006143775

- 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 lift- ing 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 <u>ADP-34, "Diagnosis Procedure"</u>.
- NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-42, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000006143776

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

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-34</u>, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

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

2. CHECK LIFTING MOTOR (FRONT) CIRCUIT (POWER SHORT)

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

B2114 SEAT LIFTER FR

< DTC/CIRCUIT DIAGNOSIS >

Lifting motor (front)		()	Voltage (V) (Approx.)
Connector	Terminals		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
B206	1 5	Ground	0
Connect automatic driv		nector.	
(+)		
Automatic drive po		(–)	Voltage (V)
Connector	Terminals		(Approx.)
B203	37 45	Ground	0
HECK INTERMITTEN		unit. Refer to <u>ADP-147, "R</u>	emoval and Installation
CHECK INTERMITTENT er to <u>GI-38, "Intermittent</u>	INCIDENT	unit. Refer to <u>ADP-147, "R</u>	emoval and Installation
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HECK INTERMITTENT	INCIDENT	unit. Refer to <u>ADP-147, "R</u>	emoval and Installation
HECK INTERMITTENT r to <u>GI-38, "Intermittent</u>	INCIDENT	unit. Refer to <u>ADP-147, "R</u>	emoval and Installation

< DTC/CIRCUIT DIAGNOSIS >

B2115 SEAT LIFTER RR

Description

INFOID:000000006143777

INFOID:000000006143778

- 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

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 lift- ing 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

2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-36, "Diagnosis Procedure"</u>.
- NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-42, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000006143779

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

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-36, "DTC Logic"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

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

2. CHECK LIFTING MOTOR (REAR) CIRCUIT (POWER SHORT)

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

B2115 SEAT LIFTER RR

< DTC/CIRCUIT DIAGNOSIS >

Lifting motor (rear) Connector Terminals B207 1 B207 5 Sthe inspection result normal? YES >> GO TO 3. NO >> Repair circuit for short to voltage. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SI Connect driver seat control unit connector. Check voltage between driver seat control unit harne (+) Driver seat control unit 38		(Approx.) 0 I. Voltage (V) (Approx.)
B207 1 5 5 s the inspection result normal? YES >> GO TO 3. NO >> Repair circuit for short to voltage. O >> Repair circuit for short to voltage. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SI . Check voltage between driver seat control unit connector. . Check voltage between driver seat control unit harne (+) Driver seat control unit 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IGNAL ess connector and ground	I. Voltage (V)
YES >> GO TO 3. NO >> Repair circuit for short to voltage. .CHECK DRIVER SEAT CONTROL UNIT OUTPUT SI . Connect driver seat control unit connector. . Check voltage between driver seat control unit harned (+) Driver seat control unit Connector Terminals 38	ess connector and ground	Voltage (V)
Driver seat control unit Connector Terminals 38	(–)	
Driver seat control unit Connector Terminals 38	()	
Connector Terminals	ζ,	(Approx)
38		(/ () () () () () () () () () () () () ()
B203 39	Ground	0

B2117 ADJ PEDAL MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2117 ADJ PEDAL MOTOR

Description

INFOID:000000006143780

- · 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

INFOID:000000006143781

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 <u>ADP-38, "Diagnosis Procedure"</u>.

NO >> Inspection End.

Diagnosis Procedure

INFOID:000000006143782

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

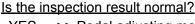
1. Turn ignition switch ON.

2. 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





- YES >> Pedal adjusting motor assembly circuit is OK.
- NO >> GO TO 3

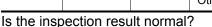
3. CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

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

: Continuity should exist. : 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.
- ${f 4}$. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL
- 1. Connect the automatic drive positioner control unit and pedal adjusting motor assembly.
- Check voltage between automatic drive positioner control unit 2. connector and ground.

Connec- tor			Condition	Voltage (V)
				(Approx.)
37		Pedal adjusting switch ON (FORWARD operation)	Battery voltage	
M34	4 Ground -	Ground	Other than above	0
M34 -		Pedal adjusting switch ON (BACKWARD operation)	Battery voltage	
		Other than above	0	



YES >> Replace pedal adjusting motor assembly. Refer to ADP-151, "Removal and Installation".

NO >> GO TO 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-148</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

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Automatic drive positioner

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C/U connector

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B2120 ADJ PEDAL SENSOR

Description

INFOID:000000006143783

- · 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

INFOID:000000006143784

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 <u>ADP-40</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:000000006143785

Regarding Wiring Diagram information, refer to <u>ADP-127, "Wiring Diagram"</u>.

1. CHECK PEDAL ADJUSTING SENSOR SIGNAL

- 1. Turn ignition switch ON.
- 2. 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
I EDAE OEN		Backward	4.5V

Is the value normal?

YES >> Pedal adjusting circuit is OK.

NO >> GO TO 2

2. CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

B2120 ADJ PEDAL SENSOR

< DTC/CIRCUIT 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.

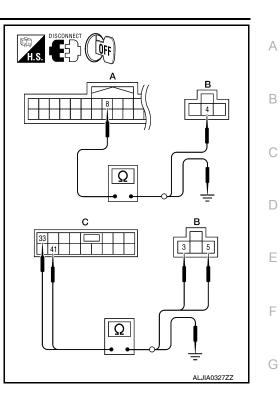
8 - 4	: Continuity should exist.
33 - 3	: Continuity should exist.
41 - 5	: Continuity should exist.

3. 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-</u><u>151, "Removal and Installation"</u>.
- NO >> Repair or replace harness.



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B2126 DETENT SW

Description

• 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

INFOID:000000006143787

INFOID:000000006143786

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 ± 4 km/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 ± 4 km/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-42. "Diagnosis Procedure"</u>.

NO >> Inspection End.

Diagnosis Procedure

INFOID:000000006143788

Regarding Wiring Diagram information, refer to <u>ADP-127, "Wiring Diagram"</u>.

1. СНЕСК 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	Condition		Status
DETENT SW	A/T selector lever	P position	OFF
		Other than above	ON

Is the status normal?

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

B2126 DETENT SW

< DTC/CIRCUIT 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)

5 6 P position Yes Other than P position No

Is the inspection result normal?

YES	>> GO TO 5
NO	>> Replace A/T shift selector. Refer to TM-171, "A/T Shift
	Selector Removal and Installation".

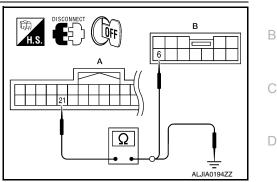
5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-148</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.



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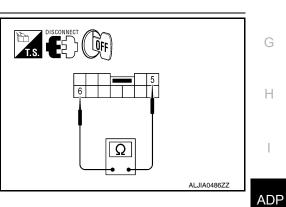
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B2128 UART COMMUNICATION LINE

Description

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INFOID 00000006143790

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 interrupt- ed for a period of time.	 UART communication line (UART communication line is open or shorted) Driver seat control unit Automatic drive positioner control unit

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-44, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

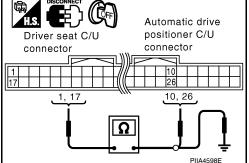
INFOID:000000006143791

Regarding Wiring Diagram information, refer to ADP-127, "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.
- 3. Check continuity between driver seat control unit harness connector and automatic drive positioner control unit harness connector.

-	HS. (CFF) Automatic drive
	Driver seat C/U positioner C/U
-	connector connector
-	
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B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT	DIAGN	OSIS >					
 	1	Maa		10	Vaa	-	
B202	17	— M33		26	- Yes		A
4. Check contin	uity betw	veen driver seat	t control u	unit harne	ess connec	ctor and ground.	
						_	В
Driver seat control nector	unit con-	Terminal	0		Continuity		
B202		1	Grou	na	No		C
		17 rmol2				-	
Is the inspection r YES >> Chec		<u>ittent incident.</u> F	Refer to (3I-38 "In	termittent I	ncident"	D
		lace harness.		<u>51 00, 11</u>		<u>noident</u> .	
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POWER SUPPLY AND GROUND CIRCUIT BCM

BCM : Diagnosis Procedure

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Regarding Wiring Diagram information, refer to BCS-48, "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	Battery power supply	22 (15A)
70	Ballery power supply	F (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	59 (10A)

Is the fuse blown?

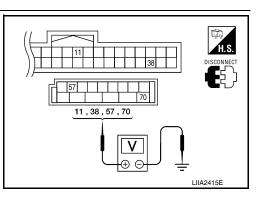
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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-
Connocion	(+) (-) source		Condition	prox.)	
M18	11	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage
	38	Ground	lgnition power supply	Ignition switch ON or START	Battery voltage
M20	57	Ground	Battery power supply	lgnition switch OFF	Battery voltage
IVIZU	70	Ground	Battery power supply	lgnition switch OFF	Battery voltage



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Check continuity between BCM harness connector and ground.

B	CM		Continuity
Connector	Terminal	Ground	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

NOTE:

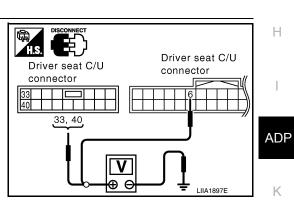
Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT-III.

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

1. CHECK POWER SUPPLY CIRCUIT

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

			1				
	Terminals						
(+))		(+)		Power	0	Voltage (V)
Driver seat control unit connector	Terminal	(–)	source	Condition	(Approx.)		
B202	6	Ground	START power sup- ply	lgnition switch START	Battery		
	33	Giouna	Battery	Ignition	voltage		
B203	40 pov		power sup- ply	switch OFF			



BCM connector 67

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Is the inspection result normal?

YES >> GO TO 2

NO

- >> Check the following.
 - Repair or replace harness.
 - · Circuit breaker.

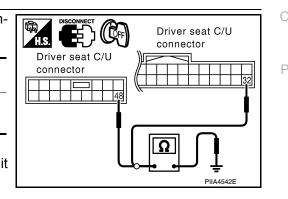
$\mathbf{2}.$ CHECK GROUND CIRCUIT

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

B202 32 Ground B203 48 Yes	Driver seat control unit connector	Terminal		Continuity
	B202	32	Ground	Vaa
	B203	48		fes

Is the inspection result normal?

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



POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT : Special Repair Requirement

1. 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

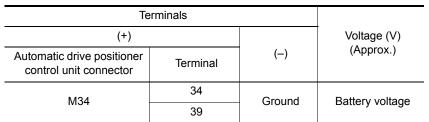
NOTE:

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.



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	
W04	48		ies	

Is the inspection result normal?

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

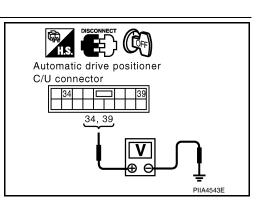
NO >> Repair or replace harness.

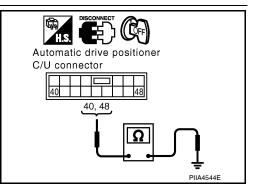
AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement

INFOID:000000006752604

1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.





ADP-48

INFOID:000000006752602

INFOID:000000006752603

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

>> Refer to Owner's Manual.

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SLIDING SWITCH

Description

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

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		Status
SLIDE SW-FR	Sliding quitch (forward)	Operate	ON
SLIDE SW-FR	Sliding switch (forward)	Release	OFF
SLIDE SW-RR	Sliding switch (backward)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-50, "Diagnosis Procedure"</u>.

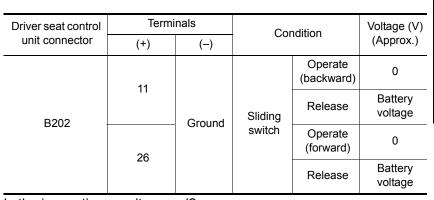
Diagnosis Procedure

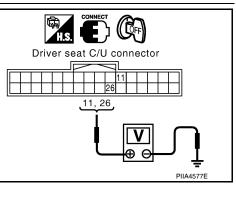
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Regarding Wiring Diagram information, Refer to <u>ADP-127, "Wiring Diagram"</u>.

1. CHECK SLIDING SWITCH SIGNAL

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





Is the inspection result normal?

YES >> GO TO 5

NO >> GO TO 2

2. CHECK SLIDING SWITCH CIRCUIT

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ADP-50

INFOID:000000006143797

INFOID:000000006143798

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and power seat switch LH.
- 2. 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	B200 (B)	5	163

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

Driver seat control unit connector	Terminal		Continuity
D202 (A)	11	Ground	No
B202 (A)	26	-	No

Is the inspection result normal?

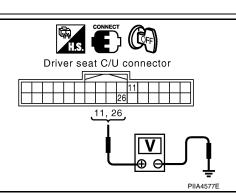
YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control unit	Terminals		Voltage (V)	
connector	(+)	(-)	(Approx.)	
B202	11	Ground	Batteny voltage	
6202	26	Ground	Battery voltage	



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Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

4. CHECK SLIDING SWITCH

Refer to ADP-51, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to <u>SE-78, "Disassembly and Assembly"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to <u>GI-38. "Intermittent Incident"</u>. <u>Is the inspection result normal?</u>

YES >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

NO >> Repair or replace malfunctioning part.

Component Inspection

1. CHECK SLIDING SWITCH

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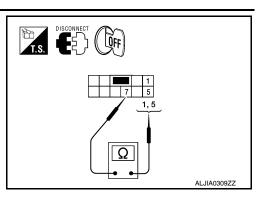
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SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Teri	minal	Condition		Continuity
Power seat switch LH		Condition		Continuity
	1	Sliding switch (backward)	Operate	Yes
7		Shulling Switch (Dackward)	Release	No
1	5	Sliding switch (forward)	Operate	Yes
	5	Shung switch (lorward)	Release	No



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-78, "Disassembly and Assembly"</u>.

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SWITCH

Description

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

Component Function Check

1. CHECK FUNCTION

Select "RECLN SW-FR", "RECLN SW-RR" in "Data monitor" mode with CONSULT-III. 1.

Check reclining switch signal under the following conditions. 2.

Monitor item	Condition	Condition		
	Declining quitch (forward)	Operate	ON	
RECLN SW-FR	Reclining switch (forward)	Release	OFF	
RECLN SW-RR		Operate	ON	
	Reclining switch (backward)	Release	OFF	

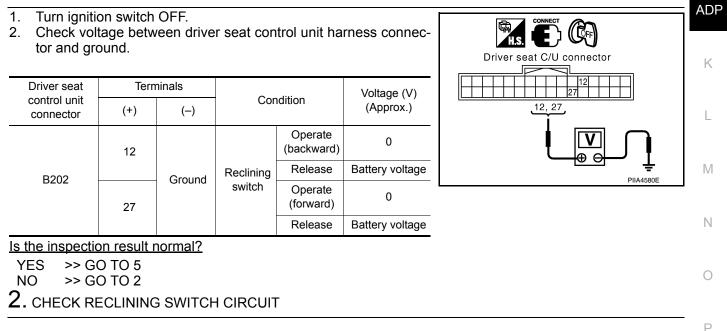
YES >> Inspection End. NO

>> Perform diagnosis procedure. Refer to ADP-53, "Diagnosis Procedure".

Diagnosis Procedure

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

1. CHECK RECLINING SWITCH SIGNAL



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INFOID:000000006143803

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and power seat switch LH.
- 2. 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
5202 (A)	27	B200 (B)	4	163

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

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

Is the inspection result normal?

