

SECTION **ADP**

AUTOMATIC DRIVE POSITIONER

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

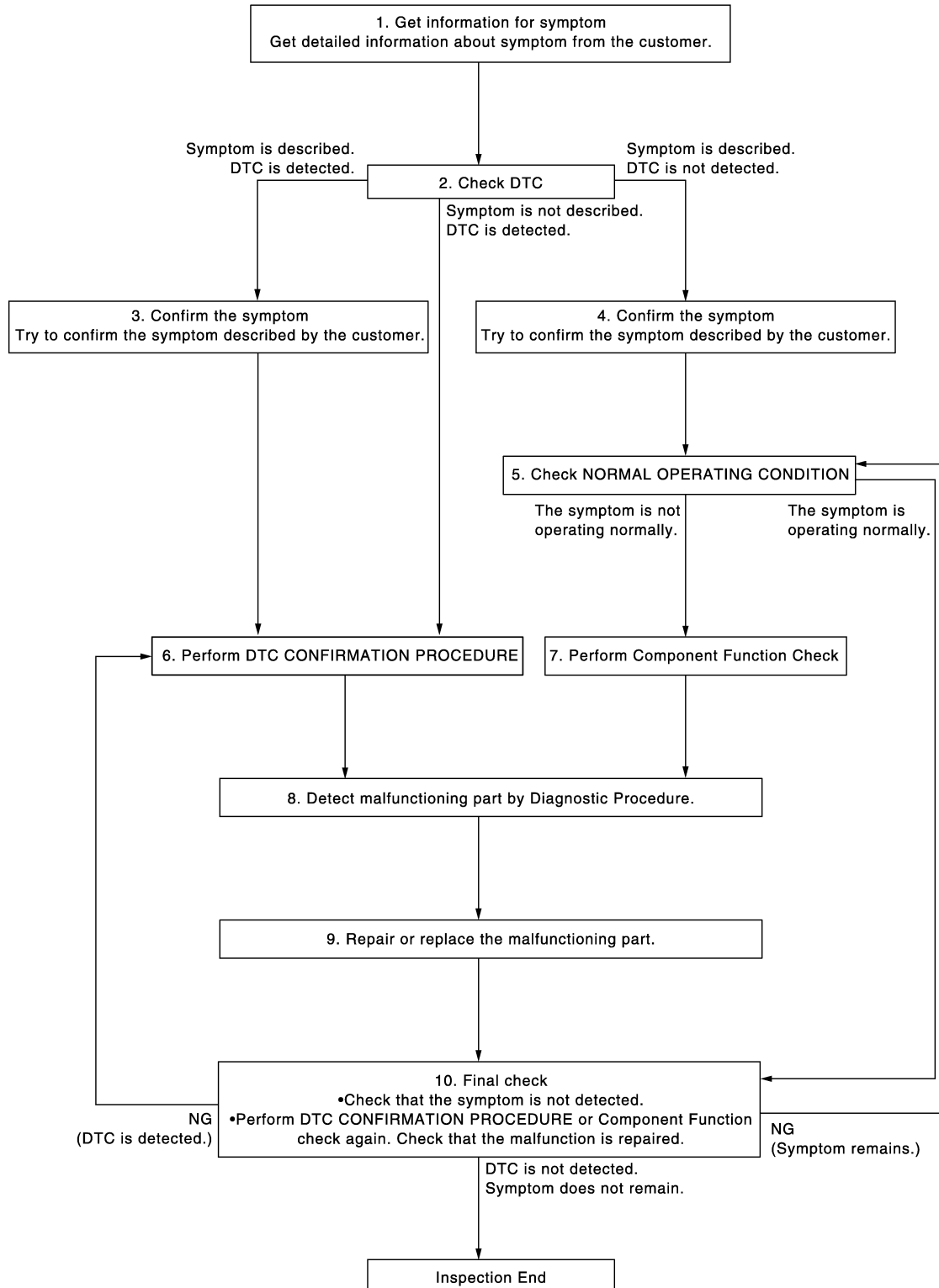
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000003759057

OVERALL SEQUENCE



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DETAILED FLOW

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2.CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

Check "Self Diagnostic Result" with CONSULT-III. Refer to [ADP-124, "DTC Index"](#)

Are any symptoms described and any DTC displayed?

Symptom is described, DTC is detected.>>GO TO 3.

Symptom is not described, DTC is detected.>>GO TO 6.

Symptom is described, DTC is not detected.>>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-134, "Description"](#).

Is the incident a normal operation?

YES >> GO TO 10.

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-35, "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. Check that the malfunction is repaired.

Are all malfunctions repaired?

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

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

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:000000003759058

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

Function	Condition	Procedure
Memory (Seat)	Erased	Perform memory storage
Entry/exit assist	OFF	Perform system initialization
		Set slide amount ^{*1}
Intelligent Key interlock	Erased	Perform system initialization
		Perform memory storage

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

NOTE:

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:000000003759059

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to [ADP-8. "SYSTEM INITIALIZATION : Description"](#).

>> GO TO 2.

2.SYSTEM SETTING

Perform system setting. Refer to [ADP-9. "SYSTEM SETTING : Description"](#).

>> GO TO 3.

3.MEMORY STORAGE

Perform memory storage. Refer to [ADP-8. "MEMORY STORING : Description"](#).

>> END

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000003759060

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

Function	Condition	Procedure
Memory (Seat)	Erased	Perform memory storage
Entry/exit assist	OFF	Perform system initialization
		Set slide amount ^{*1}
Intelligent Key interlock	Erased	Perform system initialization
		Perform memory storage

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

NOTE:

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Re-

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

requirement

INFOID:0000000003759061

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to [ADP-8, "SYSTEM INITIALIZATION : Description"](#).

>> GO TO 2.

2.SYSTEM SETTING

Perform system setting. Refer to [ADP-9, "SYSTEM SETTING : Description"](#).

>> GO TO 3.

3.MEMORY STORAGE

Perform memory storage. Refer to [ADP-8, "MEMORY STORING : Description"](#).

>> END

SYSTEM INITIALIZATION

SYSTEM INITIALIZATION : Description

INFOID:0000000003759062

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 unless initialization is performed.

SYSTEM INITIALIZATION : Special Repair Requirement

INFOID:0000000003759063

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 the ACC to the 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:0000000003759064

Always perform 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 unless memory storage is performed.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

MEMORY STORING : Special Repair Requirement

INFOID:000000003759065

Memory Storage Procedure

Two positions for the driver seat can be stored for memory operation by the following procedure.

1.STEP 1

Shift selector lever to the P position.

>> GO TO 2.

2.STEP 2

Turn ignition switch ON.

>> GO TO 3.

3.STEP 3

Adjust driver seat 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 seconds.

2. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch.

NOTE:

- When entering driver seat positions into blank memory, memory indicator turns ON for 5 seconds.
- When changing driver seat positions, memory indicator turns OFF for 0.5 seconds, then turns ON for 5 seconds.

NOTE:

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

Do you need to link Intelligent Keys?

YES >> GO TO 5.

NO >> END

5.STEP 6

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

>> GO TO 6.

6.STEP 7

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

>> END

SYSTEM SETTING

SYSTEM SETTING : Description

INFOID:000000003759066

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

Setting Change

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

×: Applicable

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

SYSTEM SETTING : Special Repair Requirement

INFOID:000000003759067

1. CHOOSE METHOD

There are three ways of setting methods.

Which method do you choose?

With display>>GO TO 2.

With set switch>>GO TO 4.

With CONSULT-III>>GO TO 6.

2. WITH DISPLAY - STEP 1

Turn ignition switch ON.

>> GO TO 3.

3. WITH DISPLAY - STEP 2

1. Push "SETTING" button.
2. Select "Comfort & Conv."
3. Select "Slide Driver's Seat Back ON Exit" on display, then push
- Slide Driver's Seat Back On Exit: Entry/exit assist (seat)

>> END

4. WITH SET SWITCH - STEP 1

Turn ignition switch OFF.

>> GO TO 5.

5. WITH SET SWITCH - STEP 2

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

- Entry/exit assist (seat) are ON: Memory switch indicator blinks two times.
- Entry/exit assist (seat) are OFF: Memory switch indicator blinks once.

>> END

6. WITH CONSULT-III - STEP 1

Select "Work support".

>> GO TO 7.

7. WITH CONSULT-III - STEP 2

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

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

>> END

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ADP

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

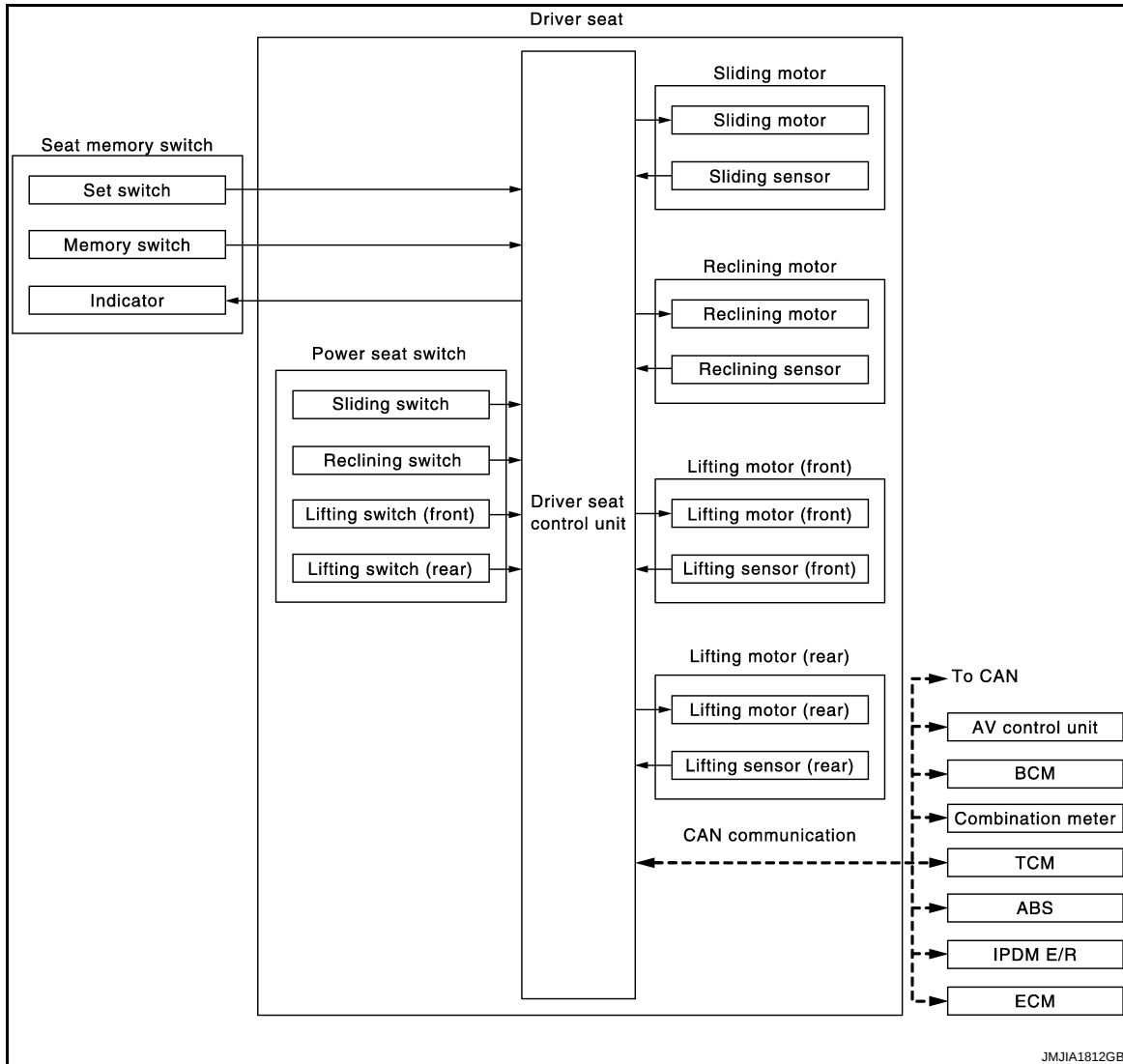
FUNCTION DIAGNOSIS

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram

INFOID:0000000003759068



AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

INFOID:0000000003759069

OUTLINE

The system automatically moves the driver seat position by the driver seat control unit.

