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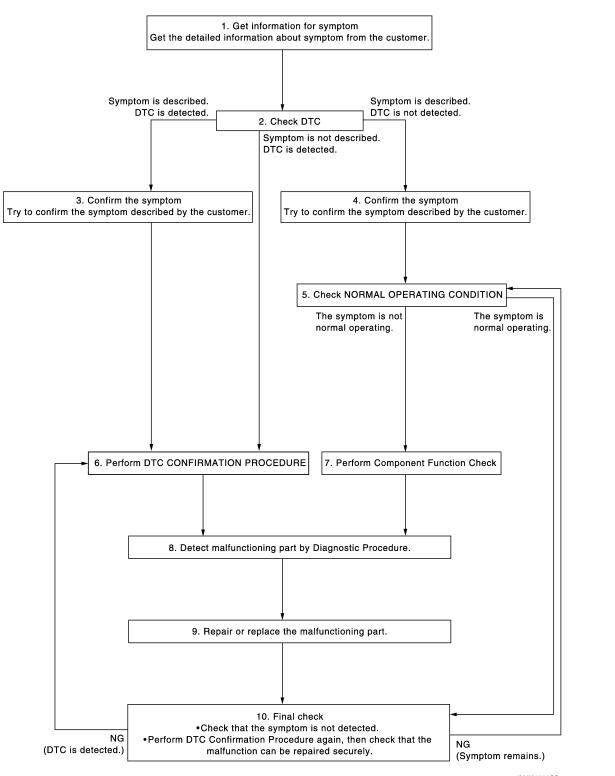
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BASIC INSPECTION

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-141, "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-216, "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-45, "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

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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 | 000000010596304 |
| 1.SYSTEM INITIALIZATION | |
| Perform system initialization. Refer to <u>ADP-9, "SYSTEM INITIALIZATION : Description"</u> . | |
| >> 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 | |
| SYSTEM INITIALIZATION | |
| SYSTEM INITIALIZATION : Description | 000000010596305 |
| Always perform the initialization when the battery terminal is disconnected or the driver seat contra | ol unit is |
| replaced. The entry/exit assist function will not operate normally if no initialization is performed. Refer to <u>ADP-TEM INITIALIZATION</u> : Special Repair Requirement. | <u>9, "SYS-</u> |
| SYSTEM INITIALIZATION : Special Repair Requirement | 000000010596306 |
| INITIALIZATION PROCEDURE | |
| 1. CHOOSE METHOD | |
| There are two initialization methods. | |
| Which method do you use? | |
| With door switch>>GO TO 2. With vehicle speed>>GO TO 4. | |
| 2. STEP A-1 | |
| Turn ignition switch from ACC to OFF position. | |
| >> 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). | |
| >> END | |
| MEMORY STORING | |
| MEMORY STORING : Description | 000000010596307 |
| · | |

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

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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.

>> GO TO 2.

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:0000000010596309

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

IFOID:0000000010596310

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.

 $oldsymbol{2}$. 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

N

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?

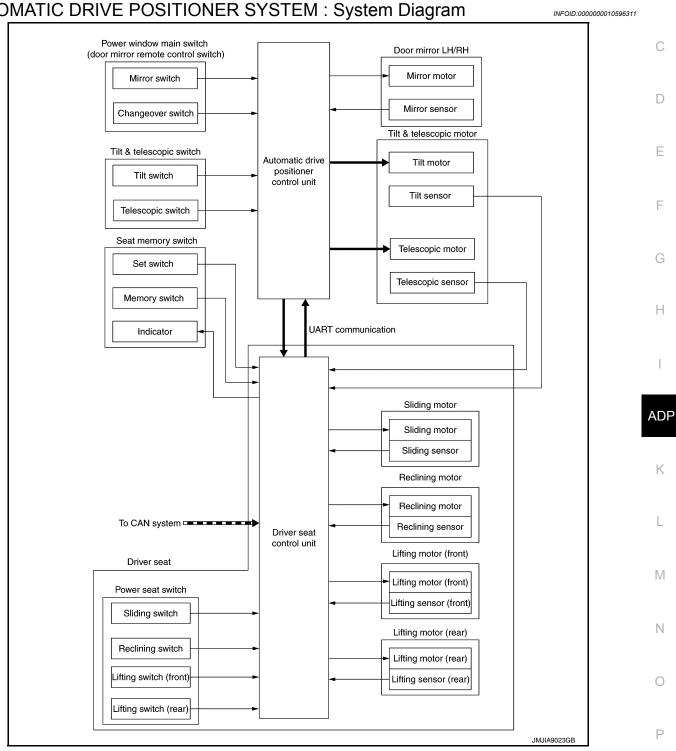
YES >> END

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.

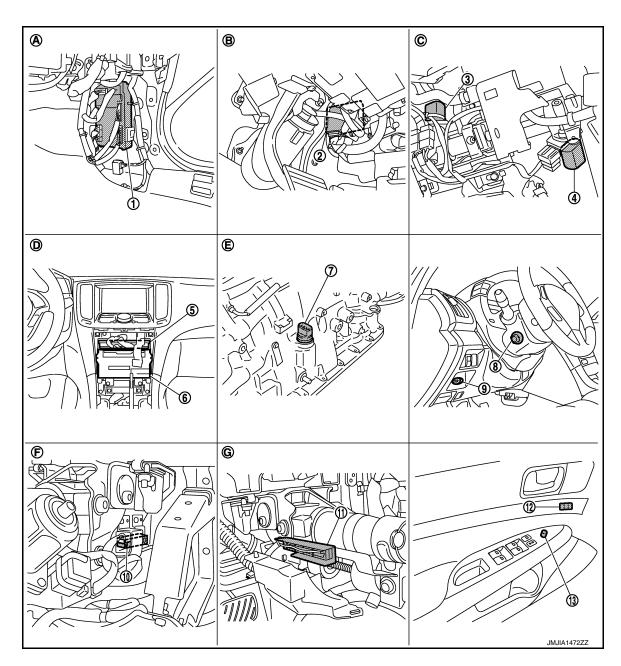
| Function | | Description |
|----------------------------------|------|---|
| Manual function | | The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch. |
| Seat synchronization 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. |
| 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-000000010596313



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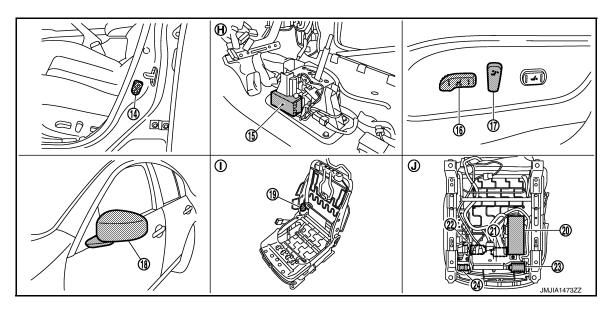
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- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch) 16. Sliding, lifting switch
 - Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
 - io. Bool militar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

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

- 23. Sliding motor
- e assembly I. View
- 24. Sliding sensor

Backside of the seat cushion

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

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:0000000010596314

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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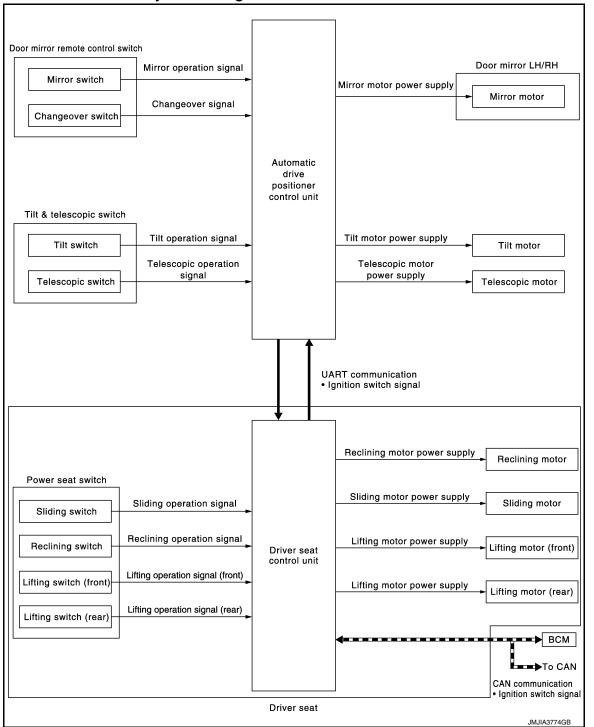
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MANUAL FUNCTION: System Diagram

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MANUAL FUNCTION: System Description

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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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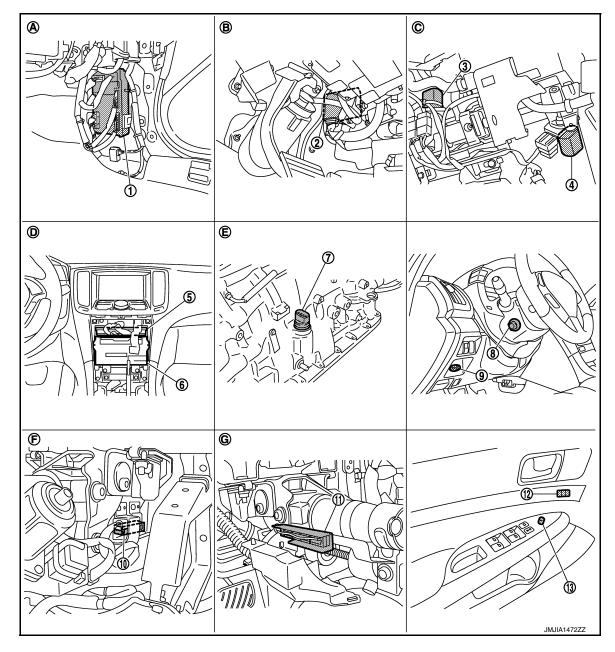
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MANUAL FUNCTION: Component Parts Location

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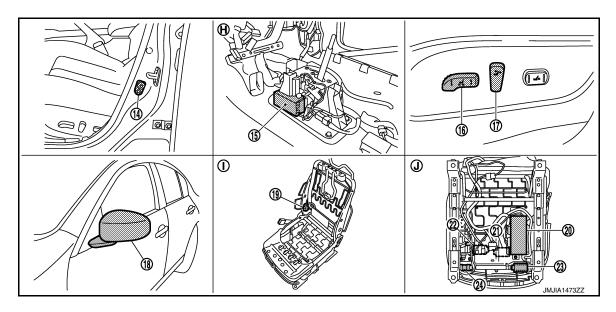


- 1. BCM
- 4. Telescopic motor
- 7. AT assembly connector
- 10. Tilt sensor
- 13. Door mirror remote control switch
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- 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)
- 19. Reclining motor

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

- 23. Sliding motor
- I.
- 24. Sliding sensor

Backside of the seat cushion

- View with center console assembly removed
- View with seat cushion pad and seat- J. back pad removed

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. | |
| BCM | Recognizes the following status and transmits it to the driver seat control unit via CAN communication. • Ignition position: ACC/ON | |

INPUT PARTS

Switches

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

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< SYSTEM DESCRIPTION >

| Item | Function | |
|-----------------------------------|---|--|
| Tilt & telescopic switch | The following switch is installed. Tilt switch Telescopic switch The specific parts can be operated with the operation of each switch. | |
| Door mirror remote control switch | The following switch is installed. • Mirror switch • Changeover switch The specific parts can be operated with the operation of each switch. | |

Sensors

| Item | Function |
|----------------------------|--|
| Tilt and telescopic sensor | Detect the up/down and left/right position of steering column. |

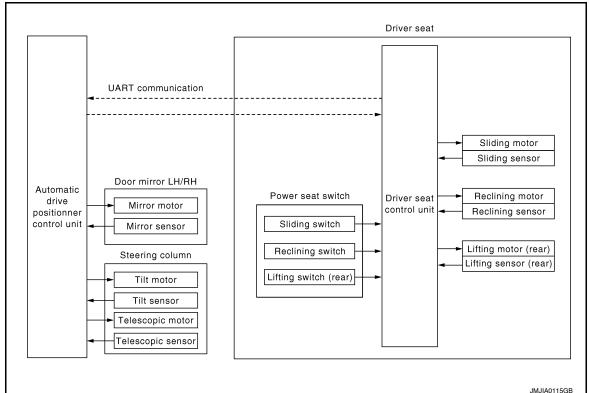
OUTPUT PARTS

| 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

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SEAT SYNCHRONIZATION FUNCTION : System Description

INFOID:0000000010596320

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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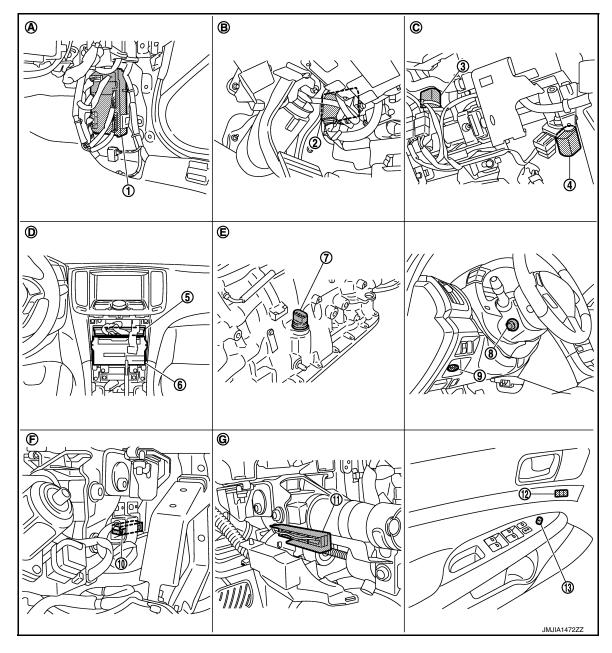
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SEAT SYNCHRONIZATION FUNCTION: Component Parts Location

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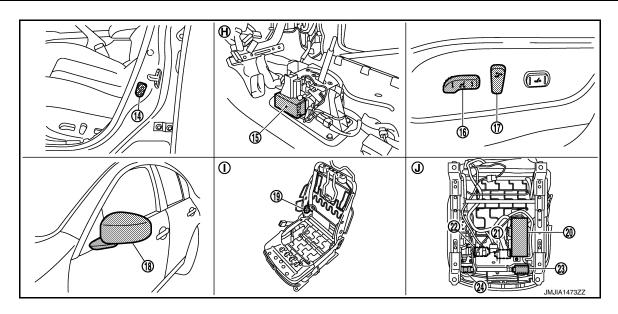


- 1. BCM
- 4. Telescopic motor
- 7. AT assembly connector
- 10. Tilt sensor
- 13. Door mirror remote control switch
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- 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)

- 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)
- 22. Lifting motor (rear)

23. Sliding motor

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

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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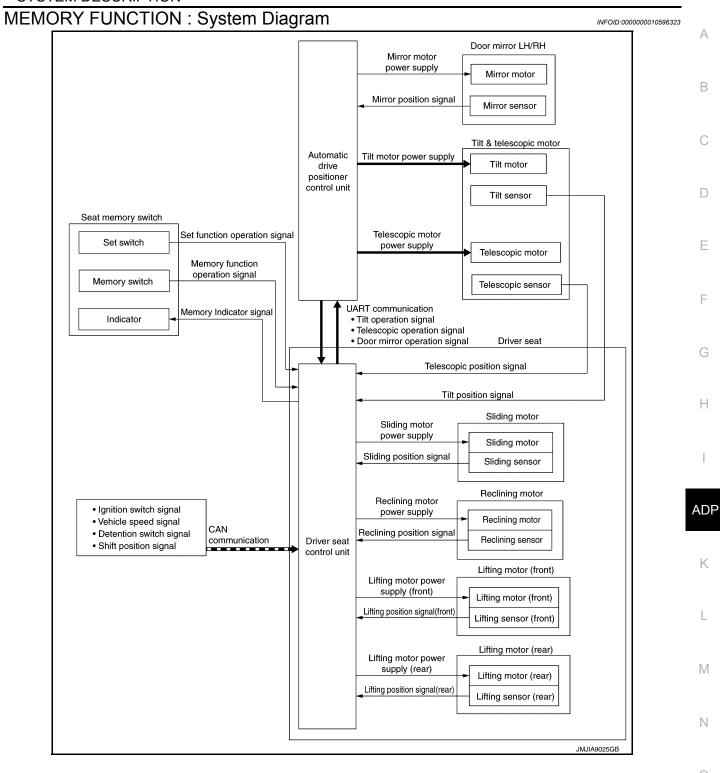
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< SYSTEM DESCRIPTION >

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

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

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 |

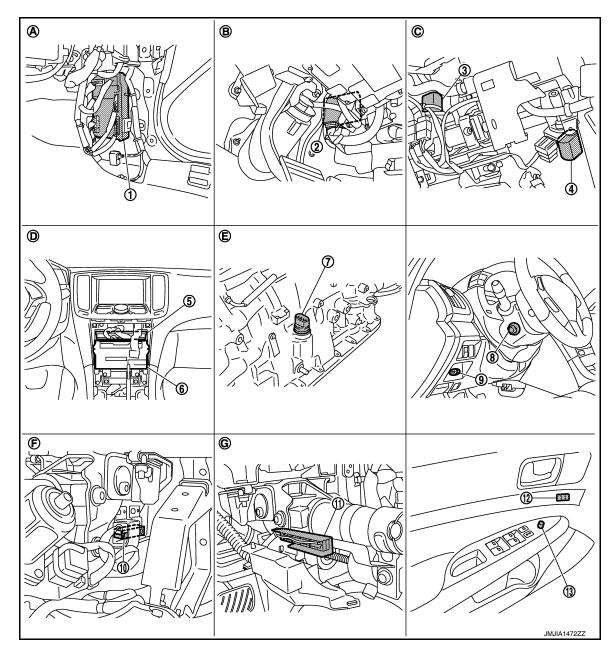
DETAIL FLOW

| 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:0000000010596325



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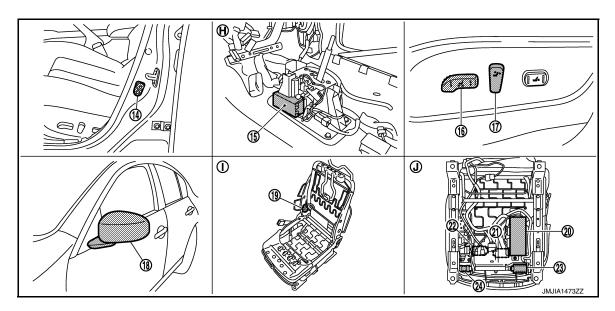
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- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
- 19. Reclining motor

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

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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. |

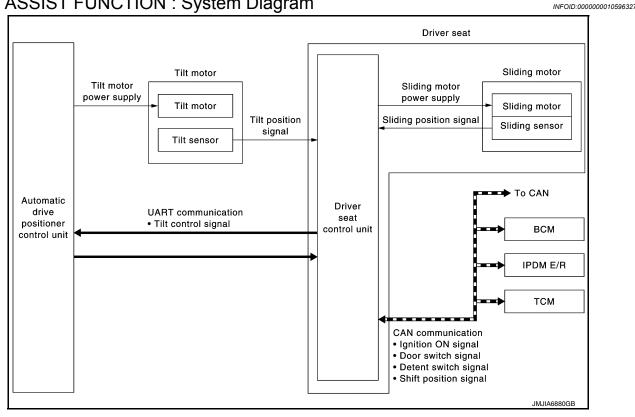
< SYSTEM DESCRIPTION >

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

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 |

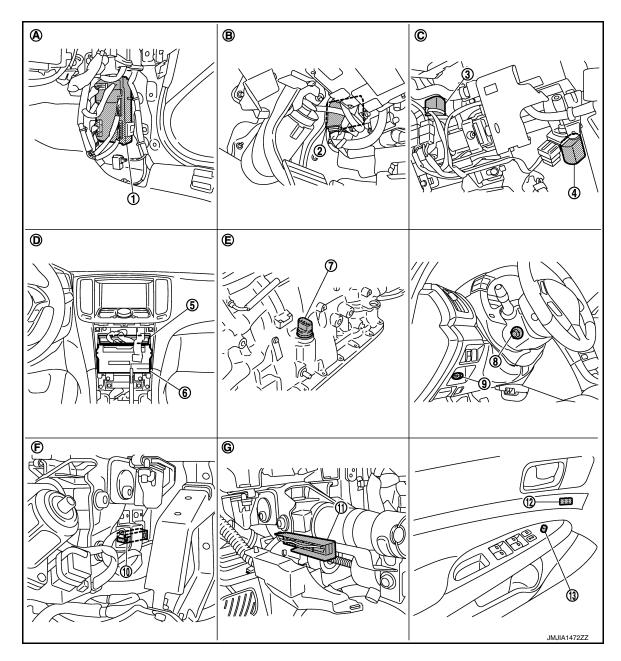
DETAIL FLOW

| 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:0000000010596329



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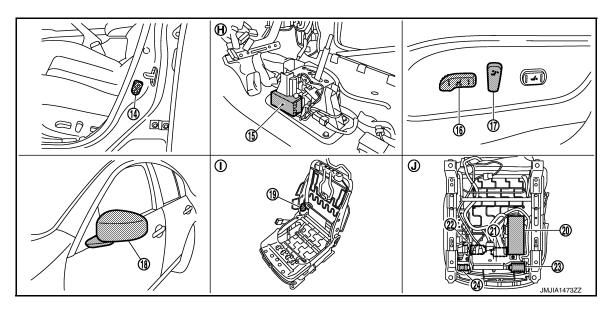
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- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
- 19. Reclining motor

- 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
- View with seat cushion pad and seat- J. back pad removed
- Backside of the seat cushion

EXIT ASSIST FUNCTION: Component Description

INFOID:0000000010596330

CONTROL UNITS

| Item | Function | |
|---|--|--|
| Driver seat control unit | Operates the seat sliding motor for a constant amount. Requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit. | |
| Automatic drive positioner control unit | Operates the tilt motor and telescopic motor with the request from the driver seat control. | |
| BCM | 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. | |

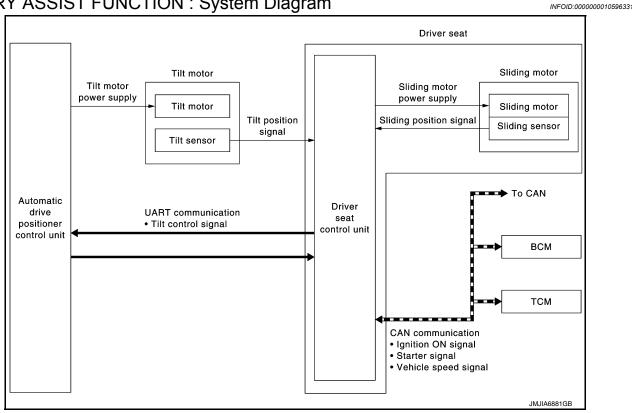
OUTPUT PARTS

< 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.
- 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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ADP-35 Revision: February 2015 2015 QX50

< 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 |

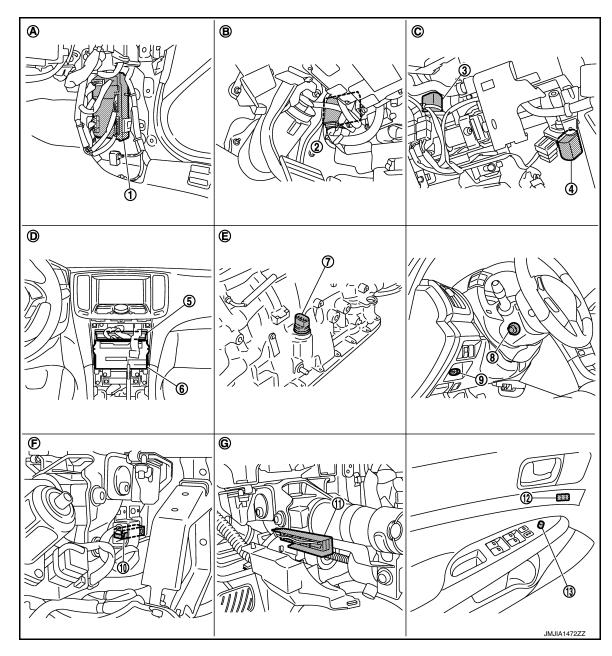
DETAIL FLOW

| 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:0000000010596333



- 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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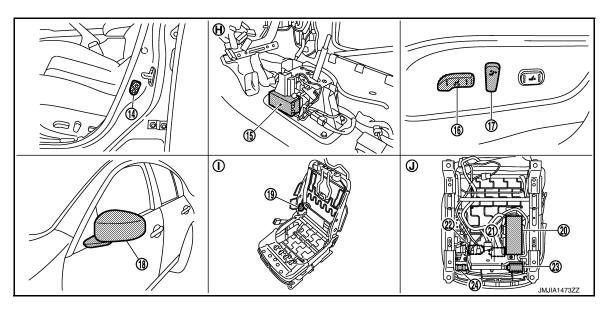
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- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
 - 10. Door filling (driver si
- 19. Reclining 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
- View with seat cushion pad and seat- J. back pad removed
- Backside of the seat cushion

