SECTION ADP AUTOMATIC DRIVE POSITIONER

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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow INFOID:0000000005249612 В

OVERALL SEQUENCE



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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.

2.CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

Check "Self Diagnostic Result" with CONSULT-III. Refer to ADP-144, "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 6. Symptom is described, DTC is not displayed.>>GO TO 4.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 6.

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-212, "Description".

Is the incident normal operation?

YES >> GO TO 10.

NO >> GO TO 7.

$oldsymbol{6}.$ PERFORM DTC CONFIRMATION PROCEDURE

Perform the confirmation procedure for the detected DTC.

Is the DTC displayed?

YES >> GO TO 8.

NO >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

7 . PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 8.

8.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 9.

$\mathbf{9}.$ repair or replace

Repair or replace the malfunctioning part.

>> GO TO 10.

10. FINAL CHECK

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

Are all malfunctions corrected?

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

YES >> INSPECTION END Symptom is detected.>> GO TO 5. DTC is detected.>> GO TO 6.

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< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

Each function is reset to the following condition when the battery terminal is disconnected.

Function	Condition	Procedure
Memory (Seat, steering, mirror)	Erased	Perform storing
Faturiosit assist	OFF	Perform initialization
Entry/exit assist	OFF	Set slide amount ^{*1}
Intelligent Key interlock	Erased	Perform storing
Seat synchronization	OFF	_

^{*1:} Default value is 40mm.

NOTE:

Notice that disconnecting the battery when detected DTC are present will erase the DTC memory.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-9, "SYSTEM INITIALIZATION: Description".

>> GO TO 2.

2. SYSTEM SETTING

Perform system setting. Refer to ADP-11, "SYSTEM SETTING: Description".

>> GO TO 3.

3. MEMORY STORAGE

Perform memory storage. Refer to ADP-9, "MEMORY STORING: Description".

>> END ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

INFOID:0000000005249615

Each function is reset to the following condition when the driver seat control unit is replaced.

Function	Condition	Procedure
Memory (Seat, steering, mirror)	Erased	Perform storing
First desire and the	OFF	Perform initialization
Entry/exit assist	OFF	Set slide amount*1
Intelligent Key interlock	Erased	Perform storing
Seat synchronization	OFF	_

^{*1:} Default value is 40mm.

NOTE:

Notice that disconnecting the battery when detected DTC are present will erase the DTC memory.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Re-

< BASIC INSPECTION >	
quirement	INFOID:0000000005249616
1.system initialization	
Perform system initialization. Refer to ADP-9, "SYSTEM INITIALIZATION : Description".	_
>> GO TO 2. 2.SYSTEM SETTING	
Perform system setting. Refer to ADP-11, "SYSTEM SETTING: Description".	
renorm system setting. Refer to ADT-TT, STSTEM SETTING: Description.	
>> GO TO 3.	
3.MEMORY STORAGE	
Perform memory storage. Refer to <u>ADP-9, "MEMORY STORING: Description"</u> .	
>> END	
SYSTEM INITIALIZATION	
SYSTEM INITIALIZATION : Description	INFOID:0000000005249617
Always perform the initialization when the battery terminal is disconnected or the driver sea	ut control unit is
replaced.	at control unit is
The entry/exit assist function will not operate normally if no initialization is performed.	
SYSTEM INITIALIZATION : Special Repair Requirement	INFOID:0000000005249618
INITIALIZATION PROCEDURE	
1. CHOOSE METHOD	_
There are two initialization methods.	
Which method do you use?	
With door switch>>GO TO 2. With vehicle speed>>GO TO 4.	
2. STEP A-1	
Turn ignition switch from ACC to OFF position.	_
CO TO 2	
>> GO TO 3. 3. STEP A-2	
Driver door switch is ON (open) \rightarrow OFF (close) \rightarrow ON (open).	
Enver deer switch is env (open) / env (open).	
>> END	
4. STEP B-1	
Drive the vehicle at more than 25 km/h (16 MPH).	
>> END	
MEMORY STORING	
MEMORY STORING : Description	INFOID:0000000005249619
	7147 GID.00000000000249019

Always perform the memory storage when the battery terminal is disconnected or the driver seat control unit is replaced. The memory function and Intelligent Key interlock function will not operate normally if no memory storage is performed.

< BASIC INSPECTION >

MEMORY STORING: Special Repair Requirement

INFOID:0000000005249620

Memory Storage Procedure

Two positions for the driver seat, steering column and outside mirror can be stored for memory operation by following procedure.

1.STEP 1

Shift A/T selector lever to P position.

>> GO TO 2.

2.STEP 2

Turn ignition switch ON.

>> GO TO 3.

3.STEP 3

Adjust driver seat, steering column and outside mirror position manually.

>> GO TO 4.

4.STEP 4

1. Push set switch.

NOTE:

- Memory indicator for which driver seat position is already retained in memory is illuminated for 5 seconds.
- Memory indicator for which driver seat position is not retained in memory is illuminated for 0.5 second.
- 2. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch.

NOTE:

- To enter driver seat positions into blank memory, memory indicator will be turned on for 5 seconds.
- To modify driver seat positions, memory indicator will be turned OFF for 0.5 second, then turned ON for 5 seconds.

NOTE:

If memory is stored in the same memory switch, the previous memory will be deleted.

Do you need linking of Intelligent Key?

YES >> GO TO 6.

NO >> GO TO 5.

5.STEP 5

Confirm the operation of each part with memory operation.

>> END

6.STEP 6

Push the Intelligent Key unlock button within 5 seconds after pushing memory switch (while the memory indicator is turned ON).

>> GO TO 7.

7.STEP 7

Confirm the operation of each part with memory operation and Intelligent Key interlock operation.

>> END SYSTEM SETTING

< BASIC INSPECTION >

SYSTEM SETTING: Description

INFOID:0000000005249621

The settings of the automatic driving positioner system can be changed, using CONSULT-III, the display unit in the center of the instrument panel and the set switch. Always check the settings before and after disconnecting the battery terminal or replacing driver seat control unit.

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Setting Change

					x: Applicable
Item	Content	CON- SULT -III	Display	Set switch	Factory setting
Amount of seat sliding for entry/exit assist	The amount of seat sliding for entry/exit assist can be selected from 3 items. [40mm/80mm/150mm]	х	_	_	40mm
Entry/exit assist (seat)	Entry/exit assist (seat) can be selected: ON (operated) – OFF (not operated)	х	х	v	ON
Entry/exit assist (steering column)	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	х	х	X	ON
Seat synchronization	Seat synchronization can be selected: ON (operated) – OFF (not operated)	_	_	х	OFF
Reset custom settings	All settings can be set to default (factory setting).		Х	_	_

SYSTEM SETTING: Special Repair Requirement

INFOID:0000000005249622

1. CHOOSE METHOD

There are three way of setting method.

Which method do you choose?

With display>>GO TO 2.

With set switch>>GO TO 4.

With CONSULT-III>>GO TO 6.

2. WITH DISPLAY - STEP 1

Turn ignition switch ON.

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>> GO TO 3.

3. WITH DISPLAY - STEP 2

- 1. Push "SETTING" button.
- 2. Select "Comfort & convenience".
- Select "Lift Steering Wheel ON Exit" or "Slide Driver's Seat Back ON Exit" on display, then push
- Lift Steering Wheel ON Exit: Entry/exit assist (steering column)
- Slide Driver's Seat Back On Exit: Entry/exit assist (seat)

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>> END

4. WITH SET SWITCH - STEP 1

Turm ignition switch OFF.

Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.

Entry/exit assist (seat/steering column) are ON: Memory switch indicator blink two times.

Entry/exit assist (seat/steering column) are OFF: Memory switch indicator blink once.

>> GO TO 5.

5. WITH SET SWITCH - STEP 2

1. Turm ignition switch ACC

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< BASIC INSPECTION >

- 2. Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.
- Seat synchronization are ON: Memory switch indicator blink two times.
- Seat synchronization are OFF: Memory switch indicator blink once.

>> END

6. WITH CONSULT-III - STEP 1

Select "Work support".

>> GO TO 7.

7. WITH CONSULT-III - STEP 2

- 1. Select "EXIT SEAT SLIDE SETTING", "EXIT TILT SETTING" or "SEAT SLIDE VOLUME SET" then touch display to change between ON and OFF.
- EXIT SEAT SLIDE SETTING: Entry/exit assist (seat)
- EXIT TILT SETTING: Entry/exit assist (steering column)
- 2. Then touch "OK".

>> END

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SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram

INFOID:0000000005249623 C Unified meter and A/C amp. AV control unit ZCM BCM D To CAN Е Lifting sensor (front) Lifting motor (front) Lifting motor (rear) Lifting sensor (rear) Reclining sensor Reclining motor CAN communication 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 Telescopic sensor Telescopic motor A/T shift selector Detention switch Mirror sensor Mirror motor Door mirror Tilt sensor Tilt motor M positioner control unit Automatic Ν drive 0 Tilt & telescopic switch Seat memory switch Door mirror remote control switch Changeover switch Telescopic switch Memory switch Mirror switch Tilt switch Set switch Indicator Ρ

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< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

INFOID:0000000005249624

OUTLINE

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

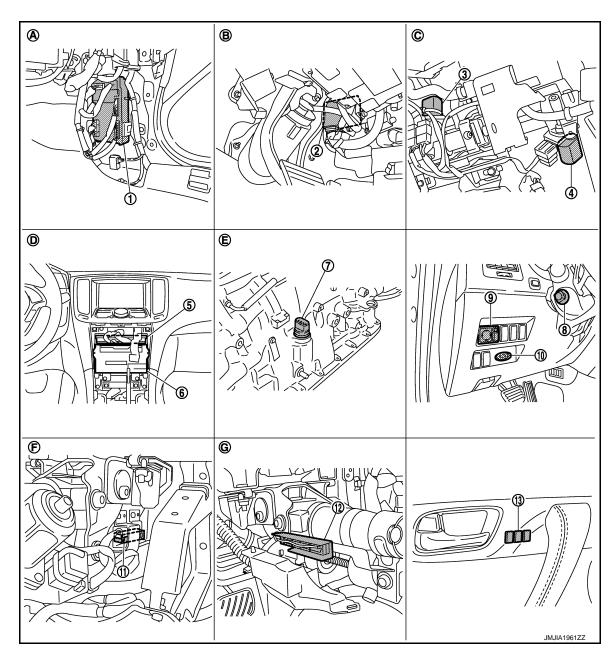
Function		Description	
Manual function		The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch.	
Seat synchronization function		The positions of the steering column and door mirror are adjusted to the proper position automatically while linking with manual operation [seat sliding, seat lifting (rear) or seat reclining].	
Memory function		The seat, steering column and outside mirror move to the stored driving position by pressing seat memory switch (1 or 2).	
Entry/Exit assist function	Exit	On exit, the seat moves backward and the steering column moves upward and forward.	
Litti y/Exit assist function	Entry	On entry, the seat and steering column returns from exiting position to the previous driving position.	
Intelligent Key interlock function	on	Perform memory operation, exiting operation and entry operation by Intelligent Key unlock operation or driver side door request switch unlock operation.	

NOTE:

The lumbar support system and the side support system are controlled independently with no link to the automatic drive positioner system.

< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM: Component Parts Location INFOID-000000005249625



- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. Seat memory switch D5
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- 2. Automatic drive positioner control unit 3. M51, M52
- 5. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- Door mirror remote control switch M26
- 12. Telescopic sensor M48
- View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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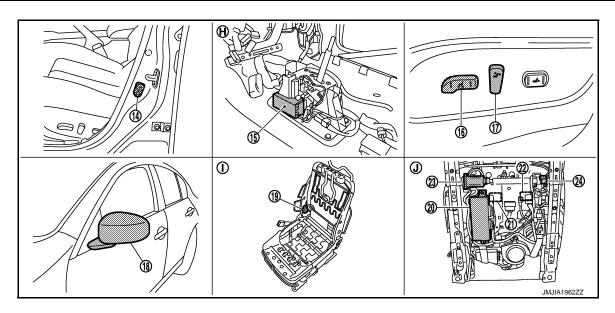
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- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch) 16. Sliding, lifting switch (Power seat switch B459)
- 17. Reclining switch (power seat switch 18.
- Door mirror (driver side) D3
- 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- 24. Sliding sensor B453
- H. View with center console assembly I. removed
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:0000000005249626

CONTROL UNITS

Item	Function
Driver seat control unit	 Main units of automatic drive positioner system It is connected to the CAN. It communicates with the automatic drive positioner control 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 tilt & telescopic, door mirror and the seat memory switch.
ВСМ	Transmit the following status to the driver seat control unit via CAN communication. • Driver door: OPEN/CLOSE • Ignition switch position: ACC/ON • Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation) • Key ID • Key switch: Insert/Pull out Intelligent Key • Starter: CRANKING/OTHER
Unified meter and A/C amp.	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.
ТСМ	Transmit the shift position signal (P range) to the driver seat control unit via CAN communication.

INPUT PARTS

Switches

< SYSTEM DESCRIPTION >

Item	Function
Key slot	The key switch is installed to detect the key inserted/removed status.
Front door switch (driver side)	Detect front door (driver side) open/close status.
A/T shift selector (detention switch)	Detect the P range position of A/T selector lever.
Set switch	The registration and system setting can be performed with its operation.
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.
Tilt & telescopic switch	The following switch is installed. • Tilt switch • Telescopic switch 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 (driver side/passenger side)	Detect the up/down and left/right position of outside mirror face.
Tilt and telescopic sensor	Detect the up/down and front/rear position of steering column.
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 (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.	
Tilt and telescopic motor	Move the steering column upward/downward and forward/backward.	
Lifting motor (front)	Move the seat lifting (front) upward/downward.	
Lifting motor (rear)	Move the seat lifting (rear) upward/downward.	
Reclining motor	Tilt and raise up the seatback.	
Sliding motor	Slide the seat forward/backward.	
Memory indicator	Illuminates or flashes according to the registration/operation status.	

MANUAL FUNCTION

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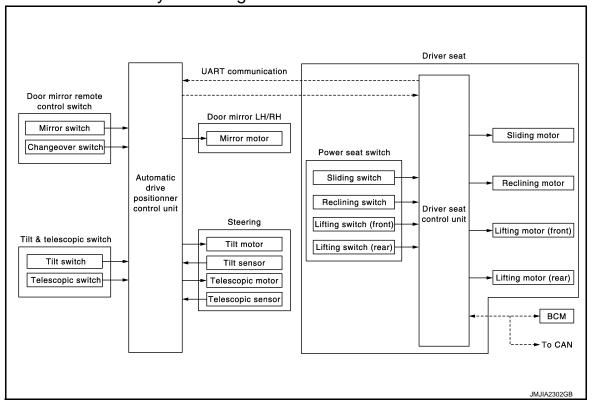
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< SYSTEM DESCRIPTION >

MANUAL FUNCTION: System Diagram

INFOID:0000000005249627



MANUAL FUNCTION: System Description

INFOID:0000000005249628

OUTLINE

The driving position (seat, steering column and door mirror position) can be adjusted manually with power seat switch, tilt & telescopic switch and door mirror remote control switch.

OPERATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Operate power seat switch, tilt & telescopic switch or door mirror remote control switch.
- 3. The driver seat, steering column 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.

Tilt & Telescopic

Order	Input	Output	Control unit condition
1	Tilt & telescopic switch	_	The tilt & telescopic switch signal is inputted to the automatic drive positioner control unit when the tilt & telescopic switch is operated.

< SYSTEM DESCRIPTION >

Order	Input	Output	Control unit condition
2	_	Motors (Tilt, telescopic)	The automatic drive positioner control unit actuates each motor according to the operation of the tilt & telescopic switch.
3	Sensors (Tilt, telescopic)	_	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 does not operates upward when tilt sensor volume is less than 1.2 V, tilt does not operate downward when the sensor value is bigger than 3.4 V. Telescopic does not operates backward when telescopic sensor value is less than 0.8 V, telescopic does not operate forward when the sensor value is bigger than 3.4 V.

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.

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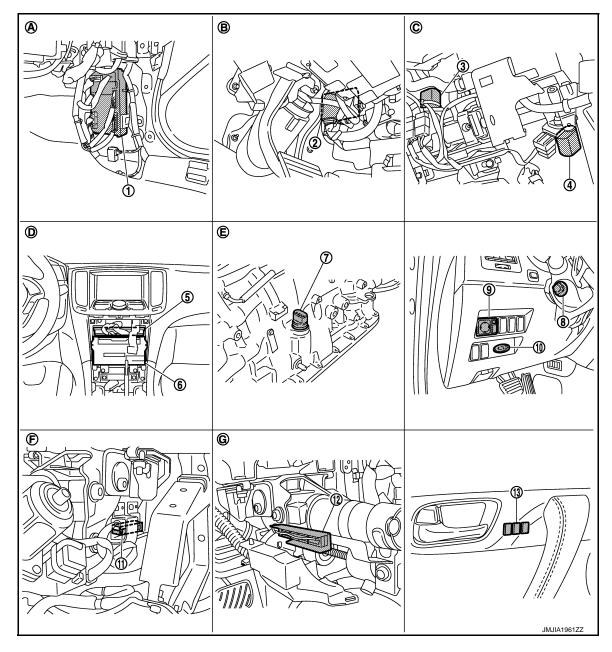
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MANUAL FUNCTION: Component Parts Location

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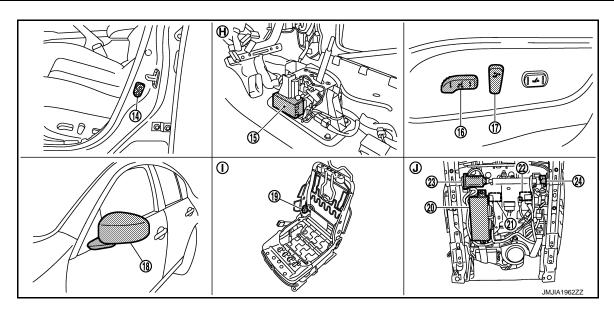


- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. Seat memory switch D5
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- 3. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch)

Door mirror (driver side) D3

16. Sliding, lifting switch (Power seat switch B459)

17. Reclining switch (power seat switch 18.

- 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- 24. Sliding sensor B453
- View with center console assembly I.
- View with seat cushion pad and seat- J. Backside of the seat cushion

back pad removed

MANUAL FUNCTION: Component Description

INFOID:0000000005249630

CONTROL UNITS

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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.
Automatic drive positioner control unit	Operates the specific motor with the signal from tilt & telescopic switch or door mirror remote control switch.
BCM	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. • Ignition position: ACC/ON

INPUT PARTS

Switches

Item	Function
Power seat switch	The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch.

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< SYSTEM DESCRIPTION >

Item	Function	
Tilt & telescopic switch	The following switch is installed. Tilt switch Telescopic switch 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
Tilt and telescopic sensor	Detect the up/down and front/rear position of steering column.

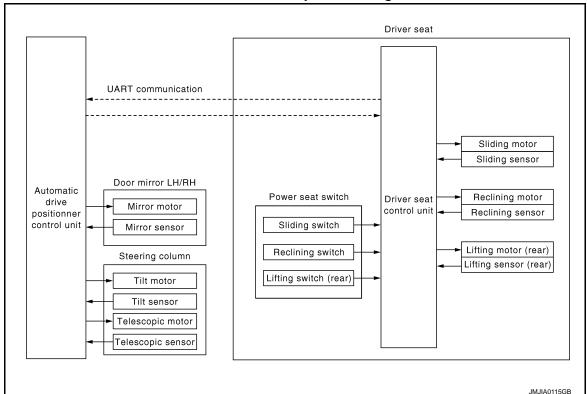
OUTPUT PARTS

Item	Function
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.
Tilt & telescopic motor	Move the steering column upward/downward and forward/backward.
Lifting motor (front)	Move the seat lifter (front) upward/downward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.

SEAT SYNCHRONIZATION FUNCTION

SEAT SYNCHRONIZATION FUNCTION: System Diagram

INFOID:0000000005249631



SEAT SYNCHRONIZATION FUNCTION: System Description

INFOID:0000000005249632

OUTLINE

< SYSTEM DESCRIPTION >

The steering column position and door mirror position is adjusted to the position automatically according to the direction and distance of seat movement when performing the manual operation of sliding, reclining or lifting (rear). This function saves adjusting the mirror and steering column when adjusting the seat.

NOTE:

- This function is set to OFF before delivery (initial setting).
- For the system setting procedure. Refer to ADP-11, "SYSTEM SETTING: Description".

OPERATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Adjust seat position [sliding, reclining, lifting (rear)].
- 3. The steering and outside mirror is adjusted automatically.

NOTE:

• The seat synchronization function will not operate if seat adjusting value is more than limit value.

Item	Limit value
Seat sliding	76 [mm]
Seat reclining	9.1 [degrees]
Seat lifter (rear)	20 [mm]

- The seat synchronization function will not operate if the steering column or door mirror moves to the operating end while this function is operating. Perform memory function or drive the vehicle at vehicle speed of 7 km/h or more once to activate this function again.
- If the seat position is uncomfortable after the adjustment, seat position can be adjusted easily by memory operation.

OPERATION CONDITION

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

Item	Request status
Ignition position	ON
System setting	ON
Switch inputs Power seat switch Tilt & telescopic switch Door mirror remote control switch Set switch Memory switch	OFF (Not operated)
A/T selector lever	P position

DETAIL FLOW

Order	Input	Output	Control unit condition
1	_	_	Perform Manual operation [Sliding, reclining or lifting (rear)].
2	Sensors [Sliding, reclining, lifting (rear)]	_	The driver seat control unit judges the direction and distance of seat movement according to the signal input from each seat sensor during manual operation.
Motors (Tilt, telesco side mirror)	(Tilt, telescopic, out-	Driver seat control unit requests the operation to position according to the direction and distance of seat movement to the automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.	
	Sensors (Tilt, telescopic, outside mirror)	_	Driver seat control unit stops the operation of each motor when the value of each sensor that is input to automatic drive positioner control unit via UART communication reaches the target address.

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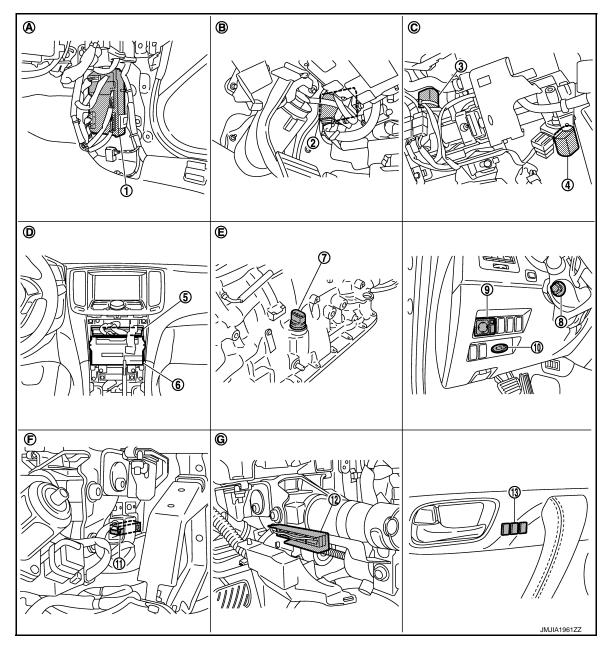
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SEAT SYNCHRONIZATION FUNCTION: Component Parts Location

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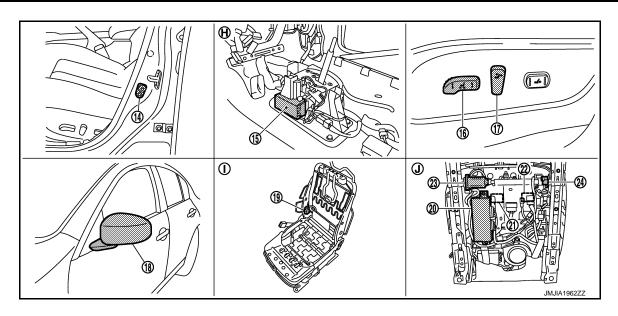


- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. Seat memory switch D5
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch B459)

- 17. Reclining switch (power seat switch 18.
- Door mirror (driver side) D3 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- 24. Sliding sensor B453
- View with center console assembly I. removed
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

SEAT SYNCHRONIZATION FUNCTION: Component Description

INFOID:0000000005249634

CONTROL UNITS

Item	Function
Driver seat control unit	Operates the specific seat motor with the signal from the power seat switch.
Automatic drive positioner control unit	Operates the steering motor and door mirror with the instructions from the driver seat control unit.

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.

Sensors

Item	Function
Door mirror sensor (driver side/passenger side)	Detect the up/down and left/right position of outside mirror face.
Tilt and telescopic sensor	Detect the up/down and front/rear position of steering column.
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).

