SECTION ADP В AUTOMATIC DRIVE POSITIONER

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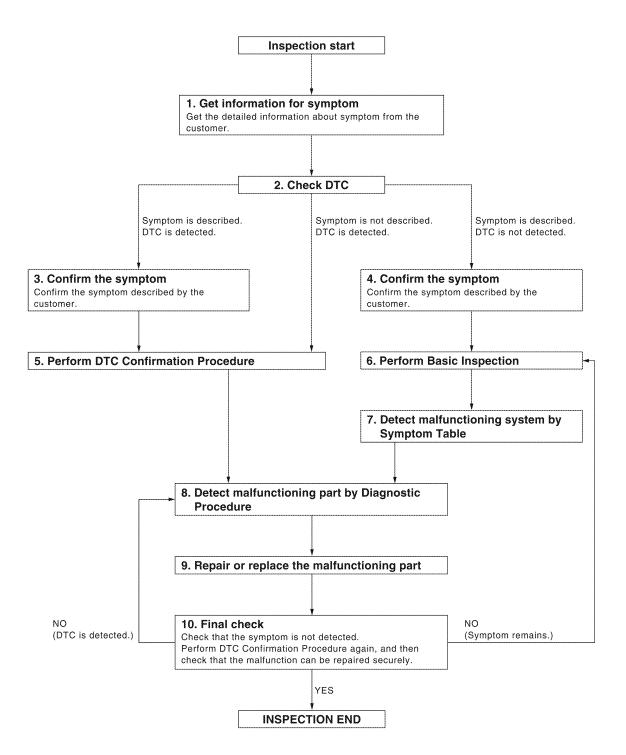
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< BASIC INSPECTION >

BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

WORK FLOW



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DETAILED FLOW

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > 1. GET INFORMATION FOR SYMPTOM А Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred). В >> GO TO 2 2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM Check "Self Diagnostic Result" with CONSULT-III. Refer to ADP-113, "DTC Index". Is any symptom described and any DTC is displayed? D 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 Е 3. CONFIRM THE SYMPTOM Try to confirm the symptom described by the customer. F >> GO TO 7 CONFIRM THE SYMPTOM Try to confirm the symptom described by the customer. >> GO TO 5 Н 5. CHECK NORMAL OPERATING CONDITION Check normal operating condition. Refer to ADP-145, "Description". Is the incident normal operation? >> Inspection End. YES NO >> GO TO 6 ADP **6.** PERFORM BASIC INSPECTION Isolate the malfunctioning point with the basic inspection. Refer to ADP-7, "Preliminary Check". K >> GO TO 8 7. PERFORM DTC CONFIRMATION PROCEDURE Perform the confirmation procedure for the detected DTC. Is the DTC displayed? YES >> GO TO 9 M NO >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". **8.** PERFORM COMPONENT FUNCTION CHECK Ν Perform the component function check for the isolated malfunctioning point. >> GO TO 9 9. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during the Ρ component diagnosis.

>> 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	E
 Disconnect harness connectors. Check terminals for damage or loose connections. Reconnect harness connectors. Are any connectors damaged or loose? 	F
YES >> Repair or replace damaged parts. NO >> GO TO 3 3. POWER AND GROUND	G
Check power supply and ground circuits for control unit. Refer to <u>ADP-48. "DRIVER SEAT CONTROL UNIT :</u> <u>Diagnosis Procedure"</u> . <u>Is the inspection result normal?</u>	Η
YES >> Refer to <u>ADP-113, "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 GROUND CIRCUIT

- Check the power supply and ground circuit as shown below.
- Driver seat control unit: Refer to <u>ADP-48</u>, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".
- Automatic drive positioner control unit: Refer to <u>ADP-49, "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-143, "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-143</u>, <u>"Symptom Table"</u>.

No (memory indicator operates normally)>> Go to SYMPTOM 2, refer to <u>ADP-143</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-39, "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-143, "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</u>, "<u>AUTOMATIC DRIVE</u> <u>POSITIONER SYSTEM</u> : <u>System Description</u>").

Are all operation conditions fulfilled?

YES >> Go to SYMPTOM 6, refer to <u>ADP-143, "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

< BASI	C INSPECTION >	
	erence with other parts because of poor installation.	
	malfunction present in the relevant parts?	А
YES	>> Go to SYMPTOM 3, refer to <u>ADP-143, "Symptom Table"</u> .	
NO	>> Repair or replace the malfunctioning part.	В
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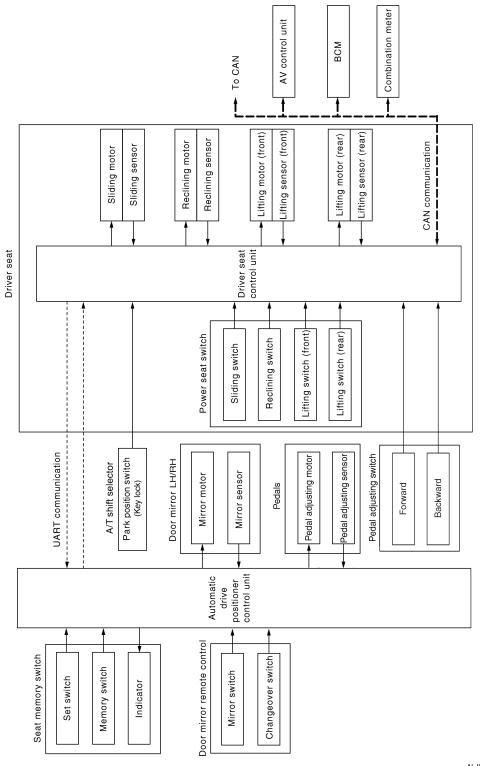
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SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram



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AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

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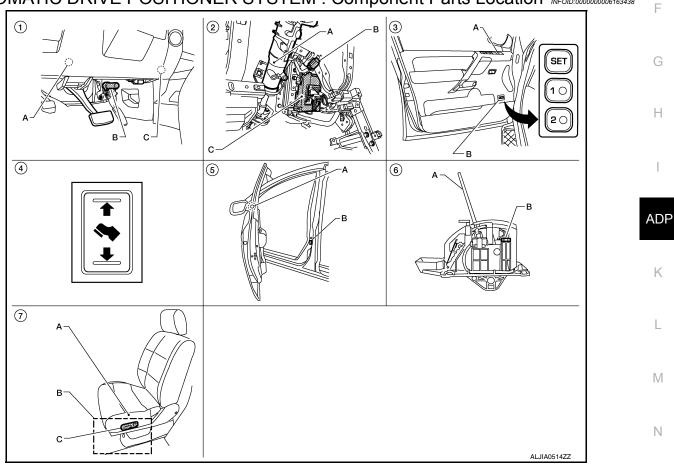
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OUTLINE

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

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.

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location INFOLD:000000006163438



 A. Automatic drive positioner control 2. unit M33, M34
 B. Pedal adjusting motor assembly E109, E110
 C. A/T shift selector (column shift) M68

A. Steering columnB. Key switch and key lock solenoid M27C. BCM M18, M19, M20 (view with instrument panel removed)

 A. Door mirror remote control switch D10
 B. Seat memory switch D5

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< SYSTEM DESCRIPTION >

4. Pedal adjusting switch M96

5. A. Door mirror LH D4, RH D107 B. Front door switch LH B8 A. A/T selector lever (floor shift) B. A/T shift selector (park position switch) M203 (King Cab), M204 (Crew Cab)

6.

 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

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

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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 (remote keyless entry request switch operation) Key ID Key switch: Insert/Pull out 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)	Transmit the shift position signal (P range) to the driver seat control unit.

INPUT PARTS

Switches

Item	Function
Key switch and key lock solenoid	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)	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 left/right.	
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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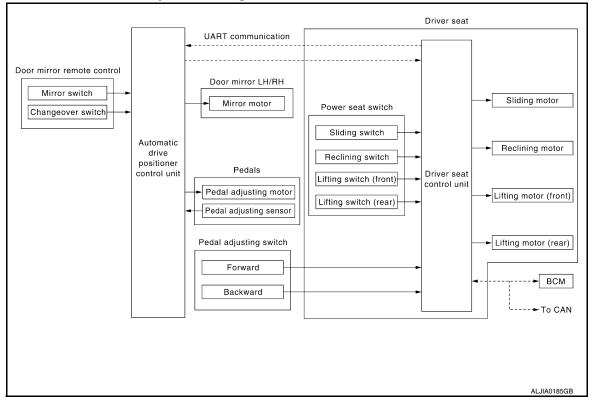
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< SYSTEM DESCRIPTION >

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 operat- ed.

< 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

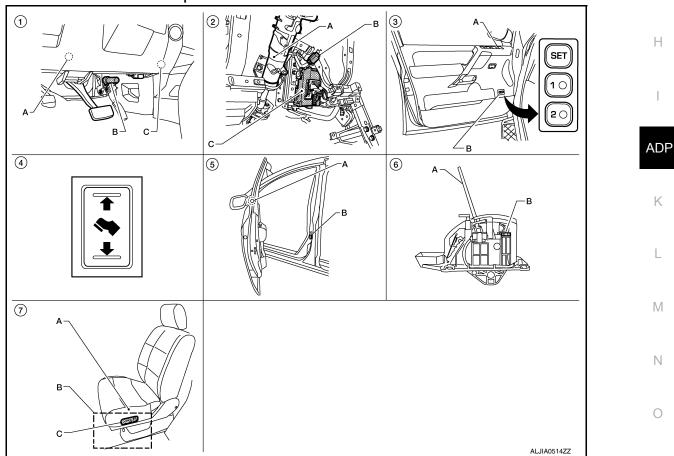
Door Mirror

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 >

- A. Automatic drive positioner control 2. unit M33, M34
 B. Pedal adjusting motor assembly E109, E110
 C. A/T shift selector (column shift) M68
- 4. Pedal adjusting switch M96
- A. Steering columnB. Key switch and key lock solenoidM27C. BCM M18, M19, M20 (view with
- 5. A. Door mirror LH D4, RH D107 B. Front door switch LH B8

instrument panel removed)

- 3. A. Door mirror remote control switch D10
 - B. Seat memory switch D5
- A. A/T selector lever (floor shift)
 B. A/T shift selector (park position switch) M203 (King Cab), M204 (Crew Cab)

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

MANUAL FUNCTION : Component Description

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.

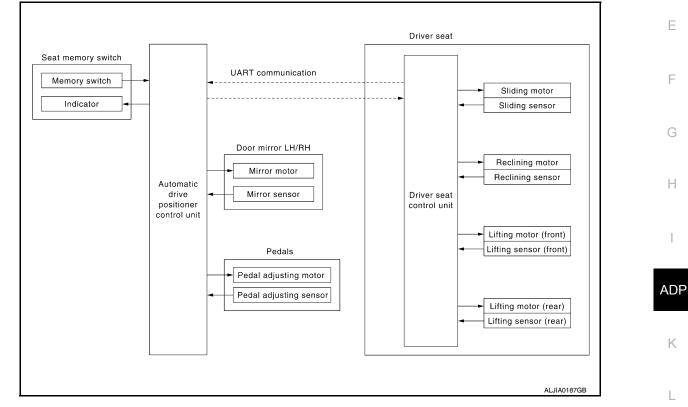
OUTPUT PARTS

< 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 Diagram



MEMORY FUNCTION : System Description

OUTLINE

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

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

OPERATION PROCEDURE

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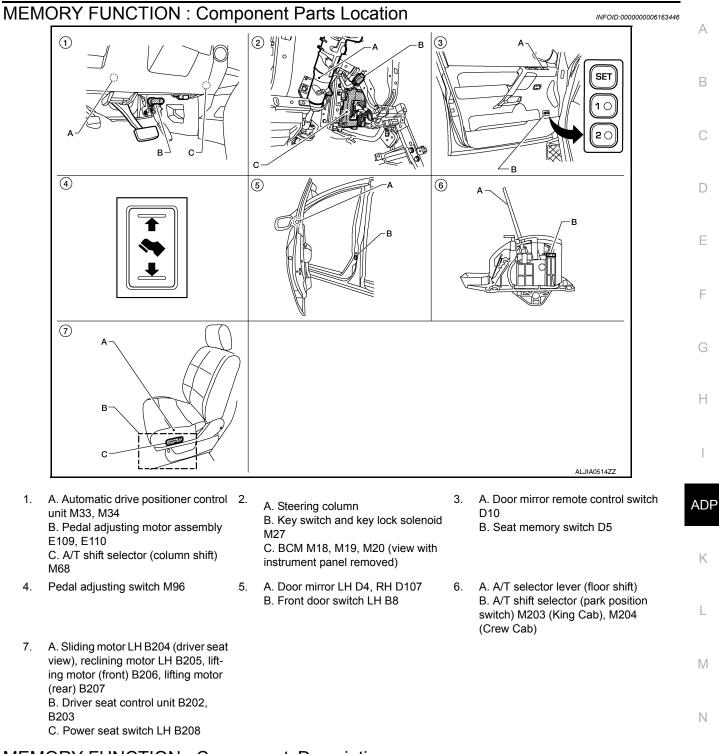
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Item	Request status
Ignition position	ON
Switch inputs Power seat switch Pedal adjusting switch Door mirror control switch Set switch Seat memory switch 	OFF (Not operated)
A/T selector lever	P position

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 >



MEMORY FUNCTION : Component Description

CONTROL UNITS

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.

INFOID:000000006163447

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< SYSTEM DESCRIPTION >

INPUT PARTS

Switches

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

Sensors

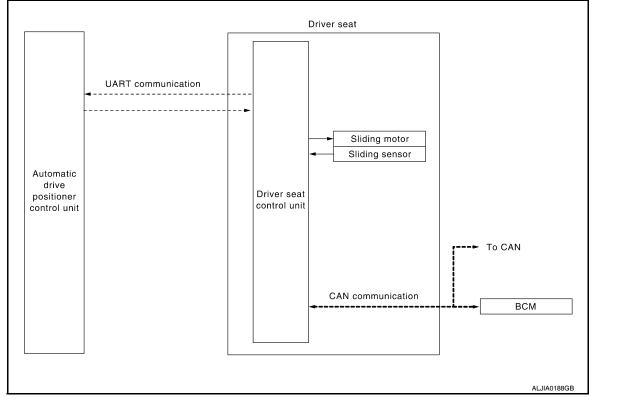
Item	Function
Door mirror sensor (LH/RH)	Detect the up/down and left/right position of outside mirror face.
Pedal adjusting sensor	Detect the forward/backward position of pedal assembly.
Lifting sensor (front)	Detect the up/down position of seat lifting (front).
Lifting sensor (rear)	Detect the up/down 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:000000006163449 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)	(seat sliding) Driver seat control unit operates the seat sliding motor, which reconnizes that the front door LH is opened with ignition switch OFF.	

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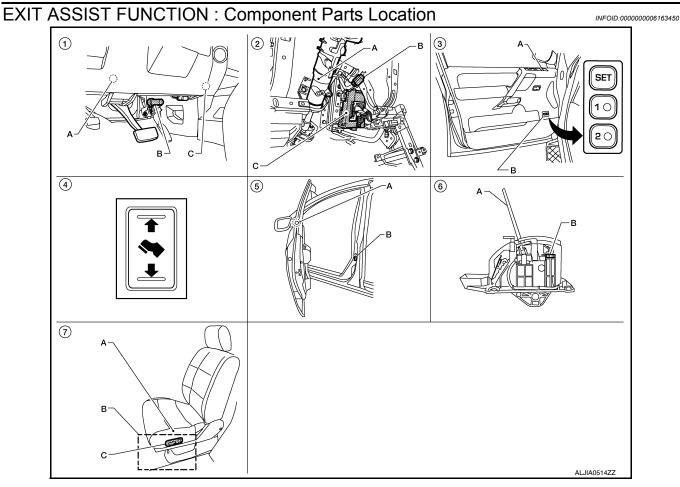
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< SYSTEM DESCRIPTION >



- A. Automatic drive positioner control 2. unit M33, M34
 B. Pedal adjusting motor assembly E109, E110
 C. A/T shift selector (column shift) M68
- 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 key lock solenoid M27 C. BCM M18, M19, M20 (view with instrument panel removed)
- 5. A. Door mirror LH D4, RH D107 B. Front door switch LH B8
- 3. A. Door mirror remote control switch D10
 - B. Seat memory switch D5
- A. A/T selector lever (floor shift)
 B. A/T shift selector (park position switch) M203 (King Cab), M204 (Crew Cab)

EXIT ASSIST FUNCTION : Component Description

INFOID:000000006163451

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

< SYSTEM DESCRIPTION >

Switches

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

Sensors

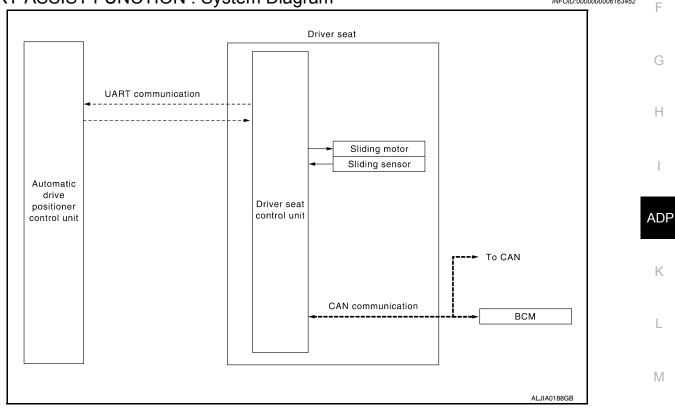
Item	Function	С
Sliding sensor	Detect the front/rear position of seat.	

OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat forward/backward.

ENTRY ASSIST FUNCTION

ENTRY ASSIST FUNCTION : System Diagram



ENTRY ASSIST FUNCTION : System Description

OUTLINE

The seat is in the exiting position when either following condition (A or B) is satisfied, the seat returns from certain 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.
- Front seat LH will return from the exiting position to entry position.

OPERATION CONDITION

ADP-23

INFOID:000000006163453

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< SYSTEM DESCRIPTION >

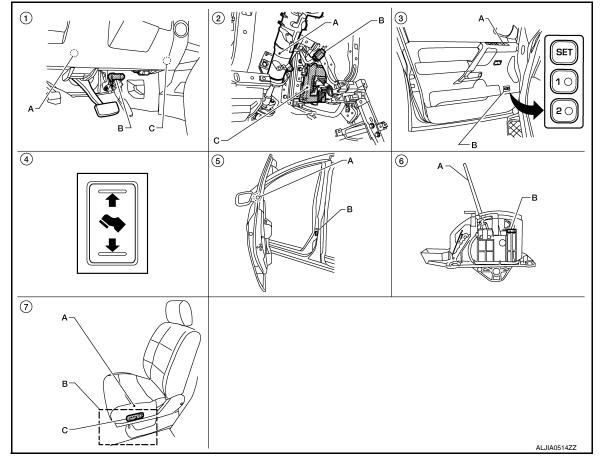
Satisfy all of the following items. The entry assist function is not performed if these items are not satisfied.

