SECTION ADP
AUTOMATIC DRIVE POSITIONER

CONTENTS

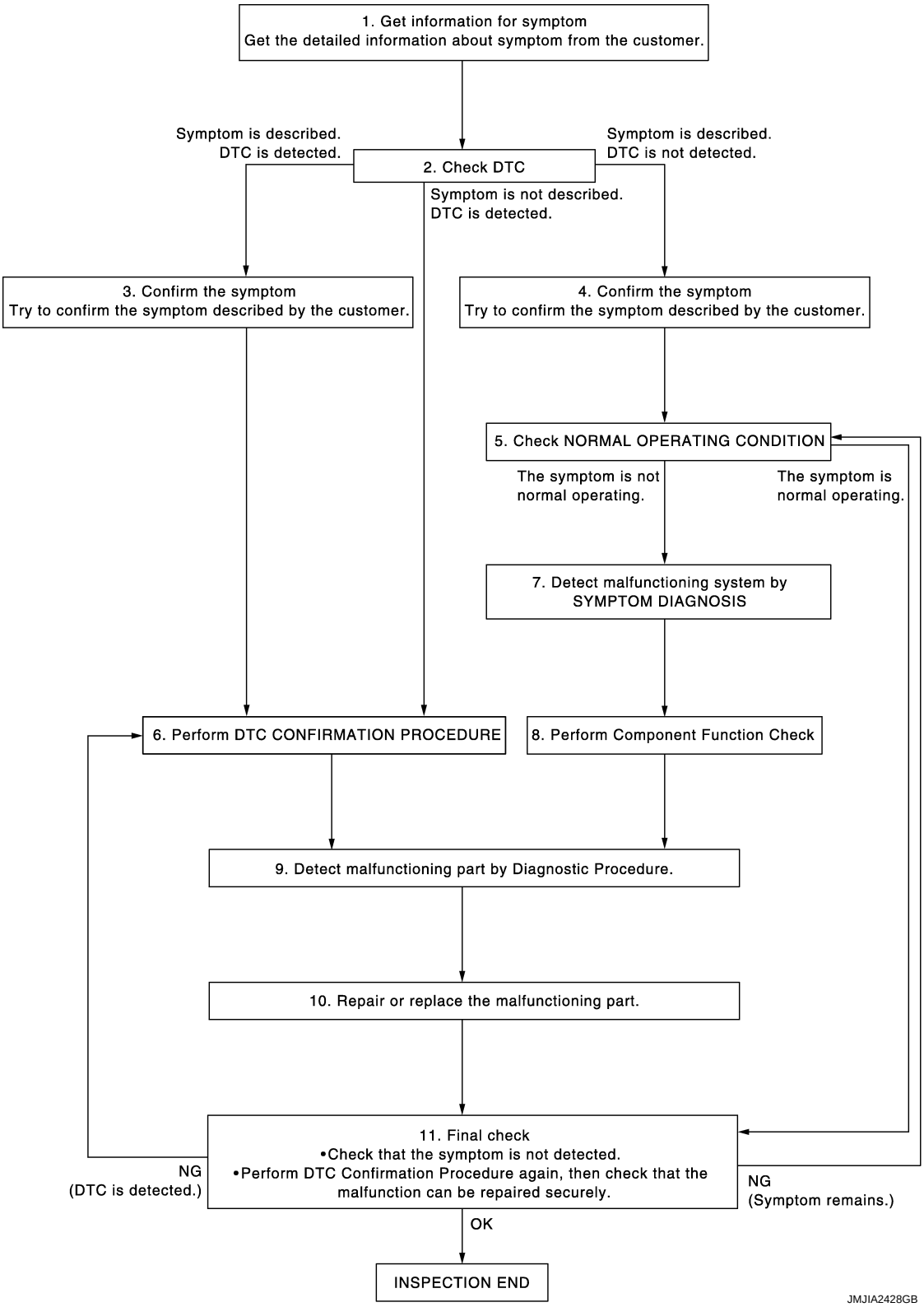
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000008290819

OVERALL SEQUENCE



DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2.CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

Check “Self Diagnostic Result” with CONSULT. Refer to ADP-144, "DTC Index"

Is any symptom described and any DTC is displayed?

Symptom is described, DTC is displayed.>>GO TO 3.
Symptom is not described, DTC is displayed.>>GO TO 6.
Symptom is described, DTC is not displayed.>>GO TO 4.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 6.

4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 5.

5.CHECK NORMAL OPERATING CONDITION

Check normal operating condition. Refer to ADP-200, "Description".

Is the incident normal operation?

YES >> INSPECTION END
NO >> GO TO 7.

6.PERFORM DTC CONFIRMATION PROCEDURE

Perform the confirmation procedure for the detected DTC.

Is the DTC displayed?

YES >> GO TO 8.
NO >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

7.PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 8.

8.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

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

>> GO TO 9.

9.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.

Are all malfunctions corrected?

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

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000008290820

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

Function	Condition	Procedure
Memory (Seat, steering, mirror)	Erased	Perform storing
Entry/exit assist*1	ON	Perform initialization
		Set slide amount*2
Intelligent Key interlock	Erased	Perform storing
Seat synchronization	OFF	—

*1: This function only for AT model.

*2: Default value is 40mm.

NOTE:

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000008290821

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 STORAGE

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

>> END

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000008290822

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

Function	Condition	Procedure
Memory (Seat, steering, mirror)	Erased	Perform storing
Entry/exit assist*1	ON	Perform initialization
		Set slide amount*2
Intelligent Key interlock	Erased	Perform storing
Seat synchronization	OFF	—

*1: This function only for AT model.

*2: Default value is 40mm.

NOTE:

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000008290823

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 STORAGE

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

>> END

SYSTEM INITIALIZATION

SYSTEM INITIALIZATION : Description

INFOID:0000000008290824

Always perform the initialization when the battery terminal is disconnected or the driver seat control unit is replaced.
The entry/exit assist function will not operate normally if no initialization is performed.

SYSTEM INITIALIZATION : Special Repair Requirement

INFOID:0000000008290825

INITIALIZATION PROCEDURE

1. CHOOSE METHOD

There are two initialization methods.
Which method do you use?

With door switch>>GO TO 2.
With vehicle speed>>GO TO 4.

2. STEP A-1

Turn ignition switch from ACC to OFF position.

>> GO TO 3.

3. STEP A-2

Driver door switch is ON (open) → OFF (close) → ON (open).

>> END

4. STEP B-1

Drive the vehicle at more than 25 km/h (16 MPH).

>> END

MEMORY STORING

MEMORY STORING : Description

INFOID:0000000008290826

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

MEMORY STORING : Special Repair Requirement

INFOID:0000000008290827

Memory Storage Procedure

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

1. STEP 1

Shift AT selector lever to P position (AT model) or applied parking brake (MT model).

>> GO TO 2.

2. STEP 2

Turn ignition switch ON.

>> GO TO 3.

3. STEP 3

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

>> GO TO 4.

4. STEP 4

1. Push set switch.
   NOTE:
   - Memory indicator for which driver seat position is already retained in memory is illuminated for 5 seconds.
   - Memory indicator for which driver seat position is not retained in memory is illuminated for 0.5 second.
2. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch.
   NOTE:
   If memory is stored in the same memory switch, the previous memory will be deleted.

Do you need linking of Intelligent Key?

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

5. STEP 5

Confirm the operation of each part with memory operation.

>> END

6. STEP 6

Turn ignition switch OFF (LOCK).

>> GO TO 7.

7. STEP 7

Press and release set switch. Memory switch indicator is illuminated for 5 seconds. During memory switch indicator is illuminated, press Intelligent Key unlock button while pressing memory switch 1 or 2.
NOTE:
Memory switch indicator lamp blinks for 5 seconds when registration is complete.

>> GO TO 8.

8. STEP 8

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

>> END

SYSTEM SETTING

SYSTEM SETTING : Description

INFOID:0000000008290828

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

Setting Change (For AT models)

×: Applicable

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

Setting Change (For MT models)

×: Applicable

Item	Content	Set switch	Factory setting
Seat synchronization	Seat synchronization can be selected: ON (operated) – OFF (not operated)	x	OFF

SYSTEM SETTING : Special Repair Requirement

INFOID:0000000008290829

1. CHECK TYPE OF TRANSMISSION

Check type of transmission for the vehicle.

Witch type of transmission is used for the vehicle?

MT >> GO TO 2.
AT >> GO TO 4.

2. STEP 1 (FOR M/T MODELS)

Turn ignition switch OFF.

>> GO TO 3.

3. STEP 2 (FOR M/T MODELS)

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

>> END

4. CHOOSE METHOD

There are three way of setting method.

Which method do you choose?

With set switch>>GO TO 5.
With CONSULT>>GO TO 7.

5. WITH SET SWITCH - STEP 1 (FOR A/T MODELS)

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

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

>> GO TO 6.

6. WITH SET SWITCH - STEP 2 (FOR A/T MODELS)

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

- Seat synchronization are ON: Memory switch indicator blink two times.
- Seat synchronization are OFF: Memory switch indicator blink once.

>> END

7. WITH CONSULT - STEP 1 (FOR A/T MODELS)

Select “Work support”.

>> GO TO 8.

8. WITH CONSULT - STEP 2 (FOR A/T MODELS)

1. Select “EXIT SEAT SLIDE SETTING”, “EXIT TILT SETTING” or “SEAT SLIDE VOLUME SET” then touch display to change between ON and OFF.

- EXIT SEAT SLIDE SETTING: Entry/exit assist (seat)
- EXIT TILT SETTING: Entry/exit assist (steering column)

2. Then touch “OK”.

>> END

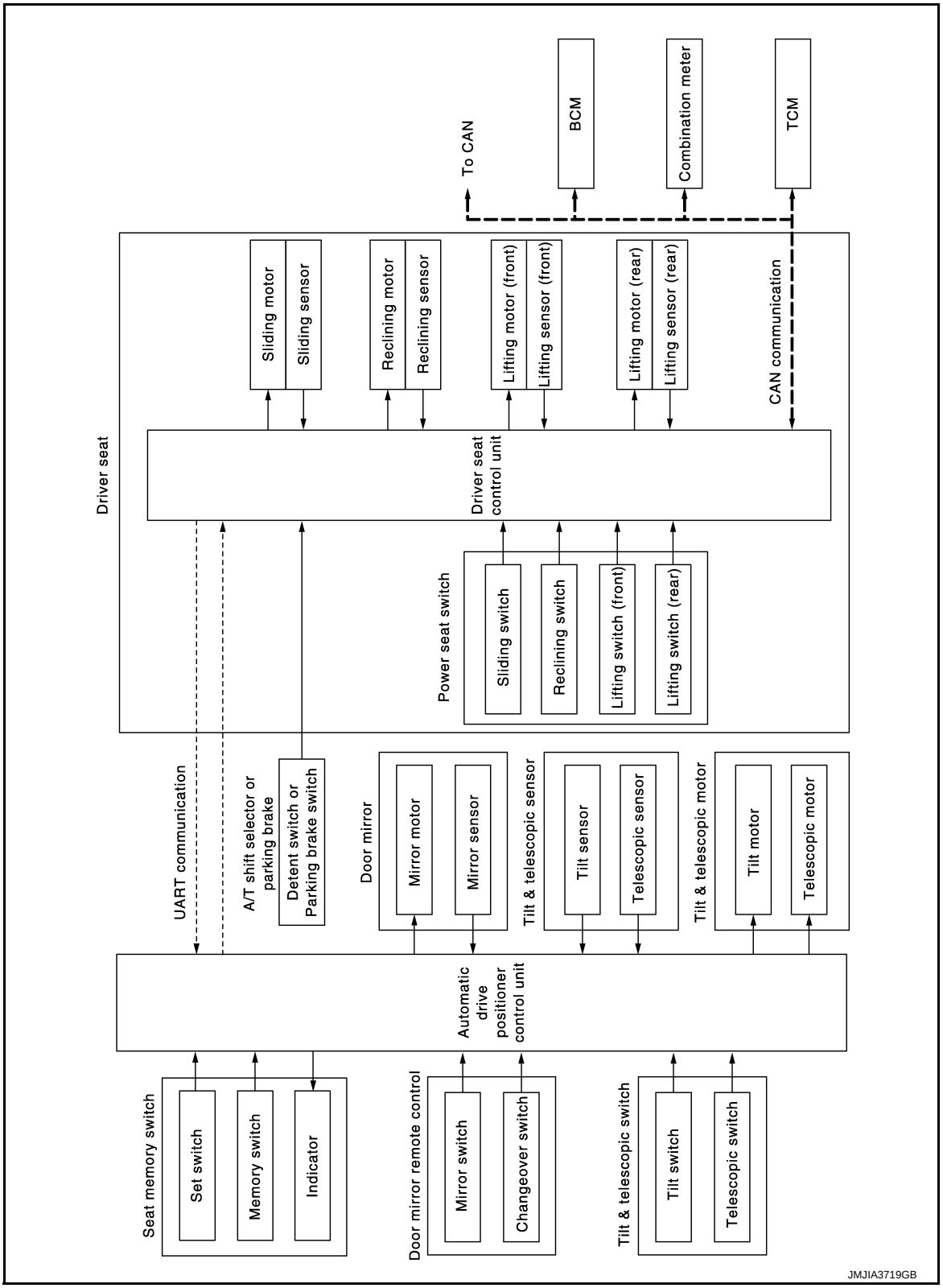
SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram

INFOID:0000000008290830



AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

INFOID:0000000008290831

OUTLINE

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

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

SLEEP MODE

- The seat control unit adopts the sleep mode to reduce the electric power consumption.
- The sleep mode is activated when all of the following condition are fulfilled.

1. Ignition switch turn OFF (Steering LOCK position)
2. No load is applied to the seat control
3. The seat control unit 45 seconds timer is not activated
4. Set switch and memory switch (1 and 2) turn OFF

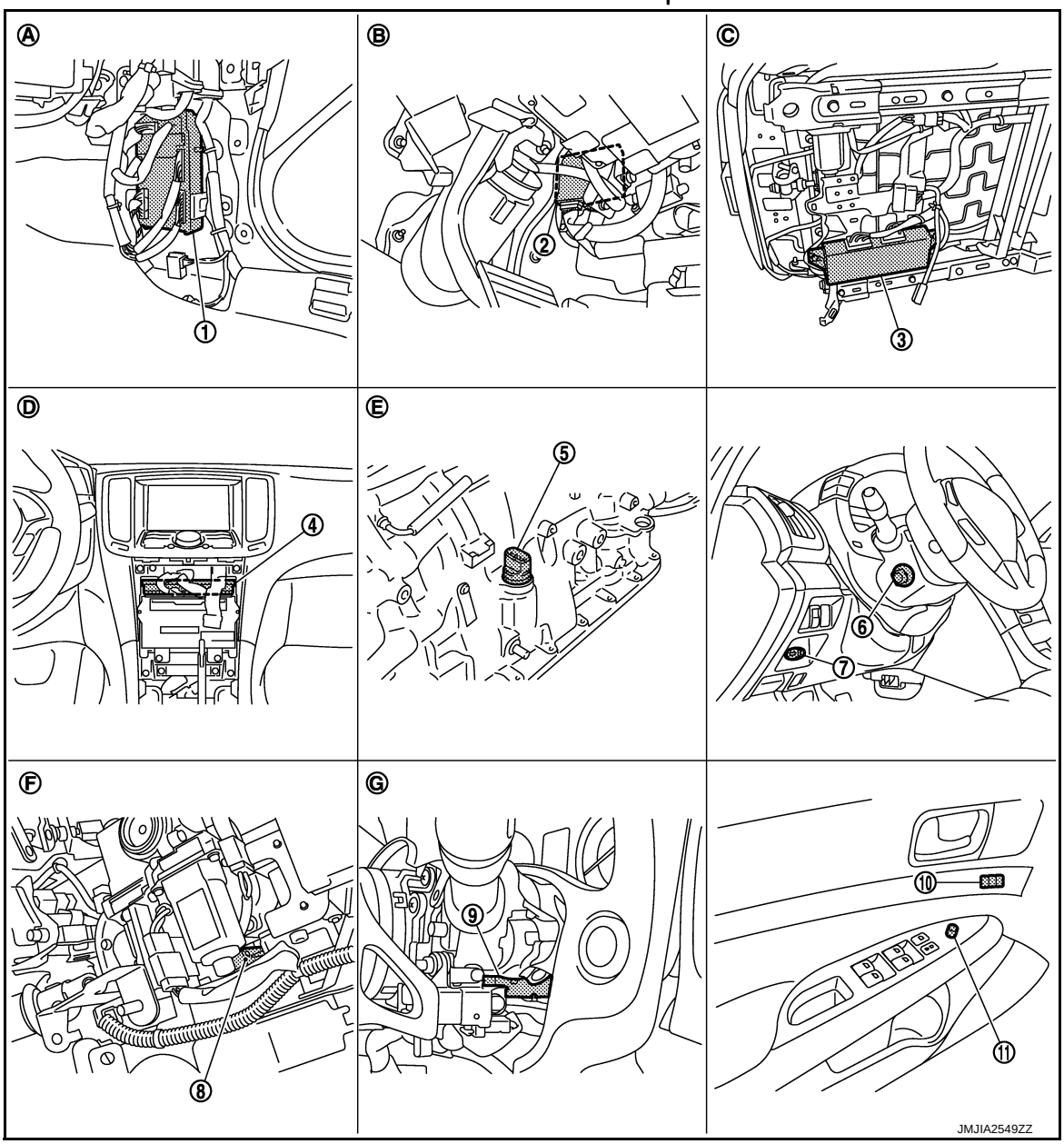
WAKE-UP MODE

The sleep mode is cancelled when any status change is detected for the followings.

1. CAN communication
2. Power seat switch
3. Set switch and memory switch (1 and 2)
4. Steering column switch
5. Door mirror switch

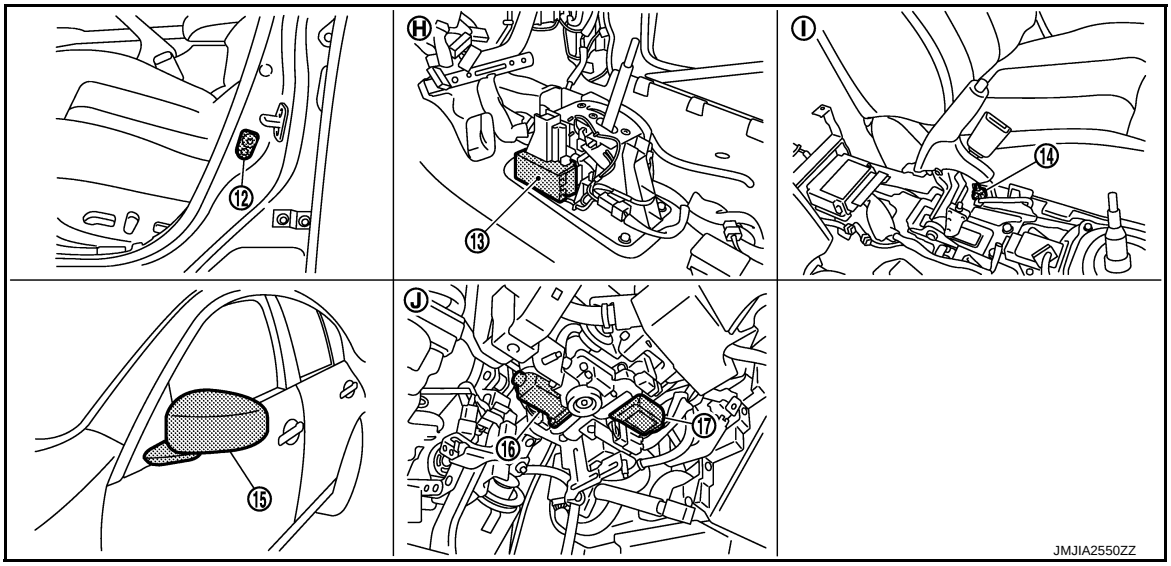
AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location

INFOID:0000000008290832

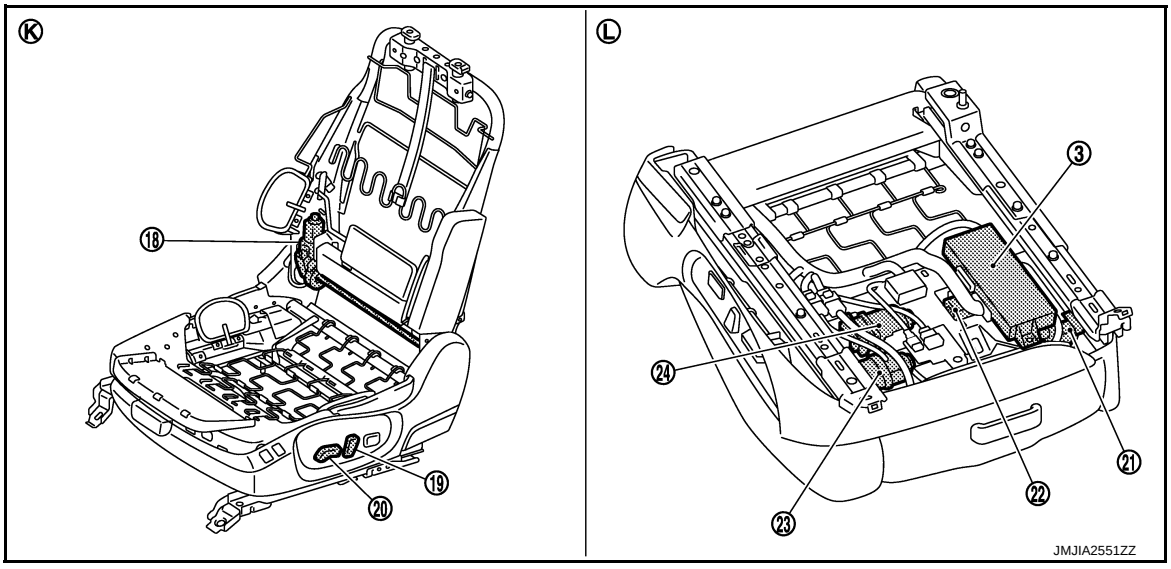


1. BCM M118, M119, M122, M123
2. Automatic drive positioner control unit M51, M52
3. Driver seat control unit B451, B452
4. Unified meter and A/C amp. M67
5. A/T assembly F51
6. Tilt & telescopic switch M31
7. Key slot M22
8. Tilt sensor M48
9. Telescopic sensor M48
10. Seat memory switch D5
11. Door mirror remote control switch D17

A. Dash side lower (passenger side)
B. View with instrument driver lower panel removed
C. Backside of seat cushion (driver side)
D. Behind cluster lid C
E. A/T assembly (TCM is built in A/T assembly)
F. View with instrument driver lower panel removed
G. View with steering column cover lower and upper removed



12. Front door switch (driver side) B16
13. A/T shift selector (detention switch) M137
14. Parking brake switch B14
15. Door mirror (driver side) D3
16. Telescopic motor M49
17. Tilt motor M49
H. View with center console assembly removed
I. View with center console assembly removed
J. View with instrument driver lower panel removed



18. Reclining motor B454
19. Reclining switch (power seat switch B459)
20. Sliding, lifting switch (power seat switch B459)
21. Sliding sensor B453
22. Lifting motor (front) B455
23. Sliding motor B461
24. Lifting motor (rear) B463
K. View with seat cushion pad and seat-back pad removed
L. Backside of the seat cushion

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:0000000008290833

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.
TCM	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.
Front door switch (driver side)	Detect front door (driver side) open/close status.
A/T shift selector (detention switch)	Detect the P range position of A/T selector lever. (only for A/T models)
Parking break switch	Detect the parking brake status. (only for MT 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.
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 (driverside/passenger side)	Detect the up/down and left/right position of outside mirror face.
Tilt and telescopic sensor	Detect the up/down and left/right position of steering column.
Lifting sensor (front)	Detect the up/down position of seat lifting (front).
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).

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

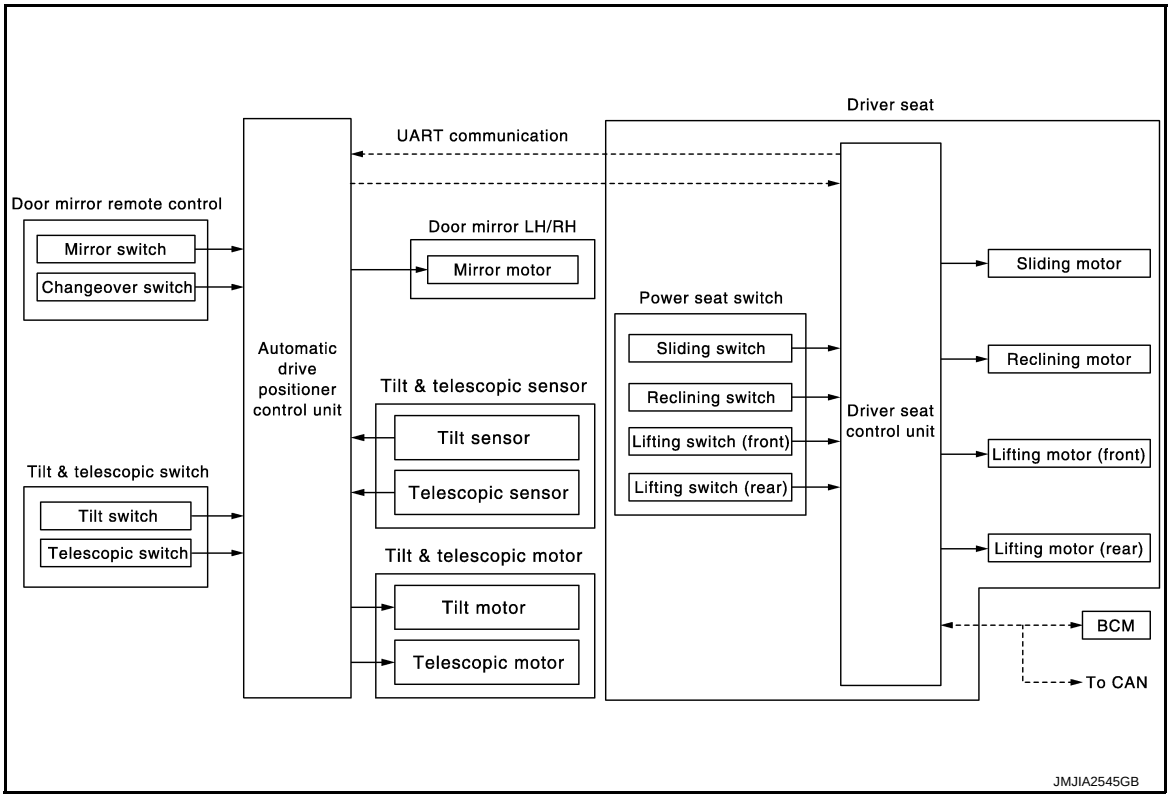
OUTPUT PARTS

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

MANUAL FUNCTION

MANUAL FUNCTION : System Diagram

INFOID:0000000008290834



MANUAL FUNCTION : System Description

INFOID:0000000008290835

OUTLINE

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

OPERATION PROCEDURE

1. Turn ignition switch ON.
2. Operate power seat switch, tilt & telescopic switch or door mirror remote control switch.
3. The driver seat, steering column or door mirror operates according to the operation of each switch.

DETAIL FLOW

Seat

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

Tilt & Telescopic

Order	Input	Output	Control unit condition
1	Tilt & telescopic switch	—	The tilt & telescopic switch signal is inputted to the automatic drive positioner control unit when the tilt & telescopic switch is operated.
2	—	Motors (Tilt, telescopic)	The automatic drive positioner control unit actuates each motor according to the operation of the tilt & telescopic switch.
3	Sensors (Tilt, telescopic)	—	The automatic drive positioner control unit recognizes any operation limit of each actuator via each sensor and will not operate the actuator anymore at that time.*

*: Tilt does not operates upward when tilt sensor volume is less than 1.2 V, tilt does not operate downward when the sensor value is bigger than 3.4 V. Telescopic does not operates backward when telescopic sensor value is less than 0.8 V, telescopic does not operate forward when the sensor value is bigger than 3.4 V.