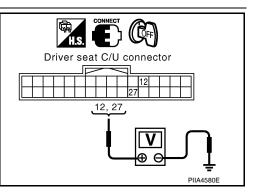
YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

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



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Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

4. CHECK RECLINING SWITCH

Refer to ADP-54, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to <u>SE-78, "Disassembly and Assembly"</u>.

CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK RECLINING SWITCH

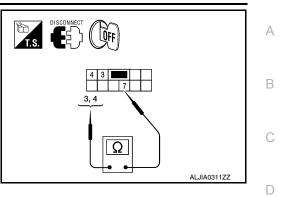
INFOID:000000006143804

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Terminals		Condition		Continuity
Power seat switch LH				Continuity
	3	Reclining switch	Operate	Yes
7	5	(backward)	Release	No
I	1	4 Reclining switch (forward)	Operate	Yes
	4		Release	No



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-78, "Disassembly and Assembly"</u>.

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description

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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:000000006143806

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
LIFT FR SW-OP	Lining switch none (up)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-56, "Diagnosis Procedure".

Diagnosis Procedure

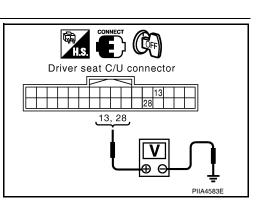
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Regarding Wiring Diagram information, refer to <u>ADP-127, "Wiring Diagram"</u>.

1. CHECK LIFTING SWITCH SIGNAL

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

Driver seat	Terminals		0.5		Voltage (V)								
control unit connector	(+)	(–)	Condition		(Approx.)								
	13		10			Operate (down)	0V						
B202	-	Ground	Ground	Ground s	Lifting switch	Release	Battery voltage						
									1				
	28			Release	Battery voltage								



Is the inspection result normal?

YES >> GO TO 5

2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

LIFTING SWITCH (FRONT)

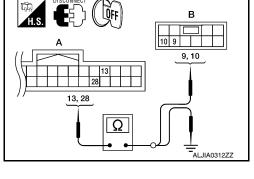
< DTC/CIRCUIT DIAGNOSIS >

- 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	B208 (B)	9	Yes
6202 (A)	28	B200 (B)	10	165

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

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



Is the inspection result normal?

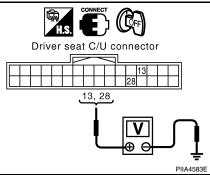
YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

- 1. Connect the driver seat control unit.
- 2. Turn ignition switch OFF.
- 3. 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
BZUZ	28	Ground	Ballery Vollage



Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

4. CHECK LIFTING SWITCH (FRONT)

Refer to ADP-57, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to <u>SE-78, "Disassembly and Assembly"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to <u>GI-38</u>, "Intermittent Incident". Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK LIFTING SWITCH (FRONT)

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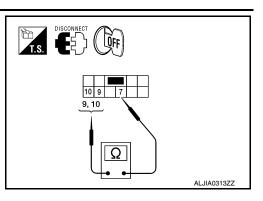
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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT 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 seat switch LH		Condition		Continuity
	9	Lifting switch front (down)	Operate	Yes
7			Release	No
7	10	Lifting owitch front (up)	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-78. "Disassembly and Assembly"</u>.

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description

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

Component Function Check

1. CHECK FUNCTION

Select "LIFT RR SW-UP", "LIFT RR SW-DN" in "Data monitor" mode with CONSULT-III. 1.

Check lifting switch (rear) signal under the following conditions. 2.

Monitor item	Condition	1	Status
		Operate	ON
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF
	Operate	ON	
LIFT RR SW-DN	Lifting switch rear (down)	Release	OFF

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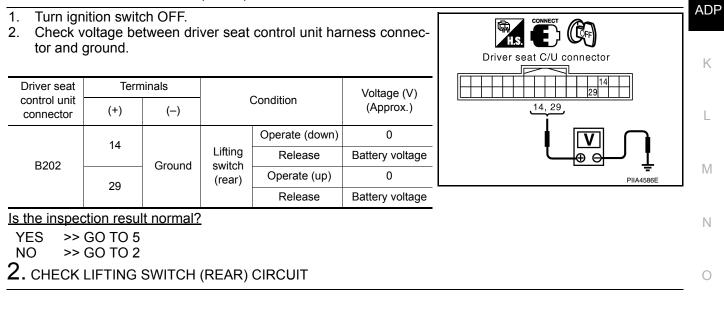
YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-59, "Diagnosis Procedure".

Diagnosis Procedure

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

1. CHECK LIFTING SWITCH (REAR) SIGNAL



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LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and power seat switch LH.
- 2. 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
6202 (A)	29	B200 (B)	6	163

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

Driver seat control unit connector	Terminal	Oracid	Continuity	
B202 (A)	14	Ground	No	
B202 (A)	29	-	No	

Is the inspection result normal?

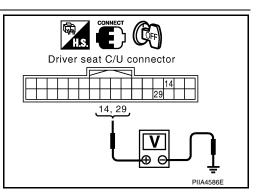
YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control unit	Terminals		Voltage (V)		
connector	(+)	(-)	(Approx.)		
B202	14 Cround		14 Ground		Battery voltage
B202	29	Ground	Dattery voltage		



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Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to <u>ADP-147, "Removal and Installation"</u>.

4. CHECK LIFTING SWITCH (REAR)

Refer to ADP-60, "Component Inspection".

Is the inspection result normal?

- YES >> GO TO 5
- NO >> Replace power seat switch LH. Refer to <u>SE-78, "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 <u>ADP-147</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK LIFTING SWITCH (REAR)

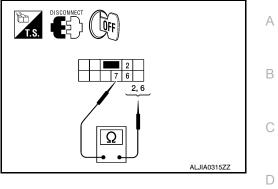
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LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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

Terr	ninal	Condition		Continuity	
Power sea	at switch LH	Condition		Continuity	
	2	Lifting switch rear (down)	Operate	Yes	
7	-	Lifting switch rear (down) -	Release	No	
,	6	Lifting switch rear (up)	Operate	Yes	
	0	Enting switch lear (up)	Release	No	



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-78. "Disassembly and Assembly"</u>.

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Revision: July 2010

PEDAL ADJUSTING SWITCH

Description

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

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 Pe	Pedal adjusting switch (forward)	Operate	ON
		Release	OFF
PEDAL SW-RR	Pedal adjusting switch (backward)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-62, "Diagnosis Procedure"</u>.

Diagnosis Procedure

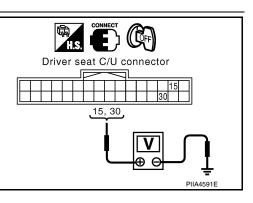
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Regarding Wiring Diagram information, refer to <u>ADP-127, "Wiring Diagram"</u>.

1. CHECK PEDAL ADJUSTING SWITCH SIGNAL

- 1. 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.)	
	15			Operate (backward)	0	
B202			Pedal ad-	Ground	Cround	Ground
BEUE	30	Ground	Cround		switch	Operate (forward)
	50		_	Release	Battery voltage	



Is the inspection result normal?

YES >> GO TO 5

NO >> GO TO 2

2. CHECK PEDAL ADJUSTING SWITCH CIRCUIT

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PEDAL ADJUSTING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and pedal adjusting switch.
- 2. 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	B202 15 M96		2	Yes
B202	30	10190	3	165

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

Driver seat control unit connector	Terminal		Continuity	
B202	15	Ground	No	
B202	30	-	NO	
	10			

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 C/U connector
t	Ter	minals	Voltage (V)	<u> </u>
	(+)	(-)	(Approx.)	
	15	Ground	Battery voltage	
	30	Ground	Dattery voltage	

Is the inspection result normal?

YES >> GO TO 4

Driver seat control unit connector

B202

NO >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

CHECK PEDAL ADJUSTING SWITCH

Refer to ADP-64, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

>> Replace pedal adjusting switch. Refer to IP-12, "Exploded View". NO

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

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

1 - Ground

: Continuity should exist.

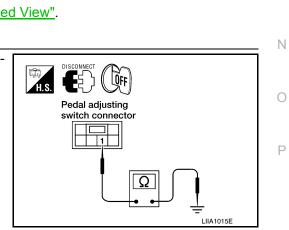
Is the inspection result normal?

YES >> GO TO 6

NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".



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Driver seat C/U connector

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PEDAL ADJUSTING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to <u>ADP-147, "Removal and Installation"</u>.
- NO >> Repair or replace the malfunctioning part.

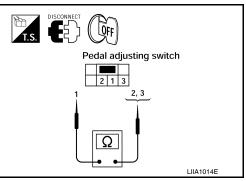
Component Inspection

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1. CHECK PEDAL ADJUSTING SWITCH

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

Terminal		Condition		Continuity
Pedal adju	sting switch	Condition		Continuity
	2	Pedal adjusting switch (backward)	Operate	Yes
1	2		Release	No
ļ	1 Pedal adjusting switch	Operate	Yes	
	5	((Release	No



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace pedal adjusting switch. Refer to <u>IP-12, "Exploded View"</u>.

SEAT MEMORY SWITCH

Description

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

Component Function Check

1. CHECK FUNCTION

Select "MEMORY SW 1", "MEMORY SW 2", "SET SW" in "Data monitor" mode with CONSULT-III. 1.

Check seat memory switch signal under the following conditions. 2.

Monitor item	Cone	dition	Status		
		Push	ON	-	
MEMORY SW1	Memory switch 1	Release Release	Release	OFF	
	Memory switch 2 Set switch	Push	ON		
MEMORY SW2		Release	OFF	_	
SET SW		Push	ON	_	
361 300		Release	OFF	_	

Is the indication normal?

YES >> Inspection End.

>> Perform diagnosis procedure. Refer to ADP-65, "Diagnosis Procedure". NO

Diagnosis Procedure

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

1. CHECK MEMORY SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. 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	

Automatic drive Seat memory positioner C/U connector switch connector 9 3 2 1 9, 24, 25 1, 2, 3 Ω

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

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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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-66, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch. Refer to <u>ADP-149</u>, "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 <u>ADP-148, "Removal and Installation"</u>.

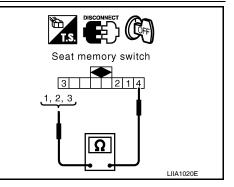
NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK SEAT MEMORY SWITCH

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

Terminal		Condition		Continuity	
Seat mem	ory switch	Condition		Continuity	
	1	Memory switch 1	Push	Yes	
		Memory Switch 1	Release	No	
4	4 2	Memory switch 2	Push	Yes	
4			Release	No	
	3	Set switch	Push	Yes	
	3	Set Switch	Release	No	

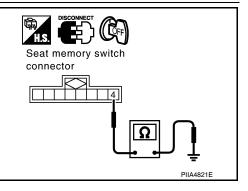


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Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to <u>ADP-149, "Removal and Installation"</u>.

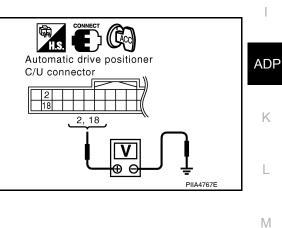


DOOR MIRROR REMOTE CONTROL SWITCH	
DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH	A
CHANGEOVER SWITCH : Description	В
Changeover switch is integrated into door mirror remote control switch. Changeover switch has three positions (L, N and R). It changes door mirror motor operation by transmitting control signal to automatic drive positioner control unit.	C
CHANGEOVER SWITCH : Component Function Check	0
1. CHECK CHANGEOVER SWITCH FUNCTION	D
Check the operation on "MIR CHNG SW-R" or "MIR CHNG SW-L" in "DATA MONITOR" mode with CON- SULT-III. Refer to <u>ADP-26</u> , "CONSULT-III Function".	E
Is the inspection result normal?	
 YES >> Changeover switch function is OK. NO >> Refer to <u>ADP-67, "CHANGEOVER SWITCH : Diagnosis Procedure"</u>. 	F
CHANGEOVER SWITCH : Diagnosis Procedure	
	G
Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".	
1. CHECK CHANGEOVER SWITCH SIGNAL	Η

1. Turn ignition switch to ACC.

2. 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	Ground	RIGHT	0	
M33			Other than above	5	
10133	18		LEFT	0	
	10		Other than above	5	



Is the inspection result normal?

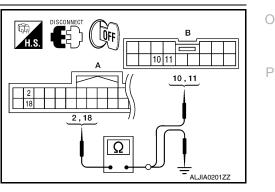
YES >> GO TO 6

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 re- mote control switch connector	Terminal	Continuity
M33 (A)	2	D10 (B)	11	Yes
1005 (A)	18	D10 (D)	10	165



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< DTC/CIRCUIT DIAGNOSIS >

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

Automatic drive positioner control unit connector	Terminal	Que ed	Continuity
M33 (A)	2	Ground	No
1000 (A)	18		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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.
- 2. 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			(Approx.)
M33	2	Ground	5
WIJJ	18	Ground	5

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-148</u>, "Removal and Installation".

5. CHECK CHANGEOVER SWITCH

Check changeover switch.

Refer to ADP-69, "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 <u>ADP-150, "Removal and Installation"</u>.

6. CHECK INTERMITTENT INCIDENT

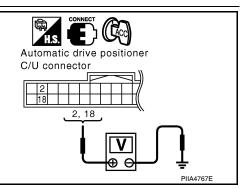
Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

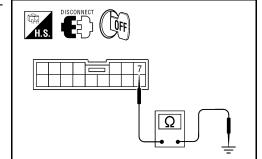
Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-148. "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning parts.



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< DTC/CIRCUIT DIAGNOSIS >

CHANGEOVER SWITCH : Component Inspection

1. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch.

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

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Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to <u>ADP-150, "Removal and Installation"</u>. MIRROR SWITCH

MIRROR SWITCH : Description

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

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?

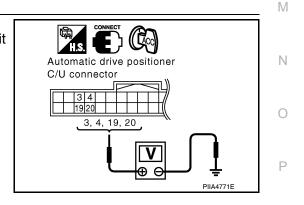
- YES >> Mirror switch function is OK.
- NO >> Refer to <u>ADP-69</u>, "<u>MIRROR SWITCH</u> : <u>Diagnosis Procedure</u>".

MIRROR SWITCH : Diagnosis Procedure

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

1. CHECK MIRROR SWITCH FUNCTION

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



< DTC/CIRCUIT DIAGNOSIS >

Terminals				
(+)			Mirror switch	Voltage (V)
Automatic drive positioner control unit connector	Terminal	(–)	Condition	(Approx.)
	3	UP	0	
		Ground	Other than above	5
	4		LEFT	0
M33			Other than above	5
1000	19		DOWN	0
			Other than above	5
	20		RIGHT	0
			Other than above	5

Is the inspection result normal?

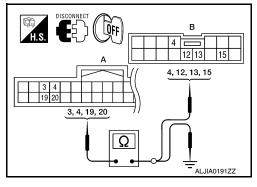
YES >> GO TO 6

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 con- nector	Terminal	Continuity
M33 (A)	3	D10 (B)	15	Yes
	4		13	
	19		12	
	20		4	



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

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

Is the inspection result normal?