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< SYSTEM DESCRIPTION >

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

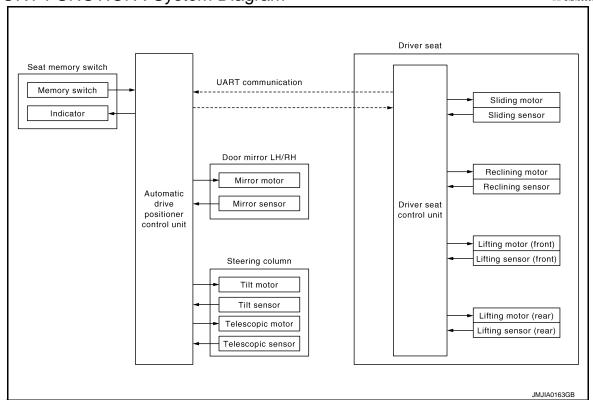
OUTPUT PARTS

Item	Function
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.
Tilt & telescopic motor	Move the steering column upward/downward and forward/backward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.

MEMORY FUNCTION

MEMORY FUNCTION: System Diagram

INFOID:0000000005249635



MEMORY FUNCTION: System Description

INFOID:0000000005249636

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

< SYSTEM DESCRIPTION >

Item	Request status
Switch inputs Power seat switch Tilt & telescopic switch Door mirror remote control switch Set switch Memory switch	OFF (Not operated)
A/T selector lever	P position

However, the memory operation can be performed for 45 seconds after opening the driver door (driver door switch OFF \rightarrow ON) even if the IGN position is in OFF position.

DETAIL FLOW

Order	Input	Output	Control unit condition
1	Memory switch	_	The memory switch signal is inputted to the automatic drive positioner control unit when memory switch 1 or 2 is operated. Memory switch signal is input to driver seat control unit via UART communication.
2	2 —	Motors (Seat, Steering, 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, steering col- umn, door mirror)	_	Driver seat control unit judges the operating seat position with each seat sensor input. The positions of the steering column 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 automatic drive positioner control unit via UART communication after all motors stop. The automatic drive positioner control unit illuminates the memory indicator for 5 seconds.

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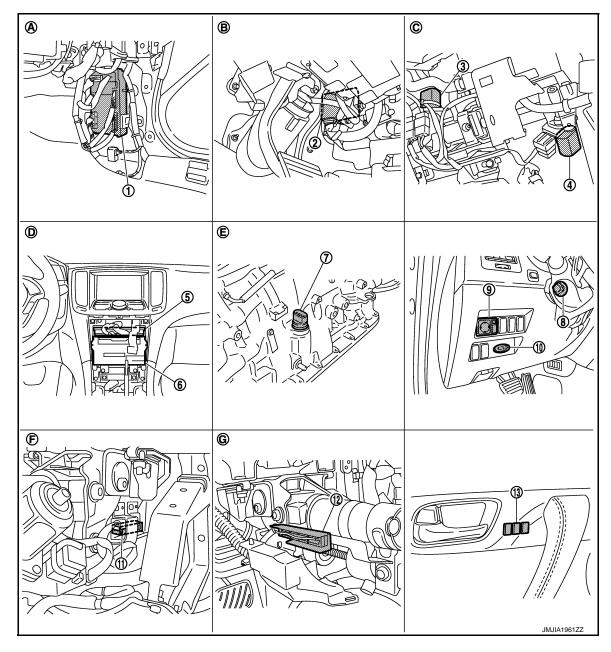
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MEMORY FUNCTION: Component Parts Location

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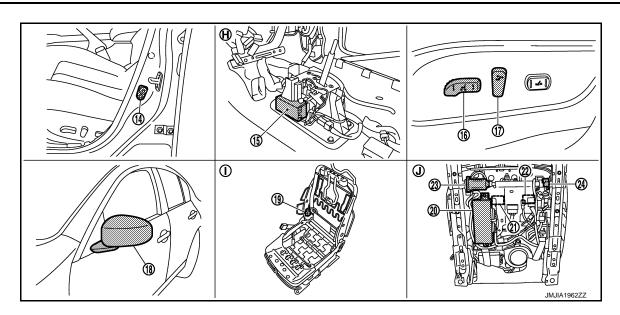


- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. Seat memory switch D5
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch B459)

- 17. Reclining switch (power seat switch 18.
- Door mirror (driver side) D3 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461 View with center console assembly I.
- 24. Sliding sensor B453
 - View with seat cushion pad and seat- J. Backside of the seat cushion

removed

back pad removed

MEMORY FUNCTION: Component Description

CONTROL UNITS

INFOID:0000000005249638

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 steering column and door mirror to automatic drive positioner control unit
Automatic drive positioner control unit	Operates the steering column 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 (driver side/passenger side)	Detect the up/down and left/right position of outside mirror face.	
Tilt & telescopic sensor	Detect the up/down and front/rear position of steering column.	
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.	

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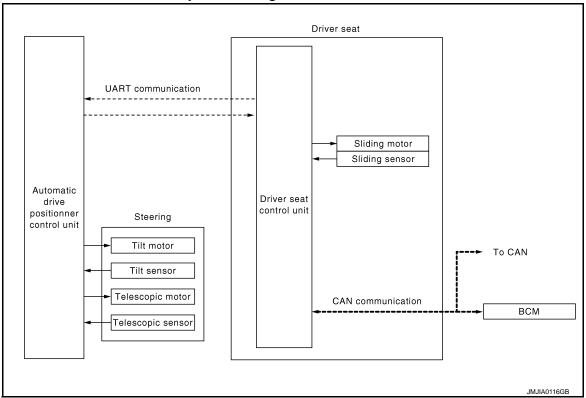
OUTPUT PARTS

Item	Function	
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.	
Tilt and telescopic motor	Move the steering column upward/downward and forward/backward.	
Lifting motor (front)	Move the seat lifter (front) upward/downward.	
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.	
Reclining motor	Tilt and raise up the seatback.	
Sliding motor	Slide the seat forward/backward.	
Memory indicator	Illuminates or blinks according to the registration/operation status.	

EXIT ASSIST FUNCTION

EXIT ASSIST FUNCTION: System Diagram

INFOID:0000000005249639



EXIT ASSIST FUNCTION: System Description

INFOID:0000000005249640

OUTLINE

When exiting, the condition is satisfied, the seat is moved backward 40 mm (1.57 in) from normal sitting position and the steering is moved to the most upper position and front position.

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

NOTE:

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to <u>ADP-11, "SYSTEM SETTING: Description"</u>.

OPERATION PROCEDURE

- 1. Open the driver door with ignition switch in OFF position.
- 2. Driver seat and steering column 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.

< SYSTEM DESCRIPTION >

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

DETAIL FLOW

Order	Input	Output	Control unit condition
1	Door switch (Driver side)	_	Driver seat control unit receives door switch signal (driver side/open) from BCM via CAN communication.
2	_	Motors (Seat sliding, tilt, telescopic)	Driver seat control unit operates the seat sliding motor, which recognizes that the driver side door is opened with ignition switch OFF. Driver seat control unit then requests the operations of tilt motor and telescopic motor to auto drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor for a constant amount.

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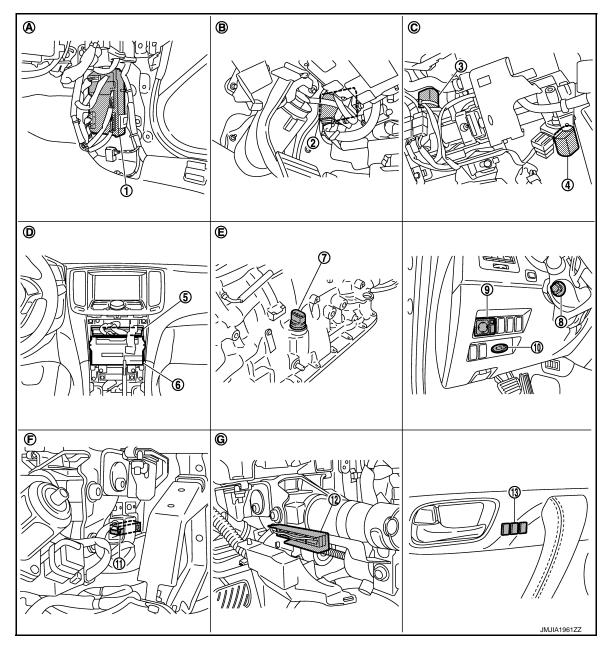
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EXIT ASSIST FUNCTION: Component Parts Location

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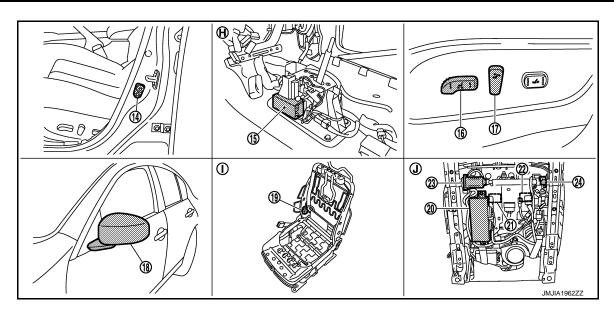


- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. Seat memory switch D5
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit
 With NAVI M87, M88
 Without NAVI M83, M85
- Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch B459)

- 17. Reclining switch (power seat switch 18.
- Door mirror (driver side) D3 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- 24. Sliding sensor B453
- View with center console assembly I. removed
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

EXIT ASSIST FUNCTION: Component Description

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CONTROL UNITS

Item	Function	
Driver seat control unit	 Operates the seat sliding motor for a constant amount. Requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit. 	
Automatic drive positioner control unit	Operates the tilt motor and telescopic motor with the request from the driver seat control.	
ВСМ	Recognizes the following status and transmits it to the driver seat control unit v CAN communication. • Driver door: OPEN/CLOSE	

INPUT PARTS

Switches

ltem	Function
Front door switch (driver side)	Detect front door (driver side) open/close status.

Sensors

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

OUTPUT PARTS

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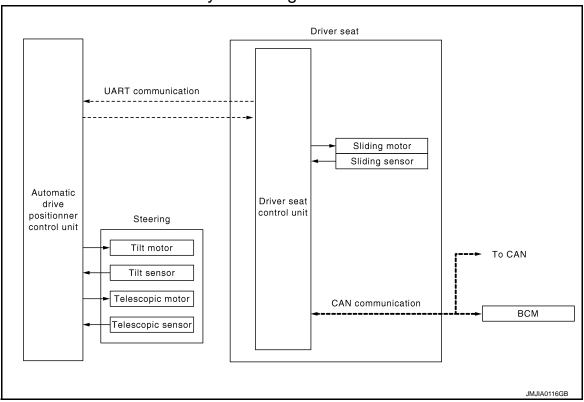
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Item	Function	
Tilt and telescopic motor	Move the steering column upward/downward and forward/backward.	
Sliding motor	Slide the seat forward/backward.	

ENTRY ASSIST FUNCTION

ENTRY ASSIST FUNCTION: System Diagram

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ENTRY ASSIST FUNCTION: System Description

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OUTLINE

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

NOTE:

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to ADP-11. "SYSTEM SETTING: Description".

OPERATION PROCEDURE

- 1. A: Turn the ignition switch ON.
 - B: Turn the ignition switch from OFF to ACC after closing the driver door.
- Driver seat and steering column 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.

< SYSTEM DESCRIPTION >

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

DETAIL FLOW

Order	Input	Output	Control unit condition
1	Door switch/Ignition switch	_	Driver seat control unit receives the signals of [ignition switch signal] and [driver side door switch] from BCM via CAN communication.
(S	_	Motors (Sliding, tilt, tele- scopic)	Driver side control unit operates the sliding motor when the operating conditions are satisfied and requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.
	Sensors (Sliding, tilt, telescopic)	_	Each sensor monitors the operating positions of seat and steering, and then stops the operation of each motor when each part reaches the recorded address.

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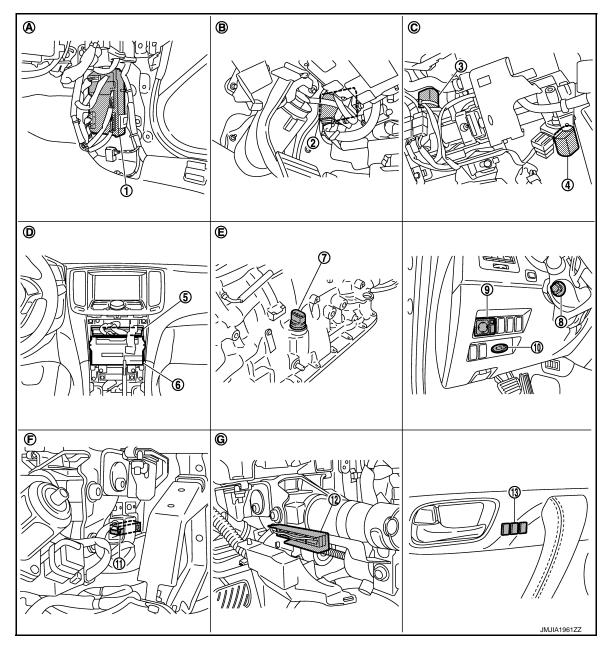
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ENTRY ASSIST FUNCTION: Component Parts Location

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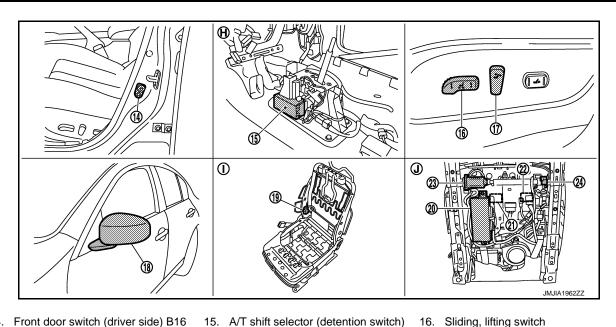


- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. Seat memory switch D5
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



- 14. Front door switch (driver side) B16

16. Sliding, lifting switch (Power seat switch B459)

17. Reclining switch (power seat switch 18.

- 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- 24. Sliding sensor B453
- View with center console assembly I. removed
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

Door mirror (driver side) D3

ENTRY ASSIST FUNCTION: Component Description

INFOID:0000000005249646

CONTROL UNITS

Item	Function
Driver seat control unit	According to the ignition signal and door switch signal (driver side) from BCM, Operates the seat sliding motor for a constant amount. Requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit.
Automatic drive positioner control unit	Operates the tilt motor and telescopic motor with the instructions from the driver seat control.
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. • Driver door: OPEN/CLOSE • Ignition switch position: ACC/ON

INPUT PARTS

Switches

Item	Function
Front door switch (driver side)	Detect front door (driver side) open/close status.

Sensors

Item	Function
Tilt & telescopic sensor	Detect the up/down and fornt/rear position of steering column.
Sliding sensor	Detect the front/rear position of seat.

OUTPUT PARTS

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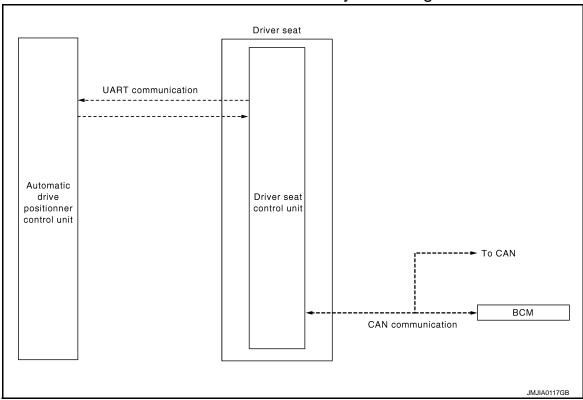
< SYSTEM DESCRIPTION >

Item	Function
Tilt & telescopic motor	Move the steering column upward/downward and forward/backward.
Sliding motor	Slide the seat forward/backward.

INTELLIGENT KEY INTERLOCK FUNCTION

INTELLIGENT KEY INTERLOCK FUNCTION: System Diagram

INFOID:0000000005249647



INTELLIGENT KEY INTERLOCK FUNCTION: System Description

INFOID:0000000005249648

OUTLINE

When unlocking doors by using Intelligent Key or driver side door request switch, the system performs memory operation, exiting operation then entry operation.

OPERATION PROCEDURE

- 1. Unlock doors by using Intelligent Key or driver side door request switch.
- 2. The system performs memory operation, and then performs exit assist operation.

NOTE:

If the seat position is in memorized position before unlocking doors, memory operation does not perform. **NOTE:**

Further information for Intelligent Key interlock function. Refer to ADP-9, "MEMORY STORING: Description".

OPERATION CONDITION

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

Item	Request status
Ignition position	OFF
System setting [Entry/exit function (seat/steering)]	ON
Key switch	OFF (Key is removed.)

< SYSTEM DESCRIPTION >

Item	Request status
Switch inputs Power seat switch Tilt & telescopic switch Door mirror remote control switch Set switch Memory switch	OFF (Not operated)
AT selector lever	P position

DETAIL FLOW

Order	Input	Output	Control unit condition
1	Door unlock signal (CAN) Key ID signal (CAN)	_	Driver seat control unit receives the door unlock signal and the key ID signal from BCM when unlocking the door with Intelligent Key or driver side door request switch.
2	_	_	Driver seat control unit performs the memory function.
3			Driver seat control unit performs the exit assist function after performing the memory function.
4	_	_	Driver seat control unit performs the entry assist function.

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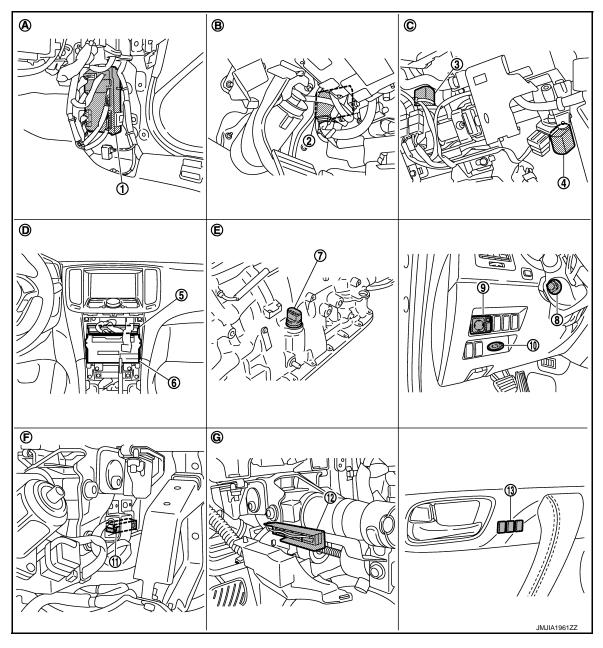
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INTELLIGENT KEY INTERLOCK FUNCTION: Component Parts Location INFOID-000000005249649

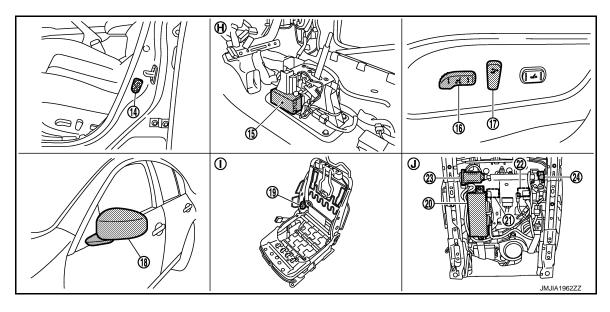


- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. Seat memory switch D5
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch) Door mirror (driver side) D3
- 16. Sliding, lifting switch (Power seat switch B459)

17. Reclining switch (power seat switch 18.

- 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
 - 24. Sliding sensor B453 View with center console assembly I.
 - View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

INTELLIGENT KEY INTERLOCK FUNCTION: Component Description

INFOID:0000000005249650

CONTROL UNITS

removed

Item	Function
Driver seat control unit	It performs memory function and entry/exit assist function after receiving the door unlock signal from BCM.
Automatic drive positioner control unit	Operates the steering column and door mirror with the instructions from the driver seat control unit.
BCM	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. • Door lock: UNLOCK (with Intelligent Key or driver side door request switch)

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:0000000005249651

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:0000000005249652

SELF-DIAGNOSIS RESULTS Refer to <u>ADP-144</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 SW 1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal.
MEMORY SW 2	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 2 signal.
SLIDE SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (forward) signal.
SLIDE SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (backward) signal.
RECLN SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (forward) signal.
RECLN SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (backward) signal.
LIFT FR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (up) signal.
LIFT FR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (down) signal.
LIFT RR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (up) signal.
LIFT RR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (down) signal.
MIR CON SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (up) signal.
MIR CON SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (down) signal.
MIR CON SW-RH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (passenger side) signal.
MIR CON SW-LH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (driver side) signal.

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
MIR CHNG SW-R	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to right) signal.
MIR CHNG SW-L	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to left) signal.
TILT SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (up) signal.
TILT SW-DOWN	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (down) signal.
TELESCO SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (forward) signal.
TELESCO SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping 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.
TILT SEN	"V"	-	×	Voltage input from tilt sensor is displayed.
TELESCO SEN	"V"	_	×	Voltage input from telescopic sensor 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).
TILT MOTOR	Activates/deactivates the tilt motor.
TELESCO MOTOR	Activates/deactivates the telescopic motor.
MIRROR MOTOR RH	Activates/deactivates the mirror motor (passenger side).

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

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
EVIT TILT SETTING	Entry/exit assist (steering column) can be selected:	ON
EXIT TILT SETTING	ON (operated) – OFF (not operated)	OFF
EXIT SEAT SLIDE SETTING	Entry/exit assist (seat) can be selected:	ON
EXIT SEAT SLIDE SETTING	ON (operated) – OFF (not operated)	OFF

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:0000000005249653

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

DTC Logic INFOID:0000000005249654

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 ADP-45, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

Refer to LAN-20, "Trouble Diagnosis Flow Chart".

Special Repair Requirement

Refer to ADP-9, "SYSTEM INITIALIZATION: Description".

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ADP-45 Revision: 2009 August 2010 FX35/FX50

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

Description INFOID:000000005249657

- 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 forward/backward 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 unitSlide motor harness is power shorted

DTC CONFIRMATION PROCEDURE

1. RERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-46. "Diagnosis Procedure"</u>.

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 if B2126 is detected.

Diagnosis Procedure

INFOID:0000000005249659

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-46, "DTC Logic"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

2.check sliding motor circuit (power short)

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

·	+)	(-)	Voltage (V) (Approx.)
Sliding motor Connector Terminals			(Approx.)
B461	35	Ground	0
	42		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)	
Connector	Terminals		('FF: \$/")	
B451	35 42	Ground	0	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation"

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

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B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2113 RECLINING MOTOR

Description INFOID:000000005249660

- 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 forward/backward by changing the rotation direction of reclining motor.

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. REFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-48, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 if B2126 is detected.

Diagnosis Procedure

INFOID:0000000005249662

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-48, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

2.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

(+) Reclining motor		(–)	Voltage (V) (Approx.)	
Connector	Terminals		(Αρρίολ.)	
B454	36	Ground	0	
D+0+	44	Glound	l	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

$3. \mathsf{CHECK} \ \mathsf{DRIVER} \ \mathsf{SEAT} \ \mathsf{CONTROL} \ \mathsf{UNIT} \ \mathsf{OUTPUT} \ \mathsf{SIGNAL}$

- Connect driver seat control unit connector.
- 2. Check voltage between driver seat control unit harness connector and ground.

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(FF- 3 /11)	
B451	36 44	- Ground	0	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

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ADP-49 Revision: 2009 August 2010 FX35/FX50

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B2118 TILT SENSOR

Description INFOID:000000005249663

- 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 (INFOID:0000000005249664

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2118	TILT SENSOR	The input voltage of tilt sensor is less then 0.1Vor more than 4.9V.	Harness and connectors (Tilt sensor circuit is opened/ shorted, tilt sensor power supply circuit is opened/shorted.) Tilt sensor

DTC CONFIRMATION PROCEDURE

1. RERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-50, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000005249665

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	Change between 1.2 [V] (close to top) 3.4 [V] (close to bottom)

Is the value normal?

YES >> GO TO 6.

NO >> GO TO 2.

2.CHECK TILT SENSOR CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive positioner control unit Tilt & tele		Tilt & teleso	copic sensor	Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	7	M48	3	Existed

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

B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	Automatic drive positioner control unit		Continuity
Connector	Connector Terminal		Continuity
M51	7		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TILT SENSOR POWER SUPPLY

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

(+)			Voltage (V) (Approx.)	
Tilt & telescopic sensor		(–)		
Connector	Terminal		(11 - 5 - 1)	
M48	1	Ground	5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TILT SENSOR POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive positioner control unit		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	33	M48	1	Existed

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

Automatic drive po	Automatic drive positioner control unit		Continuity
Connector	Connector Terminal		Continuity
M52	33		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK TILT SENSOR GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	tomatic drive positioner control unit Tilt & telescopic sensor		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M52	41	M48	4	Existed

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

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B2118 TILT SENSOR

>> INSPECTION END

B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2119 TELESCOPIC SENSOR

Description INFOID:0000000005249666

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

DTC Logic INFOID:0000000005249667

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2119	TELESCOPIC SENSOR	The input voltage of telescopic sensor is less than 0.1V or more than 4.9V.	Harness and connectors (Telescopic sensor circuit is opened/shorted, telescopic sensor power supply circuit is opened/shorted.) Telescopic sensor

DTC CONFIRMATION PROCEDURE

1. RERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT-III.

Is the DTC is detected?

