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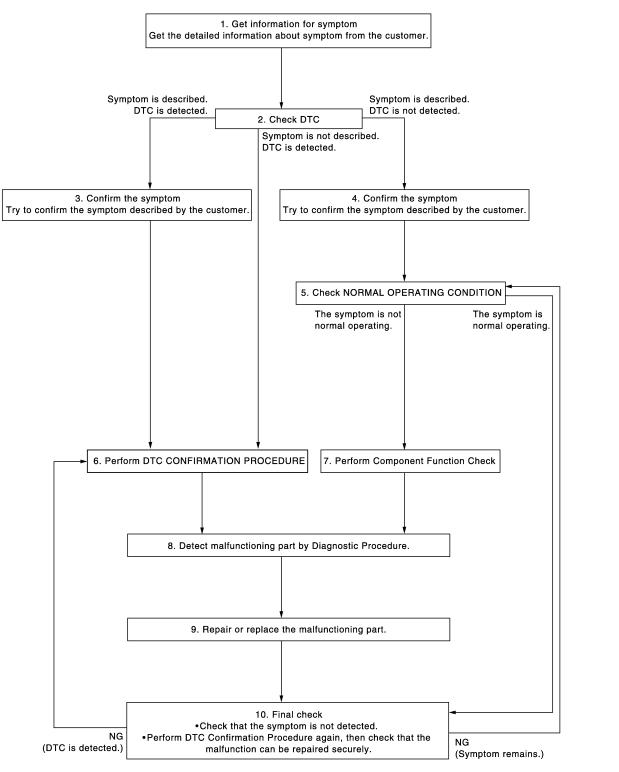
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

OVERALL SEQUENCE



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DIAGNOSIS AND REPAIR WORK FLOW

< 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. Refer to ADP-142, "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.

CHECK NORMAL OPERATING CONDITION

Check normal operating condition. Refer to ADP-218, "Description".

Is the incident normal operation?

YES >> INSPECTION END

NO >> GO TO 7.

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-42, "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.

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 WORK FLOW

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

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

^{*:} Default value is 40mm.

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:0000000012170469

Each function is reset to the following condition when the driver seat control unit is replaced. Refer to <u>ADP-8</u>, <u>"ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement"</u>.

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

^{*:} Default value is 40mm.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Re-

< BASIC INSPECTION >	•
quirement INFOID:000000012170470	
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".	
>> CO TO 3	
>> GO TO 3. 3.MEMORY STORAGE	
Perform memory storage. Refer to ADP-9, "MEMORY STORING : Description".	
>> END SYSTEM INITIALIZATION	
SYSTEM INITIALIZATION : Description	
Always perform the initialization when the battery terminal is disconnected or the driver seat control unit is	
replaced. The entry/exit assist function will not operate normally if no initialization is performed. Refer to <u>ADP-9</u> , "SYS-TEM INITIALIZATION: Special Repair Requirement".	
SYSTEM INITIALIZATION : Special Repair Requirement	
INITIALIZATION PROCEDURE	
1. CHOOSE METHOD	
There are two initialization methods.	A
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.	
>> GO TO 3.	
3. STEP A-2	
Driver door switch is ON (open) \rightarrow OFF (close) \rightarrow ON (open).	
>> END	
4. STEP B-1	
Drive the vehicle at more than 25 km/h (16 MPH).	
SS END	
>> END MEMORY STORING	
MEMORY STORING : Description	
1 -	

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. Refer to <u>ADP-10</u>, "<u>MEMORY STORING</u>: <u>Special Repair Requirement</u>".

< BASIC INSPECTION >

MEMORY STORING: Special Repair Requirement

INFOID:0000000012170474

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

Check all of the following conditions are satisfied.

- Engine is not in running status.
- Power seat switch, tilt & telescopic switch, door mirror remote control switch are OFF.
- · Automatic drive positioner system any function are not operating.
- CONSULT is not connected.

2.STEP 2

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

>> GO TO 3.

3.STEP 3

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:

- When registration is performed correctly, the combination meter buzzer sounds.
- 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 5. NO >> GO TO 4.

4.STEP 4

Confirm the operation of each part with memory operation.

>> END

5.STEP 5

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

NOTE:

When registration is performed correctly, the memory indicator blinks for 5 seconds and combination meter buzzer sounds.

>> GO TO 6.

6.STEP 6

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

>> END SYSTEM SETTING

< BASIC INSPECTION >

SYSTEM SETTING: Description

INFOID:0000000012170475

The settings of the automatic driving positioner system can be changed, using CONSULT, the set switch. Always check the settings before and after disconnecting the battery terminal or replacing driver seat control unit. Refer to <u>ADP-11</u>, "SYSTEM SETTING: Special Repair Requirement".

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Setting Change

				x: Applicab	le
Item	Content	CONSULT	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	x	OFF	
Entry/exit assist (steering column)	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	х	^	ON	
Seat synchronization	Seat synchronization can be selected: ON (operated) OFF (not operated)	_	х	OFF	

SYSTEM SETTING: Special Repair Requirement

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1. CHOOSE METHOD

There are two ways of setting method.

Which method do you choose?

With CONSULT>>GO TO 2.

With set switch>>GO TO 5.

2. WITH CONSULT - STEP 1

Select "Work support".

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>> GO TO 3.

3. WITH CONSULT - STEP 2

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- Select "EXIT SEAT SLIDE SETTING", or "EXIT TILT SETTING" 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. Select "SEAT SLIDE VOLUME SET" and touch either of "40 mm", "80 mm", or "150 mm".
- Then touch "OK".

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>> GO TO 4.

4. CONFIRM THE OPERATION

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Check the entry/exit assist function setting is changed.

Is the setting changed?

YES >> END

NO >> GO TO 1.

5. WITH SET SWITCH - STEP 1

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- 1. Turn ignition switch OFF.
- 2. Push setting button and hold for more than 10 seconds.

>> GO TO 6.

6. CONFIRM THE OPERATION

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< BASIC INSPECTION >

Check the entry/exit assist function setting is changed.

Is the setting changed?

YES >> GO TO 7.

NO >> GO TO 1.

7. WITH SET SWITCH - STEP 2

- 1. Turm ignition switch ACC
- 2. Push setting button and hold for more than 10 seconds.

>> GO TO 8.

8.confirm the operation

Check the seat synchronization function setting is changed.

Is the setting changed?

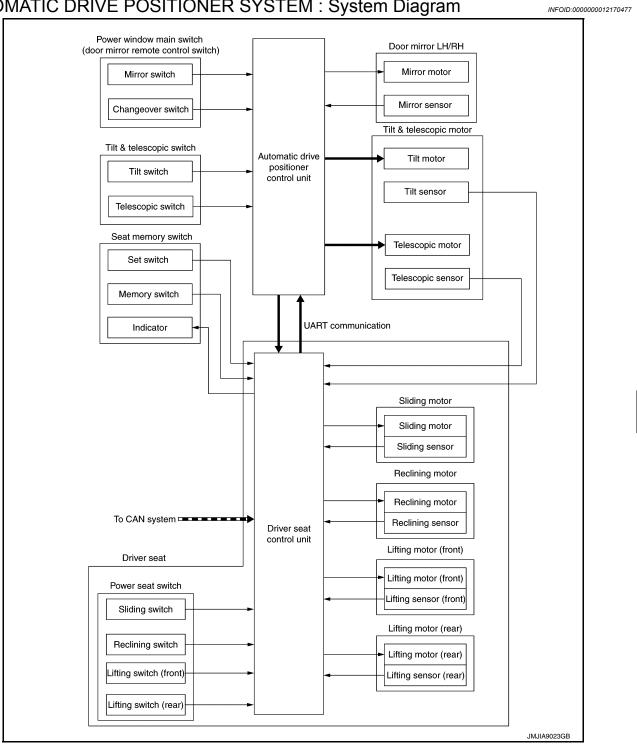
YES >> END

NO >> GO TO 7.

SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram



AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

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OUTLINE

< SYSTEM DESCRIPTION >

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.

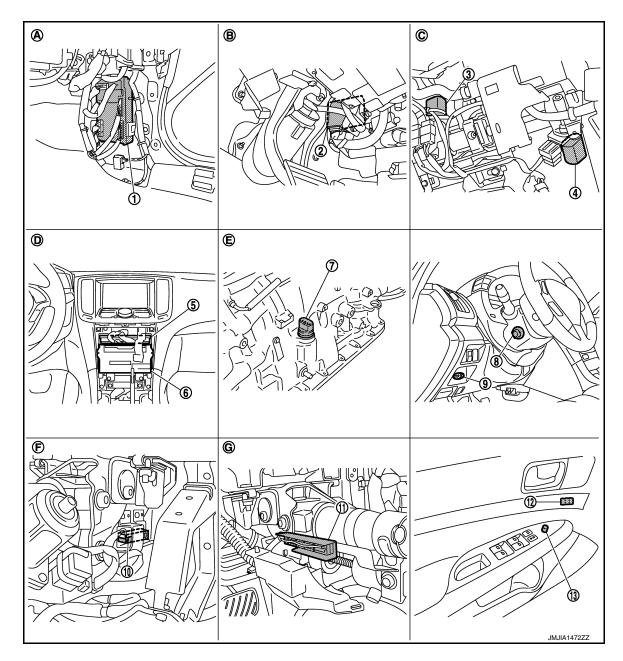
Function		Description
Manual function		The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch.
Seat synchronization function	ı	The positions of the steering column and door mirror 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.
LITELY/LAIL ASSIST TUTICHOTT	Entry	On entry, the seat and steering column returns from exiting position to the previous driving position.
Intelligent Key interlock functi	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-000000012170479



- BCM
- 4. Telescopic motor
- 7. AT assembly connector
- 10. Tilt sensor
- 13. Door mirror remote control switch
- 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.
- 5. Unified meter and A/C amp.
- 8. Tilt & telescopic switch
- 11. Telescopic sensor
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- . Tilt motor
- 6. AV control unit
- 9. Key slot
- 12. Seat memory switch
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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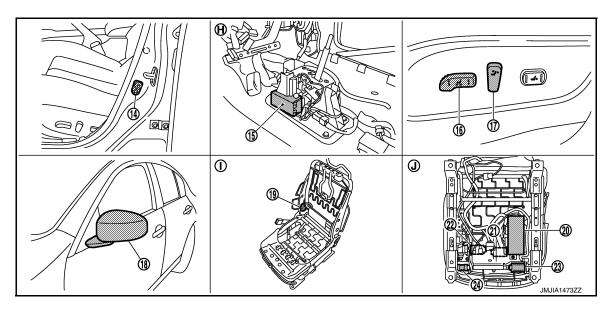
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- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
 - Te. Beer minter (arriver of
- 19. Reclining motor

- 20. Driver seat control unit
- 21. Lifting motor (front)
- 22. Lifting motor (rear)

23. Sliding motor

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

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:0000000012170480

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 and door mirror.
BCM	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.
TCM	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 left/right 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 frontward/rearward.	
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 frontward/rearward.	
Memory indicator	Illuminates or flashes according to the registration/operation status.	

MANUAL FUNCTION

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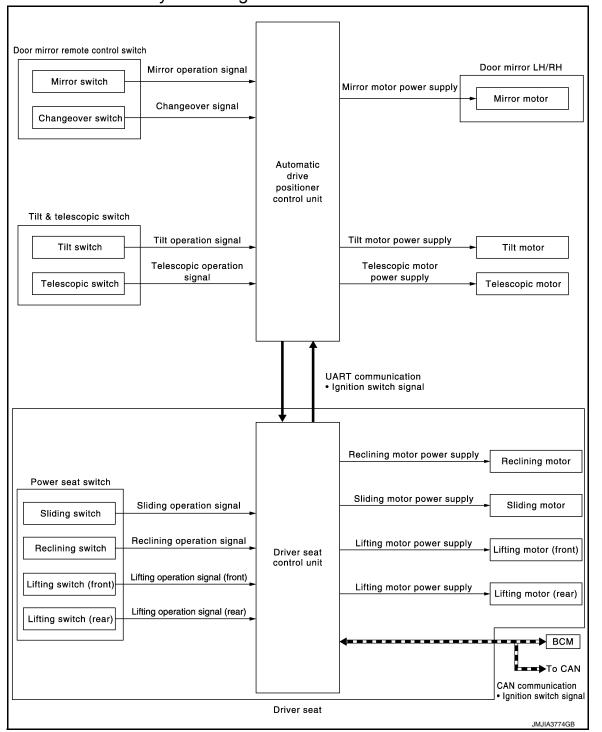
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MANUAL FUNCTION: System Diagram

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MANUAL FUNCTION: System Description

INFOID:0000000012170482

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

- 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.

< SYSTEM DESCRIPTION >

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.
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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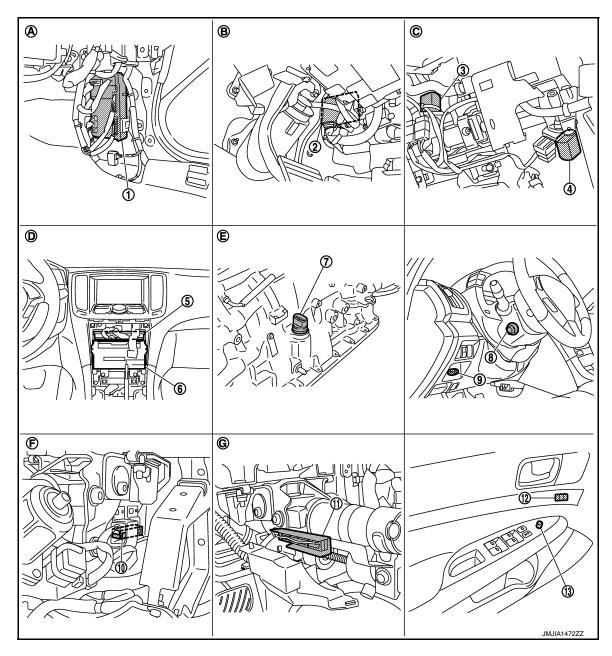
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Revision: July 2016 ADP-19 2016 QX50

MANUAL FUNCTION: Component Parts Location

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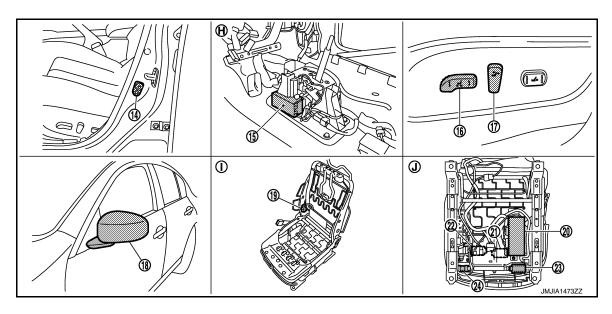


- 1. BCM
- 4. Telescopic motor
- 7. AT assembly connector
- 10. Tilt sensor
- 13. Door mirror remote control switch
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

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

- Tilt motor
- 6. AV control unit
- 9. Key slot
- 12. Seat memory switch
- 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)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)

View with center console assembly

- 19. Reclining motor

- 20. Driver seat control unit
- 21. Lifting motor (front)
- 22. Lifting motor (rear)

23. Sliding motor

removed

- 24. Sliding sensor
- I. View with seat cushion pad and seat- J. back pad removed
- Backside of the seat cushion

MANUAL FUNCTION: Component Description

CONTROL UNITS

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

INPUT PARTS

Switches

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

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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 left/right position of steering column.

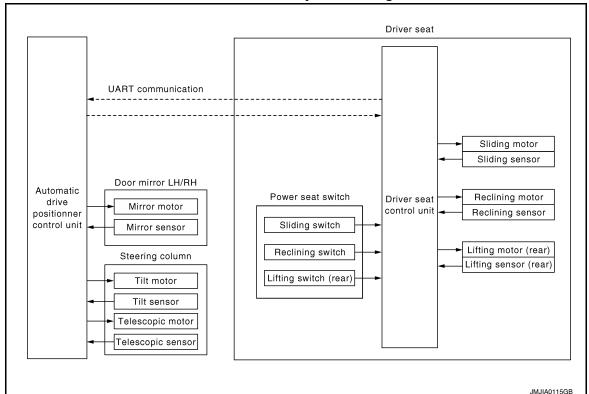
OUTPUT PARTS

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 frontward/rearward.	
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 frontward/rearward.	

SEAT SYNCHRONIZATION FUNCTION

SEAT SYNCHRONIZATION FUNCTION : System Diagram

INFOID:0000000012170485



SEAT SYNCHRONIZATION FUNCTION: System Description

INFOID:0000000012170486

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.
3	_	Motors (Tilt, telescopic, outside mirror)	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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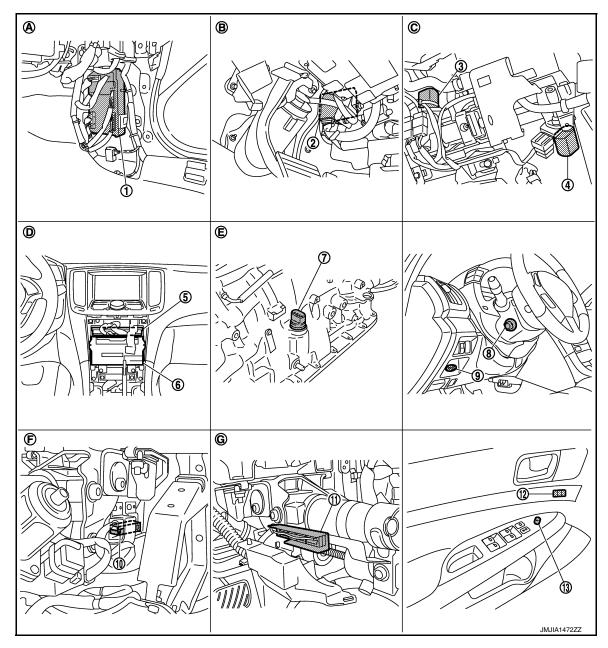
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SEAT SYNCHRONIZATION FUNCTION: Component Parts Location

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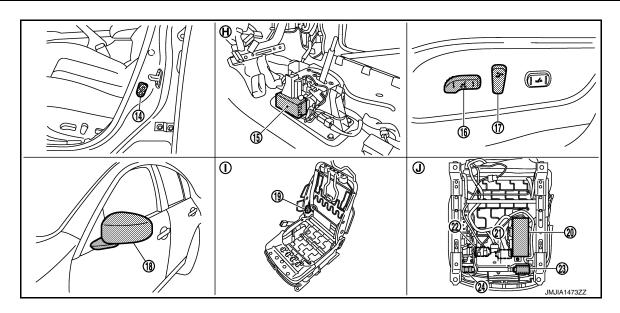


- 1. BCM
- 4. Telescopic motor
- 7. AT assembly connector
- 10. Tilt sensor
- 13. Door mirror remote control switch
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

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

- 3. Tilt motor
- 6. AV control unit
- 9. Key slot
- 12. Seat memory switch
- 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)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
- 19. Reclining motor

- 20. Driver seat control unit
- 21. Lifting motor (front)

24. Sliding sensor

22. Lifting motor (rear)

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

SEAT SYNCHRONIZATION FUNCTION: Component Description

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 left/right position of steering column.	
Lifting sensor (rear)	Detect the up/down position of seat lifter (rear).	
Reclining sensor	Detect the tilt of seatback.	
Sliding sensor	Detect the front/rear position of seat.	

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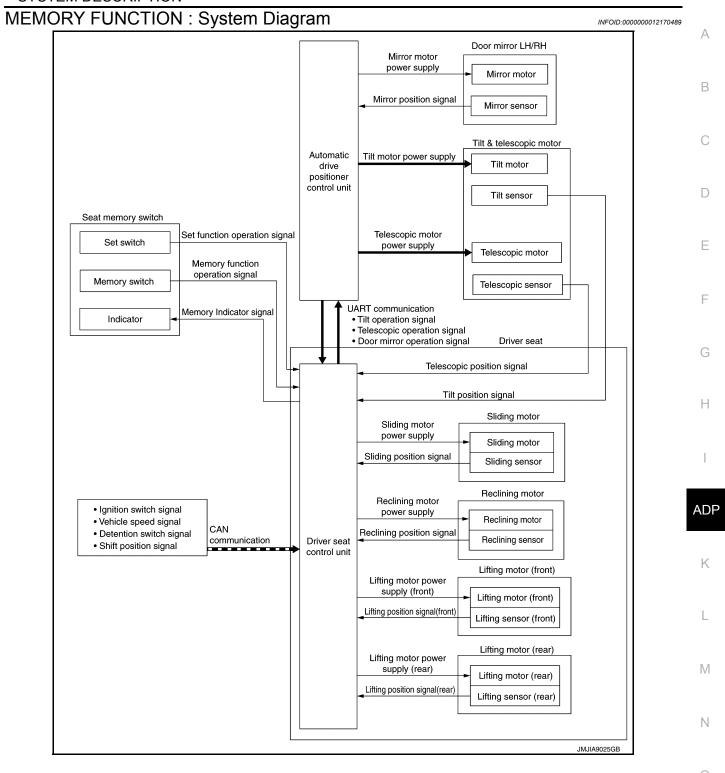
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< SYSTEM DESCRIPTION >

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 frontward/rearward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat frontward/rearward.

MEMORY FUNCTION



MEMORY FUNCTION : System Description

INFOID:0000000012170490

OUTLINE

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

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Further information for the memory storage procedure. Refer to ADP-9, "MEMORY STORING: Description".

OPERATION PROCEDURE

1. Check shift selector lever is in the P position.

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< SYSTEM DESCRIPTION >

- Press desired memory switch for more than 0.5 second. Driver seat, steering and door mirror will move to the memorized position.

OPERATION CONDITION

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

Item	Request status
Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch	OFF (Not operated)
A/T selector lever	P position
Memory function	Registered
Vehicle speed	0 km/h (0 MPH)
CONSULT	Not connected

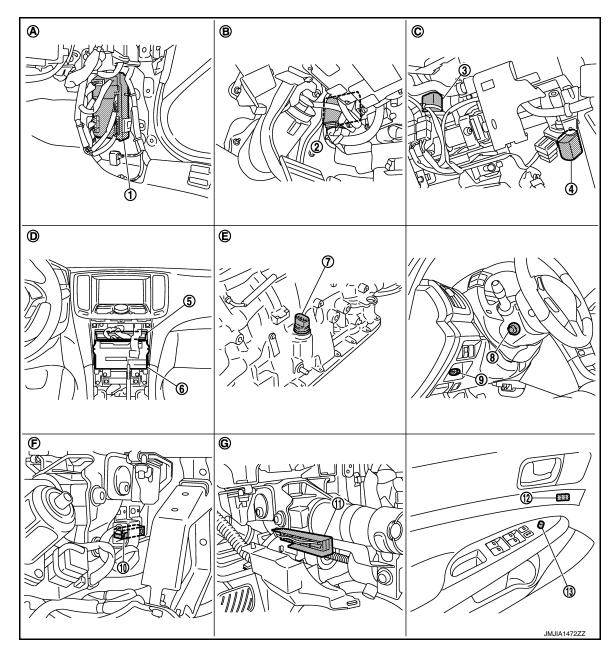
DETAIL FLOW

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.
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 illuminates the memory indicator while either of the motors is operating.
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. 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 illuminates the memory indicator for 5 seconds after all motors stop.