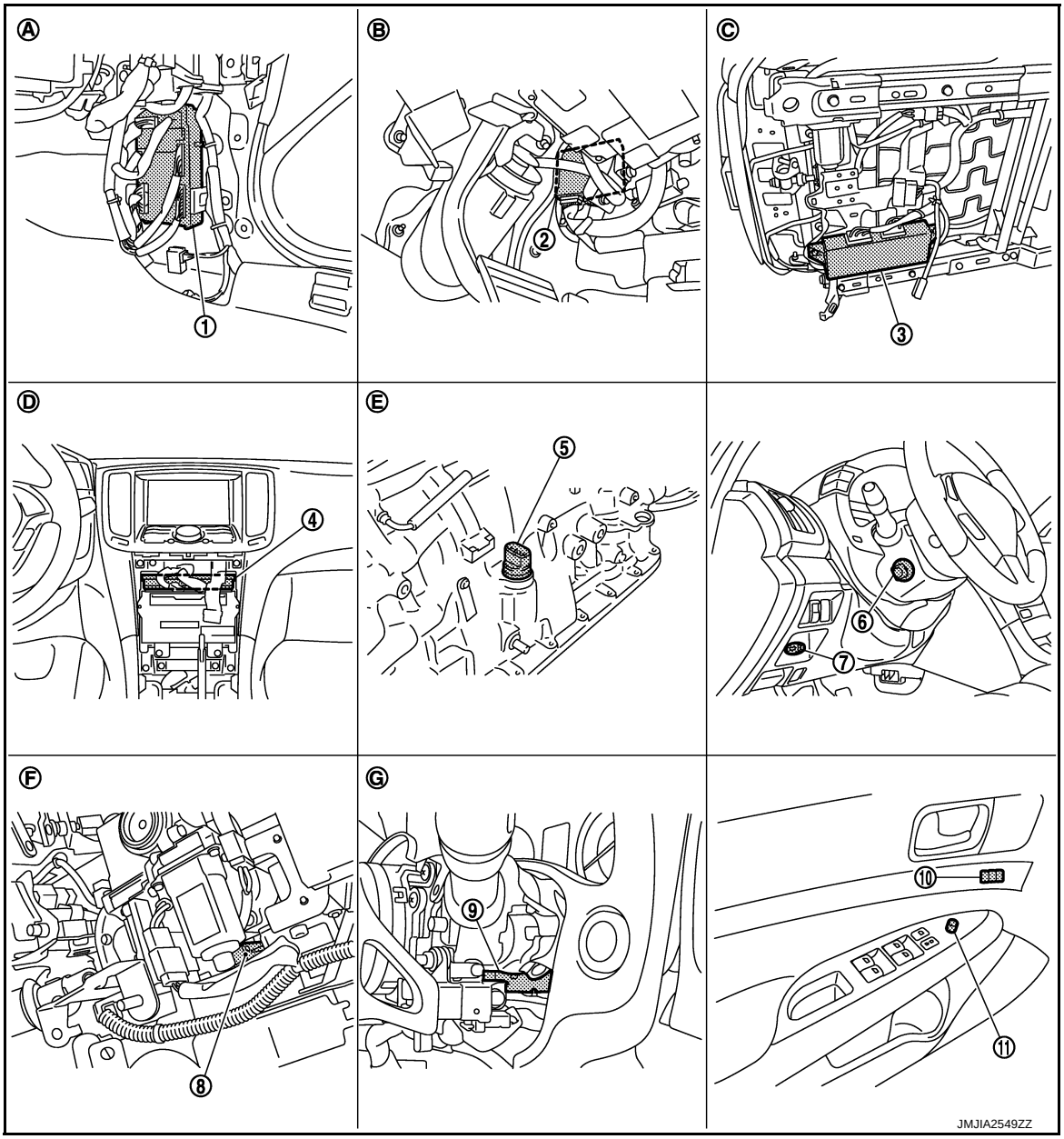
Door Mirror

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

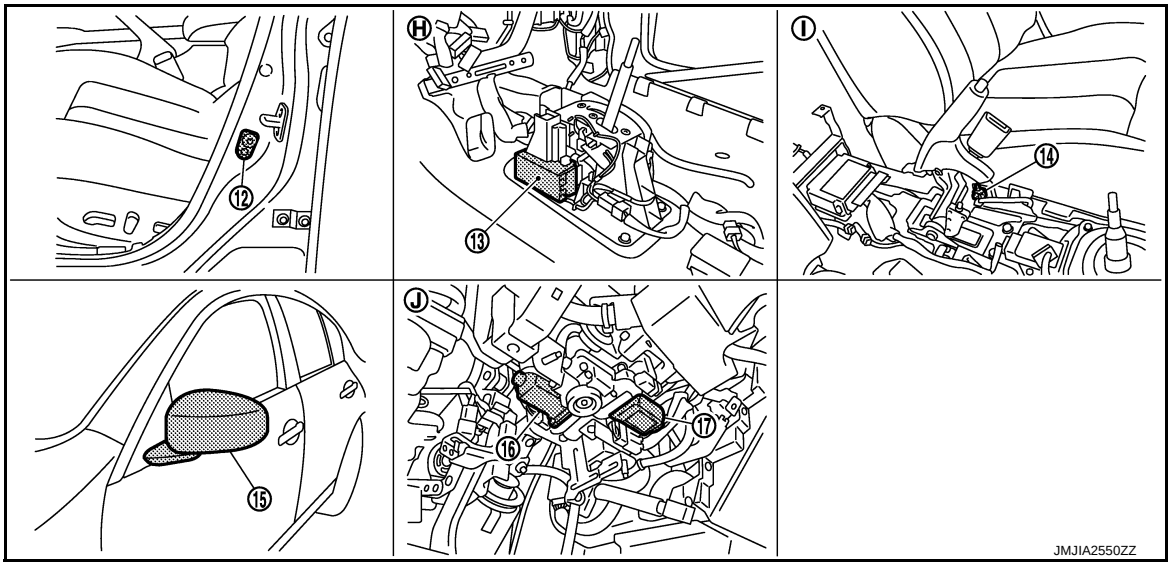
NOTE:
The door mirrors can be operated manually when ignition switch is in either ACC or ON position. The ignition switch signal (ACC/ON) is transmitted from BCM to the driver seat control unit via CAN communication and from the driver seat control unit to the automatic drive positioner control unit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

MANUAL FUNCTION : Component Parts Location

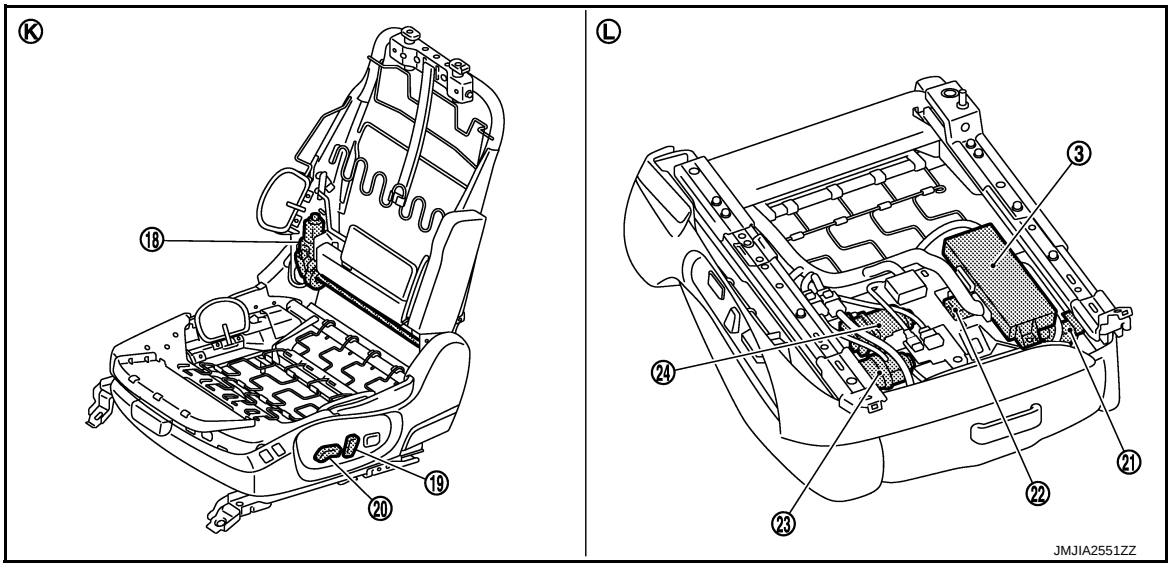
INFOID:0000000008290836



1.	BCM M118, M119, M122, M123	2.	Automatic drive positioner control unit M51, M52	3.	Driver seat control unit B451, B452
4.	Unified meter and A/C amp. M67	5.	AT assembly F51	6.	Tilt & telescopic switch M31
7.	Key slot M22	8.	Tilt sensor M48	9.	Telescopic sensor M48
10.	Seat memory switch D5	11.	Door mirror remote control switch D17		
A.	Dash side lower (passenger side)	B.	View with instrument driver lower panel removed	C.	Backside of seat cushion (driver side)
D.	Behind cluster lid C	E.	AT assembly (TCM is built in AT assembly)	F.	View with instrument driver lower panel removed
G	View with steering column cover lower and upper removed				



12. Front door switch (driver side) B16
13. A/T shift selector (detention switch) M137
14. Parking brake switch B14
15. Door mirror (driver side) D3
16. Telescopic motor M49
17. Tilt motor M49
H. View with center console assembly removed
I. View with center console assembly removed
J. View with instrument driver lower panel removed



18. Reclining motor B454
19. Reclining switch (power seat switch B459)
20. Sliding, lifting switch (power seat switch B459)
21. Sliding sensor B453
22. Lifting motor (front) B455
23. Sliding motor B461
24. Lifting motor (rear) B463
K. View with seat cushion pad and seat-back pad removed
L. Backside of the seat cushion

MANUAL FUNCTION : Component Description

INFOID:0000000008290837

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.
Door mirror remote control switch	The following switch is installed. • Mirror switch • Changeover switch The specific parts can be operated with the operation of each switch.

Sensors

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

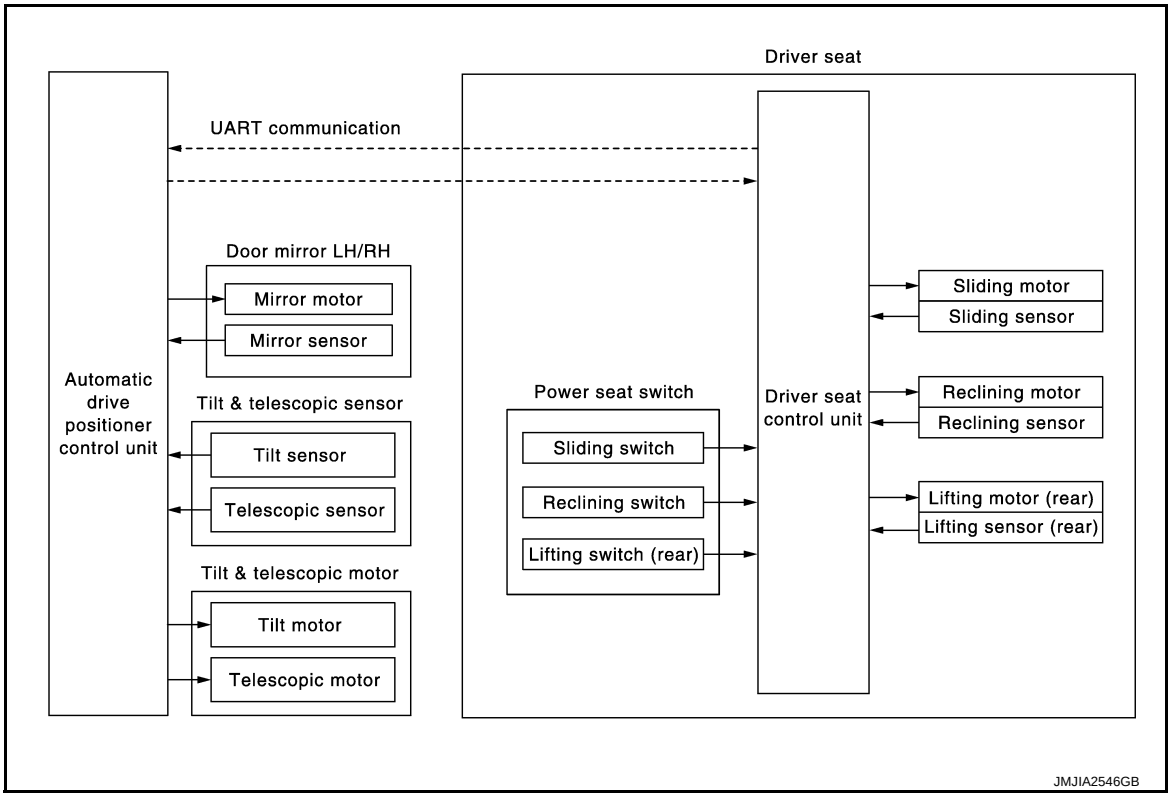
OUTPUT PARTS

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

SEAT SYNCHRONIZATION FUNCTION

SEAT SYNCHRONIZATION FUNCTION : System Diagram

INFOID:0000000008290838



SEAT SYNCHRONIZATION FUNCTION : System Description

INFOID:0000000008290839

OUTLINE

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

NOTE:

This function is set to OFF before delivery (initial setting).

For the system setting procedure. Refer to ADP-12, "SYSTEM SETTING : Description".

OPERATION PROCEDURE

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

NOTE:

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

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

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

OPERATION CONDITION

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

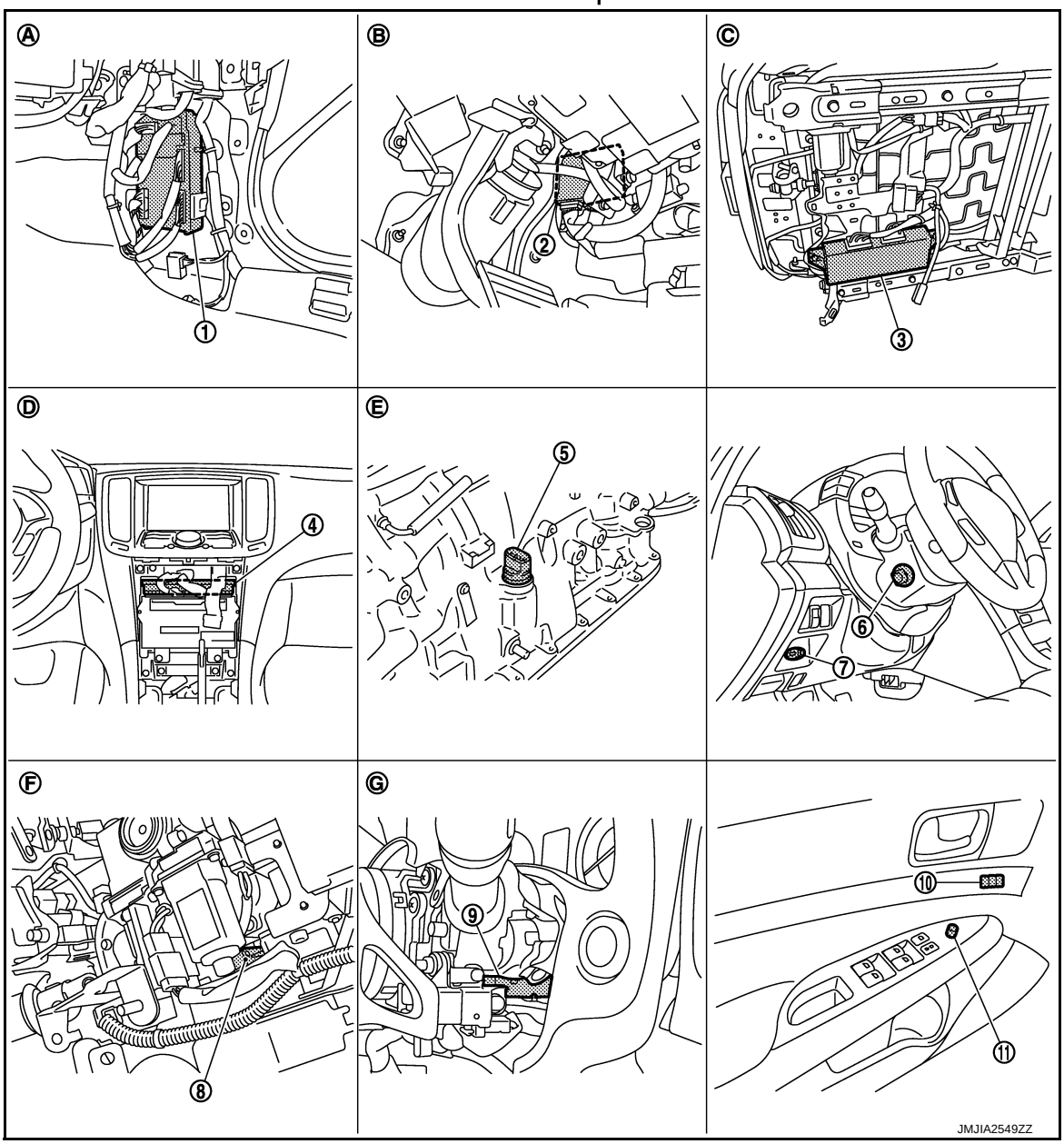
Item	Request status
Ignition position	ON
System setting	ON
Switch inputs • Power seat switch • Tilt & telescopic switch • Door mirror remote control switch • Set switch • Memory switch	OFF (Not operated)
A/T selector lever (only for A/T model)	P position
Parking break (only for M/T models)	Applied

DETAIL FLOW

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

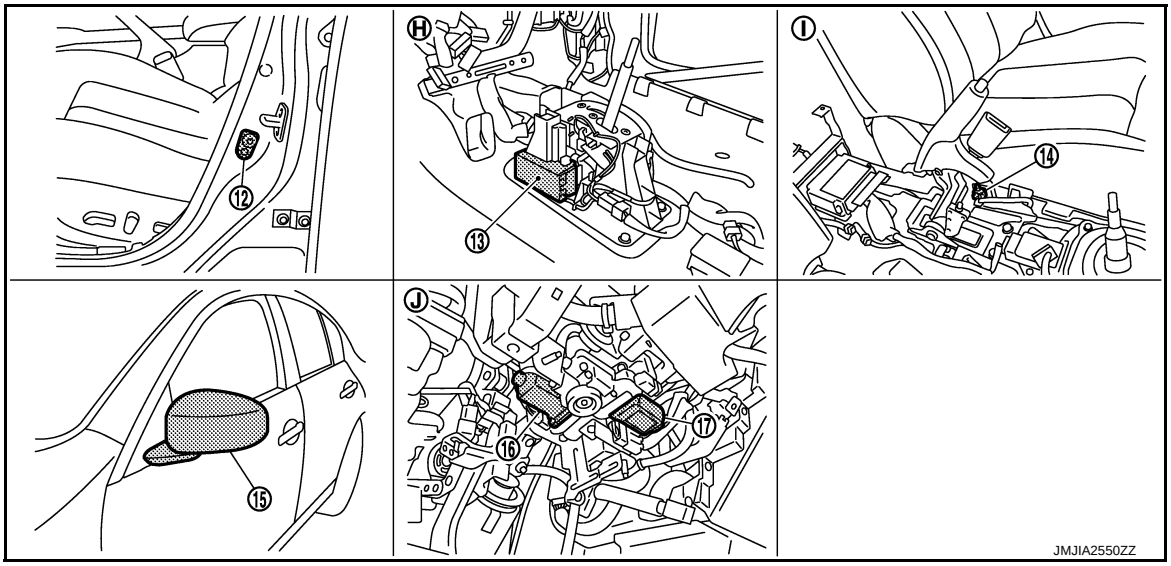
SEAT SYNCHRONIZATION FUNCTION : Component Parts Location

INFOID:0000000008290840

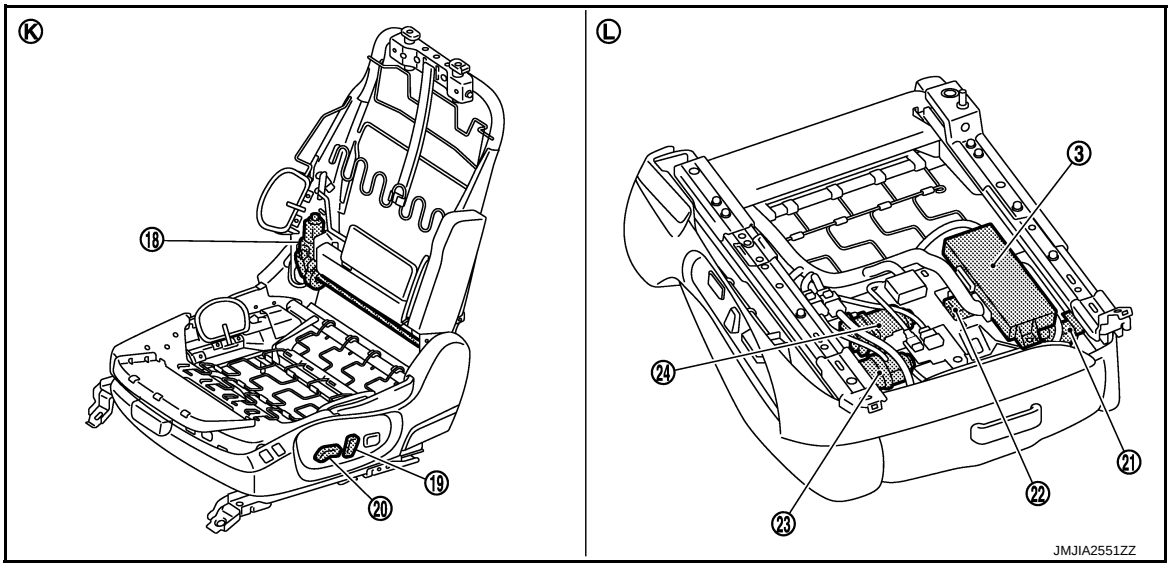


1. BCM M118, M119, M122, M123
2. Automatic drive positioner control unit M51, M52
3. Driver seat control unit B451, B452
4. Unified meter and A/C amp. M67
5. AT assembly F51
6. Tilt & telescopic switch M31
7. Key slot M22
8. Tilt sensor M48
9. Telescopic sensor M48
10. Seat memory switch D5
11. Door mirror remote control switch D17

A. Dash side lower (passenger side)
B. View with instrument driver lower panel removed
C. Backside of seat cushion (driver side)
D. Behind cluster lid C
E. AT assembly (TCM is built in AT assembly)
F. View with instrument driver lower panel removed
G View with steering column cover lower and upper removed



12. Front door switch (driver side) B16
13. A/T shift selector (detention switch) M137
14. Parking brake switch B14
15. Door mirror (driver side) D3
16. Telescopic motor M49
17. Tilt motor M49
H. View with center console assembly removed
I. View with center console assembly removed
J. View with instrument driver lower panel removed



18. Reclining motor B454
19. Reclining switch (power seat switch B459)
20. Sliding, lifting switch (power seat switch B459)
21. Sliding sensor B453
22. Lifting motor (front) B455
23. Sliding motor B461
24. Lifting motor (rear) B463
K. View with seat cushion pad and seat-back pad removed
L. Backside of the seat cushion

SEAT SYNCHRONIZATION FUNCTION : Component Description

INFOID:0000000008290841

CONTROL UNITS

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

INPUT PARTS

Switches

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

Sensors

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

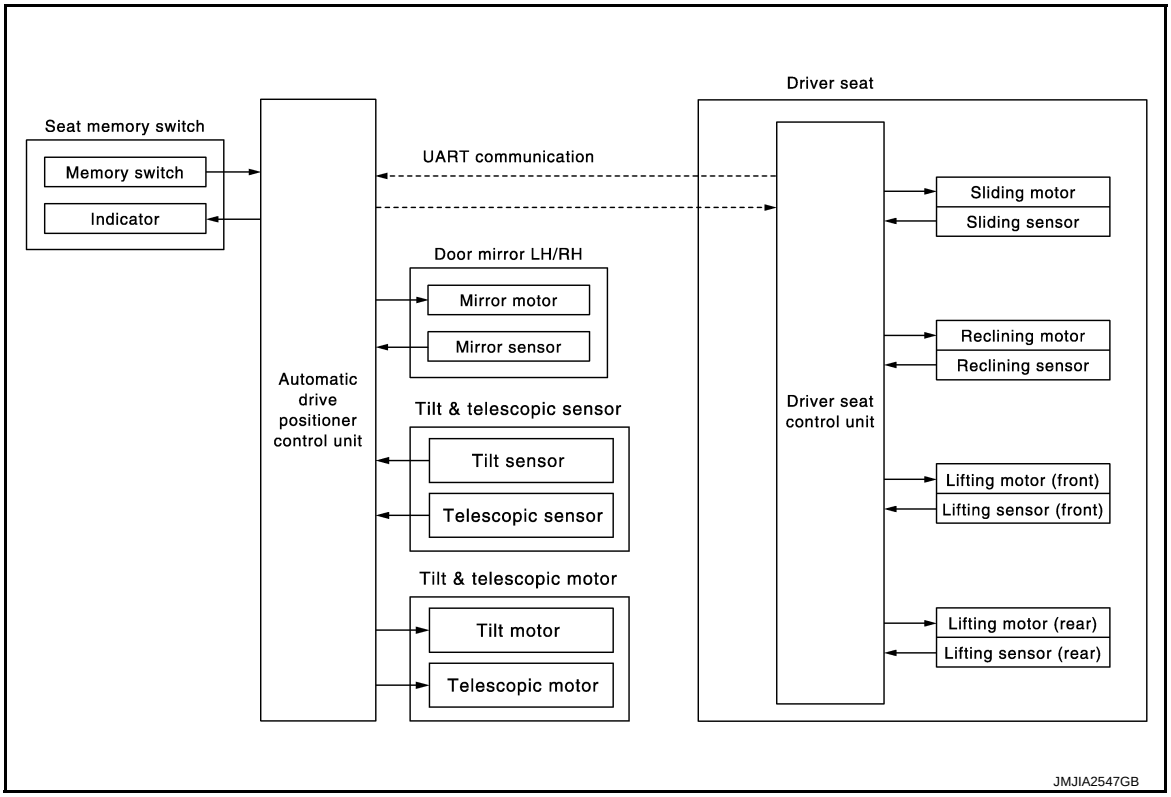
OUTPUT PARTS

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

MEMORY FUNCTION

MEMORY FUNCTION : System Diagram

INFOID:0000000008290842



MEMORY FUNCTION : System Description

INFOID:0000000008290843

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 storage procedure. Refer to ADP-11, "MEMORY STORING : Description".

OPERATION PROCEDURE

1. 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.

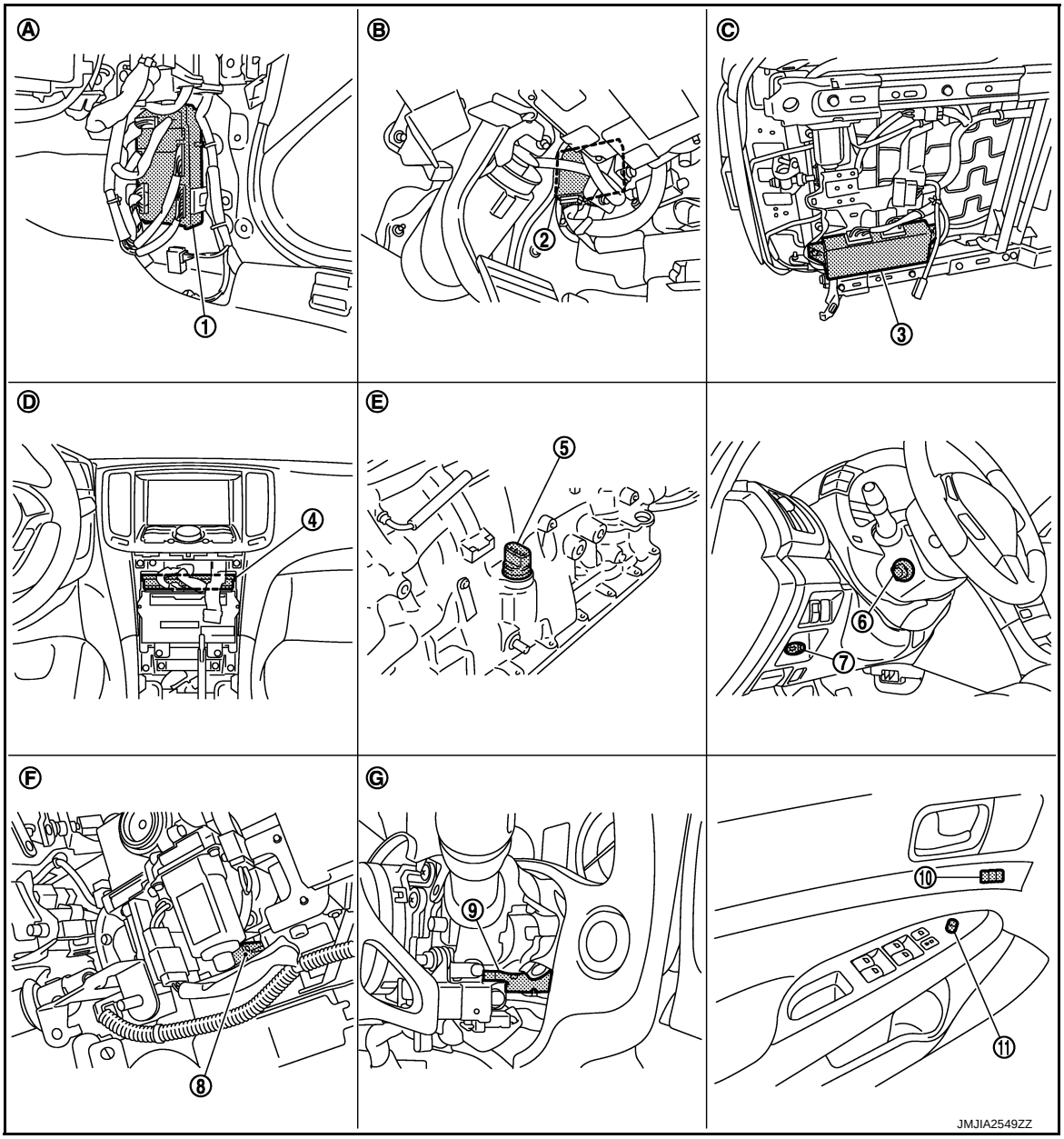
Item	Request status
Ignition position	ON
Switch inputs • Power seat switch • Tilt & telescopic switch • Door mirror control switch • Set switch • Memory switch	OFF (Not operated)
A/T selector lever (only for A/T model)	P position
Parking break (only for M/T models)	Applied

DETAIL FLOW

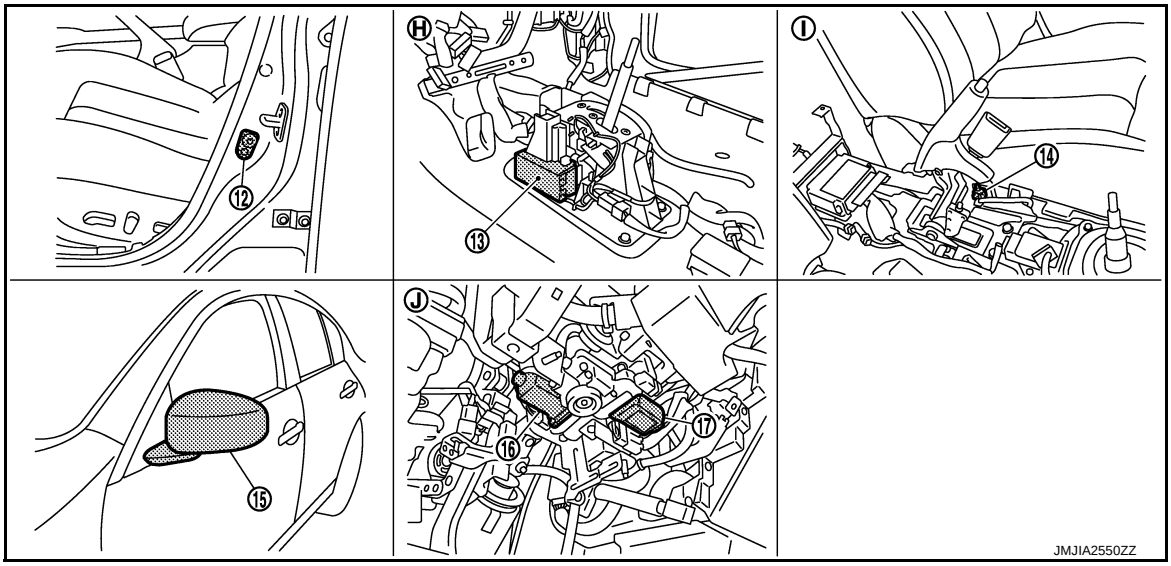
Order	Input	Output	Control unit condition
1	Memory switch	—	The memory switch signal is inputted to the automatic drive positioner control unit when memory switch 1 or 2 is operated. Memory switch signal is input to driver seat control unit via UART communication.
2	—	Motors (Seat, Steering, door mirror)	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 column, 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.

MEMORY FUNCTION : Component Parts Location

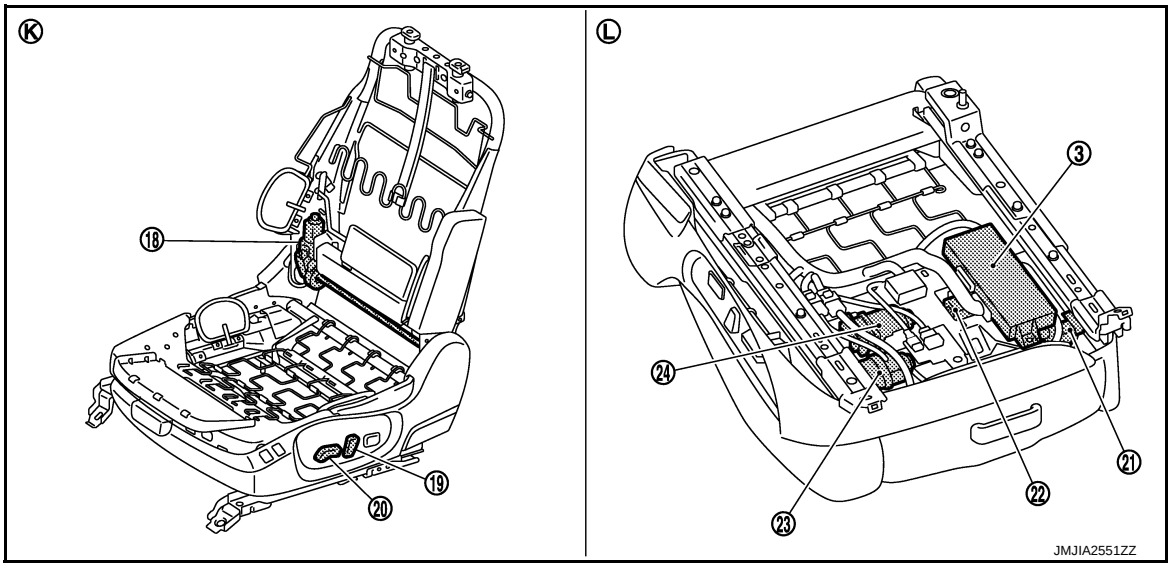
INFOID:0000000008290844



1.	BCM M118, M119, M122, M123	2.	Automatic drive positioner control unit M51, M52	3.	Driver seat control unit B451, B452
4.	Unified meter and A/C amp. M67	5.	AT assembly F51	6.	Tilt & telescopic switch M31
7.	Key slot M22	8.	Tilt sensor M48	9.	Telescopic sensor M48
10.	Seat memory switch D5	11.	Door mirror remote control switch D17		
A.	Dash side lower (passenger side)	B.	View with instrument driver lower panel removed	C.	Backside of seat cushion (driver side)
D.	Behind cluster lid C	E.	AT assembly (TCM is built in AT assembly)	F.	View with instrument driver lower panel removed
G	View with steering column cover lower and upper removed				



12. Front door switch (driver side) B16
13. A/T shift selector (detention switch) M137
14. Parking brake switch B14
15. Door mirror (driver side) D3
16. Telescopic motor M49
17. Tilt motor M49
H. View with center console assembly removed
I. View with center console assembly removed
J. View with instrument driver lower panel removed



18. Reclining motor B454
19. Reclining switch (power seat switch B459)
20. Sliding, lifting switch (power seat switch B459)
21. Sliding sensor B453
22. Lifting motor (front) B455
23. Sliding motor B461
24. Lifting motor (rear) B463
K. View with seat cushion pad and seat-back pad removed
L. Backside of the seat cushion

MEMORY FUNCTION : Component Description

INFOID:0000000008290845

CONTROL UNITS

Item	Function
Driver seat control unit	• The address of each part is recorded. • Operates each motor of seat to the registered position. • Requests the operations of steering column and door mirror to automatic drive positioner control unit
Automatic drive positioner control unit	Operates the steering column and door mirror with the instructions from the driver seat control.

INPUT PARTS

Switches

Item	Function
Memory switch 1/2	The registration and memory function can be performed with its operation.