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 C. A/T shift selector (column shift) M68	2.	 A. Steering column B. Key switch and key lock solenoid M27 C. BCM M18, M19, M20 (view with instrument panel removed) 	3.	A. Door mirror remote control switch D10 B. Seat memory switch D5	A B
4.	Pedal adjusting switch M96	5.	A. Door mirror LH D4, RH D107 B. Front door switch LH B8	6.	A. A/T selector lever (floor shift) B. A/T shift selector (park position switch) M203 (King Cab), M204 (Crew Cab)	С
7.	A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lift- ing motor (front) B206, lifting motor (rear) B207					D
	B. Driver seat control unit B202, B203 C. Power seat switch LH B208					Е
ENT	RY ASSIST FUNCTION	: C	component Description		INFOID:00000006163455	F

CONTROL UNITS

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

INPUT PARTS

Switches

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

Sensors

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

OUTPUT PARTS

Item	Function	NI
Sliding motor	Slide the seat forward/backward.	IN

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ADP

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:000000006163456

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-113, "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 park position 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	N
SEAT SLIDE	Activates/deactivates the sliding motor.	
SEAT RECLINING	Activates/deactivates the reclining motor.	0
SEAT LIFTER FR	Activates/deactivates the lifting motor (front).	
SEAT LIFTER RR	Activates/deactivates the lifting motor (rear).	
PEDAL MOTOR	Activates/deactivates the pedal adjusting motor.	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 BCS-27, "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)	

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>BCS-27, "Diagnosis Procedure"</u>.

NO >> Inspection End.

Special Repair Requirement

Refer to Owner's Manual.

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- ADP
- INFOID:000000006163460
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< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

Description

INFOID:000000006163461

- 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:000000006163462

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 <u>ADP-43</u>, "Diagnosis Procedure (Column Shift)".

Diagnosis Procedure

INFOID:000000006163463

Regarding Wiring Diagram information, refer to <u>ADP-128, "Wiring Diagram"</u>.

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-39, "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 >

	(+)		Voltage (V)
Sliding motor Connector Terminals		()	(Approx.)
B204	1	Ground	0
CHECK DRIVER SEA	t for short to voltage. T CONTROL UNIT OUTPUT	T SIGNAL arness connector and ground.	
	(+)		
Driver s	eat control unit	(-)	Voltage (V) (Approx.)
Connector	Terminals		· · · · /
B203	35 42	Ground	0
>> Inspection E	<u>ent Incident"</u> . nd.		

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2113 RECLINING MOTOR

Description

INFOID:000000006163464

- · 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:000000006163465

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 ADP-32, "Diagnosis Procedure".

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to <u>ADP-43</u>, "Diagnosis Procedure (Column <u>Shift)</u>".

Diagnosis Procedure

INFOID:000000006163466

Regarding Wiring Diagram information, refer to ADP-128, "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-32, "DTC Logic"</u>.
- Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to <u>GI-39, "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 motorConnectorTerminalsB205233s the inspection result normal?YES>> GO TO 3.NO>> Repair circuit for short to voltage.3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGN1. Connect driver seat control unit connector.2. Check voltage between driver seat control unit harness $(+)$ $(+)$ Driver seat control unit $(+)$		Voltage (V) (Approx.) 0 Voltage (V) (Approx.) 0
B205 2 3 3 s the inspection result normal? YES >> GO TO 3. NO >> Repair circuit for short to voltage. 3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGN 1. Connect driver seat control unit connector. 2. Check voltage between driver seat control unit harness (+) Driver seat control unit Connector (+) Driver seat control unit Connector Terminals 36 32 36 44 s the inspection result normal? YES >> GO TO 4. NO >> Replace driver seat control unit. Refer to ADP-1	NAL connector and ground (–)	Voltage (V) (Approx.)
YES >> GO TO 3. NO >> Repair circuit for short to voltage. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGN . Connect driver seat control unit connector. 2. Check voltage between driver seat control unit harness (+) Driver seat control unit Connector (+) Driver seat control unit Connector Terminals 36 44 s the inspection result normal? YES YES >> GO TO 4. NO >> Replace driver seat control unit. Refer to ADP-1	connector and ground	Voltage (V) (Approx.)
Driver seat control unit Connector Terminals B203 36 44 44 s the inspection result normal? YES >> GO TO 4. NO >> Replace driver seat control unit. Refer to ADP-1		(Approx.)
Connector Terminals B203 36 44 s the inspection result normal? YES >> GO TO 4. NO >> Replace driver seat control unit. Refer to ADP-1		(Approx.)
B203 36 44 s the inspection result normal? YES >> GO TO 4. NO >> Replace driver seat control unit. Refer to ADP-1	Ground	0
B203 44 s the inspection result normal? YES >> GO TO 4. NO >> Replace driver seat control unit. Refer to ADP-1	Ground	0
YES >> GO TO 4. NO >> Replace driver seat control unit. Refer to <u>ADP-1</u>		
>> Inspection End.		

B2114 SEAT LIFTER FR

< DTC/CIRCUIT DIAGNOSIS >

B2114 SEAT LIFTER FR

Description

INFOID:000000006163467

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- 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 ADP-34, "Diagnosis Procedure".

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to <u>ADP-43</u>, "Diagnosis Procedure (Column <u>Shift)</u>".

Diagnosis Procedure

INFOID:000000006163469

Regarding Wiring Diagram information, refer to ADP-128, "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-34, "DTC Logic"</u>.
- Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to <u>GI-39, "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 >

	(+)		Voltage (V)
Lifting motor (front)		(-)	(Approx.)
Connector	Terminals 1		
B206	5	Ground	0
e inspection result nor	mal?		
S >> GO TO 3. >> Repair circuit f	or short to voltage.		
		ITROL UNIT OUTPUT SIGN	4L
	ve positioner control unit co		
		r control unit harness connec	tor and ground.
	(+)		
	ositioner control unit	(-)	Voltage (V) (Approx.)
Connector	Terminals		
B203	<u> </u>	Ground	0
ne inspection result nor			
>> Inspection End			
	-		
	-		
	-		
	-		
	-		
	-		
	-		
	-		
	-		
	-		
	-		

< DTC/CIRCUIT DIAGNOSIS >

B2115 SEAT LIFTER RR

Description

INFOID:000000006163470

INFOID:000000006163471

- 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 ADP-36, "Diagnosis Procedure".

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to <u>ADP-43</u>, "Diagnosis Procedure (Column <u>Shift)</u>".

Diagnosis Procedure

INFOID:000000006163472

Regarding Wiring Diagram information, refer to ADP-128, "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-36, "DTC Logic"</u>.
- Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to <u>GI-39, "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 the inspection result normal? YES >> GO TO 3. NO >> Repair circuit for short to voltage. CHECK DRIVER SEAT CONTROL UNIT OUTPUT S	(–) Ground	Voltage (V) (Approx.)
B207 1 the inspection result normal? YES YES NO >> Repair circuit for short to voltage.	Ground	
B207 5 the inspection result normal? YES >> GO TO 3. NO >> Repair circuit for short to voltage.	Ground	
YES >> GO TO 3. NO >> Repair circuit for short to voltage.		0
NO >> Repair circuit for short to voltage.		
	SIGNAL	
Connect driver seat control unit connector.		
Check voltage between driver seat control unit harn		
(+)		Voltage (V)
Driver seat control unit Connector Terminals	()	(Approx.)
38		
B203 39	Ground	0

B2117 ADJ PEDAL MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2117 ADJ PEDAL MOTOR

Description

INFOID:000000006163473

- · 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:000000006163474

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:000000006163475

Regarding Wiring Diagram information, refer to ADP-128, "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

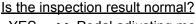
1. Turn ignition switch ON.

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

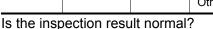
3. CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

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



- YES >> Replace pedal adjusting motor assembly. Refer to ADP-152, "Removal and Installation".
- NO >> GO TO 5
- CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

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Automatic drive positioner

37 45

37, 45

C/U connector

2

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< DTC/CIRCUIT DIAGNOSIS >

B2120 ADJ PEDAL SENSOR

Description

INFOID:000000006163476

- · 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:000000006163477

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:000000006163478

Regarding Wiring Diagram information, refer to <u>ADP-128, "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
		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.

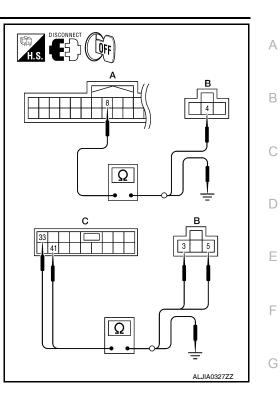
8 - 4	: Continuity should exist.
33 - 3	: Continuity should exist.
41 - 5	: Continuity should exist.

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-152</u>, "Removal and Installation".
- NO >> Repair or replace harness.



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< DTC/CIRCUIT DIAGNOSIS >

B2126 DETENT SW

Description

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

DTC Logic

INFOID:000000006163480

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2126	DETENT SW	A/T shift selector is in P position and the vehicle speed of 4 ± 2 MPH (7 ± 4 km/h) is detected.	 Harness and connectors (Park position switch circuit is opened/shorted.) A/T shift selector (park position switch) Combination meter (CAN communication)

DTC CONFIRMATION PROCEDURE

1. STEP 1

Drive the vehicle at 4 ± 2 MPH (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</u>, "<u>Diagnosis Procedure (Floor Shift)</u>" or <u>ADP-43</u>, "<u>Diagnosis Procedure (Column Shift)</u>".
- NO >> Inspection End.

Diagnosis Procedure (Floor Shift)

INFOID:000000006163481

Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

1. СНЕСК DTC

Check "Self diagnostic result" for BCM with CONSULT-III. Are other DTCs detected?

YES >> Check the DTC.

- 2. CHECK PARK POSITION SWITCH SIGNAL
- 1. Turn ignition switch ON.
- 2. Select "DETENT SW" in "Data Monitor" mode with CONSULT-III.
- 3. Check park position switch signal under the following condition.

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

Is the status normal?

B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS	>		
YES >> A/T shift selector (p NO >> GO TO 3	ark position switch	n) circuit is OK.	
3. CHECK A/T SHIFT SELECT	OR (PARK POSI	TION SWITCH) HARNESS	
1. Turn ignition switch OFF.			
2. Disconnect A/T shift selecto	VT shift selector of	connector M203 (King Cab) c	or M204 (Crew Cab) terminal 6
6 - 21	: Continuity s	should exist.	
 Check continuity between A and ground. 	VT shift selector o	connector M203 (King Cab) c	or M204 (Crew Cab) terminal 6
6 - Ground	: Continuity s	hould not exist.	
Is the inspection result normal?			
YES >> GO TO 4 NO >> Repair or replace ha	arnoss		
4. CHECK A/T SHIFT SELECT		TION SWITCH)	
Check continuity between A/T s	,	,	follows.
· · · · · · · · · · · · · · ·		,,	
	dition	Continuity	
5 6 P position		No	
Other than Is the inspection result normal?	P position	Yes	
YES >> GO TO 5			
NO >> Replace A/T shift se		M-185, "A/T Shift Selector Re	emoval and Installation".
5. CHECK INTERMITTENT IN			
Refer to <u>GI-39, "Intermittent Inci</u>	<u>dent"</u> .		A
<u>Is the inspection result normal?</u> YES >> Replace driver seat	control unit Refe	r to ADP-148, "Removal and	Installation"
NO >> Repair or replace th			<u>Installation</u> .
Diagnosis Procedure (Co	olumn Shift)		INFOID:00000006163482
Regarding Wiring Diagram infor	mation, refer to Al	OP-128, "Wiring Diagram".	
	· · ·		
1. CHECK DTC			
Check "Self diagnostic result" fo	r BCM with CONS	SULT-III.	
Are other DTCs detected?			
YES >> Check the DTC. NO >> GO TO 2			
2. CHECK PARK POSITION S	WITCH SIGNAL		
1. Turn ignition switch ON.			
 Select "DETENT SW" in "Data 3. Check park position switch 			
Monitor item		Condition	Status
		P position	OFF

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

Is the status normal?

B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS >

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

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.
- 3. Check continuity between A/T shift selector connector M68 terminal 8 and driver seat control unit connector B202 terminal 21.

8 - 21

: Continuity should exist.

4. Check continuity between A/T shift selector connector M68 terminal 8 and ground.

8 - Ground

: Continuity should not exist.

5. Check continuity between A/T shift selector connector M68 terminal 1 and ground.

1 - Ground

: Continuity should exist.

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH)

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

Term	inals	Condition	Continuity
8	1	P position	No
ŏ	I	Other than P position	Yes

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace A/T shift selector. Refer to TM-185. "A/T Shift Selector Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "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.

< DTC/CIRCUIT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description

Driver seat control unit performs UART communication with the automatic drive positioner control unit using 2 В 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-45, "Diagnosis Procedure".

NO >> Inspection End.

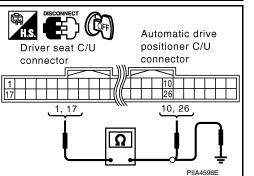
Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

1. CHECK UART COMMUNICATION LINE CONTINUITY

- Turn ignition switch OFF. 1.
- 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.

Driver seat control unit connector	Automatic drive positioner control unit connector	Terminal	Continuity
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B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

B202	1	M33	10	Yes
	17		26	res

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

Driver seat control unit con- nector	Terminal		Continuity
B202	1	Ground	No
	17	_	NO

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> Repair or replace harness.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT BCM

BCM : Diagnosis Procedure

1. CHECK FUSES AND FUSIBLE LINK

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

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

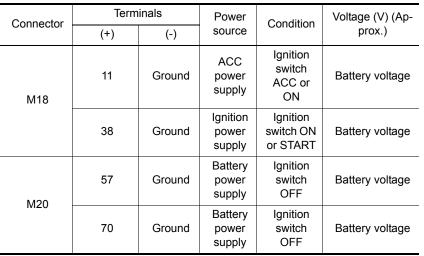
Is the fuse blown?

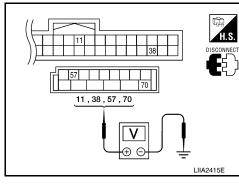
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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.







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Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

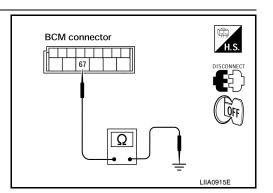
B	CM		Continuity
Connector	Terminal	Ground	Continuity
M20	67		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT



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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

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NOTE:

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

Condition

Ignition

switch

START

Ignition

switch

OFF

(Approx.)

Battery

voltage

Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

Power

source

START

power sup-

ply

Battery

power sup-

ply

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

(+)

Driver seat

control unit

connector

B202

B203

NO

Disconnect driver seat control unit. 2.

Terminals

Terminal

6

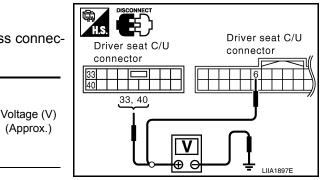
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Check voltage between driver seat control unit harness connec-3. tor and ground.

(-)

Ground



Is the inspection result normal?

>> GO TO 2 YES

>> 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.

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

Is the inspection result normal?

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

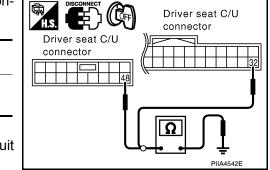
NO >> Repair or replace harness.

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



INFOID:00000006163488

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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-128, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT

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

Te				
(+)			Voltage (V)	
Automatic drive positioner control unit connector Terminal		(-)	(Approx.)	
M34	34	Ground	Battery voltage	
10104	39	Ground	Dattery voltage	

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

2. CHECK GROUND CIRCUIT

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

Automatic drive positioner control unit connector	Terminal		Continuity
M34	40	Ground	Yes
10134	48	•	165

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

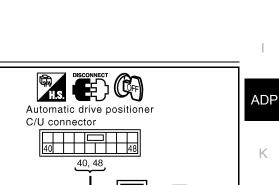
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1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to Owner's Manual.



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Automatic drive positioner

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C/U connector



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< DTC/CIRCUIT DIAGNOSIS >

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

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

Monitor item	Condition		Status
SLIDE SW-FR	Sliding switch (forward)	Operate	ON
SLIDE SW-FR		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 ADP-50, "Diagnosis Procedure".

Diagnosis Procedure

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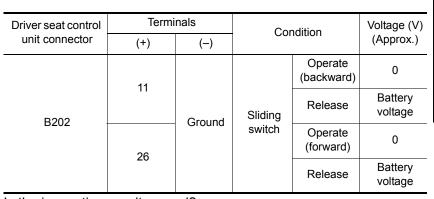
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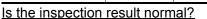
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Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

1. CHECK SLIDING SWITCH SIGNAL

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





YES >> GO TO 5

NO >> GO TO 2

2. CHECK SLIDING SWITCH CIRCUIT

Driver seat C/U connector

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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
0202 (N)	26	B200 (B)	5	163

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

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

Is the inspection result normal?

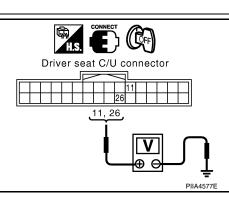
YES >> GO TO 3

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	Term	Voltage (V)	
connector	(+)	(-)	(Approx.)
B202	11	Ground	Battery voltage
D202	26	Ground	Ballery Vollage



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Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to SE-30, "Removal and Installation For Front Seat".