ENTRY ASSIST FUNCTION: Component Description

INFOID:0000000010596334

CONTROL UNITS

| Item | Function |
|---|---|
| Driver seat control unit | According to the ignition signal and door switch signal (driver side) from BCM, Operates the seat sliding motor for a constant amount. Requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit. |
| Automatic drive positioner control unit | Operates the tilt motor and telescopic motor with the instructions from the driver seat control. |
| 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. | |

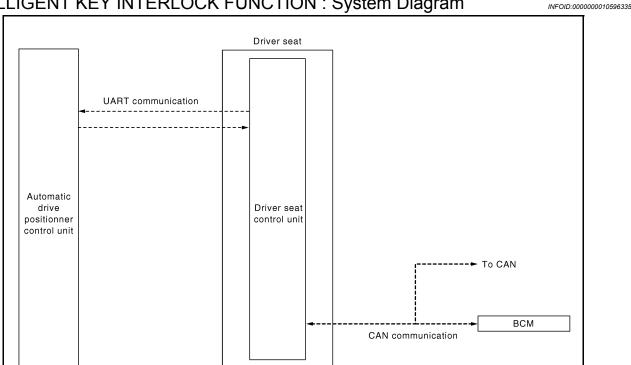
OUTPUT PARTS

< 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



INTELLIGENT KEY INTERLOCK FUNCTION: System Description

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

- 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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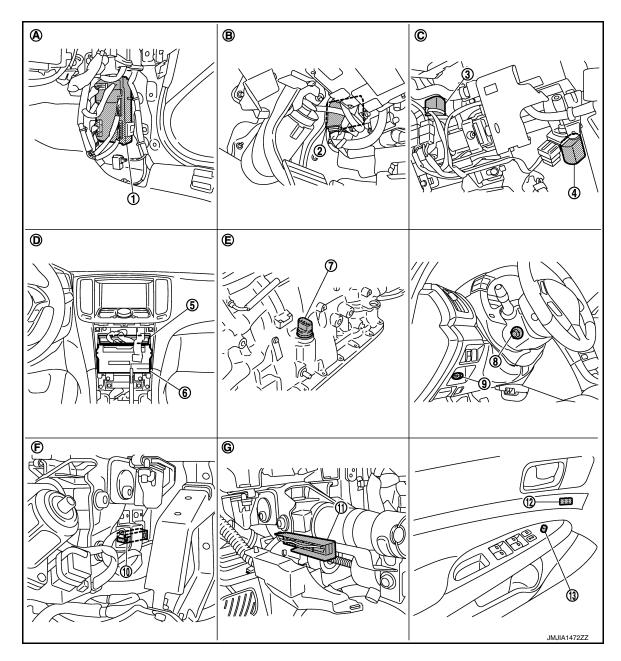
| Item | Request status |
|--|-----------------------|
| Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch | OFF (Not operated) |
| AT selector lever | P position |
| Automatic drive position system any function | Not operating |
| CONSULT | 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-000000010596337



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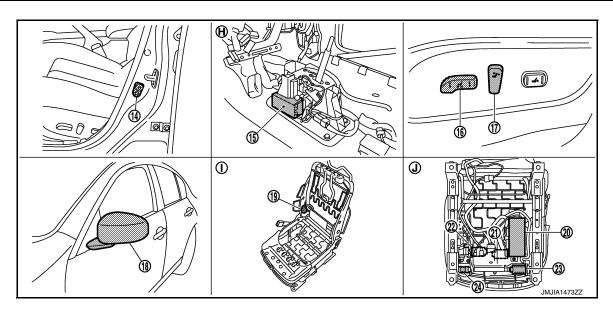
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- 14. Front door switch (driver side)
- 15. A/T shift selector (detention switch)
- 16. Sliding, lifting switch (Power seat switch)
- 17. Reclining switch (power seat switch) 18. Door mirror (driver side)
 - 21. Lifting motor (front)

back pad removed

19. Reclining motor

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

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

INTELLIGENT KEY INTERLOCK FUNCTION: Component Description

INFOID:0000000010596338

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:0000000010596339

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:0000000010596340

SELF-DIAGNOSIS RESULTS

Refer to ADP-141, "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:000000010596341

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:0000000010596343

Refer to LAN-16, "Trouble Diagnosis Flow Chart".

Special Repair Requirement

INFOID:0000000010596344

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

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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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B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

Description INFOID:000000010596345

- 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:0000000010596347

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-48, "DTC Logic"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-45, "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 | | (Approx.) |
| B461 | 34 | Ground | 0 – 1 V |
| D 4 01 | 38 | Giodila | 0-10 |

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 : 5/11) |
| B452 | 34 | Cround | 0.41/ |
| D 4 32 | 38 | Ground | 0 – 1 V |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-219, "Removal and Installation"

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

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B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2113 RECLINING MOTOR

Description INFOID:000000010596348

- 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:0000000010596350

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-45, "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 | | (11 - 7 |
| B454 | 35 | Ground | 0 – 1 V |
| | 39 | Giodila | 0-10 |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. 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 | | (, ibbioyr) |
| B452 | 35 | Crownd | 0.41/ |
| D402 | 39 | - Ground | 0 – 1 V |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-219</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "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 unit Tilt 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:0000000011010998

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-141, "DTC_Index"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-45, "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 – 1 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 | | (44.2) |
| 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-45, "Intermittent Incident".

>> INSPECTION END

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B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description INFOID:000000010596360

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:0000000010596362

1. CHECK UART COMMUNICATION LINE CONTINUITY

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

| Driver seat | control unit | Automatic drive positioner control unit | | it Continuity | |
|-------------|--------------|---|----------|---------------|--|
| 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 | Connector Terminal | | Continuity |
| B451 | 2 | | Not existed |

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> Repair or replace harness.

B2130 EEPROM

< DTC/CIRCUIT DIAGNOSIS >

B2130 EEPROM

DTC Logic INFOID:0000000011010999

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-45, "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:0000000011011028

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

| (+) (-) | | | Voltage |
|-----------|----------|--------|-----------------|
| всм | | | (Approx.) |
| Connector | Terminal | Ground | |
| M118 | 1 | | Battery voltage |
| M119 | 11 | | Ballery Vollage |

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:0000000010596364

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 >

| (+) | | (-) | Voltage (V) (Approx.) |
|--------------------------|----------|--------|--------------------------|
| Driver seat control unit | | | |
| Connector | Terminal | | , , , , |
| B452 | 33 | Ground | 9 – 16 V |

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 | |
| 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

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:0000000010596366

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.

| (+) | | (-) | Voltage (V) (Approx.) |
|---|----|--------|--------------------------|
| Automatic drive positioner control unit | | | |
| 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:0000000010596367

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:000000010596368

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:0000000010596369

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1. CHECK FUNCTION

- 1. 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 | Silding Switch (lorward) | Release | OFF |
| SLIDE SW-RR | Sliding switch (backward) | Operate | ON |
| SLIDE SW-INIX | Silding Switch (backward) | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000010596370

1. CHECK SLIDING SWITCH SIGNAL

- 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 | | (* 1,55. 57.11) | |
| B459 | 8 | 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 -1 31 | 24 | D-109 | 24 | LAISIEU |

4. 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 | 8 | Ground | Not existed |
| D431 | 24 | | INOL EXISTED |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-219</u>, "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-222, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000010596371

1. CHECK SLIDING SWITCH

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

| Power se | Power seat switch | | Condition | |
|----------|-------------------|---------------------------|-----------|-------------|
| Terr | minal | Condition | | Continuity |
| | 8 | Sliding switch (backward) | Operate | Existed |
| 43 | 0 | | Release | Not existed |
| 43 | 24 | Sliding switch (forward) | Operate | Existed |
| | | | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-222, "Removal and Installation".

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SWITCH

Description INFOID:000000010596372

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:0000000010596373

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1. CHECK FUNCTION

- 1. 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 | Reclining Switch (lorward) | Release | OFF |
| RECLINE SW-RR | Reclining switch (backward) | Operate | ON |
| INCOLINE GVV-INIX | | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000010596374

1. CHECK RECLINING SWITCH SIGNAL

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

| (+) Power seat switch | | (–) | Voltage (V) (Approx.) | |
|-----------------------|----------|--------|--------------------------|--|
| Connector | Terminal | | (/ IPP: 0/II) | |
| B459 | 9 | Ground | 9 – 16 V | |
| D409 | 25 | Giouna | 9 – 10 V | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK RECLINING 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 | 9 | B459 | 9 | Existed |
| D -1 31 | 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 |
| D401 | 25 | - - | NOT EXISTED |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-219</u>, "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-222, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000010596375

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 | Condit | ion | Continuity |
|----------|-------------------------------|-----------------------------|-------------|-------------|
| Terr | minal | Condition | | Continuity |
| | 9 | Reclining switch (backward) | Operate | Existed |
| 43 | a Trecining 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-222, "Removal and Installation".

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description INFOID:000000010596376

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:0000000010596377

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1. CHECK FUNCTION

- 1. 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 |
| LIFT FR 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:0000000010596378

1. CHECK LIFTING 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. 0/) | |
| B459 | 10 | Ground | 9 – 16 V | |
| D 4 09 | 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 | D409 | 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-219</u>, "Removal and Installation".

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-222, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000010596379

- 1. CHECK LIFTING SWITCH (FRONT)
- 1. Turn ignition switch OFF.
- Disconnect power seat switch connector.
- 3. Check continuity between power seat switch terminals.

| Power seat switch | | Condition | | Continuity |
|-------------------|---------------------|-----------------------------|---------|-------------|
| Terminal | | | | |
| | 10 Lifting switch f | Lifting switch front (down) | Operate | Existed |
| 43 | | Litting switch from (down) | Release | Not existed |
| 43 | 26 | Lifting switch front (up) | Operate | Existed |
| | 20 | | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-222, "Removal and Installation".

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description INFOID:0000000010596380

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

Turn ignition switch ON.

1. CHECK FUNCTION

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

| Monitor item | Condition | | Status |
|----------------|----------------------------|---------|--------|
| LIFT RR SW-UP | Lifting switch rear (up) | Operate | ON |
| LIFT RR SW-OF | Litting Switch real (up) | Release | OFF |
| LIFT RR SW-DN | Lifting switch rear (down) | Operate | ON |
| EII I NN SW-DN | 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

1. CHECK LIFTING SWITCH (REAR) SIGNAL

- 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 | | (| |
| B459 | 11 | Ground | 9 – 16 V | |
| D439 | 27 | Giouna | 9 – 10 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 4 31 | 27 | D-109 | 27 | LAISIEU |

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

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INFOID:0000000010596381

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LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

| Driver se | Driver seat control unit | | Continuity | |
|-----------|--------------------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B451 | 11 | Ground | Not existed | |
| D431 | 27 | | Not existed | |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-219</u>. "Removal and Installation".

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 ADP-222, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000010596383

1. CHECK LIFTING SWITCH (REAR)

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

| Power seat switch | | Condition | | Continuity |
|-------------------|----------|----------------------------|-----------|-------------|
| Terr | Terminal | | Condition | |
| | 11 | Lifting switch rear (up) | Operate | Existed |
| 43 | | | Release | Not existed |
| 40 | 27 | Lifting switch rear (down) | Operate | Existed |
| | 27 | | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-222, "Removal and Installation".

TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

TILT SWITCH

Description INFOID:000000010596384

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:000000010596385

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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 SW-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:0000000010596386

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 | | (* (PP* 6711) | |
| M31 | 4 | Ground | 4 – 6 V | |
| IVIST | 5 | Giouna | 4 – 0 V | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TILT 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 | sitioner control unit | Tilt & teleso | copic switch | Continuity |
|--------------------|-----------------------|---------------|--------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M78 | 1 | M31 | 4 | Existed |
| IVI7O | 13 | IVIO I | 5 | LAISIEU |

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-220, "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 ADP-223, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000010596387

1. CHECK TILT 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 | | | | |
| | 4 | Tilt switch (up) | Operate | Existed |
| 1 | | | Release | Not existed |
| 1 | 5 | Tilt switch (down) | Operate | Existed |
| | 5 | | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-223, "Removal and Installation".

TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SWITCH

Description INFOID:0000000010596388

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:0000000010596389

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1. CHECK FUNCTION

- Turn ignition switch ON.
- Select "TELESCO SW-FR", "TELESCO SW-RR" in "Data monitor" mode with CONSULT. 2.
- 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, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000010596390

1. CHECK TELESCOPIC SWITCH SIGNAL

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

| (+) Tilt & telescopic switch | | (–) | Voltage (V) (Approx.) | |
|------------------------------|----------|--------|---|--|
| Connector | Terminal | | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| M31 | 2 | Ground | 4 – 6 V | |
| IVIOI | 3 | | 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.

Disconnect automatic drive positioner control unit connector. 2.

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

| Automatic drive positioner control unit | | Tilt & telescopic switch | | Continuity |
|---|----------|--------------------------|---------|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| M78 | 7 | M31 | 2 | Existed |
| 1417 0 | 19 | 3 | LAISIEU | |

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

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TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-220, "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-223, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000010596391

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 | | Release | Not existed |
| ı | 3 | Talanania awitah (haakward) | Operate | Existed |
| | | Release | Not existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-223, "Removal and Installation".

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Description INFOID:0000000010596392

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 |
| 3E1 3W | SET SW | Release | OFF |
| MEMORY CIALA | Memory switch 1 | Push | ON |
| MEMORY SW 1 | | Release | OFF |
| MEMORY CW 2 | Memory switch 2 | Push | ON |
| MEMORY SW 2 | | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000010596394

INFOID:0000000010596393

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 | | (FF. 6/11) |
| | 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 | | Continuity |
|------------|----------------|--------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| | 28 | D5 | 3 | |
| M451 | 22 | | 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-219, "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 | Continuity |
| 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-221, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

Component Inspection 1. CHECK SEAT MEMORY SWITCH

INFOID:0000000010596395

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

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Seat men | Seat memory switch | | Condition | | | | |
|----------|--------------------|-----------------|----------------|-----------------|--|------|---------|
| Terr | ninal | | — Condition | | | | |
| | 2 0- | Set switch | Push | Existed | | | |
| | 3 | Set Switch | Release | Not existed | | | |
| 4 | 1 | Manage a Mala 4 | Manage witch 4 | Marsan avitab 1 | | Push | Existed |
| 4 | ı | Memory switch 1 | Release | Not existed | | | |
| | | | Push | Existed | | | |
| | 2 | Memory switch 2 | Release | Not existed | | | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to ADP-221, "Removal and Installation".

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DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

CHANGEOVER SWITCH: Description

INFOID:0000000010596396

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:0000000010596397

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:0000000010596398

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 | | | | ([[] | |
| | 2 | Ground | Change over switch | RIGHT | 0 – 1 | |
| M70 | M7814 | | | Other than above | 4 – 6 | |
| IVI 7 O | | | | 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 |
| IVI / O | 14 | | 10 | LAISIEU |

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

| Automatic drive po | sitioner control unit | | Continuity |
|--------------------|-----------------------|--------|-------------|
| Connector | Terminal | Ground | Continuity |
| M78 | 2 | Ground | Not existed |
| IVI / O | 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.

| (+) Automatic drive positioner control unit | | (-) | Voltage (V) (Approx.) | |
|---|----------|--------|--------------------------|--|
| Connector | Terminal | | (1-1/2-2-27) | |
| 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-220, "Removal and Installation".

5. CHECK CHANGEOVER SWITCH

Check changeover switch.

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

Is the inspection result normal?

YFS >> Refer to GI-45, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to MIR-125, "Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-45, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-220, "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 | Terminal | | | |
| 10 | | | LEFT | Existed |
| 10 | 7 | Change over quitab | Other than above | Not existed |
| 11 | ı | 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-125, "Removal and Installation".

MIRROR SWITCH

MIRROR SWITCH: Description

INFOID:0000000010596400

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:0000000010596401

1. CHECK MIRROR SWITCH FUNCTION

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

Refer to ADP-43, "CONSULT Function".

Is the inspection result normal?

YES >> Mirror switch function is OK.

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

MIRROR SWITCH: Diagnosis Procedure

INFOID:0000000010596402

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 | | | | (| |
| | 3 | Ground | | UP | 0 – 1 | |
| | 3 | | Mirror switch | Other than above | 4 – 6 | |
| | 4 | | | LEFT | 0 – 1 | |
| M78 | | | | Other than above | 4 – 6 | |
| IVI / O | 15 | | | DOWN | 0 – 1 | |
| | | | | 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

- 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 | sitioner control unit | Door mirror remote control switch | | Continuity |
|--------------------|-----------------------|-----------------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| | 3 | | 15 | |
| M78 | 4 | D17 | 13 | Existed |
| IVI7O | 15 | | 12 | LAISIGU |
| | 16 | | 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 | Not existed |
| M78 | 4 | | |
| 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.
- Turn ignition switch ON.
- 3. Check voltage between automatic drive positioner control unit and ground.

| | (+) | | | |
|-----------------|---|---------|--------------------------|--|
| Automatic drive | Automatic drive positioner control unit | | Voltage (V) (Approx.) | |
| Connector | Terminal | | (. 'kbioy'') | |
| | 3 | Ground | 4 – 6 | |
| M78 | 4 | | | |
| IVI7 O | 15 | Giodila | | |
| | 16 | | | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to ADP-220, "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-45, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to MIR-125, "Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-45, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-220, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

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MIRROR SWITCH: Component Inspection

INFOID:0000000010596403

1. CHECK MIRROR SWITCH

Check door mirror remote control switch.

| Door mirror rem | Door mirror remote control switch Terminal | | Condition | |
|-----------------|---|---------------|------------------|-------------|
| Terr | | | | |
| 4 | | | RIGHT | Existed |
| 7 | 4 | | Other than above | Not existed |
| 13 | 40 | Mirror switch | LEFT | Existed |
| 13 | 7 | | Other than above | Not existed |
| 15 | | | UP | Existed |
| 15 | 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-125, "Removal and Installation".

POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000010596404

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 seat switch | | | Continuity |
|-------------------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| B459 | 43 | | Existed |

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-45, "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:0000000010596405

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 & telescopic switch | | | Continuity |
|--------------------------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| M31 | 1 | | Existed |

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> Repair or replace harness.

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING SENSOR

Description INFOID:0000000010596414

- 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 |
|--------------|-------------------|-------------------------|---------------------|
| | | Operate (forward) | Change (increase)*1 |
| SLIDE PULSE | JLSE Seat sliding | Operate (backward) | Change (decrease)*1 |
| | Release | No change ^{*1} | |

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000010596416

1. CHECK SLIDING SENSOR SIGNAL

Turn ignition switch ON.

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

| (+) Driver seat control unit | | (–) Condition | | Voltage (V) | | |
|------------------------------|----------|---------------|--------------|------------------|------------|--|
| Connector | Terminal | | Condition | | (Approx.) | |
| 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-219, "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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INFOID:0000000010596415

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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

- 1. 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

- 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.

| Driver seat | control unit | Sliding sensor | | Sliding sensor Continuity | | 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-219</u>, "Removal and Installation".

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:000000010596417

- 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:0000000010596418

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 |
| | | Release | No change ^{*1} |

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000010596419

1. CHECK RECLINING SENSOR SIGNAL

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

| (+) Driver seat control unit | | (-) | (–) 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-219, "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 | control unit | Reclinii | ng motor | Continuity |
|-------------|--------------|-----------|----------|------------|
| 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

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

| | (+) | | |
|-----------------|----------|--------|--------------------------|
| Reclining motor | | (–) | Voltage (V) (Approx.) |
| Connector | Terminal | | (11 / |
| B454 | 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 | 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-219</u>, "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.
- 3. 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:000000010596420

- · 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.
- 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

INFOID:0000000010596422

INFOID:0000000010596421

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 | | | | (Αρρίολ.) | |
| 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-219, "Removal and Installation".

NO >> GO TO 2.

2.CHECK LIFTING SENSOR (FRONT) CIRCUIT

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

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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

- 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 | | (1-1 / | |
| 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 | Driver seat control unit Lifting motor (front) Contin | | Lifting motor (front) | |
|-------------|--|-----------|-----------------------|------------|
| 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-219</u>, "Removal and Installation".

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) | | 0 | Continuity |
|-----------------------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| B455 | 43 | | Existed |

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| LIFTING SENSOR (FRONT) | |
|--|-----|
| < DTC/CIRCUIT DIAGNOSIS > | |
| Is the inspection result normal? | |
| YES >> Replace lifting motor (front). NO >> Repair or replace harness. | А |
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LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description INFOID:000000010596423

- 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:0000000010596424

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 |
|---------------|---------------------|----------------|-------------------------|
| | | Operate (Up) | Change (increase)*1 |
| LIFT RR PULSE | Seat lifting (rear) | Operate (Down) | Change (decrease)*1 |
| | | Release | No change ^{*1} |

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-90, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010596425

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-219, "Removal and Installation".

NO >> GO TO 2.

2.check lifting sensor (rear) circuit

- 1. 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 motor (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 | or Terminal Ground | 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 m | notor (rear) | (-) | Voltage (V) (Approx.) |
|-----------|--------------|--------|--------------------------|
| Connector | Terminal | | |
| 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.
- 2. Disconnect driver seat control unit connector.
- 3. Check the continuity between driver seat control unit harness connector and lifting motor (rear) harness connector.

| Driver seat | control unit | Lifting motor (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 sea | 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-219, "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 m | otor (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:000000010596426

- · 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:0000000010596427

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1. CHECK FUNCTION

- 1. 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 |
|--------------|-----------------|----------------|-------------------|
| | | Operate (up) | Change (increase) |
| TILT PULSE | Steering column | 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:0000000010596428

1. CHECK TILT SENSOR SIGNAL

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

| (+ Drive seat | | (-) Cond | | dition | Voltage (V) (Approx.) |
|------------------|----------|----------|---------------|------------------------------|---------------------------------------|
| Connector | Terminal | | | | , , , , , , , , , , , , , , , , , , , |
| B451 | 21 | Ground | Steering tilt | Operate Other than the above | 10mSec/div 2V/div JMJIA0119ZZ |

Is the inspection result normal?

YES >> Replace drive seat control unit. Refer to ADP-219, "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 | 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 | Connector Terminal | | () ; | |
| 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

- 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 positioner control unit | | Tilt & teles | Continuity | |
|---|----------|--------------|------------|------------|
| 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-220, "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 | | |
|--------------------|---|--------------------|-------------------------|------------|--|
| Connector | Terminal | Connector Terminal | | Continuity | |
| M78 | 20 | M80 | 8 | Existed | |

TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

| | | 1.4 | |
|--------|------------|--------|---------|
| is the | inspection | result | normal? |

YES >> Replace tilt & telescopic motor.

NO >> Repair or replace harness or connector.

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TELESCOPIC SENSOR

Description INFOID:00000001059642S

- 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:0000000010596430

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:0000000010596431

1. CHECK TELESCOPIC SENSOR SIGNAL

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

| | +) control unit Terminal | (-) | Condition | | Voltage (V) (Approx.) |
|------|--------------------------------|--------|---------------|--------------------|----------------------------------|
| B451 | 5 | Ground | Steering tilt | Operate Other than | 10mSec/div 2V/div JMJIA0119ZZ |
| | | | | the above | 0 or 5 |

Is the inspection result normal?

YES >> Replace drive seat control unit. Refer to ADP-219, "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 | Connector Terminal | | (11 / | |
| 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

- 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 | |
|--------------------|---|-----------|-------------------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M78 | 27 | M80 | 6 | 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-220, "Removal and Installation"</u>.

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.
- 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

INFOID:0000000010596432

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DRIVER SIDE : Description

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

DRIVER SIDE: Component Function Check

INFOID:0000000010596433

1. CHECK FUNCTION

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

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

NO >> Perform diagnosis procedure. Refer to <u>ADP-99</u>, "DRIVER SIDE : Diagnosis <u>Procedure</u>".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000010596434

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

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

| (+) Door mirror (driver side) Connector Terminal | | (-) | Voltage (V) (Approx.) | |
|--|----|--------|--------------------------|--|
| | | | (Арргох.) | |
| 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.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. 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 |

4. 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-220, "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 | ositioner control unit | Door mirror (driver side) | | Continuity |
|--------------------|------------------------|---------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M78 | 6 D3 | | 21 | Existed |
| IVI / O | 18 | D3 | 22 | LAISIEU |

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

| Automatic drive positioner control unit | | | Continuity |
|---|----------|--------|-------------|
| Connector | Terminal | Ground | Continuity |
| M78 | 6 | Ground | Not existed |
| IVI / O | 18 | | Not 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:0000000010596435

- 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:0000000010596436

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 (pagagagar aida) | Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley) |
| MIR/SEN RH R-L | Door mirror (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

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- 1. CHECK DOOR MIRROR SENSOR (PASSENGER SIDE) POWER SUPPLY
- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror (passenger side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror (passenger side) harness connector and ground.

| (| +) | | Valtage (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 | utomatic drive positioner control unit | | Door mirror (passenger side) | |
|--------------------|--|-----------|------------------------------|------------|
| 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 | Terminal | Ground | Continuity |
| M78 | 21 | | Not existed |

Is the inspection result normal?

