SECTION ADP AUTOMATIC DRIVE POSITIONER

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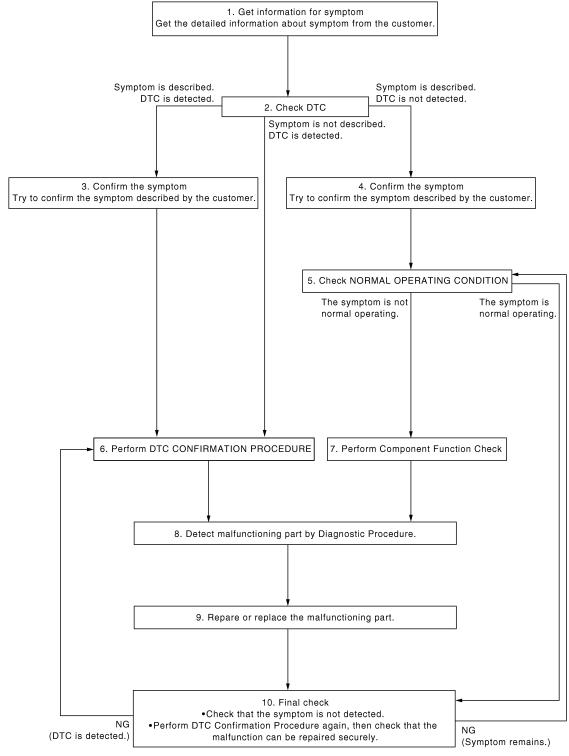
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



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DIAGNOSIS AND REPAIR WORKFLOW < BASIC INSPECTION > $1.\mathsf{GET}$ INFORMATION FOR SYMPTOM Α Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred). В >> GO TO 2. 2.CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM Check "Self Diagnostic Result" with CONSULT-III. Refer to ADP-160, "DTC Index" Is any symptom described and any DTC is displayed? Symptom is described, DTC is displayed.>>GO TO 3. D Symptom is not described, DTC is displayed.>>GO TO 6. Symptom is described, DTC is not displayed.>>GO TO 4. 3.CONFIRM THE SYMPTOM Е 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 Н Check normal operating condition. Refer to ADP-234, "Description". Is the incident normal operation? >> INSPECTION END YES NO >> GO TO 7. $\mathsf{6}.$ PERFORM DTC CONFIRMATION PROCEDURE ADP Perform the confirmation procedure for the detected DTC. Is the DTC displayed? >> GO TO 8. YES NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". 7.PERFORM COMPONENT FUNCTION CHECK Perform the component function check for the isolated malfunctioning point. >> GO TO 8. M 8.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

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

>> GO TO 9.

$\mathbf{9}.$ repare 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.

Р

Are all malfunctions corrected?

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

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

< 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 or driver seat control unit is replaced.

| Function | Condition | Procedure |
|---------------------------------|-----------|-------------------------------|
| Memory (Seat, steering, mirror) | Erased | Perform memory storing |
| Intelligent Key interlock | Erased | Perform system initialization |
| intelligent Key interlock | Liaseu | Perform memory storing |
| Seat synchronization | OFF | _ |

NOTE:

When disconnecting the battery terminal or replacing the driver seat control unit, DTC, registered items of memory storing, and setting details of system setting detected in the past are erased. Perform operation after checking the contents.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement

1. SYSTEM INITIALIZATION

Perform system initialization. Refer to <u>ADP-10, "SYSTEM INITIALIZATION: Description".</u>

>> GO TO 2.

2. SYSTEM SETTING

Perform system setting. Refer to ADP-12, "SYSTEM SETTING: Description".

>> GO TO 3.

3.MEMORY STORING

Perform memory storing. Refer to ADP-11, "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 battery terminal is disconnected or driver seat control unit is replaced.

| Function | Condition | Procedure |
|---------------------------------|-----------|-------------------------------|
| Memory (Seat, steering, mirror) | Erased | Perform memory storing |
| Intelligent Very interled | Erased | Perform system initialization |
| Intelligent Key interlock | | Perform memory storing |
| Seat synchronization | OFF | _ |

NOTE:

When disconnecting the battery terminal or replacing the driver seat control unit, DTC, registered items of memory storing, and setting details of system setting detected in the past are erased. Perform operation after checking the contents.

< BASIC INSPECTION >

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-10, "SYSTEM INITIALIZATION: Description".

>> GO TO 2.

2. SYSTEM SETTING

Perform system setting. Refer to ADP-12, "SYSTEM SETTING: Description".

>> GO TO 3.

3. MEMORY STORING

Perform memory storing. Refer to ADP-11, "MEMORY STORING: Description".

>> END

SYSTEM INITIALIZATION

SYSTEM INITIALIZATION: Description

INFOID:0000000001693610

Always perform the initialization when the battery terminal is disconnected or the driver seat control unit is replace. If the initialization is not performed, the seat synchronization function, memory function, Intelligent Key interlock function and power walk-in function do not function.

SYSTEM INITIALIZATION: Special Repair Requirement

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INITIALIZATION PROCEDURE

1. STFP-1

Make sure that the ignition position is in the LOCK position.

>> GO TO 2.

2. STEP-2

Door switch is ON (open) \Rightarrow OFF (close) \Rightarrow ON (open).

NOTE

STEP-1 and STEP-2 are the initialization procedures for synchronization function, memory function and Intelligent Key interlock function.

STEP-1 and STEP-2 can be omitted by driving the vehicle at 25 km/h (16 MPH) or more.

>> GO TO 3.

3. STEP-3

Slide the seat to the front edge.

NOTE:

- STEP-3 is the initialization procedure for power walk-in function.
- If the seat sliding position is already at the front edge, slide the seat rearward once, and then slide it to the front edge again.

>> END MEMORY STORING

< BASIC INSPECTION >

MEMORY STORING: Description

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Always perform the memory storing 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 storing is performed.

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MEMORY STORING: Special Repair Requirement

Memory Storing Procedure

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

1.STEP-1

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Shift A/T selector lever to P position (A/T models) or applied parking brake (M/T models).

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>> GO TO 2.

2.STEP-2

Turn ignition switch ON.

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>> GO TO 3.

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3. $_{ m STEP-3}$

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

Н

>> GO TO 4.

4.STEP-4

ı

- 1. Push set switch.
- 2. Make sure that the memory switch indicators 1 and 2 illuminate.

Illuminate for 0.5 second : Not registered : Registered

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After starting the indicator illumination, select the memory switch to be registered within 5 seconds, and then press and hold it for 1 second or more.

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NOTE:

If the selected memory switch is already registered, the previous memory is overwritten.

Make sure that the memory switch indicators 1 and 2 illuminate.

Blink for 5 seconds

: The registration to the not registered memory is completed

IVI

Illuminate for 5 seconds after turning off for 0.5 second

: The overwriting of registered memory is completed.

Ν

Do you need linking of Intelligent Key?

YES >> GO TO 6. NO >> GO TO 5.

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5.STEP-5

Confirm the operation of each part with memory operation.

Р

>> END

6.STEP-6

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

< BASIC INSPECTION >

>> GO TO 7.

7.STEP-7

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

>> END

SYSTEM SETTING

SYSTEM SETTING : Description

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The setting of the automatic driving positioner system can be changed using the set switch.

SYSTEM SETTING: Special Repair Requirement

INFOID:0000000001693615

SETTING PROCEDURE

1.STEP-1

Set the vehicle to the following condition.

- · Ignition position: OFF
- A/T selector lever: P position (A/T models)
- Parking brake: Applied only (M/T models)

>> GO TO 2.

2.STEP-2

Press set switch and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.

Memory indicator blink :Seat synchronization

two times. function is ON.

Memory indicator blink :Seat synchronization once.

function is OFF.

>> END.

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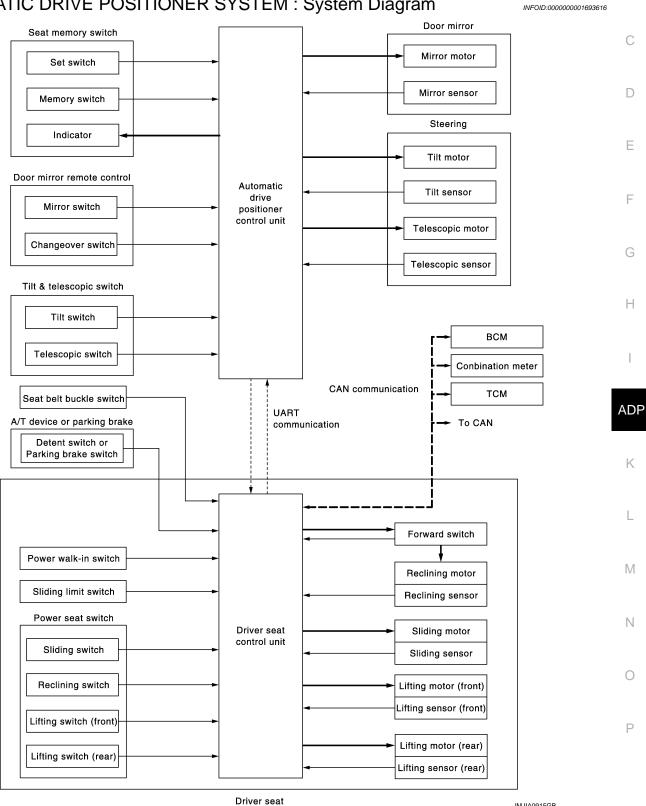
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FUNCTION DIAGNOSIS

AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram



< FUNCTION DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

INFOID:0000000001693618

OUTLINE

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

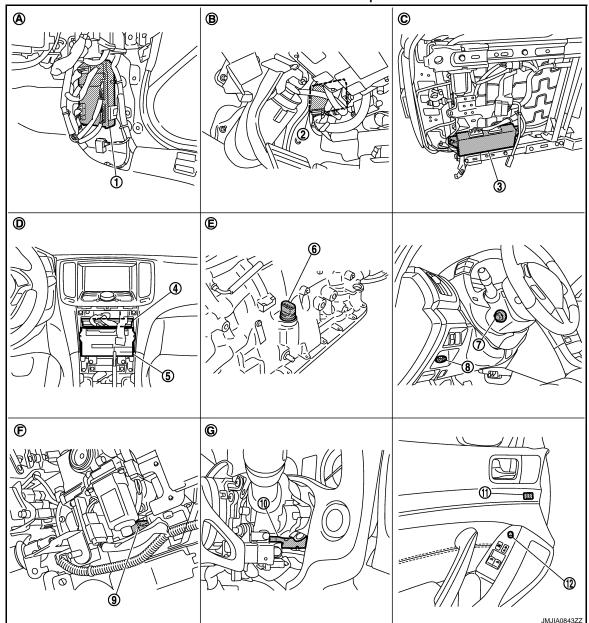
| Function | Description |
|------------------------------------|--|
| Manual function | The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch. |
| Seat synchronization function | The positions of the steering column and door mirror are adjusted to the proper position automatically while linking with manual operation [seat sliding, seat lifting (rear) or seat reclining]. |
| Memory function | The seat, steering column and outside mirror move to the stored driving position by pressing seat memory switch (1 or 2). |
| Power walk-in function | The seat is made to advance when the seat back of driver seat is folded down and press the walk-in switch. The seat is made to retreat to former position when the seat back of driver seat is folded up and press the walk-in switch. |
| Intelligent Key interlock function | 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.

< FUNCTION DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER SYSTEM: Component Parts Location INFOID:000000001693617



- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Tilt & telescopic switch M31
- 10. Telescopic sensor M48
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 8. Key slot M22
- 11. Seat memory switch D5
- 3. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Driver seat control unit B503, B504
- 6. A/T assembly connector F51
- 9. Tilt sensor M48
- Door mirror remote control switch D17
- C. Backside of seat cushion (driver side)
- View with instrument driver lower panel removed

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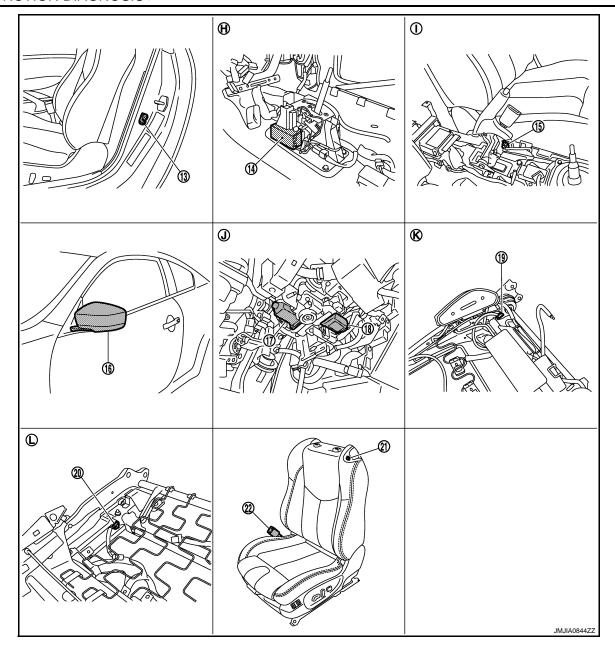
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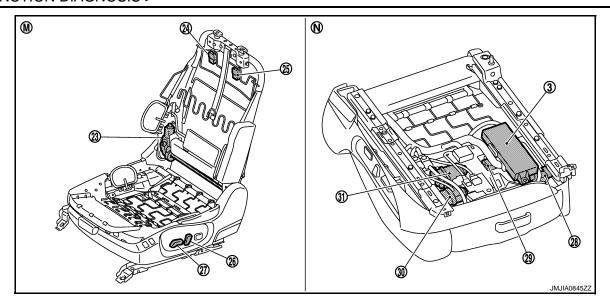
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- 13. Driver side door switch B16
- 16. Door mirror (driver side) D3
- 19. Forward switch B512
- Seat belt buckle switch (driver side) 22.
- View with center console assembly Н. is removed.
- View with seat back pad is removed. L.

- 14. A/T device (detention switch) M137 15. Parking brake switch B14
- 17. Telescopic motor M49
- 20. Sliding limit switch B514
- 18. Tilt motor M49
- 21. Power walk-in switch B513
- View with center console assembly is removed.
- View with seat cushion pad is removed.
- View with instrument driver lower panel is removed.

< FUNCTION DIAGNOSIS >



- 23. Reclining motor B523
- 26. Reclining switch (Power seat switch B510)
- 29. Lifting motor (front) B527
- M. View with seat cushion pad and seatback pad are removed.
- 24. Reclining relay (backward) B520
- 27. Sliding, lifting switch (Power seat switch B510)
- 30. Sliding motor B525
- I. Backside of seat cushion
- 25. Reclining relay (forawrd) B519
- 28. Sliding sensor B526
- 31. Lifting motor (rear) B529

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:0000000001693619

CONTROL UNITS

| Item | Function |
|---|--|
| Driver seat control unit | Main units of automatic drive positioner system. It is connected to the CAN. It communicates with the automatic drive positioner control via UART communication. |
| Automatic drive positioner control unit | It communicates with the driver seat control unit via UART communication. Perform various controls with the instructions of driver seat control unit. Perform the controls of the tilt & telescopic, door mirror and the seat memory switch. |
| 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. |
| ТСМ | Transmit the shift position signal (P range) to the driver seat control unit via CAN communication. |

INPUT PARTS

Switches

| Item | Function |
|-------------------------|--|
| Key slot | The key switch is installed to detect the key inserted/removed status. |
| Driver side door switch | Detect front door (driver side) open/close status. |

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< FUNCTION DIAGNOSIS >

| Item | Function |
|-----------------------------------|--|
| A/T device (detention switch) | Detect the P range position of A/T selector lever. (A/T models) |
| Parking break switch | Detect the parking brake status. (M/T models) |
| 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. |
| Power walk-in switch | Perform the power walk-in operation by operating the power walk-in switch. |
| Sliding limit switch | Detect the front end position of seat sliding during the power walk-in function front-ward operation. |
| Seat belt buckle switch | Detect the seat belt fastening/releasing condition. |
| Forward switch | Detect the folded up/folded down condition of seatback that is the operation condition of power walk-in 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

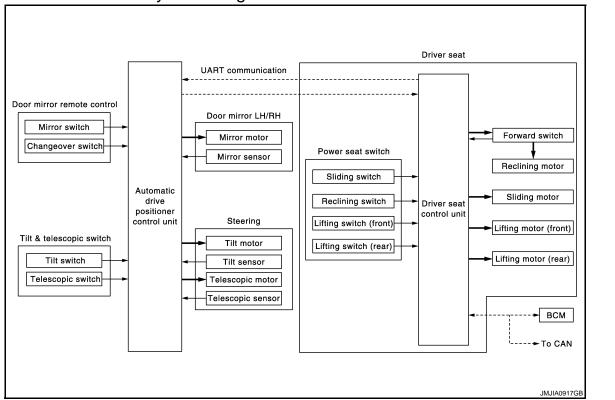
| Item | Function |
|--|--|
| Door mirror sensor (driver side/passenger side) | Detect the upward/downward and leftward/rightward position of outside mirror face. |
| Tilt & telescopic sensor | Detect the upward/downward and forward/backward position of steering column. |
| Lifting sensor (front) | Detect the upward/downward position of seat lifting (front). |
| Lifting sensor (rear) | Detect the upward/downward position of seat lifting (rear). |
| Reclining sensor | Detect the tilt of seatback. |
| Sliding sensor | Detect the forward/backward position of seat. |

OUTPUT PARTS

| Item | Function | |
|--|---|--|
| Door mirror motor (driver side/passenger side) | Move the outside mirror face upward/downward and leftward/rightward. | |
| Tilt & telescopic motor | Move the steering column upward/downward and 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 forward/backward. | |
| Memory indicator | Illuminates or blinks according to the registration/operation status. | |

MANUAL FUNCTION

MANUAL FUNCTION: System Diagram



MANUAL FUNCTION: System Description

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

 Operate power seat switch, tilt & telescopic switch or 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.

The driver seat, steering column or door mirror operates according to the operation of each switch.

DETAIL FLOW

Seat

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

Reclining operation does not operate when the seat back is folded down (forward switch is ON.).

Tilt & Telescopic

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< FUNCTION DIAGNOSIS >

| 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 more 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 more 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. |
| 3 | Sensors (Mirror) | _ | The automatic drive positioner control unit monitors the input of mirror sensor. It stops the operation if the input reaches the operation limit. |

< FUNCTION DIAGNOSIS >

MANUAL FUNCTION : Component Parts Location

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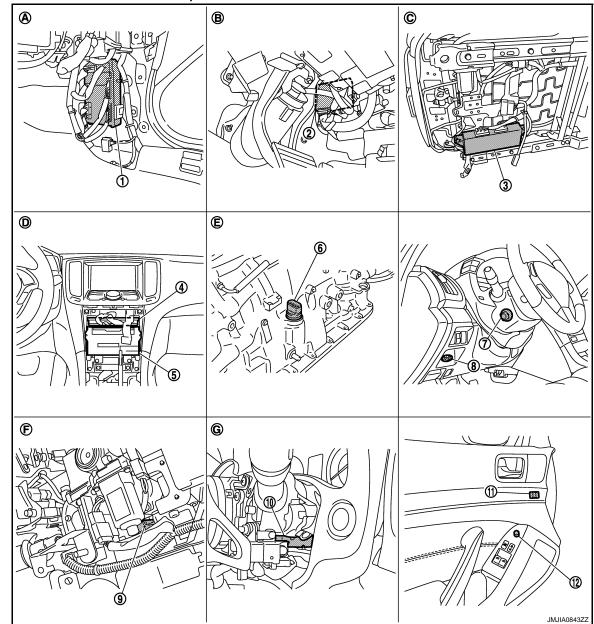
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- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Tilt & telescopic switch M31
- 10. Telescopic sensor M48
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- Key slot M22
- 11. Seat memory switch D5
- 3. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Driver seat control unit B503, B504
- 6. A/T assembly connector F51
- 9. Tilt sensor M48
- Door mirror remote control switch D17
- C. Backside of seat cushion (driver side)
- View with instrument driver lower panel removed

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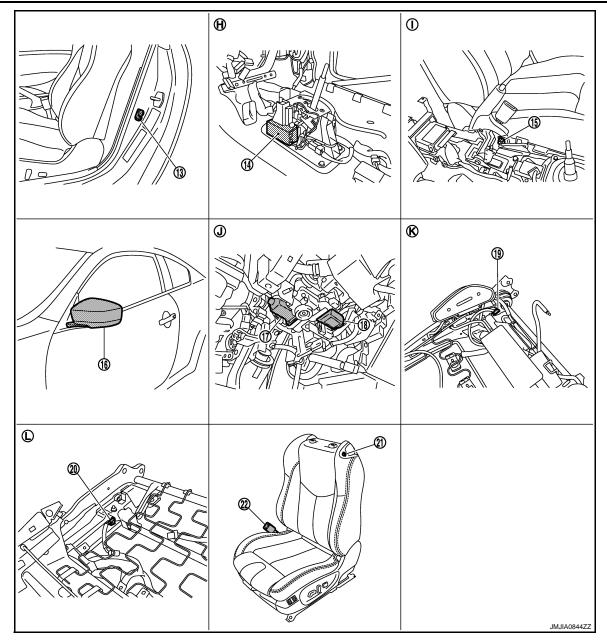
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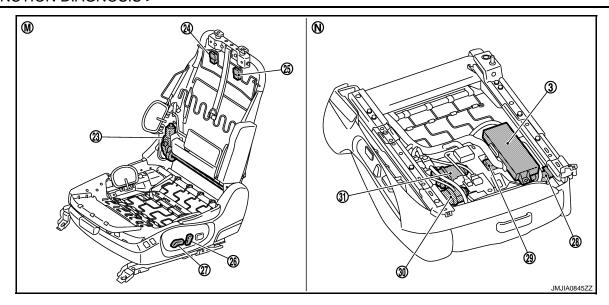
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- 13. Driver side door switch B16
- 16. Door mirror (driver side) D3
- 19. Forward switch B512
- Seat belt buckle switch (driver side) 22.
- View with center console assembly Н. is removed.
- View with seat back pad is removed. L.

- 14. A/T device (detention switch) M137 15. Parking brake switch B14
- 17. Telescopic motor M49
- 20. Sliding limit switch B514
- 18. Tilt motor M49
- 21. Power walk-in switch B513
- View with center console assembly is removed.
- View with seat cushion pad is removed.
- View with instrument driver lower panel is removed.

< FUNCTION DIAGNOSIS >



- 23. Reclining motor B523
- 26. Reclining switch
- (Power seat switch B510)
- 29. Lifting motor (front) B527
- M. View with seat cushion pad and seatback pad are removed.
- 24. Reclining relay (backward) B520
- 27. Sliding, lifting switch (Power seat switch B510)
- 30. Sliding motor B525
- N. Backside of seat cushion
- 25. Reclining relay (forawrd) B519
- 28. Sliding sensor B526
- 31. Lifting motor (rear) B529

MANUAL FUNCTION: Component Description

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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. | |
| Tilt & telescopic switch | The following switch is installed. Tilt switch Telescopic switch The specific parts can be operated with the operation of each switch. | |

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< FUNCTION DIAGNOSIS >

| Item | Function |
|-----------------------------------|---|
| Forward switch | Detect folded down or folded up of the seat back. |
| 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 & telescopic sensor | Detect the upward/downward & forward/backward position of steering column. |
| Door mirror sensor (driver side / passenger side) | Detect the upward/downward and leftward/rightward position of outside mirror face. |

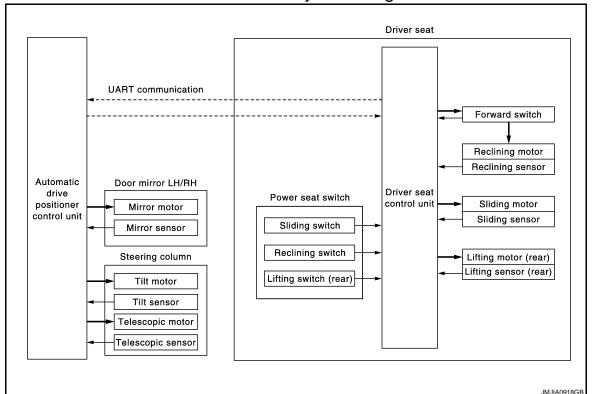
OUTPUT PARTS

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

SEAT SYNCHRONIZATION FUNCTION

SEAT SYNCHRONIZATION FUNCTION : System Diagram

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SEAT SYNCHRONIZATION FUNCTION: System Description

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OUTLINE

< FUNCTION DIAGNOSIS >

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:

Seat synchronization function can change the setting by operating the set switch. For the system setting procedure. Refer to <u>ADP-12</u>, "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 | |
|---|-----------------------|--|
| System initialization | Done | |
| System setting | ON | |
| Ignition position | ON | |
| Seat back | Folded up | |
| A/T selector lever (A/T models) | P position | |
| Parking break (M/T models) | Applied | |
| Switch inputs Power seat switch Tilt & telescopic switch Door mirror remote control switch Set switch Memory switch | OFF (Not operated) | |

DETAIL FLOW

When performing the sliding, reclining or lifting (rear) operation in manual function, the driver seat control unit performs the seat synchronization function as follows.

| Order | Input | Output | Control unit condition |
|-------|--|--|--|
| 1 | 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. |
| 2 | _ | 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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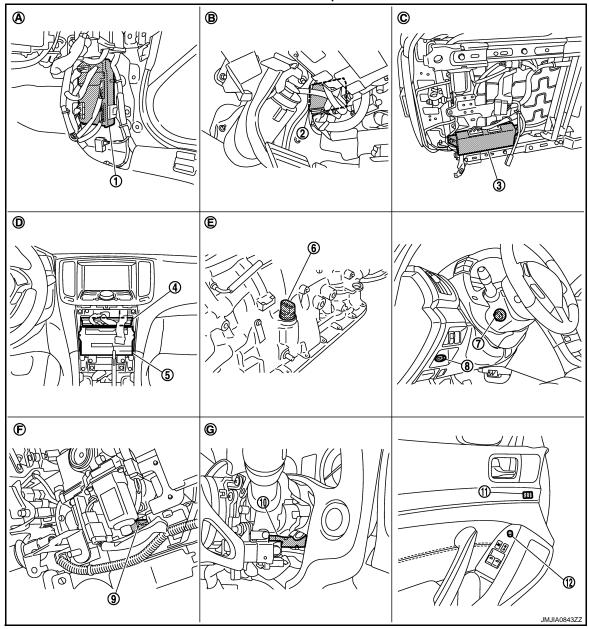
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SEAT SYNCHRONIZATION FUNCTION: Component Parts Location

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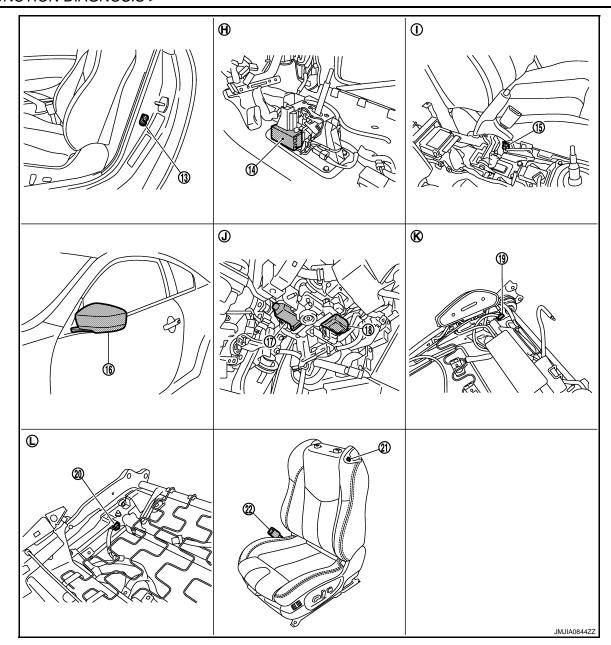


- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Tilt & telescopic switch M31
- 10. Telescopic sensor M48
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 8. Key slot M22
- 11. Seat memory switch D5
 - View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Driver seat control unit B503, B504
- A/T assembly connector F51
- 9. Tilt sensor M48
- Door mirror remote control switch D17
- C. Backside of seat cushion (driver side)
- View with instrument driver lower panel removed

< FUNCTION DIAGNOSIS >



- 13. Driver side door switch B16
- 16. Door mirror (driver side) D3
- 19. Forward switch B512
- Seat belt buckle switch (driver side) 22.
- View with center console assembly H. is removed.
- View with seat back pad is removed. L.

- 14. A/T device (detention switch) M137 15. Parking brake switch B14
- 17. Telescopic motor M49
- 20. Sliding limit switch B514
- View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 18. Tilt motor M49
- 21. Power walk-in switch B513
- View with instrument driver lower panel is removed.

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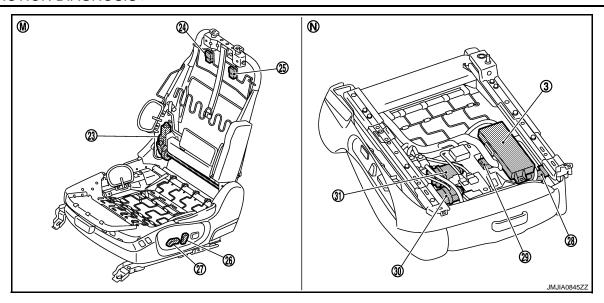
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< FUNCTION DIAGNOSIS >



- 23. Reclining motor B523
- 26. Reclining switch (Power seat switch B510)
- 29. Lifting motor (front) B527
- M. View with seat cushion pad and seat-back pad are removed.
- 24. Reclining relay (backward) B520
- 27. Sliding, lifting switch (Power seat switch B510)
- 30. Sliding motor B525
- N. Backside of seat cushion
- 25. Reclining relay (forawrd) B519
- 28. Sliding sensor B526
- 31. Lifting motor (rear) B529

SEAT SYNCHRONIZATION FUNCTION: Component Description

INFOID:0000000001693627

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. | |
| Forward switch | Detect folded down or folded up of the seat back. | |

Sensors

| Item | Function | |
|--|--|--|
| Door mirror sensor (driver side/passenger side) | Detect the upward/downward and leftward/rightward position of outside mirror face. | |
| Tilt & telescopic sensor | Detect the upward/downward and forward/backward position of steering column. | |
| Lifting sensor (rear) | Detect the upward/downward position of seat lifter (rear). | |
| Reclining sensor | Detect the tilt of seatback. | |
| Sliding sensor | Detect the frontward/rearward position of seat. | |

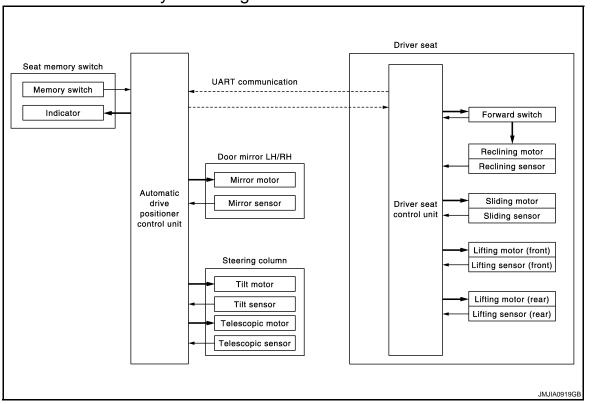
< FUNCTION DIAGNOSIS >

OUTPUT PARTS

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

MEMORY FUNCTION

MEMORY FUNCTION: System Diagram



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.

NOTE:

Further information for the memory storing procedure. Refer to ADP-11, "MEMORY STORING: Description".

OPERATION PROCEDURE

- Turn ignition switch ON
- 2. Press desired memory switch for more than 0.5 second.
- 3. 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.

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< FUNCTION DIAGNOSIS >

| Item | Request status |
|---|-----------------------|
| System initialization | Done |
| Ignition position | ON* |
| Seat back | Folded up |
| A/T selector lever (A/T models) | P position |
| Parking break (M/T models) | Applied |
| Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch | OFF (Not operated) |

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

DETAIL FLOW

| Order | Input | Output | Control unit condition |
|-------|---|--|--|
| 1 | Memory switch | _ | The memory switch signal is inputted to the automatic drive positioner control unit when memory switch 1 or 2 is operated. Memory switch signal is input to driver seat control unit via UART communication. |
| 2 — | Motors (Seat, steering, door mirror) | Driver seat control unit operates each motor of seat when it recognizes the memory switch pressed for 0.5 second or more and requests each motor operation to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor. | |
| | Memory switch Indicator | Driver seat control unit requests the flashing of memory indicator to automatic drive positioner control unit via UART communication while either of the motors is operating. The automatic drive positioner control unit illuminates the memory indicator. | |
| 3 | Sensors (Seat, steering, door mirror) | _ | Driver seat control unit judges the operating seat position with each seat sensor input. The positions of the steering column and outside mirror are monitored with each sensor signal that is input from auto drive positioner control unit via UART communication. Driver seat control unit stops the operation of each motor when each part reaches the recorded address. |
| 4 | _ | Memory switch Indicator | Driver seat control unit requests the illumination of memory indicator to auto drive positioner control unit via UART communication after all motors stop. The auto driving positioner control unit illuminates the memory indicator for 5 seconds. |

< FUNCTION DIAGNOSIS >

MEMORY FUNCTION : Component Parts Location

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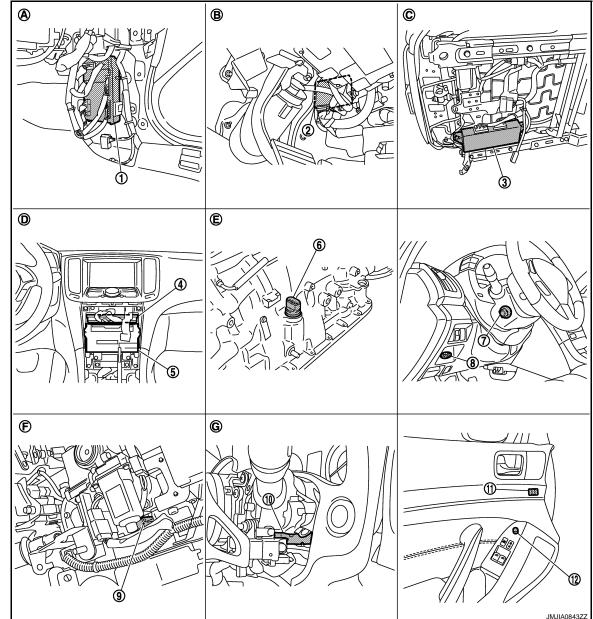
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- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Tilt & telescopic switch M31
- 10. Telescopic sensor M48
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

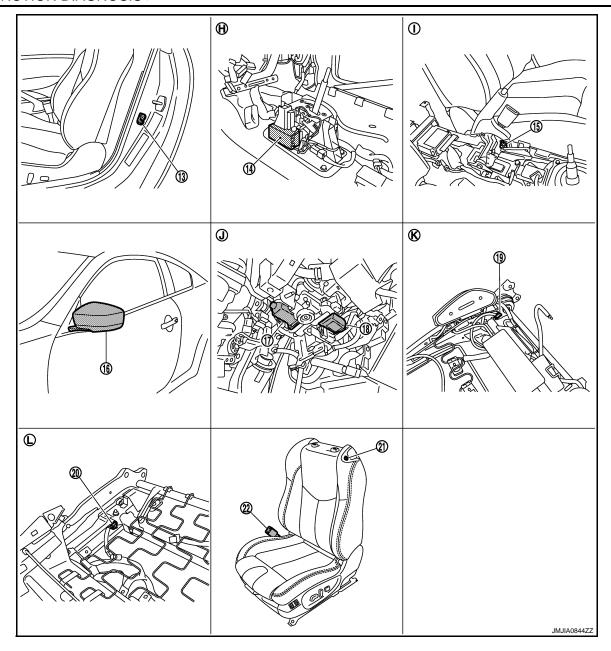
- Automatic drive positioner control unit 3. M51, M52
- 5. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 8. Key slot M22
- 11. Seat memory switch D5
- 3. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Driver seat control unit B503, B504
- 6. A/T assembly connector F51
- 9. Tilt sensor M48
- Door mirror remote control switch D17
- C. Backside of seat cushion (driver side)
- View with instrument driver lower panel removed

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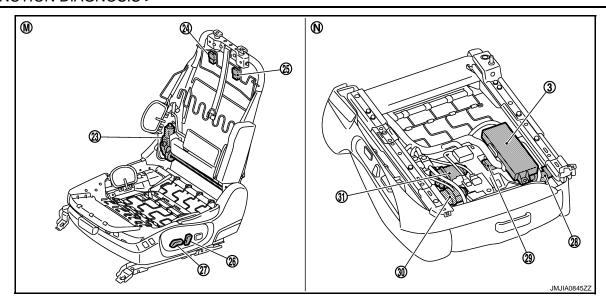
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- 13. Driver side door switch B16
- 16. Door mirror (driver side) D3
- 19. Forward switch B512
- Seat belt buckle switch (driver side) 22.
- View with center console assembly Н. is removed.
- View with seat back pad is removed. L.

- 14. A/T device (detention switch) M137 15. Parking brake switch B14
- 17. Telescopic motor M49
- 20. Sliding limit switch B514
- 18. Tilt motor M49
- 21. Power walk-in switch B513
- View with center console assembly is removed.
 - View with seat cushion pad is removed.
- View with instrument driver lower panel is removed.

< FUNCTION DIAGNOSIS >



- 23. Reclining motor B523
- 26. Reclining switch (Power seat switch B510)
- 29. Lifting motor (front) B527
- M. View with seat cushion pad and seat-back pad are removed.
- 24. Reclining relay (backward) B520
- 27. Sliding, lifting switch
- (Power seat switch B510)
- 30. Sliding motor B525
- N. Backside of seat cushion
- 25. Reclining relay (forawrd) B519
- 28. Sliding sensor B526
- 31. Lifting motor (rear) B529

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 f seat control. | |

INPUT PARTS

Switches

| Item Function | |
|-------------------|---|
| Memory switch 1/2 | The registration and memory function can be performed with its operation. |
| Forward switch | Detect folded down or folded up of the seat back. |

Sensors

| Item | Function | |
|--|--|--|
| Door mirror sensor (driver side/passenger side) | Detect the upward/downward and leftward/rightward position of outside mirror face. | |
| Tilt & telescopic sensor | Detect the upward/downward and forward/backward position of steering column. | |
| Lifting sensor (front) | Detect the upward/downward position of seat lifting (front). | |
| Lifting sensor (rear) | Detect the upward/downward position of seat lifting (rear). | |
| Reclining sensor | Detect the tilt of seatback. | |
| Sliding sensor | Detect the forward/backward position of seat. | |

OUTPUT PARTS

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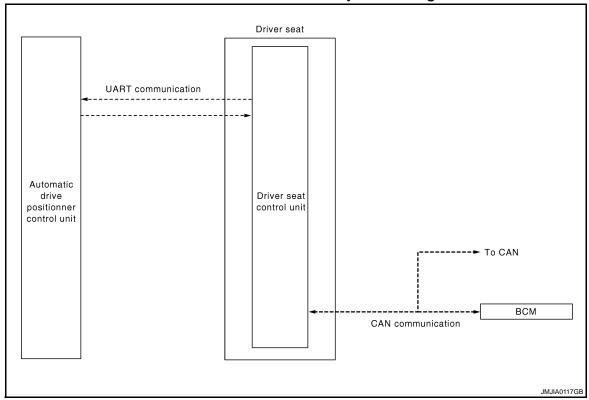
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| Item | Function | |
|---|---|--|
| Door mirror motor (driver side/passenger side) | Move the outside mirror face upward/downward and leftward/rightward. | |
| Tilt & telescopic motor | Move the steering column upward/downward and forward/backward.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

INTELLIGENT KEY INTERLOCK FUNCTION

INTELLIGENT KEY INTERLOCK FUNCTION: System Diagram

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INTELLIGENT KEY INTERLOCK FUNCTION: System Description

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OUTLINE

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

OPERATION PROCEDURE

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

NOTE:

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

Further information for Intelligent Key interlock function. Refer to ADP-11, "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.