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 SE-44, "Disassembly and Assembly". CHECK INTERMITTENT INCIDENT Refer to GI-39, "Intermittent Incident". Is the inspection result normal? YES >> Replace driver seat control unit. Refer to ADP-148, "Removal and Installation". NO >> Repair or replace malfunctioning part. **Component Inspection** INFOID:000000006163494

CHECK SLIDING SWITCH



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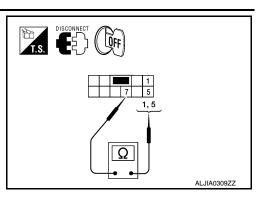
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SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Ter	minal	Condition		Continuity
Power sea	at switch LH			Continuity
	1	Sliding switch (backward)	Operate	Yes
7	I	Shung 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-44, "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		Status
		Operate	ON
RECLN SW-FR	Reclining switch (forward)	Release	OFF
RECLN SW-RR		Operate	ON
	Reclining switch (backward)	Release	OFF

<u>inuication normal?</u>

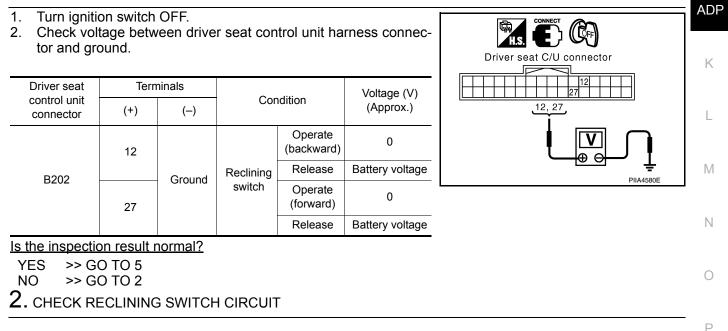
YES >> Inspection End.	YES	>> Inspection End.
------------------------	-----	--------------------

NO >> Perform diagnosis procedure. Refer to <u>ADP-53</u>, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

1. CHECK RECLINING SWITCH SIGNAL



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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	103

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	_	NO

Is the inspection result normal?

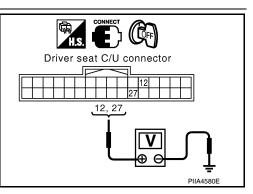
YES >> GO TO 3

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	Termir	als	Voltage (V)
unit connector	(+)	(-)	(Approx.)
B202	12	Ground	Battery voltage
5202	27	Ground	Dattery Voltage



Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to <u>ADP-148</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-44, "Disassembly and Assembly"</u>.

CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

Is the inspection result normal?

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

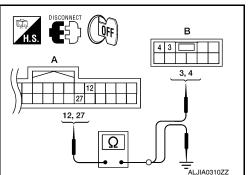
NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK RECLINING SWITCH

INFOID:000000006163498

at control unit harness connec-

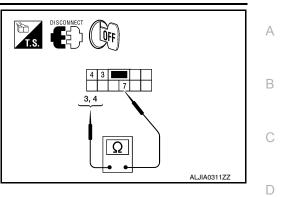


RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Terr	ninals	Condition		Continuity
Power sea	at switch LH	Condition		Continuity
	3	Reclining switch	Operate	Yes
7	5	(backward)	Release	No
I	4	Reclining switch	Operate	Yes
	4 (forwa	(forward)	Release	No



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-44, "Disassembly and Assembly"</u>.



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Revision: August 2010

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description

INFOID:000000006163499

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:000000006163500

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
	Lining switch from (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

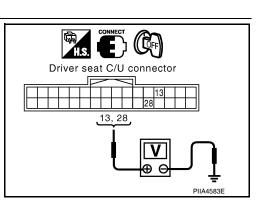
INFOID:000000006163501

Regarding Wiring Diagram information, refer to <u>ADP-128, "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	Term	ninals	Condition		Voltage (V)	
control unit connector	(+)	(–)			(Approx.)	
	13 Ground	Lifting			Operate (down)	0V
B202				Ground	0	Release
			(front)	Operate (up)	0V	
	28	28		Release	Battery voltage	



Is the inspection result normal?

YES >> GO TO 5

2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

LIFTING SWITCH (FRONT)

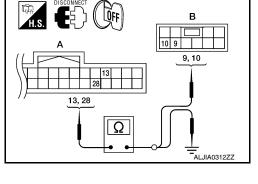
< DTC/CIRCUIT DIAGNOSIS >

- 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	B208 (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	+	INO



Is the inspection result normal?

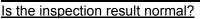
YES >> GO TO 3

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	13	Ground	Pattony voltage	
BZUZ	28	Ground	Battery voltage	



YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to <u>ADP-148</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-44, "Disassembly and Assembly"</u>.

5. CHECK INTERMITTENT INCIDENT

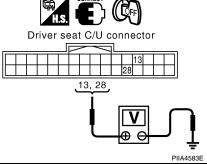
Refer to <u>GI-39</u>, "Intermittent Incident". Is the inspection result normal?

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

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK LIFTING SWITCH (FRONT)



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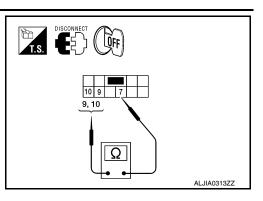
INFOID:000000006163502

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 sea	at switch LH	Condition		Continuity	
	9	Lifting switch front (down)	Operate	Yes	
7	5		Release	No	
7	10	Lifting switch front (up)	Operate	Yes	
	10	Enting Switch Holit (up)	Release	No	



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-44. "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 signal is inputted to the driver seat control unit when the lifting switch (rear) is operated.

Component Function Check

1. CHECK FUNCTION

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

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

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

is the indication normal?

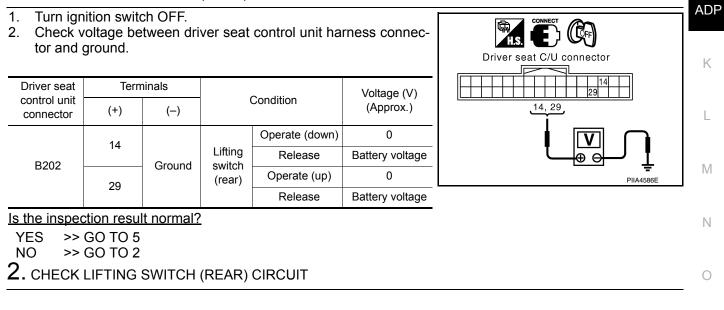
YES	>> Inspection End.
IES	~~ Inspection End.

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

Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-128, "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 seat 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		Continuity
B202 (A)	14	Ground	No
	29	-	No

Is the inspection result normal?

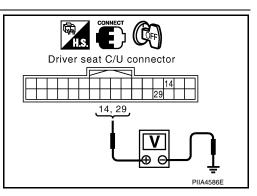
YES >> GO TO 3

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	Ter	minals	Voltage (V)
connector	(+)	(-)	(Approx.)
B202	14	Ground	Battery voltage
DZUZ	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-148, "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-44, "Disassembly and Assembly"</u>.

CHECK INTERMITTENT INCIDENT

Refer to GI-39, "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.

Component Inspection

1. CHECK LIFTING SWITCH (REAR)

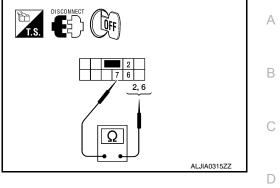
INFOID:000000006163506

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	minal	Condition		Continuity
Power sea	at switch LH			Continuity
	2	Lifting switch rear (down)	Operate	Yes
7	2		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-44. "Disassembly and Assembly"</u>.

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< DTC/CIRCUIT DIAGNOSIS >

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	Condition		
PEDAL SW-FR	Pedal adjusting switch (forward)	Operate	ON	
		Release	OFF	
PEDAL SW-RR	Pedal adjusting switch (backward)	Operate	ON	
FEDAL SW-NR		Release	OFF	

Is the indication normal?

YES >> Inspection End.

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

Diagnosis Procedure

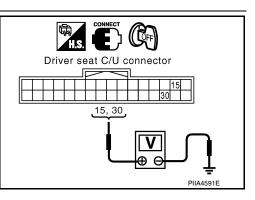
INFOID:000000006163509

Regarding Wiring Diagram information, refer to <u>ADP-128, "Wiring Diagram"</u>.

1. CHECK PEDAL ADJUSTING SWITCH SIGNAL

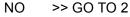
- 1. Turn ignition switch OFF.
- Check voltage between driver seat control unit harness connector and ground.

Driver seat	Tern	ninals			Voltage (V)	
control unit connector	(+)	(-)	Con	Condition		
	45	15 Pedal ad- Justing switch 30		Operate (forward)	0	
B202	15		Ground	Pedal ad-	Release	Battery voltage
BLUL	30				Operate (backward)	0
	30			Release	Battery voltage	



Is the inspection result normal?

YES >> GO TO 5



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

Driver seat control unit connector	Terminal	Pedal adjusting switch connector	Terminal	Continuity
B202	15	M96	2	Yes
B202	30	10190	3	165

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

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

Is the inspection result normal?

YES >> GO TO 3

- NO >> Repair or replace harness.
- $\mathbf{3}$. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

(+)

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

(-)

Ground

Terminals

nec-	
	Driver seat C/U connector
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Pedal adjusting

switch connector

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Pedal adjusting

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Driver seat C/U connector

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Is the inspection result normal?

YES >> GO TO 4

Driver seat control unit

connector

B202

NO >> Replace driver seat control unit. Refer to <u>ADP-148</u>, "<u>Removal and Installation</u>".

Voltage (V) (Approx.)

Battery voltage

4. CHECK PEDAL ADJUSTING SWITCH

Refer to ADP-64, "Component Inspection".

<u>Is the</u>	inspec	ction	result	normal?

YES >> GO TO 5

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

 ${f 5.}$ 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-39, "Intermittent Incident".

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PEDAL ADJUSTING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-149, "Removal and Installation"</u>.
- NO >> Repair or replace the malfunctioning part.

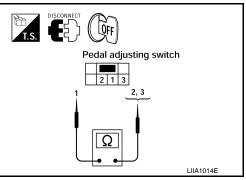
Component Inspection

INFOID:000000006163510

1. CHECK PEDAL ADJUSTING SWITCH

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

-	minal Isting switch	Condition		Continuity
	isting switch	Pedal adjusting switch	Operate	Yes
4	2	(backward)	Release	No
1	2	Pedal adjusting switch	Operate	Yes
	3 (forward)		Release	No



Is the inspection result normal?

YES >> Inspection End.

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

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Description

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

Component Function Check

1. CHECK FUNCTION

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

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

Monitor item	Cond	ition	Status	
		Push	ON	
MEMORY SW1	Memory switch 1	Release	OFF	
		Push	ON	
MEMORY SW2	Memory switch 2	Release	OFF	
	Set ewitch	Push	ON	
SET SW	Set switch	Release	OFF	

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-65. "Diagnosis Procedure"</u>.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

1. CHECK MEMORY SWITCH CIRCUIT

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

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

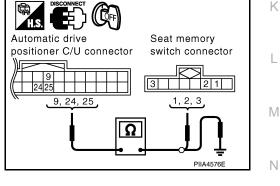
4. Check continuity between automatic drive positioner control unit harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.



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< DTC/CIRCUIT DIAGNOSIS >

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-150, "Removal and Installation"</u>.

CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</u>, "Removal and Installation".

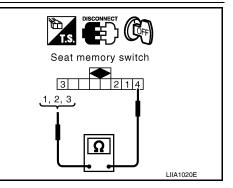
NO >> Repair or replace the malfunctioning part.

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 memory switch					
	1	Memory switch 1	Push	Yes	
	I		Release	No	
4	2		Push	Yes	
4	2	Memory switch 2	Release	No	
	3 Set switch	Set switch	Push	Yes	
	5	Set Switch	Release	No	

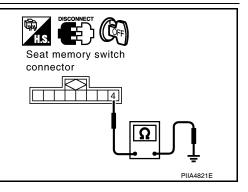


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Is the inspection result normal?

YES >> Inspection End.

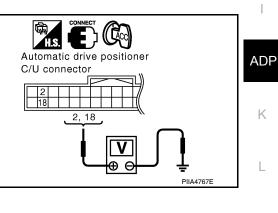
NO >> Replace seat memory switch. Refer to <u>ADP-150, "Removal and Installation"</u>.



DOOR MIRROR REMOTE CONTROL SWITCH	
< DTC/CIRCUIT DIAGNOSIS >	
DOOR MIRROR REMOTE CONTROL SWITCH	
CHANGEOVER SWITCH	
CHANGEOVER SWITCH : Description	
Changeover switch is integrated into door mirror remote control switch. Changeover switch has three positions (L, N and R). It changes door mirror motor operation by transmitting control signal to automatic drive positioner control unit.	
CHANGEOVER SWITCH : Component Function Check	
1. CHECK CHANGEOVER SWITCH FUNCTION	
Check the operation on "MIR CHNG SW-R" or "MIR CHNG SW-L" in "DATA MONITOR" mode with CON- SULT-III.	
Refer to <u>ADP-26, "CONSULT-III Function"</u> .	
Is the inspection result normal?	
YES >> Changeover switch function is OK. NO >> Refer to <u>ADP-67, "CHANGEOVER SWITCH : Diagnosis Procedure"</u> .	
CHANGEOVER SWITCH : Diagnosis Procedure	
Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".	
1. CHECK CHANGEOVER SWITCH SIGNAL	
1 Turn ignition switch to ACC	

- Turn ignition switch to ACC. 1.
- 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	2 Ground	RIGHT	0	
M33	2		Other than above	5	
10135	10		LEFT	0	
	18		Other than above	5	



Is the inspection result normal?

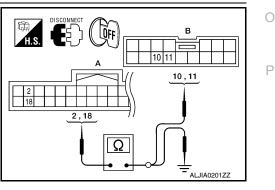
YES >> GO TO 6

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	Quest	Continuity
M33 (A)	2	Ground	No
1000 (A)	18	*	NO

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	lerminal		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.

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</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-39, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to <u>ADP-151, "Removal and Installation"</u>.

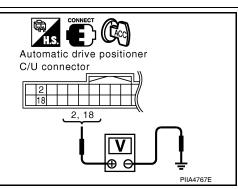
6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-39, "Intermittent Incident".

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</u>, "Removal and Installation".
- 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	
10	7	LEFT	Yes
10		Other than above	No
11	1	RIGHT	Yes
	Other than above	No	

B DISCONNECT DIS

INFOID:000000006163518

INFOID:000000006163519

INFOID:000000006163520

INFOID:000000006163521

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Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to <u>ADP-151, "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.

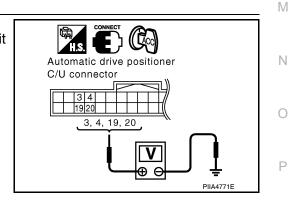
NO >> Refer to <u>ADP-69</u>, "<u>MIRROR SWITCH</u> : <u>Diagnosis Procedure</u>".

MIRROR SWITCH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-128. "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
	5	- Ground	Other than above	5
	4		LEFT	0
M33	4		Other than above	5
19	19		DOWN	0
			Other than above	5
	20		RIGHT	0
	20		Other than above	5

Is the inspection result normal?

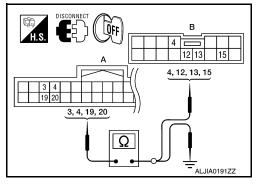
YES >> GO TO 6

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

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

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



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

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

Is the inspection result normal?

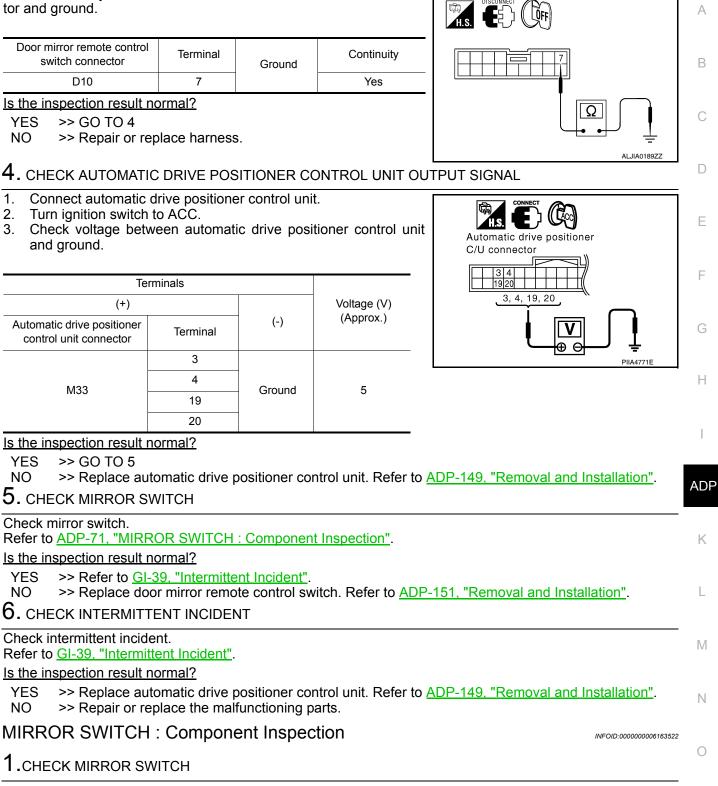
YES >> GO TO 3

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-

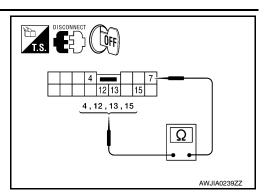


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< DTC/CIRCUIT DIAGNOSIS >

Check door mirror remote control switch.

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



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to <u>ADP-151, "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-128. "Wiring Diagram"</u>.

1. CHECK POWER SEAT SWITCH LH GROUND CIRCUIT

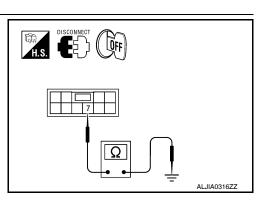
- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH connector and ground.

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-39</u>, "Intermittent Incident".

NO >> Repair or replace harness.



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< DTC/CIRCUIT DIAGNOSIS >

PARK POSITION SWITCH

Description

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INFOID:000000006163525

The park position switch is installed on the 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 shift selector 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 (key lock) signal under the following conditions.

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-75</u>, "<u>Diagnosis Procedure (Column Shift)</u>" or <u>ADP-74</u>, "<u>Diagnosis Procedure (Floor Shift)</u>".

Diagnosis Procedure (Floor Shift)

INFOID:000000006163526

Regarding Wiring Diagram information, refer to <u>ADP-128, "Wiring Diagram"</u>.

1. CHECK DTC WITH "BCM"

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

Is any DTC detected?

YES >> Check the DTC.

NO >> GO TO 2

2. CHECK A/T SHIFT SELECTOR [PARK POSITION SWITCH (KEY LOCK)] INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit.
- 3. Mechanical key must be inserted into the key switch and key lock solenoid.
- 4. Check voltage between driver seat control unit harness connector and ground.

