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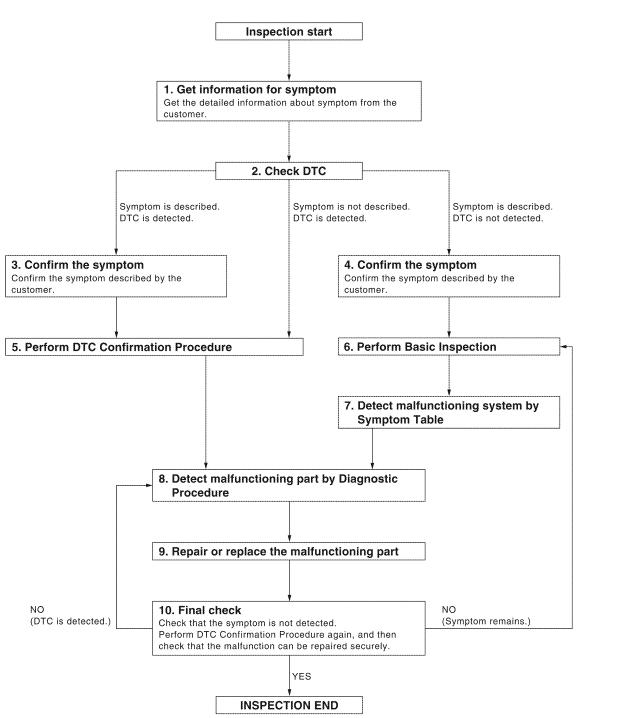
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow INFOID:0000000001735407 В

WORK FLOW



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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

1. GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2

$oldsymbol{2}.$ CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

Check "Self Diagnostic Result" with CONSULT-III.

Refer to ADP-123, "DTC Index".

Is any symptom described and any DTC is displayed?

Symptom is described, DTC is displayed.>>GO TO 3

Symptom is not described, DTC is displayed.>>GO TO 7

Symptom is described, DTC is not displayed.>>GO TO 4

$oldsymbol{3}$. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 7

4. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 5

5. CHECK NORMAL OPERATING CONDITION

Check normal operating condition. Refer to ADP-157, "Description".

Is the incident normal operation?

YES >> INSPECTION END

NO >> GO TO 6

6. PERFORM BASIC INSPECTION

Isolate the malfunctioning point with the basic inspection. Refer to ADP-8, "Preliminary Check".

>> GO TO 8

7. PERFORM DTC CONFIRMATION PROCEDURE

Perform the confirmation procedure for the detected DTC.

Is the DTC displayed?

YES >> GO TO 9

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

8. PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 9

9. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during the component diagnosis.

>> GO TO 10

10. REPAIR OR REPLACE

Repair or replace the malfunctioning part.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

>> GO TO 11

11. FINAL CHECK

A

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

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

Preliminary Check

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1. FOREIGN OBJECTS

Check the following:

- · objects on or behind the seats that could cause binding
- · objects under the seats that may be interfering with the seat's moving parts
- · objects under pedals that may interfere with movement

Are there any foreign objects that could be causing interference?

YES >> Remove objects.

NO >> GO TO 2

2. WIRING CONNECTIONS

- 1. Disconnect harness connectors.
- 2. Check terminals for damage or loose connections.
- 3. Reconnect harness connectors.

Are any connectors damaged or loose?

YES >> Repair or replace damaged parts.

NO >> GO TO 3

3. POWER AND GROUND

Check power supply and ground circuits for control unit. Refer to <u>ADP-44, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> Refer to ADP-123, "DTC Index".

NO >> Repair or replace as necessary.

Special Repair Requirement

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

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FUNCTION DIAGNOSIS

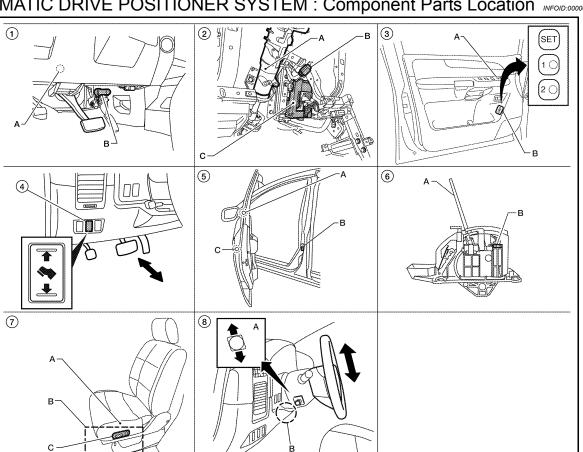
AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram

C Combination meter Park position switch AV control unit A/T shift selector BCM D To CAN Е Lifting sensor (front) Lifting motor (rear) Lifting motor (front) Lifting sensor (rear) Reclining sensor CAN communication Reclining motor Sliding sensor Sliding motor F Driver seat control unit Driver seat Н Lifting switch (front) Lifting switch (rear) Power seat switch Reclining switch Sliding switch ADP K **UART** communication Pedal adjusting sensor Pedal adjusting switch Pedal adjusting motor Door mirror LH/RH Mirror sensor Mirror motor Backward Tilt motor Forward Pedals ≓ M positioner control unit Automatic Ν 0 Door mirror remote control Seat memory switch Changeover switch Memory switch Mirror switch Set switch Indicator Tilt switch Tilt switch Р

< FUNCTION DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER SYSTEM: Component Parts Location INFOID-000000001735411



- 1. A. Automatic drive positioner control 2. unit M33, M34 B. Pedal adjusting motor assembly E109, E110
- Pedal adjusting switch M96
- A. Sliding motor LH B204 (driver seat 8. view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207
 - B. Driver seat control unit B202, B203
 - C. Power seat switch LH B208

- A. Steering column
 - B. Key switch and ignition knob switch M12
 - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107
 - B. Front door switch LH B8
 - C. Front door lock assembly LH (key cylinder switch) D14
 - A. ADP sterring switch M16
 - B. Tilt sensor M85 and tilt motor M86

A. Door mirror remote control switch

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- B. Seat memory switch D5
- A. A/T selector lever B. A/T shift selector (park position switch) M203

AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

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OUTLINE

The system automatically moves the driver seat, pedal assembly, steering wheel 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 DIAGNOSIS >

Function		Description
Manual function		The driving position (seat, pedal assembly, steering wheel and door mirror position) can be adjusted by using the power seat switch, pedal adjusting switch, ADP steering 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).
	Exit	On exit, the seat moves backward and the steering wheel moves upward.
Entry/Exit assist function	Entry	On entry, the seat and steering wheel return from exiting position to the previous driving position.

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, steering wheel, door mirror and the seat memory switch.
BCM	Transmit the following status to the driver seat control unit via CAN communication. • Front door LH: OPEN/CLOSE • Ignition switch position: ACC/ON • Door lock: UNLOCK (with Intelligent Key or remote keyless entry request switch operation) • Key ID • Key switch: Insert/Pull out Intelligent Key • Starter: CRANKING/OTHER
Combination meter	Transmit the vehicle speed signal to the driver seat control unit via CAN communication.
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 ignition knob switch	The key switch is installed to detect the key inserted/removed status.		
Front door switch LH	Detect front door (driver side) open/close status.		
A/T shift selector (park position switch)	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.		
Pedal adjusting switch	The following switch is installed. • Pedal forward • Pedal backward The specific parts can be operated with the operation of each switch.		

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< FUNCTION DIAGNOSIS >

Item	Function	
ADP steering switch	The following switch is installed. • Steering wheel UP • Steering wheel down The specific parts can be operated with the operation of each switch.	
Door mirror remote control switch	The following switch is installed. • Mirror switch • Changeover switch The specific parts can be operated with the operation of each switch.	

Sensors

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

OUTPUT PARTS

Item	Function
Door mirror motor (LH/RH)	Move the outside mirror face upward/downward and leftward/rightward.
Pedal adjusting motor	Move the pedal assembly forward/backward.
Tilt motor	Move the steering wheel upward/downward.
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

Power seat switch

Sliding switch

Reclining switch

Lifting switch (front)

Lifting switch (rear)

UART communication

Door mirror LH/RH

Mirror motor

Pedals

Pedal adjusting motor

Pedal adjusting sensor

Pedal adjusting switch

Forward

Backward

Steering

Tilt motor

< FUNCTION DIAGNOSIS >

Door mirror remote control

Mirror switch

Changeover switch

Tilt switch

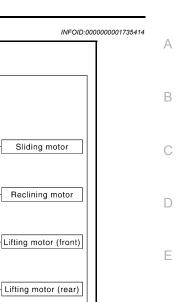
Tilt switch

MANUAL FUNCTION: System Diagram

Automatic

drive

positioner control unit



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Driver seat

Driver seat

control unit

MANUAL FUNCTION: System Description

OUTLINE

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

OPERATION PROCEDURE

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

DETAIL FLOW

Seat

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

Adjustable pedals

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< FUNCTION DIAGNOSIS >

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

Tilt steering wheel

Order	Input	Output	Control unit condition
1	ADP steering switch	_	The ADP steering switch signal is input to the automatic drive positioner control unit when the ADP steering switch is operated.
2	_	Motor	The automatic drive positioner control unit actuates the tilt motor according to the operation of the ADP steering switch signal.
3	Sensor (upward, downward)	_	The automatic drive positioner control unit recognizes any operation limit of each actuator via each sensor and will not operate the actuator anymore at that time.

Door Mirror

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

NOTE:

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

< FUNCTION DIAGNOSIS >

MANUAL FUNCTION: Component Parts Location

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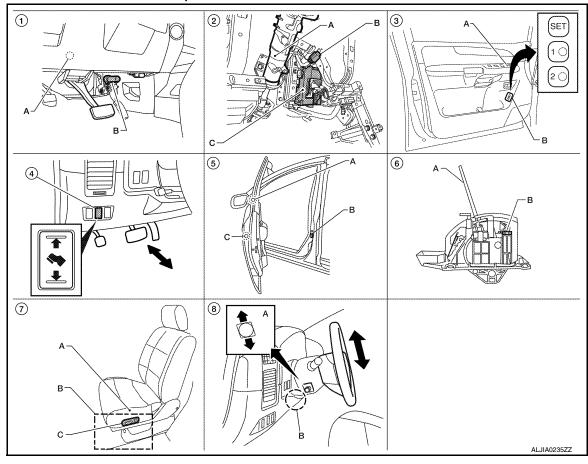
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- A. Automatic drive positioner control 2. unit M33, M34
 B. Pedal adjusting motor assembly
- 4. Pedal adjusting switch M96

E109, E110

- A. Sliding motor LH B204 (driver seat 8. 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

- 2. A. Steering column
 - B. Key switch and ignition knob switch M12
 - C. BCM M18, M19, M20 (view with instrument panel removed)
- 5. A. Door mirrror LH D4, RH D107
 - B. Front door switch LH B8
 - C. Front door lock assembly LH (key cylinder switch) D14
 - A. ADP sterring switch M16
 - B. Tilt sensor M85 and tilt motor M86

- A. Door mirror remote control switch D10
 - B. Seat memory switch D5
- A. A/T selector lever
 B. A/T shift selector (park position switch) M203

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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.

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< FUNCTION DIAGNOSIS >

Item	Function
Automatic drive positioner control unit	Operates the specific motor with the signal from driver seat control unit, ADP steering switch or door mirror remote control switch.
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. • Ignition position: ACC/ON

INPUT PARTS

Switches

Item	Function
Power seat switch	The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch.
Pedal adjusting switch	The following switch is installed. • Pedal forward • Pedal backward The specific parts can be operated with the operation of each switch.
ADP steering switch	The following switch is installed. • Steering wheel upward • Steering wheel downward 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.
Tilt sensor	Detect the upward/downward position of steering wheel.

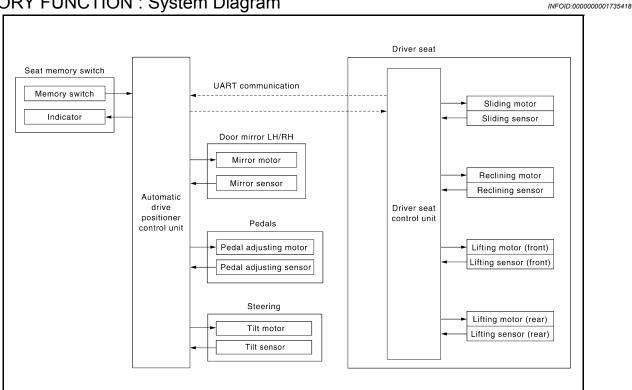
OUTPUT PARTS

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

MEMORY FUNCTION

< FUNCTION DIAGNOSIS >

MEMORY FUNCTION: System Diagram



MEMORY FUNCTION: System Description

OUTLINE

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

NOTE:

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

OPERATION PROCEDURE

- Turn ignition switch ON
- Press desired memory switch for more than 0.5 second.
- Front seat LH, pedal assembly, steering wheel 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.

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

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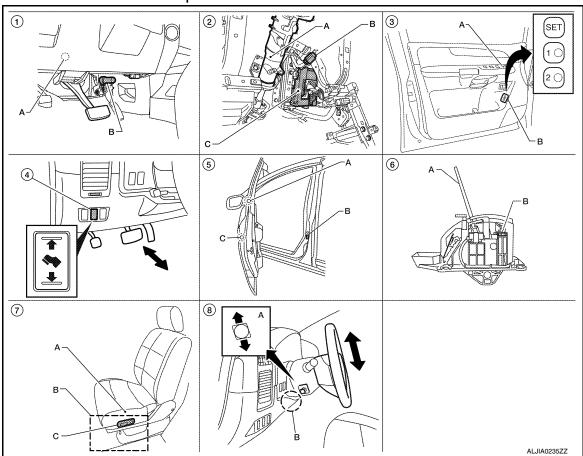
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< FUNCTION DIAGNOSIS >

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

MEMORY FUNCTION : Component Parts Location

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< FUNCTION DIAGNOSIS >

- 1. A. Automatic drive positioner control 2. unit M33, M34
 - B. Pedal adjusting motor assembly E109, E110
- Pedal adjusting switch M96
- A. Steering column B. Key switch and ignition knob switch M12
 - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107
 - B. Front door switch LH B8

A. ADP sterring switch M16

C. Front door lock assembly LH (key cylinder switch) D14

B. Tilt sensor M85 and tilt motor M86

- A. Sliding motor LH B204 (driver seat 8. 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. Door mirror remote control switch D10
 - B. Seat memory switch D5
- A. A/T selector lever
 - B. A/T shift selector (park position switch) M203

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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, tilt motor and door mirror with the instructions from the driver seat control.

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.	
Tilt sensor	Detect the upward/downward position of steering wheel.	
Lifting sensor (front)	Detect the up/down position of seat lifting (front).	
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).	
Reclining sensor	Detect the tilt of seatback.	
Sliding sensor	Detect the front/rear position of seat.	

OUTPUT PARTS

Item	Function	
Door mirror motor (LH/RH)	Move the outside mirror face upward/downward and leftward/rightward.	
Pedal adjusting motor	Move the pedal assembly forward/backward.	
Tilt motor	Move the steering wheel upward/downward.	
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.	

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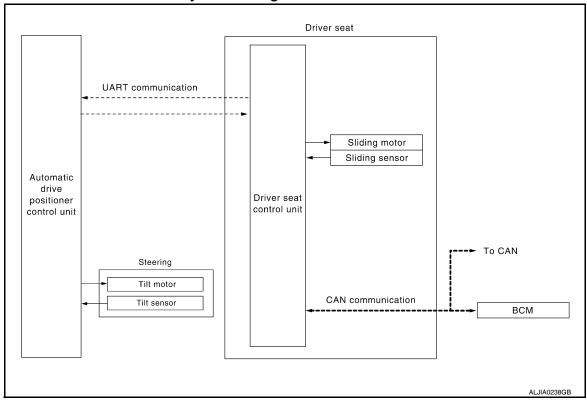
< FUNCTION DIAGNOSIS >

Item	Function
Sliding motor	Slide the seat forward/backward.
Memory indicator Illuminates or blinks according to the registration/operation status.	

EXIT ASSIST FUNCTION

EXIT ASSIST FUNCTION: System Diagram

INFOID:0000000001735422



EXIT ASSIST FUNCTION: System Description

INFOID:0000000001735423

OUTLINE

When exiting, if the conditions are satisfied, the seat is moved backward and steering wheel is moved upward-from normal sitting position.

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

NOTE:

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

OPERATION PROCEDURE

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

OPERATION CONDITION

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

Item	Request status
Ignition switch	OFF
System setting [Entry/exit assist function]	ON
Initialization	Done

< FUNCTION DIAGNOSIS >

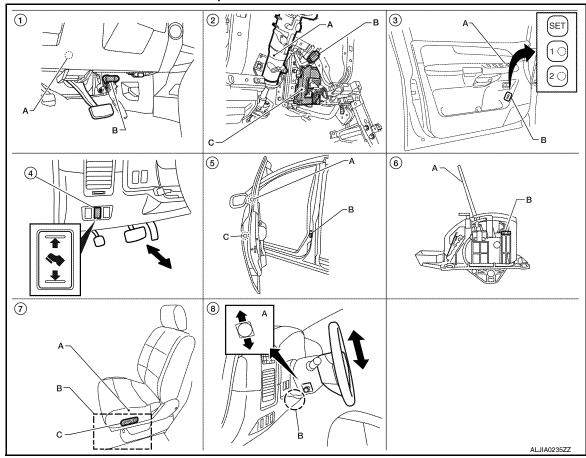
Item	Request status
Switch inputs Power seat switch Pedal adjusting switch ADP steering switch Door mirror remote control switch Set switch Seat memory switch	OFF (Not operated)
A/T selector lever	P position

DETAIL FLOW

Order	Input	Output	Control unit condition
1	Front door switch LH	_	Driver seat control unit receives front door switch LH signal (open) from BCM via CAN communication.
2	_	Motors (seat sliding, tilt)	Driver seat control unit operates the seat sliding motor, which recognizes that the front door LH is opened with ignition switch OFF. Driver seat control unit then requests the operation of the tilt motor to the automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates the motor for a constant amount.

EXIT ASSIST FUNCTION: Component Parts Location

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< FUNCTION DIAGNOSIS >

- A. Automatic drive positioner control 2. unit M33, M34
 - B. Pedal adjusting motor assembly E109, E110

view), reclining motor LH B205, lift-

ing motor (front) B206, lifting motor

B. Driver seat control unit B202,

C. Power seat switch LH B208

- 4. Pedal adjusting switch M96
- B. Key switch and ignition knob switch M12

A. Steering column

- C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107
 - B. Front door switch LH B8
- C. Front door lock assembly LH (key cylinder switch) D14
- A. Sliding motor LH B204 (driver seat 8. A. ADP sterring switch M16
 - B. Tilt sensor M85 and tilt motor M86

- A. Door mirror remote control switch D10
 - B. Seat memory switch D5
- A. A/T selector lever
 B. A/T shift selector (park position switch) M203

EXIT ASSIST FUNCTION: Component Description

INFOID:0000000001735425

CONTROL UNITS

B203

(rear) B207

Item	Function	
Driver seat control unit	 Operates the seat sliding motor for a constant amount. Driver seat control unit requests the operation of the tilt motor to the automatic drive positioner control unit via UART communication. 	
Automatic drive positioner control unit	Operates the tilt motor for a constant amount.	
BCM	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. • Front door LH: OPEN/CLOSE	

INPUT PARTS

Switches

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

Sensors

Item	Function
Sliding sensor	Detect the front/rear position of seat.
Tilt sensor	Detect the up/down position of steering wheel.

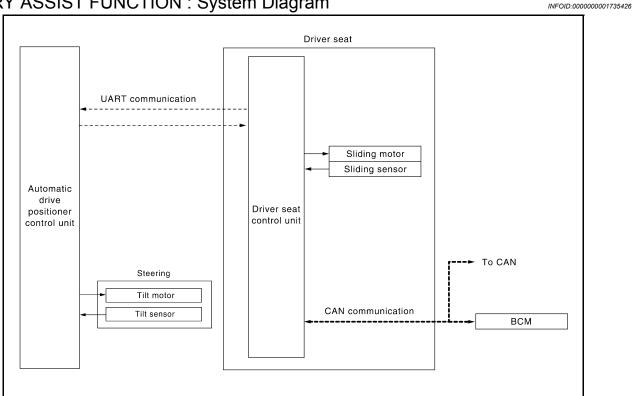
OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat forward/backward.
Tilt motor	Moves the steering wheel upward/downward.

ENTRY ASSIST FUNCTION

< FUNCTION DIAGNOSIS >

ENTRY ASSIST FUNCTION: System Diagram



ENTRY ASSIST FUNCTION: System Description

OUTLINE

The seat and steering wheel are in the exiting position when either following condition (A or B) is satisfied, the seat and steering wheel return from exiting position to the previous driving position.

NOTE:

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

OPERATION PROCEDURE

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

OPERATION CONDITION

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

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

DETAIL FLOW

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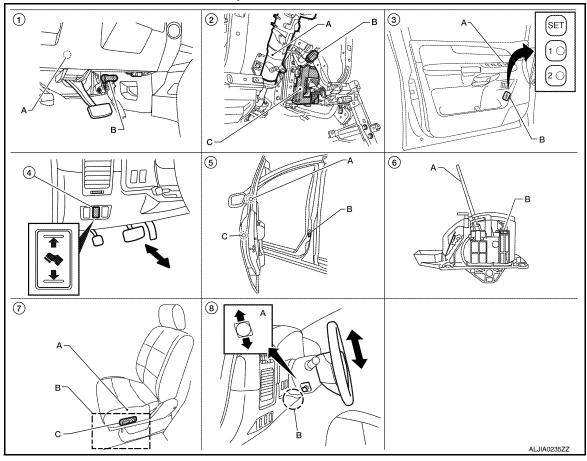
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< FUNCTION DIAGNOSIS >

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.
Motors (sliding, tilt) Sensors (sliding, tilt) —	Motors (sliding, tilt)	Driver seat control unit operates the sliding motor when the operating conditions are satisfied. Driver seat control unit then requests the operation of the tilt motor to the automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates the motor for a constant amount.	
	Sensors monitor the operating positions of seat and steering wheel and then stops the operation of each motor when each part reaches the recorded address.		