< FUNCTION DIAGNOSIS >

| Item | Request status |
|---|-----------------------|
| System initialization | Done |
| Key switch | OFF (Key is removed.) |
| Ignition position | OFF |
| Seat back | Folded up |
| A/T selector lever (A/T models) | P position |
| Parking break (M/T models) | Applied |
| Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch | OFF (Not operated) |

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. |

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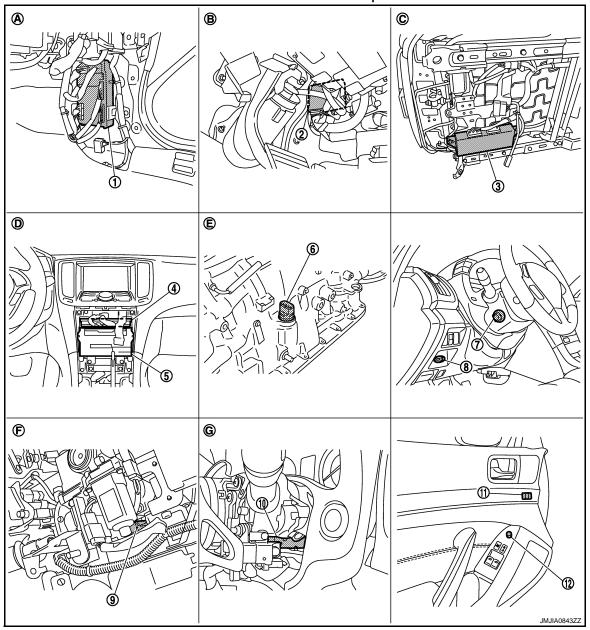
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< FUNCTION DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION: Component Parts Location INFOID-00000001699877

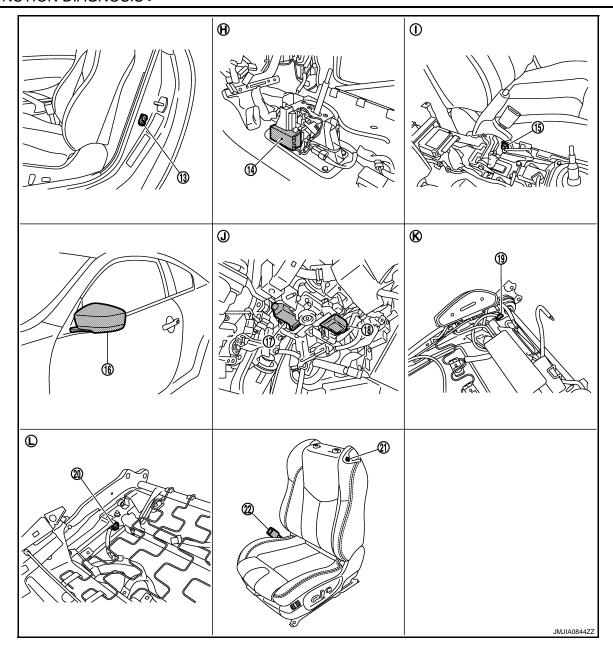


- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Tilt & telescopic switch M31
- 10. Telescopic sensor M48
- ...
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 8. Key slot M22
- 11. Seat memory switch D5
 - View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- . Driver seat control unit B503, B504
- A/T assembly connector F51
- 9. Tilt sensor M48
- Door mirror remote control switch D17
- C. Backside of seat cushion (driver side)
- View with instrument driver lower panel removed

< FUNCTION DIAGNOSIS >



- 13. Driver side door switch B16
- 16. Door mirror (driver side) D3
- 19. Forward switch B512
- Seat belt buckle switch (driver side) 22.
- View with center console assembly H. is removed.
- View with seat back pad is removed. L.

- 14. A/T device (detention switch) M137 15. Parking brake switch B14
- 17. Telescopic motor M49
- 20. Sliding limit switch B514
- View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 18. Tilt motor M49
- 21. Power walk-in switch B513
- View with instrument driver lower panel is removed.

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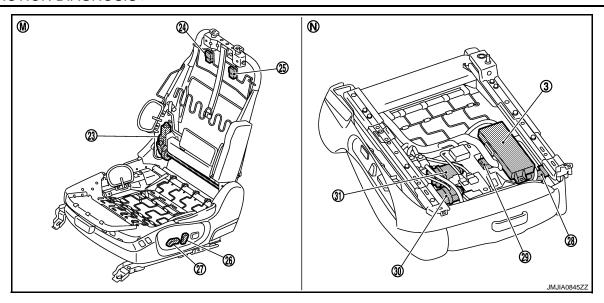
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- 23. Reclining motor B523
- 26. Reclining switch (Power seat switch B510)
- 29. Lifting motor (front) B527
- M. View with seat cushion pad and seat-back pad are removed.
- 24. Reclining relay (backward) B520
- 27 Sliding, lifting switch
- (Power seat switch B510)
- 30. Sliding motor B525
- I. Backside of seat cushion
- 25. Reclining relay (forawrd) B519
- 28. Sliding sensor B526
- 31. Lifting motor (rear) B529

INTELLIGENT KEY INTERLOCK FUNCTION: Component Description

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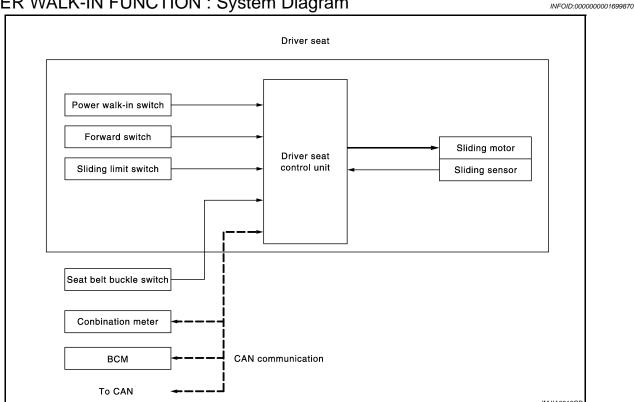
CONTROL UNITS

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

POWER WALK-IN FUNCTION

< FUNCTION DIAGNOSIS >

POWER WALK-IN FUNCTION: System Diagram



POWER WALK-IN FUNCTION: System Description

OUTLINE

Slide the driver seat automatically with the power walk-in switch operation so as to easily facilitate the entry to the rear seat.

Forward Operation

Slide (forward) the driver seat to the front end position (sliding limit switch: ON) by operating the power walk-in switch when the seatback is folded down.

The forward operation is stopped by folding the seatback (forward switch: OFF) during the forward operation.

Backward Operation

The seat back is folded up after performing the forward operation of power walk-in function. Slide (backward) it to the position before performing the forward operation by operating the power walk-in switch.

If the manual operation, memory operation, and Intelligent Key interlock operation are performed after performing the forward operation, do not perform the backward operation.

OPERATION PROCEDURE

Forward Operation

- Open driver door.
- 2. Pull the walk-in lever on the upper part of seatback, and then the seatback is folded down.
- Press the power walk-in switch.
- 4. Slide the seat to the front end position.

Backward Operation

- Open driver door.
- 2. Fold up the seatback after performing the forward operation.
- Press the power walk-in switch.
- Slide the seat to the previous position before the forward operation was performed.

OPERATION CONDITION

Perform the power walk-in function when the following conditions are satisfied.

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Forward Operation

| Item | Request status |
|-----------------------------|----------------------|
| Driver side door | Open |
| Driver side seat belt | Not fastened |
| Power seat switch (sliding) | Not operated |
| Vehicle speed | 0 km/h |
| Seat position (sliding) | Other than front end |
| Seat back | Folded down |

Backward Operation

| Item | Request status |
|---|---|
| Initialize | Done |
| Driver side seat belt | Not fastened |
| Switch inputs • Power seat switch (sliding) • Set switch • Memory switch | Not operated |
| Vehicle speed | 0 km/h |
| Seat position (sliding) | The seat sliding position will not move after performing the forward operation. |
| Seat back | Folded up |

DETAIL FLOW

Forward Operation

| Order | Inputs | Outputs | Control unit condition |
|-------|----------------------|----------------------------|---|
| 1 | Forward switch | _ | Driver seat control unit detects that the seatback is folded down by the signal from the forward switch. |
| 2 | Power walk-in switch | _ | The operation signal is inputted to the driver seat control unit when the power walk-in switch is operated. |
| 3 | _ | Sliding motor (forward) | Driver seat control unit operates the seat sliding motor forward when it detects that the power walkin switch is operated. |
| 4 | Sliding limit switch | _ | Driver seat control unit stops the seat sliding motor when it detects that the seat sliding reaches the front end position by the sliding limit switch. |

Backward Operation

| Order | Inputs | Outputs | Control unit condition |
|-------|----------------------|-----------------------------|--|
| 1 | Forward switch | _ | Driver seat control unit detects that the seatback is folded up by the signal from the forward switch. |
| 2 | Power walk-in switch | _ | The operation signal is inputted to the driver seat control unit when the power walk-in switch is operated. |
| 3 | _ | Sliding motor (backward) | Driver seat control unit operates the sliding motor backward when it detects that the power walk-in switch is operated. |
| 4 | Sliding sensor | _ | Driver seat control unit stops the seat sliding motor when the seat sliding position reaches the position before performing the forward operation by the signal from sliding sensor. |

AUTOMATIC DRIVE POSITIONER SYSTEM < FUNCTION DIAGNOSIS > POWER WALK-IN FUNCTION: Component Parts Location INFOID:0000000001699878 Α B **©** В D Е Œ 0 F Н (G Ð ADP

- BCM M118, M119, M122, M123
- Unified meter and A/C amp. M67
- Tilt & telescopic switch M31 7.
- 10. Telescopic sensor M48
- Dash side lower (passenger side)
- D. Behind cluster lid C
- View with steering column cover low-G er and upper removed

- Automatic drive positioner control unit 3. M51, M52
- AV control unit With NAVI M87, M88 Without NAVI M83, M85
- Key slot M22
- 11. Seat memory switch D5
- View with instrument driver lower panel removed
- A/T assembly (TCM is built in A/T assembly)

Driver seat control unit B503, B504

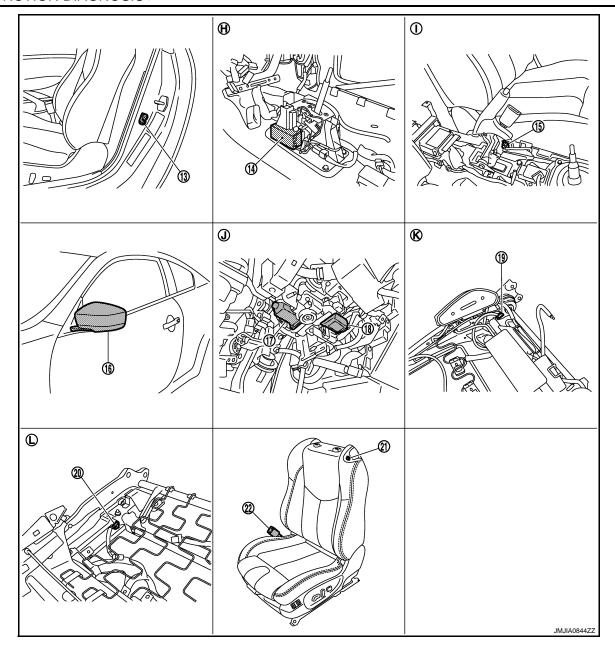
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- A/T assembly connector F51
- 9. Tilt sensor M48
- 12. Door mirror remote control switch D17
- C. Backside of seat cushion (driver side)
- View with instrument driver lower panel removed

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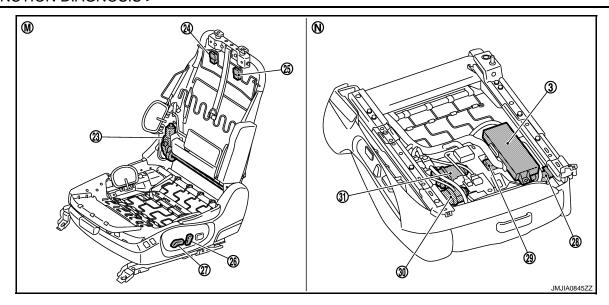
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- 13. Driver side door switch B16
- 16. Door mirror (driver side) D3
- 19. Forward switch B512
- Seat belt buckle switch (driver side) 22.
- View with center console assembly Н. is removed.
- View with seat back pad is removed. L.

- 14. A/T device (detention switch) M137 15. Parking brake switch B14
- 17. Telescopic motor M49
- 20. Sliding limit switch B514
- 18. Tilt motor M49
- 21. Power walk-in switch B513
- View with center console assembly is removed.
- View with seat cushion pad is removed.
- View with instrument driver lower panel is removed.

< FUNCTION DIAGNOSIS >



- 23. Reclining motor B523
- 26. Reclining switch (Power seat switch B510)
- 29. Lifting motor (front) B527
- M. View with seat cushion pad and seatback pad are removed.
- 24. Reclining relay (backward) B520
- 27. Sliding, lifting switch (Power seat switch B510)
- 30. Sliding motor B525
 - I. Backside of seat cushion
- 25. Reclining relay (forawrd) B519
- 28. Sliding sensor B526
- 31. Lifting motor (rear) B529

POWER WALK-IN FUNCTION: Component Description

INFOID:0000000001838023

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. |
| ВСМ | Transmit the following status to the driver seat control unit via CAN communication. • Driver door: OPEN/CLOSE • Starter: CRANKING/OTHER |
| Unified meter and A/C amp. | Transmit the vehicle speed signal to the driver seat control unit via CAN communication. |

INPUT PARTS

Switches

| Item | Function | | |
|---------------------------------|---|--|--|
| Front door switch (driver side) | Detect front door (driver side) open/close status. | | |
| Power walk-in switch | Perform the power walk-in operation by operating the power walk-in switch. | | |
| Sliding limit switch | Detect the front end position of seat sliding during the power walk-in function front ward operation. | | |
| Seat belt buckle switch | Detect the seat belt fastening/releasing condition. | | |
| Forward switch | Detect the folded up/folded down condition of seatback that is the operation condition of power walk-in function. | | |

Sensors

| Item | Function |
|----------------|---|
| Sliding sensor | Detect the forward/backward position of seat. |

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OUTPUT PARTS

| Item | Function | | | |
|---------------|----------------------------------|--|--|--|
| Sliding motor | Slide the seat forward/backward. | | | |

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

The automatic drive positioner system can be checked and diagnosed for component operation with CON-SULT-III.

DIAGNOSTIC MODE

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

CONSULT-III Function

SELF DIAGNOSTIC RESULTS

Refer to ADP-160, "DTC Index".

DATA MONITOR

| Monitor Item | Unit | Main Signals | Selection From Menu | Contents |
|---------------|----------|-----------------|---------------------------|--|
| SET SW | "ON/OFF" | × | × | ON/OFF status judged from the setting switch signal. |
| MEMORY SW 1 | "ON/OFF" | × | × | ON/OFF status judged from the seat memory switch 1 signal. |
| MEMORY SW 2 | "ON/OFF" | × | × | ON/OFF status judged from the seat memory switch 2 signal. |
| SLIDE SW-FR*3 | "ON/OFF" | × | × | ON/OFF status judged from the sliding switch (forward) signal. |
| SLIDE SW-RR*3 | "ON/OFF" | × | × | ON/OFF status judged from the sliding switch (backward) signal. |
| RECLN SW-FR | "ON/OFF" | × | × | ON/OFF status judged from the reclining switch (forward) signal. |
| RECLN SW-RR | "ON/OFF" | × | × | ON/OFF status judged from the reclining switch (backward) signal. |
| LIFT FR SW-UP | "ON/OFF" | × | × | ON/OFF status judged from the lifting switch front (upward) signal. |
| LIFT FR SW-DN | "ON/OFF" | × | × | ON/OFF status judged from the lifting switch front (downward) signal. |
| LIFT RR SW-UP | "ON/OFF" | × | × | ON/OFF status judged from the lifting switch rear (upward) signal. |
| LIFT RR SW-DN | "ON/OFF" | × | × | ON/OFF status judged from the lifting switch rear (downward) signal. |
| MIR CON SW-UP | "ON/OFF" | × | × | ON/OFF status judged from the mirror switch (upward) signal. |
| MIR CON SW-DN | "ON/OFF" | × | × | ON/OFF status judged from the mirror switch (downward) signal. |
| MIR CON SW-RH | "ON/OFF" | × | × | ON/OFF status judged from the door mirror remote control switch (passenger side) signal. |

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

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| Monitor Item | Unit | Main Signals | Selection From Menu | Contents |
|-----------------|----------|-----------------|---------------------------|---|
| 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 SW-UP | "ON/OFF" | × | × | ON/OFF status judged from the tilt switch (upward) signal. |
| TILT SW-DOWN | "ON/OFF" | × | × | ON/OFF status judged from the tilt switch (downward) 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. |
| FORWARD SW*3 | "ON/OFF" | × | × | ON/OFF status judged from the forward switch signal. |
| WALK-IN SW*3 | "ON/OFF" | × | × | ON/OFF status judged from the power walk-in switch signal. |
| FWD LIMIT SW*3 | "ON/OFF" | × | × | ON/OFF status judged from the sliding limit switch signal. |
| SEAT BELT SW*3 | "ON/OFF" | × | × | ON/OFF status judged from the seat belt backle switch signal. |
| DETENT SW*1 | "ON/OFF" | × | × | The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal. |
| PARK BRAKE SW*2 | "ON/OFF" | × | × | The parking brake condition "ON (applied) / OFF (release)" judged from the parking brake switch signal. |
| STARTER SW | "ON/OFF" | × | × | Ignition key switch ON (START, ON) /OFF (ACC, OFF) status judged from the ignition switch signal. |
| SLIDE PULSE*3 | - | _ | × | Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases. |
| RECLN PULSE | - | _ | × | Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases. |
| LIFT FR PULSE | - | _ | × | Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases. |
| LIFT RR PULSE | - | _ | × | Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases. |
| MIR/SEN RH U-D | "V" | _ | × | Voltage input from door mirror sensor (passenger side) upward/downward is displayed. |
| MIR/SEN RH R-L | "V" | - | × | Voltage input from door mirror sensor (passenger side) left-ward/rightward is displayed. |
| MIR/SEN LH U-D | "V" | _ | × | Voltage input from door mirror sensor (driver side) upward/downward is displayed. |
| MIR/SEN LH R-L | "V" | _ | × | Voltage input from door mirror sensor (driver side) leftward/rightward is displayed. |
| TILT SEN | "V" | _ | × | Voltage input from tilt sensor upward/downward is displayed. |
| TELESCO SEN | "V" | _ | × | Voltage input from telescopic sensor forward/backward is displayed. |

^{*1:} M/T models display all item except this item.

 $^{^{*2}}$: A/T models display all item except this item.

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< FUNCTION DIAGNOSIS >

ACTIVE TEST

CAUTION:

When driving vehicle, do not perform active test.

| Test item | Description |
|------------------|--|
| SEAT SLIDE* | Activates/deactivates the sliding motor. |
| SEAT RECLINING | Activates/deactivates the reclining motor. |
| SEAT LIFTER FR | Activates/deactivates the lifting motor (front). |
| SEAT LIFTER RR | Activates/deactivates the lifting motor (rear). |
| TILT MOTOR | Activates/deactivates the tilt motor. |
| TELESCO MOTOR | Activates/deactivates the telescopic motor. |
| MIRROR MOTOR RH | Activates/deactivates the mirror motor (passenger side). |
| MIRROR MOTOR LH | Activates/deactivates the mirror motor (driver side). |
| MEMORY SW INDCTR | Turns ON/OFF the memory indicator. |

^{*:} Driver seat without automatic driver position system display only "SEAT SLIDE".

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 $^{^{\}star 3}\!\!:$ Only this item is displayed for driver seat without automatic drive positioner system.

U1000 CAN COMM CIRCUIT

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:000000001693649

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, CAN-L) 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-III.

Is the DTC detected?

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

NO >> INSPECTION END

Diagnosis Procedure

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

Special Repair Requirement

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Refer to ADP-10, "SYSTEM INITIALIZATION: Description".

B2112 SLIDING MOTOR

< COMPONENT DIAGNOSIS >

B2112 SLIDING MOTOR

Description INFOID:000000001693653

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.STEP 1

Turn ignition switch ON.

>> GO TO 2.

2.STEP 2

Check "Self Diagnostic Result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-49</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 or B2127 if B2126 or B2127 is detected.

Diagnosis Procedure

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self Diagnostic Result" with CONSULT-III.
- Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-49, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

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

2.REPLACE DRIVER SEAT CONTROL UNIT

Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

>> INSPECTION END

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B2113 RECLINING MOTOR

< COMPONENT DIAGNOSIS >

B2113 RECLINING MOTOR

Description

- The seat reclining motor is installed on 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 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. | |

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DTC CONFIRMATION PROCEDURE

1.STEP 1

Turn ignition switch ON.

>> GO TO 2.

2.STEP 2

Check "Self Diagnostic Result" with CONSULT-III.

Is the DTC detected?

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

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 or B2127 if B2126 or B2127 is detected.

Diagnosis Procedure 1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC displayed again?

YES >> GO TO 2.

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

2.REPLACE DRIVER SEAT CONTROL UNIT

Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

>> INSPECTION END

B2118 TILT SENSOR

< COMPONENT DIAGNOSIS >

B2118 TILT SENSOR

Description

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

DTC Logic

DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause | E |
|---------|------------------------|---|--|---|
| B2118 | TILT SENSOR | The input voltage of tilt sensor is 0.1 V or less or 4.9 V or more. | Harness and connectors (Tilt sensor circuit is opened/ shorted, tilt sensor power supply circuit is opened/shorted.) Tilt sensor Automatic drive positioner control unit | F |

DTC CONFIRMATION PROCEDURE

1.STEP 1

Turn ignition switch ON.

>> GO TO 2.

2.STEP 2

Check "Self Diagnostic Result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-51</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

1. CHECK TILT SENSOR SIGNAL

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

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

Is the value normal?

YES >> GO TO 7.

NO >> GO TO 2.

2.check tilt sensor circuit

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

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B2118 TILT SENSOR

< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | Tilt & telescopic sensor connector | Terminal | Continuity |
|---|----------|------------------------------------|----------|------------|
| M51 | 7 | M48 | 3 | Existed |

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M51 | 7 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TILT SENSOR POWER SUPPLY

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

| | V. II 0.0 | | |
|--------------------------|-----------|--------|--------------------------|
| (+) | | () | Voltage (V) (Approx.) |
| Tilt & telescopic sensor | Terminal | (-) | (|
| M48 | 1 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

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

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M52 | 33 | | Not existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

5. CHECK TILT 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 sensor harness connector.

| Automatic drive positioner control unit connector | Terminal | Tilt & telescopic sensor connector | Terminal | Continuity |
|---|----------|------------------------------------|----------|------------|
| M52 | 41 | M48 | 4 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

B2118 TILT SENSOR

< COMPONENT DIAGNOSIS >

NO >> Repair or replace harness.

6. CHECK DOOR MIRROR OPERATION

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

Is the operation normal?

- YES >> Replace tilt & telescopic sensor. (Built in steering column assembly.)
- NO >> Replace automatic drive positioner control unit.

7. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit.
- NO >> Repair or replace the malfunctioning part.

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B2119 TELESCOPIC SENSOR

< COMPONENT DIAGNOSIS >

B2119 TELESCOPIC SENSOR

Description INFOID:000000001693662

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

DTC Logic

DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---------|------------------------|---|---|
| B2119 | TELESCOPIC SEN- SOR | The input voltage of telescopic sensor is 0.1 V or less or 4.9 V or more. | Harness and connectors (Telescopic sensor circuit is opened/shorted, telescopic sensor power supply circuit is opened/shorted.) Telescopic sensor Automatic drive positioner control unit |

DTC CONFIRMATION PROCEDURE

1.STEP 1

Turn ignition switch ON.

>> GO TO 2.

2.STEP 2

Check "Self Diagnostic Result" with CONSULT-III.

Is the DTC is detected?

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

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000001693664

1. CHECK TELESCOPIC SENSOR SIGNAL

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

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

Is the valve normal?

YES >> GO TO 7.

NO >> GO TO 2.

2. CHECK TELESCOPIC SENSOR CIRCUIT

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

B2119 TELESCOPIC SENSOR

< COMPONENT DIAGNOSIS >

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

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M51 | 23 | | Not existed |

Is the inspection result normal?

>> GO TO 3. YES

NO >> Repair or replace harness.

3.CHECK TELESCOPIC SENSOR POWER SUPPLY

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

| | Terminals | | | |
|--------------------------|-----------|--------|--------------------------|--|
| (+) | | (-) | Voltage (V) (Approx.) | |
| Tilt & telescopic sensor | Terminal | (-) | | |
| M48 | 2 | Ground | 5 | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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

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

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M52 | 33 | | Not existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

5. CHECK TELESCOPIC SENSOR GROUND CIRCUIT

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

| Automatic drive positioner control unit connector | Terminal | Tilt & telescopic sensor connector | Terminal | Continuity |
|---|----------|------------------------------------|----------|------------|
| M52 | 41 | M48 | 4 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

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B2119 TELESCOPIC SENSOR

< COMPONENT DIAGNOSIS >

NO >> Repair or replace harness.

6. CHECK DOOR MIRROR OPERATION

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

Is the operation normal?

YES >> Replace tilt & telescopic sensor. (Built in steering column assembly.)

NO >> Replace automatic drive positioner control unit.

7. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

B2126 DETENT SW

< COMPONENT DIAGNOSIS >

B2126 DETENT SW

Description INFOID:0000000001693665

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

DTC Logic INFOID:0000000001693666

DTC DETECTION LOGIC

| | | | | D |
|---------|------------------------|--|--|--------|
| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause | |
| B2126 | DETENT SW | A/T selector lever is in P position and the vehicle speed of 7 km/h (4 MPH) or more is detected. | Harness and connectors (Detention switch circuit is opened/shorted.) Detention switch Combination meter (CAN communication) Driver seat control unit | E F |

DTC CONFIRMATION PROCEDURE

1.STEP 1

Drive the vehicle at 7 km/h (4 MPH) or more.

>> GO TO 2.

2.STEP 2

Check "Self Diagnostic Result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-57, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

1. CHECK DTC WITH "BCM"

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

Is the either DTC B2602, B2603, B2604, B2605 or B2606 detected?

YES >> Check the DTC. Refer to ADP-215, "DTC Index".

NO >> GO TO 2.

2.CHECK DETENTION SWITCH SIGNAL

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

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

Is the status normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.check detention switch circuit

- Turn ignition switch OFF.
- Disconnect driver seat control unit connector and A/T device connector.

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INFOID:0000000001693667

B2126 DETENT SW

< COMPONENT DIAGNOSIS >

3. Check continuity between driver seat control unit harness connector and A/T device harness connector.

| Driver seat control unit connector | Terminal | A/T device connector | Terminal | Continuity |
|------------------------------------|----------|----------------------|----------|------------|
| B503 | 21 | M137 | 11 | Existed |

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 21 | | Not existed |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

B2127 PARKING BRAKE SWITCH

< COMPONENT DIAGNOSIS >

B2127 PARKING BRAKE SWITCH

Description INFOID:000000001693668

- Parking brake switch is installed on parking brake lever. It is turned ON when the parking brake is applied.
- The driver seat control unit judges that the parking brake is engaged if continuity exists in this circuit.

DTC Logic

DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---------|------------------------|--|--|
| B2127 | PARKING BRAKE | Parking brake is engaged and the vehicle speed of 7 km/h (4MPH) or more is detected. | Harness and connectors (Parking brake switch circuit is opened/shorted.) Parking brake switch Combination meter (CAN communication) Driver seat control unit |

DTC CONFIRMATION PROCEDURE

1.STEP 1

Drive the vehicle at 7 km/h (4 MPH) or more.

>> GO TO 2.

2.STEP 2

Check "Self Diagnostic Result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-59</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

1. CHECK PARKING BRAKE SWITCH SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "PARK BRAKE SW" in "Data Monitor" mode with CONSULT-III.
- 3. Check parking brake switch signal under the following condition.

| Monitor item | Condition | | Status |
|---------------|---------------|---------|--------|
| PARK BRAKE SW | Parking brake | Applied | ON |
| PAIN BIANL SW | Faiking blake | Release | OFF |

Is the status normal?

YES >> GO TO 4.

NO >> GO TO 2.

2.CHECK PARKING BRAKE SWITCH HARNESS CONTINUITY

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

| Driver seat control unit connector | Terminal | Parking brake switch | Terminal | Continuity |
|------------------------------------|----------|----------------------|----------|------------|
| B503 | 8 | B14 | 1 | Existed |

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B2127 PARKING BRAKE SWITCH

< COMPONENT DIAGNOSIS >

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 8 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK PARKING BRAKE SWITCH

Refer to ADP-60, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Adjust or replace parking brake switch.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000001693671

1. CHECK PARKING BRAKE SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect parking brake switch connector.
- 3. Check continuity between parking brake switch terminal and ground part of parking brake switch.

| Terminal | | Condition | | Continuity |
|----------------------|----------------------|---------------|------------------|-------------|
| Parking brake switch | | | | Continuity |
| 1 | Ground part of | Parking brake | Applied | Existed |
| ı | parking brake switch | Parking brake | Other than above | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Adjust or replace parking brake switch.

B2128 UART COMMUNICATION LINE

< COMPONENT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description INFOID:0000000001693672

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 INFOID:0000000001693673

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.STEP 1

Turn ignition switch ON.

>> GO TO 2.

$\mathbf{2}.$ STEP 2

Operate tilt & telescopic switch for more than 2 seconds.

>> GO TO 3.

3. PROCEDURE 3

Check "Self Diagnostic Result" with CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-61, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000001693674

1. CHECK UART COMMUNICATION LINE CONTINUITY

- Turn ignition switch OFF.
- Disconnect driver seat control unit connector 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 connector | Terminal | Automatic drive positioner control unit connector | Terminal | Continuity |
|------------------------------------|----------|---|----------|------------|
| B503 | 1 | M51 | 10 | Existed |
| В303 | 17 | 10131 | 26 | LXISIEU |

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

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B2128 UART COMMUNICATION LINE

< COMPONENT DIAGNOSIS >

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 1 | | Not existed |
| | 17 | | Not existed |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

NO >> Repair or replace harness.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT DRIVER SEAT CONTROL UNIT

INFOID:0000000001693677

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DRIVER SEAT CONTROL UNIT: Diagnosis Procedure

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

1. CHECK POWER SUPPLY CIRCUIT

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

| (+) | (_) | Voltage (V) (Approx.) | |
|------------------------------------|----------|--------------------------|-----------------|
| Driver seat control unit connector | Terminal | (-) | (11 / |
| B504 | 33 | Ground | Pattory voltage |
| 5504 | 40 | Giodila | Battery voltage |

Is the inspection result normal?

YES >> GO TO 2.

NO

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

2.CHECK GROUND CIRCUIT

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

| Driver seat control unit connector | Terminal | | Continuity |
|------------------------------------|----------|--------|------------|
| B503 | 32 | Ground | Existed |
| B504 | 48 | | LXISIGU |

Is the inspection result normal?

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

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

DRIVER SEAT CONTROL UNIT: Special Repair Requirement

INFOID:0000000001693678

${f 1}$.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure

INFOID:0000000001693679

NOTE:

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

1. CHECK POWER SUPPLY CIRCUIT

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

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

| (+) | | | Voltage (V) (Approx.) |
|---|----------|--------|--------------------------|
| Automatic drive positioner control unit connector | Terminal | (–) | |
| M52 | 34 | Ground | Pattory voltage |
| IVIOZ | 39 | Giouna | Battery voltage |

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 automatic drive positioner control unit harness connector and ground.

| Automatic drive positioner control unit connector | Terminal | | Continuity |
|---|----------|--------|------------|
| M52 | 40 | Ground | Existed |
| IVI32 | 48 | | LAISIEU |

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:0000000001693680

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to <u>ADP-9</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u> : Description".

SLIDING SWITCH

< COMPONENT DIAGNOSIS >

SLIDING SWITCH

Description INFOID:000000001693682

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:0000000001693683

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1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000001693684

1. CHECK SLIDING SWITCH SIGNAL

1. Turn ignition switch ON.

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

| Driver seat control unit Termi | | inals | Condition | | Voltage (V) |
|--------------------------------|-----|--------|-----------------------|--------------------|-----------------|
| connector | (+) | (-) | Gorialion | | (Approx.) |
| | 11 | Ground | Ground Sliding switch | Operate (backward) | 0 |
| B503 | "" | | | Release | Battery voltage |
| | 26 | | | Operate (forward) | 0 |
| | | | | Release | Battery voltage |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

2.check sliding switch circuit

Turn ignition switch OFF.

2. Disconnect driver seat control unit connector and power seat switch connector.

 Check continuity between driver seat control unit harness connector and power seat switch harness connector.

| Driver seat control unit connector | Terminal | Power seat switch connector | Terminal | Continuity |
|------------------------------------|----------|-----------------------------|----------|------------|
| B503 | 11 | B510 | 11 | Existed |
| B303 | 26 | | 26 | LAISIEU |

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

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SLIDING SWITCH

< COMPONENT DIAGNOSIS >

| Driver seat control unit connector | Terminal | | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 11 | Ground | Not existed |
| D000 | 26 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

| Driver seat control unit | Termi | Voltage (V) | |
|--------------------------|-------|-------------|-----------------|
| connector | (+) | (-) | (Approx.) |
| B503 | 11 | Ground | Battery voltage |
| | 26 | Ground | Ballery Vollage |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit.

4. CHECK SLIDING SWITCH

Refer to ADP-66, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000001693685

1. CHECK SLIDING SWITCH

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

| Te | rminal | Condition | | Continuity |
|------------------------------------|--------|---------------------------|---------|-------------|
| Power seat switch (Sliding switch) | | Condition | | Continuity |
| | 11 | Sliding switch (backward) | Operate | Existed |
| 32 | 11 | Silding Switch (backward) | Release | Not existed |
| 32 | 26 | Sliding switch (forward) | Operate | Existed |
| | 26 | | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch.

RECLINING SWITCH

< COMPONENT DIAGNOSIS >

RECLINING SWITCH

Description INFOID:000000001693686

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:0000000001693687

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1. CHECK FUNCTION

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

| Monitor item | Condition | Condition | | |
|----------------|-----------------------------|-----------|-----|--|
| RECLINE SW-FR | Reclining switch (forward) | Operate | ON | |
| RECLINE SW-I K | Reciling Switch (lorward) | Release | OFF | |
| RECLINE SW-RR | Reclining switch (backward) | Operate | ON | |
| RECLINE 3W-RR | Reclining Switch (backward) | Release | OFF | |

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000001693688

1. CHECK RECLINING SWITCH SIGNAL

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

| Driver seat control unit Termi | | inals | Condition | | Voltage (V) |
|--------------------------------|-----|----------|------------------|--------------------|-----------------|
| connector | (+) | (-) | Condition | | (Approx.) |
| | 12 | - Ground | | Operate (backward) | 0 |
| B503 | 12 | | Reclining switch | Release | Battery voltage |
| | 27 | | | Operate (forward) | 0 |
| | | | | Release | Battery voltage |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

2.check reclining switch circuit

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

| Driver seat control unit connector | Terminal | Power seat switch connector | Terminal | Continuity |
|------------------------------------|----------|-----------------------------|----------|------------|
| B503 | 12 | B510 | 12 | Existed |
| D303 | 27 | B310 | 27 | LXISIEU |

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

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RECLINING SWITCH

< COMPONENT DIAGNOSIS >

| Driver seat control unit connector | Terminal | | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 12 | Ground | Not existed |
| | 27 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check driver seat control unit output

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

| Driver seat control unit | Termi | Voltage (V) | |
|--------------------------|-------|-------------|-----------------|
| connector | (+) | (-) | (Approx.) |
| B503 | 12 | Ground | Battery voltage |
| | 27 | Ground | Ballery Vollage |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit.

4. CHECK RECLINING SWITCH

Refer to ADP-68, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000001693689

1. CHECK RECLINING SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch.

LIFTING SWITCH (FRONT)

< COMPONENT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description INFOID:000000001693690

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:0000000001693691

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1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000001693692

1. CHECK LIFTING SWITCH (FRONT) SIGNAL

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

| Driver seat control unit | Term | inals | Condition | | Voltage (V) |
|--------------------------|------|--------|----------------|----------------|-----------------|
| connector | (+) | (–) | | | (Approx.) |
| | 13 | Ground | Lifting switch | Operate (down) | 0 |
| B503 | 10 | | | Release | Battery voltage |
| | 28 | | (front) | Operate (up) | 0 |
| | | | | Release | Battery voltage |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

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

| Driver seat control unit connector | Terminal | Power seat switch connector | Terminal | Continuity |
|------------------------------------|----------|-----------------------------|----------|------------|
| B503 | 13 | B510 | 13 | Existed |
| D003 | 28 | | 28 | LXISIEU |

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

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LIFTING SWITCH (FRONT)

< COMPONENT DIAGNOSIS >

| Driver seat control unit connector | Terminal | | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 13 | Ground | Not existed |
| Б303 | 28 | | NOT EXISTED |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

| Driver seat control unit | Termi | Terminals | | |
|--------------------------|-------|-----------|-----------------|--|
| connector | (+) | (–) | (Approx.) | |
| B503 | 13 | Ground | Battery voltage | |
| D303 | 28 | Giodila | Dattery Voltage | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit.

4. CHECK LIFTING SWITCH (FRONT)

Refer to ADP-70, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000001693693

1. CHECK LIFTING SWITCH (FRONT)

- Turn ignition switch OFF.
- Disconnect power seat switch (lifting switch front) connector.
- 3. Check continuity between power seat switch (lifting switch front) terminals.

| Te | erminal | Conditio | n | Continuity |
|--|---------|-----------------------------|---------|-------------|
| Power seat switch (lifting switch front) | | Schallen | | Continuity |
| | 13 | Lifting switch front (down) | Operate | Existed |
| 32 | 13 | Litting Switch from (down) | Release | Not existed |
| 32 | 28 | Lifting switch front (up) | Operate | Existed |
| | 20 | Litting Switch from (up) | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch.