Sensors

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

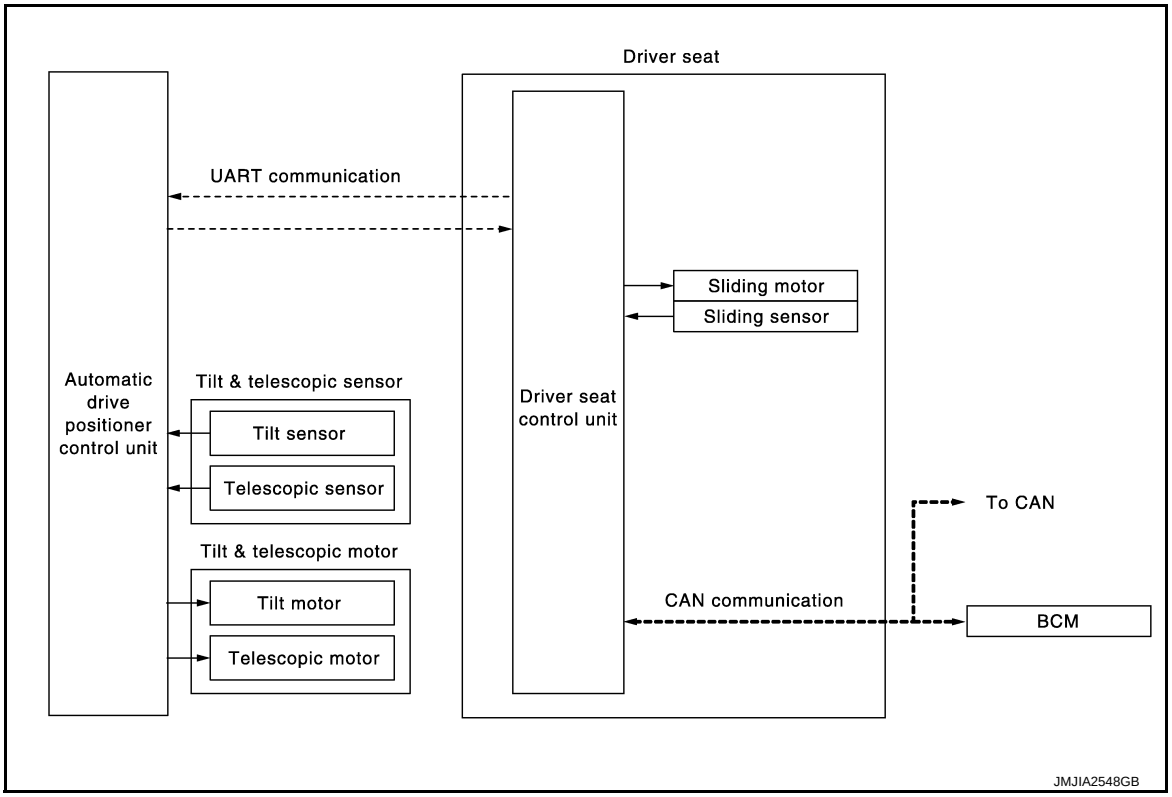
OUTPUT PARTS

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

EXIT ASSIST FUNCTION

EXIT ASSIST FUNCTION : System Diagram

INFOID:0000000008290846



EXIT ASSIST FUNCTION : System Description

INFOID:0000000008290847

OUTLINE

When exiting, the condition is satisfied, the seat is moved backward 40 mm (1.57 in) from normal sitting position and the steering is moved to the most upper position and front position.
The seat slide amount and the steering operation at entry/exit operation can be changed.

NOTE:

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to ADP-12, "SYSTEM SETTING : Description".

OPERATION PROCEDURE

1. Open the driver door with ignition switch in OFF position.
2. Driver seat and steering column will move to the exiting position.

OPERATION CONDITION

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

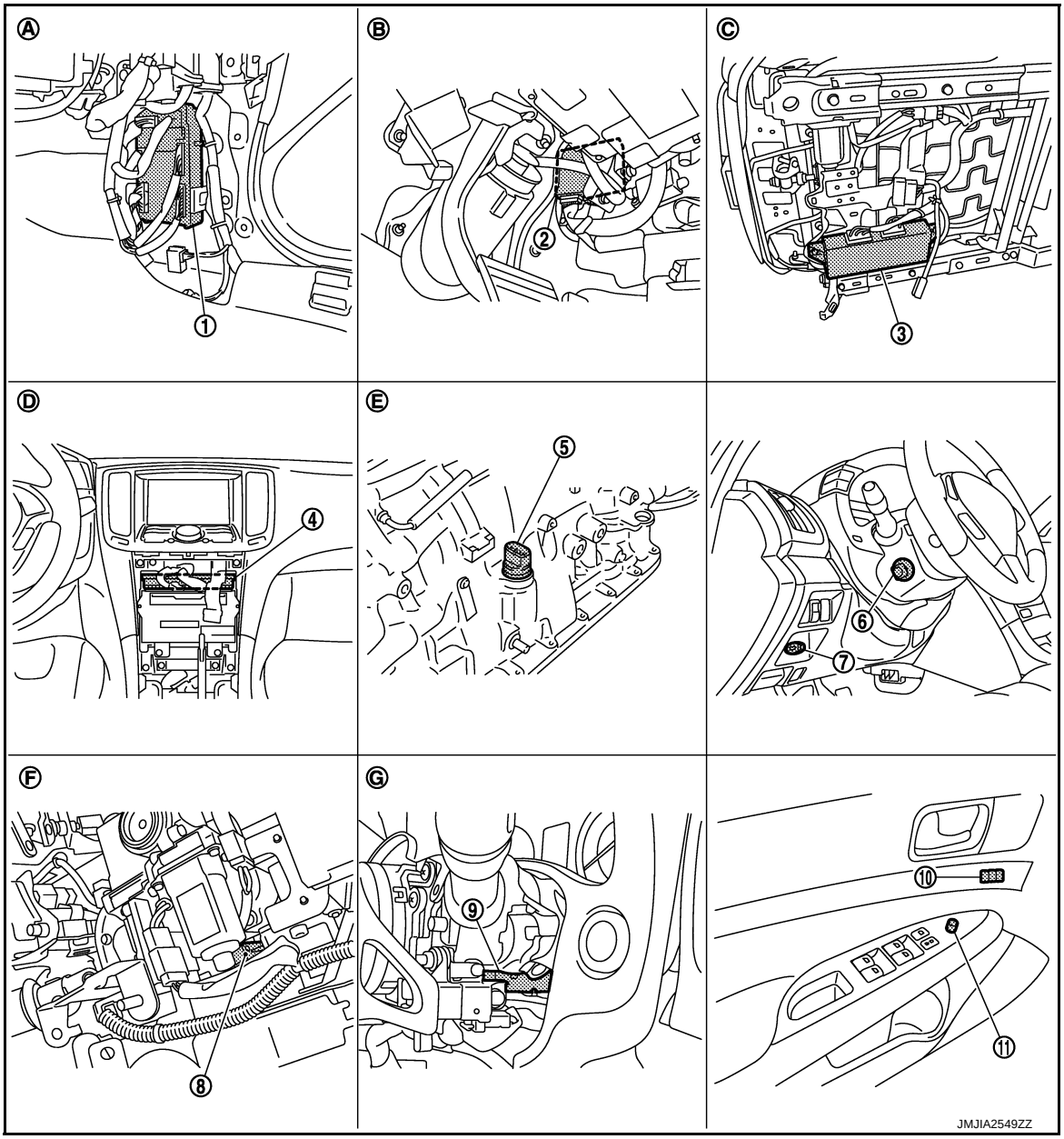
Item	Request status
Ignition position	OFF
System setting	ON
Initialization	Done
Switch inputs • Power seat switch • Tilt & telescopic switch • Door mirror remote control switch • Set switch • Memory switch	OFF (Not operated)
A/T selector lever	P position

DETAIL FLOW

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

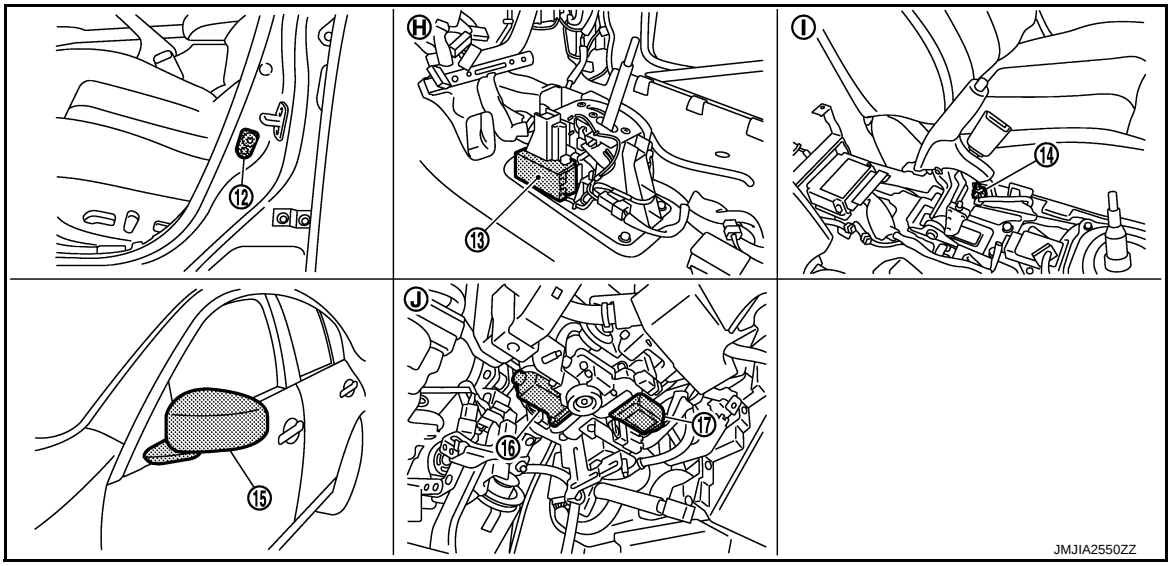
EXIT ASSIST FUNCTION : Component Parts Location

INFOID:0000000008290848

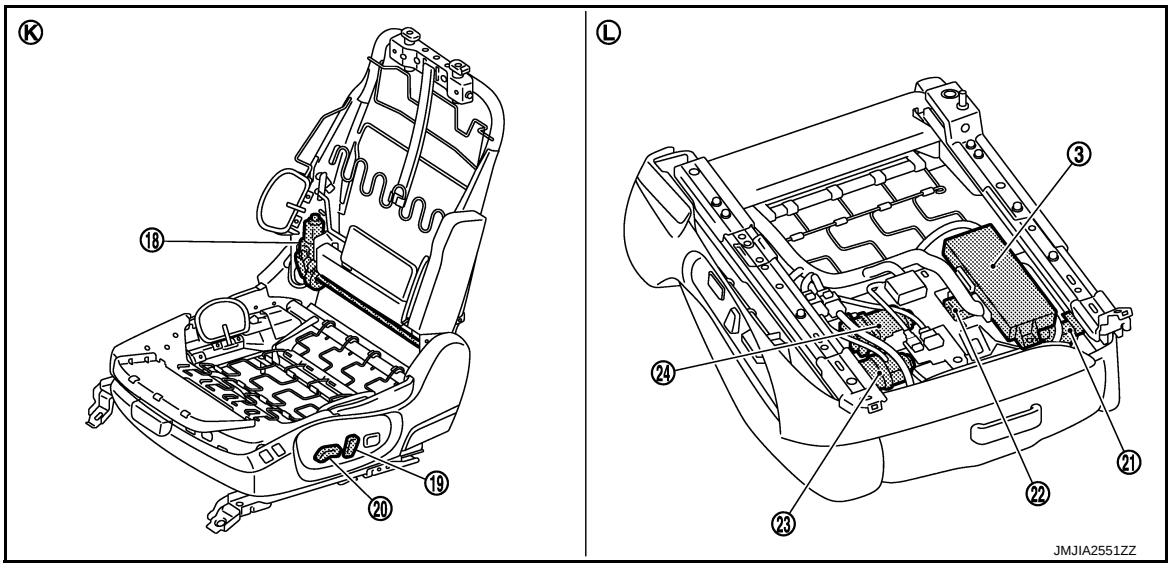


1. BCM M118, M119, M122, M123
2. Automatic drive positioner control unit M51, M52
3. Driver seat control unit B451, B452
4. Unified meter and A/C amp. M67
5. AT assembly F51
6. Tilt & telescopic switch M31
7. Key slot M22
8. Tilt sensor M48
9. Telescopic sensor M48
10. Seat memory switch D5
11. Door mirror remote control switch D17

A. Dash side lower (passenger side)
B. View with instrument driver lower panel removed
C. Backside of seat cushion (driver side)
D. Behind cluster lid C
E. AT assembly (TCM is built in AT assembly)
F. View with instrument driver lower panel removed
G View with steering column cover lower and upper removed



12. Front door switch (driver side) B16
13. A/T shift selector (detention switch) M137
14. Parking brake switch B14
15. Door mirror (driver side) D3
16. Telescopic motor M49
17. Tilt motor M49
H. View with center console assembly removed
I. View with center console assembly removed
J. View with instrument driver lower panel removed



18. Reclining motor B454
19. Reclining switch (power seat switch B459)
20. Sliding, lifting switch (power seat switch B459)
21. Sliding sensor B453
22. Lifting motor (front) B455
23. Sliding motor B461
24. Lifting motor (rear) B463
K. View with seat cushion pad and seatback pad removed
L. Backside of the seat cushion

EXIT ASSIST FUNCTION : Component Description

INFOID:0000000008290849

CONTROL UNITS

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

INPUT PARTS

Switches

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

Sensors

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

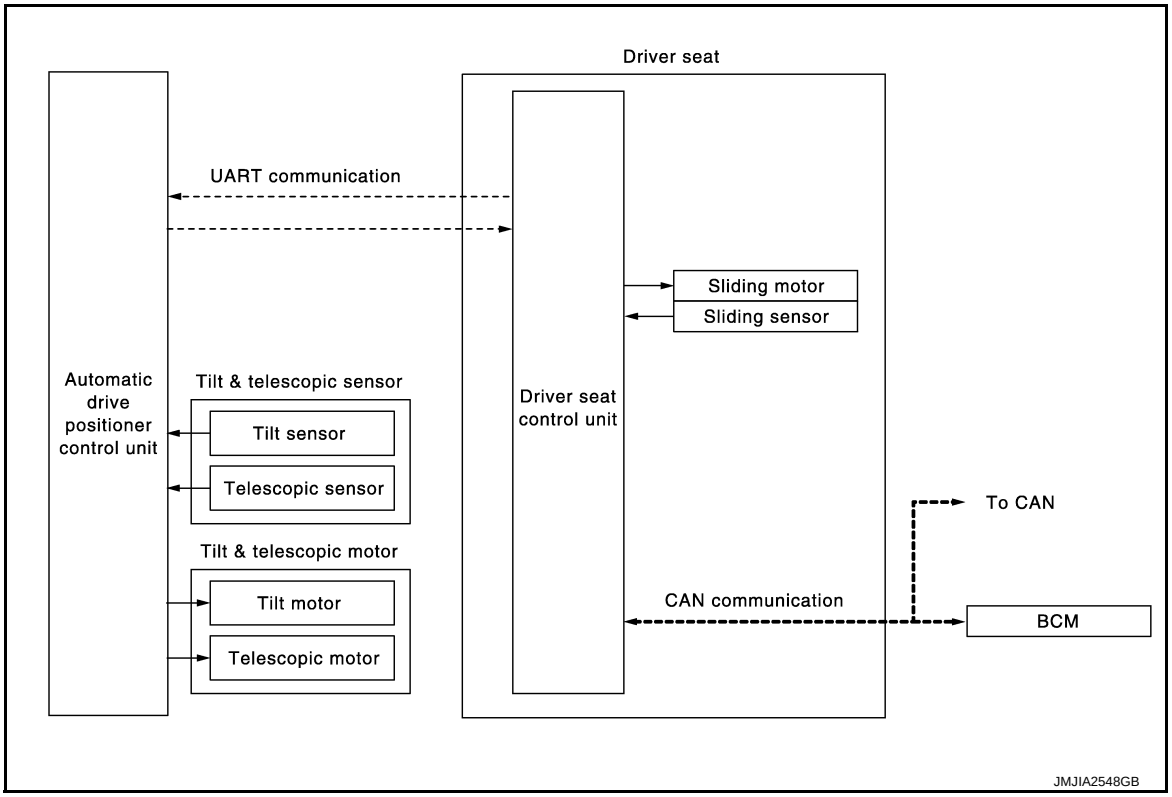
OUTPUT PARTS

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

ENTRY ASSIST FUNCTION

ENTRY ASSIST FUNCTION : System Diagram

INFOID:0000000008290850



ENTRY ASSIST FUNCTION : System Description

INFOID:0000000008290851

OUTLINE

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

NOTE:

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to ADP-12, "SYSTEM SETTING : Description".

OPERATION PROCEDURE

1. A: Turn the ignition switch ON.
   B: Turn the ignition switch from OFF to ACC after closing the driver door.
2. Driver seat and steering column will return from the exiting position to entry position.

OPERATION CONDITION

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

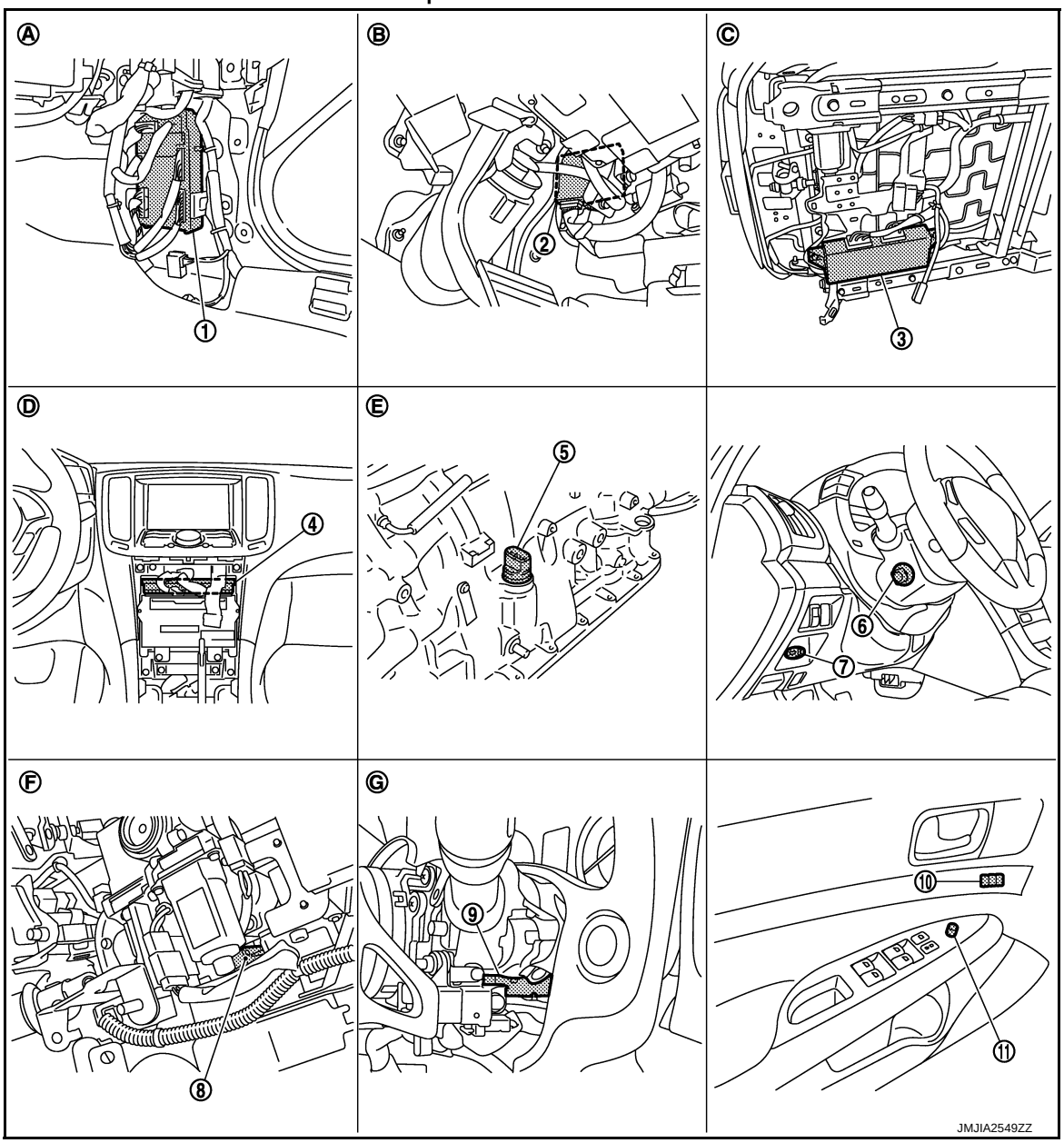
Item	Request status
Seat, steering column	The vehicle is not moved after performing the exit assist function.
Switch inputs • Power seat switch • Tilt & telescopic switch • Door mirror control switch • Set switch • Memory switch	OFF (Not operated)
A/T selector lever (only for A/T model)	P position
Parking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

DETAIL FLOW

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

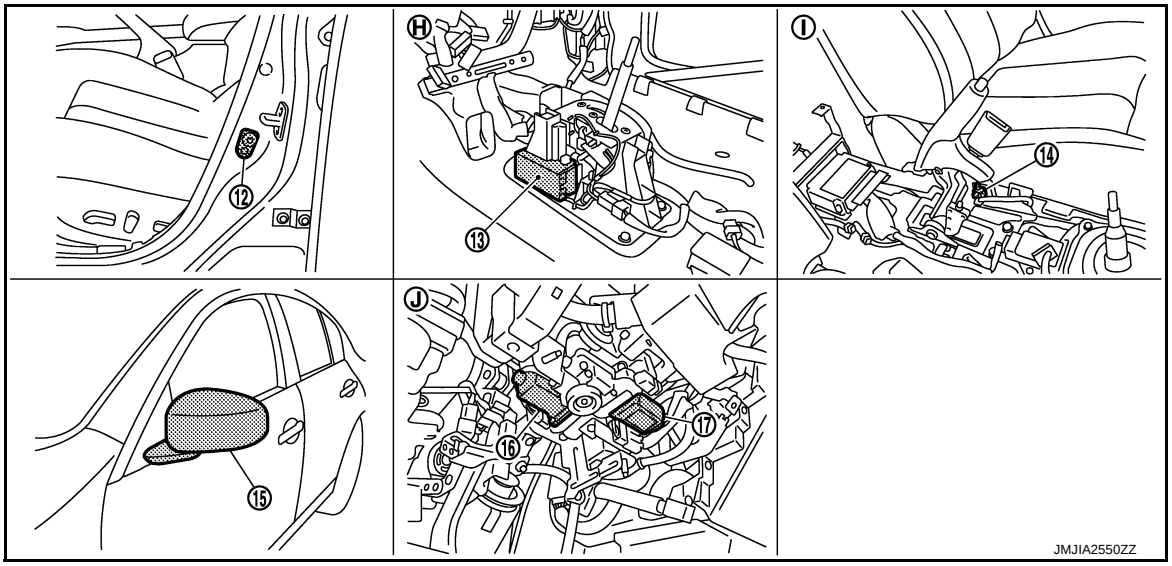
ENTRY ASSIST FUNCTION : Component Parts Location

INFOID:0000000008290852

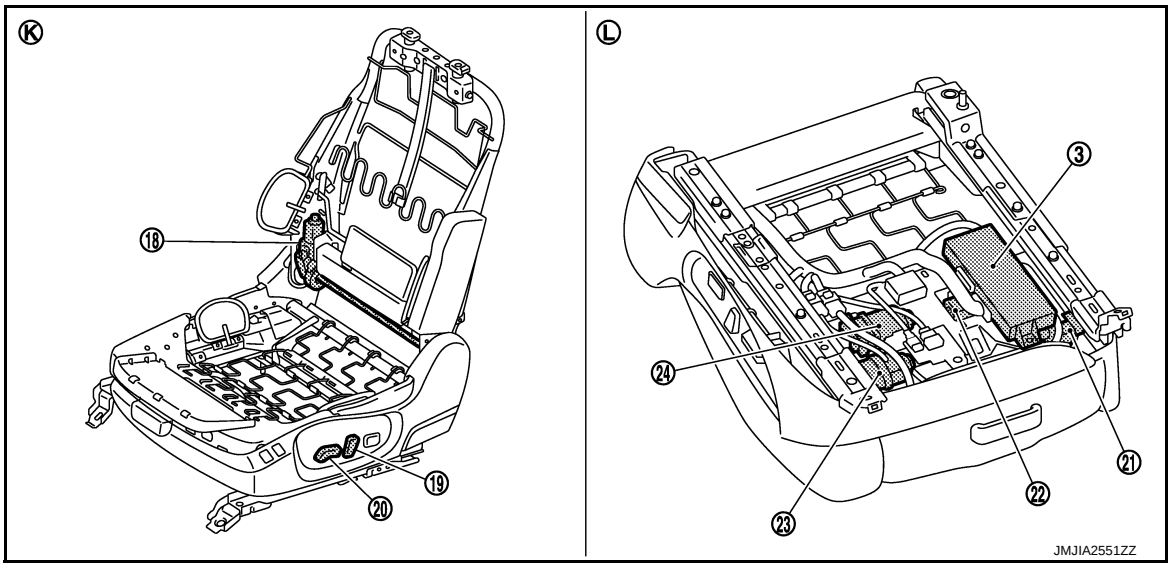


1. BCM M118, M119, M122, M123
2. Automatic drive positioner control unit M51, M52
3. Driver seat control unit B451, B452
4. Unified meter and A/C amp. M67
5. AT assembly F51
6. Tilt & telescopic switch M31
7. Key slot M22
8. Tilt sensor M48
9. Telescopic sensor M48
10. Seat memory switch D5
11. Door mirror remote control switch D17

A. Dash side lower (passenger side)
B. View with instrument driver lower panel removed
C. Backside of seat cushion (driver side)
D. Behind cluster lid C
E. AT assembly (TCM is built in AT assembly)
F. View with instrument driver lower panel removed
G View with steering column cover lower and upper removed



12. Front door switch (driver side) B16
13. A/T shift selector (detention switch) M137
14. Parking brake switch B14
15. Door mirror (driver side) D3
16. Telescopic motor M49
17. Tilt motor M49
H. View with center console assembly removed
I. View with center console assembly removed
J. View with instrument driver lower panel removed



18. Reclining motor B454
19. Reclining switch (power seat switch B459)
20. Sliding, lifting switch (power seat switch B459)
21. Sliding sensor B453
22. Lifting motor (front) B455
23. Sliding motor B461
24. Lifting motor (rear) B463
K. View with seat cushion pad and seatback pad removed
L. Backside of the seat cushion

ENTRY ASSIST FUNCTION : Component Description

INFOID:0000000008290853

CONTROL UNITS

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

INPUT PARTS

Switches

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

Sensors

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

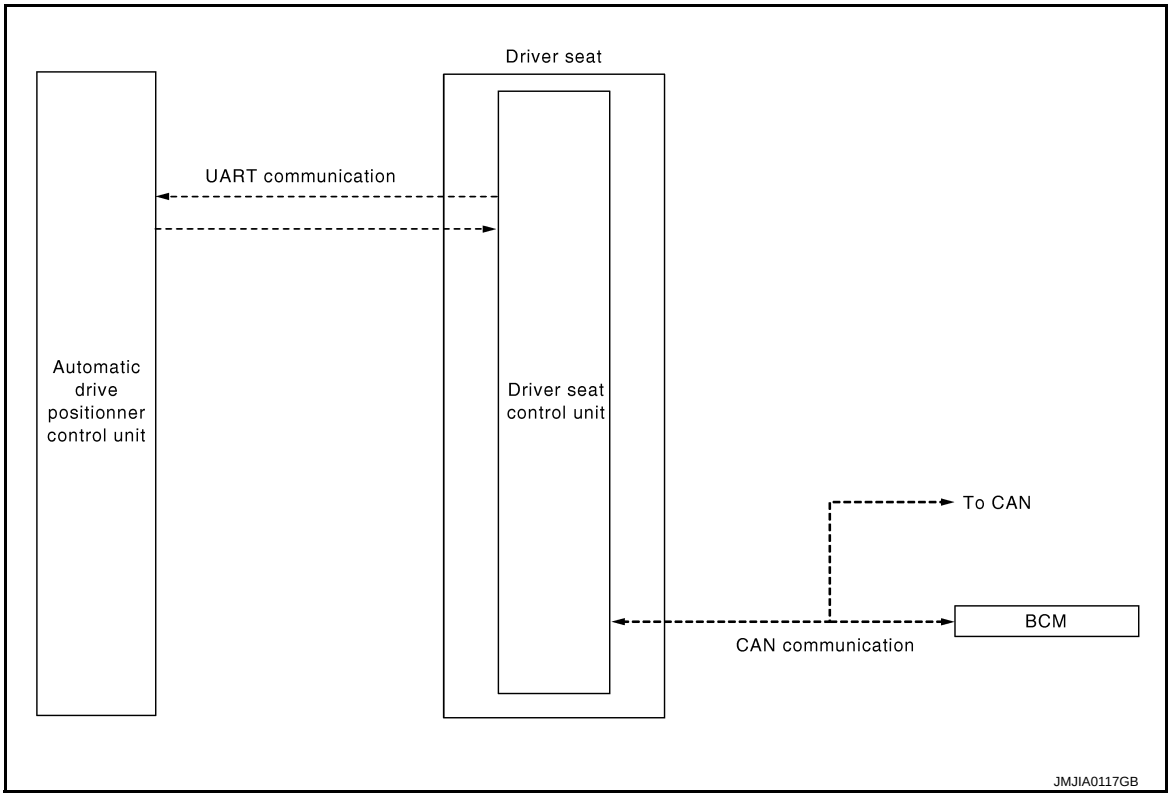
OUTPUT PARTS

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

INTELLIGENT KEY INTERLOCK FUNCTION

INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram

INFOID:0000000008290854



INTELLIGENT KEY INTERLOCK FUNCTION : System Description

INFOID:0000000008290855

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.