ENTRY ASSIST FUNCTION: Component Parts Location

INFOID:0000000004831092



- A. Automatic drive positioner control 2. unit M33, M34
 - B. Pedal adjusting motor assembly E109, E110
- 4. Pedal adjusting switch M96
- 7. A. Sliding motor LH B204 (driver seat 8. view), reclining motor LH B205, lifting motor (front) B206, lifting motor
 - (rear) B207 B. Driver seat control unit B202,
 - C. Power seat switch LH B208

B203

- A. Steering column
 - B. Key switch and ignition knob switch M12
 - C. BCM M18, M19, M20 (view with instrument panel removed)
- 5. A. Door mirrror LH D4, RH D107
 - B. Front door switch LH B8
 - C. Front door lock assembly LH (key cylinder switch) D14
 - A. ADP sterring switch M16
 - B. Tilt sensor M85 and tilt motor M86

- A. Door mirror remote control switch D10
 - B. Seat memory switch D5
- . A. A/T selector lever
 - B. A/T shift selector (park position switch) M203

< FUNCTION DIAGNOSIS >

ENTRY ASSIST FUNCTION : Component Description

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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. Driver seat control unit then requests the operation of the tilt motor to the automatic drive positioner control unit via UART communication.	
Automatic drive positioner control unit	Operates the tilt motor for a constant amount.	
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. • Front door LH: OPEN/CLOSE • Ignition switch position: ACC/ON	

INPUT PARTS

Switches

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

Sensors

Item	Function
Sliding sensor	Detect the front/rear position of seat.
Tilt sensor	Detect the up/down position of steering wheel.

OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat forward/backward.
Tilt motor	Moves the steering wheel upward/downward.

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:0000000001735430

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

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

CONSULT-III Function

INFOID:0000000001735431

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

DATA MONITOR

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

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< FUNCTION DIAGNOSIS >

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

ACTIVE TEST

CAUTION:

When driving vehicle, do not perform active test.

Test item	Description
SEAT SLIDE	Activates/deactivates the sliding motor.
SEAT RECLINING	Activates/deactivates the reclining motor.
SEAT LIFTER FR	Activates/deactivates the lifting motor (front).
SEAT LIFTER RR	Activates/deactivates the lifting motor (rear).
ADJ PEDAL MOTOR	Activates/deactivates the pedal adjusting motor.
TILT MOTOR	Activates/deactivates the tilt motor.
MIRROR MOTOR RH	Activates/deactivates the mirror motor (passenger side).

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< FUNCTION DIAGNOSIS >

Test item	Description
MIRROR MOTOR LH	Activates/deactivates the mirror motor (driver side).
MEMORY SW INDCTR	Turns ON/OFF the memory indicator.

WORK SUPPORT

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
	ON (operated) – OFF (not operated)	OFF
EXIT TILT SETTING	Entry/exit assist (tilt) can be selected:	ON
EXIT TIET SETTING	ON (operated) – OFF (not operated)	OFF

U1000 CAN COMM CIRCUIT

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:0000000001735433

Refer to LAN-4, "System Description".

DTC Logic

DTC DETECTION LOGIC

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

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>ADP-29</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

Refer to LAN-10, "Self-Diagnosis".

Special Repair Requirement

Refer to Owner's Manual.

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B2112 SLIDING MOTOR

< COMPONENT DIAGNOSIS >

B2112 SLIDING MOTOR

Description INFOID:000000001735437

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

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

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-40, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000001735439

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC displayed again?

YES >> GO TO 2

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

$oldsymbol{2}$. CHECK COMPONENTS

Refer to ADP-71, "Component Function Check" and ADP-87, "Component Function Check".

>> INSPECTION END

B2113 RECLINING MOTOR

< COMPONENT DIAGNOSIS >

B2113 RECLINING MOTOR

Description INFOID:0000000001735440

- The seat reclining motor is installed to the seatback frame.
- · 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:0000000001735441

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

$\mathbf{2}$.STEP 2

Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

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

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-40, "Diagnosis Procedure".

Diagnosis Procedure

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC displayed again?

YES >> GO TO 2

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

2. CHECK COMPONENTS

Refer to ADP-73, "Component Function Check" and ADP-89, "Component Function Check".

>> INSPECTION END

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B2114 SEAT LIFTER FR

< COMPONENT DIAGNOSIS >

B2114 SEAT LIFTER FR

Description

- The lifting motor (front) is installed to the seat cushion frame.
- 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-32, "Diagnosis Procedure".

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-40, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000001735445

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC displayed again?

YES >> GO TO 2

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

2. CHECK COMPONENTS

Refer to ADP-75, "Component Function Check" and ADP-91, "Component Function Check".

>> INSPECTION END

B2115 SEAT LIFTER RR

< COMPONENT DIAGNOSIS >

B2115 SEAT LIFTER RR

Description INFOID:000000001735446

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

DTC Logic INFOID:0000000001735447

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2.STEP 2

Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

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

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-40, "Diagnosis Procedure".

Diagnosis Procedure

PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC displayed again?

YES >> GO TO 2

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

2. CHECK COMPONENTS

Refer to ADP-77, "Component Function Check" and ADP-93, "Component Function Check".

>> INSPECTION END

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B2117 ADJ PEDAL MOTOR

< COMPONENT DIAGNOSIS >

B2117 ADJ PEDAL MOTOR

Description INFOID.000000001735449

- The pedal adjusting motor is installed to the pedal 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.

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

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

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000001735451

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

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

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

Is the inspection result normal?

YES >> Pedal adjusting motor circuit is OK.

NO >> GO TO 3

3. CHECK PEDAL ADJUSTING MOTOR CIRCUIT HARNESS CONTINUITY

B2117 ADJ PEDAL MOTOR

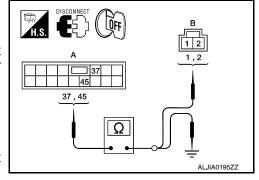
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- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and pedal adjusting motor.
- 3. Check continuity between automatic drive positioner control unit connector M34 (A) terminals 37, 45 and pedal adjusting motor connector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

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

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

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



Is the inspection result normal?

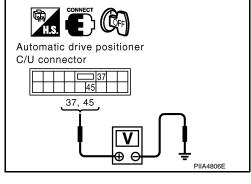
YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Connec-	Terminals		Condition	Voltage (V)
tor	(+)	(-)	Condition	(Approx.)
	37	Ground	Pedal adjusting switch ON (FORWARD operation)	Battery voltage
M34			Other than above	0
10134	45	Giodila	Pedal adjusting switch ON (BACKWARD operation)	Battery voltage
			Other than above	0



Is the inspection result normal?

YES >> Replace pedal adjusting motor.

NO >> GO TO 5

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

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B2118 TILT SENSOR

< COMPONENT DIAGNOSIS >

B2118 TILT SENSOR

Description INFOID:000000001754036

- The tilt sensor is installed to the steering column assembly.
- The resistance of tilt sensor is changed according to the up/down position of steering column.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of tilt sensor resistance. Automatic drive positioner control unit calculates the tilt position from the voltage.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2118	TILT SENSOR	The input voltage of tilt sensor is 0.1V or less or 4.9V or more.	Harness and connectors (Tilt sensor circuit is opened/ shorted, tilt sensor power supply circuit is opened/shorted.) Tilt 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-36, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000001754038

- 1. CHECK TILT SENSOR SIGNAL
- 1. Turn ignition switch ON.
- 2. Select "TILT SEN" in "Data monitor" mode with CONSULT-III.
- 3. Check tilt sensor signal under the following condition.

Monitor item	Condition		Value
TILT SEN	Tilt position	Тор	2 V
TILI OLIV		Bottom	4 V

Is the value normal?

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

2.check function

B2118 TILT SENSOR

< COMPONENT DIAGNOSIS >

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

Connector	Terminals		Condition	Voltage (V)	
	(+)	(-)	Condition	(Approx.)	
M33	7 Ground		Tilt top position	2	
IVIOO	,	/ Ground	Tilt bottom position	4	

Automatic drive positioner C/U connector THIS. CONNECT THIS. CON

OK or NG

OK >> Tilt sensor circuit is OK.

NG >> GO TO 3

3. CHECK HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit and tilt sensor.
- Check continuity between automatic drive positioner connector M33, M34 terminals 7, 33, 41 and tilt sensor connector M85 terminals 2, 3, 4.

7 - 3 : Continuity should exist.
33 - 2 : Continuity should exist.
41 - 4 : Continuity should exist.

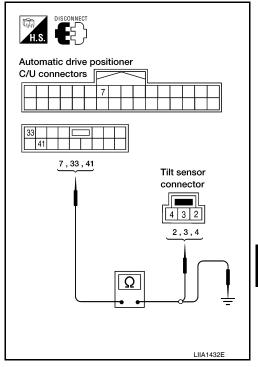
3. Check continuity between automatic drive positioner control unit connectors M33, M34 terminals 7, 33, 41 and ground.

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

OK or NG

OK >> Replace tilt motor. Refer to <u>ST-19</u>, "Removal and Installation".

NG >> Repair or replace harness.



4. CHECK DOOR MIRROR OPERATION

- 1. Connect automatic drive positioner control unit connector and tilt sensor.
- 2. Turn ignition switch ON.
- Check door mirror operation with memory function.

Is the operation normal?

YES >> Replace tilt sensor. Refer to <u>ST-19</u>, "Removal and Installation".

NO >> GO TO 5

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38. "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

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B2120 ADJ PEDAL SENSOR

< COMPONENT DIAGNOSIS >

B2120 ADJ PEDAL SENSOR

Description INFOID:0000000001735452

- The pedal adjusting sensor is installed in the pedal 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.

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

Is the DTC is detected?

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

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000001735454

1. CHECK PEDAL ADJUSTING SENSOR SIGNAL

- 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
FEDAL SEN		Backward	4.5V

Is the value normal?

YES >> Pedal adjusting circuit is OK.

NO >> GO TO 2

$2.\,$ CHECK PEDAL ADJUSTING SENSOR CIRCUIT HARNESS CONTINUITY

B2120 ADJ PEDAL SENSOR

< COMPONENT DIAGNOSIS >

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

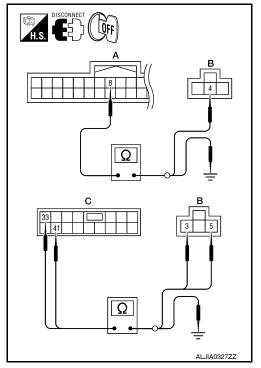
8 - 4 : Continuity should exist. 33 - 3 : Continuity should exist. 41 - 5 : Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M33 (A), M34 (C) terminals 8, 33, 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. NO >> Repair or replace harness.



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Revision: March 2010 ADP-39 2008 QX56

B2126 DETENT SW

Description INFOID:0000000001735455

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

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Drive the vehicle at 7±4km/h or more.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-40. "Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000001735457

1. CHECK DTC

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

Are other DTCs detected?

YES >> Check The DTC.

NO >> GO TO 2

2. CHECK DETENTION SWITCH SIGNAL

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

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

Is the status normal?

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

NO >> GO TO 3

$3.\,$ CHECK PARK POSITION SWITCH CIRCUIT

B2126 DETENT SW

< COMPONENT DIAGNOSIS >

- 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 (A) and A/T shift selector harness connector (B).

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

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

	H.S. DISCONNECT B
	A (6)
L	ALJIA0194ZZ

Α		_	Continuity	
Connector	Terminal			
B202	21	Ground	No	

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK PARK POSITION SWITCH

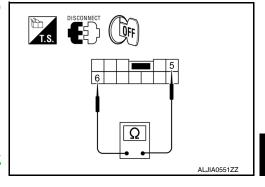
Check continuity between A/T shift selector (park position switch) terminals as follows.

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

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace A/T shift selector. Refer to <u>TM-195, "A/T Shift Selector Removal and Installation"</u>.



5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

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Revision: March 2010 ADP-41 2008 QX56

B2128 UART COMMUNICATION LINE

< COMPONENT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description INFOID:000000001735458

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

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2128	UART COMM	The communication between driver seat control unit and automatic drive positioner control unit is interrupted for a period of time.	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-42, "Diagnosis Procedure".

NO >> INSPECTION END

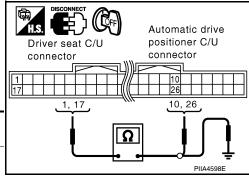
Diagnosis Procedure

INFOID:0000000001735460

1. CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver seat control unit connector	Terminal	Automatic drive positioner control unit connector	Terminal	Continuity	
B202	1	M33	10	Yes	
DZUZ	17	IVIOO	26	162	



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

B2128 UART COMMUNICATION LINE

< COMPONENT DIAGNOSIS >

Driver seat control unit con- nector	Terminal	O va ad	Continuity
B202	1	Ground	No
D202	17		INO

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Is the inspection result normal?

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

NO >> Repair or replace harness.

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000001735461

Refer to BCS-32, "Diagnosis Procedure".

BCM: Special Repair Requirement

INFOID:0000000001735462

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to CONSULT-III Operation Manual.

>> Work end.

DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:0000000001735463

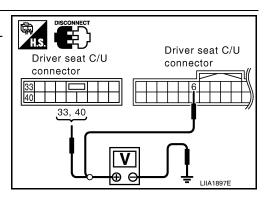
NOTE:

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

1. CHECK POWER SUPPLY CIRCUIT

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

	Terminals				
(+	(+)		Power	0 1111	Voltage (V)
Driver seat control unit connector	Terminal	(–)	source	Condition	(Approx.)
B202	6	Ground	START power sup- ply	Ignition switch START	Battery
5000	33	Cround	Battery	Ignition	voltage
B203	40		power sup- ply	switch OFF	



Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following.

- Repair or replace harness between driver seat control unit and fuse block (J/B).
- · Circuit breaker.

2. CHECK GROUND CIRCUIT

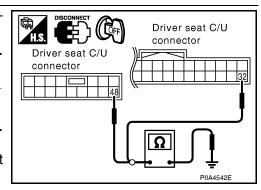
Check continuity between the driver seat control unit harness connector and ground.

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

Is the inspection result normal?

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

NO >> Repair or replace harness.



POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

DRIVER SEAT CONTROL UNIT: Special Repair Requirement

INFOID:0000000001735464

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1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to Owner's Manual.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

NFOID:0000000001735465

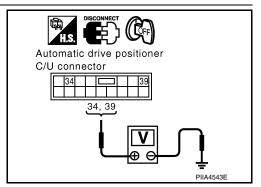
NOTE:

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

1. CHECK POWER SUPPLY CIRCUIT

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

Te	Voltage (V)			
(+)				
Automatic drive positioner control unit connector	(-)	(Approx.)		
M33	34	Ground	Battery voltage	
IVIOO	39	Ground	battery 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	
M33	40	Ground	Yes	
IVIOO	48		res	

Automatic drive positioner C/U connector 40 40, 48

Is the inspection result normal?

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

NO >> Repair or replace harness.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Special Repair Requirement

INFOID:000000000173

PIIA4544E

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to Owner's Manual.

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Revision: March 2010 ADP-45 2008 QX56

SLIDING SWITCH

Description INFOID:000000001735467

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

Component Function Check

INFOID:0000000001735468

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

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

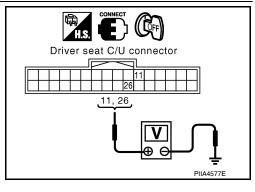
Diagnosis Procedure

INFOID:0000000001735469

1. CHECK SLIDING SWITCH SIGNAL

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

Driver seat control unit connector	Terminals		Condition		Voltage (V) (Approx.)
unit connector	(+)	(-)	-)		(Approx.)
B202	11	Ground		Operate (backward)	0
	" "		Sliding	Release	Battery voltage
	26		switch	Operate (forward)	0
				Release	Battery voltage



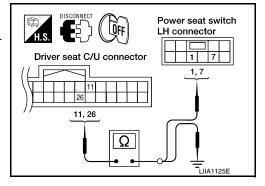
Is the inspection result normal?

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

$oldsymbol{2}$. CHECK SLIDING SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and power seat switch LH.
- 3. 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	11	B208	7	Yes
BZOZ	26	D200	1	163



SLIDING SWITCH

< COMPONENT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	0 1	Continuity	
B202	11	Ground	No	
DZUZ	26	_	INO	

Is the inspection result normal?

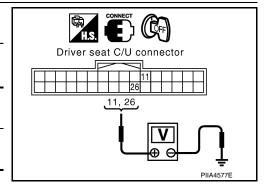
YES >> GO TO 3

NO >> Repair or replace harness.

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

- 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	
DZQZ	26	Ground	Battery voltage	



Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit.

4. CHECK SLIDING SWITCH

Refer to ADP-47, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace malfunctioning part.

Component Inspection

${f 1}$. CHECK SLIDING SWITCH

1. Turn ignition switch OFF.

Disconnect power seat switch LH.

3. Check continuity between power seat switch LH terminals.

Terminal		Condition		Continuity
Power seat switch LH				
	7	Sliding switch (backward)	Operate	Yes
3		Silding Switch (backward)	Release	No
1	1	1 Sliding switch (forward)	Operate	Yes
1		Silding Switch (lorward)	Release	No

Power seat switch LH 1, 7 1, 7 LIIA1126E

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch LH.

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INFOID:0000000001735470

RECLINING SWITCH

Description INFOID:000000001735471

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

Component Function Check

INFOID:0000000001735472

1. CHECK FUNCTION

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

Monitor item	Condition	Condition		
RECLN SW-FR	Reclining switch (forward)	Operate	ON	
NEGLIN SW-I IX	recilling switch (lolward)	Release	OFF	
RECLN SW-RR	Reclining switch (backward)	Operate	ON	
RECLIN SW-RR	Reclining Switch (backward)	Release	OFF	

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-48, "Diagnosis Procedure"</u>.

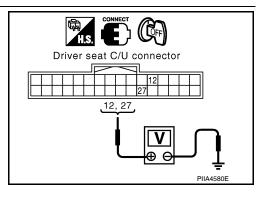
Diagnosis Procedure

INFOID:0000000001735473

1. CHECK RECLINING SWITCH SIGNAL

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

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



Is the inspection result normal?

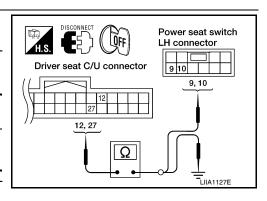
YES >> GO TO 5 NO >> GO TO 2

2. CHECK RECLINING SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. 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	12	B208	9	Yes
<u> </u>	27	D200	10	165

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



RECLINING SWITCH

< COMPONENT DIAGNOSIS >

Driver seat control unit connector	Terminal		Continuity
B202	12	Ground	No
	27		INO

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Is the inspection result normal?

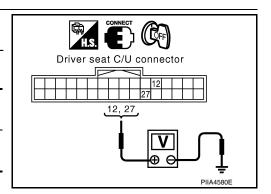
YES >> GO TO 3

NO >> Repair or replace harness.

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

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

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



Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit.

4. CHECK RECLINING SWITCH

Refer to ADP-49, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK RECLINING SWITCH

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

Tern	ninals	Condition		Continuity	
Power sea	at switch LH	Condition		Continuity	
	9	Reclining switch	Operate	Yes	
3	3	(backward)	Release	No	
3	10	Reclining switch	Operate	Yes	
	10	(forward)	Release	No	

Power seat switch LH 9 10 3, 10 LIIA1128E

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch LH.

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LIFTING SWITCH (FRONT)

< COMPONENT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description INFOID:0000000001735475

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

Component Function Check

INFOID:0000000001735476

1. CHECK FUNCTION

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

Monitor item	Condition	Status	
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON
LIFT FR SW-OF	Litting Switch Horit (up)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
LII I I IX SVV-DIN	Litting Switch from (down)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

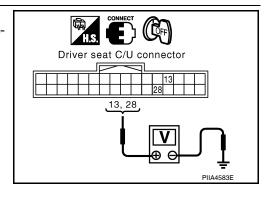
Diagnosis Procedure

INFOID:0000000001735477

1. CHECK LIFTING SWITCH SIGNAL

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

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



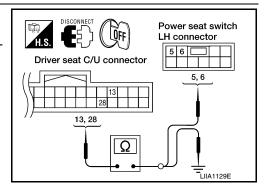
Is the inspection result normal?

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

${f 2}.$ CHECK LIFTING SWITCH (FRONT) CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and power seat switch LH.
- 3. 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	13	B208	5	Yes
B202	28	D200	6	163



LIFTING SWITCH (FRONT)

< COMPONENT DIAGNOSIS >

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

Driver seat control unit connector	Terminal		Continuity
P202	13	Ground	No
B202	28		INO

Is the inspection result normal?

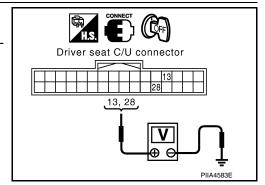
YES >> GO TO 3

NO >> Repair or replace harness.

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

- 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	13	Ground	Battery voltage
DZUZ	28	Giouna	battery voltage



Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit.