YES >> Replace automatic driver positioner control unit. Refer to <u>ADP-220, "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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| 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 |
| IVI7 O | 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:000000010596438

- · 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 | item | | Description |
|------------|------|--------------|-------------|
| | 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 Connector | | (-) | С | ondition | Voltage (V) (Approx.) |
|----------------------|----|--------|----------------------------|---------------------|--------------------------|
| | 34 | | | OFF FR (forward) | 0 – 1 V 9 – 16 V |
| B461 | | Ground | SEAT SLIDE | RR (backward) OFF | 0 – 1 V 0 – 1 V |
| 38 | | | FR (forward) RR (backward) | 0 – 1 V 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 4 32 | 38 | D401 | 38 | LXISIGU |

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 |
| D432 | 38 | | Not existed |

Is the inspection result normal?

YES >> Replace driver control unit. Refer to <u>ADP-219</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING MOTOR

Description INFOID:000000010596441

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

| | (+) Reclining motor | | (-) Condition | | Voltage (V) (Approx.) |
|-----------|---------------------|----------|----------------|---------------|--------------------------|
| Connector | Connector Terminal | | | | |
| | | | | OFF | 0 – 1 V |
| | 39 | - Ground | SEAT RECLINING | FR (forward) | 9 – 16 V |
| B454 | | | | RR (backward) | 0 – 1 V |
| D404 | 35 | | | OFF | 0 – 1 V |
| | | | | 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.
- 2. 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 |
| D+32 | 39 | D-104 | 39 | LXISIGU |

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-219</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description INFOID:0000000010596444

- 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

CHECK FUNCTION

- Turn ignition switch ON.
- Select "SEAT LIFTER FR" in "Active test" mode with CONSULT.
- 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.
- 2. 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) Connector Terminal | | (-) | Condition | | Voltage (V) (Approx.) |
|--|-----|--------|----------------|--------------------|--------------------------|
| 40 B455 36 | | | OFF UP | 0 – 1 V 0 – 1 V | |
| | -10 | Ground | SEAT LIFTER FR | DWN (down) | 9 – 16 V |
| | | | | OFF | 0 – 1 V |
| | 36 | | | 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 | Existed |

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-219</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description INFOID:000000010596447

- 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 | | Description | |
|----------------|-----|---------------------|----------|
| | OFF | | Stop |
| SEAT LIFTER RR | UP | Seat lifting (rear) | Upward |
| | DWN | | Downward |

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-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) | | (-) Conc | | Voltage (V) (Approx.) |
|-----------|--------------------------|----------|--------------------|----------------|--------------------------|
| Connector | Terminal | | | | (11 / |
| | | | | OFF | 0 – 1 V |
| | 42 | - Ground | SEAT LIFTER RR | UP | 9 – 16 V |
| B456 | | | | DWN (DOWN) | 0 – 1 V |
| D400 | | | - Glouild SEAT LIF | SEAT LIFTER KK | OFF |
| | 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)

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| Driver sea | at control unit | Lifting motor (rear) | | Continuity |
|------------|-----------------|----------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B452 | 41 | B456 | 41 | Existed |
| D432 | 42 | B430 | 42 | Existed |

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

| Driver sea | Driver seat control unit | | Continuity | |
|-------------------|--------------------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B452 | 41 | Ground | Not existed | |
| D 4 32 | 42 | | Not existed | |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-219</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TILT MOTOR

Description INFOID:0000000010596450

- 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

CHECK FUNCTION

- Turn ignition switch ON.
- 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 ADP-111, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK TILT MOTOR POWER SUPPLY

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

| Tilt & teleso | | (-) | Condition | | Voltage (V) (Approx.) |
|---------------|---------------------|------------------|------------|------------|--------------------------|
| | 7 Cround THIT MOTOR | - Ground TILT MO | | OFF | 0 – 1 V |
| | | | TILT MOTOR | UP | 0 – 1 V |
| M80 | | | | DWN (down) | 9 – 16 V |
| 3 | Ground | TIET WOTOK | 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 positioner control unit | | | Continuity | |
|---|----------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| M79 | 28 | Ground | Not existed | |
| 10179 | 29 | | Not existed | |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-220, "Removal and Installation".

NO >> Repair or replace harness or connector.

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC MOTOR

Description INFOID:000000010596453

- · 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 it | tem | Descrip | tion |
|---------------|-----|---------------------|----------|
| | 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.
- 4. Perform "Active test" ("TELESCO MOTOR") with CONSULT
- Check voltage between tilt & telescopic motor harness connector and ground.

| ` | (+) Tilt & telescopic motor | | Cone | dition | Voltage (V) (Approx.) |
|-----------|-----------------------------|--------|----------------|---------------|--------------------------|
| Connector | Terminal | | | | , , , |
| | | | | OFF | 0 – 1 V |
| | 10 | Ground | TELESCOPIC MO- | FR (forward) | 0 – 1 V |
| M80 | | | | RR (backward) | 9 – 16 V |
| IVIOU | | | TOR | 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 positioner control unit | | | Continuity |
|---|----------|--------|--------------|
| Connector | Terminal | Ground | Continuity |
| M79 | 26 | Ground | Not existed |
| W179 | 29 | | inot existed |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-220, "Removal and Installation".

NO >> Repair or replace harness or connector.

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Description INFOID:000000010596456

It makes mirror face operate from side to side and up and down with the electric power that AUTOMATIC DRIVE POSITIONER CONTROL UNIT supplies.

Component Function Check

1. CHECK DOOR MIRROR MOTOR FUNCTION

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

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

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

Turn ignition switch ON.

Check voltage between door mirror connector and ground.

| (+) Door mirror | | (–) | Condition | | Voltage (V) (Approx.) |
|----------------------|-----------|--------|-----------------------------------|------------------|--------------------------|
| Connector Terminal | | | | | (- 4-1) |
| | 12 | | Door mirror remote control switch | UP | 9 – 16 V |
| | | Ground | | Other than above | 0 – 1 V |
| D3 (Driver side) | 11 Ground | | | LEFT | 9 – 16 V |
| D33 (Passenger side) | | | | 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.

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

3. Check continuity between automatic drive positioner control unit connector and door mirror connector.

[Door mirror driver side]

| Automatic drive positioner 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 positioner control unit Door mirror (passenger side) Continuity Connector **Terminal** Connector **Terminal** 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]

| Automatic drive no | sitioner control unit | | |
|------------------------------|-----------------------|--------|-------------|
| Automatic drive po | Sitioner Control unit | | Continuity |
| Connector | Terminal | | 20 |
| | 12 | Ground | Not existed |
| M78 | 23 | | |
| | 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 ADP-220, "Removal and Installation".

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-123, "DOOR MIRROR ASSEMBLY: Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

Component Inspection

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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-123, "Exploded View".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror. Refer to MIR-123, "DOOR MIRROR ASSEMBLY: Removal and Installation".

2.CHECK DOOR MIRROR MOTOR-II

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

| 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

< DTC/CIRCUIT DIAGNOSIS >

>> Replace door mirror. Refer to MIR-123, "DOOR MIRROR ASSEMBLY: Removal and Installation". NO Α В С D Е F G Н ADP Κ L M Ν 0 Р

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SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description

 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

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1. CHECK FUNCTION

- 1. 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 ADP-118, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010596462

1. CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

| (+) Seat memory switch | | (-) | Voltage (V) (Approx.) | |
|------------------------|----------|--------|--------------------------|--|
| Connector | Terminal | | (11 - 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 | LAISIEU |

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

| Driver seat | control unit | | Continuity |
|-------------|--------------|---------|-------------|
| Connector | Terminal | Ground | Continuity |
| B451 | 23 | Giodila | Not existed |
| D431 | 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 <u>ADP-221, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "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 |
| 3 | 7 | LAISIEU |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to <u>ADP-221, "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 | Mamany quitab 1 | 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 | Will Of Switch | 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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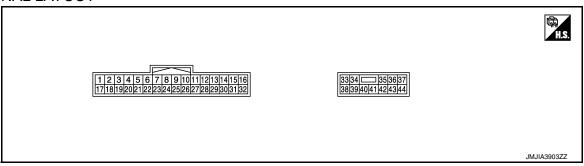
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< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Conditi | on | Value/Status |
|--------------------|--|---------------------|-----------------|
| IGN ON SW | Innition quitab | 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 |
| RETEESS ID | | Other than above | OFF |
| KYLS DR UNLOCK | Intelligent Key or door request switch | ON | ON |
| KTLS DR UNLOCK | | OFF | OFF |
| VHCL SPEED (ABS) | Vehicle speed signal (ABS) | Received | RCV |
| VIIOL OF LED (ABO) | verlicle speed signal (ADS) | Not received | NORCV |
| HANDLE | Vehicle | left handle models | LHD |
| HANDLE | vernicie | Right handle models | RHD |
| TRANSMISSION | Transmission | M/T | M/T |
| | | 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 | า | Cond | ition | Value |
|------------|-------------------|----------------------------------|------------------|------------------------|-----------------------|----------------------------------|
| + | - | 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 |
| | | Marana a Hala O | | | Press | 0 - 1 V |
| 6 (GY) | Ground | Memory switch 2 signal | Input | Memory switch 2 | Other than the above | 4 - 6 V |
| 7 | | Mamanuindiaa | Out | | Illuminate | 0 - 1 V |
| 7 (G) | Ground | Memory indica- tor 2 signal | Out- put | Memory indicator 2 | Other than the above | 9 - 16 V |
| 8 | Ground | Sliding switch | Input | Sliding switch | Operate (backward) | 0 - 1 V |
| (BR) | Ground | backward signal | input | Silding Switch | Other than the above | 9 - 16 V |
| 9 | Ground | Reclining switch | Input | Reclining switch | Operate (backward) | 0 - 1 V |
| (SB) | Ground | backward signal | input | recilling 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) | Giound | nal | πραι | Enting Switch (HOIL) | 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 | | Litting Ownor (rout) | 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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< ECU DIAGNOSIS INFORMATION >

| | nal No. color) | Description | n | Cond | lition | Value |
|-------------|-------------------|----------------------------------|------------------|----------------------|------------------------|----------------------------------|
| + | - | Signal name | Input/ output | Cono | lition | value |
| 18 (R) | Ground | Sliding sensor signal | Input | Seat sliding | Operate Other than the | 10mSec/div 2V/div JMJIA0119ZZ |
| | | | | | above | 0 or 5 V |
| 19 (Y/B) | Ground | Lifting sensor (front) signal | Input | Seat lifting (front) | Operate | 10mSec/div |
| | | | | | Other than the above | 0 or 12 V |
| 20 (P/B) | Ground | Lifting sensor (rear) signal | Input | Seat lifting (rear) | Operate | 10mSec/div |
| | | | | | 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 | _ | Memory indica- | Out- | | 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) | Ciound | forward signal | mput | Chang 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 (IIOIII) | 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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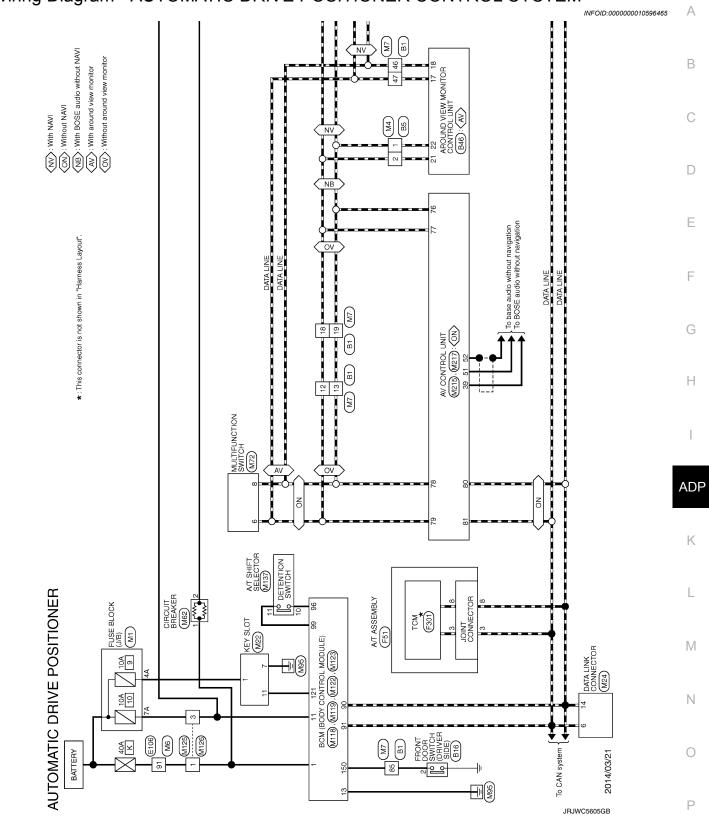
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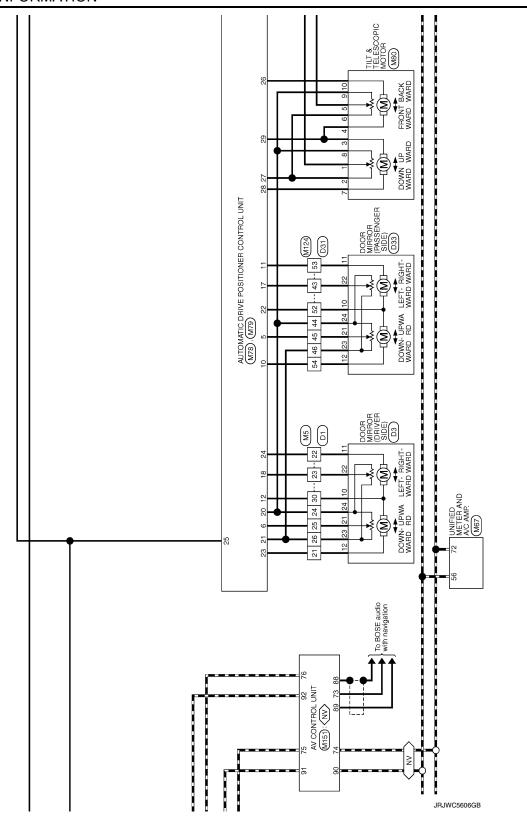
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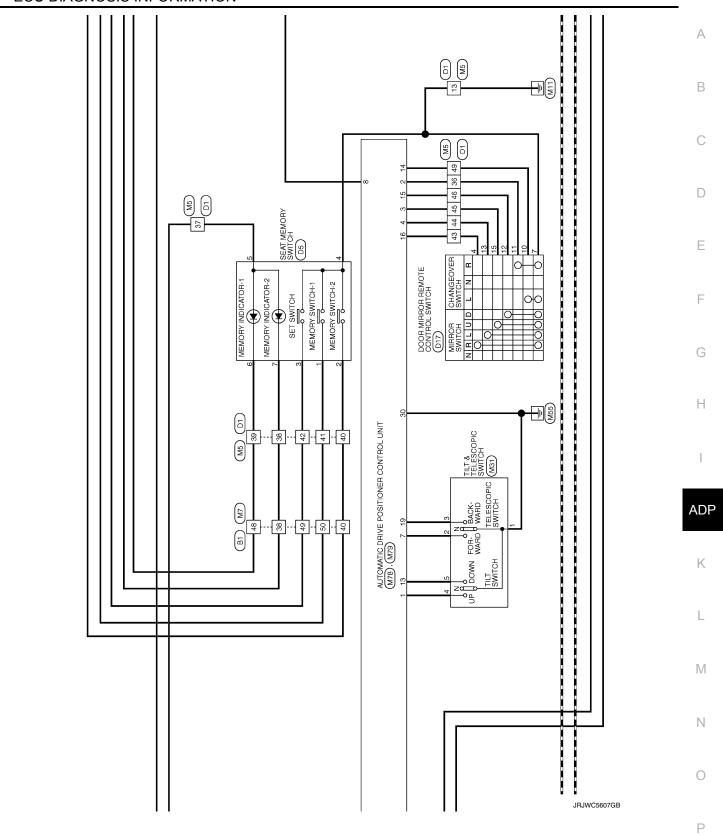
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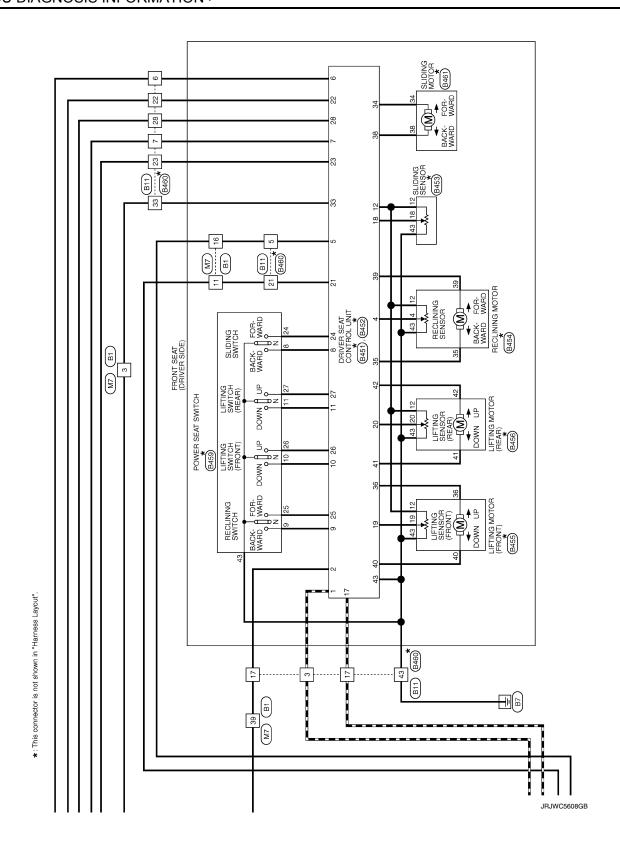
| | nal No. color) | Description | n | Cond | lition | Value |
|-----------|-------------------|--------------------------------|------------------|---------------------|----------------------|----------|
| + | - | Signal name | Input/ output | Oona | muon | value |
| 42 | Ground | Lifting motor (rear) 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 |

Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -









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| | | | JRJ | C WC5650GB |
|--|-----------------|--|--|------------|
| AUTOM. | Connector Name | Connector Type H.S. | 1 1 1 1 1 1 1 1 1 1 | N |
| AUTOMATIC DRIVE POSITIONER Connector No. 181 | me WIRE TO WIRE | THEORYPE CSS 16 - TIME THEORY THEORYPE CSS 16 - TIME THEORYP | Virginal Name Styrial Name Sty | L M |
| L | | 50 | | |
| ⊢ | Н | 50 L 60 P 61 L 62 SHIELD 63 R 64 G 64 G 65 SHIELD 66 W | | K |
| - | 1 1 | | | ADP |
| Connector No. | Connector Name | Oconnector Type | Terminal Color Of | Н |
| 85 | WIRE TO WIRE | THERMAN-184 [1 2 3 4 5 6 7 8 9 4011 (2) (3) 41 516 [1 10 19 10 [2] (2) 2 2 4 5 5 6 7 8 9 9 8 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 | Signal Nama (Specification) | F |
| Connector No. | Connector Name | Connector Type H.S. | Terminal Color | E |
| B11 | 9 | 28 21 5 17 17 13 22 21 22 22 21 23 22 22 21 23 22 22 23 23 23 23 23 23 23 23 23 23 | | D |
| | | 5 17 — 43 3 19 3 22 32 6 66 60 67 | Signal Name Speedfeaton Signal Name Speedfeaton Signal Name Speedfeaton Signal Name Speedfeaton | С |
| Γ | | <u>[10]</u> | | В |
| | | | | |

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| AUT | TAMO: | AUTOMATIC DRIVE POSITIONER | | | | | | |
|----------------|-------------------------------|---|-----------------|------------------|--|-------------------------------|-------------------------------|--|
| Connector No. | tor No. | | Connector No. | П | B451 | Connector No. | B452 | Connector No. B454 |
| Connect | Connector Name | AROUND VIEW MONITOR CONTROL UNIT | Connector Name | | DRIVER SEAT CONTROL UNIT | Connector Name | DRIVER SEAT CONTROL UNIT | Connector Name RECLINING MOTOR |
| Connect | Connector Type | TH40FW-NH | Connector Type | П | TH32FW | Connector Type | NS16FW-CS | Connector Type NS06FW-CS |
| Œ | | | 匮 | | | 匮 | 20 70 | E |
| E S | vi | 2 4 6 7 9 13 77 22 24 27 28 30 23 34 36 38 40 10 11 2 5 7 9 13 13 17 27 27 27 29 31 33 35 37 39 | E S | | 1211 10 9 8 7 6 5 4 2 1 28 27 28 28 24 23 22 21 20 19 18 17 | E.S. | 30 35 | 12 43 4 |
| | | | | • | | | | |
| Termina No. | Terminal Color Of No. Wire | of Signal Name [Specification] | Terminal No. | Color Of Wire | Signal Name [Specification] | Terminal Color Of No. Wire | Signal Name [Specification] | Terminal Color Of Signal Name [Specification] No. Wire |
| - | 8 | GROUND | - | ŀ | CAN-H | 33 - | BAT (PTC) | 4 W/G - |
| 2 | > | BATTERY | 2 | , | UART (TX/RX) | 34 - | SLIDE MOTOR (BACKWARD) | 12 0 - |
| 3 | Ь | IGNITION SIGNAL | 4 | 1 | PULSE (RECLINER) | 35 - | RECLINER MOTOR (FORWARD) | Н |
| 4 | æ | | 5 | - | PULSE(TELESCOPIC) | 36 | FRONT LIFTER MOTOR (DOWNWARD) | + |
| 2 | BG | 4 | 9 | ' | ADDRESS 2 | 38 | SLIDE MOTOR (FORWARD) | 43 GR - |
| 9 | SB | VEHICLE SPEED SIGNAL (8-PULSE) | 7 | , | IND 2 | - 39 | RECLINER MOTOR (BACKWARD) | |
| 7 | > | REVERSE SIGNAL | | ' | SLIDE SW (BACKWARD) | - 04 | FRONT LIFTER MOTOR (UPWARD) | |
| 6 | > | CONTROL SIGNAL | 6 | 1 | RECLINER SW (BACKWARD) | - 41 | REAR LIFTER MOTOR (UPWARD) | Connector No. B455 |
| 13 | В | CONTROL SIGNAL | 10 | 1 | FRONT LIFTER SW (DOWNWARD) | | REAR LIFTER MOTOR (DOWNWARD) | Connector Name LIFTING MOTOR (FRONT) |
| 17 | SB | AV COMM (H) | 11 | - | REAR LIFTER SW (DOWNWARD) | - 43 | GND | |
| 18 | ΓG | AV COMM (L) | 12 | , | POWER SUPPLY (ENCODER) | | | Connector Type NS06FW-CS |
| 21 | SB | AV COMM (H) | 17 | 1 | CAN-L | | | ú |
| 22 | ΓG | AV COMM (L) | 18 | , | PULSE (SLIDE) | Connector No. | B453 | |
| 23 | ΓG | - | 19 | - | PULSE (FRONT LIFTER) | Connector Name | SI IDING SENSOR | |
| 24 | 9 | = | 20 | | PULSE (REAR LIFTER) | | |]] ? |
| 27 | W | CAMERA IMAGE SIGNAL | 21 | - | PULSE(TILT) | Connector Type | 6098_0241 | 12 43 19 |
| 28 | SHIELD | CAMERA | 22 | 1 | ADDRESS 1 | (| | |
| 29 | ≻ | SIDE CAMERA RH IMAGE SIGNAL | 23 | ' | IND 1 | [B | | |
| 30 | G | SIDE CAMERA RH IMAGE GND | 24 | · | SLIDE SW (FORWARD) | Į. | | |
| 31 | SHIELD | SHIELD | 25 | | RECLINER SW (FORWARD) | 22 22 | | la C |
| 32 | В | SIDE CAMERA RH GND | 26 | , | FRONT LIFTER SW (UPWARD) | | 18 43 12 | No. Wire Ogner regine Experimentarion |
| 33 | W | SIDE CAMERA RH COMM | 27 | | REAR LIFTER SW (UPWARD) | | | 12 0 - |
| 34 | œ | SIDE CAMERA RH POWER SUPPLY | 28 | - | SET SW | | | 19 Y/B - |
| 35 | _ | REAR CAMERA COMM | | | | | | 36 L/R - |
| 36 | BR | REAR CAME | | | | la C | Simal Nama [Specification] | 40 G/W |
| 37 | SHIELD | | | | | No. Wire | Digital Marine Lopecinication | 43 GR - |
| 38 | œ | REAR CAMERA GND | | | | 12 0 | - | |
| 39 | > | REAR CAMERA IMAGE SIGNAL | | | | Н | - | |
| 40 | Α | REAR CAMERA IMAGE GND | | | | 43 GR | - | |