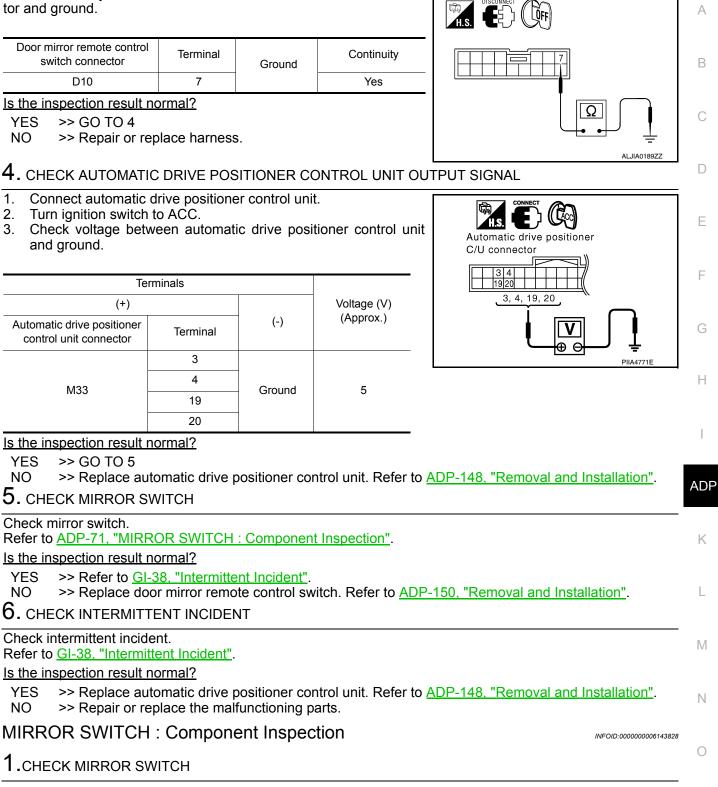
YES >> GO TO 3

NO >> Repair or replace harness.

$\mathbf{3}$. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Check continuity between door mirror remote control switch connec-

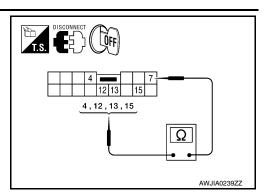


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< DTC/CIRCUIT DIAGNOSIS >

Check door mirror remote control switch.

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



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to <u>ADP-150, "Removal and Installation"</u>.

POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>ADP-127, "Wiring Diagram"</u>.

1. CHECK POWER SEAT SWITCH LH GROUND CIRCUIT

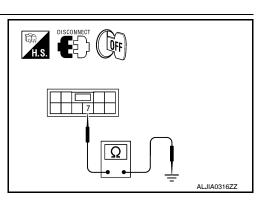
- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH connector and ground.

B208 7 Yes	Power seat switch LH connector	Terminal	Ground	Continuity
	B208	7		Yes

Is the inspection result normal?

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

NO >> Repair or replace harness.



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< DTC/CIRCUIT DIAGNOSIS >

DETENTION SWITCH

Description

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

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-74, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000006143832

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

1. CHECK DTC WITH "BCM"

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

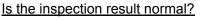
Is any other DTC detected?

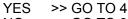
-	
YES	>> Check the DTC.

2. CHECK PARK POSITION SWITCH INPUT SIGNAL

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

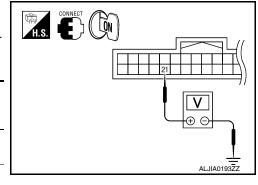
Driver seat	Terr	minal			Voltage (V)
control unit connector	(+)	(-)			(Approx.)
B202 21	21 Ground	A/T selec-	P position	Battery volt- age	
	21	Ground	tor lever	Other than above	0V





NO >> GO TO 3

3. CHECK PARK POSITION SWITCH CIRCUIT



INFOID:000000006143830

DETENTION SWITCH

< DTC/CIRCUIT 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).

A		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.

A			Continuity
Connector	Connector Terminal		Continuity
B202	21		No

Is the inspection result normal?

YES >> GO TO 4

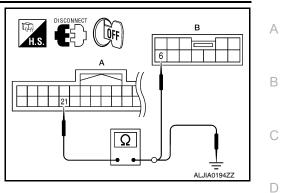
NO >> Repair or replace harness.

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-147</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.



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< DTC/CIRCUIT DIAGNOSIS >

FRONT DOOR SWITCH (DRIVER SIDE)

Description

Detects front door LH open/close condition.

Component Function Check

1. CHECK FUNCTION

1. Select "DOOR SW-DR" in "Data monitor" mode with CONSULT-III.

Check the front door switch LH signal under the following conditions. 2.

Monitor item	Cor	Status	
DOOR SW-DR	Front door switch LH	Open	ON
DOORGWER		Close	OFF

Is the inspection result normal?

YES >> Inspection End.

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

Diagnosis Procedure

INFOID:000000006143835

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

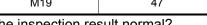
1. CHECK FRONT DOOR SWITCH LH CIRCUIT

- 1. Disconnect BCM and front door switch LH.
- Check continuity between BCM connector and front door switch 2. LH connector.

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

Check continuity between BCM connector and ground. 3

BCM connector	Terminal	Ground	Continuity
M19	47	Ground	No



Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

2. CHECK FRONT DOOR SWITCH LH

Refer to ADP-77, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace front door switch LH.

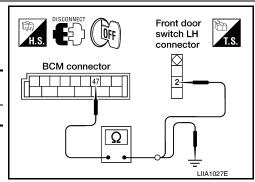
 ${f 3.}$ CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

>> Replace BCM. Refer to BCS-56, "Removal and Installation". YES

>> Repair or replace the malfunctioning part. NO



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FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

Component Inspection

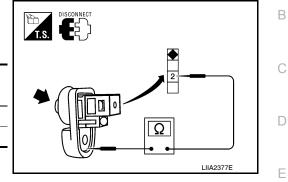
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1. CHECK FRONT DOOR SWITCH LH

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

Terminal		Condition		Continuity
Front o	loor switch LH	Condition		Continuity
2	Ground part of	Front door switch	Pushed	No
2	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

< DTC/CIRCUIT DIAGNOSIS >

SLIDING SENSOR

Description

- · 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

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.

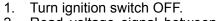
NO >> Perform diagnosis procedure. Refer to <u>ADP-78, "Diagnosis Procedure"</u>.

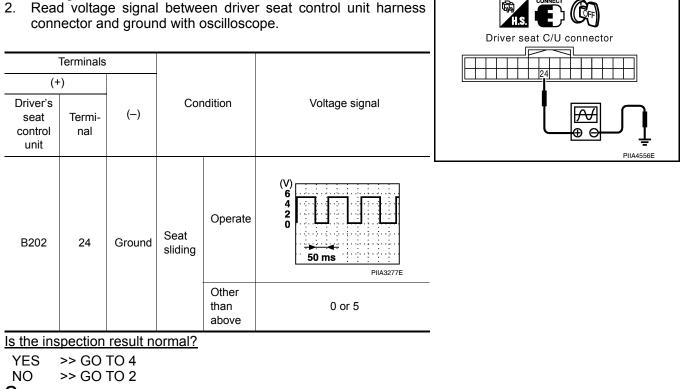
Diagnosis Procedure

INFOID:000000006143839

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

1. CHECK SLIDING SENSOR SIGNAL





2. CHECK SLIDING SENSOR CIRCUITS

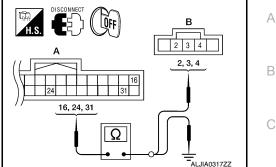
INFOID:000000006143837

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

- 1. 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	



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 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

1. Connect driver seat control unit and sliding motor LH.

2. 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-78, "Disassembly</u> and <u>Assembly"</u>.
- NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "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 <u>ADP-147</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SENSOR

Description

- 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

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
		Operate (forward)	Change (increase)
RECLN PULSE	Seat reclining	Operate (backward)	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

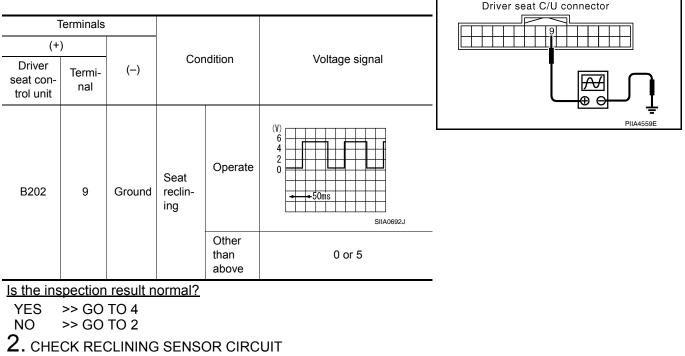
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Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

1. CHECK RECLINING SENSOR SIGNAL



 Read voltage signal between driver seat control unit harness connector and ground with oscilloscope.



INFOID:000000006143840

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and reclining motor LH.
- 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
0202 (A)	31	B203 (B)	4	163

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

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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-78. "Disassembly</u> and <u>Assembly"</u>.
- NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "<u>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 <u>ADP-147, "Removal and Installation"</u>.
- NO >> Repair or replace the malfunctioning part.

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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT 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

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	Seat lifting (front)	Operate (down)	Change (decrease)
			No change

Is the indication normal?

YES >> Inspection End.

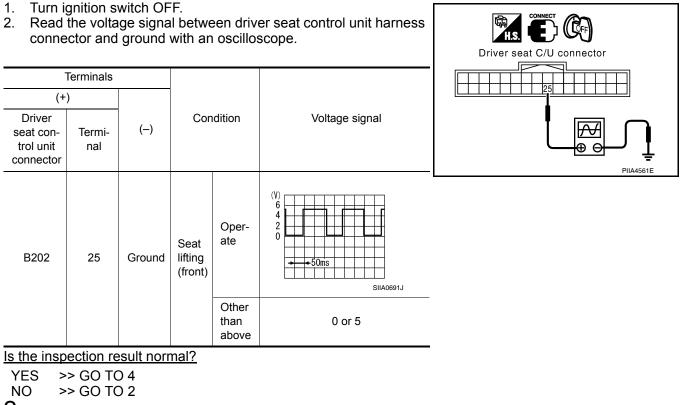
NO >> Perform diagnosis procedure. Refer to <u>ADP-82, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000006143845

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

1. CHECK LIFTING SENSOR (FRONT) SIGNAL



2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

INFOID:000000006143843

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and lifting motor (front).
- 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
	16		3	
B202 (A)	25	B206 (B)	4	Yes
	31		2	

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

Driver seat control unit connector	Terminal		Continuity	
	16	Ground		
B202 (A)	25		No	
	31			
Is the inspection result	t normal?			
YES >> GO TO 3				
- '	replace harne	ess.		
3. CHECK SEAT OP	ERATION			
			otor (front) connecto	
			eration] with memo	
Is the operation norma	<u>al?</u>			
YES >> Replace li and Asser		ont). (Built in p	power seat frame a	assembly). Refer to <u>SE-78, "Disassembly</u>
NO >> Replace d	Iriver seat cor	trol unit. Refer	r to <u>ADP-147, "Re</u> r	moval 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 <u>ADP-147, "Removal and Installation"</u>.
- NO >> Repair or replace the malfunctioning part.

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< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description

- 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

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.

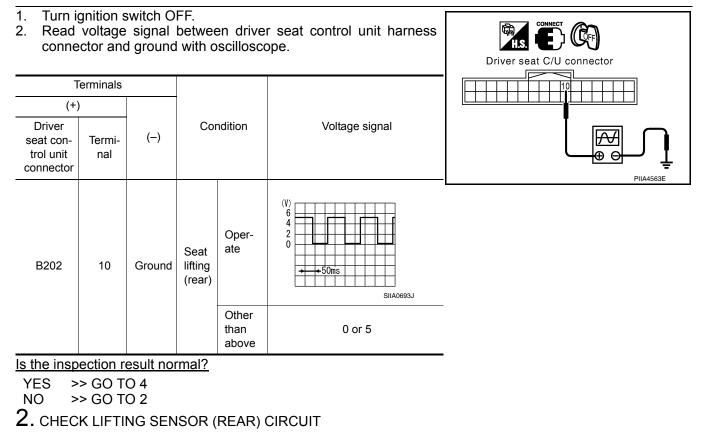
NO >> Perform diagnosis procedure. Refer to <u>ADP-84, "Diagnosis Procedure"</u>.

Diagnosis Procedure

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

1. CHECK LIFTING SENSOR (REAR) SIGNAL



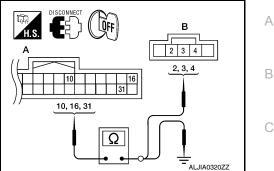
INFOID:000000006143846

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

- 1. 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	



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3. 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

1. Connect driver seat control unit and lifting motor (rear) connector.

2. 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-78, "Disassembly</u> and <u>Assembly"</u>.
- NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "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 <u>ADP-147</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

PEDAL ADJUSTING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

PEDAL ADJUSTING SENSOR

Description

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- 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

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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	Condition		Value
PEDAL SEN	Podal position	Forward	0.5V
	Pedal position	Backward	4.5V

Is the indication normal?

YES >> Inspection End.

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

Diagnosis Procedure

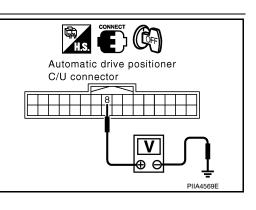
INFOID:000000006143851

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.)
	0	Ground Pedal as- sembly position		Forward	0.5
M33	8			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

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< DTC/CIRCUIT 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 posi- tioner control unit connector	Terminal	Pedal adjusting motor assembly connector	Terminal	Continuity
M33 (A)	8		4	
M34 (C)	33	E110 (B)	3	Yes
W34 (C)	41		5	

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

Automatic drive positioner control unit connector	Terminal		Continuity
M33 (A)	8	Ground	
M34 (C)	33		No
W34 (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.

Check door mirror operation with memory function. 3.

Is the operation normal?

YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-151, "Removal and Installation"</u>.

NO >> Replace automatic drive positioner control unit. Refer to ADP-148, "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-148, "Removal and Installation". NO

>> Repair or replace the malfunctioning part.

< DTC/CIRCUIT DIAGNOSIS >

MIRROR SENSOR DRIVER SIDE

DRIVER SIDE : Description

- 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

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	Con	Value	
MIR/SEN LH U-D		Close to peak	3.4V
	Door mirror LH	Close to valley	0.6V
MIR/SEN LH R-L		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-88, "DRIVER SIDE : Diagnosis Procedure"</u>.

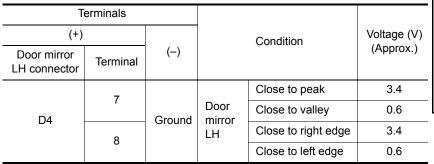
DRIVER SIDE : Diagnosis Procedure

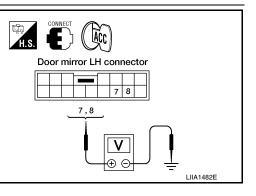
INFOID:000000006143854

Regarding Wiring Diagram information, refer to <u>ADP-127, "Wiring Diagram"</u>.

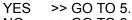
1. CHECK DOOR MIRROR LH SENSOR SIGNAL

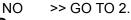
- 1. Turn ignition switch to ACC.
- Check voltage between door mirror LH harness connector and ground.





Is the inspection result normal?





2. CHECK DOOR MIRROR LH SENSOR CIRCUIT 1

INFOID:000000006143852

MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and door mirror LH connector.
- 3. 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
NIGO	22	DF	8	163

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

Automatic drive positioner control unit connector	Terminal		Continuity	
M33	6	Ground	No	
W00	22	•	NO	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK DOOR MIRROR LH SENSOR CIRCUIT 2

1. 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	Yes
10134	41	04	6	165

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

Automatic drive positioner control unit connector	Terminal		Continuity	
M34	33	Ground	No	
1013-4	41		NO	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK PEDAL ADJUSTING OPERATION

1. Connect driver seat control unit connector and door mirror LH connector.

- 2. Turn ignition switch ON.
- 3. Check pedal adjusting operation with memory function.