< SYSTEM DESCRIPTION >

MEMORY FUNCTION: Component Parts Location

INFOID:0000000012170491



- 1. BCM
- 4. Telescopic motor
- 7. AT assembly connector
- 10. Tilt sensor
- 13. Door mirror remote control switch
- 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.
- 5. Unified meter and A/C amp.
- 8. Tilt & telescopic switch
- 11. Telescopic sensor
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor
- 6. AV control unit
- 9. Key slot
- 12. Seat memory switch
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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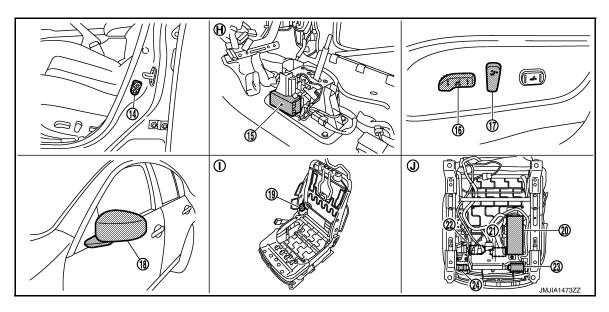
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- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
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- 19. Reclining motor

- 20. Driver seat control unit
- 21. Lifting motor (front)
- 22. Lifting motor (rear)

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

MEMORY FUNCTION: Component Description

INFOID:0000000012170492

CONTROL UNITS

Item	Function	
Driver seat control unit	 The address of each part is recorded. Operates each motor of seat to the registered position. Requests the operations of 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 left/right 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.	

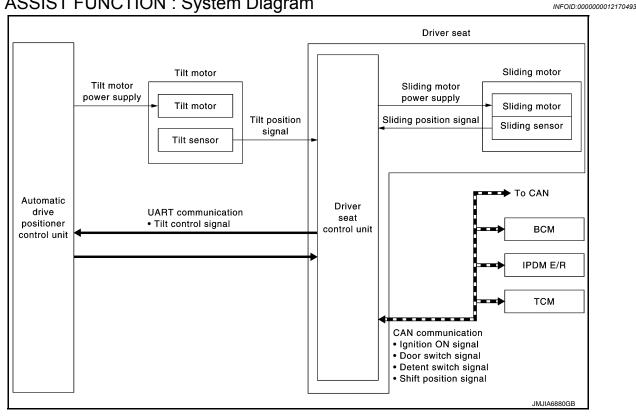
< SYSTEM DESCRIPTION >

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 frontward/rearward.	
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 frontward/rearward.	
Memory indicator	Illuminates or blinks according to the registration/operation status.	

EXIT ASSIST FUNCTION

EXIT ASSIST FUNCTION: System Diagram



EXIT ASSIST FUNCTION: System Description

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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.

- 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

- Open the driver door with ignition switch in ON position.
- 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.

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< SYSTEM DESCRIPTION >

Item	Request status
Ignition position	OFF
System setting	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

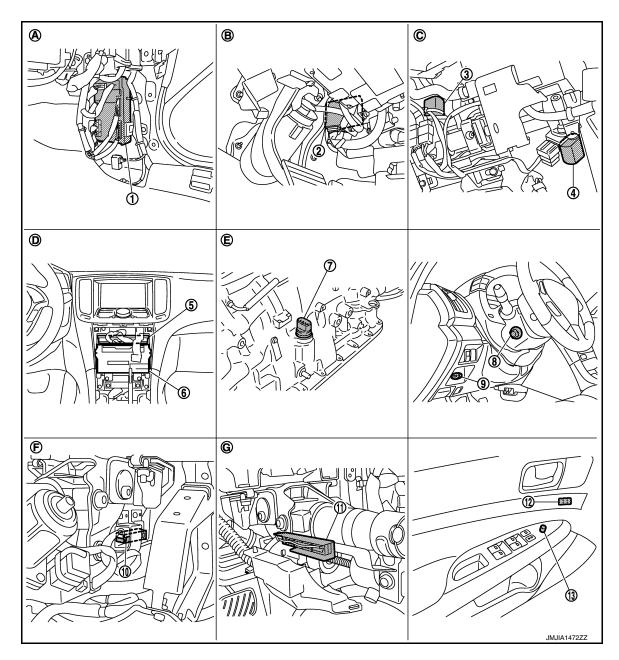
DETAIL FLOW

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.

< SYSTEM DESCRIPTION >

EXIT ASSIST FUNCTION: Component Parts Location

INFOID:0000000012170495



- 1. BCM
- 4. Telescopic motor
- 7. AT assembly connector
- 10. Tilt sensor
- 13. Door mirror remote control switch
- 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.
- 5. Unified meter and A/C amp.
- 8. Tilt & telescopic switch
- 11. Telescopic sensor
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- . Tilt motor
- AV control unit
- 9. Key slot
- 12. Seat memory switch
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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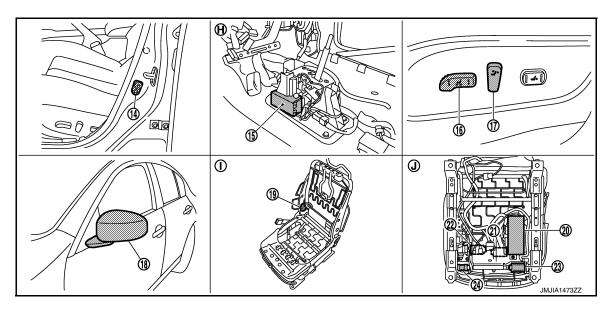
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- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
- 19. Reclining motor

- 20. Driver seat control unit
- 21. Lifting motor (front) 24. Sliding sensor
- 22. Lifting motor (rear)

- H. View with center console assembly I.
- - View with seat cushion pad and seat- J. back pad removed
- Backside of the seat cushion

EXIT ASSIST FUNCTION: Component Description

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CONTROL UNITS

23. Sliding motor

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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 via CAN communication. • Driver door: OPEN/CLOSE	

INPUT PARTS

Switches

Item	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 left/right position of steering column.	
Sliding sensor	Detect the front/rear position of seat.	

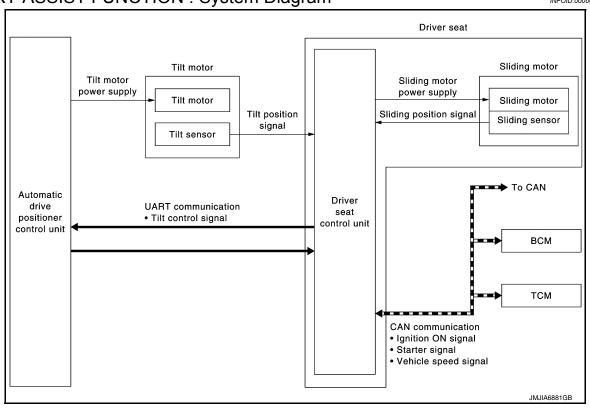
OUTPUT PARTS

< SYSTEM DESCRIPTION >

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

ENTRY ASSIST FUNCTION

ENTRY ASSIST FUNCTION: System Diagram



ENTRY ASSIST FUNCTION : System Description

OUTLINE

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

NOTE:

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

OPERATION PROCEDURE

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

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< 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 Door mirror control switch Set switch Memory switch	OFF (Not operated)
A/T selector lever	P position

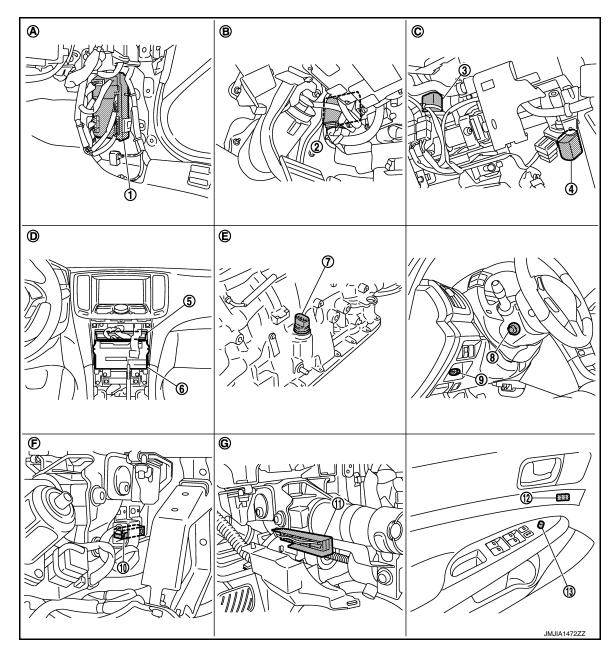
DETAIL FLOW

Order	Input	Output	Control unit condition
1	Door switch/Ignition switch	_	Driver seat control unit receives the signals of [ignition switch signal] and [driver side door switch] from BCM via CAN communication.
2	_	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 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.

< SYSTEM DESCRIPTION >

ENTRY ASSIST FUNCTION: Component Parts Location

INFOID:0000000012170499



- 1. BCM
- 4. Telescopic motor
- 7. AT assembly connector
- 10. Tilt sensor
- 13. Door mirror remote control switch
- 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.
- 5. Unified meter and A/C amp.
- 8. Tilt & telescopic switch
- 11. Telescopic sensor
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- . Tilt motor
- AV control unit
- 9. Key slot
- 12. Seat memory switch
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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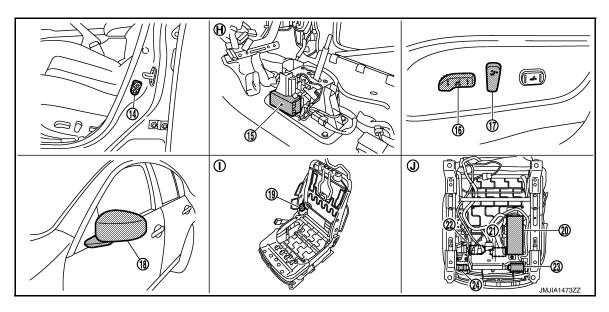
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- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
- 19. Reclining motor

- 20. Driver seat control unit
- 21. Lifting motor (front)

24. Sliding sensor

22. Lifting motor (rear)

- H. View with center console assembly I.
 - removed
- View with seat cushion pad and seat- J. back pad removed
- Backside of the seat cushion

ENTRY ASSIST FUNCTION: Component Description

INFOID:0000000012170500

CONTROL UNITS

23. Sliding motor

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.
BCM	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 left/right position of steering column.	
Sliding sensor	Detect the front/rear position of seat.	

OUTPUT PARTS

< SYSTEM DESCRIPTION >

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

INTELLIGENT KEY INTERLOCK FUNCTION

INTELLIGENT KEY INTERLOCK FUNCTION: System Diagram

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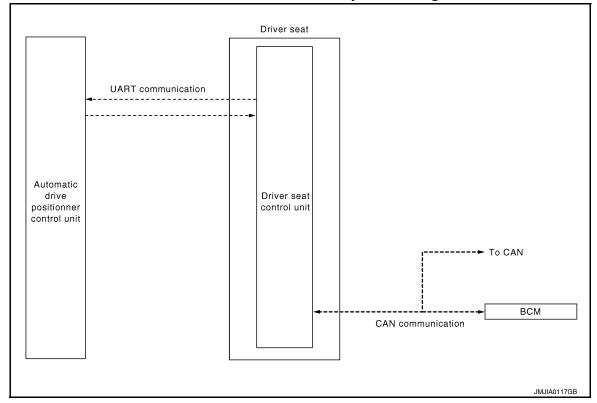
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INTELLIGENT KEY INTERLOCK FUNCTION : System Description

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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.
- 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 switch	LOCK
Memory storing	Completed
Key switch	OFF (Key is removed from key slot)

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< SYSTEM DESCRIPTION >

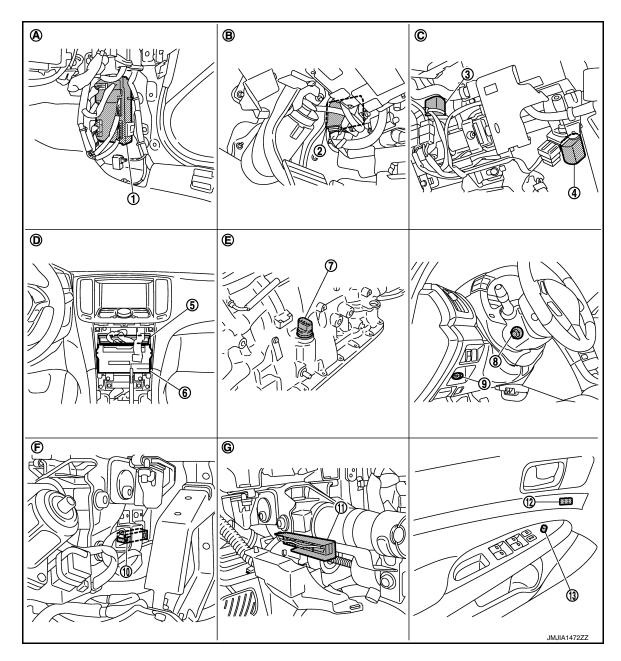
Item	Request status
Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch	OFF (Not operated)
AT selector lever	P position
Automatic drive position system any function	Not operating
CONSULT	Not connected

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.

< SYSTEM DESCRIPTION >

INTELLIGENT KEY INTERLOCK FUNCTION: Component Parts Location INFOID-000000012170503



- 1. BCM
- 4. Telescopic motor
- 7. AT assembly connector
- 10. Tilt sensor
- 13. Door mirror remote control switch
- 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.
- 5. Unified meter and A/C amp.
- 8. Tilt & telescopic switch
- 11. Telescopic sensor
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor
- 6. AV control unit
- 9. Key slot
- 12. Seat memory switch
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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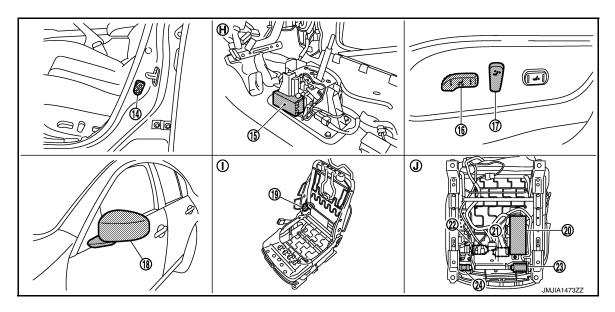
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< SYSTEM DESCRIPTION >



- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
- 19. Reclining motor

- 20. Driver seat control unit
- 21. Lifting motor (front)
- 22. Lifting motor (rear)

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

INTELLIGENT KEY INTERLOCK FUNCTION: Component Description

INFOID:0000000012170504

CONTROL UNITS

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.	
ВСМ	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)	

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:0000000012170505

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

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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 Function

INFOID:0000000012170506

SELF-DIAGNOSIS RESULTS

Refer to ADP-142, "DTC Index".

DATA MONITOR

NOTE:

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The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

. . . .

Monitor Item	Unit	Contents
STARTER SW	"ON/OFF"	Ignition key switch ON (START, ON)/OFF (ACC, OFF) status judged from the ignition switch signal.
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.
R POSITION SW	"ON/OFF"	NOTE: This item is display, but cannot be used.
DETENT SW	"ON/OFF"	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal.
STEERING STATUS	"LOCK/UNLOCK"	LOCK/UNLOCK status judged from steering lock unit.
PARK BRAKE SW	"ON/OFF"	NOTE: This item is display, but cannot be used.
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 SW-UP	"ON/OFF"	ON/OFF status judged from the lifting switch front (up) signal.
LIFT SW-DOWN	"ON/OFF"	ON/OFF status judged from the lifting switch front (down) 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.
MIR CON SW-UP	"ON/OFF"	ON/OFF status judged from the mirror switch (up) signal.

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

Monitor Item	Unit	Contents
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.
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 PULSE	_	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
TELESCO PULSE	_	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, 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.
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 PULSE	_	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
VEHICLE SPEED	_	Display the vehicle speed signal received from combination meter by numerical value [km/h]
P RANG SW CAN	"ON/OFF"	ON/OFF status judged from P range switch signal.
R RANG (CAN)	"ON/OFF"	ON/OFF status judged from R range switch signal.
DOOR SW-FL	"OPEN/CLOSE"	ON/OFF status judged from front door switch LH switch signal.
DOOR SW-FR	"OPEN/CLOSE"	ON/OFF status judged from front door switch RH switch signal.
IGN ON SW	"ON/OFF"	ON/OFF status judged from ignition switch signal.
ACC ON SW	"ON/OFF"	ON/OFF status judged from ACC switch signal.
KYLS DR UNLK	"ON/OFF"	ON/OFF status judged from driver door unlock status.
KEYLESS ID	_	Key ID status judged from key ID signal.
VHCL SPEED (ABS)	"NORCV/RCV"	ON/OFF status judged from vehicle speed signal.
HANDLE	"RHD/LHD"	RHD/LHD status judged from handle position signal.
TRANSMISSION	"[A/T]/[M/T]"	Transmission type judged from TCM.

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.		

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

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

WORK SUPPORT

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

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DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:000000012170507

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

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.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-46, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000012170509

Refer to LAN-18, "Trouble Diagnosis Flow Chart".

Special Repair Requirement

INFOID:0000000012170510

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

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
U1010	CONTROL UNIT (CAN)	When detecting error during the initial diagnosis of CAN controller of driver seat control unit.	Driver seat control unit

Diagnosis Procedure

INFOID:0000000012170512

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1. REPLACE DRIVER SEAT CONTROL UNIT

When DTC [U1010] is detected, replace driver seat control unit.

>> Replace driver seat control unit.

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Revision: July 2016 ADP-47 2016 QX50

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

Description INFOID:000000012170513

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

DTC Logic

DTC DETECTION LOGIC

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

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:0000000012170515

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-42, "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.

(+) Sliding motor		(–)	Voltage (V) (Approx.)
Connector	Terminals		, , ,
B461	34	Ground	0 – 1 V
D40 I	38	Ground	0 – 1 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

${f 3}.$ 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		(ipp. 5///)
B452	34	Ground	0.41/
D 4 32	38		0 – 1 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-221, "Removal and Installation"

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

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B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2113 RECLINING MOTOR

Description INFOID:000000012170516

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

DTC Logic

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.
- Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

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

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 if B2126 is detected.

Diagnosis Procedure

INFOID:0000000012170518

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-50, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

2.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

(+) Reclining motor		(–)	Voltage (Approx.)
Connector	Terminals		(
B454	35	Ground	0 – 1 V
D434	39	Giodila	0 – 1 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT 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 (Approx.)
Connector	Terminals		(· IPP-5///)
B452	35	- Ground	0 – 1 V
D402	39	Ground	0-10

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-221, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

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B2116 TILT MOTOR

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2116	STEERING TILT	The automatic drive positioner control unit detects the output of tilt motor output terminal for 0.1 second or more even if the tilt switch is not input.	Automatic drive positioner control unitTilt motor harness is shorted

DTC CONFIRMATION PROCEDURE

1.STEP 1

Turn ignition switch ON.

>> GO TO 2.

2.STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-52</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000012170520

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-142, "DTC_Index"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

2.CHECK TILT MOTOR CIRCUIT (POWER SHORT)

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

(+)			Mallana (M)
Tilt & telescopic motor		(-)	Voltage (V) (Approx.)
Connector	Terminals		(11 /
M80	3	Ground	0 – 1 V
IVIOU	7	Ground	U — I V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK AUTOMATIC DRIVER POSITIONER CONROL UNIT OUTPUT SIGNAL

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

B2116 TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

	(+) Automatic drive positioner control unit		Voltage (V) (Approx.)
Connector	Terminals		(44,)
M79	28	- Ground	0 – 1 V
	29		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

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B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description INFOID:000000012170521

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 auto 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

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

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-54, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000012170523

1. CHECK UART COMMUNICATION LINE CONTINUITY

- 1. 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	Driver seat control unit Automatic drive position		Automatic drive positioner control unit	
Connector	Terminal	Connector	Terminal	Continuity
B451	2	M78	8	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	2		Not existed

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Repair or replace harness.

B2130 EEPROM

< DTC/CIRCUIT DIAGNOSIS >

B2130 EEPROM

DTC Logic INFOID:0000000012170524

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2130	EEPROM	Driver seat control unit detected CPU malfunction.	Driver seat control unit

DTC CONFIRMATION PROCEDURE

1.STEP 1

Turn ignition switch ON.

>> GO TO 2.

2.STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-55, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-55, "DTC Logic"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

2.REPLACE DRIVER SEAT CONTROL UNIT

Replace driver seat control unit.

>> INSPECTION END

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000012779814

1. CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.	
Battery power supply	К	
	10	

Is the fuse or fusible link is blown (open)?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

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 harness or connector.

DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:0000000012170527

NOTE:

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

1. CHECK POWER SUPPLY CIRCUIT

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

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

	(+)		Mallara AA	
Driver sea	Driver seat control unit		Voltage (V) (Approx.)	
Connector	Terminal		(11 /	
B452	33	Ground	9 – 16 V	

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Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following.

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

2.CHECK GROUND CIRCUIT

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B452	43		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:0000000012170528

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

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

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure

INFOID:0000000012170529

NOTE:

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

1. CHECK POWER SUPPLY CIRCUIT

Turn ignition switch OFF.

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

(+) Automatic drive positioner control unit		(-)	Voltage (V) (Approx.)
Connector Terminal			
M79	25	Ground	9 – 16 V

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.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M79	30		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:0000000012170530

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> : <u>Description"</u>.

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SLIDING SWITCH

Description INFOID:0000000012170531

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:0000000012170532

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1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000012170533

1. CHECK SLIDING SWITCH SIGNAL

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

(+) Power seat switch		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(/ .pp. 6/)	
B459	59 Ground		9 – 16 V	
D 4 39	24	Giodila	9 – 10 V	

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.
- 3. 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	8	B459	8	Existed
D-101	24	D-109	24	LAISIEU

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

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SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	B451	Ground	Not existed
5451	24		NOT EXISTED

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-221, "Removal and Installation".

NO >> Repair or replace harness or connector.

3.CHECK SLIDING SWITCH

Refer to ADP-60, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-224, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000012170534

1. CHECK SLIDING SWITCH

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

Power seat switch		Condition		Continuity
Terr	minal	Condition		Continuity
	Q	8 Sliding switch (backward)	Operate	Existed
43	O		Release	Not existed
43	24	Cliding quitab (farward)	Operate	Existed
	24	Sliding switch (forward)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-224, "Removal and Installation".

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SWITCH

Description INFOID:0000000012170535

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:0000000012170536

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1. CHECK FUNCTION

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

Monitor item	Condition	Status	
RECLINE SW-FR	Reclining switch (forward)	Operate	ON
RECLINE SW-FR	Recilling Switch (lorward)	Release	OFF
RECLINE SW-RR	Reclining switch (backward)	Operate	ON
INDUINE OWNIN		Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000012170537

1. CHECK RECLINING SWITCH SIGNAL

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

(+) Power seat switch		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
B459	9	Ground	9 – 16 V	
D 4 59	25	Giouna	9 – 10 V	

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	9	B459	9	Existed
D-101	25	D-109	25	LAISIEU

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

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RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	9	Ground	Not existed
10401	25		NOT EXISTED

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-221, "Removal and Installation".

NO >> Repair or replace harness or connector.

3. CHECK RECLINING SWITCH

Refer to ADP-62, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-224, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000012170538

1. CHECK RECLINING SWITCH

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

Power se	eat switch	Condition		Continuity
Terr	minal	Condition		Continuity
	9	Reclining switch (backward)	Operate	Existed
43	9	9 Reclining Switch (backward)	Release	Not existed
43	25	Paglining switch (forward)	Operate	Existed
	25	Reclining switch (forward)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-224, "Removal and Installation".

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description INFOID:0000000012170539

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:0000000012170540

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1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "LIFT FR SW-UP", "LIFT FR SW-DN" in "Data monitor" mode with CONSULT.
- 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-OP	Litting Switch from (up)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
EII TTK SW-DIN		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-63, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000012170541

1. CHECK LIFTING SWITCH SIGNAL

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

(+) Power seat switch		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(, , , , , , , , , , , , , , , , , , ,	
B459	10	Ground	9 – 16 V	
D 4 39	26	Giound	9 – 10 V	

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	10	B459	10	Existed
D431	26	B459	26	LAISIEU

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

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity	
Connector	Terminal	Ground	Continuity	
B451	10	- Ground	Not existed	
D 4 01	26		ivot existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-221, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-64, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-224, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000012170542

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 se	eat switch	Condition		Continuity
Teri	minal	Condi	lion	Continuity
	10	Lifting switch front (down)	Operate	Existed
43	10	To Enting Switch from (down)	Release	Not existed
43		Lifting quitab front (up)	Operate	Existed
		Lifting switch front (up)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-224, "Removal and Installation".