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| Partomatic drive position to the automatic drive position to the automatic drive position to automatic drive position drive | С |
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| | G |
| Connector No. Connector No. Connector No. Connector No. Connector No. Connector Type Connector | Н |
| 19 3 43 mm 7 5 11 28 15 10 10 10 10 10 10 10 10 10 10 10 10 10 | ADP |
| Connector Name MFE TO WIRE | К |
| | L |
| AUTOMATIC DRIVE POSITIONER Convector Name NSOFTBR GS 124 10 12 | M |
| AUTOMATIC I Connector No. 61466 Connector Name IFTIT Connector Name IFT | N |
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| - 1 | Т | Connector Name WIRE TO WIRE | Connector Type TH80FW-CS16-TM4 | | | | 8 | 8 W 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | | | T | | + | : 3 | - 0 | | | 45 | | + | + | + | 12 BG - | 13 L = | 14 R - | 15 P | - v 91 | SB | - × | 20 BG - | 21 L - | 22 V - | 23 G - | 24 P - | 25 Y - | 26 V – | 27 W - | 28 G - | 31 BG - | ┝ | 33 B | ╀ | ł | SHID | O INCED | > : | BK. | + | \dashv | 42 G – |
|-----|---------|-----------------------------|--------------------------------|-------------------|-----------------------------|----------------------------|-----------------------------------|--|---|--------------------------|--------------------------------------|---|---|---------------|-------------------|-------------------------|-------------------|--------------------------------|------|-----|--------|--------|----------|---------------------------------|---------|--------|--------|--------|--------------------------|-------------------------------------|---|--------------------------|--------|--------|--------|---------|-----------------|-------------|---------|---------|-------------------|--------------------------------------|---|--------|---------|-----|------|---|----------|--------|
| ŀ | 46 W | 4/ SHIELD = - | H | 54 0 - | | | Compositor No. | ı | Connector Name DOOR MIRROR (PASSENGER SIDE) | Connector Type TH24MW-NH | 1 | 4 | 主 | 1 0 1 | 12 11 10 | 24 23 22 21 19 18 17 16 | | | 20 | | WIFE | | | 5 B SIDE CAMERA RH POWER SUPPLY | 6 R - | L | | | 12 0 - | 16 BR – | 17 G SIDE CAMERA RH IMAGE GND | 18 Y SIDE CAMERA RH GND | 19 B - | 21 P - | 22 Y - | 23 W - | 24 V - | | | | | | | | | | | | | |
| ŀ | - 13 W | - X G | | Connector No. D31 | Connector Name WIRE TO WIRE | Connector Type TH40FW-CS15 | 7 | 4 | | 9 7 6 5 4 | 14845444342444639383739 282524232272 | डस्डन डडडिय डा क्या सम्बन्धः । उस्डा इस्टा इस | | | Tarminal Color Of | | t | Ŧ | 1000 | + | + | _ | \dashv | 15 W = | 16 BR - | 17 B – | | - × 19 | 20 B – [With BOSE audio] | 20 R – [Without BOSE audio] | 21 BR – [Without BOSE audio] | 21 G - [With BOSE audio] | 22 v – | 23 P - | 24 W - | 25 SB - | 26 R - | 29 SHIELD - | 30 W | 31 FG - | ┞ | ╀ | ł | $^{+}$ | $^{+}$ | + | 3/ 6 | 4 | \dashv | 45 P - |
| 함 | 21 GR = | 22 BR = - | ┝ | | Г | Connector No. Da | Connector Name SEAT MEMORY SWITCH | The second of th | | € | 手 | | | 3 2 0 1 7 1 4 | | | Torminal Color Of | N. Signal Name [Specification] | + | 7.0 | 2 BR = | 3 GR - | \dashv | 5 R | - 0 9 | 7 P | | | Connector No. D17 | Commo locativo nacinal access acces | CONTRACTOR NAME DOOR MIRROR REMOTE CONTROL SWITCH | Connector Type TK16FBR | ſ | | | | 8 9 10 11 12 13 | 2 | | | Terminal Color Of | No. Wire Signal Name [Specification] | t | t | $^{+}$ | + | 2 | 4 | TG | Н |

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| - | - | - | 1 | | 1 | | | | 1 | | | | | | | | | | | | | WIRE | | CS15 | | | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 | Appropriate Control Co | 65 57 57 57 57 57 57 57 57 57 57 57 57 57 | 3 | | | Cinnal Name [Specification] | Digital realing Copedition | - | | | | - | - | | 1 | _ | - | | - | 1 | | | 1 | |
|--------|-----------------------|--------------------|-------|---------------|--------|-------------------|------|----------------------|---------------------|--------------------|----------------|-------|----|---------------|----------|-------------|----------------|-----|-----------------------------|---|-----------------------------|-----------------------------|--------------|----------------------------|--------------|-----------------------|-------------------------------------|--|---|--------------|-----------------|--------------|-----------------------------|----------------------------|-----|-----------------------|------|----|------------|--|----------|--|-----|--------|-------------------|-----------------------------|-----------------------|----------------------|-------|---------|-------------------|
| 9 M | . B | 1 FG | 8 | 14 V | 15 ^ | 16 W | ┞ | H | Ġ. | t | ł | ╀ | ł | 5 8 86 | ł | ō | t | 3 L | | ſ | Connector No. M5 | Connector Name WIRE TO WIRE | П | Connector Type TH40MW-CS15 | | | ľ | 21.0 | | 100000 | | | Terminal Color Of | No. Wire | - B | 2 B | 3 BR | Ф. | 2 T | 9 | _ | w 8 | D 6 | 1 01 | 11 | 12 V | 13 B | > >+ | 15 W | H | 1 |
| GROUND | IGNITION POWER SUPPLY | BACK-UP LAMP RELAY | CAN-L | STARTER RELAY | GROUND | | | | | FUSE BLOCK (J/B) | NSOBEMEMS | M 102 | | | 3A 7A 1A | 1 20 2 | 8A /AlbAlbAl4A | | | | Signal Name [Specification] | | 1 | - | | | - | - | 1 | | | | | HIM OT HIM | | TH32FW-NH | | | \ \ | 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 | 22 24 20 | 01 00 E0 E0 E0 E0 E0 E7 E0 EE E1 E0 10 10 11 | | | 9 | Signal Name [Specification] | 1 | 1 | 1 | 1 | |
| - 2 | - 9 | - 1 | - 8 | - 6 | - 10 | | | Connector No M1 | Т | Connector Name FUS | Connector Tone | 1 | 4 | 季 | ě E | ST. | | | | | la D | No. Wire | 1A × | 2A G | 3A L | 4A R | 5A V | . ∀ 89 | 7A R | 8A L | | | Connector No. M4 | Connector Name WIR | | Connector Type TH3 | 4 | | | E S | 30 | | | | Terminal Color Of | No. Wire | - 10 | SB SB | H | H | $\left\{ \right.$ |
| 1 | - | - | 1 | | | | 2.00 | A/ I ASSEMBLY | BK10FG-DGY | | < | < | 1 | (5 4 3 2 1 1) | 2 2 2 2 | ┨ | | | Signal Name [Specification] | | IGNITION POWER SUPPLY | BATTERY POWER SUPPLY | CAN-H | K-LINE | GROUND | IGNITION POWER SUPPLY | BACK-UP LAMP RELAY | CAN-L | STARTER RELAY | GROUND | | | | | | FG | < | « | | (4) 13 A E | 7 7 | 018819 | | | 3 | Signal Name [Specification] | IGNITION POWER SUPPLY | BATTERY POWER SUPPLY | CAN-H | K=I INF | N Edit |
| 97 R | 98 SHIELD | T 66 | 100 | | | Connector No. F51 | Γ | Connector Name AVI A | Connector Tyne BK10 | 1 | 4 | 3 | ٦١ | i.e. | | | | | N- We- | † | + | 7 | 3 | > | 5 B | ≻ 9 | 7 R | 8 LG | 9 GR | 10 B | | | Connector No. F301 | Connector Name | | Connector Type SP10FG | 4 | | • | E.S. | | | | | Terminal Color Of | No. Wire | - | | 3 | - 4 | $\left\{ \right.$ |
| - | _ | - | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | | | | | | | | | | - [With ICC] | - [Without ICC] | - [With ICC] | - [Without ICC] | - [Wrth ICC] | - [Without ICC] | - [Without ICC] | - [With ICC] | - [Without ICC] | - [With ICC] | - [Without ICC] | - [Wrth ICC] | - | _ | 1 | | 1 | 1 | II | 1 | - | | | 1 | 1 | 1 | 1 | 1 | |
| BR | W | _ | ۵ | - | BG | HB | > | 2 | c | aS | 9 % | : a | , | 5 0 | 2 | SPIELD V | | 9 : | × (| ¥ | > | | BR | 7 | ŋ | ^ | W | > | ۵ | ď | BR | 7 | 7 | > | SB | œ | SB | BG | ŋ | _ | ۵ | > | GR | SHIELD | W | > | > | P | BG | ۵ | |
| 43 | 45 | 49 | 20 | 51 | 54 | 22 | 29 | 9 | 19 | 60 | 63 | 84 | , | 89 | | 6 | 3 8 | 60 | 2 | 1 | 22 | 22 | 74 | 74 | 75 | 7.5 | 16 | 76 | 11 | 1.1 | 78 | 78 | 79 | 79 | 80 | 81 | 82 | 93 | 84 | 92 | 98 | 87 | 88 | 06 | 16 | 95 | 93 | 94 | 98 | 96 | 3 |

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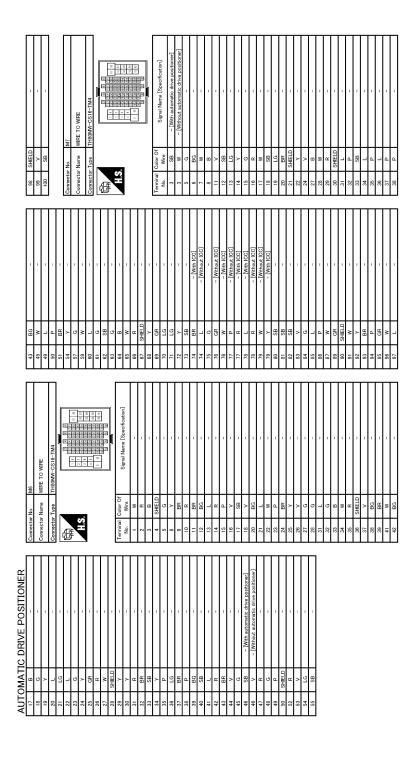
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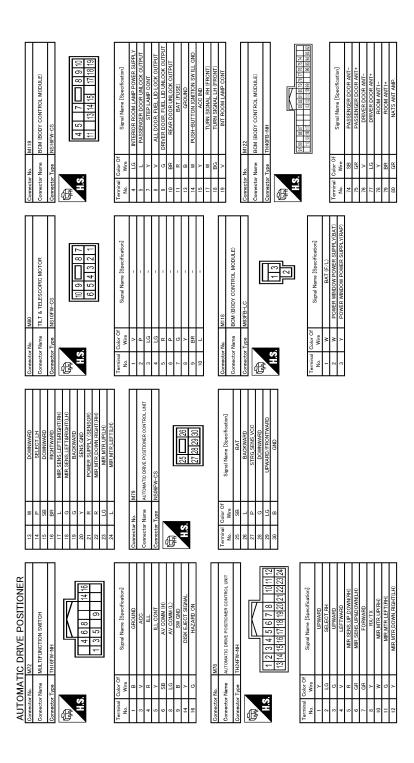
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| MART THE MATER AND A / C AMP. THEASTW-NAT. Signal Name (Specification) Signal Name (Specification) ANCE DONNE SUPPLY FIGURE SENSOR SIGNAL INTAKE SENSOR SIGNAL MARIENT SENSOR SIGNAL INTAKE SENSOR SIGNAL SUMLAND SENSOR SIGNAL FIGURE SENSOR SIGNAL FIGURE SENSOR SIGNAL FIGURE SENSOR SIGNAL FIGURE SENSOR SIGNAL SOUND NAME SENSOR SIGNAL FIGURE SENSOR SIGNAL AMERICA SENSOR SIGNAL FIGURE SENSOR SIGNAL | В |
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| TILT & TELESCOPIC SWITCH TROUTCY Signal Name [Specification] Signal Name [Specification] Signal Name [Specification] | F |
| MAI TILT & TE | G |
| Commetter No. Commetter Type Terminal Ocior Of No. S. S | Н |
| NEZ | ADP |
| Commetter No. Commetter Type | K |
| IONER | L |
| ## UTOMATIC DRIVE POSITIONER ## C CR | M |
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| | - Signal Name [Specification] | - M | - 2 Y - | 3 R - | | | - Connector No. M137 | l | Connector Name AVI SHIFT SELECTOR | | Connector Lype | <u> </u> | | | 13 4 5 | F | 7 8 9 10 11 | | Termina Color Of | | × > | N E | 3 2 | 200 | 7 R | Sieral Name [Sceoffication] 8 SB - | 6 | - 10 GR - | | | Connector No. M151 | THE COTTON | - 1 | Connector Type TH32FW-NH | 4 | 厚 | 50 | 00 00 | [/3]80]81]87[82] | <u>[5]</u> | | la D | Wire | 1 | 9 1 | 68 R COMPOSITE IMAGE SIGNAL | |
|----------------------------|-------------------------------|-----------------------------|-------------------|-------------------|-------------------|-------------------|----------------------|---------------------------------|-----------------------------------|---------------|----------------|---------------------------------|----------------|---------------------------|----------------------------|-----------------------------|-------------------------------------|-------------------------------------|--|---|-----|---------------|-----------------------------|---------------------------|----------------|------------------------------------|----------|-----------|---------------------------|--|--------------------|--------------------|-------------------------------|--------------------------|-------------------------|---------------------|-----------------------|-------------|------------------|-------------------|----------------------|----------------------------------|----------|----------------------|------------------------------|-----------------------------|--|
| | 35 0 | H | 37 BR | 43 L | 44 Y | 45 R | H | _ | L | $^{+}$ | 5 3 | + | 55 BG | | | Connector No. M125 | Connector Name WIRE TO WIRE | | Connector lype MU3FW-LC | | V- | | | | | nal Color Of | No. Wire | w 1 | + | 3 8 | | Connector No. M126 | Connector Name WIRE TO WIRE | T | Connector Type M03MW-LC | 4 | | H.S. | | 7 |] | _ | | | | | |
| | SECURITY IND LAMP CONT | COMBI SW OUTPUT 5 | COMBI SW OUTPUT 1 | COMBI SW OUTPUT 2 | COMBI SW OUTPUT 3 | COMBI SW OUTPUT 4 | DRIVER DOOR SW | REAR WINDOW DEFOGGER RELAY CONT | | | 7077 | M124 | WIRE TO WIRE | | Connector Type TH40MW-CS15 | | | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 | ाव गो १६ १ व २ व २ व २ व २ व २ व २ व २ व २ व २ व | 27242434343132343434 474444351515251515 | | 2 | Signal Name [Specification] | 1 | 1 | 1 | ı | 1 | | | 1 | 1 | - | - [Without BOSE audio] | - [With BOSE audio] | - [With BOSE audio] | - | - | - | | - | 1 | | 11 1 | | - | |
| ŀ | <u> </u> | BB | Н | 9 | 7 | SB | H | ┞ | l | | M. | Connector No. | Connector Name | | tor Type | | _ | 0 \= | ā | | | al Color Of | | > | . ₉ | >- | _ | _ | + | ≥ 8 | á m | œ | В | * | > 0 | 5 - | 88 | GR | 9 | _ | ~ | SHELD | > ! | 2 c | 9 3 | æ | |
| | 140 | 142 | 143 | 144 | 145 | 146 | 150 | 151 | | | c | Conne | | | _ | _ | ß | : \ | • | | | Terminal | Š | _ | | 6 | 12 | 13 | 7 1 | 2 5 | 1 | 20 | 19 | 20 | 50 | 2 2 | 22 | 23 | 24 | 25 | 56 | 59 | 8 | 5 8 | 35 | 33 | |
| AUTOMATIC DRIVE POSITIONER | IGN RELAY (F/B) CONT | KEYLESS ENTRY RECEIVER COMM | COMBI SW INPUT 5 | COMBI SW INPUT 3 | CAN-L | CAN-H | KEY SLOT ILL CONT | ONI NO | PUDD FILAMP CONT | PODE DAM CONT | ACC RELAT CONT | A/1 SHIFT SELECTOR POWER SUPPLY | SHIFT P | PASSENGER DOOR REQUEST SW | DRIVER DOOR REQUEST SW | BLOWER FAN MOTOR RELAY CONT | KEYLESS ENTRY RECEIVER POWER SUPPLY | COMBI SW INPUT 1 | COMBLSW INPUT 4 | HAZARD SW | | M123 | | BCM (BODY CONTROL MODULE) | TH40FG-NH | | | | 124 128 118 118 1118 1118 | 150 ESI 148 KW | | | f Signal Name [Specification] | | OPLICAL SENSOR | STOP LAMP SW 1 | DR DOOR UNLOCK SENSOR | KEY SLOT SW | IGN F/B | PASSENGER DOOR SW | POWER WINDOW SW COMM | PUSH-BUTTON IGNITION SWILL POWER | LOCK IND | PECCEIVER/SENSOR GND | RECEIVER/SENSOR POWER SUPPLY | TIRE PRESSURE RECEIVER COMM | |
| OMA | ≥ ≃ | > | BR | > | Ь | _ | 57 | > | > | $^{+}$ | 2 6 | + | ۰ ۲ | <u> </u> | 8 | BG | PC | 9 c | × > | ╀ | | Connector No. | | Connector Name | Connector Type | | • | | ń | | | |) | 4 | + | g . | ╀ | BB | Ц | _ | 4 | 4 | ğ : | + | 4 | 4 | |
| 51 | 5 8 | 8 | 87 | 98 | 90 | 91 | 92 | 83 | 4 | 5 | G S | 98 | 66 | 2 | ēĺ | 102 | 103 | 107 | 2 2 | 2 | | onnec | l | onnec. | onnect | , | | ₹ | Š | | | | Terminal | Š. | 113 | 2 2 | 120 | 121 | 123 | 124 | 132 | 133 | 2 | 200 | 20 3 | 139 | |

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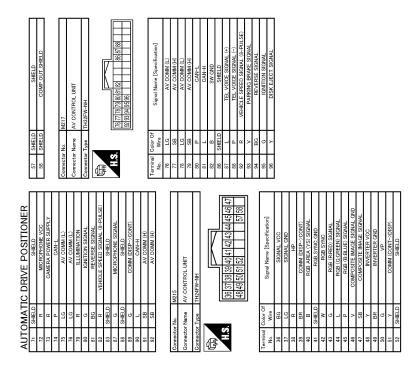
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Fail Safe

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

< ECU DIAGNOSIS INFORMATION >

| Operating in fail-safe mode | Malfunction Item | Related DTC | Diagnosis |
|---|-----------------------------|----------------|-----------|
| | CAN communication | U1000 | ADP-46 |
| Only manual functions operate normally. | CONTROL UNIT (CAN) | U1010 | ADP-47 |
| | EEPROM | B2130 | ADP-55 |
| Only manual functions, except door mirror, operate normally. | UART communication | B2128 | ADP-54 |
| Only manual functions, except seat sliding, operate normally. | Seat sliding output | B2112 | ADP-48 |
| Only manual functions, except seat reclining, operate normally. | Seat reclining output | B2113 | ADP-50 |
| Only manual functions, except steering tilt, operate normally. | Steering column tilt output | B2116 | ADP-55 |

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 | |

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^{• 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.

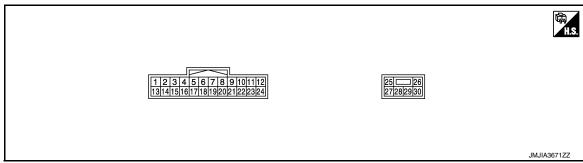
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

| | nal No. color) | Description | | Condition | | Voltage | |
|-----------|-------------------|--|------------------|-------------------------|----------------------|--|--|
| + | - | Signal name | Input/ Output | Condition | | vollage | |
| 1 | Ground | nd Tilt switch up signal Input Tilt switch | Operate (up) | 0 - 1 V | | | |
| (Y) | Giodila | Till Switch up Signal | iliput | | Other than the above | 4 - 6 V | |
| 2 | Ground | Changeover switch RH | Input | Changeover | RH | 0 - 1 V | |
| (LG) | Ground | signal | iriput | switch position | Neutral or LH | 4 - 6 V | |
| 3 | Ground | Mirror switch up signal | Input | Mirror switch | Operate (up) | 0 - 1 V | |
| (G) | Ground | will of switch up signal | iliput | Other than the above | | 4 - 6 V | |
| 4 | 0 | Missan assitate left sixual | lane. 4 | Naissan au itala | Operate (left) | 0 - 1 V | |
| (V) | Ground | Mirror switch left signal | input | 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 | Input | Telescopic switch | Operate (forward) | 0 - 1 V | |
| (GR) | Ground | signal | iliput | relescopic switch | Other than the above | 4 - 6 V | |
| 8 (Y) | Ground | UART communication (TX/RX) | Input/ Output | Ignition switch ON | | 10msec/div | |

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (wire color) Description | | | Condition | | Voltage | | | |
|---------------------------------------|--------|---|--|---|-------------------------|---|-------------------------|----------|
| + | - | Signal name | Input/ Output | Condition | | vollage | | |
| 10 | Ground | Door mirror motor (passenger side) up/right out- | Output | Door mirror RH | Operate (up/right) | 9 - 16 V | | |
| (W) | Ground | put signal | Output | Door million Kin | Other than the above | 0 - 1 V | | |
| 11 | Ground | Door mirror motor (passenger side) down/left | Output | Output Door mirror RH | Operate (down/left) | 9 - 16 V | | |
| (G) | Ground | 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) | Ground | signal | Output | Door militor (EH) | Other than the above | 0 - 1 V | | |
| 13 | Ground | Tilt switch down signal | Innut | Tilt switch | Operate (down) | 0 - 1 V | | |
| (W) | Ground | THE SWILCTI COWE SIGNAL | Input | Tilt switch Other than the above | | 4 - 6 V | | |
| 14 | Cround | Changeover switch LH | lanut | Changeover LH switch position Neutral or RH | | 0 - 1 V | | |
| (P) | Ground | signal | Input | | | 4 - 6 V | | |
| 15 | Ground | Mirror switch down signal | Input | Mirror switch | Operate (down) | 0 - 1 V | | |
| (SB) | Ground | Willion Switch down signal | iliput | WIIITOI SWILCIT | Other than the above | 4 - 6 V | | |
| 16 | Ground | Mirror switch right signal | Input | Mirror switch | Operate (right) | 0 - 1 V | | |
| (BR) | Ground | Will of Switch right Signal | iliput | WIIITOI SWILCIT | 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) | Giound | ward signal | Input | relescopic 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 | Cround | Door mirror motor (pas- | Door mirror motor (pas- Ground senger side) down/right Output | | | tout Door mirror (DLI) | Operate (down/right) | 9 - 16 V |
| (R) | Giouna | output signal | Output | Door mirror (RH) Other than the above | | 0 - 1 V | | |
| 23 | Ground | Door mirror motor (driver side) up/right output sig- | Output | Operate (up/right) | | 9 - 16 V | | |
| (LG) | Giound | nal | Ουιρυι | Door mirror (LH) | Other than the above | 0 - 1 V | | |

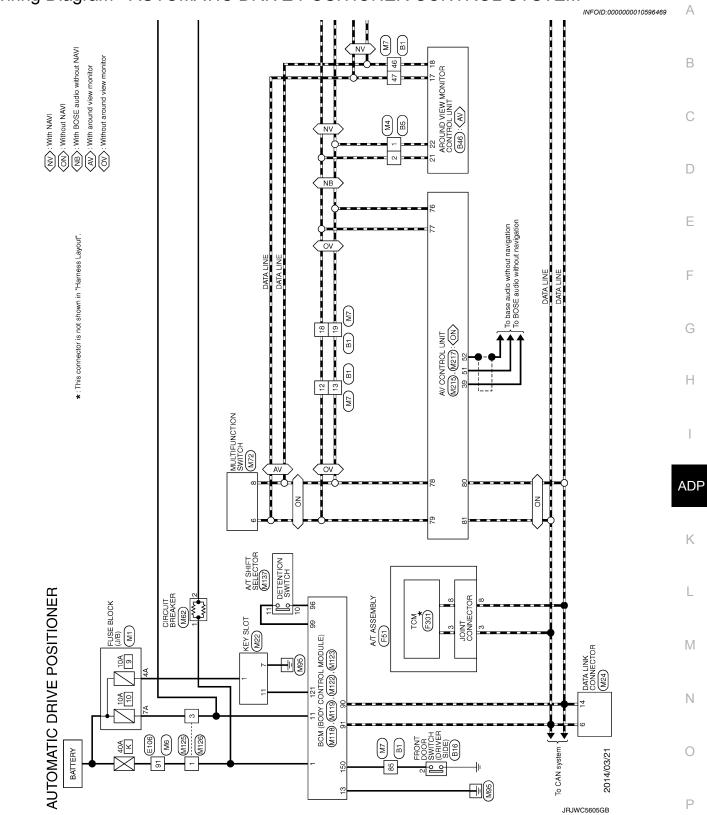
Revision: February 2015 ADP-143 2015 QX50