Is the operation normal?

YES >> Replace door mirror actuator LH. Refer to MIR-23, "Mirror Actuator".

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-148</u>, "<u>Removal and Installation</u>".

5. CHECK INTERMITTENT INCIDENT

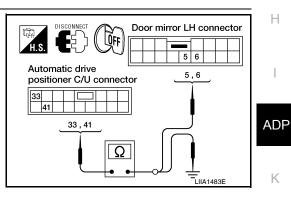
Refer to GI-38, "Intermittent Incident".

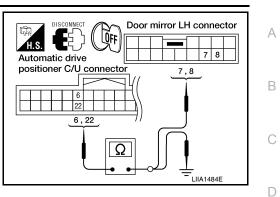
Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-148. "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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< DTC/CIRCUIT DIAGNOSIS >

PASSENGER SIDE

PASSENGER SIDE : Description

- 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

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		Value	
MIR/SEN RH U-D	Close to peak		3.4V
	- Door mirror RH	Close to valley	0.6V
MIR/SEN RH R-L		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-90, "PASSENGER SIDE : Diagnosis Procedure"</u>.

PASSENGER SIDE : Diagnosis Procedure

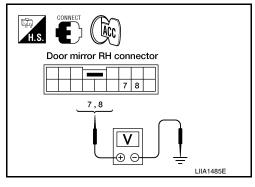
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Regarding Wiring Diagram information, refer to <u>ADP-127, "Wiring Diagram"</u>.

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)
Door mirror RH con- nector	Terminal	()	Condition		(Approx.)
	7			Close to peak	3.4
D107	r	Ground	Door mirror	Close to valley	0.6
DIUI	8	Giouna	RH	Close to right edge	3.4
	0			Close to left edge	0.6



Is the inspection result normal?

YES >> GO TO 5

NO >> GO TO 2

 ${f 2}.$ CHECK DOOR MIRROR RH SENSOR HARNESS CONTINUITY

INFOID:000000006143855

MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 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
MOO	21	0107	8	163

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 $\mathbf{3}$.check door mirror RH sensor power supply circuit

1. 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
M34	33	D107	5	Yes
10134	41	DIO	6	165

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

Automatic drive positioner control unit connector	Terminal		Continuity	
 M34	33	Ground	No	
10134	41	-	INO	

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4.CHECK PEDAL ADJUSTING OPERATION

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

Is the operation normal?

- YES >> Replace door mirror actuator. Refer to MIR-23, "Mirror Actuator".
- NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-148</u>, "<u>Removal and Installation</u>".

5.CHECK INTERMITTENT INCIDENT

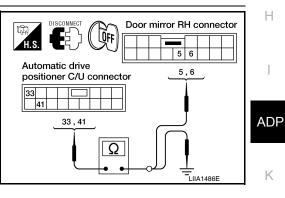
Refer to GI-38, "Intermittent Incident".

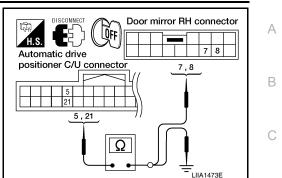
Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-148. "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

ADP-91





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SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING MOTOR

Description

- 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

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	Seat sliding	Stop
SEAT SLIDE	FR		Forward
	RR		Backward

Is the operation of relevant parts normal?

YES >> Inspection End.

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

Diagnosis Procedure

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

1. CHECK SLIDING MOTOR LH POWER SUPPLY

(-)

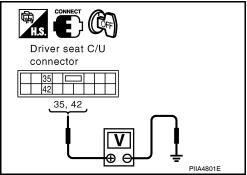
1. Turn the ignition switch OFF.

Terminal

(+)

Driver seat

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



control unit connector	Terminal					
				OFF	0	
	35			FR (forward)	Battery voltage	
B203		Ground	SEAT	RR (backward)	0	
D205		Ground	SLIDE	OFF	0	
	42			FR (forward)	0	
				RR (backward)	Battery voltage	

Test Item

Is the inspection result normal?

YES >> Replace sliding motor LH. (Built in power seat frame assembly). Refer to <u>SE-78, "Disassembly</u>".

Voltage (V)

(Approx.)

- NO >> GO TO 2
- 2. CHECK SLIDING MOTOR LH CIRCUIT

INFOID:000000006143858

SLIDING MOTOR

< DTC/CIRCUIT 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
B203 (A)	42	5204 (D)	1	103

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

		А
A	B 1,5	В
<u>333,42</u> Ω		С
	ALJIA0321ZZ	D

Driver seat control unit connector	Terminal		Continuity	
B203 (A)	35	Ground	No	
6203 (A)	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 <u>ADP-147, "Removal and Installation"</u>.
- NO >> Repair or replace the malfunctioning part.

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RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

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

1. CHECK FUNCTION

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

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 ADP-94, "Diagnosis Procedure".

Diagnosis Procedure

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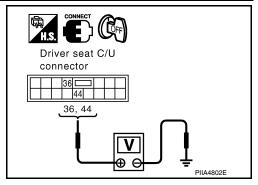
Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

1. CHECK RECLINING MOTOR LH POWER SUPPLY

1. Turn the ignition switch OFF.

Terminal

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



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

Is the inspection result normal?

YES >> Replace reclining motor LH. (Built in seatback assembly). Refer to SE-78, "Disassembly and Assembly". 2

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RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit connector and reclining motor LH.
- 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
P202 (A)	36	B205 (B)	2	Yes
B203 (A)	44	B203 (B)	3	165

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

Driver seat control unit connector	Terminal		Continuity
B203 (A)	36	Ground	No
6203 (A)	44		INU
		•	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

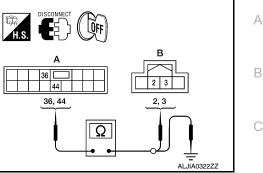
3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-147. "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.



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LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description

- 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

1. CHECK FUNCTION

- 1. 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-96. "Diagnosis Procedure"</u>.

Diagnosis Procedure

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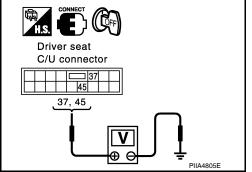
Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

1. Turn the ignition switch OFF.

Terminal

- 2. Perform "Active test" ("SEAT LIFTER FR") with CONSULT-III.
- Check voltage between driver seat control unit harness connector and ground.



(+)			Test Item		Voltage (V)
Driver seat control unit connector	Terminal	(-)			(Approx.)
				OFF	0
	37	Cround	SEAT Ground LIFTER	UP	0
B203				DWN (down)	Battery voltage
B203		Ground	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-78, "Disassembly</u> and <u>Assembly"</u>.
- NO >> GO TO 2
- **2.** CHECK LIFTING MOTOR (FRONT) CIRCUIT

INFOID:000000006143864

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT 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	6200 (B)	5	165

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

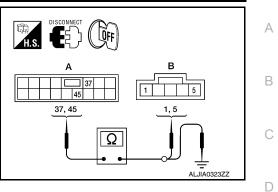
3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-147. "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.



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LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description

- 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

1. CHECK FUNCTION

- 1. 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-98, "Diagnosis Procedure"</u>.

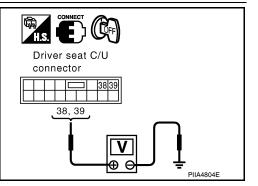
Diagnosis Procedure

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

1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Perform "Ăctive 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	SEAT LIFTER RR	UP	Battery voltage
B203				DWN (down)	0
B203		Ground		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-78, "Disassembly</u> and <u>Assembly"</u>.
- NO >> GO TO 2
- 2. CHECK LIFTING MOTOR (REAR) CIRCUIT

INFOID:000000006143867

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and lifting motor (rear).
- 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
D200 (A)	39	B207 (B)	1	163

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

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 <u>ADP-147, "Removal and Installation"</u>.
- NO >> Repair or replace the malfunctioning part.



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PEDAL ADJUSTING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

PEDAL ADJUSTING MOTOR

Description

- 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

1. CHECK FUNCTION

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

	Description	l
OFF		Stop
FR	Pedal adjusting motor	Forward
RR	-	Backward
	FR	OFF FR Pedal adjusting motor

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-100, "Diagnosis Procedure"</u>.

Diagnosis Procedure

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Regarding Wiring Diagram information, refer to <u>ADP-127, "Wiring Diagram"</u>.

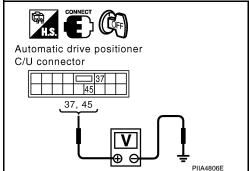
1. CHECK PEDAL ADJUSTING MOTOR POWER SUPPLY

1. Turn the ignition switch OFF.

Terminal

(...)

- 2. Perform "Active test" ("PEDAL MOTOR") with CONSULT-III.
- 3. Check voltage between automatic drive positioner control unit harness connector and ground.



Automatic drive posi- tioner con- trol unit connector	Terminal	(-)	Te	Test Item	
				OFF	0
	37	Ground	PEDAL MO-	RR (backward)	0
M34				FR (forward)	Battery voltage
10134		Ground	TOR	OFF	0
	45			RR (backward)	Battery voltage
				FR (forward)	0
le the increa	tion result	normal?			

Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-151, "Removal and Installation"</u>.

NO >> GO TO 2

2. CHECK PEDAL ADJUSTING MOTOR CIRCUIT

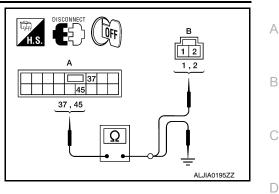
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PEDAL ADJUSTING MOTOR

< DTC/CIRCUIT 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
	45	L 103 (D)	2	163



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

Automatic drive positioner control unit connector	Terminal		Continuity		E
M34 (A)	37	Ground	No	-	
	45				F
Is the inspection result n	ormal?			•	
YES >> GO TO 3					0
NO >> Repair or re	place harness.				G
3. CHECK INTERMITT	ENT INCIDENT	-			
Refer to GI-38, "Intermit	tent Incident".				Н
Is the inspection result n					
YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-148</u> , "Removal and Installation".					
NO >> Repair or re					

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< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Description

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

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-102, "Diagnosis Procedure"</u>.

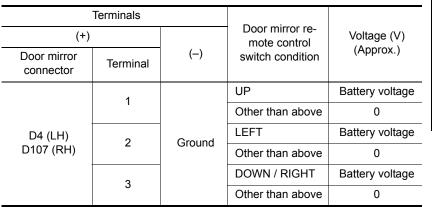
Diagnosis Procedure

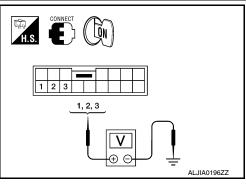
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Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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





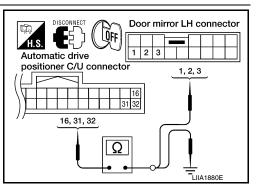
Is the inspection result normal?

YES >> Refer to <u>ADP-104</u>, "Component Inspection".

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and door mirror.
- 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	



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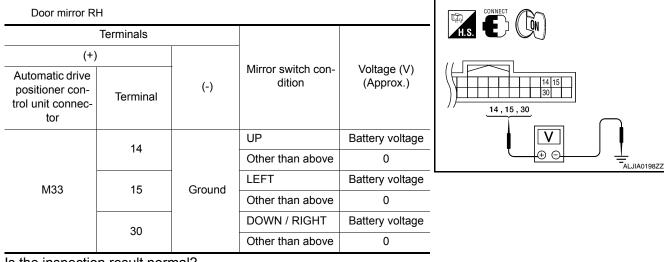
DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	vei .						('/////////////////////////////////////
tioner control unit c		Ingl	Door mirror H connector	Termina	I Continuity	Automatic drive positioner C/U conne	ector <u>1, 2, 3</u>
	14	ŀ		1			
M33	15	5	D107	2	Yes	14, 15, 30	
	30)		3			
 Check contin connector an Door mirror LH 		en auto	matic drive	e position	er control unit	t	
Automatic drive pos er control unit conne		erminal		С	Continuity		
		16	Groun	ıd			
M33		31			No		
		32	<u> </u>				
Door mirror RH							
Automatic drive pos er control unit conne		erminal		С	Continuity		
		14	Groun	d			
M33		15			No		
		30			No		
s the inspection r		30			No		
s the inspection r YES >> GO T	03	30 nal?			No		
<u>s the inspection r</u> YES >> GO T NO >> Repa	O 3 iir or replac	30 nal? ce harn					
<u>s the inspection r</u> YES >> GO T NO >> Repa 3. CHECK AUTC	O 3 ir or replac DMATIC D	30 nal? ce harn RIVE P	OSITIONE			UTPUT SIGNAL	
s the inspection r YES >> GO T NO >> Repa 3. CHECK AUTO	O 3 ir or replac DMATIC D omatic drive	30 nal? ce harn RIVE P e positio	OSITIONE			CONNECT	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
s the inspection r YES >> GO T NO >> Repa 3. CHECK AUTO . Connect auto 2. Turn ignition	O 3 ir or replac DMATIC D omatic drive switch ON	30 nal? ce harn RIVE P e positio	OSITIONE	ol unit.	ROL UNIT OL)
s the inspection r YES >> GO T NO >> Repa 3. CHECK AUTO . Connect auto 2. Turn ignition	O 3 ir or replace DMATIC D omatic drive switch ON je betweer	30 nal? ce harn RIVE P e positio	OSITIONE	ol unit.)
s the inspection r YES >> GO T NO >> Repa J. CHECK AUTO . COnnect auto . Turn ignition . Check voltag	O 3 ir or replace DMATIC D omatic drive switch ON je betweer	30 nal? ce harn RIVE P e positio	OSITIONE	ol unit.	ROL UNIT OL)
 <u>s the inspection r</u> YES >> GO T NO >> Repa CHECK AUTC COnnect auto Connect auto Turn ignition s Check voltag connector an Door mirror LH 	O 3 ir or replace DMATIC D omatic drive switch ON je betweer	30 nal? ce harn RIVE P e positio	OSITIONE	ol unit.	ROL UNIT OL) 16 31 32
s the inspection r YES >> GO T NO >> Repa CHECK AUTO Connect auto Connect auto Check voltag connector an Door mirror LH	O 3 ir or replac OMATIC D omatic drive switch ON je betweer d ground.	30 nal? ce harn RIVE P e positio	OSITIONE	ol unit.	ROL UNIT OL		
s the inspection r YES >> GO T NO >> Repa CHECK AUTO Connect auto Connect auto Check voltag connector an Door mirror LH	O 3 ir or replac OMATIC D omatic drive switch ON je betweer d ground.	30 nal? ce harn RIVE P e positio	OSITIONE oner contro natic drive	ol unit. positione	ROL UNIT OL		
s the inspection r YES >> GO T NO >> Repa CHECK AUTC Connect auto Connect auto Check voltag connector an Door mirror LH Te (+) Automatic drive positioner control	TO 3 ir or replace DMATIC D pomatic drive switch ON je betweer d ground. rrminals	30 nal? ce harn RIVE P e position	OSITIONE oner contro natic drive	ol unit. positione r switch	ROL UNIT OL er control unit Voltage (V)		
s the inspection r YES >> GO T NO >> Repa CHECK AUTC Connect auto Connect auto Check voltag connector an Door mirror LH Te (+) Automatic drive positioner control	O 3 ir or replace DMATIC D pomatic drive switch ON ge betweer d ground.	30 nal? ce harn RIVE P e position	OSITIONE oner contro natic drive Mirro cor	ol unit. positione r switch ndition	ROL UNIT OU er control unit Voltage (V) (Approx.)		
 <u>s the inspection r</u> YES >> GO T NO >> Repa CHECK AUTO Connect auto Turn ignition s Check voltag connector an Door mirror LH Te (+) Automatic drive positioner control unit connector	TO 3 iir or replace DMATIC D pomatic drive switch ON je betweer d ground. Terminals	30 nal? ce harn RIVE P e position n auton	OSITIONE oner contro natic drive Mirro cor DOWN Other th UP	ol unit. positione r switch ndition / RIGHT	ROL UNIT OU er control unit Voltage (V) (Approx.) Battery voltage		
 the inspection r YES >> GO T NO >> Reparation CHECK AUTO COnnect auto Turn ignition Check voltag connector an Door mirror LH Te (+) Automatic drive positioner control	TO 3 ir or replace DMATIC D pomatic drive switch ON je betweer d ground. rrminals	30 nal? ce harn RIVE P e position	OSITIONE oner contro natic drive Mirro cor DOWN Other ti UP	ol unit. positione r switch ndition / RIGHT	ROL UNIT OU er control unit Voltage (V) (Approx.) Battery voltage 0		
s the inspection r YES >> GO T NO >> Repa CHECK AUTO Connect auto Connect auto Check voltag connector an Door mirror LH Te (+) Automatic drive positioner control unit connector	TO 3 iir or replace DMATIC D pomatic drive switch ON je betweer d ground. Terminals	30 nal? ce harn RIVE P e position n auton	OSITIONE oner contro natic drive Mirro cor DOWN Other ti UP	ol unit. positione r switch adition / RIGHT nan above	ROL UNIT OU er control unit Voltage (V) (Approx.) Battery voltage 0 Battery voltage		

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >



Is the inspection result normal?