4. CHECK LIFTING SWITCH (FRONT)

Refer to ADP-51, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK LIFTING SWITCH (FRONT)

1. Turn ignition switch OFF.

2. Disconnect power seat switch LH.

3. Check continuity between power seat switch LH terminals.

Terr	minal	Condition		Continuity
Power sea	t switch LH			Continuity
	5	Lifting switch front (down)	Operate	Yes
3	0	Litting Switch Horit (down)	Release	No
3	6	Lifting switch front (up)	Operate	Yes
	O	Enting Switch Horit (up)	Release	No

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch LH.

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INFOID:0000000001735478

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LIFTING SWITCH (REAR)

Description INFOID:000000001735479

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

Component Function Check

INFOID:0000000001735480

1. CHECK FUNCTION

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

Monitor item	Condition	Status	
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
LII I IXX SW-OF	Litting Switch real (up)	Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
LIFT KK 3W-DIN	Litting Switch real (down)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

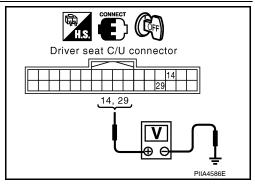
Diagnosis Procedure

INFOID:0000000001735481

1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

Driver seat	Term	ninals	Condition		Voltage (V)	
control unit connector	(+)	(-)			(Approx.)	
	14	14 Cround		Operate (down)	0	
B202	14		Ground	Lifting switch	Release	Battery voltage
D202	29	Ground		Giodila	(rear)	Operate (up)
	29	(rodi)		Release	Battery voltage	



Is the inspection result normal?

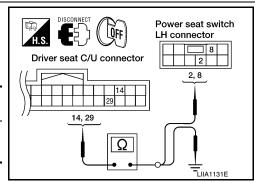
YES >> GO TO 5 NO >> GO TO 2

2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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

Driver seat control unit connector	Terminal	Power sear switch LH connector	Terminal	Continuity
B202	14	B208	8	Yes
B202	29	B200	2	162

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



LIFTING SWITCH (REAR)

< COMPONENT DIAGNOSIS >

Driver seat control unit connector	Terminal	Overal	Continuity
B202	14	Ground	No
	29		INO

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Is the inspection result normal?

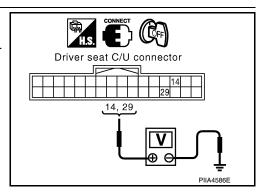
YES >> GO TO 3

NO >> Repair or replace harness.

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

- 1. Connect the driver seat control unit.
- 2. Turn ignition switch ON.
- 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	Glound	Dattery voltage



Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit.

4. CHECK LIFTING SWITCH (REAR)

Refer to ADP-53, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK LIFTING SWITCH (REAR)

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

	ninal It switch LH	Condition		Continuity	
	2	2 Lifting switch rear (up)	Lifting switch rear (up)	Operate	Yes
3	2	Litting switch rear (up)	Release	No	
3	8	Lifting switch rear (down)	Operate	Yes	
	8	Litting switch rear (down)	Release	No	

Power seat switch LH 2, 8 2, 8 LIIA1132E

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch LH.

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TILT SWITCH

Description INFOID.000000001754039

ADP steering switch is equipped to the steering column. The operation signal is input to the automatic drive positioner control unit when the ADP steering switch is operated.

Component Function Check

INFOID:0000000001754040

1. CHECK FUNCTION

- 1. Select "TILT SW-UP", "TILT SW-DN" in "Data monitor" mode with CONSULT-III.
- 2. Check tilt switch signal under the following conditions.

Monitor item	Condition	Status	
TILT SW-UP	Tilt switch (up)	Operate	ON
TILI SW-OP	Release		OFF
TILT SW-DN	Tilt switch (down)	Operate	ON
TILI SVV-DIN	THE SWILCH (GOWIT)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-54, "Diagnosis Procedure"</u>.

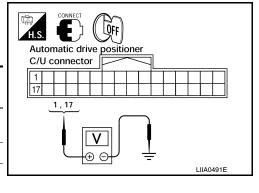
Diagnosis Procedure

INFOID:0000000001754041

1. CHECK ADP STEERING SWITCH SIGNAL

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

Connector	Term	ninals	Condition	
	(+)	(-)	Condition	(Approx.)
	1		ADP steering switch ON (UP operation)	0
M33		Ground	Other than above	5
WOO	17		ADP steering switch ON (DOWN operation)	0
			Other than above	5



Is the inspection result normal?

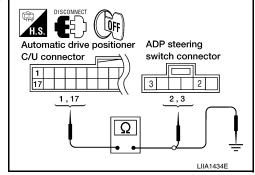
YES >> GO TO 4 NO >> GO TO 2

$oldsymbol{2}.$ CHECK ADP STEERING SWITCH HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering switch.
- Check continuity between automatic drive positioner control unit connector M33 terminals 1, 17 and ADP steering switch connector M16 terminals 2. 3.

1 - 2 : Continuity should exist.17 - 3 : Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M33 terminals 1, 17 and ground.



TILT SWITCH

< COMPONENT DIAGNOSIS >

1 - Ground : Continuity should not exist. 17 - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 3

NG >> Repair or replace harness.

3. CHECK ADP STEERING SWITCH GROUND CIRCUIT

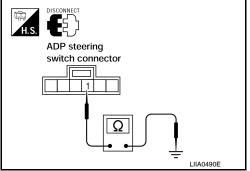
Check continuity between ADP steering switch connector M16 terminal 1 and ground.

> 1 - Ground : Continuity should exist.

OK or NG

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

NG >> Replace or replace harness.



4. CHECK TILT SWITCH

Refer to ADP-55, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

>> Replace ADP steering switch. NO

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38. "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

>> Repair or replace the malfunctioning part. NO

Component Inspection

1. CHECK ADP STEERING WHEEL TILT SWITCH

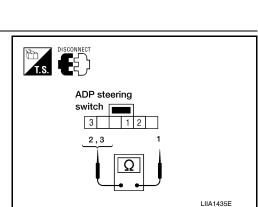
Check continuity between ADP steering switch terminals as follows.

Term	inals	Condition	Continuity
2		ADP steering switch ON (UP operation)	Yes
2	1	Other than above	No
3	'	ADP steering switch ON (DOWN operation)	Yes
3		Other than above	No

OK or NG

OK >> INSPECTION END

NG >> Replace ADP steering switch.



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PEDAL ADJUSTING SWITCH

< COMPONENT DIAGNOSIS >

PEDAL ADJUSTING SWITCH

Description INFOID:0000000001735483

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

Component Function Check

INFOID:0000000001735484

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-56. "Diagnosis Procedure"</u>.

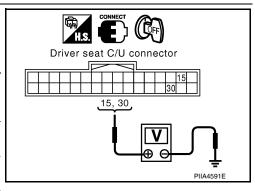
Diagnosis Procedure

INFOID:0000000001735485

1. CHECK PEDAL ADJUSTING SWITCH SIGNAL

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

Driver seat	Term	ninals	Condition		Voltage (V)	
control unit connector	(+)	(-)			(Approx.)	
	15		45			0
B202	13	Ground	Pedal ad-	Release	Battery voltage	
D202	30	Ground	justing switch	Operate (forward)	0	
	30	Release	Battery voltage			



Is the inspection result normal?

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

2. CHECK PEDAL ADJUSTING SWITCH CIRCUIT

PEDAL ADJUSTING SWITCH

< COMPONENT DIAGNOSIS >

- Turn ignition switch OFF.
- 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	IVISO	3	163

Check continuity between driver seat control unit harness connector and ground

noter and ground	•		
Driver seat control unit connector	Terminal	0	Continuity
B202	15	Ground	No
D2U2	30		INO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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

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

Driver seat control unit	Ter	minals	Voltage (V)
connector	(+)	(-)	(Approx.)
B202	15	Ground	Battery voltage
DZUZ	30	Ground	Dattery voltage

15, 30 PIIA4591E

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit.

4. CHECK PEDAL ADJUSTING SWITCH

Refer to ADP-58, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace pedal adjusting switch.

CHECK PEDAL ADJUSTING SWITCH GROUND CIRCUIT

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

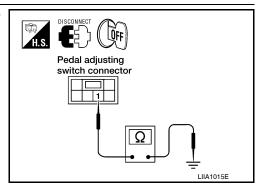
1 - Ground

: Continuity should exist.

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace or replace harness.



6. CHECK INTERMITTENT INCIDENT

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Pedal adjusting

Driver seat C/U connector

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switch connector

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PEDAL ADJUSTING SWITCH

< COMPONENT DIAGNOSIS >

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

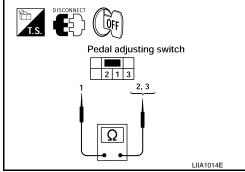
Component Inspection

INFOID:0000000001735486

1.CHECK PEDAL ADJUSTING SWITCH

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

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



Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace pedal adjusting switch.

SEAT MEMORY SWITCH

< COMPONENT DIAGNOSIS >

SEAT MEMORY SWITCH

Description INFOID:0000000001735487

Memory switch is equipped on the seat memory switch installed to 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	Condition		Status
MEMORY SW1	Memory switch 1	Push	ON
	Memory Switch 1	Release	OFF
MEMORY SW2	Mamany quitab 2	Push	ON
WEWORT SW2	Memory switch 2	Release	OFF
SET SW	Set switch	Push	ON
SELSW	Set Switch	Release	OFF

Is the indication normal?

YES >> INSPECTION END

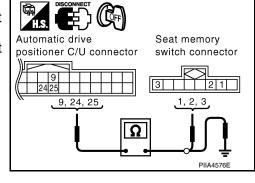
NO >> Perform diagnosis procedure. Refer to ADP-59, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK MEMORY SWITCH CIRCUIT

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

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



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.

2. CHECK MEMORY SWITCH GROUND CIRCUIT

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SEAT MEMORY SWITCH

< COMPONENT DIAGNOSIS >

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.

Seat memory switch connector

3. CHECK SEAT MEMORY SWITCH

Refer to ADP-60, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

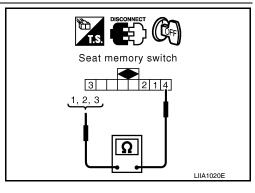
Component Inspection

INFOID:0000000001735490

1. CHECK SEAT MEMORY SWITCH

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

Terminal Seat memory switch		Condition		Continuity
Ocal mem	ory switch		Push	Yes
	1	Memory switch 1	Fusii	165
		,	Release	No
4	2	Memory switch 2	Push	Yes
7	_	Memory Switch 2	Release	No
	3 Set switch		Push	Yes
	3	Set switch	Release	No



Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch.

< COMPONENT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

INFOID:0000000001735491

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CHANGEOVER SWITCH: Description

Changeover switch is integrated into door mirror remote control switch.

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

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

CHANGEOVER SWITCH: Component Function Check

INFOID:0000000001735492

${f 1}$. CHECK CHANGEOVER SWITCH FUNCTION

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

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

Is the inspection result normal?

YES >> Changeover switch function is OK.

>> Refer to ADP-61, "CHANGEOVER SWITCH: Diagnosis Procedure". NO

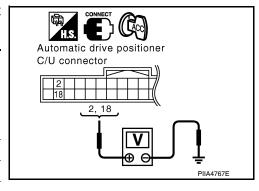
CHANGEOVER SWITCH: Diagnosis Procedure

INFOID:0000000001735493

1. CHECK CHANGEOVER SWITCH SIGNAL

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

Te	erminals				
(+)			Change over switch	Voltage (V)	
Automatic drive positioner control unit connector	Terminal	(-)	condition	(Approx.)	
	2		RIGHT	0	
M33	2	Ground	Other than above	5	
WIOO	18	Ground	LEFT	0	
	10		Other than above	5	



Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 2

$oldsymbol{2}$. CHECK HARNESS CONTINUITY

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

Automatic dr positioner cor unit connect	itrol Te	erminal	Door mirror re- mote control switch connector	Terminal	Continuity
M33 (A)		2	D10 (B)	11	Yes
WI35 (A)		18	D10 (B)	10	165

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

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< COMPONENT DIAGNOSIS >

Automatic drive positioner control unit connector	Terminal	Our sel	Continuity
M33 (A)	2	Ground	No
WISS (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	Terminal	Ground	Continuity
D10	7		Yes

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Is the inspection result normal?

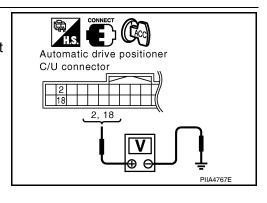
YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

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



Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit.

5. CHECK CHANGEOVER SWITCH

Check changeover switch.

Refer to ADP-62, "CHANGEOVER SWITCH: Component Inspection".

Is the inspection result normal?

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

NO >> Replace door mirror remote control switch.

6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning parts.

CHANGEOVER SWITCH: Component Inspection

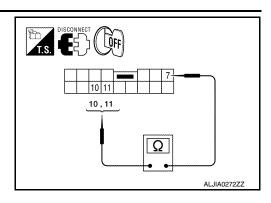
1. CHECK CHANGEOVER SWITCH

INFOID:000000001735494

< COMPONENT DIAGNOSIS >

Check door mirror remote control switch.

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



Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch.

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 ADP-63, "MIRROR SWITCH: Diagnosis Procedure".

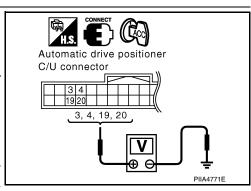
MIRROR SWITCH: Diagnosis Procedure

1. CHECK MIRROR SWITCH FUNCTION

1. Turn ignition switch ON.

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

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



Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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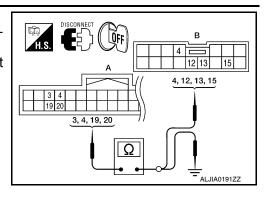
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< COMPONENT DIAGNOSIS >

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

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



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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

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

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

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Is the inspection result normal?

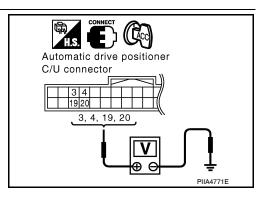
YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

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



Is the inspection result normal?

< COMPONENT DIAGNOSIS >

YES >> GO TO 5

NO >> Replace automatic drive positioner control unit.

5. CHECK MIRROR SWITCH

Check mirror switch.

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

Is the inspection result normal?

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

NO >> Replace door mirror remote control switch.

6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

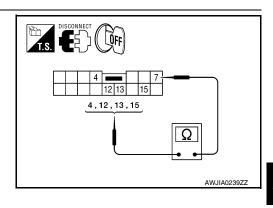
NO >> Repair or replace the malfunctioning parts.

MIRROR SWITCH: Component Inspection

1. CHECK MIRROR SWITCH

Check door mirror remote control switch.

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



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Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch.

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POWER SEAT SWITCH GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000001735499

1. CHECK POWER SEAT SWITCH LH GROUND CIRCUIT

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

Power seat switch LH connector	Terminal	Ground	Continuity
B208	32		Yes

Power seat switch LH connector

Is the inspection result normal?

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

NO >> Repair or replace harness.

DETENTION SWITCH

< COMPONENT DIAGNOSIS >

DETENTION SWITCH

Description INFOID:000000001735500

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-67</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

1. CHECK DTC WITH "BCM"

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

Is any other DTC detected?

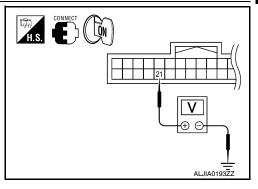
YES >> Check the DTC.

NO >> GO TO 2

2. CHECK PARK POSITION SWITCH INPUT SIGNAL

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

Driver seat	Terr	minal	Condition		Voltage (V)
control unit connector	(+)	(-)			(Approx.)
B202	202 21 Ground A/T select	A/T selec-	P position	Battery volt- age	
5202		Ground	tor lever	Other than above	0V



Is the inspection result normal?

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

$3.\,$ CHECK PARK POSITION SWITCH CIRCUIT

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DETENTION SWITCH

< COMPONENT DIAGNOSIS >

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

A	Α		В	
Connector	Terminal	Connector	Terminal	Continuity
B202	21	M203	6	Yes

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

H.S. DISCONNECT OFF	В
A 21 21	
Ω	ALJIA0194ZZ

Α			Continuity
Connector	Terminal		Continuity
B202	21	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

FRONT DOOR SWITCH (DRIVER SIDE)

< COMPONENT DIAGNOSIS >

FRONT DOOR SWITCH (DRIVER SIDE)

Description

Detects front door LH open/close condition.

Component Function Check

1. CHECK FUNCTION

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

Monitor item	Condition		Status
DOOR SW-DR	Front door switch LH	Open	ON
	1 Tont door switch ETT	Close	OFF

Is the inspection result normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-69</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

1. CHECK FRONT DOOR SWITCH LH CIRCUIT

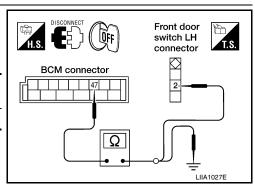
1. Disconnect BCM.

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

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

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M19	47	Ground	No



Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

2. CHECK FRONT DOOR SWITCH LH

Refer to ADP-69, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace front door switch LH.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-55</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK FRONT DOOR SWITCH LH

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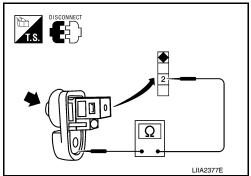
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FRONT DOOR SWITCH (DRIVER SIDE)

< COMPONENT DIAGNOSIS >

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

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



Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door switch LH.

SLIDING SENSOR

< COMPONENT DIAGNOSIS >

SLIDING SENSOR

Description INFOID.000000001735507

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

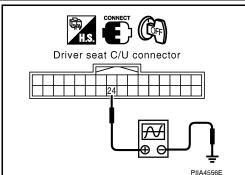
NO >> Perform diagnosis procedure. Refer to <u>ADP-71, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1. CHECK SLIDING SENSOR SIGNAL

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

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



Is the inspection result normal?

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

2. CHECK SLIDING SENSOR CIRCUITS

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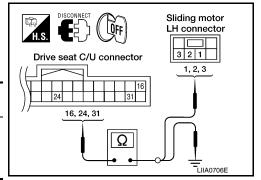
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SLIDING SENSOR

< COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. 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	24	B204	2	Yes
		31		1	



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

Driver seat control unit connector	Terminal		Continuity
	16	Ground	No
B202	24		
	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 seat slide cushion frame).

NO >> Replace driver seat control unit.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

RECLINING SENSOR

< COMPONENT DIAGNOSIS >

RECLINING SENSOR

Description

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-73, "Diagnosis Procedure"</u>.

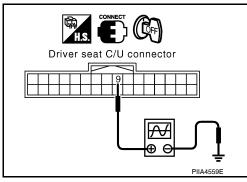
Diagnosis Procedure

1. CHECK RECLINING SENSOR SIGNAL

1. Turn ignition switch ON.

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

Terminals						
(+)					Voltage signal	
Driver seat con- trol unit	Termi- nal	(–)	Condition			
B202	9	Ground	Seat reclining	Operate	(V) 6 4 2 0 	
				Other than above	0 or 5	



Is the inspection result normal?

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

2. CHECK RECLINING SENSOR CIRCUIT

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RECLINING SENSOR

< COMPONENT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Reclining motor connector	Terminal	Continuity
B202	9	B205	1	Yes
	31	5205	2	165

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

H.S. DISCONNECT COFF Reclining motor LH connector
Drive seat C/U connector
9 31
9, 31
LIIA0707E

Driver seat control unit connector	Terminal	01	Continuity	
B202	9	Ground	No	
B202	31		NO	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK SEAT OPERATION

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

Is the operation normal?

YES >> Replace reclining motor LH. (Built in seat slide cushion frame.)

NO >> Replace driver seat control unit.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

LIFTING SENSOR (FRONT)

< COMPONENT DIAGNOSIS >

LIFTING SENSOR (FRONT)

Description INFOID:000000001735513

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

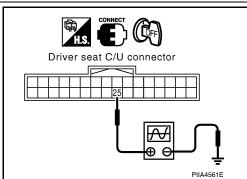
NO >> Perform diagnosis procedure. Refer to <u>ADP-75. "Diagnosis Procedure"</u>.

Diagnosis Procedure

1. CHECK LIFTING SENSOR (FRONT) SIGNAL

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

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



Is the inspection result normal?

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

2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

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LIFTING SENSOR (FRONT)

< COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and lifting motor (front).
- 3. 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	25	B206	2	Yes
	31		1	

Drive seat C/U connector

1, 2, 3

16, 25, 31

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK SEAT OPERATION

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

Is the operation normal?

YES >> Replace lifting motor (front). (Built in seat slide cushion frame.)

NO >> Replace driver seat control unit.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

LIFTING SENSOR (REAR)

< COMPONENT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description INFOID:000000001735516

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-77, "Diagnosis Procedure"</u>.

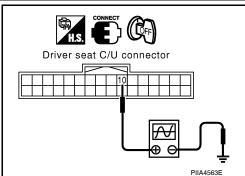
Diagnosis Procedure

1. CHECK LIFTING SENSOR (REAR) SIGNAL

Turn ignition switch OFF.

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

Terminals					
(+)					
Driver seat con- trol unit connector	Termi- nal	(–)	Condition		Voltage signal
B202	10	Ground	Seat lifting (rear)	Oper- ate	(V) 6 4 2 0 ***50ms
				Other than above	0 or 5



Is the inspection result normal?

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

2. CHECK LIFTING SENSOR (REAR) CIRCUIT

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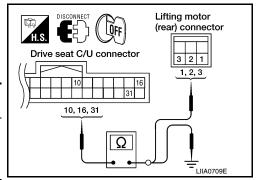
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LIFTING SENSOR (REAR)

< COMPONENT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Lifting motor (rear) connector	Terminal	Continuity
	10		2	
B202	16	B207	3	Yes
	31		1	



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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK SEAT OPERATION

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

Is the operation normal?