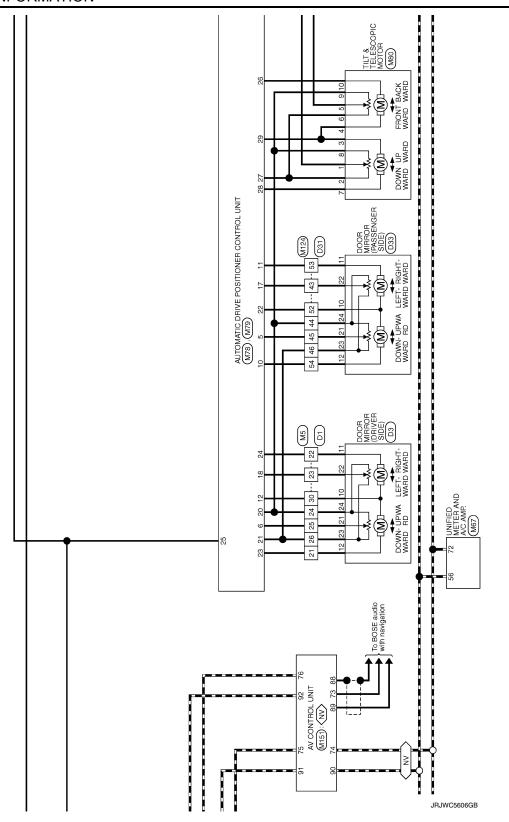
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

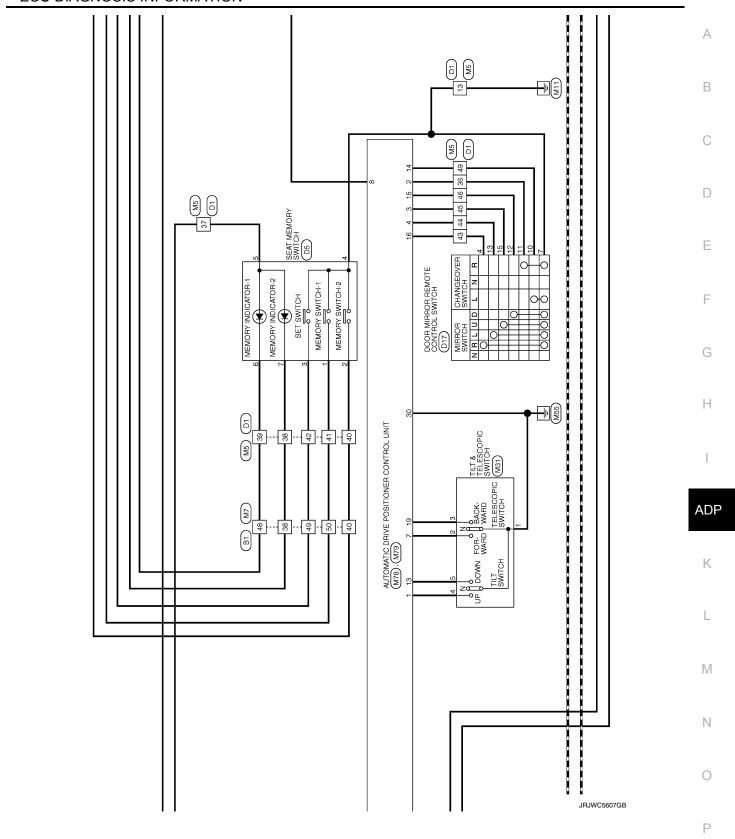
< ECU DIAGNOSIS INFORMATION >

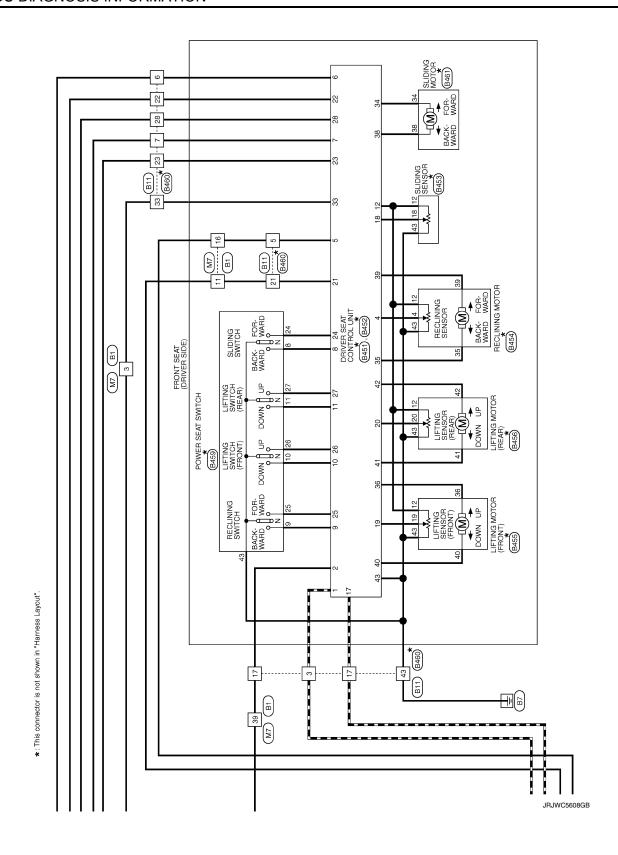
| Terminal No. (wire color) | | Description | | Condition | | Voltage |
|------------------------------|---|--|------------------|------------------------|-----------------------|----------|
| + | - | Signal name | Input/ Output | Condition | | Voltage |
| 24 Ground | Door mirror motor (driver side) down/left output sig- | Output | Door mirror (LH) | Operate (down/left) | 9 - 16 V | |
| (L) | (1) | nal | Output | Door million (En) | Other than the above | 0 - 1 V |
| 25 (SB) | Ground | Battery power supply | Input | _ | | 9 - 16 V |
| 26 | Ground | Telescopic motor back- ward output signal | Output | Steering telescopic | Operate (backward) | 9 - 16 V |
| (L) | | | | | Other than the above | 0 - 1 V |
| 27 (P) | Ground | Tilt & telescopic sensor power supply | Output | _ | | 9 - 16 V |
| 28 | Cround | Tilt motor down output signal | Output | Steering tilt | Operate (down) | 9 - 16 V |
| (G) Ground | Ground | | | | Other than the above | 0 - 1 V |
| 29 (LG) Ground | | Till and a second of the second | | Oto oring tilt | Operate (up) | 9 - 16 V |
| | Tilt motor up output signal | | Steering tilt | Other than the above | 0 - 1 V | |
| | Giouila | Telescopic motor forward output signal | Output | Steering telescopic | Operate (forward) | 9 - 16 V |
| | | | | | Other than the above | 0 - 1 V |
| 30 (B) | Ground | Ground (power) | _ | _ | | 0 - 1 V |

Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -









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| | | 43 3 19 32 6 66 60 67 | Er SIDE) | В |
|----------------------------|------------------------------|---|---|--------|
| | o wire | 1 5 17 | Signal Name (Specification) Signal Name (Specification) Signal Name (Specification) | С |
| Connector No B11 | 9 0 | S. | | D |
| | | | Terminal No. 3 No. 3 19 17 17 17 17 17 18 18 18 18 18 | E |
| | | 7 8 9 10 11 12 13 14 15 16 23 24 25 26 27 28 29 30 31 32 | Signal Name [Specification] | F |
| | WIRE TO WIRE | 27722 | Signal Nam | |
| 8 | | | Wree Wree | G |
| Connector No | Connector Name | H.S. | Therminal No. 1 | Н |
| Γ | Ш | | | |
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| | | | | |
| | Ш | | | ADF |
| 87 | 888- | SHELD SHELD V | | K |
| 47 | 8 6 6 | 62 63 64 65 65 65 | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | |
| ITIONER | | | edification] | L |
| AUTOMATIC DRIVE POSITIONER | WIRE TO WIRE THROFW-CS16-TM4 | 8 8 8 8 | Signal Name (Spec) | M |
| MATIC | Name WIR | ed. | O O O O O O O O O O | N |
| AUTO | Connector Name | H.S. | 1 | |
| _ | | | | 0 |
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| AUTOM | OMAT | AUTOMATIC DRIVE POSITIONER | Connector No | Г | BASi | Connector No | BAS9 | Connector No. BASA | |
|---------|-------------------|--|-------------------|----------|-------------------------------------|-----------------------|--|---|--|
| Connect | ١, | AROLIND VIEW MONITOR CONTROL LINIT | Connector Name | 1 | DRIVER SEAT CONTROL LINIT | Connector Name | DRIVER SEAT CONTROL LINIT | 1 | |
| | all later to | COOLOG TENT MONITOR CONTINUE CINC | | П | | allian localitos | П | П | |
| Connect | Connector Type | TH40FW-NH | Connector Type | | TH32FW | Connector Type | NS16FW-CS | Connector Type NS06FW-CS | |
| Œ | | | Œ | | | Œ | | | |
| ÷ | | | | l | | = | 20 90 | | |
| 1 | 2 | 2 4 6 18 22 24 29 30 32 34 36 38 40 | 2 | | 121110987654 21 | Ž. | | | |
| | | 1 3 5 7 9 13 17 21 23 27 29 31 33 35 37 39 | | <u> </u> | 28 27 26 25 24 23 22 21 20 19 18 17 | | 43 42 41 40 39 38 | 12 43 4 | |
| | | | | J | | | | | |
| Termina | Terminal Color Of | | Terminal Color Of | Color Of | | Terminal Color Of | | Terminal Color Of | |
| Š | Wire | Signal Name [Specification] | Š | Wire | Signal Name [Specification] | | Signal Name [Specification] | | |
| - | В | GROUND | - | ŀ | CAN-H | 33 | BAT (PTC) | 4 W/G | |
| 2 | > | BATTERY | 2 | - | UART (TX/RX) | 34 | SLIDE MOTOR (BACKWARD) | 12 0 - | |
| 3 | Ь | IGNITION SIGNAL | 4 | - | PULSE (RECLINER) | 35 - | RECLINER MOTOR (FORWARD) | 35 P - | |
| 4 | GR | ACC | 5 | - | PULSE(TELESCOPIC) | 36 - | FRONT LIFTER MOTOR (DOWNWARD) | 39 G/Y - | |
| 2 | BG | ILLUMINATION SIGNAL | 9 | - | ADDRESS 2 | - 38 | SLIDE MOTOR (FORWARD) | 43 GR - | |
| 9 | SB | VEHICLE SPEED SIGNAL (8-PULSE) | 7 | - | IND 2 | 39 - | RECLINER MOTOR (BACKWARD) | | |
| 7 | > | REVERSE SIGNAL | 80 | - | SLIDE SW (BACKWARD) | - 40 | FRONT LIFTER MOTOR (UPWARD) | | |
| 6 | > | CONTROL SIGNAL | 6 | - | RECLINER SW (BACKWARD) | 41 - | REAR LIFTER MOTOR (UPWARD) | Connector No. B455 | |
| 13 | В | CONTROL SIGNAL | 10 | - | FRONT LIFTER SW (DOWNWARD) | 42 - | REAR LIFTER MOTOR (DOWNWARD) | Commenter Name IETING MOTOR (FRONT) | |
| 17 | SB | AV COMM (H) | 11 | - | REAR LIFTER SW (DOWNWARD) | 43 - | GND | | |
| 18 | FIG | AV COMM (L) | 12 | - | POWER SUPPLY (ENCODER) | | | Connector Type NS06FW-CS | |
| 21 | SB | AV COMM (H) | 17 | - | CAN-L | | | | |
| 22 | ΓG | AV COMM (L) | 18 | - | PULSE (SLIDE) | Connector No. | B453 | | |
| 23 | ΓG | - | 19 | | PULSE (FRONT LIFTER) | Connector Name | SI IDING SENSOB | | |
| 24 | ŋ | - | 20 | - | PULSE (REAR LIFTER) | alligation individual | OCCUPACION OF THE OCCUPACION O | 30 [40] | |
| 27 | Μ | CAMERA IMAGE SIGNAL | 21 | - | PULSE(TILT) | Connector Type | 6098_0241 | 12 43 19 | |
| 28 | SHIELD | CAMERA IMAGE SIGNAL GND | 22 | - | ADDRESS 1 | ı | | | |
| 59 | > | SIDE CAMERA RH IMAGE SIGNAL | 23 | - | IND 1 | E | | | |
| 30 | 5 | SIDE CAMERA RH IMAGE GND | 24 | - | SLIDE SW (FORWARD) | | | | |
| 31 | SHIELD | SHIELD | 25 | - | RECLINER SW (FORWARD) | 2 | | Terminal Color Of Simul Name (Same discontinual | |
| 32 | В | SIDE CAMERA RH GND | 56 | - | FRONT LIFTER SW (UPWARD) | | 18 43 12 | No. Wire olgnari varie Lopecification | |
| 33 | Μ | SIDE CAMERA RH COMM | 27 | - | REAR LIFTER SW (UPWARD) | | | 12 0 - | |
| 34 | œ | SIDE CAMERA RH POWER SUPPLY | 28 | - | SET SW | | | | |
| 35 | ٦ | REAR CAMERA COMM | | | | | | 36 L/R - | |
| 36 | BR | REAR CAMERA POWER SUPPLY | | | | Terminal Color Of | Of Simul Name [Specification] | 40 G/W – | |
| 37 | SHIELD | SHIELD | | | | No. Wire | | 43 GR – | |
| 38 | œ | REAR CAMERA GND | | | | 12 0 | - | | |
| 39 | >- | REAR CAMERA IMAGE SIGNAL | | | | Н | | | |
| 40 | W | REAR CAMERA IMAGE GND | | | | 43 GR | | | |

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| Connector No. Di Connector No. | |
| Connector Nume B460 Connector Name WIRE TO WIRE Connector Types NS16MW-CS H.S. Fry No. | |
| AUTOMATIC DRIVE POSITIONER Connector Name UlTING MOTOR (FEAR) Connector Type NSIGNER-CS 12 12 12 12 13 14 15 15 16 17 17 18 18 18 19 19 19 19 19 19 19 | |
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| Commentor No. | 9 | Connector Type TH80FW-CS16-TM4 | | | | 8 m 8 m 8 m | | Terminal Color Of Signal Name [Specification] | + | 2 W - | 3 B | 35 85 | - 8 | 9 BR - | 10 BG - | \dashv | 12 BG - | + | + | D (| 7 V V | H | 20 BG - | 21 L - | 22 v – | + | 24 P - | 25 Y | + | 27 W = | $^{+}$ | 32 W | ł | 34 B | 35 G | 36 SHIELD - | \dashv | \dashv | BG | + | 42 G – |
|---------------|---------|--------------------------------|-------------------|---|-------------------|---|--|---|---------------|-------------------------------|---|-------------------|--------------------------------------|------------------------------------|---------------------------------------|---------------|----------|---|-----|-----|-------|--------------------------|--|--|-------------------------|---|--------|------|---|--------------------|--------|-------|-------------------|--------------------------------------|-------|-------------|----------|----------|----|---------------|--------|
| - W 49 | 8 | GR | 54 O 55 L | | Connector No. D33 | Connector Name DOOR MIRROR (PASSENGER SIDE) | Connector Type TH24MW-NH | ₫. | - FAT | 1.S. 12 11 10 7 6 5 4 3 | 72 24 10 18 17 16 | 2 | | Terminal Color Of Similal Color Of | No. Wire Signal Ivalie Especification | | PO | + | a . | J (| 2 2 2 | ij o | H | 17 G SIDE CAMERA RH IMAGE GND | 18 Y SIDE CAMERA RH GND | + | 21 P - | + | + | 24 V = | | | | | | | | | | | |
| ž. | Н | | Connector No. D31 | Connector Name Wirks 10 Wirks Connector Tuna THADEMI-CS15 | 1 | | H.S. 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 | 55555555555555555555555555555555555555 | | | Terminal Color Of Signal Name [Specification] | + | 8 BR | - ^ 6 | 12 P - | $\overline{}$ | + | + | + | י מ | x > | 20 B - [With BOSE audio] | œ | 21 BR – [Without BOSE audio] | 4 | + | + | + | + | 26 K | t | 31 IG | ╀ | 32 Br = - | 34 GR | 35 G - | Н | 37 G - | 4 | - × + + + · · | 45 P - |
| 암 | 22 BR - | + | | Connector No. D5 | - 1 | Connector Type A08FW | | v | 2 5 6 7 2 1 4 | 2 | | Terminal Color Of | No. Wire Signal Name [Specification] | | 2 BR - | 3 GR - | \dashv | + | 0 (| 1 | | Connector No. D17 | I Company of the Comp | COINECTOR INSIDE DOOR MERKOR REMOTE CONTROL SMITCH | Connector Type TK16FBR | á | | | | 8 9 10 11 12 13 15 | | | Tarminal Color Of | No. Wire Signal Name [Specification] | 4 BR | 7 B - | - B | ┥ | 4 | - FG | 4 |

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| - w | | 2 | - 8 | > | - ^ | M | - 5 | - B | | | · · | J 00 | M | SHIELD - | | | or No. M5 | or Name WIRE TO WIRE | r Type TH40MW-CS15 | 1 | | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 | 16 17 16 19 20 20 12 23 24 25 26 1 | | | 0 | Nire and a second of the secon | 2 00 | BR - | | | 2 | ± × | 1 | , | - 5 | > | - 8 | - X | × |
|----------|--------|----------------------|-------|---------------|--------|---------------|----------------|-----------------|------------------|----------------|----------|-------------|-----------------|----------------|----|-----------------------------|-----------------------------|----------------------|--------------------|--------------|-----------------------|-------------------------------------|------------------------------------|--------------|---------------------------------|-------------------|--|----------------|----------|----------|---|--|---|------|-------|--------------|-----------------------------|-----------------------|----------------------|-------|
| ur. | 0 | م 0 | . 60 | 14 | 15 | 16 | 21 | 22 | 24 | 25 | 26 | 78 | 59 | 30 | 31 | | Connector No. | Connector Name | Connector Type | | 修 | | | | | Terminal | ý. | ٠, | 6 | 4 | S | 9 | \ « | | 01 | = | 12 | 13 | 14 | 15 |
| UNIORO | ONDONE | RACK-IID I AMP RELAY | CAN-L | STARTER RELAY | GROUND | | | Mi | FUSE BLOCK (J/B) | NS06FW-M2 | | | 3A 2A 1A | 84 74 6A 5A 4A | | | Signal Name [Specification] | | | - | 1 | | - | - | | M4 | WIRE TO WIRE | TH32FW-NH | | | | 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 | 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 | | | | Signal Name [Specification] | - | - | - |
| ŀ | 1 | + | ' | 1 | _ | | | Connector No. | Connector Name | Connector Type | | | H.S. | ı | | | Terminal Color Of | Wire | ی - | _ | œ | > > | œ | _ | | Connector No. | Connector Name | Connector Tyne | ļ | - | e | ρ. | | | | al Color Of | | P | SS SS | > |
| ٣ | 9 | - 0 | | 6 | 10 | | | Conne | Conne | Conne | q | 季 | ٦ | | | | Termir | ġ; | × × | 3A | 44 | A P | 7A | 8A | | Conne | Conne | Conne | [| E | 7 | 1 | | | | Terminal | -S | - | ~ | e. |
| | | | | | | F51 | A/T ASSEMBLY | NOC-DIO NOC | 4 | ≪ | | (5 4 3 2 1) | (9 8 8 01 | 11 | | Signal Name [Specification] | IGNITION POWER SUPPLY | BATTERY POWER SUPPLY | X-LINF | GROUND | IGNITION POWER SUPPLY | BACK-UP LAMP RELAY | STARTER RELAY | GROUND | | F301 | TCM | SPIOFG | * | ≪ | | (12 3 4 5) | α | 0 0 | | | | IGNITION POWER SUPPLY | BATTERY POWER SUPPLY | CAN-H |
| L | - 14 | 4 | | | | or No. | Connector Name | Contractor Line | 1 | 7 | ن 2 = | ā | | | | | > | £ (| > | В | > | ¥ 5 | GR | В | | Connector No. | Connector Name | Connector Tyne | ļ | • | ę | e E | | | | nal Color Of | Wire | Ŀ | Ŀ | ŀ |
| | 2 | ģ - | ╀ | 1 | - 1 | | | | | | | | | | | 9 . | ΙI | ۰ اړ | - 1 | 2 | 9 | \ « | 6 | 10 | | Connec | Connec | Conne | (| ľ | ₹ | Ī | | | | Terminal | 8 | - | 2 | 6 |
| 0 L0 | t | + | ŀ | | | Connector No. | Connec | , and a | | Œ | 7 | 1 | | | | No. | | 1 | 0 4 | Ľ | Ц | _ | _ | | | | | | <u> </u> | ځ | | | | | | _ | | _ | | |
| SITIONER | t | + | ╀ | | | - Connect | Connec | | | - | | | - | | 1 | Lem No | - | - Land | | | - [Without ICC] | - [Without ICC] | - [Without ICC] | - [With ICC] | - [Without ICC] - [With ICC] | - [Without ICC] | - [With ICC] | | | | | | 1 1 | | | | | | - | |
| | /8 | 26 | ╀ | | - BG | 1 | 1 | - FG | | - | | 3 22 | SHIELD - | - × | | | - | | | - [With ICC] | | W = [With ICC] | P - [Without ICC] | _ [With ICC] | | L - [Without ICC] | 1 | 25 00 | | | 5 | | a > | - 85 | SHELD | - M | > | > | To | - BG |