YES >> GO TO 4.

NO	>> Replace automatic drive	positioner control unit.	Refer to ADP-148.	"Removal and Installation"
----	----------------------------	--------------------------	-------------------	----------------------------

4. CHECK DOOR MIRROR MOTOR

Check door mirror motor. Refer to <u>ADP-104, "Component Inspection"</u>.

Is the inspection result normal?

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

NO >> Replace door mirror actuator. Refer to MIR-23, "Mirror Actuator".

Component Inspection

INFOID:000000006143876

1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to <u>MIR-23, "Mirror Actuator"</u>.

Is the inspection result normal?

YES >> GO TO 2

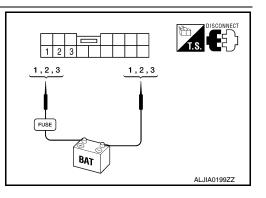
NO >> Replace door mirror actuator. Refer to MIR-23, "Mirror Actuator".

2. CHECK DOOR MIRROR MOTOR-II

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror.

3. Apply 12V to each power supply terminal of door mirror motor.

Door mirror connector	Term	ninal	Operational direction
Door mintor connector	(+)	(–)	
	3	2	RIGHT
D4 (LH)	2	3	LEFT
D107 (RH)	1	3	UP
·	3	1	DOWN



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror actuator. Refer to MIR-21, "Door Mirror Assembly".

SEAT MEMORY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR LAMP

Description

- 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		Description		Ε
	OFF		OFF	
MEMORY SW INDCTR	ON-1	Memory switch indicator	Indicator 1: ON	
	ON-2	ON-2	Indicator 2: ON	F
Is the operation of relevant pa	arts normal?			
YES >> Inspection End. NO >> Perform diagnos	is procedure. Refer to	ADP-105, "Diagnosis Procedure".		G
Diagnosis Procedure			INFOID:00000006143879	
5				Н

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

1. CHECK SEAT MEMORY INDICATOR 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
M33	12	D5	6	Yes
Web	13	23	7	103

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

Automatic drive position- er connector	Terminal		Continuity
M33	12	Ground	No
WIJJ	13		INO
Is the inspection result	normal?		
YES >> GO TO 2			
NO >> Repair or replace harness.			
2. CHECK MEMORY	INDICATOR P	OWER SUPP	LY

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Seat memory

switch connector

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6, 7

LIIA1022E

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12 13

Ω

Automatic drive positioner

12, 13

C/U connector

INFOID:00000006143877

SEAT MEMORY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

Check voltage between seat memory switch harness connector and ground.

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

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-106, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch. Refer to <u>ADP-149</u>, "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 <u>ADP-148</u>, "<u>Removal and Installation</u>".

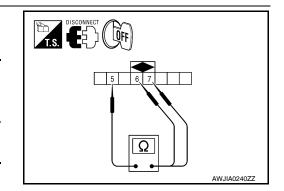
NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK SEAT MEMORY INDICATOR

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

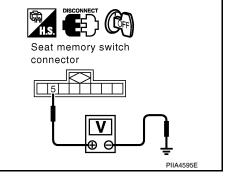
Terr			
Seat men	Seat memory switch		
(+)	(-)		
6	5	Yes	
7	5	103	



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to ADP-149, "Removal and Installation".



ECU DIAGNOSIS INFORMATION DRIVER SEAT CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Conc	lition	Value/Status	_
	Cat awitch	Push	ON	_
SET SW	Set switch	Release	OFF	D
	Manager av itale 4	Push	ON	
MEMORY SW1	Memory switch 1	Release	OFF	Ε
	Maman avitab 0	Push	ON	
MEMORY SW2	Memory switch 2	Release	OFF	
	Oliding switch (front)	Operate	ON	F
SLIDE SW-FR	Sliding switch (front)	Release	OFF	_
	Oliding owitch (rear)	Operate	ON	
SLIDE SW-RR	Sliding switch (rear)	Release	OFF	_ 0
	Declining switch (freet)	Operate	ON	
RECLN SW-FR	Reclining switch (front)	Release	OFF	H
		Operate	ON	
RECLN SW-RR	Reclining switch (rear)	Release	OFF	
	Lifting quitely fromt (up)	Operate	ON	-
LIFT FR SW-UP	Lifting switch front (up)	Release	OFF	-
		Operate	ON	A
LIFT FR SW-DN	Lifting switch front (down)	Release	OFF	
		Operate	ON	
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF	- k
		Operate	ON	_
LIFT RR SW-DN	Lifting switch rear (down)	Release	OFF	L
MIR CON SW-UP	Mirror owitch	Up	ON	
WIR CON SW-UP	Mirror switch	Other than above	OFF	
MIR CON SW-DN	Mirror owitch	Down	ON	N
WIR CON SW-DN	Mirror switch	Other than above	OFF	_
	Mirror owitch	Right	ON	N
MIR CON SW-RH	Mirror switch	Other than above	OFF	
		Left	ON	
MIR CON SW-LH	Mirror switch	Other than above	OFF	C
	Oh an an an airtich	Right	ON	_
MIR CHNG SW-R	Changeover switch	Other than above	OFF	
	Oh an an an airtich	Left	ON	- F
MIR CHNG SW-L	Changeover switch	Other than above	OFF	_
	Dedel ediueting switch	Forward	ON	_
PEDAL SW-FR	Pedal adjusting switch	Other than above	OFF	_
	Dedel ediueting switch	Backward	ON	_
PEDAL SW-RR	Pedal adjusting switch	Other than above	OFF	_

А

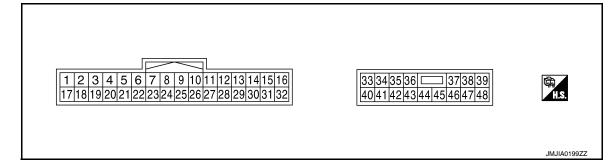
В

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condit	ion	Value/Status
DETENT SW	A/T selector lever	P position	OFF
DETENT SW	AT Selector level	Other than above	ON
STARTER SW	Ignition position	Cranking	ON
STARTER SW	Ignition position	Other than above	OFF
		Forward	The numeral value decreases
SLIDE PULSE	Seat sliding	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
		Up	The numeral value decreases
LIFT FR PULSE	Seat lifter (front)	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
MIR/SEN RH U-D	Door mirror (passenger side)	Close to peak	3.4
MIR/SEN RH U-D	Door militor (passenger side)	Close to valley	0.6
MIR/SEN RH R-L	Deer mirrer (passenger eide)	Close to left edge	3.4
	Door mirror (passenger side)	Close to right edge	0.6
MIR/SEN LH U-D	Deer mirrer (driver eide)	Close to peak	3.4
MIR/SEN LA U-D	Door mirror (driver side)	Close to valley	0.6
MIR/SEN LH R-L	Door mirror (driver side)	Close to left edge	0.6
	Door mirror (driver side)	Close to right edge	3.4
PEDAL SEN	Redel position	Forward	0.5
	Pedal position	Backward	4.5

TERMINAL LAYOUT



PHYSICAL VALUES

Tern	ninal No.	\^/:	Description				
+	-	Wire color	Signal name	Input/ Output	Conditior	ו	Voltage (V) (Approx)
1	Ground	W	UART LINE (RX)	Input	Ignition switch ON		(V) 6 4 2 0 1 ms PIIA4813E
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 SilA0692J
						Stop	0 or 5
10	Ground	B/R	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	(V) 6 4 2 0 ••••••50ms SilA0693J
						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	Ground	V	Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0
					(Release	Battery voltage
14	Ground	P/L	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0
			-			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

Term	ninal No.	D. Description					
+	-	Wire color	Signal name	Input/ Output	Condition	ו	Voltage (V) (Approx)
17	Ground	Y/R	UART LINE (TX)	Output	Ignition switch ON		(V) 6 4 2 0 2 ms PIIA4814E
19	_	G	CAN-L	_			_
21	Ground	L	A/T shift selector (park position switch (Intelli- gent 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 FIIA3277E
						Stop	0 or 5
25	Ground	Y/G	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	(V) 6 4 2 0 ••••50ms SIIA0691J
						Stop	0 or 5
26	Ground	L/R	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0
						Release Operate	Battery voltage
27	Ground	V/W	Reclining switch for- ward signal	Input	Reclining switch	(forward) Release	0 Battery voltage
	Ground	BR/Y	Lifting switch (front) up	Input	Seat lifting switch	Operate (up)	0
			signal	•	(front)	Release	Battery voltage
29	Ground	G/R	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0
					(Release	Battery voltage
30	Ground	L/Y	Pedal switch forward signal	Input	Pedal switch	Operate (forward)	0
	0	00/0	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 INFORMATION >

Tern	ninal No.	Wire	Description				Voltage (V)	
+	-	color	Signal name	Input/ Output	Condition	n	(Approx)	
35	Ground	R/G	Sliding motor forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage	
			output signal			Release	0	
36	Ground	L	Reclining motor for- ward output signal	Output	Seat reclining	Operate (forward)	Battery voltage	
			ward output signal			Release	0	
37	Ground	В	Lifting motor (front) down output signal	Output	Seat lifting (front)	Operate (down)	Battery voltage	
			down output signal			Stop	0	
38	Ground	GR	Lifting motor (rear) up output signal	Output	Seat lifting (rear)	Operate (up)	Battery voltage	
			output signal			Stop	0	
39	Ground	R	Lifting motor (rear) down output signal	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	Ground	G/B	Reclining motor back- ward output signal	Output	Seat reclining	Operate (back- ward)	Battery voltage	
						Stop	0	
45	Ground	G/Y	Lifting motor (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage	
						Stop	0	
48	Ground	В	Ground (power)				0	

Fail Safe

INFOID:000000006143883

L

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 M pedals are detected for T2 or more, status is judged "Output error".

OPERATED PORTION	T2	N
Seat sliding	Approx. 0.1 sec.	
Seat reclining	Same as above	
Seat lifting (Front)	Same as above	0
Seat lifting (Rear)	Same as above	
Pedal adjust	Same as above	D

NOTE:

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

< ECU DIAGNOSIS INFORMATION >

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

*: 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

INFOID:000000006143884

CONSULT-III	Tim	ing ^{*1}		
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-32
SEAT LIFTER FRONT [B2114]	0	1-39	Seat lifting motor front output	ADP-38
SEAT LIFTER REAR [B2115]	0	1-39	Seat lifting motor rear output	ADP-38
ADJ PEDAL MOTOR [B2117]	0	1-39	Pedal adjusting motor output	<u>ADP-38</u>
ADJ PEDAL SENSOR [B2120]	0	1-39	Pedal adjusting sensor input	<u>ADP-38</u>
DETENT SW [B2126]	0	1-39	Park position switch condition	<u>ADP-42</u>
UART COMM [B2128]	0	1-39	UART communication	<u>ADP-44</u>

*1.

• 0: Current malfunction is present

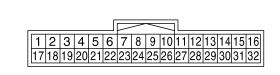
• 1-39: Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset to 1 if any malfunction is detected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

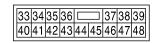
< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

INFOID:000000006143885







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PHYSICAL VALUES

Terr	minal No.		Description					
+	-	Wire color	Signal name	Input/ Out- put	Conditi	on	Voltage (V) (Approx.)	
			Changeover switch RH		Changeover	RH	0	
2	Ground	LG	signal	Input	switch position	Neutral or LH	5	
2	Ground	Y/B		Innut		Operated (up)	0	
3	Ground	Υ/B	Mirror switch up signal	Input	Mirror switch	Other than above	5	
_	0	\//\A/		las: f	Name of the la	Operated (left)	0	
4	Ground	V/W	Mirror switch left signal	Input	Mirror switch	Other than above	5	
F	Cround	D/D	Door mirror sensor (RH)	ا بر مرد ا	Door mirror RH	Peak	3.4	
5	Ground	R/B	up/down signal	Input	position	Valley	0.6	
6	Ground	L/Y	Door mirror sensor (LH)	Input	Door mirror LH	Peak	3.4	
0	Clound	L/ 1	up/down signal	mput	position	Valley	0.6	
8	Ground	BR/Y	Pedal sensor input sig-	Input	Pedal sensor	Forward	0.5	
Ũ	oround	BIUT	nal	mpar		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 PIIA4813E	
12	Ground	Р	Memory indicator 1 sig-	Out-	Memory indictor	Illuminate Other than	0	
_			nal	put	1	above	Battery voltage	

Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Conditio	on	Voltage (V) (Approx.)
			Memory indicator 2 sig-	Out-	Memory indictor	Illuminate	0
13	Ground	Y/G	nal	put	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	GR/R	up output signal	put		Other than above	0
15	Ground	V/R	Door mirror motor (RH)	Out-	Door mirror RH	Operate (left)	1.5 - Battery voltage
15	Ground	V/K	left output signal	put		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	Ground	0	Door mirror motor (LH)	put		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
19	Ground	30	nal	mput	WIITOF SWITCH	Other than above	5
20	Ground	GR	Mirror switch right signal	Input	Mirror switch	Operate (right)	0
20	Ciouna	OR	winter switch right signal	mput	WIITOF SWITCH	Other than above	5
21	Ground	L/W	Door mirror sensor (RH)	Input	Door mirror RH	Left edge	3.4
	Cround	2,	left/right signal	mput	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	loout	Set switch	Push	0
	Ground	9/0	Set switch signal	Input	Set Switch	Other than above	5
25	Ground	P/L	Memory switch 2 signal	Input	Memory switch 2	Push	0
	Ground	F/L	Memory Switch 2 Signal	input	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 FIIA4814E