Function		Description
Manual function		The driving position (seat) can be adjusted by using the power seat switch
Memory function		The seat can be adjusted to the stored driving position by pressing seat memory switch (1 or 2)
Entry/Exit assist function	Exit	On exit, the seat moves backward
	Entry	On entry, the seat returns from the 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

SLEEP MODE

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

- The seat control unit adopts the sleep mode to reduce the electric power consumption.
- The sleep mode is activated when all of the following conditions are fulfilled.
 1. Ignition switch turns 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)

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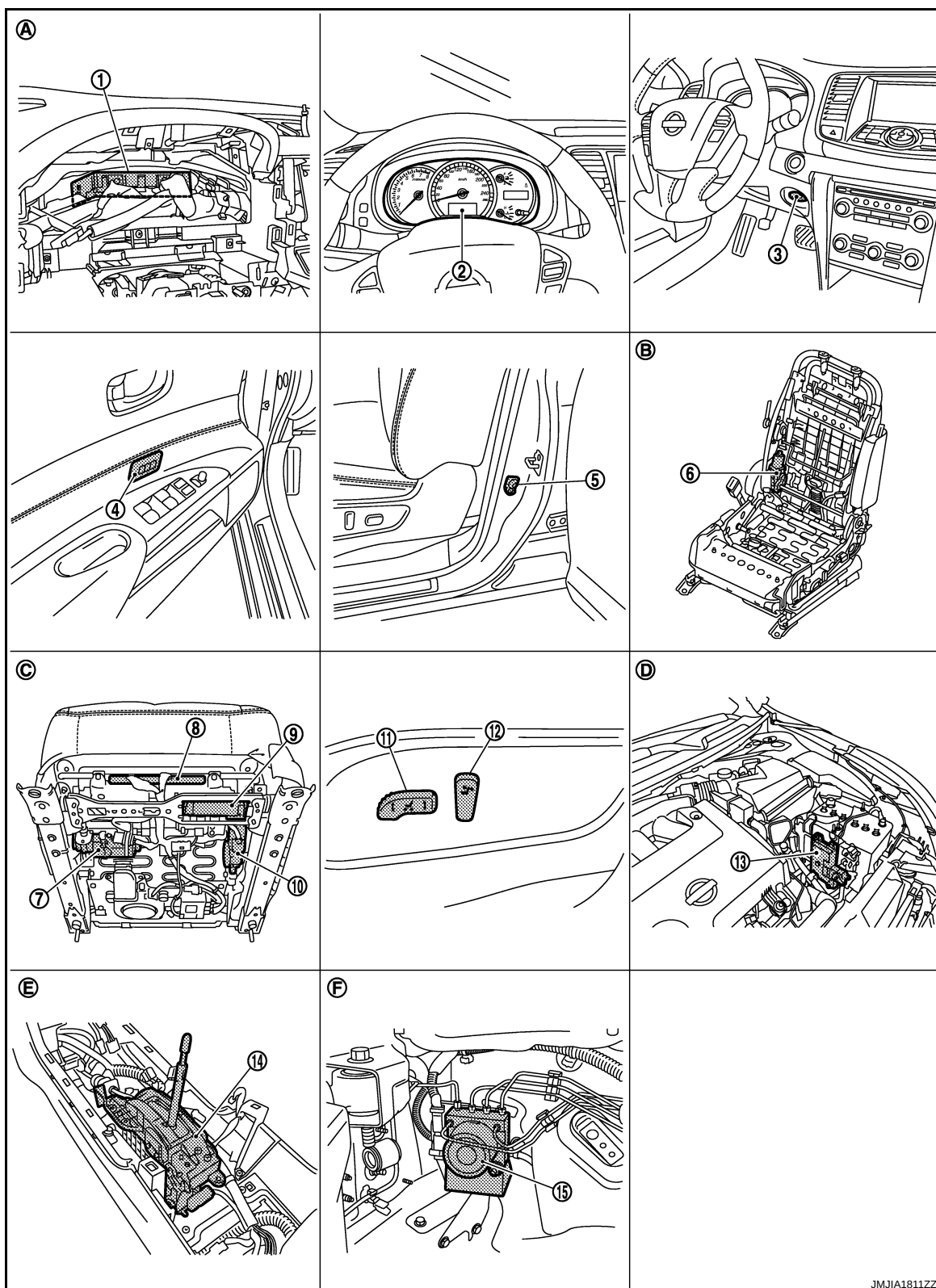
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AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location

INFOID:000000003759070



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| 1. BCM M118, M119, M122, M123 | 2. Combination meter M34 | 3. Key slot M99 |
| 4. Seat memory switch D13 | 5. Front door switch (driver side) B34 | 6. Reclining motor (driver side) B454 |
| 7. Lifting motor (front) (driver side) B455 | 8. Driver seat control unit B451,B452 | 9. Sliding motor (driver side) B461 |

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

- | | | |
|---|--|---|
| 10. Lifting motor (rear) (driver side) B456 | 11. Power seat switch (driver side) B459 (sliding, lifting switch) | 12. Power seat switch (driver side) B459 (reclining switch) |
| 13. TCM (transmission control module) F23 | 14. Control device (detention switch) M57 | 15. ABS actuator and electric unit (control unit) E36 |
| A. Behind the combination meter | B. View with seat cushion and seatback pad removed | C. Back side of the seat cushion |
| D. Engine room (LH) | E. View with the center console assembly removed | F. Engine room (RH) |

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:000000003759071

CONTROL UNITS

Item	Function
Driver seat control unit	- Main unit of automatic drive positioner system - Connected to the CAN
BCM	Transmits 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 - Steering lock unit status: Lock/Unlock - Handle position
Combination meter / ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to the driver seat control unit via CAN communication
AV control unit	The setting change of auto drive positioner system can be performed on the display
TCM	Transmits 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)	Detects front door (driver side) open/close status
Control device (detention switch)	Detects the P range position of selector lever
Set switch	The registration and system setting can be performed with its operation
Memory switch 1/2	The registration and operation can be performed with its operation
Power seat switch	The following switches are installed - Reclining switch - Lifting switch (front) - Lifting switch (rear) - Sliding switch

Sensors

Item	Function
Lifting sensor (front)	Detects the up/down position of seat lifting (front)
Lifting sensor (rear)	Detects the up/down position of seat lifting (rear)
Reclining sensor	Detects the tilt of seatback
Sliding sensor	Detects the front/rear position of seat

OUTPUT PARTS

AUTOMATIC DRIVE POSITIONER SYSTEM

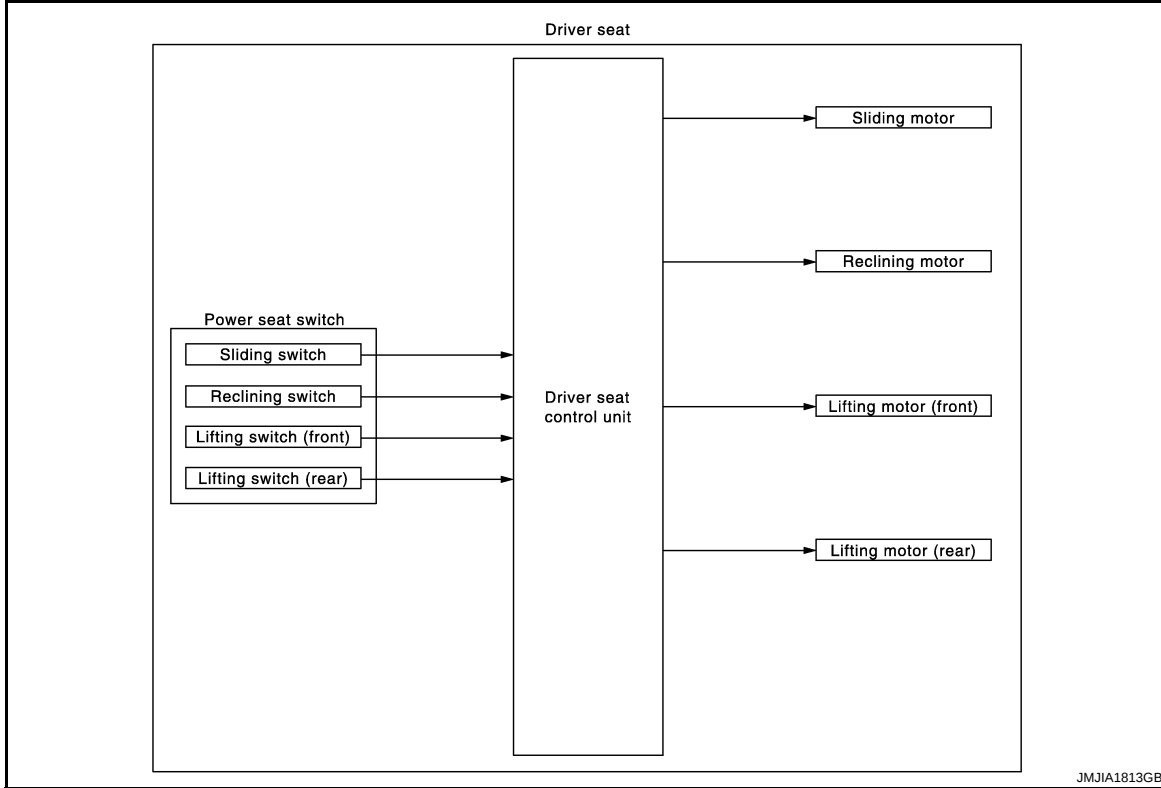
< FUNCTION DIAGNOSIS >

Item	Function
Lifting motor (front)	Moves the seat lifting (front) upward/downward
Lifting motor (rear)	Moves the seat lifting (rear) upward/downward
Reclining motor	Tilts and raises up the seatback
Sliding motor	Slides the seat frontward/rearward
Memory indicator	Illuminates or blinks according to the registration/operation status

MANUAL FUNCTION

MANUAL FUNCTION : System Diagram

INFOID:000000003759072



MANUAL FUNCTION : System Description

INFOID:000000003759073

OUTLINE

The driving position (seat) can be adjusted manually with power seat switch.