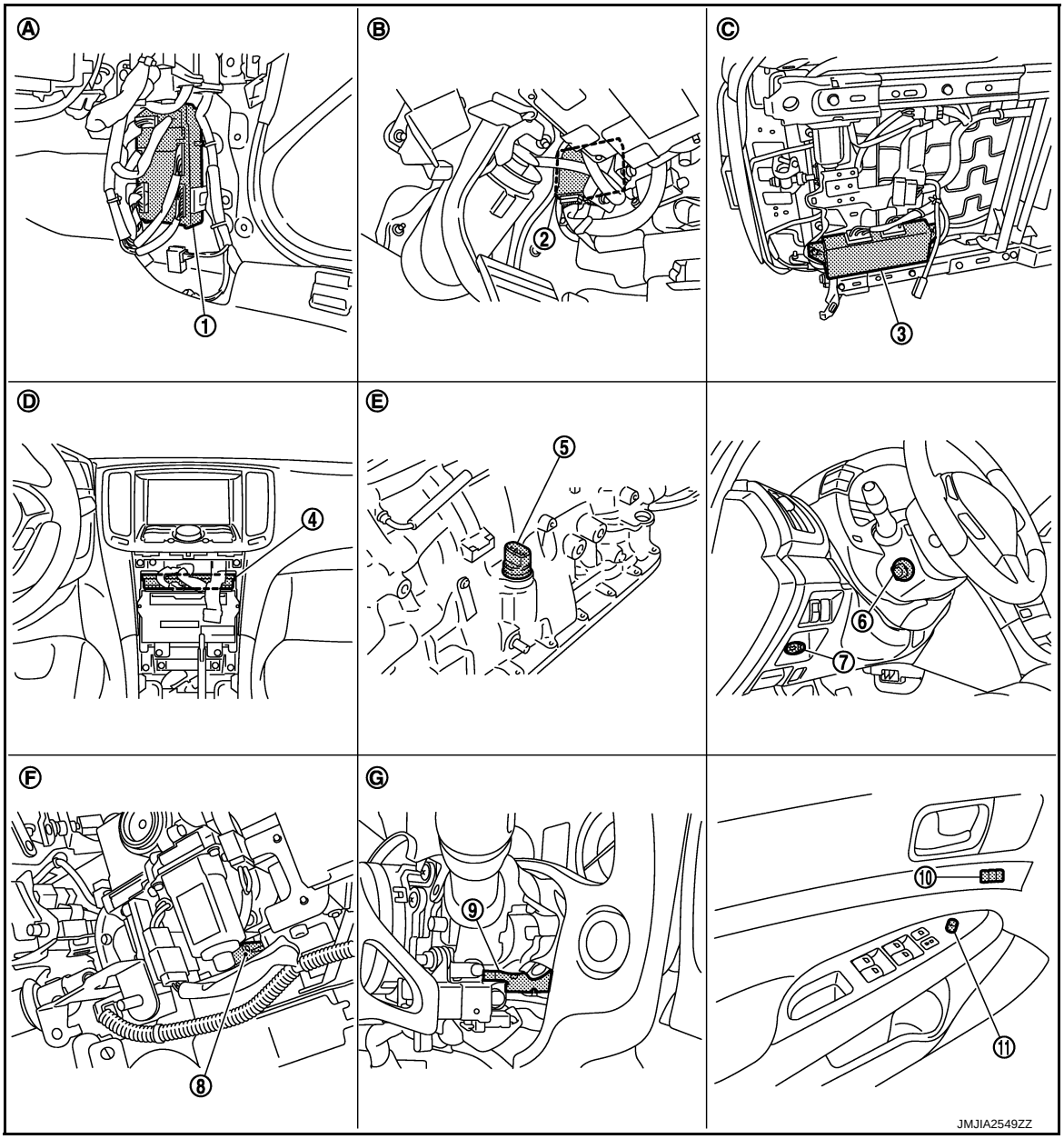
Item	Request status
Ignition position	OFF
System setting	ON
Key switch	OFF (Key is removed.)
Switch inputs • Power seat switch • Tilt & telescopic switch • Door mirror control switch • Set switch • Memory switch	OFF (Not operated)
A/T selector lever (only for A/T model)	P position
Parking break (only for M/T models)	Applied

DETAIL FLOW

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

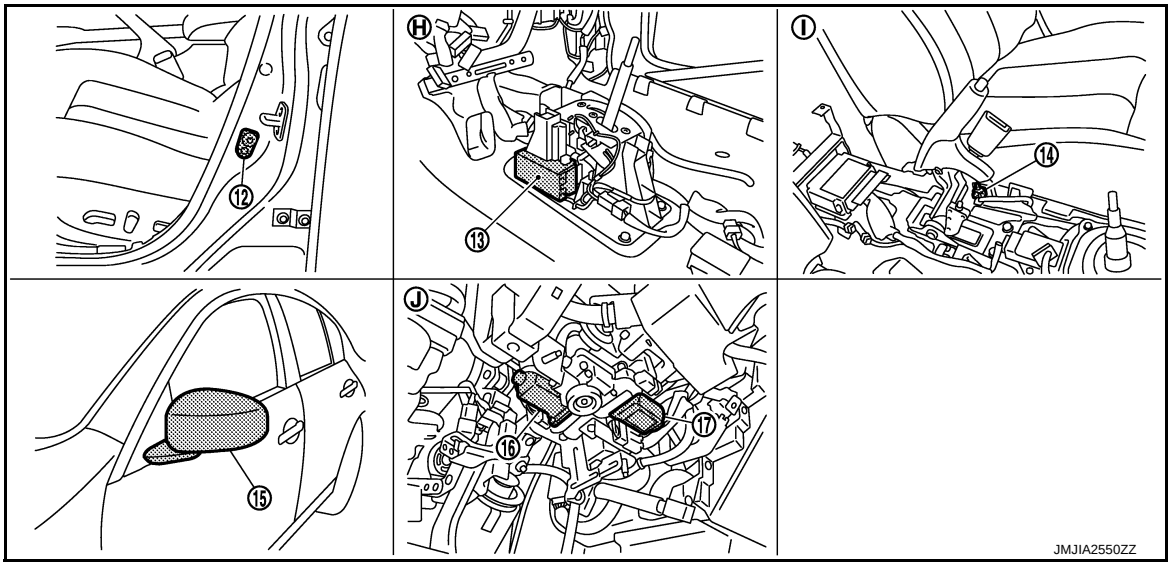
INTELLIGENT KEY INTERLOCK FUNCTION : Component Parts Location

INFOID:0000000008290856

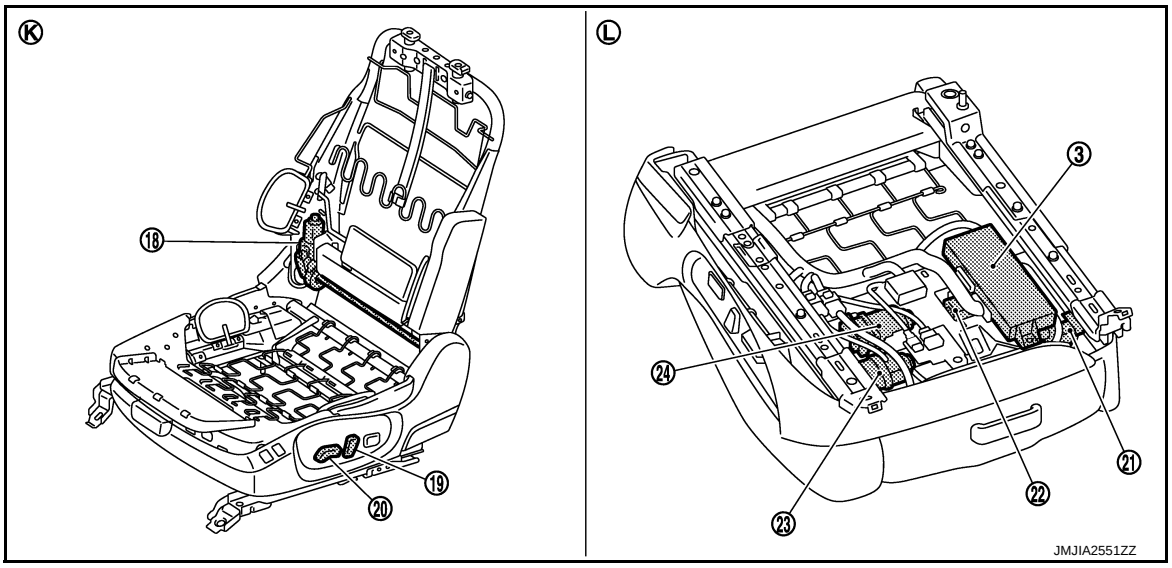


1. BCM M118, M119, M122, M123
2. Automatic drive positioner control unit M51, M52
3. Driver seat control unit B451, B452
4. Unified meter and A/C amp. M67
5. AT assembly F51
6. Tilt & telescopic switch M31
7. Key slot M22
8. Tilt sensor M48
9. Telescopic sensor M48
10. Seat memory switch D5
11. Door mirror remote control switch D17

A. Dash side lower (passenger side)
B. View with instrument driver lower panel removed
C. Backside of seat cushion (driver side)
D. Behind cluster lid C
E. AT assembly (TCM is built in AT assembly)
F. View with instrument driver lower panel removed
G View with steering column cover lower and upper removed



12. Front door switch (driver side) B16
13. A/T shift selector (detention switch) M137
14. Parking brake switch B14
15. Door mirror (driver side) D3
16. Telescopic motor M49
17. Tilt motor M49
H. View with center console assembly removed
I. View with center console assembly removed
J. View with instrument driver lower panel removed



18. Reclining motor B454
19. Reclining switch (power seat switch B459)
20. Sliding, lifting switch (power seat switch B459)
21. Sliding sensor B453
22. Lifting motor (front) B455
23. Sliding motor B461
24. Lifting motor (rear) B463
K. View with seat cushion pad and seatback pad removed
L. Backside of the seat cushion

INTELLIGENT KEY INTERLOCK FUNCTION : Component Description

INFOID:0000000008290857

CONTROL UNITS

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

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:0000000008290858

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

DIAGNOSTIC MODE

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

CONSULT Function

INFOID:0000000008290859

SELF-DIAGNOSIS RESULTS

Refer to ADP-144, "DTC Index".

DATA MONITOR

NOTE:

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

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
SET SW	“ON/OFF”	×	×	ON/OFF status judged from the setting switch signal.
MEMORY SW 1	“ON/OFF”	×	×	ON/OFF status judged from the seat memory switch 1 signal.
MEMORY SW 2	“ON/OFF”	×	×	ON/OFF status judged from the seat memory switch 2 signal.
SLIDE SW–FR	“ON/OFF”	×	×	ON/OFF status judged from the sliding switch (forward) signal.
SLIDE SW–RR	“ON/OFF”	×	×	ON/OFF status judged from the sliding switch (backward) signal.
RECLN SW–FR	“ON/OFF”	×	×	ON/OFF status judged from the reclining switch (forward) signal.
RECLN SW–RR	“ON/OFF”	×	×	ON/OFF status judged from the reclining switch (backward) signal.
LIFT FR SW–UP	“ON/OFF”	×	×	ON/OFF status judged from the lifting switch front (up) signal.
LIFT FR SW–DN	“ON/OFF”	×	×	ON/OFF status judged from the lifting switch front (down) signal.
LIFT RR SW–UP	“ON/OFF”	×	×	ON/OFF status judged from the lifting switch rear (up) signal.
LIFT RR SW–DN	“ON/OFF”	×	×	ON/OFF status judged from the lifting switch rear (down) signal.
MIR CON SW–UP	“ON/OFF”	×	×	ON/OFF status judged from the mirror switch (up) signal.
MIR CON SW–DN	“ON/OFF”	×	×	ON/OFF status judged from the mirror switch (down) signal.

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
MIR CON SW–RH	“ON/OFF”	×	×	ON/OFF status judged from the door mirror remote control switch (passenger side) signal.
MIR CON SW–LH	“ON/OFF”	×	×	ON/OFF status judged from the door mirror remote control switch (driver side) signal.
MIR CHNG SW–R	“ON/OFF”	×	×	ON/OFF status judged from the door mirror remote control switch (switching to right) signal.
MIR CHNG SW–L	“ON/OFF”	×	×	ON/OFF status judged from the door mirror remote control switch (switching to left) signal.
TILT SW-UP	“ON/OFF”	×	×	ON/OFF status judged from the tilt switch (up) signal.
TILT SW-DOWN	“ON/OFF”	×	×	ON/OFF status judged from the tilt switch (down) signal.
TELESCO SW-FR	“ON/OFF”	×	×	ON/OFF status judged from the telescoping switch (forward) signal.
TELESCO SW-RR	“ON/OFF”	×	×	ON/OFF status judged from the telescoping switch (backward) signal.
DETENT SW*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	—	–	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
RECLN PULSE	—	–	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE	—	–	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE	—	–	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH U–D	“V”	–	×	Voltage input from door mirror sensor (passenger side) up/down is displayed.
MIR/SEN RH R–L	“V”	–	×	Voltage input from door mirror sensor (passenger side) left/right is displayed.
MIR/SEN LH U–D	“V”	–	×	Voltage input from door mirror sensor (driver side) up/down is displayed.
MIR/SEN LH R–L	“V”	–	×	Voltage input from door mirror sensor (driver side) left/right is displayed.
TILT SEN	“V”	–	×	Voltage input from tilt sensor is displayed.
TELESCO SEN	“V”	–	×	Voltage input from telescopic sensor is displayed.

*1:Only for AT models.

*2:Only for MT models.

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.

WORK SUPPORT

NOTE:
This mode is only for AT model.

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

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000008290860

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

DTC Logic

INFOID:0000000008290861

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
U1000	CAN COMM CIRCUIT	• 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

1. Turn ignition switch ON and wait at least 3 seconds.
2. Check “Self diagnostic result” using CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-49, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000008290862

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

Special Repair Requirement

INFOID:0000000008290863

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

B2112 SLIDING MOTOR

Description

INFOID:0000000008290864

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

DTC Logic

INFOID:0000000008290865

DTC DETECTION LOGIC

NOTE:
First perform diagnosis for B2126 if B2126 is detected.

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 • Slide motor harness is power shorted

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self diagnostic result” using CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-50, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000008290866

1.CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

(+)		(–)	Voltage (V) (Approx.)
Sliding motor			
Connector	Terminal		
B461	35	Ground	0
	42		

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness.

2.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Driver seat control unit			
Connector	Terminal		
B452	35	Ground	0
	42		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation"

3.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2113 RECLINING MOTOR

Description

INFOID:0000000008290867

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

DTC Logic

INFOID:0000000008290868

DTC DETECTION LOGIC

NOTE:
First perform diagnosis for B2126 if B2126 is detected.

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

DTC CONFIRMATION PROCEDURE

1.PEFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self diagnostic result” using CONSULT.

Is the DTC detected?

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

Diagnosis Procedure

INFOID:0000000008290869

1.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

(+)		(–)	Voltage (V) (Approx.)
Reclining motor			
Connector	Terminal		
B454	36	Ground	0
	44		

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness.

2.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Driver seat control unit			
Connector	Terminal		
B452	36	Ground	0
	44		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".

3. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2118 TILT SENSOR

Description

INFOID:0000000008290870

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

DTC Logic

INFOID:0000000008290871

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self diagnostic result” using CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-54, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000008290872

1.CHECK TILT SENSOR SIGNAL

1. Turn ignition switch ON.
2. Select “TILT SEN” in “Data monitor” mode using CONSULT.
3. Check tilt sensor signal under the following condition.

Monitor item	Condition	Value
TILT SEN	Tilt position	Change between 1.1 V (close to top) 3.9 V (close to bottom)

Is the value normal?

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

2.CHECK TILT SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK TILT SENSOR POWER SUPPLY

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

(+)		(–)	Voltage (V) (Approx.)
Tilt & telescopic sensor			
Connector	Terminal		
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		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	
M52	33	M48	1	Existed

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer toADP-204, "Removal and Installation".
NO >> Repair or replace harness.

5.CHECK TILT SENSOR GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.
NO >> Repair or replace harness.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2119 TELESCOPIC SENSOR

Description

INFOID:0000000008290873

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

DTC Logic

INFOID:0000000008290874

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self diagnostic result” using CONSULT.

Is the DTC is detected?

YES >> Perform diagnosis procedure. Refer to ADP-57, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000008290875

1.CHECK TELESCOPIC SENSOR SIGNAL

1. Turn ignition switch ON.
2. Select “TELESCO SEN” in “Data monitor” mode using CONSULT.
3. Check the tilt sensor signal under the following condition.

Monitor item	Condition	Value
TELESCO SEN	Telescopic position	Change between 0.5 V (close to top) 4.5 V (close to bottom)

Is the valve normal?

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

2.CHECK TELESCOPIC SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK TELESCOPIC SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	
M52	33	M48	1	Existed

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

5.CHECK TELESCOPIC SENSOR GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.
NO >> Repair or replace harness.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2126 DETENT SW

Description

INFOID:0000000008290876

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

DTC Logic

INFOID:0000000008290877

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Drive the vehicle at 7±4 km/h or more.
2. Check “Self diagnostic result” using CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-60, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000008290878

1.CHECK DTC WITH “BCM”

Check “Self diagnostic result” for BCM using CONSULT.

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

YES >> Check the DTC. Refer to BCS-75, "DTC Index".
NO >> GO TO 2.

2.CHECK DTC WITH “METER/M&A”

Check “Self diagnostic result” for METER/M&A using CONSULT.

Is the DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> GO TO 3.

3.CHECK DETENTION SWITCH SIGNAL

1. Turn ignition switch ON.
2. Select “DETENT SW” in “Data Monitor” mode using CONSULT.
3. Check detention switch signal under the following condition.

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

Is the status normal?

YES >> GO TO 5.
NO >> GO TO 4.

4.CHECK DETENTION SWITCH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer toADP-203, "Removal and Installation".
NO >> Repair or replace harness.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2127 PARKING BRAKE SWITCH

Description

INFOID:0000000008290879

- 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

INFOID:0000000008290880

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” using CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-62, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000008290881

1.CHECK PARKING BRAKE SWITCH SIGNAL

1. Turn ignition switch ON.
2. Select “PARK BRAKE SW” in “Data Monitor” mode using CONSULT.
3. Check parking brake switch signal under the following condition.

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

Is the status normal?

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

2.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect parking brake switch harness connector.
3. Turn ignition switch ON.
4. Check voltage between parking brake switch harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Parking brake switch			
Connector	Terminal		
B14	1	Ground	Battery voltage

Is the inspection result normal?

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

3.CHECK PARKING BRAKE SWITCH HARNESS CONTINUITY

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

Driver seat control unit		Parking brake switch		Continuity
Connector	Terminal	Connector	Terminal	
B451	8	B14	1	Existed

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	8		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer toADP-203, "Removal and Installation".
NO >> Repair or replace harness.

4.CHECK PARKING BRAKE SWITCH

Refer to ADP-63, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Adjust or replace parking brake switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290882

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				
1	Ground part of parking brake switch	Parking brake	Applied	Existed
			Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Adjust or replace parking brake switch.

B2128 UART COMMUNICATION LINE

Description

INFOID:0000000008290883

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:0000000008290884

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.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Operate tilt & telescopic switch for more than 2 seconds.
3. Check “Self diagnostic result” using CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-64, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000008290885

1.CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver seat control unit		Automatic drive positioner control unit		Continuity
Connector	Terminal	Connector	Terminal	
B451	1	M51	10	Existed
	17		26	

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

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> Repair or replace harness.

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000008290886

1.CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.
Battery power supply	K (40A)
	10 (10A)

Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END
NO >> Repair harness or connector.

DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:0000000008290887

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

1.CHECK POWER SUPPLY CIRCUIT

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

(+)		(–)	Voltage (V) (Approx.)
Driver seat control unit			
Connector	Terminal		
B452	33	Ground	Battery voltage
	40		

Is the inspection result normal?

YES >> GO TO 2.
NO-1 >> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).
NO-2 >> Check circuit breaker.

2.CHECK GROUND CIRCUIT

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	32		Existed
B452	48		

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:0000000008290888

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to ADP-65, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

INFOID:0000000008290889

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

1.CHECK POWER SUPPLY CIRCUIT

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

(+)		(–)	Voltage (V) (Approx.)
Automatic drive positioner control unit			
Connector	Terminal		
M52	34	Ground	Battery voltage
	39		

Is the inspection result normal?

YES >> GO TO 2.
NO - 1 >> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).
NO - 2 >> Check circuit breaker.

2.CHECK GROUND CIRCUIT

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M52	40		Existed
	48		

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace harness.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement

INFOID:0000000008290890

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

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

SLIDING SWITCH

Description

INFOID:0000000008290891

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:0000000008290892

1.CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-68, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290893

1.CHECK SLIDING SWITCH SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Power seat switch			
Connector	Terminal		
B459	11	Ground	Battery voltage
	26		

Is the inspection result normal?

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

2.CHECK SLIDING SWITCH CIRCUIT

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

Driver seat control unit		Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	
B451	11	B459	11	Existed
	26		26	

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK SLIDING SWITCH

Refer to ADP-69, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace power seat switch. Refer to ADP-206, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290894

1.CHECK SLIDING SWITCH

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

Power seat switch		Condition		Continuity
Terminal				
32	11	Sliding switch (backward)	Operate	Existed
			Release	Not existed
	26	Sliding switch (forward)	Operate	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace power seat switch. Refer to ADP-206, "Removal and Installation".

RECLINING SWITCH

Description

INFOID:0000000008290895

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:0000000008290896

1.CHECK FUNCTION

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

Monitor item	Condition		Status
RECLINE SW-FR	Reclining switch (forward)	Operate	ON
		Release	OFF
RECLINE SW-RR	Reclining switch (backward)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-70, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290897

1.CHECK RECLINING SWITCH SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Power seat switch			
Connector	Terminal		
B459	12	Ground	Battery voltage
	27		

Is the inspection result normal?

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

2.CHECK RECLINING SWITCH CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	12		Not existed
	27		

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK RECLINING SWITCH

Refer to ADP-71, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace power seat switch. Refer to ADP-206, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290898

1.CHECK RECLINING SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace power seat switch. Refer toADP-206, "Removal and Installation".

LIFTING SWITCH (FRONT)

Description

INFOID:0000000008290899

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:0000000008290900

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “LIFT FR SW-UP”, “LIFT FR SW-DN” in “Data monitor” mode using CONSULT.
3. Check lifting switch (front) signal under the following conditions.

Monitor item	Condition		Status
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON
		Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
		Release	OFF

Is the indication normal?

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

Diagnosis Procedure

INFOID:0000000008290901

1.CHECK LIFTING SWITCH SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Power seat switch			
Connector	Terminal		
B459	13	Ground	Battery voltage
	28		

Is the inspection result normal?

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

2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	13		Not existed
	28		

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-73, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace power seat switch. Refer to ADP-206, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290902

1.CHECK LIFTING SWITCH (FRONT)

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace power seat switch. Refer to ADP-206, "Removal and Installation".

LIFTING SWITCH (REAR)

Description

INFOID:0000000008290903

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

Component Function Check

INFOID:0000000008290904

1.CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
		Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-74, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290905

1.CHECK LIFTING SWITCH (REAR) SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Power seat switch			
Connector	Terminal		
B459	14	Ground	Battery voltage
	29		

Is the inspection result normal?

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

2.CHECK LIFTING SWITCH (REAR) CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	14		Not existed
	29		

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (REAR)

Refer to ADP-75, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace power seat switch. Refer to ADP-206, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290906

1.CHECK LIFTING SWITCH (REAR)

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace power seat switch. Refer to ADP-206, "Removal and Installation".

TILT SWITCH

Description

INFOID:0000000008290907

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

Component Function Check

INFOID:0000000008290908

1.CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-76, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290909

1.CHECK TILT SWITCH SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Tilt & telescopic switch			
Connector	Terminal		
M31	4	Ground	Battery voltage
	5		

Is the inspection result normal?

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

2.CHECK TILT SWITCH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK TILT SWITCH

Refer to ADP-77, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace tilt & telescopic switch. Refer to ADP-207, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290910

1.CHECK TILT SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace tilt & telescopic switch. Refer toADP-207, "Removal and Installation".

TELESCOPIC SWITCH

Description

INFOID:0000000008290911

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

Component Function Check

INFOID:0000000008290912

1.CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-78, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290913

1.CHECK TELESCOPIC SWITCH SIGNAL

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

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

Is the inspection result normal?

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

2.CHECK TELESCOPIC SWITCH CIRCUIT

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

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

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M51	11		Not existed
	27		

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-203, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK TELESCOPIC SWITCH

Refer to ADP-79, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace tilt & telescopic switch. Refer to ADP-207, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290914

1.CHECK TELESCOPIC SWITCH

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

Tilt & telescopic switch		Condition		Continuity
Terminal				
1	2	Telescopic switch (forward)	Operate	Existed
			Release	Not existed
	3	Telescopic switch (backward)	Operate	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace tilt & telescopic switch. Refer toADP-207, "Removal and Installation".

SEAT MEMORY SWITCH

Description

INFOID:0000000008290915

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

Component Function Check

INFOID:0000000008290916

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “MEMORY SW 1”, “MEMORY SW 2” “SET SW” in “Data monitor” mode using CONSULT.
3. Check seat memory switch signal under the following conditions.

Monitor item	Condition		Status
SET SW	SET SW	Push	ON
		Release	OFF
MEMORY SW 1	Memory switch 1	Push	ON
		Release	OFF
MEMORY SW 2	Memory switch 2	Push	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-80, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290917

1.CHECK SEAT MEMORY SWITCH SIGNAL

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

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

Is the inspection result normal?

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

2.CHECK MEMORY SWITCH CIRCUIT

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

Automatic drive positioner control unit		Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	
M51	9	D5	1	Existed
	24		3	
	25		2	

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

3. CHECK MEMORY SWITCH GROUND CIRCUIT

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

Seat memory switch		Ground	Continuity
Connector	Terminal		
D5	4		Existed

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4. CHECK SEAT MEMORY SWITCH

Refer to ADP-81, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace seat memory switch. Refer to ADP-205, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290918

1. CHECK SEAT MEMORY SWITCH

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

Seat memory switch		Condition		Continuity
Terminal				
4	3	Set switch	Push	Existed
			Release	Not existed
	1	Memory switch 1	Push	Existed
			Release	Not existed
	2	Memory switch 2	Push	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace seat memory switch.Refer to ADP-205, "Removal and Installation".

DOOR MIRROR REMOTE CONTROL SWITCH
MIRROR SWITCH

MIRROR SWITCH : Description

INFOID:0000000008290919

It operates angle of the door mirror face.
It transmits mirror face adjust operation to AUTOMATIC DRIVE POSITIONER CONTROL UNIT.

MIRROR SWITCH : Component Function Check

INFOID:0000000008290920

1.CHECK MIRROR SWITCH FUNCTION

Check the operation on “MIR CON SW–UP/DN” and “MIR CON SW–RH/LH” in “DATA MONITOR” mode using CONSULT.

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

Is the inspection result normal?

YES >> Mirror switch function is OK.
NO >> Refer to ADP-83, "MIRROR SWITCH : Diagnosis Procedure".

MIRROR SWITCH : Diagnosis Procedure

INFOID:0000000008290921

1.CHECK MIRROR SWITCH INPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Door mirror remote control switch			
Connector	Terminal		
D17	4	Ground	5
	12		
	13		
	15		

Is the inspection result normal?

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

2.CHECK MIRROR SWITCH CIRCUIT

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

Automatic drive positioner control unit		Door mirror remote control switch		Continuity
Connector	Terminal	Connector	Terminal	
M51	3	D17	15	Existed
	4		13	
	19		12	
	20		4	

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK MIRROR SWITCH

Check door mirror remote control switch (mirror switch).
Refer toADP-84, "MIRROR SWITCH : Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace door mirror remote control switch (mirror switch). Refer to MIR-18, "Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

MIRROR SWITCH : Component Inspection

INFOID:0000000008290922

1.CHECK MIRROR SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace door mirror remote control switch. Refer to MIR-18, "Removal and Installation".

CHANGEOVER SWITCH

CHANGEOVER SWITCH : Description

INFOID:0000000008290923

Changeover switch is integrated into door mirror remote control switch.
Changeover switch has three positions (L, N and R).
It changes operating door mirror motor by transmitting control signal to automatic drive positioner control unit.

CHANGEOVER SWITCH : Component Function Check

INFOID:0000000008290924

1.CHECK CHANGEOVER SWITCH FUNCTION

Check the operation on “MIR CHNG SW-R” or “MIR CHNG SW-L” in “DATA MONITOR” mode using CONSULT.

Monitor item	Condition	
MIR CHNG SW-R/L	When operating the changeover toward the right or left side.	: ON
	Other than above.	: OFF

Is the inspection result normal?

YES >> Changeover switch function is OK.
NO >> Refer to ADP-85, "CHANGEOVER SWITCH : Diagnosis Procedure".

CHANGEOVER SWITCH : Diagnosis Procedure

INFOID:0000000008290925

1.CHECK CHANGEOVER SWITCH INPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Door mirror remote control switch			
Connector	Terminal		
D17	10	Ground	5
	11		

Is the inspection result normal?

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

2.CHECK CHANGEOVER SWITCH CIRCUIT

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

Automatic drive positioner control unit		Door mirror remote control switch		Continuity
Connector	Terminal	Connector	Terminal	
M51	2	D17	11	Existed
	18		10	

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK CHANGEOVER SWITCH

Check door mirror remote control switch (changeover switch).
Refer to ADP-86, "CHANGEOVER SWITCH : Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace door mirror remote control switch (changeover switch). Refer to MIR-18, "Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

CHANGEOVER SWITCH : Component Inspection

INFOID:0000000008290926

1.CHECK CHANGEOVER SWITCH

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

Door mirror remote control switch		Condition		Continuity
Terminal				
10	7	Changeover switch	LEFT	Existed
			Other than above	Not existed
11			RIGHT	Existed
			Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to MIR-18, "Removal and Installation".

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000008290927

1.CHECK POWER SEAT SWITCH GROUND CIRCUIT

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

Power seat switch		Ground	Continuity
Connector	Terminal		
B459	32		Existed

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness.

2.CHECK POWER SEAT SWITCH INTERNAL CIRCUIT

Check reclining switch.
Refer to ADP-71, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace power seat switch. Refer to ADP-206, "Removal and Installation".

3.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

TILT &TELESCOPIC SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000008290928

1.CHECK POWER TILT & TELESCOPIC SWITCH GROUND CIRCUIT

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

Tilt & telescopic switch		Ground	Continuity
Connector	Terminal		
M31	1		Existed

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness.

2.CHECK POWER TILT & TELESCOPIC SWITCH INTERNAL CIRCUIT

Check tilt switch.
Refer to ADP-77, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace tilt & telescopic switch. Refer to ADP-207, "Removal and Installation".

3.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

DETENTION SWITCH

Description

INFOID:0000000008290929

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

Component Function Check

INFOID:0000000008290930

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “DETENT SW” signal in “Data monitor” mode using CONSULT.
3. Check detention switch signal under the following conditions.

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

Is the indication normal?

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

Diagnosis Procedure

INFOID:0000000008290931

1.CHECK DTC WITH “BCM”

Check “Self Diagnostic Result” for BCM using CONSULT.

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

YES >> Check the DTC. Refer to BCS-75, "DTC Index".
NO >> GO TO 2.

2.CHECK DETENTION SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

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

3.CHECK DETENTION SWITCH CIRCUIT 1

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer toADP-203, "Removal and Installation".
NO >> Repair or replace harness.

4.CHECK DETENTION SWITCH

Refer to ADP-91, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace A/T shift selector. Refer to TM-270, "2WD : Exploded View".

5.CHECK DETENTION SWITCH CIRCUIT 2

1. Turn ignition switch OFF.
2. Disconnect BCM connector and A/T shift selector connector.
3. Check continuity between BCM harness connector and A/T shift selector harness connector.

BCM		A/T shift selector		Continuity
Connector	Terminal	Connector	Terminal	
M122	96	M137	10	Existed

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

BCM		Ground	Continuity
Connector	Terminal		
M122	96		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Exploded View".
NO >> Repair or replace harness.

Component Inspection

INFOID:0000000008290932

1.CHECK DETENTION SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace A/T shift selector. Refer to TM-270, "2WD : Exploded View".

PARKING BRAKE SWITCH

Description

INFOID:0000000008290933

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

INFOID:0000000008290934

1.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

1. Select “PARK BRAKE SW” in “Data Monitor” mode using CONSULT.
2. Check parking brake switch signal under the following conditions.

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

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-92, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290935

1.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Parking brake switch			
Connector	Terminal		
B14	1	Ground	Battery voltage

Is the inspection result normal?

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

2.CHECK PARKING BRAKE SWITCH CIRCUIT

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

Driver seat control unit		Parking brake switch		Continuity
Connector	Terminal	Connector	Terminal	
B451	8	B14	1	Existed

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	8		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer toADP-203, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK PARKING BRAKE SWITCH

Refer to ADP-93, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO-1 >> Adjust or replace parking brake switch (pedal type). Refer to PB-6, "PEDAL TYPE : Exploded View".
NO-2 >> Adjust or replace parking brake switch (lever type). Refer to PB-7, "LEVER TYPE : Exploded View".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290936

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.

Parking brake		Condition		Continuity
Terminal				
1	Ground part of parking brake switch	Parking brake	Applied	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO-1 >> Adjust or replace parking brake switch (pedal type). Refer to PB-6, "PEDAL TYPE : Exploded View".
NO-2 >> Adjust or replace parking brake switch (lever type). Refer to PB-7, "LEVER TYPE : Exploded View".

SLIDING SENSOR

Description

INFOID:0000000008290937

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

Component Function Check

INFOID:0000000008290938

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “SLIDE PULSE” in “Data monitor” mode using CONSULT.
3. Check sliding sensor signal under the following conditions.

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

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

Is the indication normal?

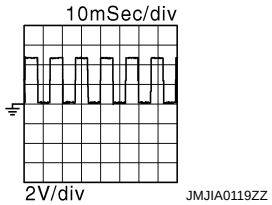
YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-94, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290939

1.CHECK SLIDING SENSOR SIGNAL

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

(+) Driver seat control unit		(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B451	24	Ground	Seat sliding	Operate	
				Other than above	0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> GO TO 2.

2.CHECK SLIDING SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK SLIDING SENSOR POWER SUPPLY

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

(+)		(–)	Voltage (V) (Approx.)
Sliding sensor			
Connector	Terminal		
B453	16	Ground	Battery voltage

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK SLIDING SENSOR GROUND CIRCUIT 1

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

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK SLIDING SENSOR GROUND CIRCUIT 2

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	31		Existed

Is the inspection result normal?

YES >> Replace sliding sensor (Built in seat slide cushion frame). Refer to SE-60, "Exploded View".
NO >> Replace driver seat control unit. Refer toADP-203, "Removal and Installation" .

RECLINING SENSOR

Description

INFOID:0000000008290940

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

Component Function Check

INFOID:0000000008290941

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “RECLN PULSE” in “Data monitor” mode using CONSULT.
3. Check reclining sensor signal under the following conditions.

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

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

Is the indication normal?