< ECU DIAGNOSIS INFORMATION >

Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Conditi	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	Giouna	T	Door mirror motor (RH)	put		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
51	Giouna	ĸ	up output signal	put		Other than above	0
32	Ground	BR	Door mirror motor (LH)	Out-	Door mirror (LH)	Operate (left)	1.5 - Battery voltage
52	Giouna	DR	left output signal	put		Other than above	0
33	Ground	W/L	Sensor power supply	Input	—	1	5
34	Ground	Y/R	Battery power source	Input	—		Battery voltage
37	Ground	G	Pedal adjusting motor	Out-	Pedal adjusting	Operate (forward)	Battery voltage
57	Giouna	9	forward output signal	put	motor	Other than above	0
39	Ground	L/B	Battery power source		—	1	Battery voltage
40	Ground	B/W	Ground	—	—		0 A
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
			backwaru output signal	put		Other than above	0
48	Ground	В	Ground	—		+	0

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< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000006624650

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC ON SW	Ignition switch OFF or ON	Off
ACC ON SW	Ignition switch ACC	On
AIR COND SW	A/C switch OFF	Off
AIR COIND SW	A/C switch ON	On
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm ² , psi
AUTO LIGHT SW	Lighting switch OFF	Off
AUTO LIGITI SW	Lighting switch AUTO	On
BACK DOOR SW	Back door closed	Off
DACK DOOK SW	Back door opened	On
BRAKE SW	Brake pedal released	Off
DRARE SW	Brake pedal applied	On
BUCKLE SW	Seat belt buckle unfastened	Off
BUCKLE SW	Seat belt buckle fastened	On
BUZZER	Buzzer in combination meter OFF	Off
BUZZER	Buzzer in combination meter ON	On
CARGO LAMP SW	Cargo lamp switch OFF	Off
CARGO LAWIF SW	Cargo lamp switch ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	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
CDE UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Front door RH closed	Off
DOOR SW-AS	Front door RH opened	On
	Front door LH closed	Off
DOOR SW-DR	Front door LH opened	On
	Rear door LH closed	Off
DOOR SW-RL	Rear door LH opened	On
	Rear door RH closed	Off
DOOR SW-RR	Rear door RH opened	On
	Blower motor fan switch OFF	Off
FAN ON SIG	Blower motor fan switch ON	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On

Monitor Item	Condition	Value/Status
FR WIPER LOW	Front wiper switch OFF	Off
FR WIPER LOW	Front wiper switch LO	On
FR WIPER HI	Front wiper switch OFF	Off
	Front wiper switch HI	On
FR WIPER INT	Front wiper switch OFF	Off
	Front wiper switch INT	On
FR WIPER STOP	Any position other than front wiper stop position	Off
FR WIFER STOP	Front wiper stop position	On
HAZARD SW	When hazard switch is not pressed	Off
HAZARD SW	When hazard switch is pressed	On
HEAD LAMP SW1	Headlamp switch OFF	Off
HEAD LAWP SWI	Headlamp switch 1st	On
HEAD LAMP SW2	Headlamp switch OFF	Off
ILAU LAIVIE JVVZ	Headlamp switch 1st	On
HI BEAM SW	High beam switch OFF	Off
	High beam switch HI	On
ID REGST FL1	ID registration of front left tire incomplete	YET
ID REGGI FLI	ID registration of front left tire complete	DONE
ID REGST FR1	ID registration of front right tire incomplete	YET
ID REGST FRT	ID registration of front right tire complete	DONE
ID REGST RL1	ID registration of rear left tire incomplete	YET
	ID registration of rear left tire complete	DONE
ID REGST RR1	ID registration of rear right tire incomplete	YET
ID REGGI KRI	ID registration of rear right tire complete	DONE
IGN ON SW	Ignition switch OFF or ACC	Off
IGN ON SW	Ignition switch ON	On
IGN SW CAN	Ignition switch OFF or ACC	Off
IGN SW CAN	Ignition switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
	LOCK button of Intelligent Key is not pressed	Off
I-KEY LOCK ¹	LOCK button of Intelligent Key is pressed	On
	PANIC button of Intelligent Key is not pressed	Off
I-KEY PANIC ¹	PANIC button of Intelligent Key is pressed	On
	UNLOCK button of Intelligent Key is not pressed	Off
I-KEY PW DWN ¹	UNLOCK button of Intelligent Key is pressed for greater than 3 sec- onds and driver's window operating in DOWN direction	On
	UNLOCK button of Intelligent Key is not pressed	Off
I-KEY UNLOCK ¹	UNLOCK button of Intelligent Key is pressed	On
	Door key cylinder LOCK position	Off
KEY CYL LK-SW	Door key cylinder other than LOCK position	On
	Door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Door key cylinder other than UNLOCK position	On
	Mechanical key is removed from key cylinder	Off
KEY ON SW	Mechanical key is inserted to key cylinder	On

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
	LOCK button of key fob is not pressed	Off
KEYLESS LOCK ²	LOCK button of key fob is pressed	On
KEYLESS PANIC ²	PANIC button of key fob is not pressed	Off
KETLESS PANIC-	PANIC button of key fob is pressed	On
KEYLESS UNLOCK ²	UNLOCK button of key fob is not pressed	Off
KETLESS UNLOCK-	UNLOCK button of key fob is pressed	On
LIGHT SW 1ST	Lighting switch OFF	Off
	Lighting switch 1st	On
OIL PRESS SW	Ignition switch OFF or ACC Engine running	Off
	Ignition switch ON	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0V
PASSING SW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Return to ignition switch to LOCK position	Off
PUSH SW ¹	Press ignition switch	On
REAR DEF SW	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
RR WASHER SW	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER STOP	Rear wiper stop position	Off
RR WIFER STOP	Other than rear wiper stop position	On
	Rear wiper stop position	Off
RR WIPER STP2	Other than rear wiper stop position	On
	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
	Turn signal switch OFF	Off
TURN SIGNAL R	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
	Low tire pressure warning lamp in combination meter OFF	Off
WARNING LAMP	Low tire pressure warning lamp in combination meter ON	On

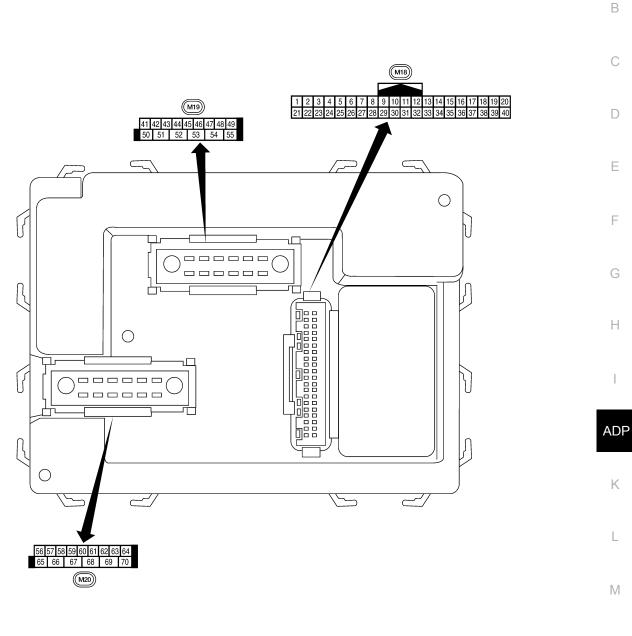
1: With Intelligent Key

2: With remote keyless entry system

< ECU DIAGNOSIS INFORMATION >

Terminal Layout

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LIIA2443E

INFOID:000000006624652

Physical Values

Revision: July 2010

	Wire	Wire Signal			Measuring condition	Reference value or waveform	
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)	
1	BR/W	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage	
I	DR/W	nation	Output	OFF	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 0 0 0 0 0 0 0 0 0 0 0 0 0	
3	G/Y	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 0 • • 5ms SKIA5292E	
4	Y	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 • • • 5ms	
5	G/B	Combination switch input 2				(V)	
6	V	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	6 4 2 0 + • 5ms SKIA5292E	
_		Rear window defogger			Rear window defogger switch ON	0V	
9	GR/R	switch	Input	ON	Rear window defogger switch OFF	5V	
10	G	Hazard lamp flash	Input	OFF	ON (opening or closing)	0V	
		-	mpar		OFF (other than above)	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		5V	
18	Р	Remote keyless entry receiver and optical sensor (ground)	Output	OFF		0V	

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	lgnition switch	Operation or condition	(Approx.)
19	V/W	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 ++50 ms LIIA1893E
20	G/W	Remote keyless entry	Inout	OFF	Stand-by (keyfob buttons re- leased)	(V) 6 4 2 0 • • • • 50 ms LIIA1894E
20	Giv	receiver (signal)	Input O		When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 4 2 0 + 50 ms LIIA 1895E
21	G	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF \rightarrow ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then 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 \rightarrow illuminates (Every 2.4 seconds)	Battery voltage \rightarrow 0V
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF \rightarrow ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.
					Rise up position (rear wiper arm on stopper) A Position (full clockwise stop position)	0V 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 di- rection)	Fluctuating
27	W/R	Compressor ON sig-	Input	ON	A/C switch OFF	5V
		nal			A/C switch ON	0V

	Wire		Signal		Measuring condition	
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
28	L/R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
20	L/IX	Tront blower monitor	mput		Front blower motor ON	0V
29	W/B	Hazard switch	Input	OFF	ON	0V
			mput		OFF	5V
32	R/G	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 2 0 •••5ms SKIA5291E
33	R/Y	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 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	SKIA5292E
37 ¹	B/R	Key switch and igni-	Input	OFF	Intelligent Key inserted	Battery voltage
		tion knob switch			Intelligent Key inserted	0V
37 ²	B/R	Key switch and key lock solenoid	Input	OFF	Key inserted Key inserted	Battery voltage 0V
38	W/L	Ignition switch (ON)	Input	ON	_	Battery voltage
39	L	CAN-H		—	—	_
40	Р	CAN-L	_		—	_
42	GR	Glass hatch ajar	Input	ON	Glass hatch open	0
42	GK	switch	Input		Glass hatch closed	Battery
		Back door switch (without power back			ON (open)	0V
43	R/B	door) or back door latch (door ajar switch) (with power back door)	Input	OFF	OFF (closed)	Battery voltage

	14.0		Signal		Measuring condition		
Terminal	Wire color	Signal name	input/ output	lgnition 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 (counterclock- wise direction)	Fluctuating	
					B Position (full counterclock- wise stop position)	0V	
					Reverse sweep (clockwise di- rection)	Fluctuating	
47	SB	Front door switch LH	Input	OFF	ON (open)	0V	
וד	00		input		OFF (closed)	Battery voltage	
48	R/Y	Rear door switch LH	Input	OFF	ON (open)	0V	
-10	111		input		OFF (closed)	Battery voltage	
49	R	Cargo lamp	Output	OFF	Any door open (ON)	0V	
-13	IX		Juipui	ULL	All doors closed (OFF)	Battery voltage	
51	G/Y	Trailer turn signal (right)	Output	ON	Turn right ON	(V) 15 10 5 0 -> -> -> -> -> -> -> -> -> ->	
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON	(V) 15 10 50 50 500 ms 500 ms 5	
					Rise up position (rear wiper arm on stopper)	0V	
					A Position (full clockwise stop position)	0V	
54	Y	Rear wiper output cir- cuit 2	Input	ON	Forward sweep (counterclock- wise direction)	0V	
					B Position (full counterclock- wise stop position)	Battery voltage	
					Reverse sweep (clockwise di- rection)	Battery voltage	
55	SB	Rear wiper output cir-	Output	ON	OFF	0	
		cuit 1	Calput		ON	Battery voltage	
56	R/G	Battery saver output	Output	OFF	15 minutes after ignition switch is turned OFF	0V	
				ON	—	Battery voltage	
57	Y/R	Battery power supply	Input	OFF	—	Battery voltage	

< ECU DIAGNOSIS INFORMATION >

	\\/inc		Signal		Measuring cond	dition	
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation	or condition	Reference value or waveform (Approx.)
50			lasut		When optical s nated	ensor is illumi-	3.1V or more
58	W/R	Optical sensor	Input	ON	When optical s minated	ensor is not illu-	0.6V or less
		Front door lock as-			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 50 50 500 ms SKIA3009J
61	G/Y	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 50 500 ms 500 m
62	R/W	Step lamp LH and RH	Output	OFF	ON (any door open)		0V
02	17/11		Output	OIT	OFF (all doors	closed)	Battery voltage
63	L	Interior room/map lamp	Output	OFF	Any door switch	ON (open) OFF (closed)	0V Battery voltage
		All door lock actuators			OFF (neutral)		0V
65	V	(lock)	Output	OFF	ON (lock)		Battery voltage
66	G/Y	Front door lock actua- tor RH, rear door lock actuators LH/RH and back door lock actua- tor (unlock)	Output	OFF	OFF (neutral) ON (unlock)		0V Battery voltage
67	В	Ground	Input	ON	-	_	0V
					Ignition switch	ON	Battery voltage
					Within 45 seco tion switch OF		Battery voltage
68	W/L	Power window power supply (RAP)	Output	_	More than 45 seconds after ig- nition switch OFF		0V
					When front doo open or power operates		0V
69	W/R	Power window power supply	Output		-	_	Battery voltage
70	W/B	Battery power supply	Input	OFF	-	_	Battery voltage

1: With Intelligent Key system

2: With remote keyless entry system

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Fail Safe
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Fail-safe index

INFOID:000000006624653

< ECU DIAGNOSIS INFORMATION >

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

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

DTC Inspection Priority Chart

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

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

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-29

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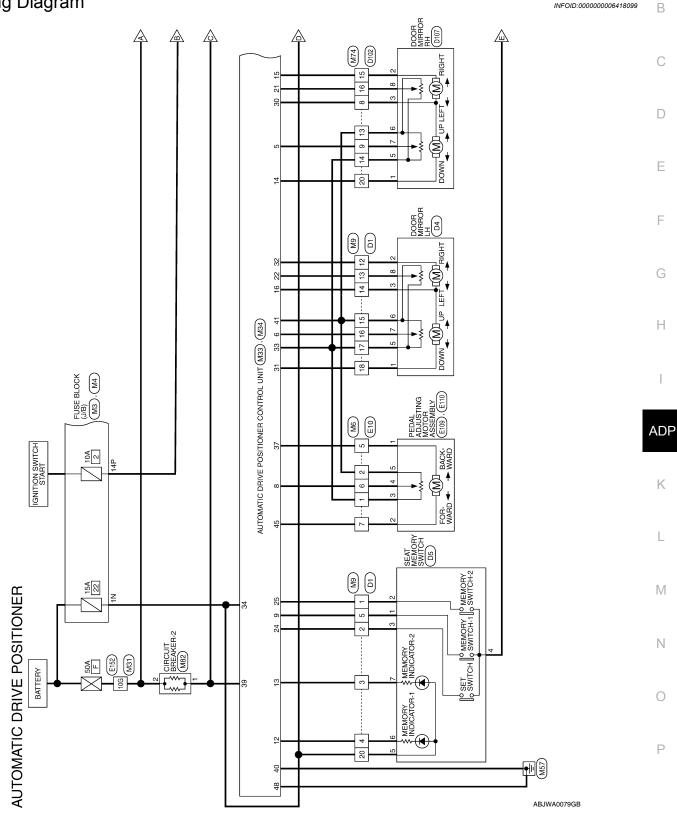
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CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2013: STRG COMM 1	_	_	—	<u>SEC-30</u>
B2190: NATS ANTENNA AMP	_	_	_	<u>SEC-33</u> (with I- Key), <u>SEC-139</u> (without I-Key)
B2191: DIFFERENCE OF KEY	_	_	_	<u>SEC-36</u> (with I- Key), <u>SEC-142</u> (without I-Key)
B2192: ID DISCORD BCM-ECM	_	_	_	<u>SEC-37</u> (with I- Key), <u>SEC-143</u> (without I-Key)
B2193: CHAIN OF BCM-ECM	_	_	_	<u>SEC-39</u> (with I- Key), <u>SEC-145</u> (without I-Key)
B2552: INTELLIGENT KEY	_	—	—	<u>SEC-41</u>
B2590: NATS MALFUNCTION	_	_		<u>SEC-42</u>
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	—	_	—	—