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description INFOID:0000000012170543

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:0000000012170544

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1. CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT RR SW-UP	Lifting switch root (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 IXIX 3W-DIX	Litting Switch real (down)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000012170545

1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

(+) Power seat switch		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(+	
B459	11	Ground	9 – 16 V	
D439	27	Ground	9 – 16 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK LIFTING SWITCH (REAR) 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 sear switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	11	B459	11	Existed
D-101	27	- 8459	27	LAISIEU

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

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LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity	
Connector	Terminal	Ground	Continuity	
B451	11	Ground	Not existed	
D 4 31	27		Not existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-221, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

3.CHECK LIFTING SWITCH (REAR)

Refer to ADP-66, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-224, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000012170546

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
Terr	Terminal			Continuity
	11 Lifting switch rear (up)	Lifting switch rear (up)	Operate	Existed
43	11	Litting Switch real (up)	Release	Not existed
40	27	27 Lifting switch rear (down)	Operate	Existed
	21		Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-224, "Removal and Installation".

TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

TILT SWITCH

Description INFOID:0000000012170547

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:0000000012170548

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1. CHECK FUNCTION

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

Monitor item	Condition		Status
TILT SW-UP	Tilt switch (up)	Operate	ON
TILI 3W-OF	The Switch (up)	Release	OFF
TILT SW-DN	Tilt switch (down)	Operate	ON
TIET 3W-DIN	The Switch (down)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000012170549

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		(44.5)	
M31	4	Ground	4 – 6 V	
IVIST	5	Ground	4 – 0 V	

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.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic switch harness connector.

Automatic drive po	sitioner control unit	Tilt & telescopic switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M78	1	M31	4	Existed
IVI / O	13	IVIOI	5	LAISICU

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

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TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M78	1	Ground	Not existed
IVI / O	13		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-222, "Removal and Installation".

NO >> Repair or replace harness or connector.

3. CHECK TILT SWITCH

Refer to ADP-68, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-225, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000012170550

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				
	4	Tilt switch (up)	Operate	Existed
1			Release	Not existed
1	5	Tilt quitch (down)	Operate	Existed
	5	Tilt switch (down)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-225, "Removal and Installation".

TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SWITCH

Description INFOID:0000000012170551

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:0000000012170552

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1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SW-FR", "TELESCO SW-RR" in "Data monitor" mode with CONSULT.
- 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-RR	relescopic switch (backward)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000012170553

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		(/ .pp : 3 /)	
M31	2 Ground	Ground	4 – 6 V	
IVIO I	3	Giound	4 – 0 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK TELESCOPIC SWITCH 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 switch harness connector.

Automatic drive po	Automatic drive positioner control unit		Tilt & telescopic switch	
Connector	Terminal	Connector Terminal		Continuity
M78	7 M31		2	Existed
WITO	19	IVIOT	3	LAISICG

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

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TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M78	7	Not existed	Not existed
IVI / O	19		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-222, "Removal and Installation".

NO >> Repair or replace harness or connector.

3. CHECK TELESCOPIC SWITCH

Refer to ADP-70, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-225, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000012170554

1. CHECK TELESCOPIC SWITCH

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

Tilt & telescopic switch		Condition		Continuity
Terminal				
	2	Telescopic switch (forward)	Operate	Existed
1	2 Telescopic s	relescopic switch (lorward)	Release	Not existed
ı	3 Telescopic switch (backward) –	Talasaania awitah (haakward)	Operate	Existed
		Release	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-225, "Removal and Installation".

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Description INFOID:0000000012170555

Memory switch is equipped on the seat set switch and 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

CHECK FUNCTION

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

Monitor item	Condition		Status
SET SW	SET SW	Push	ON
SET SW	SLI SW	Release	OFF
MEMORY SW 1	Memory switch 1	Push	ON
MEMORY SW I		Release	OFF
MEMORY SW 2	Memory switch 2	Push	ON
IVIEIVIORT SW Z		Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000012170557

INFOID:0000000012170556

1. CHECK SEAT MEMORY SWITCH SIGNAL

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

	(+) Seat memory switch		Voltage (V) (Approx.)
Connector	Terminal		(PF. 5)
	3		
D5	1	Ground	4 – 6 V
	2		

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK MEMORY SWITCH CIRCUIT

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

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SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit	Seat memory switch		ntrol unit Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity		
	28	3				
M451	22	D5	1	Existed		
	6		2			

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

Driver seat control unit			Continuity
Connector	Terminal		Continuity
	28	Ground	
M451	22		Not existed
	6		

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-221, "Removal and Installation".

NO >> Repair or replace harness or connector.

3.check memory switch ground circuit

- Turn ignition switch OFF.
- 2. Check continuity between seat memory switch harness connector and ground.

Seat memory switch			Continuity
Connector	Terminal	Ground	
D5	4		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

4. CHECK SEAT MEMORY SWITCH

Refer to ADP-72, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat memory switch. Refer to ADP-223, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

1. CHECK SEAT MEMORY SWITCH

Component Inspection

INFOID:0000000012170558

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

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Seat men	Seat memory switch		Condition			
Terr	ninal	Condition		Continuity		
	3	Set switch	Push	Existed		
	3	Set Switch	Release	Not existed		
4	4 14-	4	Managar avsitals d		Push	Existed
4	1	Memory switch 1	Release	Not existed		
	0	Mamon consitoh 2	Push	Existed		
	2	Memory switch 2	Release	Not existed		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to <u>ADP-223, "Removal and Installation"</u>.

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< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

CHANGEOVER SWITCH: Description

INFOID:0000000012170559

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:0000000012170560

1. CHECK CHANGEOVER SWITCH FUNCTION

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

Refer to ADP-43, "CONSULT Function".

Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to ADP-74, "CHANGEOVER SWITCH: Diagnosis Procedure".

CHANGEOVER SWITCH: Diagnosis Procedure

INFOID:0000000012170561

1. CHECK CHANGEOVER SWITCH SIGNAL

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

(+) Automatic drive positioner control unit		(-)	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(FF -)	
	2			RIGHT	0 – 1	
M78	2	Ground	Change over	Other than above	4 – 6	
14	Ground	switch	LEFT	0 – 1		
	14			Other than above	4 – 6	

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

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

Automatic drive po	sitioner control unit	Door mirror remote control switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M78	2	D17	11	Existed
IVI7O	14		10	LAISIEU

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M78	2	Ground	Not existed
	14		NOT EXISTED

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check door mirror remote control switch ground circuit

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

Door mirror remote control switch			Continuity
Connector	Terminal	Ground	Continuity
D17	7		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

$oldsymbol{4}.$ CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

(+)			Voltage (V) (Approx.)	
Automatic drive positioner control unit		(-)		
Connector	Terminal		()	
M78	2	Ground	4 – 6	
IVI / O	14 Ground		4-0	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to ADP-222, "Removal and Installation".

5. CHECK CHANGEOVER SWITCH

Check changeover switch.

Refer to ADP-75. "CHANGEOVER SWITCH: Component Inspection".

Is the inspection result normal?

YES >> Refer to GI-42, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to MIR-134, "Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-42, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-222, "Removal and Installation".

>> Repair or replace the malfunctioning parts.

CHANGEOVER SWITCH: Component Inspection

1. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch.

Door mirror remo	Door mirror remote control switch		Condition	
Terr	ninal		Hallon	Continuity
10			LEFT	Existed
10	7	Change over switch	Other than above	Not existed
11	ľ	Change over switch	RIGHT	Existed
11			Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

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< DTC/CIRCUIT DIAGNOSIS >

NO >> Replace door mirror remote control switch. Refer to MIR-134, "Removal and Installation".

MIRROR SWITCH

MIRROR SWITCH: Description

INFOID:0000000012170563

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:0000000012170564

CHECK MIRROR SWITCH FUNCTION

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

Refer to ADP-43, "CONSULT Function".

Is the inspection result normal?

YES >> Mirror switch function is OK.

NO >> Refer to ADP-76, "MIRROR SWITCH: Diagnosis Procedure".

MIRROR SWITCH: Diagnosis Procedure

INFOID:0000000012170565

1. CHECK MIRROR SWITCH FUNCTION

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

(+) Automatic drive positioner control unit		(-)	(–) Condition		Voltage (V) (Approx.)
Connector	Terminal				(
	2			UP	0 – 1
	3	0	Ground Mirror switch	Other than above	4 – 6
	4			LEFT	0 – 1
M78	4			Other than above	4 – 6
IVI / O	15	Ground		DOWN	0 – 1
	15			Other than above	4 – 6
	10			RIGHT	0 – 1
	16			Other than above	4 – 6

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

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

Automatic drive po	Automatic drive positioner control unit		ote control switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
	3		15	
M78	4	D17	13	Existed
IVI7 O	15		12	LAISIEU
	16		4	

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

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	Automatic drive positioner control unit		Continuity
Connector	Terminal		Continuity
	3	Ground	
M78	4		Not existed
IVI / O	15		Not existed
	16		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check door mirror remote control switch ground circuit

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

Door mirror remote control switch			Continuity
Connector	Terminal	Ground	Continuity
D17	7		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

f 4 .CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

	(+)		\/altage (\)\	
Automatic drive	Automatic drive positioner control unit		Voltage (V) (Approx.)	
Connector	Terminal		()	
	3	Ground	4 – 6	
M78	4			
IVI7O	15	Giouna		
	16			

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to ADP-222, "Removal and Installation".

5. CHECK MIRROR SWITCH

Check mirror switch

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

Is the inspection result normal?

YES >> Refer to GI-42, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to MIR-134, "Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-42, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-222, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

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< DTC/CIRCUIT DIAGNOSIS >

MIRROR SWITCH: Component Inspection

INFOID:0000000012170566

1. CHECK MIRROR SWITCH

Check door mirror remote control switch.

Door mirror rem	Door mirror remote control switch Terminal		Condition	
Terr				
4			RIGHT	Existed
4			Other than above	Not existed
13			LEFT	Existed
13	7	Mirror switch	Other than above	Not existed
15			UP	Existed
15			Other than above	Not existed
12		DOWN	Existed	
12	12		Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to MIR-134, "Removal and Installation".

POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000012170567

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 s	eat switch		Continuity
Connector	Terminal	Ground	Continuity
B459	43		Existed

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Repair or replace harness.

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TILT &TELESCOPIC SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

TILT &TELESCOPIC SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000012170568

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 & teleso	copic switch		Continuity
Connector	Terminal	Ground	Continuity
M31	1		Existed

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Repair or replace harness.

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING SENSOR

Description INFOID:0000000012170569

- 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

CHECK FUNCTION

- Turn ignition switch ON.
- Select "SLIDE PULSE" in "Data monitor" mode with CONSULT. 2.
- Check sliding sensor signal under the following conditions.

Monitor item	Condition		Valve
SLIDE PULSE Seat sliding	Seat sliding	Operate (forward)	Change (increase)*1
		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-81, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012170571

INFOID:0000000012170570

1. CHECK SLIDING SENSOR SIGNAL

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

	control unit	(–)	Cond	dition	Voltage (V) (Approx.)
Connector	Terminal				
B451	18	Ground	Seat sliding	Operate	10mSec/div
				Other than above	0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-221, "Removal and Installation".

NO >> GO TO 2.

2.CHECK SLIDING SENSOR CIRCUIT

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

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SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	Driver seat control unit		Sliding sensor	
Connector	Terminal	Connector	Terminal	Continuity
B451	18	B453	18	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	18		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK SLIDING SENSOR POWER SUPPLY

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

(+) Sliding sensor		(–)	Voltage (V) (Approx.)	
Connector	Terminal		() ;	
B453	12	Ground	9 – 16 V	

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.
- Check continuity between driver seat control unit harness connector and sliding sensor harness connector.

Driver seat	control unit	Sliding sensor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	12	B453	12	Existed

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	12		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-221, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

5. CHECK SLIDING SENSOR GROUND

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

Sliding sensor			Continuity
Connector	Terminal	Ground	Continuity
B453	43		Existed

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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YES >> Replace sliding sensor.

NO >> Repair or replace harness or connector.

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RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SENSOR

Description INFOID:000000012170572

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

Component Function Check

INFOID:0000000012170573

1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "RECLN PULSE" in "Data monitor" mode with CONSULT.
- 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
			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-84, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000012170574

1. CHECK RECLINING SENSOR SIGNAL

- 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	4	Ground	Seat reclining	Operate Other than	10mSec/div 2V/div JMJIA0119ZZ

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-221, "Removal and Installation".

NO >> GO TO 2.

2. CHECK RECLINING SENSOR CIRCUIT

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

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	Driver seat control unit		Reclining motor	
Connector	Terminal	Connector	Terminal	Continuity
B451	4	B454	4	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	4		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

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			Val(0.0)	
		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(11 /	
B454	12	Ground	9 – 16 V	

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 control unit		Reclining motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	12	B454	12	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	12		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-221, "Removal and Installation".

NO >> Repair or replace harness or connector.

5. CHECK RECLINING SENSOR GROUND

- 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.

Reclining motor			Continuity
Connector	Terminal	Ground	Continuity
B454	43		Existed

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RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace reclining motor.

NO >> Repair or replace harness or connector.

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (FRONT)

Description INFOID:0000000012170575

- · 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

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "LIFT FR PULSE" in "Data monitor" mode with CONSULT.
- 3. 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 ADP-87, "Diagnosis Procedure".

Diagnosis Procedure

UI'E INFOID:000000012170577

1. CHECK LIFTING SENSOR (FRONT) SIGNAL

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

(+) Driver seat control unit		(-)	Con	dition	Voltage (V) (Approx.)
Connector	Terminal				(/ ()
B451	19	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-221, "Removal and Installation".

NO >> GO TO 2.

2.CHECK LIFTING SENSOR (FRONT) CIRCUIT

- 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.

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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Lifting motor (front)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	19	B455	19	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	19		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY

- 1. 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	Terminal		, , ,
B455	12	Ground	9 – 16 V

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector.
- 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	12	B455	12	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	12		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-221, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

5. CHECK LIFTING SENSOR (FRONT) GROUND

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

Lifting motor (front)		Orania	Continuity
Connector	Terminal	Ground	Continuity
B455	43		Existed

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

>> Repair or replace harness.

NO

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

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LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description INFOID:0000000012170578

- 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

INFOID:0000000012170579

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- Select "LIFT RR PULSE" in "Data monitor" mode with CONSULT.
- 3. Check lifting sensor (rear) signal under the following conditions.

Monitor item	Condition		Value
			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-90, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012170580

1. CHECK LIFTING SENSOR (REAR) SIGNAL

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

	+) control unit Terminal	(-)	Condition		Voltage (V) (Approx.)
B451	20	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-221, "Removal and Installation".

NO >> GO TO 2.

2.check lifting sensor (rear) circuit

- Turn ignition switch OFF.
- 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.

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	control unit	Lifting me	otor (rear)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	20	B456	20	Existed

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

Driver seat control unit			Continuity
Connector Terminal		Ground	Continuity
B451	20		Not Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK LIFTING SENSOR (REAR) POWER SUPPLY

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

(+) Lifting motor (rear)		(–)	Voltage (V) (Approx.)
Connector	Terminal		(11 /
B456	12	Ground	9 – 16 V

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

Driver seat	control unit	Lifting m	otor (rear)	Continuity
Connector	Terminal	Connector Terminal		Continuity
B451	12	B456	12	Existed

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

Driver seat control unit			Continuity
Connector	Connector Terminal		Continuity
B451	12		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-221, "Removal and Installation".

NO >> Repair or replace harness or connector.

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.

Lifting moto	or (rear)		Continuity
Connector	Terminal	Ground	Continuity
B456	43		Existed

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LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace lifting motor (rear).

NO >> Repair or replace harness or connector.

TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TILT SENSOR

Description INFOID:0000000012170581

- 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:0000000012170582

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1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "TILT PULSE" in "Data monitor" mode with CONSULT.
- 3. Check the tilt sensor signal under the following condition.

Monitor item	Condition		Value
	Steering column	Operate (up)	Change (increase)
TILT PULSE		Operate (down)	Change (decrease)
		Release	Not change

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000012170583

1. CHECK TILT SENSOR SIGNAL

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

Connector	Terminal				(Approx.)
B451	21	Ground	Steering tilt	Operate Other than	10mSec/div 2V/div JMJIA0119ZZ

Is the inspection result normal?

YES >> Replace drive seat control unit. Refer to ADP-221, "Removal and Installation".

NO >> GO TO 2.

2.CHECK TILT SENSOR CIRCUIT

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

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TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Drive seat	seat control unit Tilt & telescopic motor		Continuity	
Connector	Terminal	Connector Terminal		Continuity
B451	21	M80	1	Existed

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK TILT SENSOR POWER SUPPLY

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

Tilt & teles	+) copic motor	(–)	Voltage (V) (Approx.)	
Connector	Terminal		(FF - /	
M80	2	Ground	9 – 16 V	

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 motor harness connector.

Automatic drive po	Automatic drive positioner control unit		Tilt & telescopic motor	
Connector	Terminal	Connector	Terminal	Continuity
M78	27	M80	2	Existed

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M78	27		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-222, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

5. CHECK TILT 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 motor harness connector.

Automatic drive po	Automatic drive positioner control unit Tilt & telescopic motor		Continuity		
Connector	Terminal	Connector Terminal		Continuity	
M78	20	M80	8	Existed	

TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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le the	inspection	rocult	normal?
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YES >> Replace tilt & telescopic motor.

NO >> Repair or replace harness or connector.

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TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SENSOR

Description INFOID:0000000012170584

- · 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:0000000012170585

1. CHECK FUNCTION

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

Monitor item	Condition		Value
		Operate (forward)	Change (increase)
TELESCO PULSE	Steering column	Operate (backward)	Change (decrease)
		Release	Not change

Is the indication normal?

YES >> INSPECTION END.

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

Diagnosis Procedure

INFOID:0000000012170586

1. CHECK TELESCOPIC SENSOR SIGNAL

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

	control unit	(-)	Con	dition	Voltage (V) (Approx.)
B451	5	Ground	Steering tilt	Operate Other than the above	10mSec/div 10mSec/div 2V/div JMJIA0119ZZ

Is the inspection result normal?

YES >> Replace drive seat control unit. Refer to ADP-221, "Removal and Installation".

NO >> GO TO 2.

2.CHECK TELESCOPIC SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect driver seat control unit and tilt & telescopic motor connector.
- 3. Check continuity between driver seat control unit harness connector and tilt & telescopic motor harness connector.

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Drive seat	control unit	Tilt & telescopic motor Connector Terminal		Continuity	
Connector	Terminal			Continuity	
B451	5	M80	5	Existed	

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

	Drive seat control unit			Continuity
_	Connector Terminal		Ground	Continuity
	B451	5		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

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 motor harness connector and ground.

(+) Tilt & telescopic motor		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(44)	
M80	6	Ground	9 – 16 V	

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.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic motor harness connector.

Automatic drive po	sitioner control unit	Tilt & telescopic motor Connector Terminal		Continuity	
Connector	Terminal			Continuity	
M78	27	M80	6	Existed	

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

Automatic drive positioner control unit			Continuity
Connector	Connector Terminal		Continuity
M78	27		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-222, "Removal and Installation".

NO >> Repair or replace harness or connector.

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 motor harness connector.

Automatic drive po	sitioner control unit	Tilt & telescopic motor		- Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M78	20	M80	9	Existed	

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TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace tilt & telescopic motor.

NO >> Repair or replace harness.

< DTC/CIRCUIT DIAGNOSIS >

MIRROR SENSOR DRIVER SIDE

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DRIVER SIDE: Description

INFOID:0000000012170587

- 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

D INFOID:0000000012170588

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- Select "MIR/SEN LH U-D", "MIR/SEN LH R-L" in "Data monitor" with CONSULT. 2.
- 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 Hillor (driver side)	Change between 0.6 [V] (close to left edge) 3.4 [V] (close to right edge)

Is the indication normal?

YES >> INSPECTION END

>> Perform diagnosis procedure. Refer to ADP-99, "DRIVER SIDE: Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012170589

$1.\mathsf{check}$ door mirror (driver side) sensor power supply

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

(+) Door mirror (driver side)		(–)	Voltage (V) (Approx.)
Connector	Connector Terminal		(/ ipprox.)
D3	23	Ground	4 – 6 V

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.
- 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
M78	21	D3	23	Existed

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

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Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M78	21		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-222, "Removal and Installation".

NO >> Repair or replace harness or connector.

3.check door mirror (driver side) sensor ground

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

Automatic drive po	ositioner control unit	Door mirror (driver side) Connector Terminal		Continuity
Connector	Terminal			Continuity
M78	20	D3	24	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

4. CHECK DOOR MIRROR (DRIVER SIDE) SENSOR CIRCUIT

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

Automatic drive po	Automatic drive positioner control unit		(driver side)	Continuity
Connector	Terminal	Connector Terminal		
M78	6	D3	21	Existed
M/8	18	D3	22	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M78	6	Ground	Not existed
IVI / 8	18		inoi existed

Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000012170590

- 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

INFOID:0000000012170591

1. CHECK FUNCTION

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

< 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-101, "PASSENGER SIDE : Diagnosis Procedure"</u>.

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012170592

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

- 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.

(+)		Valta na (V)	
Door mirror (passenger side)		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(11 /	
D33	23	Ground	4 – 6 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK DOOR MIRROR (PASSENGER SIDE) 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 door mirror (passenger side) harness connector.

Automatic drive po	sitioner control unit	Door mirror (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M78	21	D33	23	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Connector Terminal		Continuity
M78	21		Not existed

Is the inspection result normal?

YES >> Replace automatic driver positioner control unit. Refer to <u>ADP-222, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

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

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

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< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	sitioner control unit	Door mirror (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M78	20	D33	24	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

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 po	ositioner control unit	Door mirror (passenger side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M78	5	D33	21	Existed
IVI7O	17	D33	22	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M78	5	Ground	Not existed
IVITO	17		NOT EXISTED

Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING MOTOR

Description INFOID:0000000012170593

- · 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 frontward/rearward by changing the rotation direction of sliding motor.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SEAT SLIDE" in "Active test" mode with CONSULT.
- 3. Check the sliding motor operation.

Test	t 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 ADP-103, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK SLIDING MOTOR POWER SUPPLY

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

(+) Sliding motor		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				, , , ,
				OFF	0 – 1 V
	34	- Ground	SEAT SLIDE	FR (forward)	9 – 16 V
B461				RR (backward)	0 – 1 V
D40 I				OFF	0 – 1 V
	38			FR (forward)	0 – 1 V
				RR (backward)	9 – 16 V

Is the inspection result normal?

YES >> Replace sliding motor. (Built in seat slide 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.

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SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver se	at control unit	Sliding motor		Continuity
Connector	Terminal	Connector Terminal		Continuity
B452	34	B461	34	Existed
D+32	38	D-101	38	LAISIEU

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B452	34	Ground	Not existed
D 4 32	38		Not existed

Is the inspection result normal?

YES >> Replace driver control unit. Refer to <u>ADP-221, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING MOTOR

Description INFOID:0000000012170596

- · 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 frontward/rearward by changing the rotation direction of reclining motor.

Component Function Check

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-105, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK RECLINING MOTOR POWER SUPPLY

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

(+) Reclining motor Connector Terminal		(-)	Condition		Voltage (V) (Approx.)
39			OFF FR (forward)	0 – 1 V 9 – 16 V	
B454		Ground	SEAT RECLINING	RR (backward)	0 – 1 V
2.0.				OFF	0 – 1 V
	35			FR (forward)	0 – 1 V
				RR (backward)	9 – 16 V

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.