LIFTING SWITCH (REAR)

< COMPONENT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description INFOID:000000001693694

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

1.check function

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

| Monitor item | Condition | Condition | | |
|-----------------|----------------------------|-----------|-----|--|
| LIFT RR SW-UP | Lifting switch rear (up) | Operate | ON | |
| LIFT KK SW-UF | Litting Switch real (up) | Release | OFF | |
| LIFT RR SW-DN | Lifting switch rear (down) | Operate | ON | |
| LIFT NN SVV-DIN | Litting Switch real (down) | Release | OFF | |

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

| Driver seat control unit | | | Condition | | Voltage (V) |
|--------------------------|-----|---------------|-----------------------|-----------------|-----------------|
| connector | (+) | (-) | Condition | | (Approx.) |
| | 1/ | Ground (rear) | | Operate (down) | 0 |
| B503 29 | 14 | | Lifting switch (rear) | Release | Battery voltage |
| | 20 | | | Operate (up) | 0 |
| | | | Release | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

2.check lifting switch (rear) circuit

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

| Driver seat control unit connector | Terminal | Power sear switch connector | Terminal | Continuity |
|------------------------------------|----------|-----------------------------|----------|------------|
| B503 | 14 | B510 | 14 | Existed |
| D3U3 | 29 | | 29 | LXISIEU |

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

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LIFTING SWITCH (REAR)

< COMPONENT DIAGNOSIS >

| Driver seat control unit connector | Terminal | | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 14 | Ground | Not existed |
| | 29 | | NOT EXISTED |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

| Driver seat control unit | Termi | Voltage (V) | |
|--------------------------|-------|-------------|-----------------|
| connector | (+) | (–) | (Approx.) |
| B503 | 14 | Ground | Battery voltage |
| D303 | 29 | Giodila | Dattery voltage |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit.

4. CHECK LIFTING SWITCH (REAR)

Refer to ADP-72, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000001693697

1. CHECK LIFTING SWITCH (REAR)

- Turn ignition switch OFF.
- 2. Disconnect power seat switch (lifting switch rear) connector.
- 3. Check continuity between power seat switch (lifting switch rear) terminals.

| Te | erminal | Condition | | Continuity |
|---|---------|----------------------------|---------|-------------|
| Power seat switch (lifting switch rear) | | | | Continuity |
| | 14 | Lifting switch rear (down) | Operate | Existed |
| 32 | 14 | Litting Switch real (down) | Release | Not existed |
| 32 | 29 | Lifting switch rear (up) | Operate | Existed |
| | 29 | | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch.

FORWARD SWITCH

< COMPONENT DIAGNOSIS >

FORWARD SWITCH

Description INFOID:000000001838029

Forward switch is installed on the seat back frame. Forward switch detects condition of seat back.

Component Function Check

1. CHECK FUNCTION

- Select "FORWARD SW" in "Data Monitor" mode with CONSULT-III.
- Check the forward switch signal under the following condition.

| Test item | Condi | Status | |
|-------------|-----------------------|-------------|-----|
| FORWARD SW | Driver side seat back | Folded up | ON |
| I OKWAKD 3W | Driver side seat back | Folded down | OFF |

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

1. CHECK FORWARD SWITCH SIGNAL

1. Turn ignition switch OFF.

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

| Driver sea | t control unit | Ground | Condition | | Voltage (V) |
|------------|----------------|-------------------|-------------|-----------|-------------|
| Connector | Terminal | Clouite Condition | | (Approx.) | |
| B504 | 41 | (Fround | Driver side | Folded up | 5 |
| | 41 | | Ground | seat back | Folded down |

Is the inspection result normal?

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

NO >> GO TO 2.

2.CHECK FORWARD SWITCH CIRCUIT

- 1. Disconnect driver seat control unit connector and forward switch connector.
- Check continuity between driver seat control unit harness connector and forward switch harness connector.

| Driver sea | t control unit | Forward switch | | Continuity |
|------------|----------------|----------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B504 | 41 | B512 | 41 | Existed |

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

| Driver seat | Driver seat control unit | | Continuity | |
|-------------|--------------------------|--------|-------------|--|
| Connector | Terminal | Ground | | |
| B504 | 41 | Ground | Not existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.FORWARD SWITCH GROUND CIRCUIT

Check continuity between forward switch harness connector and ground.

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FORWARD SWITCH

< COMPONENT DIAGNOSIS >

| Forwar | Forward switch | | Continuity | |
|-----------|----------------|--------|------------|--|
| Connector | Terminal | Ground | Continuity | |
| B512 | 32 | Ground | Existed | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

f 4.CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

| Driver sea | Driver seat control unit Ground | | Voltage (V) |
|------------|----------------------------------|--------|-------------|
| Connector | Terminal | Ground | (Approx.) |
| B504 | 41 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

5. CHECK FORWARD SWITCH

Refer to ADP-74, "Component Inspection".

Is the inspection result normal?

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

NO >> Replace forward switch. (Built in seat back frame.)

Component Inspection

INFOID:0000000001838032

1. CHECK FORWARD SWITCH

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

| Forwar | d switch | Condition | | Continuity | |
|--------|----------|------------------|-----------|-------------|---------|
| Teri | minal | | | Continuity | |
| 41 | 32 | Driver side seat | Folded up | Not existed | |
| 41 | 32 | back | back | Folded down | Existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace forward switch. (Built in seat back frame.)

SEAT BELT BUCKLE SWITCH

< COMPONENT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH

Description INFOID:000000001838036

Seat belt buckle switch is installed in seat belt buckle. Seat belt buckle switch detects condition of seat belt.

Component Function Check

1. CHECK FUNCTION

- 1. Select "SEAT BELT SW" in "Data Monitor" mode with CONSULT-III.
- Check the forward switch signal under the following condition.

| Test item | Condi | Status | |
|--------------|-----------------------|----------|-----|
| SEAT BELT SW | Driver side seat belt | Fastened | ON |
| SEAT BEET SW | Driver side seat beit | Released | OFF |

Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-75, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK SEAT BELT BUCKLE SWITCH SIGNAL

1. Turn ignition switch OFF.

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

| Driver sea | t control unit | Ground | | ndition | Voltage (V) |
|------------|----------------|--------|-------------|----------|-------------|
| Connector | Terminal | Ground | | nation | (Approx.) |
| B503 | F | Ground | Driver side | Fastened | 0 |
| В303 | 3 | | seat belt | Released | 5 |

Is the inspection result normal?

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

NO >> GO TO 2.

2. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

- 1. Disconnect driver seat control unit connector and seat belt buckle switch connector.
- Check continuity between driver seat control unit harness connector and seat belt buckle switch harness connector.

| Driver sea | t control unit | Seat belt buckle switch | | Continuity |
|------------|----------------|-------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B503 | 5 | B13 | 1 | Existed |

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

| Driver seat | Driver seat control unit | | Continuity | |
|-------------|--------------------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B503 | 5 | Ground | Not existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

Check continuity between seat belt buckle switch harness connector and ground.

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SEAT BELT BUCKLE SWITCH

< COMPONENT DIAGNOSIS >

| Seat belt b | Seat belt buckle switch | | Continuity |
|-------------|-------------------------|----------|------------|
| Connector | Terminal | - Ground | Continuity |
| B13 | 2 | Ground | Existed |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

f 4.CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

| Driver seat | control unit | Ground | Voltage (V) | |
|-------------|--------------|--------|-------------|--|
| Connector | Terminal | Oround | (Approx.) | |
| B503 | 5 | Ground | 5 | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

5. CHECK SEAT BELT BUCKLE SWITCH

Refer to ADP-76, "Component Inspection".

Is the inspection result normal?

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

NO >> Replace seat belt buckle switch. (Built in seat belt buckle.)

Component Inspection

INFOID:0000000001838039

1. CHECK SEAT BELT BUCKLE SWITCH

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

| Seat belt buckle switch | | Condition | | Continuity | |
|-------------------------|-------|------------------|----------|-------------|---------|
| Teri | minal | Condition | | Continuity | |
| 1 | 2 | Driver side seat | Fastened | Not existed | |
| ' | 2 | belt | belt | Released | Existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch. (Built in seat belt buckle.)

SLIDING LIMIT SWITCH

< COMPONENT DIAGNOSIS >

SLIDING LIMIT SWITCH

Description INFOID:0000000001838043

Sliding limit switch is installed on seat cushion frame. Sliding limit switch detects condition of seat sliding.

Component Function Check

1. CHECK FUNCTION

- Select "FWD LIMIT SW" in "Data Monitor" mode with CONSULT-III.
- Check the sliding limit switch signal under the following condition.

| Test item | Condition | | Status |
|---------------|--------------|------------------|--------|
| FWD LIMIT SW | Seat sliding | Front edge | ON |
| I WD LIWIT SW | Seat sliding | Other than above | OFF |

Is the indication normal?

YES >> INSPECTION END

>> Go to ADP-77, "Diagnosis Procedure". NO

Diagnosis Procedure

1. CHECK SLIDING LIMIT SWITCH SIGNAL

Turn ignition switch OFF.

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

| Driver seat control unit | | Ground | Condition | | Voltage (V) |
|--------------------------|----------|--------|--------------|------------------|-------------|
| Connector | Terminal | Ground | | nation | (Approx.) |
| | | | | Front edge | 0 |
| B503 | 4 | Ground | Seat sliding | Other than above | 5 |

Is the inspection result normal?

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

NO >> GO TO 2.

2.CHECK SLIDING LIMIT SWITCH CIRCUIT

Disconnect driver seat control unit connector and sliding limit switch connector.

2. Check continuity between driver seat control unit harness connector and sliding limit switch harness connector.

| Driver sea | Driver seat control unit | | Sliding limit switch | |
|------------|--------------------------|--------------------|----------------------|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| B503 | 4 | B514 | 4 | Existed |

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

| Driver seat control unit | | Ground | Continuity | |
|--------------------------|----------|---------|-------------|--|
| Connector | Terminal | Giodila | Continuity | |
| B503 | 4 | Ground | Not existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK SLIDING LIMIT SWITCH GROUND CIRCUIT

Check continuity between sliding limit switch harness connector and ground.

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SLIDING LIMIT SWITCH

< COMPONENT DIAGNOSIS >

| Sliding limit switch | | Ground | Continuity | |
|----------------------|----------|---------|------------|--|
| Connector | Terminal | Giodila | Continuity | |
| B514 | 32 | Ground | Existed | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

f 4.CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

| Driver seat control unit | | Ground | Voltage (V) | |
|--------------------------|----------|--------|-------------|--|
| Connector | Terminal | Ground | (Approx.) | |
| B503 | 4 | Ground | 5 | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

CHECK SLIDING LIMIT SWITCH

Refer to ADP-78, "Component Inspection".

Is the inspection result normal?

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

NO >> Replace sliding limit switch. (Built in seat cushion frame.)

Component Inspection

INFOID:0000000001838046

1. CHECK SLIDING LIMIT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding limit switch connector.
- 3. Check continuity between sliding limit switch terminals.

| Sliding limit switch Terminal | | Condition | | Continuity | |
|-------------------------------|----------------|---------------|------------------|-------------|--|
| | | | | Continuity | |
| 1 | 32 Seat slidin | | Front edge | Not existed | |
| 4 | 32 | Jeat slidling | Other than above | Existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace sliding limit switch. (Built in seat cushion frame.)

POWER WALK-IN SWITCH

< COMPONENT DIAGNOSIS >

POWER WALK-IN SWITCH

Description INFOID:0000000001838050

Power walk-in switch is installed on seat back. The operation signal is inputted to driver seat control unit when power walk-in switch is operated.

Component Function Check

1. CHECK FUNCTION

- Select "WALK-IN SW" in "Data Monitor" mode with CONSULT-III.
- Check the power walk-in switch signal under the following condition.

| Test item | Condition | | Status |
|------------|----------------------|----------|--------|
| WALK-IN SW | Power walk-in switch | Pressed | ON |
| WALK-IN GW | Fower waik-in Switch | Released | OFF |

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

$oldsymbol{1}$ -CHECK POWER WALK-IN SWITCH SIGNAL

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

| Driver seat control unit | | Ground | Condition | | Voltage (V) |
|--------------------------|----------|--------------------|-----------|----------|-----------------|
| Connector | Terminal | Ground | Condition | | (Approx.) |
| B503 | 30 | Ground Power walk- | | Pressed | 0 |
| | 30 | Ground | in switch | Released | Battery voltage |

Is the inspection result normal?

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

NO >> GO TO 2.

2. CHECK POWER WALK-IN SWITCH CIRCUIT

- Disconnect driver seat control unit connector and power walk-in switch connector.
- 2. Check continuity between driver seat control unit harness connector and power walk-in switch harness connector.

| Driver seat control unit | | Power walk-in switch | | Continuity |
|--------------------------|----------|----------------------|----|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| B503 | 30 | B513 | 30 | Existed |

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

| Driver seat | Driver seat control unit | | Continuity | |
|-------------|--------------------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B503 | 30 | Ground | Not existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK POWER WALK-IN SWITCH GROUND CIRCUIT

Check continuity between power walk-in switch harness connector and ground.

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POWER WALK-IN SWITCH

< COMPONENT DIAGNOSIS >

| Power wa | lk-in switch | Ground | Continuity | |
|-----------|--------------|--------|------------|--|
| Connector | Terminal | Ground | Continuity | |
| B513 | 32 | Ground | Existed | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

| Driver sea | t control unit | Ground | Voltage (V) | |
|------------|--------------------|--------|-----------------|--|
| Connector | Connector Terminal | | (Approx.) | |
| B503 | 30 | Ground | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace driver seat control unit. Refer to <u>ADP-236, "Removal and Installation"</u>.

5. CHECK POWER WALK-IN SWITCH

Refer to ADP-80, "Component Inspection".

Is the inspection result normal?

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

NO >> Replace power walk-in switch. (Built in walk-in lever.)

Component Inspection

INFOID:0000000001838053

1. CHECK POWER WALK-IN SWITCH

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

| Power walk-in switch | | Condition | | Continuity | |
|----------------------|----------------------|---------------|----------|-------------|--|
| Terminal | | | | | |
| 30 | Power walk-in switch | Power walk-in | Pressed | Not existed | |
| | | switch | Released | Existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power walk-in switch.

TILT SWITCH

< COMPONENT DIAGNOSIS >

TILT SWITCH

Description INFOID:000000001693698

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

Component Function Check

1.CHECK FUNCTION

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

| Monitor item | Condition | Status | |
|--------------|--------------------|---------|-----|
| TILT SW-UP | Tilt switch (up) | Operate | ON |
| | Till Switch (up) | Release | OFF |
| TILT SW-DN | Tilt switch (down) | Operate | ON |
| | The Switch (down) | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

1. CHECK TILT SWITCH SIGNAL

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

| Automatic drive positioner control unit connector | Terminals | | Condition | | Voltage (V) |
|---|-----------|----------|-------------|----------------|-----------------|
| control unit connector | (+) | (–) | ! | | (Approx.) |
| | 1 | - Ground | | Operate (up) | 0 |
| M51 | | | Tilt switch | Release | Battery voltage |
| IVIO I | 47 | | The Switch | Operate (down) | 0 |
| | 17 | | | Release | Battery voltage |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

2.CHECK TILT SWITCH CIRCUIT

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

| Automatic drive positioner control unit connector | Terminal | Tllt & telescopic switch connector | Terminal | Continuity |
|---|----------|------------------------------------|----------|------------|
| M51 | 1 | M31 | 4 | Existed |
| I CIVI | 17 | 10131 | 5 | LAISIEU |

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

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TILT SWITCH

< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | | Continuity |
|---|----------|--------|-------------|
| M51 | 1 | Ground | Not existed |
| | 17 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT

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

| Automatic drive positioner | Termi | Voltage (V) | | |
|----------------------------|-------|-------------|-----------------|--|
| control unit connector | (+) | (-) | (Approx.) | |
| M51 | 1 | Ground | Battery voltage | |
| IVIO | 17 | Ground | battery voltage | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit.

4. CHECK TILT SWITCH

Refer to ADP-82, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace tilt & telescopic switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000001693701

1. CHECK TILT SWITCH

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

| Terminal Tilt switch | | Condition | | Continuity | |
|----------------------|---|--------------------|---------|-------------|--|
| | | | | | |
| 1 | 4 | Till Switch (up) | Release | Not existed | |
| I | 5 | Tilt switch (down) | Operate | Existed | |
| | | | Release | Not existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch.

TELESCOPIC SWITCH

< COMPONENT DIAGNOSIS >

TELESCOPIC SWITCH

Description INFOID:000000001693702

Telescopic switch is equipped on 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:0000000001693703

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1. CHECK FUNCTION

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

| Monitor item | Condition | Condition | | |
|---------------|---------------------------|-----------|-----|--|
| TELESCO SW-FR | Telesco switch (forward) | Operate | ON | |
| | relesco switch (lorward) | Release | OFF | |
| TELESCO SW-RR | Telesco switch (backward) | Operate | ON | |
| | relesco switch (backward) | Release | OFF | |

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-83, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000001693704

1. CHECK TELESCOPIC SWITCH SIGNAL

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

| Automatic drive positioner | Terminals | | Condition | | Voltage (V) |
|----------------------------|-----------|--------|-------------------|--------------------|-----------------|
| control unit connector | (+) | (-) | Condition | | (Approx.) |
| M51 | 11 | | Telescopic switch | Operate (forward) | 0 |
| | " | Ground | | Release | Battery voltage |
| | 27 | | | Operate (backward) | 0 |
| | | | | Release | Battery voltage |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

2.check telescopic switch circuit

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

| Automatic drive positioner control unit connector | Terminal | Tllt & telescopic switch connector | Terminal | Continuity |
|---|----------|------------------------------------|----------|------------|
| M51 | 11 | M31 | 2 | Existed |
| I GIVI | 27 | IVIST | 3 | EXISTED |

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

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TELESCOPIC SWITCH

< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | | Continuity |
|---|----------|--------|-------------|
| M51 | 11 | Ground | Not existed |
| | 27 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check automatic drive positioner control unit output

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

| Automatic drive positioner | Termi | nals | Voltage (V) |
|----------------------------|-------|---------|-----------------|
| control unit connector | (+) | (–) | (Approx.) |
| M51 | 11 | Ground | Battery voltage |
| IVIO I | 27 | Giodila | Ballery Vollage |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit.

4. CHECK TELESCOPIC SWITCH

Refer to ADP-84, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace tilt & telescopic switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000001693705

1. CHECK TELESCOPIC SWITCH

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

| Te | rminal | Condition | | Continuity | |
|---------|-------------|------------------------------|-----------------------------|-------------|---------|
| Telesco | opic switch | | | Continuity | |
| | 2 Tolog | 2 Taloscopie switch (forwa | Telescopic switch (forward) | Operate | Existed |
| 1 | 2 | relescopic switch (lorward) | Release | Not existed | |
| ı | 3 | Telescopic switch (backward) | Operate | Existed | |
| | 3 | Telescopic Switch (backward) | Release | Not existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch.

SEAT MEMORY SWITCH

< COMPONENT DIAGNOSIS >

SEAT MEMORY SWITCH

Description INFOID:000000001693706

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

Component Function Check

INFOID:0000000001693707

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1. CHECK FUNCTION

- 1. Select "MEMORY SW 1", "MEMORY SW 2" in "Data Monitor" mode with CONSULT-III.
- 2. Check seat memory switch signal under the following conditions.

| Monitor item | Condition | Status | |
|--------------|-----------------|---------|-----|
| MEMORY SW 1 | Memory switch 1 | Press | ON |
| MEMORT SW 1 | Memory Switch 1 | Release | OFF |
| MEMORY SW 2 | Memory switch 2 | Press | ON |
| MEMORY SW 2 | Memory Switch 2 | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-85, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000001693708

1. CHECK SEAT MEMORY SWITCH SIGNAL

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

| Automatic drive positioner | Term | inals | Conditi | on | Voltage (V) | |
|----------------------------|------|--------|-------------------|---------|-------------|--|
| control unit connector | (+) | (-) | Condition | | (Approx.) | |
| | 9 | | Memory switch 1 | Press | 0 | |
| M51 | 9 | Ground | Welliory Switch 1 | Release | 5 | |
| IVIO I | 25 | Glound | Memory switch 2 | Press | 0 | |
| | 25 | | Welliory Switch 2 | Release | 5 | |

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2.CHECK MEMORY SWITCH CIRCUIT

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

| Automatic drive positioner control unit connector | Terminal | Seat memory switch connector | Terminal | Continuity |
|---|----------|------------------------------|----------|------------|
| M51 | 9 | D5 | 1 | Existed |
| I CIVI | 25 | . 53 | 2 | EXISIEG |

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

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SEAT MEMORY SWITCH

< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | | Continuity |
|---|----------|--------|-------------|
| M51 | 9 | Ground | Not existed |
| | 25 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check memory switch ground circuit

Check continuity between seat memory switch harness connector and ground.

| Seat memory switch connector | Terminal | Ground | Continuity |
|------------------------------|----------|--------|------------|
| D5 | 4 | | Existed |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT

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

| Automatic drive positioner | Termi | nals | Voltage (V) |
|----------------------------|-------|--------|-------------|
| control unit connector | (+) | (-) | (Approx.) |
| M51 | 9 | Ground | 5 |
| I GIVI | 25 | Ground | 3 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit.

5.CHECK SEAT MEMORY SWITCH

Refer to ADP-86, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace seat memory switch.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:000000001693709

1. CHECK SEAT MEMORY SWITCH

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

SEAT MEMORY SWITCH

< COMPONENT DIAGNOSIS >

| | rminal emory switch | Condition | | Continuity |
|---|------------------------|-----------------|---------|-------------|
| | 1 | Mamary quitab 1 | Press | Existed |
| 4 | ' | Memory switch 1 | Release | Not existed |
| 4 | 2 | Mamary quitab 2 | Press | Existed |
| | 2 | Memory switch 2 | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch.

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POWER SEAT SWITCH GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000001693718

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 harness connector and ground.

| Power seat switch connector | Terminal | Ground | Continuity |
|-----------------------------|----------|---------|------------|
| B510 | 32 | Giodila | Existed |

Is the inspection result normal?

YES >> Power seat switch ground circuit is OK.

NO >> Repair or replace harness.

< COMPONENT DIAGNOSIS >

DRIVER SIDE: Description

DOOR SWITCH

DRIVER SIDE

INFOID:0000000001693730

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

DRIVER SIDE: Component Function Check

INFOID:0000000001693731

1. CHECK FUNCTION

- 1. Select "DOOR SW-DR" in "Data Monitor" mode with CONSULT-III.
- 2. Check the driver side door switch signal under the following conditions.

| Monitor item | Cor | Status | |
|--------------|------------------|--------|-----|
| DOOR SW-DR | Driver side door | Open | ON |
| | | Close | OFF |

Is the inspection result normal?

YES >> INSPECTION END

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

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001693732

1. CHECK DRIVER SIDE DOOR SWITCH SIGNAL

1. Turn ignition switch OFF.

2. Check signal between BCM connector and ground with oscilloscope.

| | Terminals | | | | |
|---------------|-----------|--------|------------------|-------|----------------------------------|
| (| +) | | Condition | | Voltage (V) |
| BCM connector | Terminal | (-) | | | (Approx.) |
| | | | | Open | 0 |
| M123 | 150 | Ground | Driver side door | Close | (V) 15 10 5 0 10 ms JPMIA0011GB |

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

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2.CHECK DRIVER SIDE DOOR SWITCH CIRCUIT

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

| BCM connector | Terminal | Door switch connector | Terminal | Continuity |
|---------------|----------|-----------------------|----------|------------|
| M123 | 150 | B16 | 2 | Existed |

Check continuity between BCM connector and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|-------------|
| M123 | 150 | Glound | Not existed |

DOOR SWITCH

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check driver side door switch

Refer to ADP-90, "DRIVER SIDE: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver side door switch.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace BCM.

NO >> Repair or replace the malfunctioning part.

DRIVER SIDE: Component Inspection

INFOID:0000000001693733

1. CHECK DRIVER SIDE DOOR SWITCH

- Turn ignition switch OFF.
- Disconnect driver side door switch connector.
- Check continuity between driver side door switch terminals.

| Terminal | | Condition | | Continuity | |
|-------------------------|---------------------|-------------------------|----------|-------------|--|
| Driver side door switch | | | | | |
| 2 | Ground part of door | Driver side door switch | Pressed | Not existed | |
| | switch | Driver side door switch | Released | Existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace driver side door switch.

DETENTION SWITCH

< COMPONENT DIAGNOSIS >

DETENTION SWITCH

Description INFOID:0000000001693723

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

Component Function Check

1. CHECK FUNCTION

- Select "DETENT SW" signal in "Data Monitor" mode with CONSULT-III.
- 2. Check detention switch signal under the following conditions.

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

Is the indication normal?

>> INSPECTION END YES

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

Diagnosis Procedure

1. CHECK DTC WITH "BCM"

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

Is the either DTC B2602, B2603, B2604, B2605 or B2606 detected?

YES >> Check the DTC. Refer to ADP-215, "DTC Index".

NO >> GO TO 2.

2.CHECK DETENTION SWITCH INPUT SIGNAL

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

| Driver seat control unit | Terminal | | Condition | | Voltage (V) |
|--------------------------|-----------------------------|--------|--------------------|------------------|-----------------|
| connector | (+) | (-) | Condition | | (Approx.) |
| B503 | B503 21 Ground A/T selector | | A/T selector lever | P position | 0 |
| B503 21 Gro | | Giouna | A I Sciector level | Other than above | Battery voltage |

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.check detention switch circuit

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

| Driver seat control unit connector | Terminal | A/T device connector | Terminal | Continuity |
|------------------------------------|----------|----------------------|----------|------------|
| B503 | 21 | M137 | 11 | Existed |

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 21 | | Not existed |

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INFOID:0000000001693724

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DETENTION SWITCH

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace the malfunctioning part.

PARKING BRAKE SWITCH

< COMPONENT DIAGNOSIS >

PARKING BRAKE SWITCH

Description INFOID:0000000001693726

Parking brake switch is installed on parking brake lever. It is turned ON when the parking brake is applied. The driver seat control unit judges that the parking brake is engaged if continuity exists in this circuit.

Component Function Check

${f 1}$.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

- Select "PARK BRAKE SW" in "Data Monitor" mode with CONSULT-III.
- Check parking brake switch signal under the following conditions.

| Monitor item | Condition | | Status |
|---------------|---------------|---------|--------|
| PARK BRAKE SW | Parking brako | Applied | ON |
| | Parking brake | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-93. "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK PARKING BRAKE SWITCH SIGNAL

Turn ignition switch ON.

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

| Driver seat control unit | Terminal | | Condition | | Voltage (V) | |
|--------------------------|-----------------------------|-----|-----------|-----------------|-------------|--|
| connector | (+) | (-) | Condition | | (Approx.) | |
| B503 | B503 8 Ground Parking brake | | Applied | 0 | | |
| D303 | | | Release | Battery voltage | | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2.CHECK PARKING BRAKE SWITCH CIRCUIT

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

| Driver seat control unit connector | Terminal | Parking brake switch | Terminal | Continuity |
|------------------------------------|----------|----------------------|----------|------------|
| B503 | 8 | B14 | 1 | Existed |

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 8 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK PARKING BRAKE SWITCH

Refer to ADP-94, "Component Inspection".

Is the inspection result normal?

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PARKING BRAKE SWITCH

< COMPONENT DIAGNOSIS >

YES >> GO TO 4.

NO >> Adjust or replace parking brake switch.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit.

NO >> Repair or replace malfunctioning part.

Component Inspection

INFOID:0000000001693729

1. CHECK PARKING BRAKE SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect parking brake switch connector.
- 3. Check continuity between parking brake switch terminal and ground part of parking brake switch.

| Terminal | | Condition | | Continuity | |
|----------|----------------------|---------------|---------|-------------|--|
| Parking | brake switch | Condition | | Continuity | |
| 1 | Ground part of | Parking brake | Applied | Existed | |
| ı | parking brake switch | Faiking blake | Release | Not existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Adjust or replace parking brake switch.

SLIDING SENSOR

< COMPONENT DIAGNOSIS >

SLIDING SENSOR

Description INFOID:000000001693734

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

Component Function Check

1.CHECK FUNCTION

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

| Monitor item | Condition | | Valve |
|--------------|--------------------------|-------------------------|---------------------|
| | SLIDE PULSE Seat sliding | Operate (forward) | Change (increase)*1 |
| SLIDE PULSE | | 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 daiagnosis procedure. Refer to ADP-95, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK SLIDING SENSOR SIGNAL

1. Turn ignition switch ON.

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

| Te | Terminals | | | | |
|------------------------------------|-----------|--------|--------------|---------------------------|----------------------------------|
| (+) | | | Co | ndition | Voltage signal |
| Driver seat control unit connector | Terminal | (-) | Condition | | |
| B503 | 24 | Ground | Seat sliding | Operate Other than above | 10mSec/div 2V/div JMJIA0119ZZ |

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 2.

2.CHECK SLIDING SENSOR CIRCUIT

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

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SLIDING SENSOR

< COMPONENT DIAGNOSIS >

| Driver seat control unit connector | Terminal | Sliding sensor connector | Terminal | Continuity |
|------------------------------------|----------|--------------------------|----------|------------|
| B503 | 24 | B526 | 24 | Existed |

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 24 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check sliding sensor power supply

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

| | V-11 0.0 | | |
|--------------------------|----------|--------|--------------------------|
| (+) | | (-) | Voltage (V) (Approx.) |
| Sliding sensor connector | Terminal | (-) | (11 - / |
| B526 | 16 | Ground | 5 |

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 connector | Terminal | Sliding sensor connector | Terminal | Continuity |
|------------------------------------|----------|--------------------------|----------|------------|
| B503 | 16 | B526 | 16 | Existed |

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 16 | | Not existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

5. CHECK SLIDING SENSOR GROUND

- 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 connector | Terminal | Sliding sensor connector | Terminal | Continuity |
|------------------------------------|----------|--------------------------|----------|------------|
| B503 | 31 | B526 | 31 | Existed |

Is the inspection result normal?

YES >> GO TO 7.

SLIDING SENSOR

< COMPONENT DIAGNOSIS > NO >> Repair or replace harness. Α 6. CHECK SEAT OPERATION Connect driver seat control unit connector and sliding sensor connector. Check seat operation (except sliding operation) with memory function. В Is the operation normal? YES >> Replace sliding sensor. (Built in seat slide cushion frame.) NO >> Replace driver seat control unit. C 7. CHECK INTERMITTENT INCIDENT Refer to GI-38, "Intermittent Incident". D Is the inspection result normal? YES >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation". >> Repair or replace the malfunctioning part. NO Е F Н

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RECLINING SENSOR

< COMPONENT DIAGNOSIS >

RECLINING SENSOR

Description INFOID:000000001693737

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

Component Function Check

INFOID:0000000001693738

1. CHECK FUNCTION

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

| Monitor item | Condition | | Value |
|-----------------|----------------|--------------------|-------------------------|
| | Seat reclining | Operate (forward) | Change (increase)*1 |
| RECLN PULSE Sea | | 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-98, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000001693739

1. CHECK RECLINING SENSOR SIGNAL

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

| Terminals | | | | | |
|-----------------------------------|---|--------|----------------|--------------------------|----------------------------------|
| (+) | | | | ndition | Voltage signal |
| Driver seat control unit Terminal | | (-) | | | |
| B503 | 9 | Ground | Seat reclining | Operate Other than above | 10mSec/div 2V/div JMJIA0119ZZ |

Is the inspection result normal?

YES >> GO TO 7. NO >> GO TO 2.

2. CHECK RECLINING SENSOR CIRCUIT

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

| Driver seat control unit connector | Terminal | Reclining motor connector | Terminal | Continuity |
|------------------------------------|----------|---------------------------|----------|------------|
| B503 | 9 | B523 | 9 | Existed |

RECLINING SENSOR

< COMPONENT DIAGNOSIS >

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 9 | | Not existed |

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Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK RECLINING SENSOR POWER SUPPLY

- Connect driver seat control unit connector.
- 2. Turn ignition switch ON.

Check voltage between reclining motor harness connector and ground.

| | Malkana (A.A) | | |
|------------------------------------|---------------|--------|--------------------------|
| (+) | | (_) | Voltage (V) (Approx.) |
| Reclining motor connector Terminal | | (-) | () 1 - / |
| B523 | 16 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

f 4.CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

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

| Driver seat control unit connector | Terminal | Reclining motor connector | Terminal | Continuity |
|------------------------------------|----------|---------------------------|----------|------------|
| B503 | 16 | B523 | 16 | Existed |

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 16 | | Not existed |

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

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 connec-

| Driver seat control unit connector | Terminal | Reclining motor connector | Terminal | Continuity |
|------------------------------------|----------|---------------------------|----------|------------|
| B503 | 31 | B523 | 31 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK SEAT OPERATION

Connect driver seat control unit connector and reclining motor connector.

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RECLINING SENSOR

< COMPONENT DIAGNOSIS >

2. Check seat operation (except reclining operation) with memory function.

Is the operation normal?

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

NO >> Replace driver seat control unit.

7.CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-236</u>. "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

LIFTING SENSOR (FRONT)

< COMPONENT DIAGNOSIS >

LIFTING SENSOR (FRONT)

Description INFOID:000000001693740

- The lifting sensor (front) is installed on the seat slide cushion frame.
- The pulse signal is transmitted to the driver seat control unit when 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

- Select "LIFT FR PULSE" in "Data Monitor" mode with CONSULT-III.
- Check 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-101, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK LIFTING SENSOR (FRONT) SIGNAL

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

| Terminals | | | | | | |
|--------------------------|----------|--------|-------------------------|--------------------------|------------------------------------|--|
| (+) | | () | Co | ndition | Voltage signal | |
| Driver seat control unit | Terminal | (–) | | | | |
| B503 | 25 | Ground | Seat Lifting (front) | Operate Other than above | 10mSec/div = 2V/div JMJIA0119ZZ | |

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 2.

2.check lifting sensor (front) circuit

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

| Driver seat control unit connector | Terminal | Lifting motor (front) connector | Terminal | Continuity |
|------------------------------------|----------|---------------------------------|----------|------------|
| B503 | 25 | B527 | 25 | Existed |

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LIFTING SENSOR (FRONT)

< COMPONENT DIAGNOSIS >

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 25 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check lifting sensor (front) power supply

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

| | V. II 0.0 | | |
|--|-----------|--------|--------------------------|
| (+) | | (_) | Voltage (V) (Approx.) |
| Lifting motor (front) connector Terminal | | (-) | (11 - 7 |
| B527 | 16 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

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

| Driver seat control unit connector | Terminal | Lifting motor (front) connector | Terminal | Continuity |
|------------------------------------|----------|------------------------------------|----------|------------|
| B503 | 16 | B527 | 16 | Existed |

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 16 | | Not existed |

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

5. CHECK LIFTING SENSOR (FRONT) GROUND

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

| Driver seat control unit connector | Terminal | Lifting motor (front) connector | Terminal | Continuity |
|------------------------------------|----------|------------------------------------|----------|------------|
| B503 | 31 | B527 | 31 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6. CHECK SEAT OPERATION

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

LIFTING SENSOR (FRONT)

< COMPONENT DIAGNOSIS > Check seat operation [except lifting (front) operation] with memory function. Α Is the operation normal? YES >> Replace lifting motor (front). (Built in seat slide cushion frame.) NO >> Replace driver seat control unit. 7. CHECK INTERMITTENT INCIDENT В Refer to GI-38, "Intermittent Incident". Is the inspection result normal? C YES >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation". NO >> Repair or replace the malfunctioning part. D Е F Н

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LIFTING SENSOR (REAR)

< COMPONENT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description INFOID:000000001693743

- The lifting sensor (rear) is installed on the seat slide cushion frame.
- The pulse signal is transmitted to the driver seat control unit when 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:0000000001693744

1. CHECK FUNCTION

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

| Monitor item | Condition | | Value |
|-----------------|---------------------|----------------|-------------------------|
| LIFT RR PULSE S | Seat lifting (rear) | Operate (Up) | Change (increase)*1 |
| | | 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-104, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000001693745

1. CHECK LIFTING SENSOR (REAR) SIGNAL

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

| Terminals | | | | | | |
|--------------------------|----------|--------|------------------------|--------------------------|----------------------------------|--|
| (+) | | | | Condition | Voltage signal | |
| Driver seat control unit | Terminal | (–) | | | | |
| B503 | 10 | Ground | Seat Lifting (rear) | Operate Other than above | 10mSec/div 2V/div JMJIA0119ZZ | |

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 2.

2.CHECK LIFTING SENSOR (REAR) CIRCUIT

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

| Driver seat control unit connector | Terminal | Lifting motor (rear) connector | Terminal | Continuity |
|------------------------------------|----------|--------------------------------|----------|------------|
| B503 | 10 | B529 | 10 | Existed |

LIFTING SENSOR (REAR)

< COMPONENT DIAGNOSIS >

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 10 | | Not Existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check lifting sensor (rear) power supply

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

| | V 16 00 | | |
|----------------------|----------|--------|--------------------------|
| (+) | | (-) | Voltage (V) (Approx.) |
| Lifting motor (rear) | Terminal | | (11 -) |
| B529 | 16 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK LIFTING SENSOR (REAR) POWER SUPPLY CIRCUIT

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

| Driver seat control unit connector | Terminal | Lifting motor (rear) connector | Terminal | Continuity |
|------------------------------------|----------|--------------------------------|----------|------------|
| B503 | 16 | B529 | 16 | Existed |

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

| Driver seat control unit connector | Terminal | Ground | Continuity |
|------------------------------------|----------|--------|-------------|
| B503 | 16 | | Not existed |

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

5. CHECK LIFTING SENSOR (REAR) GROUND

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

| Driver seat control unit connector | Terminal | Lifting motor (rear) connector | Terminal | Continuity |
|------------------------------------|----------|--------------------------------|----------|------------|
| B503 | 31 | B529 | 31 | Existed |

Is the inspection result normal?

>> GO TO 6. YES

NO >> Repair or replace harness.

O.CHECK SEAT OPERATION

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

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LIFTING SENSOR (REAR)

< COMPONENT DIAGNOSIS >

- 2. Turn ignition switch ON.
- 3. Check the seat operation [except lifting (rear) operation] with memory function.

Is the operation normal?

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

NO >> Replace driver seat control unit.

7. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-236, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

TILT SENSOR

Description INFOID:0000000001693746

- The tilt sensor is installed on 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

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1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000001693748

1. CHECK TILT SENSOR SIGNAL

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

| ī | erminal | | | |
|---|----------|--------|---------------|---|
| (+) | | | Condition | Voltage (V) |
| Automatic drive positioner control unit connector | Terminal | (-) | | (Approx.) |
| M51 | 7 | Ground | Tilt position | Change between 1.2 V (Close to top) 3.4 V (Close to bottom) |

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 2.

2.CHECK TILT SENSOR CIRCUIT

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

| Automatic drive positioner control unit connector | Terminal | Tilt & telescopic sensor connector | Terminal | Continuity |
|---|----------|------------------------------------|----------|------------|
| M51 | 7 | M48 | 3 | Existed |

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M51 | 7 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3. ADP

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TILT SENSOR

< COMPONENT DIAGNOSIS >

NO >> Repair or replace harness.