YES >> Replace lifting motor (rear). (Built in seat slide cushion frame.)

NO >> Replace driver seat control unit.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

TILT SENSOR

Description INFOID:000000001754043

- The tilt sensor is installed to the steering column assembly.
- The resistance of tilt sensor is changed according to the up/down position of steering column.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of tilt sensor resistance. Automatic drive positioner control unit calculates the tilt position from the voltage.

Component Function Check

INFOID:0000000001754044

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1. CHECK FUNCTION

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

Monitor item	Condition	Value
TILT SEN	Tilt position	Change between 1.2 V (Close to top) 3.4 V (Close to bottom)

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-79. "Diagnosis Procedure"</u>.

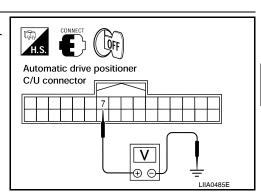
Diagnosis Procedure

INFOID:0000000001754045

1. CHECK TILT SENSOR SIGNAL

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

Connector	Term	inals	Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M33	7 G	Ground	Tilt top position	2
IVISS		Ground	Tilt bottom position	4



Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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TILT SENSOR

< COMPONENT DIAGNOSIS >

- 1. Disconnect automatic drive positioner control unit and tilt sensor.
- Check continuity between automatic drive positioner connector M33 (A), M34 (B) terminals 7, 33, 41 and tilt sensor connector M85 (C) terminals 2, 3, 4.

7 - 3 : Continuity should exist.
33 - 2 : Continuity should exist.
41 - 4 : Continuity should exist.

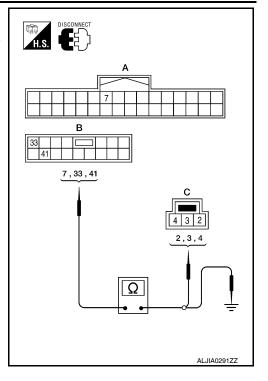
3. Check continuity between automatic drive positioner control unit connectors M33 (A), M34 (B) terminals 7, 33, 41 and ground.

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

OK or NG

OK >> Replace motor. Refer to <u>ST-19, "Removal and Installation".</u>

NG >> Repair or replace harness.



3. CHECK DOOR MIRROR OPERATION

- 1. Connect automatic drive positioner control unit connector and tilt sensor.
- 2. Turn ignition switch ON.
- 3. Check door mirror operation with memory function.

Is the operation normal?

YES >> Replace tilt sensor. Refer to <u>ST-19</u>, "Removal and Installation".

NO >> Replace automatic drive positioner control unit.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

PEDAL ADJUSTING SENSOR

< COMPONENT DIAGNOSIS >

PEDAL ADJUSTING SENSOR

Description INFOID:0000000001735519

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

Component Function Check

INFOID:000000001735520

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1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-81, "Diagnosis Procedure".

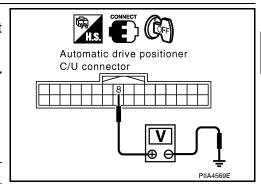
Diagnosis Procedure

INFOID:0000000001735521

1. CHECK PEDAL ADJUSTING SENSOR SIGNAL

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

	Terminal				
(+)			0 1111		Voltage (V)
Automatic drive position- er control unit	Terminal	(-)	Condition		(Approx.)
N400	0	0	Pedal as-		0.5
M33	8	Ground	sembly position	Backward	4.5



Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 2

 $oldsymbol{2}.$ CHECK PEDAL ADJUSTING SENSOR CIRCUIT

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ADP-81 2008 QX56 Revision: March 2010

PEDAL ADJUSTING SENSOR

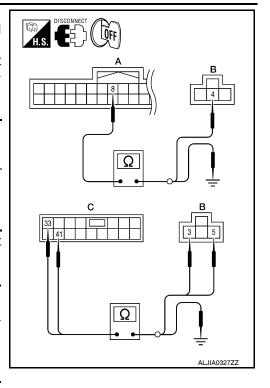
< COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- Disconect automatic drive positioner control unit and pedal adjusting sensor.
- Check continuity between automatic drive positioner control unit harnnes connector and pedal adjusting sensor harness connector.

Automatic drive positioner control unit connector	Terminal	Pedal adjusting sensor connector	Terminal	Continuity
M33 (A)	8		4	
M34 (C)	33	E110 (B)	3	Yes
W34 (C)	41		5	

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

Terminal		Continuity
8	Ground	
33		No
41		
	8	8 Ground



Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DOOR MIRROR OPERATION

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

Is the operation normal?

YES >> Replace pedal adjusting sensor. (Built in pedal adjusting motor.)

NO >> Replace automatic drive positioner control unit.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

< COMPONENT DIAGNOSIS >

MIRROR SENSOR DRIVER SIDE

INFOID:0000000001735522

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DRIVER SIDE : Description

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

DRIVER SIDE: Component Function Check

INFOID:0000000001735523

1. CHECK FUNCTION

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

Monitor item	Condition		Value
MIR/SEN LH U-D		Close to peak	3.4V
	- Door mirror LH	Close to valley	0.6V
MIR/SEN LH R-L		Close to right edge	3.4V
		Close to left edge	0.6V

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-83, "DRIVER SIDE : Diagnosis Procedure"</u>.

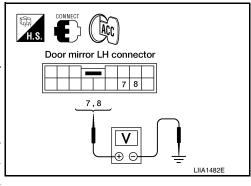
DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001735524

1. CHECK DOOR MIRROR LH SENSOR SIGNAL

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

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



Is the inspection result normal?

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

2. CHECK DOOR MIRROR LH SENSOR CIRCUIT 1

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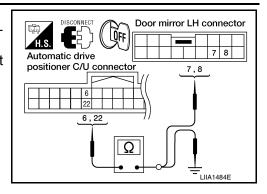
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< COMPONENT DIAGNOSIS >

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

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



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

Automatic drive positioner control unit connector	Terminal	Our set	Continuity
M33	6	Ground	No
	22	-	INU

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

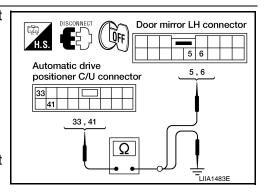
${f 3}.$ CHECK DOOR MIRROR LH SENSOR CIRCUIT 2

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
M24	33	D4	5	Yes
M34	41	D4	6	162

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

Automatic drive positioner control unit connector	Terminal		Continuity
M34	33	Ground	No
	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 LH connector.
- Turn ignition switch ON.
- Check pedal adjusting operation with memory function.

Is the operation normal?

YES >> Replace door mirror actuator LH. Refer to MIR-11, "Door Mirror Assembly".

NO >> Replace automatic drive positioner control unit.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

Revision: March 2010 ADP-84 2008 QX56

< COMPONENT DIAGNOSIS >

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000001735525

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- 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:0000000001735526

1. CHECK FUNCTION

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

Monitor item	Con	Value	
MIR/SEN RH U-D		Close to peak	3.4V
	Door mirror RH	Close to valley	0.6V
MIR/SEN RH R-L	DOOL HIIITOL KIT	Close to right edge	3.4V
		Close to left edge	0.6V

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-85, "PASSENGER SIDE : Diagnosis Procedure"</u>.

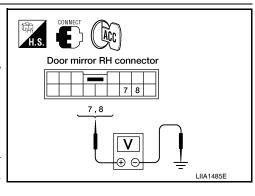
PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000001735527

1. CHECK DOOR MIRROR RH SENSOR SIGNAL

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

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



Is the inspection result normal?

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

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

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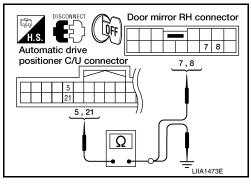
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< COMPONENT DIAGNOSIS >

- 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
WIOO	21	D107	8	103



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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3.check door mirror RH sensor power supply circuit

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

Automatic drive positioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity
M34	33	D107	5	Yes
10134	41	D107	6	165

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

H.S. DISCONNECT OFF	Door mirror RH connector
Automatic drive positioner C/U connect	5.6
33 41 41	
33,41	LIIA1486E

Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M34	33		No
IVI34	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.
- Turn ignition switch ON.
- Check pedal adjusting operation with memory function.

Is the operation normal?

YES >> Replace door mirror actuator RH. Refer to MIR-11, "Door Mirror Assembly".

NO >> Replace automatic drive positioner control unit.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

Revision: March 2010 ADP-86 2008 QX56

SLIDING MOTOR

< COMPONENT DIAGNOSIS >

SLIDING MOTOR

Description INFOID:000000001735528

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

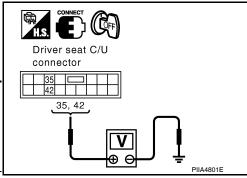
NO >> Perform diagnosis procedure. Refer to <u>ADP-87, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1. CHECK SLIDING MOTOR LH POWER SUPPLY

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

	Terminal				
(+)					Voltage (V)
Driver seat control unit connector	Terminal	(-)			(Approx.)
				OFF	0
	35			FR (forward)	Battery voltage
B203		Ground	SEAT	RR (backward)	0
D203	42 SLIDE	Giodila	SLIDE	OFF	0
				FR (forward)	0
			RR (backward)	Battery voltage	
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Is the inspection result normal?

YES >> Replace sliding motor LH. (Built in seat slide cushion frame.)

NO >> GO TO 2

2. CHECK SLIDING MOTOR LH CIRCUIT

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SLIDING MOTOR

< COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and sliding motor LH.
- 3. 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	35	B204	6	Vec
D2U3	42	5204	4	Yes

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

Driver seat control unit connector	Terminal		Continuity
B203	35	Ground	No
	42		110

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

RECLINING MOTOR

< COMPONENT DIAGNOSIS >

RECLINING MOTOR

Description INFOID:000000001735531

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

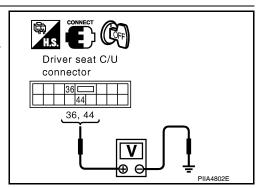
NO >> Perform diagnosis procedure. Refer to <u>ADP-89</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

1. CHECK RECLINING MOTOR LH POWER SUPPLY

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

	Terminal					
(+	•)					
Driver seat con- trol unit connector	Terminal	(-)	Test Item		Voltage (V) (Approx.)	
				OFF	0	
	36			FR (forward)	Battery voltage	
B203		Ground	SEAT RE-	RR (backward)	0	
D2U3		Giouna	CLINING	OFF	0	
2	44			FR (forward)	0	
				RR (backward)	Battery voltage	



Is the inspection result normal?

YES >> Replace reclining motor LH. (Built in seat back frame.)

NO >> GO TO 2

2. CHECK RECLINING MOTOR LH CIRCUIT

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RECLINING MOTOR

< COMPONENT DIAGNOSIS >

- Turn ignition switch OFF.
- Disconnect driver seat control unit connector and recling motor LH.
- 3. Check continuity between driver seat control unit harness connector and reclining motor harness connector.

Driver seat control unit connector	Terminal	Reclining motor LH connector	Terminal	Continuity	
B203	36	B205	4	Yes	
B203	44	5205	3	165	

Driver seat C/U connector

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

Driver seat control unit connector	Terminal		Continuity	
B203	36	Ground	No	
B203	44		No	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

LIFTING MOTOR (FRONT)

< COMPONENT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description INFOID:000000001735534

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

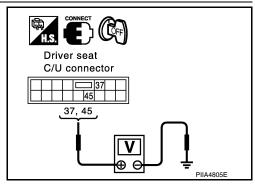
NO >> Perform diagnosis procedure. Refer to <u>ADP-91, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

	Terminal					
(+)	(+)				Voltage (V)	
Driver seat control unit connector	Terminal	(-)	Test Item		(Approx.)	
				OFF	0	
	37	Ground	SEAT LIFTER FR	UP	0	
B203				DWN (down)	Battery voltage	
B203 —	45			OFF	0	
				UP	Battery voltage	
				DWN (down)	0	
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Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in seat slide cushion frame.)

NO >> GO TO 2

$2.\,$ CHECK LIFTING MOTOR (FRONT) CIRCUIT

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LIFTING MOTOR (FRONT)

< COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- Disconnect driver seat control unit and lifting motor (front) connectors.
- 3. 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	37	B206	6	Yes
B203	45	5200	4	165

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

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Driver seat control unit connector	Terminal		Continuity	
B203	37	Ground	No	
6203	45		NO	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

LIFTING MOTOR (REAR)

< COMPONENT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description INFOID:000000001735537

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

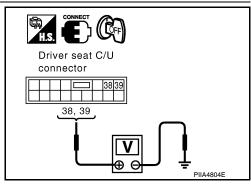
NO >> Perform diagnosis procedure. Refer to <u>ADP-93, "Diagnosis Procedure"</u>.

Diagnosis Procedure

$1. \ \mathsf{CHECK} \ \mathsf{LIFTING} \ \mathsf{MOTOR} \ (\mathsf{REAR}) \ \mathsf{POWER} \ \mathsf{SUPPLY}$

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

	Terminal					
(+)					Voltage (V)	
Driver seat control unit connector	Terminal	(-)	Test Item		(Approx.)	
				OFF	0	
	38	Ground	SEAT LIFTER RR	UP	Battery voltage	
B203				DWN (down)	0	
B203				OFF	0	
				UP	0	
				DWN (down)	Battery voltage	
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Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in seat slide cushion frame.)

NO >> GO TO 2

2. CHECK LIFTING MOTOR (REAR) CIRCUIT

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LIFTING MOTOR (REAR)

< COMPONENT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Lifting motor (rear) connector	Terminal	Continuity
B203	38	B207	6	Yes
D2U3	39	B207	4	165

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

	H.S. DISCONNECT (FFF) Lifting motor (rear)
	connector Driver seat C/U connector
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Driver seat control unit connector	Terminal	Ground	Continuity
B203	38		No
B203	39		INO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

TILT MOTOR

Description INFOID:0000000001754046

- The tilt motor is installed to the steering column assembly.
- The tilt motor is activated with the automatic drive positioner control unit.
- The steering column is tilted upward/downward by changing the rotation direction of tilt motor.

Component Function Check

1. CHECK FUNCTION

- 1. Select "TILT MOTOR" in "Active test" mode with CONSULT-III.
- 2. Check the tilt motor operation.

Test item		Description		
	OFF		Stop	
TILT MOTOR	UP	Steering tilt	Upward	
	DWN		Downward	

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-95, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1. CHECK TILT MOTOR HARNESS CONTINUITY

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt motor.
- 3. Check continuity between automatic drive positioner control unit connector M34 (A) terminals 35, 42 and tilt motor connector M86 (B) terminals 1, 5.

35 - 1 : Continuity should exist.42 - 5 : Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M34 (A) terminals 35, 42 and ground.

35 - Ground : Continuity should not exist.42 - Ground : Continuity should not exist.

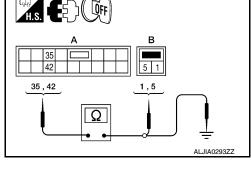
OK or NG

OK >> GO TO 2

NG >> Repair or replace harness.

2. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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



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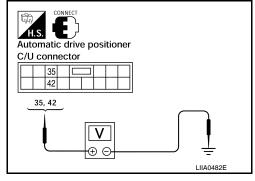
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TILT MOTOR

< COMPONENT DIAGNOSIS >

Connector	Term	inals	Condition	Voltage (V)
Connector	(+) (-)		(Approx.)	
	35		ADP steering switch ON (UP operation)	Battery voltage
M34		Ground	Other than above	Battery voltage 0 Battery voltage
IVIO T	42	Ground	ADP steering switch ON (DOWN operation) Battery vo	Battery voltage
			Other than above	0

OK or NG

OK >> Replace tilt motor. Refer to ST-19, "Removal and Installation".

NG >> GO TO 3

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

>> Replace automatic drive positioner control unit. >> Repair or replace the malfunctioning part. YES

NO

PEDAL ADJUSTING MOTOR

< COMPONENT DIAGNOSIS >

PEDAL ADJUSTING MOTOR

Description INFOID:000000001735540

- The pedal adjusting motor is installed to the pedal 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 "ADJ PEDAL MOTOR" in "Active test" mode with CONSULT-III.
- Check the pedal adjusting motor operation.

Test ite	em	Descripti	on
	OFF		Stop
ADJ PEDAL MOTOR	FR	Pedal adjusting motor	Forward
	RR		Backward

Is the operation of relevant parts normal?

YES >> INSPECTION END

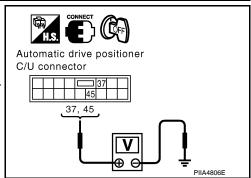
NO >> Perform diagnosis procedure. Refer to ADP-97, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK PEDAL ADJUSTING MOTOR POWER SUPPLY

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

Terminal						
(+)						
Automatic drive posi- tioner con- trol unit connector	Terminal	(-)	Test Item		Voltage (V) (Approx.)	
	37 Ground	Ground	ADJ PED- AL MOTOR	OFF	0	
				RR (backward)	0	
M34				FR (forward)	Battery voltage	
IVIO 4				OFF	0	
			RR (backward)	Battery voltage		
				FR (forward)	0	



Is the inspection result normal?

YES >> Replace pedal adjusting motor.

NO >> GO TO 2

2. CHECK PEDAL ADJUSTING MOTOR CIRCUIT

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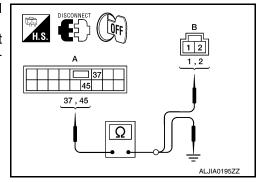
Revision: March 2010 ADP-97 2008 QX56

PEDAL ADJUSTING MOTOR

< COMPONENT DIAGNOSIS >

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

Automatic drive positioner control unit connector	Terminal	Pedal adjusting motor connector	Terminal	Continuity
Μ34 (Δ)	M34 (A)	E109 (B)	1	Yes
MOT (A)	45	L109 (B)	2	163



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

Automatic drive positioner control unit connector	Terminal	0	Continuity
M34 (A)	37	Ground	No
1VI34 (A)	45		INO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

DOOR MIRROR MOTOR

< COMPONENT DIAGNOSIS >

DOOR MIRROR MOTOR

Description INFOID:000000001735543

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

Component Function Check

1. CHECK DOOR MIRROR MOTOR FUNCTION

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

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

Is the inspection result normal?

YES >> Door mirror motor function is OK.

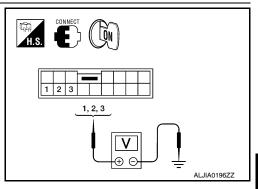
NO >> Refer to <u>ADP-99</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

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



ADP

Is the inspection result normal?

YES >> Refer to ADP-101, "Component Inspection".

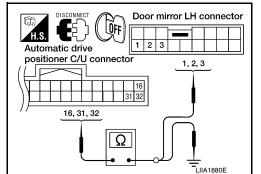
NO >> GO TO 2

$oldsymbol{2}.$ CHECK HARNESS CONTINUITY

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

Door mirror LH

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



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DOOR MIRROR MOTOR

< COMPONENT DIAGNOSIS >

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

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

Door mirror 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		No	
	30			

Is the inspection result normal?

YES >> GO TO 3

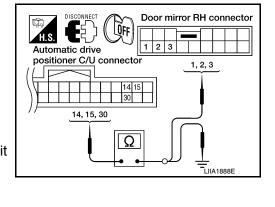
NO >> Repair or replace harness.

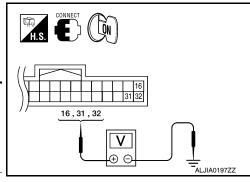
$\bf 3.$ Check automatic drive positioner control unit output signal

- 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	31	Ground	UP	Battery voltage	
IVISS	31	Ground	Other than above	0	
	32		LEFT	Battery voltage	
	32		Other than above	0	
		·			

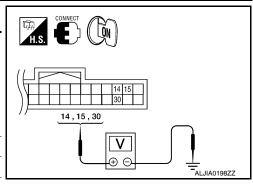




DOOR MIRROR MOTOR

< COMPONENT DIAGNOSIS >

H			
Terminals			
Terminal	(-)	Mirror switch con- dition	Voltage (V) (Approx.)
1/		UP	Battery voltage
14		Other than above	0
15	Cround	LEFT	Battery voltage
15	Giodila	Other than above	0
20		DOWN / RIGHT	Battery voltage
30		Other than above	0
	Terminals	Terminals (-) 14 15 Ground	Terminals (-) Mirror switch condition 14 15 Ground Ground Ground Other than above LEFT Other than above DOWN / RIGHT



Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit.

4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-101, "Component Inspection".

Is the inspection result normal?

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

NO >> Replace door mirror actuator. Refer to MIR-11, "Door Mirror Assembly".

Component Inspection

1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to MIR-11, "Door Mirror Assembly".

Is the inspection result normal?

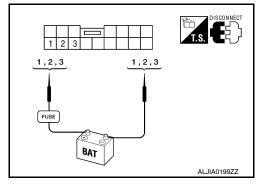
YES >> GO TO 2

NO >> Replace door mirror actuator. Refer to MIR-11, "Door Mirror Assembly".

2. CHECK DOOR MIRROR MOTOR-II

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

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



Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace door mirror actuator. Refer to MIR-11, "Door Mirror Assembly".