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RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Reclining motor		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
B452	35	B454	35	Existed	
D402	39	D404	39	LXISIEU	

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

Driver seat control unit			Continuity	
Connector	Terminal	Ground	Continuity	
B452	35		Not existed	
D 4 32	39		Not existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-221, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description INFOID:000000012170599

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-107, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

	(+) Lifting motor (front)		(-) Condition		Voltage (V) (Approx.)
Connector	nector Terminal				, , ,
				OFF	0 – 1 V
	40	- Ground	SEAT LIFTER FR	UP	0 – 1 V
B455				DWN (down)	9 – 16 V
6400	36			OFF	0 – 1 V
				UP	9 – 16 V
				DWN (down)	0 – 1 V

Is the inspection result normal?

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

NO >> GO TO 2.

2.CHECK LIFTING MOTOR (FRONT) CIRCUIT

- 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.

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LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Lifting motor (front)		Continuity
Connector	Terminal	Connector Terminal		Continuity
B452	36	B455	36	Existed
	40	- D 4 00	40	=xisteu

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

Driver seat control unit			Continuity	
Connector	Terminal	Ground	Continuity	
B452	36	Ground	Not existed	
D 4 32	40		Not existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-221, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description INFOID:000000012170602

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

Component Function Check

1. CHECK FUNCTION

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

Test item		Des	cription
	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-109, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

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

	(+) Lifting motor (rear)		Con	dition	Voltage (V) (Approx.)
Connector	Terminal				(11 /
				OFF	0 – 1 V
	H42 B456	Ground	SEAT LIFTER RR	UP	9 – 16 V
D456				DWN (DOWN)	0 – 1 V
D400				OFF	0 – 1 V
	41			UP	0 – 1 V
				DWN (DOWN)	9 – 16 V

Is the inspection result normal?

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

NO >> GO TO 2.

2.CHECK LIFTING MOTOR (REAR) CIRCUIT

- 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.

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LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit	Lifting motor (rear)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B452	41	B456	41	Existed	
D432	42	- D430	42	Existed	

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B452	41	Ground	Not existed
	42		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-221, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TILT MOTOR

Description INFOID:0000000012170605

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-111, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1. CHECK TILT MOTOR POWER SUPPLY

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

	(+) Tilt & telescopic motor		Con	dition	Voltage (V) (Approx.)
Connector	Terminal				()
				OFF	0 – 1 V
	M80 3	- Ground		UP	0 – 1 V
MOO			TILT MOTOR	DWN (down)	9 – 16 V
IVIOU				OFF	0 – 1 V
				UP	9 – 16 V
				DWN (down)	0 – 1 V

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.
- 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.

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TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Tilt & telescopic motor		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M79	28	M80	7	Existed	
10179	29	IVIOU	3	Existed	

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

Automatic drive po	sitioner control unit		Continuity
Connector	Connector Terminal		Continuity
M79	28	Ground	Not existed
IVI 7 9	29		NOT existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-222, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC MOTOR

Description INFOID:0000000012170608

- 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

1. CHECK FUNCTION

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

Test item		Descri	ption
	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 ADP-113, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK TELESCOPIC MOTOR POWER SUPPLY

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

	(+) Tilt & telescopic motor		(-) Condi		Voltage (V) (Approx.)
Connector	Terminal				,
				OFF	0 – 1 V
	10	- Ground	TELESCOPIC MO-	FR (forward)	0 – 1 V
MOO				RR (backward)	9 – 16 V
IVIOU	M80			OFF	0 – 1 V
	4			FR (forward)	9 – 16 V
				RR (backward)	0 – 1 V

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.
- 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.

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TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Tilt & telescopic motor		Continuity
Connector	Terminal	Connector Terminal		Continuity
M79	26	M80	10	Existed
W179	29	IVIOU	4	Existed

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

Automatic drive po	sitioner control unit		Continuity
Connector	Connector Terminal		Continuity
M79	26	Ground	Not existed
W179	29		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-222, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Description INFOID:0000000012170611

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:0000000012170612

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1. CHECK DOOR MIRROR MOTOR FUNCTION

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

Refer to ADP-43, "CONSULT Function".

Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to <u>ADP-115, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000012170613

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

(+) Door mirror Connector Terminal		(–)	Condition		Voltage (V) (Approx.)
12	12	Cround	Door mirror remote control switch	UP	9 – 16 V
				Other than above	0 – 1 V
D3 (Driver side) D33 (Passenger	11 Ground			LEFT	9 – 16 V
side)		Ground		Other than above	0 – 1 V
·			DOWN / RIGHT	9 – 16 V	
			Other than above	0 – 1 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

ADP

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]

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Automatic drive p	ositioner control unit	Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	12		10	
M78	23	D3	12	Existed
	24		11	

[Door mirror passenger side]

Automatic drive po	Automatic drive positioner control unit		Door mirror (passenger side)		
Connector	Terminal	Connector	Terminal	Continuity	
	22		10		
M78	10	D33	12	Existed	
	11		11		

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DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

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

[Door mirror driver side]

[Door militor driver side]			
Automatic drive po	sitioner control unit	!	Continuity
Connector	Terminal		
	12	Ground	
M78	23		Not existed
	24		
[Door mirror passenger side]			
Automatic drive po	sitioner control unit		Continuity
Connector	Terminal		Continuity
	22	Ground	
M78	10		Not existed
	11		

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-222, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

3. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-116, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace door mirror. Refer to MIR-126, "DOOR MIRROR ASSEMBLY: Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000012170614

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-126, "Exploded View".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror. Refer to MIR-126, "DOOR MIRROR ASSEMBLY: Removal and Installation".

2.CHECK DOOR MIRROR MOTOR-II

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

	Door mirror				
Connector	Teri	Operational direction			
Connector	(+)	(-)			
	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

DOOR MIRROR MOTOR

>> Replace door mirror. Refer to MIR-126, "DOOR MIRROR ASSEMBLY: Removal and Installation". NO Α В С D Е F G Н ADP K L M Ν 0 Р

ADP-117 Revision: July 2016 2016 QX50

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description INFOID:0000000012170615

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

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

Component Function Check

INFOID:0000000012170616

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000012170617

1. CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

(+) Seat memory switch		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(FF - 7	
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.
- 2. Disconnect driver seat control unit and seat memory switch connector.
- Check continuity between driver seat control unit harness connector and seat memory switch harness connector.

Driver seat	control unit	Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	23	D5	6	Existed
D431	7	D5	7	Existed

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

Driver sea	control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	23	Ground	Not existed
	7		Not existed

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3. CHECK MEMORY INDICATOR

Refer to ADP-119, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch. Refer to ADP-223, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK SEAT MEMORY INDICATOR

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

Seat men		
Terr	Continuity	
(+)	(-)	
5	6	Existed
5	7	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to <u>ADP-223, "Removal and Installation"</u>.

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< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

DRIVER SEAT CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condit	ion	Value/Status
SET SW	Set switch	Push	ON
3E1 3W	Set Switch	Release	OFF
MEMORY CWA	Manage at 20th 4	Push	ON
MEMORY SW1	Memory switch 1	Release	OFF
MEMORY SW2	Mamany quitab 2	Push	ON
WEWORT SW2	Memory switch 2	Release	OFF
SLIDE SW-FR	Cliding quitab (front)	Operate	ON
SLIDE SW-FR	Sliding switch (front)	Release	OFF
SLIDE SW-RR	Cliding quitab (roor)	Operate	ON
SLIDE SW-RR	Sliding switch (rear)	Release	OFF
DECLN CW ED	Declining quitab (front)	Operate	ON
RECLN SW-FR	Reclining switch (front)	Release	OFF
DECLIN CW DD	Reclining switch (rear)	Operate	ON
RECLN SW-RR		Release	OFF
LIFT SW-UP	Lifting switch front (up)	Operate	ON
LIFT SVV-UP		Release	OFF
LIFT SW-DOWN	Lifting switch front (down)	Operate	ON
LIFT SVV-DOVVIN		Release	OFF
MIR CON SW-UP	Mirror switch	Up	ON
WIIN CON SW-OF	WIIITOI SWILCII	Other than above	OFF
MIR CON SW-DN	Mirror switch	Down	ON
WIR CON 3W-DIN	WIIITOI SWILCII	Other than above	OFF
MIR CON SW-RH	Mirror switch	Right	ON
WIIN CON SW-NII	WIIITOI SWILCII	Other than above	OFF
MIR CON SW-LH	Mirror switch	Left	ON
WIIN CON SW-LIT	WIIITOI SWILCII	Other than above	OFF
MIR CHNG SW-R	Changeover switch	Right	ON
WIR CHING SW-R	Changeover Switch	Other than above	OFF
MIR CHNG SW-L	Changeover switch	Left	ON
WIIIX OF ING SWEL	Changeover Switch	Other than above	OFF
TILT SW-UP	Tilt switch	Up	ON
TILI GVV-OF	THE SWILCH	Other than above	OFF
TILT SW-DOWN	Tilt switch	Down	ON
TIET OVV-DOVVIN	THE SWILOTT	Other than above	OFF

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Con	dition	Value/Status
TELESCO SW-FR	Tologopia quitab	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
DETERM SW	Al Sciector level	Other than above	ON
STARTER SW	Ignition position	Cranking	ON
	iginaon poolaon	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 PULSE	Seat lifter	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)
-		Upward	The numeral value decreases *1
TILT PULSE	Tilt position	Downward	The numeral value increases *1
		Other than above	No change to numeral value*1
		Forward	The numeral value decreases *1
TELESCO PULSE	Telescopic position	Backward	The numeral value increases *1
		Other than above	No change to numeral value*1
		Lock	LOCK
STEERING STATUS	Steering lock unit	Unlock	UNLOCK
VEHICLE SPEED	The condition of vehicle		km/h
		P position	ON
P RANG SW CAN	A/T shift selector	Other than above	UNLOCK
		R position	ON
R RANG (CAN)	A/T shift selector	Other than above	UNLOCK
DOOD CITY FI	District	Open	OPEN
DOOR SW-FL	Driver door	Close	CLOSE
DOOD CW ED	Doggorger de	Open	OPEN
DOOR SW-FR	Passenger door	Close	CLOSE

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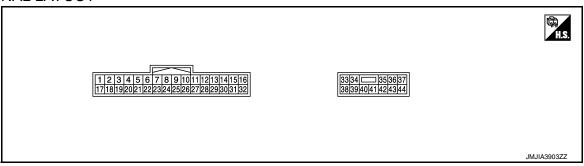
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Monitor Item	Conditi	on	Value/Status
IGN ON SW	Ignition quitob	ON position	ON
IGN ON SW	Ignition switch	Other than above	OFF
ACC ON SW	Ignition switch	ACC position	ON
ACC ON SW	ignition switch	Other than above	OFF
KEYLESS ID	Intelligent Key button	Pressed	MEMORY1/2/3/4/5
RETLESS ID	intelligent Key button	Other than above	OFF
KYLS DR UNLOCK	Intelligent Key or door re-	ON	ON
KTLS DR UNLOCK	quest switch	OFF	OFF
VHCL SPEED (ABS)	Vehicle speed signal (ABS)	Received	RCV
VHCL SPEED (ABS)	verlicie speed signal (ABS)	Not received	NORCV
HANDLE	Vehicle	left handle models	LHD
HANDLE	VEHICLE	Right handle models	RHD
TRANSMISSION	Transmission	M/T	M/T
TIVAINOIVIIOOIVI	Hallollission	A/T	A/T

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

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description	n	Condition	Value
+	-	Signal name	Input/ output	Condition	value
1 (L)	_	CAN-H		_	_
2 (BR)	Ground	UART communication (TX/RX)	Input/ output	Ignition switch ON	10msec/div 5V/div JMJIA1391ZZ

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description	n	Cond	ition	Valua
+	-	Signal name	Input/ output	Cond	ition	Value
4 (W/G)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	10mSec/div 2V/div JMJIA0119ZZ
					Other than the above	0 or 5 V
5 (V)	Ground	Telescopic sensor signal	Input	Steering telescopic	Operate	10mSec/div 2V/div JMJIA0119ZZ
					Other than the above	0 or 5 V
		Marian State O			Press	0 - 1 V
6 (GY)	Ground	Memory switch 2 signal	Input	Memory switch 2	Other than the above	4 - 6 V
7		Memory indica-	Out-		Illuminate	0 - 1 V
(G)	Ground	tor 2 signal	put	Memory indicator 2	Other than the above	9 - 16 V
8	Ground	Sliding switch	Input	Sliding switch	Operate (backward)	0 - 1 V
(BR)	Cround	backward signal	трис	Chang Switch	Other than the above	9 - 16 V
9	Ground	Reclining switch	Input	Reclining switch	Operate (backward)	0 - 1 V
(SB)	Cround	backward signal	трис	resiming switch	Other than the above	9 - 16 V
10	Ground	Lifting switch (front) down sig-	Input	Lifting switch (front)	Operate (down)	0 - 1 V
(LG/R)	Siguria	nal			Other than the above	9 - 16 V
11	Ground	Lifting switch (rear) down sig-	Input	Lifting switch (rear)	Operate (down)	0 - 1 V
(G/B)	Ciduid	nal	прис	Liming owner (real)	Other than the above	9 - 16 V
12 (O)	Ground	Sensor power supply	Out- put	_	-	9 - 16 V
17 (P)	_	CAN-L	_	_		_

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	nal No. color)	Description	า	Conc	lition	Value
+	-	Signal name	Input/ output	Conc	nuon	value
18 (R)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div 2V/div JMJIA0119ZZ
					Other than the above	0 or 5 V
19 (Y/B)	Ground	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	10mSec/div 5V/div JMJIA3675ZZ
					Other than the above	0 or 12 V
20 (P/B)	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	10mSec/div 5V/div JMJIA3675ZZ
					Other than the above	0 or 12 V
21 (SB)	Ground	Tilt sensor signal	Input	Steering tilt	Operate	10mSec/div
					Other than the above	0 or 5 V
22		Memory switch 1			Press	0 - 1 V
(O)	Ground	signal	Input	Memory switch 1	Other than the above	4 - 6 V
23	One	Memory indica-	Out-	Mamanujadiada	Illuminate	0 - 1 V
(W)	Ground	tor 1 signal	put	Memory indicator 1	Other than the above	9 - 16 V
24	Ground	Sliding switch	Input	Sliding switch	Operate (forward)	0 - 1 V
(Y)	Cround	forward signal	прис	Onding Switch	Other than the above	9 - 16 V

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description	1	Cond	ition	Value
+	-	Signal name	Input/ output	Cond	IIIOII	value
25	Ground	Reclining switch	Input	Reclining switch	Operate (forward)	0 - 1 V
(R/G)	Ground	forward signal	прис	Recilling Switch	Other than the above	9 - 16 V
26	Ground	Lifting switch	Input	Lifting switch (front)	Operate (up)	0 - 1 V
(W/B)	Ground	(front) up signal	трис	Enting Switch (North)	Other than the above	9 - 16 V
27	Ground	Lifting switch	Input	Lifting switch (rear)	Operate (up)	0 - 1 V
(P/L)	Ground	(rear) up signal	прис	Litting Switch (rear)	Other than the above	9 - 16 V
28					Press	0 - 1 V
(Y)	Ground	Set switch signal	Input	Set switch	Other than the above	4 - 6 V
33 (R)	Ground	Battery power supply	Input	_	-	9 - 16 V
34	Ground	Sliding motor backward output	Out-	Seat sliding	Operate (backward)	9 - 16 V
(W/B)	Ground	signal	put	ocat sliding	Other than the above	0 - 1 V
35	Ground	Reclining motor forward output	Out-	Seat reclining	Operate (forward)	9 - 16 V
(G/Y)	Ground	signal	put	Courtooming	Other than the above	0 - 1 V
36	Ground	Lifting motor (front) down out-	Out-	Seat lifting (front)	Operate (down)	9 - 16 V
(G/W)	Ground	put signal	put	Seat litting (IIOIIL)	Other than the above	0 - 1 V
38	Ground	Sliding motor forward output	Out-	Seat sliding	Operate (forward)	9 - 16 V
(W/R)		signal	put	Jour silving	Other than the above	0 - 1 V
39	Ground	Reclining motor backward output	Out-	Seat reclining	Operate (backward)	9 - 16 V
(P)	Giound	signal	put	Jeat recilling	Other than the above	0 - 1 V
40	Ground	Lifting motor (front) up output	Out-	Seat lifting (front)	Operate (up)	9 - 16 V
(L/R)	Giound	signal	put	ocal many (nont)	Other than the above	0 - 1 V
41	Ground	Lifting motor	Out-	Seat lifting (rear)	Operate (up)	9 - 16 V
(L/Y)	Glound	(rear) up output signal	put	Seat lifting (rear)	Other than the above	0 - 1 V

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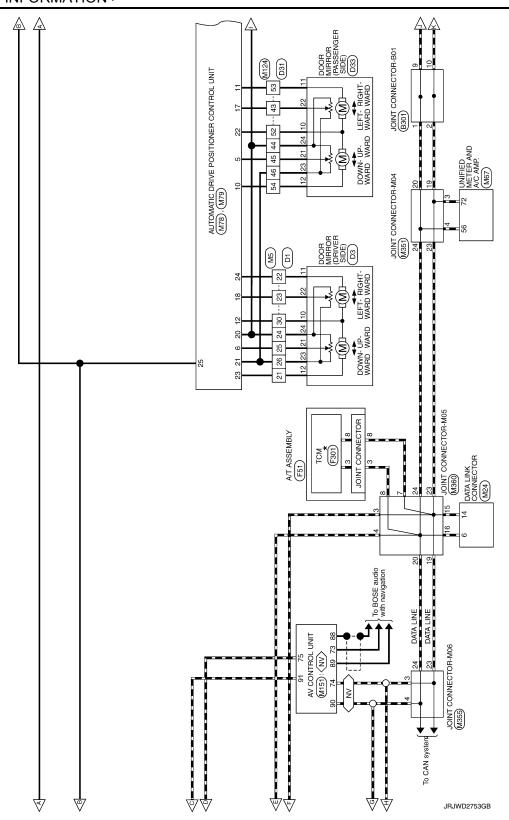
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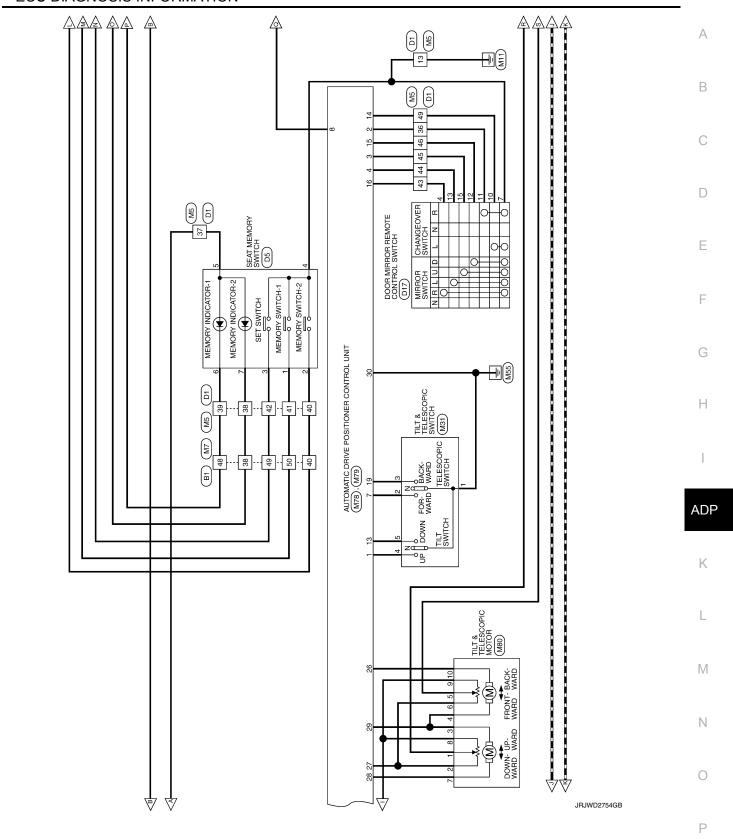
	nal No. color)	Description	n	Cond	lition	Value
+	-	Signal name	Input/ output	Control	illion	value
42	Ground	Lifting motor (rear) down out-	Out-	Seat lifting (rear)	Operate (down)	9 - 16 V
(R/B)	Ground	put signal	put	Seat litting (rear)	Other than the above	0 - 1 V
43 (B)	Ground	Ground	_	_	_	0 - 1 V

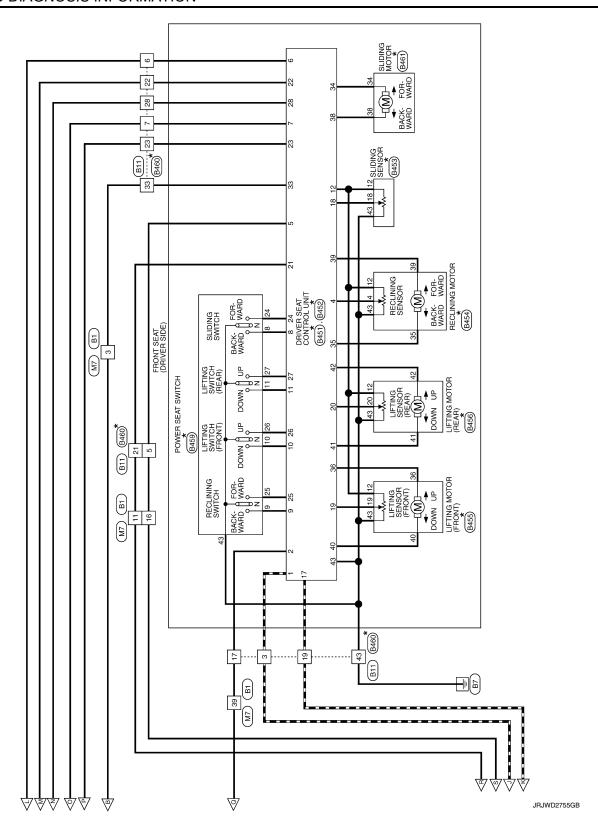
< ECU DIAGNOSIS INFORMATION > Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -Α INFOID:0000000012170620 M₂ В $\langle NV \rangle$: With NAVI $\langle ON \rangle$: Without NAVI $\langle AV \rangle$: With around view monitor JOINT CONNECTOR-M08 (M364) C D NO Е AV CONTROL UNIT (M215), (M217): (ON) 8 6 JOINT CONNECTOR-B01 (B301) (B) *: This connector is not shown in "Harness Layout". F To base audio without navigation To BOSE audio without navigation MULTIFUNCTION SWITCH (M72) Н JOINT CONNECTOR-M08 (M364) DETENTION ADP 9 96 91 JOINT CONNECTOR-M09 K CIRCUIT BREAKER (M62) L **AUTOMATIC DRIVE POSITIONER** FUSE BLOCK (J/B) 91 BCM (BODY CONTROL MODULE) (M118) (M119) (M122) (M123) KEY SLOT M 10A 10 40 10 Ν E100 ₩ | M128 M128 0 2015/06/22