Driver seat	Terminal				Voltage (V)
control unit connector	(+)	(-)	Condition		(Approx.)
		۸/T shift	P position	0	
B202	21	Ground	A/T shift selector	Other than above	Battery volt- age

Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 3

3. CHECK A/T SHIFT SELECTOR [PARK POSITION SWITCH (KEY LOCK)] CIRCUIT

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

ADP-74

PARK POSITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Connector		Terminal	Connector	Terminal	Continuity		A
B202		21	M203 (King Cab) M204 (Crew	6	Yes		В
. Check co	ntinuity	between	Cab)	control unit h	arness conn	ector and ground.	D
Carriente		Taurain				-	С
Connecto B202	or	Termin 21		und	Continuity No		
the inspect	ion resu		?				D
YES >> G	ю то 4						
	•	•	harness.				E
CHECK IN							
efer to <u>GI-39</u> the inspect							F
				it. Refer to A	DP-148, "Re	moval and Installation".	
			the malfunct				C
iagnosis	Proce	dure (C	Column Sh	nift)		INFOID:00000006163527	C
egarding Wi	ring Dia	igram inf	ormation, ref	er to <u>ADP-1</u> 2	28, "Wiring D	iagram".	
0 0	U	0					
. CHECK D	TC WIT	H "BCM	"				
			" for BCM wi	th CONSUL	T-III.		
any DTC de	-						A
	heck th						
	ю то 2 /т спл						
			JUR (PAR	POSITION	SWITCH) IN	PUT SIGNAL	
Turn ignit Disconne			ntrol unit.				
Check co	ntinuity	between	driver seat o	control unit h	arness conn	ector and ground.	
Driver seat						-	
control unit	Те	rminal	Cor	ndition	Continuity		ľ
connector				D 'I'	NL	_	
B202	21	Ground	A/T shift	P position Other than	No	_	
			selector	above	Yes		
the inspect	ion resu	lt normal	?			-	
							(
	Ю ТО 3 /т shif		ים גםו סרדר				
			UN LARK	FUSITION		EY LOCK)] CIRCUIT	I
Turn ignit Disconne			ctor.				
Check co				control unit	harness coni	nector and A/T shift selector harness con-	
nector.							
Connector	. ·	Terminal	Connector	Terminal	Continuity		

Connector	Terminal	Connector	Terminal	Continuity
B202	21	M68	8	Yes

PARK POSITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

4. Check continuity between A/T shift selector harness connector and ground.

Connector	Terminal	Ground	Continuity
M68	1	Ground	Yes

5. Check continuity between A/T shift selector harness connector and ground.

Connector	Terminal	Ground	Continuity
M68	8	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH)

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

Term	inals	Condition	Continuity
8	8 1	P position	No
0	I	Other than P position	Yes

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace A/T shift selector. Refer to TM-185. "A/T Shift Selector Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

Is the inspection result normal?

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

NO >> Repair or replace the malfunctioning part.

FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

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.

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

	nitor item			Condition		Status
	ם אא סר	Erant		Open		ON
DOC	OR SW-DR	Front	door switch LH	Close		OFF
	pection End form diagno	l. osis procedur	e. Refer to <u>ADF</u>	P-77, "Diagnos	sis Procedure".	INFOID:0000000061
Regarding Wirir				28, "Wiring Dia	gram".	
1. CHECK FRO	ONT DOOR	SWITCH LH	I CIRCUIT			
	inuity betwe	ront door swit een BCM con	tch LH. nector and fror	nt door switch		Front door switch LH connector
BCM connector	Terminal	Front door swit	Terminal	Continuity		2
M19	47	B8	2	Yes	ļ	
. Check cont	inuity betwe	en BCM con	nector and grou	und.		
BCM connecto	r Te	erminal	Ground	Continuity		LIIA1027E
M19		47		No		
2. CHECK FRO	oair or repla ONT DOOR	R SWITCH LH				
YES >> GO NO >> Rep 2. CHECK FRO Refer to <u>ADP-78</u>	pair or repla ONT DOOR 8, "Compon	SWITCH LH				
YES >> GO NO >> Rep 2. CHECK FRO Refer to <u>ADP-78</u> is the inspection	Dair or repla ONT DOOR 8. "Compon 1 result norr	SWITCH LH				
YES >> GO NO >> Rep 2. CHECK FRO Refer to <u>ADP-78</u> is the inspection YES >> GO	Dair or repla ONT DOOR 8. "Compon <u>n result norr</u> TO 3	SWITCH LH	<u>n"</u> .			
YES >> GO NO >> Rep 2. CHECK FRO Refer to <u>ADP-78</u> is the inspection YES >> GO	Dair or repla DNT DOOR 8. "Compon <u>n result norr</u> TO 3 Diace front c	R SWITCH LH <u>eent Inspectio</u> <u>mal?</u> door switch Ll	<u>n"</u> . H.			
YES >> GO NO >> Rep 2. CHECK FRO Refer to <u>ADP-78</u> is the inspection YES >> GO NO >> Rep	Dair or repla DNT DOOR 8. "Compon <u>n result norr</u> TO 3 Diace front of ERMITTEN	R SWITCH LH ment Inspectio mal? door switch LI IT INCIDENT	<u>n"</u> . H.			
YES >> GO NO >> Rep 2. CHECK FRO Refer to <u>ADP-78</u> is the inspection YES >> GO NO >> Rep 3. CHECK INT	Dair or repla DNT DOOR <u>8. "Componentesult norresult nor</u>	R SWITCH LH ent Inspectio mal? door switch Li IT INCIDENT t Incident".	<u>n"</u> . H.			

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INFOID:000000006163528

INFOID:000000006163529

FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

Component Inspection

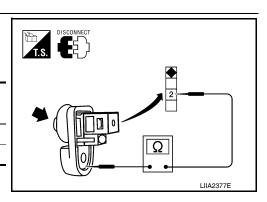
INFOID:000000006163531

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	Conditic	'n	Continuity	
Front	loor switch LH	Condition		Continuity	
2	Ground part of	Front door switch	Pushed	No	
2	door switch	LH	Released	Yes	

- YES >> Inspection End.
- NO >> Replace front door switch LH.



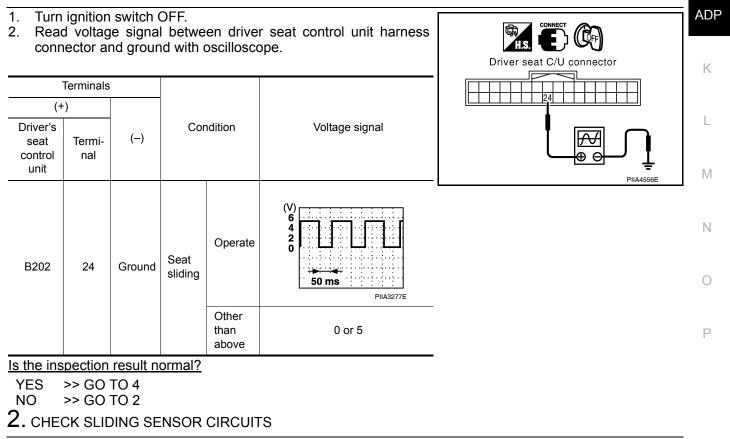
SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING SENSOR	

Description			INFOID:00000006163532			
 The pulse signal is input 	ut to the driver se	wer seat frame assembly. eat control unit when sliding is pulse and calculates the sliding		В		
Component Function	on Check		INFOID:00000006163533	С		
1. CHECK FUNCTION						
	1. Select "SLIDE PULSE" in "Data monitor" mode with CONSULT-III.					
2. Check sliding senso	r signal under the	e following conditions.				
Monitor item		Condition	Valve	Е		
		Operate (forward)	Change (increase)			
SLIDE PULSE	Seat sliding	Operate (backward)	Change (decrease)	_		
		Release	No change	F		
-	nd. gnosis procedure	e. Refer to <u>ADP-79, "Diagnosis</u>	Procedure".	G		
Diagnosis Procedu Regarding Wiring Diagra		efer to ADP-128, "Wiring Diagra	INFOID:00000006163534	Η		

1. CHECK SLIDING SENSOR SIGNAL



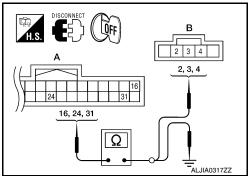
А

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	31			



3. 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-44, "Disassembly</u> and <u>Assembly"</u>.
- NO >> Replace driver seat control unit. Refer to <u>ADP-148. "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

- YES >> Replace driver seat control unit. Refer to <u>ADP-148</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

RECLINING SENSOR

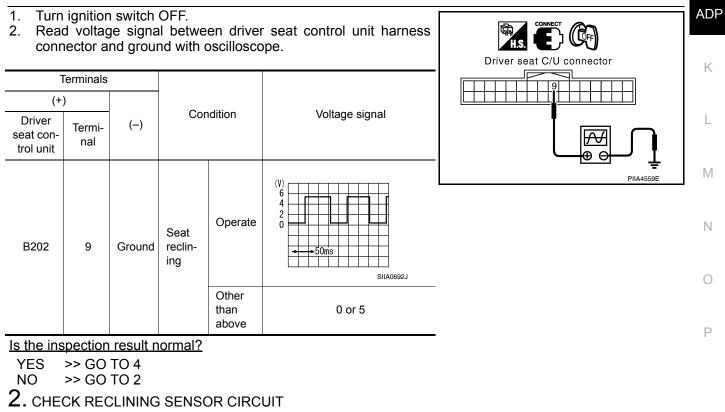
< DTC/CIRCUIT DIAGNOSIS :	>
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RECLINING SENSOR

Description	INFC	=OID:000000006163535	A		
	utted to the drive	eatback assembly. r seat control unit when the pulse and calculates the recl			В
Component Functi	on Check		INFO	=OID:000000006163536	С
1. CHECK FUNCTION					
		nitor" mode with CONSULT-	III.		D
2. Check reclining sen	sor signal under t	the following conditions.			
2. Cneck reclining sen	-		Value		Е
	-	-	Value Change (increase)		Е
	-	Condition			E
Monitor item	C	Condition Operate (forward)	Change (increase)		E
Monitor item RECLN PULSE Is the indication normal? YES >> Inspection E	Seat reclining Seat reclining	Condition Operate (forward) Operate (backward)	Change (increase) Change (decrease) No change		E F

Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

1. CHECK RECLINING SENSOR SIGNAL

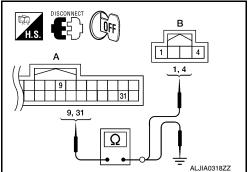


RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Reclining motor connector	Terminal	Continuity
B202 (A)	9	B205 (B)	1	Yes
D202 (A)	31 B205 (B)		4	163



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

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.
- $\mathbf{3}$. 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-44, "Disassembly</u>".
- NO >> Replace driver seat control unit. Refer to <u>ADP-148</u>. "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

- YES >> Replace driver seat control unit. Refer to <u>ADP-148</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

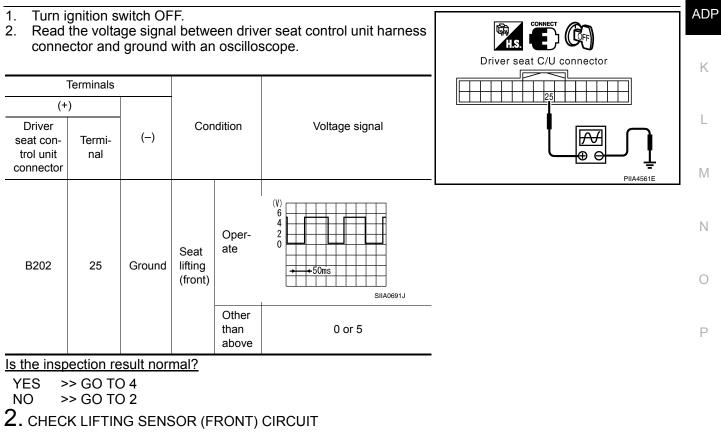
LIFTING SENSOR (FRONT)

А Description INFOID:000000006163538 The lifting sensor (front) is installed to the power seat frame assembly. В 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** INEOID:000000006163539 1. CHECK FUNCTION Select "LIFT FR PULSE" in "Data monitor" mode with CONSULT-III. 1. D Check the lifting sensor (front) signal under the following conditions. 2. Monitor item Condition Value Ε Operate (up) Change (increase) LIFT FR PULSE Seat lifting (front) Operate (down) Change (decrease) Release No change Is the indication normal? YES >> Inspection End. NO >> Perform diagnosis procedure. Refer to ADP-83, "Diagnosis Procedure". Diagnosis Procedure INFOID:000000006163540

Н

Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

1. CHECK LIFTING SENSOR (FRONT) SIGNAL



LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 $\mathbf{3}$. CHECK SEAT OPERATION

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

2. Check seat operation [except lifting (front) operation] with memory function.

Is the operation normal?

- YES >> Replace lifting motor (front). (Built in power seat frame assembly). Refer to <u>SE-44. "Disassembly</u>".
- NO >> Replace driver seat control unit. Refer to <u>ADP-148</u>. "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

- YES >> Replace driver seat control unit. Refer to <u>ADP-148</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

А Description INFOID:000000006163541 The lifting sensor (rear) is installed to the power seat frame assembly. В • 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** INEOID:000000006163542 1. CHECK FUNCTION Select "LIFT RR PULSE" in "Data monitor" mode with CONSULT-III. D 1. Check lifting sensor (rear) signal under the following conditions. 2. Monitor item Condition Value Ε Operate (up) Change (increase) LIFT RR PULSE Seat lifting (rear) Operate (down) Change (decrease) F Release No change Is the indication normal? YES >> Inspection End. NO >> Perform diagnosis procedure. Refer to ADP-85, "Diagnosis Procedure". Diagnosis Procedure INFOID:000000006163543 Н

Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

1. CHECK LIFTING SENSOR (REAR) SIGNAL

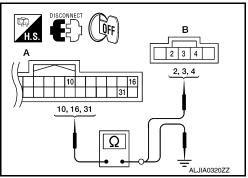
2. Read	voltage		betwee	en drive scillosco	r seat control unit harness ope.	Driver seat C/U connector	ADP K
]	Ferminals						
(+)						
Driver seat con- trol unit	Termi- nal	(–)	Coi	ndition	Voltage signal		L
connector						PIIA4563E	Μ
B202	10	Ground	Seat lifting (rear)	Oper- ate	(V) 6 4 2 0 •••50ms SIIA0693J		N
				Other than above	0 or 5		Ρ
Is the insp	ection r	esult no	rmal?				
	•> GO T •> GO T						
2. CHEC	K LIFTI	NG SEN	ISOR (REAR)	CIRCUIT		

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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

Terminal	Lifting motor (rear) connector	Terminal	Continuity
10		4	
16	B207 (B)	3	Yes
31		2	
	10 16	Terminal Connector 10 16 16 B207 (B)	TerminalConnectorTerminal10416B207 (B)3



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

Terminal		Continuity
10	Ground	
16		No
31		
	10 16	10 Ground 16

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-44, "Disassembly</u>".
- NO >> Replace driver seat control unit. Refer to <u>ADP-148</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

- YES >> Replace driver seat control unit. Refer to <u>ADP-148</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

PEDAL ADJUSTING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

PEDAL ADJUSTING SENSOR

Description

- 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

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	Dodal position	Forward	0.5V
PEDAL SEN	Pedal position	Backward	4.5V

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-87, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-128, "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.

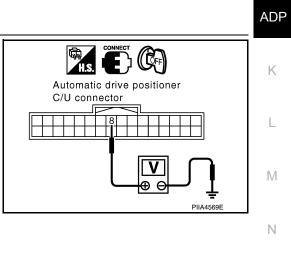
	Terminal				
(+)					Voltage (V)
Automatic drive position- er control unit	Terminal	(-)	Condition		(Approx.)
		<u> </u>	Pedal as-	Forward	0.5
M33	8	Ground	sembly position Backward		4.5

Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 2

2. CHECK PEDAL ADJUSTING SENSOR CIRCUIT



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INFOID:000000006163544

INFOID:000000006163545

INFOID:00000006163546

Revision: August 2010

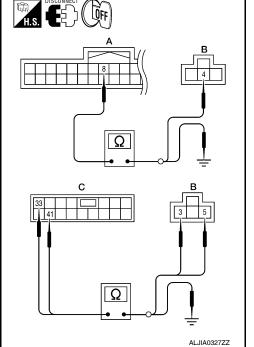
PEDAL ADJUSTING SENSOR

< 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	
M24 (C)	33	E110 (B)	3	Yes
M34 (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
10104 (C)	41		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 $\mathbf{3}$. CHECK DOOR MIRROR OPERATION

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

Is the operation normal?

- YES >> Replace pedal adjusting motor assembly. Refer to ADP-152, "Removal and Installation".
- NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-149, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-149. "Removal and Installation"</u>.
- NO >> Repair or replace the malfunctioning part.

MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS > MIRROR SENSOR

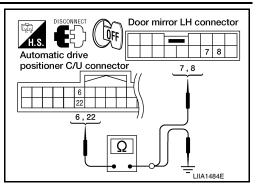
ORIVER S							
ORIVER S	SIDE : D	escripti	on				INFOID:000000006163547
The resista Automatic of age of 2 se	nce of 2 so drive positi nsor input	ensors (h ioner con terminals	iorizonta trol unit s.		or mirror positio		-H is operated. he change of the volt-
		•	ent F	unction Check			INFOID:000000006163548
. Select "M	/IR/SEN L	.H U-D", '		EN LH R-L" in "Data gnal under the follo			
	Monitor item	1		C	ondition		Value
					Close to peak		3.4V
MIR/SEN LI	H U-D				Close to valley	y	0.6V
			Door I	mirror LH	Close to right	edge	3.4V
MIR/SEN LI	H R-L				Close to left ed	dge	0.6V
YES >> I NO >> F ORIVER S	SIDE : D	agnosis p iagnosi	s Pro	re. Refer to <u>ADP-8</u> cedure refer to <u>ADP-128,</u>			Procedure".
YES >> In NO >> F RIVER S egarding W . CHECK E	Perform dia SIDE : D Firing Diago DOOR MIF	agnosis p iagnosi ram inform RROR LH n to ACC.	mation,	cedure	"Wiring Diagra		
YES >> In NO >> F PRIVER S egarding W . CHECK E . Turn igni . Check vo ground.	Perform dia SIDE : D Tiring Diago DOOR MIF tion switch oltage betw	agnosis p iagnosi ram inform RROR LH n to ACC.	mation,	cedure refer to <u>ADP-128,</u> OR SIGNAL	"Wiring Diagra		INFOID:00000000616354
YES >> In NO >> F ORIVER S Regarding W . CHECK I . Turn igni . Check vo ground.	Perform dia SIDE : D Viring Diago DOOR MIF tion switch oltage betw	agnosis p iagnosi ram inform RROR LH n to ACC.	mation,	cedure refer to <u>ADP-128,</u> OR SIGNAL r LH harness coni	"Wiring Diagra	IM".	INFOID:00000000616354
YES >> In NO >> F PRIVER S egarding W . CHECK E . Turn igni . Check vo ground. T (+) Door mirror	Perform dia SIDE : D Viring Diago DOOR MIF tion switch oltage betw	agnosis p iagnosi ram inform RROR LH n to ACC.	mation,	cedure refer to <u>ADP-128,</u> OR SIGNAL	"Wiring Diagra	IM".	INFOID:00000000616354
YES >> In NO >> F PRIVER S egarding W . CHECK E . Turn igni . Check vo ground. T (+) Door mirror	Perform dia SIDE : D Firing Diago DOOR MIF tion switch bitage betw Ferminals	agnosis p iagnosi ram inform RROR LH n to ACC. ween doo	mation,	cedure refer to <u>ADP-128,</u> OR SIGNAL r LH harness coni	Wiring Diagra	Im".	INFOID:00000000616354
YES >> In NO >> F PRIVER S egarding W . CHECK D . Turn igni . Check vo ground. T (+) Door mirror LH connector	Perform dia SIDE : D Viring Diago DOOR MIF tion switch oltage betw	agnosis p iagnosi ram inform RROR LH In to ACC. ween door	To mation, I SENS for mirro	cedure refer to <u>ADP-128,</u> OR SIGNAL r LH harness cont Condition	Wiring Diagra	Im".	INFOID:00000000616354
YES >> In NO >> F ORIVER S Regarding W . CHECK E . Turn igni . Check vo ground. T (+)	Perform dia SIDE : D Firing Diago DOOR MIF DOOR MIF DItage betw Ferminals	agnosis p iagnosi ram inform RROR LH n to ACC. ween doo	mation, I SENS	cedure refer to <u>ADP-128,</u> OR SIGNAL r LH harness cont Condition	"Wiring Diagra nector and Voltage (V) (Approx.) 3.4	Im".	$\frac{1}{10000000000000000000000000000000000$
NO >> F ORIVER S Regarding W . CHECK E . Turn igni . Check vo ground. T (+) Door mirror LH connector	Perform dia SIDE : D Firing Diago DOOR MIF tion switch bitage betw Ferminals	agnosis p iagnosi ram inform RROR LH In to ACC. ween door	mation, I SENS or mirro	cedure refer to <u>ADP-128,</u> OR SIGNAL r LH harness cont Condition	Wiring Diagra	Im".	$\frac{1}{10000000000000000000000000000000000$
YES >> In NO >> F DRIVER S Regarding W . CHECK I . Turn igni . Check vo ground. T (+) Door mirror LH connector	Perform dia SIDE : D Firing Diago DOOR MIF tion switch oltage betw Ferminals Terminal 7 8	agnosis p iagnosi ram inform RROR LH n to ACC. ween door	mation, I SENS or mirro	cedure refer to <u>ADP-128,</u> OR SIGNAL r LH harness cont Condition Close to peak Close to valley Close to right edge	Wiring Diagra nector and Voltage (V) (Approx.) 3.4 0.6 3.4	Im".	$\frac{1}{10000000000000000000000000000000000$
YES >> In NO >> F ORIVER S Regarding W . CHECK E . Turn igni . Check vo ground. T (+) Door mirror LH connector D4	Perform dia SIDE : D Tiring Diago DOOR MIF tion switch oltage betw Terminal 7 8 tion result GO TO 5. GO TO 2.	agnosis p iagnosi ram inform RROR LH n to ACC. ween door (-) Ground normal?	Door mirror LH	cedure refer to <u>ADP-128,</u> OR SIGNAL r LH harness cont Condition Close to peak Close to valley Close to right edge	Wiring Diagra nector and Voltage (V) (Approx.) 3.4 0.6 3.4	Im".	$\frac{1}{10000000000000000000000000000000000$

MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. 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
IVISS	22	04	8	165



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
1000	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
10104	41	D4	6	165

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

Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M34	33		No
1010-4	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 <u>MIR-18, "Mirror Actuator"</u>.
- NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</u>, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

ADP-90

H.S. DISCONNECT (C) Door mirror LH connector
Automatic drive
positioner C/U connector $5, 6$
33 41 41
33,41

>> GO TO 5

>> GO TO 2

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

YES

NO

< DTC/CIRCUIT DIAGNOSIS >

PASSENGER SIDE PASSENGER SIDE : Description INEOID:000000006163550 • The mirror sensor RH is installed to the door mirror RH. The resistance of 2 sensors (horizontal and vertical) is changed when the door mirror RH is operated. Automatic drive positioner control unit calculates the door mirror position according to the change of the voltage of 2 sensor input terminals. PASSENGER SIDE : Component Function Check INFOID:000000006163551 **1**.CHECK FUNCTION D Select "MIR/SEN RH U-D", "MIR/SEN RH R-L" in "Data monitor" with CONSULT-III. 1. Check the mirror sensor RH signal under the following conditions. 2. Ε Monitor item Condition Value 3.4V Close to peak MIR/SEN RH U-D 0.6V Close to valley Door mirror RH 3.4V Close to right edge MIR/SEN RH R-L 0.6V Close to left edge Is the indication normal? YES >> Inspection End. >> Perform diagnosis procedure. Refer to ADP-91, "PASSENGER SIDE : Diagnosis Procedure". NO Н PASSENGER SIDE : Diagnosis Procedure INFOID:000000006163552 Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram". 1. CHECK DOOR MIRROR RH SENSOR SIGNAL Turn ignition switch to ACC. 1. H.S. 2. Check voltage between door mirror RH harness connector and K ACC ground. Door mirror RH connector Terminals L 7 (+)Voltage (V) 7,8 Condition Door mirror (Approx.) (-) RH con-Terminal Μ nector Θ Ð Close to peak 3.4 LIIA1485E 7 Close to valley 0.6 Door mirror Ν D107 Ground RH Close to right edge 3.4 8 Close to left edge 0.6 Is the inspection result normal?

ADP-91

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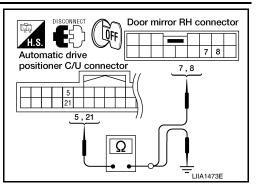
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MIRROR SENSOR

< 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
NICO	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
MISS	21		INU

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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
10154	41	5107	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	
W04	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-18, "Mirror Actuator".

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</u>, "Removal and Installation".

b.CHECK INTERMITTENT INCIDENT

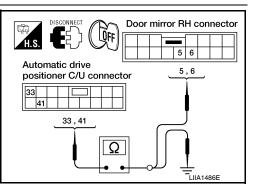
Refer to GI-39, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

ADP-92



SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Description						
• The sliding motor LH is	installed with the	wer seat frame assembly driver seat control unit. nging the rotation direction			В	
Component Function Check						
1. CHECK FUNCTION	1. CHECK FUNCTION					
 Select "SEAT SLIDE" Check the sliding mo 		ode with CONSULT-III.			D	
Test		E				
	OFF		Stop			
SEAT SLIDE	FR	Seat sliding	Forward		_	
	RR		Backward		F	
Is the operation of relevant parts normal? YES >> Inspection End. NO >> Perform diagnosis procedure. Refer to <u>ADP-93, "Diagnosis Procedure"</u> .						
Diagnosis Procedure						
Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".						

1. CHECK SLIDING MOTOR LH POWER SUPPLY

Turn the ignition switch OFF. ŝ Perform "Active test" ("SEAT SLIDE") with CONSULT-III Check voltage between driver seat control unit harness connec-Driver seat C/U tor and ground. connector 3 Terminal 42 35, 42 (+) Voltage (V) Test Item Driver seat (Approx.) (-) control unit Terminal Ð connector PIIA4801E OFF 0 FR (forward) 35 Battery voltage RR (backward) 0 SEAT B203 Ground SLIDE OFF 0 42 FR (forward) 0 RR (backward) Battery voltage

Is the inspection result normal?

- YES >> Replace sliding motor LH. (Built in power seat frame assembly). Refer to <u>SE-44, "Disassembly</u> P <u>and Assembly"</u>.
- NO >> GO TO 2

1.

2. 3.

2. CHECK SLIDING MOTOR LH CIRCUIT

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SLIDING MOTOR

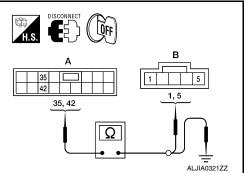
< DTC/CIRCUIT DIAGNOSIS >

- 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
	42	B204 (B)	1	163

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

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



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

Is the inspection result normal?

YES >> GO TO 3

3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

- YES >> Replace driver seat control unit. Refer to ADP-148, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

REULII	NING I	VIOTOr	۲				А
Descript	tion					INFOID:00000006163556	1
• The recl	ining mot	or LH is a	ctivated w		eat control unit.	direction of reclining motor LH.	В
Compor	nent Fu	Inction	Check			INFOID:00000006163557	С
1 . CHEC	K FUNCI	ΓΙΟΝ					
			G" in "Acti or LH opera		with CONSULT-	III.	D
		Test Ite	em			Description	Е
			OFF			Stop	
SEAT R	ECLINING		FR	5	Seat reclining	Forward	_
_			RR			Backward	F
NO > Diagnos Regarding 1. CHEC 1. Turn t	Wiring D KRECLII	n diagnos cedure Diagram in NING MO n switch (formation, TOR LH P DFF.			INFOID:00000006163558 gram".	G H I
3. Check	k voltage d ground	between o			arness connec-	Driver seat C/U connector	K
	Terminal						1
(+ Driver seat con- trol unit connector	Terminal	(-)	Te	est Item	Voltage (V) (Approx.)		M
				OFF	0		
	36			FR (forward)	Battery voltage		Ν
B203		Ground	SEAT RE-	RR (backward)	0		
B203		Ground	CLINING	OFF	0		0
	44			FR (forward)	0		0
				RR (backward)	Battery voltage		
	Replac <u>Assem</u> > GO TC	e reclinin <u>bly"</u> . 2	g motor L	·	eatback assemb	ly). Refer to <u>SE-44, "Disassembly and</u>	Ρ

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	Terminal Reclining motor LH connector		Continuity
B203 (A)	36	B205 (B)	2	Yes
	44	6203 (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
	44		No

Is the inspection result normal?

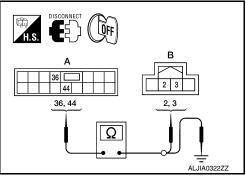
YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

- YES >> Replace driver seat control unit. Refer to <u>ADP-148</u>, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.



LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS > LIFTING MOTOR (FRONT) А Description INFOID:000000006163559 The lifting motor (front) is installed to the power seat frame assembly. The lifting motor (front) is activated with the driver seat control unit. • The lifter (front) is moved upward/downward by changing the rotation direction of lifting motor (front). **Component Function Check** INFOID:000000006163560 1. CHECK FUNCTION Select "SEAT LIFTER FR" in "Active test" mode with CONSULT-III. D 1. 2. Check the lifting motor (front) operation. Test Item Description Ε OFF Stop UP SEAT LIFTER FR Seat lifting (front) Upward DWN Downward Is the operation of relevant parts normal? YES >> Inspection End. NO >> Perform diagnosis procedure. Refer to ADP-97, "Diagnosis Procedure". Diagnosis Procedure INFOID:000000006163561 Н Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram". 1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

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

Is the inspection result normal?

>> Replace lifting motor (front). (Built in power seat frame assembly). Refer to SE-44, "Disassembly P YES and Assembly".

Driver seat

C/U connector

45 37, 45

- NO >> GO TO 2
- 2. CHECK LIFTING MOTOR (FRONT) CIRCUIT

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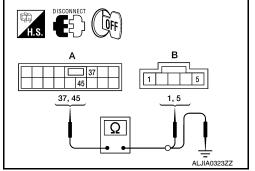
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LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

- 1. 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
	45	B200 (B)	5	165



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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

- YES >> Replace driver seat control unit. Refer to <u>ADP-148, "Removal and Installation"</u>.
- NO >> Repair or replace the malfunctioning part.

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >		, , , , , , , , , , , , , , , , , , ,		
LIFTING MOTOR (REAR	R)			А
Description			INFOID:00000006163562	~
 The lifting motor (rear) is installed The lifting motor (rear) is activated The seat lifter (rear) is moved upw 	with the driver	seat control unit.	of lifting motor (rear).	В
Component Function Chec	k		INFOID:00000006163563	С
1. CHECK FUNCTION				
 Select "SEAT LIFTER RR" in "A Check the lifting motor (rear) op 		e with CONSULT-III.		D
Test Item		Description		E
	OFF		Stop	
SEAT LIFTER RR	UP	Seat lifting (rear)	Upward	F
	DWN		Downward	I
Is the operation of relevant parts noYES>> Inspection End.NO>> Perform diagnosis proc		ADP-99, "Diagnosis Procedure".		G
Diagnosis Procedure			INFOID:00000006163564	
				Н
Regarding Wiring Diagram informat	ion, refer to ADI	P-128, "Wiring Diagram".		
1. CHECK LIFTING MOTOR (REA	R) POWER SU	PPLY		
 Turn the ignition switch OFF. Perform "Active test" ("SEAT LI Check voltage between driver statement of the statement of			(CFF)	ADF

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

-						connector
(+)	Terminal		-			
Driver seat control unit connector) Terminal	(-)	Т	est Item	Voltage (V) (Approx.)	
				OFF	0	riiA4004E
	38			UP	Battery voltage	
D202		Cround	SEAT	DWN (down)	0	
B203 —		Ground	LIFTER RR	OFF	0	
	39			UP	0	
				DWN (down)	Battery voltage	

Driver seat C/U

.

- YES >> Replace lifting motor (rear). (Built in power seat frame assembly). Refer to <u>SE-44, "Disassembly</u> P <u>and Assembly"</u>.
- NO >> GO TO 2
- 2. CHECK LIFTING MOTOR (REAR) CIRCUIT

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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

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

Lifting motor (rear)

Check continuity between driver seat control unit harness con-3. nector and ground.

Driver seat control unit connector	Terminal	_	Continuity
B203 (A)	38	Ground	No
	39	1	INO

Is the inspection result normal?

YES >> GO TO 3

Driver seat control

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

- YES >> Replace driver seat control unit. Refer to ADP-148, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

PEDAL ADJUSTING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

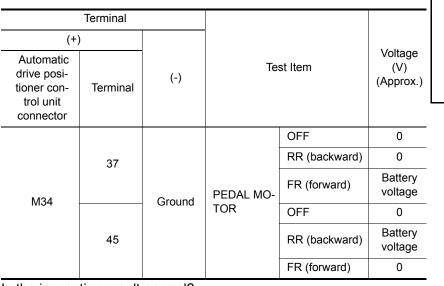
1.

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 Select "PEDAL MOTOR" in "Active test" mode with CONSULT-III. 2. Check the pedal adjusting motor operation. Test item Description Stop OFF PEDAL MOTOR FR Forward Pedal adjusting motor RR Backward Is the operation of relevant parts normal? YES >> Inspection End. NO >> Perform diagnosis procedure. Refer to ADP-101, "Diagnosis Procedure". Diagnosis Procedure Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

1. CHECK PEDAL ADJUSTING MOTOR POWER SUPPLY

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



Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to ADP-152, "Removal and Installation".

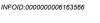
NO >> GO TO 2

 $\mathbf{2}$. CHECK PEDAL ADJUSTING MOTOR CIRCUIT

	ADP
Automatic drive positioner C/U connector	К
37, 45	L
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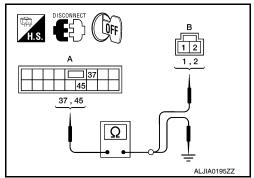
А

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	E100 (B)	2	103



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

Automatic drive positioner control unit connector	Terminal		Continuity
M34 (A)	37	Ground	No
	45		INU

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

DOOR MIRROR MOTOR

< 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

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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-103</u>, "Diagnosis Procedure".

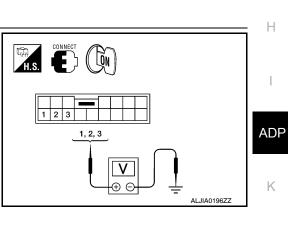
Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-128. "Wiring Diagram".

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

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



Is the inspection result normal?

YES >> Refer to <u>ADP-105</u>, "Component Inspection".

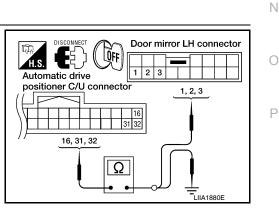
```
NO >> GO TO 2
```

2. CHECK HARNESS CONTINUITY

- 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	

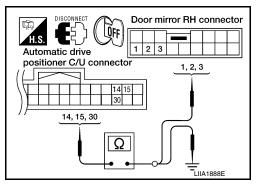


Revision: August 2010

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

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



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

Door mirr	or LH
-----------	-------

Automatic drive position- er control unit connector	Terminal		Continuity
	16	Ground	
M33	31		No
	32		
Door mirror RH			
Automatic drive position- er control unit connector	Terminal		Continuity
	14	Ground	
M33	15	1	No
-	30	1	

Is the inspection result normal?

YES >> GO TO 3

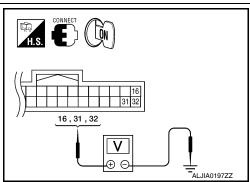
NO >> Repair or replace harness.

3. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Door mirror LH

-	Terminals			
(+)			Mirror switch	Voltage (V)
Automatic drive positioner control unit connector	Terminal	(-)	condition	(Approx.)
	16		DOWN / RIGHT	Battery voltage
	10		Other than above	0
M33	21	31 Ground	UP	Battery voltage
10133	M33 31 32		Other than above	0
			LEFT	Battery voltage
	32		Other than above	0



DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Door mirror RH	ł					А
	Terminals				H.S. C	
(+) Automatic drive positioner con- trol unit connec- tor	Terminal	(-)	Mirror switch con- dition	Voltage (V) (Approx.)	() 14,15,30	В
			UP	Battery voltage		С
	14		Other than above	0		
-	45		LEFT	Battery voltage	ALDINOTOLL	D
M33	15	Ground	Other than above	0		
	00	_	DOWN / RIGHT	Battery voltage		_
	30		Other than above	0		E
Is the inspection	n result nor	mal?				
YES >> GO						F
4				unit. Refer to <u>A</u>	ADP-149, "Removal and Installation".	
4. CHECK DO	OR MIRRO	OR MOTOF	R			
Check door mir						G
Refer to <u>ADP-1</u>			ection".			
Is the inspection YES >> Ref			ent Incident".			Н
			ator. Refer to <u>MIF</u>	R-18, "Mirror Ac	stuator".	
Component	Inspectio	on			INFOID:00000006163571	1
1. снеск do	-		R-1			
Check that door Refer to MIR-15				ects and does r	not have any damage.	AD
Is the inspection	n result nor	mal?				
YES >> GO	-					K
<u> </u>			ator. Refer to <u>MIF</u>	<u>R-18, "Mirror Ac</u>	<u>ctuator"</u> .	
2. CHECK DO	OR MIRRO	OR MOTOF	R-11			
1. Turn ignitio						L
 Disconnect Apply 12V f 			terminal of door r	mirror motor		
5. Apply 12V		wei suppiy				N
		Terminal			$\underbrace{1,2,3}_{i} \underbrace{1,2,3}_{i}$	
Door mirror conn			Operatio	nal direction		_
				IGHT	FUSE	Ν
D4 (LH)				EFT		
D4 (LH) D107 (RH)				UP	BAT	0
				OWN	ALJIA0199ZZ	
Is the inspection	n result nor	mal?				
	pection En					Ρ
			ator. Refer to <u>MIF</u>	R-18, "Mirror Ac	<u>stuator"</u> .	