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SEAT MEMORY INDICATOR LAMP

< COMPONENT DIAGNOSIS >

SEAT MEMORY INDICATOR LAMP

Description INFOID:000000001735547

 Memory switch is equipped on the seat memory switch installed to 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

INFOID:0000000001735548

1. CHECK FUNCTION

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

Test item		Description	
	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-102, "Diagnosis Procedure"</u>

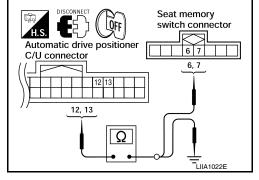
Diagnosis Procedure

INFOID:0000000001735549

1. CHECK SEAT MEMORY INDICATOR CIRCUIT

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

Automatic drive positioner control unit connector	Terminal	Seat memory switch connector	Terminal	Continuity
M33	12	D5	6	Yes
IVISS	13	D5	7	165



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

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

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

2. CHECK MEMORY INDICATOR POWER SUPPLY

SEAT MEMORY INDICATOR LAMP

< COMPONENT DIAGNOSIS >

Check voltage between seat memory switch harness connector and ground.

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

Seat memory switch connector | Seat memory switch connector |

Is the inspection result normal?

YES >> GO TO 3

NO >> Check the following.

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

3. CHECK MEMORY INDICATOR

Refer to ADP-103, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

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.

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

DISCONNECT OFF

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch.

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< ECU DIAGNOSIS >

ECU DIAGNOSIS

DRIVER SEAT CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

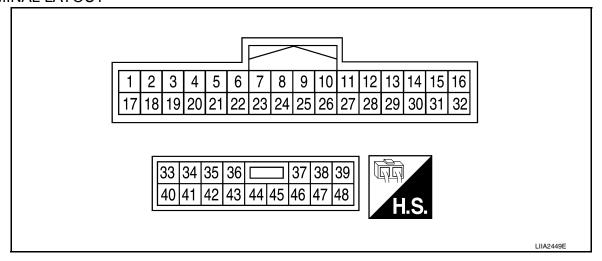
CONSULT-III MONITOR ITEM

Monitor Item	Conc	lition	Value/Status
SET SW	Set switch	Push	ON
SET SW	Set Switch	Release	OFF
MEMORY CWA	Maman a quitab 4	Push	ON
MEMORY SW1	Memory switch 1	Release	OFF
MEMORY CWO	Maman a quitab 2	Push	ON
MEMORY SW2	Memory switch 2	Release	OFF
01 105 014/ 50	Olishina a sitah (faran)	Operate	ON
SLIDE SW-FR	Sliding switch (front)	Release	OFF
OLIDE OW DD	Oli di anno litale (anno)	Operate	ON
SLIDE SW-RR	Sliding switch (rear)	Release	OFF
	5	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
		Operate	ON
LIFT RR SW-DN	Lifting switch rear (down)	Release	OFF
		Up	ON
MIR CON SW-UP	Mirror switch	Other than above	OFF
		Down	ON
MIR CON SW-DN	Mirror switch	Other than above	OFF
		Right	ON
MIR CON SW-RH	Mirror switch	Other than above	OFF
		Left	ON
MIR CON SW-LH	Mirror switch	Other than above	OFF
		Right	ON
MIR CHNG SW-R	Changeover switch	Other than above	OFF
		Left	ON
MIR CHNG SW-L	Changeover switch	Other than above	OFF
		Forward	ON
PEDAL SW-FR	Pedal adjusting switch	Other than above	OFF
		Backward	ON
PEDAL SW-RR	Pedal adjusting switch	Other than above	OFF

< ECU DIAGNOSIS >

Monitor Item	Conditi	on	Value/Status
DETENT SW	AT selector lever	P position	OFF
DETENT SW	At selector level	Other than above	ON
STARTER SW	Ignition position	Cranking	ON
STARTER SW	ignition position	Other than above	OFF
		Forward	The numeral value decreases
SLIDE PULSE	Seat sliding	Backward	The numeral value increases
		Other than above	No change to numeral value
		Forward	The numeral value decreases
RECLN PULSE	Seat reclining	Backward	The numeral value increases
		Other than above	No change to numeral value
	Seat lifter (front)	Up	The numeral value decreases
LIFT FR PULSE		Down	The numeral value increases
		Other than above	No change to numeral value
	Seat lifter (rear)	Up	The numeral value decreases
LIFT RR PULSE		Down	The numeral value increases
		Other than above	No change to numeral value
MIR/SEN RH U-D	D	Close to peak	3.4
WIIR/SEN KH U-D	Door mirror (passenger side)	Close to valley	0.6
MIR/SEN RH R-L	Door mirror (passanger side)	Close to left edge	3.4
WIINSEN KH K-L	Door mirror (passenger side)	Close to right edge	0.6
MIR/SEN LH U-D	Door mirror (driver eide)	Close to peak	3.4
MIR/SEN LH U-D	Door mirror (driver side)	Close to valley	0.6
MIR/SEN LH R-L	Door mirror (driver side)	Close to left edge	0.6
WIIIVOEN LA K-L	Door militor (univer side)	Close to right edge	3.4
PEDAL SEN	Padal position	Forward	0.5
LEDAL SEN	Pedal position	Backward	4.5

TERMINAL LAYOUT



PHYSICAL VALUES

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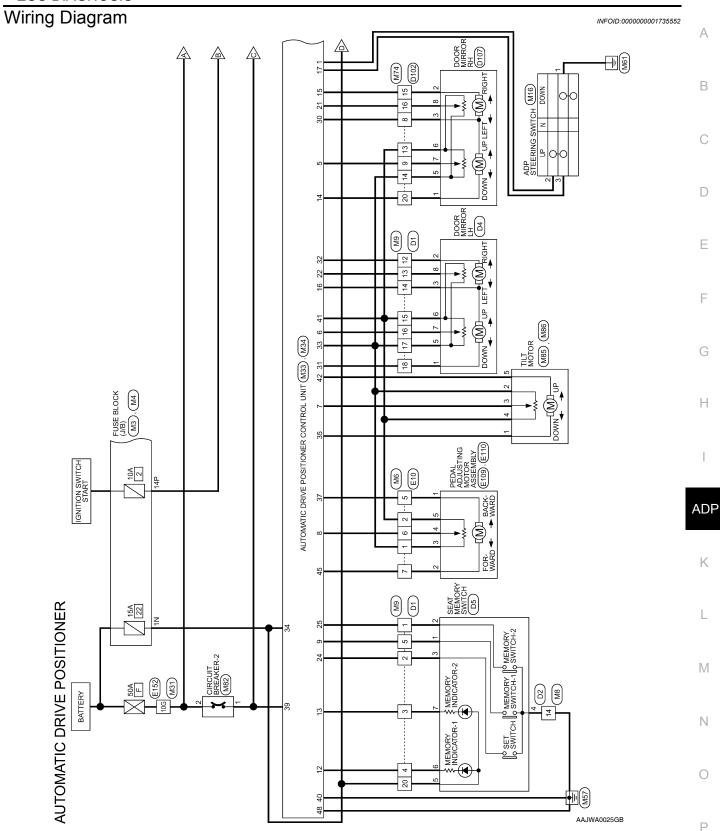
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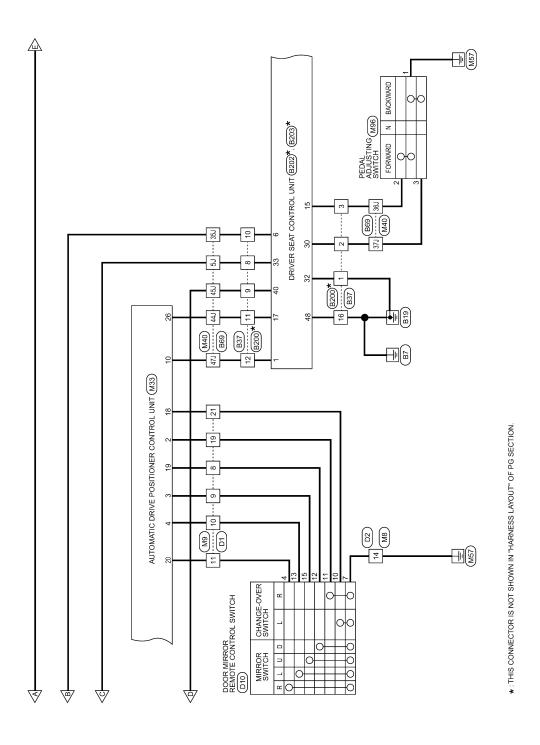
Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
1	L	UART LINE (RX)	Pedal adjusting switch ON (FOR-WARD or BACKWARD operation)	(V) 6 4 2 0 1 ms
3	L	CAN-H	_	_
6	0	Ignition switch (START)	Ignition switch (START position)	Battery voltage
9	L/R	Reclining motor sensor signal	ON (seat reclining motor operation)	(V) 6 4 2 2 0 SIIA0692J
			Other than above	0 or 5
10	w	Rear lifting motor sensor signal	ON (rear lifting motor operation)	(V) 6 4 2 0 ++50ms SIIA0693J
			Other than above	0 or 5
11	R/B	Sliding switch BACKWARD signal	ON (seat sliding switch BACK-WARD operation)	0
			Other than above	Battery voltage
12	O/B	Reclining switch BACKWARD signal	ON (seat reclining switch BACK-WARD operation)	0
		- 0	Other than above	Battery voltage
13	L/B	Front lifting switch DOWN signal	ON (front lifting switch DOWN operation)	0
			Other than above	Battery voltage
14	G/W	Rear lifting switch DOWN signal	ON (rear lifting switch DOWN operation)	0
			Other than above	Battery voltage
15	L/Y	Pedal adjusting switch BACK- WARD signal	ON (pedal adjusting switch BACK-WARD operation)	0
		-	Other than above	Battery voltage
16	W	Seat sensor power	Ignition switch ON	5
17	w	UART LINE (TX)	Pedal adjusting switch ON (FOR-WARD or BACKWARD operation)	(V) 6 4 2 0 2 ms

< ECU DIAGNOSIS >

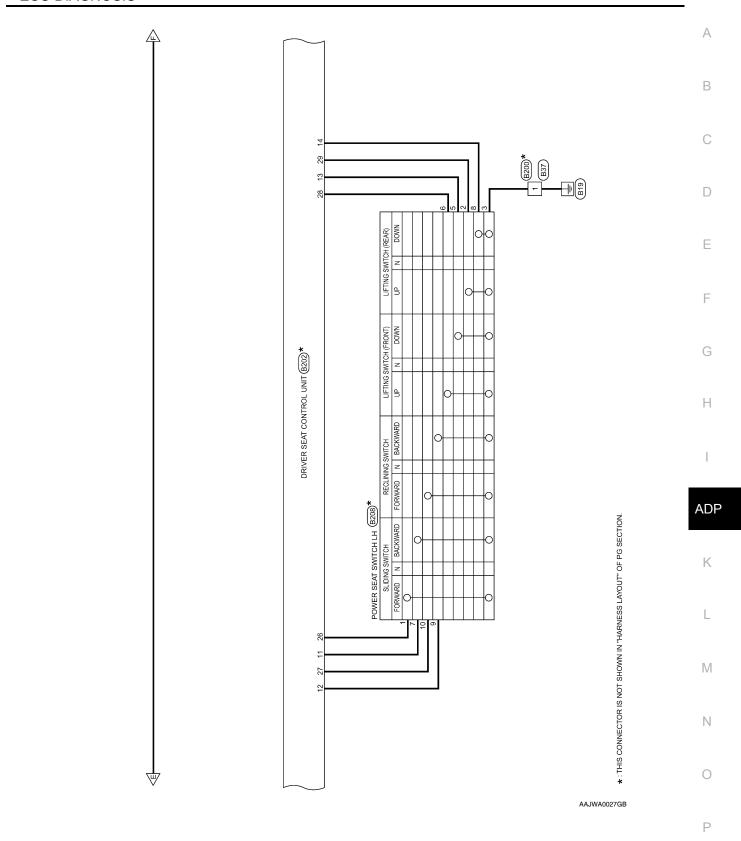
Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
19	Р	CAN-L	_	_
			A/T selector lever in P position	0
21	L/R	A/T shift selector (park position switch) signal	A/T selector lever in other than P position with ignition key in ignition cylinder	Battery voltage
24	Y/G	Seat sliding motor sensor signal	ON (seat sliding motor operation)	(V) 6 4 2 0 50 ms
			Other than above	0 or 5
25	LG	Front lifting motor sensor signal	ON (front lifting motor operation)	(V) 6 4 2 0 **50ms
			Other than above.	0 or 5
26	P/B	Seat sliding switch FORWARD	ON (seat sliding switch FOR-WARD operation)	0
		signal	Other than above	Battery voltage
27	G/B	Seat reclining switch FORWARD signal	ON (seat reclining switch FOR-WARD operation)	0
		Signal	Other than above	Battery voltage
28	Y/B	Front lifting switch UP signal	ON (front lifting switch UP operation)	0
			Other than above	Battery voltage
29	R/W	Rear lifting switch UP signal	ON (rear lifting switch UP operation)	0
			Other than above	Battery voltage
30	R	Pedal adjusting switch FOR- WARD signal	ON (pedal adjusting switch FOR-WARD operation)	0
		VVAIND SIGNAL	Other than above	Battery voltage
31	L/Y	Sensor ground	_	0
32	В	Ground	_	0
33	L/B	Battery power supply	_	Battery voltage
35	V/W	Sliding motor FORWARD output signal	Sliding switch FORWARD operation (Motor operated)	Battery voltage
		Signal	Other than above	0
36	Y/G	Reclining motor FORWARD out-	Reclining switch FORWARD operation (Motor operated)	Battery voltage
		put signal	Other than above	0
37	BR	Front lifting motor DOWN output	Front lifting switch DOWN operation (Motor operated)	Battery voltage
31 DK	signal	Other than above	0	

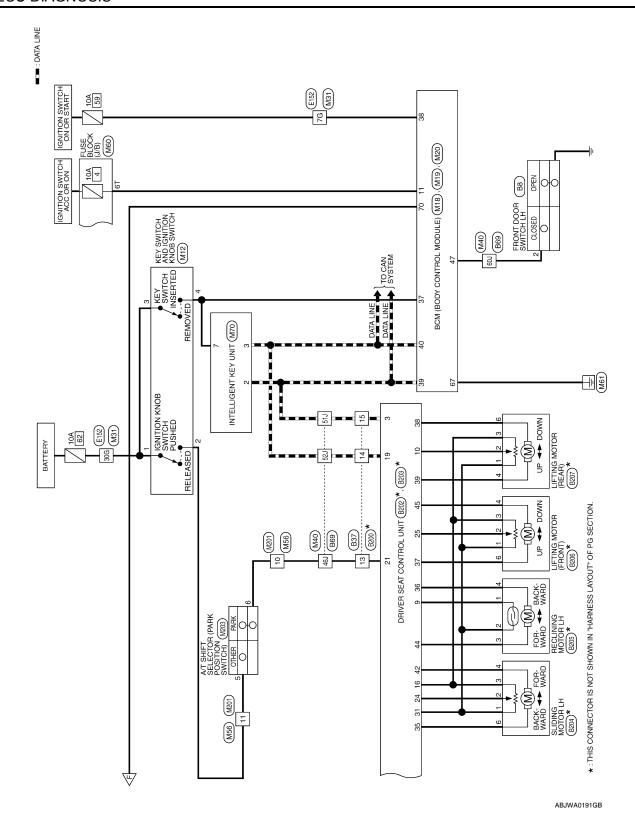
erminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
38	B/W	Rear lifting motor UP output signal	Rear end lifting switch UP operation (Motor operated)	Battery voltage
			Other than above	0
39	Y	Rear lifting motor DOWN output signal	Rear end lifting switch DOWN op- eration (Motor operated)	Battery voltage
			Other than above	0
40	Y/R	Battery power supply	_	Battery voltage
42	O/B	Sliding motor BACKWARD output signal	Sliding switch BACKWARD operation (Motor operated)	Battery voltage
			Other than above	0
44	Y/R	Reclining motor BACKWARD output signal	Reclining switch BACKWARD operation (Motor operated)	Battery voltage
			Other than above	0
45	GR	Front lifting motor UP output signal	Front lifting switch UP operation (Motor operated)	Battery voltage
			Other than above	0
48	B/W	Ground	_	0





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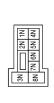
Connector No. M6
Connector Name WIRE TO WIRE

Connector Color WHITE

AUTOMATIC DRIVE POSITIONER CONNECTORS

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







of Signal Nam	ı	
Color of Wire	Y/R	
Terminal No.	1 N	

Signal Name	I	1	1	I	1
Color of Wire	M/L	M/G	9	BR/Y	Ж
Terminal No. Wire	-	2	2	9	7

Signal Name	1	ı	ı	ı	ı	
Color of Wire	M/L	M/G	ŋ	BR/Y	Ж	
Terminal No.	-	2	2	9	7	

	_	
Signal Name	AUTO_DRPO	
Color of Wire	0	
Terminal No.	14P	

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

	WIRE TO WIRE	ITE	14 10 9 8 7 6 5 4 3 2 1 1 1 1	Signal Name	I	1
MO	9	lor WH	11 10 9 8 24 23 22 21	Color of Wire	P/L	0/9
Oppositor No	Connector Name	Connector Color WHITE	H.S.	Terminal No.	-	2

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WIRI	MH		ω	21	3
	_		6	22	1
Jame	Solor		11 10	24 23 22 21	d
Connector Name	Connector Color	[ď	
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H.S.	
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Name		
Signal Name	I	

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Signal Name	_
Color of Wire	В
Terminal No.	14

Connector Name WIRE TO WIRE

Connector No.

Connector Color WHITE

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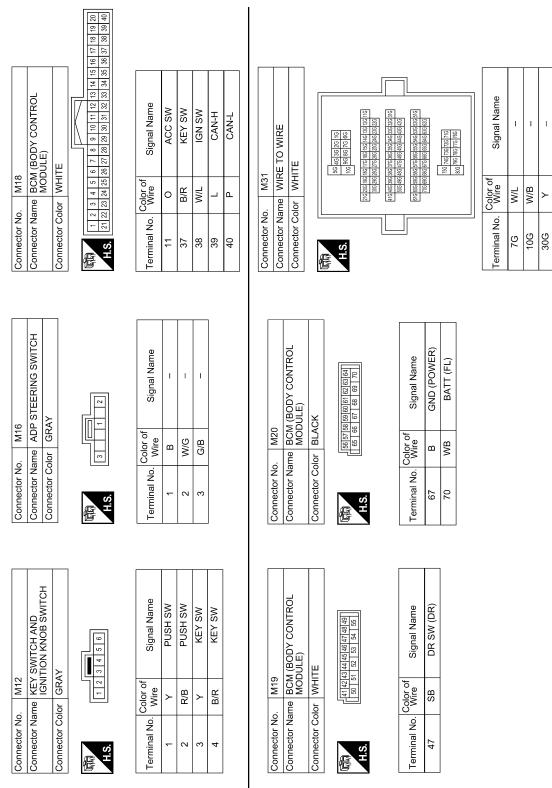
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DRIVER SEAT CONTROL UNIT



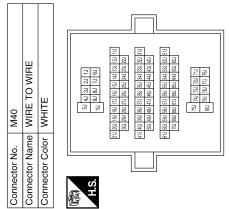
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Signal Name	HORIZONTAL_SENS	HORIZONTAL_SENS	WS_T38	MEMORY2_SW	RX	RH_MTR_(COM)	LH_MTR_(UP-DWN)	(NWG-YU)_ATM_HJ	=	_
Color of Wire	M	g	G/O	P/L	Μ	٨	В	BR	В	^
Terminal No.	21	22	24	25	56	30	31	32	32	42

Signal Name	VERTICAL_SENS_LH	TILT SENSOR	PEDAL_POTENTION	MEMORY1_SW	XT	MEMORY1_IND	MEMORY2_IND	RH_MTR_(UP-DN)	RH_MTR(LT)	LH_MTR_(COM)	DOWN WARD	MIR_SELECT_SW_LH	MIR_MANU_SW_DN	MIR_MANU_SW_LH
Color of Wire	ΓΛ	Y/BR	BR/Y	LG/B	٦	Д	Y/G	GR/R	N/R	0	G/B	BR/W	SB	GR
Terminal No.	9	2	8	6	10	12	13	14	15	16	41	18	19	20

8	AUTOMATIC DRIVE POSITIONER CONTROL UNIT	ITE		9 10 11 12 13 14 15 16 25 26 27 28 29 30 31 32	Signal Name	UP WARD	MIR_SELECT_SW_RH	MIR_MANU_SW_UP	MIR_MANU_SW_LH	VERTICAL_SENS_RH
. M33		lor WHITE		6 7 8 22 23 24	Color of Wire	M/G	LG	Y/B	W/A	B/B
Connector No.	Connector Name	Connector Color	H.S.	1 2 3 4 5 17 18 19 20 21	Terminal No.	-	2	ဇ	4	5

Signal Name	ı	I	ı	_	I	ı	I	I	I	I	I
Color of Wire	L/B	0	$\Gamma \mathcal{N}$	В	W	Y/R	L/R	Τ	٦	Ь	SB
Terminal No.	57	35J	36J	37J	44)	45J	46J	47J	51J	52J	F09



4	AUTOMATIC DRIVE POSITIONER CONTROL UNIT	WHITE	36	Signal Name	MEMORY(POT_FEED)	BAT_(FUSE)	UP WARD	FORWARD	BAT(PTC)	GND(SIG)	MEMORY(POT_RET)	DOWN WARD	PEDAL_POTENTION	GND(POWER)
M34		-	33 34 35 40 41 42	Color of Wire	M/L	Y/R	Œ	g	L/B	B/W	W/G	>	Ж	В
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	33	34	35	37	39	40	41	42	45	48