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	ONTROL UNIT	30 E5	Signal Name [Skeerifeation] GROLING GROLING GROLING GROLING AND		В
B92	AROUND VIEW MONITOR CONTROL UNIT	TH40PW-NH	B301 C CAS C CAS C C C C C C C C C C C C C C		С
Connector No.	Connector Name	Connector Type	Terminal Color Of		D
		□ 43 3 19 6 66 60 67	offcation) WER SIDE)		Е
	WIRE TO WIRE	5 17	Signal Name (Specification)		F
Connector No. B11]	Ferminal Color Of		G
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AUTOM/	AUTOMATIC DRIVE POSITIONER			
6	- 1	26 - FRONT LIFTER SW (UPWARD) Connector No.	No. B454	Connector No. B456
10 P	- a	- REAR LIFTER SW (UPWARD)	2010110110110110	Г
11 SE	SB	28 - SET SW		Connector Ivame Life Live MOTOR (NEAR)
L	- 51		Type NS06FW-CS	Connector Type NS06FBR-CS
	- as			
17 R		Connector No. B452		
L	-	THAT LOCATION OF ANY OF ANY		
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Connector No.	B451	12	- 0	+
Connector Name	DRIVER SEAT CONTROL LINIT			\dashv
	П	- -	G/Y -	42 L/Y -
Connector Type	ie TH32HW	Wire	GR -	43 GR –
4		33 – BAT (PTC)		
B				
ŧ		35 - RECLINER MOTOR (FORWARD) Connector No.	No. B455	Connector No. B459
Ź	100000000000000000000000000000000000000	36 - FRONT LIFTER MOTOR (DOWNWARD)		
	t :	1	Name LIFTING MOTOR (FRONT)	Connector Name POWER SEAT SWITCH
	28/27/28/25/24/23/22/21/20/19/18/17	-	Type NS06FW-CS	Connector Type NS10FW-CS
		- FRONT LIFTER MOTOR (UPWARD)	1	1
		-		
Terminal Color Of	or Of	42 - REAR LIFTER MOTOR (DOWNWARD)		
No. Wire	Olgital Ivalia	43 - GND GND	300	17 III
-	- CAN-H		12 43 19	9 25 8 24 10 26
- 2	- UART (TX/RX)			11
3	1	Connector No. B453		
- 4	- PULSE (RECLINER)	S TDING SENSOB		
- 2	- PULSE(TELESCOPIC)	Terminal	Color Of Simol Name [Secrification]	la C
- 9	- ADDRESS 2	Connector Type 6098_0241 No.	Wire Ugla Harre Copering	No. Wire Signal Marie Capecinication
- 4	- IND 2	12	- 0	8 BR -
- 80	- SLIDE SW (BACKWARD)	61	Y/B -	- 8S 6
- 6	- RECLINER SW (BACKWARD)	· ·	L/R -	10 LG/R -
- 01	- FRONT LIFTER SW (DOWNWARD)	40	- M//D	- a- d-
L	- REAR LIFTER SW (DOWNWARD)	┝		24 Y
	- POWER SUPPLY (FNCODER)			B/G
17	CANEL			t
-	- PULSE (SLIDE)			t
L	- PULSE (FRONT LIFTER)	Terminal Color Of		H
H	- PIII SE (REAR I TETER)	No. Wire Signal Name [Specification]		
21	- FULSE(TLT)	12 0		
_	- ADDRESS 1	L		
- 23	- ONI	F		
L	- SLIDE SW (FORWARD)	ł		
L	- RECLINER SW (FORWARD)			

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< ECU DIAGNOSIS INFORMATION >

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237 R R 238 R 24 C Connector No. Connector N	Н
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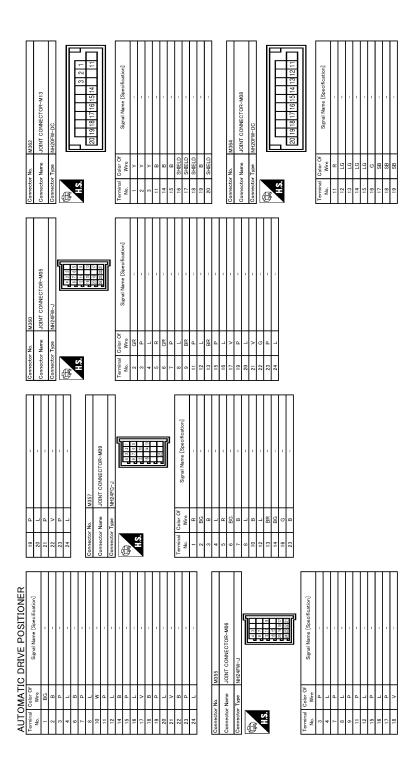
Revision: July 2016 ADP-137 2016 QX50

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JRJWD2765GB

AUTOMATIC DRIVE POSITIONER

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Fail Safe

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

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< ECU DIAGNOSIS INFORMATION >

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
	CAN communication	U1000	<u>ADP-46</u>
Only manual functions operate normally.	CONTROL UNIT (CAN)	U1010	ADP-47
	EEPROM	B2130	<u>ADP-55</u>
Only manual functions, except door mirror, operate normally.	UART communication B21		<u>ADP-54</u>
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	<u>ADP-48</u>
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	<u>ADP-50</u>
Only manual functions, except steering tilt, operate normally.	Steering column tilt output	B2116	<u>ADP-55</u>

DTC Index

CONSULT	Tim	ing ^{*1}		Reference page	
display	Current mal- function	Previous mal- function	Item		
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-46	
CONTROL UNIT (CAN) [U1010]	0	1-39	Control unit	ADP-47	
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-48	
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-50	
STEERING TILT [B2116]	0	1-39	Tilt motor output	ADP-52	
UART COMM [B2128]	0	1-39	UART communication	ADP-54	
EEPROM [B2130]	0	1-39	EEPROM	ADP-55	

^{*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.

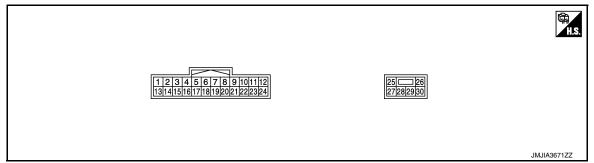
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (wire color) Description		Description		Condition		Voltage	
+	-	Signal name	Input/ Output	Condition		voltage	
1 (Y)	Ground	Tilt switch up signal	Operate (up)	T. 10		0 - 1 V	
			Input	Tilt switch	Other than the above	4 - 6 V	
2		Changeover switch RH		Changeover	RH	0 - 1 V	
(LG)	Ground	signal	Input	switch position	Neutral or LH	4 - 6 V	
3	Cround	Mirror quitab un cianal		Input Mirror switch -	Operate (up)	0 - 1 V	
(G)	Ground	Mirror switch up signal	input		Other than the above	4 - 6 V	
4	(Pround Murror equitor lott eland	Missan assitate left aircal			Operate (left)	0 - 1 V	
(V)		Input	Mirror switch	Other than the above	4 - 6 V		
5 (R)	Ground	Door mirror sensor (passenger side) up/down signal	Input	Door mirror RH position		Change between 3.4 (close to peak) 0.6 (close to valley)	
6 (GR)	Ground	Door mirror sensor (driver side) up/down signal	Input	Door mirror LH position		Change between 3.4 (close to peak) 0.6 (close to valley)	
7 Ground Telescopic switch forward signal	Cround	Telescopic switch forward	lanut	Telescopic switch	Operate (forward)	0 - 1 V	
	Input	relescopic switch	Other than the above	4 - 6 V			
8 (Y)	Ground	UART communication (TX/RX)	Input/ Output	Ignition switch ON		10msec/div	

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AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

Terminal No. (wire color)		Description	Condition		dition	Voltago		
+	-	Signal name	Input/ Output	Con	aition	Voltage		
10	Ground	Door mirror motor (passenger side) up/right out-			Operate (up/right)	9 - 16 V		
(W)	Ground	put signal	Output	Bool Hillion Kill	Other than the above	0 - 1 V		
11		Door mirror motor (passenger side) down/left	Output	Output Door mirror RH -	Operate (down/left)	9 - 16 V		
(G)	Cround	output signal	Output		Other than the above	0 - 1 V		
12	Ground	Door mirror motor (driver side) down/right output	Output	Door mirror (LH)	Operate (down/right)	9 - 16 V		
(Y)	Cround	signal	Output	Door minor (Erry	Other than the above	0 - 1 V		
13	Ground	Tilt switch down signal	Input	Tilt switch	Operate (down)	0 - 1 V		
(W)	Cround	The officer down digital	pat		Other than the above	4 - 6 V		
14	Ground	Changeover switch LH	Input	Changeover	LH	0 - 1 V		
(P)		signal		switch position	Neutral or RH	4 - 6 V		
15		nd Mirror switch down signal	Input	Mirror switch	Operate (down)	0 - 1 V		
(SB)	0.000				Other than the above	4 - 6 V		
16	Ground	Mirror switch right signal	Input	Mirror switch	Operate (right)	0 - 1 V		
(BR)	Cround	wiiror ownor right orgina	mpat	Will of Switch	Other than the above	4 - 6 V		
17 (L)	Ground	Door mirror sensor (passenger side) left/right signal	Input	Door mirror RH position		Change between 3.4 (close to left edge) 0.6 (close to right edge)		
18 (G)	Ground	Door mirror sensor (driver side) left/right signal	Input	Door mirror LH position		Change between 0.6 (close to left edge) 3.4 (close to right edge)		
19	Ground	Telescopic switch back-	Input	Telescopic switch	Operate (backward)	0 - 1 V		
(G)	Ground	ward signal	IIIput	прис	Input	Input Telescopic switch	Other than the above	4 - 6 V
20 (Y)	Ground	Ground (sensor)		_		0 - 1 V		
21 (R)	Ground	Door mirror motor sensor power supply	Output	_		4 - 6 V		
22	Ground	Door mirror motor (pas- senger side) down/right output signal	Output	Door mirror (RH)	Operate (down/right)	9 - 16 V		
(R)	Ground				Other than the above	0 - 1 V		
23	Ground	Door mirror motor (driver side) up/right output signal	Output	Door mirror (LH)	Operate (up/right)	9 - 16 V		
(LG)	Sibulia			Bool Hillion (E11)	Other than the above	0 - 1 V		

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Conc	lition	Voltage	А
+	-	Signal name	Input/ Output	Conc	autori	voltage	
24	Ground	Door mirror motor (driver side) down/left output sig-	Output	Door mirror (LH)	Operate (down/left)	9 - 16 V	В
(L)	Ground	nal	Output	Door militor (EH)	Other than the above	0 - 1 V	С
25 (SB)	Ground	Battery power supply	Input	_	-	9 - 16 V	
26	Cround	Telescopic motor back-	Output	Steering telescop-	Operate (backward)	9 - 16 V	D
(L)	Ground	ward output signal	Output	ic	Other than the above	0 - 1 V	Е
27 (P)	Ground	Tilt & telescopic sensor power supply	Output	_	-	9 - 16 V	•
28	Cround	Tilt motor down output	Output	Chaoring tilt	Operate (down)	9 - 16 V	F
(G)	Ground	signal	Output	Steering tilt	Other than the above	0 - 1 V	G
		Tile and a superior of the state of the stat		Oto a sing a tilt	Operate (up)	9 - 16 V	
29	Oneurad	Tilt motor up output signal	Outroit	Steering tilt	Other than the above	0 - 1 V	Н
(LG)	Ground	Telescopic motor forward	Output	Steering telescop-	Operate (forward)	9 - 16 V	
		output signal		ic	Other than the above	0 - 1 V	
30 (B)	Ground	Ground (power)	_	_	-	0 - 1 V	ADP

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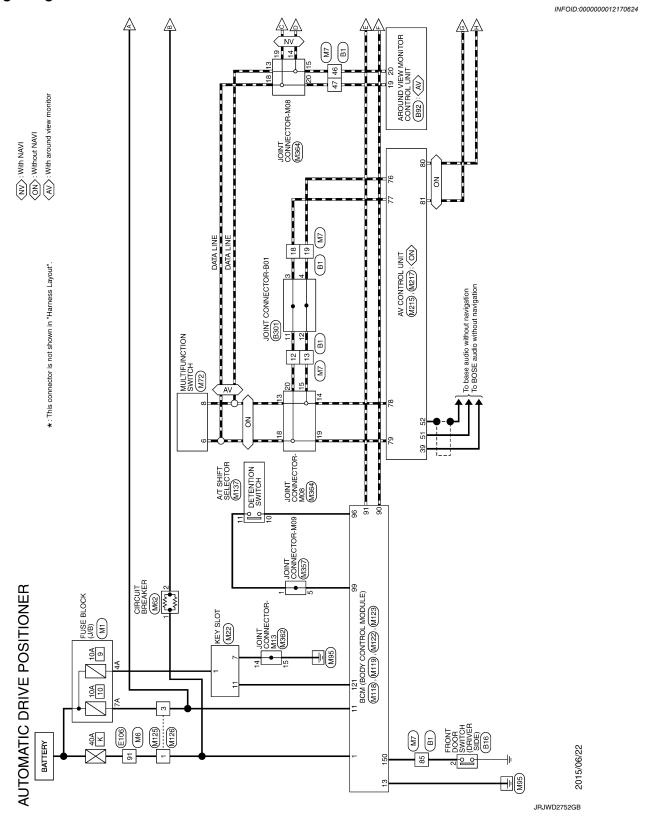
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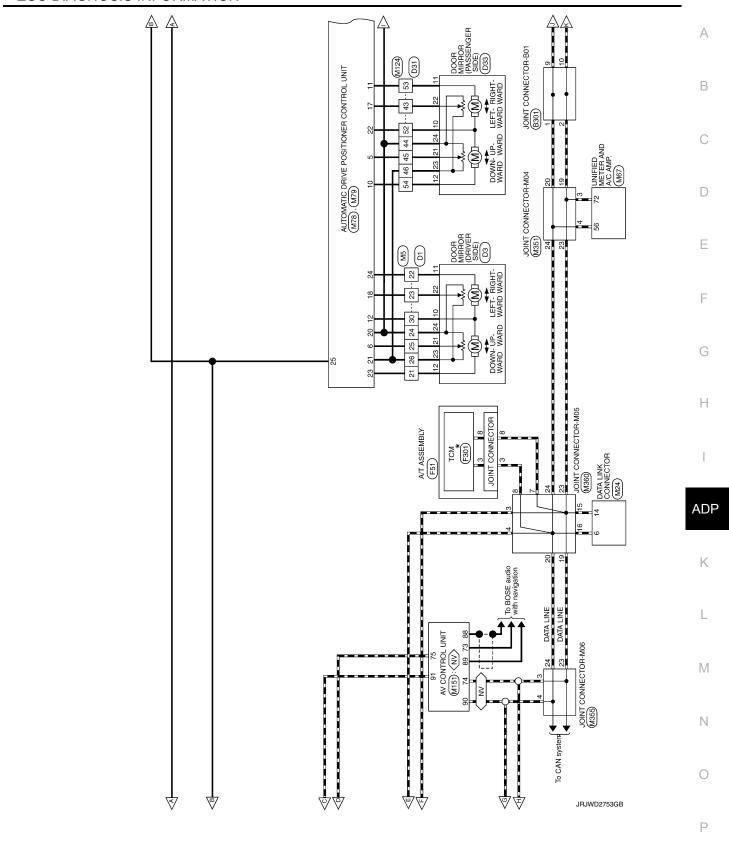
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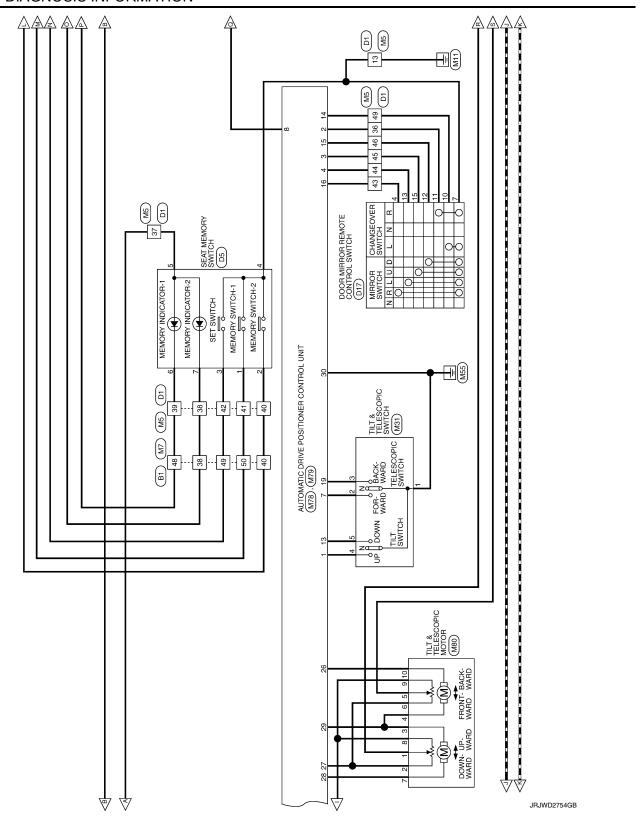
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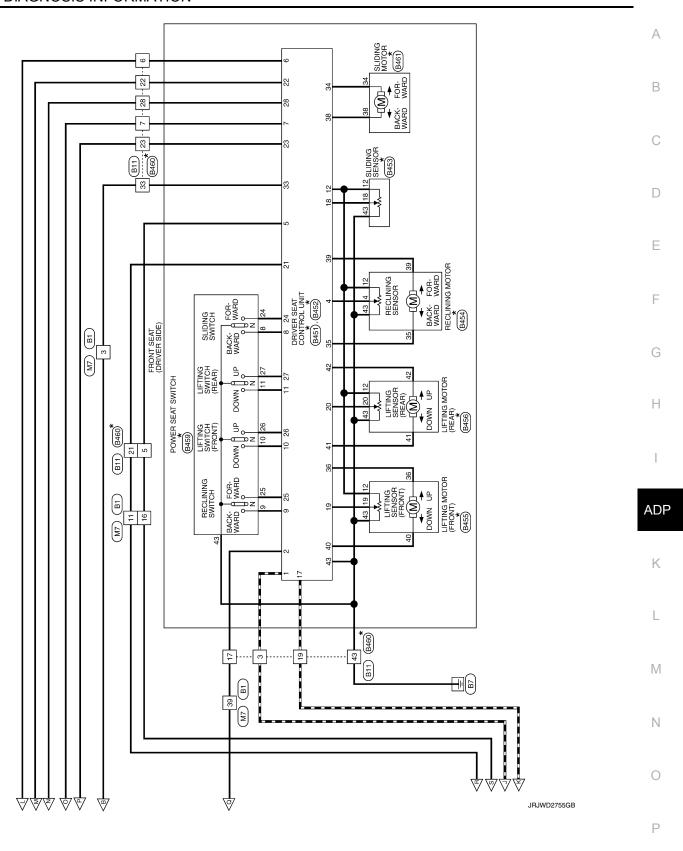
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Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -









COMMATIC DRIVE POSITIONER State Commerced State Commerce	Commenter Ma		WIRE TO WIRE AROUND VIEW MONITOR CONTROL UNIT	NS16FW-CS Connector Type TH40FW-NH	á	(Arth)	28 21 5 17	7 00 00 00 00 07	[13] 7 [33] ZZ [37] 6 [00[00[07]]			Signal Name [Specification] Terminal Color Of Signal Name [Specification]	WITE	BATTERY [With	- 2 Y BATTERY [With Blind Spot Warning]	- 3 P IGNITION SIGNAL	GR	19	20 LG	25 V REVERSE SIGNAL	D CAN-1 PWebs	. >-			Connector No. B301	Connector Name JOINT CONNECTOR-B01	Connector Type NH24FB-J	B18	FRONT DOOR SWITCH (DRIVER SIDE)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				Tarminal Color Of			2 p	Signal Name [Specification]	1		
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COMATIC DRIVE POSITIONER Cor Num Cor Num	ŝ	39	- SE	38	40	4	45	47	48	49	20	09	19	8 8	64	65	99	67	89	69	2/2	74	7.5	16	7.7	78	83	85	98	87	68	06	91	92	8 8	92	96	98	66		
COMAT	IC DRIVE POSITIONER	Bl	WIRE TO WIRE	TH80FW-CS16-TM4				2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		_					1	-	1	-	1		1		1	-	1			1	-		- [Wen NAVI]	- [With NAVI]	- [Without NAVI]	- [Without NAVI]	face mul	- [With around view monitor]	- [Without around view monitor]	- [With NAVI] [Without Blind Spot Warning]	- [Without NAVI] [Without Blind Spot Warning]	- [With NAVI] [With Blind Spot Warning]	
	MAT	No.	or Name	tor Type								al Color Of	a la	2 5	SB	>	-	> {	BS :	4	+	╀	L	Н	+	+	+	H	Н	+	a BB	~	М	۶ ۲	SHELD	-	H	Н	+	_	