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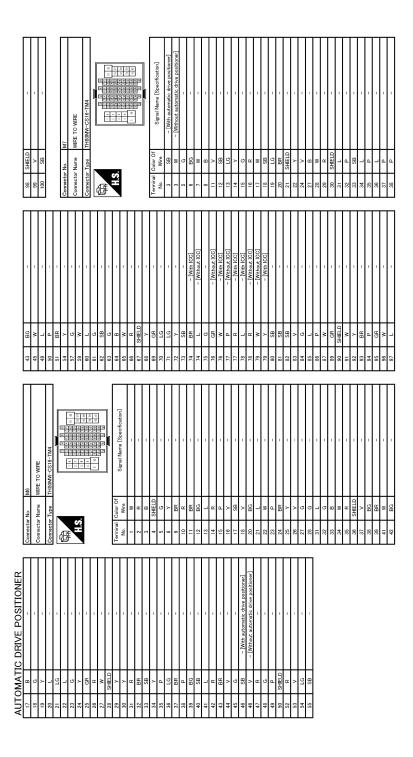
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| Connector Name Wilfild Connector Name Connector Na | D |
| | Е |
| MAST THAT & TELESCOPIC SWITCH TWORFOY Signal Name [Speerifcation] Signal Name [Speerifcation] Signal Name [Speerifcation] | F |
| THUT & TE TO THE PER T | G |
| Commetter Name Commetter Type Terminal Color Of No. Were Terminal Color Of No. Commetter Name Commetter Name Commetter Type Terminal Color Of No. Were T. W. W | Н |
| 1 2 3 5 6 1 2 3 5 6 1 2 3 5 6 2 3 5 6 3 4 5 7 8 4 5 7 8 5 7 8 7 8 7 8 8 7 8 8 7 8 9 8 8 8 11 14 16 11 14 16 12 3 4 5 7 8 13 14 15 15 15 15 16 16 17 17 18 18 19 18 10 18 | I |
| MEZ NO THI FEW NO THE FEW NO THI FEW NO THE | ADP |
| Corrector No. | K |
| ONER | L |
| AUTOMATIC DRIVE POSITIONER AUTOMATIC DRIVE P AUTOMA | M |
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| Connector No. M119 | | Connector Type NS16FW-CS | | | [11] [13] 14 15 | | Terminal Color Of Signal Name [Specification] | Н | 5 L PASSENGER DOOR UNLOCK OUTPUT | 7 Y STEP LAMP CONT | 9 G DRIVER DOOR, FUEL LID UNLOCK OUTPUT | 10 BR REAR DOOR UNLOCK OUTPUT | ~ | В | 14 W PUSH-BUTTON IGNITION SWILL GND | - A | BG w | > | | Connector No. M122 | Connector Name BCM (BODY CONTROL MODULE) | Connector Type TH40FB-NH | Œ | 8190 8867 Saka 8180 7817 7817 7817 7817 7817 7817 7817 | [12] 128 148 [32] [13] 12] 12] 12] 12] 12] 12] 12] 12] 12] 12 | | Terminal Color Of | | | GR PV | > - | 78 Y ROOM ANTI- | - a | GR |
|--|----------------------|---|-----|-------------|-----------------|--|---|-------------------|--|--------------------|---|-------------------------------|----------|-------------------|-------------------------------------|-----|---------------|----------------------------------|--|-------------------------|--|--------------------------|--------------|--|---|--------|--|----------|----------------------|----------------------|---------|-----------------|------------------|------------------------|
| Connector No. M80 | | Connector Type NS10FW-CS | | 6 | 6 5 4 3 2 1 | | Terminal Color Of Signal Name [Specification] | Н | 2 P – | 3 10 | 5 R | - d 9 | \dashv | + | 9 BK | | | Connector No. M118 | Connector Name BCM (BODY CONTROL MODULE) | Connector Type M03FB-LC | 1 | | 1.3. 2.2. |] | lar O | | 1 W BAT (F/L) 2 W BOWER WINDOW DOWER SLIPPI V(R&T) | ╀ | | | | | | |
| 13 W DOWNWARD | SB | 16 BR RIGHTWARD 17 I MIR SFNS FFT&RIGHT(RH) | 0 0 | 5 >- I | R POW | 23 LG MIR,MTR,UP(LH) 24 L MIR,MTR,LEFT(LH) | | Connector No. M79 | Connector Name AUTOMATIC DRIVE POSITIONER CONTROL UNIT | ┰ | | | 20 Jac | | 27 28 29 30 | | | lal | No. Wire Ogram wante Copecinication | SB L | 27 P STRG_SENS_VCC | LG UPW | 30 B GND | | | | | | | | | | | |
| AUTOMATIC DRIVE POSITIONER Connector No. M72 | MULTIFUNCTION SWITCH | TH16FW-NH | | 4 6 8 14 16 | | | f Signal Name [Specification] | GROUND | ACC | ILL | AV COMM (H) | AV COMM (L) | SW GND | DISK EJECT SIGNAL | HAZARD ON | | M78 | THE POST OF STREET STREET STREET | _ | | | 12345678 101112 | | | Signal Na | UPWARD | SELECT_RH IIDWABN | LEFTWARD | MIR.SENS.UP.DOWN(RH) | MIR_SENS_UP&DOWN(LH) | FORWARD | MIR MTR (IP/RH) | MIR_MTR_LEFT(RH) | MIR MTR DOWN RIGHT(LH) |
| AUTOMA Connector No. | Connector Name | Connector Type | 修 | H.S. | | | Terminal Color Of No. Wire | Н | 3 | 4 n E > | · SB | 8 LG | Н | + | 16 | | Connector No. | Connector Name | Collinector Insulie | Confriedcor Lype | 修 | H.S. | | Tominal Polos Of | No. Wire | - | 2 LG | ╀ | 5 R | 6 GR | 7 GR | > 3 0 9 | ╀ | Н |

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| 1 | Terminal Color Of Signal Name Specification | Terminal Color Of Signal Name (Specification) 1 2 3 4 5 | G R S S S S S S S S S | T |
|--|---|--|--|--------------------------------------|
| 140 GR 141 GR 141 GR 143 GR 143 GR 144 GR Gr 144 GR GR 144 GR | | M125 THE TO WIRE TO MISE TO MIRE | r of | WIRE TO WIFE MOSHWY-LC |
| MATIC DRIVE POSITIONER W KELLES BUTTA RECURER COMM V COMB SW HPUT 3 LL COMB SW HPUT 4 LL COMB SW HPUT 8 LL COMB SW HPUT 9 LL LL COMB SW HPUT 9 LL COMB SW HPUT 9 LL LL LL COMB SW HPUT 9 LL LL COMB SW HPUT 9 LL LL LL COMB SW HPUT 9 LL LL LL COMB SW HPUT 9 LL LL COMB SW HPUT 9 LL LL COMB SW HPUT 9 LL LL LL COMB SW HPUT 9 LL LL LL COMB SW HPUT 9 LL LL COM | | TH 🕌 🖡 | 2 2 3 A A B B B B B B B B B B B B B B B B B | |
| | | | BOM (BODY CONTROL MODULE) THAGFG-NH Had Had | Color Of Signal Name [Swerification] |

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| œ | MICROPHONE VCC | 28 | SHELD | COMP OUT SHIELD |
| œ | CAMERA POWER SUPPLY | | | |
| Ь | CAN-L | | | |
| 57 | AV COMM (L) | Connector No. | r No. | M217 |
| 57 | AV COMM (L) | | | |
| 2 | ILLUMINATION | Connector Name | r Name | AV CONTROL UNIT |
| 9 | IGNITION SIGNAL | Connecto | r Type | TH32FW-NH |
| BB | REVERSE SIGNAL | | ١, | |
| ۳ | VEHICLE SPEED SIGNAL (8-PULSE) | Œ | | |
| SHIELD | SHIELD | • | | <u> </u> |
| 5 | MICROPHONE SIGNAL | \ \ | _ | 00 170 00 00 00 00 00 00 00 00 00 00 00 00 0 |
| SHELD | SHELD | | | 200 00 |
| g | COMM (DISP->CONT) | | | 32 32 34 35 36 |
| - | CAN-H | | | |
| SB | AV COMM (H) | | | |
| SB | AV COMM (H) | Terminal | Color Of | 5 |
| | | No. | Wire | Signal Ivame [Specification] |
| | | 76 | Ρ | AV COMM (L) |
| Connector No. | M215 | 11 | SB | AV COMM (H) |
| | THE POST OF THE | 78 | P | AV COMM (L.) |
| Name | AV CONTROL ON: | 79 | SB | AV COMM (H) |
| Connector Type | TH24FW-NH | 80 | ۵ | CAN-L |
| | | 81 | _ | CAN-H |
| | | 82 | В | SW GND |
| | / / \ | 98 | SHELD | CTEINS |
| | 27 30 30 40 44 42 42 42 48 | 87 | - | TEL VOICE SIGNAL (+) |
| | 0+ 0+ ++ 0+ 0+ | 88 | ۵ | TEL VOICE SIGNAL (=) |
| | 52 | 6 | ۵ | VEHICLE SPEED SIGNAL (8-DILL SE) |
| | | 6 | : > | DADVING DOAKE CONA |
| | | 3 3 | . 6 | DEVELOR PROPERTY |
| O volor | | th do | 2 | IONITION SIGNAL |
| , M | Signal Name [Specification] | 6 8 | , | TOTAL POLICE STATE |
| all a | | 98 | - | DISK EJECT SIGNAL |
| g | SIGNAL VCC | | | |
| 2 | SIGNAL GND | | | |
| ~ | £ | | | |
| BR | COMM (DISP->CONT) | | | |
| ω | RGB AREA (YS) SIGNAL | | | |
| SHIFLD | RGB SYNC GND | | | |
| 3 | BGB SYNC | | | |
| 6 | PGB (P-PED) SIGNAL | | | |
| , | DOD (CODEEN) SIGNAL | | | |
| 1 | DOD (GUILLE) SIGNAL | | | |
| . | COMPOSITE MACE SIGNAL OND | | | |
| > 8 | COMPOSITE IMAGE SIGNAL GIVE | | | |
| SE SE | COMPOSITE IMAGE SIGNAL | | | |
| ≻ | INVERTER VCC | | | |
| BR | INVERTER GND | | | |
| 9 | VP | | | |
| > | COMM (CONT->DISP) | | | |
| SHELD | SHELD | | | |
| | 10 10 10 10 10 10 10 10 | MR215 AV CONTRC 17/2479-1418 (26/35/38) (26/37/38) (26/ | LIAMINATION SIGNAL CONTROL (INTERPRESE SIGNAL VEHICLE SPEED SIGNAL (IP-PULSE) COMM OSPI->COMM OSPI->CO | ILLIAMATION Generation ILLIAMATION Commenter ILLIAMATION ILL |

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< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

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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 |
| FK WIFEK HI | Front wiper switch HI | On |
| FR WIPER LOW | Other than front wiper switch LO | Off |
| IX WIF LIX LOW | Front wiper switch LO | On |
| FR WASHER SW | Front washer switch OFF | Off |
| IN WASHEN SW | Front washer switch ON | On |
| R WIPER INT | Other than front wiper switch INT | Off |
| IX WIF LIX IIVI | Front wiper switch INT | On |
| ED WIDED STOD | Front wiper is not in STOP position | Off |
| FR WIPER STOP | Front wiper is in STOP position | On |
| NT VOLUME | Wiper intermittent dial is in a dial position 1 - 7 | Wiper intermittent dia position |
| DD WIDED ON | Other than rear wiper switch ON | Off |
| RR WIPER ON | Rear wiper switch ON | On |
| DD WIDED INT | Other than rear wiper switch INT | Off |
| RR WIPER INT | Rear wiper switch INT | On |
| | Rear washer switch OFF | Off |
| RR WASHER SW | Rear washer switch ON | On |
| | Rear wiper is in STOP position | Off |
| RR WIPER STOP | Rear wiper is not in STOP position | On |
| TUDNI CIONIAL D | Other than turn signal switch RH | Off |
| TURN SIGNAL R | Turn signal switch RH | On |
| TUDNI CIONIAL I | Other than turn signal switch LH | Off |
| TURN SIGNAL L | Turn signal switch LH | On |
| FALL LAMP CVA | Other than lighting switch 1ST and 2ND | Off |
| TAIL LAMP SW | Lighting switch 1ST or 2ND | On |
| II DE ANA OVA | Other than lighting switch HI | Off |
| II BEAM SW | Lighting switch HI | On |
| IEAD LAND OWA | Other than lighting switch 2ND | Off |
| HEAD LAMP SW 1 | Lighting switch 2ND | On |
| IEAD LAMB OW O | Other than lighting switch 2ND | Off |
| HEAD LAMP SW 2 | Lighting switch 2ND | On |
| DA COINO CIVI | Other than lighting switch PASS | Off |
| PASSING SW | Lighting switch PASS | On |
| ALITO LIQUIT C'Y' | 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 | _ |
| OPTICAL SENSOR | Bright outside of the vehicle | Close to 5 V | _ ' |
| OF HOAL SENSOR | Dark outside of the vehicle | Close to 0 V | _ |
| REQ SW -DR | Driver door request switch is not pressed | Off | |
| REQ 3W -DR | Driver door request switch is pressed | On | |
| REQ SW -AS | Passenger door request switch is not pressed | Off | |
| NEQ OW -AO | Passenger door request switch is pressed | On | |
| REQ SW -RR | NOTE: The item is indicated, but not monitored. | Off | |
| REQ SW -RL | NOTE: The item is indicated, but not monitored. | Off | |
| REQ SW -BD/TR | Back door request switch is not pressed | Off | _ |
| YEG OW -DD/ IR | Back door request switch is pressed | On | |
| PUSH SW | Push-button ignition switch (push switch) is not pressed | Off | _ |
| | Push-button ignition switch (push switch) is pressed | On | |
| IGN 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 | |
| | 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 | Д |
| BRAKE SW 2 | The brake pedal is not depressed | Off | |
| SIVAILE SW Z | The brake pedal is depressed | On | |
| DETE/CANCL SW | Selector lever in P position | Off | _ |
| DETE/OANOL OW | Selector lever in any position other than P | On | _ |
| SFT PN/N SW | Selector lever in any position other than P and N | Off | |
| O | 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 | |
| JNLK SEN -DR | Driver door is unlocked | Off | _ |
| DIATIV OFIA -DIV | Driver door is locked | On | |
| PUSH SW -IPDM | Push-button ignition switch (push-switch) is not pressed | Off | _ |
| OOI I OVV -IF DIVI | Push-button ignition switch (push-switch) is pressed | On | _ |
| GN RLY1 -F/B | Ignition switch in OFF or ACC position | Off | _ |
| | Ignition switch in ON position | On | _ |
| DETE SW -IPDM | Selector lever in any position other than P | Off | _ |
| | Selector lever in P position | On | _ |
| SFT PN -IPDM | Selector lever in any position other than P and N | Off | _ |
| OLITINE IL 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 |
| | 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 |
| PRMT ENG STRT | 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 |
| | | |

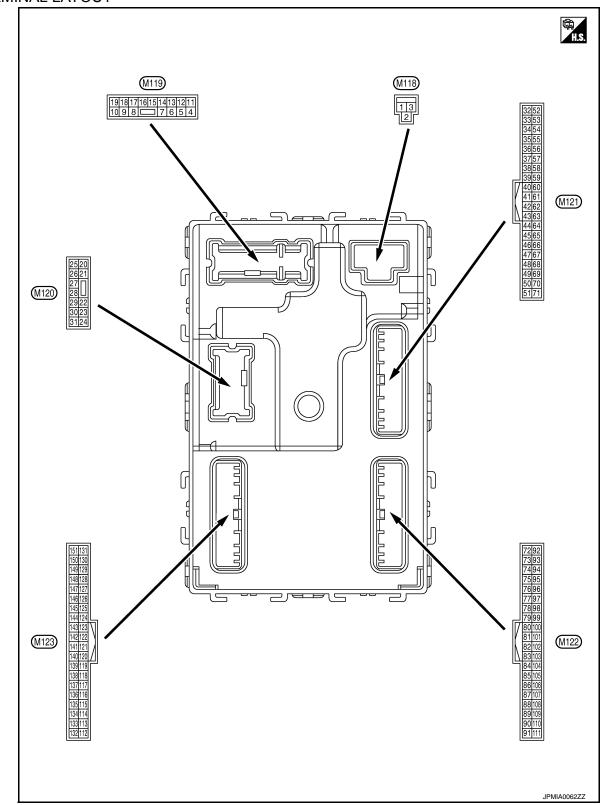
< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition | Value/Status |
|--------------------|---|----------------------------------|
| CONFIRM 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 |
| CONFIRM ID1 | The key ID that the key slot receives does not accord with the first key ID registered to BCM. | Yet |
| CONFIRM IDT | The key ID that the key slot receives accords with the first key ID registered to BCM. | Done |
| TD 4 | The ID of fourth key is not registered to BCM | Yet |
| TP 4 | The ID of fourth key is registered to BCM | Done |
| TD 2 | The ID of third key is not registered to BCM | Yet |
| TP 3 | The ID of third key is registered to BCM | Done |
| TD 0 | The ID of second key is not registered to BCM | Yet |
| TP 2 | The ID of second key is registered to BCM | Done |
| TP 1 | The ID of first key is not registered to BCM | Yet |
| | 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 |
| D DECOT EL 4 | ID of front LH tire transmitter is registered | Done |
| D REGST FL1 | ID of front LH tire transmitter is not registered | Yet |
| D DECCT ED4 | ID of front RH tire transmitter is registered | Done |
| D REGST FR1 | ID of front RH tire transmitter is not registered | Yet |
| D DECCT DD4 | ID of rear RH tire transmitter is registered | Done |
| D REGST RR1 | ID of rear RH tire transmitter is not registered | Yet |
| D DECOT DI 4 | ID of rear LH tire transmitter is registered | Done |
| D REGST RL1 | ID of rear LH tire transmitter is not registered | Yet |
| AVA DALINIO I AAVO | Tire pressure indicator OFF | Off |
| WARNING LAMP | Tire pressure indicator ON | On |
| | Tire pressure warning alarm is not sounding | Off |
| BUZZER | Tire pressure warning alarm is sounding | On |

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TERMINAL LAYOUT



PHYSICAL VALUES

| Term | inal No. | Description | | | | A | Δ. |
|-----------|---------------------------|---|------------------|---------------------|---|--|----|
| | e color) | Signal name | Input/ Output | | Condition | Value (Approx.) | |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage | 3 |
| 2 (W) | Ground | P/W power supply (BAT) | Output | Ignition switch OF | F | Battery voltage | 7 |
| 3 (Y) | Ground | P/W power supply (RAP) | Output | Ignition switch ON | | Battery voltage | |
| 4 | | lateria a na sas la man | | | 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 | Ξ |
| 5 | Cround | Passenger door UN- | Output | Passanger door | UNLOCK (Actuator is activated) | Battery voltage | _ |
| (L) | Ground | LOCK | Output | Passenger door | Other than UNLOCK (Actuator is not activated) | 0 V | - |
| 7 | Craund | Cton lamn | Outout | Cton lower | ON | 0 V | _ |
| (Y) | Ground | Step lamp | Output | Step lamp | OFF | Battery voltage | 7 |
| 8 | Ground | All doors, fuel lid | Output | All doors | LOCK (Actuator is activated) | Battery voltage | - |
| (V) | (V) Glound LOCK | LOCK | Output | All doors | Other than LOCK (Actuator is not activated) | 0 V | |
| 9 | 9 On Driver door, fuel li | Driver door, fuel lid | Output | Output Driver door | UNLOCK (Actuator is activated) | Battery voltage |] |
| (G) | Ground | UNLOCK | Output | | Other than UNLOCK (Actuator is not activated) | 0 V | DP |
| 10 | Ground | Rear RH door and rear LH door UN- | Output | Rear RH door | UNLOCK (Actuator is activated) | Battery voltage | |
| (BR) | Oround | LOCK | Output | and rear LH door | Other than UNLOCK (Actuator is not activated) | 0 V K | (|
| 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 | Л |
| 14 (W) | Ground | Push-button ignition switch illumination ground | Output | Tail lamp | ON | NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 0 | N |
| 15 | Ground | ACC indicator lamp | Output | Ignition switch | OFF or ON | JSNIA0010GB Battery voltage |) |
| (Y) | | ' | | _ | ACC | 0 V | |

| | inal No. | Description | | | | Value |
|------------|----------|---------------------------|------------------|-----------------------|--|--|
| + | e color) | Signal name | Input/ Output | | Condition | (Approx.) |
| - | | | | | Turn signal switch OFF | 0 V |
| 17 (W) | Ground | Turn signal RH (Front) | Output | Ignition switch ON | Turn signal switch RH | (V) 15 10 5 0 1 s PKID0926E 6.5 V |
| | | | | | Turn signal switch OFF | 0 V |
| 18 (BG) | Ground | Turn signal LH (Front) | Output | Ignition switch ON | Turn signal switch LH | (V) 15 10 5 0 1 s PKID0926E 6.5 V |
| 19 | Ground | Room lamp timer | Output | Interior room | OFF | Battery voltage |
| (V) | | control | | lamp | ON | 0 V 0 V |
| 20 (V) | Ground | Turn signal RH (Rear) | Output | Ignition switch ON | Turn signal switch OFF Turn signal switch RH | (V) 15 10 5 0 PKID0926E 6.5 V |
| 23 | Ground | Back door open | Output | Back door | OPEN (Back door opener actuator is activated) | Battery voltage |
| (G) | Glound | Back door open | Output | Back door | 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 | Cround | Poor winer | Outout | Poor winer | OFF (Stopped) | 0 V |
| (G) | Ground | Rear wiper | Output | Rear wiper | ON (Operated) | Battery voltage |

| | ninal No. | Description | | | | Value | ٨ |
|------------|-----------|--------------------------|------------------|---|---|---|----------|
| + | 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 | 0 | 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 | ÖFF | 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 |

| | inal No. e color) | Description | | | Condition | Value |
|------------|----------------------|---------------------------------|------------------|---|---|--|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) |
| 39 | Ground | Back door antenna | Output | When the back door opener re- | When Intelligent Key is in the antenna detection area | (V) 15 10 5 11 1 s JMKIA0062GB |
| (W) | Glound | (+) | Output | quest switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 1 s |
| 47 | Cround | Ignition relay (IPDM | Outout | Ignition quitab | OFF or ACC | Battery voltage |
| (Y) | Ground | E/R) control | Output | Ignition switch | ON | 0 V |
| 52 | Ground | Starter relay control | Output | Ignition switch ON | When selector lever is in P or N position | Battery voltage |
| (SB) | Ground | , | T - 1 | | When selector lever is not in P or N position | 0 V |
| 60 | 01 | Push-button ignition | 11 | Push-button igni- | Pressed | 0 V |
| (BR) | Ground | switch (Push switch) | Input | tion switch (push switch) | Not pressed | Battery voltage |
| | | | | | ON (Pressed) | 0 V |
| 61 (W) | Ground | Back door opener request switch | Input | Back door opener request switch | OFF (Not pressed) | (V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V |
| 64 | | Intelligent Key warn- | | Intelligent Key | Sounding | 0 V |
| (V) | Ground | ing buzzer (Engine room) | Output | warning buzzer (Engine room) | Not sounding | Battery voltage |
| 65 (BG) | Ground | Rear wiper stop position | Input | Rear wiper | In stop position | (V) 15 10 5 0 10 ms JPMIA0016GB |
| | | | | | | 1.0 V |
| | | | | | Not in stop position | 0 V |

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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. | Description | | | | Value |
|-------|--------------------|---------------------|-------------------------|--|---|---|
| (Wire | e color) | Signal name | Input/ Output | | Condition | Value (Approx.) |
| 74 | Ground | Passenger door an- | | When the passenger door re- | When Intelligent Key is in the antenna detection area | (V) 15 10 5 11 1 s JMKIA0062GB |
| (SB) | Clound | tenna (–) | Output | quest switch is operated with ig- nition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0063GB |
| 75 | Page anger door on | Passenger door an- | | When the passenger door re- | When Intelligent Key is in the antenna detection area | (V) 15 10 5 11 1 s JMKIA0062GB |
| (GR) | Ground | tenna (+) | Output | quest switch is operated with ig- nition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 11 1 s JMKIA0063GB |
| 76 | Ground | Driver door antenna | Output door switc ed wi | When the driver door request switch is operat- ed with ignition switch OFF | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB |
| (V) | Giound | (-) | | | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 JMKIA0063GB |

| | ninal No. e color) | Description | | | O a sellita a | Value | А |
|------|-----------------------|---------------------|------------------|---|---|---|-------------|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) | , , |
| 77 | | 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 | B C D |
| (LG) | Ground | (+) | Output | switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 JMKIA0063GB | E F |
| 78 | Ground | Room antenna 1 (–) | Output | Ignition switch | When Intelligent Key is in the passenger compartment | (V) 15 10 5 11 1 s JMKIA0062GB | G H |
| (Y) | Glound | (Instrument panel) | Cutput | ŌFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0063GB | ADP K |
| 79 | Crown | Room antenna 1 (+) | Output | Ignition switch | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 JMKIA0062GB | M |
| (BR) | Ground | (Instrument panel) | Output | ÖFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 1 | O P |

| | inal No. | Description | | | | Value | |
|------------|----------|--|------------------|---|---|---|--|
| + | e color) | Signal name | Input/ Output | Condition | | (Approx.) | |
| 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 | lanition quitab | OFF or ACC | 0 V | |
| (R) | Giodila | block (J/B)] control | Output | Ignition switch | ON | Battery voltage | |
| 83 | | Remote keyless entry receiver communica- | _ input | During waiting | | (V) 15 10 5 0 1 ms JMKIA0064GB | |
| (Y) | Ground | tion | Output | When operating either button on the key | | (V) 15 10 5 0 1 ms JMKIA0065GB | |

< ECU DIAGNOSIS INFORMATION >

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

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| | inal No. e color) | Description | I | | 0 1111 | Value |
|-----------|----------------------|--------------------|---|--|--|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | | All switches OFF (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0041GB |
| | | | | | Lighting switch HI (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V |
| 88 (V) | | Combination switch | Lighting switch 2ND (Wiper intermittent dial 4) | (V) 15 10 5 2 ms JPMIA0037GB 1.3 V | | |
| | | | | | Rear washer switch ON (Wiper intermittent dial 4) | (V) 15 10 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. (Wire color) | | Description | | | | Value | |
|------------------------------|----------|--|------------------|---------------------------------|---------------------------|---|----|
| (Wire | e color) | Signal name | Input/ Output | | Condition | (Approx.) | A |
| | | | | | OFF | Battery voltage | Е |
| 92 (LG) | Ground | Key slot illumination | Output | Key slot illumina- tion | Blinking | (V) 15 10 5 0 1 s JPMIA0015GB | |
| | | | | | 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 | Outout | Ignition switch | OFF | 0 V | , |
| (BG) | Ground | ACC relay control | Output | Ignition switch | ACC or ON | Battery voltage | (|
| 96 (GR) | Ground | A/T shift selector (Detention switch) power supply | Output | _ | | Battery voltage | ŀ |
| 99 | Ground | Selector lever P posi- | Input | Selector lever | P position | 0 V | |
| (R) | Ground | tion switch | iiiput | COICOLOI IEVEI | 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 | AI |
| | | | | | ON (Pressed) | 0 V | |
| 101 (SB) | Ground | Driver door request switch | Input | Driver door re- quest switch | OFF (Not pressed) | (V) 15 10 5 0 10 ms JPMIA0016GB | 1 |
| | | | | | OFF or ACC | 1.0 V | (|
| 102 (BG) | Ground | Blower fan motor re- lay control | Output | Ignition switch | OFF or ACC | | |
| 103 (LG) | Ground | Remote keyless entry receiver power supply | Output | Ignition switch OF | | Battery voltage Battery voltage | F |

| | Terminal No. Description (Wire color) | | | | | Value | |
|-------------|---------------------------------------|----------------------------|------------------|---|------------------------|---|--|
| + | e color) | Signal name | Input/ Output | | Condition | (Approx.) | |
| | | | | | All switches OFF | (V) 15 10 5 0 2 ms JPMIA0041GB | |
| | | | | | Turn signal switch LH | (V) 15 10 5 0 2 ms JPMIA0037GB | |
| 107 (LG) | Ground | Combination switch INPUT 1 | Input | Combination switch (Wiper intermit- tent dial 4) | Turn signal switch RH | (V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V | |
| | | | | | Front wiper switch LO | (V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V | |
| | | | | | Front washer switch ON | (V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V | |