DETAIL FLOW

Seat

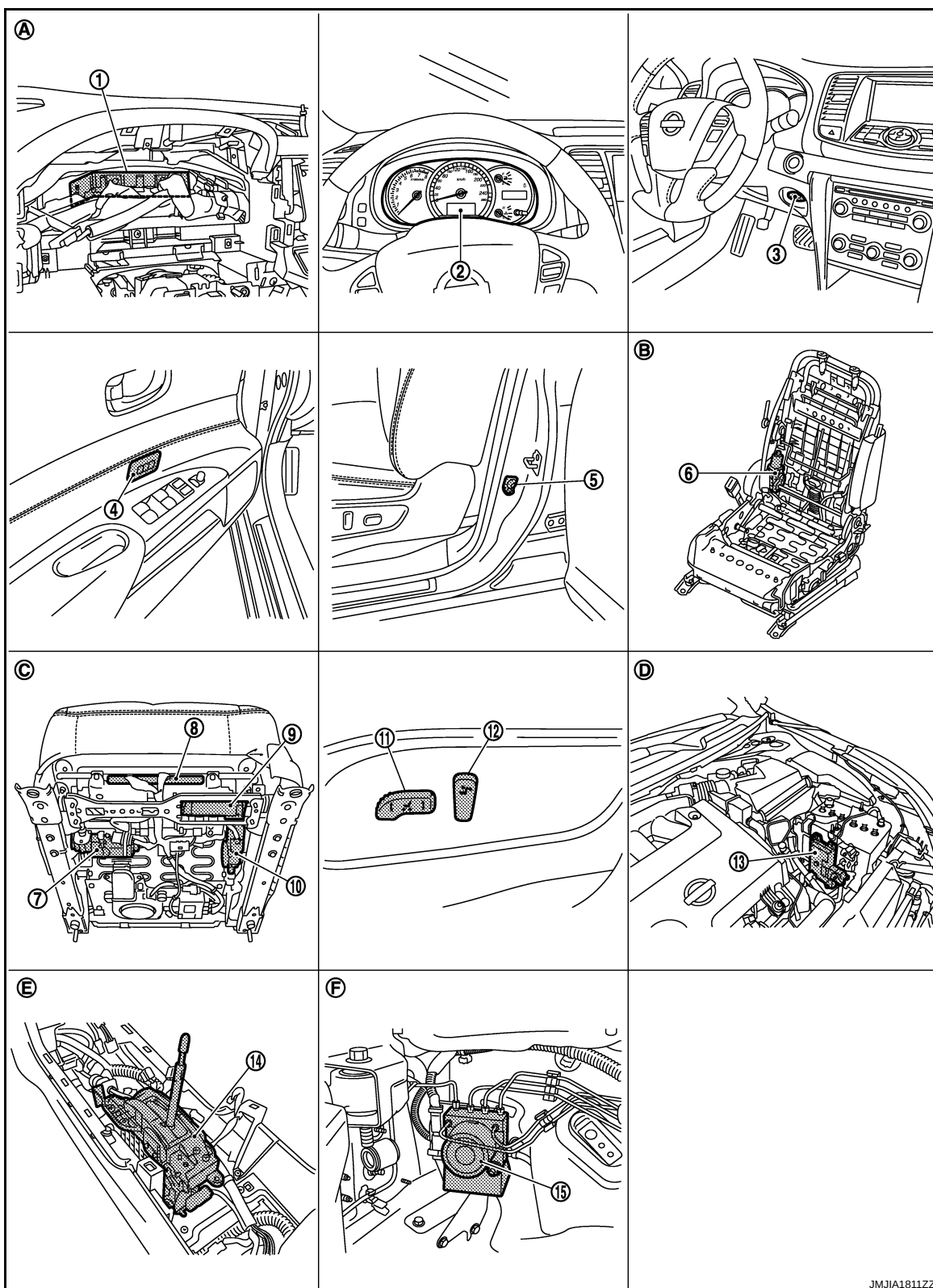
Order	Input	Output	Control unit condition
1	Power seat switch (sliding, lifting, reclining)	—	The power seat switch signal is inputted to the driver seat control unit when the power seat switch is operated
2	—	Motors (sliding, lifting, reclining)	The driver seat control unit outputs signals to each motor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

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

MANUAL FUNCTION : Component Parts Location

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| 1. BCM M118, M119, M122, M123 | 2. Combination meter M34 | 3. Key slot M99 |
| 4. Seat memory switch D13 | 5. Front door switch (driver side) B34 | 6. Reclining motor (driver side) B454 |
| 7. Lifting motor (front) (driver side) B455 | 8. Driver seat control unit B451, B452 | 9. Sliding motor (driver side) B461 |

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

- | | | |
|---|--|---|
| 10. Lifting motor (rear) (driver side) B456 | 11. Power seat switch (driver side) B459 (sliding, lifting switch) | 12. Power seat switch (driver side) B459 (reclining switch) |
| 13. TCM (transmission control module) F23 | 14. Control device (detention switch) M57 | 15. ABS actuator and electric unit (control unit) E36 |
| A. Behind the combination meter | B. View with seat cushion and seatback pad removed | C. Back side of the seat cushion |
| D. Engine room (LH) | E. View with the center console assembly removed | F. Engine room (RH) |

MANUAL FUNCTION : Component Description

INFOID:000000003759075

CONTROL UNITS

Item	Function
Driver seat control unit	Operates the specific seat motor with the signal from the power seat switch

INPUT PARTS

Switches

Item	Function
Power seat switch	The following switches are installed • Reclining switch • Lifting switch (front) • Lifting switch (rear) • Sliding switch

OUTPUT PARTS

Item	Function
Lifting motor (front)	Moves the seat lifter (front) upward/downward
Lifting motor (rear)	Moves the seat lifter (rear) upward/downward
Reclining motor	Tilts and raises up the seatback
Sliding motor	Slides the seat frontward/rearward

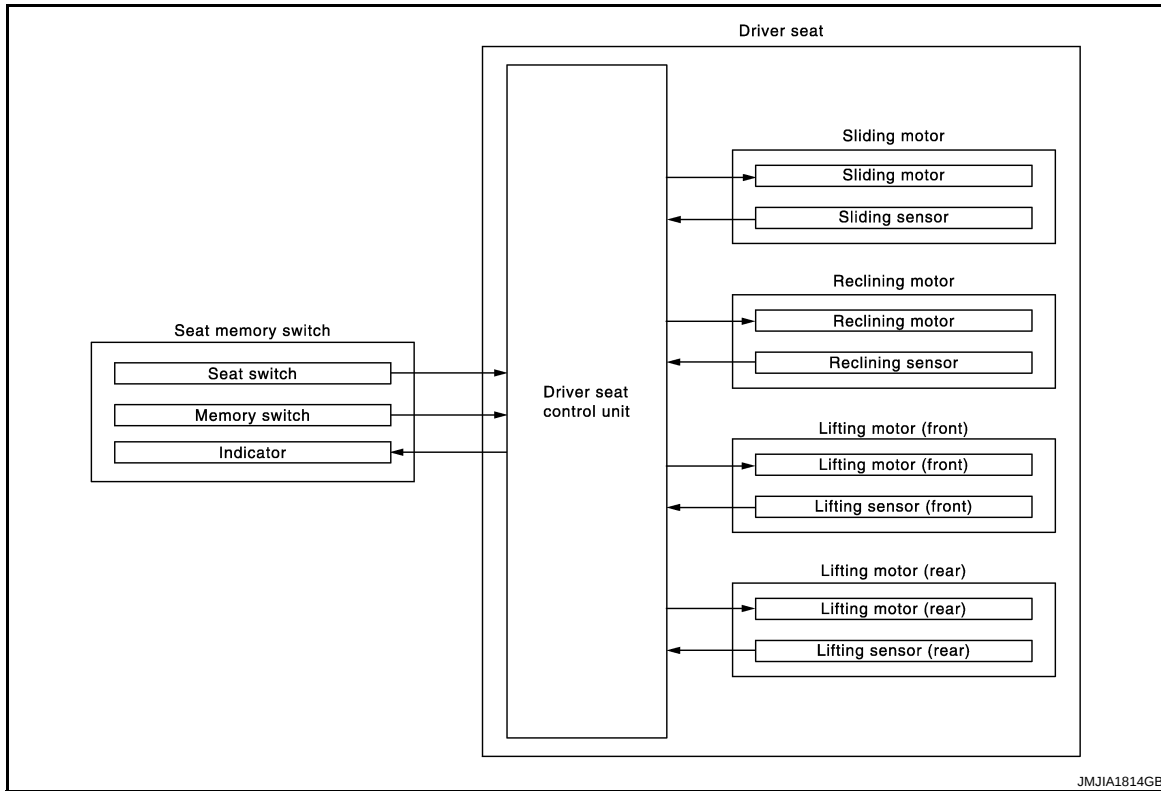
MEMORY FUNCTION

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

MEMORY FUNCTION : System Diagram

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MEMORY FUNCTION : System Description

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OUTLINE

The driver seat control unit can store the optimum driving positions (seat) for 2 people. If the front seat position is changed, one-touch (pressing desired memory switch) operation allows changing to the other driving position.

NOTE:

For further information for the memory storage procedure. Refer to [ADP-8, "MEMORY STORING : Description"](#).

OPERATION PROCEDURE

1. Turn ignition switch ON
2. Shift select lever to the P position.
3. Press desired memory switch.
4. Driver seat will move to the memorized position.

OPERATION CONDITION

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

Item	Request status
Ignition position	ON
Switch inputs • Power seat switch • Set switch • Memory switch	OFF (Not operated)
Selector lever	P position
Vehicle speed	0 km/h (0 MPH)