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						42	≥ 0	- [Without automatic drive positioner]	Connector Name		SEAT MEMORY SWITCH	
						45	>	- [With automatic drive positioner]	Connector Type	П	A08FW	
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67	-	-	12	≥	1	Connector Type	or Type	TH24MW-NH	7	۵	1	
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Connector Name		SLIDING MOTOR	20	*	1				Connector Name		DOOR MIRHOR HEMOTE CONTROL SWITCH	
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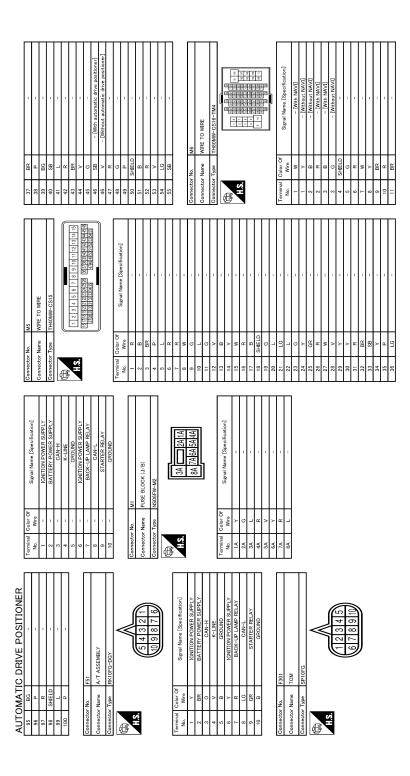
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M22 KEY SLOT TH12PW-NH TH12PW-	С
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AUTOMATIC DRIVE POSITIONER										
Connector No. M24	Connector No.	o. M62		92	BG	ECV SIGNAL	5	2	MIR_SENS_UP_DOWN(RH)	
Commenter Name DATA LINK CONNECTOR	Connector Mamo		CIBCLITT BBEAKED	69	٦ -	A/C LAN SIGNAL	9	GR	MIR_SENS_UP&DOWN(LH)	
	Confidence		OUI BREAKER	70	ď	EACH DOOR MOTOR POWER SUPPLY	7	GR	FORWARD	
Connector Type BD16FW	Connector Type		M02FW-P-LC	7.1	8	GROUND	8	.	RX/TX	
				72	Ь	CAN-L	10	×	MIR MTR UP(RH)	
	Œ						=	9	MIR MTR LEFT(RH)	
	a la						12	 >	MIR MTR DOWN RIGHT(I H)	
H.S. 11 14 16 V	Š		-	Connector No.	r No.	M79	13	. *	DOWNWARD	
1]			7,111	2 1		SELECTIH	
				Connector Name	r Name	MULTIFUNCTION SWITCH	ł	. 9	DOWNWARD	
]]	Connector Type	ı	TH16FW-NH	+	88	RIGHTWARD	
					ı		+	-	MIP SENS LEET&PIGHT(BH)	
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Signal Name [Specification]		Mer.	Signal Name [Specification]	ます		7	0 9	5 6	MILL SEINS LEFT I MAIGHT (LFI)	
NO. WEG	+	D III		\ -		1	6 8	; و	BACKWARD	
3 LG	-	*				4 6 8 14 16	20	×	SENS_GND	
4 B	2	SB					21	œ	POWER SUPPLY (SENSOR)	
5 B -						135	22	В	MIR_MTR_DOWN_RIGHT(RH)	
- 7 9							23	LG	MIR_MTR_UP(LH)	
- ^ L	Connector No.	o. M67					24	1	MIR MTR LEFT(LH)	
5		Г		Terminal	Color Of					
F	Connector Name		UNIFIED METER AND A/C AMP.	No.	Wire	Signal Name [Specification]				
$^{+}$	Connector Type	T	THOO SENTENCE IN THE PROPERTY OF THE PROPERTY	-	a	GHIOGO	Connector No	0270		
+	Collifector	1	HNI-AA-J2	-	n ;	GROUND	COLLIGECTOR INC.	T		
- A	ą			m ·	> 1	Acc	Connector Name		AUTOMATIC DRIVE POSITIONER CONTROL UNIT	
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	Ę	L		'n	>	ILL CONT	Connector Type	٦	NS06FW-CS	
Connector No. M31	2	7	25	9	SB	AV COMM (H)	ą			
Connector Name TILT & TELESCOPIC SWITCH		102	7 FB	89	PP	AV COMM (L)	厚			
		ò	30	o	В	SW GND	Ę		30	
Connector Type TK06FGY				14	Υ	DISK EJECT SIGNAL	1.0		97	
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]}	41	>	ACC POWER SUPPLY	Connector No.		M78				
3 4 1 5 2	42	>	FUEL LEVEL SENSOR SIGNAL	L	Г		Terminal Col	Color Of	3	
╢	43	œ	INTAKE SENSOB SIGNAL	Connector Name		AUTOMATIC DRIVE POSITIONER CONTROL UNIT	No.	Wire	Signal Name [Specification]	
	44		IN-VEHICLE SENSOR SIGNAL	Connector Type	r Tvoe	TH24FW-NH	ł	95	BAT	
	4E	3 0	AMBIENT SENSOD SIGNAL				ł	3 -	BACKWADD	
Terminal Color Of	98	- 6	SIMI OAD SENSOB SIGNAL	Œ			2.0	, ,	CHANGE OF STATE	
No Wine Signal Name [Specification]	;	Ť	CONTROL OF	主		7	. 6		DOWNSHAD	
+	7	Ť	dol das/ outside obor belecting senson signal	<u>.</u>		1 0 1	+	,	DOWINARD	
	23	S	IGNITION POWER SUPPLY			1 2 3 4 5 6 / 8 1011 12	+	9	UPWARD/FRONTWARD	
2 GR -	24	,	BATTERY POWER SUPPLY			100000000000000000000000000000000000000	30	В	GND	
3 6 -	55	В	GROUND			13 14 13 10 17 10 18 20 21 22 23 24				
- × *	26	_	CAN-H							
- M	57	W	BRAKE FLUID LEVEL SWITCH SIGNAL							
	28	BR	FUEL LEVEL SENSOR GROUND	Terminal	Color Of					
	28	GR	INTAKE SENSOR GROUND	No.	Wire	Signal Name [Specification]				
	09	_	IN-VEHICLE SENSOR GROUND	-	۰	UPWARD				
	19	BR	AMBIENT SENSOR GROUND	2	97	SELECT RH				
	62	SB	SUNLOAD SENSOR GROUND	8	9	UPWARD				
	63	~	1	4	>	LEFTWARD				
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Terminal Color Of Terminal Connector Name M M M M M M M M M	N
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45	>		ē	Color Of	Signal Name [Specification]	=	SHELD	SHELD	7		
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37	BR	-	2	>		74	۵	CAN-L			
43	-		es es	œ	-	75	97	AV COMM (L)	Connector No.	M217	
44	>					76	<u>_</u>	AV COMM (1)		Γ	
45	۵	1				79	a	NOITAMINALIII	Connector Name	e AV CONTROL UNIT	
48	×		Connector No.	l	M137	80		IGNITION SIGNAL	Connector Type	TH32FW-NH	
47	SHELD	-		ı		18	BG	REVERSE SIGNAL		1	
52	œ		Connector Name	Name	A/ I SHIFT SELECTOR	82	ď	VEHICLE SPEED SIGNAL (8-PULSE)	1		
53	G		Connector Type	- Type	TH12FW-NH	t	SHIELD	SHIELD		<u> </u>	
54	>	-				t	o	MICROPHONE SIGNAL	S I	90	00 50 00
55	BG		E			88	SHIELD	SHIELD		8	00
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Connector No.	П	M125			ŧ.	16	SB	AV COMM (H)			
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Connec	Connector Type	M03FW-LC					1		+		
4	•		nal	Color Of	Simal Name [Specification]	Connector No.	No. M215		77	SB AV COMM (H)	0
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Š.	Wire	Signal Name [Specification]	6	В			48	48 49 50 51 52	H	VEHIC	L (8-PULSE)
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Ç	1		Connector	9	MIST	36	200	SIGNAL VCC			
Connector No.	1	M126	Connector Name	Name	AV CONTROL UNIT	37	5 c	SIGNAL GND		73074	Ī
Connec	Connector Name	WIRE TO WIRE				38	r	4	Connector No.	M351	
		т	Connector Type	lype	TH32FW-NH	38	BR	COMM (DISP->CONT)	Connector Name	JOINT CONNECTOR-M04	
Connec	Connector Type	M03MW-LC	ą			+		RGB AREA (YS) SIGNAL		┪	
ą			厚			41	SHIELD	SHIELD	Connector Type	∍ NH24FW−J	
B			Ě		/ / \ 	42	Α.	RGB SYNCHRONIZING SIGNAL	ģ	1	
Ę			į		87 87 87 87 87 17 189 78 78 78 78	43	G	RGB SIGNAL (R:RED)	彦	4 3 2 1	
2	7	_			2 00 00	44	٦	RGB SIGNAL (G:GREEN)	Ę	8 7 6	
		<u>-</u>			7	45	Ь	RGB SIGNAL (B:BLUE)	ė T	01110	
		2 3				46	^	COMPOSITE IMAGE SIGNAL GND		4.61	
		3				47	SB	COMPOSITE IMAGE SIGNAL		20 19 18 17	
			lai	Color Of	[unitendinanc] ame/ lenni2	48	Y	INVERTER VCC		200	
			No.	Wire	Ogna water Copperation	49	BR	INVERTER GND			
			65	>	PARKING BRAKE SIGNAL	20	g	VP		1	
			67	9	COMPOSITE IMAGE SIGNAL GND	51	>	COMM (CONT->DISP)			
			89	œ	COMPOSITE IMAGE SIGNAL	52	SHIELD	SHIELD			

JRJWD2764GB

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< ECU DIAGNOSIS INFORMATION >

	A
Signal Name [Specification] Signal Name [Specification] Signal Name [Specification]	В
M382 NH20F) NH20F) NH20F(NH20F) NH20F) NH20F(NH20F) NH20F(NH20F) NH20F(NH20F) NH20F(NH20F) NH20F(NH20F) NH20F(NH20	С
Connector Na.	D
olication)	Е
NASGO NH74.FW-J NH24.FW-J Signal Name (Specification)	F
100 C C C C C C C C C C C C C C C C C C	G
	Н
Sgrail Name (Speedfeatton)	1
M351 C C C C C C C C C C C C C C C C C C C	ADI
19 P 22 P 23 P 24 P 2	К
Signal Name (Specification) NNNECTOR-M06 Signal Name (Specification) Signal Name (Specification)	L
WASS WASS	М
AUTOMATIC Terminal Color Of Well 1	N
	0
	JRJWD2765GB

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AUTOMATIC DRIVE POSITIONER

JRJWD2766GB

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

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VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
TIX WIF LIX III	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
TIX WIF LIX LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
FR WIFER IN	Front wiper switch INT	On
FR WIPER STOP	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
RR WIPER ON	Other than rear wiper switch ON	Off
RR WIFER ON	Rear wiper switch ON	On
RR WIPER INT	Other than rear wiper switch INT	Off
KK WIPEK IN I	Rear wiper switch INT	On
RR WASHER SW	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
DD WIDED STOD	Rear wiper is in STOP position	Off
RR WIPER STOP	Rear wiper is not in STOP position	On
TUDN CIONAL D	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TUDNI CIONAL I	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
TAIL LAIVIP SVV	Lighting switch 1ST or 2ND	On
LILDE AM CM	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
HEAD LAIVIP SVV I	Lighting switch 2ND	On
LIFAD LAMD CW/2	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
DASSING SW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
AUTO LICHT CW	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On

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Monitor Item	Condition	Value/Status
FR FOG SW	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
DOOR SW-DR	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
	Back door closed	Off
DOOR SW-BK	Back door opened	On
CDL LOCK CW	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
VEV OVI LIK OW	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
(E) (O) (L D) (O) (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
HAZARD SW	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
TD/DD ODEN SW	Back door opener switch OFF	Off
TR/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
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the key is not pressed	Off
NNE-LOUN	LOCK button of the key is pressed	On
DKE TIMI OCK	UNLOCK button of the key is not pressed	Off
RKE-UNLOCK	UNLOCK button of the key is pressed	On
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
DKE DANIC	PANIC button of the key is not pressed	Off
RKE-PANIC	PANIC button of the key is pressed	On
	UNLOCK button of the key is not pressed	Off
RKE-P/W OPEN	UNLOCK button of the key is pressed and held	On

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off	
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On	_
ODTION OFNOOD	Bright outside of the vehicle	Close to 5 V	_
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V	
	Driver door request switch is not pressed	Off	_
REQ SW -DR	Driver door request switch is pressed	On	
	Passenger door request switch is not pressed	Off	
REQ SW -AS	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	_
PEO SW _BD/TD	Back door request switch is not pressed	Off	
NLW 311 -DD/ 1 K	Back door request switch is pressed	On	
DIICH C/W	Push-button ignition switch (push switch) is not pressed	Off	
OOI I OVV	Push-button ignition switch (push switch) is pressed	On	
GN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off	
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off	
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off	
ACC RLY -F/B CLUCH SW BRAKE SW 1 BRAKE SW 2	The brake pedal is depressed when No. 7 fuse is blown	Off	
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On	A
DDAKE SW/ 2	The brake pedal is not depressed	Off	
NANL SW Z	The brake pedal is depressed	On	
NETE/CANCL SW	Selector lever in P position	Off	
JETE/CANCE SW	Selector lever in any position other than P	On	_
TT DNI/NI CVA/	Selector lever in any position other than P and N	Off	_
DI I FIN/IN OVV	Selector lever in P or N position	On	
S/L -LOCK	NOTE: The item is indicated, but not monitored.	Off	
S/L -UNLOCK	NOTE: The item is indicated, but not monitored.	Off	_
S/L RELAY-F/B	NOTE: The item is indicated, but not monitored.	Off	
INI K SEN -DR	Driver door is unlocked	Off	
	Driver door is locked	On	
USH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off	
23.13.11 II DIN	Push-button ignition switch (push-switch) is pressed	On	
	Ignition switch in OFF or ACC position	Off	
CILII 1/D	Ignition switch in ON position	On	_
)FTF SW -IPDM	Selector lever in any position other than P	Off	
	Selector lever in P position	On	
Q SW -RL Q SW -BD/TR SH SW N RLY2 -F/B C RLY -F/B UCH SW AKE SW 1 AKE SW 2 TE/CANCL SW T PN/N SW -LOCK -UNLOCK	Selector lever in any position other than P and N	Off	_
ZELLINE II DIVI	Selector lever in P or N position	On	_

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Monitor Item	Condition	Value/Status
SFT P -MET	Selector lever in any position other than P	Off
SFIF-WEI	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
SI I IN -IVIL I	Selector lever in N position	On
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
LINGINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off
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
OOOR STAT-AS	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
DDMT ENC STDT	The engine start is prohibited	Reset
PRIVIT ENGISTRI	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The key is not inserted into key slot	Off
KET SW -SLOT	The key is inserted into key slot	On
RKE OPE COUN1	During the operation of the key	Operation frequency of the key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet
CONFRIVI ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet
CONTINI ID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet

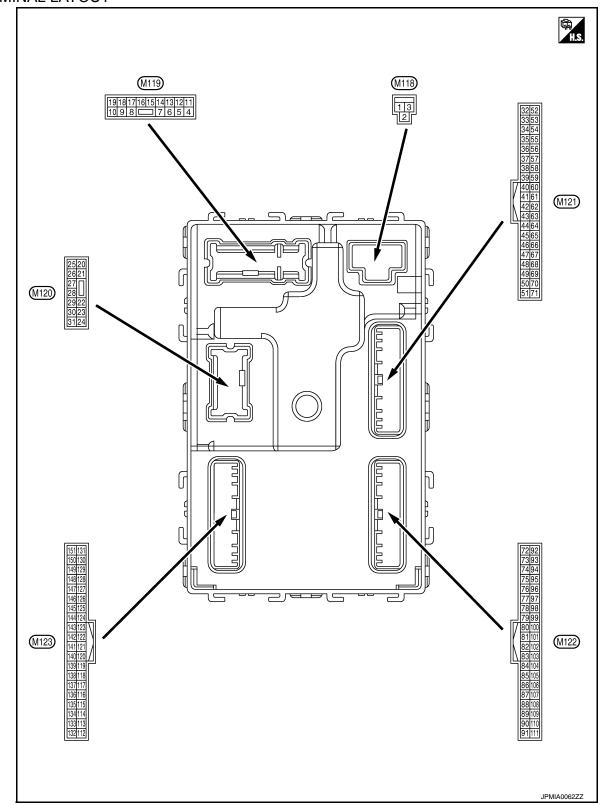
Monitor Item	Condition	Value/Status
CONICION ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done
CONFIDM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet
COM INWIDI	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done
P 4 P 3 P 2 P 1 R PRESS FL R PRESS FR R PRESS RR R PRESS RL PRESS RL REGST FL1 REGST FL1	The ID of fourth key is not registered to BCM	Yet
1	The ID of fourth key is registered to BCM	Done
2	The ID of third key is not registered to BCM	Yet
R PRESS FR R PRESS RR	The ID of third key is registered to BCM	Done
ONFIRM ID1 4 3 2 1 R PRESS FL R PRESS FR R PRESS RR R PRESS RL REGST FL1 REGST FR1 REGST RR1	The ID of second key is not registered to BCM	Yet
IP 2	The ID of second key is registered to BCM	Done
'1	The ID of first key is not registered to BCM	Yet
IFI	The ID of first key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID DECST EL 1	ID of front LH tire transmitter is registered	Done
ID REGGI FLI	ID of front LH tire transmitter is not registered	Yet
ID DECCT ED1	ID of front RH tire transmitter is registered	Done
ID REGGI FRI	ID of front RH tire transmitter is not registered	Yet
ID DECST DD4	ID of rear RH tire transmitter is registered	Done
וט מבטטו ממו	ID of rear RH tire transmitter is not registered	Yet
ID DECCT DI 1	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
DI 177ED	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

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TERMINAL LAYOUT



PHYSICAL VALUES

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	Battery voltage
3 (Y)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
					battery saver is activated. oom lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	ed.	battery saver is not activat- or room lamp power supply)	Battery voltage
5	Ground	Passenger door UN-	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
(L)	Giouna	LOCK	Output	rassenger door	Other than UNLOCK (Actuator is not activated)	0 V
7	0	Chara Innon	0	Otan James	ON	0 V
(Y)	Ground	Step lamp	Output	Step lamp	OFF	Battery voltage
8	Ground	All doors, fuel lid	Output	All doors	LOCK (Actuator is activated)	Battery voltage
(V)	Giouna	LOCK	Output	' (Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
(G)	Giodila	UNLOCK	Output	Dilver door	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)	Battery voltage
(BR)	Ground	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
					OFF	0 V
14	Ground	Push-button ignition switch illumination	Output	Tail lamp		NOTE: When the illumination brightening/dimming level is in the neutral position
(W)		ground			ON	10 0 2 ms JSNIA0010GB
15		A00:: 1: 1: 1:	0	1	OFF or ON	Battery voltage
	Ground	ACC indicator lamp	Output	Ignition switch	ACC	0 V

		Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
					Turn signal switch OFF	0 V
17 (W)	Ground	Turn signal RH (Front, side)	Output	Ignition switch ON	Turn signal switch RH	15 10 5 0 1 s PKID0926E 6.5 V
-	Signal name Signal name			Turn signal switch OFF	0 V	
18 (BG)	Ground		Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
	Ground		Output	Interior room	OFF	Battery voltage
(V)		control		lamp	ON Turn signal switch OFF	0 V
20 (V)	Ground		Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
	Cround	Pack door open	Output	Back door	OPEN (Back door opener actuator is activated)	Battery voltage
(G)	Glound	Back door open	Output	DACK GOO!	Other than OPEN (Back door opener actuator is not activated)	0 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	_			OF	OFF (Stopped)	0 V
(G)	Ground	Rear wiper	Output	Rear wiper	ON (Operated)	Battery voltage

	ninal No.	Description				Value	^
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
					When Intelligent Key is in the passenger compartment	(V) 15 10 5 1	В
34 (SB)	Ground	Luggage room antenna (–)	Output	Ignition switch OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	D E
35	One	Luggage room anten-	0.4.4	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 1	G H
(V)	Ground	na (+)	Output	Output Ignition switch OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	ADP K
20		Deals dear enterna (When the back	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	M
38 (B)	Ground	Back door antenna (–)	Output	door opener request switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	O

Signal name Cutput Condition Capprox. When Intelligent Key is in the antenna detection area Cutput Condition Cutput Condition Cutput Cu		inal No. e color)	Description			On addition	Value
Second S			Signal name	Input/ Output		Condition	
Ground Ignition relay (IPDM Pick Control Contr		Ground	Back door antenna	Qutput			15 10 5 0
Ground E/R) control Couput Ignition switch Condition C	(W)	Glound	(+)	Output	operated with ig-	in the antenna detection	15 10 5 0
Company Comp	47	Craund	Ignition relay (IPDM	Outnut	lanition outlab	OFF or ACC	Battery voltage
Starter relay control Output Ignition switch ON When selector lever is not in P or N position Ov	(Y)	Ground		Output	ignition switch	ON	0 V
Ground (BR)		(Y) Ground E/R) control 52 (SB) Ground Starter relay cont 60 Ground Push-button igniti	Starter relay control	Output	Ignition switch		Battery voltage
Ground (RR) Ground Switch (Push switch) Input switch (push switch) Input switch (push switch) Not pressed Battery voltage ON (Pressed) 0 V Back door opener request switch OFF (Not pressed) 0 V Ground Ground Ground Ground Intelligent Key warning buzzer (Engine room) Not sounding Battery voltage Ground Ground Ground Intelligent Key warning buzzer (Engine room) Not sounding Battery voltage Ground Ground Ground Rear wiper stop position Input Rear wiper Input Rear wiper Input Rear wiper Input Rear wiper Input Rear wiper Input Rear wiper Input Rear wiper Input Rear wiper Input Rear wiper Input Rear wiper In stop position Input Instance Input Instance Input Instance Instance Instance Instance Input Instance Inst	(SB)		Starter relay control	Output	ON		0 V
Ground G	60	01	Push-button ignition	11		Pressed	0 V
Ground Ground Back door opener request switch Input Back door opener request switch OFF (Not pressed) Ground Ground Ground Intelligent Key warning buzzer (Engine room) Ground Rear wiper stop position Ground Rear wiper stop position Ground Rear wiper stop position Input Rear wiper		Ground		Input		-	
Ground (W) Ground Back door opener request switch (W) Ground Intelligent Key warning buzzer (Engine room) Ground (V) Ground Rear wiper stop position						ON (Pressed)	0 V
Ground ing buzzer (Engine room) Output warning buzzer (Engine room) Not sounding Battery voltage Rear wiper stop position Rear wiper stop position Input Rear wiper In stop position JPMIA0016GB 1.0 V		Ground		Input		OFF (Not pressed)	15 10 5 0 10 ms JPMIA0016GB
(V) Ground ing buzzer (Engine room) Output warning buzzer (Engine room) Not sounding Battery voltage Rear wiper stop position Rear wiper stop position Rear wiper stop position Input Rear wiper In stop position JPMIA0016GB 1.0 V	64		Intelligent Key warn-		Intelligent Key	Sounding	
Ground Rear wiper stop position Rear wiper stop position Input Rear wiper In stop position JPMIA0016GB 1.0 V		Ground	ing buzzer (Engine	Output	warning buzzer	_	Battery voltage
		Ground		Input	Rear wiper	In stop position	10 5 0 10 ms JPMIA0016GB
						N ()	

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	inal No. e color)	Description				Value	Α
+	- COIOI)	Signal name	Input/ Output		Condition	(Approx.)	
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB	В
					ON (Door open)	0 V	
					Pressed	0 V	Е
67 (GR)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 5 0 JPMIA0011GB 11.8 V	F
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	11.8 V	H I AD
					ON (Door open)	0 V	
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	K L M
					ON (Door open)	0 V	
	l	I		l	· · · · · · · · · · · · · · · · · · ·	1	Ν

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	inal No. e color)	Description	I		0 199	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
72		Room antenna 2 (–)		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(R)	Ground	(Console)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
73	Ground	Room antenna 2 (+)	Output (Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(G)	Siddila	(Console)	Gutput	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
74	Ground	Passenger door an-	Quitout	When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(SB)		Ground Passenger door antenna (–) 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 JMKIA0063GB

	ninal No.	Description				Value	Α
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	А
				When the pas-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	В
75 (GR)	Ground	Passenger door antenna (+)	Output	senger door request switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	D E
76	01	Driver door antenna		When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(V)	Ground	(-)	Output	When the driver 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	ADF K
				When the driver	When Intelligent Key is in the antenna detection area	(V) 15 10 1	M
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 1 s JMKIA0063GB	O

	inal No.	Description	II.			Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
78	Ground	Room antenna 1 (–)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(Y)		(Instrument panel) Outpu		OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0063GB
79	Ground	Room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(BR)	Glodina	(Instrument panel)	Guipur	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the 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 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
(R)	2.34114	block (J/B)] control	Julpat	-g	ON	Battery voltage

	inal No. e color)	Description	T		0 199	Value						
+		Signal name	Input/ Output		Condition	(Approx.)						
83		Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB						
63 (Y)	Ground	receiver communication	Output	When operating e	ither button on the key	(V) 15 10 5 1 ms JMKIA0065GB						
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V						
87	Ground	Combination switch	Input Combination switch	Input	Innut	Input	Innut	Innut		Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	A
(BR)		INPUT 5		switch	Rear wiper 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 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V						

	Terminal No. Description (Wire color)		T	O an alitican		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 2 ms 1.3 V	
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 2 ms 1.3 V	
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms 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 5 0 2 ms JPMIA0040GB	
90 (P)	Ground	CAN-L	Input/ Output	_		_	
91 (L)	Ground	CAN-H	Input/ Output	_		_	

Terminal No.		Description				Value	
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					OFF	Battery voltage	В
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB	C
					ON	0 V	_
93	_		_		OFF or ACC	Battery voltage	Е
(V)	Ground	ON indicator lamp	Output	Ignition switch	ON	0 V	
94		D date to the	0	D 441 1	OFF	Battery voltage	F
(Y)	Ground	Puddle lamp control	Output	Puddle lamp	ON	0 V	
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V	– - G
(BG)	Giound				ACC or ON	Battery voltage	
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	_		Battery voltage	Н
99	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V	_
(R)	Ground				Any position other than P	Battery voltage	
					ON (Pressed)	0 V	
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V	AD K
					ON (Pressed)	0 V	
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB	M
100		Di é			OFF or ACC	1.0 V	0
102 (BG)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF OF ACC	Battery voltage	
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OF		Battery voltage	Р

Terminal No. (Wire color)		Description				Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	
					Turn signal switch LH	(V) 15 10 5 2 ms JPMIA0037GB	
107 (LG)					Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB	
					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 >

Terminal No. (Wire color)		Description	1			Value	А
+	- COIOI)	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	С
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	E F
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 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 1.3 V	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	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB	
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermittent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB	
					ON	0 V	
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire	e color) –	Signal name	Input/ Output		Condition	(Approx.)	
113	Craund	Ontical concer	loout	Ignition switch	When bright outside of the vehicle	Close to 5 V	-
(P)	Ground	Optical sensor	Input	ON	When dark outside of the vehicle	Close to 0 V	-
116 (SB)	Ground	Stop lamp switch 1	Input	_		Battery voltage	=
		Stop lamp switch 2		Stop lamp switch	OFF (Brake pedal is not depressed)	0 V	_
118	Ground	(Without ICC)	Innut	Stop lamp switch	ON (Brake pedal is depressed)	Battery voltage	_
(P)	Giouna	Stop lamp switch 2	Input		OFF (Brake pedal is not de- 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 assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 10 ms JPMIA0012GB	
					UNLOCK status (Unlock switch sensor ON)	1.1 V 0 V	=
121	Craund	Kay alat awitah	lanut	When the key is ir	serted into key slot	Battery voltage	
(BR)	Ground	Key slot switch	Input	When the key is n	ot inserted into key slot	0 V	A
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V Battery voltage	-
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB	_
					ON (Door open)	0 V	-
132 (BR)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 5 0	
				Ignition switch OF	F or ACC	10.2 V Battery voltage	_