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Connector No. M70 Connector Name INTELLIGENT KEY UNIT	Connector No. M85
Connector No. M60 Connector Name FUSE BLOCK (J/B) Connector Color WHITE Terminal No. Color of Signal Name 6T O -	Connector No. M82 Connector Name CIRCUIT BREAKER-2 Connector Color GRAY A.S. Terminal No. Color of Signal Name 1 L/B - 2 W/B -
Connector No. M56 Connector Name WIRE TO WIRE Connector Color WHITE Terminal No. Color of	M74 M74 M74
Connector No. M56 Connector Name WIRE T Connector Color WHITE 1 2 3 4 4 4 10 L/R 11 R/B	Connector Nome Connector Name Connector Color Terminal No. WW 8 9 13 W 14 N 16 L 16 L 16 L 16 Connector No. WW 8 9 13 W 16 Color 16 Color 16 Color 16 Color 16 Color 17 Color 18 Color

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DRIVER SEAT CONTROL UNIT

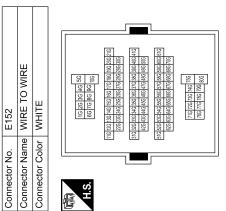
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	MOTOR	В
M201 WIRE TO WIRE WHITE WHITE Is 14 13 12 11 10 9 8 8 Is 7 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	E109 PEDAL ADJUSTING MOTOR GRAY r of Signal Name	С
M201 M201 M201 M201 M1TE		D
Connector No. Connector Color H.S. Terminal No. Will The Market of the Color of	Connector No. Connector Name Connector Color 1 1 2 P	Е
		F
D C	9 E	G
M96 SWITCH BROWN Is a control of the state	Signal Name	Н
	0. E10 ame WIRE T olor Wire W/L W/G BR/Y BR/Y R	I
Connector No. Connector Color Terminal No. 2 L 3 F Color Terminal No. 3 Terminal No. Analysis of the color Terminal No.	Connector No. E10 Connector Name WIRE TO WIRE Connector Color WHITE Signal I WIL WIL Signal I WIC Signal I WIC Signal I WIC Signal I Signal I WIC Signal I Sig	ADP
		K
OR Signal Name	Connector No. M203 Connector Name A/T SHIFT SELECTOR Connector Color WHITE 1 2 3	L
WHITE WHITE stop for the stop of the stop	M203 AT SHIFT SE WHITE Or of Signs I're Signs I'R DETEN	M
Col Cok	Connector No. M20 Connector Name A/T. Connector Color WHI LS. Color of 6 L/R 6 L/R	N
Connector No. Connector Cold Connector Cold H.S. Terminal No. 5	Connector No. Connector Nam Connector Colc Terminal No. 6 6	0

ADP-117 Revision: March 2010 2008 QX56

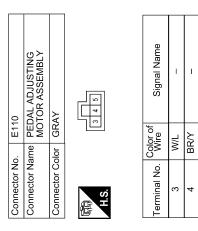
Signal Name	1	I	ı
Color of Wire	Γ/W	W/B	У
Terminal No.	9/	10G	30G

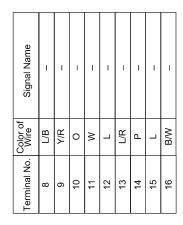


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	WIRE TO WIRE	ITE	4 3 2 1 1 10 9 8 1 1 1 1 1 1 1 1 1	Signal Name	1	1	1
). B37	ıme WIF	olor WHITE	7 6 5 4 16 15 14 13	Color of Wire	В	œ	Σ
Connector No.	Connector Name	Connector Color	师 H.S.	Terminal No.	-	2	3

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Signal Name	1	1	1	1	1	ı	I	I	-	_	_
Color of Wire	L/B	0	ΛΛ	œ	8	Y/R	E/	Г	٦	Ь	SB
Terminal No.	5J	321	36J	37.1	44)	45J	46J	47.1	51J	52J	F09

Connector No.	B69
Connector Name	
Connector Color	WHITE
是 H.S.	1.1 22 33 44 54 64 64 64 64 64 64 64 64 64 64 64 64 64
E	11.0 [12.1] [13.1] [14.1] [15.
5	(31.) (20.) (30.) (34.) (35.) (36.) (37.) (38.) (39.) (40.) (41.) (42.)
<u> </u>	51.1 S2J S2J S4J S5J S5J S5J S7J S6J S9J S0J S1J S7J S6J S2J S7J S7J S6J S2J S7J S7J S7J S7J S7J S7J S7J S7J S7J S7
	7.0 Tr3

Signal Name	ı	I	ı	I	I	ı	ı	ı	I	I	I	_	
Color of Wire	В	В	ζ	L/B	Y/R	0	>	٦	L/R	Ь	٦	B/W	
Terminal No.	-	2	8	8	6	10	11	12	13	14	15	16	

						_
				_	16	1
				9	15	
		Щ		2	14	
		⊭		4	13	
		_			8 9 10 11 12 13 14 15 16	
		۲	ш		11	
18	2	牌	ļ	က	유	
6	B 200	₹		2	6	
F	_	0	<u> </u>	Ŀ	8	I
	Confrector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	晋	JI C	į į

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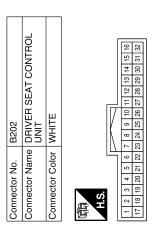
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Signal Name	XT	CAN-L	P_RANGE_SW	PULSE SLIDE	PULSE FR LIFTER	SLIDE FWD SW	RECLINE FWD SW	PR LIFTER UP SW	RR LIFTER UP SW	PEDAL_FORWARD	SENSOR GND	GND SIGNAL
Color of Wire	Μ	Ь	L/R	A/G	ГG	B/B	G/B	Y/B	B/W	В	$\Gamma \lambda$	В
Terminal No.	17	19	21	24	25	26	27	28	59	30	31	32

Signal Name	RX	CAN-H	ST_SW	PULSE RECLING	PULSE RR LIFTER	SLIDE BACKWD SW	RECLINE BACKWD SW	FRONT LIFTER DN SW	REAR LIFTER DN SW	PEDAL_BACK	POWER SUPPLY
Color of Wire	_	_	0	Z,	Ν	B/B	O/B	L/B	G/W	₹	8
Terminal No.	-	က	9	6	10	11	12	13	14	15	16



Connector No.	D. B204	24
Connector Name		SLIDING MOTOR LH
Connector Color	olor WF	WHITE
	9	4
H.S.	<u>г</u>	2 1
Terminal No.	Color of Wire	Signal Name
-	\sim	1
2	Y/G	ı
3	8	ı
4	O/B	ı
9	M/N	ı

Terminal No.	Color of Wire L/B	Signal Name BAT (PTC)
35	M/N	SLIDE FWD MTR
36	Y/G	RECLINE FWD MTR
37	BB	FR LIFTER DN MTR
38	B/W	RR LIFTER UP MTR
39	\	RR LIFTER DN MTR
40	Y/R	BAT (FUSE)
42	O/B	SLIDE BACKWD MTR
44	Y/R	RECLINE MTR BACKW
45	GR	FR LIFTER UP MTR
48	B/W	GND (POWER)

	nector Name DRIVER SEAT CONTROL UNIT			37 38 39	40 41 42 43 44 45 46 47 48
ღ	∃_	쁜		33 34 35 36	43
B203	DRIV	₹		35	4
ш	دں	>		æ	41
	me	ō		33	40
nector No.	nector Na	nector Color WHITE	1	\	

Conne Conne H.S.

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DRIVER SEAT CONTROL UNIT

								1					T	1															
BZU/ LIFTING MOTOR (REAR)			Signal Name	ı	_	_	1 1		Signal Name	1	1	1	1	I	1	1	ı	1	-	1	ı	I							
<u> </u> <u>g</u>		<u> </u>	Color of Wire	≿	W	M	× B/W	-	Color of Wire	X/B	M/N	GR	BR	ŋ	0	M/G	5	M/L	В	LG	Y/R	BR/W							
Connector Name	Connector Color	H.S.	Terminal No.	-	2	3	4 9		Terminal No.		10	#	12	13	14	15	16	17	18	19	20	21							
ENCA			ЭС										9 10 11			Je													
Connector Name HETING MOTOR (EBONT)	E E	4-	Signal Name	ı	1	ı	1 1			WIRE TO WIRE	ш		6			Signal Name	1	1	1	ı	1	1							
). B206	olor WHITE	3 0	Color of Wire	S	P	8	GR		o. D1		olor WHITE		2 3 4 5 13 14 15 16			Color of Wire	P/L	0/9	5/A	۵	LG/B	SB							
Connector No.	Connector Color	用.S.	Terminal No.	-	2	3	4 9		Connector No.	Connector Name	Connector Color		1 2	S. F.		Terminal No.	-	2	က	4	22	80							
																	_				_	_				1			
THE COLUMN	Connector Color WHITE		Signal Name	1	1	ı	ı			Connector Name POWER SEAT SWITCH LH			4 8 4	2		Signal Name	1	1	1	ı	1	1	1	1	1				
). B205	ame RECLIN	8 - 1	Color of Wire	R/	5	Y/R	A//G		o. B208	ame POWE	olor WHITE		2 6			Color of Wire	P/B	B/W	В	L/B	Y/B	B/B	G/W	O/B	G/B				
Connector No.	Connector Name	顾 H.S.	Terminal No.	-	2	3	4		Connector No.	Connector Na	Connector Color	ą.		H.S.		Terminal No.	-	2	ღ	5	9	7	8	6	10				
																									AWJ	IIA004	7GB		

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	10 11 12 3 4 5 6 7 8 9 H.S. H.S.	Terminal No. Wire Signal Name Terminal No. Color of Wire Signal Name	2 BR – 1 LG/B SET1	5 W/L – 3 G/O SET SW	7 L/Y – 5 Y/R –	8 G – B ND1	Connector No. D102 Connector No. D107	WIRE TO WIRE	Connector Color BHOWN Connector Color WHITE	H.S. To 11 12 13 14 15 16 17 18 19 20 H.S. Th.S.	Terminal No. Wire Signal Name Terminal No. Wire Signal Name	8 Y - 1 GR/R -	9 R/B – 2 V/R –	13 W/G - 3 Y -	14 W/L – 5 W/L –	- 6	16 L/W – 7 R/B –	20 GR/R – 8 L/W –
Color of Signal Name			В				. D10	me DOOR MIRROR REMOTE	_	1 2 3 4 6 7 8 6 7 8 9 10 11 12 13 14 15 16	Color of Signal Name	GR –	В	BR/W –	- rg	SB -		Y/B
H.S. H.S. Terminal No. 14	erminal No.	14					Connector No.	Connector Name	Connector Color	师 H.S.	Terminal No.	4	7	10	=	12	13	15

Fail Safe

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

FAIL-SAFE MODE

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

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

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

NOTE:

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

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

^{*:} 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	ADP-30		
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-31		
SEAT LIFTER FRONT [B2114]	0	1-39	Seat lifting motor front output	ADP-34		
SEAT LIFTER REAR [B2115]	0	1-39	Seat lifting motor rear output	ADP-34		
TILT MOTOR [B2116]	0	1-39	Tilt motor output	ADP-95		
ADJ PEDAL MOTOR [B2117]	0	1-39	Pedal adjusting motor output	ADP-34		
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	ADP-36		
ADJ PEDAL SENSOR [B2120]	0	1-39	Pedal adjusting sensor input	<u>ADP-34</u>		
DETENT SW [B2126]	0	1-39	Park position switch condition	ADP-40		
UART COMM [B2128]	0	1-39	UART communication	ADP-42		

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Revision: March 2010 ADP-123 2008 QX56

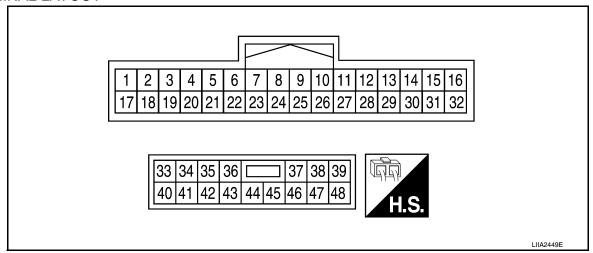
^{• 0:} Current malfunction is present

^{• 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.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal	Wire Col- or	Item	Condition	Voltage (V) (Approx.)				
1	W/G	ADD stooring quitab TILT LID	ADP steering switch in UP position	0				
ı	VV/G	ADP steering switch TILT UP	Other than above	5				
0	LG	Change over awitch DI Laignel	Changeover switch in RH position	0				
2	LG	Changeover switch RH signal	Other than above	5				
3	Y/B	Mirror quitab LID aignal	Mirror switch in UP position	0				
3	Y/B	Mirror switch UP signal	Other than above	5				
4	V/W	Mirror quitab I EET aignal	Mirror switch in LEFT position	0				
4	V/VV	Mirror switch LEFT signal	Other than above	5				
5	R/B	Mirror sensor (RH vertical) signal	Mirror motor RH is operated UP or DOWN	Changes between 3.4 (close to peak) 0.6 (close to valley)				
6	L/Y	Mirror sensor (LH vertical) signal	Mirror motor LH is operated UP or DOWN	Changes between 3.4 (close to peak) 0.6 (close to valley)				
-	WDD	T'II a a a a a a ' a a d	Tilt position TOP	2				
7	Y/BR	Tilt sensor input	Tilt position BOTTOM	4				
8	BR/Y	Dodal concer innut cional	0.5					
0	DR/ I	Pedal sensor input signal	Pedal position rear end	4.5				
9	LG/B	Coat mamon, quitab 4 aignal	Memory switch 1 ON	0				
9	LG/B	Seat memory switch 1 signal	Memory switch 1 OFF	5				
10	L	UART LINE (TX)	Pedal adjusting switch ON (FOR-WARD or BACKWARD operation)	(V) 6 4 2 0 1 ms				
12	Р	Seat memory switch indictor 1	Memory switch 1 ON	0				
12	P	signal	Memory switch 1 OFF	Battery voltage				

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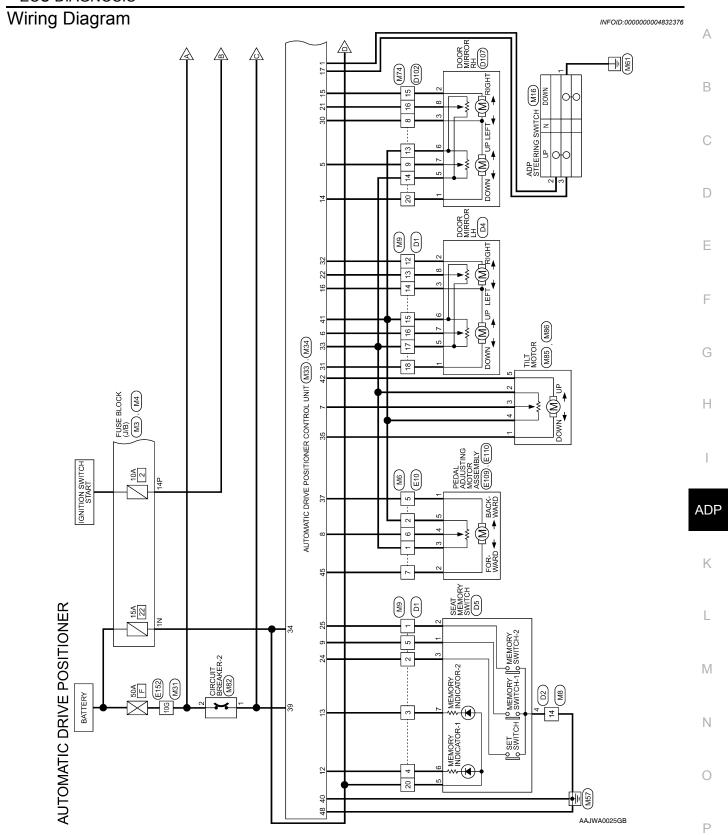
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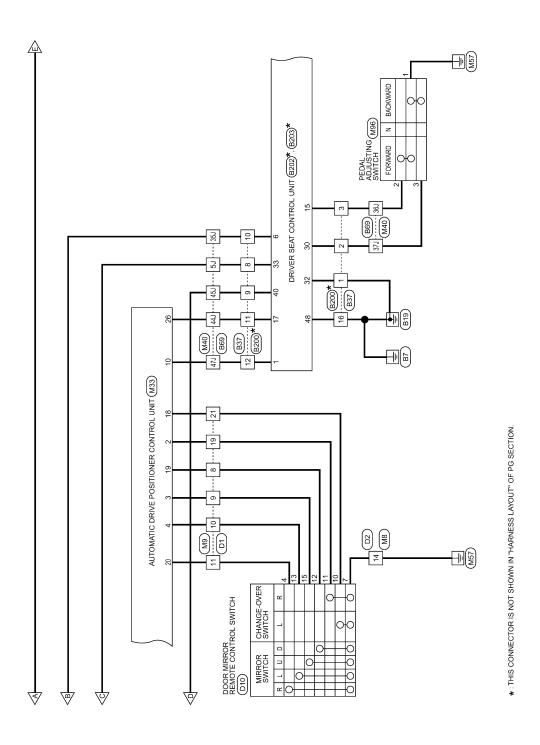
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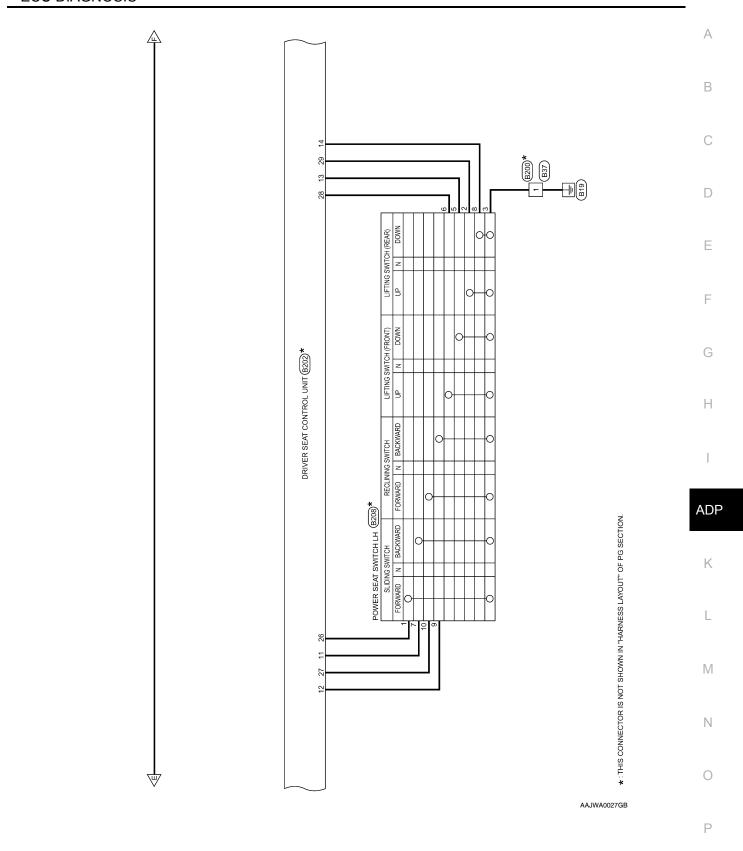
Terminal	Wire Col- or	Item	Condition	Voltage (V) (Approx.)
40	V/O	Seat memory switch indictor 2	Memory switch 2 ON	0
13	Y/G	signal	Memory switch 2 OFF	Battery voltage
4.4	OD/D	Minor control DILLID circuit	Mirror motor RH is operated UP	1.5 - Battery voltage
14	GR/R	Mirror motor RH UP signal	Other than above	0
4-5	1475	M DULLETT	Mirror motor RH is operated LEFT	1.5 - Battery voltage
15	V/R	Mirror motor RH LEFT signal	Other than above	0
		M: 11150MM : 1	Mirror motor LH is operated DOWN	1.5 - Battery voltage
40		Mirror motor LH DOWN signal	Other than above	0
16	0		Mirror motor LH is operated RIGHT	1.5 - Battery voltage
		Mirror motor LH RIGHT signal	Other than above	0
17	G/B	ADP steering switch TILT	ADP steering switch in DOWN position	0
		DOWN	Other than above	5
			Changeover switch in LH position	0
18	BR/W	Changeover switch LH signal	Other than above	5
			Mirror switch in DOWN position	0
19	SB	Mirror switch DOWN signal	Other than above	5
			Mirror switch in RIGHT position	0
20	GR	Mirror switch RIGHT signal	Other than above	5
21	L/W	Mirror sensor (RH horizontal) signal	Mirror motor RH is operated LEFT or RIGHT	Changes between 3.4 (close to lef edge) 0.6 (close to right edge)
22	G	Mirror sensor (LH horizontal) signal	Mirror motor LH is operated LEFT or RIGHT	Changes between 3.4 (close to lef edge) 0.6 (close to right edge)
24	G/O	Soot moment act quitch signal	Set switch 1 ON	0
24	G/O	Seat memory set switch signal	Set switch 1 OFF	5
25	D/I	Coat mamor couitab 2 signal	Memory switch 2 ON	0
25	P/L	Seat memory switch 2 signal	Memory switch 2 OFF	5
26	W	UART LINE (RX)	Pedal adjusting switch ON (FOR-WARD or BACKWARD operation)	(V) 6 4 2 0 2 ms
		Mirror motor RH DOWN signal	Mirror motor RH is operated DOWN	1.5 - Battery voltage
30	Υ		Other than above	0
		Mirror motor RH RIGHT signal	Mirror motor RH is operated RIGHT	1.5 - Battery voltage
			Other than above	0
31	R	Mirror motor LH UP signal	Mirror motor LH is operated UP	1.5 - Battery voltage
		_	Other than above	0
32	BR	Mirror motor LH LEFT signal	Mirror motor LH is operated LEFT	1.5 - Battery voltage
		· ·	Other than above	0
33	W/L	Sensor power supply	_	5
34	Y/R	Battery power supply	_	Battery voltage