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

NO >> INSPECTION END

Diagnosis Procedure

1. CHECK TELESCOPIC SENSOR SIGNAL

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

Monitor item	Condition	Value
TELESCO SEN	Telescopic position	Change between 0.8 [V] (close to top) 3.4 [V] (close to bottom)

Is the valve normal?

YES >> GO TO 6.

NO >> GO TO 2.

2.CHECK TELESCOPIC SENSOR CIRCUIT

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector. 2.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive positioner control unit		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	23	M48	2	Existed

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

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B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity
Connector	Connector Terminal		Continuity
M51	23		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check telescopic sensor power supply

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

(+)			Voltage (V) (Approx.)	
Tilt & telescopic sensor		(–)		
Connector	Terminal		(
M48	1	Ground	5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive positioner control unit		Tilt & teleso	copic sensor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	33	M48	1	Existed

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

Automatic drive positioner control unit			Continuity
Connector Terminal		Ground	Continuity
M52	33		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK TELESCOPIC SENSOR GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	sitioner control unit	Tilt & telescopic sensor		control unit Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	Continuity		
M52	41	M48	4	Existed		

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

>> INSPECTION END

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Revision: 2009 August ADP-55 2010 FX35/FX50

B2126 DETENT SW

Description INFOID:000000005249669

Detention 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	Selector lever is in P position and the vehicle speed of 7±4 km/h is detected.	Harness and connectors (Detention switch circuit is opened/shorted.) Detention switch Unified meter and A/C amp. (CAN communication)

DTC CONFIRMATION PROCEDURE

1. RERFORM DTC CONFIRMATION PROCEDURE

- 1. Drive the vehicle at 7±4 km/h or more.
- Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-56, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000005249671

1. CHECK DTC WITH "BCM"

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

Is the either DTC B2601, B2602, B2603, B2604 or B2605 detected?

YES >> Check the DTC. Refer to BCS-78, "DTC Index".

NO >> GO TO 2.

2. CHECK DTC WITH "METER/M&A"

Check "Self diagnostic result" for METER/M&A with CONSULT-III.

Is the DTC detected?

YES >> Check the DTC. Refer to MWI-119, "DTC Index".

NO >> GO TO 3.

3.CHECK DETENTION SWITCH SIGNAL

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

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

Is the status normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK DETENTION SWITCH CIRCUIT

B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS >

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

Driver seat control unit		A/T shift selector		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	21	M137	11	Existed

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

 Driver seat control unit			Continuity
Connector Terminal		Ground	Continuity
 B451	21		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

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ADP-57 Revision: 2009 August 2010 FX35/FX50

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B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description INFOID:000000005249672

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 tilt & telescopic switch, door mirror remote control switch, set switch and memory switch and the position signals of tilt & telescopic 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. RERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- 2. Operate tilt & telescopic switch for more than 2 seconds.
- 3. Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-58, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000005249674

1. CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver seat	control unit	Automatic drive positioner control unit		ontrol unit Automatic drive positioner control unit		Continuity
Connector	Terminal	Connector Terminal		Continuity		
B451	1	M51	10	Existed		
D431	17	i CIVI	26	EXISTEC		

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	1	Ground	Not existed
	17	_	Not existed

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> Repair or replace harness.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000005249675

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1. CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.	
Battery power supply	L	
battery power suppry	10	

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

(+)		(-)	Voltage (Approx.)
BCM			
Connector	Terminal		,
M118	1	Ground	Battery voltage
M119	11	Ground	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

ВСМ			Continuity
Connector Terminal		Ground	Continuity
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:0000000005249676

NOTE:

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

ADP-59

1. CHECK POWER SUPPLY CIRCUIT

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

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(/ IPP: 0/ii)	
B452	33 40	- Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following.

- 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 sea	t control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	32	Ground	Existed
B452	48		Existed

Is the inspection result normal?

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

NO >> Repair or replace harness between driver seat control unit and ground.

DRIVER SEAT CONTROL UNIT: Special Repair Requirement

INFOID:0000000005249677

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to <u>ADP-8</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u> : Description".

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

INFOID:0000000005249678

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

(+) Automatic drive positioner control unit (-)		V-16 0.0		
		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(* ********)	
M52	34	Ground	Rattory voltago	
IVIOZ	39	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).

2. CHECK GROUND CIRCUIT

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M52	40	Ground	Existed	
IVISZ	48		Existed	

Is the inspection result normal?

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

NO >> Repair or replace harness between automatic drive positioner control unit and ground.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Special Repair Requirement

INFOID:0000000005249679

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1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to <u>ADP-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description"</u>.

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SLIDING SWITCH

Description INFOID:000000005249680

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

Component Function Check

INFOID:0000000005249681

1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "SLIDE SW-FR", "SLIDE SW-RR" in "Data monitor" mode with CONSULT-III.
- 3. 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 (forward)	Release	OFF
SLIDE SW-RR	Sliding switch (backward)	Operate	ON
SLIDE SWITT	Silding Switch (backward)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249682

1. CHECK SLIDING SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power seat switch harness connector and ground.

	+) eat switch	Voltage (V) (Approx.)	
Connector	Terminal		(/ .PP : 0 /11)
B459	11 26	- Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check sliding switch circuit

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	11	B459	11	Existed
D+31	26	D-100	26	LAISIEU

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

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B451	11	Not existe	Not existed	
D40 I	26		Not existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK SLIDING SWITCH

Refer to ADP-63, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-218, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK SLIDING SWITCH

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

Power seat switch		Condition		Continuity
Terr	minal	Condi	ition	Continuity
	11	Sliding switch (backward)	Operate	Existed
32	11	Silding Switch (backward)	Release	Not existed
32	26	Sliding switch (forward)	Operate	Existed
	20	Sliding switch (forward)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-218</u>, "Removal and Installation".

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RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SWITCH

Description INFOID:0000000005249684

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

Component Function Check

INFOID:0000000005249685

1. CHECK FUNCTION

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

Monitor item	Condition		Status
RECLINE SW-FR	Reclining switch (forward)	Operate	ON
REGLINE SW-FR	Reclining switch (lorward)	Release	OFF
RECLINE SW-RR	Reclining switch (backward)	Operate	ON
NEOLINE SWITT	Trecining Switch (Dackward)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-64. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005249686

1. CHECK RECLINING SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power seat switch harness connector and ground.

	+) eat switch	(–) Voltage (V) (Approx.)		
Connector	Terminal		(*	
B459	12	Ground	Rattony voltago	
D439	27	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK RECLINING SWITCH CIRCUIT

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	12	B459	12	Existed
D431	27	D409	27	LXISIEU

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

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	12	- Ground	Not existed
D431	27		NOT EXISTED

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK RECLINING SWITCH

Refer to ADP-65, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-218, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK RECLINING SWITCH

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

Power seat switch		Condition		Continuity
Terminal				
	12	Reclining switch (backward)	Operate	Existed
32	12	Reclining Switch (backward)	Release	Not existed
32	27	Reclining switch (forward)	Operate	Existed
	21		Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-218, "Removal and Installation".

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description INFOID:000000005249688

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

Component Function Check

INFOID:0000000005249689

1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "LIFT FR SW-UP", "LIFT FR SW-DN" in "Data monitor" mode with CONSULT-III.
- 3. 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 OW-DIN	Litting Switch from (down)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-66. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005249690

1. CHECK LIFTING SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power seat switch harness connector and ground.

	+) eat switch	(-)	Voltage (V) (Approx.)	
Connector	Terminal			
B459	13 28	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	13	B459	13	Existed
D431	28	D409	28	LXISIEU

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

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	13	Ground	Not existed
D+31	28		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-67, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-218</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK LIFTING SWITCH (FRONT)

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

Power seat switch		Condition		Continuity
Terminal				
	13 Lifting switch front	Lifting switch front (down)	Operate	Existed
32	13	Litting Switch from (down)	Release	Not existed
32	28	Lifting switch front (up)	Operate	Existed
	26		Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-218</u>, "Removal and Installation".

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Revision: 2009 August ADP-67 2010 FX35/FX50

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description INFOID:000000005249692

Lifting switch (rear) is equipped to the power seat switch 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:0000000005249693

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-68. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005249694

1. CHECK LIFTING SWITCH (REAR) SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power seat switch harness connector and ground.

	+) eat switch	(-)	Voltage (V) (Approx.)	
Connector	Terminal		(/ (pp. 0)	
B459	14	Ground	Pottory voltage	
D439	29	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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

Driver seat	control unit	Power sear switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	14	B459	14	Existed
D431	29	D409	29	LXISIEG

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

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	14	Ground	Not existed
10+01	29		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (REAR)

Refer to ADP-69, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-218</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK LIFTING SWITCH (REAR)

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

Power seat switch		Condition		Continuity
Terminal		Condi	.1011	Continuity
	14	Lifting quitch roor (up)	Operate	Existed
32	14	Lifting switch rear (up)	Release	Not existed
32	29	Lifting switch rear (down)	Operate	Existed
	29		Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-218</u>, "Removal and Installation".

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TILT SWITCH

Description INFOID:000000005249696

Tilt switch is equipped to the steering column. The operation signal is inputted to the automatic drive positioner control unit when the tilt switch is operated.

Component Function Check

INFOID:0000000005249697

1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "TILT SW-UP", "TILT SW-DOWN" in "Data monitor" mode with CONSULT-III.
- 3. Check tilt switch signal under the following conditions.

Monitor item	Condition		Status
TILT SW-UP	Tilt quitch (up)	Operate	ON
TILI 3W-OF	Tilt switch (up)	Release	OFF
TILT SW-DOWN	Tilt switch (down)	Operate	ON
TIET SVV-DOVVIN	THE SWILCH (GOWII)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249698

1. CHECK TILT SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between tilt & telescopic switch harness connector and ground.

(+) Tilt & telescopic switch		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(, , ,,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M31	4	Ground	Rattony voltago	
	5	- Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TILT SWITCH CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic switch harness connector.

Automatic drive positioner control unit		Tilt & telescopic switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	1	M31	4	Existed
	17	IVIOT	5	LAISIEU

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

TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	Automatic drive positioner control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M51	1	Ground	Not existed	
	17	1	Not existed	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK TILT SWITCH

Refer to ADP-71, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-219, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK TILT SWITCH

1. Turn ignition switch OFF.

2. Disconnect tilt & telescopic switch connector.

3. Check continuity between tilt & telescopic switch terminals.

Tilt & telescopic switch		Condition		Continuity
Terminal				
1	4	Tilt switch (up)	Operate	Existed
			Release	Not existed
	5	Tilt switch (down)	Operate	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-219, "Removal and Installation".

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TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SWITCH

Description INFOID:0000000005249700

Telescopic switch is equipped to the steering column. The operation signal is inputted to the automatic drive positioner control unit when the telescopic switch is operated.

Component Function Check

INFOID:0000000005249701

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SW-FR", "TELESCO SW-RR" in "Data monitor" mode with CONSULT-III.
- 3. Check telescopic switch signal under the following conditions.

Monitor item	Condition	Status	
TELESCO SW-FR	Telescopic switch (forward)	Operate	ON
TELESCO SW-FR	relescopic switch (lorward)	Release	OFF
TELESCO SW-RR	Telescopic switch (backward)	Operate	ON
TELESCO SW-KK	relescopic switch (backward)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249702

1. CHECK TELESCOPIC SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between tilt & telescopic switch harness connector and ground.

(+) Tilt & telescopic switch		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(, ,	
M31	2	Ground	Battery voltage	
	3			

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TELESCOPIC SWITCH CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic switch harness connector.

Automatic drive positioner control unit		Tilt & telescopic switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M51	11	M31	2	Existed	
	27	I CIVI	3	Lxisteu	

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

TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	11	Giouna	Not existed
I GIVI	27	-	Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK TELESCOPIC SWITCH

Refer to ADP-73, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-219, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK TELESCOPIC SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Check continuity between tilt & telescopic switch terminals.

Tilt & teleso	copic switch	Conditi	on	Continuity	
Terr	minal	Condition		Continuity	
	2	Telescopic switch (forward)	Operate	Existed	
1	2	relescopic switch (lorward)	Release	Not existed	
	3	Talagagaia awitah (haakward)	Operate	Existed	
	3	Telescopic switch (backward)	Release	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-219, "Removal and Installation".

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Revision: 2009 August ADP-73 2010 FX35/FX50

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Description INFOID:000000005249704

Set switch or 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 set switch or memory switch is operated.

Component Function Check

INFOID:0000000005249705

1. CHECK FUNCTION

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

Monitor item	Condition		Status
OFT OW	SET SW	Push	ON
SET SW	SET SW	Release	OFF
MEMORY CW 4	Memory switch 1	Push	ON
MEMORY SW 1		Release	OFF
MEMORY CW 2	Marrow quitch 2	Push	ON
MEMORY SW 2	Memory switch 2	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249706

1. CHECK SEAT MEMORY SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- Disconnect seat memory switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between seat memory switch harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)	
Seat memory switch				
Connector	Terminal		(
	1			
D5	2	Ground	5	
	3			

Is the inspection result normal?

YES >> GO TO 3. NO >> GO TO 2.

2. CHECK MEMORY SWITCH CIRCUIT

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

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	ositioner control unit	Seat men	nory switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
	9		1	
M51	24	D5	3	Existed
25		2		

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

Automatic drive positioner control unit			Continuity
Connector	Terminal		Continuity
	9	Ground	
M51	24	Not existed	Not existed
	25		

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

3.check memory switch ground circuit

Turn ignition switch OFF.

Check continuity between seat memory switch harness connector and ground.

Seat memory switch			Continuity
Connector	Terminal	Ground	Continuity
D5	4		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK SEAT MEMORY SWITCH

Refer to ADP-75, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat memory switch. Refer to ADP-217, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK SEAT MEMORY SWITCH

- Turn ignition switch OFF.
- Disconnect seat memory switch connector.
- Check continuity between seat memory switch terminals.

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SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Seat mem	Seat memory switch		Condition		
Terr	ninal		onation	Continuity	
	1	Momory switch 1	Push	Existed	
	1	Memory switch 1	Release	Not existed	
4	2	2 Memory switch 2	Push	Push	Existed
4	2		Release	Not existed	
	3 Set switch	Set switch	Push	Existed	
			Release	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to <u>ADP-217, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

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CHANGEOVER SWITCH: Description

INFOID:0000000005249708

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:0000000005249709

1. CHECK CHANGEOVER SWITCH FUNCTION

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

> Condition When operating the changeover toward the right or left side. : ON : OFF

Is the inspection result normal?

Monitor item

MIR CHNG SW-R/L

>> Changeover switch function is OK.

NO >> Refer to ADP-77, "CHANGEOVER SWITCH: Diagnosis Procedure".

Other than the above.

CHANGEOVER SWITCH: Diagnosis Procedure

INFOID:0000000005249710

${f 1}$.CHECK CHANGEOVER SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror remote control switch connector.
- 3. Turn ignition switch ON.
- Check voltage between door mirror remote control switch harness connector and ground.

(+)			Voltage (V) (Approx.)
Door mirror remote control switch		(–)	
Connector	Terminal		(11 -)
M26	2	Ground	5
IVIZO	3	Ground	J

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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2.check changeover switch circuit

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit connector.

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

Automatic drive po	Automatic drive positioner control unit Door mirror remote control switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M51	2	M26	3	Existed
IVIJ I	18	IVIZO	2	LXISIGU

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

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< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	2	Ground	Not existed
IVIOT	18		NOT EXISTED

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

3.check door mirror remote control switch ground circuit

- 1. Turn ignition switch OFF.
- 2. Check continuity between door mirror remote control switch harness connector and ground.

Door mirror remote control switch			Continuity
Connector	Terminal	Ground	Continuity
M26	13		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch (changeover switch).

Refer to ADP-78, "CHANGEOVER SWITCH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace door mirror remote control switch (changeover switch). Refer to MIR-82, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

CHANGEOVER SWITCH: Component Inspection

INFOID:0000000005249711

1. CHECK CHANGEOVER SWITCH

- Turn ignition switch OFF.
- 2. Disconnect door mirror remote control switch connector.
- 3. Check continuity between door mirror remote control switch terminals.

Door	Door mirror remote control switch		Condition		Continuity
Connector	Terr	ninal		uition	Continuity
	2		Changeaver awitah	LEFT	Existed
Mae	M26 2 13	40		Other than above	Not existed
IVIZO		Changeover switch	RIGHT	Existed	
				Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to MIR-82, "Removal and Installation".

MIRROR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

MIRROR SWITCH: Description

INFOID:0000000005249712

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It operates angle of the door mirror face.

It transmits mirror face adjust operation to AUTOMATIC DRIVE POSITIONER CONTROL UNIT.

MIRROR SWITCH: Component Function Check

INFOID:0000000005249713

1. CHECK MIRROR SWITCH FUNCTION

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

Monitor item	Condition			
MIR CON SW-UP/DN	When operating the mirror switch toward the up or down side.	: ON		
MIR CON SW-UP/DN	Other than the above.	: OFF		
MIR CON SW-RH/LH	When operating the mirror switch toward the right or left side.	: ON		
MIR CON SW-RH/LH	Other than the above.	: OFF		

Is the inspection result normal?

YES >> Mirror switch function is OK.

NO >> Refer to ADP-79, "MIRROR SWITCH: Diagnosis Procedure".

MIRROR SWITCH: Diagnosis Procedure

INFOID:0000000005249714

1. CHECK MIRROR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

- 2. Disconnect door mirror remote control switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror remote control switch harness connector and ground.

(+) Door mirror remote control switch		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	4	Ground	5	
M26	5			
	6	Giodila		
	14			

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Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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2. CHECK MIRROR SWITCH CIRCUIT

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

Automatic drive positioner control unit		Door mirror remote control switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
	3		6	
M51	4	M26	5	Existed
I CIVI	19	IVIZO	14	Existed
	20		4	

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

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	ositioner control unit		Continuity
Connector	Terminal		Continuity
M51	3	Ground	
	4		Not existed
	19		Not existed
	20		

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

3.check door mirror remote control switch ground circuit

- 1. Turn ignition switch OFF.
- 2. Check continuity between door mirror remote control switch harness connector and ground.

Door mirror rem	ote control switch		Continuity
Connector	Terminal	Ground	Continuity
M26	13		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK MIRROR SWITCH

Check door mirror remote control switch (mirror switch).

Refer to ADP-80, "MIRROR SWITCH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace door mirror remote control switch (mirror switch). Refer to MIR-82, "Removal and Installation"

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

MIRROR SWITCH: Component Inspection

INFOID:0000000005249715

1. CHECK MIRROR SWITCH

- 1. Turn ignition switch OFF.
- Disconnect door mirror remote control switch connector.
- 3. Check continuity between door mirror remote control switch terminals.

< DTC/CIRCUIT DIAGNOSIS >

Door mirror remote control switch		Condition		Continuity	
Connector	Terr	minal		ondition	Continuity
				RIGHT	Existed
M26 6	4			Other than the above	Not existed
				LEFT	Existed
	5	13	Mirror switch	Other than the above	Not existed
			UP Other than the above DOWN	UP	Existed
	6	6			Not existed
				DOWN	Existed
	14			Other than the above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to MIR-82, "Removal and Installation".

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POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000005249716

1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

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

Power se	eat switch		Continuity
Connector	Terminal	Ground	Continuity
B459	32		Existed

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> Repair or replace harness.

TILT &TELESCOPIC SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

TILT &TELESCOPIC SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000005249717

1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Check continuity between tilt & telescopic switch and ground.

Tilt & telese	copic switch		Continuity
Connector	Terminal	Ground	Continuity
M31	1		Existed

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> Repair or replace harness.

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Revision: 2009 August ADP-83 2010 FX35/FX50

DETENTION SWITCH

Description INFOID:0000000005249718

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

Component Function Check

INFOID:0000000005249719

1. CHECK FUNCTION

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

Monitor item	Condition		Status
		P position	OFF
DETENT SW	Selector lever	Other than above	ON

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249720

1. CHECK DTC WITH "BCM"

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

Is the either DTC B2601, B2602, B2603, B2604 or B2605 detected?

YES >> Check the DTC. Refer to BCS-78, "DTC Index".

NO >> GO TO 2.

2.check detention switch input signal

- 1. Turn ignition switch OFF.
- Disconnect A/T shift selector harness connector.
- Turn ignition switch ON.
- 4. Check voltage between A/T shift selector harness connector and ground.

(+)		(-)	Voltage (V)	
Connector	A/T shift selector Connector Terminal		(Approx.)	
M137	11	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.check detention switch circuit

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

Driver seat	t control unit	A/T shift selector		Continuity
Connector	Terminal	Connector Terminal		Continuity
B451	21	M137	11	Existed

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

DETENTION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	21		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK DETENTION SWITCH

Refer to ADP-85, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace A/T shift selector. Refer to TM-169, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK DETENTION SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T shift selector connector.
- Check A/T shift selector terminals.

A/T shift selector		Condition		Continuity
Terr	minal	Condition		Continuity
10	11	Selector lever	P position	Existed
10	11	Selector level	Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace A/T shift selector. Refer to TM-169, "Removal and Installation".

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FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

FRONT DOOR SWITCH (DRIVER SIDE)

Description INFOID:000000005249722

Detects front door (driver side) open/close condition.

Component Function Check

INFOID:0000000005249723

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "DOOR SW-DR" in "Data monitor" mode with CONSULT-III.
- 3. Check the front door switch (driver side) signal under the following conditions.

Monitor item	Condition		Status
DOOR SW-DR	Front door switch	Open	ON
DOOK SW-DK	(driver side)	Close	OFF

Is the inspection result normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249724

1.CHECK FRONT DOOR SWITCH (DRIVER SIDE) SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch (driver side) connector.
- 3. Check signal between front door switch (driver side) connector and ground with oscilloscope.

(+) Front door switch (driver side)		(-)	Voltage (V) (Approx.)
Connector	Terminal		
B16	2	Ground	(V) 15 10 5 0 10 ms JPMIA0011GB

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check front door switch (driver side) circuit

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM connector and front door switch (driver side) connector.

В	BCM		Front door switch (driver side)	
Connector	Terminal	Connector Terminal		Continuity
M123	150	B16	2	Existed

3. Check continuity between BCM connector and ground.

всм			Continuity
Connector	Terminal	Ground	Continuity
M123	150		Not existed

FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-83, "Exploded View".

NO >> Repair or replace harness.

3.CHECK FRONT DOOR SWITCH (DRIVER SIDE)

Refer to ADP-87, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (driver side). Refer to <u>DLK-280, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK FRONT DOOR SWITCH (DRIVER SIDE)

- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch (driver side) connector.
- 3. Check continuity between front door switch (driver side) terminals.

Front door switch (driver side)		Condition		Continuity
Terr	minal	Condition		Continuity
2	Ground part of door	Front door switch	Pushed	Not existed
	switch	(driver side)	Released	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door switch (driver side). Refer to <u>DLK-280, "Removal and Installation"</u>.

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SLIDING SENSOR

Description

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

Component Function Check

INFOID:0000000005249727

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- Select "SLIDE PULSE" in "Data monitor" mode with CONSULT-III.
- 3. Check sliding sensor signal under the following conditions.

Monitor item	Condition		Valve
		Operate (forward)	Change (increase)*1
SLIDE PULSE	Seat sliding	Operate (backward)	Change (decrease)*1
		Release	No change ^{*1}

^{*1}: The value at the seat position attained when the battery is connected is considered to be 32768.

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249728

1. CHECK SLIDING SENSOR SIGNAL

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

	+) control unit	(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B451	24	Ground	Seat sliding	Operate	10mSec/div 2V/div JMJIA0119ZZ
				Other than above	0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> GO TO 2.

2. CHECK SLIDING SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect driver seat control unit and sliding sensor connector.
- 3. Check continuity between driver seat control unit harness connector and sliding sensor harness connector.

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Sliding sensor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	24	B453	24	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	24		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK SLIDING SENSOR POWER SUPPLY

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

(+) Sliding sensor			Voltage (V) (Approx.)
		(–)	
Connector	Terminal		(11 /
B453	16	Ground	5

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector.
- 3. Check continuity between driver seat control unit harness connector and sliding sensor harness connec-

Driver seat	control unit	Sliding sensor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	16	B453	16	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK SLIDING SENSOR GROUND

- Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector.
- 3. Check continuity between driver seat control unit harness connector and sliding sensor harness connector.

Driver seat	Driver seat control unit		Sliding sensor	
Connector	Terminal	Connector	Terminal	Continuity
B451	31	B453	31	Existed

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SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace sliding sensor.