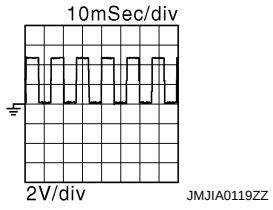
YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-97, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290942

1.CHECK RECLINING SENSOR SIGNAL

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

(+) Driver seat control unit		(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B451	9	Ground	Seat reclining	Operate	
				Other than above	0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> GO TO 2.

2.CHECK RECLINING SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK RECLINING SENSOR POWER SUPPLY

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

(+)		(–)	Voltage (V) (Approx.)
Reclining motor			
Connector	Terminal		
B454	16	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4.CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Repair or replace harness.

5.CHECK RECLINING SENSOR GROUND CIRCUIT 1

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

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK RECLINING SENSOR GROUND CIRCUIT 2

1. Connect driver seat control unit connector.
2. Check continuity between reclining sensor harness connector and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	31		Existed

Is the inspection result normal?

YES >> Replace reclining motor. Refer to SE-60, "Exploded View".
NO >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".

LIFTING SENSOR (FRONT)

Description

INFOID:0000000008290943

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

Component Function Check

INFOID:0000000008290944

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “LIFT FR PULSE” in “Data monitor” mode using CONSULT.
3. Check the lifting sensor (front) signal under the following conditions.

Monitor item	Condition		Value
LIFT FR PULSE	Seat lifting (front)	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?

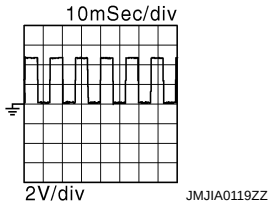
YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-100, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290945

1.CHECK LIFTING SENSOR (FRONT) SIGNAL

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer toADP-203, "Removal and Installation".
NO >> GO TO 2.

2.CHECK LIFTING SENSOR (FRONT) CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK LIFTING SENSOR (FRONT) POWER SUPPLY

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

(+)		(–)	Voltage (V) (Approx.)
Lifting motor (front)			
Connector	Terminal		
B455	16	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK LIFTING SENSOR (FRONT) GROUND CIRCUIT 1

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

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK LIFTING SENSOR (FRONT) GROUND CIRCUIT 2

1. Connect driver seat control unit connector.
2. Check continuity between lifting motor (front) harness connector and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	31		Existed

Is the inspection result normal?

YES >> Replace lifting motor (front). Refer to SE-60, "Exploded View".
NO >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".

LIFTING SENSOR (REAR)

Description

INFOID:0000000008290946

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

Component Function Check

INFOID:0000000008290947

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “LIFT RR PULSE” in “Data monitor” mode using CONSULT.
3. Check lifting sensor (rear) signal under the following conditions.

Monitor item	Condition		Value
LIFT RR PULSE	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?

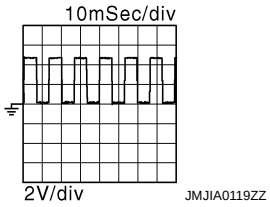
YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-103, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290948

1.CHECK LIFTING SENSOR (REAR) SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Driver seat control unit					
Connector	Terminal				
B451	10	Ground	Seat Lifting (rear)	Operate	
				Other than above	0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> GO TO 2.

2.CHECK LIFTING SENSOR (REAR) CIRCUIT

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

Driver seat control unit		Lifting motor (rear)		Continuity
Connector	Terminal	Connector	Terminal	
B451	10	B463	10	Existed

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK LIFTING SENSOR (REAR) POWER SUPPLY

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

(+)		(–)	Voltage (V) (Approx.)
Lifting motor (rear)			
Connector	Terminal		
B463	16	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4.CHECK LIFTING SENSOR (REAR) POWER SUPPLY CIRCUIT

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

Driver seat control unit		Lifting motor (rear)		Continuity
Connector	Terminal	Connector	Terminal	
B451	16	B463	16	Existed

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Repair or replace harness.

5.CHECK LIFTING SENSOR (REAR) GROUND CIRCUIT 1

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

Driver seat control unit		Lifting motor (rear)		Continuity
Connector	Terminal	Connector	Terminal	
B451	31	B463	31	Existed

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK LIFTING SENSOR (REAR) GROUND CIRCUIT 2

1. Connect driver seat control unit connector.
2. Check continuity between lifting motor (rear) harness connector and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	31		Existed

Is the inspection result normal?

YES >> Replace lifting motor (rear). Refer to SE-60, "Exploded View".
NO >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".

TILT SENSOR

Description

INFOID:0000000008290949

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

Component Function Check

INFOID:0000000008290950

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “TILT SEN” in “Data monitor” mode using CONSULT.
3. Check the tilt sensor signal under the following condition.

Monitor item	Condition	Value
TILT SEN	Tilt position	Change between 1.1 V (Close to top) 3.9 V (Close to bottom)

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-106, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290951

1.CHECK TILT SENSOR SIGNAL

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

(+)		(–)	Condition	Voltage (V) (Approx.)
Automatic drive positioner control unit				
Connector	Terminal			
M51	7	Ground	Tilt position	Change between 1.1 V (Close to top) 3.9 V (Close to bottom)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer toADP-204, "Removal and Installation".
NO >> GO TO 2.

2.CHECK TILT SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK TILT SENSOR POWER SUPPLY

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

(+)		(–)	Voltage (V) (Approx.)
Tilt & telescopic sensor			
Connector	Terminal		
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		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	
M52	33	M48	1	Existed

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK TILT SENSOR GROUND CIRCUIT 1

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		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	
M52	41	M48	4	Existed

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK TILT SENSOR GROUND CIRCUIT 2

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M52	41		Existed

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to ST-21, "WITH ELECTRIC MOTOR : Exploded View".

NO >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".

TELESCOPIC SENSOR

Description

INFOID:0000000008290952

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

Component Function Check

INFOID:0000000008290953

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “TELESCO SEN” in “Data monitor” mode using CONSULT.
3. Check the tilt sensor signal under the following conditions.

Monitor item	Condition	Value
TELESCO SEN	Telescopic position	Change between 0.5 [V] (close to top) 4.5 [V] (close to bottom)

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-109, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290954

1.CHECK TELESCOPIC SENSOR SIGNAL

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

(+)		(–)	Condition	Voltage (V) (Approx.)
Automatic drive positioner control unit				
Connector	Terminal			
M51	23	Ground	Telescopic position	Change between 0.5 [V] (close to top) 4.5 [V] (close to bottom)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> GO TO 2.

2.CHECK TELESCOPIC SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK TELESCOPIC SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	
M52	33	M48	1	Existed

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK TELESCOPIC SENSOR GROUND CIRCUIT 1

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		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	
M52	41	M48	4	Existed

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK TELESCOPIC SENSOR GROUND CIRCUIT 2

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M52	41		Existed

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to ST-21, "WITH ELECTRIC MOTOR : Exploded View".

NO >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".

MIRROR SENSOR
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000008290955

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

DRIVER SIDE : Component Function Check

INFOID:0000000008290956

1.CHECK FUNCTION

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

Monitor item	Condition	Value
MIR/SEN LH U-D	Door mirror (driver side)	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
MIR/SEN LH R-L		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 ADP-112, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000008290957

1.CHECK DOOR MIRROR SENSOR (DRIVER SIDE) SIGNAL

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

(+)		(–)	Condition	Voltage (V) (Approx.)
Automatic drive positioner control unit				
Connector	Terminal			
M51	6	Ground	Door mirror (driver side) position	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
	22			Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> GO TO 2.

2.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

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

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

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

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK DOOR MIRROR (DRIVER SIDE) SENSOR GROUND CIRCUIT 1

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

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK DOOR MIRROR (DRIVER SIDE) SENSOR GROUND CIRCUIT 2

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M52	41		Existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Replace door mirror sensor (Built in driver side door mirror). Refer to MIR-15, "DOOR MIRROR ASSEMBLY : Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000008290958

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

PASSENGER SIDE : Component Function Check

INFOID:0000000008290959

1. CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “MIR/SEN RH U-D”, “MIR/SEN RH R-L” in “Data monitor” using CONSULT.
3. Check the 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 ADP-114, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000008290960

1. CHECK DOOR MIRROR SENSOR (PASSENGER SIDE) SIGNAL

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

(+)		(–)	Condition	Voltage (V) (Approx.)
Automatic drive positioner control unit				
Connector	Terminal			
M51	5	Ground	Door mirror (passenger side) position	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
	21			Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
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.
3. Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) harness connector.

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK DOOR MIRROR SENSOR (PASSENGER SIDE) 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		
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

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 (passenger side) harness connector.

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

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

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

Is the inspection result normal?

YES >> Replace automatic driver positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND CIRCUIT 1

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 (passenger side) connector.

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND CIRCUIT 2

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M52	41		Existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Replace door mirror sensor (Built in passenger side door mirror). Refer to MIR-15, "DOOR MIRROR ASSEMBLY : Removal and Installation".

SLIDING MOTOR

Description

INFOID:0000000008290961

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

Component Function Check

INFOID:0000000008290962

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “SEAT SLIDE” in “Active test” mode using CONSULT.
3. Check the sliding motor operation.

Test item		Description	
SEAT SLIDE	OFF	Seat sliding	Stop
	FR		Forward
	RR		Backward

Is the operation of relevant parts normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-117, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290963

1.CHECK SLIDING MOTOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect sliding motor connector.
3. Turn the ignition switch ON.
4. Perform “Active test” (“SEAT SLIDE”) using CONSULT-lll
5. Check voltage between sliding motor harness connector and ground.

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

Is the inspection result normal?

YES >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".
NO >> GO TO 2.

2.CHECK SLIDING MOTOR CIRCUIT

1. 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		Sliding motor		Continuity
Connector	Terminal	Connector	Terminal	
B452	35	B461	35	Existed
	42		42	

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK SLIDING MOTOR

Refer to ADP-118, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".

Component Inspection

INFOID:0000000008290964

1.CHECK SLIDING MOTOR-1

Check visually the sliding motor to see if any foreign object is not disturbing the functioning or if the sliding motor is not broken.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace seat cushion frame (sliding motor).

2.CHECK SLIDING MOTOR-2

1. Turn ignition switch OFF.
2. Disconnect sliding motor connector.
3. Supply sliding motor terminals with battery voltage and check operation.

Terminal		Operation
(+)	(–)	
35	42	Forward
42	35	Backward

Is the inspection result normal?

YES >> Sliding motor is OK.
NO >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".

RECLINING MOTOR

Description

INFOID:0000000008290965

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

Component Function Check

INFOID:0000000008290966

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “SEAT RECLINING” in “Active test” mode using CONSULT.
3. Check the reclining motor operation.

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

Is the operation of relevant parts normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-119, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290967

1.CHECK RECLINING MOTOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> Replace reclining motor. (Built in seat back frame.) Refer to SE-60, "Exploded View".
NO >> GO TO 2.

2.CHECK RECLINING MOTOR CIRCUIT

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

Driver seat control unit		Reclining motor		Continuity
Connector	Terminal	Connector	Terminal	
B452	36	B454	36	Existed
	44		44	

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	36		Not existed
	44		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK RECLINING MOTOR

Refer to ADP-120, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Replace reclining motor. (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".

Component Inspection

INFOID:0000000008290968

1.CHECK RECLINING MOTOR-1

Check visually reclining motor to see if any foreign object is not disturbing the functioning or if the reclining motor is not broken.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace seatback frame (reclining motor).

2.CHECK RECLINING MOTOR-2

1. Turn ignition switch OFF.
2. Disconnect reclining motor connector.
3. Supply reclining motor terminals with battery voltage and check operation.

Terminal		Operation
(+)	(–)	
36	44	Forward
44	36	Backward

Is the inspection result normal?

YES >> Reclining motor is OK.
NO >> Replace reclining motor. (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".

LIFTING MOTOR (FRONT)

Description

INFOID:0000000008290969

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

Component Function Check

INFOID:0000000008290970

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-121, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290971

1.CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect lifting motor (front) connector.
3. Turn the ignition switch ON.
4. Perform “Active test” (“SEAT LIFTER FR”) using CONSULT.
5. Check voltage between lifting motor (front) harness connector and ground.

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

Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".
NO >> GO TO 2.

2.CHECK LIFTING MOTOR (FRONT) CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK LIFTING MOTOR (FRONT)

Refer to ADP-122, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".

Component Inspection

INFOID:0000000008290972

1.CHECK LIFTING MOTOR-1

Check visually the lifting motor (front) to see if any foreign object is not disturbing the functioning or if the lifting motor (front) is not broken.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace seat cushion frame (lifting motor).

2.CHECK LIFTING MOTOR-2

1. Turn ignition switch OFF.
2. Disconnect lifting motor connector.
3. Supply lifting motor terminals with battery voltage and check operation.

Item	Terminal		Operation
	(+)	(–)	
Lifting motor (front)	45	37	Up
	37	45	Down

Is the inspection result normal?

YES >> Lifting motor (front) is OK.
NO >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".

LIFTING MOTOR (REAR)

Description

INFOID:0000000008290973

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

Component Function Check

INFOID:0000000008290974

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-123, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290975

1.CHECK LIFTING MOTOR (REAR) POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect lifting motor (rear) connector.
3. Turn the ignition switch ON.
4. Perform “Active test” (“SEAT LIFTER RR”) using CONSULT.
5. Check voltage between lifting motor (rear) harness connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Lifting motor (rear)					
Connector	Terminal				
B463	38	Ground	SEAT LIFTER RR	OFF	0
				UP	Battery voltage
				DWN (DOWN)	0
	39			OFF	0
				UP	0
				DWN (DOWN)	Battery voltage

Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".
NO >> GO TO 2.

2.CHECK LIFTING MOTOR (REAR) CIRCUIT

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

Driver seat control unit		Lifting motor (rear)		Continuity
Connector	Terminal	Connector	Terminal	
B452	38	B463	38	Existed
	39		39	

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK LIFTING MOTOR (REAR)

Refer to ADP-124, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".
NO >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".

Component Inspection

INFOID:0000000008290976

1.CHECK LIFTING MOTOR-1

Check visually the lifting motor (rear) to see if any foreign object is not disturbing the functioning or if the lifting motor (rear) is not broken.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace seat cushion frame (lifting motor).

2.CHECK LIFTING MOTOR-2

1. Turn ignition switch OFF.
2. Disconnect lifting motor connector.
3. Supply lifting motor terminals with battery voltage and check operation.

Item	Terminal		Operation
	(+)	(–)	
Lifting motor (rear)	38	39	Up
	39	38	Down

Is the inspection result normal?

YES >> Lifting motor (rear) is OK.
NO >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to SE-60, "Exploded View".

TILT MOTOR

Description

INFOID:0000000008290977

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

Component Function Check

INFOID:0000000008290978

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “TILT MOTOR” in “Active test” mode using CONSULT.
3. Check the tilt motor operation.

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

Is the operation of relevant parts normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-125, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290979

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”) using CONSULT.
5. Check voltage between tilt & telescopic motor harness connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Tilt & telescopic motor					
Connector	Terminal				
M49	3	Ground	TILT MOTOR	OFF	0
				UP	0
				DWN (down)	Battery voltage
	4			OFF	0
				UP	Battery voltage
				DWN (down)	0

Is the inspection result normal?

YES >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC MOTOR : Exploded View".
NO >> GO TO 2.

2.CHECK TILT MOTOR CIRCUIT

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

Automatic drive positioner control unit		Tilt & telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	
M52	35	M49	4	Existed
	42		3	

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK TILT MOTOR

Refer to ADP-126, "Component Inspection".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC MOTOR : Exploded View".

Component Inspection

INFOID:0000000008290980

1.CHECK SLIDING MOTOR

1. Turn ignition switch OFF.
2. Disconnect tilt motor connector.
3. Supply tilt motor terminals with battery voltage and check operation.

Terminal		Operation
(+)	(–)	
4	3	Up
3	4	Down

Is the inspection result normal?

YES >> Tilt motor is OK.
NO >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC MOTOR : Exploded View".

TELESCOPIC MOTOR

Description

INFOID:0000000008290981

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

Component Function Check

INFOID:0000000008290982

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “TELESCO MOTOR” in “Active test” mode using CONSULT.
3. Check the telescopic motor operation.

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

Is the operation of relevant parts normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-127, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290983

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”) using CONSULT.
5. Check voltage between tilt & telescopic motor harness connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Tilt & telescopic motor					
Connector	Terminal				
M49	1	Ground	TELESCOPIC MOTOR	OFF	0
				FR (forward)	0
				RR (backward)	Battery voltage
	2			OFF	0
				FR (forward)	Battery voltage
				RR (backward)	0

Is the inspection result normal?

YES >> Replace telescopic motor. (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC MOTOR : Exploded View".
NO >> GO TO 2.

2.CHECK TELESCOPIC MOTOR CIRCUIT

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

Automatic drive positioner control unit		Tilt & telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	
M52	36	M49	2	Existed
	44		1	

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M52	36		Not existed
	44		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK SLIDING MOTOR

Refer to ADP-128, "Component Inspection".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Replace telescopic motor. (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC MOTOR : Exploded View".

Component Inspection

INFOID:0000000008290984

1.CHECK SLIDING MOTOR-2

1. Turn ignition switch OFF.
2. Disconnect telescopic motor connector.
3. Supply telescopic motor terminals with battery voltage and check operation.

Terminal		Operation
(+)	(–)	
2	1	Forward
1	2	Backward

Is the inspection result normal?

YES >> Telescopic motor is OK.
NO >> Replace telescopic motor. (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC MOTOR : Exploded View".

DOOR MIRROR MOTOR

Description

INFOID:0000000008290985

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

Component Function Check

INFOID:0000000008290986

1.CHECK DOOR MIRROR MOTOR FUNCTION

1. Turn ignition switch ON.
2. Select “DOOR MIRROR MOTOR” in “Active test” mode using CONSULT.
3. Check the door mirror motor operation.

Test item		Description	
DOOR MIRROR MOTOR LH	OFF	Door mirror face	Stop
	L		Outward
	R		Inward
	UP		Upward
	DWN		Downward

Test item		Description	
DOOR MIRROR MOTOR RH	OFF	Door mirror face	Stop
	L		Inward
	R		Outward
	UP		Upward
	DWN		Downward

Is the operation of relevant parts normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-129, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290987

1.CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Door mirror					
Connector	Terminal				
D3 (Driver side) D33 (Passenger side)	5	Ground	Door mirror remote control switch	UP	Battery voltage
				Other than above	0
	6			LEFT	Battery voltage
				Other than above	0
	7			DOWN / RIGHT	Battery voltage
				Other than above	0

Is the inspection result normal?

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

2.CHECK HARNESS CONTINUITY

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

[Door mirror driver side]

Automatic drive positioner control unit		Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
M51	16	D3	7	Existed
	31		5	
	32		6	

[Door mirror passenger side]

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

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

[Door mirror driver side]

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

[Door mirror passenger side]

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR MIRROR MOTOR

Check door mirror motor.
Refer to ADP-130, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace door mirror. Refer to MIR-15, "DOOR MIRROR ASSEMBLY : Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008290988

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-15, "DOOR MIRROR ASSEMBLY : Exploded View".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace door mirror.Refer to MIR-15, "DOOR MIRROR ASSEMBLY : Removal and Installation".

2.CHECK DOOR MIRROR MOTOR-II

1. Turn ignition switch OFF.
2. Disconnect door mirror connector.
3. Supply door mirror motor terminals with battery voltage and check operation.

Door mirror			Operational direction
Connector	Terminal		
	(+)	(–)	
D3 (Driver side) D33 (Passenger side)	7	6	RIGHT
	6	7	LEFT
	5	7	UP
	7	5	DOWN

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace door mirror. Refer to MIR-15, "DOOR MIRROR ASSEMBLY : Removal and Installation".

SEAT MEMORY INDICATOR

Description

INFOID:0000000008290989

- Memory indicator is equipped on the seat memory switch installed to the driver side door trim. The operation signal is inputted to the automatic drive positioner control unit when the memory switch is operated.
- The status of automatic drive positioner system can be checked according to the illuminating/flashing status.

Component Function Check

INFOID:0000000008290990

1.CHECK FUNCTION

1. Turn ignition switch ON.
2. Select “MEMORY SW INDCTR” in “Active test” mode using CONSULT.
3. Check the memory indicator operation.

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

Is the operation of relevant parts normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-132, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008290991

1.CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

(+)		(–)	Voltage (V) (Approx.)
Seat memory switch			
Connector	Terminal		
D5	5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.
NO-1 >> 10 A fuse [No. 10 located in fuse block (J/B)].
NO-2 >> Harness for open or short between memory indicator and fuse.

2.CHECK MEMORY INDICATOR CIRCUIT

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

Automatic drive positioner control unit		Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	
M51	12	D5	6	Existed
	13		7	

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M51	12		Not existed
	13		

Is the inspection result normal?

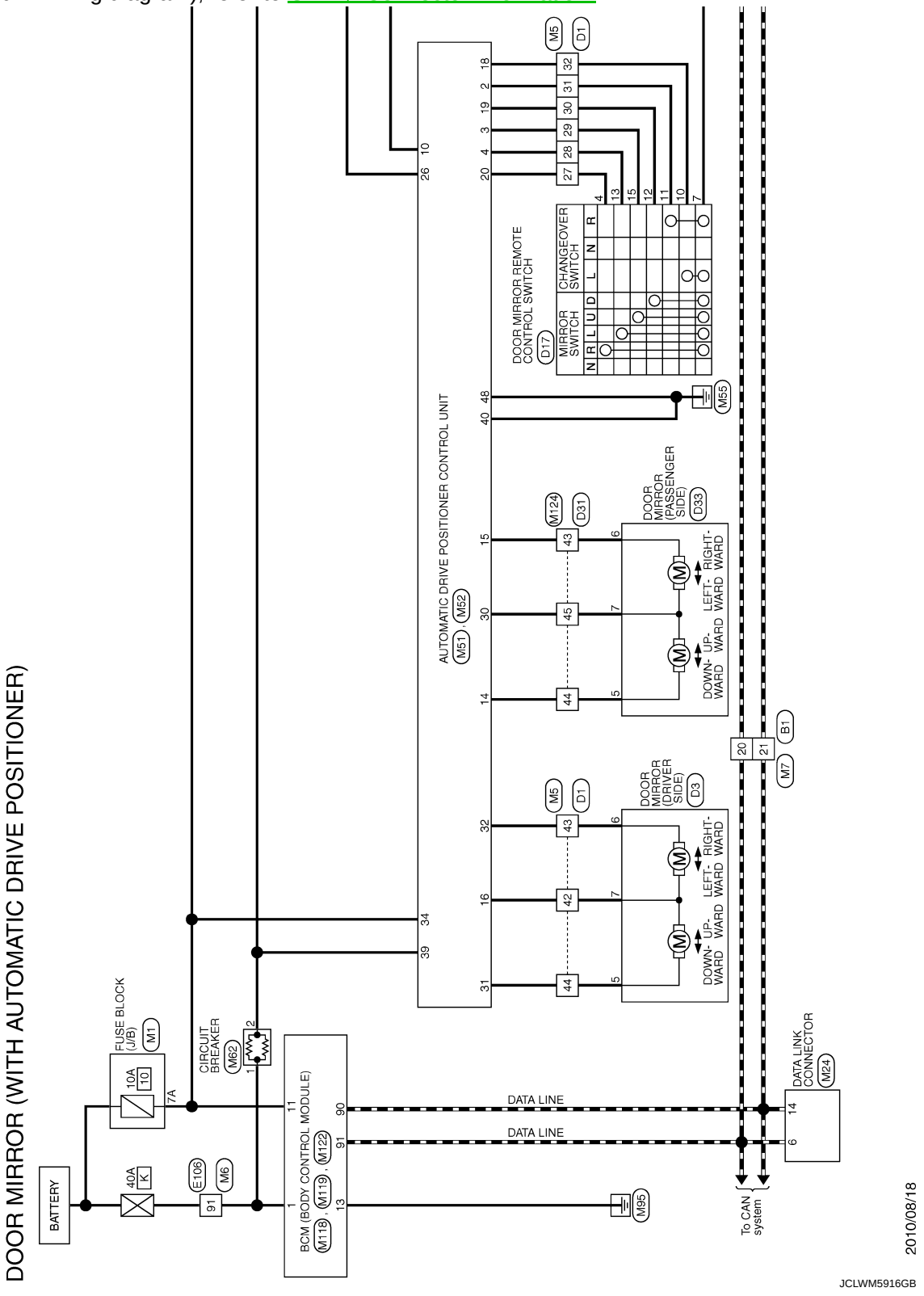
YES >> Replace seat memory switch. Refer to ADP-205, "Removal and Installation".
NO >> Repair or replace harness.

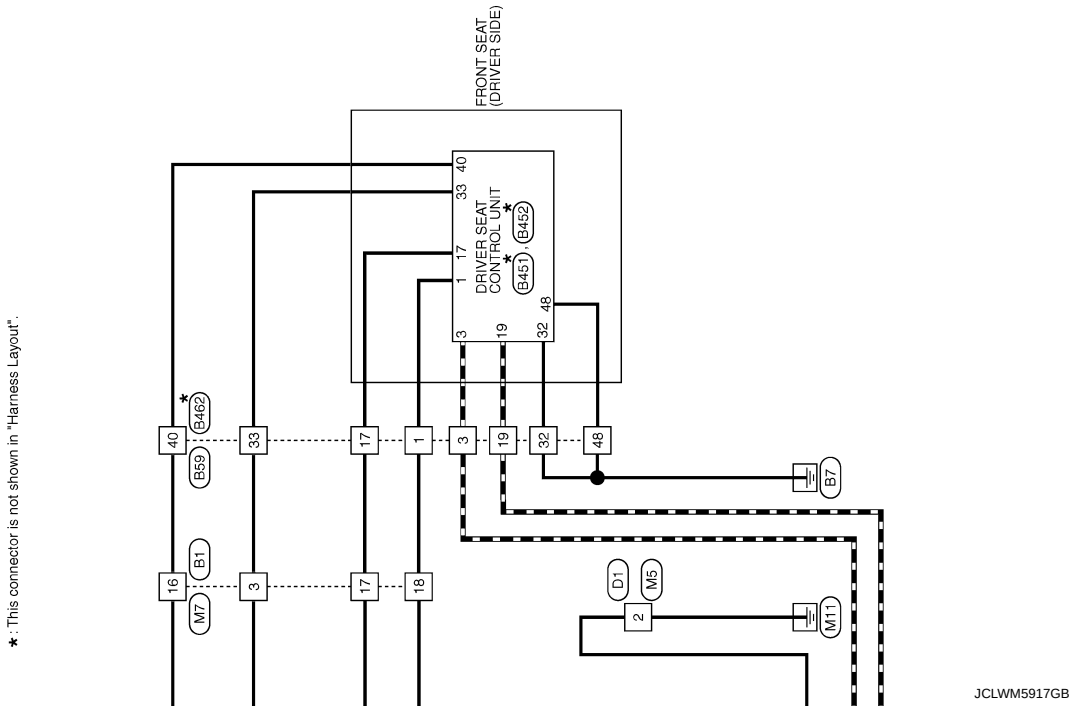
DOOR MIRROR SYSTEM

Wiring Diagram - DOOR MIRROR (WITH AUTOMATIC DRIVE POSITIONER) -

INFOID:0000000008290992

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".





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

ECU DIAGNOSIS INFORMATION

DRIVER SEAT CONTROL UNIT

Reference Value

INFOID:0000000008290993

VALUES ON THE DIAGNOSIS TOOL

NOTE:

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

CONSULT MONITOR ITEM

Monitor Item	Condition		Value/Status
SET SW	Set switch	Push	ON
		Release	OFF
MEMORY SW1	Memory switch 1	Push	ON
		Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
		Release	OFF
SLIDE SW–FR	Sliding switch (front)	Operate	ON
		Release	OFF
SLIDE SW–RR	Sliding switch (rear)	Operate	ON
		Release	OFF
RECLN SW–FR	Reclining switch (front)	Operate	ON
		Release	OFF
RECLN SW–RR	Reclining switch (rear)	Operate	ON
		Release	OFF
LIFT FR SW–UP	Lifting switch front (up)	Operate	ON
		Release	OFF
LIFT FR SW–DN	Lifting switch front (down)	Operate	ON
		Release	OFF
LIFT RR SW–UP	Lifting switch rear (up)	Operate	ON
		Release	OFF
LIFT RR SW–DN	Lifting switch rear (down)	Operate	ON
		Release	OFF
MIR CON SW–UP	Mirror switch	Up	ON
		Other than above	OFF
MIR CON SW–DN	Mirror switch	Down	ON
		Other than above	OFF
MIR CON SW–RH	Mirror switch	Right	ON
		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

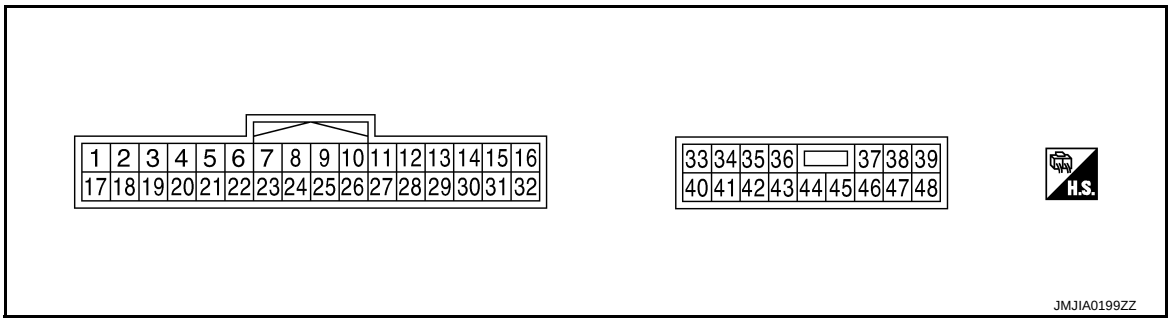
Monitor Item	Condition		Value/Status
TILT SW-UP	Tilt switch	Up	ON
		Other than above	OFF
TILT SW-DOWN	Tilt switch	Down	ON
		Other than above	OFF
TELESCO SW-FR	Telescopic switch	Forward	ON
		Other than above	OFF
TELESCO SW-RR	Tilt switch	Backward	ON
		Other than above	OFF
DETENT SW*1	AT selector lever	P position	OFF
		Other than above	ON
PARK BRAKE SW*2	Parking brake	Applied	ON
		Release	OFF
STARTER SW	Ignition position	Cranking	ON
		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
LIFT FR PULSE	Seat lifter (front)	Up	The numeral value decreases *3
		Down	The numeral value increases *3
		Other than above	No change to numeral value*3
LIFT RR PULSE	Seat lifter (rear)	Up	The numeral value decreases *3
		Down	The numeral value increases *3
		Other than above	No change to numeral value*3
MIR/SEN RH U–D	Door mirror (passenger side)		Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN RH R–L	Door mirror (passenger side)		Change between 3.4 (close to left edge) 0.6 (close to right edge)
MIR/SEN LH U–D	Door mirror (driver side)		Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN LH R–L	Door mirror (driver side)		Change between 0.6 (close to left edge) 3.4 (close to right edge)
TILT SEN	Tilt position		Change between 1.2 (close to top) 3.4 (close to bottom)
TELESCO SEN	Telescopic position		Change between 3.4 (close to top) 0.8 (close to bottom)

*1: Only for A/T model

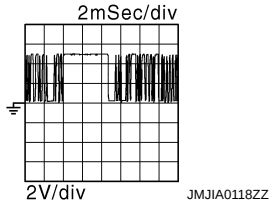
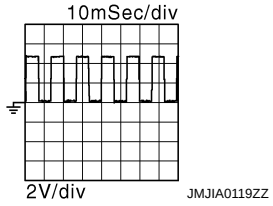
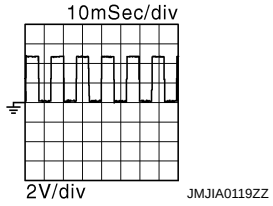
*2: Only for M/T model

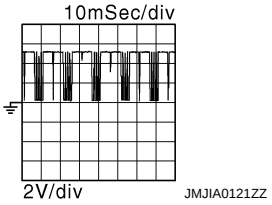
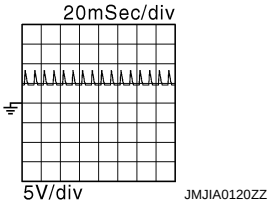
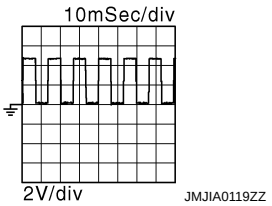
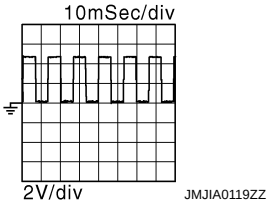
*3: The value at the position attained when the battery is connected is regarded as 32768.