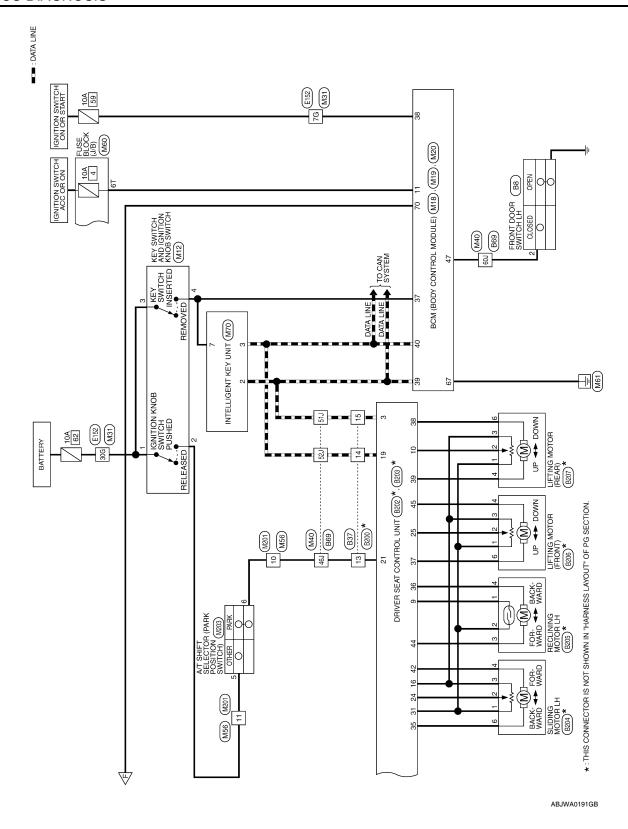
	200 Billionocio									
Terminal	Wire Col- or	Item	Condition	Voltage (V) (Approx.)						
35	R	Tilt motor LID gignel	ADP steering switch in UP position	Battery voltage						
33	K	Tilt motor UP signal	Other than above	0						
37	G	Pedal adjust motor FORWARD	Pedal adjust motor FORWARD op- eration (Motor operated)	Battery voltage						
		signal	Other than above	0						
39	L/B	Battery power supply	_	Battery voltage						
40	B/W	Ground	_	0						
41	W/G	Sensor ground	_	0						
42	V	Tilt motor DOWN signal	ADP steering switch in DOWN position	Battery voltage						
			Other than above	0						
45	R	Pedal adjust motor BACK- WARD signal	Pedal adjust motor BACKWARD operation (Motor operated)	Battery voltage						
		WALLE SIGNAL	Other than above	0						
48	В	Ground	_	0						





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< ECU DIAGNOSIS >

Connector No. M6
Connector Name WIRE TO WIRE

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

Connector Color WHITE

Connector Color WHITE

AUTOMATIC DRIVE POSITIONER CONNECTORS

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

	K (J/B)		
MI3	or Name FUSE BLOCK (J/B)	WHITE	3N 2N 1N 8N 7N 6N 5N 4N
r No.	or Name	or Color	



Signal Name	-	
Color of Wire	Y/R	
Terminal No.	N1	

Signal Name	1	1	I	I	ı
Color of Wire	M/L	W/G	9	BR/Y	æ
erminal No. Wire	-	2	2	9	7

cerminal No. Color of Wire 1 W/L 2 W/G 5 G 6 BR/Y 7 R	Signal Name	I	1	I	1	1
erminal No. 1 2 5 5 6 7 7	Color of Wire	M/L	M/G	ŋ	BR/Y	æ
	Terminal No.	-	2	2	9	7

Signal Name	ı	ı	ı	1	1	ı	ı	1	1	1	ı	1	_	ı
Color of Wire	SB	Y/B	W/N	GR	B/R	g	0	W/G	₹	M/L	Ж	ГG	Y/R	BR/W
Terminal No.	8	6	10	11	12	13	14	15	16	17	18	19	20	21

	WIRE TO WIRE	ITE	7 6 5 4 3 2 1	71 21 41 21 21 21 21 21 21 21 21 21 21 21 21 21	Signal Name	ı	ı	ı	1	Ι
<u>გ</u>		or WHITE	11 10 9 8	17 77 77	Color of Wire	P/L	0/9	Y/G	Ь	LG/B
Connector No.	Connector Name	Connector Color		H.S.	Terminal No.	1	2	ဧ	4	2

WIRE TO WIRE	빝	7	20 19 18 17 16	Signa	'		'	'	
	lor WHITE	11 10 9 8	23 22 21	Color of Wire	P/L	G/O	Y/G	Ь	LG/B
Connector Name	Connector Color	E 医	H.S.	Terminal No.	-	2	3	4	5

	WIRE TO WIRE	WHITE		Signal Name	I
- M8			7 6 5 14 15 14	Color of Wire	В
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	14

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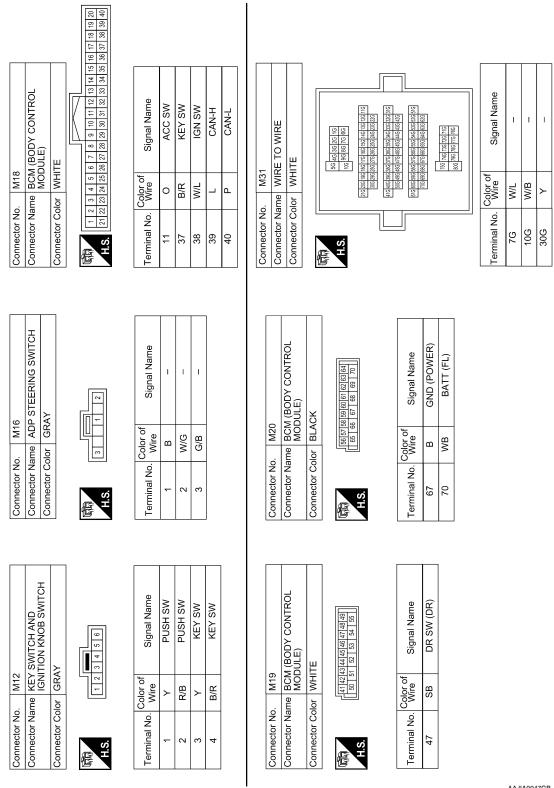
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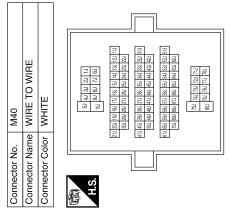
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Signal Name	HORIZONTAL_SENS	HORIZONTAL_SENS	WS_T3S	MEMORY2_SW	RX	RH_MTR_(COM)	LH_MTR_(UP-DWN)	LH_MTR_(UP-DWN)	-	_
Color of Wire	M	g	G/O	P/L	Μ	٨	В	BR	В	۸
Terminal No.	21	22	24	25	56	30	31	32	35	42

Signal Name	VERTICAL_SENS_LH	TILT SENSOR	PEDAL_POTENTION	MEMORY1_SW	XL	MEMORY1_IND	MEMORY2_IND	RH_MTR_(UP-DN)	RH_MTR(LT)	LH_MTR_(COM)	DOWN WARD	MIR_SELECT_SW_LH	MIR_MANU_SW_DN	MIR_MANU_SW_LH
Color of Wire	L/Y	Y/BR	BR/Y	LG/B	٦	Ь	Y/G	GR/R	N/R	0	G/B	BR/W	SB	GR
Terminal No.	9	7	8	6	10	12	13	14	15	16	17	18	19	20

3	AUTOMATIC DRIVE POSITIONER CONTROL UNIT	WHITE	7	9 10 11 12 13 14 15 16 25 26 27 28 29 30 31 32	Signal Name	UP WARD	MIR_SELECT_SW_RH	MIR_MANU_SW_UP	MIR_MANU_SW_LH	VERTICAL_SENS_RH
. M33				6 7 8 22 23 24	Color of Wire	M/G	ГG	Y/B	W/N	B/B
Connector No.	Connector Name	Connector Color	是 H.S.	1 2 3 4 5 17 18 19 20 21	Terminal No.	٠	2	3	4	5

Signal Name	1	_	ı	_	1	1	1	_	-	ı	ı
Color of Wire	L/B	0	\sim	н	Μ	Y/R	L/R	٦	7	Д	SB
Terminal No.	5.	35J	36J	37J	44)	45J	46J	47J	51J	52J	F09



	AUTOMATIC DRIVE POSITIONER CONTROL UNIT	WHITE	36 <u> </u>	Signal Name	MEMORY(POT_FEED)	BAT_(FUSE)	UP WARD	FORWARD	BAT(PTC)	GND(SIG)	MEMORY(POT_RET)	DOWN WARD	PEDAL_POTENTION	GND(POWER)
M34			33 34 35 40 41 42	Color of Wire	M/L	Y/R	Œ	g	L/B	B/W	W/G	>	۳	В
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	33	34	35	37	39	40	41	42	45	48

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Connector No. M70	Connector No. M85
Connector No. M60 Connector Name FUSE BLOCK (J/B) Connector Color WHITE Triminal No. Wire Signal Name 6T O -	Connector No. M82 Connector Name CIRCUIT BREAKER-2 Connector Color GRAY H.S. Terminal No. Wire Signal Name 1 L/B - 2 W/B - 2 W/B -
M56 WIRE TO WIRE WHITE WHITE	WIRE TO WIRE BROWN BROWN
Connector No. M56 Connector Name WIRE TO WIRE Connector Color WHITE 1 2 3	Connector No. M74

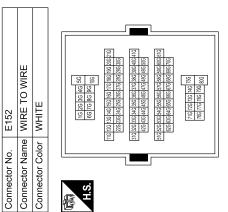
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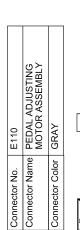
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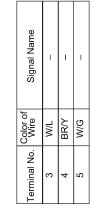
				А
		MOTOR		В
M201 WIRE TO WIRE WHITE 7 6 5 4	Signal Name	E109 PEDAL ADJUSTING MOTOR ASSEMBLY GRAY	Signal Name	С
	Color of Wire NA RAB	1	Color of Wire G	D
Connector No. Connector Color	Terminal No.	Connector No. Connector Color	2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Е
				F
	<u>e</u>		Φ	G
M96 PEDAL ADJUSTING SWITCH BROWN 5	Signal Name	Connector No. E10 Connector Name WIRE TO WIRE Connector Color WHITE	Signal Name	Н
	Color of Wire B B L/Y	Vo. E10	Color of Wire W/L Wire W//G W//G BR/Y R	I
Connector No. Connector Color Connector Color	Terminal No.	Connector No. E10 Connector Name WIRE T Connector Color WHITE	Terminal No. 2 2 5 6 6 7 7	ADF
				K
m	Signal Name	ELECTOR 12	Signal Name DETENT KEY SW DETENT KEY SW	L
M86 TILT MOTOR WHITE		M203 A/T SHIFT SE WHITE		M
nnector No. nnector Color nnector Color	Color of Wire 1 R R S V V	Connector No. M203 Connector Name A/T SHIFT SELECTOR Connector Color WHITE	Color of Color of Wire 5 R/B 6 L/R	N
			ABJIA0474GB	0

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Terminal No.	Color of Wire	Signal Name
92	Γ/M	ı
10G	M/B	I
908	Υ	ı







Signal Name	ı	ı	ı	ı	-	ı	ı	1	1
Color of Wire	L/B	Y/R	0	×	٦	L/R	Д	_	B/W
Terminal No.	8	6	10	7	12	13	14	15	16

						_	_
	WIRE TO WIRE	ITE	4 3 2 1 1 10 9 8 1 1 10 9 8 1 1 1 1 1 1 1 1 1	Signal Name	1	1	1
). B37	ıme WIF	lor WH	7 6 5 4 16 15 14 13	Color of Wire	В	ď	₹
Connector No.	Connector Name	Connector Color WHITE	H.S.	Terminal No.	-	2	3

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Signal Name	ı	ı	I	I	1	1	I	I	1	1	1
Color of Wire	L/B	0	₹	Œ	8	Y/R	H/	٦		۵	SB
Terminal No.	5J	35J	36J	14°	44)	45J	46J	47ر	51J	52J	F09

Connector Name WIRE TO WIRE Connector Color WHITE U 21 31 41 31 U 31 31 41 U 31 41	Connector No.	o.	B69
	Connector Na	ame	WIRE TO WIRE
v;	Connector Co	-je	WHITE
100 100	是 H.S.		23 84
100 100		2	
109 (200) 100 (2		317	220, 330, 340, 350, 360, 371, 380, 390, 400, 413, 421, 421, 421, 451, 451, 451, 451, 451, 451, 451, 45
		917	22J 53J 54J 55J 56J 57J 56J 69J 60J 61J
]			

Signal Name	1	ı	ı	I	-	1	ı	ı	I	1	I	I
Color of Wire	В	ч	5	L/B	Y/R	0	>	٦	L/R	Ь	٦	B/W
Terminal No.	-	2	3	8	6	10	11	12	13	14	15	16

B200	NIRE TO WIRE	or WHITE	1 2 3 - 4 5 6 7	8 9 10 11 12 13 14 15 16
Connector No. B2	Connector Name WIRE TO WIRE	Connector Color WHITE		H.S.

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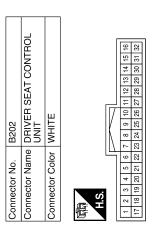
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Signal Name	XL	CAN-L	P_RANGE_SW	BULSE SLIDE	PULSE FR LIFTER	SLIDE FWD SW	RECLINE FWD SW	PR LIFTER UP SW	RR LIFTER UP SW	PEDAL_FORWARD	SENSOR GND	GND SIGNAL
Color of Wire	Μ	Ь	L/R	A/G	ГG	B/B	G/B	Y/B	B/W	В	$\Gamma \lambda$	В
Terminal No.	17	19	21	24	25	56	22	28	53	90	31	32

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R/B
O/B
L/B
G/W
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Connector No.		B204
Connector Name		SLIDING MOTOR LH
Connector Color		WHITE
品 H.S.		8 6 2 1 4
Terminal No.	Color of Wire	of Signal Name
-	Λ	I
2	5//	ı
3	×	ı
4	g/O	ı
9	MΛ	ı

Terminal No.	Color of Wire	Signal Name
33	L/B	BAT (PTC)
35	M/N	SLIDE FWD MTR
36	Y/G	RECLINE FWD MTR
37	BB	FR LIFTER DN MTR
38	B/W	RR LIFTER UP MTR
68	Υ	RR LIFTER DN MTR
40	Y/R	BAT (FUSE)
42	O/B	SLIDE BACKWD MTR
44	Y/R	RECLINE MTR BACKW
45	GR	FR LIFTER UP MTR
48	B/W	GND (POWER)

B203	Connector Name DRIVER SEAT CONTROL UNIT	WHITE	33 34 35 36 36 37 38 39	40 41 42 43 44 45 46 47 48
Connector No.	Connector Name	Connector Color WHITE	88	40

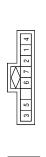
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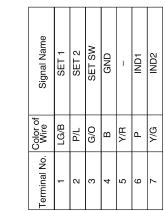
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	Connector Color WHITE Connector Color GRAY	(京) (本) (本) (本) (本) (本) (本) (本) (本) (本) (本	Signal Name Terminal No. Color of Wire Signal Name Terminal No. Wire Signal Name	_ 1 LV	_ 2 LG	m	4	- BR - BW 9	Connector No. D1 Signal Name	WIRE TO WIRE	M//	11	1 2 3 4 5 6 1 1 7 8 9 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	13	Color of						_ 8 SB					
A	Connector Color WHITE	4 2	Color of Wire	5	<u> </u>	Y/R	Y/G			ame POWE	olor WHITE		9 2 6		Polor of	P/B	B/W	В	L/B	Y/B	B/B	G/W	O/B	G/B		

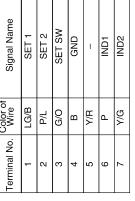
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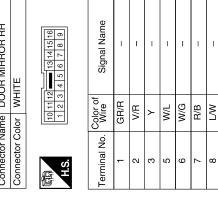




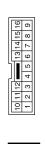


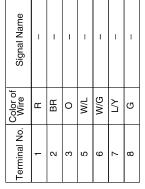


D107	Connector Name DOOR MIRROR RH	or WHITE	
Connector No.	Connector Nam	Connector Color	



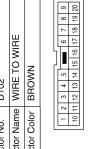
D4	Connector Name DOOR MIRROR LH	or WHITE	
Connector No.	onnector Nan	Connector Color WHITE	



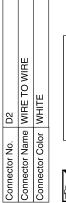


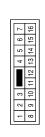
Signal Name	1	1	I	1	I	1	1	
Color of Wire	ш	BR	0	M/L	M/G	ζ	5	
erminal No.	-	2	3	2	9	7	8	

D102	WIRE TO WIRE	BROWN
Connector No.	Connector Name WIRE TO WIRE	Connector Color BROWN



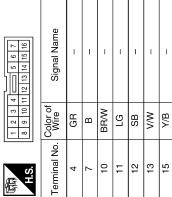
Signal Name	I	1	-	I	I	1	I
Color of Wire	Y	R/B	M/G	M/L	N/R	M	GR/R
Terminal No.	8	6	13	14	15	16	20





Signal Name	-	
Color of Wire	В	
Terminal No.	14	

D10	Connector Name DOOR MIRROR REMOTE CONTROL SWITCH	WHITE	2 3 4 5 6 7
Connector No.	Connector Name	Connector Color WHITE	



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BCM (BODY CONTROL MODULE)

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BCM (BODY CONTROL MODULE)

Α Reference Value INFOID:0000000004832378

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	
AID COND CW	A/C switch OFF	OFF	С
AIR COND SW	A/C switch ON	ON	
ALIT LIGHT OVO	Outside of the room is dark	OFF	D
AUT LIGHT SYS	Outside of the room is bright	ON	
ALITO LIQUIT OW	Lighting switch OFF	OFF	
AUTO LIGHT SW	Lighting switch AUTO	ON	Е
	Back door closed	OFF	
BACK DOOR SW	Back door opened	ON	
001 1 001 011	Door lock/unlock switch does not operate	OFF	— F
CDL LOCK SW	Press door lock/unlock switch to the LOCK side	ON	
	Door lock/unlock switch does not operate	OFF	G
CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	ON	
D00D0W40	Front door RH closed	OFF	
DOOR SW-AS	Front door RH opened	ON	— Н
D00D0WDD	Front door LH closed	OFF	
DOOR SW-DR	Front door LH opened	ON	
	Rear door LH closed	OFF	
DOOR SW-RL	Rear door LH opened	ON	
	Rear door RH closed	OFF	ADI
DOOR SW-RR	Rear door RH opened	ON	
ENGINE DUN	Engine stopped	OFF	K
ENGINE RUN	Engine running	ON	N
ED EOO 0/W	Front fog lamp switch OFF	OFF	
FR FOG SW	Front fog lamp switch ON	ON	L
ED WACHED OW	Front washer switch OFF	OFF	
FR WASHER SW	Front washer switch ON	ON	D 4
ED WIDED I OW	Front wiper switch OFF	OFF	M
FR WIPER LOW	Front wiper switch LO	ON	
ED WIDED III	Front wiper switch OFF	OFF	N
FR WIPER HI	Front wiper switch HI	ON	
ED WIDED INT	Front wiper switch OFF	OFF	
FR WIPER INT	Front wiper switch INT	ON	0
ED WIDED STOD	Any position other than front wiper stop position	OFF	
FR WIPER STOP	Front wiper stop position	ON	P
114.74.DD 014/	When hazard switch is not pressed	OFF	
HAZARD SW	When hazard switch is pressed	ON	
LICHT OW 40T	Lighting switch OFF	OFF	
LIGHT SW 1ST	Lighting switch 1st	ON	

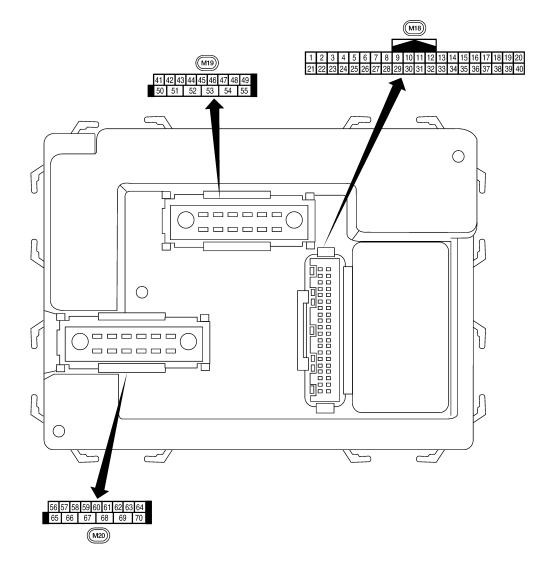
ADP-141 Revision: March 2010 2008 QX56

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BCM (BODY CONTROL MODULE)