3. CHECK TILT SENSOR POWER SUPPLY

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

| Terminal | | | V 14 0 0 |
|--------------------------|----------|--------|--------------------------|
| (+) | | (-) | Voltage (V) (Approx.) |
| Tilt & telescopic sensor | Terminal | (-) | |
| M48 | 1 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

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

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|--|----------|--------|-------------|
| M52 | 33 | | Not existed |

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

5.CHECK TILT SENSOR GROUND

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

| Automatic drive positioner control unit connector | Terminal | Tilt & telescopic sensor connector | Terminal | Continuity |
|---|----------|------------------------------------|----------|------------|
| M52 | 41 | M48 | 4 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6. CHECK DOOR MIRROR OPERATION

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

Is the operation normal?

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

NO >> Replace automatic drive positioner control unit.

1.CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

TILT SENSOR

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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TELESCOPIC SENSOR

< COMPONENT DIAGNOSIS >

TELESCOPIC SENSOR

Description INFOID:000000001693749

- The telescopic sensor is installed on 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:0000000001693750

1. CHECK FUNCTION

- 1. Select "TELESCO SEN" in "Data Monitor" mode with CONSULT-III.
- 2. Check telescopic sensor signal under the following conditions.

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

Is the indication normal?

YES >> INSPECTION END.

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

Diagnosis Procedure

INFOID:0000000001693751

1. CHECK TELESCOPIC SENSOR SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 7. NO >> GO TO 2.

2.CHECK TELESCOPIC SENSOR CIRCUIT

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

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

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

TELESCOPIC SENSOR

< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M51 | 23 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TELESCOPIC SENSOR POWER SUPPLY

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

| | V 16 0.0 | | |
|--------------------------|----------|--------|--------------------------|
| (+) | | (-) | Voltage (V) (Approx.) |
| Tilt & telescopic sensor | Terminal | (-) | (11 - 7 |
| M48 | 1 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

f 4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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

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

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M52 | 33 | | Not existed |

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

5. CHECK TELESCOPIC 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 tilt & telescopic sensor harness connector.

| Automatic drive positioner control unit connector | Terminal | Tilt & telescopic sensor connector | Terminal | Continuity |
|---|----------|------------------------------------|----------|------------|
| M52 | 41 | M48 | 4 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

$\mathsf{6}.$ CHECK DOOR MIRROR OPERATION

- 1. Connect automatic drive positioner control unit connector and tilt & telescopic sensor connector.
- Check door mirror operation with memory function.

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Turn ignition switch ON.

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TELESCOPIC SENSOR

< COMPONENT DIAGNOSIS >

Is the operation normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

NO >> Repair or replace harness.

7. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

< COMPONENT DIAGNOSIS >

MIRROR SENSOR DRIVER SIDE

INFOID:0000000001693752

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DRIVER SIDE : Description

- The mirror sensor (driver side) is installed on 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:0000000001693753

1. CHECK FUNCTION

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

| Monitor item | Condition | Value |
|----------------|------------------------------|---|
| MIR/SEN LH U-D | - Door mirror (driver side) | Change between 3.4 V (close to peak) 0.6 V (close to valley) |
| MIR/SEN LH R-L | - Door Hillion (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-113, "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001693754

1. CHECK DOOR MIRROR (DRIVER SIDE) SENSOR SIGNAL

1. Turn ignition switch ON.

2. Check voltage between door mirror (driver side) harness connector and ground.

| Terminals | | | | | |
|-------------------------------------|----------|--------|---------------|---|--|
| (+) | | | Condition | Voltage (V) | |
| Door mirror (driver side) connector | Terminal | (-) | | (Approx.) | |
| D3 | 9 | Ground | Door mirror | Change between 3.4 V (close to peak) 0.6 V (close to valley) | |
| | 10 | Ground | (driver side) | Change between 0.6 V (close to left edge) 3.4 V (close to right edge) | |

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 2.

2.check door mirror (driver side) sensor circuit

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

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< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | Door mirror (driver side) connector | Terminal | Continuity |
|---|----------|--|----------|------------|
| M51 | 6 | D3 | 9 | Existed |
| | 22 | D3 | 10 | Existed |

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M51 | 6 | | Not existed |
| | 22 | | NOT EXISTED |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

- Connect automatic drive positioner control unit connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between door mirror (driver side) harness connector and ground.

| (+) | | | Voltage (V) (Approx.) |
|-------------------------------------|----------|--------|--------------------------|
| Door mirror (driver side) connector | Terminal | (-) | (Approx.) |
| D3 | 11 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

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

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

| Automatic drive positioner control unit connector | Terminal | Door mirror (driver side) connector | Terminal | Continuity |
|---|----------|-------------------------------------|----------|------------|
| M52 | 33 | D3 | 11 | Existed |

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M52 | 33 | | Not existed |

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

5. CHECK DOOR MIRROR (DRIVER SIDE) SENSOR GROUND

- 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 door mirror (driver side) harness connector.

< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | Door mirror (driver side) connector | Terminal | Continuity |
|---|----------|--|----------|------------|
| M52 | 41 | D3 | 12 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK TILT & TELESCOPIC OPERATION

- 1. Connect automatic drive positioner control unit connector and door mirror (driver side) connector.
- Turn ignition switch ON.
- 3. Check tilt & telescopic operation with memory function.

Is the operation normal?

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

NO >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

7.CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

PASSENGER SIDE

PASSENGER SIDE: Description

The mirror sensor (passenger side) is installed on 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:0000000001693756

INFOID:0000000001693755

1. CHECK FUNCTION

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

| Monitor item | Condition | Value |
|----------------|----------------------------------|---|
| MIR/SEN RH U-D | - Door mirror (passenger side) — | Change between 3.4 V (close to peak) 0.6 V (close to valley) |
| MIR/SEN RH R-L | | 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-115, "PASSENGER SIDE : Diagnosis Procedure"</u>.

PASSENGER SIDE : Diagnosis Procedure

1.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR SIGNAL

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

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INFOID:0000000001693757

< COMPONENT DIAGNOSIS >

| Terminals | | | | | |
|--|----------|-------------------------------|---------------------|---|--|
| (+) | | | Condition | Voltage (V) | |
| Door mirror (passenger side) connector | Terminal | (-) | | (Approx.) | |
| D22 | 9 | Door mirror Ground (passenger | | Change between 3.4 V (close to peak) 0.6 V (close to valley) | |
| D33 | 10 | Ground | (passenger side) | Change between 3.4 V (close to left edge) 0.6 V (close to right edge) | |

Is the inspection result normal?

YES >> GO TO 7. NO >> GO TO 2.

2.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR CIRCUIT

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

| Automatic drive positioner control unit connector | Terminal | Door mirror (passenger side) connector | Terminal | Continuity |
|---|----------|--|----------|------------|
| M51 | 5 | D33 | 9 | Existed |
| | 21 | D33 | 10 | Existed |

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

| Automatic drive positioner control unit connector | Terminal | | Continuity |
|---|----------|--------|-------------|
| M51 | 5 | Ground | Not existed |
| | 21 | | NOT EXISTED |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

$3. {\sf CHECK\ DOOR\ MIRROR\ (PASSENGER\ SIDE)\ SENSOR\ POWER\ SUPPLY}$

- 1. Connect automatic drive positioner control unit connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between door mirror (passenger side) harness connector and ground.

| (+) | | | Voltage (V) (Approx.) |
|--|----------|--------|--------------------------|
| Door mirror (passenger side) connector | Terminal | (-) | (Approx.) |
| D33 | 11 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

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

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

< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | Door mirror (passenger side) connector | Terminal | Continuity |
|---|----------|--|----------|------------|
| M52 | 33 | D33 | 11 | Existed |

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

| Automatic drive positioner control unit connector | Terminal | Ground | Continuity |
|---|----------|--------|-------------|
| M52 | 33 | | Not existed |

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

5.check door mirror (passenger side) sensor ground

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

| Automatic drive positioner control unit connector | Terminal | Door mirror (passenger side) connector | Terminal | Continuity |
|---|----------|--|----------|------------|
| M52 | 41 | D33 | 12 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK TILT & TELESCOPIC OPERATION

- 1. Connect automatic drive positioner control unit connector and door mirror (passenger side) connector.
- Turn ignition switch ON.
- Check tilt & telescopic operation with memory function.

Is the operation normal?

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

>> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation" NO

7. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation"

NO >> Repair or replace the malfunctioning part. ADP

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ADP-117 Revision: 2007 June G37 Coupe

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SLIDING MOTOR

< COMPONENT DIAGNOSIS >

SLIDING MOTOR

Description

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

Component Function Check

INFOID:0000000001693759

1. CHECK FUNCTION

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

| Test item | Test item | | ription |
|------------|-----------|--------------|----------|
| | OFF | | Stop |
| SEAT SLIDE | FR | Seat sliding | Forward |
| | RR | | Backward |

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000001693760

1. CHECK SLIDING MOTOR POWER SUPPLY

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

| | Terminal | | | | |
|-------------------------|------------|--------|------------|---------------|-----------------|
| (+ | (+) | | Test item | | Voltage (V) |
| Sliding motor connector | - Terminal | | | | (Approx.) |
| | | | | OFF | 0 |
| | 35 | Ground | | FR (forward) | Battery voltage |
| B525 | | | SEAT SLIDE | RR (backward) | 0 |
| B323 | | | | OFF | 0 |
| | 42 | | | FR (forward) | 0 |
| | ı | | | RR (backward) | Battery voltage |

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.
- 2. Disconnect driver seat control unit connector.
- 3. Check continuity between driver seat control unit harness connector and sliding motor harness connector.

| Driver seat control unit connector | Terminal | Sliding motor connector | Terminal | Continuity |
|------------------------------------|----------|-------------------------|----------|------------|
| B504 | 35 | B525 | 35 | Existed |
| B504 | 42 | B525 | 42 | LAISIEU |

SLIDING MOTOR

< COMPONENT DIAGNOSIS >

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

| Driver seat control unit connector | Terminal | | Continuity |
|------------------------------------|----------|--------|-------------|
| B504 | 35 | Ground | Not existed |
| B304 | 42 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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ADP-119 Revision: 2007 June G37 Coupe

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RECLINING MOTOR

< COMPONENT DIAGNOSIS >

RECLINING MOTOR

Description INFOID:000000001693761

- The seat reclining motor is installed on 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

INFOID:0000000001693762

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000001693763

1. CHECK RECLINING MOTOR POWER SUPPLY

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

| | Terminal | | Test item | | | |
|---------------------------|------------|----------|---------------------|---------------|-----------------|--|
| (+) | | | | | Voltage (V) | |
| Reclining motor connector | Terminal | (-) | | | (Approx.) | |
| | 71 B523 | - Ground | SEAT RECLIN- ING | OFF | 0 | |
| | | | | FR (forward) | Battery voltage | |
| P522 | | | | RR (backward) | 0 | |
| B323 | | | | OFF | 0 | |
| | 15 | | | FR (forward) | 0 | |
| | | | | RR (backward) | Battery voltage | |

Is the inspection result normal?

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

NO >> GO TO 2.

2. CHECK RECLINING MOTOR CIRCUIT

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

RECLINING MOTOR

< COMPONENT DIAGNOSIS >

| Driver seat control unit connector | Terminal | Reclining motor connector | Terminal | Continuity |
|------------------------------------|----------|---------------------------|----------|------------|
| B504 | 36 | B523 71 | Existed | |
| | 44 | | 15 | LAISIGU |

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

| Driver seat control unit connector | Terminal | 2 | Continuity |
|------------------------------------|----------|--------|-------------|
| B504 | 36 | Ground | Not existed |
| | 44 | | NOI EXISTED |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-236</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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Revision: 2007 June ADP-121 G37 Coupe

LIFTING MOTOR (FRONT)

< COMPONENT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description INFOID:000000001693764

- The lifting motor (front) is installed on 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

INFOID:0000000001693765

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-122, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000001693766

1.CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

| | Terminal | | | | |
|---------------------------------|------------------|--------------|-------------|------------|--------------------------|
| (+ | (+) | | Test item | | Voltage (V) (Approx.) |
| Lifting motor (front) connector | Terminal | Terminal (-) | | | |
| | 37 B527 45 | Ground | SEAT LIFTER | OFF | 0 |
| | | | | UP | 0 |
| D527 | | | | DWN (down) | Battery voltage |
| B321 | | | FR | OFF | 0 |
| | | | | UP | Battery voltage |
| | | | | DWN (down) | 0 |

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

LIFTING MOTOR (FRONT)

< COMPONENT DIAGNOSIS >

| Driver seat control unit connector | Terminal | Lifting motor (front) connector | Terminal | Continuity |
|------------------------------------|----------|---------------------------------|----------|------------|
| B504 | 37 | B527 | 37 | Existed |
| | 45 | 5021 | 45 | LAISIEU |

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

| Driver seat control unit connector | Terminal | | Continuity |
|------------------------------------|----------|--------|--------------|
| B504 | 37 | Ground | Not existed |
| B304 | 45 | | inoi existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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ADP-123 Revision: 2007 June G37 Coupe

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LIFTING MOTOR (REAR)

< COMPONENT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description INFOID:000000001693767

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

Component Function Check

INFOID:0000000001693768

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-124, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000001693769

1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

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

| Terminal | | | | | |
|--------------------------------|----------|---------|----------------|-----------------|-----------------|
| (+) | (+) | | Test item | | Voltage (V) |
| Lifting motor (rear) connector | Terminal | (-) | 1650 NOM | | (Approx.) |
| | | | SEAT LIFTER RR | OFF | 0 |
| | 38 | Ground | | UP | Battery voltage |
| B529 | | | | DWN (DOWN) | 0 |
| D329 | | Giodila | | OFF | 0 |
| | 39 | 39 | | UP | 0 |
| | | | DWN (DOWN) | Battery voltage | |

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.

LIFTING MOTOR (REAR)

< COMPONENT DIAGNOSIS >

| Driver seat control unit connector | Terminal | Lifting motor (rear) connector | Terminal | Continuity |
|------------------------------------|----------|--------------------------------|----------|------------|
| B504 | 38 | B529 | 38 | Existed |
| D3U4 | 39 | B329 | 39 | LXISIEU |

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

| Driver seat control unit connector | Terminal | | Continuity |
|------------------------------------|----------|--------|-------------|
| B504 | 38 | Ground | Not existed |
| | 39 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-236. "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

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Revision: 2007 June ADP-125 G37 Coupe

TILT MOTOR

< COMPONENT DIAGNOSIS >

TILT MOTOR

Description INFOID:000000001693770

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

Component Function Check

INFOID:0000000001693771

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-126, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000001693772

1. CHECK TILT MOTOR POWER SUPPLY

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

| Terminal | | | | | |
|-----------------------------------|----------|----------|------------|------------|-----------------|
| (+) | | | Test item | | Voltage (V) |
| Tilt & telescopic motor connector | Terminal | (-) | | | (Approx.) |
| | M49 | - Ground | TILT MOTOR | OFF | 0 |
| | | | | UP | 0 |
| MAO | | | | DWN (down) | Battery voltage |
| 10/49 | | | | OFF | 0 |
| | 4 | | | UP | Battery voltage |
| | | | | DWN (down) | 0 |

Is the inspection result normal?

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

NO >> GO TO 2.

2.check tilt motor circuit

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

TILT MOTOR

< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | Tilt & telescopic motor connector | Terminal | Continuity |
|---|----------|-----------------------------------|----------|------------|
| M52 | 35 | M49 | 4 | Existed |
| IVIOZ | 42 | IVIAS | 3 | LXISIEU |

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

| automatic drive positioner control unit connector | Terminal | 2 | Continuity |
|---|----------|--------|-------------|
| M52 | 35 | Ground | Not existed |
| | 42 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-237, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

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Revision: 2007 June ADP-127 G37 Coupe

TELESCOPIC MOTOR

< COMPONENT DIAGNOSIS >

TELESCOPIC MOTOR

Description INFOID:000000001693773

- The telescopic motor is installed on the steering column assembly.
- The telescopic motor is activated with the automatic drive positioner control unit.
- Telescopic operates forward/backward by changing the rotation direction of telescopic motor.

Component Function Check

INFOID:0000000001693774

1. CHECK FUNCTION

- 1. Select "TELESCO MOTOR" in "Active Test" mode with CONSULT-III.
- 2. Check the telescopic motor operation.

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-128, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000001693775

1. CHECK TELESCOPIC MOTOR POWER SUPPLY

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

| Terminal | | | | | |
|-----------------------------------|---------------|----------|-----------------------|---------------|-----------------|
| (+ | (+) | | Test item | | Voltage (V) |
| Tilt & telescopic motor connector | Terminal | (-) | | | (Approx.) |
| | 1 M49 2 | - Ground | TELESCOP- IC MOTOR | OFF | 0 |
| | | | | FR (forward) | 0 |
| MAO | | | | RR (backward) | Battery voltage |
| IVI49 | | | | OFF | 0 |
| | | | | FR (forward) | Battery voltage |
| | | | | RR (backward) | 0 |

Is the inspection result normal?

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

NO >> GO TO 2.

2. CHECK TELESCOPIC MOTOR CIRCUIT

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

TELESCOPIC MOTOR

< COMPONENT DIAGNOSIS >

| Automatic drive positioner control unit connector | Terminal | Tilt & telescopic motor connector | Terminal | Continuity |
|---|----------|-----------------------------------|----------|------------|
| M52 | 36 | M49 | 2 | Existed |
| IVIOZ | 44 | IVITO | 1 | LXISIGU |

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

| Automatic drive positioner control unit connector | Terminal | 2 | Continuity |
|---|----------|--------|--------------|
| M52 | 36 | Ground | Not existed |
| | 44 | | inoi existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

>> Repair or replace the malfunctioning part. NO

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ADP-129 Revision: 2007 June G37 Coupe

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< COMPONENT DIAGNOSIS >

DOOR MIRROR MOTOR

DRIVER SIDE

DRIVER SIDE: Description

INFOID:0000000001693776

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

DRIVER SIDE: Component Function Check

INFOID:0000000001693777

1. CHECK FUNCTION

- Select "MIRROR MOTOR LH" in "Active Test" mode with CONSULT-III.
- Check the telescopic motor operation.

| Test item | | Description | |
|-----------------|-------|-------------------------|-----------|
| | OFF | | Stop |
| MIRROR MOTOR LH | UP | | Upward |
| | DOWN | Driver side door mirror | Downward |
| | LEFT | | Leftward |
| | RIGHT | | Rightward |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-130, "DRIVER SIDE: Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001693778

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

| Term | Terminals | | | |
|-----------------------|-----------|---------|-----------------------------------|-----------------|
| (+) | (+) | | Door mirror remote control switch | Voltage (V) |
| Door mirror connector | Terminal | (-) | condition | (Approx.) |
| | 5 | | UP | Battery voltage |
| | 5 | | Other than above | 0 |
| D3 | 6 | Ground | LEFT | Battery voltage |
| D3 | 0 | Giouria | Other than above | 0 |
| | 7 | | DOWN / RIGHT | Battery voltage |
| | , | | Other than above | 0 |

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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

| Automatic drive positioner control unit connector | Terminal | Door mirror (driver side) connector | Terminal | Continuity |
|---|----------|-------------------------------------|----------|------------|
|---|----------|-------------------------------------|----------|------------|

< COMPONENT DIAGNOSIS >

| | 16 | | 7 | |
|-----|----|----|---|---------|
| M51 | 31 | D3 | 5 | Existed |
| | 32 | | 6 | |

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

| Automatic drive positioner control unit connector | Terminal | | Continuity |
|---|----------|--------|-------------|
| | 16 | Ground | |
| M51 | 31 | | Not existed |
| | 32 | | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ 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.

| Terminals | | | | |
|---|----------|-----------------|-------------------------|-----------------|
| (+) | | | Mirror switch condition | Voltage (V) |
| Automatic drive positioner control unit connector | Terminal | (-) | | (Approx.) |
| | 16 | 16 31 Ground | DOWN / RIGHT | Battery voltage |
| | 10 | | Other than above | 0 |
| M51 | 24 | | UP | Battery voltage |
| I CIVI | 31 | | Other than above | 0 |
| | 32 | | LEFT | Battery voltage |
| | | | Other than above | 0 |

Is the inspection result normal?

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

NO >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-131, "DRIVER SIDE: Component Inspection".

Is the inspection result normal?

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

NO >> Replace door mirror. Refer to MIR-50, "DOOR MIRROR ASSEMBLY: Removal and Installation".

DRIVER SIDE: Component Inspection

1. CHECK DOOR MIRROR MOTOR-1

Check that door mirror motor does not trap foreign objects and does not have any damage.

Refer to MIR-50. "DOOR MIRROR ASSEMBLY: Disassembly and Assembly".

Is the inspection result normal?

YES >> GO TO 2.

>> Replace door mirror. Refer to MIR-50, "DOOR MIRROR ASSEMBLY: Removal and Installation". NO

2.CHECK DOOR MIRROR MOTOR-2

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

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< COMPONENT DIAGNOSIS >

| Door mirror connector | Terr | ninal | Operational direction | |
|------------------------|------|-------|-----------------------|--|
| Door militor connector | (+) | (-) | Operational direction | |
| | 7 | 6 | RIGHT | |
| D3 | 6 | 7 | LEFT | |
| | 5 | 7 | UP | |
| | 7 | 5 | DOWN | |

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace door mirror. Refer to MIR-50, "DOOR MIRROR ASSEMBLY: Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000001848652

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

PASSENGER SIDE: Component Function Check

INFOID:0000000001848653

1. CHECK FUNCTION

- 1. Select "MIRROR MOTOR RH" in "Active Test" mode with CONSULT-III.
- 2. Check the door mirror motor operation.

| Test item | | Description | |
|-----------------|-------|----------------------------|-----------|
| | OFF | | Stop |
| MIRROR MOTOR RH | UP | | Upward |
| | DOWN | Passenger side door mirror | Downward |
| | LEFT | | Leftward |
| | RIGHT | | Rightward |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-132, "PASSENGER SIDE: Diagnosis Procedure".

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001848654

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

| Terminals (+) | | | | |
|-----------------------|----------|------------------|-----------------------------------|-----------------|
| | | | Door mirror remote control switch | Voltage (V) |
| Door mirror connector | Terminal | (-) | condition | (Approx.) |
| | 5 | | UP | Battery voltage |
| | 3 | Ground | Other than above | 0 |
| D33 | 6 | | LEFT | Battery voltage |
| D33 | 0 | | Other than above | 0 |
| | 7 | 7 | DOWN / RIGHT | Battery voltage |
| | 7 | | Other than above | 0 |

Is the inspection result normal?

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

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2. CHECK HARNESS CONTINUITY

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

| Automatic drive positioner control unit connector | Terminal | Door mirror (passenger side) connector | Terminal | Continuity |
|---|----------|--|----------|------------|
| | 14 | | 5 | |
| M51 | 15 | D33 | 6 | Existed |
| | 30 | | 7 | |

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

| Automatic drive positioner control unit connector | - Terminal | | Continuity |
|---|------------|--------|-------------|
| | 14 | Ground | |
| M51 | 15 | | Not existed |
| | 30 | | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check automatic drive positioner control unit output signal

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

| Terminals | | | <u> </u> | |
|--|----------|--------|-------------------------|-----------------|
| (+) | | | Mirror switch condition | Voltage (V) |
| Automatic drive positioner con- trol unit connector | Terminal | (-) | | (Approx.) |
| | 14 | UP | Battery voltage | |
| | | Ground | Other than above | 0 |
| M51 | 15 | | LEFT | Battery voltage |
| IVIS I | | | Other than above | 0 |
| | 30 | | DOWN / RIGHT | Battery voltage |
| | | | Other than above | 0 |

Is the inspection result normal?

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

NO >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-133, "PASSENGER SIDE: Component Inspection".

Is the inspection result normal?

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

NO >> Replace door mirror. Refer to MIR-50, "DOOR MIRROR ASSEMBLY: Removal and Installation".

PASSENGER SIDE: Component Inspection

1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to MIR-49, "DOOR MIRROR ASSEMBLY: Exploded View".

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Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror. Refer to MIR-50, "DOOR MIRROR ASSEMBLY: Removal and Installation".

2. CHECK DOOR MIRROR MOTOR-II

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

| Door mirror connector | Terminal | | Operational direction | |
|------------------------|----------|-----|-----------------------|--|
| Door milital connector | (+) | (-) | Operational direction | |
| | 7 | 6 | RIGHT | |
| D33 | 6 | 7 | LEFT | |
| D33 | 5 | 7 | UP | |
| | 7 | 5 | DOWN | |

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace door mirror. Refer to MIR-50, "DOOR MIRROR ASSEMBLY: Removal and Installation".

< COMPONENT DIAGNOSIS >

RECLINING RELAY **FORWARD**

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FORWARD: Diagnosis Procedure

INFOID:0000000001754006

1. CHECK RECLINING RELAY (FORWARD) POWER SUPPLY

Check voltage between reclining relay (forward) harness connector and ground.

| Reclining re | Reclining relay (forward) | | Ground Condi | | Voltage (V) |
|--------------|---------------------------|---------|------------------------------------|---------|-------------|
| Connector | Terminal | Glound | Condition | | (Approx.) |
| B519 | 36 | Ground | Reclining switch Operate (forward) | | Battery |
| 5319 | 96 | Giodila | Trecining Switch | Release | 0 |

Is the inspection result normal?

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

2.check reclining relay (forward) power supply circuit

Turn ignition switch OFF.

Disconnect driver seat control unit connector and reclining relay.

Check continuity between driver seat control unit harness connector and reclining relay (forward) harness

| Driver sea | at control unit | Reclining relay (forward) | | Continuity |
|------------|-----------------|---------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B504 | 36 | B519 | 36 | Existed |
| D304 | 30 | D319 | 96 | Existed |

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

| Driver seat | Driver seat control unit | | Continuity | |
|-------------|--------------------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B504 | 36 | Ground | Not existed | |

Is the inspection result normal?

YES >> Reclining relay (forward) is OK.

NO >> Repair or replace harness connector.

3.CHECK RECLINING RELAY (FORWARD) CIRCUIT 1

Turn ignition switch OFF.

Disconnect reclining relay and diode 1 connector.

Check continuity between reclining relay (forward) harness connector and diode 1 harness connector.

| Reclining re | Reclining relay (forward) | | Diode 1 | | |
|--------------|---------------------------|--------------------|---------|--------------|--|
| Connector | Terminal | Connector Terminal | | - Continuity | |
| B519 | 18 | B521 | 18 | Existed | |

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

| Reclining relay (forward) | | Ground | Continuity | |
|---------------------------|----------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B519 | 18 | Ground | Not existed | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

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4.CHECK DIODE 1

Refer to ADP-136, "FORWARD: Component Inspection (Diode 1)".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace diode 1.

5. FORWARD SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect forward switch.
- 3. Check continuity between forward switch harness connector and diode 1 harness connector.

| Forwar | d switch | Dio | de 1 | Continuity |
|-----------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B512 | 41 | B521 | 41 | Existed |

4. Check continuity between forward switch harness connector and ground.

| Forwar | Forward switch | | Continuity | |
|-----------|----------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B512 | 41 | Ground | Not existed | |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness or connector.

6.CHECK RECLINING RELAY (FORWARD)

Refer to ADP-136, "FORWARD: Component Inspection (Reclining Relay)".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace reclining relay.

7. CHECK INTERMITTENTE INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

FORWARD: Component Inspection (Reclining Relay)

INFOID:0000000001754007

1. CHECK RECLINING RELAY (FORWARD)

- 1. Turn ignition switch OFF.
- 2. Remove reclining relay (forward).
- 3. Check the continuity between reclining relay (forward) terminals under the following conditions.

| Terminals | Condition | Continuity |
|-----------|--|-------------|
| 36 and 71 | 12 V direct current supply between terminals 46 and 18 | Not existed |
| | No current supply | Existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace reclining relay (forward).

FORWARD: Component Inspection (Diode 1)

INFOID:0000000001754012

1. CHECK DIODE 1

- 1. Turn ignition switch OFF.
- 2. Remove diode 1.

< COMPONENT DIAGNOSIS >

Check the continuity between diode 1 terminals under the following conditions.

| Term | ninals | Continuity | |
|------|--------|-------------|--|
| (+) | (–) | Continuity | |
| 18 | 41 | Existed | |
| 41 | 18 | Not existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace diode 1.

BACKWARD

BACKWARD: Diagnosis Procedure

INFOID:0000000001754010

1. CHECK RECLINING RELAY (BACKWARD) POWER SUPPLY

Check voltage between reclining relay (backward) harness connector and ground.

| Reclining rel | Reclining relay (backward) | | - Ground Condi | | Voltage (V) |
|---------------|----------------------------|--------|-------------------------------------|---------|-------------|
| Connector | Terminal | Glound | Condition | | (Approx.) |
| B520 | 44 | Ground | Reclining switch Operate (backward) | | Battery |
| D320 | 94 | Giouna | Necining Switch | Release | 0 |

Is the inspection result normal?

YFS >> GO TO 3.

NO >> GO TO 2.

2.CHECK RECLINING RELAY (BACKWARD) POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and reclining relay.
- Check continuity between driver seat control unit harness connector and reclining relay (backward) harness connector.

| Driver sea | t control unit | Reclining relay (backward) Connector Terminal | | Continuity |
|------------|----------------|--|----|------------|
| Connector | Terminal | | | Continuity |
| B504 | 44 | B520 | 44 | Existed |
| D304 | 44 | B320 | 94 | Existed |

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

| Driver seat control unit | | Ground | Continuity |
|--------------------------|----------|--------|-------------|
| Connector | Terminal | Ground | Continuity |
| B504 | 44 | Ground | Not existed |

Is the inspection result normal?

YES >> Reclining relay (backward) is OK.

NO >> Repair or replace harness or connector.

3.check reclining relay (backward) circuit 1 $\,$

- 1. Turn ignition switch OFF.
- 2. Disconnect reclining relay and diode 2 connector.
- Check continuity between reclining relay (backward) harness connector and diode 2 harness connector.

| Reclining rela | Reclining relay (backward) | | Diode 2 | |
|----------------|----------------------------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B520 | 6 | B522 | 6 | Existed |

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

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| Reclining rela | Reclining relay (backward) | | Continuity | |
|----------------|----------------------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B520 | 6 | Ground | Not existed | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

4.CHECK DIODE 2

Refer to ADP-139, "BACKWARD: Component Inspection (Diode 2)".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace diode 2.

5. FORWARD SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect forward switch.
- 3. Check continuity between forward switch harness connector and diode 2 harness connector.

| Forwar | Forward switch Diode 2 | | Continuity | |
|-----------|------------------------|-----------|------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B512 | 41 | B522 | 41 | Existed |

4. Check continuity between forward switch harness connector and ground.

| Forward switch | | Ground | Continuity | |
|----------------|----------|---------|-------------|--|
| Connector | Terminal | Giodila | Continuity | |
| B512 | 41 | Ground | Not existed | |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness or connector.

6.CHECK RECLINING RELAY (BACKWARD)

Refer to ADP-138, "BACKWARD: Component Inspection (Reclining Relay)".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace reclining relay.

7. CHECK INTERMITTENTE INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

BACKWARD: Component Inspection (Reclining Relay)

INFOID:0000000001754011

1. CHECK RECLINING RELAY (BACKWARD)

- 1. Turn ignition switch OFF.
- Remove reclining relay (backward).
- 3. Check the continuity between reclining relay (backward) terminals under the following conditions.

| Terminals | Condition | Continuity |
|-----------|---|-------------|
| 15 and 44 | 12 V direct current supply between terminals 94 and 6 | Not existed |
| | No current supply | Existed |

< COMPONENT DIAGNOSIS >

YES >> INSPECTION END

NO >> Replace reclining relay (backward).

BACKWARD : Component Inspection (Diode 2)

INFOID:0000000001754013

1. CHECK DIODE 2

- 1. Turn ignition switch OFF.
- 2. Remove diode 2.
- 3. Check the continuity between diode 2 terminals under the following conditions.

| Terminals | | Continuity | |
|-----------|-----|-------------|--|
| (+) | (-) | Continuity | |
| 6 | 41 | Existed | |
| 41 | 6 | Not existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace diode 2.

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SEAT MEMORY INDICATOR LAMP

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SEAT MEMORY INDICATOR LAMP

Description INFOID:000000001693783

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

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

Component Function Check

INFOID:0000000001693784

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-140, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000001693785

1. CHECK MEMORY INDICATOR CIRCUIT

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

| Automatic drive positioner control unit connector | Terminal | Seat memory switch connector | Terminal | Continuity |
|---|----------|------------------------------|----------|------------|
| M51 | 12 | D5 | 6 | Existed |
| IVIST | 13 | Dδ | 7 | |

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

| Automatic drive positioner control unit connector | Terminal | | Continuity |
|---|------------|--------|-------------|
| M51 | M51 Ground | Ground | Not existed |
| I CIVI | 13 | | Not existed |

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the following.

Fuse

SEAT MEMORY INDICATOR LAMP

< COMPONENT DIAGNOSIS >

• Harness for open or short between memory indicator and fuse.

3. CHECK MEMORY INDICATOR

Refer to ADP-141, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit.

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK SEAT MEMORY INDICATOR

1. Disconnect seat memory switch connector.

2. Check continuity between seat memory switch terminals.

| Terminal | | | |
|--------------------|-----|--------------|--|
| Seat memory switch | | Continuity | |
| (+) | (-) | | |
| F | 6 | Existed | |
| 5 | 7 | Existeu | |
| 6 | 5 | Not exsisted | |
| 7 | 5 | Not exsisted | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch.

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DRIVER SEAT CONTROL UNIT

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DRIVER SEAT CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

| Monitor Item | Condit | ion | Value/Status | | |
|---------------|-----------------------------|------------------|--------------|--|--|
| SET SW | Set switch | Push | ON | | |
| SET SW | Set Switch | Release | OFF | | |
| MEMORY SW1 | | Push | ON | | |
| | Memory switch 1 | Release | OFF | | |
| MEMORY CWO | | Push | ON | | |
| MEMORY SW2 | Memory switch 2 | Release | OFF | | |
| OLIDE OW ED | Sliding switch (front) | Operate | ON | | |
| SLIDE SW-FR | | Release | OFF | | |
| CLIDE CW DD | Sliding switch (rear) | Operate | ON | | |
| SLIDE SW-RR | | Release | OFF | | |
| DEOLN OW ED | Reclining switch (front) | Operate | ON | | |
| RECLN SW-FR | | Release | OFF | | |
| DEOLIN OW DD | | Operate | ON | | |
| RECLN SW-RR | Reclining switch (rear) | Release | OFF | | |
| | | Operate | ON | | |
| LIFT FR SW-UP | Lifting switch front (up) | Release | OFF | | |
| | | Operate | ON | | |
| LIFT FR SW-DN | Lifting switch front (down) | Release | OFF | | |
| | Lifting switch rear (up) | Operate | ON | | |
| LIFT RR SW-UP | | Release | OFF | | |
| | Lifting switch rear (down) | Operate | ON | | |
| LIFT RR SW-DN | | Release | OFF | | |
| MIR CON SW-UP | Mirror switch | Up | ON | | |
| | | Other than above | OFF | | |
| | | Down | ON | | |
| MIR CON SW-DN | Mirror switch | Other than above | OFF | | |
| | Mirror switch | Right | ON | | |
| MIR CON SW-RH | | Other than above | OFF | | |
| MIR CON SW-LH | Mirror switch | Left | ON | | |
| | | Other than above | OFF | | |
| MIR CHNG SW-R | Changeover switch | Right | ON | | |
| | | Other than above | OFF | | |
| MIR CHNG SW-L | Changeover switch | Left | ON | | |
| | | Other than above | OFF | | |
| | | Up | ON | | |
| TILT SW-UP | Tilt switch | Other than above | OFF | | |
| | | Down | ON | | |
| TILT SW-DOWN | Tilt switch | Other than above | OFF | | |

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

| Monitor Item | Condition | | Value/Status | | |
|-----------------------|------------------------------|------------------|---|--|--|
| TELESCO SW-FR | Telescopic switch | Forward | ON | | |
| TELESCO SW-FR | relescopic switch | Other than above | OFF | | |
| TELESCO SW DD | Tilt switch | Backward | ON | | |
| TELESCO SW-RR | THE SWILCTI | Other than above | OFF | | |
| FORWARD SW | Seat back | Folded down | ON | | |
| | Seat back | Other than above | OFF | | |
| WALK-IN SW | Power walk-in switch | Pressed | ON | | |
| | FOWEI Walk-III SWILCII | Other than above | OFF | | |
| FWD LIMIT SW | Coot oliding | Front edge | ON | | |
| FWD LIMIT SW | Seat sliding | Other than above | OFF | | |
| SEAT DELT SW | 0 | Fastened | ON | | |
| SEAT BELT SW | Seat belt | Other than above | OFF | | |
| DETENT SW*1 | A/T - de standana | P position | OFF | | |
| DETENT SW | A/T selector lever | Other than above | ON | | |
| DADIC DD AICE (0)4/*2 | Darking broke | Applied | ON | | |
| PARK BRAKE SW*2 | Parking brake | Release | OFF | | |
| OT4 DTED 0144 | 120 | Cranking | ON | | |
| STARTER SW | Ignition position | Other than above | OFF | | |
| SLIDE PULSE | Seat sliding | Forward | The numeral value decreases *3 | | |
| | | Backward | The numeral value increases *3 | | |
| | | Other than above | No change to numeral value*3 | | |
| RECLN PULSE | Seat reclining | Forward | The numeral value decreases *3 | | |
| | | Backward | The numeral value increases *3 | | |
| | | Other than above | No change to numeral value*3 | | |
| | | Up | The numeral value decreases *3 | | |
| LIFT FR PULSE | Seat lifter (front) | Down | The numeral value increases *3 | | |
| | | Other than above | No change to numeral value*3 | | |
| | Seat lifter (rear) | Up | The numeral value decreases *3 | | |
| LIFT RR PULSE | | Down | The numeral value increases *3 | | |
| | | Other than above | No change to numeral value*3 | | |
| MIR/SEN RH U-D | Door mirror (passenger s | side) | Change between 3.4 (close to peak) 0.6 (close to valley) | | |
| MIR/SEN RH R-L | Door mirror (passenger side) | | Change between 3.4 (close to left edge) 0.6 (close to right edge) | | |
| MIR/SEN LH U-D | Door mirror (driver side) | | Change between 3.4 (close to peak) 0.6 (close to valley) | | |
| MIR/SEN LH R-L | Door mirror (driver side) | | Change between 0.6 (close to left edge) 3.4 (close to right edge) | | |
| TILT SEN | Tilt position | | Change between 1.2 (close to top) 3.4 (close to bottom) | | |
| TELESCO SEN | Telescopic position | | Change between 3.4 (close to top) 0.8 (close to bottom) | | |

^{*1:} A/T model

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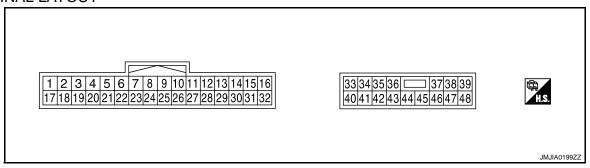
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^{*2:} M/T model

^{*3:} The value at the position attained when the battery is connected is regarded as 32768.