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No.		Description		Condition		Voltage (V) (Approx)
+	-	Signal name	Input/ Output			
1 (L/W)	Ground	UART communication (RX)	Input	Ignition switch ON		
3 (R/Y)	—	CAN-H	—	—		—
8*1 (LG)	Ground	Parking brake switch signal	Input	Parking brake	Applied	0
					Release	Battery voltage
9 (W/G)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	
					Stop	0 or 5
10 (P/B)	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	
					Stop	0 or 5
11 (BR)	Ground	Sliding switch backward signal	Input	Sliding switch	Operate (backward)	0
					Release	Battery voltage
12 (SB)	Ground	Reclining switch backward signal	Input	Reclining switch	Operate (backward)	0
					Release	Battery voltage

Terminal No.		Description		Condition		Voltage (V) (Approx)
+	-	Signal name	Input/ Output			
13 (LG/R)	Ground	Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0
					Release	Battery voltage
14 (G/B)	Ground	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0
					Release	Battery voltage
16 (O)	Ground	Sensor power supply	Output	—		5
17 (Y/R)	Ground	UART communication (TX)	Output	Ignition switch ON		
19 (V)	—	CAN-L	—	—		—
21*2 (L/Y)	Ground	Detention switch	Input	A/T selector lever	P position	0
					Except P position	
24 (R)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	
					Stop	0 or 5
25 (Y/B)	Ground	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	
					Stop	0 or 5
26 (Y)	Ground	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0
					Release	Battery voltage
27 (R/G)	Ground	Reclining switch forward signal	Input	Reclining switch	Operate (forward)	0
					Release	Battery voltage

Terminal No.		Description		Condition		Voltage (V) (Approx)
+	-	Signal name	Input/ Output			
28 (W/B)	Ground	Lifting switch (front) up signal	Input	Seat lifting switch (front)	Operate (up)	0
					Release	Battery voltage
29 (P/L)	Ground	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0
					Release	Battery voltage
31 (GR)	Ground	Sensor ground	—	—		0
32 (B/W)	Ground	Ground (signal)	—	—		0
33 (R)	Ground	Power source (C/B)	Input	—		Battery voltage
35 (W/R)	Ground	Sliding motor forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage
					Release	0
36 (G/Y)	Ground	Reclining motor forward output signal	Output	Seat reclining	Operate (forward)	Battery voltage
					Release	0
37 (G/W)	Ground	Lifting motor (front) down output signal	Output	Seat lifting (front)	Operate (down)	Battery voltage
					Stop	0
38 (L/Y)	Ground	Lifting motor (rear) up output signal	Output	Seat lifting (rear)	Operate (up)	Battery voltage
					Stop	0
39 (R/B)	Ground	Lifting motor (rear) down output signal	Output	Seat lifting (rear)	Operate (down)	Battery voltage
					Stop	0
40 (R/W)	Ground	Power source (Fuse)	Input	—		Battery voltage
42 (W/B)	Ground	Sliding motor backward output signal	Output	Seat sliding	Operate (back-ward)	Battery voltage
					Stop	0
44 (P)	Ground	Reclining motor back-ward output signal	Output	Seat reclining	Operate (back-ward)	Battery voltage
					Stop	0
45 (L/R)	Ground	Lifting motor (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage
					Stop	0
48 (B)	Ground	Ground (power)	—	—		0

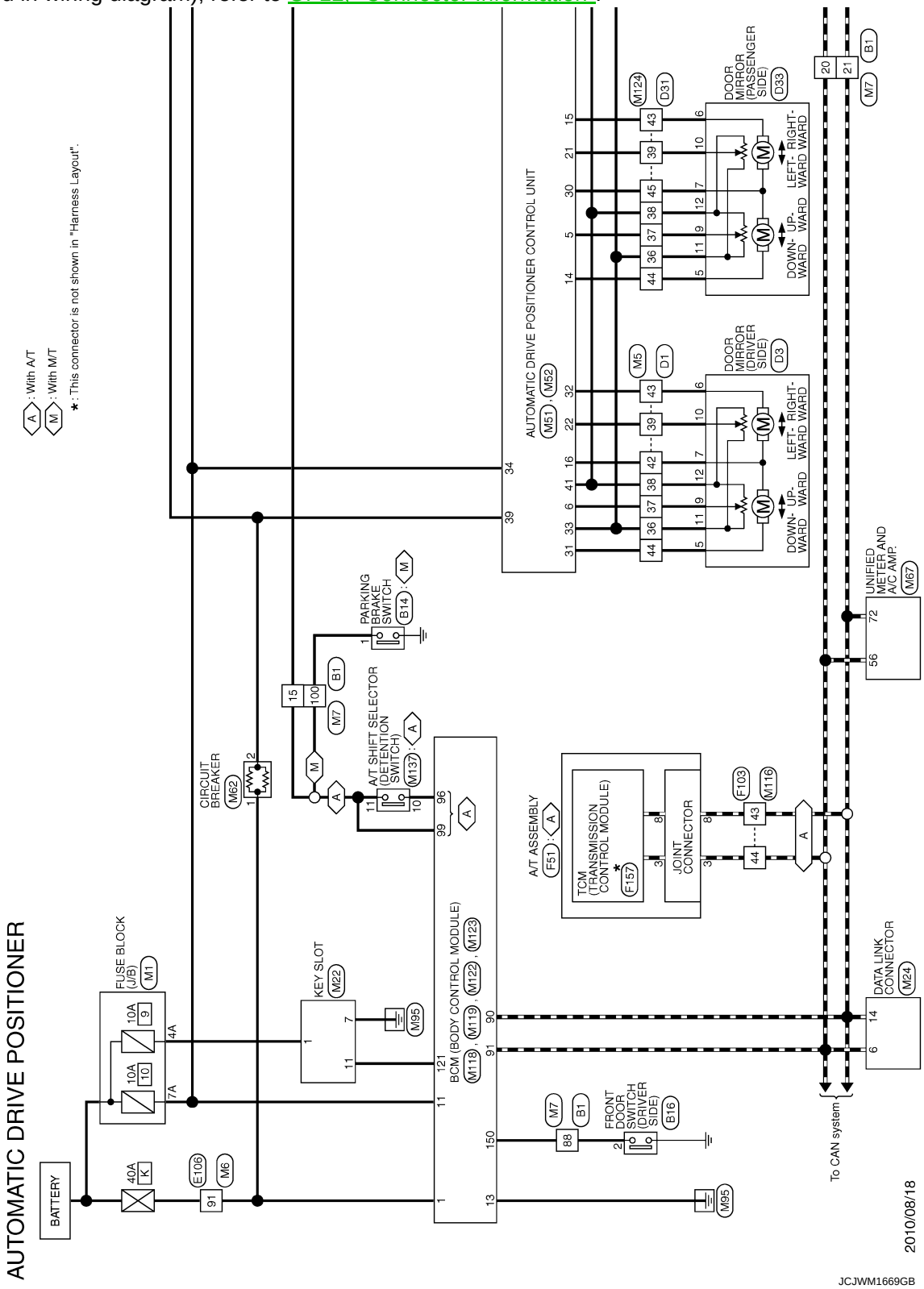
*1: Only for M/T models

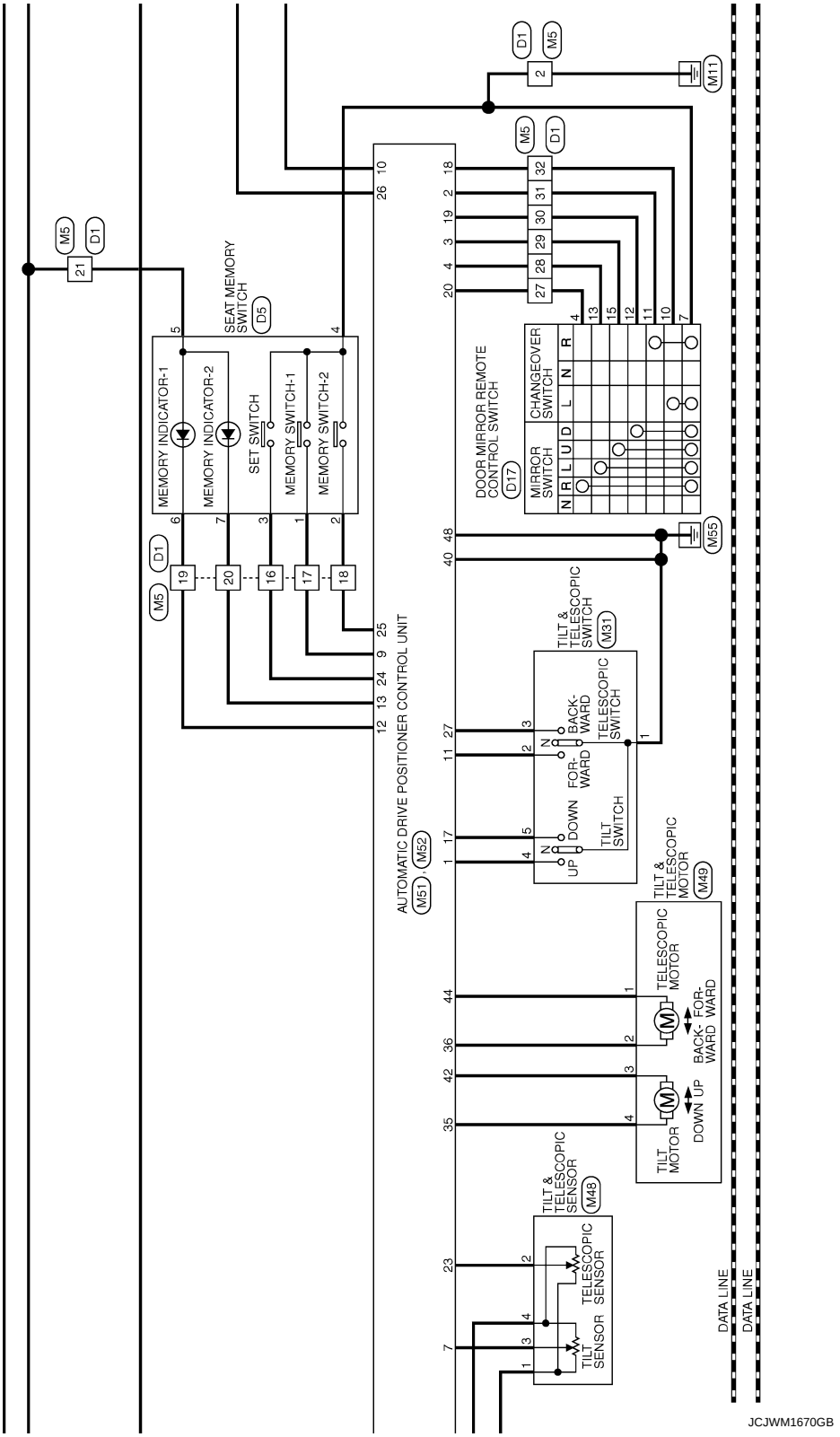
*2: Only for A/T models

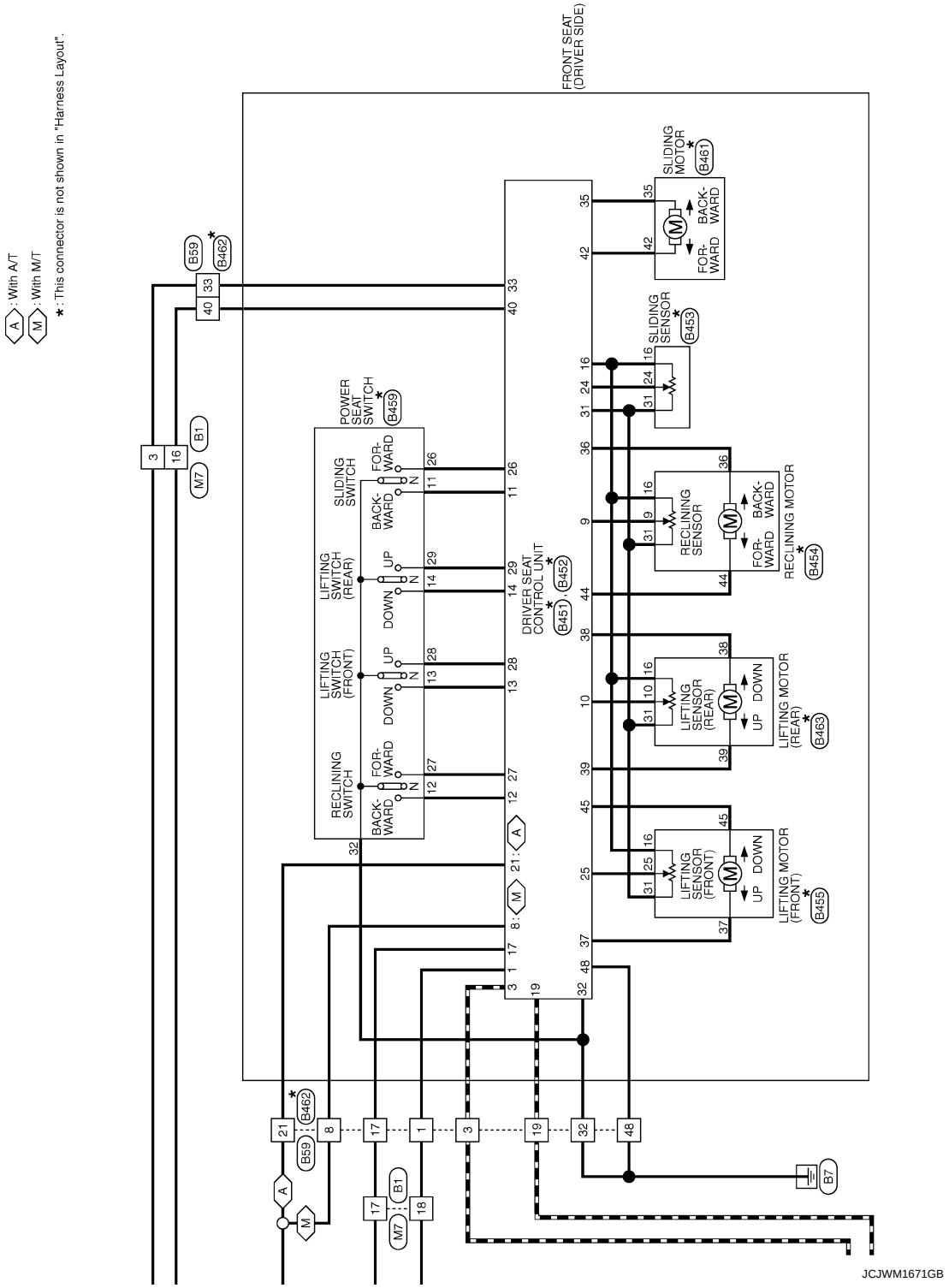
Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -

INFOID:0000000008290994

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".




AUTOMATIC DRIVE POSITIONER CONTROL UNIT
M51, M52
SEAT MEMORY SWITCH
D5
MEMORY INDICATOR-1
MEMORY INDICATOR-2
SET SWITCH
MEMORY SWITCH-1
MEMORY SWITCH-2
DOOR MIRROR REMOTE CONTROL SWITCH
D17
MIRROR SWITCH
CHANGEOVER SWITCH
TILT & TELESCOPIC SWITCH
M31
TELESCOPIC SWITCH
TILT SWITCH
TILT & TELESCOPIC MOTOR
M49
TELESCOPIC MOTOR
TILT MOTOR
TILT & TELESCOPIC SENSOR
M48
TELESCOPIC SENSOR
TILT SENSOR
DATA LINE
DATA LINE
M11
M55
JCJWM1670GB



Fail Safe

INFOID:0000000008290995

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

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
Only manual functions operate normally.	CAN communication	U1000	ADP-49
	Tilt sensor	B2118	ADP-54
	Telescopic sensor	B2119	ADP-57
	Detent switch	B2126	ADP-60
	Parking brake switch	B2127	ADP-62
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-64
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-50
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-52

DTC Index

INFOID:0000000008290996

CONSULT display	Timing*1		Item	Reference page
	Current malfunction	Previous malfunction		
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-49
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-50
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-52
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	ADP-54
TELESCO SENSOR [B2119]	0	1-39	Telescopic sensor input	ADP-57
DETENT SW [B2126]	0	1-39	Detention switch condition	ADP-60
PARKING BRAKE [B2127]	0	1-39	Parking brake switch condition	ADP-62
UART COMM [B2128]	0	1-39	UART communication	ADP-64

*1:

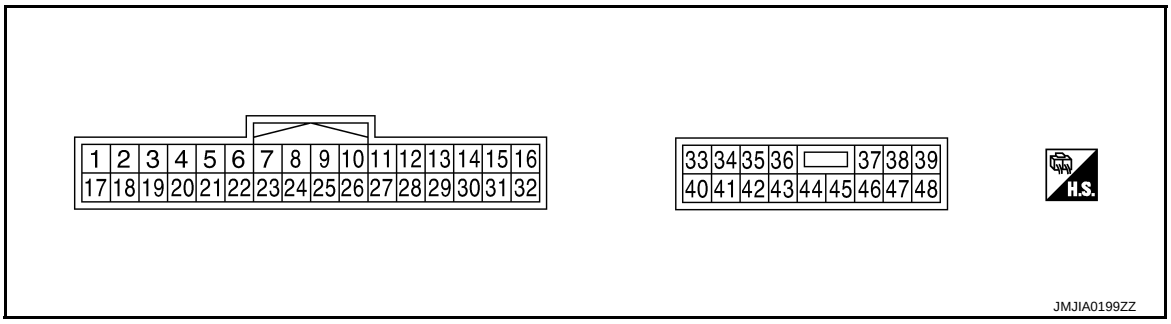
- 0: Current malfunction is present
- 1-39: Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset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

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

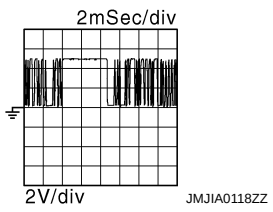
Reference Value

INFOID:0000000008290997

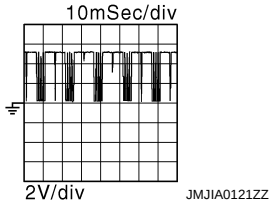
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Voltage (V) (Approx.)
+	–	Signal name	Input/ Output			
1 (Y)	Ground	Tilt switch upward signal	Input	Tilt switch	Operate (upward)	0
					Other than above	5
2 (LG)	Ground	Changeover switch RH signal	Input	Changeover switch position	RH	0
					Neutral or LH	5
3 (G)	Ground	Mirror switch upward signal	Input	Mirror switch	Operated (upward)	0
					Other than above	5
4 (Y)	Ground	Mirror switch leftward signal	Input	Mirror switch	Operated (leftward)	0
					Other than above	5
5 (R)	Ground	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 (GR)	Ground	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 (BG)	Ground	Tilt sensor signal	Input	Tilt position		Change between 1.2 (close to top) 3.8 (close to bottom)
9 (BR)	Ground	Memory switch 1 signal	Input	Memory switch 1	Press	0
					Other than above	5
10 (V)	Ground	UART communication (TX)	Output	Ignition switch ON		

Terminal No. (Wire color)		Description		Condition		Voltage (V) (Approx.)
+	–	Signal name	Input/ Output			
11 (GR)	Ground	Telescopic switch forward signal	Input	Telescopic switch	Operate (forward)	0
					Other than above	5
12 (BG)	Ground	Memory indictor 1 signal	Output	Memory indictor 1	Illuminate	1
					Other than above	Battery voltage
13 (P)	Ground	Memory indictor 2 signal	Output	Memory indictor 2	Illuminate	1
					Other than above	Battery voltage
14 (W)	Ground	Door mirror motor (RH) upward output	Output	Door mirror RH	Operate (upward)	Battery voltage
					Other than above	0
15 (BG)	Ground	Door mirror motor (RH) leftward output	Output	Door mirror RH	Operate (leftward)	Battery voltage
					Other than above	0
16 (Y)	Ground	Door mirror motor (LH) downward output	Output	Door mirror (LH)	Operate (down-ward)	Battery voltage
					Other than above	0
		Door mirror motor (LH) rightward output			Operate (rightward)	Battery voltage
					Other than above	0
17 (BR)	Ground	Tilt switch downward signal	Input	Tilt switch	Operate (down-ward)	0
					Other than above	5
18 (W)	Ground	Changeover switch LH signal	Input	Changeover switch position	LH	0
					Neutral or RH	5
19 (SB)	Ground	Mirror switch downward signal	Input	Mirror switch	Operate (down-ward)	0
					Other than above	5
20 (L)	Ground	Mirror switch rightward signal	Input	Mirror switch	Operate (rightward)	0
					Other than above	5
21 (L)	Ground	Door mirror sensor (RH) leftward/rightward signal	Input	Door mirror RH position		Change between 3.4 (close to left edge) 0.6 (close to right edge)
22 (B)	Ground	Door mirror sensor (LH) leftward/rightward signal	Input	Door mirror LH position		Change between 0.6 (close to left edge) 3.4 (close to right edge)
23 (P)	Ground	Telescopic sensor signal	Input	Telescopic position		Change between 0.8 (close to top) 4.4 (close to bottom)

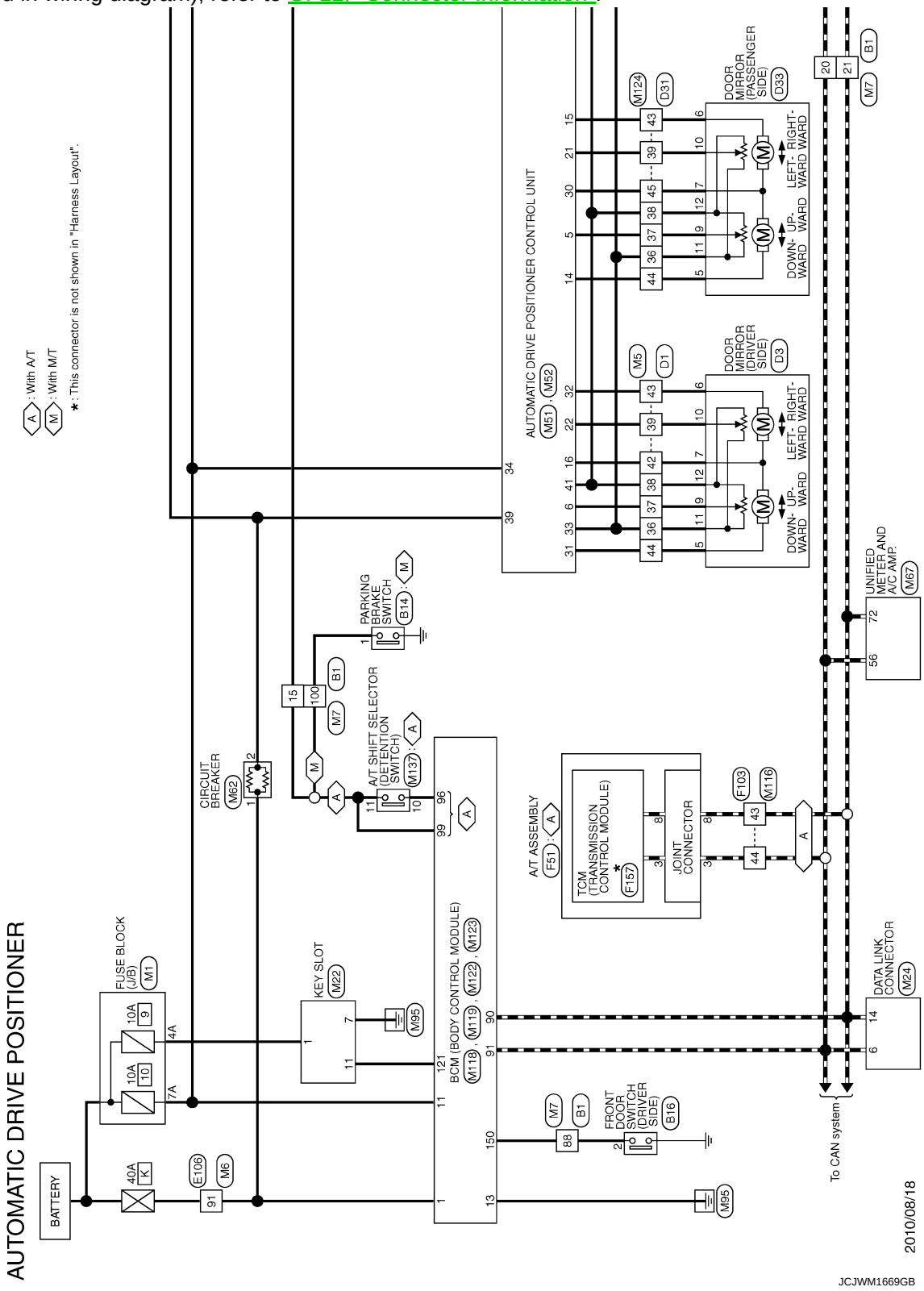
Terminal No. (Wire color)		Description		Condition		Voltage (V) (Approx.)
+	–	Signal name	Input/ Output			
24 (R)	Ground	Set switch signal	Input	Set switch	Press	0
					Other than above	5
25 (V)	Ground	Memory switch 2 signal	Input	Memory switch 2	Press	0
					Other than above	5
26 (P)	Ground	UART communication (RX)	Input	Ignition switch ON		
27 (G)	Ground	Telescopic switch backward signal	Input	Telescopic switch	Operate (backward)	0
					Other than above	5
30 (SB)	Ground	Door mirror motor (RH) downward output	Output	Door mirror (RH)	Operate (downward)	Battery voltage
					Other than above	0
		Door mirror motor (RH) rightward output			Operate (rightward)	Battery voltage
					Other than above	0
31 (G)	Ground	Door mirror motor (LH) upward output	Output	Door mirror (LH)	Operate (upward)	Battery voltage
					Other than above	0
32 (L)	Ground	Door mirror motor (LH) leftward output	Output	Door mirror (LH)	Operate (leftward)	Battery voltage
					Other than above	0
33 (W)	Ground	Sensor power supply	Input	—		5
34 (V)	Ground	Power source (Fuse)	Input	—		Battery voltage
35 (L)	Ground	Tilt motor upward output	Output	Steering tilt	Operate (upward)	Battery voltage
					Other than above	0
36 (GR)	Ground	Telescopic motor forward output signal	Output	Steering telescopic	Operate (forward)	Battery voltage
					Other than above	0
39 (W)	Ground	Power source (C/B)	Input	—		Battery voltage
40 (B)	Ground	Ground	—	—		0

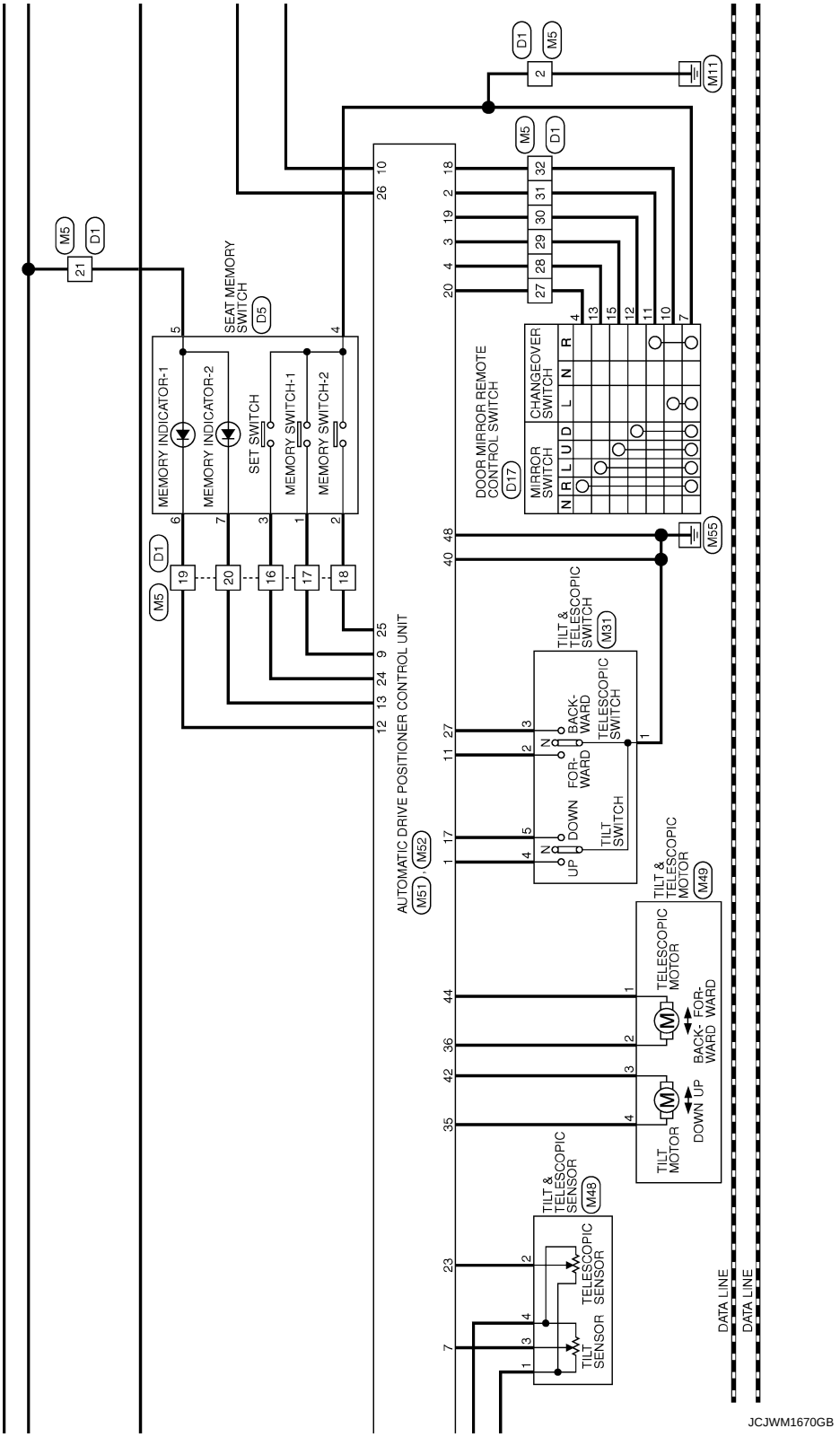
Terminal No. (Wire color)		Description		Condition		Voltage (V) (Approx.)
+	–	Signal name	Input/ Output			
41 (Y)	Ground	Sensor ground	—	—		0
42 (BG)	Ground	Tilt motor downward output	Output	Steering tilt	Operate (downward)	Battery voltage
					Other than above	0
44 (G)	Ground	Telescopic motor backward output	Output	Steering telescopic	Operate (backward)	Battery voltage
					Other than above	0
48 (B)	Ground	Ground	—	—		0

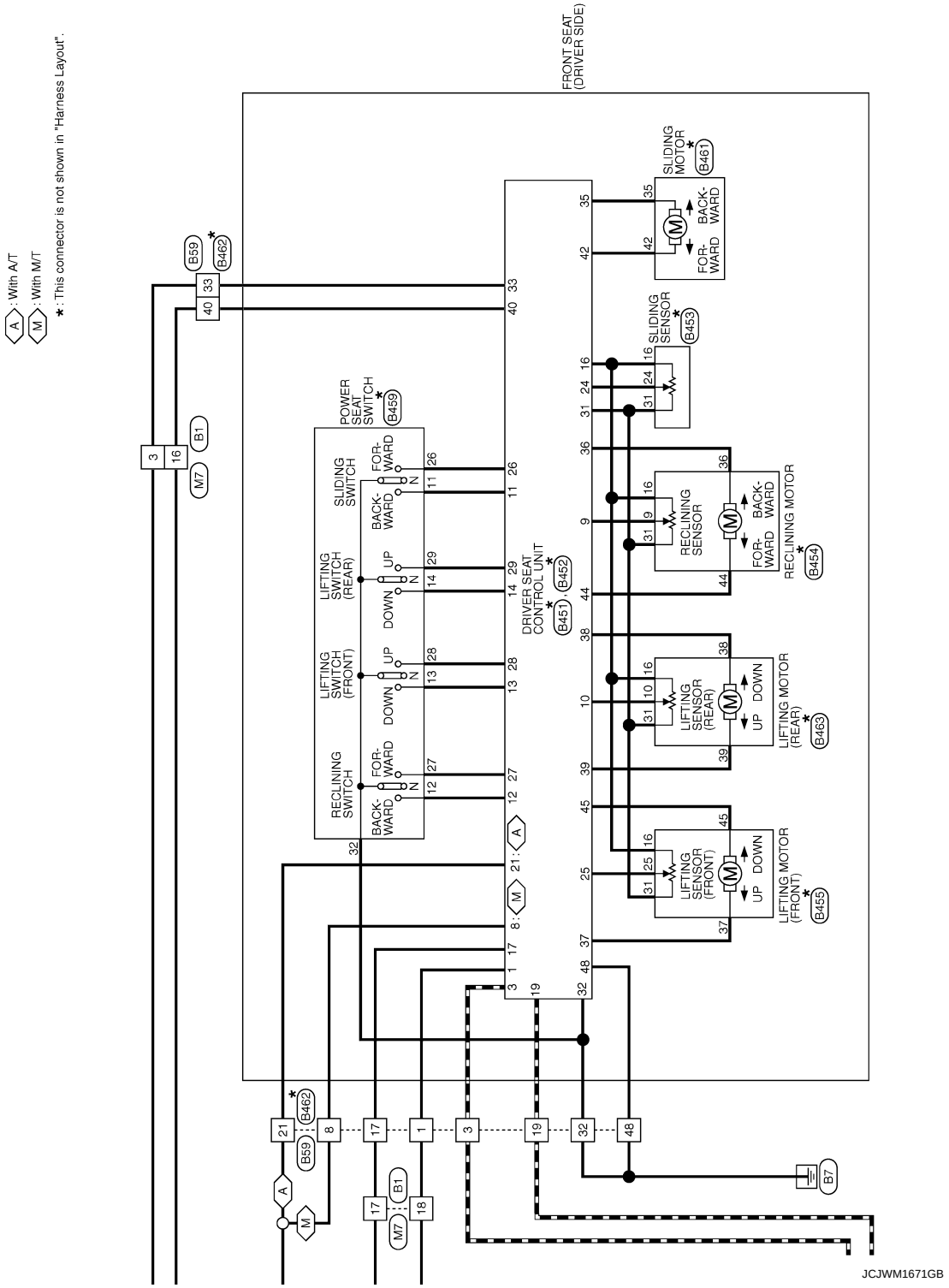
Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -

INFOID:0000000008807299

For connector terminal arrangements, harness layouts, and alphabets in a ⟨⟩ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".