NO >> Repair or replace harness.

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SENSOR

Description INFOID:000000005249729

- The reclining sensor 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. Turn ignition switch ON.
- 2. Select "RECLN PULSE" in "Data monitor" mode with CONSULT-III.
- 3. Check reclining sensor signal under the following conditions.

Monitor item	Condition		Value
		Operate (forward)	Change (increase)*1
RECLN PULSE	Seat reclining	Operate (backward)	Change (decrease)*1
		Release	No change ^{*1}

^{*1:} The value at the seat position attained when the battery is connected is considered to be 32768.

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249731

INFOID:0000000005249730

1. CHECK RECLINING SENSOR SIGNAL

- Turn ignition switch ON.
- Check voltage signal between driver seat control unit harness connector and ground with oscilloscope.

(+) Driver seat control unit		(–)	Con	dition	Voltage (V) (Approx.)
Connector	Terminal				(11 -)
B451	9	Ground	Seat reclining	Operate	10mSec/div 2V/div JMJIA0119ZZ
				Other than above	0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-215, "Removal and Installation"</u>.

NO >> GO TO 2.

2. CHECK RECLINING SENSOR CIRCUIT

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

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RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	control unit	Reclining motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	9	B454	9	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	9		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK RECLINING SENSOR POWER SUPPLY

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

(+) Reclining motor		(-)	Voltage (V) (Approx.)
Connector	Terminal		(11 - /
B454	16	Ground	5

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

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

Driver seat	Driver seat control unit		Reclining motor	
Connector	Terminal	Connector	Terminal	Continuity
B451	16	B454	16	Existed

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-215, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5. CHECK RECLINING SENSOR GROUND

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

Driver seat	Driver seat control unit		Reclining motor	
Connector	Terminal	Connector	Terminal	Continuity
B451	31	B454	31	Existed

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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YES >> Replace reclining motor.

NO >> Repair or replace harness.

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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (FRONT)

Description INFOID:000000005249732

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

Component Function Check

INFOID:0000000005249733

1. CHECK FUNCTION

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

Monitor item	Condition		Value
		Operate (Up)	Change (increase)*1
LIFT FR PULSE	Seat lifting (front)	Operate (Down)	Change (decrease)*1
		Release	No change ^{*1}

^{*1:}The value at the seat position attained when the battery is connected is considered to be 32768.

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249734

1. CHECK LIFTING SENSOR (FRONT) SIGNAL

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

(+) Driver seat control unit Connector Terminal		(–)	Condition		Voltage (V) (Approx.)
B451	25	Ground	Seat Lifting (front)	Operate	10mSec/div 2V/div JMJIA0119ZZ
				Other than above	0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> GO TO 2.

2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

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

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Lifting mo	otor (front)	Continuity
Connector	Terminal	Connector Terminal		Continuity
B451	25	B455	25	Existed

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

	Driver seat	t control unit		Continuity
_	Connector Terminal		Ground	Continuity
	B451	25		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check lifting sensor (front) power supply

- Connect driver seat control unit connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between lifting motor (front) harness connector and ground.

(+) Lifting motor (front)		(-)	Voltage (V) (Approx.)	
Connector	Connector Terminal		(11 -)	
B455	16	Ground	5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector.
- 3. Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

Driver seat	control unit	Lifting motor (front)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B451	16	B455	16	Existed	

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

Driver seat	control unit		Continuity
Connector	Connector Terminal		Continuity
B451	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK LIFTING SENSOR (FRONT) GROUND

- Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector.
- 3. Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

Driver seat	control unit	Lifting mo	otor (front)	Continuity
Connector	Terminal	Connector Terminal		Continuity
B451	31	B455	31	Existed

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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

>> Replace lifting motor (front). >> Repair or replace harness.

NO

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description INFOID:0000000005249735

- The lifting sensor (rear) is installed to the seat slide cushion frame.
- The pulse signal is inputted 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. Turn ignition switch ON.
- 2. Select "LIFT RR PULSE" in "Data monitor" mode with CONSULT-III.
- 3. Check lifting sensor (rear) signal under the following conditions.

Monitor item	Condition		Value
		Operate (Up)	Change (increase)*1
LIFT RR PULSE	Seat lifting (rear)	Operate (Down)	Change (decrease)*1
		Release	No change ^{*1}

^{*1:} The value at the seat position attained when the battery is connected is considered to be 32768.

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005249737

INFOID:0000000005249736

1. CHECK LIFTING SENSOR (REAR) SIGNAL

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

Driver seat	+) control unit	(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B451	10	Ground	Seat Lifting (rear)	Operate Other than above	10mSec/div 2V/div JMJIA0119ZZ

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation".

NO >> GO TO 2.

2.check lifting sensor (rear) circuit

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

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LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	Driver seat control unit		Lifting motor (rear)		
Connector	Terminal	Connector Terminal		Continuity	
B451	10	B456	10	Existed	

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

Driver seat	control unit		Continuity
Connector	Connector Terminal		Continuity
B451	10		Not Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check lifting sensor (rear) power supply

- Connect driver seat control unit connector.
- 2. Turn ignition switch ON.
- 3. Check the voltage between lifting motor (rear) harness connector and ground.

Lifting m	(+) notor (rear)	(-)	Voltage (V) (Approx.)
Connector	Terminal		,
B456	16	Ground	5

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK LIFTING SENSOR (REAR) POWER SUPPLY CIRCUIT

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

Driver seat	control unit	Lifting me	otor (rear)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	16	B456	16	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-215, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5. CHECK LIFTING SENSOR (REAR) GROUND

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

Driver seat	control unit	Lifting me	otor (rear)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	31	B456	31	Existed

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Is the ir	nspection result normal?
YES	>> Replace lifting motor (rear).

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>> Repair or replace harness. NO ADP

ADP-99 Revision: 2009 August 2010 FX35/FX50

TILT SENSOR

Description

- · 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:0000000005249739

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- Select "TILT SEN" in "Data monitor" mode with CONSULT-III.
- 3. 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 ADP-100, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000005249740

1. CHECK TILT SENSOR SIGNAL

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

(+) Automatic drive positioner control unit		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			(11 - /
M51	7	Ground	Tilt position	Change between 1.2 [V] (Close to top) 3.4 [V] (Close to bottom)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> GO TO 2.

2. CHECK TILT SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	sitioner control unit	Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	7	M48	3	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	7		Not existed

Is the inspection result normal?

TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TILT SENSOR POWER SUPPLY

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

	+)		V. Itaara (V.)	
Tilt & telescopic sensor		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(11 /	
M48	1	Ground	5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK TILT SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	Automatic drive positioner control unit		Tilt & telescopic sensor	
Connector	Terminal	Connector	Terminal	Continuity
M52	33	M48	1	Existed

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

Automatic drive positioner control unit				Continuity
Connec	ctor	Terminal	Ground	Continuity
M52		33		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK TILT SENSOR GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	sitioner control unit	Tilt & telescopic sensor		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M52	41	M48	4	Existed	

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

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TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SENSOR

Description INFOID:000000005249741

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

Component Function Check

INFOID:0000000005249742

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SEN" in "Data monitor" mode with CONSULT-III.
- 3. Check the tilt sensor signal under the following conditions.

Monitor item	Condition	Value
TELESCO SEN	Telescopic position	Change between 0.8 [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-102, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005249743

1. CHECK TELESCOPIC SENSOR SIGNAL

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

	(+) Automatic drive positioner control unit		Condition	Voltage (V) (Approx.)
Connector	Terminal			
M51	23	Ground	Telescopic position	Change between 0.8 [V] (close to top) 3.4 [V] (close to bottom)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> GO TO 2.

2. CHECK TELESCOPIC SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	natic drive positioner control unit		Tilt & telescopic sensor	
Connector	Terminal	Connector Terminal		Continuity
M51	23	M48	2	Existed

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

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity	
Connector	Connector Terminal		Continuity	
M51	23		Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TELESCOPIC SENSOR POWER SUPPLY

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

Tilt & telesc	+) copic sensor	c sensor (–) Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
M48	1	Ground	5

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	tic drive positioner control unit Tilt & telescopic sensor		Tilt & telescopic sensor	
Connector	Terminal	Connector Terminal		Continuity
M52	33	M48	1	Existed

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

Automatic drive po	Automatic drive positioner control unit		Continuity	
Connector	Connector Terminal		Continuity	
M52	33		Not existed	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

CHECK TELESCOPIC SENSOR GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	sitioner control unit	Tilt & telescopic sensor		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M52	41	M48	4	Existed	

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

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MIRROR SENSOR DRIVER SIDE

DRIVER SIDE: Description

INFOID:0000000005249744

- The mirror sensor (driver side) is installed to the door mirror (driver side).
- The resistance of 2 sensors (horizontal and vertical) is changed when the door mirror (driver side) 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:00000000005249745

1. CHECK FUNCTION

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

Monitor item	Condition	Value
MIR/SEN LH U-D	- Door mirror (driver side)	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
MIR/SEN LH R-L	- Door militor (univer side)	Change between 0.6 [V] (close to left edge) 3.4 [V] (close to right edge)

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-104, "DRIVER SIDE: Diagnosis Procedure"</u>.

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000005249746

1.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror (driver side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror (driver side) harness connector and ground.

(+) Door mirror (driver side) Connector Terminal		(-)	Voltage (V) (Approx.)	
D3	23	Ground	5	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and door mirror (driver side) harness connector.

Automatic drive positioner control unit connector	Terminal	Door mirror (driver side) connector	Terminal	Continuity
M52	33	D3	23	Existed

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

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	33		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

3.check door mirror (driver side) sensor ground

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

Automatic drive po	sitioner control unit	Door mirror (driver side)		— Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M52	41	D3	24	Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

f 4.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR CIRCUIT

Check continuity between automatic drive positioner control unit harness connector and door mirror (driver side) harness connector.

Automatic drive po	sitioner control unit	Door mirror (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	6	D3	21	Existed
I GIVI	22	D3	22	Existed

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

Automatic drive p	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	6	Ground	Not existed
I CIVI	22		Not existed

Is the inspection result normal?

YES >> Replace door mirror sensor. (Built in driver side mirror.)

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE: Description

The mirror sensor (passenger side) is installed to the door mirror (passenger side).

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

PASSENGER SIDE : Component Function Check

1. CHECK FUNCTION

- Turn ignition switch ON.
- Select "MIR/SEN RH U-D", "MIR/SEN RH R-L" in "Data monitor" with CONSULT-III.
- Check the mirror sensor (passenger side) signal under the following conditions.

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< DTC/CIRCUIT DIAGNOSIS >

Monitor item	Condition	Value
MIR/SEN RH U-D	Door mirror (passenger side)	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
MIR/SEN RH R-L	Door militor (passenger side)	Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge)

Is the indication normal?

YES >> INSPECTION END

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

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000005249749

1. CHECK DOOR MIRROR SENSOR (PASSENGER SIDE) POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror (passenger side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror (passenger side) harness connector and ground.

(+) Door mirror (passenger side)		(-)	Voltage (V) (Approx.)
Connector	Connector Terminal		
D33	23	Ground	5

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) harness connector.

Automatic drive po	sitioner control unit	Door mirror (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	33	D33	23	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M52	33		Not existed

Is the inspection result normal?

YES >> Replace automatic driver positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

$3. \mathrm{CHECK}\ \mathrm{DOOR}\ \mathrm{MIRROR}\ \mathrm{(PASSENGER}\ \mathrm{SIDE)}\ \mathrm{SENSOR}\ \mathrm{GROUND}$

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) connector.

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	sitioner control unit	Door mirror (p	assenger side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	41	D33	24	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR HARNESS CONTINUITY

1. Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) harness connector.

Automatic drive positioner control unit		Door mirror (passenger side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	5	D33	21	Existed
I CIVI	21	D33	22	LAISIEU

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	5	Ground	Not existed
I CIVI	21		Not existed

Is the inspection result normal?

YES >> Replace door mirror sensor. (Built in passenger side door mirror).

NO >> Repair or replace harness.

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SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING MOTOR

Description

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

Component Function Check

INFOID:0000000005249751

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- Select "SEAT SLIDE" in "Active test" mode with CONSULT-III.
- Check the sliding motor 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-108, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005249752

1.CHECK SLIDING MOTOR POWER SUPPLY

- Turn ignition switch OFF.
- 2. Disconnect sliding motor connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT SLIDE") with CONSULT-III
- 5. Check voltage between sliding motor harness connector and ground.

(+) Sliding motor		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B461	35	- Ground	SEAT SLIDE	OFF	0
				FR (forward)	Battery voltage
				RR (backward)	0
	42			OFF	0
				FR (forward)	0
				RR (backward)	Battery voltage

Is the inspection result normal?

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

NO >> GO TO 2.

2.CHECK SLIDING MOTOR CIRCUIT

- Turn ignition switch OFF.
- Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and sliding motor harness connector.

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit	Slidin	Sliding motor	
Connector	Terminal	Connector Terminal		Continuity
B452	35	B461	35	Existed
B452	42	D401	42	Existed

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

Driver seat	control unit		Continuity	
Connector	Connector Terminal		Continuity	
B452	35	Ground	Not existed	
D432	42		Not existed	

Is the inspection result normal?

YES >> Replace driver control unit. Refer to <u>ADP-215, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING MOTOR

Description INFOID:000000005249753

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

Component Function Check

INFOID:0000000005249754

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-110, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005249755

1. CHECK RECLINING MOTOR POWER SUPPLY

- Turn ignition switch OFF.
- Disconnect reclining motor connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT RECLINING") with CONSULT-III
- 5. Check voltage between reclining motor harness connector and ground.

	(+) Reclining motor		(-) Conc		Voltage (V) (Approx.)
Connector	Terminal				,
			SEAT RECLINING	OFF	0
	36			FR (forward)	Battery voltage
B454		Ground		RR (backward)	0
D434		44		OFF	0
	44			FR (forward)	0
				RR (backward)	Battery voltage

Is the inspection result normal?

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

NO >> GO TO 2.

2.check reclining motor circuit

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

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit	Reclinia	ng motor	Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B452	36	B454	B454 36		
D432	44	D404	44	Existed	

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

Driver sea	t control unit		Continuity	
Connector	Connector Terminal		Continuity	
B452	36	Ground	Not existed	
	44		NOT EXISTED	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-215, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description INFOID:000000005249756

- The lifting motor (front) is installed to the seat 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

INFOID:0000000005249757

1. CHECK FUNCTION

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

Test item		Descr	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-112, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005249758

1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

- Turn ignition switch OFF.
- Disconnect lifting motor (front) connector.
- Turn the ignition switch ON.
- Perform "Active test" ("SEAT LIFTER FR") with CONSULT-III.
- 5. Check voltage between lifting motor (front) harness connector and ground.

	(+) Lifting motor (front)		Con	dition	Voltage (V) (Approx.)
Connector	Terminal				, , ,
				OFF	0
	37		Ground SEAT LIFTER FR	UP	0
B455		Ground		DWN (down)	Battery voltage
D400				OFF	0
	45			UP	Battery voltage
				DWN (down)	0

Is the inspection result normal?

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

NO >> GO TO 2.

2.check lifting motor (front) circuit

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

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit	Lifting motor (front)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B452	37	B455	37	Existed	
B452	45	Б400	45	Existed	

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

Driver sea	t control unit		Continuity	
Connector	Connector Terminal		Continuity	
B452	37	Ground	Not existed	
	45		Not existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-215</u>, "Removal and Installation".

NO >> Repair or replace harness.

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LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description INFOID:000000005249759

- The lifting motor (rear) is installed to the seat 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

INFOID:0000000005249760

1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "SEAT LIFTER RR" in "Active test" mode with CONSULT-III.
- 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 ADP-114, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000005249761

1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

- Turn ignition switch OFF.
- Disconnect lifting motor (rear) connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT LIFTER RR") with CONSULT-III
- 5. Check voltage between lifting motor (rear) harness connector and ground.

	(+) Lifting motor (rear)		Condition		Voltage (V) (Approx.)
Connector	Terminal				
		- Ground	Ground SEAT LIFTER RR	OFF	0
	38			UP	Battery voltage
B456				DWN (DOWN)	0
D430				OFF	0
	39			UP	0
				DWN (DOWN)	Battery voltage

Is the inspection result normal?

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

NO >> GO TO 2.

2.CHECK LIFTING MOTOR (REAR) CIRCUIT

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

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	at control unit	Lifting motor (rear)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B452	38	B456	38	Existed	
D432	39	- 5450	39	Existed	

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

Driver seat	seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B452	38	Ground	Not existed
D432	39		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-215, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TILT MOTOR

Description INFOID:0000000005249762

- 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

INFOID:0000000005249763

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TILT MOTOR" in "Active test" mode with CONSULT-III.
- 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 ADP-116, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000005249764

1. CHECK TILT MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic motor connector.
- Turn the ignition switch ON.
- 4. Perform "Active test" ("TILT MOTOR") with CONSULT-III.
- 5. Check voltage between tilt & telescopic motor harness connector and ground.

	(+) Tilt & telescopic motor Connector Terminal		Condition		Voltage (V) (Approx.)		
Connector					, , ,		
				OFF	0		
	3	Ground	TILT MOTOR	UP	0		
M49				DWN (down)	Battery voltage		
10149			Giodila	Glodild HELIWOTOK	TILI MOTOR	OFF	0
	4			UP	Battery voltage		
				DWN (down)	0		

Is the inspection result normal?

YES >> Replace tilt motor. (Built in steering column assembly.)

NO >> GO TO 2.

2.check tilt motor circuit

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt & telescopic motor connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic motor harness connector.

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Tilt & telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	35	M49	4	Existed
IVIJZ	42	10149	3	LXISIEU

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

Automatic drive po	Automatic drive positioner control unit		
Connector	Terminal	Ground	Continuity
M52	35	Ground	Not existed
IVIOZ	42		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-216, "Removal and Installation"</u>. NO >> Repair or replace harness.

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TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC MOTOR

Description INFOID:000000005249765

- The telescopic motor is installed to the steering column assembly.
- The telescopic motor is activated with the automatic drive positioner control unit.
- Compresses the steering column by changing the rotation direction of telescopic motor.

Component Function Check

INFOID:0000000005249766

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO MOTOR" in "Active test" mode with CONSULT-III.
- Check the telescopic motor operation.

Test item		Description	
	OFF		Stop
TELESCO MOTOR	FR	Steering telescopic	Forward
	RR		Backward

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-118, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005249767

1. CHECK TELESCOPIC MOTOR POWER SUPPLY

- Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic motor connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("TELESCO MOTOR") with CONSULT-III
- 5. Check voltage between tilt & telescopic motor harness connector and ground.

	(+) Tilt & telescopic motor		Condition		Voltage (V) (Approx.)
Connector	Connector Terminal				, , , ,
				OFF	0
	1	Ground	TELESCOPIC MO-	FR (forward)	0
M49				RR (backward)	Battery voltage
10149		Giodila	TOR	OFF	0
	2			FR (forward)	Battery voltage
				RR (backward)	0

Is the inspection result normal?

YES >> Replace telescopic motor. (Built in steering column assembly.)

NO >> GO TO 2.

2.CHECK TELESCOPIC MOTOR CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt & telescopic motor connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic motor harness connector.

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Tilt & telescopic motor Connector Terminal		Continuity
Connector	Terminal			Continuity
M52	36	M49	2	Existed
IVIJZ	10152	IVI45	1	LXISIEU

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	36	Ground	Not existed
IVIOZ	44		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-216</u>. "Removal and Installation". NO >> Repair or replace harness.

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DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Description INFOID:000000005249768

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

Component Function Check

INFOID:0000000005249769

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-42, "CONSULT-III Function".

Is the inspection result normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-120, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000005249770

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- Disconnect door mirror connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror connector and ground.

(+) Door mirror		(–) Cond		dition	Voltage (V) (Approx.)
Connector Terminal					
	12			UP	Battery voltage
	12		Door mirror remote	Other than above	0
D3 (Driver side) D33 (Passenger	11	Ground		LEFT	Battery voltage
side)	11	Giodila	control switch	Other than above	0
	10			DOWN / RIGHT	Battery voltage
	10			Other than above	0

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

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

[Door mirror driver side]

Automatic drive p	ositioner control unit	Door mirror	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
	16		10		
M51	31	D3	12	Existed	
	32		11		

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Door mirror passenger s	ide]			
Automatic drive po	sitioner control unit	Door mirror (p	assenger side)	O antinovite
Connector	Terminal	Connector	Terminal	Continuity
	14		12	
M51	15	D33	11	Existed
	30		10	

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

[Door mirror driver side]

Automatic drive p	ositioner control unit		Continuity
Connector	Terminal		Continuity
	16	Ground	
M51	31		Not existed
	32		

[Door mirror passenger side]

Automatic drive po	ositioner control unit		Continuity	
Connector	Terminal		Continuity	
	14	Ground		
M51	15		Not existed	
	30			

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-216, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-121, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace door mirror. Refer to MIR-78, "DOOR MIRROR ASSEMBLY: Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

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-78, "DOOR MIRROR ASSEMBLY: Exploded View".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror.Refer to MIR-78, "DOOR MIRROR ASSEMBLY: Removal and Installation".

2.CHECK DOOR MIRROR MOTOR-II

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

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DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Connector	Door mirror		
	Terr	ninal	Operational direction
	(+)	(-)	
	10	11	RIGHT
D3 (Driver side)	11	10	LEFT
D33 (Passenger side)	12	10	UP
	10	12	DOWN

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror. Refer to MIR-78, "DOOR MIRROR ASSEMBLY: Removal and Installation".

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description INFOID:0000000005249772

 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

1. CHECK FUNCTION

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

Test item		Description	n
	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 ADP-123, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

Seat men	+) nory switch	(-)	Voltage (V) (Approx.)
Connector	Terminal		(/ .pp. 3/)
D5	5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following.

- 10A fuse [No.10 located in fuse block (J/B)].
- Harness for open or short between memory indicator and fuse.

2.CHECK MEMORY INDICATOR CIRCUIT

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

Automatic drive p	ositioner control unit	Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	12	D5	6	Existed
IVIOI	13	- D3	7	Existed

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

Connector Terminal Ground M51 Not existed	Automatic drive po	sitioner control unit		Continuity
M51 12 Not existed	Connector	Terminal	Ground	Continuity
	M51	12		Not existed
13	I CIVI	13		Not existed

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INFOID:0000000005249773

INFOID:0000000005249774

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK MEMORY INDICATOR

Refer to ADP-124, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch. Refer to <u>ADP-217</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000005249775

1. CHECK SEAT MEMORY INDICATOR

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

Seat men	nory switch	
Teri	minal	Continuity
(+)*	(-)*	
-	6	Existed
5	7	LAISIGU

^{*:} For a digital tester

NOTE:

When checking by an analog tester, the polarity (+) and (-) becomes inverse.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to ADP-217, "Removal and Installation".

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

DRIVER SEAT CONTROL UNIT

Reference Value INFOID:0000000005249776

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM	
--------------------------	--

Monitor Item	Condi	tion	Value/Status	
SET SW	Cat awitah	Push	ON	
SE1 3VV	Set switch	Release	OFF	
	M	Push	ON	
MEMORY SW1	Memory switch 1	Release	OFF	
MEMORY OWO	Manager State O	Push	ON	
MEMORY SW2	Memory switch 2	Release	OFF	
OLIDE OW ED	Olidia a avitala (fasas)	Operate	ON	
SLIDE SW-FR	Sliding switch (front)	Release	OFF	
CLIDE OW DD		Operate	ON	
SLIDE SW-RR	Sliding switch (rear)	Release	OFF	
DEOLN OW ED	Deall in a 201 (for a)	Operate	ON	
RECLN SW-FR	Reclining switch (front)	Release	OFF	
	D	Operate	ON	
RECLN SW-RR	Reclining switch (rear)	Release	OFF	
	1.60	Operate	ON	
LIFT FR SW-UP	Lifting switch front (up)	Release	OFF	
		Operate	ON	
LIFT FR SW-DN	Lifting switch front (down)	Release	OFF	
LIET DD CW LID	1.76.	Operate	ON	
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF	
LIET DD OW DN	1.00	Operate	ON	
LIFT RR SW-DN	Lifting switch rear (down)	Release	OFF	
MID OOM OW LID	Address of the land	Up	ON	
MIR CON SW-UP	Mirror switch	Other than above	OFF	
MID OOM OW DN	Address of the Land	Down	ON	
MIR CON SW-DN	Mirror switch	Other than above	OFF	
MD 00M 0M DU		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	
		Up	ON	
TILT SW-UP	Tilt switch	Other than above	OFF	
		Down	ON	
TILT SW-DOWN	Tilt switch	Other than above	OFF	

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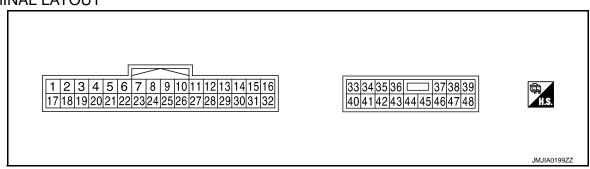
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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Con	dition	Value/Status
TELESCO SW-FR	Talanania awitah	Forward	ON
TELESCO SW-FR	Telescopic switch	Other than above	OFF
TELESCO SW-RR	Tilt switch	Backward	ON
TELESCO SW-KK	THE SWILCH	Other than above	OFF
DETENT SW	AT selector lever	P position	OFF
	At 30100tol level	Other than above	ON
STARTER SW	Ignition position	Cranking	ON
OWNEROW	ignition position	Other than above	OFF
		Forward	The numeral value decreases *1
SLIDE PULSE	Seat sliding	Backward	The numeral value increases *1
		Other than above	No change to numeral value*1
		Forward	The numeral value decreases *1
RECLN PULSE	Seat reclining	Backward	The numeral value increases *1
	Other than above		No change to numeral value*1
		Up	The numeral value decreases *1
LIFT FR PULSE	Seat lifter (front)	Down	The numeral value increases *1
		Other than above	No change to numeral value ^{*1}
	Up		The numeral value decreases *1
LIFT RR PULSE	Seat lifter (rear)	Down	The numeral value increases *1
		Other than above	No change to numeral value*1
MIR/SEN RH U-D	Door mirror (passenger side)		Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN RH R-L	Door mirror (passenger side)		Change between 3.4 (close to left edge) 0.6 (close to right edge)
MIR/SEN LH U-D	Door mirror (driver side)		Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN LH R-L	Door mirror (driver side)		Change between 0.6 (close to left edge) 3.4 (close to right edge)
TILT SEN	Tilt position		Change between 1.2 (close to top) 3.4 (close to bottom)
TELESCO SEN	Telescopic position		Change between 3.4 (close to top) 0.8 (close to bottom)

^{*1:} The value at the position attained when the battery is connected is regarded as 32768.

TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description		Conditio		Voltage (V)	А
+	-	Signal name	Input/ Output	Condition	on	(Approx)	В
1 (L/W)	Ground	UART communication (RX)	Input	Ignition switch ON		2mSec/div 2V/div JMJIA0118ZZ	C
3 (R/Y)	_	CAN-H	1	_		_	Е
9 (W/G)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	10mSec/div 2V/div JMJIA0119ZZ	F
					Stop	0 or 5	
10 (P/B)	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	10mSec/div 2V/div JMJIA0119ZZ	ADI
					Stop	0 or 5	
11 (B/R)	Ground	Sliding switch backward signal	Input	Sliding switch	Operate (backward)	0	K
12		Reclining switch back-			Release Operate	Battery voltage 0	L
(SB)	Ground	ward signal	Input	Reclining switch	(backward) Release	Battery voltage	-
13	Ground	Lifting switch (front)	Input	Lifting switch (front)	Operate (down)	0	M
(LG/R)		down signal			Release	Battery voltage	-
14 (G/B)	Ground	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0	Ν
		- 5			Release	Battery voltage	
16 (O)	Ground	Sensor power supply	Output	_		5	0
17 (Y/R)	Ground	UART communication (TX)	Output	Ignition switch ON		10mSec/div	Р

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition	20	Voltage (V)
+	-	Signal name	Input/ Output	Condition	וונ	(Approx)
19 (V)	_	CAN-L	_	_		_
					P position	0
21 (L/Y)	Ground	Detention switch	Input	A/T selector lever	Except P position	20mSec/div WWWWWWWW SV/div MANAGE STATES AND STATES
24 (R)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div
					Stop	0 or 5
25 (Y/B)	Ground	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	10mSec/div
					Stop	0 or 5
26 (Y)	Ground	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0
(1)		olgridi			Release	Battery voltage
27 (R/G)	Ground	Reclining switch forward signal	Input	Reclining switch	Operate (forward)	0
		ŭ			Release	Battery voltage
28 (W/B)	Ground	Lifting switch (front) up signal	Input	Seat lifting switch (front)	Operate (up)	0
		ŭ		,	Release	Battery voltage
29 (P/L)	Ground	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0
		-		. ,	Release	Battery voltage
31 (GR)	Ground	Sensor ground	_	_		0
32 (B/W)	Ground	Ground (signal)	_	_		0
33 (R)	Ground	Power source (C/B)	Input	_		Battery voltage
35 (W/R)	Ground	Sliding motor forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage
(VV/IX)		output signal			Release	0

< ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description		Condition	on.	Voltage (V)	
+	-	Signal name	Input/ Output	Condition	J.1	(Approx)	
36 (G/Y)	Ground	Reclining motor forward output signal	Output	Seat reclining	Operate (forward)	Battery voltage	
(G/1)		output signal			Release	0	
37 (G/W)	Ground	Lifting motor (front) down output signal	Output	Seat lifting (front)	Operate (down)	Battery voltage	_
(3/ ۷۷)		output signal			Stop	0	_
38 (L/Y)	Ground	Lifting motor (rear) up output signal	Output	Seat lifting (rear)	Operate (up)	Battery voltage	
(L/1)		output signal			Stop	0	_
39 (R/B)	Ground	Lifting motor (rear) down output signal	Output	Seat lifting (rear)	Operate (down)	Battery voltage	
(17/0)		output signal			Stop	0	
40 (R/W)	Ground	Power source (Fuse)	Input	_		Battery voltage	_
42 (W/B)	Ground	Sliding motor backward output signal	Output	Seat sliding	Operate (backward)	Battery voltage	
(• • / • /		σαιραί διβιίαι			Stop	0	
44 (P)	Ground	Reclining motor back- ward output signal	Output	Seat reclining	Operate (backward)	Battery voltage	_
(F)		waru butput signai			Stop	0	
45 (L/R)	Ground	Lifting motor (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage	
(=/11)		output orginal			Stop	0	
48 (B)	Ground	Ground (power)	_	_		0	2

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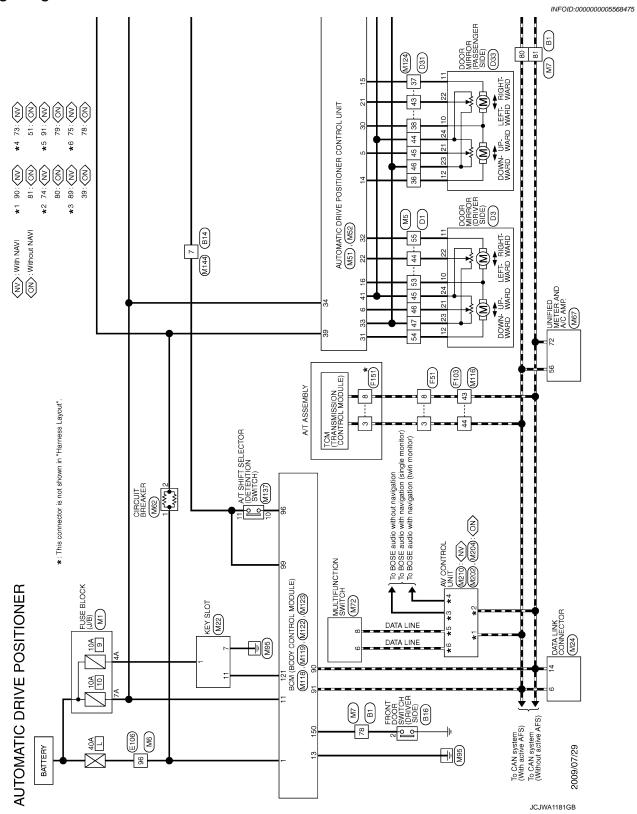
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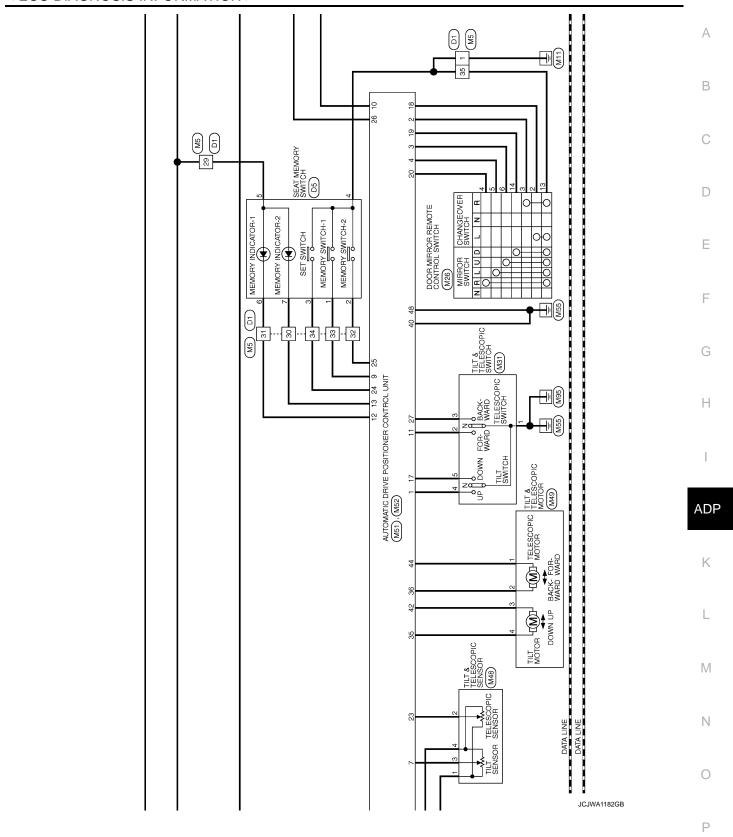
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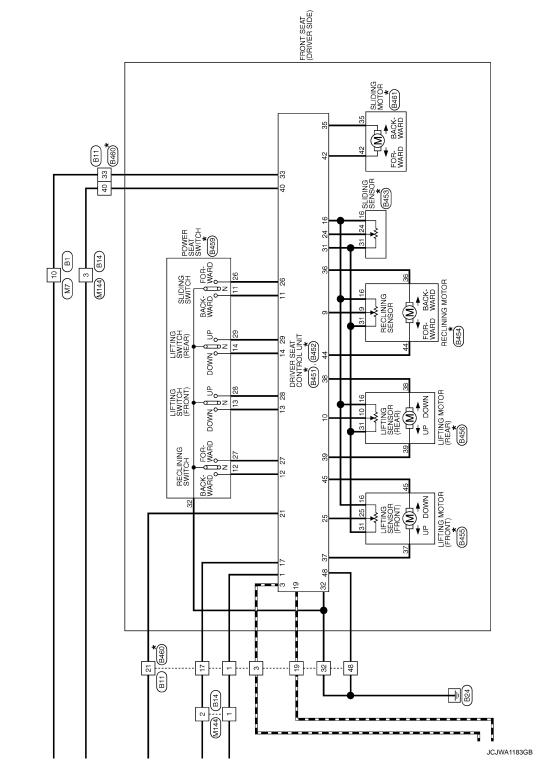
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Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -







*: This connector is not shown in "Harness Layout".

< ECU DIAGNOSIS INFORMATION >

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Connector No.	Connector Name	Connector	唇	ES	_				No.		n [6	21	32	88	9 8	ş		Connector No.	- Connector Name	ŀ		Œ	×						erminal		- 6	· ·	2	9	7	Н	12	12													Н
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Connector No. B460		Connector Type INSTRMWTC	19 3 1 1 1 40 59 20 32 48 21 33 60	Terminal Color Signal Name [Specification]		7 X/R	Н	$^{+}$	32 B/W = =	Ë	48 B –		Connector No. B461	Connector Name SLIDING MOTOR	Connector Type 6098-0239	香	## ##] 35 42 J	1		lal	No. of Wire Signal Name Capetingation	Н	42 W/B –		
Connector No. B456	\Box	MSU0FBK-US	38 38 39 39 39 39 39 39 39 39 39 39 39 39 39	Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification]	10 P/B –	+	Н	39 R/B -		Connector No. B459	Connector Name POWER SEAT SWITCH	Connector Type NS10FW-CS	đị.	Arth	32 14	12 27 11 26 13 28		Terminal Color Signal Name [Specification]	t	12 SB -	13 LG/R -	14 G/B -	Н	+	+	29 F/L = -
Connector No. B454		(A)	38 16 31 9 44 16 31 9 m	Terminal Color Signal Name [Specification]	- 5/M 6	GR G	Н	44 P –		Connector No. B455	Connector Name LIFTING MOTOR (FRONT)	Connector Type NS06FW-CS	Ą	NHH,	45 37	16 31 25		Terminal Color Signal Name [Specification]	t	25 Y/B -	31 GR -	37 G/W -	45 L/R -			
AUTOMATIC DRIVE POSITIONER Connector No. 18452		Gonnector Type INSTIRTW-CS	33 34 35 56	Terminal Color Signal Name [Specification]	33 R BAT (C/B)	ů.	G/W FF	4	40 R/W REAK LIFTING MOTOR (DOWNWARD)	W/B	44 P RECLINING MOTOR (BACKWARD)	R B	l	Connector No. B453	9	Connector Type 6098-0241	香	HS.	7 24 31 16 7	7			le	of Wire	0 91	31 GR -

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< ECU DIAGNOSIS INFORMATION >

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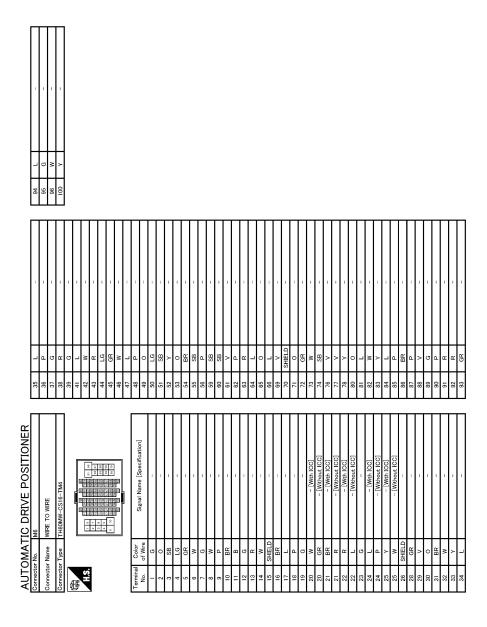
Convenient No. DIA	Connector No. F51 Connector Name A.T. ASSEMBLY Connector Type RK10FG-DGY H.S.	Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification]		9 LG - [With VX engine] 10 GR - [With VX engine]	
The DRIVE POSITIONER 3 58 1 1 1 1 1 1 1 1 1					
THE CONTINUE POSITIONER 2 SB 1 C CONTINUE 2 SIDE CONTINUE COND 2 SIDE CONTINUE C	0 88 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SHELL O O S S	E - 8 - E		+
The control of the	53 56 60 60 60 60 60 60 60 60 60 60 60 60 60	72 72 73	77 78 80 80 81	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	00 00 00 00 00 00 00 00 00 00 00 00 00
Signal Name [Specification] Sign		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- [With 102]	- (With ICC) - (Without ICC) - (With ICC) - (Without ICC)	
The continue of the continue	8 2 7 8 0 8 8 9 7 8 8	SHIELD SB L L	≥ > ₩ α > υ	SHELD C C C C C C C C C C C C C C C C C C C	~ B B B S P C ≤ G G A ✓ P
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AUTOMAT Connector No.	1C DRIVE POSITIONER D33 D00R MIRROR (PASSENGER SIDE) TH24MW-NH 10 9 8 7 6 5 4 3 2 22 21 13 18 17 16 14		SIDE CAMERA RH POWER SUPPLY		MRE TO S S S S S S S S S S S S S S S S S S
AUT Connect Co	OMAT or Name or Type		> u 9 0 - u 8		lor Jire
	Sonnect Connect Connec	Termina No. 2 3 3	6 10	11 12 16 16 19 19 22 22 23 24 24	Connect Connec

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< ECU DIAGNOSIS INFORMATION >

85 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	A B C
Connector No. M5	E F G
Connector No. F151	ADP
Connector Number Connector N	M N
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JCJWA1189GB

< ECU DIAGNOSIS INFORMATION >

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	DOOR MIRROR REMOTE CONTROL SWITCH			56	4			Signal Name [Specification]	1	1	-				-	1			-	1				IILI & IELESCOPIC SWITCH					4 2	7 0			Signal Name [Specification]				1	1												Е	3
M26		TK16FBR		2 3 4	8 9 10 11 12 13 1																	1431	Т		TK06FGY			L	7	2																					>
Connector No.	Connector Name	Connector Type	修	E.S.				Terminal Color		3 FG	H	+	9 8	t	10 R	+	12 22 29 20 20 20 20 20 20 20 20 20 20 20 20 20	+	H	Н		Connector No		Connector Name	Connector Type	₫ <u>E</u>	A	νį.					Terminal Color		- °	3 6	+	╀	1)
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Connector No. M48	Terminal	Color	Signal Name [Specification]	40 B	GND (SIGNAL)	59 GR	4	Т
Connector Name TILT & TELESCOPIC SENSOR	t	- Alle	TILT SW (LIPWARD)	4 4	TILT MOTOR (DOWNWARD)	61 BR	AMBIENT SENSOR GROUND	Т
Connector Type TK04FW	- 6	. 5	MIRROR SELECT SW (RH)	╀	TELESCOPIC MOTOR (BACKWARD)	t	-	Т
24.	4 65	3 0	MIRROR SW (LIPWARD)	╀	GND (POWER)	+	-	Т
6	4	>	MIRROR SW (I FETWARD)	ł	2.0100 2.0100	ł		Т
8 E	· w	. a	MIRROR SENSOR (RH VERTICAL)			ł	Α	Т
	9 6	: 2	MIRROR SENSOR (I H VERTICAL)	Connector No	MRS	8 6	FACH DO	Т
F 0 0 0	, ,	<u> </u>	TII T SENSOB		70	╀	╀	Т
4 3 5 1	. 6	2 -	ADDRESSI	Connector Name	CIRCUIT BREAKER	$\frac{1}{1}$		Т
	Ģ	, >	TX (HABT)	Connector Type	MO2EW-P-I C	1		1
	2 =	. g	TELESCOPIC SW (FRONTWARD)		27			
L	. 2	3 0	IND:	Œ		Connector No	M79	Γ
No of Wire Signal Name [Specification]	2 5	0		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			Т	Т
T	2 1	L	MIRROR MOTOR (BH VERTICAL)	ŻĮ.		Connector Name	MULTIFUNCTION SWITCH	
- 0	4	, 8	MIDDOD MOTOR (BLI HORIZONTAL)			Connector Type	TUICEMENIU	Т
U - 2	2 4	<u>5</u> >	MIDDOD MOTOD (1 H COMMON)		12	odii ioo	7	7
t	2 5	- 14	TILT SW (DOWNWADD)]]	Œ		
	2	: -	MIDDOD SELECT SW (LLL)					
	0 5	L E	MIRROR SELECT SW (LT)	Terminal		Ċ		
Coppector No M49	30	3 8	MIDDOD SW (DIGHTWARD)	_	Signal Name [Specification]		4 6 8 14 16	
т	2 12	<u> </u>	MIRROR SENSOR (RH HORIZONTAL)	t			3 22	
Connector Name TILT & TELESCOPIC MOTOR	22	ı e	MIRROR SENSOR (1 H HORIZONTAL)					
Connector Type NS04FW-CS	3 2	, a	TELESCOPIC SENSOR	$\frac{1}{1}$				
1	24		SET SW			Terminal Color	L	Г
	25	: 87	ADDBESS2	Connector No.	M67	_	re Signal Name [Specification]	
	36	} >	BX (IIABT)			t	GND	Т
	22	. @	TELESCOPIC SW (BACKWARD)	Connector Name	UNIFIED METER AND A/C AMP.	- 6		Т
֖֖֭֭֭֭֓֞֞֞֞֞֞֞֓֓֓֓֓֓֞֟֝֓֓֓֓֞֟֞֓֓֓֡֓֞֟֞֓֓֡֓֞֡֞֞֞֓֡֓֡֞֞֞֡֓֡֡֞֡֓֡֡֡֡֡֓֡֡֡֡֡֡֓֡֡֡֡֡֡	, Ç	, .	MIRROR MOTOR (BH COMMON)	Connector Type	TH32FW-NH	Α α		Т
4 3 2 1	8 8	<u> </u>	MIRROR MOTOR (I H VERTICAL)		1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ł		Т
	33	<u> </u> -	MIRROR MOTOR (I H HORIZONTAL)	6		F	4	Т
	5	1		Š.		H		Т
				113.		F		Т
No. of Wire Signal Name [Specification]	Connector No.	lo. M52	9	41 42 43	53	t	DISK	Т
t		Γ		57 58 56	9 60 61 62 63 65 69 70 71 72	╀	L	Т
2 GR -	Connector Name		AUTOMATIC DRIVE POSITIONER CONTROL UNIT			┨		1
H	Connector Type	Г	NS16FW-CS					
4 L –	q			Terminal Color	Cional Mouse Consideration			
	图			No. of Wire	orginal Ivalitie Lopecification			
	S.H			41 \	ACC POWER SUPPLY			
Connector No. M51		33	34 35 36 6 39	Н	FUEL LEVEL SENSOR SIGNAL			
Connector Name AUTOMATIC DRIVE POSITIONER CONTROL UNIT		40 41	1 42 44 48	+	INTAKE SENSOR SIGNAL			
Т				7	IN-VEHICLE SENSOR SIGNAL			
Connector Type TH32FW-NH				+	AMBIENT SENSOR SIGNAL			
€.	L	ŀ		+	SUNLOAD SENSOR SIGNAL			
ATATA	a	Color	Signal Name [Specification]	+	GAS SENSOR SIGNAL			
#S	7	of Wire		+	IGNITION POWER SUPPLY			
11234567 191011121131415116	33	× 1	POWER SUPPLY (SENSOR)	+	BATTERY POWER SUPPLY			
22 23 24	34	<u>د</u> .	BAT (FUSE)	. B	GROUND			
	32	-	IILI MOTOR (UPWARD)	4	CAN-H			
	36	SP :	TELESCOPIC MOTOR (FORWARD)	+	BRAKE FLUID LEVEL SWITCH SIGNAL			
	39	Ν	BAT (C/B)	28 B	FUEL LEVEL SENSOR GROUND			

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< ECU DIAGNOSIS INFORMATION >

	OON I	А
M123 TH40FG-NH TH40FG-NH TH40FG-NH	Signal Name (Spacification) RAIN SENSOR SERAL LINK OPLICIAL SENSOR STOP LAMP SW 1 STOP LAMP SW 2 DR DOOR UNLOCK SENSOR KEY SLOT SW FOWER WINDOW SW COMM RECEIVER/SENSOR RAID SENSOR POWER NIPOUT 5 COMEIS SW OUTPUT 5 COMEIS SW OUTPUT 7 COMEIS	В
20 20		С
Connector No. Connector Name Connector Type	Terminal Color Ter	D
ULE)	ation] AMIT- AMIT- TO- TO- TO- TT- TT- TT- TT-	Е
CONTROL MOD	Signal Name [Specification] ROOM ANTZ- PASSENGER DOOR ANT- DASSENGER DOOR ANT- DBATES DOOR ANT- DBATES DOOR ANT- DBATES DOOR ANT- DBATES DOOR ANT- ROOM ANTT- ROOM SANT AMP- IGN RELY (F.B) CONT ANTS ANT AMP- IGN RELY (F.B) CONT ANTS ANT AMP- IGN RELY CONT ANT SALE CONT ANT SALE SALE SALE SALE SAL CONDITION 2 SAL CONDITION 3	F
8 0 0 0 0	Secondary Seco	G
Connector No. Connector Name Connector Type H.S. H.S.	7 Terminal (CA No. 1) 1	Н
Π _α	uper v (RAP) uper	1
MITS BOM (BODY CONTROL MODULE) MAGFE-LC	1	ADR
		ADP
Connector No. Connector Type	Connector No. Connector No	K
N N N N N N N N N N N N N N N N N N N		L
POSITIO	Signal Name (Specification) - (With VK engine)	M
No. MIIS Name WIRE TO WIRE Type INCOMM-NSTO		N
AUTOMATIC DRIVE POSITIONER Connector Name WIFE TO WIFE Connector Type Incommentor Type Inco	1	0
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		Р