< WIRING DIAGRAM >

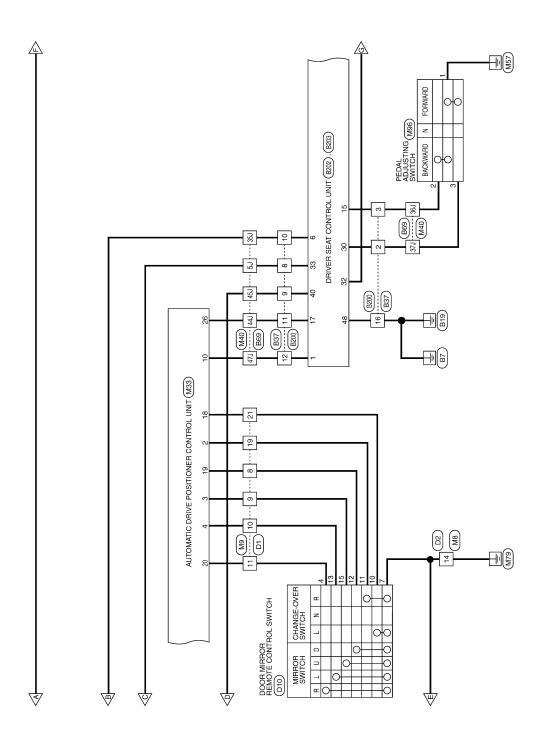
WIRING DIAGRAM AUTOMATIC DRIVE POSITIONER

Wiring Diagram



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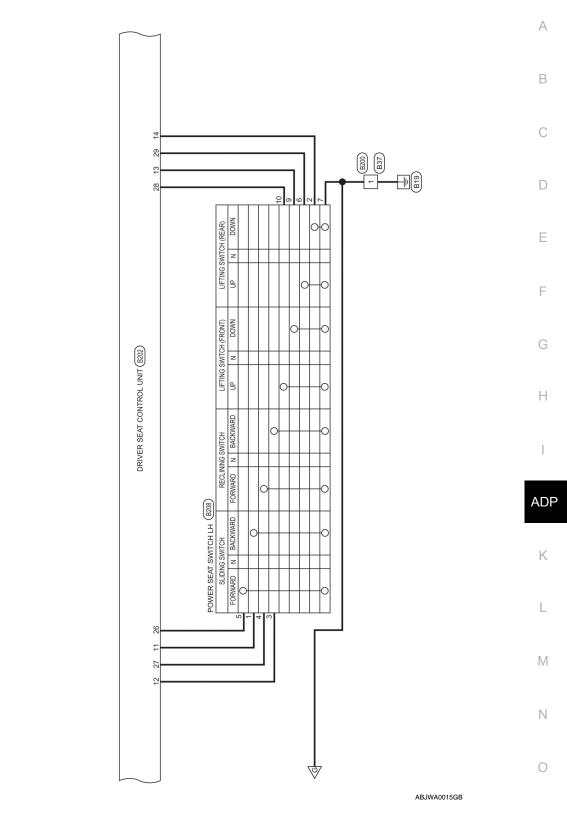
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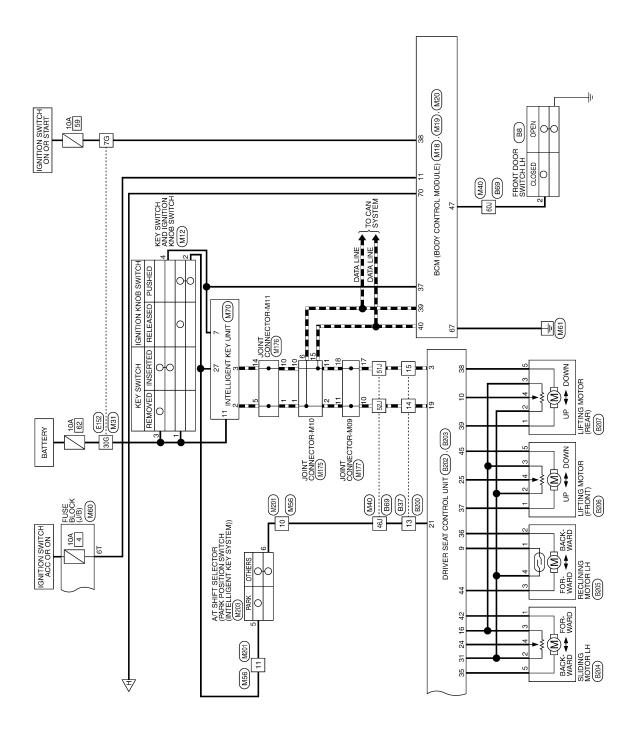
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< WIRING DIAGRAM >

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AUTOMATIC DRIVE POSITIONER CONNECTORS

< WIRING DIAGRAM >

Connector Name WIRE TO WIRE

M6

Connector No.

Connector Color WHITE

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

7N 6N 5N 4N

8N 3N

H.S.

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120110	[전] [7P 6P 5P 4P [] 3P 2P	Connector Color WHITE	Connector Name FUSE BLOCK (J/B)	Connector No. M4
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1P	9			
2P	Ъ			
ЗР	ē			
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Ш	2P			
4P	Ъ			
БР	14P			
6P	εÞ			
7P	Ч			
		1		
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Signal Name	Н	
Color of Wire	0	
Ferminal No.	14P	

Signal Name

Color of Wire

Terminal No.

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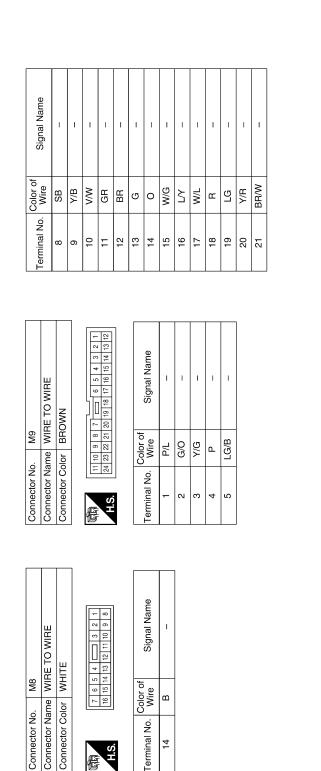
BR/Y

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Signal Name	-	
Color of Wire	Я/Y	
Terminal No.	٩N	



Color of Wire

Terminal No. 14

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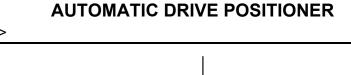
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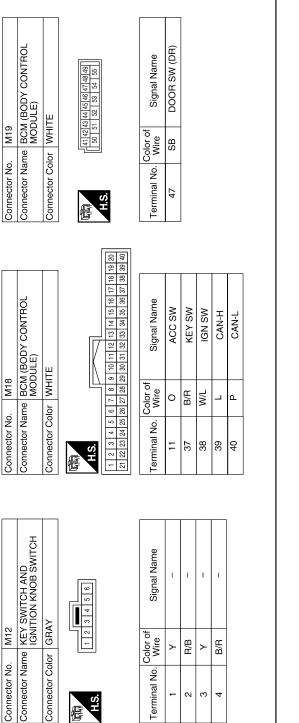
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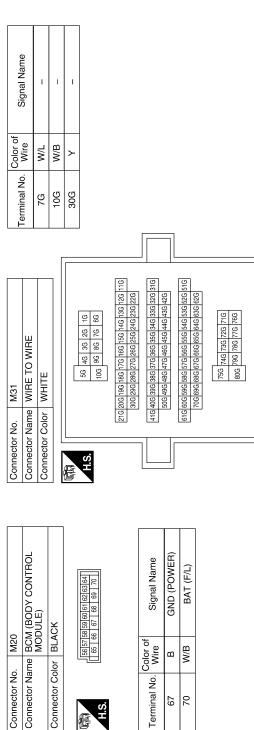
AUTOMATIC DRIVE POSITIONER

М8

Connector No.







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M33 Ferminal No. Color of LV AUTOMATIC DRIVE POSITIONER CONTROL UNIT WHITE Emmal No. Color of LV WHITE WHITE 8 BR/V WHITE 10 L WHITE 11 - MATOMATIC DRIVE WHITE 11 - MH 11 - MILION 11 - MILION - - </th <th>Terminal No. Wire</th> <th>51</th> <th></th> <th></th> <th></th> <th>25</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>5 6</th> <th></th> <th>DN</th> <th>RH</th> <th></th> <th></th> <th></th> <th>Т</th> <th></th> <th></th> <th>()</th> <th></th>	Terminal No. Wire	51				25							5 6		DN	RH				Т			()										
M33 Terminal No. AUTOMATIC DRIVE 6 AUTOMATIC DRIVE 6 WHITE 7 Mile 7 Mil	f Signal Name	VERTICAL_SENS_LH	I	_	-	¥	1	MEMORY1_IN	MEMORY2_IND	RH_MTR_(UP-DN)	RH_MTR (LT)	LH_MTR_(COM)	I	MIR_SELECT_SW_LH	MIR_MANU_SW_DN	MIR_MANU_SW_RH	of Signal Name	1	1	PEDAL RR OUT	1	I	GND(POWEF										
M33 AUTOMATIC DRIVE AUTOMATIC DRIVE AUTOMATIC DRIVE WHITE WHITE WHITE Image: Signal Name Or of Signal Name M33 Signal Name M33 Min_Manu_Sw_UP Min_Manu_Sw_LH Win_Manu_Sw_LH M34 Min_Manu_Sw_LH M35 Min_Manu_Sw_LH		Γ	I	BR/Y	LG/B	_	I	٩	γ/G	GR/R	V/R	0	Ι	BR/W	SB	GR	Color o Wire	'	1	æ	1	T	В										
	Terminal No.	9	7	ω	6	10	11	12	13	14	15	16	17	18	19	20	Terminal No.	43	44	45	46	47	48										
			TE			Γ		26 27 28 29 30		Ciccol Nomo	olghal Nalife	I	MIR_SELECT_SW_RH	MIR_MANU_SW_UP	-			SITIONER CONTROL UNIT	TE		37 38 A6 47	ř P	Signal Name	MEMORY(POT_FEED)	BAT_(FUSE)	1	I	FORWARD	1	BAT(PTC)	GND(SIG)	MEMORY(POT_RET)	1
Connector No. Connector Name Connector Name Connector Name Connector Name 1 Connector Name 1 Terminal No. 000 M.S. 3 M.S. 3 Sama 4 M.S. 3 M.S. 5 Reminal No. 000 M.S. 33 M.S. 33 M.S. 36 M.S. 33 M.S. 33 M.S. 33 M.S. 0 M.S. 0	VINC	– v	۲HI					73 24 25		lor of	Vire	,	g	ΎB	۸/۷	R/B	M34	POS	-		33 34 35 40 41 42	74 14 04	Color of Wire	M/L	Y/R	1	I	σ	ı	L/B	B/W	W/G	1

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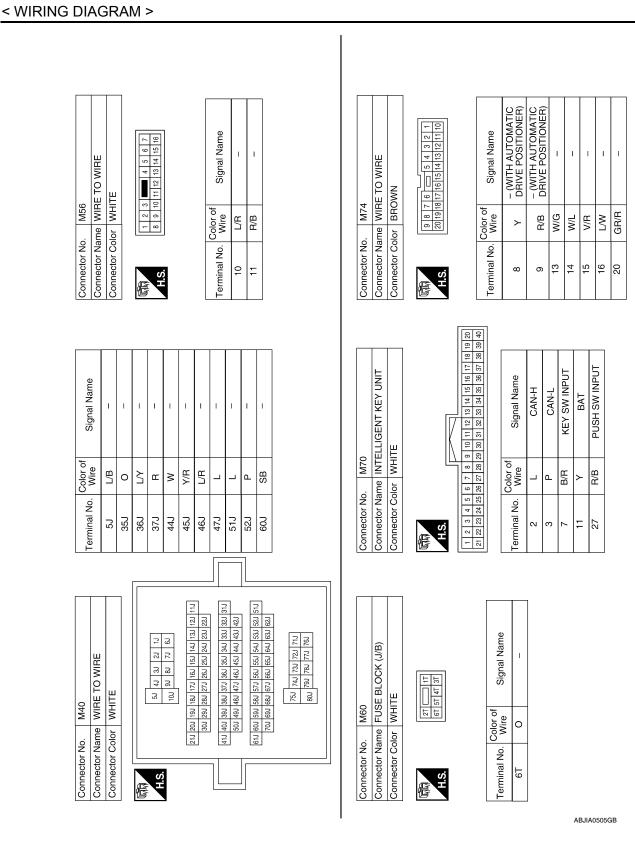
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А JOINT CONNECTOR-M10 В 9 8 7 6 5 4 3 2 1 20 19 18 17 16 15 14 13 12 11 10 Signal Name Signal Name - ∞ T. T Т T. Т Т T T Connector Name WIRE TO WIRE 7 6 5 4 3 2 16 15 14 13 12 11 10 9 С WHITE M175 BLUE M201 Color of Wire Color of Wire Ľ R/B D _ _ ٩ ٩ ٩ Connector Name Connector Color Connector Color Connector No. Connector No. Terminal No. Terminal No. 10 ÷ 15 N 9 9 -1 H.S. Ε H.S. F E F PEDAL ADJUSTING SWITCH (WITH AUTOMATIC DRIVE POSITIONER) BROWN Connector Name JOINT CONNECTOR-M09 9 8 7 6 5 4 3 2 1 20 19 18 17 16 15 14 13 12 11 10 Signal Name Signal Name T. Т 1 Ì. L ī Т Н 5 6 4 2 1 3 Connector Color GREEN M177 M96 Color of Wire Color of Wire ш ≥ <u>م</u> _ ٦ ٩ Connector Name Connector Color Connector No. Connector No. Terminal No. Terminal No. 10 ÷ 18 17 ADP N ო H.S. H.S. E 佢 Κ Connector Name JOINT CONNECTOR-M11 9 8 7 6 5 4 3 2 1 20 19 18 17 16 15 14 13 12 11 10 L Signal Name **CIRCUIT BREAKER-2** Signal Name I. L. T. I T. Т Μ F Connector Color WHITE BLUE M176 M82 Color of Wire Color of Wire W/B ЦB ۵. _ ۵. Connector Name Connector Color Ν Connector No. Connector No. Terminal No. erminal No. 10 4 - \sim ß H.S. H.S.