AUTOMATIC DRIVE POSITIONER CONTROL UNIT
M51, M52
SEAT MEMORY SWITCH
D5
MEMORY INDICATOR-1
MEMORY INDICATOR-2
SET SWITCH
MEMORY SWITCH-1
MEMORY SWITCH-2
DOOR MIRROR REMOTE CONTROL SWITCH
D17
MIRROR SWITCH
CHANGEOVER SWITCH
TILT & TELESCOPIC SWITCH
M31
TILT SWITCH
TELESCOPIC SWITCH
TILT & TELESCOPIC MOTOR
M49
TELESCOPIC MOTOR
TILT MOTOR
TILT & TELESCOPIC SENSOR
M48
TELESCOPIC SENSOR
TILT SENSOR
DATA LINE
DATA LINE
M55
M11
JCJWM1670GB


A : With A/T
M : With M/T
*: This connector is not shown in "Harness Layout".
FRONT SEAT (DRIVER SIDE)
SLIDING MOTOR B461
SLIDING SENSOR B453
POWER SEAT SWITCH B459
SLIDING SWITCH
LIFTING SWITCH (REAR)
LIFTING SWITCH (FRONT)
RECLINING SWITCH
FOR-WARD
BACK-WARD
UP
DOWN
DRIVER SEAT CONTROL UNIT B451, B452
RECLINING SENSOR
RECLINING MOTOR B454
LIFTING SENSOR (REAR)
LIFTING MOTOR (REAR) B463
LIFTING SENSOR (FRONT)
LIFTING MOTOR (FRONT) B455
B59, B462
B1, M7
B7
JCJWM1671GB

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000008807294

VALUES ON THE DIAGNOSIS TOOL

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

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
	Front wiper switch INT/AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
TURN SIGNAL R	Other than turn signal switch RH	Off
	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear LH door opened	On

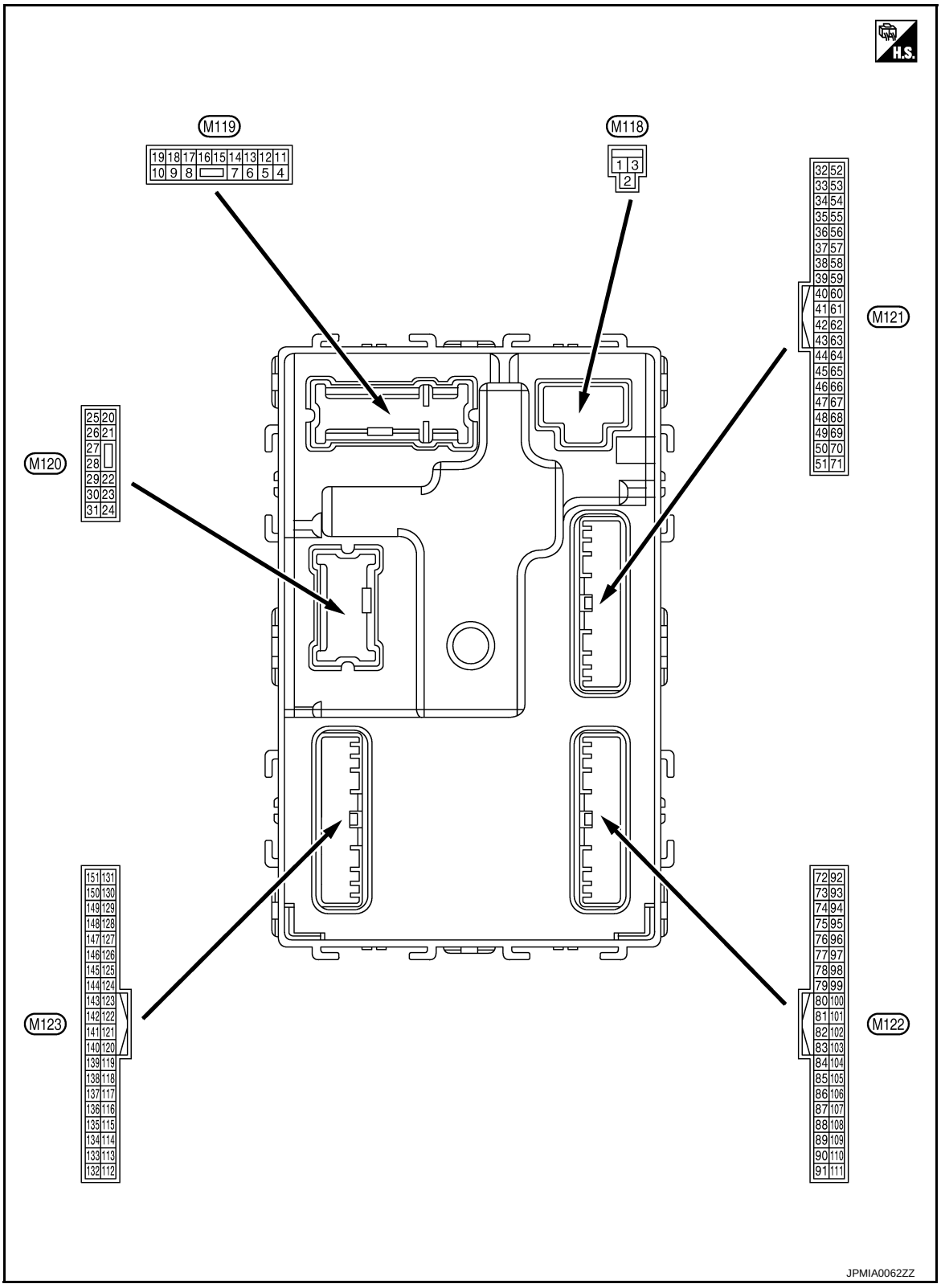
Monitor Item	Condition	Value/Status
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-BK	**NOTE:** The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK	Off
	Driver door key cylinder LOCK	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK	Off
	Driver door key cylinder LOCK	On
KEY CYL SW-TR	**NOTE:** The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	**NOTE:** The item is indicated, but not monitored.	Off
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off
	Trunk lid opener cancel switch ON	On
TR/BD OPEN SW	Trunk lid opener switch OFF	Off
	While the trunk lid opener switch is turned ON	On
TRNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
REVERSE SW	**NOTE:** The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
	TRUNK OPEN button of the Intelligent Key is pressed	On
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On

Monitor Item	Condition	Value/Status
REQ SW -RR	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -RL	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off
	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	**NOTE:** The item is indicated, but not monitored.	Off
ACC RLY -F/B	**NOTE:** The item is indicated, but not monitored.	Off
CLUCH SW	The clutch pedal is not depressed	Off
	The clutch pedal is depressed	On
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
DETE/CANCL SW	• Selector lever in P position (Except M/T models) • The clutch pedal is depressed (M/T models)	Off
	• Selector lever in any position other than P (Except M/T models) • The clutch pedal is not depressed (M/T models)	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
S/L -LOCK	**NOTE:** The item is indicated, but not monitored.	Off
S/L -UNLOCK	**NOTE:** The item is indicated, but not monitored.	Off
S/L RELAY-F/B	**NOTE:** The item is indicated, but not monitored.	Off
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 any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	• Selector lever in any position other than P and N (Except M/T models) • The clutch pedal is not depressed (M/T models)	Off
	• Selector lever in P or N position (Except M/T models) • The clutch pedal is depressed (M/T models)	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On

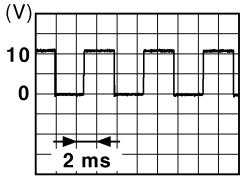
Monitor Item	Condition	Value/Status
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	**NOTE:** The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	**NOTE:** The item is indicated, but not monitored.	Off
S/L RELAY-REQ	**NOTE:** The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speed-ometer reading
VEH SPEED 2	While driving	Equivalent to speed-ometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	**NOTE:** The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	**NOTE:** The item is indicated, but not monitored.	—
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done

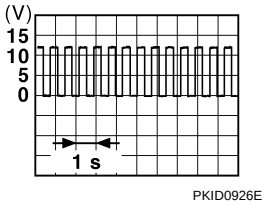
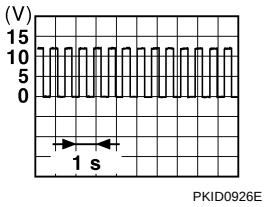
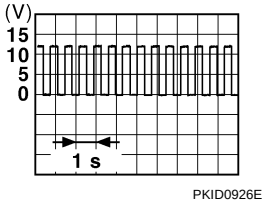
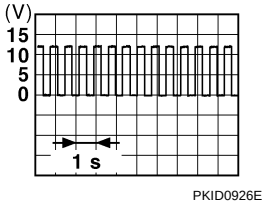
Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
	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
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

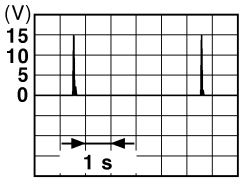
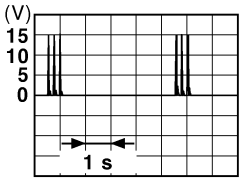
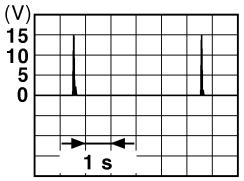
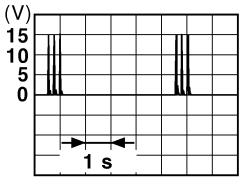
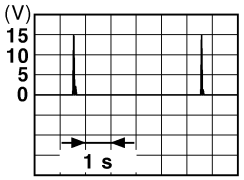
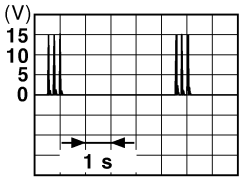
TERMINAL LAYOUT

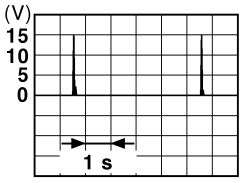
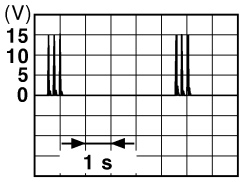
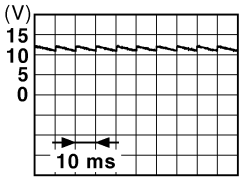
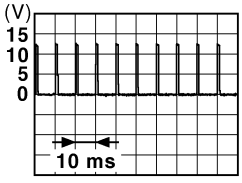


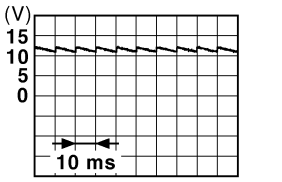
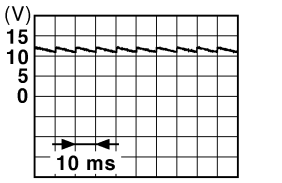
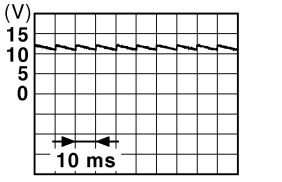
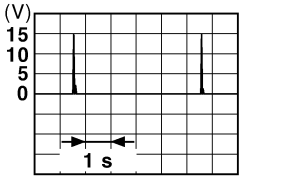
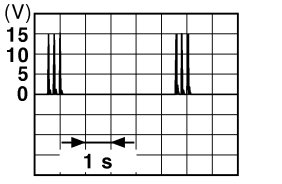
PHYSICAL VALUES

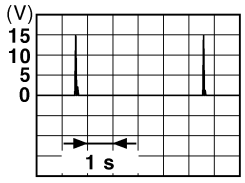
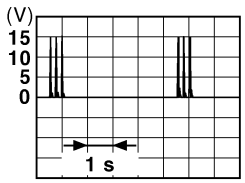
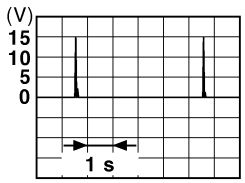
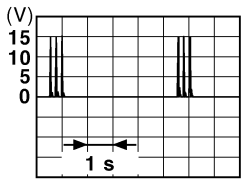
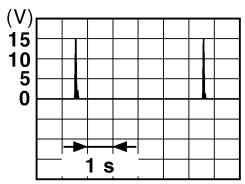
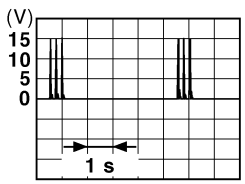
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V
4 (LG)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
5 (P)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK) Actuator is not activated	0 V
7 (SB)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	12 V
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
10 (P)	Ground	Rear RH door and rear LH door UNLOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	**NOTE:** When the illumination brightening/dimming level is in the neutral position.  JSNIA0010GB
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC	0 V

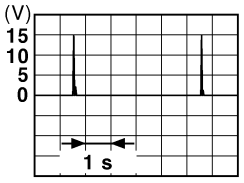
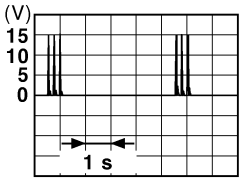
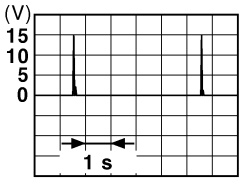
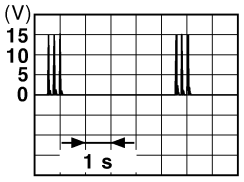
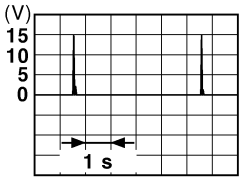
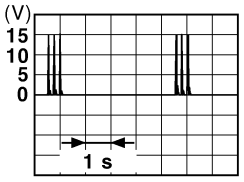
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
19 (V)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	12 V
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
23 (LG)	Ground	Trunk lid open	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated)	12 V
					Other than OPEN (Trunk lid opener actuator is not activated)	0 V
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
30 (P)	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0 V
					OFF	12 V

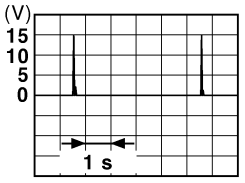
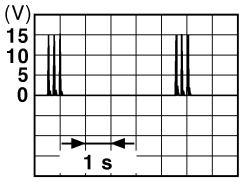
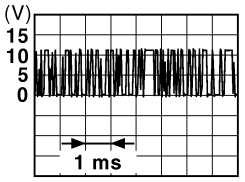
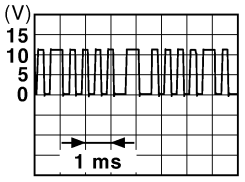
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
34 (SB)	Ground	Trunk room antenna (–)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (V)	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (B)	Ground	Rear bumper antenna (–)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

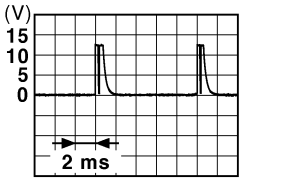
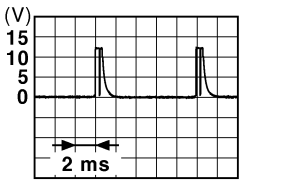
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
39 (W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
50 (BG)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	 JPMIA0011GB 11.8 V
					ON (Trunk lid is opened)	0 V
52 (R)	Ground	Starter relay control	Output	Ignition switch ON (A/T models)	When selector lever is in P or N position	12 V
					When selector lever is not in P or N position	0 V
				Ignition switch ON (M/T models)	When the clutch pedal is depressed	Battery voltage
					When the clutch pedal is not depressed	0 V
60 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (G)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	12 V

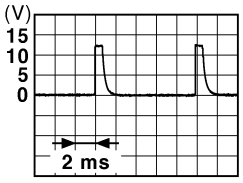
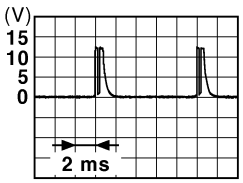
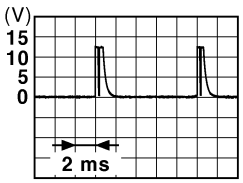
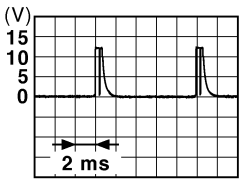
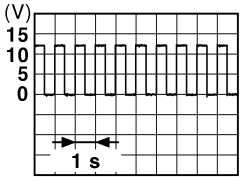
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
68 (BG)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)	 JPMIA0011GB 11.8 V
					ON (When rear RH door opens)	0 V
69 (L)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	 JPMIA0011GB 11.8 V
					ON (When rear LH door opens)	0 V
72 (R)	Ground	Room antenna 2 (–) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

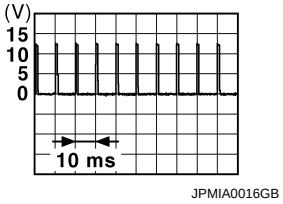
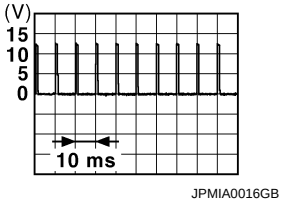
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
73 (G)	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
74 (SB)	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
75 (BR)	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

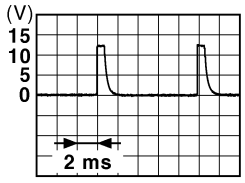
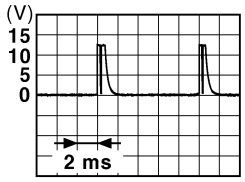
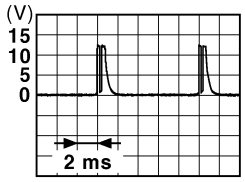
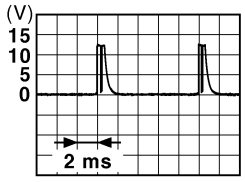
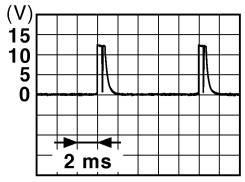
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
76 (V)	Ground	Driver door antenna (–)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
78 (Y)	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

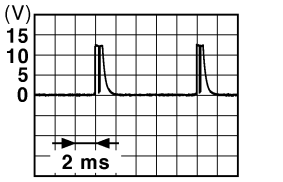
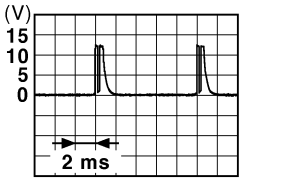
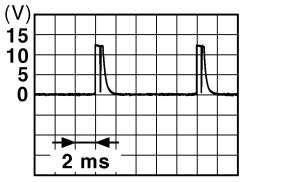
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (SB)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
83 (Y)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on the Intelligent Key		 JMKIA0065GB

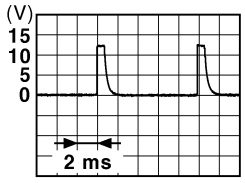
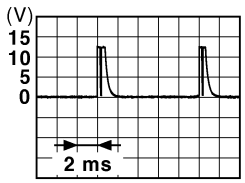
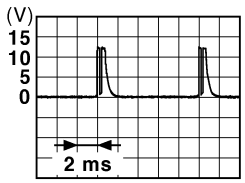
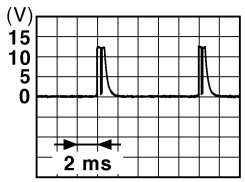
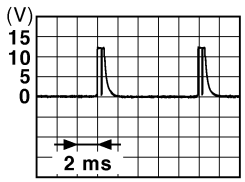
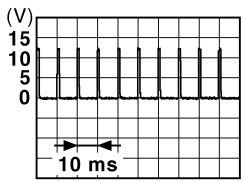
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Front fog lamp switch ON (Wiper volume dial 4)	 JPMIA0037GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7	 JPMIA0040GB 1.3 V

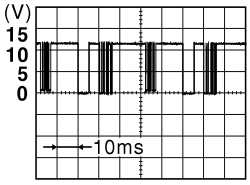
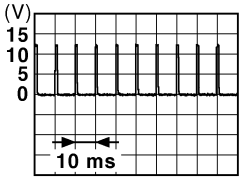
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
88 (BG)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper volume dial 4)	 JPMIA0036GB 1.3 V
					Lighting switch 2ND (Wiper volume dial 4)	 JPMIA0037GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3	 JPMIA0040GB 1.3 V
90 (P)	Ground	CAN-L	Input/ Output	—		—
91 (L)	Ground	CAN-H	Input/ Output	—		—
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	12 V
					Blinking	 JPMIA0015GB 6.5 V
					ON	0 V
93 (GR)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON	0 V

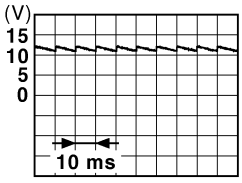
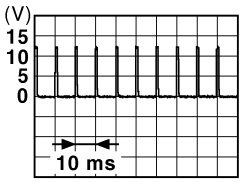
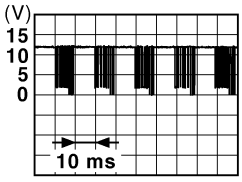
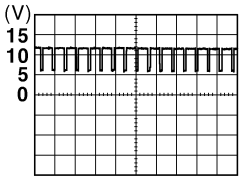
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
95 (BG)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—		12 V
99 (R)*1 (BR)*2	Ground	Selector lever P position switch (A/T models)	Input	Selector lever	P position	0 V
					Any position other than P	12 V
		ASCD clutch switch (M/T models without ICC)		ASCD clutch switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/T models with ICC)		ICC clutch switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	12 V
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
102 (BG)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
103 (P)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		12 V

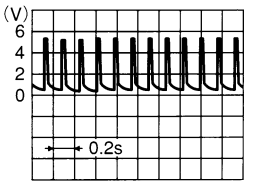
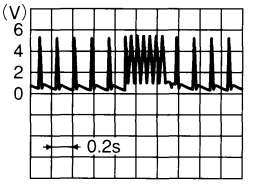
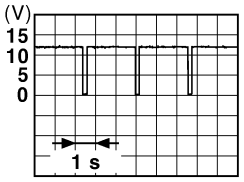
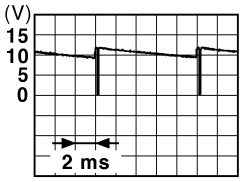
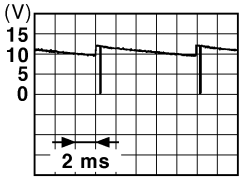
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Turn signal switch LH	 JPMIA0037GB 1.3 V
					Turn signal switch RH	 JPMIA0036GB 1.3 V
					Front wiper switch LO	 JPMIA0038GB 1.3 V
					Front washer switch ON	 JPMIA0039GB 1.3 V

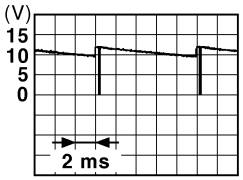
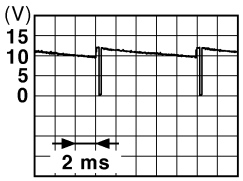
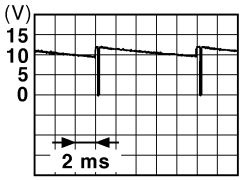
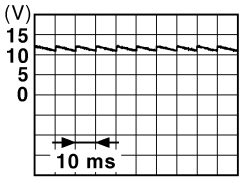
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper volume dial 4)	 JPMIA0038GB 1.3 V
					Lighting switch 1ST (Wiper volume dial 4)	 JPMIA0036GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	 JPMIA0039GB 1.3 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
109 (W)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper volume dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Lighting switch PASS	 JPMIA0037GB 1.3 V
					Lighting switch 2ND	 JPMIA0036GB 1.3 V
					Front wiper switch INT/ AUTO	 JPMIA0038GB 1.3 V
					Front wiper switch HI	 JPMIA0040GB 1.3 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	ON	0 V
					OFF	 JPMIA0012GB 1.1 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
112 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		 JPMIA0156GB 8.7 V
113 (BG)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
114 (R)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
					ON (Clutch pedal is depressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (BR)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (SB)	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot		12 V
				When the Intelligent Key is not inserted into key slot		0 V
123 (V)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
129 (BG)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1 V
					ON	0 V
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		12 V
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	**NOTE:** The pulse width of this wave is varied by the illumination brightening/dimming level.  JPMIA0159GB
					OFF	0 V
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (V)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
139 (L)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch ON	Standby state	 OCC3881D
					When receiving the signal from the transmitter	 OCC3880D
140 (B)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	12 V
					Except P and N positions	0 V
141 (W)	Ground	Security indicator lamp	Output	Security indicator lamp	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	12 V
142 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting switch 2ND	
					Turn signal switch RH	
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4)	 JPMIA0032GB 10.7 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7	

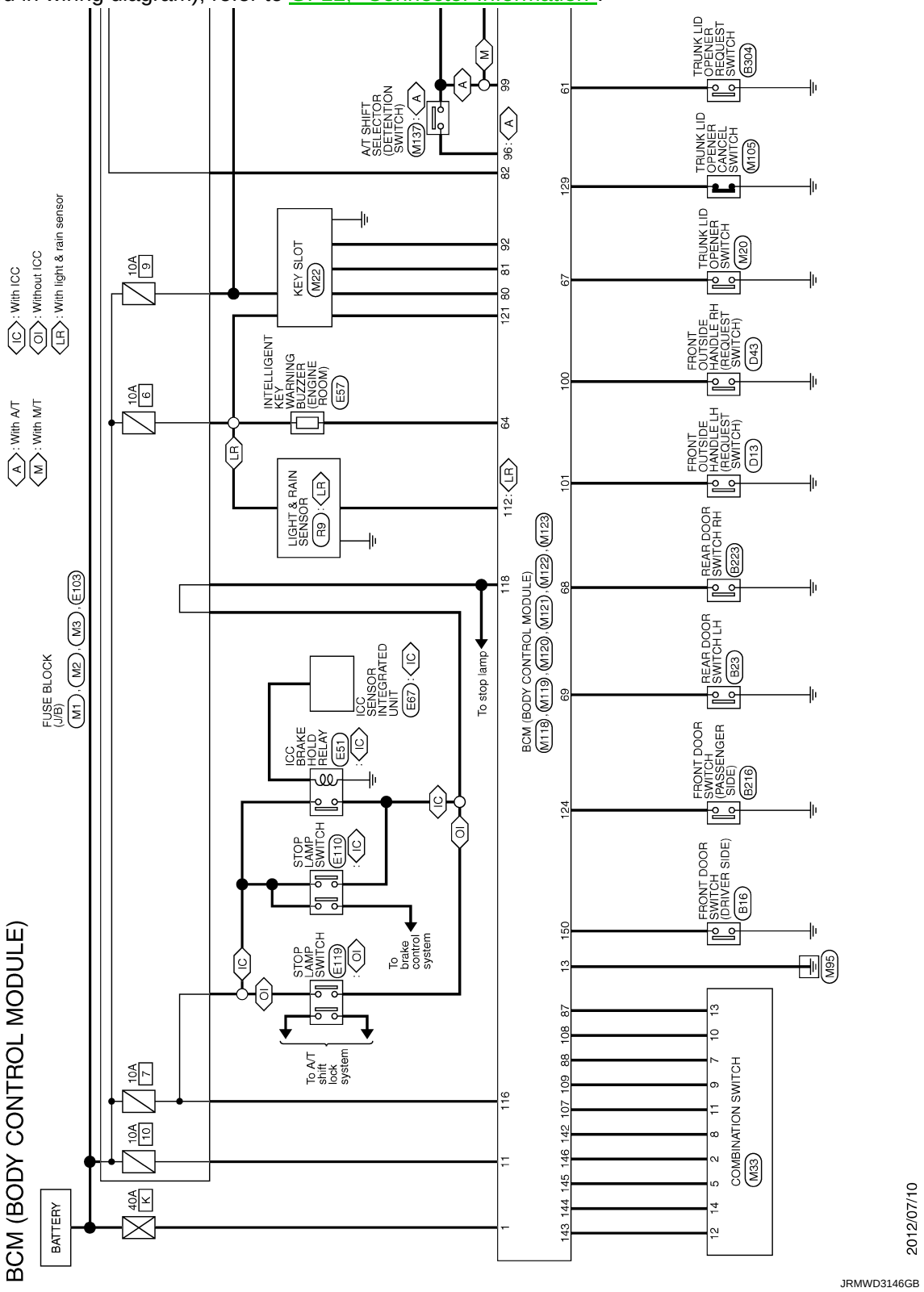
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	 JPMIA0033GB 10.7 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front wiper switch INT/ AUTO	 JPMIA0034GB 10.7 V
					Front wiper switch LO	
					Lighting switch AUTO	
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	 JPMIA0035GB 10.7 V
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