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
					ON (Tail lamps OFF)	9.5 V
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level. (V) 15 10 5 0 JPMIA0159GB
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF ON	Battery voltage 0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V
(Y)	0.00	power supply	Catpat		ACC or ON	5.0 V
139	Ground	Tire pressure receiv-	Input/	lgnition switch	Standby state	(V) 6 4 2 0 ••• 0.2s
(L)	Glound	er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	Battery voltage
(GR)		position			Except P and N positions	0 V
					ON	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	Blinking	10 5 0 1 s JPMIA0014GB 11.3 V
					OFF	Battery voltage
					U 11	Battery voltage

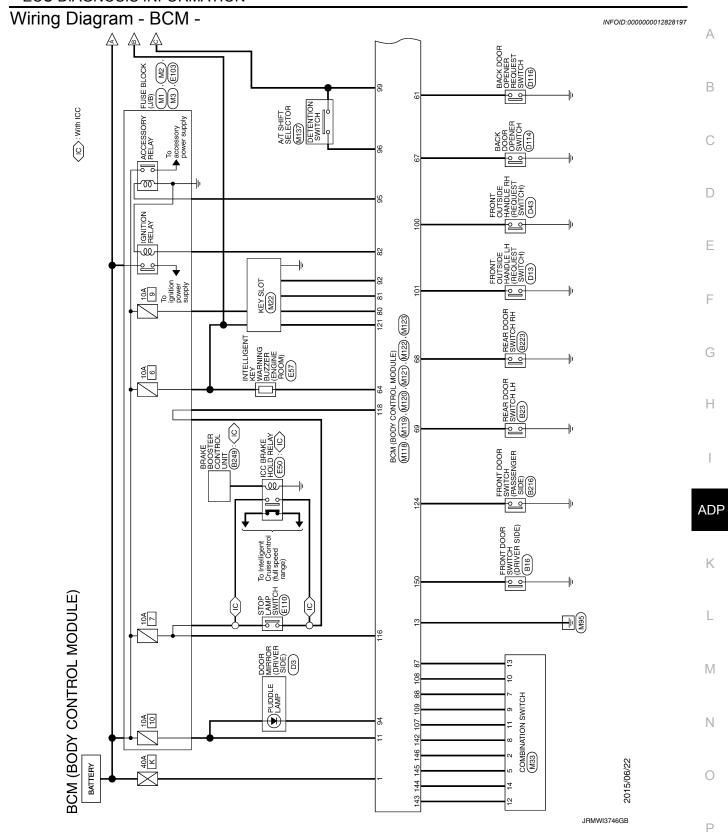
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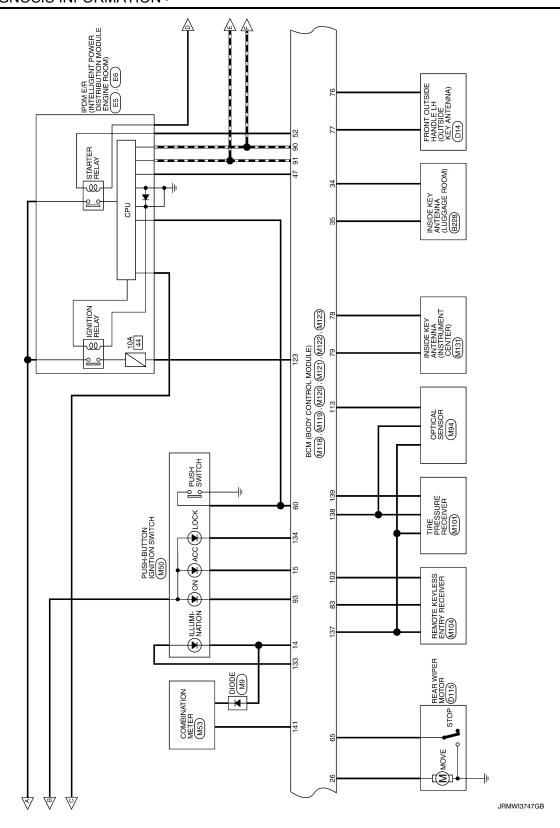
	inal No.	Description				Value	۸
(Wire	e color) –	Signal name	Input/ Output		Condition	(Approx.)	Α
142 (BG)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	0 V (V) 15 10 5 0 2 ms JPMIA0031GB 10.7 V	B C D
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper intermittent dial 4) Front wiper switch HI (Wiper intermittent dial 4) Rear wiper switch INT (Wiper intermittent dial 4) Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 3 Wiper intermittent dial 6	0 V (V) 15 10 2 ms JPMIA0032GB 10.7 V	E F G
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Wiper intermittent dial 7 All switches OFF (Wiper intermittent dial 4) Front washer switch ON (Wiper intermittent dial 4) Rear wiper switch ON (Wiper intermittent dial 4) Rear washer switch ON (Wiper intermittent dial 4) Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	0 V 15 10 5 0 2 ms JPMIA0033GB 10.7 V	ADP K
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF Front wiper switch INT Front wiper switch LO Lighting switch AUTO	0 V (V) 15 10 2 ms JPMIA0034GB 10.7 V	M N O

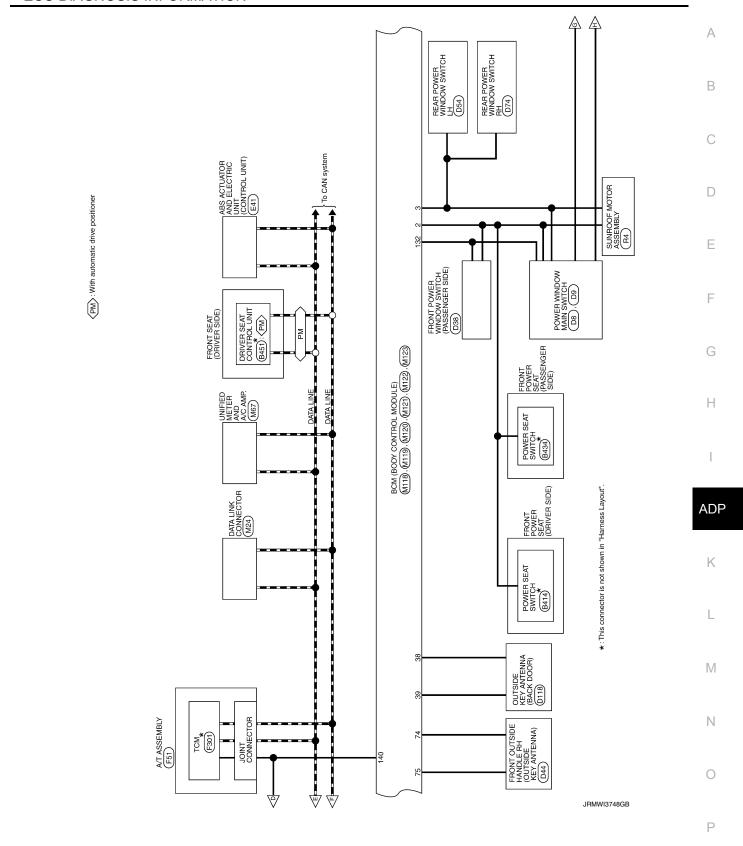
Revision: July 2016 ADP-183 2016 QX50

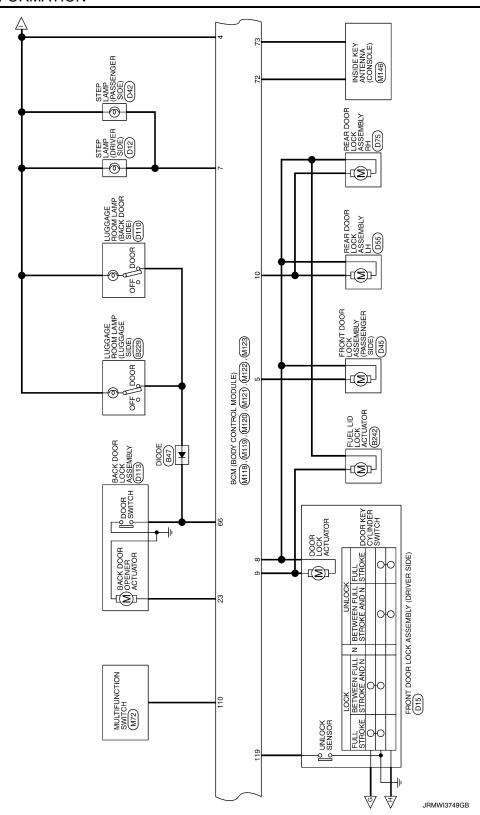
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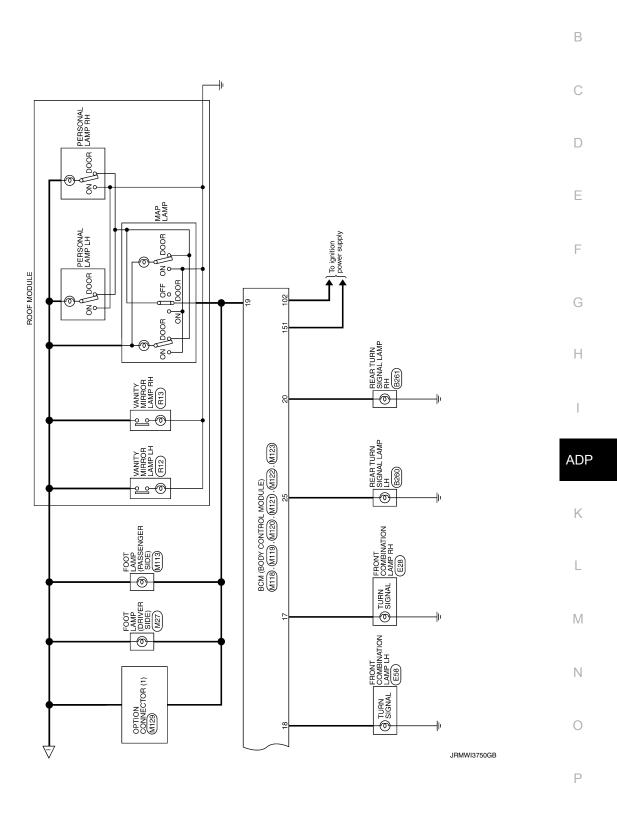
	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	0 V
					Front fog lamp switch ON	
				Combination	Lighting switch 2ND	(V) 15
146	Ground	Combination switch	Output	switch	Lighting switch PASS	10
(SB)		OUTPUT 4		(Wiper intermit- tent dial 4)	Turn signal switch LH	2 ms JPMIA0035GB
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151		Rear window defog-		Rear window de-	Active	0 V
(G)	Ground	ger relay control	Output	fogger	Not activated	Battery voltage



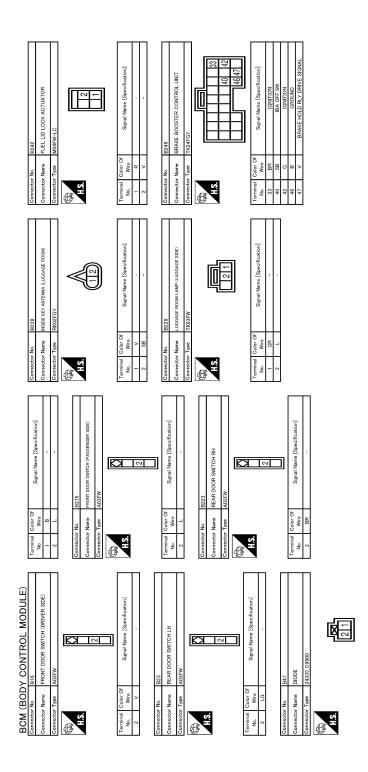








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AIN SWITCH AIN SW	В
DES SIGNAL NA POWER WINDOW M SIGNAL NA SIGNAL	С
Commettor No. Commettor No. Commettor No. Commettor Type Commettor Type Commettor Type Commettor No. Commettor	D
	Е
PRIVER SEAT CONTROL UNIT THIRDHW	F
Connector No. B143 Connector Name B143 Connector	G
	Н
POWER SEAT SWITCH	
Terminal Color Of Commetter No. B414	ADF
ODULE) HH RH RH ODULE	L
BCM (BODY CONTROL MODULE) Commercer Name REAR TURN SIGNAL LAMP LH Commercer Name HSQ2FC-W Terminal Color Of Signal Name (Specification) A. Mire Name Signal Name (Specification) Lowercor Name HSQ2FC-W Commercer Name REAR TURN SIGNAL LAMP RH Commercer Name REAR TURN SIGNAL LAMP RH Commercer Name REAR TURN SIGNAL LAMP RH Commercer Name HSQ2FC-W A. Signal Name (Specification) The Name Signal Name (Specification) The Name Signal Name Specification) The Name Signal Name Specification) The Name Signal Name Specification)	M
Terminal Color Of No. Wire 1 Commetter Name 1 Commetter N	N
	0
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Revision: July 2016 ADP-191 2016 QX50

Connector No. D42 Connector Name STEP LAMP (PASSENGER SIDE) Connector Type TB02FW H.S.	o ctor noto	No. Wire Suprial Name Especimentory 1 W
Connector No. 015 Connector Name Provi Door LOOK ASSEMBLY (DRIVER SIDE) Connector Type EDSFCY-RS H.S. (1 2 3 4 5 6)	Terminal Color Of Signal Name [Seculication] 1	Signal Name (Specification) Signal Name (Specification) ERCODER FOUND ERCODER SIGNAL FOR WINDOW MOTOR EU-SIGNAL BATTERT POWER SUBPLY GROUND ERCODER PULSE ERCODER P
Connector No. D13 Connector Name FRONT OUTSDE HANDLE LH (REQUEST SWITCH) Connector Type RROZEL H.S.	Terminal Order Of Signal Name [Sepecification] 1	No. Wire Sumil Name Exemination) 1 0 0 1 2 58
BCM (BODY CONTROL MODULE)	Comnector No. D9	Connector Name STEP LAMP (DRIVER SIDE) Connector Name STEP LAMP (DRIVER SIDE) H.S. H.S. Teaming Color of Name Signal Name (Specification) No. Wire Signal Name (Specification)

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< ECU DIAGNOSIS INFORMATION >

		Α
No. D110 Name Lucacae from LAMP IRACK DOOR SIDE) Type TROSTW	Wire Signal Name [Specification] Wire	B C
Connector No. Connector Name Connector Type H.S.	Terminal Color Of Wre No. Wre 1 V V 2 P V Connector No. Connector No. Connector No. No. Wre 1 V V V V V V V V V V V V V V V V V V	
		Е
PISA REAR POWER WINDOW SWITCH RH INSURENCES	Signal Name [Specification] D75 REAR DOR LOCK ASSEMBLY RH ED6FCV-RS Signal Name [Specification]	F
r No. r Type	Wire Wire Wire Wire Wire Wire Wire Wire	G
Connecto Connecto Connecto H.S.	Terminal No.	Н
PISAT REAR POWER WINDOW SWITCH LHINSURPH-CS	Signal Name [Specification] D55 REAR DOOR LOCK ASSEMBLY LH EIGETGY-RS Signal Name [Specification]	AD
Connector No. Connector Name Connector Type	Terminal Color Of 1	К
MODULE)	Signal Name (Specification) D45 D91 C01 C045 L	
Y CONTROL MOI D44 PRODUCT PROPRIET PRODUCT PRO	Signal Name Signal Name Signal Name	M
BCM (BODY CONTROL MODULE) Connector Name proof correct words by Connector Type PROCESSORY Connector Type PROCESSORY M.S.	Terminal Color Of Wee 1	N
		0
		JRMWI3754GB

Revision: July 2016 ADP-193 2016 QX50

BCM (BODY CONTROL MODULE) Commercar Name BACK DOOR OPENER SWITCH Commercar Type Int/Q2M8R-P	or No. D116 Sr Name BACK DOOR OPEN Type TK02MBR-P	or No.	ENT POWER DIST	46 R Connector No. Connector Name Connector Type	E28 FRONT COMBINATION LAMP RH RSOBFB-PR
12 Signal Name [Specification]	Torminal Color Of Signal Name (Specification)	Terminal Color Of No. Wire	4 5 7 13 13 13 13 13 13 13	個 H.S.	\$\frac{1}{2}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\frac{1}{3}\f
\prod	a a	+++	1 1 1 1	Terminal Color Of No. Wire 2 B	Signal Name
	Connector No. D118 Connector Name OUTSIDE KEY ANTENNA (BACK DOOR) Connector Type RK02FGY	" 	1 1 1 1	3 B/Y 5 BG 6 V	1 1 1 1
	H3.	25 G 26 R 27 BG 28 L 28 C 30 GR 36 G		7 BR 8 P Connector No.	
	Terminal Color Of Signal Name [Specification]	Connector No.	E6 Thousand Power Defree from Module Brone Thousand Power Defree from Thous	HS.	BAA4278-A124-LH
			46 45 44 43	Terminal Color Of No. Wire	Of Signal Name [Specification]
		30		- 2 -	
			Signal Name [Specification]	$^{\rm H}$	
		39 P		5 Y	DS FL
		Н	1	Н	
		43 SB		6 0	
		45 G	11 1	12 L	VAC

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< ECU DIAGNOSIS INFORMATION >

	А
Signal Name (Specification) Signal Name (Specification) IGNITION POWER SUPPLY BATTERY POWER SUPPLY GROUND GRO	В
	С
Connector No. Connector No. Connector Nume Connector Nume Connector Nume No. Wire No. Wire S. S. S. S. S. S. S. S	D
	Е
BLOCK (J/B) W-CS	F
Commetter Nan. F105E B Commetter Nan. F105E B Commetter Nan. F105E B Commetter Nan. Vives Na. Vives Nat. Vives	G
	Н
Signal Name (Specification) Signal Name (Specification) Signal Name (Specification) Signal Name (Specification)	I
NA THEOGRAPH MACOURTH MACOURT	.DP
Connector No. Connector Name	K
WODULE)	L
19 24 24 24 24 24 24 24 2	M
BCM (BODY 15 15 15 15 15 15 15 1	N
	0
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ADP-195 Revision: July 2016 2016 QX50

BCM (BODY CONTROL MODULE)	Connector No. M3	Connector No. M22		Connector No. M27	
Connector Name FUSE BLOCK (J/B)			KEY SLOT		FOOT LAMP (DRIVER SIDE)
Connector Type NS06FW-M2	Connector Type NS12FW-CS	Connector Type TH1:	TH12FW-NH	Connector Type A0	A02FW
H.S.	E.S.	優 H.S.		優 SH	
8A 7A 6A	120 110 110 100 100 100 100 100 100 100		7 11 2 3 5 6		
Terminal Color Of Signal Name [Specification] No. Wire	Terminal Color Of Signal Name [Specification]	Terminal Color Of No. Wire	Signal Name [Specification]	Terminal Color Of No. Wire	Signal Name [Specification]
Н	Н	H	BAT	Н	-
2A G	11C R	2 GR	CLOCK	2 BR	-
4A R	90°	2 2	ILL BAT		
5A V -	7C B -	9 PC	ILL	Connector No. M33	3
+	+	+	GROUND	Connector Name CC	COMBINATION SWITCH
/A K	- Bg D6	= %	KEY SWITCH SIGNAL	Connector Type TH	TH18FW-NH
- 1	Connector No. M9	Connector No. M24		厚	7
- 1	Connector Name DIODE	Connector Name DAT	DATA LINK CONNECTOR	HS	Ì
Connector Name FUSE BLOCK (J/B)	Connector Type 24335_C9900	Connector Type BD16FW	6FW		+
Connector Type NS10FW-CS	q	1			7 8 9 10 11 12 13 14
		F	ΙĖ		
48 38	11.2	X :	114	Terminal Color Of	Signal Name [Specification]
]		/	+	FR WASHER(-)
go golg (golgo				2 SB	OUTPUT 4
				3 GR	FR WASHER(+)
	Lerminal Color Of Signal Name [Specification] No. Wire	No. Wire	Signal Name [Specification]	- c	Olithira
No. Wire Signal Name [Specification]	t	t	1	a	GROUND
38 P	2 W -	4 B	-	^	INPUT 3
		5 B	1	8 BG	OUTPUT 5
+		+		+	INPUT 2
78 Y		> 0		2 II	NPUT 4
H		-	1	H	OUTPUT 1
		Н	-	Н	INPUT 5
		7		D	OITPIT 2

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< ECU DIAGNOSIS INFORMATION >

Revision: July 2016

	\wedge
The Pressure receiver Trodery Signal Name [Specification]	В
	С
Connector No. Connector Name Terminal Color Wire No. Wire 1 BG 4 L Connector Name Connector Name No. Wire 4 L 4 L 4 L 4 L Connector Name No. No. No. No. No. No. No. No	D
WER Supplify 14 16	Е
AV C LAN SIGNAL	F
	G
170 18 172 18 172 18 172 18 172 18 172 18 172 18 172 18 172 18 172 18 172 18 172 18 172 18 18 172 18 18 18 18 18 18 18 1	Н
COMMUNICATION SIGNAL (LCD-7AMP) COMMUNICATION SIGNAL (LCD-7AMP) COMMUNICATION SIGNAL (LCD-7AMP) COMMUNICATION SIGNAL (APP-1CD) COMMUNICATION SIGNAL (APP-1CD) COMMUNICATION SIGNAL (APP-1CD) SEAT SELT BUCKLE SIMILE SIGNAL SELVER SIMILE SIGNAL TREP AND SIGNAL SIGNAL THEN AND SERSET SIMILE SIGNAL THEN AND SIGNAL SIGNAL AMBIERT SIGNAL SIGNAL THEN AND SIGNAL SIGNAL THEN AND SIGNAL SIGNAL THEN AND SIGNAL SIGNAL THEN AND SIGNAL SIGNAL AMBIERT SIGNAL SIGNAL SIGNAL SIGNAL SIGNAL SIGNAL SIGNAL SIGNAL THEN SIGNAL SIGNAL SIGNAL THEN SIGNAL S	I
	ADP
1	K
NTROL MODULE) TTON IGNITION SWITCH Signal Name [Speerfication] Signal Name [Speerfication] Signal Name [Speerfication] BATTERY POWER SUPPLY MICHARION SIGNAL, (METER-NAME) GROUND GROUND ALTERATOR SIGNAL SECURITY SIGNAL GROUND LL GIO IL	L
WEST CONTROL MODU MEST COMBINATION SIGNAL (METER TH40PW-NH MEST COMBINATION SIGNAL (METER COMBINATION SIGNAL (METER Signal Name (Specificatio Signal Name (Specificatio COMBINATION SIGNAL (METER COMBINITATION SIGNAL (METER COMBINITATION SIGNAL (METER METER CONTROL SIGNAL (METER SIGNAL (METER CONTROL SIGNAL (METER METER CON	M
Connector Name Push-Button (GNITROL MODULE)	Ν
	0
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2016 QX50