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-106, "Diagnosis Procedure"</u>.

Diagnosis Procedure

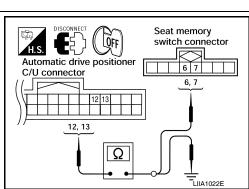
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Regarding Wiring Diagram information, refer to ADP-128, "Wiring Diagram".

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
Moo	13	55	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	
WISS	13	-	NO	
Is the inspection result normal?				

YES >> GO TO 2

NO >> Repair or replace harness.

2. CHECK MEMORY INDICATOR POWER SUPPLY

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INFOID:000000006163573

SEAT MEMORY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

Check voltage between seat memory switch harness connector and ground.

Seat memory switch	Termir	als	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-107, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch. Refer to <u>ADP-150</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-149</u>, "Removal and Installation".

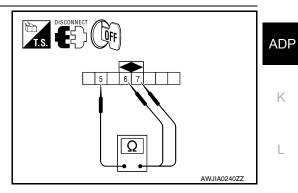
NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK SEAT MEMORY INDICATOR

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

Terr	ninal	
Seat men	nory switch	Continuity
(+)	(-)	
6	5	Yes
7	5	163



Seat memory switch

connector

5

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to <u>ADP-150, "Removal and Installation"</u>.

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ECU DIAGNOSIS INFORMATION DRIVER SEAT CONTROL UNIT

Reference Value

INFOID:000000006163576

VALUES ON THE DIAGNOSIS TOOL

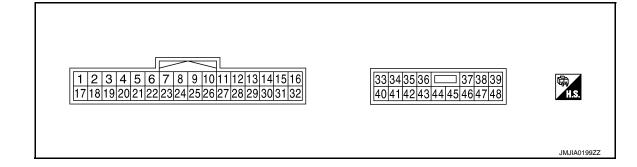
CONSULT-III MONITOR ITEM

Monitor Item	Conc	lition	Value/Status
SET SW	Set switch	Push	ON
SET SW	Set Switch	Release	OFF
MEMORY SW1	Momory awitch 1	Push	ON
MEMORY SWI	Memory switch 1	Release	OFF
	Maman (awitch 2	Push	ON
MEMORY SW2	Memory switch 2	Release	OFF
	Olidia a switch (frant)	Operate	ON
SLIDE SW-FR	Sliding switch (front)	Release	OFF
	Sliding owitch (rear)	Operate	ON
SLIDE SW-RR	Sliding switch (rear)	Release	OFF
	Declining entitleh (freut)	Operate	ON
RECLN SW-FR	Reclining switch (front)	Release	OFF
		Operate	ON
RECLN SW-RR	Reclining switch (rear)	Release	OFF
		Operate	ON
LIFT FR SW-UP	Lifting switch front (up)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
		Release	OFF
		Operate	ON
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF
	Lifting switch rear (down)	Operate	ON
LIFT RR SW-DN		Release	OFF
	Mirror switch	Up	ON
MIR CON SW-UP		Other than above	OFF
	Mirror owitch	Down	ON
MIR CON SW-DN	Mirror switch	Other than above	OFF
	Mirror owitch	Right	ON
MIR CON SW-RH	Mirror switch	Other than above	OFF
	Mirror owitch	Left	ON
MIR CON SW-LH	Mirror switch	Other than above	OFF
	Changeover owitch	Right	ON
MIR CHNG SW-R	Changeover switch	Other than above	OFF
	Changeover switch	Left	ON
MIR CHNG SW-L	Changeover switch	Other than above	OFF
	Dodol odjupting switch	Forward	ON
PEDAL SW-FR	Pedal adjusting switch	Other than above	OFF
	Podal adjusting awitch	Backward	ON
PEDAL SW-RR	Pedal adjusting switch	Other than above	OFF

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condit	ion	Value/Status
DETENT OW	AT a sla stan lavran	P position	OFF
DETENT SW	AT selector lever	Other than above	ON
	lonition 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		Close to peak	3.4
MIR/SEN RH U-D	Door mirror (passenger side)	Close to valley	0.6
MIR/SEN RH R-L		Close to left edge	3.4
MIR/SEN RH R-L	Door mirror (passenger side)	Close to right edge	0.6
		Close to peak	3.4
MIR/SEN LH U-D	Door mirror (driver side)	Close to valley	0.6
		Close to left edge	0.6
MIR/SEN LH R-L	Door mirror (driver side)	Close to right edge	3.4
	nodel position	Forward	0.5
PEDAL SEN	pedal position	Backward	4.5

TERMINAL LAYOUT



PHYSICAL VALUES

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Tern	ninal No.	Miro	Description				
+	-	Wire color	Signal name	Input/ Output	Condition	1	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 SIIA0692J
						Stop	0 or 5
10	Ground	B/R	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	(V) 6 4 2 0 •••••50ms SIIA0693J
						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.	Wire	Description				Voltage (V/)	
+	-	color	Signal name	Input/ Output	Condition	ו	Voltage (V) (Approx)	Α
17	Ground	Y/R	UART LINE (TX)	Output	Ignition switch ON		(V) 6 4 2 0 2 ms PIIA4814E	B
19	_	G	CAN-L		_		_	
21	Ground	L	A/T shift selector (park position switch)	Input	A/T selector lever	P position Except P position	0 Battery voltage	E
24	Ground	R/L	Sliding sensor signal	Input	Seat sliding	Operate	(V) 6 4 2 0	F
						Stop	50 ms PIIA3277E	ŀ
25	Ground	Y/G	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	(V) 6 2 0 •••••50ms SIIA0691J	A
						Stop	0 or 5	
26	Ground	L/R	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0	k
						Release	Battery voltage	L
27	Ground	V/W	Reclining switch for- ward signal	Input	Reclining switch	Operate (forward) Release	0 Battery voltage	
28	Ground	BR/Y	Lifting switch (front) up	Input	Seat lifting switch	Operate (up)	0	Ν
			signal	•	(front)	Release	Battery voltage	Ν
29	Ground	G/R	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0	
					· /	Release	Battery voltage	C
30	Ground	L/Y	Pedal switch forward signal	Input	Pedal switch	Operate (forward) Release	0 Battery voltage	F
31	Ground	GR/R	Sensor ground			Release	0	F
32	Ground	G/W	Ground (signal)				0	
33	Ground	W/B	Battery power source (C/B)	Input			Battery voltage	

< ECU DIAGNOSIS INFORMATION >

Term	ninal No.	Wire	Description				Voltage (V)
+	-	color	Signal name	Input/ Output	Conditior	ı	(Approx)
35	Ground	R/G	Sliding motor forward output signal	Output	Output Seat sliding		Battery voltage
						Release	0
36	Ground	L	Reclining motor for- ward output signal	Output		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:000000006163578

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

FAIL-SAFE MODE

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

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

NOTE:

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

< ECU DIAGNOSIS INFORMATION >

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

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

CANCEL OF FAIL-SAFE MODE

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

DTC Index

CONSULT-III	Tim	ing ^{*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	<u>ADP-30</u>
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-32
SEAT LIFTER FRONT [B2114]	0	1-39	Seat lifting motor front output	<u>ADP-34</u>
SEAT LIFTER REAR [B2115]	0	1-39	Seat lifting motor rear output	<u>ADP-36</u>
ADJ PEDAL MOTOR [B2117]	0	1-39	Pedal adjusting motor output	ADP-38
ADJ PEDAL SENSOR [B2120]	0	1-39	Pedal adjusting sensor input	ADP-40
DETENT SW [B2126]	0	1-39	T. R. switch condition	ADP-42
UART COMM [B2128]	0	1-39	UART communication <u>ADP-4</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.

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< ECU DIAGNOSIS INFORMATION >

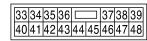
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

INFOID:000000006163580

TERMINAL LAYOUT







JMJIA0199ZZ

PHYSICAL VALUES

Terr	ninal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Conditio	on	Voltage (V) (Approx.)
			Changeover switch RH		Changeover	RH	0
2	Ground	LG	signal	Input	switch position	Neutral or LH	5
3	Cround	Y/B	Mirror quitch up gignal	loout	Mirror switch	Operated (up)	0
3	Ground	τ/d	Mirror switch up signal	Input	WINTOF SWITCH	Other than above	5
4	Ground	V/W	Mirror switch left signal	Input	Mirror switch	Operated (left)	0
4	Ground	V/VV		mput	WIITOF SWITCH	Other than above	5
5	Ground	R/B	Door mirror sensor (RH)	Input	Door mirror RH	Peak	3.4
5	Ground	R/D	up/down signal	input	position	Valley	0.6
6	Ground	L/Y	Door mirror sensor (LH)	Input	Door mirror LH	Peak	3.4
0	Ground	L/ I	up/down signal	input	position	Valley	0.6
8	Ground	BR/Y	Pedal sensor input sig-	Input	Pedal sensor	Forward	0.5
0	Ground	DIVI	nal	input		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	Ρ	Memory indictor 1 signal	Out- put	Memory indictor 1	Illuminate Other than above	0 Battery voltage

Terr	minal No.		Description						
+	-	Wire color	Signal name	Input/ Out- put	Conditio	on	Voltage (V) (Approx.)	A	
				Out-	Memory indictor	Illuminate	0	В	
13	Ground	Y/G	Memory indictor 2 signal	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	С	
	oround	Chin	up output signal	put		Other than above	0	D	
15	Ground	V/R	Door mirror motor (RH)	Out-	Door mirror RH	Operate (left)	1.5 - Battery voltage	_	
	oround		left output signal	put		Other than above	0	E	
			Door mirror motor (LH)			Operate (down)	1.5 - Battery voltage	F	
16	Ground	0	down output signal	Out-	Door mirror (LH)	Other than above	0		
10	oround	U	Door mirror motor (LH)	put	put		Operate (right)	1.5 - Battery voltage	G
			right output signal			Other than above	0	Н	
			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		
	oround	00	nal	mpar		Other than above	5	AD	
20	Ground	GR	Mirror switch right signal	Input	Mirror switch	Operate (right)	0	Κ	
	0.00110			mpat		Other than above	5		
21	Ground	L/W	Door mirror sensor (RH)	Input	Door mirror RH	Left edge	3.4	L	
	0.00.00		left/right signal	mpar	position	Right edge	0.6		
22	Ground	G	Door mirror sensor (LH)	Input	Door mirror LH	Left edge	0.6	M	
			left/right signal		position	Right edge	3.4		
24	Cround	C/O	Set owitch signal	Innut	Sat awitab	Push	0		
24	Ground	G/O	Set switch signal	Input	Set switch	Other than above	5	Ν	
	• •	5.4				Push	0		
25	Ground	P/L	Memory switch 2 signal	Input	Memory switch 2	Other than above	5	0	
26	Ground	W	UART LINE (RX)	Input	Ignition switch ON	I	(V) 6 4 2 0 2 ms PIIA4814E	Ρ	

Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Conditio	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
50	Ground	I	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	Ground	K	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	Ground	DIX	left output signal	put		Other than above	0
33	Ground	W/L	Sensor power supply	Input	—		5
34	Ground	Y/R	Battery power source	Input	_		Battery voltage
37	Ground	G	Pedal adjusting motor	Out-	Pedal adjusting	Operate (forward)	Battery voltage
57	Ground	9	forward output signal	put	motor	Other than above	0
39	Ground	L/B	Battery power source		—		Battery voltage
40	Ground	B/W	Ground		—		0
41	Ground	W/G	Sensor ground	_	—		0
45	Ground	R	Pedal adjusting motor backward output signal	Out- put	Pedal adjusting motor	Operate (back- ward)	Battery voltage
			backwaru oulput siyildi	put	motor	Other than above	0
48	Ground	В	Ground		_		0

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	
	Ignition switch OFF or ON	Off	С
ACC ON SW	Ignition switch ACC	On	
AIR COND SW	A/C switch OFF	Off	D
AIR COND SW	A/C switch ON	On	U
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	E
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	F
	Lighting switch OFF	Off	
AUTO LIGHT SW	Lighting switch AUTO	On	0
	Brake pedal released	Off	G
BRAKE SW	Brake pedal applied	On	
	Seat belt buckle unfastened	Off	Н
BUCKLE SW	Seat belt buckle fastened	On	
	Buzzer in combination meter OFF	Off	
BUZZER	Buzzer in combination meter ON	On	
	Cargo lamp switch OFF	Off	
CARGO LAMP SW	Cargo lamp switch ON	On	ADF
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	K
CDL 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	M
DOOR SW-RL	Rear door LH closed	Off	
DOOR SW-RL	Rear door LH opened	On	N
	Rear door RH closed	Off	— N
DOOR SW-RR	Rear door RH opened	On	
FAN ON SIG	Blower motor fan switch OFF	Off	0
FAN ON SIG	Blower motor fan switch ON	On	
	Front fog lamp switch OFF	Off	
FR FOG SW	Front fog lamp switch ON	On	— P
	Front washer switch OFF	Off	
FR WASHER SW	Front washer switch ON	On	
	Front wiper switch OFF	Off	
FR WIPER LOW	Front wiper switch LO	On	

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В

Monitor Item	Condition	Value/Status
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
	Front wiper stop position	On
HAZARD SW	When hazard switch is not pressed	Off
TAZARD SW	When hazard switch is pressed	On
HEAD LAMP SW1	Headlamp switch OFF	Off
TIEAD LAWF SWI	Headlamp switch 1st	On
HEAD LAMP SW2	Headlamp switch OFF	Off
HEAD LAWF 3002	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 REGST FLT	ID registration of front left tire complete	DONE
	ID registration of front right tire incomplete	YET
ID REGST FR1	ID registration of front right tire complete	DONE
	ID registration of rear left tire incomplete	YET
ID REGST RL1	ID registration of rear left tire complete	DONE
	ID registration of rear right tire incomplete	YET
ID REGST RR1	ID registration of rear right tire complete	DONE
	Ignition switch OFF or ACC	Off
IGN ON SW	Ignition switch ON	On
	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
	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
	LOCK button of key fob is not pressed	Off
KEYLESS LOCK	LOCK button of key fob is pressed	On
	PANIC button of key fob is not pressed	Off
KEYLESS PANIC	PANIC button of key fob is pressed	On
	UNLOCK button of key fob is not pressed	Off
KEYLESS UNLOCK	UNLOCK button of key fob is pressed	On
	Lighting switch OFF	Off
LIGHT SW 1ST	Lighting switch 1st	On
OIL PRESS SW	Ignition switch OFF or ACC Engine running	Off
0.211.200.077	Ignition switch ON	On

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
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
REAR DEF SW	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
TURN SIGNAL L	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
TURN SIGNAL R	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
WARNING LAMP	Low tire pressure warning lamp in combination meter OFF	Off
WARINING LAWP	Low tire pressure warning lamp in combination meter ON	On

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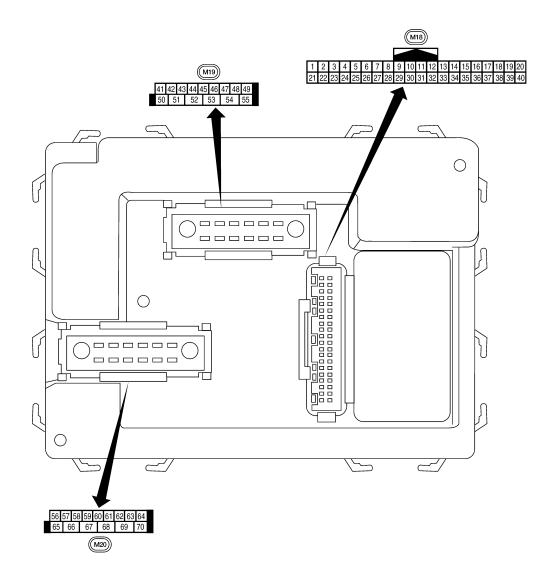
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< ECU DIAGNOSIS INFORMATION >

Terminal Layout

INFOID:000000006601980



LIIA2443E

INFOID:000000006601981

Physical Values

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	lgnition switch	Operation or condition	(Approx.)
2	SB	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 0 0
3	G/Y	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 2 0 + 5ms SKIA5292E
4	Y	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 2 0 • • • 5 ms • • • 5 ms • • • 5 ms • • • 5 ms
5	G/B	Combination switch input 2				(V)
6	v	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	skia5292E
9	Y/B	Rear window defogger switch (Crew Cab)	Input	ON	Rear window defogger switch ON Rear window defogger switch	0V 5V
11	0	Ignition switch (ACC or ON)	Input	ACC or ON	OFF Ignition switch ACC or ON	Battery voltage
12	R/L	Front door switch RH (All) Rear door switch low- er RH (King Cab) Rear door switch up- per RH (King Cab)	Input	OFF	ON (open) OFF (closed)	0V Battery voltage
13	GR	Rear door switch RH (Crew Cab)	Input	OFF	ON (open)	0V
15	L/W	Tire pressure warning check connector	Input	OFF	OFF (closed)	Battery voltage 5V
18	Р	Remote keyless entry receiver and optical sensor (ground)	Output	OFF		0V