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

DETAIL FLOW

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

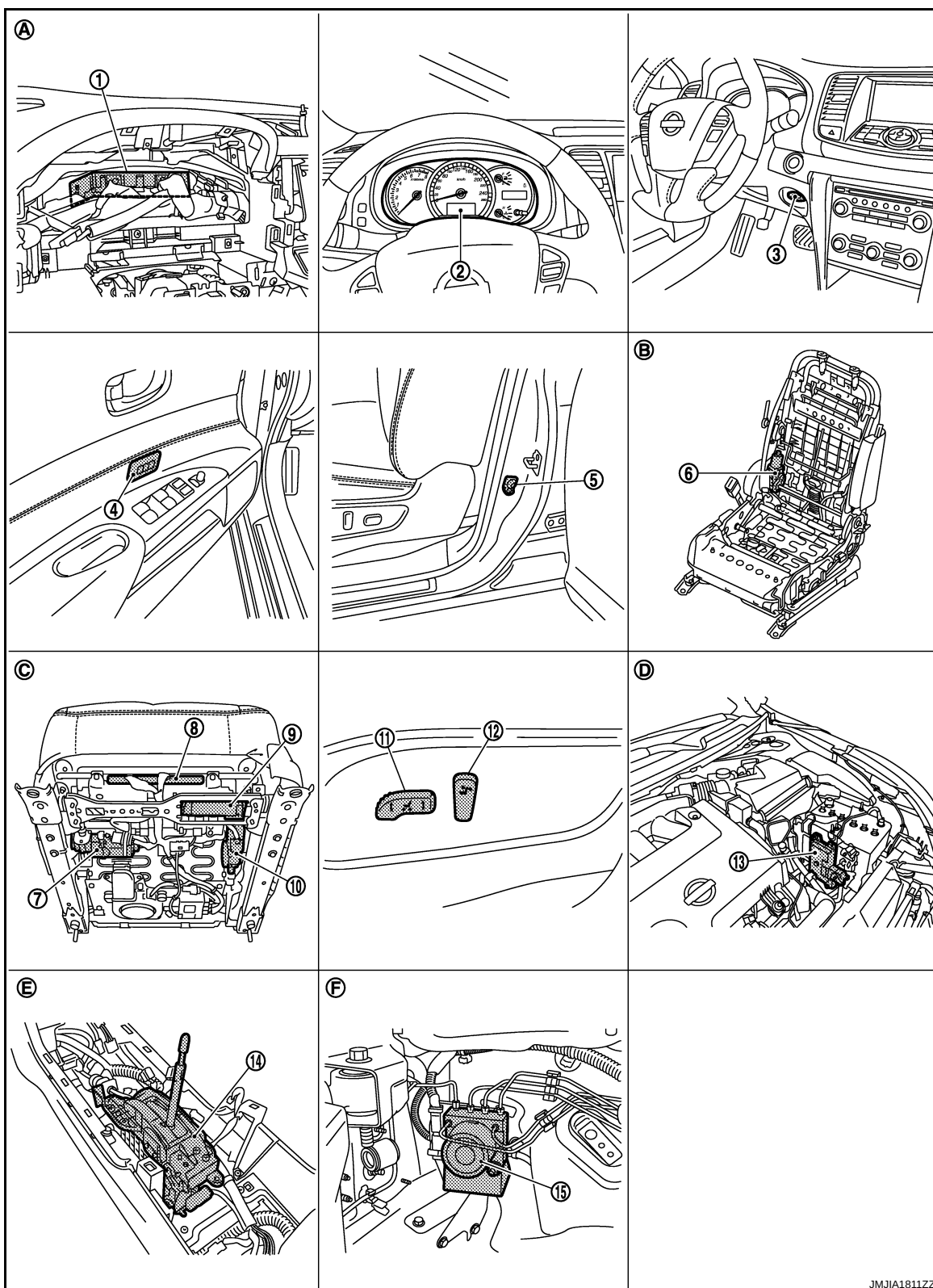
Order	Input	Output	Control unit condition
1	Memory switch	—	The memory switch signal is inputted to the driver seat control unit when memory switch 1 or 2 is operated
2	—	Motors (Seat)	Driver seat control unit operates each motor of seat when it recognizes the memory switch has been pressed for 0.5 seconds or more and requests each motor operation
		Memory switch Indicator	Driver seat control unit requests the blinking of memory indicator while either of the motors are operating. The driver seat control unit illuminates the memory indicator
3	Sensors (Seat)	—	Driver seat control unit judges the operating seat position with each seat sensor input. 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 after all motors stop. The driver seat control unit illuminates the memory indicator for 5 seconds

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

MEMORY FUNCTION : Component Parts Location

INFOID:000000003859812



- | | | |
|---|--|---------------------------------------|
| 1. BCM M118, M119, M122, M123 | 2. Combination meter M34 | 3. Key slot M99 |
| 4. Seat memory switch D13 | 5. Front door switch (driver side) B34 | 6. Reclining motor (driver side) B454 |
| 7. Lifting motor (front) (driver side) B455 | 8. Driver seat control unit B451, B452 | 9. Sliding motor (driver side) B461 |

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

- | | | |
|---|--|---|
| 10. Lifting motor (rear) (driver side) B456 | 11. Power seat switch (driver side) B459 (sliding, lifting switch) | 12. Power seat switch (driver side) B459 (reclining switch) |
| 13. TCM (transmission control module) F23 | 14. Control device (detention switch) M57 | 15. ABS actuator and electric unit (control unit) E36 |
| A. Behind the combination meter | B. View with seat cushion and seatback pad removed | C. Back side of the seat cushion |
| D. Engine room (LH) | E. View with the center console assembly removed | F. Engine room (RH) |

MEMORY FUNCTION : Component Description

INFOID:000000003759079

CONTROL UNITS

Item	Function
Driver seat control unit	- The address of each part is recorded - Operates each motor of seat to the registered position

INPUT PARTS

Switches

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

Sensors

Item	Function
Lifting sensor (front)	Detects the up/down position of seat lifting (front)
Lifting sensor (rear)	Detects the up/down position of seat lifting (rear)
Reclining sensor	Detects the tilt of seatback
Sliding sensor	Detects the front/rear position of seat

OUTPUT PARTS

Item	Function
Lifting motor (front)	Moves the seat lifter (front) upward/downward
Lifting motor (rear)	Moves the seat lifter (rear) upward/downward
Reclining motor	Tilts and raises up the seatback
Sliding motor	Slides the seat frontward/rearward
Memory indicator	Illuminates or blinks according to the registration/operation status

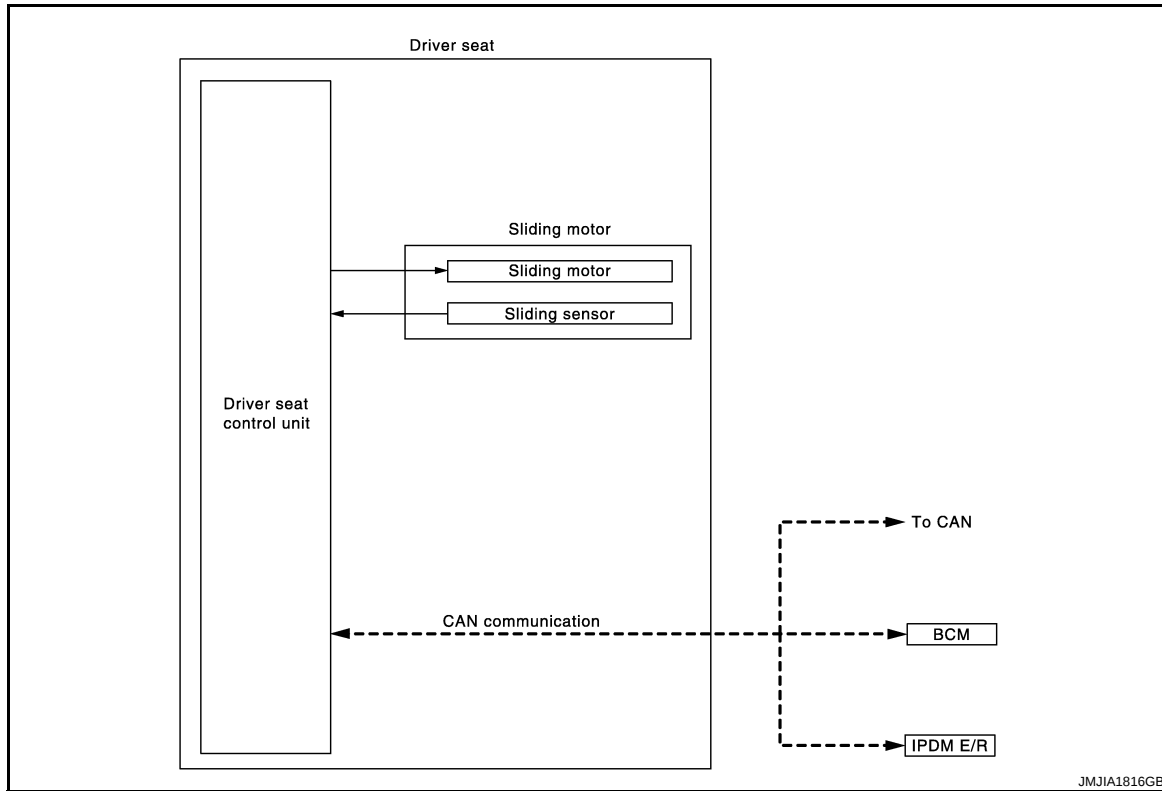
EXIT ASSIST FUNCTION

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

EXIT ASSIST FUNCTION : System Diagram

INFOID:000000003759080



EXIT ASSIST FUNCTION : System Description

INFOID:000000003759081

OUTLINE

When opening the driver door while the operation condition is satisfied, the seat moves backward 40 mm (1.57 in) from normal sitting position.

The seat slide amount 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-8, "SYSTEM INITIALIZATION : Description"](#).

OPERATION PROCEDURE

1. Open the driver door with ignition switch in the OFF position.(Intelligent Key is not inserted into key slot)
2. Driver seat moves to the exiting position.

OPERATION CONDITION

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

Item	Request status
Ignition position	OFF
System setting [Entry/exit assist function (seat)]	ON
Initialization	Done
Key switch	OFF (Intelligent Key is not inserted into key slot)
Switch inputs • Power seat switch • Set switch • Memory switch	OFF (Not operated)
Selector lever	P position
BCM	Handle position

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

DETAIL FLOW

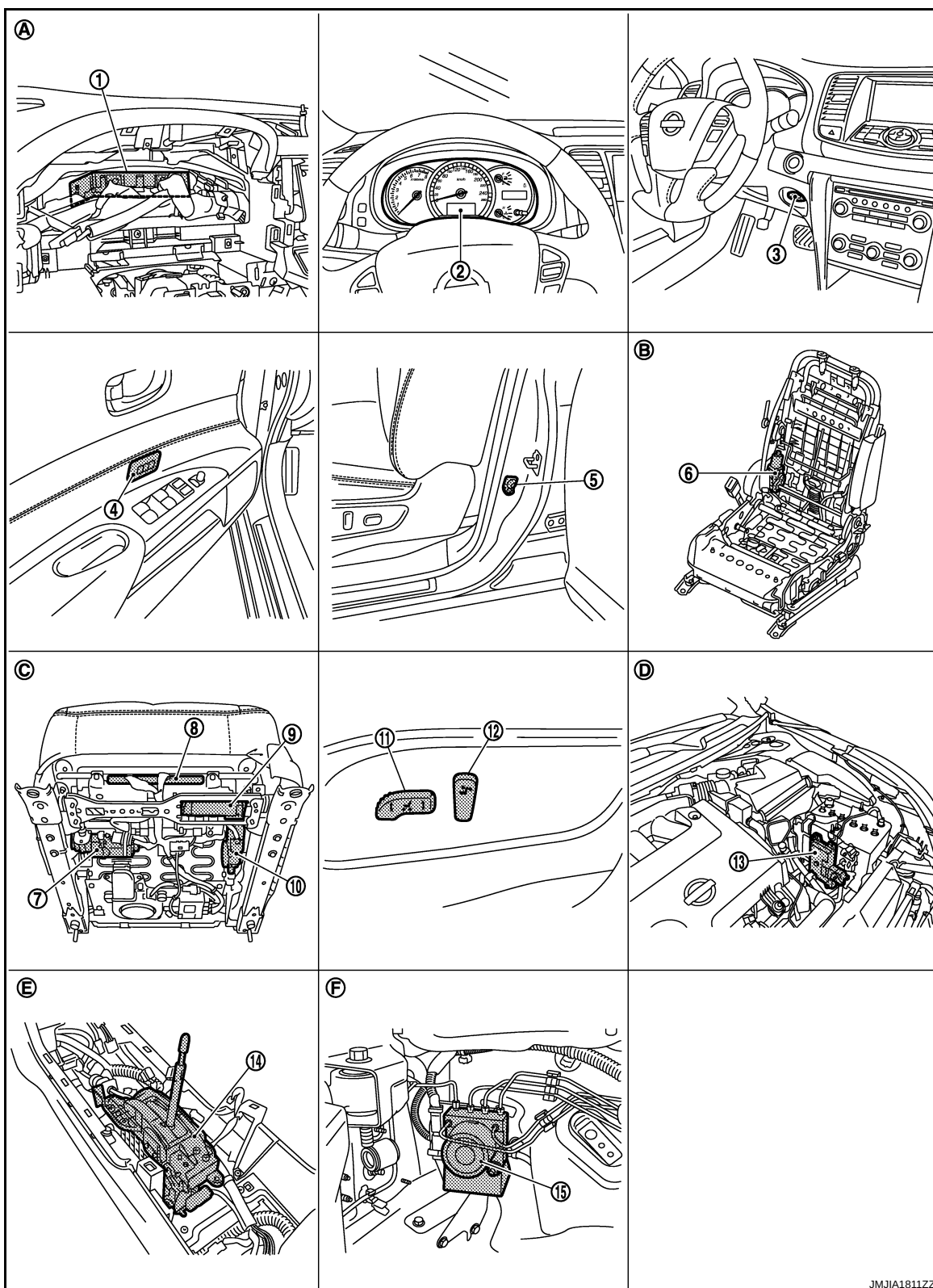
Order	Input	Output	Control unit condition
1	Door switch (Driver side)	—	Driver seat control unit receives door switch signal (driver side/ open) from BCM via CAN communication
2	—	Sliding motor	Driver seat control unit operates the seat sliding motor, which recog- nizes that the driver side door is opened with ignition switch OFF