DRIVER SEAT CONTROL UNIT

TERMINAL LAYOUT



PHYSICAL VALUES

| Term | ninal No. | Miro | Description | | | | Voltage (V/) | |
|-----------------|-----------|---------------|--|------------------|---------------------|------------------------|-------------------------|-------------|
| + | - | Wire color | Signal name | Input/ Output | Condition | | Voltage (V) (Approx) | |
| 1 | Ground | L/W | UART communication (RX) | Input | Ignition switch ON | | 2mSec/div | JMJIA0118ZZ |
| 3 | _ | R/Y | CAN-H | _ | _ | | _ | |
| 4 Grou | | Ground O/B | Sliding limit switch signal | Input | Seat sliding | Front edge | 5 | |
| | Ground | | | | | Other than above | 0 | |
| | | | | | | Fastened | 5 | |
| 5 | Ground | L | Seat belt buckle switch signal (driver side) | Input | Seat belt | Other than above | 0 | |
| 8 ^{*1} | Ground | L/Y | Parking brake switch signal | Input | Parking brake | Applied | 0 | |
| | | | | | | Release | Battery voltage | е |
| 9 | Ground | W/G | Reclining sensor signal | Input | Seat reclining | Operate | 10mSec/div | JMJIA0119ZZ |
| | | | | | | Stop | 0 or 5 | |
| 10 | Ground | P/B | Lifting sensor (rear) signal | Input | Seat lifting (rear) | Operate | 10mSec/div | JMJIA0119ZZ |
| | | | | | | Stop | 0 or 5 | |

| Term | ninal No. | | Description | | | | |
|------------------|-----------|---------------|--|------------------|------------------------|-------------------------------|--|
| + | - | Wire color | Signal name | Input/ Output | Condition | n | Voltage (V) (Approx) |
| 11 | Ground | BR | Sliding switch back- ward signal | Input | Sliding switch | Operate (back- ward) | 0 |
| | | | | | | Release | Battery voltage |
| 12 | Ground | SB | Reclining switch back- ward signal | Input | Reclining switch | Operate (back- ward) | 0 |
| | | | | | | Release | Battery voltage |
| 13 | Ground | LG/R | Lifting switch (front) downward signal | Input | Lifting switch (front) | Operate (down- ward) | 0 |
| | | | | | | Release | Battery voltage |
| 14 | Ground | GB | Lifting switch (rear) downward signal | Input | Lifting switch (rear) | Operate (down- ward) | 0 |
| | | _ | | | | Release | Battery voltage |
| 16 | Ground | 0 | Sensor power supply | Output | _ | | 5 |
| 17 | Ground | Y/R | UART communication (TX) | Output | Ignition switch ON | | 10mSec/div 2V/div JMJIA0121ZZ |
| 19 | _ | V | CAN-L | _ | _ | | - |
| 21 ^{*2} | Ground | LY | Detention switch switch | Input | A/T selector lever | P position Except P position | 20mSec/div LAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |
| 24 | Ground | R | Sliding sensor signal | Input | Seat sliding | Operate Stop | 10mSec/div 2V/div JMJIA0119ZZ |
| 25 | Ground | Y/B | Lifting sensor (front) signal | Input | Seat lifting (front) | Operate Stop | 10mSec/div = 2V/div JMJIA0119ZZ |

| Tern | ninal No. | Wire | Description | | | | Voltage (V) |
|------|-----------|-------|--|------------------|------------------------------|----------------------------|-----------------|
| + | - | color | Signal name | Input/ Output | Condition | 1 | (Approx) |
| 26 | Ground | Y | Sliding switch forward signal | Input | Sliding switch | Operate (forward) | 0 |
| | | | Signal | | | Release | Battery voltage |
| 27 | Ground | R/G | Reclining switch for- | Input | Reclining switch | Operate (forward) | 0 |
| | | | ward signal | | | Release | Battery voltage |
| 28 | Ground | W/B | Lifting switch (front) | Input | Seat lifting switch | Operate (upward) | 0 |
| | | | upward signal | - | (front) | Release | Battery voltage |
| 29 | Ground | P/L | Lifting switch (rear) up- | Input | Seat lifting switch (upward) | | 0 |
| | | | ward signal | · | (rear) | Release | Battery voltage |
| | | | | | Pressed | | 0 |
| 30 | Ground | Р | Power walk-in switch signal | Input | Power walk-in switch | Other than above | 12 |
| 31 | Ground | GR | Sensor ground | _ | _ | | 0 |
| 32 | Ground | B/W | Ground (signal) | _ | _ | | 0 |
| 33 | Ground | R | Power source (C/B) | Input | _ | | Battery voltage |
| 35 | Ground | W/R | Sliding motor forward | Output | Seat sliding | Operate (forward) | Battery voltage |
| | | | output | | _ | Release | 0 |
| 36 | Ground | G/Y | Reclining motor for- ward output signal | Output | Seat reclining | Operate (forward) | Battery voltage |
| | | | ward output signal | | | Release | 0 |
| 37 | Ground | G/W | Lifting motor (front) downward output | Output | Seat lifting (front) | Operate (down- ward) | Battery voltage |
| | | | | | | Stop | 0 |
| 38 | Ground | L/Y | Lifting motor (rear) up- ward output | Output | Seat lifting (rear) | Operate (upward) | Battery voltage |
| | | | | | | Stop | 0 |
| 39 | Ground | R/B | Lifting motor (rear) downward output | Output | Seat lifting (rear) | Operate (down- ward) | Battery voltage |
| | | | | | | Stop | 0 |
| 40 | Ground | R/W | Power source (Fuse) | Input | _ | | Battery voltage |
| | | | | | | Folded down | 0 |
| 41 | Ground | Y/G | Forward switch signal | Input | Seat back | Other than above | 5 |
| 42 | Ground | W | Sliding motor back- ward output | Output | Seat sliding | Operate (back- ward) | Battery voltage |
| | | | | | | Stop | 0 |

< ECU DIAGNOSIS >

| | Term | ninal No. | Wire | Description | | | | Voltage (V) |
|---|------|-----------|-------|--|------------------|----------------------|----------------------------|-----------------|
| | + | - | color | Signal name | Input/ Output | Condition | า | (Approx) |
| | 44 | Ground | Р | Reclining motor back- ward output | Output | Seat reclining | Operate (back- ward) | Battery voltage |
| | | | | | | | Stop | 0 |
| _ | 45 | Ground | L/R | Lifting motor (front) up- ward output | Output | Seat lifting (front) | Operate (upward) | Battery voltage |
| | | | | ward output | | | Stop | 0 |
| | 48 | Ground | В | Ground (power) | _ | | • | 0 |

^{*1:} M/T models

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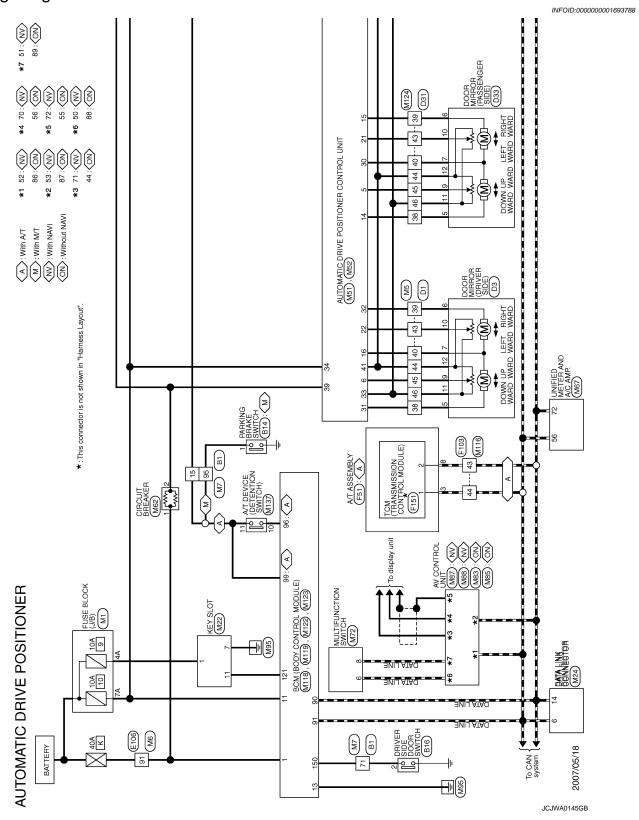
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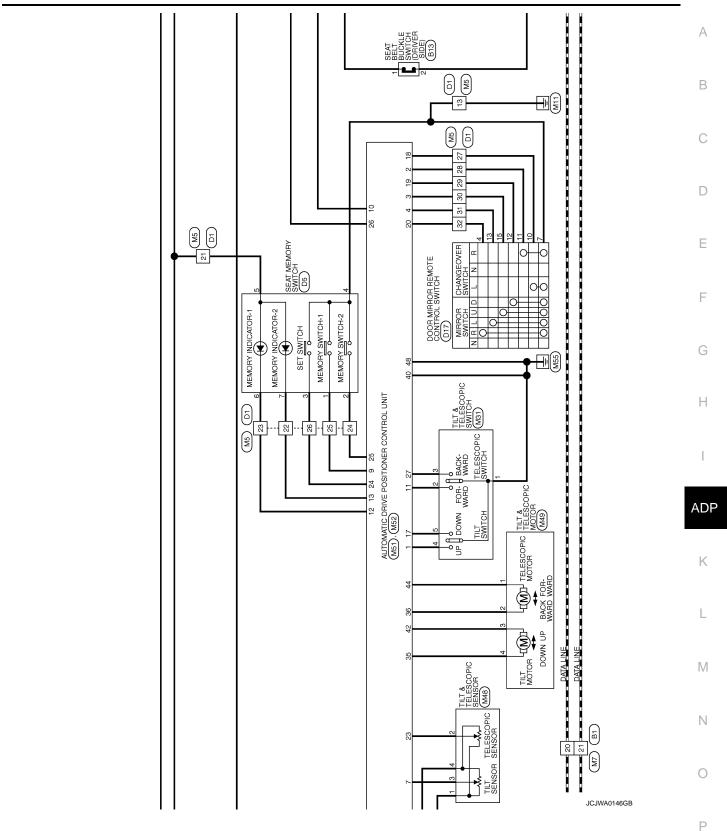
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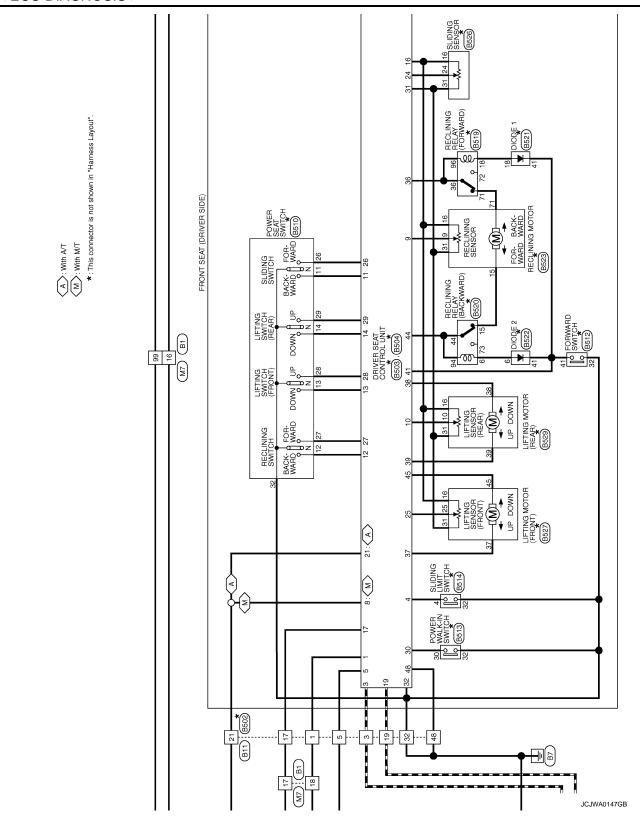
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^{*2:} A/T models

Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -







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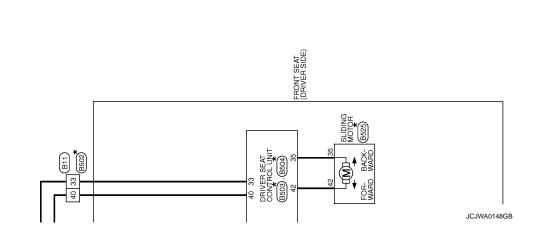
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*: This connector is not shown in "Harness Layout".

| AUTOMATIC DRIVE POSITIONER | c | ſ | | | Γ | 949 | | - | | Г |
|--|-----------------|-------------------------------------|----------------|-----------------|------------------|--|-----------------|---------------------|-----------------------------|---|
| т | Connector No. | Т | | Connector No. | T | BIS SEAT BELT BLICKLE SWITCH (DDN/ED | Connec | Т | 4-10 | _ |
| Connector Name WIRE TO WIRE | Connect | Connector Name WIRE TO WIRE | | Connect | Connector Name | SEAT BELL BUCKLE SWITCH (DRIVER SIDE) | Connec | Connector Name P. | PARKING BRAKE SWITCH (M/T) | |
| Connector Type TH80FW-CS16-TM4 | Connect | Connector Type NS16FW-CS | | Connector Type | П | A03FW | Connec | Connector Type P(| P01FB-A | П |
| | (F | | | Œ | | Ē | Œ | | | |
| 8 | H.S. | 20 40 17 | 1 3 10 | HS | | <u>-K</u> | H.S. | <i>7</i> | | |
| S | | 60 33 21 48 32 | | | | - N a | | | F | |
| <u> </u> | | | | | ı, | 2 | | | | Г |
| Terminal Golor Signal Name [Specification] No. of Wire | Terminal No. | Color Signal Name [Specification] | specification] | Terminal No. | Color of Wire | Signal Name [Specification] | Terminal No. | al Color of Wire | Signal Name [Specification] | |
| П | - | 5 | | - | g | - | - | > | - | _ |
| Н | က | ٠ | | 2 | В | - | | | | ı |
| 5 T | _ا م | | | | | | | | | |
| 5 8 | - | - FG | | | | | | | | |
| + | 6 5 | n > | | | | | | | | |
| τ > | 7 | | | | | | | | | |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 32 | 99 88 | | | | | | | | |
| ľ | 3 5 | | | | | | | | | |
| ┨ | 9 8 | ¥0 a | | | | | | | | |
| | ₽ | 9 | | | | | | | | |
| | | | | | | | | | | |
| Connector No. B16 | Connector No. | or No. B502 | | Connector No. | | B503 | 91 | С | SON | _ |
| Т | | Т | | | Γ | | - | α/.× | Ţ | _ |
| Connector Name DRIVER SIDE DOOR SWITCH | Connect | Connector Name WIRE TO WIRE | | Connect | Connector Name | DRIVER SEAT CONTROL UNIT | 61 | > | CAN-L | _ |
| Connector Type A03FW | Connector Type | or Type NS16MW-LC | | Connector Type | T | TH32FW | 21 | Δ | P RANGE SW | Т |
| | | 1 | | | | | 24 | α | PULSE (SLIDING) | _ |
| | 13 | | | 13 | | | 25 | Y/B | PULSE (FR LIFTING) | _ |
| ٠ | Ę | | | E | | | 26 | \ | SLIDING SW (FORWARD) | |
| | 2 | 10 3 1 | 40 59 | 2 | | / / | 27 | R/G | RECLINING SW (FORWARD) | |
| ·Ic | | | Ľ | | 2 3 | 14 15 | 28 | W/B | FRONT LIFTING SW (UPWARD) | _ |
| 7 | | 8 5 32 48 21 | 33 00 | | 17 18 19 2 | 20 21 22 23 24 25 26 27 28 29 30 31 32 | 29 | P/L | REAR LIFTING SW (UPWARD) | |
| 3 | | | | | | | 8 3 | ۵ (| POWER WALK-IN SW | _ |
| - 0 | ŀ | | | H | L | | 2 8 | 3 8 | SENSOR GND | _ |
| Lerminal Color Signal Name [Specification] No. of Wire | No. | of Wire Signal Name [Specification] | specification] | No. | of Wire | Signal Name [Specification] | 35 | A/40 | GIND (SIGNAL) | 7 |
| T | - | - M | | - | Μ | XX | | | | |
| | ო | R/Y | | ო | K√ | CAN-H | | | | |
| | 2 | T | | 4 | 0/B | SLIDING LIMIT SW | | | | |
| | 17 | Y/R | | 2 | _ | BUCKLE SW | | | | |
| | 16 | > 2 | | ∞ . | <u> </u> | PARKING BRAKE SW | | | | |
| | 21 | <u> </u> | | 6 | 9/W | PULSE (RECLINNG) | | | | |
| | 35 | B/W | | 2 : | 9/8 | PULSE (RR LIFTING) | | | | |
| | 3 5 | M/ CI | | = \$ | £ 8 | DECLINING SW (BACKWARD) | | | | |
| | Q Q | | | 2 5 | 9 0 | EDONT LIFTING SW (DOWNWADD) | | | | |
| | ? | | | 5 4 | G/B | REAR LIFTING SW (DOWNWARD) | | | | |
| | | | | | | The second secon | | | | |

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| H (ORIVER SIDE) | Signal Name [Specification] | SiDE) MZ MZ M2 M2 M4 | | A B |
|--|--|--|-------------|--------|
| Connector No. B512 Connector Name FORWARD SWITCH (DRIVER SIDE) Connector Type SIZAW LLS 141 | Color Color Signal Na | Cornector Name (ES20 Connector Name (CHIVER SIDE) Connector Type MSGAFB-M2 Connector Type MSGAFB-M2 Terminal Color Signal Name (Specification of Wire Color Si | | C |
| | | Though the second secon | | Е |
| POWER SEAT SWITCH (DRIVER SIDE) WITH AUTOMATIC DRIVE POSITIONER) NSIOFW-CS 12 7 11 26 13 28 | Signal Name [Specification] | BET9 CORVERS SIDE. MSGGFE-M2 Signal Name [Specification] | | F |
| Connector No. B510 Connector Name POWE Connector Type INSTIG | Color Colo | Connector Name REG | | G H |
| ि | | VER froation] | | ı |
| GND (POWER) | | BB14 SLDING LIMIT SWTCH (DRIVER SIDE) MOZFB Signal Name [Specification] | | ADP |
| 49 D | | Connector No. B514 | | K |
| 100NER 1333 | eation] FRWARD) DOWNARD) ACKWARD) ACKWARD) ACKWARD) CKWARD) CKWARD) CKWARD) | RIVER | | L |
| IC DRIVE POSITI BEGA BEGA BEGA NSIGNWERS SEAT CONTROL UNIT NSIGNW-CS 34 35 36 37 38 41 42 43 44 45 46 47 | Signal Name [Specification] BAT (O.B) SLIDING MOTOR (FORWARD) FROUND MICH STORMARD) FROM LIFTING MOTOR (DOWNWARD) FRAR LIFTING MOTOR (DOWNWARD) FRAR LIFTING MOTOR (DOWNWARD) FRAR LIFTING MOTOR (BACKWARD) FROM SLIDING MOTOR (BACKWARD) FRECLINING MOTOR (BACKWARD) | BB13 POWER WALK-IN SWITCH (DRIVER SIDE) TKOSMBR-P Signal Name [Specification] | | M |
| A 40 | Color Colo | | | N |
| AUTOMA Connector Nam Connector Type | Terminal No. 10 10 10 10 10 10 10 10 10 10 10 10 10 | Connector No. Connector Type Connector Type Reminal Connector Type 30 P 32 B/M | JCJWA0150GB | 0 |
| | | | | Р |

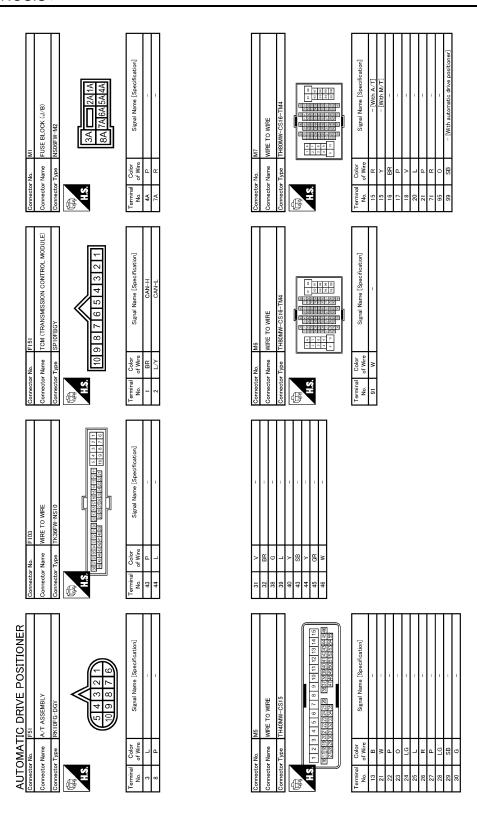
ADP-153 G37 Coupe Revision: 2007 June

| 6525 6086-0239 42 35 | Or Signal Name [Speotfication] | | |
|--|--|--|---|
| BES23 Connector No. | Color of Wire Signal Name [Specification] Terminal Color of Wire W/G 35 W/R 35 W/R 42 W/R W/G - 42 W/R W/G | B629 | Color Signal Name [Specification] of Wire PVB |
| Connector Name Connector Name Connector Name Connector Type Management Type Ma | Terminal No. 9 9 15 15 15 17 1 17 1 | Connector Nune Connector Type | Terminal No. 10 10 16 16 31 38 38 20 20 |
| me 010DE 2 (DRIVER SIDE) pe 24235 C9900 [416 | Color Signal Name (Specification) of Wire R | me LIFTING MOTOR (FRONT) (DRIVER SIDE) pa NISOBEW-CS 45 16 31 25 16 16 31 25 | Color Signal Name [Speerification] of Wire Signal Name [Speerification] |
| Connector No. Connector Type | No. of 41 | Connector No. Connector Type Connector Type H.S. | Terminal C No. of 16 25 31 31 45 |
| Connector No. 6521 Connector Name DIODE I (DRIVE POSITIONER Connector Name DIODE I (DRIVER SIDE) Connector Type 24335 C9800 H.S. 4118 | Signal Nane [Specification] | B526 SLIDING SENSOR (DRIVER SIDE) 6089 0241 24 31 16 | Signal Name [Specification] |
| AUTOMA Connector Name Connector Type | Color Colo | Connector No. Connector Type | Terminal Color No. of Wire 16 O 24 R 31 GR |

JCJWA0151GB

| MORY SWITCH 6 7 2 1 4 Signal Name [Specification] | | Signal Name [Specification] | | A B |
|--|--|--|-------------|---------|
| D5 SEAT ME A08FW | E106 WIRE 1 | Oolor Wire B | | С |
| Connector No. Connector Type Connector Type H.S. H.S. Terminal Color No. of Wir. 1 SB | 3 GR 4 B 5 CR 7 P 7 P 8 CR 9 CR 9 CR 10 | Tominal No. | | D |
| SIDE) ecification] | Ve positioner] | 8 8 8 P P P P P P P P P P P P P P P P P | E | Е |
| DOOR MIRROR (DRIVER SIDE) THIZMW-NH 5 6 7 2 1 4 12 11 10 9 3 8 Signal Name [Specification] | - [With automatic drive positioner] | Signal Name [S | F | F |
| No. D3 Name D009 Type TH12 Color of Wire BR GR | G B B W V V V C C C C C C C | Color of Wire GR GR GR GR GR GR W W W W | - > - | G |
| Commetton Commetton Commetton Terminal No. 6 6 | Connect Connec | Terminal No. 5 6 6 6 6 9 10 11 | <u>-</u> | Н |
| | WRE CS15 | | AI | l DP |
| 33 88 89 89 89 89 89 89 89 89 89 89 89 89 | Connector No. D31 Connector Name WIRE TO WIRE Connector Type TH40PW-CS15 | 7 | - | K |
| | | |] | |
| Connector Name MRE TO WIRE | DIOT MENOR REMOTE CONTROL SWITCH TK16FBR | 1 1 1 1 1 1 1 1 1 1 | | VI |
| No. DI No. | | Color Sign B R G R C C C C C C C C C C C C C C C C C | <u> </u> | N |
| AUTOMA Connector Name Connector Type | 22 P 23 O 24 BR 25 SR 25 SR 26 GR 27 GR 28 CG 28 28 CG 28 29 CG 29 CG 29 CG 30 V V Connector Name Connector Nam | S 2 - 0 - 25 | <u>.</u> | Э |
| | | | JCJWA0152GB | P |
| | | | ľ | _ |

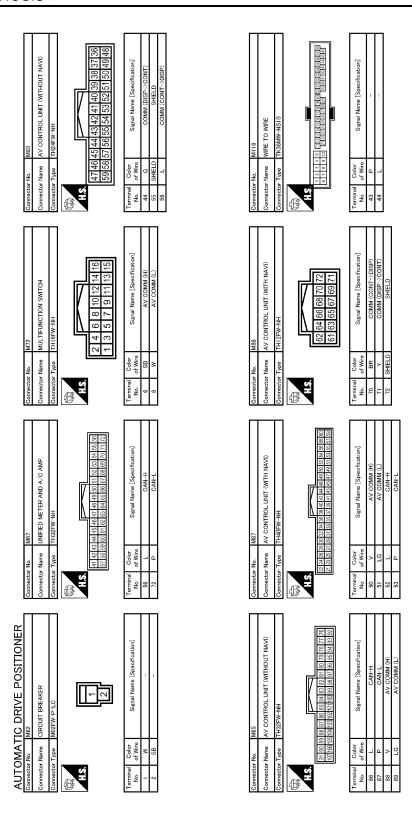
Revision: 2007 June ADP-155 G37 Coupe



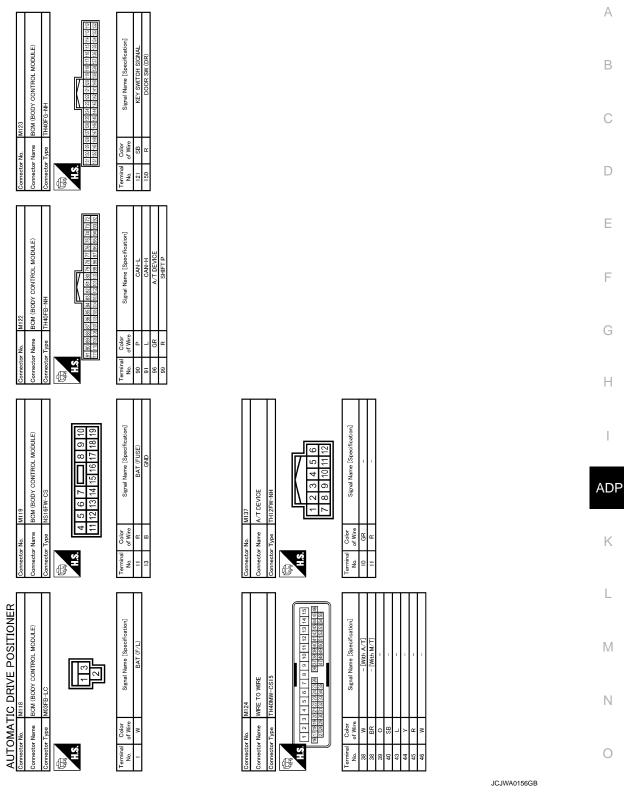
JCJWA0153GB

| Connector No. M48 | M32 AUTOMATIC DRIVE POSITIONER | A B C |
|--|--|-------------|
| Connector No. M31 | 13 P MIPROR MOTOR (RH VERTICAL) [Web. A.T] 14 BR MIFROR MOTOR (RH VERTICAL) [Web. M.T] 15 O MIRROR MOTOR (RH MOTOR) (LH GOMMON) 15 D MIRROR MOTOR (LH GOMMON) 17 BR TILE SW (DOWNWARD) 18 D MIRROR SW (GOWNWARD) 21 L MIRROR SW (GOWNWARD) 22 SB MIRROR SW (GOWNWARD) 23 C MIRROR SW (GOWNWARD) 24 R MIRROR SW (GOWNWARD) 25 LO MIRROR SW (GOWNWARD) 26 LO ADDRESS 27 C ADDRESS 28 MIRROR SW (GOWNWARD) 30 SB MIRROR WOTOR (LH HORIZONTAL) 31 G MIRROR MOTOR (LH HORIZONTAL) 32 LO TELESCOPIC SW (GAKWARD) 33 MIRROR MOTOR (LH HORIZONTAL) 34 MIRROR MOTOR (LH HORIZONTAL) 35 MIRROR MOTOR (LH HORIZONTAL) 36 MIRROR MOTOR (LH HORIZONTAL) 37 L MIRROR MOTOR (LH HORIZONTAL) 38 MIRROR MOTOR (LH HORIZONTAL) 39 MIRROR MOTOR (LH HORIZONTAL) 30 MIRROR MOTOR (LH HORIZONTAL) 31 C MIRROR MOTOR (LH HORIZONTAL) 32 L MIRROR MOTOR (LH HORIZONTAL) 33 MIRROR MOTOR (LH HORIZONTAL) 34 MIRROR MOTOR (LH HORIZONTAL) 35 MIRROR MOTOR (LH HORIZONTAL) 36 MIRROR MOTOR (LH HORIZONTAL) 37 LH HORIZONTAL) 38 MIRROR MOTOR (LH HORIZONTAL) 39 MIRROR MOTOR (LH HORIZONTAL) 30 MIRROR MOTOR (LH HORIZONTAL) 30 MIRROR MOTOR (LH HORIZONTAL) 30 MIRROR MOTOR (LH HORIZONTAL) 31 MIRROR MOTOR (LH HORIZONTAL) 32 LO MIRROR MOTOR (LH HORIZONTAL) 34 MIRROR MOTOR (LH HORIZONTAL) 35 LO MIRROR MOTOR (LH HORIZONTAL) 36 MIRROR MOTOR (LH HORIZONTAL) 37 MIRROR MOTOR (LH HORIZONTAL) 38 MIRROR MOTOR (LH HORIZONTAL) 39 MIRROR MOTOR (LH HORIZONTAL) 30 MIRROR MOTOR (LH HORIZONTAL) 31 MIRROR MOTOR (LH HORIZONTAL) | E F G |
| Connector No. M24 Connector Name DATA LINK CONNECTOR Connector Type BD18FW | Cornector No. M51 | ADP |
| AUTOMATIC DRIVE POSITIONER Connector Name KEV SLOT Connector Type THIEFW-NH THIEFW-NH THIEFW-NH TOWN Town of Whre Signal Name [Specification] No. P R THIEFW-NH TOWN TOWN | Connector No. M49 Connector Name TILT & TELESCOPIO MOTOR | M N |
| | | Р |

Revision: 2007 June ADP-157 G37 Coupe



JCJWA0155GB



Fail Safe

Р

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

| Operating in fail-safe mode | Malfunction Item | Related DTC | Diagnosis |
|---|-----------------------|----------------|-----------------------|
| | CAN communication*1 | U1000 | With ADP: ADP-48 |
| | CAN communication | 01000 | Without ADP: SE-29 |
| Only manual functions operate normally. | Tilt sensor*1 | B2118 | With ADP: ADP-51 |
| ,, | Tilt sensor | D2110 | Without ADP: SE-30 |
| | Telescopic sensor | B2119 | ADP-54 |
| | Detent switch | B2126 | ADP-57 |
| | Parking brake switch | B2127 | ADP-59 |
| Only manual functions, except door mirror, operate normally. | UART communication | B2128 | ADP-61 |
| Only manual functions, except seat sliding, operate normally. | Seat sliding output | B2112 | ADP-49 |
| Only manual functions, except seat reclining, operate normally. | Seat reclining output | B2113 | ADP-50 |

^{*1:} Driver seat without automatic driver positioner system display only "U1000 CAN COMM CIRCUIT" and "B2112 SEAT SLIDE".

DTC Index

| CONSULT-III | Tim | ing ^{*1} | | |
|------------------------------------|------------------------------------|-------------------|--------------------------------|-----------------------|
| display | Current mal- Previou function func | | Item | Reference page |
| CAN COMM CIRCUIT*2 | 0 1-39 | | CAN communication | With ADP: ADP-48 |
| [U1000] | | . 00 | o, av communication | Without ADP: SE-29 |
| SEAT SLIDE*2 | 0 | 1-39 | Seat slide motor output | With ADP: ADP-51 |
| [B2112] | | 1-39 | Seat slide motor output | Without ADP: SE-30 |
| SEAT RECLINING [B2113] | ING 0 1-39 | | Seat reclining motor output | ADP-50 |
| TILT SENSOR [B2118] | 0 | 1-39 | Tilt sensor input | ADP-51 |
| TELESCO SENSOR [B2119] | 0 | 1-39 | Telescopic sensor input | ADP-54 |
| DETENT SW* ² [B2126] | 0 | 1-39 | Detention switch condition | ADP-57 |
| PARKING BRAKE [B2127] | 0 | 1-39 | Parking brake switch condition | ADP-59 |
| UART COMM [B2128] | 0 | 1-39 | UART communication | ADP-61 |

^{*1:}

^{• 0:} Current malfunction is present

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

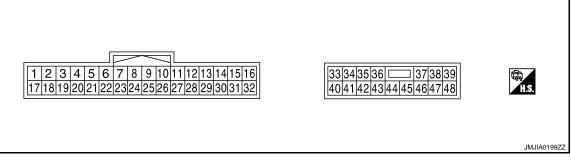
^{*2:} Driver seat without automatic driver positioner system display only "U1000 CAN COMM CIRCUIT" and "B2112 SEAT SLIDE".

< ECU DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value INFOID:0000000001693791

TERMINAL LAYOUT



PHYSICAL VALUES

| Teri | minal No. | | Description | | | | |
|------|-----------|---------------|--|-----------------------|--------------------|---------------------|--|
| + | - | Wire color | Signal name | Input/ Out- put | Conditi | on | Voltage (V) (Approx.) |
| | 0 | | - | 1 | T11 | Operate (upward) | 0 |
| 1 | Ground | Y | Tilt switch upward signal | Input | Tilt switch | Other than above | 5 |
| | | | Changeover switch RH | | Changeover | RH | 0 |
| 2 | Ground | LG | signal | Input | switch position | Neutral or LH | 5 |
| 3 | Ground | G | Mirror switch upward | Input | Mirror switch | Operated (upward) | 0 |
| 3 | Giodila | O | signal | трис | WIII OF SWILCH | Other than above | 5 |
| 4 | Ground | V | Mirror switch leftward | Input | Mirror switch | Operated (leftward) | 0 |
| 4 | Giodila | V | signal | iriput | WIIITOI SWIICII | Other than above | 5 |
| 5 | Ground | R | Door mirror sensor (RH) upward/downward signal | Input | Mirror face (door | mirror RH) | Change between 3.4 (close to peak) 0.6 (close to valley) |
| 6 | Ground | GR | Door mirror sensor (LH) upward/downward signal | Input | Mirror face (door | mirror LH) | Change between 3.4 (close to peak) 0.6 (close to valley) |
| 7 | Ground | 0 | Tilt sensor signal | Input | Tilt position | | Change between 1.2 (close to top) 3.4 (close to bottom) |
| | | | | | | Press | 0 |
| 9 | Ground | L | Memory switch 1 signal | Input | Memory switch 1 | Other than above | 5 |
| 10 | Ground | V | UART communication (TX) | Out- put | Ignition switch ON | ı | 2mSec/div 2WJIA0118ZZ |

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| Teri | minal No. | | Description | | | | | | | | |
|------|-----------|------------------|---|-----------------------|---------------------|----------------------------|---|---------------------|------------------|------------------|---|
| + | - | Wire color | Signal name | Input/ Out- put | Conditi | on | Voltage (V) (Approx.) | | | | |
| 11 | Ground | GR | Telescopic switch for- | Innut | Telescopic | Operate (forward) | 0 | | | | |
| 11 | Ground | GK | ward signal | Input | switch | Other than above | 5 | | | | |
| | | | | Out- | Memory indictor | Illuminate | 0 | | | | |
| 12 | Ground | 0 | Memory indictor 1 signal | put | 1 | Other than above | Battery voltage | | | | |
| | | | | Out- | Memory indictor | Illuminate | 0 | | | | |
| 13 | Ground | Р | Memory indictor 2 signal | put | 2 | Other than above | Battery voltage | | | | |
| 14 | Ground | W*1 | Door mirror motor (RH) | Out- | Door mirror RH | Operate (upward) | Battery voltage | | | | |
| | Cround | BR ^{*2} | upward output | put | Door million tur | Other than above | 0 | | | | |
| 15 | Ground | 0 | Door mirror motor (RH) | Out- | Door mirror RH | Operate (leftward) | Battery voltage | | | | |
| 15 | Ground | O | leftward output | put | Door militor Kitt | Other than above | 0 | | | | |
| | | | Door mirror motor (LH) downward output | | | Operate (down- ward) | Battery voltage | | | | |
| 16 | Ground | Y | downward output | Out- put | | | | | Door mirror (LH) | Other than above | 0 |
| | | | Door mirror motor (LH) | | | | | Operate (rightward) | Battery voltage | | |
| | | | rightward output | | | Other than above | 0 | | | | |
| 17 | Ground | BR | Tilt switch downward signal | Input | Tilt switch | Operate (down- ward) | 0 | | | | |
| | | | Signal | | | Other than above | 5 | | | | |
| | | | Changeover switch LH | | Changeover | LH | 0 | | | | |
| 18 | Ground | Р | signal | Input | switch position | Neutral or RH | 5 | | | | |
| 19 | Ground | SB | Mirror switch downward signal | Input | Mirror switch | Operate (down- ward) | 0 | | | | |
| | | | Signal | | | Other than above | 5 | | | | |
| 20 | Ground | BR | Mirror switch rightward | Input | Mirror switch | Operate (rightward) | 0 | | | | |
| | Ciodila | DIX | signal | mput | or ownor | Other than above | 5 | | | | |
| 21 | Ground | L | Door mirror sensor (RH) leftward/rightward signal | Input | Door mirror RH pe | osition | Change between 3.4 (close to left edge) 0.6 (close to right edge) | | | | |
| 22 | Ground | SB | Door mirror sensor (LH) leftward/rightward signal | Input | Door mirror LH po | sition | Change between 0.6 (close to left edge) 3.4 (close to right edge) | | | | |
| 23 | Ground | Р | Telescopic sensor signal | Input | Telescopic position | n | Change between 0.8 (close to top) 3.4 (close to bottom) | | | | |