< ECU DIAGNOSIS INFORMATION >

| Terminal No. Description | | | | Value | | | | |
|--------------------------|----------|-------------------------------|------------------|--------------------|--|---|-------------|--|
| + (Wire | e color) | Signal name | Input/ Output | | Condition | Value (Approx.) | A _ | |
| | | | | | All switches OFF (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V | ВС | |
| | | | | | Lighting switch AUTO (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0038GB 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 0 2 ms JPMIA0036GB | G H I | |
| | | | | | Rear wiper switch INT (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0040GB | ADP K | |
| | | | | | Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | (V) 15 10 5 0 2 ms JPMIA0039GB | M | |
| | | | | | | 1.3 V | 0 | |

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| | inal No. | Description | | | | Value | |
|------------|----------|----------------------------|------------------|---|------------------------|---|--|
| (Wire | e color) | Signal name | Input/ Output | | Condition | (Approx.) | |
| | | | | | All switches OFF | (V) 15 10 5 0 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 intermit- tent 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 | |

| Terminal No. (Wire color) | | Description | | | | Value | |
|------------------------------|----------|--|------------------|--|---|---|--------------|
| (Wire | e color) | Signal name | Input/ Output | | Condition | (Approx.) | |
| 113 Group | | 0.11 | la a cit | 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 | | Ota a la casa a l'inte | 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 inserted into key slot | | Battery voltage | |
| (BR) | Ground | Key slot switch | Input | When the key is n | ot inserted into key slot | 0 V | P |
| 123 (W) | Ground | IGN feedback | Input | Ignition switch OFF or ACC ON | | 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 | = |

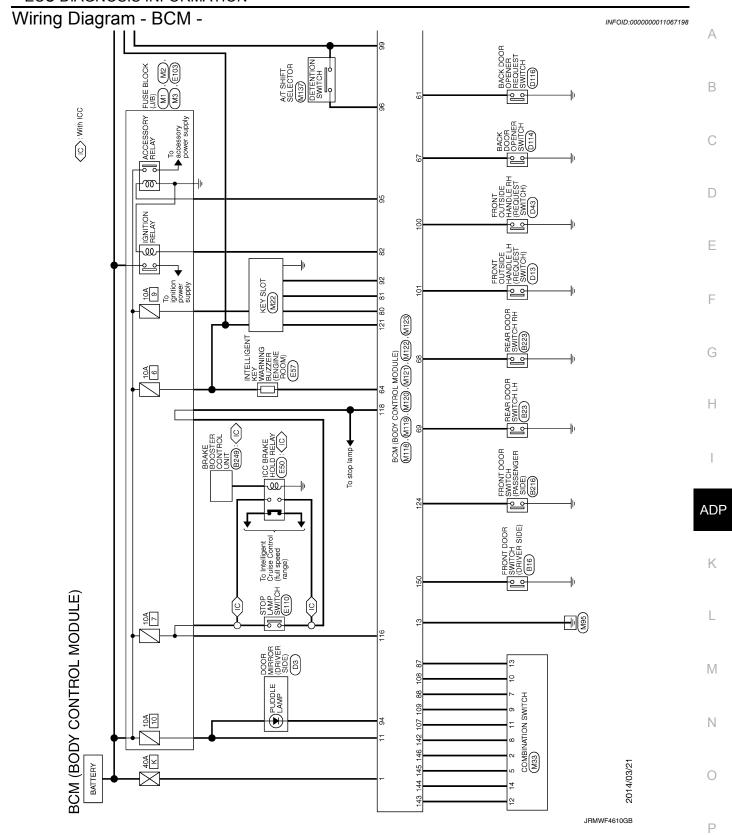
| (Wire o | 55101) | Description | | Condition | | Value | |
|-------------|--------|--|------------------|--|--|--|--|
| | _ | Signal name | Input/ Output | | Condition | (Approx.) | |
| 133 (W) | Ground | Push-button ignition switch illumination | Output | Push-button ignition switch illumination | ON (Tail lamps OFF) ON (Tail lamps ON) | 9.5 V NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level. (V) 15 10 50 JPMIA0159GB | |
| | | | | | OFF | 0 V | |
| 134 (GR) | Ground | LOCK indicator lamp | Output | LOCK indicator lamp | OFF | Battery voltage | |
| 137 | Ground | Receiver and sensor ground | Input | Ignition switch ON | ON | 0 V | |
| 138 | 0 | Receiver and sensor | 0 1: 1 | 199 9.1. | OFF | 0 V | |
| (Y) | Ground | power supply | Output | Ignition switch | ACC or ON | 5.0 V | |
| 139 | Ground | Tire pressure receiv- | Input/ | | Standby state | (V) 6 4 2 0 ** 0.2s OCC3881D | |
| (L) | | er communication | Output | | 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 | 0 | Selector lever P/N | 11 | Onlantania | P or N position | Battery voltage | |
| (GR) | Ground | position | Input | Selector lever | Except P and N positions | 0 V | |
| | | | | | ON | 0 V | |
| 141 (G) | Ground | Security indicator | Output | Security indicator | Blinking | (V) 15 10 5 0 1 s JPMIA0014GB | |
| | | | | | OFF | Battery voltage | |

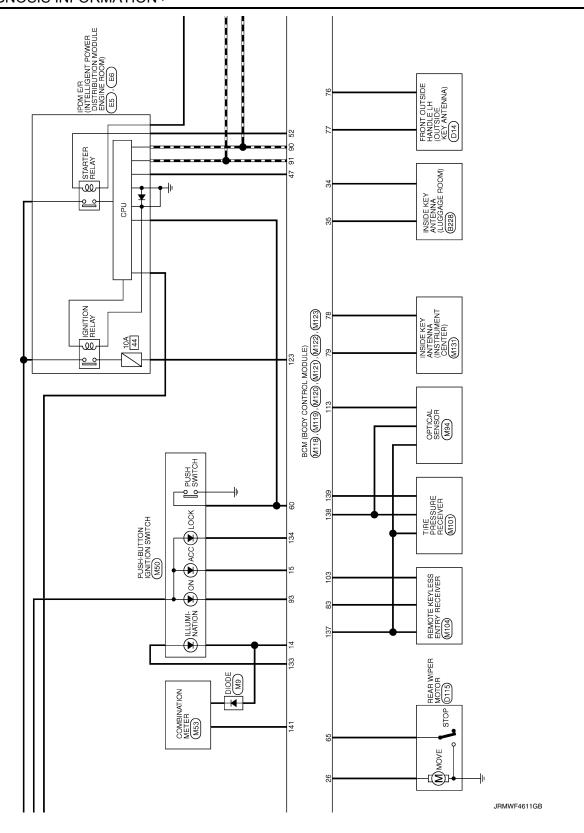
< ECU DIAGNOSIS INFORMATION >

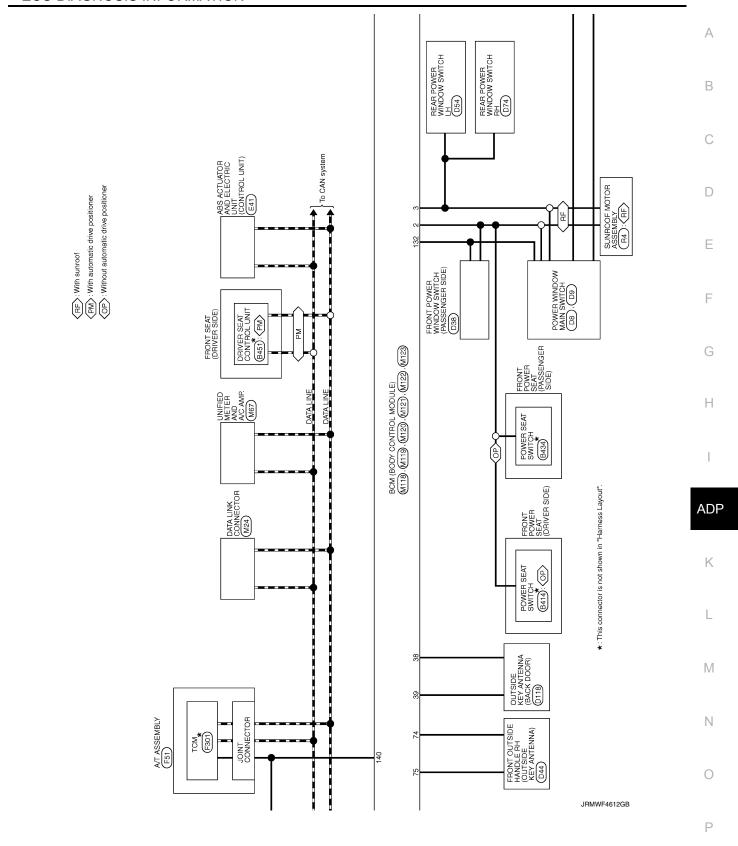
| | inal No. | Description | | | | Value | ۸ |
|-------------|---------------|-----------------------------|------------------|---|--|---|-------------|
| (Wire | e color) – | Signal name | Input/ Output | | Condition | (Approx.) | Α |
| 142 (BG) | Ground | Combination switch OUTPUT 5 | Output | Combination 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 |

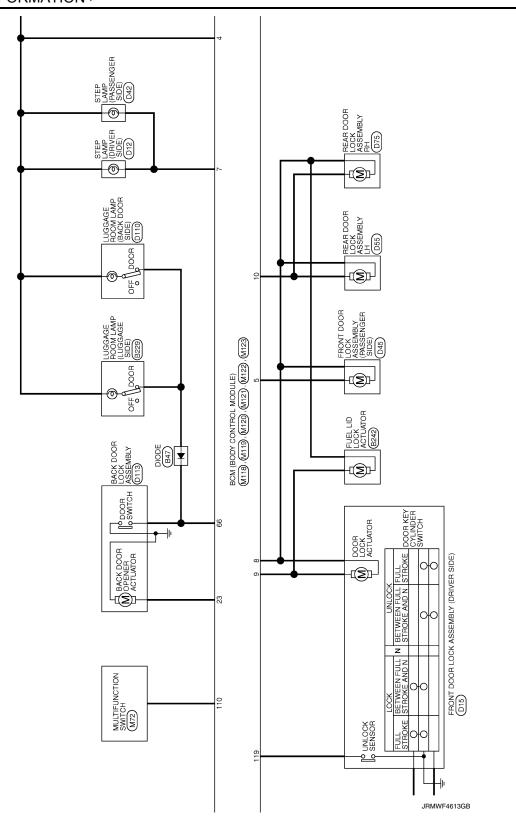
< ECU DIAGNOSIS INFORMATION >

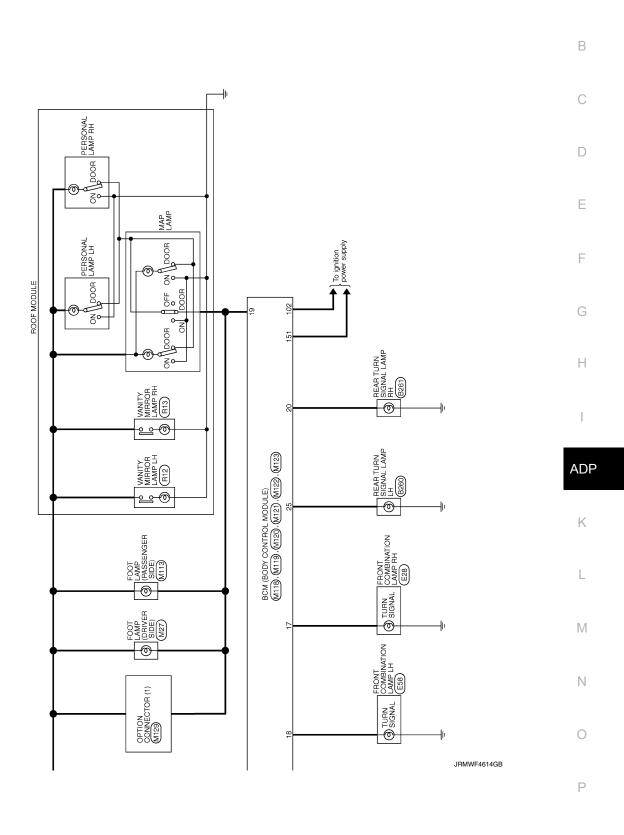
| | inal No. | Description | | | | Value |
|-------------|----------|--------------------|------------------|----------------------------------|--------------------------|---|
| (Wire | e color) | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | | All switches OFF | 0 V |
| | | | | | Front fog lamp switch ON | |
| | | | | Combination | Lighting switch 2ND | (V) 15 |
| 146 | Ground | Combination switch | Output | switch | Lighting switch PASS | 10 5 |
| (SB) | | OUTPUT 4 | Cutput | (Wiper intermit- tent dial 4) | Turn signal switch LH | 0 JPMIA0035GB 10.7 V |
| 150 (LG) | Ground | Driver door switch | Input | Driver door switch | OFF (Door close) | (V) 15 10 5 0 10 ms JPMIA0011GE |
| | | | | | ON (Door open) | 0 V |
| 151 | Craur d | Rear window defog- | Outout | Rear window de- | Active | 0 V |
| (G) | Ground | ger relay control | Output | fogger | Not activated | Battery voltage |





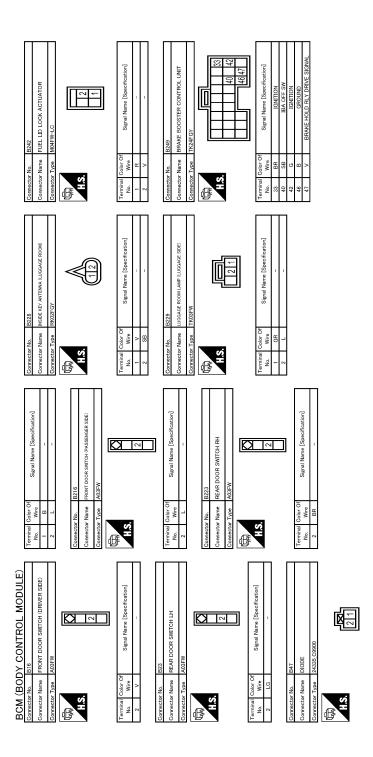






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| Connector No. D3 Connector Name DOOR MIRROR (DRIVER SIDE) Connector Type THIZAMW-NH TO 111 10 7 6 5 3 2 Z4 23 22 21 19 19 17 14 | Terminal Color Of Signal Name Specification Number Specification Number Specification Number Specification Signal Name Specification Specification Signal Name Specification Specificati | |
|---|--|--|
| Corrector No. B461 Corrector Name PRIVER SEAT CONTROL UNIT Corrector Type 1 H732PW H.S. | No. Wire Color Of Signal Name [Specification] No. Wire Wire No. Wire Wire | |
| Connector No. B414 Connector Name POWER SEAT SWITCH Connector Type NS10FW-CS A.S. P. | No. Signal Name [Specification] No. Nicolar Of | |
| BCM (BODY CONTROL MODULE) Connector No. B200 Connector Type HSDR5G-W Connector Type HSDR5G-W ALS | Terminal Color Of Signal Name [Specification] 2 | |
| | | |

Revision: February 2015 ADP-189 2015 QX50

| Corrector No. D9 | Color Of Signal Name [Specification] | 1 | |
|--|--|-----------------|--|
| Convector Name STEP LAMP (DRIVER SIDE) | No. Wro Jenning Copering Coper | ame [Specificat | No. Wire Olivian Institute Logical Later 1 W |

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| fination] | В |
|--|-----|
| DITO TAGGEN THOGHN Signal Name [Specification] | С |
| Cornector No. D110 | D |
| | Е |
| REAR POWER WINDOW SWITCH RH INSOBPH-CS Signal Name [Specification] Signal Name [Specification] Signal Name [Specification] | F |
| NSOBEN-C Signature Sign | G |
| Corrector No. Corrector Name Corrector Type Corrector Type Corrector Type Corrector Name Corrector Name Corrector No. | Н |
| Signal Name [Specification] Signal Name [Specification] Signal Name [Specification] | 1 |
| Signal Nam | ADP |
| Color Of Sig. Wree Color Of Sig. Wree Color Of Sig. Wree Color Of Sig. Wree Color Of Sig. Where Color Of Sig. Where Color Of Sig. | |
| Connector No. Connector Name Connector Type Termical Color Of No. Wire Town Wire | K |
| | L |
| WASTER IN COURTING NAME (Special Name (Speci | M |
| BCM (BODY CON Corrector No. D44 Corrector No. D44 Corrector No. D44 Corrector Type RK02MGY No. Wre Sign Corrector No. D45 Corrector No. D45 Corrector No. D45 Corrector No. D45 Corrector Type E09FGV-RS No. Wre I | N |
| Corner Connection Conn | 0 |
| | O |

ADP-191 Revision: February 2015 2015 QX50

| 읾 | | ſ | |
|--|--|---|---|
| Connector No. D114 | Connector No. D116 | Connector No. E5 IPDM E/R (WIELLIGENT POWER DISTRIBUTION MODILE ENGINE | Connector No. E28 |
| EACH DOOR OF | \neg | т | т |
| ctor lype | Connector lype I KUZMBK-P | Connector Type THZUFW-CS12-M4-TV | Connector Type RSU8FB-FR |
| H.S. | ES TEST | 1213 (2632138) 30 | H.S. |
| [11] | [12] | 350 | 2678 |
| Terminal Color Of Signal Name [Specification] | Terminal Color Of Signal Name [Specification] | Terminal Color Of Signal Name [Specification] | Terminal Color Of Signal Name [Specification] |
| + | H | t | H |
| 2 B – | 2 B - | | 3 B/Y - |
| | | œ i | B/W |
| Connector No. D115 | Connector No Ditts | 12 B/W = = | - Pg |
| Collinación No. | | - 57 |) HB |
| Connector Name REAR WIPER MOTOR | Connector Name OUTSIDE KEY ANTENNA (BACK DOOR) | W | - B |
| Connector Type CJ04FW-1V | Connector Type RK02FGY | 25 G | |
| 4 | 4 | | Connector No Edi |
| | The second secon | + | Г |
| H.S. | H.S. | 30 GR - | |
| 8 | ((1 5)) | Н | Connector Type BAA42FB-AHZ4-LH |
| Ŷ. | | | |
| - | - | Connector No. E6 | |
| Terminal Color Of Signal Name [Specification] No. Wire | Terminal Color Of Signal Name [Specification] No. Wire | Connector Name ROOM) | (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4 |
| Н | Н | Connector Type TH08FW-NH | |
| 3 O = - | 2 R = = | | |
| | | | lal |
| | | H.S. 41 40 39 | |
| | | 46 45 44 42 | GROUND 9 GROUND |
| | | 21 11 21 21 | |
| | | | 0 |
| | | la C | 5 Y DSFL |
| | | Wire | |
| | | 39 P | 7 BR DPRR |
| | | 41 B/W | n > |
| | | SB SB | : - |
| | | Н | ۵ |
| | | 45 G – | SHIELD |
| | | _ | 19 P UST |

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| BCM (BODY CONTROL MODULE) | Γ | | |
|---|--|---------------------------------|---|
| 25 Y BUS-L | Connector No. E58 | Connector No. E110 | Connector No. F301 |
| + | Connector Name FRONT COMBINATION LAMP LH | Connector Name STOP LAMP SWITCH | Connector Name TCM |
| GR | т | т | т |
| g | Connector Type RS08FB-PR | Connector Type M04FW-LC | Connector Type SP10FG |
| 29 LG DS RR | | | |
| 30 SB BLS | | | |
| ٥ | | 手 | 全 |
| | | E | |
| 7 | (t c 7) | 10 4 | 10 3 4 E |
| 45 B BUS-H | | | r > |
| | | 711 | 01 8 2 9 |
| 1 | | | |
| Connector No. E50 | | | |
| Connector Name ICC BRAKE HOLD RELAY | Signal Name [Specification] | Signal Name [Specification] | Ierminal Color Of Signal Name [Specification] |
| | + | + | DIIM |
| Connector Type M06FGY-R-US | + | - | 1 - IGNITION POWER SUPPLY |
| , | 3 B/Y = | 2 W = | 2 - BALLERY POWER SUPPLY |
| | 4 B/W = | 3 ~ | 3 - CAN-H |
| | > 2 | 4 SB - | 4 - K-UNE |
| | - 5 | | 5 - GROUND |
| 0 / 3 | H | | 6 - IGNITION POWER SLIPPLY |
| | - G | Commenter No. | |
| | 1 | Collifector No. | |
|] | | Connector Name A/T ASSEMBLY | |
| | 1 | | - STA |
| Terminal Color Of Size March | Connector No. E103 | Connector Type RK10FG-DGY | 10 - GROUND |
| No. Wire Signal ratile Lopecincation | (d) 1 / 200 in Lord | | |
| > | Connector Name FUSE BLOCK (J/B) | | |
| 2 B | Connector Type NS16FW-CS | | Connector No. M1 |
| ł | | | |
| $^{+}$ | ąį. | ((5 4 3 2 1) | Connector Name FUSE BLOCK (J/B) |
| 1 20 4 | | t | - 1 |
| - B | | 9 / 8 6 0 | Connector Type NS06FW-M2 |
| 7 R - |] | | ľ |
| | מבמט | | |
| | | Terminal Color Of | |
| Connector No E57 | | | SA TA |
| | | > Iddi S dimod Nothing! | |
| Connector Name INTELLIGENT KEY WARNING BUZZER (ENGINE ROOM) | | | 8A / A 6A 5A 4A |
| _ | S S | 2 BR BATTERY POWER SUPPLY | |
| Connector Type RK03FBR | No. Wire | 3 O CAN-H | |
| | | 4 × K-LINE | |
| 1 1 | 2E W | ORIGINAL S | Terminal Color Of |
| | : (| NOIZINOI A | |
| ■ | + | | t |
| Į | - DR | BACK-C | - |
| ((1 3)) | BF L | | 2A G - |
| | 9F R - | 9 GR STARTER RELAY | 3A L – |
| | | 10 B GROUND | |
| | | | > |
| 201-0 | | | >>> |
| Signal Name [Specification] | | | <u> </u> |
| | | | 7A R - |
| 1 Y | | | 8A L – |
| > | | | |
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| BCM (BODY CONTROL MODULE) Connector No. M2 | Connector No. M9 | Connector No. M24 | Connector No. M33 |
|---|---|---|---|
| Connector Name FUSE BLOCK (J/B) | e | e e | e e |
| Connector Type NS10FW-CS | Connector Type 24335_C9900 | Connector Type BD16FW | Connector Type TH16FW-NH |
| E | E | | |
| 48 38 TO 00 00 70 ED FD | H.S. | 14 | H.S. 123 456 |
| lan la / lan | | 81/00/18 | 7 8 9 10 11 12 13 14 |
| Terminal Color Of Signal Name [Specification] | Terminal Color Of Signal Name [Specification] | Terminal Golor Of Signal Name [Specification] | Terminal Golor Of Signal Name [Specification] |
| + | H | Ħ | - L |
| 4B G - | 2 W - | 4 B | |
| 7 | | в. | FRW |
| 78 Y | Connector No M22 | | 5 I OUTPUT 3 |
| ╀ | $\overline{}$ | . 0 | 2 00 |
| BS 86 | Connector Name NET SLUI | | 7 V INPUT 3 |
| | Connector Type TH12FW-NH | 14 P – | BG |
| ſ | d | 16 Y = | > |
| Connector No. M3 | | | ш |
| Connector Name FUSE BLOCK (J/B) | | Γ | P7 |
| SO MLOPOUR | 123 56 | Connector No. M27 | 12 P OUTPUT 1 |
| Confidence Type INSTRUMES | 7 | Connector Name FOOT LAMP (DRIVER SIDE) | |
| | | Connector Type A02FW | - |
| | Tarminal Color Of | ¶. | Consequence No. MGO |
| CL 000 000 000 | | 手 | |
| 71 | ╁ | H.S. | Connector Name PUSH-BUTTON IGNITION SWITCH |
| | GR | 2 1 | Connector Type TK08FBR |
| Terminal Color Of | 3 W DATA 5 Y III BAT | | 4 |
| No. Wire Signal Name [Specification] | . [9] | | ֝֟֝֜֜֜֝֟֝֝֟֝֟֝֟֝֟֟֟֝֟֟֟֟ ֓ |
| 10C L | В | la C | 7 |
| 110 R | 11 BR KEY SWITCH SIGNAL | _ | 4 5 6 7 8 |
| 20 00 | | 2 BB | |
| 7C B - | | | |
| 9C BG - | | | lal |
| | | | No. Wire |
| | | | 2 W - |
| | | | W |
| | | | + |
| | | | - NO 6 |
| | | | + |