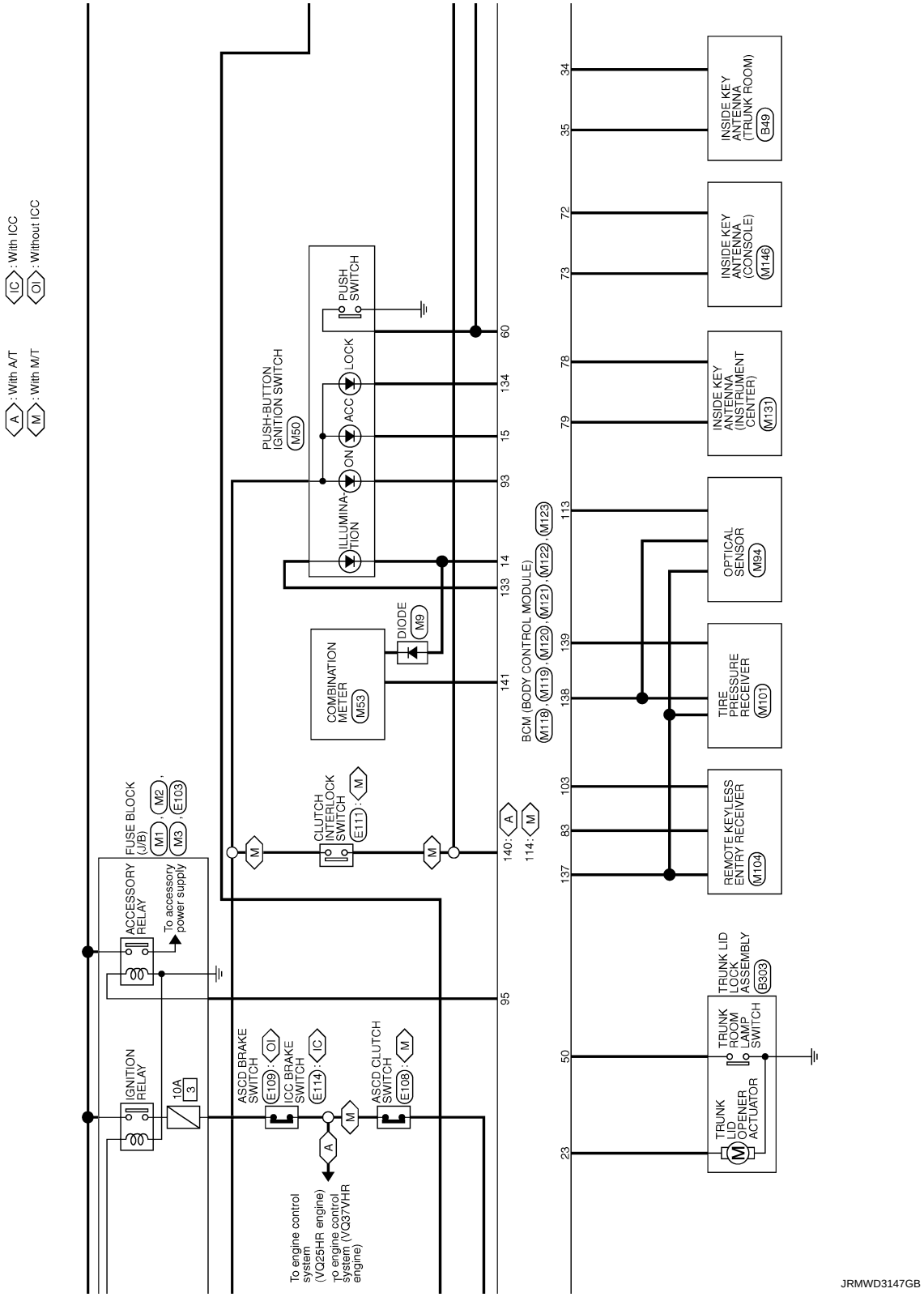
- *1: A/T models
- *2: M/T models

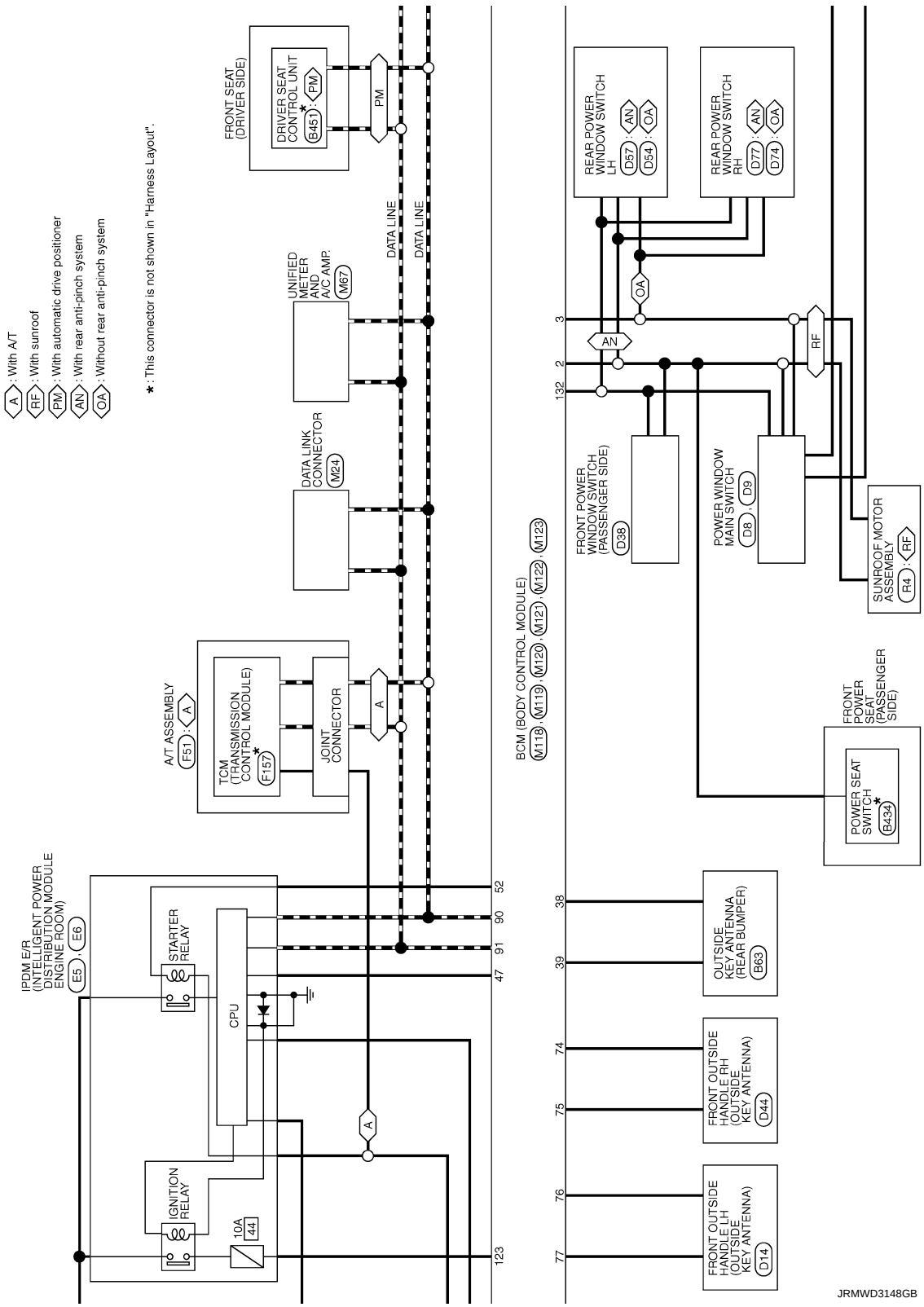
Wiring Diagram - BCM -

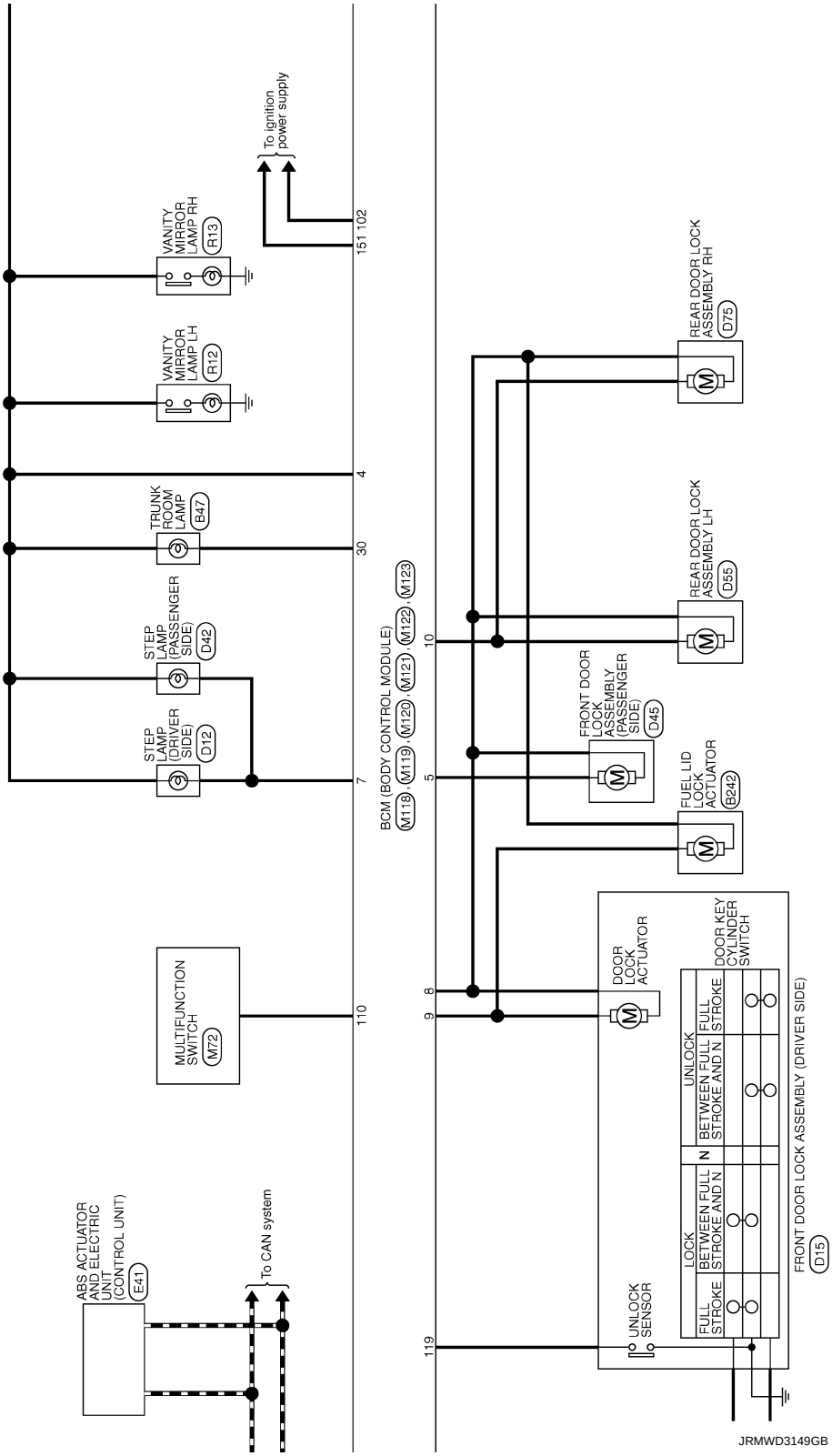
INFOID:0000000008807295

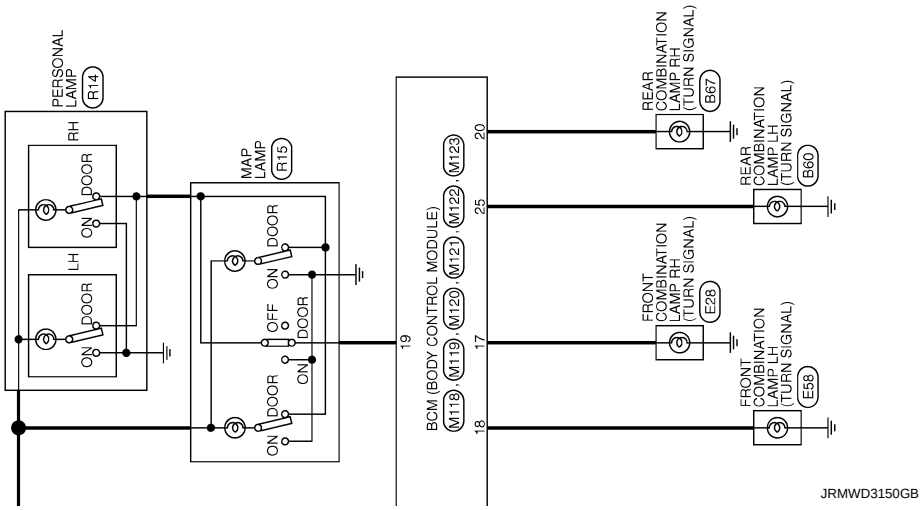
For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".




IC : With ICC
OI : Without ICC
A : With A/T
M : With M/T
FUSE BLOCK (J/B)
M1
M2
M3
E103
ACCESSORY RELAY
To accessory power supply
IGNITION RELAY
10A
3
ASCD BRAKE SWITCH
E109
OI
ICC BRAKE SWITCH
E114
IC
ASCD CLUTCH SWITCH
E108
M
A
To engine control system (VQ25HR engine)
To engine control system (VQ37VHR engine)
CLUTCH INTERLOCK SWITCH
E111
COMBINATION METER
M53
DIODE
M9
PUSH-BUTTON IGNITION SWITCH
M50
ILLUMINATION
ON
ACC
LOCK
PUSH SWITCH
BCM (BODY CONTROL MODULE)
M118
M119
M120
M121
M122
M123
TRUNK LID OPENER ACTUATOR
TRUNK ROOM LAMP SWITCH
TRUNK LID LOCK ASSEMBLY
B303
REMOTE KEYLESS ENTRY RECEIVER
M104
TIRE PRESSURE RECEIVER
M101
OPTICAL SENSOR
M94
INSIDE KEY ANTENNA (INSTRUMENT CENTER)
M131
INSIDE KEY ANTENNA (CONSOLE)
M146
INSIDE KEY ANTENNA (TRUNK ROOM)
B49
JRMWD3147GB


A : With A/T
RF : With sunroof
PM : With automatic drive positioner
AN : With rear anti-pinch system
OA : Without rear anti-pinch system
*: This connector is not shown in "Harness Layout".
FRONT SEAT (DRIVER SIDE)
DRIVER SEAT CONTROL UNIT
B451
PM
DATA LINE
UNIFIED METER AND A/C AMP.
M67
DATA LINK CONNECTOR
M24
A/T ASSEMBLY
F51
TCM (TRANSMISSION CONTROL MODULE)
F157
JOINT CONNECTOR
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E5
E6
STARTER RELAY
CPU
IGNITION RELAY
10A
44
BCM (BODY CONTROL MODULE)
M118
M119
M120
M121
M122
M123
REAR POWER WINDOW SWITCH LH
D57
D54
REAR POWER WINDOW SWITCH RH
D77
D74
FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
D38
POWER WINDOW MAIN SWITCH
D8
D9
SUNROOF MOTOR ASSEMBLY
R4
FRONT POWER SEAT (PASSENGER SIDE)
POWER SEAT SWITCH
B434
OUTSIDE KEY ANTENNA (REAR BUMPER)
B63
FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA)
D44
FRONT OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA)
D14
JRMWD3148GB


To ignition power supply
VANITY MIRROR LAMP RH R13
VANITY MIRROR LAMP LH R12
TRUNK ROOM LAMP B47
STEP LAMP (PASSENGER SIDE) D42
STEP LAMP (DRIVER SIDE) D12
MULTIFUNCTION SWITCH M72
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) E41
To CAN system
151 102
4
30
7
110
BCM (BODY CONTROL MODULE) M118 M119 M120 M121 M122 M123
10
5
8
9
119
REAR DOOR LOCK ASSEMBLY RH D75
REAR DOOR LOCK ASSEMBLY LH D55
FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) D45
FUEL LID LOCK ACTUATOR B242
DOOR LOCK ACTUATOR
DOOR KEY CYLINDER SWITCH
UNLOCK
FULL STROKE
BETWEEN FULL STROKE AND N
N
LOCK
FULL STROKE
BETWEEN FULL STROKE AND N
UNLOCK SENSOR
FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) D15
JRMWD3149GB



Fail-safe

INFOID:0000000008807296

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled • IGN relay (IPDM E/R) control signal: OFF (12 V) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2617: BCM	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled • Status 1 - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: ON (Battery voltage)

DTC Inspection Priority Chart

INFOID:0000000008807297

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

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

Priority	DTC
4	• B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP/CLUTCH SW • B2605: PNP/CLUTCH SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E8: CLUTCH SW • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED
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 • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1734: CONTROL UNIT
6	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:0000000008807298

NOTE:
The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-16, "COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM	—	—	—	—	BCS-36
U1010: CONTROL UNIT(CAN)	—	—	—	—	BCS-37
U0415: VEHICLE SPEED	—	—	—	—	BCS-38
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-44

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer-ence page
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-47
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-48
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-50
B2195: ANTI-SCANNING	×	—	—	—	SEC-51
B2553: IGNITION RELAY	—	×	—	—	PCS-46
B2555: STOP LAMP	—	×	—	—	SEC-52
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-54
B2557: VEHICLE SPEED	×	×	×	—	SEC-56
B2560: STARTER CONT RELAY	×	×	×	—	SEC-57
B2562: LOW VOLTAGE	—	×	—	—	BCS-39
B2601: SHIFT POSITION	×	×	×	—	SEC-58
B2602: SHIFT POSITION	×	×	×	—	SEC-61
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-64
B2604: PNP/CLUTCH SW	×	×	×	—	SEC-67
B2605: PNP/CLUTCH SW	×	×	×	—	SEC-69
B2608: STARTER RELAY	×	×	×	—	SEC-71
B260A: IGNITION RELAY	×	×	×	—	PCS-48
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-73
B2614: BCM	—	×	×	—	PCS-50
B2615: BCM	—	×	×	—	PCS-52
B2616: BCM	—	×	×	—	PCS-54
B2617: BCM	×	×	×	—	SEC-78
B2618: BCM	×	×	×	—	PCS-56
B261A: PUSH-BTN IGN SW	—	×	×	—	PCS-57
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-80
B2621: INSIDE ANTENNA	—	×	—	—	DLK-59
B2622: INSIDE ANTENNA	—	×	—	—	DLK-61
B2623: INSIDE ANTENNA	—	×	—	—	DLK-63
B26E8: CLUTCH SW	×	×	×	—	SEC-75
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-77
C1704: LOW PRESSURE FL	—	—	—	×	WT-20
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	
C1708: [NO DATA] FL	—	—	—	×	WT-22
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer-ence page
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-25
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-26
C1734: CONTROL UNIT	—	—	—	×	WT-27

SYMPTOM DIAGNOSIS

MANUAL FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Description

INFOID:0000000008291004

All functions do not operate when manually operated.(power seat, tilt & telescopic, and door mirror.

ALL COMPONENT : Diagnosis Procedure

INFOID:0000000008291005

1. CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check driver seat control unit power supply and ground circuit.
Refer to ADP-65, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunction parts.

2. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check automatic drive positioner control unit power supply and ground circuit.
Refer to ADP-66, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

POWER SEAT

POWER SEAT : Description

INFOID:0000000008291006

Power seat does not operate when manually operated.

POWER SEAT : Diagnosis Procedure

INFOID:0000000008291007

1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check power seat switch ground circuit.
Refer to ADP-88, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness or connector.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

STEERING POSITION FUNCTION DOES NOT OPERATE

STEERING POSITION FUNCTION DOES NOT OPERATE : Description

INFOID:0000000008291008

Tilt & telescopic do not operate when manually operated.

STEERING POSITION FUNCTION DOES NOT OPERATE : Diagnosis Procedure

INFOID:0000000008291009

1.CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT

Check tilt & telescopic switch ground circuit.
Refer to ADP-89, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness or connector.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

SEAT SLIDING

SEAT SLIDING : Description

INFOID:0000000008291010

Seat sliding alone does not operate when manually operated.

SEAT SLIDING : Diagnosis Procedure

INFOID:0000000008291011

1.CHECK SLIDING MECHANISM

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunction parts.

2.CHECK SLIDING SWITCH

Check sliding switch.
Refer to ADP-68, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CHECK SLIDING MOTOR

Check sliding motor.
Refer to ADP-117, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunction parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

SEAT RECLINING

SEAT RECLINING : Description

INFOID:0000000008291012

Seat reclining only does not operate when manually operated.

SEAT RECLINING : Diagnosis Procedure

INFOID:0000000008291013

1.CHECK RECLINING MECHANISM

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunction parts.

2.CHECK RECLINING SWITCH

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CHECK RECLINING MOTOR

Check reclining motor.
Refer to ADP-119, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunction parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT) : Description

INFOID:0000000008291014

Seat lifting (front) only does not operate when manually operated.

SEAT LIFTING (FRONT) : Diagnosis Procedure

INFOID:0000000008291015

1.CHECK LIFTING (FRONT) MECHANISM

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunction parts.

2.CHECK LIFTING SWITCH (FRONT)

Check lifting switch (front).
Refer to ADP-72, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CHECK LIFTING MOTOR (FRONT)

Check lifting motor (front).
Refer to ADP-121, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunction parts.

4. CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

SEAT LIFTING (REAR)

SEAT LIFTING (REAR) : Description

INFOID:0000000008291016

Seat lifting (rear) only does not operate when manually operated.

SEAT LIFTING (REAR) : Diagnosis Procedure

INFOID:0000000008291017

1. CHECK LIFTING (REAR) MECHANISM

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunction parts.

2. CHECK LIFTING SWITCH (REAR)

Check lifting switch (rear).
Refer to ADP-74, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3. CHECK LIFTING MOTOR (REAR)

Check lifting motor (rear).
Refer to ADP-123, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunction parts.

4. CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

STEERING TILT

STEERING TILT : Description

INFOID:0000000008291018

Steering tilt only does not operate when manually operated.

STEERING TILT : Diagnosis Procedure

INFOID:0000000008291019

1. CHECK STEERING TILT MECHANISM

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CHECK TILT SWITCH

Check tilt switch.
Refer to ADP-76, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CHECK TILT MOTOR

Check tilt motor.
Refer to ADP-125, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunction parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

STEERING TELESCOPIC

STEERING TELESCOPIC : Description

INFOID:0000000008291020

Steering telescopic only does not operate when manually operated.

STEERING TELESCOPIC : Diagnosis Procedure

INFOID:0000000008291021

1.CHECK STEERING TELESCOPIC MECHANISM

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunction parts.

2.CHECK TELESCOPIC SWITCH

Check telescopic switch.
Refer to ADP-78, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CHECK TELESCOPIC MOTOR

Check telescopic motor.
Refer to ADP-127, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunction parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

DOOR MIRROR

DOOR MIRROR : Description

INFOID:0000000008291022

Door mirror does not operate when manually operated.

DOOR MIRROR : Diagnosis Procedure

INFOID:0000000008291023

1.CHECK DOOR MIRROR MECHANISM

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunction parts.

2.CHECK MIRROR SWITCH

Check mirror switch.
Refer to ADP-83, "MIRROR SWITCH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CHECK MIRROR MOTOR

Check mirror motor.
Refer to ADP-129, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunction parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "How to Check Terminal".
NO >> GO TO 1.

MEMORY FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Description

INFOID:0000000008291024

All functions do not operate when memory operated. (power seat, tilt & telescopic, and door mirror)

ALL COMPONENT : Diagnosis Procedure

INFOID:0000000008291025

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to ADP-185, "ALL COMPONENT : Diagnosis Procedure"

2. PERFORM MEMORY STORING PROCEDURE

Perform memory storing procedure.
Refer to ADP-11, "MEMORY STORING : Special Repair Requirement".

Is the inspection result normal?

YES >> Memory function is normal.
NO >> GO TO 3.

3. CHECK SEAT MEMORY SWITCH

Check seat memory switch.
Refer to ADP-80, "Component_Function_Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace seat memory switch.

4. CHECK DETENTION SWITCH

Check detention switch.
Refer to ADP-90, "Component_Function_Check".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace the malfunction parts.

5. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

SEAT SLIDING

SEAT SLIDING : Description

INFOID:0000000008291026

Seat sliding only does not operate when memory operated.

SEAT SLIDING : Diagnosis Procedure

INFOID:0000000008291027

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to ADP-186, "SEAT SLIDING : Diagnosis Procedure"

2. CHECK SLIDING SENSOR

Check sliding sensor.

Refer to ADP-94, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

SEAT RECLINING

SEAT RECLINING : Description

INFOID:0000000008291028

Seat reclining only does not operate when memory operated.

SEAT RECLINING : Diagnosis Procedure

INFOID:0000000008291029

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to ADP-187, "SEAT RECLINING : Diagnosis Procedure"

2.CHECK RECLINING SENSOR

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT) : Description

INFOID:0000000008291030

Seat lifting (front) only does not operate when memory operated.

SEAT LIFTING (FRONT) : Diagnosis Procedure

INFOID:0000000008291031

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to ADP-187, "SEAT LIFTING (FRONT) : Diagnosis Procedure"

2.CHECK LIFTING SENSOR (FRONT)

Check lifting sensor (front).
Refer to ADP-100, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

SEAT LIFTING (REAR)

SEAT LIFTING (REAR) : Description

INFOID:0000000008291032

Seat lifting (rear) only does not operate when memory operated.

SEAT LIFTING (REAR) : Diagnosis Procedure

INFOID:0000000008291033

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to ADP-188, "SEAT LIFTING (REAR) : Diagnosis Procedure"

2.CHECK LIFTING SENSOR (REAR)

Check lifting sensor (rear).
Refer to ADP-103, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

STEERING TELESCOPIC

STEERING TELESCOPIC : Description

INFOID:0000000008291034

Steering telescopic only does not operate when memory operated.

STEERING TELESCOPIC : Diagnosis Procedure

INFOID:0000000008291035

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to ADP-189, "STEERING TELESCOPIC : Diagnosis Procedure"

2.CHECK TELESCOPIC SENSOR

Check steering telescopic sensor.
Refer to ADP-109, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

NO >> GO TO 1.

STEERING TILT

STEERING TILT : Description

INFOID:0000000008291036

Steering tilt only does not operate when memory operated.

STEERING TILT : Diagnosis Procedure

INFOID:0000000008291037

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to ADP-188, "STEERING TILT : Diagnosis Procedure"

2.CHECK TILT SENSOR

Check steering tilt sensor.
Refer to ADP-106, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

DOOR MIRROR

DOOR MIRROR : Description

INFOID:0000000008291038

Door mirror does not operate when memory operated.

DOOR MIRROR : Diagnosis Procedure

INFOID:0000000008291039

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to ADP-190, "DOOR MIRROR : Diagnosis Procedure"

2.CHECK MIRROR SENSOR

Check mirror sensor.
Refer to ADP-112, "DRIVER SIDE : Component Function Check". (Driver side)
Refer to ADP-114, "PASSENGER SIDE : Component Function Check". (Passenger side)

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

MEMORY INDICATE DOES NOT ILLUMINATE

Diagnosis Procedure

INFOID:0000000008291040

1.CHECK MEMORY INDICATOR

Check memory indicator.
Refer to ADP-132, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunction parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 1.

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000008291041

1.CHECK SYNCHRONIZATION FUNCTION

Check seat synchronization function.
Refer to ADP-24, "SEAT SYNCHRONIZATION FUNCTION : System Description".

Is the inspection result normal?

YES >> Seat synchronization is OK.
NO >> GO TO 2.

2.CHECK SYSTEM SETTING

Check system setting.
Refer to ADP-12, "SYSTEM SETTING : Special Repair Requirement".

Is the inspection result normal?

YES >> Synchronization function is normal.
NO >> GO TO 3.

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-43, "Intermittent Incident".
NO >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000008291042

1.PERFORM SYSTEM INITIALIZATION

Check system initialization.
Refer to ADP-10, "SYSTEM INITIALIZATION : Special Repair Requirement".

Is the inspection result normal?

YES >> Entry/Exit function is OK.
NO >> GO TO 2.

2.CHECK FRONT DOOR SWITCH (DRIVER SIDE)

Check front door switch (driver side).
Refer to DLK-66, "Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> Repair or replace the malfunction parts.

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000008291043

1.CHECK DOOR LOCK FUNCTION

Check door lock function.
Refer to DLK-7, "Work Flow".

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-42, "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-203, "Removal and Installation".

ALL FUNCTIONS DO NOT OPERATE

Diagnosis Procedure

INFOID:0000000008291044

1.POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit for driver seat control unit.
Refer to ADP-65, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> Repair or replace malfunction part.

NORMAL OPERATING CONDITION

Description

INFOID:0000000008291045

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

Symptom	Cause	Action to take	Reference page
Entry/exit assist function does not operate.	No initialization has been performed.	Perform initialization.	ADP-10
	Entry/exit assist function is disabled. **NOTE:** The entry/exit assist function are enabled before delivery (initial setting).	Change the settings.	ADP-12
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	ADP-11
Seat synchronization function does not operate.	Seat synchronization function is disabled. **NOTE:** The entry/exit assist function are disabled before delivery (initial setting).	Change the settings.	ADP-12
	The synchronization function will not operate if the steering (tilt, telescopic) or the door mirror moves to the operating end while the seat synchronization function is operating.	Perform the memory function or drive the vehicle at more than 7 km/h (4 MPH).	ADP-24
	Seat adjustment load has exceed any of the volumes below. • Seat sliding: 76 mm • Seat reclining: 9.1 degrees • Seat lifting (rear): 20 mm	—	—
Memory function, entry/exit assist function, seat synchronization function, or Intelligent Key interlock function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Memory function: ADP-29
			Exit assist function: ADP-34
			Entry assist function: ADP-38
			Seat synchronization function: ADP-24
			Intelligent Key interlock function: ADP-42

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000008291046

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

WARNING:

Always observe the following items for preventing accidental activation.

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see “SRS AIR BAG”.**
- **Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

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

WARNING:

Always observe the following items for preventing accidental activation.

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.**

Service

INFOID:0000000008291047

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

Work

INFOID:0000000008291048

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.

- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.

Then rub with a soft and dry cloth.

- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.
  Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

REMOVAL AND INSTALLATION

DRIVER SEAT CONTROL UNIT

Exploded View

INFOID:0000000008291049

Refer to SE-60, "Exploded View".

Removal and Installation

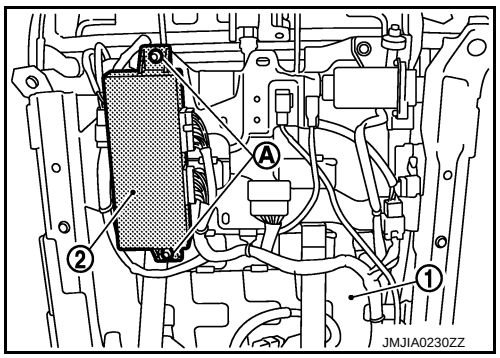
INFOID:0000000008291050

REMOVAL

CAUTION:

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

1. Remove the driver seat (1). Refer to SE-63, "Removal and Installation".
2. Remove the mounting bolts (A).
3. Remove driver seat control unit (2).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when replacing control unit. Refer to ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

INFOID:0000000008291051

Refer to IP-11, "A/T MODELS : Exploded View".

Removal and Installation

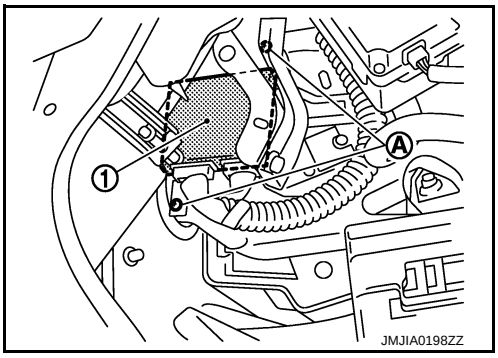
INFOID:0000000008291052

REMOVAL

CAUTION:

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

1. Remove the battery negative terminal.
2. Remove the instrument driver lower panel. Refer to IP-12, "A/T MODELS : Removal and Installation".
3. Remove the screws (A).
4. Remove automatic drive positioner control unit (1).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

SEAT MEMORY SWITCH

Exploded View

INFOID:0000000008291053

Refer to INT-11, "Exploded View".

Removal and Installation

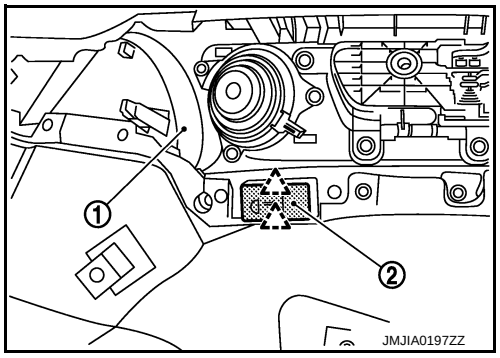
INFOID:0000000008291054

REMOVAL

CAUTION:

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

1. Disconnect battery negative terminal.
2. Remove the 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).



: Pawl

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

POWER SEAT SWITCH

Exploded View

INFOID:0000000008291055

Refer to SE-60, "Exploded View".

Removal and Installation

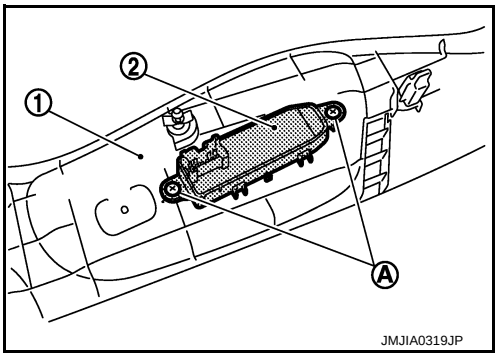
INFOID:0000000008291056

REMOVAL

CAUTION:

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

1. Remove the seat cushion outer finisher (1). Refer to SE-63, "Removal and Installation".
2. Remove the screws (A).
3. Remove the power seat switch (2) from the seat cushion outer finisher (1).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

TILT&TELESCOPIC SWITCH

Exploded View

INFOID:0000000008291057

Refer to IP-11, "A/T MODELS : Exploded View".

Removal and Installation

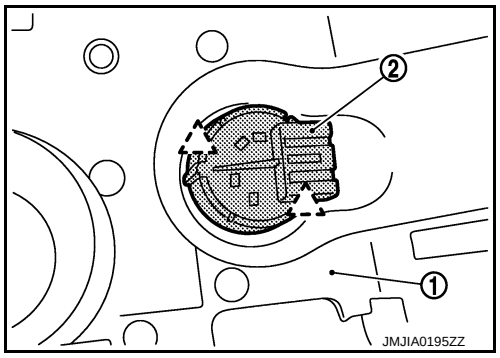
INFOID:0000000008291058

REMOVAL

CAUTION:

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

1. Disconnect battery negative terminal.
2. Remove the steering column mask (1). Refer to IP-12, "A/T MODELS : Removal and Installation".
3. Press pawls and remove tilt & telescopic switch (2) from the steering column mask (1).



: Pawl

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".