Monitor Item	Condition	Value/Status
HEADLAMP SW1	Headlamp switch OFF	OFF
HEADLAINF SWI	Headlamp switch 1st	ON
HEADLAMP SW2	Headlamp switch OFF	OFF
HEADLAINF SWZ	Headlamp switch 1st	ON
LI DEAM CW	High beam switch OFF	OFF
HI BEAM SW	High beam switch HI	ON
IONI ONI CIM	Ignition switch OFF or ACC	OFF
IGN ON SW	Ignition switch ON	ON
IONI OVA OANI	Ignition switch OFF or ACC	OFF
IGN SW CAN	Ignition switch ON	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
	LOCK button of Intelligent Key is not pressed	OFF
I-KEY LOCK	LOCK button of Intelligent Key is pressed	ON
	UNLOCK button of Intelligent Key is not pressed	OFF
I-KEY UNLOCK	UNLOCK button of Intelligent Key is pressed	ON
	Mechanical key is removed from key cylinder	OFF
KEY ON SW	Mechanical key is inserted to key cylinder	ON
OIL PRESS SW	Ignition switch OFF or ACC Engine running	OFF
0.2200 0	Ignition switch ON	ON
D. 00110 011	Other than lighting switch PASS	OFF
PASSING SW	Lighting switch PASS	ON
	Rear window defogger switch OFF	OFF
REAR DEF SW	Rear window defogger switch ON	ON
	Rear washer switch OFF	OFF
RR WASHER SW	Rear washer switch ON	ON
	Rear wiper switch OFF	OFF
RR WIPER INT	Rear wiper switch INT	ON
	Rear wiper switch OFF	OFF
RR WIPER ON	Rear wiper switch ON	ON
	Rear wiper stop position	OFF
RR WIPER STOP	Other than rear wiper stop position	ON
	Lighting switch OFF	OFF
TAIL LAMP SW	Lighting switch 1ST	ON
	When back door opener switch is not pressed	OFF
TRNK OPNR SW	When back door opener switch is pressed	ON
	Turn signal switch OFF	OFF
TURN SIGNAL L	Turn signal switch LH	ON
	Turn signal switch OFF	OFF
TURN SIGNAL R	Turn signal switch RH	ON

Terminal Layout



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Physical Values

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

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

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			Signal		Measuring condition	
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
20	L/D	Front blower monitor	lnnut	ON	Front blower motor OFF	Battery voltage
28	L/R	Front blower monitor	Input	ON	Front blower motor ON	0V
20	\A//D	Hamand av itala		OFF	ON	0V
29	W/B	Hazard switch	Input	OFF	OFF	5V
20	V/DD	Class batch switch	laaut	OFF	Glass hatch switch released	Battery voltage
30	Y/BR	Glass hatch switch	Input	OFF	Glass hatch switch pressed	0
32	R/G	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5291E
33	R/Y	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 +-5ms SKIA5292E
34	L	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5291E
35	O/B	Combination switch				
36	R/W	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ****5ms
27	D/D	Key switch and igni-	Input	OFF	Intelligent Key inserted	Battery voltage
37	B/R	tion knob switch	Input	OFF	Intelligent Key inserted	0V
38	W/L	Ignition switch (ON)	Input	ON	_	Battery voltage
39	L	CAN-H	_	_	_	_
40	Р	CAN-L	_	_	_	_
42	GR	Glass hatch ajar switch	Input	ON	Glass hatch open Glass hatch closed	0 Battery
43	R/B	Back door latch (door ajar switch)	Input	OFF	ON (open) OFF (closed)	0V Battery voltage

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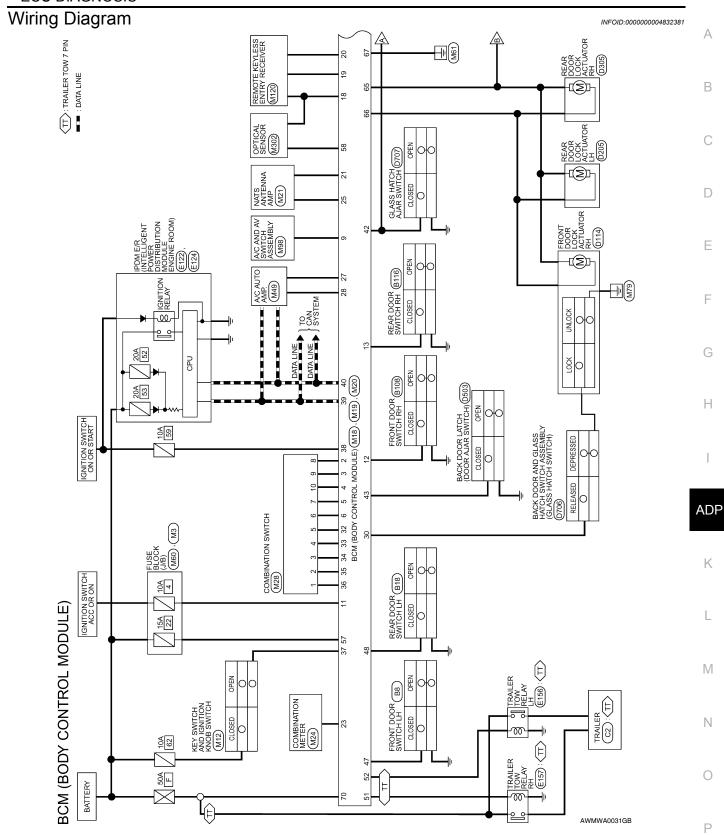
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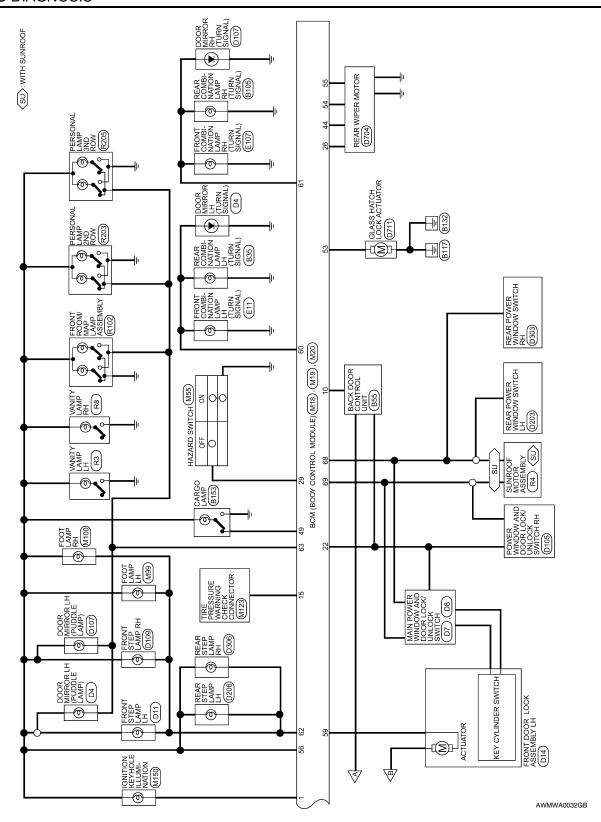
	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
					Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	Battery voltage
44	0	Rear wiper auto stop switch 1	Input	ON	Forward sweep (counterclockwise direction)	Fluctuating
					B Position (full counterclockwise stop position)	0V
					Reverse sweep (clockwise direction)	Fluctuating
47	SB	Front door switch LH	Input	OFF	ON (open)	0V
71		. Tork door Switch Ell			OFF (closed)	Battery voltage
48	R/Y	Rear door switch LH	Input	OFF	ON (open)	0V
+0	it/ I	Near door Switch Lm	iriput	OFF	OFF (closed)	Battery voltage
49	R	Cargo Jamp	Outout	OFF	Any door open (ON)	0V
49	К	Cargo lamp	Output	OFF	All doors closed (OFF)	Battery voltage
51 G/Y		Trailer turn signal (right)	Output	ON	Turn right ON	(V) 15 10 5 0 ->
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON	(V) 15 10 5 0 500 ms SKIA3009J
53	L/W	Glass hatch lock actu-	Output	OFF	Glass hatch switch released	0
55	∟ / V V	ator			Glass hatch switch pressed	Battery
					Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	0V
54	Υ	Rear wiper output cir- cuit 2	Input	ON	Forward sweep (counterclockwise direction)	0V
					B Position (full counterclock- wise stop position)	Battery voltage
					Reverse sweep (clockwise direction)	Battery voltage
55	SB	Rear wiper output cir-	Output	ON	OFF	0
		cuit 1	•		ON	Battery voltage
56	R/G	Battery saver output	Output	OFF	30 minutes after ignition switch is turned OFF	0V
				ON	_	Battery voltage
57	Y/R	Battery power supply	Input	OFF		Battery voltage

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	10/:		Signal		Measuring con-	dition	Reference value or waveform		
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation	or condition	(Approx.)		
58	W/R	Optical sensor	Input	ON	When optical s	sensor is illumi-	3.1V or more		
36	VV/IX	Optical serisor	Input	ON	When optical sensor is not illuminated		0.6V or less		
		Front door lock as-			OFF (neutral)		0V		
59	G	sembly LH actuator (unlock)	Output	OFF	ON (unlock)		Battery voltage		
60	G/B	Turn signal (left)	Output	ON	Turn left ON		(V) 15 10 50 500 ms SKIA3009J		
61	G/Y	Turn signal (right)	Output	ON	Turn right ON				(V) 15 10 5 0 500 ms SKIA3009J
62	R/W	Step lamp LH and RH	Output	OFF	ON (any door open)		0V		
02	1000	Otep lamp Err and Riv	Output	Ori	OFF (all doors closed)		Battery voltage		
63	L	Interior room/map	Output	OFF	Any door	ON (open)	0V		
00		lamp	Output	011	switch	OFF (closed)	Battery voltage		
65	V	All door lock actuators	Output	OFF	OFF (neutral)		0V		
		(lock)			ON (lock)		Battery voltage		
66	G/Y	Front door lock actua- tor RH, rear door lock actuators LH/RH and back door lock actua- tor (unlock)	Output	OFF	OFF (neutral) ON (unlock)		0V Battery voltage		
67	В	Ground	Input	ON	-	_	0V		
					Ignition switch	ON	Battery voltage		
					Within 45 seco		Battery voltage		
68	W/L	Power window power supply (RAP)	Output	_	More than 45 s nition switch O	seconds after ig- OFF	0V		
					When front do open or power operates		0V		
69	W/R	Power window power supply	Output	_	_		_		Battery voltage
70	W/B	Battery power supply	Input	OFF	-	_	Battery voltage		





Connector Name BCM (BODY CONTROL MODULE)

Connector No. M19

Signal Name

Color of Wire

Terminal No.

16

Connector Color WHITE

KEYLESS PWR TUNER

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SIG GND

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KEYLESS TUNER SIGNAL IMMOBILIZER SCL ANTI-PINCH SERIAL LINK (RX,TX)

W/V

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BCM (BODY CONTROL MODULE) CONNECTORS

Connector No.	M18
ector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color WHITE	WHITE

	20	40	
	6	33	l
	18	38	l
	17	37	l
	16	36	l
	15		l
	14	33 34 35	l
	13 14	33	l
117	12	32	l
IV	=	31	l
IN.	9		l
II\	6	29 30	l
	∞		l
	7	27 28	l
	9	29	l
	2	22	l
	4	54	l
	က	23	
H.S.	2	22	l
修了	-	21	l

Signal Name	RING_KEY_ILL	INPUT-5	INPUT-4	INPUT-3	INPUT-2	INPUT-1	I	I	RR DEF SW	IVCS INPUT	ACC SW	DOOR SW (AS)	DOOR SW (RR)	I	TPMS
Color of Wire	BR/W	SB	G/Y	Υ	G/B	^	-	_	GR/R	g	0	R/L	GR	_	L/W
Terminal No.	-	2	3	4	5	9	7	8	6	10	11	12	13	14	15

27

BACK DOOR SW/FUEL LID OPEN SW TRNK/GLASS HATCH TRAILER_RH_FLASH TRAILER_LH_FLASH RR_WIPER_OUTP_ 1 (MTR) RR_WIPER_OUTP_ 2 (MTR) LUGGAGE_LAMP DOOR SW (DR) DOOR SW (RL) Signal Name GLASS_ACTR AUTO_STOP Color of Wire G/B $|\leq$ GR R/B SB \mathbb{R}^{A} α Z√ SB 0 Terminal No. 45 49 21 43 44 46 47 48 20 52 53 4 42 54 55

RR_WIPER_SW_ AUTOSTOP_2 SECURITY_IND_ OUTPUT GLASS_OPENER IMMOBILIZER SCI(RX,TX) BLR_FAN_SW HAZARD_SW OUTPUT-5 OUTPUT-3 OUTPUT-2 OUTPUT-4 OUTPUT-1 CAN-H **KEY SW** AC_SW IGN SW CAN-L Y/BR W/R L/R W/B R/G ₩ 0/B 9/0 RY B/R W/L BR ۲Ľ ۵ _

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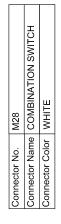
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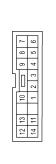
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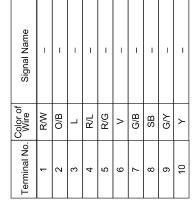
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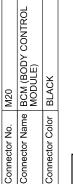
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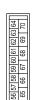
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Signal Name	BATTERY SAVER OUTPUT	BAT (FUSE)	AUTO_L_INPUT	DOOR UNLOCK OUTPUT (DR)	FLASHER OUTPUT (LEFT)	FLASHER OUTPUT (RIGHT)	STEP LAMP OUTPUT	ROOM LAMP OUTPUT	_	DOOR LOCK OUTPUT (ALL)	DOOR UNLOCK OUTPUT (OTHER)	GND (POWER)	POWER WINDOW POWER SUPPLY (RAP)	POWER WINDOW POWER SUPPLY (BAT)	BATT (FL)	
Color of Wire	R/G	Y/R	W/R	Ŋ	G/B	G/Y	R/W	L	ı	٨	G/Y	В	M/L	W/R	W/B	
Terminal No.	56	25	58	59	09	61	62	63	64	65	99	29	89	69	70	

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Fail Safe

Fail-safe index

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

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< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.
U1010: CONTROL UNIT (CAN)	Inhibit engine cranking	When the BCM re-start communicating with the other modules.

DTC Inspection Priority Chart

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

Priority	DTC	
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)	
	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM	
2	 B2193: CHAIN OF BCM-ECM B2013: STRG COMM 1 B2552: INTELLIGENT KEY B2590: NATS MALFUNCTION 	
3	C1729: VHCL SPEED SIG ERR C1735: IGNITION SIGNAL	
	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL	
	 C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1712: [CHECKSUM ERR] FL 	
4	 C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RL C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR 	
	 C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] RR 	
	 C1722. [CODE ERR] RR C1723: [CODE ERR] RL C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR 	
	C1727: [BATT VOLT LOW] RL	

DTC Index

NOTE:

Details of time display

CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.

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

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< ECU DIAGNOSIS >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	BCS-30
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-31
B2190: NATS ANTENNA AMP	_	_	_	<u>SEC-29</u>
B2191: DIFFERENCE OF KEY	_	_	_	SEC-32
B2192: ID DISCORD BCM-ECM	_	_	_	SEC-33
B2193: CHAIN OF BCM-ECM	_	_	_	<u>SEC-35</u>
B2552: INTELLIGENT KEY	_	_	_	<u>SEC-37</u>
B2590: NATS MALFUNCTION	_	_	_	SEC-38
C1704: LOW PRESSURE FL	_	_	_	<u>WT-31</u>
C1705: LOW PRESSURE FR	_	_	_	<u>WT-31</u>
C1706: LOW PRESSURE RR	_	_	_	<u>WT-31</u>
C1707: LOW PRESSURE RL	_	_	_	<u>WT-31</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>
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> </u>	<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	_	_	_	WT-20

ADP SYSTEM SYMPTOMS

SYMPTOM DIAGNOSIS

ADP SYSTEM SYMPTOMS

Symptom Table

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NOTE:

Always perform the "Basic Inspection" before performing diagnosis in the following table. Refer to <u>ADP-5.</u> "Work Flow".

SYMPTOM 1

Sympton	า	Diagnosis procedure	Reference page
	Sliding operation	Check sliding switch.	<u>ADP-46</u>
	Reclining operation	Check reclining switch.	ADP-48
	Lifting operation (front)	Check lifting switch (front).	ADP-50
	Lifting operation (rear)	Check lifting switch (rear).	ADP-52
Manual functions (for enseitie part) do	Pedal operation	Check pedal adjusting switch.	ADP-56
Manual functions (for specific part) do not operate	Pedal operation	2. Check pedal adjusting sensor.	ADP-81
	Steering wheel tilt operation	Check ADP steering switch	ADP-54
	Door mirror operation	1. Changeover switch.	ADP-61
	Door mirror operation	2. Mirror switch	ADP-63
	All parts of seat	Check power seat switch ground circuit.	ADP-66

SYMPTOM 2

Symptom	1	Diagnosis procedure	Reference page
	Sliding operation	Check sliding sensor.	<u>ADP-71</u>
	Reclining operation	Check reclining sensor.	ADP-73
	Lifting operation (front)	Check lifting sensor (front).	ADP-75
Memory functions (for specific part) do not operate	Lifting operation (rear)	Check lifting sensor (rear).	<u>ADP-77</u>
	Pedal operation	Check pedal adjusting sensor.	ADP-81
	Steering wheel tilt operation	Check tilt sensor	ADP-79
	Door mirror operation	Check door mirror sensor.	Driver side: ADP-83 Passenger side: ADP-85

SYMPTOM 3

Symptom	1	Diagnosis procedure	Reference page
Memory functions and manual functions (for specific part) do not operate	Sliding operation	Check sliding motor.	ADP-87
	Reclining operation	Check reclining motor.	ADP-89
	Lifting operation (front)	Check lifting motor (front).	ADP-91
	Lifting operation (rear)	Check lifting motor (rear).	ADP-93
	Pedal operation	Check pedal adjusting motor.	ADP-97
	Steering wheel operation	Check tilt motor	ADP-95
	Door mirror operation	Check door mirror motor.	ADP-99

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ADP SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM 4

Symptom	Diagnosis procedure	Reference page
	Check system setting.	ADP-20
Entry/Exit assist function does not operate.	2. Perform initialization.	ADP-22
	3. Check front door switch (driver side).	ADP-69

SYMPTOM 5

Symptom	Diagnosis procedure	Reference page
Memory indicators 1 and/or 2 do not illuminate.	Check seat memory switch.	ADP-59
internory indicators 1 and/or 2 do not indiminate.	2. Check seat memory indicator.	ADP-102

SYMPTOM 6

Symptom	Diagnosis procedure	Reference page
Memory operation does not operate.	Check A/T shift selector (park position switch).	ADP-67

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description INFOID:000000001735562

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

Symptom	Cause	Action to take	Reference page
	No initialization has been performed.	Perform initialization.	ADP-20
Entry/Exit assist function does not operate.	Entry/exit assist function is disabled. NOTE: The entry/exit assist function is disabled before delivery (initial setting).	Change the settings.	ADP-23
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function excution.	Perform the memory function.	ADP-23
Memory function, entry/exit assist function or Intelligent Key interlock function does not operate.			Memory function: ADP-17
	The operating conditions are not fulfilled.	Fulfill the operation	Exit assist function: <u>ADP-20</u>
	The operating conditions are not runnied.	conditions.	Entry assist function: <u>ADP-23</u>
			Intelligent Key interlock function: <u>ADP-10</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 Manual.

WARNING:

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

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

WARNING:

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

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000004857496

NOTE:

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

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

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

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

OPERATION PROCEDURE

1. Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

- 2. Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
- Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
- 4. Perform the necessary repair operation.

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PRECAUTIONS

< PRECAUTION >

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

Precaution for Work

• 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.

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PRE-INSPECTION FOR DIAGNOSTIC

< ON-VEHICLE MAINTENANCE >

ON-VEHICLE MAINTENANCE

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection INFOID:000000001735563

$oldsymbol{1}_{\scriptscriptstyle \perp}$ CHECK POWER SUPPLY AND DROUND CIRCUIT

Check the power supply and ground circuit as shown below.

- Driver seat control unit :Refer to ADP-44, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".
- Automatic drive positioner control unit: Refer to ADP-45, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure".

Is the inspection result normally?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

$2.\,$ CHECK MANUAL FUNCTION

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

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

Do all manual functions operate normally?

>> GO TO 3

NO (Seat, pedal, door mirror)>>Go to SYMPTOM 1, refer to ADP-155, "Symptom Table". 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 ADP-155, "Symptom Table".

No (memory indicator operates normally)>> Go to SYMPTOM 2, refer to ADP-155, "Symptom Table".

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

CHECK MEMORY FUNCTION 2

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

NO >> GO TO 7

$oldsymbol{5}$. CHECK SEAT MEMORY SWITCH/MEMORY INDICATOR

Check the seat memory switch/memory switch indicator of the SYMPTOM 5, refer to ADP-155, "Symptom Table".

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 ADP-10, "AUTOMATIC DRIVE POSITIONER SYSTEM System Description").

Are all operation conditions fulfilled?

>> Go to SYMPTOM 6, refer to ADP-155, "Symptom Table". YES

>> Fulfill the operation conditions. Refer to ADP-10, "AUTOMATIC DRIVE POSITIONER SYSTEM: NO System Description".

PRE-INSPECTION FOR DIAGNOSTIC

< ON-VEHICLE MAINTENANCE >

7. CHECK MECHANISM

Check for the following.

- Mechanism deformation or pinched foreign materials.
 Interference with other parts because of poor installation.

Is any malfunction present in the relevant parts?

- YES >> Go to SYMPTOM 3, refer to ADP-155, "Symptom Table".
- NO >> Repair or replace the malfunctioning part.

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PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000001537295

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

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

Commercial Service Tool

INFOID:0000000001537296

(Kent-Moore No.) Tool name		Description
(J-39565) Engine ear	SIIA0995E	Locating the noise

AUTOMATIC DRIVE POSITIONER

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

AUTOMATIC DRIVE POSITIONER

Removal and Installation

Refer to ACC-4, "Removal and Installation" and BR-19, "Removal and Installation" .

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