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| Corrector No. M101 Corrector Name THE PRESSURE FECEIVER Corrector Type TYG04FW H.S. | Terminal Color Of Signal Name Specification 1 EBG CROUND 2 L SIGNAL 4 Y EBATTERY | |
|---|---|--|
| Connector No. M72 Connector Name MULTFUNCTION SWITCH Connector Type THIGHWANH H.S. | Terminal Color Of Signal Name [Specification] 3 | |
| Corrector No. M67 Corrector Name UNIFED METER AND A / O AMP. Corrector Type THSZPW-NH H.S. (#12/8) (#14/8) (#17/8) | No. Wire Signal Name [Seacrification] No. Wire ACC POINTER SUPPLY 42 Y FUEL LEVEL SENSOR SUBML 44 LG FUEL LEVEL SENSOR SUBML 44 LG FUEL LEVEL SENSOR SUBML 45 P AMBIENT SENSOR SUBML 45 P AMBIENT SENSOR SUBML 47 G EVALUADO SENSOR SUBML 47 G EVALUADO SENSOR SUBML 47 G EVALUADO SENSOR SUBML 55 G EVALUADO SENSOR SUBML 55 G EVALUADO SENSOR SUBML 55 G EVALUADO SENSOR GROUND 56 L ERRER FULL EVEL SENSOR GROUND 56 L EVALUADO SENSOR GROUND 56 L EVALUADO SENSOR GROUND 56 G EVALUADO SENSOR GROUND 57 G G EVALUADO SENSOR GROUND 57 G G G G G G G G G | |
| No. Name | 1.00 1.00 | |

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| BCM (BODY CONTROL MODULE) [Connector No. M113 | Connector No. M119 | Connector No. | o. M121 | | 80 | GR | NATS ANT AMP. |
|--|--|----------------|--|---|----------------|----------|----------------------------------|
| Γ | г | | Т | | 81 | × | NATS ANT AMP. |
| Connector Name FOOT LAMP (PASSENGER SIDE) | Connector Name BCM (BODY CONTROL MODULE) | Connector Name | ime BCM (BODY CONTROL MODULE) | RODULE) | 82 | œ | IGN RELAY (F/B) CONT |
| Connector Type A02FW | Connector Type NS16FW-CS | Connector Type | pe TH40FGY-NH | | 83 | > | KEYLESS ENTRY RECEIVER COMM |
| ſ | | 1 | | | 87 | BR | COMBI SW INPUT 5 |
| | | | | | 88 | > | COMBI SW INPUT 3 |
| K | 1 2 2 2 3 3 3 4 4 | Ě | | | 06 | ۵. | CAN-L |
| | | 5 | 47 | 39 38 35 34 | 16 | _ ! | CAN-H |
| 2.1 | 11 13 14 15 17 18 18 | | 66 68 67 68 65 64 | 61 60 52 | 92 | 3 > | ON IND |
|] | | | | | 94 | · >- | PUDDLE LAMP CONT |
| | | | | | 92 | BG | ACC RELAY CONT |
| - | D ler | lar | 5 | Signal Name [Specification] | 96 | GR. | A/T SHIFT SELECTOR POWER SUPPLY |
| 0 | + | $^{+}$ | | | 66 | ~ | SHIFT P |
| † | - FG | + | SB LUGGAG | LUGGAGE ROOM ANT- | 9 | o ; | PASSENGER DOOR REQUEST SW |
| 2 BR - | 5 L PASSENGER DOOR UNLOCK OUTPUT | 32 | | LUGGAGE ROOM ANT+ | 101 | SB | DRIVER DOOR REQUEST SW |
| | 7 Y STEP LAMP CONT | 89 69 | B BACK | BACK DOOR ANT- | 102 | BG | BLOWER FAN MOTOR RELAY CONT |
| Connector No M118 | ے د | 47 | ļ | IGN RELAY (IPDM E/B) CONT | 107 | 2 5 | COMBI SW INDIT 1 |
| | . H | ╁ | SB STARTER | STARTER RELAY CONT | 108 | ď | COMBI SW INPUT 4 |
| Connector Name BCM (BODY CONTROL MODULE) | œ | H | | PUSH SW | 109 | > | COMBI SW INPUT 2 |
| Connector Type M03FB-LC | H | H | | BACK DOOR OPENER REQUEST SW | 110 | g | HAZARD SW |
| | 14 W PUSH-BUTTON IGNITION SW ILL GND | 64 | V I-KEY WARN B | I-KEY WARN BUZZER (ENG ROOM) | | | |
| | 15 Y ACC IND | 92 | BG REAR WIPEF | REAR WIPER STOP POSITION | | | |
| | 17 W TURN SIGNAL RH (FRONT) | Н | | BACK DOOR SW | Connector No | Ш | M123 |
| 1.S. | 18 BG TURN SIGNAL LH (FRONT) | 67 | | BACK DOOR OPENER SW | Connector Name | | (SINDOM TOBLINGS ADOB) MOB |
| | 19 V INT ROOM LAMP CONT | 89 | BR REAR F | REAR RH DOOR SW | 000 | | DOM: (DOD) COM: (COM) |
| 7 | | 69 | R REAR I | REAR LH DOOR SW | Connector Type | | TH40FG-NH |
| | Connector No M120 | | | | Œ. | | |
| Terminal Color Of | _ | Connector No. | o. M122 | | 事 | | |
| oignain | Connector Name DCM (DCD1 CONTROL MODULE) | Connector Name | BCM (BODY CONTROL MODILLE) | (AUDINE) | H.S. | | |
| H | Connector Type NS12FW-CS | N IOO IIIOO | Т | OC MODOLL/ | | 1 | |
| W POWER WIN | d | Connector Type | pe TH40FB-NH | | | 1 | |
| 3 Y POWER WINDOW POWER SUPPLY(RAP) | | 1 | | | | | |
| | 20 23 | 李 | | Ī | Terminal | Color Of | |
| | 25.26 | E.S. | | | | Wire | Signal Name [Specification] |
| | [75] [75] | | 20 20 20 20 20 20 20 20 20 20 20 20 20 2 | 02 67 80 79 76 77 76 75 74 | 113 | Ь | OPLICAL SENSOR |
| | | | NI IO MI SI NI NI | 75 No Helpe De Bollet ex 27 | 116 | SB | STOP LAMP SW 1 |
| | | | | | 118 | Д | STOP LAMP SW 2 |
| | lar | | | | 119 | SB | DR DOOR UNLOCK SENSOR |
| | No. Wire Signal Name Lopecinication | Terminal Co | Color Of Size Name | [N N | 121 | BR | KEY SLOT SW |
| | 20 V TURN SIGNAL RH (REAR) | No. | Wire Signal Nam | e [Specmcation] | 123 | W | IGN F/B |
| | 23 G BACK DOOR OPEN OUTPUT | 74 | SB PASSENG | PASSENGER DOOR ANT- | 124 | FG | PASSENGER DOOR SW |
| | 25 G TURN SIGNAL LH (REAR) | 75 | GR PASSENG | PASSENGER DOOR ANT+ | 132 | BR | POWER WINDOW SW COMM |
| | 26 G REAR WIPER OUTPUT | 76 | V DRIVER | DRIVER DOOR ANT- | 133 | W | PUSH-BUTTON IGNITION SWILL POWER |
| | | 7.7 | LG DRIVER | DRIVER DOOR ANT+ | 134 | GR | LOCK IND |
| | | Н | | ROOM ANT1- | 137 | BG | RECEIVER/SENSOR GND |
| | | 79 | BR ROC | ROOM ANT1+ | 138 | > | RECEIVER/SENSOR POWER SUPPLY |

JRMWF4756GB

| BCM | (B0 | (BODY CONTROL MODULE) | | | | |
|-------------------|----------|--|----------------|-------------------|--|--|
| 139 | - | TIRE PRESSURE RECEIVER COMM | Connector No. | П | M137 | Connector No. R12 |
| 140 | GR | SHIFT N/P | Connector Name | | A/T SHIET SELECTOR | Commenter Name VANITY MIDDOD I AMD I H |
| 141 | 5 | SECURITY IND LAMP CONT | 00 | | VI SHIFT SELECTOR | |
| 142 | BG | COMBI SW OUTPUT 5 | Connector Type | г | TH12FW-NH | Connector Type MCA02FW |
| 143 | ۵ | COMBLSW OUTPUT 1 | | 1 | | |
| 144 | ď | COMBLSW OUTPUT 2 | Œ | | | € |
| 145 | - | COMBLSW OUTPUT 3 | 等 | | 7 | AHIS |
| 2 9 | 1 6 | E E GELO MO GMOO | Ų. | | Ė | \[\begin{align*} |
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| 2 | , | AEAR WINDOW DEFOGGER REEAT CONT | | | |] |
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| Connector No. | No. | M129 | Terminal | Ferminal Color Of | [Contradiction of the contrad | Terminal Color Of |
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| Connector Name | Name | | - | Μ | - | 1 |
| Connector Type | Type | TH08MW-NH | 2 | ۸ | - | 2 |
| | - | | 3 | 7 | 1 | |
| 4 | | E | 4 | В | 1 | |
| 圭 | | 4 | 2 | 9 | | Connector No. R13 |
| S : | | | 7 | œ | 1 | |
| | | 2 | α | g | | Connector Name VANITY MIRROR LAMP RH |
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| Terminal Color Of | Color Of | Signal Name [Specification] | | | | |
| NO. | WILE | | | ſ | | 5. |
| က | g | 1 | Connector No. | ٦ | R4 | C |
| 9 | œ | - | Connector Name | | SUNROOF MOTOR ASSEMBLY | 7 |
| | | | , | ┰ | 7000 | |
| | | | Connector Type | y lype Y | YEATOPGY | |
| Connector No. | Š | M131 | 4 | | | E E |
| Connector Name | - Name | INSIDE KEY ANTENNA (INSTRUMENT CENTER) | | | [| No. Wire |
| | 2 | | • | | | |
| Connector Type | Type | RK02FGY | 1.0 | | 0 | 2 |
| 4 | | | | | 7 8 9 10 | |
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| | | <u> </u> | Terminal | erminal Color Of | Signal Name [Specification] | |
| | |) | - | 2 | FIG WG | |
| | | | 1 | 5 | SW-DIII | |
| | | | s | а | SW-BIT0 | |
| Terminal Color Of | Color Of | Signal Name [Specification] | 7 | BR | P | |
| No. | Wire | , | œ | ٦ | SPEED SENSOR(2P) | |
| - | BR | 1 | 6 | > | TIMER(+IGN) | |
| 2 | > | - | 9 | g | GROUND | |
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INFOID:0000000011067199

FAIL-SAFE CONTROL BY DTC

Fail-safe

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

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

DTC Inspection Priority Chart

INFOID:0000000011067200

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 >

| Priority | DTC | ٨ |
|----------|--|--------|
| | B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION | В |
| | B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW B2608: STARTER RELAY | С |
| 4 | B260A: IGNITION RELAY B260F: ENG STATE SIG LOST B2614: ACC RELAY CIRC | D |
| | B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM | Е |
| | B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG | F G |
| | C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR | G |
| | C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL | Н |
| 5 | C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1716: [PRESSDATA ERR] FL | ı |
| | C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1734: CONTROL UNIT | AD |
| 6 | B2621: INSIDE ANTENNA B2623: INSIDE ANTENNA | K |

DTC Index

NOTE:

The details of time display are as follows.

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

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-19</u>, "COM-MON ITEM: CONSULT Function (BCM - COMMON ITEM)".

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| 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 page |
|--|-----------|---|------------------------------------|---|-------------------|
| No DTC is detected. further testing may be required. | _ | _ | _ | _ | _ |
| U1000: CAN COMM CIRCUIT | _ | _ | _ | _ | BCS-42 |
| U1010: CONTROL UNIT (CAN) | _ | _ | _ | _ | BCS-43 |
| U0415: VEHICLE SPEED SIG | _ | _ | _ | _ | BCS-44 |
| 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 Condition | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|---------------------------|-------------|---|------------------------------------|---|-------------------|
| 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-51 |
| B2555: STOP LAMP | _ | × | _ | _ | SEC-47 |
| B2556: PUSH-BTN IGN SW | _ | × | × | _ | SEC-49 |
| B2557: VEHICLE SPEED | × | × | × | _ | SEC-51 |
| B2560: STARTER CONT RELAY | × | × | × | _ | SEC-52 |
| B2562: LOW VOLTAGE | | × | _ | _ | BCS-45 |
| B2601: SHIFT POSITION | × | × | × | | SEC-53 |
| 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-53 |
| B260F: ENG STATE SIG LOST | × | × | × | _ | SEC-68 |
| B2614: ACC RELAY CIRC | _ | × | × | _ | PCS-55 |
| B2615: BLOWER RELAY CIRC | _ | × | × | _ | PCS-58 |
| B2616: IGN RELAY CIRC | _ | × | × | _ | PCS-61 |
| B2617: STARTER RELAY CIRC | × | × | × | _ | SEC-71 |
| B2618: BCM | × | × | × | _ | PCS-64 |
| B261A: PUSH-BTN IGN SW | _ | × | × | _ | SEC-73 |
| B261E: VEHICLE TYPE | × | × | × (Turn ON for 15 seconds) | _ | SEC-76 |
| B2621: INSIDE ANTENNA | _ | × | _ | _ | DLK-58 |
| B2623: INSIDE ANTENNA | _ | × | _ | _ | DLK-60 |
| 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-24</u> |
| C1707: LOW PRESSURE RL | _ | _ | _ | × | - |
| C1708: [NO DATA] FL | _ | _ | _ | × | |
| C1709: [NO DATA] FR | _ | _ | _ | × | |
| C1710: [NO DATA] RR | <u> </u> | _ | _ | × | <u>WT-26</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 page |
|---------------------------|-----------|---|------------------------------------|---|-------------------|
| C1716: [PRESSDATA ERR] FL | _ | _ | _ | × | |
| C1717: [PRESSDATA ERR] FR | _ | _ | _ | × | WT-29 |
| C1718: [PRESSDATA ERR] RR | _ | _ | _ | × | <u>vv1-29</u> |
| C1719: [PRESSDATA ERR] RL | _ | _ | _ | × | |
| C1729: VHCL SPEED SIG ERR | _ | _ | _ | × | <u>WT-31</u> |
| C1734: CONTROL UNIT | _ | _ | _ | × | <u>WT-33</u> |

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< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

MANUAL FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Diagnosis Procedure

INFOID:0000000010596475

${f 1.}$ 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-45, "Intermittent Incident".

NO >> GO TO 1.

POWER SEAT

POWER SEAT : Diagnosis Procedure

INFOID:0000000010596476

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-45, "Intermittent Incident".

NO >> GO TO 1.

STEERING POSITION FUNCTION DOES NOT OPERATE

STEERING POSITION FUNCTION DOES NOT OPERATE: Diagnosis Procedure

INFOID:0000000010596477

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. | - |
| Is the result normal? | / |
| YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. | |
| SEAT SLIDING | Е |
| 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. | E |
| 2. CHECK SLIDING SWITCH | |
| Check sliding switch. | - F |
| 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 | ŀ |
| Check sliding motor. | - ' |
| Refer to ADP-103, "Component Function Check". | |
| Is the inspection result normal? YES >> GO TO 4. | |
| YES >> GO TO 4. NO >> Repair or replace the malfunction parts. | |
| NO Nepail of replace the manufaction parts. | |
| 4. CONFIRM THE OPERATION | Al |
| | A |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? | |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". | A |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? | |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING | ŀ |
| 4. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING: Diagnosis Procedure | - - - |
| 4. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING: Diagnosis Procedure 1. CHECK RECLINING MECHANISM | - - - |
| 4. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING: Diagnosis Procedure 1. CHECK RECLINING MECHANISM Check for the following. | - |
| 4. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. SEAT RECLINING SEAT RECLINING: Diagnosis Procedure 1. CHECK RECLINING MECHANISM | |
| 4. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "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? | 9 |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "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. | |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "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. | 99 |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "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. | 99 |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "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". | |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "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? | |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "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. | 99 |
| 4. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "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. NO >> Repair or replace the malfunction parts. | ŀ |
| 4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-45, "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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< SYMPTOM DIAGNOSIS >

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-45, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT): Diagnosis Procedure

INFOID:0000000010596480

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.

CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (REAR)

SEAT LIFTING (REAR): Diagnosis Procedure

INFOID:0000000010596481

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".

| < SYMPTOM DIAGNOSIS > | |
|--|------------------------|
| Is the inspection result normal? | _ |
| YES >> GO TO 3. NO >> Repair or replace the malfunction parts. | A |
| 3.CHECK LIFTING MOTOR (REAR) | |
| Check lifting motor (rear). | В |
| Refer to ADP-109, "Component Function Check". | |
| Is the inspection result normal? YES >> GO TO 4. | С |
| NO >> Repair or replace the malfunction parts. | |
| 4.CONFIRM THE OPERATION | D |
| Check the operation again. | |
| Is the result normal? | E |
| YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. | |
| STEERING TILT | |
| STEERING TILT : Diagnosis Procedure | [NFOID:000000010596482 |
| 1. CHECK STEERING TILT MECHANISM | G |
| Check for the following. | |
| Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. | Н |
| Is the inspection result normal? | |
| YES >> GO TO 2. | |
| NO >> Repair or replace the malfunction parts. 2.CHECK TILT SWITCH | I |
| Check tilt switch. | |
| Refer to ADP-67, "Component Function Check". | ADP |
| Is the inspection result normal? | |
| YES >> GO TO 3. NO >> Repair or replace the malfunction parts. | K |
| 3.CHECK TILT SENSOR | |
| Check tilt sensor. | |
| Refer to ADP-93, "Component Function Check". | |
| Is the inspection result normal? | M |
| YES >> GO TO 4. NO >> Repair or replace the malfunction parts. | IVI |
| 4.CHECK TILT MOTOR | |
| Check tilt motor. | N |
| Refer to ADP-111, "Component Function Check". | |
| Is the inspection result normal? YES >> GO TO 5. | 0 |
| YES >> GO TO 5. NO >> Repair or replace the malfunction parts. | |
| 5.CONFIRM THE OPERATION | Р |
| Check the operation again. | · |
| Is the result normal? | |
| YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. | |
| STEERING TELESCOPIC | |
| | |

< SYMPTOM DIAGNOSIS >

STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000010596483

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.

CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> GO TO 1.

DOOR MIRROR

DOOR MIRROR : Diagnosis Procedure

INFOID:0000000010596484

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". | А |
| Is the inspection result normal? | |
| YES >> GO TO 4. NO >> Repair or replace the malfunction parts. | В |
| 4. CONFIRM THE OPERATION | Б |
| Check the operation again. | |
| Is the result normal? | С |
| YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". | |
| NO >> GO TO 1. | D |
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MEMORY FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

MEMORY FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Diagnosis Procedure

INFOID:0000000010596485

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

1. Perform initialization procedure.

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

2. Perform memory storing procedure.

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

3. Check memory function.

Refer to ADP-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-45, "Intermittent Incident".

NO >> GO TO 1.

SEAT SLIDING

SEAT SLIDING : Diagnosis Procedure

INFOID:0000000010596486

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-203, "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-45, "Intermittent Incident".

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MEMORY FUNCTION DOES NOT OPERATE

| < SYMPTOM DIAGNOSIS > | |
|---|------------------------|
| NO >> GO TO 1. SEAT RECLINING | , |
| SEAT RECLINING : Diagnosis Procedure | INFOID:000000010596487 |
| 1. CHECK MANUAL OPERATION | I |
| Check manual operation. | |
| Is the inspection result normal? | (|
| YES >> GO TO 2. NO >> Refer to ADP-203, "SEAT RECLINING : Diagnosis Procedure" | |
| 2.CHECK RECLINING SENSOR | I |
| Check reclining sensor. | |
| Refer to ADP-84, "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-45, "Intermittent Incident". | |
| NO >> GO TO 1. | |
| SEAT LIFTING (FRONT) | ' |
| SEAT LIFTING (FRONT): Diagnosis Procedure | INFOID:000000010596488 |
| 1. CHECK MANUAL OPERATION | |
| Check manual operation. | |
| Is the inspection result normal? | A |
| YES >> GO TO 2. | _ |
| NO >> Refer to ADP-204, "SEAT LIFTING (FRONT): Diagnosis Procedure" 2 CHECK LIFTING SENSOR (FRONT) | |
| 2.CHECK LIFTING SENSOR (FRONT) | |
| Check lifting sensor (front). Refer to ADP-87, "Component Function Check". | |
| Is the inspection result normal? | |
| YES >> GO TO 3. | |
| NO >> Repair or replace the malfunction parts. | ľ |
| 3.CONFIRM THE OPERATION | |
| Check the operation again. | |
| Is the result normal? | |
| YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. | |
| SEAT LIFTING (REAR) | (|
| SEAT LIFTING (REAR) : Diagnosis Procedure | INFOID-000000040506400 |
| 1. CHECK MANUAL OPERATION | INFOID:000000010596489 |
| | |
| Check manual operation. | |
| Is the inspection result normal? YES >> GO TO 2. | |
| NO >> Refer to ADP-204, "SEAT LIFTING (REAR) : Diagnosis Procedure" | |

MEMORY FUNCTION DOES NOT OPERATE

< 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-45, "Intermittent Incident".

NO >> GO TO 1.

STEERING TELESCOPIC

STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000010596490

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-206, "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-45, "Intermittent Incident".

NO >> GO TO 1. STEERING TILT

STEERING TILT: Diagnosis Procedure

INFOID:0000000010596491

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-205, "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?

MEMORY FUNCTION DOES NOT OPERATE < SYMPTOM DIAGNOSIS > YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1. Α DOOR MIRROR DOOR MIRROR: Diagnosis Procedure INFOID:0000000010596492 1. CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-206, "DOOR MIRROR: Diagnosis Procedure" D 2. CHECK MIRROR SENSOR Check mirror sensor. Е Refer to ADP-99, "DRIVER SIDE: Component Function Check". (Driver side) Refer to ADP-100, "PASSENGER SIDE: Component Function Check". (Passenger side) Is the inspection result normal? F YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CONFIRM THE OPERATION Check the operation again. Is the result normal? Н YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident". NO >> GO TO 1.

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MEMORY INDICATE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

MEMORY INDICATE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000010596493

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-45, "Intermittent Incident".

NO >> GO TO 1.

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS > SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000010596494 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-45, "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:0000000010596495

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-63, "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-45, "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:0000000010596496 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-219, "Removal and Installation". NO Н ADP K L M Ν 0

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NORMAL OPERATING CONDITION

NORMAL OPERATING CONDITION

Description INFOID:000000010596497

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: ADP-27 |
| Memory function, entry/exit as- | The operating conditions are not fulfilled. | Fulfill the operation conditions. | Exit assist function: <u>ADP-31</u> |
| sist function, seat synchroniza- tion function, or Intelligent Key interlock function does not oper- | | | Entry assist function: <u>ADP-35</u> |
| ate. | | | 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 PRE-TENSIONER"

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

WARNING:

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, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "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, 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.

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

- 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".

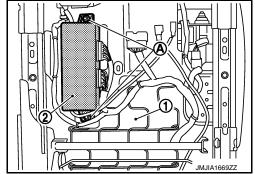
Removal and Installation

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".

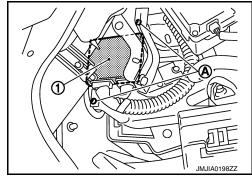
Removal and Installation

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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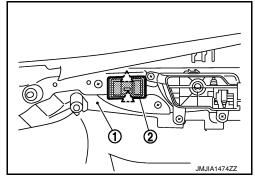
REMOVAL

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".

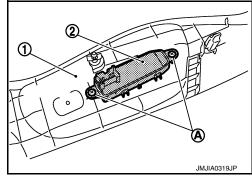
Removal and Installation

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).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>ADP-8</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

TILT&TELESCOPIC SWITCH

Exploded View

Refer to IP-12, "Exploded View".

Removal and Installation

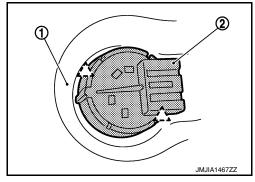
REMOVAL

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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