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Convector law Convector law Line Convector law Convector law Line Convector law Convect	Connector Name AT SHIFT SELECTOR		Connector No. M137		79 SB	AV COMM (H)
Convector Type THEOMY-CSS Convector Type THEOMY-CSS	Convector 15 Conv		Connector Name A/T SHIFT SELECTOR	Connector Name AV CONTROL UNIT	+	CAN-L
Signal Name Secretarial Secretarian Se	The control of the	П	П	П	Н	
Signate Sand frame Sand f	The property of the property		€	4	7	
1 1 1 1 1 1 1 1 1 1	The control of the			A Artist	+	TEL VOICE SIGNAL (+) TEL VOICE SIGNAL (-)
1 2 4 5 1 2 4 5 4 4	Terminal Contraction No. Contraction	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		00 00 FO FO 00 FO	H	VEHICLE SPEED SIGNAL (8-PULSE)
Terminal Code	Signat Name [Specification] Trimine Colore Colore	27 28 29 30 31 32 33 34 35 35 35 35 35 35 35 35 35 35 35 35 35	დ ი	40 41 42 43 44 45 46 50 53 57 58	Н	PARKING BRAKE SIGNAL
Function Function of Many Specification Function of Many Function of Many	Signal Name Specification Terminal Color Specification Color Specification Color Specification Color		6	25 30	+	REVERSE SIGNAL
Terminal Color Term	Signal Name Spean Rame Sp				+	DISK E.IECT SIGNAL
1	1 1 1 1 1 1 1 1 1 1		Color	Color	╀	AUX SOUND SIGNAL GND
1	1		of Wire	of Wire	Н	AUX SOUND SIGNAL LH (+)
1	2			OSIGNAL	Н	AUX SOUND SIGNAL RH (+)
1 1 1 2 3 5 5 5 5 5 5 5 5 5	1		+	P. LG		
Signal Name Specification Connector Name Connecto	Signal Name Specification Corrector Name Correcto	88	+	× 6		
1 2 2 4 5 6 4 4 5 6 4 5 6 4 5 6 6 4 5 6 6 6 6 6 6 6 6 6	10 GR	1 1	+	ž a		
Signal Name Specification Connector Name Connecto	Signal Name Specification Color	1	ł	SHIFLD		
10 GR	10 GR		╁	9		
10 GR	10 GR	- 8	H	a		
Convector No. M144 49 87 58 7 58	Connector No. M144 44 87 88 87 88 88 88	- 0	┝	Μ		
Connector No. M144 44 48 V 46 V	Connector No. M144 446 V 646 V 6		L	~		
Cornector No. M144 48 V 49 Cornector Name C	Cornector No. M144 48 V 49 SE	- 5		>		
Connector Name M144 48 P Connector Name M18E TO WIRE TO WI	Connector Name MIRE TO WIRE 48 Y Connector Name MIRE TO WIRE 50 W 51 Y Y 51 Y Y 51 Y 5	LG _		SB		
Connector Name WIRE TO WIRE 50 W E	Connector Name WIRE TO WIRE 50 W E	HIELD –	П	٨		
Connector Type TH 2MM - NH 55 N N	Connector Type TH 2MM - NH 51			BR		
Connector Type THI 2MM-NH 51 Y S SHELD Signal Name Specification Connector Type THI 2MM-NH Signal Name Specification Connector Name Connector Type THI 2PM-NM-NM-NM-NM-NM-NM-NM-NM-NM-NM-NM-NM-NM	Connector Type TH12MM-NH Si Y	- I	Т	*		
1 2 4 5 6 5 5 5 5 5 5 5 5	1 2 4 5 6 6 6 6 6 6 6 6 6	ت ت	٦	>		
March automatic drive positioner] March automatic drive positi	High Signal Name [Specification] High Fig.	_	d)	SHIELD		
- [With automatic drive positioner] - [Without automatic	1 2 3 4 5 6	1	(A)-(Tr)	SHIELD		
1 2 3 4 5 6 Connector No. M204 Connector No.	1 2 3 4 5 6 Cornector No. M204 Cornec	0 2	H.S.	SHIELD		
Terminal Color Name Specification Terminal Color Name Specification Terminal Color Name Specification Terminal Color Ter	Terminal Color Name Corrector Name Connector Name Connector Name Connector Name Connector Name AV CONT	1 1	3 4 5			
Terminal Color Color Connector Name Color Connector Name Color Connector Type TH32FW	Terminal Color Color Signal Name [Specification] Color TH32PW- T	1	σ.	Г		
Connector rains Color Signal Name [Specification] Connector Type TH42PM- T	Connector Type This Color Signal Name [Specification] Connector Type This	- ^		Г		
Terminal Color Connector Type TH32PW TH3	Terminal Color Color Color Color Color Corrector Type TH32FW- Color Corrector Type TH32FW- Color Corrector Type TH32FW- Color Co	- 0				
- With automatic drive positioner No. of Wire - Without automatic drive positioner 1	- [With automatic drive positioner] 1	Ц	Color	П		
Vivitout automatic drive positioner] V	- [Without automatic drive positioner] 2 Y WHA 2 P -	\dashv	of Wire	1		
1 2 Y	1 2 N	+		MATA		
1 2 2 3 4	1 2 N	- 8	+			
S W	S W	<u>د</u>	+	21 82 84 85 86 87 88 80		
1 2 W - [With around view monitor] No of Wire	1 1 2 W		+	aa 100 100 00 00 00 00		
11 SHELD	11 SHIELD	PT	1	20 100 100 100 100 100		
1 SHELD	1 SHELD	L	_ X Z			
12 W = -[With around view monitor] Terminal Color 12 B = -[Without around view monitor] No. of Wire	12 W - [With around view monitor] Terminal Color Col		SHIELD	ŀ		
12 B - [Without around view monitor] No. or Wire	- 12 B - Without ground view monitor] No 15 LG 170 LG 770		*	Color		
	88 89		8	ot Wire		

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Fail Safe

AUTOMATIC DRIVE POSITIONER

AV CONTROL UNIT

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

< ECU DIAGNOSIS INFORMATION >

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
Only manual functions operate normally.	CAN communication	U1000	<u>ADP-45</u>
	Tilt sensor	B2118	ADP-50
	Telescopic sensor	B2119	ADP-53
	Detent switch	B2126	<u>ADP-56</u>
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-58
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-46
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-48

DTC Index

CONSULT-III display	Timing*1			
	Current mal- function	Previous mal- function	Item	Reference page
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-45
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-46
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-48
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	ADP-50
TELESCO SENSOR [B2119]	0	1-39	Telescopic sensor input	ADP-53
DETENT SW [B2126]	0	1-39	Detention switch condition	ADP-56
UART COMM [B2128]	0	1-39	UART communication	ADP-58

*1.

^{• 0:} Current malfunction is present

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

< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

TERMINAL LAYOUT

 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
 33 | 34 | 35 | 36 | 37 | 38 | 39 |

 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

PHYSICAL VALUES

	inal No. e color)	Description		Conditi	on	Voltage (V)	F	
(+)	(-)	Signal name	Input/ Output	Conditi	OII	(Approx.)		
1	Ground	Tilt switch up signal	Input	Tilt switch	Operate (up)	0	•	
(Y)	Ground	The switch up signal	Input	THE SWILCH	Other than above	5	-	
2		Changeover switch RH		Changeover	RH	0		
(LG)	Ground	signal	Input	switch position	Neutral or LH	5		
3	Ground	Mirror switch up signal	Input	Mirror switch	Operated (up)	0	ΑĽ	
(G)	Giodila	willfor switch up signal	Input	WIIITOI SWILCII	Other than above	5		
4	Crownd	Mirror quitale laft signal	lanut	Mirror switch	Operated (left)	0	k	
(V)	Ground	Mirror switch left signal	Input	WIITOI SWILCTI	Other than above	5	L	
5 (R)	Ground	Door mirror sensor (RH) up/down signal	Input	Door mirror RH po	sition	Change between 3.4 (close to peak) 0.6 (close to valley)	-	
6 (GR)	Ground	Door mirror sensor (LH) up/down signal	Input	Door mirror LH pos	sition	Change between 3.4 (close to peak) 0.6 (close to valley)	N	
7 (LG)	Ground	Tilt sensor signal	Input	Tilt position		Change between 1.2 (close to top) 3.4 (close to bottom)	N	
9					Push	0		
(L)	Ground	Memory switch 1 signal	Input	Memory switch 1	Other than above	5	C	
10 (V)	Ground	UART communication (TX)	Output	Ignition switch ON		2mSec/div		

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	nal No. e color)	Description		Condition	on.	Voltage (V)					
(+)	(-)	Signal name	Input/ Output	Condition	JII	(Approx.)					
11	Ground	Telescopic switch forward	Input	Telescopic switch	Operate (forward)	0					
(SB)	Ground	signal	прис	relescopic switch	Other than above	5					
12					Illuminate	0					
(O)	Ground	Memory indictor 1 signal	Output	Memory indictor 1	Other than above	Battery voltage					
13					Illuminate	0					
(P)	Ground	Memory indictor 2 signal	Output	Memory indictor 2	Other than above	Battery voltage					
14	Ground	Door mirror motor (RH) up	Output	Door mirror RH	Operate (up)	Battery voltage					
(O)	Ground	output signal	Output	Door millor Kir	Other than above	0					
15	Cround	Door mirror motor (RH)	Output	Door mirror RH	Operate (left)	Battery voltage					
(GR)	Ground	left output signal	Output	Door millor RH	Other than above	0					
		Door mirror motor (LH)			Operate (down)	Battery voltage					
16		down output signal	_		Other than above	0					
(Y)	Ground	Door mirror motor (LH)	Output	Door mirror (LH)	Operate (right)	Battery voltage					
		right output signal			Other than above	0					
17					Operate (down)	0					
(W)	Ground	Tilt switch down signal	Input	Tilt switch	Other than above	5					
40		01		Ol	LH	0					
18 (P)	Ground	Changeover switch LH signal	Input	Changeover switch position	Neutral or RH	5					
19	0		14	14	Operate (down)	0					
(SB)	Ground	Mirror switch down signal	Input	Mirror switch	Other than above	5					
20	Ower	Misson quitale sight give	lat	Minnon oud-t-l-	Operate (right)	0					
(BR)	Ground	Mirror switch right signal	Input	Mirror switch	Other than above	5					
21 (L)	Ground	Door mirror sensor (RH) left/right signal	Input	Door mirror RH pos	sition	Change between 3.4 (close to le edge) 0.6 (close to right edge)					
22 (G)	Ground	Door mirror sensor (LH) left/right signal	Input	Door mirror LH pos	sition	Change between 0.6 (close to le edge) 3.4 (close to right edge)					
23 (P)	Ground	Telescopic sensor signal	Input	Telescopic position		Change between 0.8 (close to top) : (close to bottom)					

	nal No. e color)	Description		Conditio	on.	Voltage (V)	А
(+)	(-)	Signal name	Input/ Output	Condition	on	(Approx.)	
24					Push	0	В
(R)	Ground	Set switch signal	Input	Set switch	Other than above	5	
25			_		Push	0	С
(SB)	Ground	Memory switch 2 signal	Input	Memory switch 2	Other than above	5	D
26 (Y)	Ground	UART communication (RX)	Input	Ignition switch ON		10mSec/div 2V/div JMJIA0121ZZ	E
27		Telescopic switch back-			Operate (backward)	0	
(G)	Ground	ward signal	Input	Telescopic switch	Other than above	5	- G
		Door mirror motor (RH)			Operate (down)	Battery voltage	Н
30	0	down output signal	0	D (D. I)	Other than above	0	-
(R)	Ground	Door mirror motor (RH)	Output	Door mirror (RH)	Operate (right)	Battery voltage	
		right output signal			Other than above	0	ADF
31	Cround	Door mirror motor (LH)	Outenut	Door mirror (LLI)	Operate (up)	Battery voltage	
(LG)	Ground	up output signal	Output	Door mirror (LH)	Other than above	0	K
32	Ground	Door mirror motor (LH)	Output	Door mirror (LH)	Operate (left)	Battery voltage	L
(L)	Ground	left output signal	Output	Door millor (Err)	Other than above	0	-
33 (W)	Ground	Sensor power supply	Input	_		5	M
34 (R)	Ground	Power source (Fuse)	Input	_		Battery voltage	Ν
35	Ground	Tilt motor up output signal	Output	Steering tilt	Operate (up)	Battery voltage	_
(L)	Ciddia	or output orginal	Jaipai	2.009	Other than above	0	0
36	Ground	Telescopic motor forward	Output	Steering telescop-	Operate (forward)	Battery voltage	Р
(GR)	J. Garia	output signal	Japat	ic	Other than above	0	_
39 (W)	Ground	Power source (C/B)		_		Battery voltage	=
40 (B)	Ground	Ground	_	_		0	

	nal No. color)	Description		Condition	on.	Voltage (V)
(+)	(-)	Signal name	Input/ Output	Condition	וונ	(Approx.)
41 (Y)	Ground	Sensor ground	_	_		0
42	Ground	Tilt motor down output sig-	Output	Steering tilt	Operate (down)	Battery voltage
(O)	Giodila	nal	Output	Steering till	Other than above	0
44	Ground	Telescopic motor back-	Output	Steering telescop-	Operate (backward)	Battery voltage
(G)	Giound	ward output signal	Output	ic	Other than above	0
48 (B)	Ground	Ground	_	_		0

AUTOMATIC DRIVE POSITIONER CONTROL UNIT < ECU DIAGNOSIS INFORMATION > Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -Α INFOID:0000000005568478 8 (D31) В * 51. ON * 51. ON * 79. ON * 79. ON * 78. ON * 78. ON * 78. ON AUTOMATIC DRIVE POSITIONER CONTROL UNIT (M51) · (M52) C 44 45 D 46 [1] <u>M</u> Е ⟨NV⟩: With NAVI ⟨ON⟩: Without NAVI (B14) M144 F UP-WARD 45 46 F151)* Н TCM (TRANSMISSION CONTROL MODULE) A/T ASSEMBLY *: This connector is not shown in "Harness Layout". AT SHIFT SELECTOR S(DETENTION SWITCH) ADP CIRCUIT BREAKER (M62) NO K AV CONTROL
UNIT
(M210): (M204):< MULTIFUNCTION SWITCH (M72) 121 BCM (BODY CONTROL MODULE) (M118) (M119) (M123) FUSE BLOCK (J/B) L **AUTOMATIC DRIVE POSITIONER** KEY SLOT DATA LINK CONNECTOR (M24) DATA LINE 9 TO M

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To CAN system (With active AFS)
To CAN system (Without active AFS)

2009/07/29

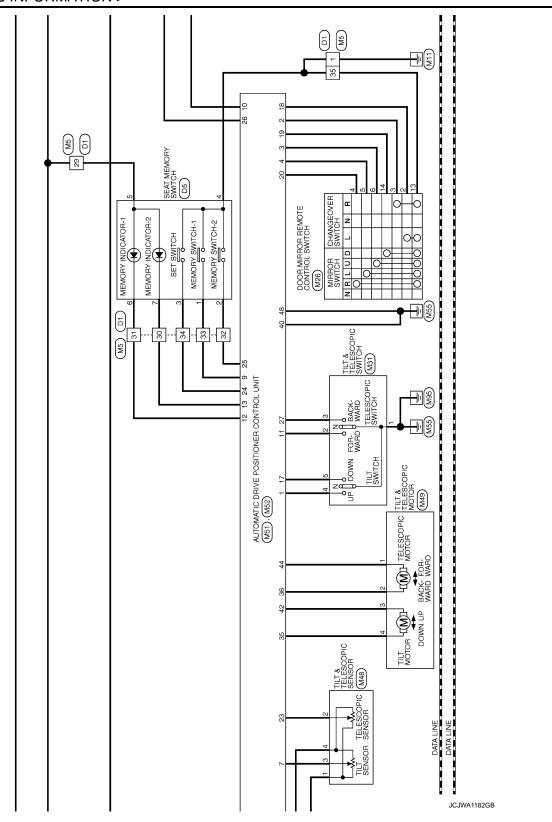
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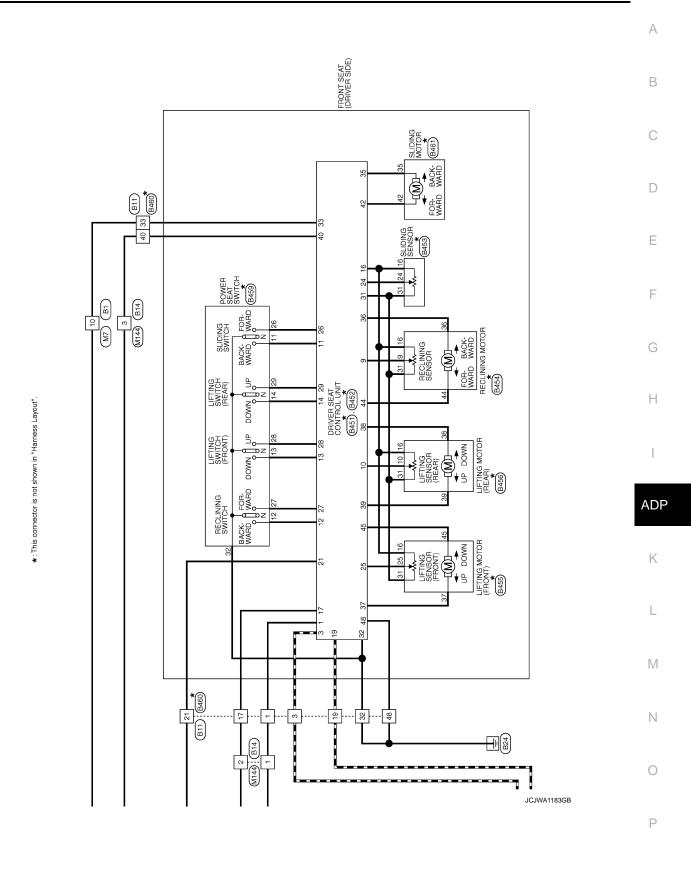
10A

40A

BATTERY

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AUTOMATIC DRIVE POSITIONER Connector No. B1	2	SHIELD		Connector No.	B11	Connector No.	816
Connector Name WIRE TO WIRE	54	П		Connector Name		Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type TH80FW-CS16-TM4	26 25	SHIFLD		Connector Type	NS16FW-CS	Connector Type	A03FW
1	57	Т		ó	1	ą	
	99	Ħ	1	厚		匮	E
	20	SHELD -	T I	HS	47	Σ. Y.	K
9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 6	- -			- 100 cm		Ţ
0 0 0	69	ľ			60 33 21 48 32 20		7
	88	ł		•			
	64	╀	1]
L	65	╀		Terminal Color		Terminal Color	
No. of Wire Signal Name [Specification]	99	╀	1	_	e Signal Name [Specification]	_	Signal Name [Specification]
T	67	P	1	- B	1	2 GR	-
2 L	89	_	1	3	ı		
3 W	69	9	-	17 LG	-		
- 9 9	70	GR		19 P	-	Connector No.	B451
- 5 9	71	\dashv	1	21 Y	1	Connector Name	DRIVER SEAT CONTROL LINIT
7 P -	72	Ω.	_	32 B	_		
+	73	>		33 SB	-	Connector Type	TH32FW
\dashv	74	>	1	\dashv	1	Q	
\dashv	75	\dashv	_	48 B	1	季	
	76	DI	-			H.S.	
4	7	4				-	2 4 5 6 0 40 40 40 40 40 40
13 G	78	1	ſ	Connector No.	B14	7 1 40	30 24 25 27 24 25 26 27 28
4	79	Α	I	Connector Name	WIRE TO WIRE	0 /	24 23 20 21 20
_	80	_	ı	2000	П		
16 SHIELD –	≅	۵.		Connector Type	TH12FW-NH	ŀ	
7	85	+		€		-B	Signal Name [Specification]
+	8	+	1	Middle		No. or wire	í
+	\$ 6	+	1	2.	/ / \ \	A &	KA HA
+	68	¥ ;	1		654321	2	CAN-H
	6	- 0			-	6 P	PULSE (RECLINING)
╀	8	╀			000	+	SI IDING SW (BACKWARD)
╀	8 8	F	, ~			ł	RECLINING SW (BACKWARD)
╀	8	ł		Terminal Color		F	FRONT LIFTING SW (DOWNWARD)
ł	6	╀	1	_	Signal Name [Specification]	t	REAR LIETING SW (DOWNWARD)
╀	6	╀		t	1	t	ACC.
ģ	88	F	-	2 LG	,	ľ	XL
Т	76	H		e:		· >	GAN=I
╀	8	╀		ł			P BANGE SW
Ŧ	8 8	- 0		ł		ł	DILL SE (SI IDINO)
+	8 6	ł		ł		ť	DIII SE (EB LIFTING)
ł	186	F		11 SHIFLD	-	t	SLIDING SW (FORWARD)
43 SB	66	╀		T	- [With around view monitor]	27 R/G	RECLINING SW (FORWARD)
╀] _	┨		+	- [Without around view monitor]	t	FRONT LIFTING SW (LIPWARD)
45 GR -	_		1	ł		t	REAR LIFTING SW (UPWARD)
H	_					H	SENSOR GND
L						32 B/W	GND (SIGNAL)
52 SB -							
l	1						

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< ECU DIAGNOSIS INFORMATION >

33 40 59 80 90 90 90 90 90 90 90 90 90 90 90 90 90	Signal Name [Specification]		A B
Cornector No. B460 Cornector Name WIRE TO WIRE Cornector Type INS16MW-LC H.S. 19 3 1	N		С
Connector No. Connector Nam Connector Typ	Connector Type Conn		D
	ification]		Е
BAS6 LIFTING MOTOR (REAR) NSOGFBR-CS REGISTED TO THE STATE OF THE STA	Signal Name [Specification]		F
			G
Connector No. Connector Name Connector Type	Terminal Color No. 0 f Wir. 10 P./8 11 OR 39 R./8 29 R		Н
g 43	Signal Name [Specification] Signal Name [Specification] Signal Name [Specification]	_	I
BA54 RECLINING MOTOR NSO6FW-CS S6 16 31 9			ADP
Connector No. B454 Connector Name RECLI Connector Type NS06 H.S.	Terminal Color No. of Wee 16 O O O O O O O O O		K
# T	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		L
AUTOMATIC DRIVE POSITIONER Connector No. B482 Connector Name PRIVER SEAT CONTROL UNIT Connector Type NS16FW-CS (場) (場) (4)	Signal Name [Specification] BAT (C) BI BECHNING MOTOR (C) BWWARD) REAR LIFTING MOTOR (C) BWWARD) REAR LIFTING MOTOR (C) BWWARD) BAT (FISE) GND (BOWWARD) FRONT LIFTING MOTOR (LDWARD) GND (POWER) Signal Name (Specification) Signal Name (Specification)		M
MATIC DRIV B452 B452 B762 B762 B762 B762 B763 B764 B764 B764 B764 B764 B764 B764 B764			Ν
AUTOMA Connector No. Connector Type	Connector Name Color Name		0
		JCJWA1185GB	Р

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	D5 24 L –	> 0	A08FW 31 LG -	32	33 SB -	+		+	37	+	4	Signal Name [Specification] 40 Y =	- T	QQ Zh	£ 44	H	- 46 W				Dist	5	WIRE TO WIRE	TH40FW-CS15			15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	महस्य क्षा कर्म कर्म कर्म कर्म कर्म कर्म कर्म कर्म	353433333			Signal Name [Specification]										-		1	
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	\dashv	В 8	- 16 SB 16 S	53 G	Н	55 GR -		Ī	Connector No. D3	Connector Name DOOR MIRROR (DRIVER SIDE)		Connector Type TH24MW-NH	1			8 7 6 5 3	24[23[22[21] 19]18[17] 14		ŀ	Terminal Color Signal Name [Specification]	+	ł	÷ >-	H	GR	8 SB -		, w	H	В	ous 1	18 BR SIDE CAMERA LH GND	m 0	+	¥0 ×										
AUTOMATIC DRIVE POSITIONER	DI	Connector Name WIRE TO WIRE	Connector Type TH40FW-CS15				13 12 11 10 9 0 7 0 3 4 3 2 1	55 54 53 52 51 50 49 48 48 47 35 34 33 32 31 30 29 28 27				Color Signal Name [Specification]			1	1	1	1	-	1		1	ſ	ī	1	1	1 1	1	1	1	1	1	1			1	SHIELD -		-	-	1	1	-	1	

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AUTOMATIC DRIVE POSITIONER Connector No. F103	Connector No. F151	Connec	Connector No.	M5	49 R
Connector Name WIRE TO WIRE	Connector Name TCM (TRANSMISSION CONTROL MODULE)	Connec	Connector Name	WIRE TO WIRE	0 5
Connector Type TK36FW-NS10	Connector Type SP10FG	Connec	Connector Type	TH40MW-CS15	52 R –
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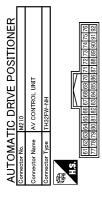
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Vo. M118	Name BCM (BODY CONTROL MODULE)	Type M03FB-LC		<u> </u>	Color Signal Name [Specification]	W BAT (E/I)	POWER WINDO	O POWER WINDOW POWER SUPPLY (RAP)			Vo. M119	Vame BCM (BODY CONTROL MODULE)	Type NS16FW-CS	7			4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19			Color	of Wire	P INT ROOM LAMP PWR SUPPLY (BAT SAVE)	V PASSENGER DOOR UNLOCK OUTPUT	Y STEP LAMP OUTPUT	┪	G DRIVER DOOR, FUEL LID UNLOCK OUTPUT	BK REAK DOOK UNLOCK OU PO!		4	W TURN SIGNAL RH (FRONT)	L	SB ROOM LAMP TIMER	
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Signal Name [Specification]	DRIVER DOOR SW SIGNAL	PARKING BRAKE SIGNAL	COMPOSITE IMAGE SIGNAL GND	COMPOSITE IMAGE SIGNAL	D MICROPHONE SHIELD	MICROPHONE VCC	COMM (CONT->DISP)	CAN-L	AV COMM (L)	AV COMM (L)	ILLUMINATION	IGNITION SIGNAL	REVERSE SIGNAL	VEHICLE SPEED SIGNAL (8-PULSE)	D SHIELD	COMPOSITE IMAGE SYNC SIGNAL	MICROPHONE SIGNAL	D SHIELD	COMM (DISP->CONT)	CAN-H	AV COMM (H)	AV COMM (H)
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< ECU DIAGNOSIS INFORMATION >