< ECU DIAGNOSIS >

| Torr | ninal No. | | Description | | | | |
|------|--------------|-------|---|-------------|---------------------------------------|----------------------------|-----------------|
| | IIIIIai INO. | Wire | Description | Input/ | | | Voltage (V) |
| + | - | color | Signal name | Out- put | Condition | on | (Approx.) |
| | | | | | | Press | 0 |
| 24 | Ground | R | Set switch signal | Input | Set switch | Other than above | 5 |
| | | | | | | Press | 0 |
| 25 | Ground | LG | Memory switch 2 signal | Input | Memory switch 2 | Other than above | 5 |
| 26 | Ground | Р | UART communication (RX) | Input | Ignition switch ON | ı | 10mSec/div |
| 27 | Ground | G | Telescopic switch back- | Input | Telescopic | Operate (back- ward) | 0 |
| | | _ | ward signal | | switch | Other than above | 5 |
| | | | Door mirror motor (RH) | | | Operate (down- ward) | Battery voltage |
| 30 | Ground | SB | downward output | Out- | Door mirror (RH) | Other than above | 0 |
| | | | Door mirror motor (RH) | put | , , , , , , , , , , , , , , , , , , , | Operate (rightward) | Battery voltage |
| | | | rightward output | | | Other than above | 0 |
| 31 | Ground | G | Door mirror motor (LH) | Out- | Door mirror (LH) | Operate (upward) | Battery voltage |
| 31 | Ground | G | upward output | put | Door Hillion (LH) | Other than above | 0 |
| 32 | Ground | L | Door mirror motor (LH) | Out- | Door mirror (LH) | Operate (leftward) | Battery voltage |
| | Ground | _ | leftward output | put | Door Hillror (Err) | Other than above | 0 |
| 33 | Ground | W | Sensor power supply | Input | | | 5 |
| 34 | Ground | V | Power source (Fuse) | Input | _ | | Battery voltage |
| 35 | Ground | L | Tilt motor upward output | Out- | Steering tilt | Operate (upward) | Battery voltage |
| 33 | Ground | L | The motor upward output | put | Steering tilt | Other than above | 0 |
| 36 | Ground | GR | Telescopic motor for- ward output signal | Out- | Steering tele- scopic | Operate (forward) | Battery voltage |
| | | | | put | Scopic | Other than above | 0 |
| 39 | Ground | W | Power source (C/B) | Input | _ | | Battery voltage |
| 40 | Ground | В | Ground | _ | _ | | 0 |
| 41 | Ground | Υ | Sensor ground | _ | _ | | 0 |

ADP

Α

В

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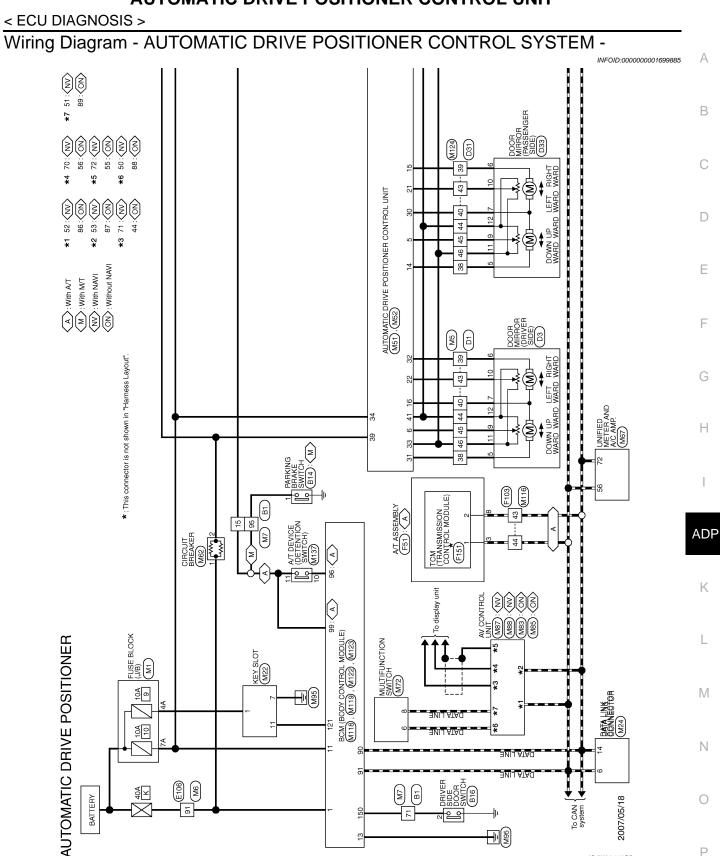
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| Terr | minal No. | | Description | | | | |
|------|-----------|---------------|---------------------------------------|-----------------------|--------------------------|----------------------------|--------------------------|
| + | - | Wire color | Signal name | Input/ Out- put | Conditi | on | Voltage (V) (Approx.) |
| 42 | Ground | 0 | Tilt motor downward | Out- | Steering tilt | Operate (down- ward) | Battery voltage |
| | | | output | put | pu. | | 0 |
| 44 | Ground | G | Telescopic motor back- ward output | Out- | Steering tele- scopic | Operate (back- ward) | Battery voltage |
| | | | waru σαιραί | put | Scopic | Other than above | 0 |
| 48 | Ground | В | Ground | _ | _ | | 0 |

^{*1:} A/T models

^{*2:} M/T models

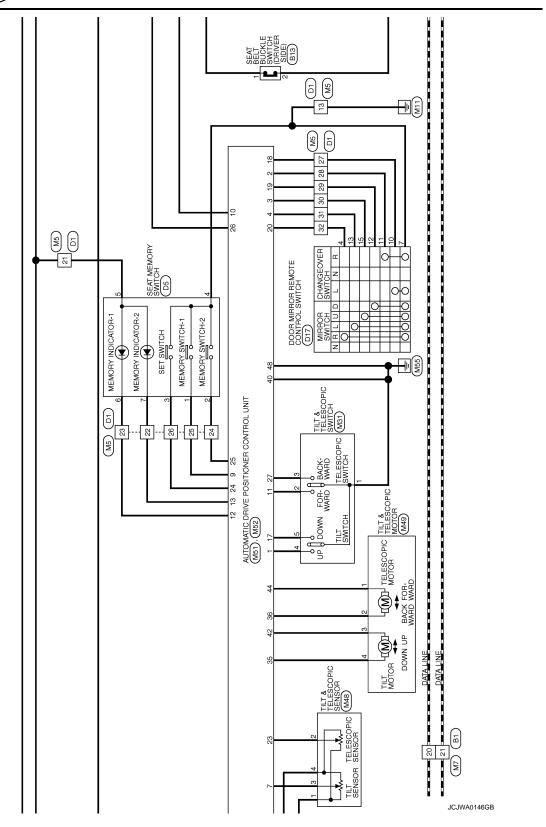


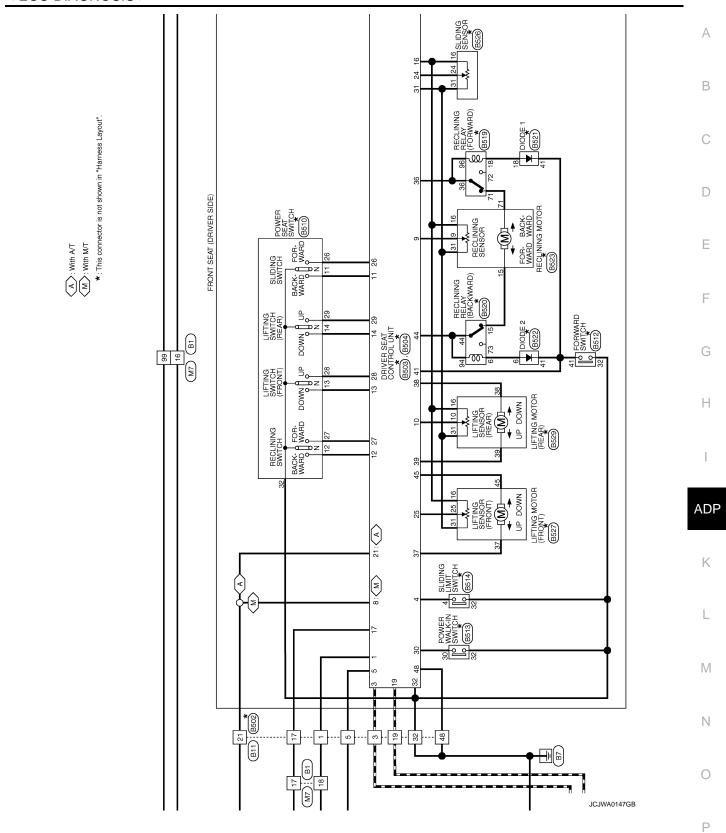
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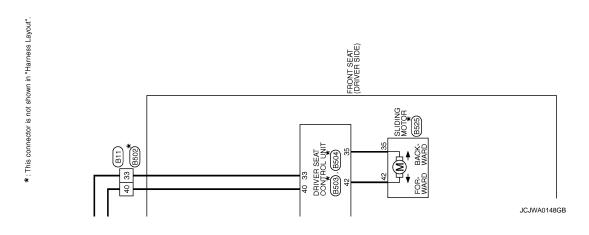
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| [6] | (40) (10) (10) (10) (10) (10) (10) (10) (1 | А |
|--|--|-----|
| BI4 PARKING BRAKE SWITCH (M/T) POIFE-A Signal Name [Specification] | VCC TX TX CAN-1 P RAWLE SW PULSE (SLIDING) SLIDING SW (FORWARD) FRECLINING SW (FORWARD) FREAT LIFTING | В |
| B14 PARKING POIFE A | 0 0 V V R R V V R R R R R R R R R R R R | С |
| Connector No. Connector Type Connector Type H.S. H.S. I erminal Olivia of With | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | D |
| CH (DRIVER | INIT | Е |
| BI3 SEAT BUCKLE SWITCH (DRIVER A03FW Signal Name [Specification] | SEAT CONTROL L SIGNAL IMMEDIATE SIGNAL LAM SIGNAL LAM BUCKLE RECU- PULSE (RECU- PULSE (RECU- SIGNAL SW (BAKANG BRA- PULSE (RECU- SIGNAL SW (BAKANG BRA- PULSE (RECU- SIGNAL SW (BAKANG BRA- PULSE (RECU- SIGNAL SW (BAKANG SW (BAKANG SW CAN- FULSE (RECU- SIGNAL SW (BAKANG SW CAN- SW CAN- SW (BAKANG | F |
| | 9 0 N N N N N N N N N N N N N N N N N N | G |
| Connector No. Connector Name Connector Type Connector Type Colo No. | Commetter Name Comm | Н |
| CS 17 | NRE 110 10 10 10 10 10 10 10 | I |
| | | ADP |
| Connector No. Bii | Connector No B502 | K |
| ۳ | | L |
| AUTOMATIC DRIVE POSITIONER Journator Name WRE TO WIRE Journator Type TH80FW-CS16-TM4 | Signal Name [Specification] | M |
| MRE TO WRE THROTH CS16-TM4 Signal Name [S2 | HIGH HADEN H | Ν |
| AUTOMAT Connector No. Connector Name Connector Type Connec | Connector No. Connector Type Connector Type Connector Type No. of Wire 2 V | 0 |
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| or No. 18512 or Type SOZAMW 12 A | Color Signal Name [Specification] of Wive Charactery Ch | or No. B520 Or Name RECLINING RELAY (BACKWARD) Strype MS03FB-M2 44 73 94 15 6 | Color Signal Nane [Specification] R |
|--|--|--|--|
| Connector No. Connector Name Connector Type | Terminal No. 32 32 41 | Connector No. Connector Type | Terminal No. 6 15 44 73 94 |
| BESTO POWER SEAT SWITCH (DRIVER SIDE) WITH AUTOMATIC DRIVE POSITIONER) INSIGENY CS 12 14 29 12 27 11 26 13 28 | Color 1 Signal Name [Specification] SBR | B519 B519 B519 B519 B519 B519 B519 B519 B5207E-M2 B5207E-M2 B519 B519 | or Signal Name [Specification] |
| Connector No. Connector Type | Color of Wire | Connector No. Connector Name Connector Type | Color Colo |
| 48 B GND (POWER) | | Connector No. B514 Connector Name SLIDING LIMIT SWITCH (DRIVER SIDE) Connector Type MOZFB ##\$ | Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification] 4 O/B - |
| AUTOMATIC DRIVE POSITIONER Connector No. 8504 Connector Type INSIGNY-CS H.S. 833 34 35 36 56 71 38 39 40 41 42 43 44 45 46 47 48 | Ferminal Color Signal Name [Specification] | Connector No. B513 Connector Name POWER WALK-IN SWITCH (DRIVER SIDE) Connector Type TKOZMBR-P LLS 122 30 | Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification] 30 P - |

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| | | | | | А |
|--|---|--|--|-------------|-----|
| SLIDING MOTOR (DRIVER SIDE) (6096-0239 | Signal Name [Specification] | | | | В |
| | | | | | С |
| Connector No. Connector Name Connector Type | Color Colo | | | | D |
| SIDE) | (estoon) | WER | [reation] | | Е |
| BES3 RECLINING MOTOR (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER) NSDGFW-CS 15 | Signal Name [Specification] | BS29 LIFTING MOTOR (REAR) (DRIVER SIDE) NISOBEBR-CS 38 | Signal Name [Specification] | | F |
| | Color W/G L L C O O O W W W W W W | No. B529 Name LIFTING MC SIDE) Type NSOGFBR-C | Color of Wire P.B. P.B. P.B. R.P.B. R | | G |
| Commetter No. Commetter Type Commetter Type H.S. | Terminal No. 9 9 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16 | Connector Name Connector Type | Terminal No. 10 10 10 10 10 10 10 10 10 10 10 10 10 | | Н |
| | pecification] |) (DRIVER | Decification | | I |
| 1852 1900E 2 (DRIVER SIDE) 14335 C3990 1416 | Signal Name [Specification] | BS27 LIFTING MOTOR (FRONT) (DRIVER SIDE) NSORPW-CS 45 | Signal Name [Specificatori] | | ADP |
| ector No. ector Name ector Type | of Vifes | setor No. setor Name setor Type | Color of Wire of Color of Colo | | K |
| | Terminal No. 10 Pt. 10 | Comm | Terminal No. 16 16 25 25 25 25 45 45 45 | | L |
| OSITIONE | Signal Name [Specification] | DRIVER SIDE) | Signal Name [Space/froation] | | M |
| IC DRIVE POS BSS1 BIODE I (GRIVER SIDE) 24335 C8900 [41] 18] | Signal Nan | EB26 SUDING SENSOR (DRIVER SIDE) 6098 0241 243116 | Signal Nan | | Ν |
| AUTOMATIC DRIVE POSITIONER Connector No. 8521 Connector Name DIODE 1 (DRIVER SIDE) Connector Type 24435 09900 H.S. 14118 | Terminal Color No. Of Wire 18 | Connector No. | Color Colo | | 0 |
| | | | | JCJWA0151GB | D |
| | | | | | Р |

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| Connector No. D5 Connector Name SEAT MEMORY SWITCH Connector Type A08FW MAS ST 2 1 4 | Terminal Color Signal Name [Spacification] Color Signal Name [Spacification] Color Signal Name [Spacification] Signal Name [Spacification] Color C | Connector No. E106 Connector Name WRE TO WIRE Connector Type TH60FW-CS16-TM4 | Terminal Color No. of Wire Signal Name [Specification] 91 W |
|--|--|---|--|
| Connector Na. D3 Connector Name DOOR MIRROR (DRIVER SIDE) Connector Type TH12MW-NH \$\begin{align*} & \begin{align*} & alig | Terminal Color Signal Name [Specification] | Connector No. D33 Connector Name DOOR MIRROR (PASSENGER SIDE) Connector Type THIZMW-NH LS. 5 6 7 2 1 4 12 11 10 9 3 8 | Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification] S |
| 31 W 32 BR 33 GR 33 GR 44 V 45 W 46 W 46 W 46 W 47 W 46 W 47 W 46 W 47 W 46 W 47 W 47 | | Connector Nuc. D31 Connector Type TH40FW-CS15 (A) (14 13 12 11 10 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 | Terminal Color Signal Name [Specification] Signal Name [Sp |
| AUTOMATIC DRIVE POSITIONER Connector No. DI Connector Name Wife TO WIRE Connector Type TH40FW-CS15 HAS TS 12 11 10 S R 7 S S 4 S Z 1 CASCAGNICATION OF R 7 S S S Z 1 | Signal Name [Specification] | D17 DOOR MIRROR REMOTE CONTROL SWITCH TK/187BR 1 2 3 4 | Signal Name [Specification] |
| AUTOMAT Connector No. Connector Type H.S. TS 1411 | Color | Connector No. Connector Type | Terminal Color No. of Wire 4 BR 7 BR 10 GR 11 LG 112 G |

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| 2 <u>0</u> 10 50440 | Signal Name [Specification] | Signal Name [Specification] Signal Name [Specification] - [With M/T] - [With automatic drive positioner] | A B |
|--|---|--|--------|
| NSOFW-MZ 3A 8A 7A 8A 7A 8A | O'Glor Signal Name of Wire P | WIRE T | С |
| Connector No. Connector Type Connector Type | Terminal No. No. 44 A 7A | Commetter Name Commetter Type Comm | D |
| ROL MODULE) | ication] | itation | Е |
| FISH TOM (TRANSMISSION CONTROL MODILE) SPIGEBGY 9 8 7 6 5 4 3 2 1 | Signal Name [Specification] CAN-H CAN-L | WIRE TO WIRE TH80MW-CS16-TMA TH80MW-CS16-TMA Signal Name [Specification] | F |
| 10 01 | of Wire BR | Type of Wwe | G |
| Connector No. Connector Typ | Terminal No. 1 | Connector Nam Connector Type Terminal Col No. 91 of W | Н |
| r Name WRE TO WRE THE WRE TO W | Signal Name [Specification] | | I |
| WIRE TO WIRE TX WIRE WIRE WIRE WIRE WIRE WIRE WIRE WIRE | S) jgral N | | ADP |
| Connector No. FI Connector Type TT | 1 Terminal Color No. of Wire 44 L L | 2 2 2 3 3 3 3 3 4 </td <td>K</td> | K |
| A H | | | L |
| AUTOMATIC DRIVE POSITIONER Demeter No. F51 Connector Name AT ASSENBLY Connector Type RK10FG-DGY (10 9 8 7 6) | Signal Name (Specification) | Name Wife TO WHE | M |
| TIC DRIVE F51 AT ASSEMBLY RK10FG-DGY 5 4 3 (10 9 8 | | M5 WIRE TO WIRE TH40MW-CS! | Ν |
| AUTOMA Connector No. Connector Name Connector Type H.S. | Terminal Color No. of Wire 8 B P | Connector Name Connector Name Connector Name Connector Name Connector Type Connector Name Conn | 0 |
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| | | | |

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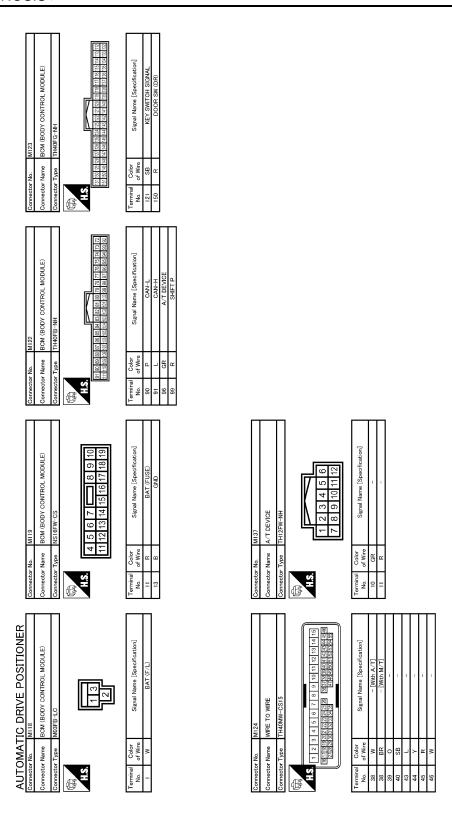
| MZZ | Connector No. Connector Name Connector Type Terminal Color No. of Will of Will of Will | | M24 DATA LINK CONNECTOR BD16FW 9 10 11 12 13 14 15 16 7 18 Signal Name [Specification] | Connector No. Connector Type Connector Type M.S. Terminal Color No. of Will I Will B. | | M31 TILT & TELESCOPIC SWITCH TKGFFGY 3 4 1 5 2 Signal Name [Specification] | Connector No. Connector Type Connector Type Terminal No. No. October | M48 TILT & TE TKO4FW | ELESCOPIC SENSOR 3 2 1 Signal Name [Specification] | |
|---|--|------------------|---|---|---|--|--|-------------------------------|---|--|
| 7 B GND 11 SB KEY SWTCH SIGNAL Compactor No. M49 Connector Name TILT & TELESCOPIC MOTOR | Connector No. | 7 | MSI MSI ANTOMATIC DRIVE POSITIONER OONTROL, UNIT | 2 0 4 0 E | G S S S S S S S S S S S S S S S S S S S | INDZ INDZ INDZ MIRROR MOTOR (RH VERTICAL) [Wrth A.7] | 2 P A A A A A A A A A A A A A A A A A A | Y C C CONTROL BAYE POSITIONER | - - - - - - - - - - - - - - - - - - - | |
| | Connector Type H.S. 11 2 17 18 | <u></u> | TH32PW-NH 1 5 6 7 8 9 10 11 12 13 14 15 16 16 16 16 16 16 16 | 16 17 17 18 19 20 21 22 22 | | MIRROR MOTOR (RH HORIZONTAL) MIRROR MOTOR (RH HORIZONTAL) MIRROR SELECT SW (LH) MIRROR SELECT SW (LH) MIRROR SELECT SW (GHTWARD) MIRROR SENSOR (RH HORIZONTAL) MIRROR SENSOR (RH HORIZONTAL) MIRROR SENSOR (RH HORIZONTAL) | [a] | T S \$ [| cs 36 37 38 39 43 44 45 46 47 48 | |
| Terminal Color Signal Name [Speoification] | Terminal No. | Color of Wire | Signal Name [Specification] | 25 | ~ 5 ° | SET SW ADDRESS2 | la l | i.e. | Signal Name [Specification] | |
| 2 GR - | - 2 8 | - 5 6 | MIRROR SELECT SW (RH) MIRROR SW (UPWARD) | 27 30 | n o 8 | TELESCOPIC SW (BACKWARD) MIRROR MOTOR (RH COMMON) | ₩ | Ш | OWER SUPPLY (SENSOR) BAT (FUSE) TILT MOTOR (UPWARD) | |
| | 4 5 | > ¤ | MIRROR SW (LEFTWARD) MIRROR SENSOR (RH VERTICAL) | 32 | g J | MIRROR MOTOR (LH VERTICAL) MIRROR MOTOR (LH HORIZONTAL) | Н | GR TELESCOPIC W | TELESCOPIC MOTOR (FORWARD) BAT (C/B) | |
| | 9 | 땅 o | MIRROR SENSOR (LH VERTICAL) TILT SENSOR | | | | 40 | B | GND(SENSOR) | |
| | 6 01 | - > | ADDRESSI TX (UART) | | | | 42 | O TILT MO | TILT MOTOR (DOWNWARD) TELESCOPIC MOTOR (BACKWARD) | |
| | 2 = 2 | . g c | TELESCOPIC SW (FRONTWARD) INDI | | | | H | H | GND(POWER) | |

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< ECU DIAGNOSIS >

| HOUT NAVD 39 38 37 36 51 50 49 48 | eofication] | | eoffication | | A B |
|--|--|--|--|-------------|--------|
| M83 AV CONTROL UNIT (WIT TH24FW-NH 6 45 44 43 42 41 40 8 57 56 55 54 53 52 | Color Signal Name [Specification] Of Wire Signal Name [Specification] SHIELD SHIELD COMM.(CONTT-DISEP.) | MI16 WIRE TO WIRE TX36MW-NS10 TX36MW-NS10 TX36MW-NS10 | Color Signal Name [Speorification] | | С |
| Connector Name Connector Name Connector Type H.S. 474 474 595 | O forminal O of S S S S S S S S S S S S S S S S S S | Connector No. Connector Type | O of A44 | | D |
| | ation | Q. | T) | | Е |
| EUNCTION SWITCH W-NH 6 8 10 12 14 5 7 9 11 13 | Signal Name [Specification] AV COMM (1) AV COMM (1) | M88 AV CONTROL UNIT (WITH NAV) THIZPW-NH 62 64 66 68 70 72 61 63 65 67 69 71 | Signal Name [Speorfication] COMM (CONTY-DISE) COMM (DISE->CONT) SHELD | | F |
| | al Color N W SB | r No. | ol Calor Of Wire BR BR SHIELD | | G |
| Connector Na Connector Ty | Terminal No. 6 6 8 8 8 | Connects | Torminal No. 70 71 71 72 72 72 72 72 72 72 72 72 72 72 72 72 | | Н |
| MAST THREED METER AND A.C AMP. THREEV-NH | Signal Name [Speoffcatoru] CAN+H CAN+L | MAST AV CONTROL UNIT (WITH MAVI) TH40FW-NH SI NA IS NA IS HANGE IN IS NA IS N | Signal Name [Speoification] AV COMM (H) AV COMM (L) CAN-H CAN-L | | ADP |
| No. M67 Name UNIFED MET Type TH32FW-NH 41 12 45 44 45 46 47 41 12 45 40 61 67 62 63 | | M87 AV CONTRO TH40FW-NH TH30FW-NH S 00 32 M 80 80 T 28 01 28 38 37 37 | | | ADP |
| Connector No. Connector Name Connector Type H.S. 41 42 5 | Color Colo | Convector No. M87 Connector Name AV C Connector Type TH40 L L Connector Type TH40 Conn | Color Colo | | K |
| FI | | | | | L |
| AUTOMATIC DRIVE POSITIONER Connector No. MKZ Connector Name CIRCUT BREAKER Connector Type MXZFW P-LC A.S. 12 | Signal Name [Specification] | MBS AV CONTROL UNIT (WITHOUT NAV) TH32FW-NH TH62FW-NH SS 67 68 55 94 63 60 76 77 77 77 77 77 77 77 77 77 77 77 77 | Signal Name [Specification] CAN-H CAN-L AV COMM (H) AV COMM (L) | | M |
| MOZEW F-LC | | 1818 | | | N |
| AUTOMA' Connector Nan Connector Type Connector Type H.S. | Continue Color | Connector No. Connector Type L.S. 11 90 1071106 | Continual Color | | 0 |
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JCJWA0156GB

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BCM (BODY CONTROL MODULE)

Α Reference Value INFOID:0000000001911541

В

VALUES ON THE DIAGNOSIS TOOL

| CONSULT-III MONITOR | RITEM |
|---------------------|-------|
|---------------------|-------|

| CONSULT-III MONITOR I | | V-1 - 10(-) | _ |
|-----------------------|---|----------------------------------|-------------|
| Monitor Item | Condition | Value/Status | <u> </u> |
| FR WIPER HI | Other than front wiper switch HI | Off | _ |
| | Front wiper switch HI | On | |
| FR WIPER LOW | Other than front wiper switch LO | Off | D |
| | Front wiper switch LO | On | |
| FR WASHER SW | Front washer switch OFF | Off | |
| | Front washer switch ON | On | E |
| FR WIPER INT | Other than front wiper switch INT | Off | |
| | Front wiper switch INT | On | F |
| FR WIPER STOP | Front wiper is not in STOP position | Off | |
| TR WIII ER OTOI | Front wiper is in STOP position | On | |
| INT VOLUME | Wiper intermittent dial is in a dial position 1 - 7 | Wiper intermittent dial position | G |
| TURN SIGNAL R | Other than turn signal switch RH | Off | |
| TORN SIGNAL IX | Turn signal switch RH | On | H |
| TURN SIGNAL L | Other than turn signal switch LH | Off | |
| TURN SIGNAL L | Turn signal switch LH | On | |
| TAIL LAMP SW | Other than lighting switch 1ST and 2ND | Off | |
| TAIL LAWIP SVV | Lighting switch 1ST or 2ND | On | |
| LILDEAN CM | Other than lighting switch HI | Off | A 15 |
| HI BEAM SW | Lighting switch HI | On | — AD |
| LIEAD LAND CVV | Other than lighting switch 2ND | Off | |
| HEAD LAMP SW 1 | Lighting switch 2ND | On | K |
| LIEAD LAMB 014/ 0 | Other than lighting switch 2ND | Off | |
| HEAD LAMP SW 2 | Lighting switch 2ND | On | |
| D4 00 11 10 0 14 1 | Other than lighting switch PASS | Off | |
| PASSING SW | Lighting switch PASS | On | |
| | Other than lighting switch AUTO | Off | |
| AUTO LIGHT SW | Lighting switch AUTO | On | |
| | Front fog lamp switch OFF | Off | |
| FR FOG SW | Front fog lamp switch ON | On | N |
| RR FOG SW | NOTE: | Off | |
| RR FUG SW | The item is indicated, but not monitored. | Oli | |
| DOOR SW-DR | Driver door closed | Off | 0 |
| DOOK OW DIC | Driver door opened | On | |
| DOOR SW-AS | Passenger door closed | Off | P |
| DOOK SW-AS | Passenger door opened | On | |
| DOOR SW-RR | NOTE: The item is indicated, but not monitored. | Off | |
| DOOR SW-RL | NOTE: The item is indicated, but not monitored. | Off | |

| Monitor Item | Condition | Value/Status |
|-----------------|--|--------------|
| DOOR SW-BK | NOTE: The item is indicated, but not monitored. | Off |
| CDL LOCK SW | Other than power door lock switch LOCK | Off |
| CDL LOCK SW | Power door lock switch LOCK | On |
| CDL UNLOCK SW | Other than power door lock switch UNLOCK | Off |
| CDL UNLOCK SW | Power door lock switch UNLOCK | On |
| KEY CYL LK-SW | Other than driver door key cylinder LOCK position | Off |
| KLI OILLK-SW | Driver door key cylinder LOCK position | On |
| KEY CYL UN-SW | Other than driver door key cylinder UNLOCK position | Off |
| KET OTE ON-OW | Driver door key cylinder UNLOCK position | On |
| KEY CYL SW-TR | NOTE: The item is indicated, but not monitored. | Off |
| HAZADD SW | Hazard switch is not pressed | Off |
| HAZARD SW | Hazard switch is pressed | On |
| REAR DEF SW | NOTE: The item is indicated, but not monitored. | Off |
| H/L WASH SW | NOTE: The item is indicated, but not monitored. | Off |
| TR CANCEL SW | Trunk lid opener cancel switch OFF | Off |
| TR CANCEL 3W | Trunk lid opener cancel switch ON | On |
| TR/BD OPEN SW | Trunk lid opener switch OFF | Off |
| IN/BD OF LIN SW | While the trunk lid opener switch is turned ON | On |
| TRNK/HAT MNTR | Trunk lid closed | Off |
| TINIVITAL WINTE | Trunk lid opened | On |
| RKE-LOCK | LOCK button of Intelligent Key is not pressed | Off |
| TAKE EGGIN | LOCK button of Intelligent Key is pressed | On |
| RKE-UNLOCK | UNLOCK button of Intelligent Key is not pressed | Off |
| TAKE ONEOOK | UNLOCK button of Intelligent Key is pressed | On |
| RKE-TR/BD | TRUNK OPEN button of Intelligent Key is not pressed | Off |
| TITLE TIVED | TRUNK OPEN button of Intelligent Key is pressed | On |
| RKE-PANIC | PANIC button of Intelligent Key is not pressed | Off |
| INIC-I ANIO | PANIC button of Intelligent Key is pressed | On |
| RKE-P/W OPEN | UNLOCK button of Intelligent Key is not pressed | Off |
| INCE-F/W OF LIN | UNLOCK button of Intelligent Key is pressed and held | On |
| RKE-MODE CHG | LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously | Off |
| RKE-MODE CHG | LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously | On |
| ODTICAL CENCOR | Bright outside of the vehicle | Close to 5 V |
| OPTICAL SENSOR | Dark outside of the vehicle | Close to 0 V |
| DEO SW/ DD | Driver door request switch is not pressed | Off |
| REQ SW-DR | Driver door request switch is pressed | On |
| DEO SW AS | Passenger door request switch is not pressed | Off |
| REQ SW-AS | Passenger door request switch is pressed | On |
| DEO CW/ DD/TD | Trunk request switch is not pressed | Off |
| REQ SW-BD/TR | Trunk request switch is pressed | On |

| Monitor Item | Condition | Value/Status | |
|---------------|--|--------------|-------------|
| 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 | Ignition switch in OFF or ACC position | Off | |
| | Ignition switch in ON position | On | |
| ACC RLY -F/B | Ignition switch in OFF position | Off | |
| | Ignition switch in ACC or ON position | On | |
| CLUCH SW | The clutch pedal is not depressed | Off | |
| | The clutch pedal is depressed | On | |
| BRAKE SW 1 | The brake pedal is not depressed | On | |
| | The brake pedal is depressed | Off | |
| DETE/CANCL SW | Selector lever in P position | Off | |
| | Selector lever in any position other than P | On | |
| 25T DM/M 004 | Selector lever in any position other than P and N | Off | |
| SFT PN/N SW | Selector lever in P or N position | On | |
| 2/1 1 2 2 1 4 | Steering is locked | Off | |
| S/L -LOCK | Steering is unlocked | On | |
| | Steering is unlocked | Off | |
| S/L -UNLOCK | Steering is locked | On | |
| | Ignition switch in OFF or ACC position | Off | |
| S/L RELAY-F/B | Ignition switch in ON position | On | |
| UNLK SEN-DR | Driver door is unlocked | Off | |
| | Driver door is locked | On | |
| PUSH SW -IPDM | Push-button ignition switch (push-switch) is not pressed | Off | |
| | Push-button ignition switch (push-switch) is pressed | On | / |
| IGN RLY1 -F/B | Ignition switch in OFF or ACC position | Off | |
| | Ignition switch in ON position | On | |
| DETE SW -IPDM | Selector lever in P position | Off | |
| | Selector lever in any position other than P | On | |
| | Selector lever in any position other than P and N | Off | |
| SFT PN -IPDM | Selector lever in P or N position | On | |
| | Selector lever in any position other than P | Off | |
| SFT P -MET | Selector lever in P position | On | |
| SFT N -MET | Selector lever in any position other than N | Off | |
| | Selector lever in N position | On | |
| ENGINE STATE | Engine stopped | Stop | |
| | While the engine stalls | Stall | |
| | At engine cranking | Crank | |
| | Engine running | Run | |
| S/L LOCK-IPDM | Steering is locked | Off | |
| | Steering is unlocked | On | |
| S/L UNLK-IPDM | Steering is unlocked | Off | |
| | Steering is locked | On | |
| S/L RELAY-REQ | Ignition switch in OFF or ACC position | Off | |
| | Ignition switch in ON position | On | |

| Monitor Item | Condition | Value/Status |
|---------------|---|--|
| VEH SPEED 1 | While driving | Equivalent to speedometer reading |
| VEH SPEED 2 | While driving | Equivalent to speedometer reading |
| | Driver door is locked | LOCK |
| DR DOOR STATE | Wait with selective UNLOCK operation (5 seconds) | READY |
| | Driver door is unlocked | UNLK |
| | Passenger door is locked | LOCK |
| AR DOOR STATE | Wait with selective UNLOCK operation (5 seconds) | READY |
| | Passenger door is unlocked | UNLK |
| ID OK ELAC | Ignition switch in ACC or ON position | Reset |
| ID OK FLAG | Ignition switch in OFF position | Set |
| DDMT FNO OTDT | The engine start is prohibited | Reset |
| PRMT ENG STRT | The engine start is permitted | Set |
| PRMT RKE STRT | NOTE: The item is indicated, but not monitored. | Reset |
| 1/5/ OW OLOT | Intelligent Key is not inserted into key slot | Off |
| KEY SW -SLOT | Intelligent Key is inserted into key slot | On |
| RKE OPE COUN1 | During the operation of Intelligent Key | Operation frequency of Intelligent Key |
| RKE OPE COUN2 | NOTE: The item is indicated, but not monitored. | _ |
| | The key ID that the key slot receives does not accord with any key ID registered to BCM. | Yet |
| CONFRM ID ALL | The key ID that the key slot receives accords with any key ID registered to BCM. | DONE |
| | The key ID that the key slot receives does not accord with the fourth key ID registered to BCM. | Yet |
| CONFIRM ID4 | The key ID that the key slot receives accords with the fourth key ID registered to BCM. | DONE |
| CONFIDM ID2 | The key ID that the key slot receives does not accord with the third key ID registered to BCM. | Yet |
| CONFIRM ID3 | The key ID that the key slot receives accords with the third key ID registered to BCM. | DONE |
| 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 |
| CONTINUED | The key ID that the key slot receives accords with the first key ID registered to BCM. | DONE |
| TD / | The ID of fourth Intelligent Key is not registered to BCM | Yet |
| TP 4 | The ID of fourth Intelligent Key is registered to BCM | DONE |
| TD 3 | The ID of third Intelligent Key is not registered to BCM | Yet |
| TP 3 | The ID of third Intelligent Key is registered to BCM | DONE |
| TD 2 | The ID of second Intelligent Key is not registered to BCM | Yet |
| TP 2 | The ID of second Intelligent Key is registered to BCM | DONE |
| TP 1 | The ID of first Intelligent Key is not registered to BCM | Yet |
| | The ID of first Intelligent Key is registered to BCM | DONE |

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| Monitor Item | Condition | Value/Status | | | | |
|----------------|---|-------------------------------|--|--|--|--|
| AIR PRESS FL | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of front LH tire | | | | |
| AIR PRESS FR | AIR PRESS FR Ignition switch ON (Only when the signal from the transmitter is received) | | | | | |
| AIR PRESS RR | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of rear RH tire | | | | |
| AIR PRESS RL | Air pressure of rear LH tire | | | | | |
| ID REGST FL1 | ID of front LH tire transmitter is registered | Green | | | | |
| ID REGST FLT | ID of front LH tire transmitter is not registered | Red | | | | |
| ID REGST FR1 | ID of front RH tire transmitter is registered | Green | | | | |
| ID REGGIT KT | ID of front RH tire transmitter is not registered | Red | | | | |
| ID REGST RR1 | ID of rear RH tire transmitter is registered | Green | | | | |
| ID REGGI KKI | ID of rear RH tire transmitter is not registered | Red | | | | |
| ID REGST RL1 | ID of rear LH tire transmitter is registered | Green | | | | |
| ID REGGI KLI | ID of rear LH tire transmitter is not registered | Red | | | | |
| WARNING LAMP | Tire pressure indicator OFF | Off | | | | |
| WARINING LAWIF | Tire pressure indicator ON | On | | | | |
| BUZZER | Tire pressure warning alarm is not sounding | Off | | | | |
| DULLER | Tire pressure warning alarm is sounding | On | | | | |