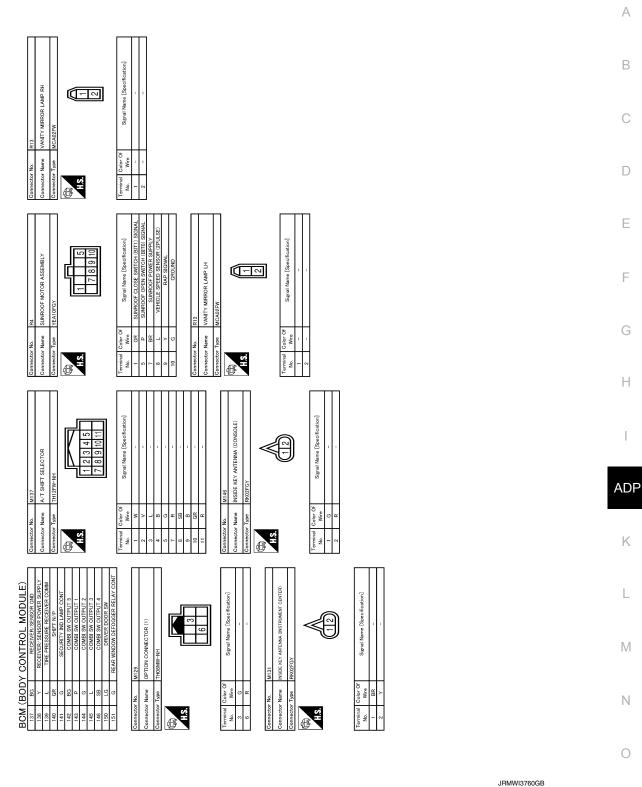
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BCM (BODY CONTROL MODULE)							
Connector No. M113	Connector No.	M119	Connector No.	M121	78	\	ROOM ANT1-
(agis decorate Anna Coop		Callidon Logarino Adod, Mod		CHINGON LOCATION MOOL	79	BR	ROOM ANT1+
	Confidence Name	BOW (BOD) CONTROL MODOLE)	Collifector Name		80	GR	NATS ANT AMP.
Connector Type A02FW	Connector Type	NS16FW-CS	Connector Type	TH40FGY-NH	81	۸	NATS ANT AMP.
ſ	((82	œ	IGN RELAY (F/B) CONT
	B		ß		83	Υ	KEYLESS ENTRY RECEIVER COMM
K	Ę		Ę	K	87	BB	COMBI SW INPUT 5
	ė]	ė E	200	88	>	COMBI SW INPUT 3
2		11 13 14 15 17 18 19		200	90	۵	CAN-L
		01 11		5	91	7	CAN-H
					92	P	KEY SLOT ILL CONT
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1 R	4 LG	INTERIOR ROOM LAMP POWER SUPPLY	34 SB		96	GR	A/T SHIFT SELECTOR POWER SUPPLY
2 BR –	2 T	PASSENGER DOOR UNLOCK OUTPUT	35 V	LUGGAGE ROOM ANT+	66	٣	SHIFT P
	7	STEP LAMP CONT	38 B	BACK DOOR ANT-	100	g	PASSENGER DOOR REQUEST SW
	8	ALL DOOR, FUEL LID LOCK OUTPUT	39 W	BACK DOOR ANT+	101	SB	DRIVER DOOR REQUEST SW
Connector No. M118	5 6	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	47 Y	IGN RELAY (IPDM E/R) CONT	102	BG	BLOWER FAN MOTOR RELAY CONT
(3 II IOOM IOOM AOON AOON TO III E)	10 BR	REAR DOOR UNLOCK OUTPUT	52 SB	STARTER RELAY CONT	103	PT	KEYLESS ENTRY RECEIVER POWER SUPPLY
DOM (BOD) CONTINO	11 R	BAT (FUSE)	60 BR		107	PT	COMBI SW INPUT 1
Connector Type M03FB-LC	13 B	GROUND	61 W	BACK DOOR OPENER REQUEST SW	108	В	COMBI SW INPUT 4
4	14 W	PUSH-BUTTON IGNITION SWILL GND	64 V	I-KEY WARN BUZZER (ENG ROOM)	109	λ	COMBI SW INPUT 2
	15 Y	ACC IND	65 BG	REAR WIPER STOP POSITION	110	5	HAZARD SW
6	17 W	TURN SIGNAL RH (FRONT)	99 R	BACK DOOR SW			
1 3	18 BG	TURN SIGNAL LH (FRONT)	67 GR	BACK DOOR OPENER SW			
	/ 61	INT ROOM LAMP CONT	68 BR		Connector No.	or No.	M123
7			69 R	REAR LH DOOR SW	Connec	Connector Name	BCM (BODY CONTROL MOBILE)
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la C	Connector Name	BCM (BODY CONTROL MODILIE)	Connector No.	M122	ģ		
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1 W BAT (F/L)	Connector Type	NS12FW-CS			Ę		<u> </u>
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	- 1-				2	1	OPLICAL SENSOR
	la C	Signal Name [Specification]	- 1		116	SB	STOP LAMP SW 1
	No. Wire		la D	Of Signal Name [Specification]	118	۵	STOP LAMP SW 2
	20 ^	TURN SIGNAL RH (REAR)	No. Wire		119	88	DR DOOR UNLOCK SENSOR
	23 G	BACK DOOR OPEN OUTPUT	72 R		121	æ	KEY SLOT SW
	25 G	TURN SIGNAL LH (REAR)	73 G		123	Μ	IGN F/B
	26 G	REAR WIPER OUTPUT	74 SB		124	5	PASSENGER DOOR SW
			75 GR	P,	132	BB	POWER WINDOW SW COMM
			76 V		133	*	PUSH-BUTTON IGNITION SWILL POWER
			77 LG	DRIVER DOOR ANT+	134	GR	LOCK IND

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< ECU DIAGNOSIS INFORMATION >



Fail-safe

FAIL-SAFE CONTROL BY DTC

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

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< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
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
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
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)
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)
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
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization

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

DTC Inspection Priority Chart

INFOID:0000000012828199

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS INFORMATION >

B2553: IGNITION RELAY B2555: STOP LAMP R2556: PUSH-RTN IGN SW	
B2557: VEHICLE SPEEDB2560: STARTER CONT RELAYB2601: SHIFT POSITION	
 B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW 	
B2608: STARTER RELAY B260A: IGNITION RELAY B260F: ENG STATE SIG LOST B2614: ACC RELAY CIRC	
 B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC 	
 B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26EA: KEY REGISTRATION 	
U0415: VEHICLE SPEED SIG	
C1705: LOW PRESSURE FRC1706: LOW PRESSURE RR	
• C1708: [NO DATA] FL	
C1710: [NO DATA] RR C1711: [NO DATA] RL	
C1717: [PRESSDATA ERR] FR	ı
C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1734: CONTROL UNIT	
B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA	
	 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 B2606: PNP SW B2606: ENG STARTER RELAY B2607: ENG STATE SIG LOST B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: IGN RELAY CIRC B2618: BCM B2617: STARTER RELAY CIRC B2618: BCM B2618: PUSH-BTN IGN SW B2618: VEHICLE TYPE B2626A: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG C1704: LOW PRESSURE FR C1705: LOW PRESSURE RR C1707: LOW PRESSURE RR C1707: LOW PRESSURE RR C1709: [NO DATA] FR C1710: [NO DATA] FR C1711: [NO DATA] RR C1711: [PRESSDATA ERR] FR C1716: [PRESSDATA ERR] FR C1717: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1713: [PRESSDATA ERR] RR C1716: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1713: [PRESSDATA ERR] RR C1713: [PRESSDATA ERR] RR C1714: [NO TOTROL UNIT B2621: INSIDE ANTENNA

DTC Index

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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-18</u>, "COM-MON ITEM: CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
No DTC is detected. Further testing may be required.	_	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	_	BCS-41
U1010: CONTROL UNIT (CAN)	_	_	_	_	BCS-42
U0415: VEHICLE SPEED SIG	_	_	_	_	BCS-43
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-40

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< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condi-	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
		tion			
B2191: DIFFERENCE OF KEY	×	_	_	_	SEC-43
B2192: ID DISCORD BCM-ECM	×	_	_	_	SEC-44
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-45
B2195: ANTI SCANNING	×	_	_	_	SEC-46
B2553: IGNITION RELAY	_	×	_	_	PCS-52
B2555: STOP LAMP		×	_		<u>SEC-47</u>
B2556: PUSH-BTN IGN SW	_	×	×	_	<u>SEC-49</u>
B2557: VEHICLE SPEED	×	×	×	_	<u>SEC-51</u>
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-52</u>
B2562: LOW VOLTAGE	_	×	_	_	BCS-44
B2601: SHIFT POSITION	×	×	×	_	<u>SEC-53</u>
B2602: SHIFT POSITION	×	×	×	_	SEC-56
B2603: SHIFT POSI STATUS	×	×	×	_	SEC-59
B2604: PNP SW	×	×	×	_	SEC-62
B2605: PNP SW	×	×	×	_	SEC-64
B2608: STARTER RELAY	×	×	×	_	SEC-66
B260A: IGNITION RELAY	×	×	×	_	PCS-54
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-68
B2614: ACC RELAY CIRC	_	×	×	_	PCS-56
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-59
B2616: IGN RELAY CIRC	_	×	×	_	PCS-62
B2617: STARTER RELAY CIRC	×	×	×	_	SEC-71
B2618: BCM	×	×	×	_	PCS-65
B261A: PUSH-BTN IGN SW	_	×	×	_	SEC-73
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-76</u>
B2621: INSIDE ANTENNA	_	×	_	_	<u>DLK-58</u>
B2622: INSIDE ANTENNA	_	×	_	_	DLK-60
B2623: INSIDE ANTENNA	_	×	_	_	DLK-62
B26E1: ENG STATE NO RES	×	×	×	_	SEC-69
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	SEC-70
C1704: LOW PRESSURE FL	_	_	_	×	
C1705: LOW PRESSURE FR	_	_	_	×	
C1706: LOW PRESSURE RR	_	_	_	×	<u>WT-25</u>
C1707: LOW PRESSURE RL		_	_	×	
C1708: [NO DATA] FL	_	_	_	×	
C1709: [NO DATA] FR	_	_	_	×	
C1710: [NO DATA] RR	_	_	_	×	<u>WT-27</u>
C1711: [NO DATA] RL	_	_	_	×	

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	WT-30
C1718: [PRESSDATA ERR] RR	_	_	_	×	<u> </u>
C1719: [PRESSDATA ERR] RL	_	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	_	×	WT-32
C1734: CONTROL UNIT	_	_	_	×	<u>WT-34</u>

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< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

MANUAL FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Diagnosis Procedure

INFOID:0000000012170630

${f 1}.$ CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check driver seat control unit power supply and ground circuit.

Refer to ADP-56, "DRIVER SEAT CONTROL UNIT: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

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-57, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

POWER SEAT

POWER SEAT : Diagnosis Procedure

INFOID:0000000012170631

1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check power seat switch ground circuit.

Refer to ADP-79, "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-42, "Intermittent Incident".

NO >> GO TO 1.

STEERING POSITION FUNCTION DOES NOT OPERATE

STEERING POSITION FUNCTION DOES NOT OPERATE: Diagnosis Procedure

INFOID:0000000012170632

1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT

Check tilt & telescopic switch ground circuit.

Refer to ADP-80, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connector.

2.CONFIRM THE OPERATION

< SYMPTOM DIAGNOSIS > Confirm the operation again.
·
<u>Is the result normal?</u>
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1.
SEAT SLIDING
SEAT SLIDING : Diagnosis Procedure
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.
2. CHECK SLIDING SWITCH
Check sliding switch.
Refer to ADP-59, "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-103, "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.
Check the operation again. <u>Is the result normal?</u>
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1.
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING: Diagnosis Procedure
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING: Diagnosis Procedure 1.CHECK RECLINING MECHANISM Check for the following.
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING : Diagnosis Procedure 1.CHECK RECLINING MECHANISM Check for the following. • Mechanism deformation or pinched foreign materials.
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING: Diagnosis Procedure 1.CHECK RECLINING MECHANISM Check for the following.
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING : Diagnosis Procedure 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.
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING : Diagnosis Procedure 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.
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING : Diagnosis Procedure 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
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING : Diagnosis Procedure 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.
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING : Diagnosis Procedure 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
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING : Diagnosis Procedure 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-61. "Component Function Check". Is the inspection result normal? YES >> GO TO 3.
Sthe result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING S
Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING : Diagnosis Procedure 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-61. "Component Function Check". Is the inspection result normal? YES >> GO TO 3.

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Refer to ADP-105, "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-42, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT): Diagnosis Procedure

INFOID:0000000012170635

1. CHECK LIFTING (FRONT) 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 LIFTING SWITCH (FRONT)

Check lifting switch (front).

Refer to ADP-63, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK LIFTING MOTOR (FRONT)

Check lifting motor (front).

Refer to ADP-107, "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-42, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (REAR)

SEAT LIFTING (REAR): Diagnosis Procedure

INFOID:0000000012170636

1. CHECK LIFTING (REAR) 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 LIFTING SWITCH (REAR)

Check lifting switch (rear).

Refer to ADP-65, "Component Function Check".

Sthe inspection result normal? YES > QO TO 3. NO → Repair or replace the malfunction parts. 3. CHECK LIFTING MOTOR (REAR) Check lifting motor (rear). Refer to ADP-109. "Component Function Check". Is the inspection result normal? YES > OO TO 4. NO → Repair or replace the malfunction parts. 4. CONFIRM THE OPERATION December 1.	< SYMPTOM DIAGNOSIS >	
NO >> Repair or replace the malfunction parts. 3. CHECK LIFTINK MOTOR (REAR) Check titting motor (rear). Refer to ADP-193. "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-42. "Intermittent Incident". NO >> GO TO 1. STEERING TILT: STEERING TILT: STEERING TILT: Diagnosis Procedure 1. CHECK STEERING TILT MECHANISM Check for the following. Nechanism 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-67. "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CHECK TILT SENSOR Check tilt sensor. Check tilt sensor. Check tilt sensor. Check tilt sensor. Check tilt sensor replace the malfunction parts. 4. CHECK TILT SENSOR Check tilt motor. Check the operation again. Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunction parts. 5. CONFIRM THE OPERATION Check tilt motor. Ch	•	^
3. CHECK LIFTING MOTOR (REAR) Check lifting motor (rear). Refer to ADP-57. "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-42, "Intermittent Incident". NO >> Check for the following. The result incompart of the following. 1. CHECK STEERING TILT Diagnosis Procedure 1. CHECK STEERING TILT MECHANISM Check for the following. 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-57. "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CHECK TILT SENSOR Check tilt sensor. Refer to ADP-93. "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4. CHECK TILT SENSOR Check tilt motor. Refer to ADP-93. "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4. CHECK TILT MOTOR Check tilt motor. Refer to ADP-91. "Component Function Check". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunction parts. 5. CONFIRM THE OPERATION Check the operation again. Is the respection result normal? YES >> Check intermittent incident. Refer to GI-42. "Intermittent Incident". NO >> Repair or replace the malfunction parts.		A
Check lifting motor (rear). Refer to ADP-103, "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-42, "Intermittent Incident". NO >> GO TO 1. STEERING TILT STEERING TILT STEERING TILT : Diagnosis Procedure 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 till switch. Refer to ADP-97, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CHECK TILT SENSOR Check till sensor. Check till sensor or replace the malfunction parts. 4. CHECK TILT SUTOR Check till sensor or replace the malfunction parts. 4. CHECK TILT MOTOR Check till motor. Refer to ADP-11, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 5. CONFIRM THE OPERATION PCheck till motor. Refer to ADP-11, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunction parts. 5. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> Repair or replace the malfunction parts.		
Refer to ADP-109. "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-42. "Intermittent Incident". NO >> GO TO 1. STEERING TILT STEERING TILT: Diagnosis Procedure 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-67. "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CHECK TILT SENSOR Check tilt sensor. Refer to ADP-93. "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4. CHECK TILT SENSOR Check tilt motor. Refer to ADP-93. "Component Function Check". Is the inspection result normal? YES >> GO TO 1. NO >> Repair or replace the malfunction parts. 4. CHECK TILT MOTOR Check tilt motor. Refer to ADP-111. "Component Function Check". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunction parts. 5. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-42. "Intermittent Incident". NO >> CO TO 1.		В
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YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1.		
NO >> GO TO 1.		

< SYMPTOM DIAGNOSIS >

STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000012170638

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?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2. CHECK TELESCOPIC SWITCH

Check telescopic switch.

Refer to ADP-69, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK TELESCOPIC SENEOR

Check telescopic sensor.

Refer to ADP-96, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

4. CHECK TELESCOPIC MOTOR

Check telescopic motor.

Refer to ADP-113, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunction parts.

5.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

DOOR MIRROR

DOOR MIRROR: Diagnosis Procedure

INFOID:0000000012170639

1. CHECK DOOR MIRROR 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 MIRROR SWITCH

Check mirror switch.

Refer to ADP-76, "MIRROR SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK MIRROR MOTOR

MANUAL FUNCTION DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS > Check mirror motor.	
Refer to ADP-115, "Component Function Check".	Α
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	В
4.CONFIRM THE OPERATION	
Check the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1.	D
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< SYMPTOM DIAGNOSIS >

MEMORY FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Diagnosis Procedure

INFOID:0000000012170640

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2. PERFORM INITIALIZATION AND MEMORY STORING PROCEDURE

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-27, "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-71, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch.

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

SEAT SLIDING

SEAT SLIDING : Diagnosis Procedure

INFOID:000000001217064

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-205, "SEAT SLIDING : Diagnosis Procedure"

2.check sliding sensor

Check sliding sensor.

Refer to ADP-81, "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-42, "Intermittent Incident".

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< SYMPTOM DIAGNOSIS >	
NO >> GO TO 1. SEAT RECLINING	Α
SEAT RECLINING : Diagnosis Procedure	
1. CHECK MANUAL OPERATION	В
Check manual operation.	
Is the inspection result normal?	С
YES >> GO TO 2. NO >> Refer to ADP-205, "SEAT RECLINING : Diagnosis Procedure"	
2.CHECK RECLINING SENSOR	D
Check reclining sensor. Refer to ADP-84, "Component Function Check".	Е
Is the inspection result normal? YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	_
3.CONFIRM THE OPERATION	F
Check the operation again.	
Is the result normal?	G
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT)	Н
SEAT LIFTING (FRONT): Diagnosis Procedure	
1.CHECK MANUAL OPERATION	I
Check manual operation.	. 5
Is the inspection result normal?	AD
YES >> GO TO 2. NO >> Refer to ADP-206, "SEAT LIFTING (FRONT) : Diagnosis Procedure"	
2. CHECK LIFTING SENSOR (FRONT)	K
Check lifting sensor (front).	
Refer to ADP-87, "Component Function Check".	L
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	M
3.CONFIRM THE OPERATION	IVI
Check the operation again.	
·	Ν
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".	
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YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1.	
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (REAR)	О Р
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (REAR) SEAT LIFTING (REAR): Diagnosis Procedure 1.CHECK MANUAL OPERATION Check manual operation.	
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (REAR) SEAT LIFTING (REAR): Diagnosis Procedure 1.CHECK MANUAL OPERATION	

< SYMPTOM DIAGNOSIS >

$\overline{2}$.check lifting sensor (rear)

Check lifting sensor (rear).

Refer to ADP-90, "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-42, "Intermittent Incident".

NO >> GO TO 1.

STEERING TELESCOPIC

STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000012170645

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-208, "STEERING TELESCOPIC : Diagnosis Procedure"

2.CHECK TELESCOPIC SENSOR

Check steering telescopic sensor.

Refer to ADP-96, "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-42, "Intermittent Incident".

NO >> GO TO 1. STEERING TILT

STEERING TILT: Diagnosis Procedure

INFOID:0000000012170646

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-207, "STEERING TILT : Diagnosis Procedure"

2.CHECK TILT SENSOR

Check steering tilt sensor.

Refer to ADP-93, "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?

< SYMPTOM DIAGNOSIS > YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. Α DOOR MIRROR DOOR MIRROR: Diagnosis Procedure INFOID:0000000012170647 1. CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-208, "DOOR MIRROR: Diagnosis Procedure" D 2. CHECK MIRROR SENSOR Check mirror sensor. Е

Is the inspection result normal? YES >> GO TO 3.

Refer to ADP-100, "PASSENGER SIDE: Component Function Check". (Passenger side)

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 <u>GI-42, "Intermittent Incident"</u>. NO >> GO TO 1.

Refer to ADP-99, "DRIVER SIDE: Component Function Check". (Driver side)

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MEMORY INDICATE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

MEMORY INDICATE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012170648

1. CHECK MEMORY INDICATOR

Check memory indicator.

Refer to ADP-118, "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-42, "Intermittent Incident".

NO >> GO TO 1.

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS > SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000012170649 1. CHECK SYSTEM SETTING В Check system setting. Refer to ADP-11, "SYSTEM SETTING: Special Repair Requirement". C Is the inspection result normal? YES >> Synchronization function is normal. NO >> GO TO 2. 2.CONFIRM THE OPERATION D Check the operation again. Is the result normal? Е YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1. F Н ADP K L M Ν 0

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ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012170650

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 DLK-65, "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-42, "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:0000000012170651 1. CHECK DOOR LOCK FUNCTION В Check door lock function. Refer to DLK-7, "Work Flow". C Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. 2.PERFORM MEMORY STORING PROCEDURE D Perform memory storing procedure. Refer to ADP-10, "MEMORY STORING: Special Repair Requirement". Е 2. Check Intelligent Key interlock function. Refer to ADP-39, "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-221, "Removal and Installation". NO Н ADP K L M Ν 0

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NORMAL OPERATING CONDITION

NORMAL OPERATING CONDITION

Description INFOID:0000000012170652

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-27
Entry/exit assist function does not operate.	Entry/exit assist function is disabled. NOTE: The entry/exit assist function are enabled 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-27
	Seat synchronization function is disabled. NOTE: The entry/exit assist function are disabled before delivery (initial setting).	Change the settings.	ADP-11
Seat synchronization function does not operate.	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-27</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-10
Memory function, entry/exit assist function, seat synchronization function, or Intelligent Key interlock function does not operate.			Memory function: ADP-27
			Exit assist function: <u>ADP-31</u>
	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Entry assist function: <u>ADP-35</u>
			Seat synchronization function: <u>ADP-22</u>
			Intelligent Key interlock function: ADP-39

PRECAUTION

PRECAUTIONS

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

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

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, 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 "SRS AIR BAG".
- Never 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:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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 or batteries, and wait at least 3 minutes before performing any service.

Precautions for Removing Battery Terminal

 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

 For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

 After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC. NOTE:

The removal of 12V battery may cause a DTC detection error.

Service INFOID:0000000012170655

- 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.

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PRECAUTIONS

< PRECAUTION >

- 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

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- · Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.
 - Then rub with a soft and dry cloth.
- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.
 - Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol, 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-129, "Exploded View".

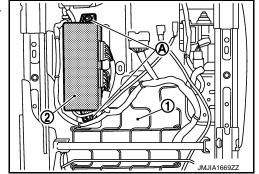
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove the driver seat (1). Refer to <u>SE-132, "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</u>: <u>Description</u>".

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AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

Refer to IP-12, "Exploded View".

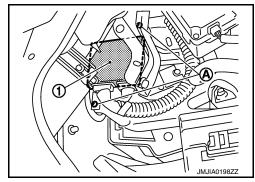
Removal and Installation

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-13.</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 <u>ADP-8</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u>: <u>Description"</u>.

SEAT MEMORY SWITCH

< REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Exploded View

Refer to INT-12, "DRIVER SIDE: Exploded View".

Removal and Installation

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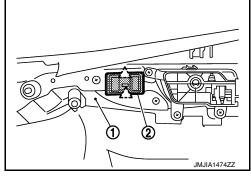
REMOVAL

CAUTION:

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

- 1. Remove the front door finisher (1). Refer to INT-12, "DRIVER SIDE: 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-129, "Exploded View".

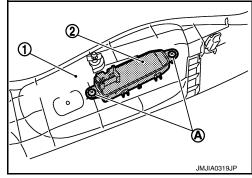
Removal and Installation

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-133</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).



INFOID:0000000012170664

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".

TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

TILT&TELESCOPIC SWITCH

Exploded View

Refer to IP-12, "Exploded View".

Removal and Installation

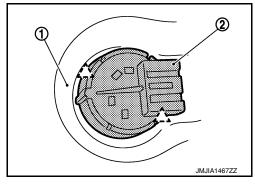
REMOVAL

CAUTION:

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

- 1. Remove the steering column mask (1). Refer to IP-13, "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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