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VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM	1
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Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
TIX WIF LIXTH	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
I K WIF LK LOW	Front wiper switch LO	On
ED MACHED CM	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
FR WIPER INT	Front wiper switch INT/AUTO	On
ED WIDED STOD	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
DD WIDED ON	Other than rear wiper switch ON	Off
RR WIPER ON	Rear wiper switch ON	On
	Other than rear wiper switch INT	Off
RR WIPER INT	Rear wiper switch INT	On
	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
	Rear wiper is in STOP position	Off
RR WIPER STOP	Rear wiper is not in STOP position	On
TUDNI GIONIAL D	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TUDNI GIONIAL I	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
TALL LAND OW	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
ALITO LIQUET C'A'	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off

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Monitor Item	Condition	Value/Status
DOOR SW-DR	Driver door closed	Off
DOOK SW-DK	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
DOOD CW DI	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
DOOD CW DV	Back door closed	Off
DOOR SW-BK	Back door opened	On
201 1 0 0 14 0 14 1	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
(E) (O) (I I C) (I	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
(=)(0)(() 1 1 1 1 0 1 1	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
114.74.D.D. O.M.	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
IN/BD OPEN SW	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
AIRE-LOOK	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
NNE-UNLOUK	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
NINE-FAINIU	PANIC button of the Intelligent Key is pressed	On
OKE DAM ODEN	UNLOCK button of the Intelligent Key is not pressed	Off
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off
-	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
20TION 251125	Bright outside of the vehicle	Close to 5 V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V

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Monitor Item	Condition	Value/Status	_
REQ SW -DR	Driver door request switch is not pressed	Off	_
NEQ 3W -DIN	Driver door request switch is pressed	On	
REQ SW -AS	Passenger door request switch is not pressed	Off	
NLQ 3W -A3	Passenger door request switch is pressed	On	
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off	
REQ SW -BD/TR	Back door request switch is not pressed	Off	
ILLQ OV DD/IIL	Back door request switch is pressed	On	
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off	
FUSH 3W	Push-button ignition switch (push switch) is pressed	On	_
ION DIVO. E/D	Ignition switch in OFF or ACC position	Off	_
IGN RLY2 -F/B	Ignition switch in ON position	On	
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off	
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off	_
DIVAINE OVV I	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On	
BRAKE SW 2	The brake pedal is not depressed	Off	_
DRANE SW Z	The brake pedal is depressed	On	•
DETE/CANCL CM	Selector lever in P position	Off	_
DETE/CANCL SW	Selector lever in any position other than P	On	
OFT DAI/ALOVA/	Selector lever in any position other than P and N	Off	
SFT PN/N SW	Selector lever in P or N position	On	_
	Steering is unlocked	Off	
S/L -LOCK	Steering is locked	On	_
2/1	Steering is locked	Off	_
S/L -UNLOCK	Steering is unlocked	On	_
	Ignition switch in OFF or ACC position	Off	_
S/L RELAY-F/B	Ignition switch in ON position	On	_
	Driver door is unlocked	Off	_
UNLK SEN -DR	Driver door is locked	On	
	Push-button ignition switch (push-switch) is not pressed	Off	_
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On	
	Ignition switch in OFF or ACC position	Off	_
IGN RLY1 -F/B	Ignition switch in ON position	On	
	Selector lever in any position other than P	Off	_
DETE SW -IPDM	Selector lever in P position	On	_
	Selector lever in any position other than P and N	Off	
SFT PN -IPDM	Selector lever in P or N position	On	_
	Selector lever in any position other than P	Off	
SFT P -MET	Selector lever in P position	On	_
	Selector lever in any position other than N	Off	_
SFT N -MET	Selector lever in N position	On	_

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Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
ENGINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
3/L LOCK-IPDIVI	Steering is locked	On
C/L LINILK IDDM	Steering is locked	Off
S/L UNLK-IPDM	Steering is unlocked	On
C/L DELAY DEO	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
S/L RELAY-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OV ELAG	Steering is locked	Reset
ID OK FLAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
PRIVITEING STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEN OW OLOT	The Intelligent Key is not inserted into key slot	Off
KEY SW -SLOT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIDATIO	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIDMIDS	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
CONFIRM IDT	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
17 4	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
1173	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
1F Z	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
IF I	The ID of first Intelligent Key is registered to BCM	Done

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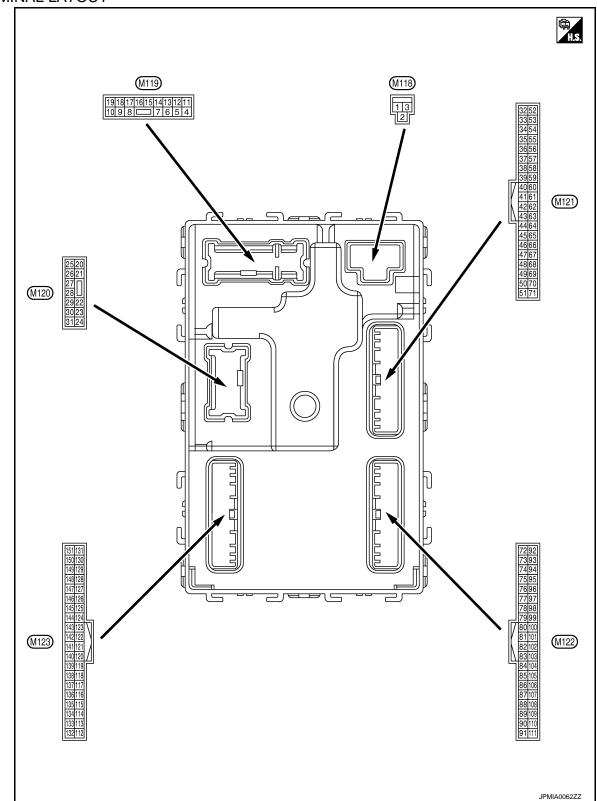
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TERMINAL LAYOUT



PHYSICAL VALUES

	inal No.	Description				Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage	
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	12 V	
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V	
4		Interior room lamp			battery saver is activated. oom lamp power supply)	0 V	
4 (P)	Ground	power supply (Battery saver signal)	Output	ed.	battery saver is not activat- or room lamp power supply)	12 V	
5	Ground	Passenger door UN-	Output	Passanger door	UNLOCK (Actuator is activated)	12 V	
(V)	Ground	LOCK	Output	Passenger door	Other than UNLOCK (Actuator is not activated)	0 V	
7	Cround	Ston lamp	Output	Ston Jama	ON	0 V	
(Y)	Ground	Step lamp	Output	Step lamp	OFF	12 V	
8	Ground	All doors, fuel lid	Cutnut	All doors fuel lid	LOCK (Actuator is activated)	12 V	
(V)	Ground	LOCK	Output	All doors, fuel lid	Other than LOCK (Actuator is not activated)	0 V	
9	Ground	Driver door, fuel lid	Quitnut	Driver door, fuel	UNLOCK (Actuator is activated)	12 V	
(G)	Giouria	UNLOCK	Output	lid	Other than UNLOCK (Actuator is not activated)	0 V	
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door	UNLOCK (Actuator is activated)	12 V	
(BR)	Oloulu	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V	
11 (R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage	
13 (B)	Ground	Ground	_	Ignition switch ON		0 V	
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage	
(1)					ACC or ON	0 V	_
					Turn signal switch OFF	0 V	
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0	

	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
					Turn signal switch OFF	0 V
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 1 s PKID0926E 6.5 V
-				Other than under	condition	5.0 V
19 (SB)	Ground	Room lamp timer	Output	(Door is unlocke	mp timer is activated. ed. etc) unction is activated.	0 V
-					Turn signal switch OFF	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
					Turn signal switch OFF	0 V
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
26	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
(P)		•	•		ON (Operated)	12 V
34	Ground	Luggage room anten-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(SB)	Siound	na (–)	Curput	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB

	inal No.	Description				Malura	
(Wire	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)	Α
35		Luggage room anten-		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(V)	Ground	na (+)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 1	E F
38	Ground	Back door antenna (–	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(B)	Glouliu		Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	ADP K
39	Ground	Back door antenna	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	M
(W)	Glouliu	(+)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	O P
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V 0 V	

	inal No. e color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
48	Ground	Back door opener	Output	Back door opener	Not pressed	12 V
(W)	Cround	switch operation	Output	switch	Pressed	0 V
52	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	12 V
(LG)	Cround	Clarior rolay control	Output	ON	When selector lever is not in P or N position	0 V
61 (W)	Ground	Back door opener request switch	Input	Back door request switch	ON (Pressed) OFF (Not pressed)	0 V
						JPMIA0016GB
64	0	Intelligent Key warn-	0	Intelligent Key	Sounding	0 V
(L)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V
65 (O)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	(V) 15 10 5 0 10 ms JPMIA0016GB
					Not in stop position	1.0 V 0 V
66					OFF (Door close)	12 V
(LG)	Ground	Back door switch	Input	Back door switch	ON (Door open)	0 V
					Pressed	0 V
67 (P)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) ₁₅ 10 5 0 → 10ms JPMIA0594GB 8.5 - 9.0 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	(V) ₁₅ 10 5 0 ***+10ms JPMIA0594GB 8.5 - 9.0 V
					ON (Door open)	0 V

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	А
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	A
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) 15 10 5 0 + 10ms JPMIA0594GB	В
					ON (Daniel)	8.5 - 9.0 V	D
					ON (Door open)	0 V	_
		Room antenna 2 (–)			When Intelligent Key is in the passenger compartment	15 10 5 0	F
72	0			put Ignition switch OFF		JMKIA0062GB	G
(R)		(Center console)	Output		When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0	Н
						JMKIA0063GB	4.0.0
73	Ground	Room antenna 2 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	K L
(G)		(Center console)		OFF		(V)	\mathbb{M}
					When Intelligent Key is not in the passenger compartment	15 10 5 0 1 s JMKIA0063GB	N
							0

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	inal No. e color)	Description			O an alitica	Value	
+	-	Signal name	Input/ Output	Condition		(Approx.)	
74		Passenger door an-		When the pas-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	
(SB)	Ground	tenna (-)	Output	senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	
75	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1	
(BR)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	
76	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	
(V)	Ground	(-)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	

Term	ninal No.	Description				Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	А
				When the driver	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	В
77 (LG)	Ground	Driver door antenna (+)	Output	door request switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	D E
78	0	Room antenna 1 (–)	0.4.1	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 1	G H
(Y)	Ground	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	ADI K
70					When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	M
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	O

	inal No.	Description				Value
(Wire color)		Signal name Input/		Condition		(Approx.)
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82	Ground	Ignition relay [Fuse	Output	Ignition switch	OFF or ACC	0 V
(P)	Ground	block (J/B)] control	Output	ON		12 V
83 (GR)	Ground	Remote keyless entry receiver communication	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
	Sioulu		Output	When operating either button on the Intelligent Key		(V) 15 10 5 0 1 ms JMKIA0065GB

< ECU DIAGNOSIS INFORMATION >

	ninal No.	Description				Value	Δ.
(Wire color)		Signal name Input/ Output		Condition		(Approx.)	А
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	С
87	Ground	Combination switch	Input	Combination	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	E
(BR)	Glound	INPUT 5	mput	switch	Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	G H
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	ADP K

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	inal No. e color)	Description			Condition	Value	
+	-	Signal name	Input/ Output	Condition		(Approx.)	
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 2 ms JPMIA0036GB 1.3 V	
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB	
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	
					Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 3	(V) 15 10 2 ms JPMIA0040GB	
89 (SB)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (Push switch)	Pressed Not pressed	1.3 V 0 V 12 V	
90 (P)	Ground	CAN-L	Input/ Output	——————————————————————————————————————		_	
91 (L)	Ground	CAN-H	Input/ Output				

	inal No.	Description				Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					OFF	12 V	
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 10 1 s JPMIA0015GB	
					ON	6.5 V 0 V	
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage	
(v)					ON or ACC	0 V	
95	Ores in 1	ACC roleytl	Out	louition contact	OFF	0 V	
(O)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	12 V	
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		_	12 V	
97	Cround	Steering lock condi-	linput Steering lo	Ota ania mila ala	LOCK status	0 V	
(L)	Ground	tion No. 1		Steering lock	UNLOCK status	12 V	
98	Cround	Steering lock condition No. 2	Input	Steering lock	LOCK status	12 V	
(P) Ground	Ground				UNLOCK status	0 V	
99	Cround	Selector lever P position switch	Input	Selector lever	P position	0 V	
(R)	Ground				Any position other than P	12 V	
					ON (Pressed)	0 V	
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	15 10 5 0 10 ms JPMIA0016GB	
					ON (Pressed)	1.0 V 0 V	
101	Ground	Driver door request	Input	Driver door re-		(V) 15 10	
(SB)		switch	.F	quest switch	OFF (Not pressed)	0 JPMIA0016GB 1.0 V	
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V	
(O)	Ground	lay control	Output	Ignition switch	ON	12 V	
103 (BR)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFI	F	12 V	

Term	inal No. e color)	Description				Value	
+	- COIOI)	Signal name	Input/ Output	Condition		(Approx.)	
106 (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	12 V	
					ON All switches OFF	0 V (V) 15 10 2 ms JPMIA0041GB 1.4 V	
					Turn signal switch LH	(V) 15 10 2 ms JPMIA0037GB 1.3 V	
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	А
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	^
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	ВС
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB	E
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	G H I
					Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0040GB	ADP K
					Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	M

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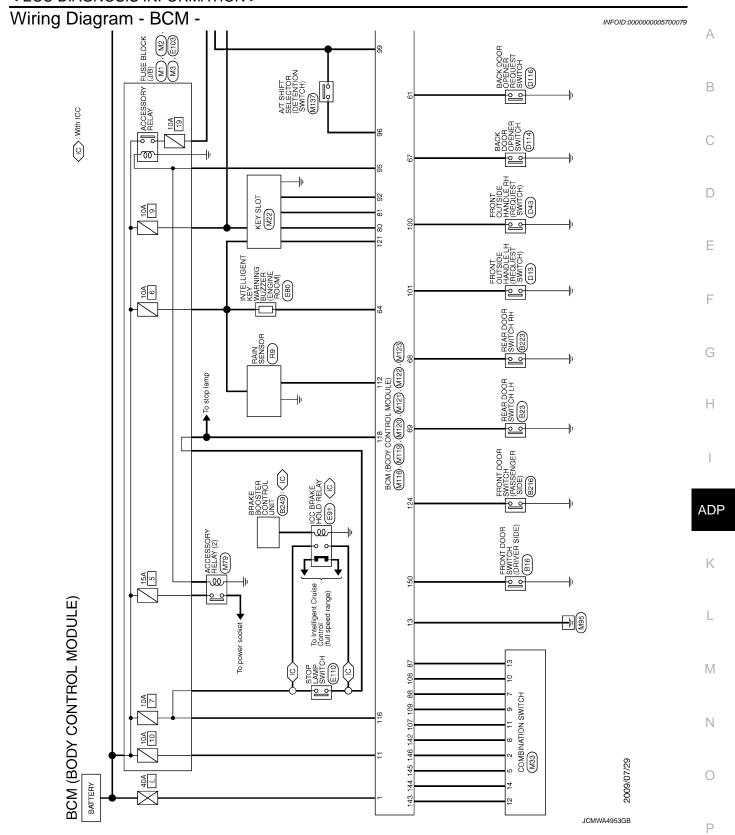
	inal No.	Description				Value
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 2 ms JPMIA0036GB 1.3 V
					Front wiper switch INT/ AUTO	(V) 15 10 5 0 2 ms JPMIA0038GB
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V
					ON	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V

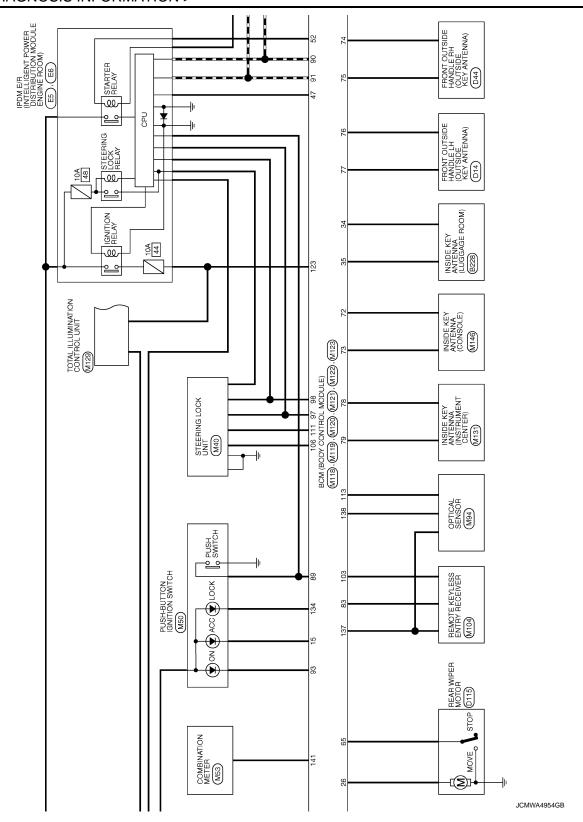
	inal No.	Description				Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	4
					LOCK status	12 V	-
111 (GR)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 ms JMKIA0066GB	
					For 15 seconds after UN- LOCK	12 V	-
					15 seconds or later after UNLOCK	0 V	-
112 (GR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10ms JPMIA0156GB	-
					When bright outside of the	8.7 V Close to 5 V	-
113 (P)	Ground	Optical sensor	Input	Ignition switch ON When dark outside of vehicle		Close to 0 V	
116 (BR)	Ground	Stop lamp switch 1	Input	vehicle —		Battery voltage	Α
		Stop lamp switch 2		OFF (Brake pedal is not depressed) Stop lamp switch		0 V	-
118	Ground	(Without ICC)	Input	Stop lamp switch ON (Brake pedal is depressed)		Battery voltage	-
(P)	Ground	Stop lamp switch 2	Input	Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V	_
		(With ICC)			ON (Brake pedal is de- rake hold relay ON	Battery voltage	_
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) ₁₅ 10 5 0 ***10ms	
					UNLOCK status	_{ЈРМІАО594GB} 8.5 - 9.0 V	-
				M/L and a Late 19	(Unlock switch sensor ON)	0 V	-
121 (BR)	Ground	Key slot switch	Input	When the Intellige	nt Key is inserted into key slot nt Key is not inserted into key	12 V 0 V	-
123	Ground	IGN feedback	Input	slot Ignition switch	OFF or ACC	0 V	-
(W)	Cround	. OIT IOOUDAUK	Input	-gradon switch	ON	Battery voltage	

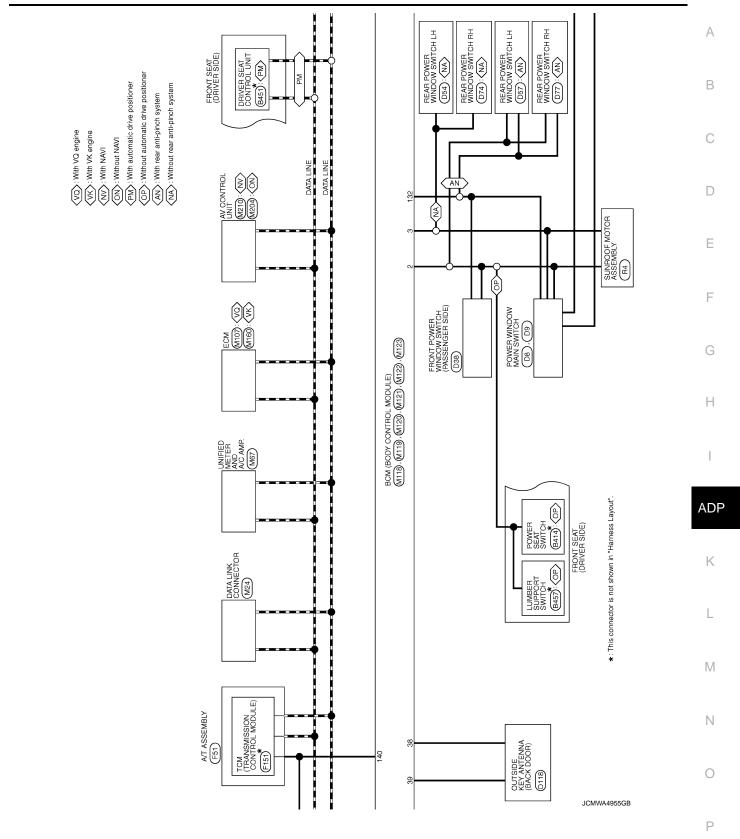
	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) ₁₅ 10 5 0 → 10ms JPMIA0594GB 8.5 - 9.0 V
					ON (Door opene)	0 V
132 (O)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB
				Ignition switch OF	T	12 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
137 (B)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138	0		0	lauritia a accitale	OFF	0 V
(Y)	Ground	Sensor power supply	Output	Ignition switch ACC or ON		5.0 V
140 (R)	Ground	Selector lever P/N position	Input	Selector lever P or N position Except P and N positions		12 V 0 V
					ON	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0 1 1 s JPMIA0014GB
					OFF	12 V
142 (O)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND	0 V
					Turn signal switch RH	2 ms JPMIA0031GB

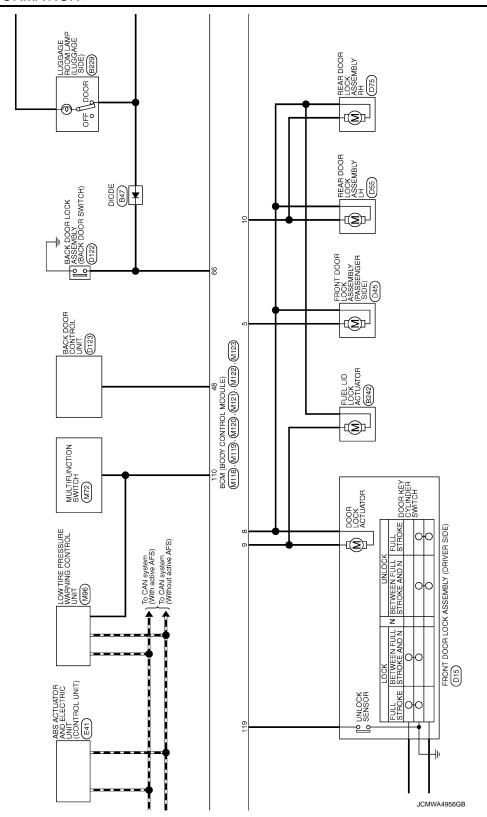
inal No.	Description				Value	Δ
e color)	Signal name	Input/ Output		Condition	(Approx.)	P
				All switches OFF (Wiper intermittent dial 4)	0 V	Е
				Front wiper switch HI (Wiper intermittent dial 4)		
Cround	Combination switch	Output	Combination	Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10	C
Glound	OUTPUT 1	Output	switch	Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2	5 0 2 ms	С
				Wiper intermittent dial 3Wiper intermittent dial 6Wiper intermittent dial 7		Е
				All switches OFF (Wiper intermittent dial 4)	0 V	F
				Front washer switch ON (Wiper intermittent dial 4)		
	Combination switch		Combination	Rear wiper switch ON (Wiper intermittent dial 4)	(V)	(
Ground	OUTPUT 2	Output	switch	Rear washer switch ON (Wiper intermittent dial 4)	5 0	ŀ
				Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	2 ms JPMIA0033GB	ı
				All switches OFF	0 V	ΑI
				Front wiper switch INT/ AUTO	(V)	Al
	Combination switch		Combination switch	Front wiper switch LO	15	ŀ
Ground	OUTPUT 3	Output	(Wiper intermittent dial 4)	Lighting switch AUTO	0 2 ms JPMIA0034GB	L
				All switches OFF		
				Front fog lamp switch ON		
			Combination	Lighting switch 2ND	(V)	
Ground	Combination switch OUTPUT 4	Output	switch (Wiper intermit- tent dial 4)	Lighting switch PASS	10 5 0	1
				rum signai switch LH	2 ms	(
	Ground Ground	Ground Combination switch OUTPUT 1 Ground Combination switch OUTPUT 2 Ground Combination switch OUTPUT 3 Combination switch OUTPUT 3	Ground Combination switch Output Combination switch Output Combination switch OUTPUT 2 Combination switch OUTPUT 3 Combination switch Output Combination switch Output	Ground Combination switch Output Combination switch OUTPUT 2 Output Combination switch OUTPUT 3 Output Combination switch OUTPUT 3 Combination switch (Wiper intermittent dial 4) Ground Combination switch Output Combination switch (Wiper intermittent dial 4) Combination switch Output Combination switch (Wiper intermittent dial 4) Combination switch Output Combination switch (Wiper intermittent dial 4)	Ground Combination switch Output Combination switch OUTPUT 2 Ground Combination switch OUTPUT 3 Ground Combination switch OUTPUT 3 Ground Combination switch OUTPUT 4 Ground Combination switch OUTPUT 4 Ground Combination switch Output Combination Switch Co	Ground Combination switch OUTPUT 2 Ground Combination switch OUTPUT 3 Ground Combination switch OUTPUT 3 Ground Combination switch OUTPUT 4 Ground Combination switch OUTPUT 3 Ground Combination switch OUTPUT 3 Ground Combination switch OUTPUT 4 Ground Ground Combination Switch OUTPUT 4 Ground Gro

	inal No.	Description				Value
+ (VVire	e color)	Signal name	Input/ Output	Condition		(Approx.)
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) ₁₅ 10 5 0 → 10ms JPMIA0594GB 8.5 - 9.0 V
					ON (Door open)	0 V
151	Ground	Rear window defog-	Output	Rear window de-	Active	0 V
(G)	Ground	ger relay control	Output	fogger	Not activated	Battery voltage