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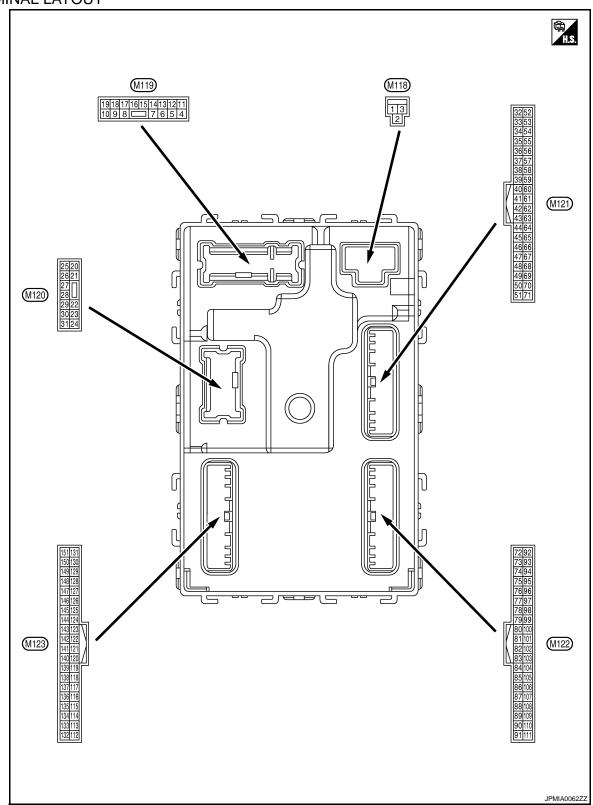
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TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS >

| | inal No. | Description | | | | Value | Α |
|-----------|----------|---|--------------------------|--|---|-----------------|--------|
| + | e color) | Signal name | Input/ Output | | Condition | (Approx.) | |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage | В |
| 2 (Y) | Ground | P/W power supply (BAT) | Output | Ignition switch OF | F | Battery voltage | С |
| 3 (Y) | Ground | P/W power supply (RAP) | Output | Ignition switch ON | I | Battery voltage | |
| 4 | Crownd | Interior room lamp | Outout | After passing the in er operation time | nterior room lamp battery sav- | 0 V | D |
| (LG) | Ground | power supply | Output | Any other time aft lamp battery save | er passing the interior room roperation time | Battery voltage | Е |
| 5 | Ground | Passenger door UN- | Output | Passenger door | UNLOCK (Actuator is activated) | Battery voltage | |
| (P) | Giodila | LOCK | Output | rassenger door | Other than UNLOCK (Actuator is not activated) | 0 V | F |
| 7 | Ground | Step lamp | Output | Step lamp | ON | 0 V | |
| (Y) | Ground | Otop lamp | Output | Olop lamp | OFF | Battery voltage | G |
| 8 | Ground | All doors, fuel lid | Output | out. All doors fuellid | LOCK (Actuator is activated) | Battery voltage | |
| (V) | Cround | LOCK | Output All doors, fuel I | 711 40010, 1401114 | Other than LOCK (Actuator is not activated) | 0 V | Н |
| 9 | Ground | Driver door, fuel lid | Output | Driver door, fuel | UNLOCK (Actuator is activated) | Battery voltage | |
| (G) | Giodila | UNLOCK | Output | lid | Other than UNLOCK (Actuator is not activated) | 0 V | |
| 11 (R) | Ground | Battery power supply | Input | Ignition switch OF | F | Battery voltage | ٩DP |
| 13 (B) | Ground | Ground | _ | Ignition switch ON | I | 0 V | K |
| | | | | | OFF | 0 V | |
| 14 (W) | Ground | Push-button ignition switch illumination ground | Output | Tail lamp | ON | 0 | L M |
| 15 | Ground | ACC indicator lamp | Output | Ignition switch | OFF | Battery voltage | 0 |
| (O) | Giouria | ACC indicator lamp | Output | ignition switch | ACC or ON | 0 V | |

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| | inal No. | Description | | | | |
|-----------|----------|------------------------|------------------|-----------------------|--|--|
| (Wire | e color) | Signal name | Input/ Output | | Condition | Value (Approx.) |
| | | | 1 | | Turn signal switch OFF | 0 V |
| 17 (V) | Ground | Turn signal (front RH) | 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 (G) | Ground | Turn signal (front LH) | 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 |
| | | | | | Turn signal switch OFF | 0 V |
| 20 (V) | Ground | Turn signal (rear RH) | Output | Ignition switch ON | Turn signal switch RH | (V) 15 10 5 0 1 s PKID0926E 6.5 V |
| 23 | Ground | Trunk lid opening. | Output | Trunk lid | Open (Trunk lid opener actuator is activated) | Battery voltage |
| (G) | Ground | Traink iid openiing. | Output | TIGHIN HO | Close (Trunk lid opener actuator is not activated) | 0 V |
| | | | | | Turn signal switch OFF | 0 V |
| 25 (G) | Ground | Turn signal (rear LH) | Output | Ignition switch ON | Turn signal switch LH | (V) 15 10 5 0 1 s PKID0926E 6.5 V |
| 30 | | T | 0 | T | ON | 0 V |
| (R) | Ground | Trunk room lamp | Output | Trunk room lamp | OFF | Battery voltage |

| | ninal No. e color) | Description | | | | Value | |
|------|-----------------------|--------------------|------------------|--------------------------------------|---|---|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) | |
| 34 | | Trunk room antenna | | Ignition switch | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0062GB | |
| (SB) | Ground | 1 (-) | Output | ŎFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 JMKIA0063GB | |
| 35 | Ground | Trunk room antenna | Output | Ignition switch | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 JMKIA0062GB | |
| (V) | Ground | 1 (+) | Output | ÖFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0063GB | A |
| 38 | | Rear bumper anten- | | When the trunk | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB | |
| (B) | Ground | na (-) | Output | is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 JMKIA0063GB | |

| | inal No. e color) | Description | lmr::t/ | | Condition | Value |
|------------|----------------------|----------------------------|---|---|--|---|
| + | _ | Signal name | Input/ Output | | Condition | (Approx.) |
| 39 | Ground | Rear bumper anten- | per anten-Output When the trunk lid request switch | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB | |
| (W) | Godila | na (+) | Gupu | is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0063GB |
| 47 | | Ignition relay (IPDM | | | OFF or ACC | Battery voltage |
| (Y) | Ground | E/R) control | Output | Ignition switch | ON | 0 V |
| 50 (R) | Ground | Trunk room lamp switch | Input | Trunk room lamp switch | OFF (Trunk is closed) | (V) 15 10 5 0 10 ms JPMIA0011GB |
| | | | | | ON (Trunk is open) | 0 V |
| | | | | Ignition switch OFF (M/T mod- | When the clutch pedal is depressed | Battery voltage |
| | | | | els) | When the clutch pedal is not depressed | 0 V |
| 52 (SB) | Ground | Starter relay control | Output | Ignition switch | When selector lever is in P or N position and the brake is depressed | Battery voltage |
| | | | | ON (A/T models) | When selector lever is in P or N position and the brake is not depressed | 0 V |
| | | | | | ON (Pressed) | 0 V |
| 61 (SB) | Ground | Trunk request switch | Input | Trunk request switch | OFF (Not pressed) | (V) 15 10 5 0 10 ms JPMIA0016GB |
| 61 | | Poguaet switch hu- | | Poguest switch | Sounding | 0 V |
| 64 (L) | Ground | Request switch buzz- er | Output | Request switch buzzer | Not sounding | Battery voltage |

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| | inal No. | Description | | | | Value | Λ |
|------------|----------|-------------------------------------|------------------|-------------------------|--|--|----------------------------------|
| (Wire | e color) | Signal name | Input/ Output | | Condition | (Approx.) | А |
| 67 (GR) | Ground | Trunk lid opener switch | Input | Trunk lid opener switch | Pressed Not pressed | 0 V | В |
| | | | | | | 10 ms JPMIA0011GB | D |
| | | | | | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 | F |
| 72 (R) | Ground | Room antenna 2 (-) (center console) | Output | | JMKIA0062GB | G | |
| | | | | | | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 1 s |
| | | | | | | | AD |
| | | | | | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 | K |
| 73 | Ground | Room antenna 2 (+) | Output | Ignition switch | | JMKIA0062GB | L |
| (G) | | (center console) | | OFF | When Intelligent Key is not | (V) 15 10 5 | M |
| | | | | | in the passenger compart- ment | 1 s | Ν |
| | | | | | | JMKIA0063GB | 0 |

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| | ninal No. e color) | Description | las (| | Condition | Value |
|------|-----------------------|---------------------|------------------|---|---|---|
| + | _ | Signal name | Input/ Output | | Condition | (Approx.) |
| 74 | Ground | Passenger door an- | Output | When the passenger door re- | When Intelligent Key is in the antenna detection area | (V) 15 10 5 11 1 s JMKIA0062GB |
| (SB) | Glodina | tenna (-) | Guipui | 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 | Ground | Passenger door an- | Output | When the passenger door re- | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB |
| (BR) | Glound | 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 |
| 76 | 0 | Driver door antenna | 0.1.1 | When the driver door request | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 JMKIA0062GB |
| (V) | Ground | (-) | Output | switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 1 |

| | ninal No. re color) | Description | | | On a distant | Value | |
|------|------------------------|-----------------------|------------------|---|---|---|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) | 1 |
| 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 | |
| (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 | |
| 78 | Ground | Room antenna (-) (in- | Output | Ignition switch | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0062GB | |
| (Y) | Ground | strument panel) | Output | ŌFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0063GB | A |
| 79 | Ground | Room antenna (+) | Output | Ignition switch | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 JMKIA0062GB | |
| (BR) | Ground | (instrument panel) | Output | ŎFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 JMKIA0063GB | |

| | inal No. e color) | Description | | | Condition | Value |
|------------|----------------------|--|------------------|---------------------------------|---|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) |
| 80 (GR) | Ground | NATS antenna amp (built in key slot) | Input/ Output | During waiting | Ignition switch is pressed while inserting the Intelligent Key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 81 (W) | Ground | NATS antenna amp (built in key slot) | Input/ Output | During waiting | Ignition switch is pressed while inserting the Intelligent Key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 82 (R) | Ground | Ignition relay [fuse block (J/B)] control | Output | Ignition switch | OFF or ACC | 0 V Battery voltage |
| 83 | Ground | Remote keyless entry | Input/ | During waiting | | (V) 15 10 5 0 1 ms |
| (Y) | Clound | receiver signal Output | When operating e | ither button on Intelligent Key | (V) 15 10 5 0 1 ms | |
| | | | | | All switch OFF (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0041 |
| 87 (BR) | Ground | Combination switch INPUT 5 | Input | Combination switch | Front fog lamp switch ON (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0037 |
| | | | | | Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7 | (V) 15 10 5 0 2 ms JPMIA0040 |

| | inal No. | Description | | | | Value | ٨ |
|------------|---------------|-----------------------|------------------|---------------------------|--|---|----------|
| (Wire | e color) – | Signal name | Input/ Output | | Condition | (Approx.) | Α |
| | | | | | All switch OFF (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V | В С |
| 88 | Ground | Combination switch | Input | Combination switch | Lighting switch HI (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0036GB | E |
| (O) | Clound | INPUT 3 | input | | Lighting switch 2ND (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V | G H |
| | | | | | Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 | (V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V | ADI K |
| 89 | _ | Push-button ignition | | Push-button igni- | Pressed | 0 V | |
| (BR) | Ground | switch (push switch) | Input | tion switch (push switch) | Not pressed | Battery voltage | M |
| 90 (P) | Ground | CAN - L | Input/ Output | | _ | _ | |
| 91 (L) | Ground | CAN - H | Input/ Output | | _ | _ | Ν |
| | | | | | OFF | 0 V | |
| 92 (LG) | Ground | Key slot illumination | Output | Key slot illumination | Blinking | (V) 15 10 5 0 1 s | O |
| | | | | | ON | 6.5 V Battery voltage | |

| | inal No. e color) | Description | | | Condition | Value |
|-------------|-------------------------------------|--|------------------|---------------------------------|------------------------------------|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) |
| 93 (V) | Ground | ON indicator lamp | Output | Ignition switch | OFF or ACC | 0 V Battery voltage |
| 95 (O) | Ground | ACC relay control | Output | Ignition switch | OFF ACC or ON | 0 V Battery voltage |
| 96 (Y) | Ground | A/T device (detention switch) power supply | Output | | _ | Battery voltage |
| 97 (L) | Ground | Steering lock condition No. 1 | Input | Steering lock | LOCK status UNLOCK status | 0 V Battery voltage |
| 98 | Ground | Steering lock condi- | Input | Steering lock | LOCK status | Battery voltage |
| (P) | | tion No. 2 | ' | 0 | UNLOCK status | 0 V |
| | | Selector lever P position switch | | Selector lever | P position | 0 V |
| | | (Except M/T models) | | | Any position other than P | Battery voltage |
| | ASCD clutch switch (M/T models with | | ASCD clutch | OFF (Clutch pedal is depressed) | 0 V | |
| 99 (R) | Ground | ICC) | Input | switch | ON (Clutch pedal is not depressed) | Battery voltage |
| | | ICC clutch switch (M/T models without | | ICC clutch switch | OFF (Clutch pedal is depressed) | 0 V |
| | | ICC) | | Too siden switch | ON (Clutch pedal is not depressed) | Battery voltage |
| 100 (Y) | Ground | Passenger door request switch | Input | Passenger door request switch | ON (Pressed) OFF (Not pressed) | (V) 15 10 5 0 JPMIA0016GB |
| | | | | | ON (Pressed) | 0 V |
| 101 (P) | Ground | Driver door request switch | Input | Driver door request switch | OFF (Not pressed) | (V) 15 10 5 0 10 ms JPMIA0016GB |
| 102 | Ground | Blower fan motor re- | Output | Ignition switch | OFF or ACC | 0 V |
| (O) | Ground | lay control | Output | iginuon switch | ON | Battery voltage |
| 103 (LG) | Ground | Remote keyless entry receiver power supply | Output | Ignition switch OF | F | Battery voltage |
| 106 | 0 | Steering wheel lock | O 4 / | 0 | OFF or ACC | Battery voltage |
| (W) | Ground | unit power supply | Output | Ignition switch | ON | 0 V |

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| Terminal No. | Description | l | | | Value |
|--------------------|----------------------------|------------------|---|------------------------|---|
| (Wire color) | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | All switch 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 |
| | | | | 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 |

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| Terminal No. (Wire color) | | Description | | | | Value |
|------------------------------|----------|----------------------------|-----------------------|-------------|--|---|
| (Wire | e color) | Signal name | Input/ Output | Condition | | (Approx.) |
| | | | · | | All switch OFF (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V |
| 108 | Ground | Combination switch INPUT 4 | Input Combinat switch | Combination | Lighting switch AUTO (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0038GB |
| (R) | | | | switch | Lighting switch 1ST (Wiper intermittent dial 4) | (V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V |
| | | | | | Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | (V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V |

| | inal No. | Description | | | | Value |
|------------|----------|----------------------------|------------------|--|------------------------|---|
| (Wir | e color) | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | | All switch OFF | (V) 15 10 5 0 2 ms JPMIA0041GB |
| | | | | | Lighting switch PASS | (V) 15 10 5 0 2 ms JPMIA0037GB |
| 109 (W) | Ground | Combination switch INPUT 2 | Input | Combination switch (Wiper intermittent dial 4) | Lighting switch 2ND | (V) 15 10 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 1.3 V |
| | | | | | Pressed | 0 V |
| 110 (G) | Ground | Hazard switch | Input | Hazard switch | Not pressed | (V) 15 10 5 0 10 ms JPMIA0012GB |

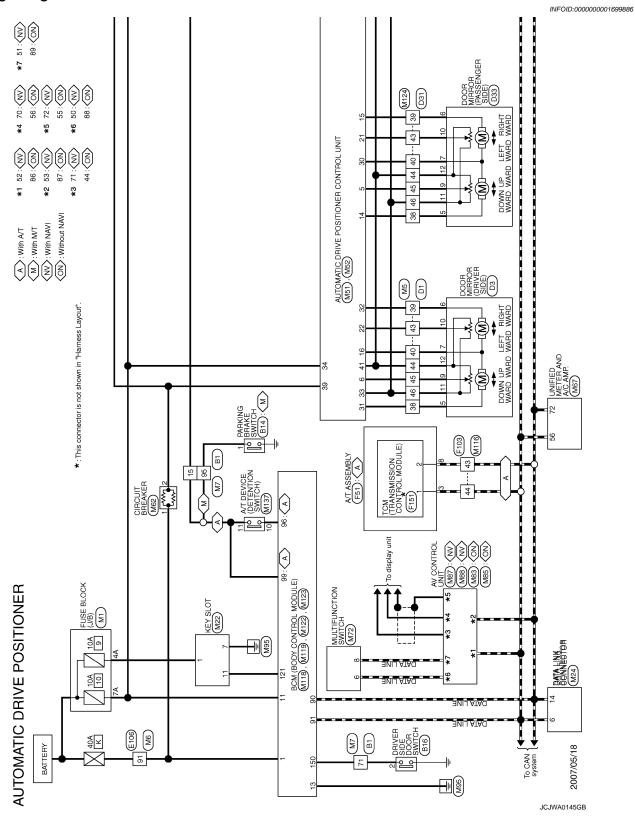
| | Terminal No. Description (Wire color) | | | | Value | | |
|------------------|---------------------------------------|--|------------------|--------------------|-------------------------------------|---|--|
| + | e color) | Signal name | Input/ Output | Condition | | (Approx.) | |
| | | | | | LOCK status | Battery voltage | |
| 111 (Y) Grour | Ground | Steering lock unit communication | Input/ Output | Steering lock | LOCK or UNLOCK | (V) 15 10 50 ms JMKIA0066GB | |
| | | | | | For 15 seconds after UN- LOCK | Battery voltage | |
| | | | | | 15 seconds or later after UNLOCK | 0 V | |
| 113 | Ground | Optical sensor signal | Input | Ignition switch | When bright outside of the vehicle | Close to 5 V | |
| (P) | Cround | Spiloti Sonsoi Signal | Прис | ON | When dark outside of the vehicle | Close to 0 V | |
| 114 | Ground | Clutch interlock | Input | Clutch interlock | OFF (Clutch pedal is not depressed) | 0 V | |
| (R) | Siddid | switch | put | switch | ON (Clutch pedal is depressed) | Battery voltage | |
| 116 (SB) | Ground | Stop lamp switch 1 | Input | | _ | Battery voltage | |
| | | Stop lamp switch 2 | h 2 Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V | |
| 118 (BR) | Ground | | | | ON (Brake pedal is de- pressed) | Battery voltage | |
| | | | | ICC brake hold | OFF | 0 V | |
| | | | | relay (With ICC) | ON | Battery voltage | |
| 119 (SB) | Ground | Front door lock assembly driver side (unlock sensor) | Input | Driver door | LOCK status | (V) 15 10 5 0 10 ms JPMIA0011GB | |
| | | | | | UNLOCK status | 0 V | |
| 121 | Carrie | Kov olet ovitet | المت د ده | When Intelligent K | ey is inserted into key slot | Battery voltage | |
| (SB) | Ground | Key slot switch | Input | When Intelligent K | ey is not inserted into key slot | 0 V | |
| 122 | Ground | ACC feedback signal | Input | Ignition switch | OFF | 0 V | |
| (P) | 2.300 | | | J | ACC or ON | Battery voltage | |
| 123 (W) | Ground | IGN feedback signal | Input | Ignition switch | OFF or ACC | 0 V | |
| (۷۷) | | _ | - | | ON | Battery voltage | |

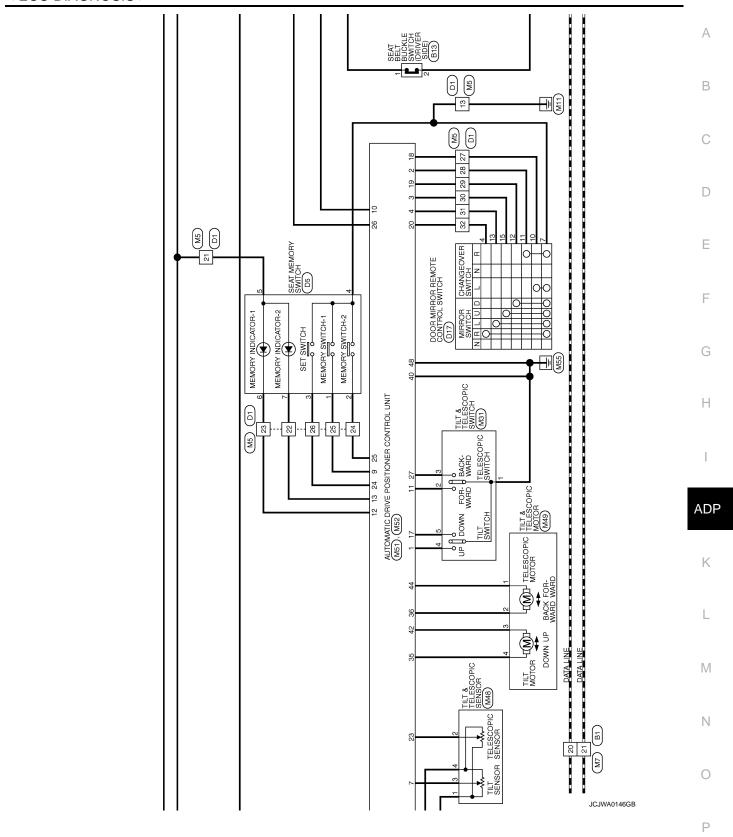
| Term | inal No. | Description | | | | | |
|-------------------|--|---|------------------|--|----------------------------------|---|----|
| (Wire | e color) | Signal name | Input/ | Condition | | Value (Approx.) | Α |
| + | _ | Signal name | Output | | I | · · · · · · · · · · · · · · · · · · · | |
| 124 (LG) | Ground | Passenger door switch | Input | Passenger door switch | OFF (When passenger door closes) | (V) 15 10 5 0 10 ms JPMIA0011GB | С |
| | | | | | ON (When passenger door opens) | 0 V | E |
| 129 (O) | Ground | Trunk lid opener cancel switch | Input | Trunk lid opener cancel switch | CANCEL | (V) 15 10 5 10 ms JPMIA0012GB | F |
| | | | | ON | | 1.1 V | |
| | | | | | ON | 0 0 | Н |
| 132 (V) | Ground | Power window switch communication | Input/ Output | Ignition switch ON | | (V) 15 10 5 0 10 ms JPMIA0013GB | AD |
| | | | | Ignition switch OF | F or ACC | 0 V | |
| | | | | ignition switch of | ON (When tail lamps OFF) | 5.5 V | K |
| | | | | | | NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level. | L |
| 133 (L) Ground | Ground | d Push-button ignition switch illumination Output | Output | Push-button ignition switch illumination | ON (When tail lamps ON) | (V) 15 10 5 0 | M |
| | | | | | OFF | 0 V | |
| 134 | C===================================== | LOCK indicates less | O 4 | LOCK indicator | ON | 0 V | 0 |
| (LG) | Ground | LOCK indicator lamp | Output | lamp | OFF | Battery voltage | |
| 137 (O) | Ground | Receiver and sensor ground | Input | Ignition switch ON | | 0 V | Р |
| 138 | Ground | Receiver and sensor | Output | Ignition switch | OFF | 0 V | |
| (V) | Ground | power supply output | Output | iginuon switch | ACC or ON | 5.0 V | |

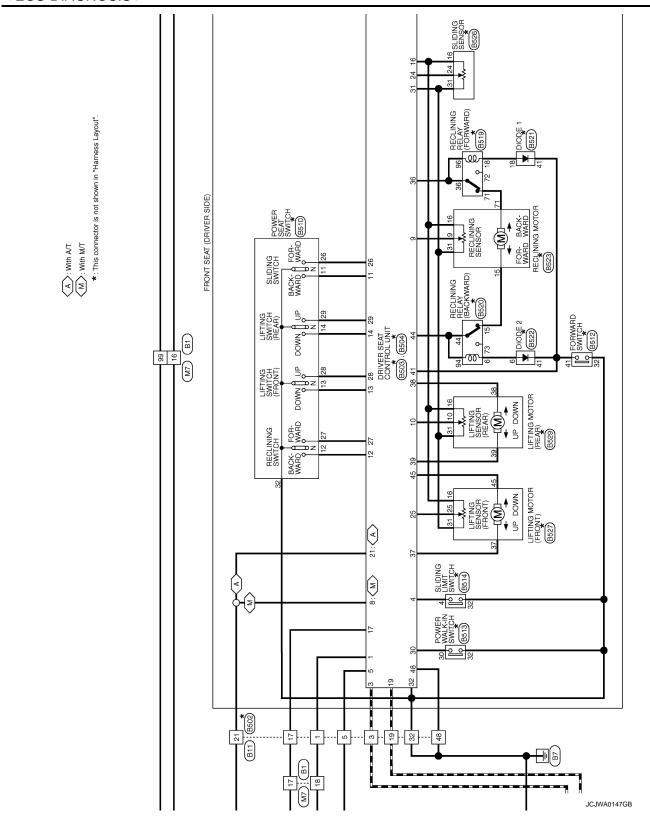
| | Terminal No. Description (Wire color) | | Condition | | Value | |
|-------------|---------------------------------------|-----------------------------|--------------------|--|---|--|
| + | - | Signal name | Input/ Output | Condition | | (Approx.) |
| 139 | Ground | Tire pressure receiv- | Input/ | Ignition switch | Standby state | (V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| (L) | Glouliu | er signal | Output | | When receiving the signal from the transmitter | (V) 6 4 2 0 ••• 0.2s OCC3880D |
| 140 | 0 | Selector lever P/N | | 0.1 | P or N position | 12.0 V |
| (GR) | Ground | position signal | Input | Selector lever | Except P and N positions | 0 V |
| | | | | | ON | 0 V |
| 141 (R) | Ground | Security indicator signal | Output | Security indicator | Blinking | (V) 15 10 5 0 1 1 s JPMIA0014GB |
| | | | | | OFF | Battery voltage |
| | | | | | All switch OFF Lighting switch 1ST | 0 V |
| | | | Output | Combination | Lighting switch HI | (V) 15 |
| 142 (BR) | Ground | Combination switch OUTPUT 5 | | switch (Wiper intermit- tent dial 4) | Lighting switch 2ND Turn signal switch RH | 10 5 0 2 ms JPMIA0031GB |
| | | | | | | 10.7 V |
| | | | | | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front wiper switch HI (Wiper intermittent dial 4) | (V) |
| 143 (V) | Ground | Output Output | Combination switch | Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7 | 15 10 5 0 2 ms JPMIA0032GB | |

| | inal No. | Description | | | | Value |
|--|--|---|------------------|--|--|---|
| (Wir | e color) – | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front washer switch ON (Wiper intermittent dial 4) | (V) 15 |
| 144 (G) Ground Combination switch OUTPUT 2 Output Combination switch | Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | 10 5 0 2 ms JPMIA0033GB 10.7 V | | | | |
| | | | | | All switch OFF | 0 V |
| | | | | | Front wiper switch INT | |
| | | | | Combination | Front wiper switch LO | (V) 15 |
| 145 (L) | Ground | Combination switch OUTPUT 3 | Output | switch | Lighting switch AUTO | 10 5 0 2 ms JPMIA0034GB |
| | | | | | All switch OFF | 10.7 V |
| | | | | | Front fog lamp switch ON | |
| | | Combination switch | | Combination switch (Wiper intermittent dial 4) | Lighting switch 2ND | 15 10 5 |
| 146 | 0 | | | | Lighting switch PASS | |
| (SB) | Ground | OUTPUT 4 | Output | | Turn signal switch LH | 2 ms JPMIA0035GB |
| 149 (W) | Ground | Tire pressure warn- ing check switch | Input | | _ | 5 V |
| 150 (R) | Ground | Driver door switch | Input | Driver door switch | OFF (When driver door closes) | (V) 15 10 5 0 10 ms JPMIA0011GB |
| | | | | | ON (When driver door opens) | 0 V |
| 151 | Ground | Rear window defog- | Output | Rear window de- | Active | 0 V |
| (G) | Giodila | ger relay | Culput | fogger | Not activated | Battery voltage |

Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -







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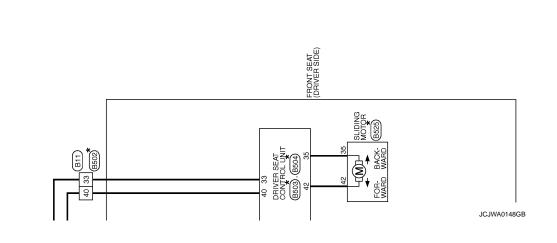
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*: This connector is not shown in "Harness Layout".

| SWITCH (M.7T) | Signal Name [Speeification] | VCC TX CAN-L PRANCE SW PULSE (SLIDING) PULSE (SLIDING) SULDING SW (CPRANED) RECHNING SW (CPRANED) RECHNING SW (CPRANED) RECHNING SW (CPRANED) REAN LIFTING SW (UPWARD) REAN LIFTING SW (UPWARD) REAN LIFTING SW (UPWARD) REAN COMPARED) GNIO (SIGNAL) |
|---|---|---|
| Connector Name PAPRING BRAKE SWITCH (M/T) Connector Type POIFB-A H.S. | Terminal Calor Signal N | 16 O O O O O O O O O O O O O O O O O O O |
| B13 SEAT BELT BUCKLE SWITCH (DRIVER SIDE) AGBRY 2 3 3 | Signal Name [Specification] | B503 |
| Connector Nuc. B Connector Type A H.S. | Terminal Color 1 | Connector No. 65 |
| 811 WIRE TO WIRE NISIGENY-CS 59 40 177 1 3 19 60 33 21 48 32 5 8 | Signal Name [Specification] | 8 5502 WIRE TO WIRE NISTEMW-LC 19 3 1 1 1 40 59 8 5 32 48 21 33 60 Signal Name (Specification) |
| Connector No. Connector Type Connector Type H.S. | Terminal Color | Connector Name Connector Name Connector Type |
| AUTOMATIC DRIVE POSITIONER Sumester No. 61 Connector Type THEOFY-CS16-TM4 THEOFY-CS16-TM4 THEOFY-CS16-TM4 | Signal Name [Speofication] | B16 A03FW A03FW Signal Name [Speorfcatton] |
| AUTOMAT Connector Name Connector Type H.S. | Terminal Color No. of Wire No. of | Connector Name Connector Type H.S. H.S. Terminal Color No. of Wire 2 V |

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| /ER SIDE) | pecification] | KWARD) | Pecificatori] | | A B |
|---|--|---|--|-------------|--------|
| B512 FORWARD SWITCH (DRIVER SIDE) S02MW 41 41 32 | Presentation Signal Name [Specification] | B520 RECLINING RELAY (BACKWARD) ORIVER SIDE) MS307B-MZ 73 73 94 15 6 | ree Signal Name [Speorification] | | С |
| Connector No. Connector Name Connector Type H.S. | Deminal Color No. of Wie St. St. | Connector No. Connector Type | Terminal Color No. of Wire 6 R R 5 L 44 P 73 - 94 P 94 P 94 P 94 P 94 P 95 P 95 P 96 P 97 P 98 P | | D |
| ER SIDE) | (eation) | G. | [cation] | | Е |
| POWER SEAT SWITCH (DRIVER SIDE) WITH AUTOMATIC DRIVE POSITIONER) NS10FW-CS 32 11429 122711261328 | Signal Name [Specification] | B519 RECLINING RELAY (FORWARD) (IORVER SIDE.) MSGSFB-M2 72 72 96 71 18 | Signal Name [Specification] | | F |
| 2 g | Color of Wire Color of Wire SR SR SR SR Color of Col | r No. | Of Wire of Or of O | | G |
| Connector No. Connector Ty. H.S. | Terminal No. 11. 12. 12. 13. 27. 28. 29. 29. 29. 29. 29. 29. 29. 29. 29. 29 | Connecto Connecto H.S. | Terminal No. No. 318 318 318 318 318 318 318 318 318 318 | | Н |
| GND (POWER) | | BB14 SLIDING LIMIT SWITCH (DRIVER SIDE) MOZFB 32 4 | Signal Name [Specification] - | | I |
| | | 1214 LLDING LIMIT SWIT 102FB | Signal | | ADP |
| 88 | | Connector Nuc S Connector Nuc S Connector Nuc S Connector Type M LS | Terrnina Color No. O. Wire 4 O. B. W B. W Color B. W Color D. W W W W W W W W W | | K |
| ONER 88 88 88 88 88 88 88 88 88 8 | on] (ARD) (MWARD) (WWARD) (WWARD) (WWARD) (WARD) (WARD) (WARD) (WARD) | E | Da . | | L |
| T CONTROL UNIT 7 38 39 44 45 46 47 48 | Signal Name [Specification] BAT (O.(B) SLIDING MOTOR (FORWARD) RECLINING MOTOR (FORWARD) REAR LIFTING MOTOR (COWWARD) REAR LIFTING MOTOR (COWWARD) BAT (FUSE) EART (FUSE) EART (FUSE) EART (FUSE) FORWARD SW SLIDING MOTOR (BACKWARD) RECLINING MOTOR (BACKWARD) RECLINING MOTOR (BACKWARD) FROMT LIFTING MOTOR (BACKWARD) | BB13 POWER WALK-IN SWITCH (DRIVER SIDE) TROOMBR-P TROOMBR-P | Signal Name [Specification] | | M |
| TIC DRIV B504 DRIVER SEA INSI GFW-CS 33 34 35 36 10 41 42 43 | | | | | Ν |
| AUTOMA Connector No. Connector Type | Continue Color | Connector No. Connector Name Connector Type | Color Color Color | | 0 |
| | | | | JCJWA0150GB | Р |
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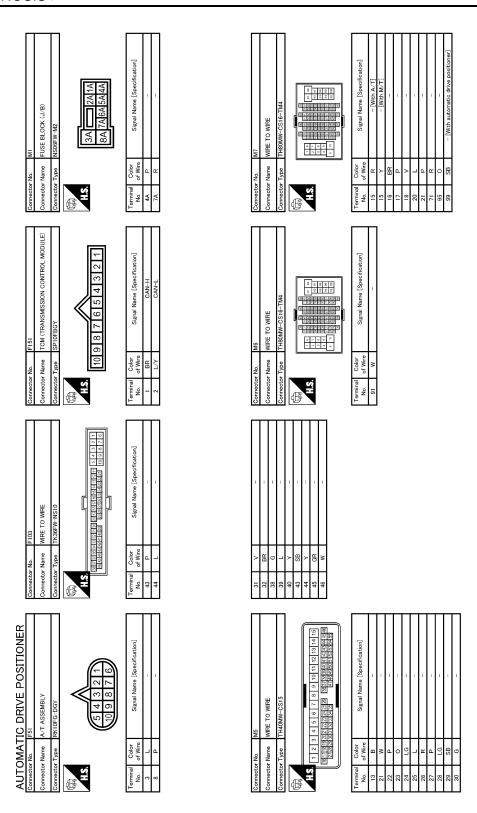
Revision: 2007 June ADP-205 G37 Coupe

| Connector No. BS25 Connector Name SLIDING MOTOR (DRIVER SIDE) Connector Type 6(998-7239 H.S. | Terminal Color Signal Name Specification Specificati | | |
|---|--|--|--|
| Connector No. BE23 Connector Name RECLINING MOTOR (DRIVER SIDE) Connector Type NSORFW-CS H.S. 15 10 1 | Terminal Color Signal Name [Specification] Signal Name [Sp | Connector No. BS29 Connector Type MS30FER-CS H.S. Saber Sab | Terminal Calor Signal Name [Specification] No. Of Wire Signal Name [Specification] Of Wire Of Wire |
| Connector No. B522 Connector Name DIODE 2 (DRIVER SIDE) Connector Type 24335 C99900 | Terminal Color Signal Name [Specification] Color Col | Connector No. 8927 Connector Name LIFTING MOTOR (FRONT) (DRIVER SIDE) Connector Type NSD6FW-CS H.S. 45 31 25 | Terminal Color Nico of Wire Signal Name [Specification] 16 0 - |
| AUTOMATIC DRIVE POSITIONER Connector Name BIS21 Connector Name DIODE 1 (DRIVER SIDE) Connector Type 24335 C9900 | Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification] H | Connector Name SLUDING SENSOR (DRIVER SIDE) Connector Type 6098 0241 | Terminal Color Signal Name [Specification] Color Nic. of Wire O |

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| | ٥٠] | | 8 | | А |
|--|--|---|--|-------------|-----|
| RY SWTCH 6 7 2 1 4 4 6 7 2 1 4 6 7 2 1 | Signal Name (Specification) | W-CSI6-TM4 W-CSI6-TM4 | Signal Name [Specification] | | В |
| D5 SEAT ME A08FW | Color Color Color Sign SB Re BR GR R R B R COLOR | WIRE 1 TH80F | Color Sign W | | С |
| | 7 - 1 - 2 - 1 - 2 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 | Connector No. Connector Name Connector Type H.S. | Terminal O of 91 | | D |
| G G | freation] positioner] | R SIDE) | fication] | | Е |
| DOOR MIRROR (DRIVER SIDE) THIZMW-NH 5 6 7 2 1 4 12 11 10 9 3 8 | Signal Name [Specification] - [With automatic drive positioner] - [With automatic drive positioner] | DOOR MIRROR (PASSENGER SIDE) THIZMW-NIH 5 6 7 2 1 4 12 11 10 9 3 8 | Signal Name [Specification] | | F |
| | October Of Wire BR BR P P P P P P P P P P P P P P P P P | | Color of Wire O G R O G R V V V V V V V V V V V V V V V V V V | | G |
| Connector No. Connector Type Connector Type H.S. | 1 erminal No. No. No. 1 | Connector No. Connector Type Connector Type H.S. | 1 erminal No. | | Н |
| | | 7 6 6 4 8 2 1 1 1 2 1 1 2 1 1 2 1 1 | peoification] | | I |
| | | No. D31 Name WIRE TO WIRE Type TH40FW-CS15 1614 3 2 11 10 9 8 7 6 5 4 3 2 1624 4 3 12 11 10 9 8 7 6 5 4 3 2 1634 5 34 | Signal Name (Specification) | | ADP |
| × P C B C C B B X | | Connector None WIRE TO WIRE Connector Type TH40FW-CS15 Connector Type TH40FW-CS15 H.S. 15 14 13 12 11 10 9 18 18 14 13 12 11 10 9 18 18 18 18 18 18 18 18 18 18 18 18 18 | Color of Wire of O O O O O O O O O O O O O O O O O O | | K |
| F S S S S S S S S S | | Conne | Terminal No. 93 38 38 40 40 44 44 44 44 46 | | L |
| MATIC DRIVE POSITIONER rac. DI rac. DI rac. Type ITHOFW-CS15 TST-01-31 [2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Signal Name [Specification] | TE CONTROL 15 6 7 14 15 16 | Signal Name [Specification] | | M |
| NAATIC DRIVE P. | Signal Name | DOOR MIRROR REMOTE CONTROL SWITCH TKIRFBR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 | Signal Name | | N |
| AUTOMATIC DRIVE POSITIONER Corrector No. Corrector Name WRE TO WIRE Corrector Type ITH40PW-CS15 List 13 121 13 121 11 10 9 8 7 6 5 4 3 2 1 1 ENGREGATION OF STATES AND STATE | No. 1 Color No. 1 Color No. 2 B Wire Color No. 2 B Color No. 2 Col | ector Name ector Type | Color Colo | | 0 |
| Comm | <u> </u> | Comm | <u> </u> | JCJWA0152GB | |
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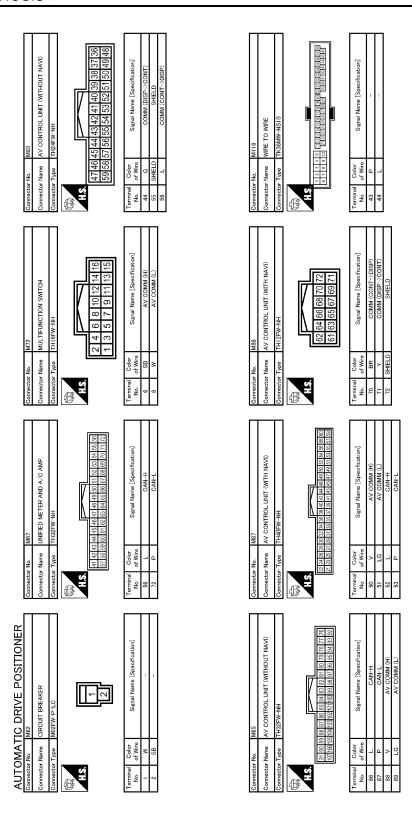
Revision: 2007 June ADP-207 G37 Coupe