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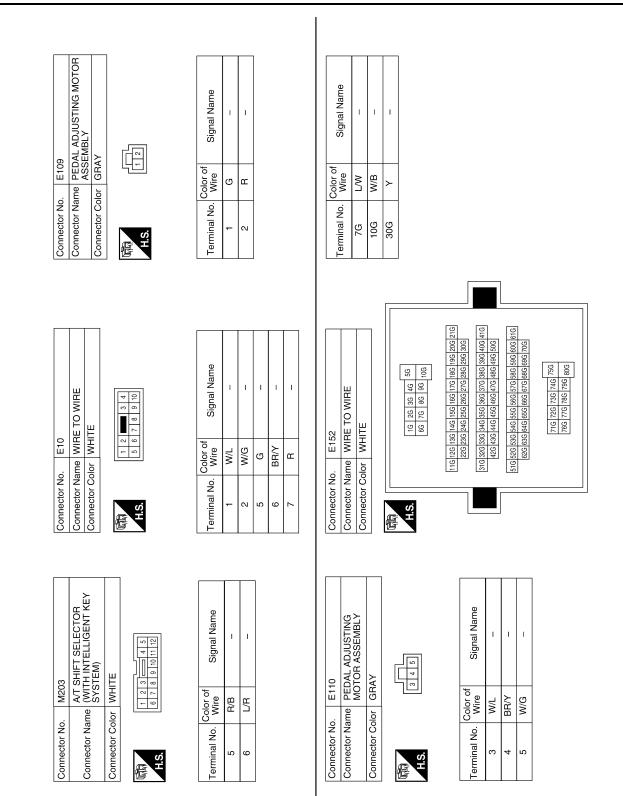
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	AUTOMATIC DRIVE POSITIONER
< WIRING DIAGRAM >	

	Connector No.	Vo. B8	Connector No. B8			Connector No.	. B37				Terminal No.	Color of Wire	Signal Name		
י וכ					<u>- '</u>	Connector Name WIRE TO WIRE	me WIRE	E TO WIRE		1	-	m			
						Connector Color	IOR WHILE	ш		1	2	æ	I		
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7		<u>~1</u>	<u> </u>			肥	7 6 5	4 - 3 3 1 3 3 1 1		1	8	ГВ	I		
-	0 L	<u> </u>	2				16 15 14 13 12 1	9 0	<u> </u>	1	6	Y/R	I		
			<u></u>		_	0'E			٦	1	10	0	I		
L		Color of								1	11	M	I		
<u> </u>	Terminal No.	. Wire	Signal Name	me						1	12	_	I		
	2	SB	I								13	L/R	1		
											14	Ч	I		
										<u> </u>	15	_	L		
											16	B/W	1		
0	Connector No.	No. B69				Torminal No	Color of	Ciccol Momo	Current of the second s	0	Connector No.	o. B200			
10	Connector N	Connector Name WIRE TO WIRE	e to wire								Connector Name WIRE TO WIRE	ame WIRE	E TO WIRE		
	Connector Color	Color WHITE	TE			5.1	al c	1			Connector Color	olor WHITE	1		
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3		Ľ	1 0 0 1 0 0			97J	; œ	1				1 2 3 1 8 9 10 11 12 1	4 5 6 7 1 12 13 14 15 16		
	Ч.С.	- -				44J	×	I		_ 3 (
						45J	Y/R	I			Terminal No.	Color of Wire	Signal Name	Je	
		22.123	11J 12J 13J 14J 15J 16J 17J 18J 19J 20J 21J 221 23J 24J 25J 26J 27J 28J 29J 30J	J 19J 20J 21J		46J	L/R	Ι		_	-	G/W	1		
						47J	_	I		1	2	Z	I		
		31J 32J 33J 42J 43J	31J 32J 33J 34J 35J 36J 37J 38J 39J 40J 41J 42J 43J 44J 45J 46J 47J 48J 49J 50J	J 39J 40J 41J		51J	_	I		<u> </u>	ю	SB	T		
						52J	٩.	1			ω	W/B	1		
		51J 52J 53J 62.1 63.1	51J 52J 53J 54J 55J 56J 55J 58J 59J 60J 61J 62J 63J 64J 65J 66J 67J 68J 69J 70J	U 59J 60J 61J J 69J 70J		60J	SB	I			6	IJ	1		
											10	н	I		
		7	71J 72J 73J 74J 75J								11	Y/R	I		
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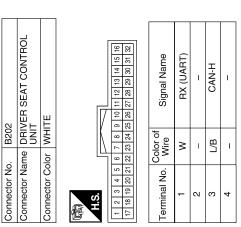
Signal Name	CAN-L	I	P RANGE SW	I	-	PULSE (SLIDE)	PULSE (FRONT LIFTER)	SLIDE SW (FORWARD)	RECLINER SW (FORWARD)	FRONT LIFTER SW (UPWARD)	REAR LIFTER SW (UPWARD)	PEDAL SW(FORWARD)	GND (SENSOR GND)	GND (SIGNAL)
Color of Wire	თ	I	Γ	I	I	R/L	У/G	L/R	N/N	BR/Y	G/R	۲	GR/R	G/W
Terminal No.	19	20	21	22	23	24	25	26	27	28	29	30	31	32

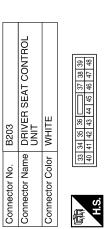
< WIRING DIAGRAM >

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

Signal Name	I	START SW	I	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)	I	
Color of Wire	-	R	Ι	I	R/B	B/R	Y/R	L/W	>	P/L	SB	R/W	Y/R	-	
Terminal No.	5	6	7	8	6	10	1	12	13	14	15	16	17	18	

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





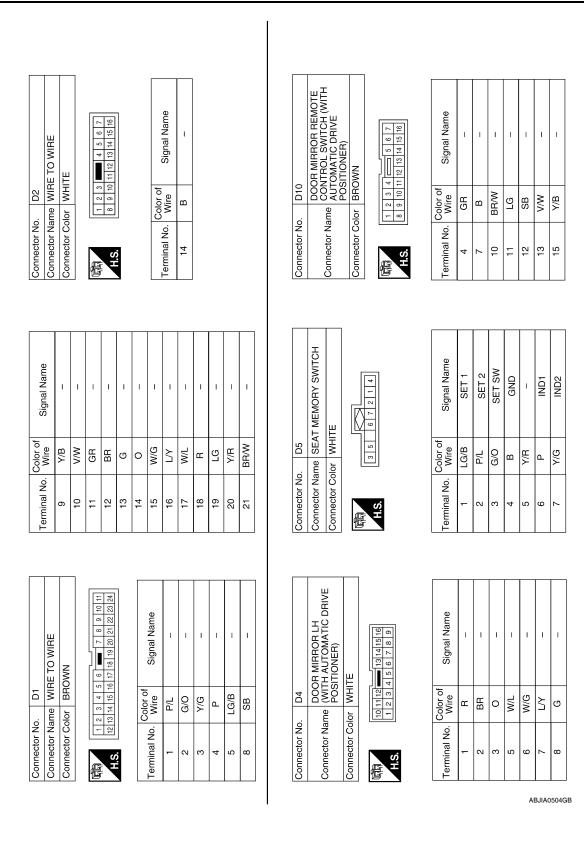
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< WIRING DIAGRAM >		
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BINT BINT		В
B206 LIFTING MOTOR (FRONT) POSITIONER) FOOTION (FRONT) FOOTION	Signal Name Signal Name	С
	Color of Wire Wire V/R V/R V/W V/W V/W V/W V/W V/W C/R	D
Connector No. Connector Name Connector Color Terminal No. Color 3 R 5 G	Terminal No. 0	E
		F
DR LH B C DRIVE	C DRIVE	G
B205 RECLINING MOTOR LH FORTH AUTOMATIC DRIVE POSITIONER) WHITE WHITE B B C B C B C C C C C C C C C C C C C	B208 POWER SEAT SWITCH LH WITH AUTOMATIC DRIVE WHITE D 9 8 7 6 5	Η
		l
Connector No. Connector Name Connector Color Terminal No. Col Terminal No. Col 4 Gl	Connector No. Connector Color	ADP
		K
B204 SLDING MOTOR LH SILDING MOTOR LH FORTHONGRI) GRAY GRAY GRAY 	B207 LIFTING MOTOR (REAR) (WITH AUTONATIC DRIVE POSITIONER) GRAY CRAY CRAY CRAY CRAY CRAY CRAY CRAY C	L
B204 SLIDING MOT SLIDING MOT POSITI AUTON POSITI AUTON PO	LIFTING MOTC (WITH AUTOM (WITH AUTOM (WITH AUTOM (MITH AUTOM GRAY W W W W V V	\mathbb{M}
		Ν
Connector No. Connector Name Connector Color Terminal No. Color 1 R 1 R 1 R 1 R 2 GF 5 R	Connector No. Connector Name Connector Color Terminal No. Qolor 3 RP 5 GF	0
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< WIRING DIAGRAM >



Connector No.	D107
Connector Name	DOOR MIRROR RH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color WHITE	WHITE
H.S.	0 1112 - 1314 15 16 1 2 3 4 5 6 7 8 9

Signal Name	I	I	I	I	I	I	I
Color of Wire	GR/R	V/R	Y	M/L	W/G	R/B	L/W
Terminal No. Color of Wire	F	2	3	2	9	2	8

Connector No.		02
Connector Name		WIRE TO WIRE
Connector Color		BROWN
。 Electrical BHS	1 2 3 1 10 11 12 1	1 2 3 4 5 - 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Terminal No.	Color of Wire	Signal Name
8	٨	- (WITH AUTOMATIC DRIVE POSITIONER)
6	R/B	- (WITH AUTOMATIC DRIVE POSITIONER)

Signal Name	- (WITH AUTOMATIC DRIVE POSITIONER)	- (WITH AUTOMATIC DRIVE POSITIONER)	I	I	I	I	-
Color of Wire	~	R/B	W/G	W/L	V/R	Γ/W	GR/R
Terminal No.	ω	6	13	14	15	16	20



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SYMPTOM DIAGNOSIS ADP SYSTEM SYMPTOMS

Symptom Table

INFOID:000000006143894

NOTE:

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

SYMPTOM 1

Symptom		Diagnosis procedure	Reference page
	Sliding operation	Check sliding switch.	<u>ADP-50</u>
	Reclining operation	Check reclining switch.	<u>ADP-53</u>
Manual functions (for specific part) do	Lifting operation (front)	Check lifting switch (front).	<u>ADP-56</u>
	Lifting operation (rear)	Check lifting switch (rear).	<u>ADP-59</u>
	Pedal operation	1. Check pedal adjusting switch.	<u>ADP-62</u>
not operate		2. Check pedal adjusting sensor.	<u>ADP-86</u>
	Deer mirror energian	1. Changeover switch.	<u>ADP-67</u>
	Door mirror operation	2. Mirror switch	<u>ADP-69</u>
	All parts of seat	Check power seat switch ground cir- cuit.	<u>ADP-73</u>

SYMPTOM 2

Symptom	1	Diagnosis procedure	Reference page
	Sliding operation	Check sliding sensor.	<u>ADP-78</u>
	Reclining operation	Check reclining sensor.	<u>ADP-80</u>
Memory functions (for specific part) do not operate	Lifting operation (front)	Check lifting sensor (front).	<u>ADP-82</u>
	Lifting operation (rear)	Check lifting sensor (rear).	<u>ADP-84</u>
	Pedal operation	Check pedal adjusting sensor.	<u>ADP-86</u>
	Door mirror operation	Check door mirror sensor.	Driver side: <u>ADP-88</u> Passenger side: <u>ADP-90</u>

SYMPTOM 3

Symptom		Diagnosis procedure	Reference page
	Sliding operation	Check sliding motor.	ADP-92
	Reclining operation	Check reclining motor.	ADP-94
Memory functions and manual func- tions (for specific part) do not operate	Lifting operation (front)	Check lifting motor (front).	ADP-96
	Lifting operation (rear)	Check lifting motor (rear).	ADP-98
	Pedal operation	Check pedal adjusting motor.	ADP-100
	Door mirror operation	Check door mirror motor.	ADP-102

SYMPTOM 4

ADP SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

Symptom	Diagnosis procedure	Reference page	А
	1. Check system setting.	<u>ADP-21</u>	
Entry/Exit assist function does not operate.	2. Perform initialization.	ADP-22	В
	3. Check front door switch (driver side).	<u>ADP-76</u>	-
Intelligent Key interlock function does not operate.	1. Check door lock function.	DLK-23	0
(Other automatic operations and Intelligent Key system are normal)	2. Perform memory storing.	<u>ADP-11</u>	C

SYMPTOM 5

Symptom	Diagnosis procedure	Reference page
Memory indicators 1 and/or 2 do not illuminate.	1. Check seat memory switch.	<u>ADP-65</u>
	2. Check seat memory indicator.	ADP-105

SYMPTOM 6

Symptom	Diagnosis procedure	Reference page
Memory operation does not operate.	Check A/T shift selector (park position switch).	<u>ADP-74</u>

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Revision: July 2010

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

INFOID:000000006143895

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.	<u>ADP-20</u>
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 execution.	Perform the memory function.	<u>ADP-23</u>
	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Memory function: <u>ADP-17</u>
Memory function, entry/exit as- sist function or Intelligent Key in- terlock function does not operate.			Exit assist function: <u>ADP-21</u>
			Entry assist function: <u>ADP-23</u>
			Intelligent Key interlock function: <u>ADP-11</u>

< PRECAUTION > PRECAUTION

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

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

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 ADP battery, and wait at least 3 minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

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NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYS-TEM).
- 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.
- 2. 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.
- 4. 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.)
- 6. Perform a self-diagnosis check of all control units using CONSULT-III.

Precaution for Work

INFOID:000000006600723

- 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 prevent them from being dropped.
- 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 installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components.
- Water soluble dirt: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the dirty area.
 - Then rub with a soft and dry cloth.
- Oily dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the dirty 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	
< UNIT REMOVAL AND INSTALLATION >	
UNIT REMOVAL AND INSTALLATION	А
DRIVER SEAT CONTROL UNIT	A
Removal and Installation	В
REMOVAL	
The driver seat control unit is part of the driver seat.	С
 Remove the driver seat. Refer to <u>SE-53, "Removal and Installation For Front Seats"</u>. Disconnect driver seat control unit electrical connector. 	D
3. Remove driver seat control unit from driver seat.	D
INSTALLATION Installation is in the reverse order of removal.	Ε
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 NOTE: The driver seat control unit is part of the driver seat. 1. Remove the driver seat. Refer to <u>SE-53, "Removal and Installation For Front Seats"</u>. 2. Disconnect driver seat control unit electrical connector. 3. Remove driver seat control unit from driver seat. INSTALLATION 	D

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< UNIT REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

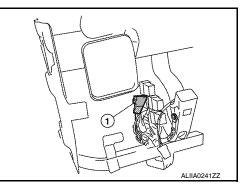
Removal and Installation

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-13, "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".

INFOID:000000006143900

SEAT MEMORY SWITCH

 UNIT REMOVAL AND INSTALLATION > SEAT MEMORY SWITCH 		
Removal and Installation	INFOID:000000006143901	А
Refer to <u>INT-11. "Removal and Installation"</u> for removal and installation of seat memory switch.		В
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DOOR MIRROR REMOTE CONTROL SWITCH

< UNIT REMOVAL AND INSTALLATION >

DOOR MIRROR REMOTE CONTROL SWITCH

Removal and Installation

INFOID:000000006143902

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

PEDAL ADJUSTING MOTOR

< UNIT REMOVAL AND INSTALLATION >	
PEDAL ADJUSTING MOTOR	А
Removal and Installation	
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.	В
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