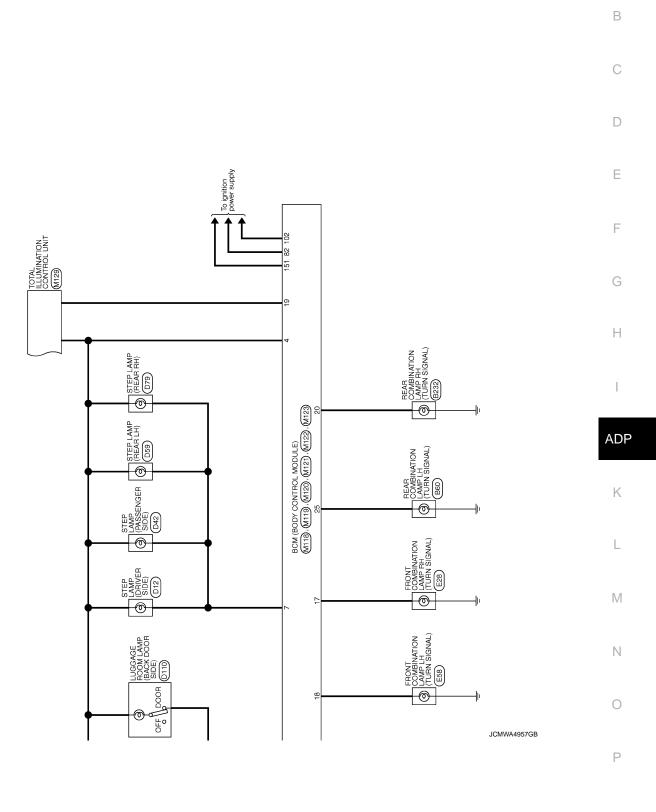








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Control Park Control Control	BCM (BODY CONTROL MODULE) Connector No. M33	Connector No. M119	Connector No.		M121	8	GR	NATS ANT AMP.
Consecution	Т	Г		Γ		ā	×	NATS ANT AMD
Third by the control of the contro	Connector Name COMBINATION SWITCH		Connecto		3CM (BODY CONTROL MODULE)	8	۵	IGN RELAY (F/B) CONT
The control of the	Connector Type TH16FW-NH	Г	Connecto	Т	TH40FGY-NH	88	æ	KEYLESS ENTRY RECEIVER SIGNAL
The control will be control	1	1	ľ	1		87	ä	COMBI SW INPUT 5
Control Cont		·	厚			88	>	COMBI SW INPUT 3
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INFOID:0000000005700080

Fail-safe

FAIL-SAFE CONTROL BY DTC

BCM (BODY CONTROL MODULE)

3CM (BODY CONTROL MODULE)

BCM performs fail-safe control when any DTC are detected.

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	 500 ms after the following signal reception status becomes consistent Selector lever P position switch signal P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)

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Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2612: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E9: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled • Steering condition No. 1 signal: LOCK (0 V) • Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

The blinking speed is normal while activating the hazard warning lamp.

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

- BCM judges the rain sensor serial link error by the rain sensor serial link condition and detects the rain sensor malfunction by rain sensor malfunction signal.
- When BCM detects the rain sensor serial link error or the rain sensor malfunction while front wiper AUTO operation, BCM operates a fail-safe control.

NOTE:

If rain sensor malfunction is detected when ignition switch is turned OFF \Rightarrow ON and front wiper switch is INT position, BCM operates a fail-safe control.

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

1. More than 1 minute is passed after the rear wiper stops.

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- 2. Turn rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:0000000005700081

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

1 B2562: LOW VOLTAGE	
U1000: CAN COMM U1010: CONTROL UNIT(CAN)	
B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING	
B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW B2605: PNP SW B2606: S/L RELAY B2607: S/L RELAY B2607: S/L RELAY B2609: S/L STATUS B2609: STARTER RELAY B2609: STARTUS B2609: STATUS B2609: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2607: STEERING LOCK UNIT B2608: STEERING LOCK UNIT B2609: S/L STATUS B2619: S/L STATUS B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM B2619: BCM B2619: BCM B2619: SCM B2619: SCM B2619: SCM B2619: SCM B2619: S/L STATUS B2669: S/L STATUS B26614: VEHICLE SPEED SIG	
B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	
6 B26E7: TPMS CAN COMM	

DTC Index

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-17, "COM-MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>.

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CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
No DTC is detected. Further testing may be required.	_	_	_	_
U1000: CAN COMM	_	_	_	BCS-35
U1010: CONTROL UNIT(CAN)	_	_	_	BCS-36
U0415: VEHICLE SPEED SIG	_	_	_	BCS-37
B2013: ID DISCORD BCM-S/L	×	×	_	<u>SEC-50</u>
B2014: CHAIN OF S/L-BCM	×	×	_	SEC-51
B2190: NATS ANTENNA AMP	×	_	_	SEC-42
B2191: DIFFERENCE OF KEY	×	_	_	SEC-45
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-46
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-48
B2195: ANTI SCANNING	×	_	_	SEC-49
B2553: IGNITION RELAY	_	×	_	PCS-50
B2555: STOP LAMP	_	×	_	SEC-54
B2556: PUSH-BTN IGN SW	_	×	×	SEC-56
B2557: VEHICLE SPEED	×	×	×	SEC-58
32560: STARTER CONT RELAY	×	×	×	SEC-59
B2562: LOW VOLTAGE	_	×	_	BCS-38
32601: SHIFT POSITION	×	×	×	SEC-60
B2602: SHIFT POSITION	×	×	×	SEC-63
32603: SHIFT POSI STATUS	×	×	×	<u>SEC-65</u>
32604: PNP SW	×	×	×	<u>SEC-68</u>
32605: PNP SW	×	×	×	<u>SEC-70</u>
B2606: S/L RELAY	×	×	×	SEC-72
B2607: S/L RELAY	×	×	×	SEC-73
B2608: STARTER RELAY	×	×	×	<u>SEC-75</u>
B2609: S/L STATUS	×	×	×	SEC-77
B260A: IGNITION RELAY	×	×	×	PCS-52
B260B: STEERING LOCK UNIT		×	×	SEC-81
B260C: STEERING LOCK UNIT		×	×	<u>SEC-82</u>
B260D: STEERING LOCK UNIT		×	×	<u>SEC-83</u>
B260F: ENG STATE SIG LOST	×	×	×	SEC-84
B2612: S/L STATUS	×	×	×	SEC-88
B2614: ACC RELAY CIRC	_	×	×	PCS-54
B2615: BLOWER RELAY CIRC		×	×	PCS-56
32616: IGN RELAY CIRC		×	×	PCS-58
32617: STARTER RELAY CIRC	×	×	×	SEC-92
B2618: BCM	×	×	×	PCS-60
B2619: BCM	×	×	×	SEC-94
B261A: PUSH-BTN IGN SW		×	×	SEC-95
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	<u>SEC-98</u>

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CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
B2621: INSIDE ANTENNA	_	×	_	DLK-61
B2622: INSIDE ANTENNA	_	×	_	DLK-63
B2623: INSIDE ANTENNA	_	×	_	DLK-65
B26E7: TPMS CAN COMM	_	_	_	BCS-39
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	SEC-86
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	SEC-87

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS Α MANUAL FUNCTION DOES NOT OPERATE ALL COMPONENT В ALL COMPONENT: Diagnosis Procedure INFOID:0000000005249787 ${f 1}$.CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT Check driver seat control unit power supply and ground circuit. Refer to ADP-59, "DRIVER SEAT CONTROL UNIT: Diagnosis Procedure". D Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. Е 2.CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT Check automatic drive positioner control unit power supply and ground circuit. Refer to ADP-60. "AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure". F Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Confirm the operation again. Н Is the result normal? YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident". >> GO TO 1. NO POWER SEAT POWER SEAT: Diagnosis Procedure INFOID:0000000005249788 ADP 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT Check power seat switch ground circuit. Refer to ADP-82, "Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace harness or connector. 2.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident". NO >> GO TO 1. Ν STEERING POSITION FUNCTION DOES NOT OPERATE STEERING POSITION FUNCTION DOES NOT OPERATE: Diagnosis Procedure INFOID:0000000005249789 CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT Check tilt & telescopic switch ground circuit. Refer to ADP-83, "Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace harness or connector. 2.CONFIRM THE OPERATION

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< SYMPTOM DIAGNOSIS >

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> GO TO 1.

SEAT SLIDING

SEAT SLIDING: Diagnosis Procedure

INFOID:0000000005249790

1. CHECK SLIDING MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

CHECK SLIDING SWITCH

Check sliding switch.

Refer to ADP-62, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK SLIDING MOTOR

Check sliding motor.

Refer to ADP-108, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> GO TO 1. SEAT RECLINING

SEAT RECLINING : Diagnosis Procedure

INFOID:0000000005249791

1. CHECK RECLINING MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CHECK RECLINING SWITCH

Check reclining switch.

Refer to ADP-64, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK RECLINING MOTOR

Check reclining motor.

<pre></pre>	
Refer to ADP-110, "Component Function Check".	
Is the inspection result normal?	А
YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts.	
4.CONFIRM THE OPERATION	В
Check the operation again.	
Is the result normal?	С
YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident". NO >> GO TO 1.	
SEAT LIFTING (FRONT)	D
,	D
SEAT LIFTING (FRONT) : Diagnosis Procedure	INFOID:0000000005249792
1.CHECK LIFTING (FRONT) MECHANISM	E
Check for the following.Mechanism deformation or pinched foreign materials.	
 Interference with other parts because of poor installation. 	F
Is the inspection result normal?	
YES >> GO TO 2.	G
NO >> Repair or replace the malfunction parts.	
2.CHECK LIFTING SWITCH (FRONT)	
Check lifting switch (front). Refer to ADP-66, "Component Function Check".	11
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	I
3. CHECK LIFTING MOTOR (FRONT)	
	ADP
Check lifting motor (front). Refer to ADP-112, "Component Function Check".	
Is the inspection result normal?	K
YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts. 4.CONFIRM THE OPERATION	
	L
Check the operation again. Is the result normal?	
YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".	M
NO >> GO TO 1.	
SEAT LIFTING (REAR)	N
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:000000005249793
1. CHECK LIFTING (REAR) MECHANISM	0
Check for the following.	
 Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 	Р
Is the inspection result normal?	Γ
YES >> GO TO 2.	
NO >> Repair or replace the malfunction parts.	
2.CHECK LIFTING SWITCH (REAR)	
Check lifting switch (rear). Refer to ADP-68, "Component Function Check".	
Neier to ADE-00, Component i unction Check.	

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Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK LIFTING MOTOR (REAR)

Check lifting motor (rear).

Refer to ADP-114, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

f 4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> GO TO 1.

STEERING TILT

STEERING TILT: Diagnosis Procedure

INFOID:0000000005249794

1. CHECK STEERING TILT MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2. CHECK TILT SWITCH

Check tilt switch.

Refer to ADP-70, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3. CHECK TILT MOTOR

Check tilt motor.

Refer to ADP-116, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> GO TO 1.

STEERING TELESCOPIC

STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000005249795

1. CHECK STEERING TELESCOPIC MECHANISM

Check for the following.

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

Is the inspection result normal?

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< SYMPTOM DIAGNOSIS >	
YES >> GO TO 2.	
NO >> Repair or replace the malfunction parts.	Α
2.CHECK TELESCOPIC SWITCH	
Check telescopic switch. Refer to ADP-72, "Component Function Check".	В
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	С
3. CHECK TELESCOPIC MOTOR	
Check telescopic motor.	D
Refer to ADP-118, "Component Function Check". Is the inspection result normal?	
YES >> GO TO 4.	Е
NO >> Repair or replace the malfunction parts.	
4.CONFIRM THE OPERATION	F
Check the operation again.	'
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-36</u> , " <u>Intermittent Incident</u> ".	
NO >> GO TO 1.	G
DOOR MIRROR	
DOOR MIRROR : Diagnosis Procedure	Н
1. CHECK DOOR MIRROR MECHANISM	
Check for the following.	ı
 Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 	
Is the inspection result normal?	ADP
YES >> GO TO 2.	
NO >> Repair or replace the malfunction parts. 2.CHECK MIRROR SWITCH	K
Check mirror switch.	
Refer to MIR-11, "MIRROR SWITCH: Component Function Check".	L
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	M
3. CHECK MIRROR MOTOR	IVI
Check mirror motor. Refer to ADP-120, "Component Function Check".	Ν
Is the inspection result normal?	
YES >> GO TO 4.	0
NO >> Repair or replace the malfunction parts. 4.CONFIRM THE OPERATION	
Check the operation again.	Р
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident". NO >> GO TO 1.	

< SYMPTOM DIAGNOSIS >

MEMORY FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Diagnosis Procedure

INFOID:0000000005249797

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-199, "ALL COMPONENT : Diagnosis Procedure"

$2.\mathsf{PERFORM}$ INITIALIZATION AND MEMORY STORING PROCEDURE

1. Perform initialization procedure.

Refer to ADP-9, "SYSTEM INITIALIZATION: Special Repair Requirement".

2. Perform memory storing procedure.

Refer to ADP-10, "MEMORY STORING: Special Repair Requirement".

3. Check memory function.

Refer to ADP-26, "MEMORY FUNCTION: System Description".

Is the inspection result normal?

YES >> Memory function is normal.

NO >> GO TO 3.

3. CHECK SEAT MEMORY SWITCH

Check seat memory switch.

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch.

4. CHECK DETENTION SWITCH

Check detention switch.

Refer to ADP-84, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunction parts.

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> GO TO 1.

SEAT SLIDING

SEAT SLIDING: Diagnosis Procedure

INFOID:0000000005249798

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-200, "SEAT SLIDING : Diagnosis Procedure"

$\mathbf{2}.$ CHECK SLIDING SENSOR

Check sliding sensor.

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

Is the inspection result normal?

< SYMPTOM DIAGNOSIS >	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	А
3. CONFIRM THE OPERATION	\wedge
Check the operation again.	В
Is the result normal?	D
YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident". NO >> GO TO 1.	
SEAT RECLINING	С
SEAT RECLINING : Diagnosis Procedure	D
1. CHECK MANUAL OPERATION	D
Check manual operation.	Е
Is the inspection result normal? YES >> GO TO 2.	
NO >> Refer to ADP-200, "SEAT RECLINING : Diagnosis Procedure"	F
2.CHECK RECLINING SENSOR	
Check reclining sensor. Refer to ADP-91, "Component Function Check".	G
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	Н
3.CONFIRM THE OPERATION	
Check the operation again.	I
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-36</u> , " <u>Intermittent Incident</u> ".	
NO >> GO TO 1.	ADP
SEAT LIFTING (FRONT)	
SEAT LIFTING (FRONT): Diagnosis Procedure	K
1.CHECK MANUAL OPERATION	
Check manual operation.	L
Is the inspection result normal? YES >> GO TO 2.	
NO >> Refer to ADP-201, "SEAT LIFTING (FRONT) : Diagnosis Procedure"	\mathbb{M}
2.CHECK LIFTING SENSOR (FRONT)	
Check lifting sensor (front). Refer to ADP-94, "Component Function Check".	Ν
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	0
3. CONFIRM THE OPERATION	
Check the operation again.	Р
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> . NO >> GO TO 1.	
SEAT LIFTING (REAR)	

< SYMPTOM DIAGNOSIS >

SEAT LIFTING (REAR): Diagnosis Procedure

INFOID:000000000524980

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-201, "SEAT LIFTING (REAR) : Diagnosis Procedure"

2.CHECK LIFTING SENSOR (REAR)

Check lifting sensor (rear).

Refer to ADP-97, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> GO TO 1.

STEERING TELESCOPIC

STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000005249802

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-202, "STEERING TELESCOPIC : Diagnosis Procedure"

2.CHECK TELESCOPIC SENSOR

Check steering telescopic sensor.

Refer to ADP-102, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

${f 3.}$ CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> GO TO 1.

STEERING TILT

STEERING TILT: Diagnosis Procedure

INFOID:0000000005249803

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-202, "STEERING TILT : Diagnosis Procedure"

2. CHECK TILT SENSOR

Check steering tilt sensor.

Refer to ADP-100, "Component Function Check".

< SYMPTOM DIAGNOSIS > Is the inspection result normal? Α YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR D DOOR MIRROR: Diagnosis Procedure INFOID:0000000005249804 1. CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. F NO >> Refer to ADP-203, "DOOR MIRROR : Diagnosis Procedure" 2. CHECK MIRROR SENSOR Check mirror sensor. Refer to <u>ADP-104, "DRIVER SIDE : Component Function Check"</u>. (Driver side) Refer to <u>ADP-105, "PASSENGER SIDE : Component Function Check"</u>. (Passenger side) Н Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? ADP YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident". NO >> GO TO 1. Ν

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MEMORY INDICATE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

MEMORY INDICATE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000005249805

1. CHECK MEMORY INDICATOR

Check memory indicator.

Refer to ADP-123, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-36. "Intermittent Incident".

NO >> GO TO 1.

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	
SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE	
Diagnosis Procedure	A INFOID:0000000005249806
1.CHECK SYSTEM SETTING	В
Check system setting.	<u> </u>
Refer to ADP-11, "SYSTEM SETTING: Special Repair Requirement". Is the inspection result normal?	С
YES >> Synchronization function is normal.	
NO >> GO TO 2.	D
2.CONFIRM THE OPERATION	
Check the operation again. <u>Is the result normal?</u>	E
YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".	
NO >> GO TO 1.	
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ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000005249807

1. CHECK SYSTEM SETTING

1. Check system setting.

Refer to ADP-11, "SYSTEM SETTING: Special Repair Requirement".

2. Check the operation.

Is the inspection result normal?

YES >> Entry/Exit function is OK.

NO >> GO TO 2.

2. PERFORM SYSTEM INITIALIZATION

1. Perform system initialization.

Refer to ADP-9, "SYSTEM INITIALIZATION: Special Repair Requirement".

2. Check the operation.

Is the inspection result normal?

YES >> Entry/Exit function is OK.

NO >> GO TO 3.

3. CHECK FRONT DOOR SWITCH (DRIVER SIDE)

Check front door switch (driver side).

Refer to ADP-86, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

4. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> GO TO 1.

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE Α **Diagnosis Procedure** INFOID:0000000005249808 1. CHECK DOOR LOCK FUNCTION В Check door lock function. Refer to DLK-8, "Work Flow". C Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. D 2.PERFORM MEMORY STORING PROCEDURE Perform memory storing procedure. Refer to ADP-10, "MEMORY STORING: Special Repair Requirement". Е 2. Check Intelligent Key interlock function. Refer to ADP-38, "INTELLIGENT KEY INTERLOCK FUNCTION: System Description". Is the inspection result normal? F >> Intelligent Key inter lock function is normal. YES >> Replace driver seat control unit. Refer to ADP-215, "Removal and Installation". NO Н ADP K L M Ν

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NORMAL OPERATING CONDITION

Description INFOID:0000000005249809

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-9
Entry/exit assist function and seat synchronization do not operate.	Entry/exit assist function is disabled. NOTE: The entry/exit assist function and seat synchronization function are disabled before delivery (initial setting).	Change the settings.	ADP-11
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	ADP-22
Seat synchronization function does not operate.	Either the entry/exit assist function (seat) or the entry/exit assist function (steering) is disabled.	Enable both functions.	<u>ADP-11</u>
	The synchronization function will not operate if the steering (tilt, telescopic) or the door mirror moves to the operating end while the seat synchronization function is operating.	Perform the memory function or drive the vehicle at more than 7 km/h (4 MPH).	<u>ADP-22</u>
	Seat adjustment load has exceed any of the volumes below. Seat sliding: 76 mm Seat reclining: 9.1 degrees Seat lifting (rear): 20 mm	_	_
Lumbar support does not perform memory operation.	The lumbar support system are controlled independently with no link to the automatic drive positioner system.	_	Lumbar support system: SE-7
Memory function, entry/exit assist function, seat synchronization function, or Intelligent Key interlock function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Memory function: ADP-26
			Exit assist function: <u>ADP-30</u>
			Entry assist function: ADP-34
			Seat synchronization function: <u>ADP-22</u>
			Intelligent Key interlock function: ADP-38

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 "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- 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 Air Bag Diagnosis Sensor Unit or other Air Bag 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.

Service INFOID:0000000005249811

- When removing or installing various parts, place a cloth or padding onto the vehicle body to prevent scratches.
- Handle trim, molding, instruments, grille, etc. carefully during removing or installing. Be careful not to oil or damage them.
- Apply sealing compound where necessary when installing parts.
- When applying sealing compound, be careful that the sealing compound does not protrude from parts.
- When replacing any metal parts (for example body outer panel, members, etc.), be sure to take rust prevention measures.

Work INFOID:0000000005249812

- 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.

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PRECAUTIONS

< PRECAUTION >

- 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, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

DRIVER SEAT CONTROL UNIT

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

DRIVER SEAT CONTROL UNIT

Exploded View

Refer to SE-81, "Exploded View".

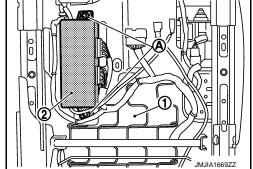
Removal and Installation

REMOVAL

CAUTION:

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

- Remove the driver seat (1). Refer to <u>SE-84, "Removal and Installation"</u>.
- 2. Remove the mounting bolts (A).
- 3. Remove driver seat control unit (2).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when replacing control unit. Refer to <u>ADP-8</u>, "<u>ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description</u>".

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AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

Refer to IP-11, "Exploded View".

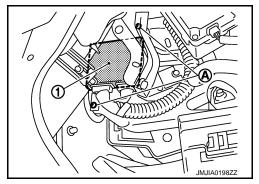
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove the instrument driver lower panel. Refer to <u>IP-12.</u> "Removal and Installation".
- 2. Remove the screws (A).
- 3. Remove automatic drive positioner control unit (1).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

SEAT MEMORY SWITCH

< REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Exploded View

Refer to INT-11, "Exploded View".

Removal and Installation

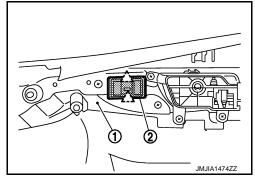
REMOVAL

CAUTION:

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

- 1. Remove the front door finisher (1). Refer to INT-11, "Removal and Installation".
- 2. Press pawls and remove seat memory switch (2) from front door finisher (1).





INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

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POWER SEAT SWITCH

< REMOVAL AND INSTALLATION >

POWER SEAT SWITCH

Exploded View

Refer to SE-81, "Exploded View".

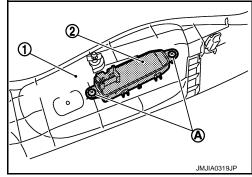
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove the seat cushion outer finisher (1). Refer to <u>SE-85</u>, <u>"Disassembly and Assembly"</u>.
- 2. Remove the screws (A).
- 3. Remove the power seat switch (2) from the seat cushion outer finisher (1).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>ADP-8</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

TILT&TELESCOPIC SWITCH

Exploded View

Refer to IP-11, "Exploded View".

Removal and Installation

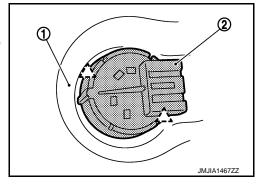
REMOVAL

CAUTION:

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

- Remove the steering column mask (1).
 Refer to IP-12, "Removal and Installation".
- 2. Press pawls and remove tilt & telescopic switch (2) from the steering column mask (1).





INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

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