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

EXIT ASSIST FUNCTION : Component Parts Location

INFOID:000000003859813



- | | | |
|---|--|---------------------------------------|
| 1. BCM M118, M119, M122, M123 | 2. Combination meter M34 | 3. Key slot M99 |
| 4. Seat memory switch D13 | 5. Front door switch (driver side) B34 | 6. Reclining motor (driver side) B454 |
| 7. Lifting motor (front) (driver side) B455 | 8. Driver seat control unit B451, B452 | 9. Sliding motor (driver side) B461 |

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

- | | | |
|---|--|---|
| 10. Lifting motor (rear) (driver side) B456 | 11. Power seat switch (driver side) B459 (sliding, lifting switch) | 12. Power seat switch (driver side) B459 (reclining switch) |
| 13. TCM (transmission control module) F23 | 14. Control device (detention switch) M57 | 15. ABS actuator and electric unit (control unit) E36 |
| A. Behind the combination meter | B. View with seat cushion and seatback pad removed | C. Back side of the seat cushion |
| D. Engine room (LH) | E. View with the center console assembly removed | F. Engine room (RH) |

EXIT ASSIST FUNCTION : Component Description

INFOID:0000000003759083

CONTROL UNITS

Item	Function
Driver seat control unit	Operates the seat sliding motor for a constant amount
BCM	Recognizes the following status and transmits them to the driver seat control unit via CAN communication - Door switch signal (front driver side) - Key switch signal - Ignition switch signal
IPDM E/R	Recognizes the following status and transmits it to the driver seat control unit via CAN communication Detente switch signal

INPUT PARTS

Switches

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

Sensors

Item	Function
Sliding sensor	Detects the front/rear position of seat

OUTPUT PARTS

Item	Function
Sliding motor	Slides the seat frontward/rearward

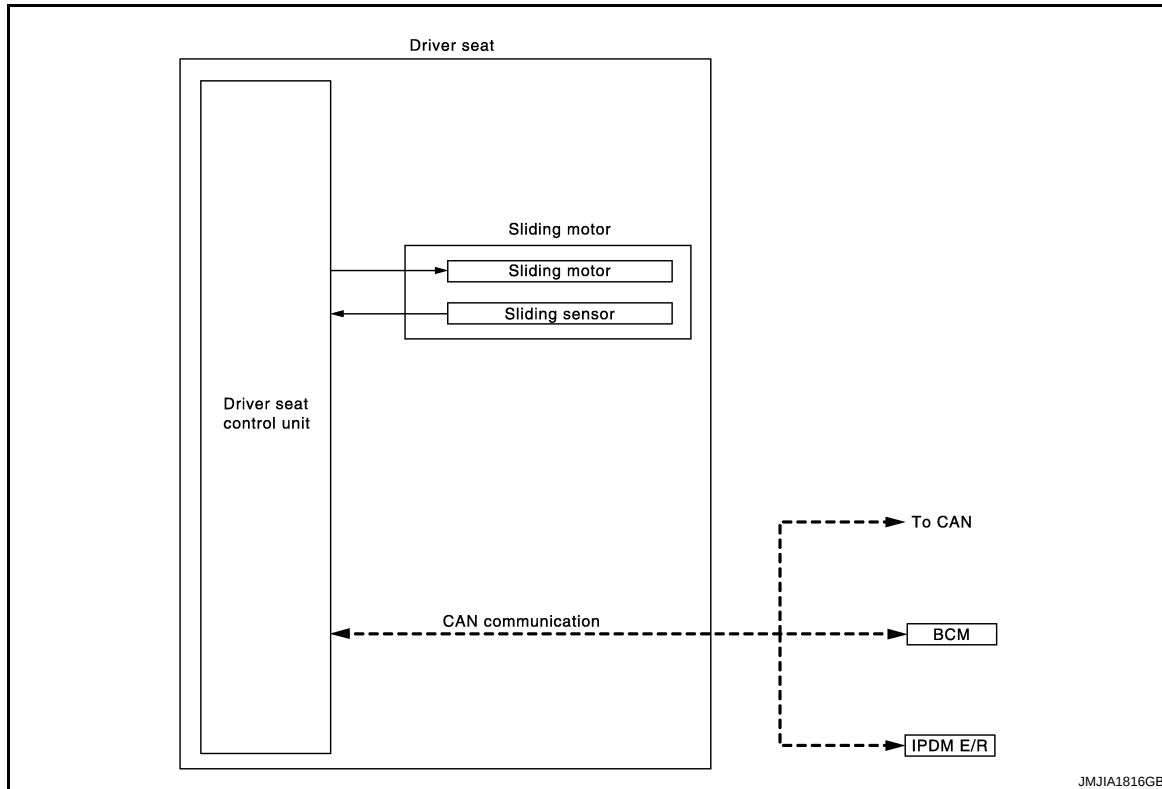
ENTRY ASSIST FUNCTION

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

ENTRY ASSIST FUNCTION : System Diagram

INFOID:000000003759084



ENTRY ASSIST FUNCTION : System Description

INFOID:000000003759085

OUTLINE

When the following condition is satisfied, the seat in the exiting position returns 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-8, "SYSTEM INITIALIZATION : Description"](#).

OPERATION PROCEDURE

1. Turn the ignition switch to the ACC position.
2. Driver seat returns from the exiting position to entry position.

OPERATION CONDITION

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

Item	Request status
Seat	The vehicle is not moved after performing the exit assist function.
Switch inputs • Power seat switch • Set switch • Memory switch	OFF (Not operated)

DETAIL FLOW

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

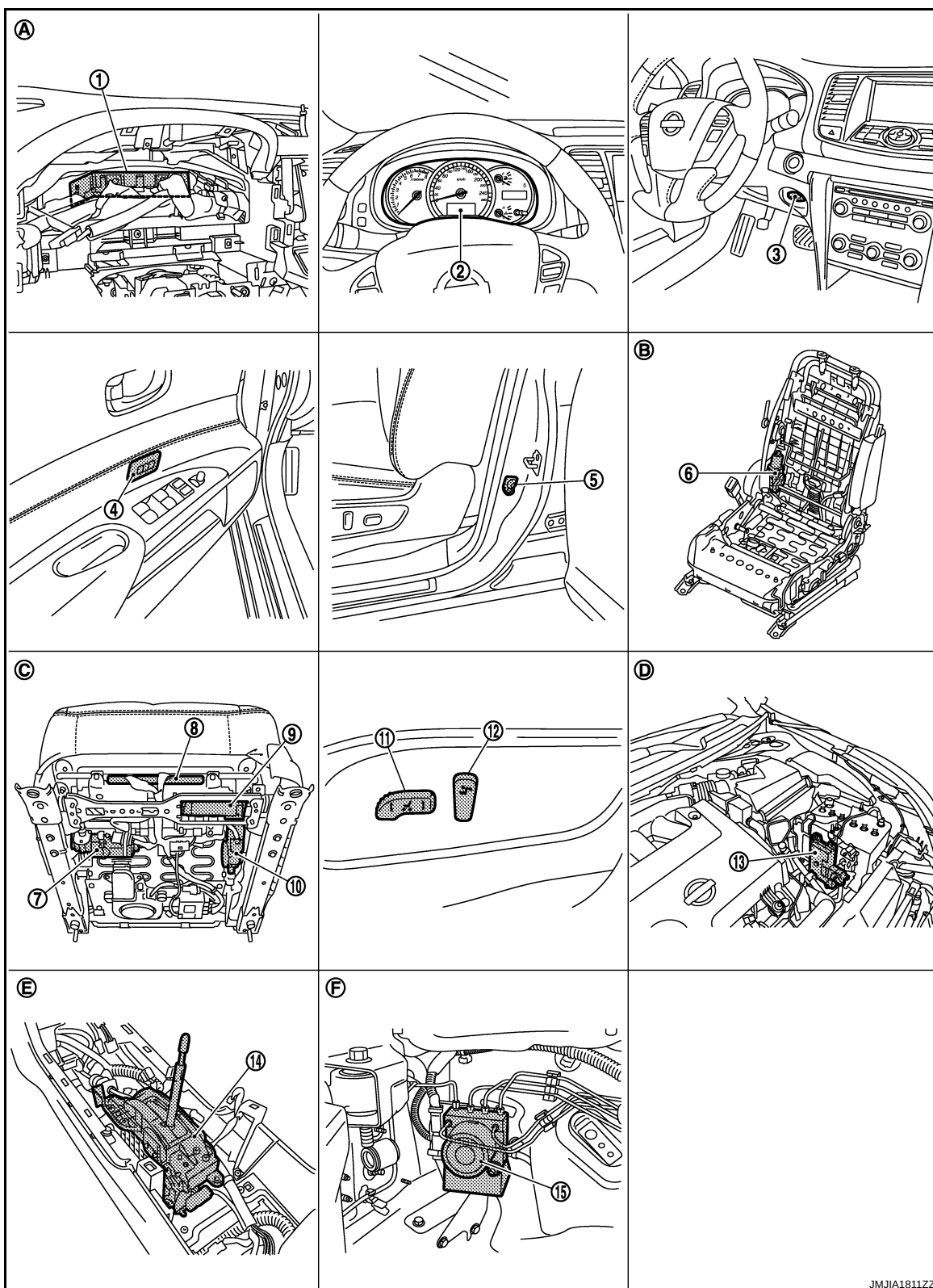
Order	Input	Output	Control unit condition
1	Ignition switch	—	Driver seat control unit receives the signals of [ignition switch signal] from BCM via CAN communication
2	—	Sliding motor	Driver seat control unit operates the sliding motor when the operating conditions are satisfied
	Sliding sensor	—	Sliding sensor monitors the operating positions of seat, and then stops the operation of sliding motor when the seat reaches the recorded address

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

ENTRY ASSIST FUNCTION : Component Parts Location

INFOID:000000003859814



- | | | |
|---|--|---------------------------------------|
| 1. BCM M118, M119, M122, M123 | 2. Combination meter M34 | 3. Key slot M99 |
| 4. Seat memory switch D13 | 5. Front door switch (driver side) B34 | 6. Reclining motor (driver side) B454 |
| 7. Lifting motor (front) (driver side) B455 | 8. Driver seat control unit B451, B452 | 9. Sliding motor (driver side) B461 |