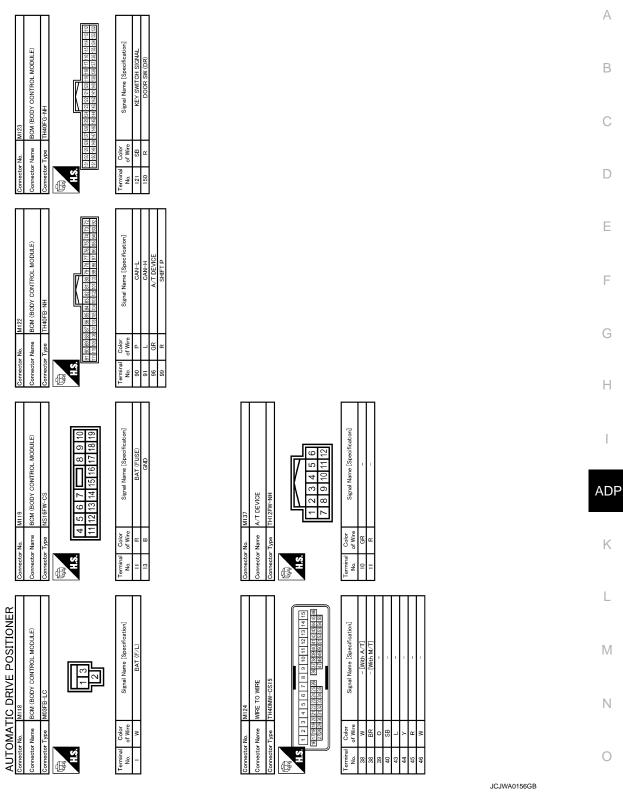
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| MAS TILT & TELESCOPIC SENSOR TRO4FW A 3 2 1 Signal Name [Specification] | MS2 | A B C |
|--|--|-------------|
| Connector No. Connector Type Connector Type Terminal Color No. of Wire 2 P 2 P 4 Y 4 Y | Connector Name Connector Name Connector Type Connector Type Connector Type Connector Type Color Name Color | D |
| MASI TILT & TELESCOPIC SWITCH TYGGFGY 3 4 1 5 2 Signal Name [Specification] | INDZ MIRROR MOTOR (BH VERTICAL), IWICH A-T] MIRROR MOTOR (BH VERTICAL), IWICH A-T] MIRROR MOTOR (BH HORIZONIAL) MIRROR MOTOR (BH HORIZONIAL) MIRROR SW (LOWNWARD) MIRROR SW (LUKNWARD) MIRROR SW (LUKNWARD) MIRROR SW (LUKNWARD) MIRROR SW (LUKNWARD) MIRROR MOTOR (LH HORIZONIAL) | E |
| Connector No M31 | 13 P MIRROF 14 W MIRROF 15 O MIRROF 16 O MIRROF 16 O MIRROF 17 O MIRROF 18 D MIRROF 19 D M | G |
| No. M24 Name DATA LINK CONNECTOR Type BD16FW 9 10 11 12 13 14 15 16 1 2 3 4 5 6 7 8 Color Signal Name [Specification] P L | Name | ADP |
| Connector No. Connector Name Connector Type H.S. No. I.4 P. I.4 P. | Connector Name Connector Name Connector Name Connector Type Conn | K |
| AUTOMATIC DRIVE POSITIONER Sometor No. MZ2 Connector Name KEY SLOT THIZTW-NH THIZTW-NH TO B 10 11 12 Terminal Color Signal Name [Specification] No. Of Wire Signal Name [Specification] T B REAS MITCH SIGNAL | MA9 TILT & TELESCOPIC MOTOR NS04FW-CS Signal Name [Specification] | M |
| AUTOMATIC DRI Connector No. M22 Connector Name EV SLOT Connector Type THIZPW-NN H.S. Teminal Color No. Olor No. | Connector No. M49 | N O |
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Revision: 2007 June ADP-209 G37 Coupe



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Fail Safe

| Display contents of CONSULT | Fail-safe | Cancellation |
|-----------------------------|-------------------------|--------------|
| B2013: ID DISCORD BCM-S/L | Inhibit engine cranking | Erase DTC |
| B2014: CHAIN OF S/L-BCM | Inhibit engine cranking | Erase DTC |
| B2190: NATS ANTTENA AMP | Inhibit engine cranking | Erase DTC |

| Display contents of CONSULT | Fail-safe | Cancellation | | |
|-----------------------------|---|---|--|--|
| 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 | | |
| B2557: VEHICLE SPEED | Inhibit steering lock | When normal vehicle speed signals have been received from actuator and electric unit (control unit) for 500 ms | | |
| B2560: STARTER CONT RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal | | |
| B2563: HI VOLTAGE | Inhibit engine cranking Inhibit steering lock | 500 ms after the power supply voltage decreases to less than 18 V | | |
| B2601: SHIFT POSITION | Inhibit steering lock | 500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN) | | |
| B2602: SHIFT POSITION | Inhibit steering lock | 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 /h or more | | |
| B2603: SHIFT POSI STATUS | Inhibit steering lock | 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V) | | |
| B2604: PNP SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions is fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF | | |
| B2605: PNP SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions is fulfilled Ignition switch is in the ON position Power position: IGN Selector lever P/N position signal: Except P and N positions (0 V) Interlock/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON | | |
| B2606: S/L RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status has become consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal) | | |
| B2607: S/L RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status hecome consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal) | | |

< ECU DIAGNOSIS >

| Display contents of CONSULT | Fail-safe | Cancellation | | |
|-----------------------------|---|--|--|--|
| B2608: STARTER RELAY | Inhibit engine cranking | 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN) | | |
| B2609: S/L STATUS | Inhibit engine cranking Inhibit steering lock | When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status | | |
| B260A: IGNITION RELAY | Inhibit engine cranking | 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) | | |
| B260F: ENG STATE SIG LOST | Maintains the power supply position attained at the time of DTC detection | When any of the following conditions is fulfilled • Power position changes to ACC • Receives engine status signal (CAN) | | |
| B2612: S/L STATUS | Inhibit engine cranking Inhibit steering lock | When any of the following conditions is fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R) | | |
| B2617: STARTER RELAY CIRC | Inhibit engine cranking | 1 second after the starter motor relay control inside BCM becomes normal | | |
| B2618: BCM | Inhibit engine cranking | 1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal | | |
| B2619: BCM | Inhibit engine cranking | 1 second after the steering lock unit power supply output control inside BCM becomes normal | | |
| B261E: VEHICLE TYPE | Inhibit engine cranking | BCM initialization | | |
| B26E1: ENG STATE NO RECIV | Inhibit engine cranking | When any of the following conditions is fulfilled • Power position changes to ACC • Receives engine status signal (CAN) | | |

DTC Inspection Priority Chart

INFOID:0000000001911543

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 B2563: HI VOLTAGE |
| 2 | U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN) |
| 3 | B2190: NATS ANTTENA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM |

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ADP-213 Revision: 2007 June G37 Coupe

| Priority | DTC |
|----------|---|
| 4 | B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2555: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSITION B2605: PNP SW B2606: SHREAY B2606: SI, RELAY B2606: SI, RELAY B2606: SI, RELAY B2608: STARTER RELAY B2609: SI, STATUS B2609: SI, STATUS B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2601: ACC RELAY B2611: ACC RELAY B2611: ACC RELAY B2611: ACC RELAY B2611: STATUS B2612: STATTUS B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: BCM B2617: STARTER RELAY CIRC B2618: BCM B2619: BCM B2619: BCM B2611: VEHICLE TYPE B2611: VEHICLE SPEED SIG |
| 5 | C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1719: [PRESSDATA ERR] RR C1720: [CODE ERR] FR C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1726: [BATT VOLT LOW] FR C1727: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL C1727: [BATT VOLT LOW] RL C1727: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL C1727: [BATT VOLT LOW] RL C1727: [COTROL UNIT |
| 6 | B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA |

< ECU DIAGNOSIS >

DTC Index INFOID:0000000001911544

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. The details of Freeze Frame Data and IGN Counter. Refer to BCS-13, "COMMON ITEM: CONSULT-III Function (BCM - COMMON ITEM)".

| CONSULT display | Fail-safe | Freeze Frame Data | 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-33 |
| U1010: CONTROL UNIT (CAN) | _ | _ | _ | _ | BCS-34 |
| U0415: VEHICLE SPEED SIG | _ | _ | _ | _ | BCS-35 |
| B2013: ID DISCORD BCM-S/L | × | × | _ | _ | <u>SEC-54</u> |
| B2014: CHAIN OF S/L-BCM | × | × | _ | _ | <u>SEC-55</u> |
| B2190: NATS ANTTENA AMP | × | _ | _ | _ | SEC-46 |
| B2191: DIFFERENCE OF KEY | × | _ | _ | _ | SEC-49 |
| B2192: ID DISCORD BCM-ECM | × | _ | _ | _ | <u>SEC-50</u> |
| B2193: CHAIN OF BCM-ECM | × | _ | _ | _ | <u>SEC-52</u> |
| B2553: IGNITION RELAY | _ | × | _ | _ | PCS-50 |
| B2555: STOP LAMP | _ | × | _ | _ | SEC-58 |
| B2556: PUSH-BTN IGN SW | _ | × | × | _ | SEC-60 |
| B2557: VEHICLE SPEED | × | × | × | _ | SEC-62 |
| B2560: STARTER CONT RELAY | × | × | × | _ | SEC-63 |
| B2562: LOW VOLTAGE | _ | × | _ | _ | BCS-36 |
| B2563: HI VOLTAGE | × | × | × | _ | BCS-37 |
| B2601: SHIFT POSITION | × | × | × | _ | SEC-64 |
| B2602: SHIFT POSITION | × | × | × | _ | SEC-67 |
| B2603: SHIFT POSI STATUS | × | × | × | _ | SEC-69 |
| B2604: PNP SW | × | × | × | _ | SEC-72 |
| B2605: PNP SW | × | × | × | _ | SEC-74 |
| B2606: S/L RELAY | × | × | × | _ | SEC-76 |
| B2607: S/L RELAY | × | × | × | _ | SEC-77 |
| B2608: STARTER RELAY | × | × | × | _ | SEC-79 |
| B2609: S/L STATUS | × | × | × | _ | SEC-81 |
| B260A: IGNITION RELAY | × | × | × | _ | PCS-52 |
| B260B: STEERING LOCK UNIT | _ | × | × | _ | SEC-85 |
| B260C: STEERING LOCK UNIT | _ | × | × | _ | SEC-86 |
| B260D: STEERING LOCK UNIT | _ | × | × | _ | SEC-87 |
| B260F: ENG STATE SIG LOST | × | × | × | _ | SEC-88 |
| B2611: ACC RELAY | _ | × | _ | _ | PCS-54 |
| B2612: S/L STATUS | × | × | × | _ | SEC-90 |
| B2614: ACC RELAY CIRC | _ | × | × | _ | PCS-57 |
| B2615: BLOWER RELAY CIRC | _ | × | × | _ | PCS-60 |

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| CONSULT display | Fail-safe | Freeze Frame Data | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|---------------------------|-----------|----------------------|------------------------------------|---|-------------------|
| B2616: IGN RELAY CIRC | _ | × | × | _ | PCS-63 |
| B2617: STARTER RELAY CIRC | × | × | × | _ | SEC-94 |
| B2618: BCM | × | × | × | _ | PCS-66 |
| B2619: BCM | × | × | × | _ | SEC-96 |
| B261A: PUSH-BTN IGN SW | _ | × | × | _ | SEC-97 |
| B261E: VEHICLE TYPE | × | × | × (Turn ON for 15 seconds) | _ | SEC-100 |
| B2621: INSIDE ANTENNA | _ | × | _ | _ | DLK-59 |
| B2622: INSIDE ANTENNA | _ | × | _ | _ | DLK-61 |
| B2623: INSIDE ANTENNA | _ | × | _ | _ | DLK-63 |
| B26E1: ENG STATE NO RES | × | × | × | _ | SEC-89 |
| C1704: LOW PRESSURE FL | _ | _ | _ | × | <u>WT-15</u> |
| C1705: LOW PRESSURE FR | _ | _ | _ | × | <u>WT-15</u> |
| C1706: LOW PRESSURE RR | _ | _ | _ | × | <u>WT-15</u> |
| C1707: LOW PRESSURE RL | _ | _ | _ | × | <u>WT-15</u> |
| C1708: [NO DATA] FL | _ | _ | _ | × | <u>WT-17</u> |
| C1709: [NO DATA] FR | _ | _ | _ | × | <u>WT-17</u> |
| C1710: [NO DATA] RR | _ | _ | _ | × | <u>WT-17</u> |
| C1711: [NO DATA] RL | _ | _ | _ | × | <u>WT-17</u> |
| C1712: [CHECKSUM ERR] FL | _ | _ | _ | × | <u>WT-20</u> |
| C1713: [CHECKSUM ERR] FR | _ | _ | _ | × | <u>WT-20</u> |
| C1714: [CHECKSUM ERR] RR | _ | _ | _ | × | <u>WT-20</u> |
| C1715: [CHECKSUM ERR] RL | _ | _ | _ | × | <u>WT-20</u> |
| C1716: [PRESSDATA ERR] FL | _ | _ | _ | × | <u>WT-23</u> |
| C1717: [PRESSDATA ERR] FR | _ | _ | _ | × | <u>WT-23</u> |
| C1718: [PRESSDATA ERR] RR | _ | _ | _ | × | <u>WT-23</u> |
| C1719: [PRESSDATA ERR] RL | _ | _ | _ | × | <u>WT-23</u> |
| C1720: [CODE ERR] FL | _ | _ | _ | × | <u>WT-25</u> |
| C1721: [CODE ERR] FR | _ | _ | _ | × | <u>WT-25</u> |
| C1722: [CODE ERR] RR | _ | _ | _ | × | <u>WT-25</u> |
| C1723: [CODE ERR] RL | _ | _ | _ | × | <u>WT-25</u> |
| C1724: [BATT VOLT LOW] FL | _ | _ | _ | × | <u>WT-28</u> |
| C1725: [BATT VOLT LOW] FR | _ | _ | _ | × | <u>WT-28</u> |
| C1726: [BATT VOLT LOW] RR | _ | _ | _ | × | <u>WT-28</u> |
| C1727: [BATT VOLT LOW] RL | _ | _ | _ | × | <u>WT-28</u> |
| C1729: VHCL SPEED SIG ERR | _ | _ | _ | × | <u>WT-31</u> |
| C1734: CONTROL UNIT | _ | _ | _ | × | <u>WT-32</u> |

ADP SYSTEM SYMPTOMS

SYMPTOM DIAGNOSIS

ADP SYSTEM SYMPTOMS

Symptom Table

The diagnostics item numbers show the sequence for inspection. Inspection in order from item 1.

| Order | Function | Operation procedure | Symptom | Diagnostic item | Reference page |
|-------|---|--|--|---------------------|----------------|
| 1 | Memory function | Perform memory storage (Refer to <u>ADP-11</u> .) and memory operation (Refer to <u>ADP-29</u>). | All parts do not operate in memory function. | _ | ADP-218 |
| | | | Memory indicator 1 or 2 does not operate. | _ | ADP-220 |
| 2 | Manual function | Perform manual function (Refer to <u>ADP-19</u>). | All components of power seat do not operate. | _ | ADP-221 |
| | Manual function and memory function | Perform manual function (Refer to <u>ADP-19</u> .) and memory function (Refer to <u>ADP-11</u> .). | Manual function or memory function does not operate. (for specific part) | Sliding | ADP-222 |
| 3 | | | | Reclining | ADP-223 |
| | | | | Lifting (front) | ADP-224 |
| | | | | Lifting (rear) | ADP-225 |
| | | | | Steering tilt | ADP-226 |
| | | | | Steering telescopic | ADP-227 |
| | | | | Door mirror | ADP-228 |
| 4 | Power walk-in function | Perform power walk-in function (Refer to ADP-39). | Power walk-in function does not operate. | _ | ADP-229 |
| 5 | Seat syncroniza- tion function | Perform seat syncronization function (Refer to ADP-24). | Seat syncronization function does not operate. | _ | ADP-231 |
| 6 | Intelligent Key inter lock function | Perform Intelligent Key inter lock function (Refer to ADP-34). | Intelligent Key inter lock function does not operate. | _ | ADP-232 |
| 7 | All functions | _ | All functions do not operate. | _ | ADP-233 |

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ALL PARTS DO NOT OPERATE IN MEMORY FUNCTION

< SYMPTOM DIAGNOSIS >

ALL PARTS DO NOT OPERATE IN MEMORY FUNCTION

Diagnosis Procedure

INFOID:0000000001728287

1. CHECK MEMORY FUNCTION

Check memory function.

Refer to ADP-29, "MEMORY FUNCTION: System Description".

Is the inspection result normal?

YES >> Memory function is normal.

NO >> GO TO 2.

2.CHECK SEAT MEMORY SWITCH

Check seat memory switch.

Refer to ADP-85, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace seat memory switch.

3.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-64, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

4. PERFORM INITIALIZATION AND MEMORY STORING PROCEDURE

1. Perform initialization procedure.

Refer to ADP-10, "SYSTEM INITIALIZATION: Special Repair Requirement".

Perform memory storing procedure.

Refer to ADP-11, "MEMORY STORING: Special Repair Requirement".

3. Check memory function.

Refer to ADP-29, "MEMORY FUNCTION: System Description".

Is the inspection result normal?

YES >> Memory function is normal.

NO >> GO TO 5.

5. CHECK FORWARD SWITCH

Check forward switch.

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

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunction parts.

6.check detention switch/parking switch

Check detention switch/parking switch.

Refer to ADP-91, "Component Function Check". (A/T models)

Refer to ADP-93, "Component Function Check". (M/T models)

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunction parts.

1.CONFIRM THE OPERATION

Perform initialization procedure.

Refer to ADP-10, "SYSTEM INITIALIZATION: Special Repair Requirement".

2. Perform memory storing procedure.

Refer to ADP-11, "MEMORY STORING: Special Repair Requirement".

3. Check the operation again.

ALL PARTS DO NOT OPERATE IN MEMORY FUNCTION

< SYMPTOM DIAGNOSIS >

Refer to <u>ADP-29</u>, "<u>MEMORY FUNCTION</u>: <u>System Description</u>".

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

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

NO >> Replace driver seat control unit. Refer to <u>ADP-236</u>, "Removal and Installation".

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MEMORY INDICATE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

MEMORY INDICATE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000001728222

1. CHECK MEMORY INDICATOR

Check memory indicator.

Refer to ADP-140, "Component Function Check".

Is the inspection result normal?

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

NO >> Repaire or replace the malfunction parts.

ALL COMPONENTS OF POWER SEAT DO NOT OPERATE

< SYMPTOM DIAGNOSIS > ALL COMPONENTS OF POWER SEAT DO NOT OPERATE Α Diagnosis Procedure INFOID:0000000001841441 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT В Check power seat switch ground circuit. Refer to ADP-88, "Diagnosis Procedure". C Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> Repair or erplace harness. D Е F Н ADP K L M Ν 0

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< SYMPTOM DIAGNOSIS >

MANUAL FUNCTION OR MEMORY FUNCTION DOES NOT OPERATE SEAT SLIDING

SEAT SLIDING : Diagnosis Procedure

INFOID:0000000001728251

1. CHECK SLIDING MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CHECK SLIDING OPERATION IN MANUAL FUNCTION

Check sliding operation in manual function.

Refer to ADP-19, "MANUAL FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 5.

3.CHECK SLIDING OPERATION IN MEMORY FUNCTION

Check sliding operation in memory function.

Refer to ADP-29, "MEMORY FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 4.

4. CHECK SLIDING SENSOR

Check sliding sensor.

Refer to ADP-95, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunction parts.

5. CHECK SLIDING SWITCH

Check sliding switch.

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

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunction parts.

6.CHECK SLIDING MOTOR

Check sliding motor.

Refer to ADP-118, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunction parts.

7.CONFIRM THE OPERATION

Check the operation again.

Refer to <u>ADP-19</u>, "MANUAL FUNCTION: System Description". (Manual function)

Refer to ADP-29, "MEMORY FUNCTION: System Description". (Memory function)

Is the result normal?

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

NO >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

SEAT RECLINING

< SYMPTOM DIAGNOSIS >

| < SYMPTOM DIAGNOSIS > SEAT RECLINING : Diagnosis Procedure | |
|--|------------------------|
| | INFOID:000000001728273 |
| 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 OPERATION IN MANUAL FUNCTION | |
| Check reclining operation in manual function. | |
| Refer to ADP-19, "MANUAL FUNCTION: System Description". | |
| Is the inspection result normal? | |
| YES >> GO TO 3. | |
| NO >> GO TO 5. | |
| 3.check reclining operation in memory function | |
| Check reclining operation in memory function. | |
| Refer to ADP-29, "MEMORY FUNCTION: System Description". | |
| Is the inspection result normal? | |
| YES >> GO TO 9. NO >> GO TO 4. | |
| 4.check reclining sensor | |
| | |
| Check reclining sensor. Refer to ADP-98, "Component Function Check". | |
| Is the inspection result normal? | |
| YES >> GO TO 9. | |
| NO >> Repair or replace the malfunction parts. | |
| 5. CHECK RECLINING SWITCH | |
| Check reclining switch. | |
| Refer to ADP-67, "Component Function Check". | |
| Is the inspection result normal? | |
| YES >> GO TO 6. | |
| NO >> Repair or replace the malfunction parts. | |
| 6. CHECK RECLINING RELAY | |
| Check reclining relay. | |
| Refer to ADP-135, "FORWARD: Diagnosis Procedure". (forward) | |
| Refer to ADP-137, "BACKWARD: Diagnosis Procedure". (backward) | |
| Is the inspection result normal? | |
| YES >> GO TO 7. NO >> Repair or replace the malfunction parts. | |
| _ ' | |
| .CHECK FORWARD SWITCH | |
| Check forward switch. | |
| Refer to <u>ADP-73, "Component Function Check"</u> . Is the inspection result normal? | |
| YES >> GO TO 8. | |
| NO >> Repair or replace the malfunction parts. | |
| 8. CHECK RECLINING MOTOR | |
| | |
| Check reclining motor. Refer to ADP-120, "Component Function Check". | |
| le the inspection result normal? | |

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Is the inspection result normal?

< SYMPTOM DIAGNOSIS >

YES >> GO TO 9.

NO >> Repair or replace the malfunction parts.

9.CONFIRM THE OPERATION

Check the operation again.

Refer to ADP-19, "MANUAL FUNCTION: System Description". (Manual function)

Refer to ADP-29, "MEMORY FUNCTION: System Description". (Memory function)

Is the result normal?

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

NO >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT): Diagnosis Procedure

INFOID:0000000001728276

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 (FRONT) OPERATION IN MANUAL FUNCTION

Check lifting (front) operation in manual function.

Refer to ADP-19, "MANUAL FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 5.

3.check lifting (front) operation in memory function

Check lifting (front) operation in memory function.

Refer to ADP-29, "MEMORY FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 4.

4. CHECK LIFTING SENSOR (FRONT)

Check lifting sensor (front).

Refer to ADP-101, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunction parts.

5.CHECK LIFTING SWITCH (FRONT)

Check lifting switch (front).

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

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunction parts.

6.CHECK LIFTING MOTOR (FRONT)

Check lifting motor (front).

Refer to ADP-122, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunction parts.

< SYMPTOM DIAGNOSIS >

| CONFIRM THE OPERATION | |
|--|-------------------------|
| Check the operation again. Refer to ADP-19, "MANUAL FUNCTION: System Description". (Manual function) Refer to ADP-29, "MEMORY FUNCTION: System Description". (Memory function) | |
| s the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation". SEAT LIFTING (REAR) | |
| SEAT LIFTING (REAR) : Diagnosis Procedure | INFOID:0000000001728277 |
| 1.CHECK LIFTING (REAR) MECHANISM | |
| Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. | |
| s the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. | |
| 2.CHECK LIFTING (REAR) OPERATION IN MANUAL FUNCTION | |
| Check lifting (rear) operation in manual function. Refer to ADP-19, "MANUAL FUNCTION: System Description". | |
| s the inspection result normal? YES >> GO TO 3. NO >> GO TO 5. | |
| 3.CHECK LIFTING (REAR) OPERATION IN MEMORY FUNCTION | |
| Check lifting (rear) operation in memory function. Refer to ADP-29, "MEMORY FUNCTION: System Description". s the inspection result normal? | |
| YES >> GO TO 7. NO >> GO TO 4. | |
| 4.CHECK LIFTING SENSOR (REAR) | |
| Check lifting sensor (rear). Refer to <u>ADP-104, "Component_Function_Check"</u> . s the inspection result normal? | |
| YES >> GO TO 7. NO >> Repair or replace the malfunction parts. O.CHECK LIFTING SWITCH (REAR) | |
| Check lifting switch (rear). Refer to ADP-71, "Component Function Check". | |
| s the inspection result normal? YES >> GO TO 6. NO >> Repair or replace the malfunction parts. | |
| CHECK LIFTING MOTOR (REAR) | |
| Check lifting motor (rear). Refer to <u>ADP-124, "Component_Function_Check"</u> . | |
| | |
| s the inspection result normal? YES >> GO TO 7. NO >> Repair or replace the malfunction parts. 7. CONFIRM THE OPERATION | |

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< SYMPTOM DIAGNOSIS >

Refer to <u>ADP-19, "MANUAL FUNCTION: System Description"</u>. (Manual operation) Refer to <u>ADP-29, "MEMORY FUNCTION: System Description"</u>. (Memory function)

Is the result normal?

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

NO >> Replace driver seat control unit.

STEERING TILT

STEERING TILT : Diagnosis Procedure

INFOID:0000000001728278

1. CHECK STEERING TILT MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repaire or replace the malfunction parts.

2.CHECK STEERING TILT OPERATION IN MANUAL FUNCTION

Check steering tilt operation in manual function.

Refer to ADP-19, "MANUAL FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 5.

3.CHECK STEERING TILT OPERATION IN MEMORY FUNCTION

Check steering tilt operation in memory function.

Refer to ADP-29, "MEMORY FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 4.

4. CHECK TILT SENSOR

Check steering tilt sensor.

Refer to ADP-107, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repaire or replace the malfunction parts.

5. CHECK TILT SWITCH

Check tilt switch.

Refer to ADP-81, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repaire or replace the malfunction parts.

6.CHECK TILT MOTOR

Check tilt motor.

Refer to ADP-126, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repaire or replace the malfunction parts.

7. CONFIRM THE OPERATION

Check the operation again.

Refer to ADP-19, "MANUAL FUNCTION: System Description". (Manual function)

Refer to ADP-29, "MEMORY FUNCTION: System Description". (Memory function)

Is the result normal?

< SYMPTOM DIAGNOSIS > YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation". STEERING TELESCOPIC STEERING TELESCOPIC: Diagnosis Procedure INFOID:000000001728279 В 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? D YES >> GO TO 2. NO >> Repair or replace the malfunction parts. 2 .CHECK STEERING TELESCOPIC OPERATION IN MANUAL FUNCTION Е Check steering telescopic operation in manual function. Refer to ADP-19, "MANUAL FUNCTION: System Description". Is the inspection result normal? YES >> GO TO 3. NO >> GO TO 5. 3.CHECK STEERING TELESCOPIC OPERATION IN MEMORY FUNCTION Check steering telescopic operation in memory function. Refer to ADP-29, "MEMORY FUNCTION: System Description". Н Is the inspection result normal? YES >> GO TO 7. NO >> GO TO 4. CHECK TELESCOPIC SENSOR Check steering telescopic sensor. ADP Refer to ADP-110, "Component Function Check". Is the inspection result normal? YES >> GO TO 7. NO >> Repair or replace the malfunction parts. 5. CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to ADP-83, "Component Function Check". Is the inspection result normal? YES >> GO TO 6. NO >> Repair or replace the malfunction parts. 6. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-128, "Component Function Check". Is the inspection result normal? YES >> GO TO 7. NO >> Repair or replace the malfunction parts. .CONFIRM THE OPERATION Check the operation again. Refer to <u>ADP-19</u>. "MANUAL FUNCTION: System Description". (Manual function) Refer to ADP-29, "MEMORY FUNCTION: System Description". (Memory function) Is the result normal?

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>> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

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

YES

NO

< SYMPTOM DIAGNOSIS >

DOOR MIRROR

DOOR MIRROR: Diagnosis Procedure

INFOID:0000000001728280

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 DOOR MIRROR OPERATION IN MANUAL FUNCTION

Check door mirror operation in manual function.

Refer to ADP-19, "MANUAL FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 5.

3.CHECK DOOR MIRROR OPERATION IN MEMORY FUNCTION

Check door mirror operation in memory function.

Refer to ADP-29, "MEMORY FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 4.

4. CHECK MIRROR SENSOR

Check mirror sensor.

Refer to ADP-113, "DRIVER SIDE: Component Function Check". (Driver side)

Refer to ADP-115, "PASSENGER SIDE: Component Function Check". (Passenger side)

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunction parts.

5. CHECK MIRROR SWITCH

Check mirror switch.

Refer to MIR-10, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunction parts.

6.CHECK MIRROR MOTOR

Check mirror motor.

Refer to ADP-130, "DRIVER SIDE: Component Function Check".

<u>Is the inspection result normal?</u>

YES >> GO TO 7.

NO >> Repair or replace the malfunction parts.

.CONFIRM THE OPERATION

Check the operation again.

Refer to ADP-19, "MANUAL FUNCTION: System Description". (Manual function)

Refer to ADP-29. "MEMORY FUNCTION: System Description". (Memory function)

Is the result normal?

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

NO >> Replace automatic drive positioner control unit. Refer to ADP-237, "Removal and Installation".

POWER WALK-IN FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

| POWER WALK-IN FUNCTION DOES NOT OPERATE | |
|---|-------------------------|
| Diagnosis Procedure | INFOID:0000000001728283 |
| 1. CHECK POWER WALK-IN FUNCTION | |
| Check power walk-in function. Refer to ADP-39, "POWER WALK-IN FUNCTION: System Description". | |
| Is the inspection result normal? | |
| YES >> Power walk-in function is OK. NO >> GO TO 2. | |
| 2. PERFORM INITIALIZATION PROCEDURE | |
| Perform initialization procedure. | |
| Refer to <u>ADP-10, "SYSTEM INITIALIZATION: Special Repair Requirement"</u> . 2. Check power walk-in function. | |
| Refer to ADP-39, "POWER WALK-IN FUNCTION: System Description". | |
| Is the inspection result normal? YES >> Power walk-in function is normal. | |
| NO >> GO TO 3. | |
| 3.CHECK POWER WALK-IN SWITCH | |
| Check power walk-in switch. Refer to ADP-79, "Component Function Check". | |
| Is the inspection result normal? | |
| YES >> GO TO 4. NO >> Repair or replace the malfunction parts. | |
| 4. CHECK SEAT BELT BUCKLE SWITCH | |
| Check seat belt buckle switch. Refer to ADP-75, "Component Function Check". | |
| Is the inspection result normal? | Α |
| YES >> GO TO 5. NO >> Repair or replace the malfunction parts. | |
| 5.CHECK FORWARD SWITCH | |
| Check forward switch. Refer to ADP-73, "Component Function Check". | |
| Is the inspection result normal? | |
| YES >> GO TO 6. NO >> Repair or replace the malfunction parts. | |
| 6.CHECK SLIDING LIMIT SWITCH | |
| Check sliding limit switch. | |
| Refer to <u>ADP-77, "Component Function Check"</u> . Is the inspection result normal? | |
| YES >> GO TO 7. | |
| NO >> Repair or replace the malfunction parts. | , |
| Check DRIVER SIDE DOOR SWITCH | |
| Check driver side door switch. Refer to ADP-89, "DRIVER SIDE: Component Function Check" | |
| Is the inspection result normal? | |
| YES >> GO TO 8. NO >> Repair or replace the malfunction parts. | |
| 8. CONFIRM THE OPERATION | |
| Check the operation again. | |

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POWER WALK-IN FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Refer to ADP-39, "POWER WALK-IN FUNCTION: System Description".

Is the result normal?

- YES
- >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u>.
 >> Replace driver seat control unit. Refer to <u>ADP-236, "Removal and Installation"</u>. NO

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000001728282 1. CHECK SYNCHRONIZATION FUNCTION В Check seat synchronization function. Refer to ADP-24, "SEAT SYNCHRONIZATION FUNCTION: System Description". Is the inspection result normal? C YES >> Seat synchronization is OK. NO >> GO TO 2. D 2. CHECK SYSTEM SETTING Check system setting. Refer to ADP-12, "SYSTEM SETTING: Special Repair Requirement". Е Is the inspection result normal? YES >> Synchronization function is normal. NO >> GO TO 3. F 3.CONFIRM THE OPERATION Check the operation again. Refer to ADP-24, "SEAT SYNCHRONIZATION FUNCTION: System Description". Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". Н >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation". NO

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INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000001728284

1. CHECK DOOR LOCK FUNCTION

Check door lock function.

Refer to <u>DLK-158</u>, "Symptom Table".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2. PERFORM MEMORY STORING PROCEDURE

1. Perform memory storing procedure.

Refer to ADP-11, "MEMORY STORING: Special Repair Requirement".

2. Check Intelligent Key interlock function.

Refer to ADP-34, "INTELLIGENT KEY INTERLOCK FUNCTION: System Description".

Is the inspection result normal?

YES >> Intelligent Key inter lock function is normal.

NO >> Replace driver seat control unit. Refer to ADP-236, "Removal and Installation".

ALL FUNCTIONS DO NOT OPERATE

< SYMPTOM DIAGNOSIS > ALL FUNCTIONS DO NOT OPERATE Α Diagnosis Procedure INFOID:0000000001728220 1. POWER SUPPLY AND GROUND CIRCUIT В Check power supply and ground circuit for driver seat control unit. Refer to ADP-63, "DRIVER SEAT CONTROL UNIT: Diagnosis Procedure". C Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> Repair or replace malfunction part. D Е F Н ADP

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NORMAL OPERATING CONDITION

NORMAL OPERATING CONDITION

Description INFOID:000000001693799

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

| Symptom | Cause | Action to take | Reference page |
|---|--|---|---|
| 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 7km/h (4 MPH). | ADP-24 |
| does not operate. | Seat adjustment load has exceed any of the volumes below. Seat sliding: 76 mm Seat reclining: 9.1 degrees Seat lifting (rear): 20 mm | _ | _ |
| Side support or lumbar support does not perform memory operation. | The side support and the lumbar support are controlled independently with no link to the automatic drive positioner system. | _ | Side support: <u>SE-23</u> Lumbar support: <u>SE-25</u> |
| Memory function, power walk-in function, seat synchronization | The operating conditions are not fulfilled. | Fulfill the operation conditions. | Memory function: <u>ADP-29</u> Power walk-in function: <u>ADP-39</u> |
| function, or Intelligent Key interlock function does not operate. | | | Seat synchronization function: ADP-24 Intelligent Key interlock function: ADP-34 |

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 AIRBAG" and "SEAT BELT" of this Service Manual.

WARNING:

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

Service INFOID:0000000001693801

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

Work INFOID:0000000001693802

- 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
 - 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.

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ADP-235 Revision: 2007 June G37 Coupe

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DRIVER SEAT CONTROL UNIT

< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

DRIVER SEAT CONTROL UNIT

Exploded View

Refer to SE-149, "Exploded View".

Removal and Installation

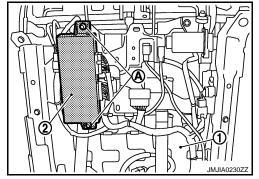
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REMOVAL

CAUTION:

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

- 1. Remove driver seat (1). Refer to <u>SE-152, "Removal and Installation"</u>.
- 2. Remove mounting bolts (A).
- 3. Remove driver seat control unit (2).



INSTALLATION

Install in reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing driver seat, perform additional service when replacing control unit. Refer to <u>ADP-10</u>, "<u>ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement"</u>.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ON-VEHICLE REPAIR >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

Refer to IP-11, "Exploded View".

Removal and Installation

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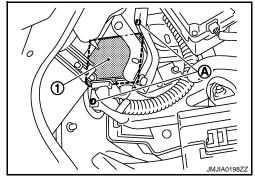
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REMOVAL

CAUTION:

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

- 1. Remove battery negative terminal.
- 2. Remove instrument driver lower panel. Refer to IP-12, "Removal and Installation".
- 3. Remove screws (A).
- 4. Remove automatic drive positioner control unit (1).



INSTALLATION

Install in reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

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SEAT MEMORY SWITCH

< ON-VEHICLE REPAIR >

SEAT MEMORY SWITCH

Exploded View

Refer to INT-11, "Exploded View"

Removal and Installation

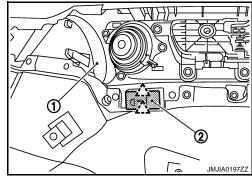
REMOVAL

CAUTION:

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

- 1. Disconnect battery negative terminal.
- 2. Remove front door finisher (1). Refer to INT-11, "Removal and Installation".
- 3. Press pawls and remove seat memory switch (2) from front door finisher (1).





INSTALLATION

Install in reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

POWER SEAT SWITCH

< ON-VEHICLE REPAIR >

Exploded View

POWER SEAT SWITCH

Refer to SE-149, "Exploded View".

Removal and Installation

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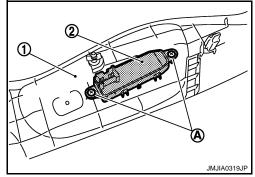
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REMOVAL

CAUTION:

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

- 1. Remove seat cushion outer finisher (1). Refer to <u>SE-152</u>, "Removal and Installation".
- 2. Remove screws (A).
- 3. Remove power seat switch (2) from seat cushion outer finisher (1).



INSTALLATION

Install in reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

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SIDE SUPPORT SWITCH

< ON-VEHICLE REPAIR >

SIDE SUPPORT SWITCH

Exploded View

Refer to SE-149, "Exploded View"

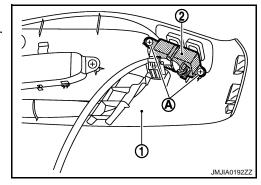
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove seat cushion outer finisher (1). Refer to SE-152, "Removal and Installation"
- 2. Remove screws (A).
- 3. Remove side support switch (2) from seat cushion outer finisher.



INSTALLATION

Install in reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

TILT&TELESCOPIC SWITCH

< ON-VEHICLE REPAIR >

TILT&TELESCOPIC SWITCH

Exploded View

Refer to IP-11, "Exploded View".

Removal and Installation

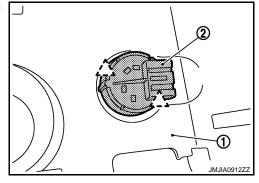
REMOVAL

CAUTION:

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

- 1. Disconnect battery negative terminal.
- 2. Remove steering column mask (1). Refer to IP-12, "Removal and Installation".
- 3. Press pawls and remove tilt & telescopic switch (2) from steering column mask (1).





INSTALLATION

Install in reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

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