	14/5-2-2		Signal		Measuring condition	Defense velve en vereferre		
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)		
19	V/W	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 + 50 ms LIIA1893E		
20	G/W	Remote keyless entry	Input	OFF	Stand-by (keyfob buttons re- leased)	(V) 6 4 2 0 ++50 ms LIIA1894E		
		receiver (signal)					When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 0 + + 50 ms LIIA1895E
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	G	BUS	_		Ignition switch ON or power window timer operates	(V) 15 10 5 0 200 ms PIIA2344E		
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.		
27	W/R	Compressor ON sig-	Input	ON	A/C switch OFF	5V		
		nal		2	A/C switch ON	0V		
28	L/R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage		
					Front blower motor ON ON	00		
29	W/B	Hazard switch	Input	OFF	OFF	5V		
	D."		1	055	Cargo lamp switch ON	0		
31	P/L	Cargo lamp switch	Input	OFF	Cargo lamp switch OFF	Battery voltage		

	10/:		Signal		Measuring condition		
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)	А
32	R/G	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + 5ms SKIA5291E	B
33	R/Y	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 2 0 5 ms SKIA5292E	E
34	L	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 	G
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	A
07	D/D	Key switch and key	lanut	055	Key inserted	Battery voltage	
37	B/R	lock solenoid	Input	OFF	Key inserted	0V	
38	W/L	Ignition switch (ON)	Input	ON	—	Battery voltage	L
39	L	CAN-H			_	_	
40	Р	CAN-L			_	_	Ν
47	SB	Front door switch LH (AII) Rear door switch low- er LH (King Cab) Rear door switch up- per LH (King Cab)	Input	OFF	ON (open) OFF (closed)	0∨ Battery voltage	Ν
		Rear door switch LH			ON (open)	0V	C
48	R/Y	(Crew Cab)	Input	OFF	OFF (closed)	Battery voltage	
		Cargo bed lamp con-			Cargo lamp switch (ON)	0V	F
50	R/Y	trol	Output	OFF	Cargo lamp switch (OFF)	Battery voltage	

	10/1		Signal	Measuring condition			
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or co	ondition	Reference value or waveform (Approx.)
51	G/Y	Trailer turn signal (right)	Output	ON	Turn right ON		(V) 15 10 50 500 ms 500 ms 500 ms 500 ms 500 ms 500 ms 500 ms 500 ms
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON		(V) 15 10 50 500 ms 500 ms 500 ms 500 ms 500 ms 500 ms 500 ms
56	R/G	Battery saver output	Output	OFF	15 minutes after igr switch is turned OF		0V
				ON			Battery voltage
57	Y/R	Battery power supply	Input	OFF			Battery voltage
58	W/R	Optical sensor	Input	ON	When optical sensor is illumi- nated		3.1V or more
			mpar	UN1	When optical sensor is not illu- minated		0.6V or less
59	G	Front door lock as- sembly LH actuator	Output	OFF	OFF (neutral) ON (unlock)		0V
59	G	(unlock)	Output	OFF			Battery voltage
60	G/B	Turn signal (left)	Output	ON	Turn left ON		(V) 15 10 5 0 5 5 5 5 5 5 5 5 5 5 5 5 5
61	G/Y	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 50 50 500 ms SKIA3009J
62	R/W	Step lamp LH and RH	Output	OFF	ON (any door open)		0V
<u> </u>			Saipai		OFF (all doors close		Battery voltage
63	L	Interior room/map lamp	Output	OFF		l (open) F (closed)	0V Battery voltage
		All door lock actuators	0.1.1	055	OFF (neutral)		0V
65	V	(lock)	Output	OFF	ON (lock)		Battery voltage
66	G/Y	Front door lock actua- tor RH and rear door lock actuators LH/RH (unlock)	Output	OFF	OFF (neutral) ON (unlock)		0V Battery voltage

< ECU DIAGNOSIS INFORMATION >

Wire			Signal	Signal Measuring condition		Reference value or waveform				
Terminal	inal color Signal name input/ Igniti		Ignition switch	Operation or condition	(Approx.)					
67	В	Ground	Input	ON	—	0V				
					Ignition switch ON	Battery voltage				
					Within 45 seconds after igni- tion switch OFF	Battery voltage				
68	W/L	W/L Power window power supply (RAP)	Output	_	—	—	_	_	More than 45 seconds after ig- nition switch OFF	0V
					When front door LH or RH is open or power window timer operates	0V				
69	W/R	Power window power supply	Output	_	—	Battery voltage				
70	W/B	Battery power supply	Input	OFF	—	Battery voltage				

Fail Safe

Fail-safe index

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

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.	Н

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	
1	U1000: CAN COMM CIRCUIT	—
2	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM 	K

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< ECU DIAGNOSIS INFORMATION >

Priority	DTC
3	C1729: VHCL SPEED SIG ERR C1735: IGNITION SIGNAL
4	 C1735. IGNITION SIGNAL C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL 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] FR C1719: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1719: [CODE ERR] FR C1720: [CODE ERR] FR C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RR
	 C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL

DTC Index

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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	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_
U1000: CAN COMM CIRCUIT	—	—	<u>BCS-27</u>
B2190: NATS ANTTENA AMP	—	—	<u>SEC-18</u>
B2191: DIFFERENCE OF KEY	—	—	<u>SEC-21</u>
B2192: ID DISCORD BCM-ECM	—	—	<u>SEC-22</u>
B2193: CHAIN OF BCM-ECM	—	—	<u>SEC-24</u>
C1708: [NO DATA] FL	—	—	<u>WT-14</u>
C1709: [NO DATA] FR	—	—	<u>WT-14</u>
C1710: [NO DATA] RR	—	—	<u>WT-14</u>
C1711: [NO DATA] RL	—	—	<u>WT-14</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>

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Tire pressure monitor warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	—	—	<u>WT-18</u>
C1717: [PRESSDATA ERR] FR	_	_	<u>WT-18</u>
C1718: [PRESSDATA ERR] RR	_	_	<u>WT-18</u>
C1719: [PRESSDATA ERR] RL	_	_	<u>WT-18</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: IGNITION SIGNAL	_	_	<u>WT-20</u>

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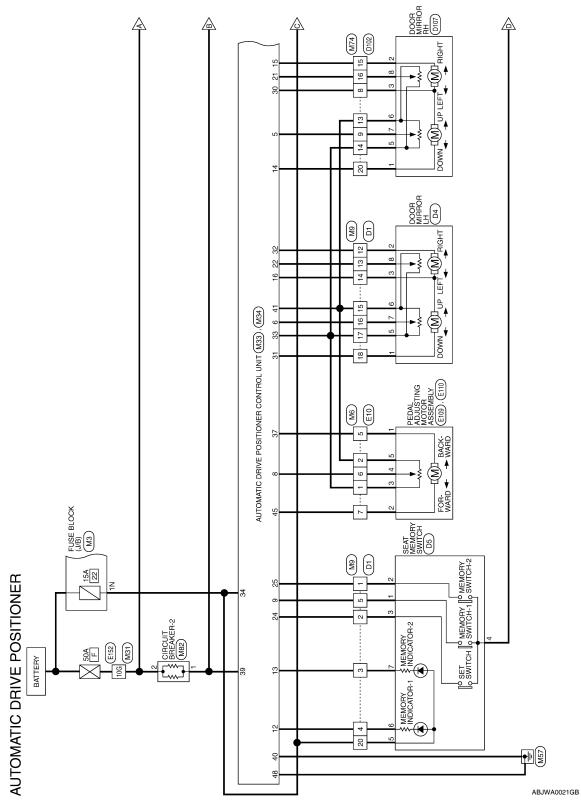
< WIRING DIAGRAM >

WIRING DIAGRAM

AUTOMATIC DRIVE POSITIONER

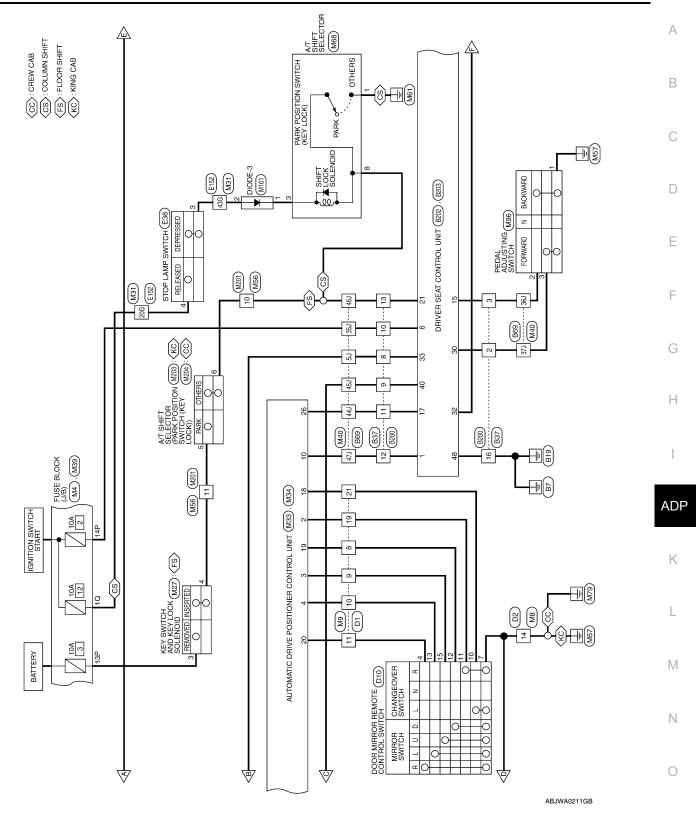
Wiring Diagram





AUTOMATIC DRIVE POSITIONER

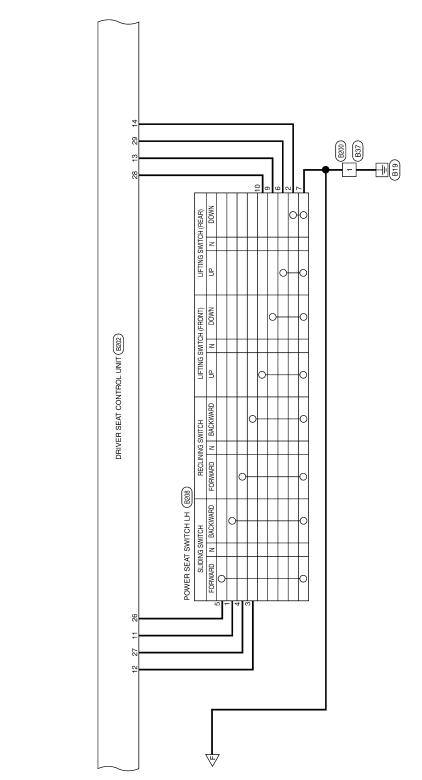
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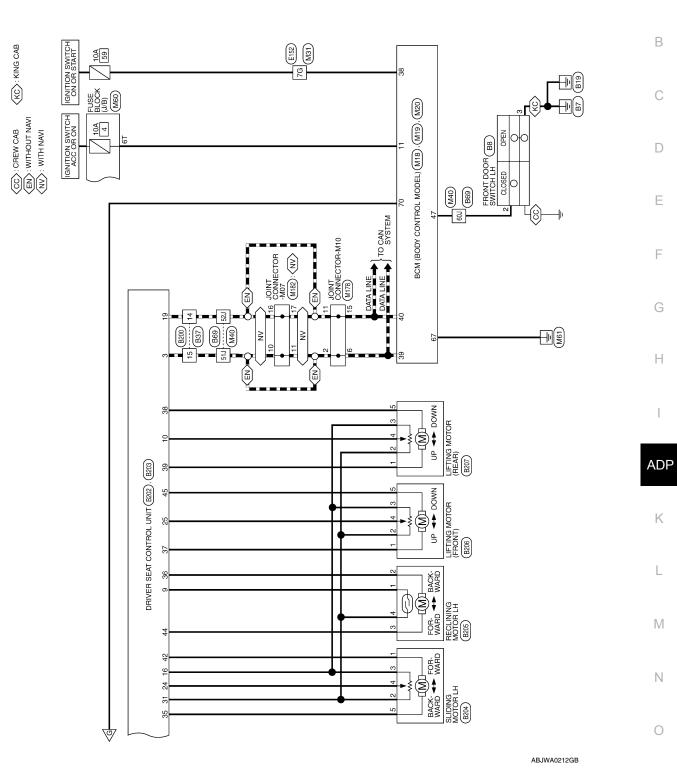
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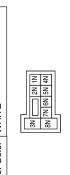


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AUTOMATIC DRIVE POSITIONER CONNECTORS

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



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Color of Wire	Ч	0	
Terminal No. Color of Wire	13P	14P	
0			

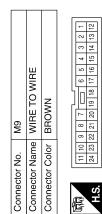
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Y/R

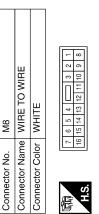
Color of Wire

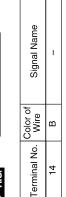
Terminal No. Ļ

Signal Name	I	I	I	I	I	1	I	I	I	1	I	I	I	I
Color of Wire	SB	Y/B	W/N	GR	BR	σ	0	D/M	ΓΛ	W/L	œ	ГG	Y/R	BR/W
Terminal No.	80	6	10	11	12	13	14	15	16	17	18	19	20	21



Signal Name	I	I	I	I	
Color of Wire	P/L	G/O	γ/G	Ч	LG/B
Terminal No.	Ļ	2	3	4	5





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AUTOMATIC DRIVE POSITIONER

- (WITH AUTOMATIC DRIVE POSITIONER)

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BR/Y

- (WITH AUTOMATIC DRIVE POSITIONER)

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Signal Name

Color of Wire

Terminal No.

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< WIRING DIAGRAM >

Connector Name WIRE TO WIRE

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

Connector Color WHITE

Connector No. M6

Connector Color WHITE

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 7P
 6P
 5P
 4P
 3P
 2P
 1P

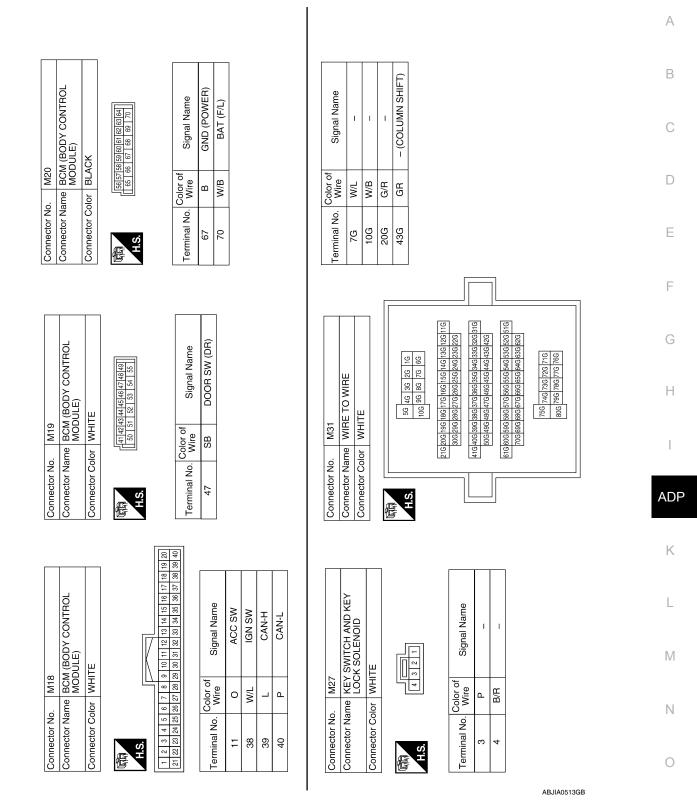
 16P
 15P
 14P
 13P
 12P
 11P
 10P
 9P
 8P

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AUTOMATIC DRIVE POSITIONER

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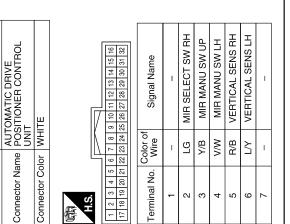
M33

Connector No.

Signal Name	I	SET SW	MEMORY2 SW	RX	I	I	I	RH MTR (COM)	LH MTR (UP-DWN)	LH MTR (LT)
Color of Wire	I	G/O	P/L	×	I	I	I	≻	œ	ВВ
Terminal No.	23	24	25	26	27	28	29	30	31	32

< WIRING DIAGRAM >

	Color of Signal Name	BR/Y PEDAL POTENTION	LG/B MEMORY1 SW	TX	I	MEMORY1 IND	Y/G MEMORY2 IND	GR/R RH MTR (UP-DN)	V/R RH MTR (LT)	LH MTR (COM)	I	BR/W MIR SELECT SW LH	MIR MANU SW DN	MIR MANU SW RH	-/W HORIZONTAL SENS	HORIZONTAL SENS
	Terminal No.	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22



Connector No.	M34
Connector Name	Connector Name POSITIONER CONTROL UNIT
Connector Color WHITE	WHITE
33	33 34 35 36 37 37 38 39



Signal Name	MEMORY(POT FEED)	BAT (FUSE)	Ι	I	
Color of Wire	W/L	Y/R	-	Ι	
Terminal No.	33	34	35	36	



			_		_							_
Signal Name	FORWARD	-	BAT(PTC)	(SIG) GND	МЕМОRY(РОТ-RET)	-	Т	-	PEDAL RR OUT	Т	Т	GND (POWER)
Color of Wire	ŋ	Ι	L/B	B/W	W/G	I	I	I	щ	T	I	ш
Terminal No.	28	86	66	40	41	42	43	74	45	46	47	48

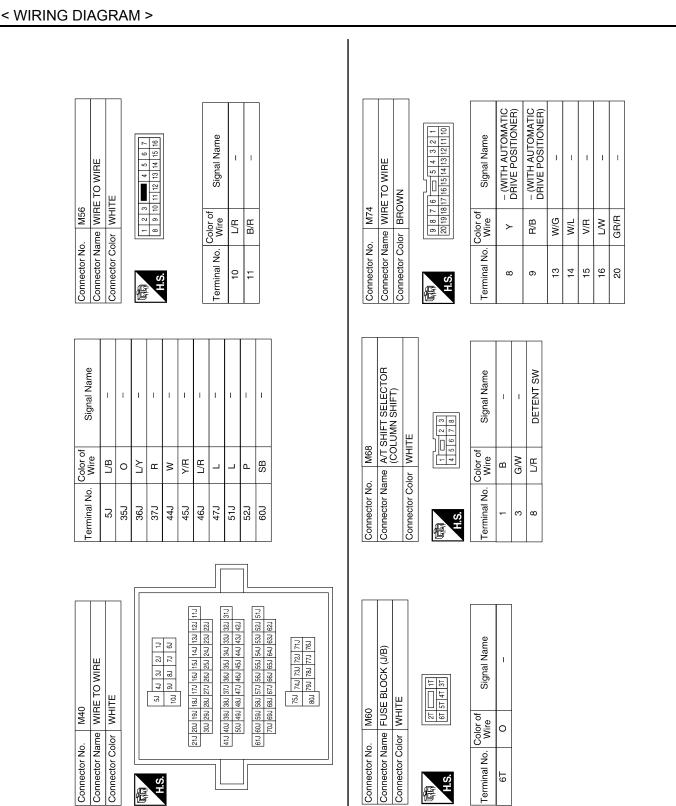
6	FUSE BLOCK (J/B)	ILLE		<u>80 70 60 50 40</u>			Signal Nar	
. M39		lor W	∐ ©	8Q 7Q			Wire	
Connector No.	Connector Name	Connector Color WHITE	E	SH			Terminal No. Wire	
em e		RD	0	(E	T-RET)			!!;