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

- | | | |
|---|--|---|
| 10. Lifting motor (rear) (driver side) B456 | 11. Power seat switch (driver side) B459 (sliding, lifting switch) | 12. Power seat switch (driver side) B459 (reclining switch) |
| 13. TCM (transmission control module) F23 | 14. Control device (detention switch) M57 | 15. ABS actuator and electric unit (control unit) E36 |
| A. Behind the combination meter | B. View with seat cushion and seatback pad removed | C. Back side of the seat cushion |
| D. Engine room (LH) | E. View with the center console assembly removed | F. Engine room (RH) |

ENTRY ASSIST FUNCTION : Component Description

INFOID:000000003759087

CONTROL UNITS

Item	Function
Driver seat control unit	Operates the seat sliding motor for a certain amount depending on the ignition signal and door switch signal (driver side) from BCM
BCM	Recognizes the following status and transmits it to the driver seat control unit via CAN communication Ignition switch position: ACC/ON

INPUT PARTS

Sensors

Item	Function
Sliding sensor	Detect the front/rear position of seat

OUTPUT PARTS

Item	Function
Sliding motor	Slides the seat frontward/rearward

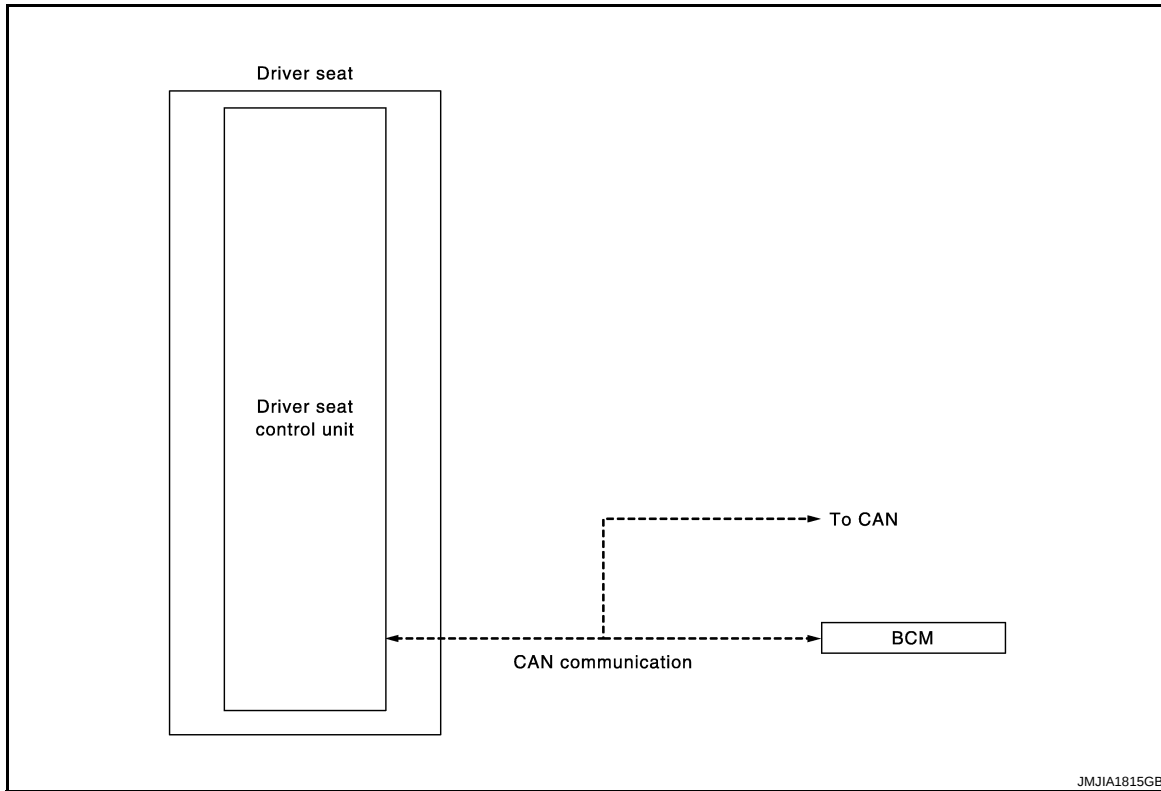
INTELLIGENT KEY INTERLOCK FUNCTION

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram

INFOID:000000003759088



INTELLIGENT KEY INTERLOCK FUNCTION : System Description

INFOID:000000003759089

OUTLINE

When unlocking doors by Intelligent Key or door request switch (driver side), the memory function is performed first, the exit assist function is performed next and the entry assist function is performed last.

OPERATION PROCEDURE

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

NOTE:

Further information for Intelligent Key interlock function. Refer to [ADP-8, "MEMORY STORING : Description"](#).

OPERATION CONDITION

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

Item	Request status
Ignition position	OFF
Steering lock unit	LOCK
Switch inputs • Power seat switch • Set switch • Memory switch	OFF (Not operated)
Selector lever	P position

DETAIL FLOW

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

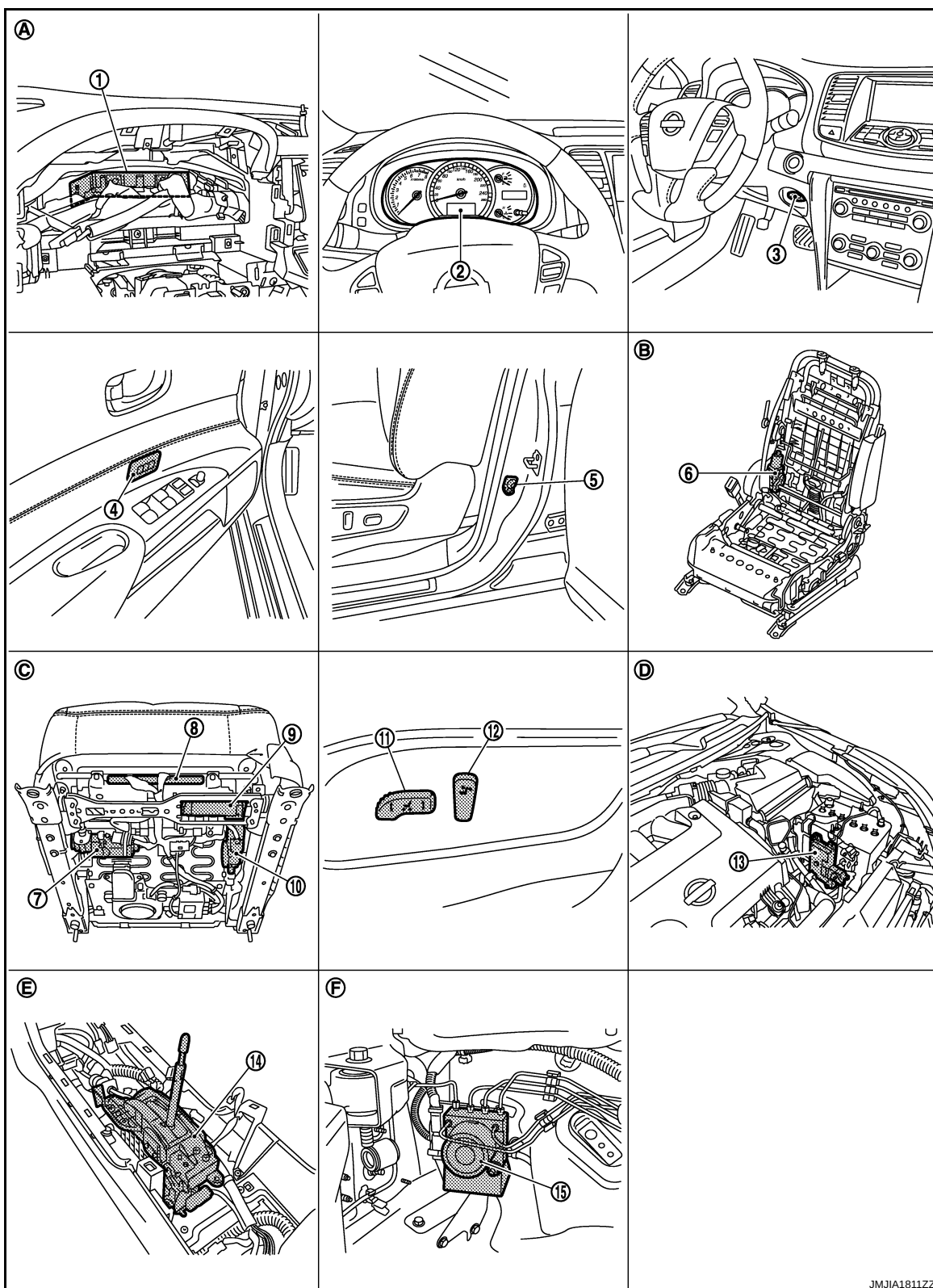
Order	Input	Output	Control unit condition
1	• Door unlock signal (CAN) • Key ID signal (CAN)	—	Driver seat control unit receives the door unlock signal and the key ID signal from BCM when unlocking the door with Intelligent Key or driver side door request switch
2	—	—	Driver seat control unit performs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

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION : Component Parts Location

INFOID:000000003859815



- | | | |
|---|--|---------------------------------------|
| 1. BCM M118, M119, M122, M123 | 2. Combination meter M34 | 3. Key slot M99 |
| 4. Seat memory switch D13 | 5. Front door switch (driver side) B34 | 6. Reclining motor (driver side) B454 |
| 7. Lifting motor (front) (driver side) B455 | 8. Driver seat control unit B451, B452 | 9. Sliding motor (driver side) B461 |

AUTOMATIC DRIVE POSITIONER SYSTEM

< FUNCTION DIAGNOSIS >

- | | | |
|---|--|---|
| 10. Lifting motor (rear) (driver side) B456 | 11. Power seat switch (driver side) B459 (sliding, lifting switch) | 12. Power seat switch (driver side) B459 (reclining switch) |
| 13. TCM (transmission control module) F23 | 14. Control device (detention switch) M57 | 15. ABS actuator and electric unit (control unit) E36 |
| A. Behind the combination meter | B. View with seat cushion and seatback pad removed | C. Back side of the seat cushion |
| D. Engine room (LH) | E. View with the center console assembly removed | F. Engine room (RH) |

INTELLIGENT KEY INTERLOCK FUNCTION : Component Description

INFOID:0000000003759091

CONTROL UNITS

Item	Function
Driver seat control unit	Performs memory function and entry/exit assist function after receiving the door unlock signal from BCM
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) • Key ID signal • Ignition switch signal

DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

Diagnosis Description

INFOID:000000003759092

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

DIAGNOSTIC MODE

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

CONSULT-III Function

INFOID:000000003759093

SELF-DIAGNOSIS RESULTS

Refer to [ADP-124, "DTC Index"](#).