Signal Name

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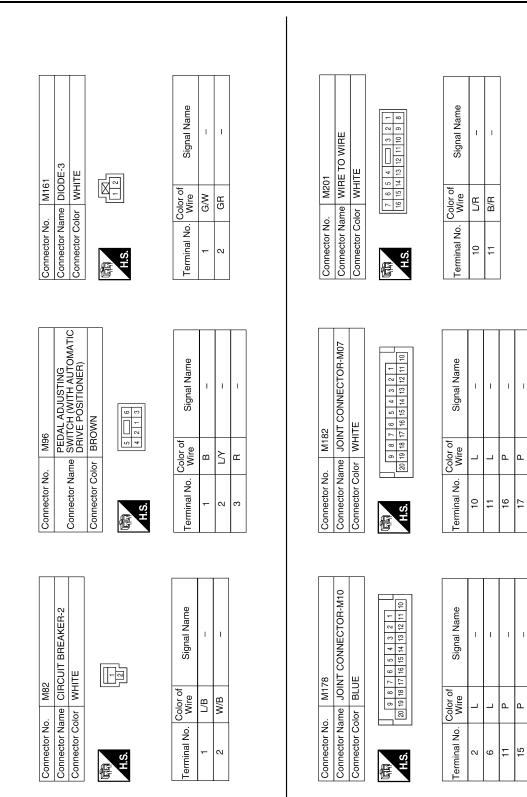
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AUTOMATIC DRIVE POSITIONER

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< WIRING DIAGRAM >



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国内 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本	Terminal No. Color of Signal Name 1 W/L –	2 W/G - 5 G - (WITH AUTOMATIC 6 BR/Y -	7 R – (WITH AUTOMATIC DRIVE POSITIONER)				(1) H.S.	Terminal No. Color of Signal Name	3 W/L –	BR/Y	- MG
H.	Terminal No. Color of Signal Name 5 B/R DETENT KEY SW	Н		Connector No. E109	-	Connector Color GRAY	H.S.	Terminal No. Color of Signal Name		2 8	
H.S.	Terminal No. Color of Signal Name 5 B/R DETENT KEY SW			Connector No. E38		Connector Color WHITE	(1) H.S.	Terminal No. Vire Signal Name		4 G/R –	ABJIA0517GB

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< WIRING DIAGRAM >

Connector Name WIRE TO WIRE Connector Color WHITE

Connector Name A/T SHIFT SELECTOR (FLOOR SHIFT) (CREW CAB)

Connector Name A/T SHIFT SELECTOR (FLOOR SHIFT) (KING CAB)

Connector No. M203

Connector Color WHITE

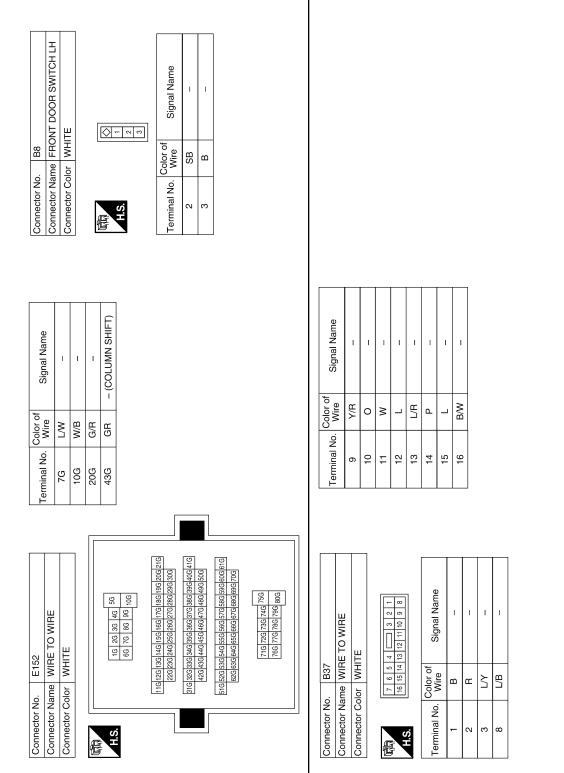
M204

Connector No.

Connector Color WHITE

Connector No. E10

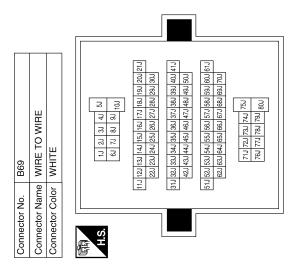




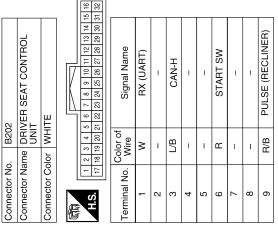
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Signal Name	Connector No. Connector Name	e e	B200 WIRE TO WIRE
1	Connector Color		WHITE
1		-	
1	E	1 2	4 5
1	H.S.	8	10 11 12 13 14 15 16
1	Taurian	Color of	
1	I erminal No.	Wire	signal Name
1	1	G/W	I
1	2	Γ	1
1	3	SB	I
1	8	W/B	I
1	6	σ	1
	10	æ	I
	11	Y/R	I
	12	×	1
	13	_	I
	14	σ	1
	15	L/B	1
	16	ш	I
ignal Name	Terminal No.	Color of Wire	Signal Name
E (REAR LIFTER)	21	L	P RANGE SW
SW (BACKWARD)	22	I	I
JER SW	23	Т	I
ACKWARD)	24	R/L	PULSE (SLIDE)
OWNWARD)	25	λ/G	PULSE (FRONT LIFTER)
R LIFTER SW	26	ЦЯ	SLIDE SW (FORWARD)
AL SW	27	M/N	RECLINER SW (FORWARD)
ACKWARD)	28	BR/Y	FRONT LIFTER SW
ENCODER)	ę	Ę	REAR LIFTER SW
TX (UART)	67	ב/ח פ/ח	(UPWARD)
1	30	Γ	PEDAL SW (FORWARD)
CAN-L	31	GR/R	GND (SENSOR GND)
I	32	G/W	GND (SIGNAL)

Signal Name	I	I	I	I	I	I	I	I	I	I	I
Color of Wire	L/B	0	5	œ	×	Y/R	L/R	_	_	٩.	SB
Terminal No.	5J	35J	36J	37J	44J	45J	46J	47J	51J	52J	60J



Sig	PULSE	SLIDE SV	REC (BA	FRON ^T (DO	REAR (DO	PE (BA	LED (EI	1			
Color of Wire	B/R	Y/R	L/W	>	P/L	SB	B/W	Y/R	I	თ	-
Terminal No.	10	11	12	13	14	15	16	17	18	19	20
			16								



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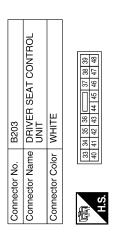
< WIRING DIAGRAM >

AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

								_	
Signal Name	BAT (FUSE)	I	SLIDE MOTOR (BACKWARD)	I	RECLINER MOTOR (BACKWARD)	FRONT LIFTER MOTOR (UPWARD)	I	I	GND (POWER)
Color of Wire	σ	-	R/Y	I	G/B	G/Y	I	I	в
Terminal No.	40	41	42	43	44	45	46	47	48

Signal Name	BAT(PTC)	I	SLIDE MOTOR (FORWARD)	RECLINER MOTOR (FORWARD)	FRONT LIFTER MOTOR (DOWNWARD)	REAR LIFTER MOTOR (UPWARD)	REAR LIFTER MOTOR (DOWNWARD)
Color of Wire	W/B	I	R/G	L	В	GR	В
Terminal No.	33	34	35	36	28	38	68



Connector No. B206	Connector Name LIFTING MOTOR (FRONT)	Connector Color WHITE	
Con	Con	Con	ł

Connector No. B205 Connector Name RECLINING MOTOR LH

Connector Color WHITE



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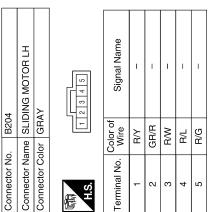
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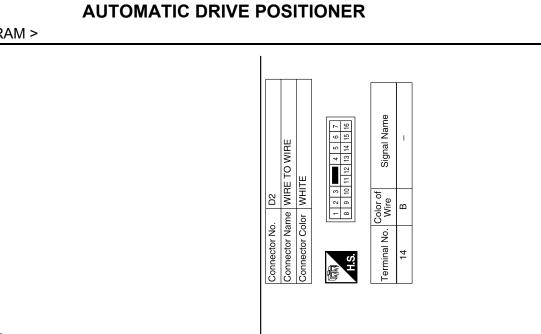
1 2 3 4	Signal Name	I	I
	Color of Wire	R/B	_
回 H.S.	Terminal No. Color of Wire	+	2

+ 0 4 -	Signal Name	I	I	-	I
	Color of Wire	R/B	_	G/B	GR/R
H.S.	Terminal No.	F	2	3	4



Signal Name	I	I	I	Ι	I	
Color of Wire	R/Y	GR/R	R/W	B/L	R/G	
Terminal No.	٢	2	3	4	5	

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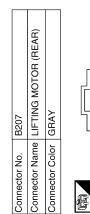
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Signal Name	I	1	1	1	1	1	I	I	1	I
Color of Wire	Y/R	P/L	LW	W/N	L/R	G/R	B/W	I	>	BR/Y
Terminal No.	-	2	e	4	ъ	9	7	8	6	10

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Signal Name	I	I	- (WITH AUTOMATIC DRIVE POSITIONER	I	I	I	I	I	I	I	I	I	. 1	
Color of Wire	Y/B	W/N	GR	BR	g	0	W/G	ΓΛ	M/L	н	ГG	Y/R	BR/W	
Terminal No.	6	10	Ħ	12	13	14	15	16	17	18	19	20	21	



1 2 3 4 0	F Signal Name	I	I
	Color of Wire	В	GR/R
H.S.	erminal No.	1	2

Signal Name	I	I	I	I	I
Color of Wire	в	GR/R	R/W	Y/G	G/Y
Terminal No.	1	2	Э	4	£

]		
D1	Connector Name WIRE TO WIRE	r BROWN		3 4 5 6 - 7 8 9 10 11	12 13 14 15 16 17 18 19 20 21 22 23 24
Connector No.	Connector Name	Connector Color BROWN		喃	H.S. 12 13 14

	Signal Name	I	I	I	1
	Color of Wire	P/L	G/O	Y/G	Ч
e u	Terminal No.	-	2	e	4

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AUTOMATIC DRIVE POSITIONER

DOOR MIRROR REMOTE CONTROL SWITCH (WITH AUTOMATIC DRIVE POSITIONER) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 BROWN D10 Connector Name Connector Color Connector No. E

	f Signal Name	I	I	I	I	I	1	1	
0 8 0	Color of Wire	GR	В	BR/W	ГG	SB	M/N	Y/B	
H.S.	Terminal No.	4	7	10	11	12	13	15	

Connector No.	D107
Connector Name	Connector Name DOOR MIRROR RH
Connector Color WHITE	WHITE
雨雨 H.S.	1 2 3 4 5 6 7 8 9

			_			_	
Signal Name	I	I	I	I	I	I	1
Color of Wire	GR/R	V/R	۲	W/L	W/G	R/B	۲W
Terminal No. Color of Wire	F	2	3	5	9	2	8

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

Signal Name	SET 1	SET 2	SET SW	GND	I	IND1	IND2	
Color of Wire	LG/B	P/L	G/O	В	Y/R	٩	Y/G	
Terminal No.	٢	2	З	4	5	9	7	

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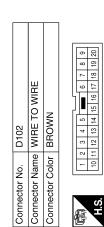
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Signal Name	- (WITH AUTOMATIC DRIVE POSITIONER)	- (WITH AUTOMATIC DRIVE POSITIONER)	Ι	I	I	Ι	- (WITH AUTOMATIC DRIVE POSITIONER)	
Color of Wire	≻	R/B	W/G	W/L	V/R	ΓW	GR/R	
Terminal No.	8	6	13	14	15	16	20	



4 5 6 7 8 9	Signal Name	-	I	-	1
10 11 12 1	Color of Wire	н	BR	0	M/L
国 H.S.	Terminal No.	-	2	3	сл



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SYMPTOM DIAGNOSIS ADP SYSTEM SYMPTOMS

Symptom Table

NOTE:

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

SYMPTOM 1

Symptom	1	Diagnosis procedure	Reference page
Manual functions (for specific part) do not operate	Sliding operation	Check sliding switch.	<u>ADP-50</u>
	Reclining operation	Check reclining switch.	<u>ADP-53</u>
	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>
		2. Check pedal adjusting sensor.	<u>ADP-87</u>
	Door mirror operation	1. Changeover switch.	<u>ADP-67</u>
		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
Memory functions (for specific part) do not operate	Sliding operation	Check sliding sensor.	<u>ADP-79</u>
	Reclining operation	Check reclining sensor.	<u>ADP-81</u>
	Lifting operation (front)	Check lifting sensor (front).	<u>ADP-83</u>
	Lifting operation (rear)	Check lifting sensor (rear).	<u>ADP-85</u>
	Pedal operation	Check pedal adjusting sensor.	<u>ADP-87</u>
	Door mirror operation	Check door mirror sensor.	Driver side: <u>ADP-89</u> Passenger side: <u>ADP-91</u>

SYMPTOM 3

Sympton	1	Diagnosis procedure	Reference page
Memory functions and manual func- tions (for specific part) do not operate	Sliding operation	Check sliding motor.	<u>ADP-93</u>
	Reclining operation	Check reclining motor.	ADP-95
	Lifting operation (front)	Check lifting motor (front).	ADP-97
	Lifting operation (rear)	Check lifting motor (rear).	ADP-99
	Pedal operation	Check pedal adjusting motor.	ADP-101
	Door mirror operation	Check door mirror motor.	ADP-103

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ADP SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

Symptom	Diagnosis procedure	Reference page
Entry/Exit assist function does not operate.	1. Check system setting.	<u>ADP-11</u>
	2. Perform initialization.	ADP-7
	3. Check front door switch (driver side).	<u>ADP-77</u>

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.	<u>ADP-106</u>

SYMPTOM 6

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

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

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

Symptom	Cause	Action to take	Reference page
	No initialization has been performed.	Perform initialization.	ADP-7
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.	<u>ADP-23</u>
Entry assist function does not op- erate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	ADP-23
Memory function, entry/exit as- sist function does not operate.			Memory function: <u>ADP-17</u>
		Fulfill the operation conditions.	Exit assist function: <u>ADP-21</u>
			Entry assist function: <u>ADP-23</u>

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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. Information necessary to service the system safely is included in the SR and SB section of this Service Man-

ual. WARNING:

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

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

WARNING:

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

Precaution for Work

INFOID:000000006163592

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.
 - Then rub with a soft and dry cloth.
- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

PREPARATION

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

Tool number			С
(Kent-Moore No.) Tool name		Description	
 (J-39570) Chassis ear		Locating the noise	D
			E
	SilA0993E		F
		Repairing the cause of noise	G
(J-43980) NISSAN Squeak and Rattle Kit			Н
	SIIA0994E		I
			ADF
 (J-46534) Trim Tool Set		Removing trim components	K
			L
Commercial Service Tool		INFQID:00000006163594	M
(Kent-Moore No.) Tool name		Description	Ν
(J-39565) Engine ear		Locating the noise	0
	SIIA0995E		Ρ

PREPARATION

PREPARATION

Revision: August 2010

Special Service Tool

< UNIT REMOVAL AND INSTALLATION >

UNIT REMOVAL AND INSTALLATION DRIVER SEAT CONTROL UNIT

Removal and Installation

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The driver seat control unit is part of the driver seat. Remove the driver seat, then the driver seat control unit. Refer to <u>SE-30</u>, "Removal and Installation For Front Seat".

< UNIT REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

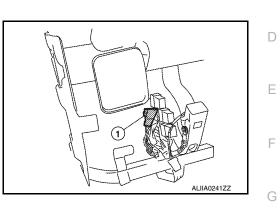
Removal and Installation

CAUTION:

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

REMOVAL

- 1. Remove the instrument lower panel LH. Refer to IP-17, "Removal and Installation".
- 2. Remove the lower knee protector.
- 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.



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< UNIT REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Removal and Installation

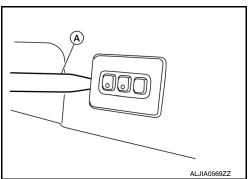
REMOVAL

CAUTION:

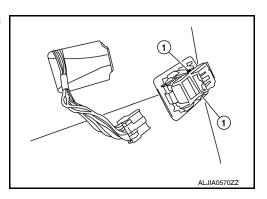
When removing and installing, use shop cloths to protect parts from damage.

1. Remove the seat memory switch from the front door finisher by using Tool.

Tool Number : — (J-46534)



- 2. Disconnect the electrical connector from the seat memory switch.
- 3. Release the clips (1) and remove the seat memory switch from the finish panel.



INSTALLATION Install in the reverse order of removal.

DOOR MIRROR REMOTE CONTROL SWITCH

< UNIT REMOVAL AND INSTALLATION >

DOOR MIRROR REMOTE CONTROL SWITCH

Removal and Installation

REMOVAL

- 1. Remove the main power window, door lock/unlock and door mirror remote control switch finisher from the front door finisher LH. Refer to <u>INT-10</u>, "Removal and Installation".
- 2. Disconnect the electrical connector (1), release the retaining tabs (2) and remove the door mirror remote control switch from the finisher panel.

INSTALLATION

Installation is in the reverse order of removal.

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PEDAL ADJUSTING MOTOR

< UNIT REMOVAL AND INSTALLATION >

PEDAL ADJUSTING MOTOR

Removal and Installation

INFOID:000000006163599

The pedal adjusting motor is serviced as a part of the accelerator pedal. Refer to <u>ACC-3</u>, "<u>Removal and Instal-</u> <u>lation</u>" for accelerator pedal and <u>BR-19</u>, "<u>Removal and Installation</u>" for brake pedal when removing pedal adjusting motors.