DATA MONITOR

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
SET SW	"ON/OFF"	×	×	ON/OFF status judged from the setting switch signal
MEMORY SW 1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal
MEMORY SW 2	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 2 signal
SLIDE SW-FR	"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
DETENT SW	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than P position)" is judged from the detention switch signal
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON) /OFF (ACC, OFF) status judged from the ignition switch signal

DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

< FUNCTION DIAGNOSIS >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
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
VEHICLE SPEED	—	×	×	Display the vehicle speed signal received from combination meter by numerical value [km/h]
P RANG SW CAN	"ON/OFF"	×	×	ON/OFF status judged from the P range switch signal
R RANGE (CAN)	"ON/OFF"	×	×	ON/OFF status judged from the R range switch signal
DOOR SW-FL	"ON/OFF"	×	×	ON/OFF status judged from the door switch (front driver side) signal
DOOR SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the door switch (front passenger side) signal
IGN ON SW	"ON/OFF"	×	×	ON/OFF status judged from the ignition switch signal
ACC ON SW	"ON/OFF"	×	×	ON/OFF status judged from the ACC switch signal
KEY ON SW	"ON/OFF"	×	×	ON/OFF status judged from the key on switch signal
KEYLESS ID	—	×	×	Key ID status judged from the key ID signal
KYLS DR UNLK	"ON/OFF"	×	×	ON/OFF status judged from the driver side door unlock actuator output switch signal
VHCL SPEED (ABS)	"ON/OFF"	×	×	ON/OFF status judged from vehicle speed signal
HANDLE	"RHD/LHD"	×	×	RHD/LHD status judged from handle position signal
TRANSMISSION	"AT or CVT/MT"	×	×	AT or CVT/MT status judged from transmission
STEERING STATUS	"LOCK/UNLOCK"	×	×	LOCK/UNLOCK status judged from steering lock unit

ACTIVE TEST

CAUTION:

When driving vehicle never 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)
MEMORY SW INDCTR	Turns ON/OFF the memory indicator

WORK SUPPORT

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

DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

< FUNCTION DIAGNOSIS >

Work item	Content	Item
EXIT SEAT SLIDE SETTING	Entry/exit assist (seat) can be selected: ON (operated) – OFF (not operated)	ON
		OFF

A

B

C

D

E

F

G

H

I

ADP

K

L

M

N

O

P

U1000 CAN COMM CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000003759094

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:0000000003759095

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

DTC CONFIRMATION PROCEDURE

1.STEP 1

1. Turn ignition switch ON and wait at least 3 seconds.
2. Check "Self diagnostic result" with CONSULT-III.

Is the DTC detected?

YES >> Refer to [ADP-38, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000003759096

Refer to [LAN-14, "Trouble Diagnosis Flow Chart"](#).

Special Repair Requirement

INFOID:0000000003759097

Refer to [ADP-8, "SYSTEM INITIALIZATION : Description"](#).

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

Description

INFOID:000000003759098

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.

CAN Communication Signal Chart, refer to [LAN-22, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000003759099

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:000000003759100

1.REPLACE DRIVER SEAT CONTROL UNIT

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

>> Replace driver seat control unit.Refer to [ADP-136, "Removal and Installation"](#).

ADP

B2130 EEPROM

< COMPONENT DIAGNOSIS >

B2130 EEPROM

DTC Logic

INFOID:000000003759101

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.STEP 1

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

Is the DTC detected?

- YES >> Refer to [ADP-40, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000003759102

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to [ADP-40, "DTC Logic"](#).

Is the DTC displayed again?

- YES >> GO TO 2.
NO >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

2.REPLACE DRIVER SEAT CONTROL UNIT

Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

>> INSPECTION END

B2112 SLIDING MOTOR

< COMPONENT DIAGNOSIS >

B2112 SLIDING MOTOR

Description

INFOID:0000000003759103

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

DTC Logic

INFOID:0000000003759104

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.STEP 1

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

Is the DTC detected?

- YES >> Refer to [ADP-41, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000003759105

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to [ADP-41, "DTC Logic"](#).

Is the DTC displayed again?

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

2.CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

(+)		(-)	Voltage (V) (Approx.)
Sliding motor			
Connector	Terminal		
B461	3	Ground	0
	4		

Is the inspection result normal?

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

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

B2112 SLIDING MOTOR

< COMPONENT DIAGNOSIS >

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)
Connector	Terminal		
B451	3	Ground	0
	4		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#)

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

B2113 RECLINING MOTOR

< COMPONENT DIAGNOSIS >

B2113 RECLINING MOTOR

Description

INFOID:000000003759106

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

DTC Logic

INFOID:000000003759107

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2113	SEAT RECLINING	The driver seat control unit detects the output of 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 shorted

DTC CONFIRMATION PROCEDURE

1.STEP 1

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

Is the DTC detected?

- YES >> Refer to [ADP-43, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000003759108

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to [ADP-43, "DTC Logic"](#).

Is the DTC displayed again?

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

2.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

(+)		(-)	Voltage (V) (Approx.)
Reclining motor			
Connector	Terminal		
B454	5	Ground	0
	6		

Is the inspection result normal?

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

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

B2113 RECLINING MOTOR

< COMPONENT DIAGNOSIS >

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)
Connector	Terminal		
B451	5	Ground	0
	6		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:000000003759115

NOTE:

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

1.CHECK FUSIBLE LINK

1. Turn ignition switch OFF.
2. Check that the following fusible link is not blown.

Terminal No.	Signal name	Fusible link No.
1	Battery power supply	I (40A)

Is the fusible link blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Disconnect 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	Terminals		
B451	1	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 3.
NO-1 >> Repair or replace harness.
NO-2 >> Check circuit breaker.

3.CHECK GROUND CIRCUIT

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	2		Existed
B452	35		

Is the inspection result normal?

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

SLIDING SWITCH

< COMPONENT DIAGNOSIS >

SLIDING SWITCH

Description

INFOID:000000003759119

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:000000003759120

1.CHECK FUNCTION

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

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

Is the indication normal?

- YES >> Sliding switch function is OK.
NO >> Refer to [ADP-46, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759121

1.CHECK SLIDING SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect power seat switch (driver side) connector.
3. Check voltage between power seat switch (driver side) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Power seat switch (driver side)			
Connector	Terminal		
B459	11	Ground	Battery voltage
	12		

Is the inspection result normal?

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

2.CHECK SLIDING SWITCH CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector and power seat switch (driver side) harness connector.

Driver seat control unit		Power seat switch (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
B452	11	B459	11	Existed
	12		12	

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	11		Not existed
	12		

SLIDING SWITCH

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK SLIDING SWITCH

Refer to [ADP-47, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch (driver side). Refer to [ADP-138, "Removal and Installation"](#)

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000003759122

1.CHECK SLIDING SWITCH

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

Power seat switch (driver side)		Condition		Continuity
Terminal				
36	11	Sliding switch (backward)	Operate	Existed
			Release	Not existed
	12	Sliding switch (forward)	Operate	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch (driver side). Refer to [ADP-138, "Removal and Installation"](#).

RECLINING SWITCH

< COMPONENT DIAGNOSIS >

RECLINING SWITCH

Description

INFOID:000000003759123

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:000000003759124

1.CHECK FUNCTION

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

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

Is the indication normal?

- YES >> Reclining switch function is OK.
NO >> Refer to [ADP-48, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759125

1.CHECK RECLINING SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect power seat switch (driver side) connector.
3. Check voltage between power seat switch (driver side) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Power seat switch (driver side)			
Connector	Terminals		
B459	13	Ground	Battery voltage
	14		

Is the inspection result normal?

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

2.CHECK RECLINING SWITCH CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector and power seat switch (driver side) harness connector.

Driver seat control unit		Power seat switch (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
B452	13	B459	13	Existed
	14		14	

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	13		Not existed
	14		

RECLINING SWITCH

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK RECLINING SWITCH

Refer to [ADP-49, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch (driver side). Refer to [ADP-138, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000003759126

1.CHECK RECLINING SWITCH

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

Power seat switch (driver side)		Condition		Continuity
Terminal				
36	13	Reclining switch (backward)	Operate	Existed
			Release	Not existed
	14	Reclining switch (forward)	Operate	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch (driver side). Refer to [ADP-138, "Removal and Installation"](#).

ADP

LIFTING SWITCH (FRONT)

< COMPONENT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description

INFOID:000000003759127

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:000000003759128

1.CHECK FUNCTION

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

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

Is the indication normal?

- YES >> Lifting switch (front) function is OK.
NO >> Refer to [ADP-50, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759129

1.CHECK LIFTING SWITCH (FRONT) INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect power seat switch (driver side) connector.
3. Check voltage between power seat switch (driver side) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Power seat switch (driver side)			
Connector	Terminal		
B459	17	Ground	Battery voltage
	18		

Is the inspection result normal?

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

2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector and power seat switch (driver side) harness connector.

Driver seat control unit		Power seat switch (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
B452	17	B459	17	Existed
	18		18	

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	17		Not existed
	18		

LIFTING SWITCH (FRONT)

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (FRONT)

Refer to [ADP-51, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch (driver side). Refer to [ADP-138, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000003759130

1.CHECK LIFTING SWITCH (FRONT)

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

Power seat switch (driver side)		Condition		Continuity
Terminal				
36	17	Lifting switch front (down)	Operate	Existed
			Release	Not existed
	18	Lifting switch front (up)	Operate	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch (driver side). Refer to [ADP-138, "Removal and Installation"](#).

LIFTING SWITCH (REAR)

< COMPONENT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description

INFOID:000000003759131

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:000000003759132

1.CHECK FUNCTION

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

Monitor item	Condition		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 >> Lifting switch (rear) function is OK.
NO >> Refer to [ADP-52, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759133

1.CHECK LIFTING SWITCH (REAR) INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect power seat switch (driver side) connector.
3. Check voltage between power seat switch (driver side) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Power seat switch (driver side)			
Connector	Terminal		
B459	15	Ground	Battery voltage
	16		

Is the inspection result normal?

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

2.CHECK LIFTING SWITCH (REAR) CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector and power seat switch (driver side) harness connector.

Driver seat control unit		Power seat switch (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
B452	15	B459	15	Existed
	16		16	

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	15		Not existed
	16		

LIFTING SWITCH (REAR)

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (REAR)

Refer to [ADP-53, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch (driver side) . Refer to [ADP-138, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000003759134

1.CHECK LIFTING SWITCH (REAR)

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

Power seat switch (driver side)		Condition		Continuity
Terminal				
36	15	Lifting switch rear (down)	Operate	Existed
			Release	Not existed
	16	Lifting switch rear (up)	Operate	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch (driver side). Refer to [ADP-138, "Removal and Installation"](#).

ADP

SEAT MEMORY SWITCH

< COMPONENT DIAGNOSIS >

SEAT MEMORY SWITCH

Description

INFOID:000000003759143

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

Component Function Check

INFOID:000000003759144

1.CHECK FUNCTION

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

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

Is the indication normal?

- YES >> Seat memory switch function is OK.
NO >> Refer to [ADP-54, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759145

1.CHECK SEAT MEMORY SWITCH OPERATION

Check seat memory switch operation.

Which is the malfunctioning switch?

- All switches are NG>>GO TO 4.
Some switches are NG>>GO TO 2.

2.CHECK SEAT MEMORY SWITCH INPUT 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		
D13	1	Ground	5
	2		
	3		

Is the inspection result normal?

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

3.CHECK MEMORY 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 seat memory switch harness connector.

SEAT MEMORY SWITCH

< COMPONENT DIAGNOSIS >

Driver seat control unit		Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	
B452	27	D13	1	Existed
	28		2	
	29		3	

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	27		Not existed
	28		
	29		

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

4.CHECK SEAT MEMORY SWITCH

Refer to [ADP-55, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat memory switch. Refer to [ADP-137, "Removal and Installation"](#).

5.CHECK MEMORY SWITCH GROUND CIRCUIT

Check continuity between seat memory switch harness connector and ground.

Seat memory switch		Ground	Continuity
Connector	Terminal		
D13	4		Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000003759146

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

< COMPONENT DIAGNOSIS >

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to [ADP-137, "Removal and Installation"](#).

POWER SEAT SWITCH GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000003759155

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	36		Existed

Is the inspection result normal?

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

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ADP

FRONT DOOR SWITCH (DRIVER SIDE)

< COMPONENT DIAGNOSIS >

FRONT DOOR SWITCH (DRIVER SIDE)

Description

INFOID:000000003759157

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

Component Function Check

INFOID:000000003759158

1.CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Front door switch (driver side) function is OK.

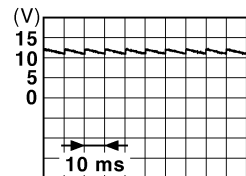
NO >> Refer to [ADP-58, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759159

1.CHECK FRONT DOOR SWITCH (DRIVER SIDE) INPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Front door switch (driver side)			
Connector	Terminals		
B34	2	Ground	

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Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK FRONT DOOR SWITCH (DRIVER SIDE) CIRCUIT

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

BCM		Front door switch (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
M123	150	B34	2	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	150		Not existed

FRONT DOOR SWITCH (DRIVER SIDE)

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK FRONT DOOR SWITCH (DRIVER SIDE)

Refer to [ADP-59, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (driver side). Refer to [DLK-234, "Removal and Installation"](#)

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000003759160

1.CHECK FRONT DOOR SWITCH (DRIVER SIDE)

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

Terminal		Condition		Continuity
Front door switch (driver side)				
2	Ground part of door switch	Front door switch (driver side)	Press	Not existed
			Release	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door switch (driver side). Refer to [DLK-234, "Removal and Installation"](#).

ADP

SLIDING SENSOR

< COMPONENT DIAGNOSIS >

SLIDING SENSOR

Description

INFOID:000000003759161

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

Component Function Check

INFOID:000000003759162

1.CHECK FUNCTION

1. Select "SLIDE PULSE" in "Data monitor" mode via CONSULT-III.
2. 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
		Other than above	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?

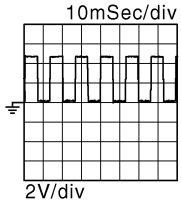
- YES >> Sliding sensor function is OK.
NO >> Refer to [ADP-60. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759163

1.CHECK SLIDING SENSOR SIGNAL

1. Turn ignition switch ON.
2. Read voltage signal between sliding motor harness connector and ground with oscilloscope.

(+) Sliding motor		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B461	19	Ground	Seat sliding	Operate	
				Other than above	0 or 5

Is the inspection result normal?

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

2.CHECK SLIDING SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit connector and sliding motor 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	19	B461	19	Existed

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

SLIDING SENSOR

< COMPONENT DIAGNOSIS >

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	19		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK SLIDING SENSOR POWER SUPPLY

Check voltage between sliding motor harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Sliding motor			
Connector	Terminal		
B461	31	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 and sliding motor 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	31	B461	31	Existed

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	31		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK SLIDING SENSOR GROUND

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

Sliding motor		Ground	Continuity
Connector	Terminal		
B461	40		Existed

Is the inspection result normal?

YES >> Replace sliding motor. Refer to [SE-89, "Exploded View"](#).

NO >> Repair or replace harness.

RECLINING SENSOR

< COMPONENT DIAGNOSIS >

RECLINING SENSOR

Description

INFOID:000000003759164

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

Component Function Check

INFOID:000000003759165

1.CHECK FUNCTION

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

Monitor item	Condition		Value
RECLN PULSE	Seat reclining	Operate (forward)	Change (increase)* ¹
		Operate (backward)	Change (decrease)* ¹
		Other than above	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?

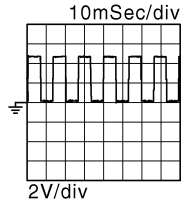
- YES >> Reclining sensor function is OK.
NO >> Refer to [ADP-62. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759166

1.CHECK RECLINING SENSOR SIGNAL

1. Turn ignition switch ON.
2. Read voltage signal between reclining motor harness connector and ground with oscilloscope.

(+) Reclining motor		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B454	20	Ground	Seat reclining	Operate	
				Other than above	0 or 5

Is the inspection result normal?

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

2.CHECK RECLINING SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit connector 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	
B452	20	B454	20	Existed

RECLINING SENSOR

< COMPONENT DIAGNOSIS >

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	20		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK RECLINING SENSOR POWER SUPPLY

Check voltage between reclining motor harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Reclining motor			
Connector	Terminal		
B454	32	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 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	
B452	31	B454	32	Existed

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	31		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK RECLINING SENSOR GROUND

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

Reclining motor		Ground	Continuity
Connector	Terminal		
B454	41		Existed

Is the inspection result normal?

YES >> Replace reclining motor. Refer to [SE-89, "Exploded View"](#).

NO >> Repair or replace harness.

LIFTING SENSOR (FRONT)

< COMPONENT DIAGNOSIS >

LIFTING SENSOR (FRONT)

Description

INFOID:000000003759167

- The lifting sensor (front) is installed to the seat 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:000000003759168

1.CHECK FUNCTION

1. Select "LIFT FR PULSE" in "Data monitor" mode with CONSULT-III.
2. 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
		Other than above	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?

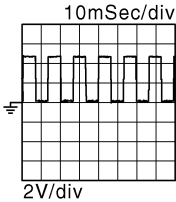
- YES >> Lifting sensor (front) function is OK.
NO >> Refer to [ADP-64. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759169

1.CHECK LIFTING SENSOR (FRONT) SIGNAL

1. Turn ignition switch ON.
2. Read the voltage signal lifting motor (front) harness connector and ground with an oscilloscope.

(+) Lifting motor (front)		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B455	22	Ground	Seat Lifting (front)	Operate	
				Other than above	0 or 5

Is the inspection result normal?

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

2.CHECK LIFTING SENSOR (FRONT) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit connector 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	
B452	22	B455	22	Existed

LIFTING SENSOR (FRONT)

< COMPONENT DIAGNOSIS >

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	22		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY

Check voltage between lifting motor (front) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Lifting motor (front)			
Connector	Terminal		
B455	34	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

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

Driver seat control unit		Lifting motor (front)		Continuity
Connector	Terminal	Connector	Terminal	
B452	31	B455	34	Existed

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	31		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK LIFTING SENSOR (FRONT) GROUND

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

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

Is the inspection result normal?

YES >> Replace lifting motor (front). Refer to [SE-89, "Exploded View"](#).

NO >> Repair or replace harness.

LIFTING SENSOR (REAR)

< COMPONENT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description

INFOID:000000003759170

- The lifting sensor (rear) is installed to the seat 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:000000003759171

1.CHECK FUNCTION

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

Monitor item	Condition		Value
LIFT RR PULSE	Seat lifting (rear)	Operate (Up)	Change (increase) ^{*1}
		Operate (Down)	Change (decrease) ^{*1}
		Other than above	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?

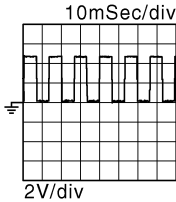
- YES >> Lifting sensor (rear) function is OK.
NO >> Refer to [ADP-66. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759172

1.CHECK LIFTING SENSOR (REAR) SIGNAL

1. Turn ignition switch ON.
2. Read voltage signal between lifting motor (rear) harness connector and ground with oscilloscope.

(+) Lifting motor (rear)		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B456	21	Ground	Seat Lifting (rear)	Operate	
				Other than above	0 or 5

Is the inspection result normal?

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

2.CHECK LIFTING SENSOR (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	21	B456	21	Existed

LIFTING SENSOR (REAR)

< COMPONENT DIAGNOSIS >

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	21		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK LIFTING SENSOR (REAR) POWER SUPPLY

Check voltage between lifting motor (rear) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Lifting motor (rear)			
Connector	Terminal		
B456	33	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK LIFTING SENSOR (REAR) POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect driver seat control unit connector and lifting motor (rear) harness connector.
- 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	31	B456	33	Existed

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	31		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK LIFTING SENSOR (REAR) GROUND

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

Lifting motor (rear)		Ground	Continuity
Connector	Terminal		
B456	42		Existed

Is the inspection result normal?

YES >> Replace lifting motor (rear). Refer to [SE-89, "Exploded View"](#).

NO >> Repair or replace harness.

SLIDING MOTOR

< COMPONENT DIAGNOSIS >

SLIDING MOTOR

Description

INFOID:000000003759185

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

Component Function Check

INFOID:000000003759186

1.CHECK FUNCTION

1. Select "SEAT SLIDE" in "Active test" mode with CONSULT-III.
2. 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 >> Sliding motor function is OK.
NO >> Refer to [ADP-68, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759187

1.CHECK SLIDING MOTOR POWER SUPPLY

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

(+)		(-)	Condition		Voltage (V) (Approx.)
Sliding motor					
Connector	Terminal				
B461	3	Ground	Seat sliding	Backward	Battery voltage
				Other than above	0
	4			Forward	Battery voltage
				Other than above	0

Is the inspection result normal?

- YES >> Replace sliding motor. Refer to [SE-89, "Exploded View"](#).
NO >> GO TO 2.

2.CHECK SLIDING MOTOR CIRCUIT

1. Disconnect driver seat control unit connector.
2. 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	
B451	3	B461	3	Existed
	4		4	

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

SLIDING MOTOR

< COMPONENT DIAGNOSIS >

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	3		Not existed
	4		

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-136. "Removal and Installation"](#).
NO >> Repair or replace harness.

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RECLINING MOTOR

< COMPONENT DIAGNOSIS >

RECLINING MOTOR

Description

INFOID:000000003759188

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

Component Function Check

INFOID:000000003759189

1.CHECK FUNCTION

1. Select "SEAT RECLINING" in "Active test" mode with CONSULT-III.
2. 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 >> Reclining motor function is OK.
NO >> Refer to [ADP-70. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759190

1.CHECK RECLINING MOTOR POWER SUPPLY

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

(+)		(-)	Condition		Voltage (V) (Approx.)
Reclining motor					
Connector	Terminal				
B454	5	Ground	Seat reclining	Backward	Battery voltage
				Other than above	0
	6			Forward	Battery voltage
				Other than above	0

Is the inspection result normal?

- YES >> Replace reclining motor. Refer to [SE-89. "Exploded View"](#).
NO >> GO TO 2.

2.CHECK RECLINING MOTOR CIRCUIT

1. Disconnect driver seat control unit connector.
2. 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	5	B454	5	Existed
	6		6	

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

RECLINING MOTOR

< COMPONENT DIAGNOSIS >

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	5		Not existed
	6		

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-136. "Removal and Installation"](#).
NO >> Repair or replace harness.

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ADP

LIFTING MOTOR (FRONT)

< COMPONENT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description

INFOID:000000003759191

- The lifting motor (front) is installed to the seat cushion frame.
- The lifting motor (front) is activated via 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:000000003759192

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

- YES >> Lifting motor (front) function is OK.
NO >> Refer to [ADP-72, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759193

1.CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect lifting motor (front) connector.
3. Check voltage between lifting motor (front) harness connector and ground.

(+)		(-)	Condition		Voltage (V) (Approx.)
Lifting motor (front)					
Connector	Terminal				
B455	9	Ground	Seat lifting (front)	Downward	Battery voltage
				Other than above	0
	10			Upward	Battery voltage
				Other than above	0

Is the inspection result normal?

- YES >> Replace lifting motor (front). Refer to [SE-89, "Exploded View"](#).
NO >> GO TO 2.

2.CHECK LIFTING MOTOR (FRONT) CIRCUIT

1. Disconnect driver seat control unit connector.
2. 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	9	B455	9	Existed
	10		10	

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

LIFTING MOTOR (FRONT)

< COMPONENT DIAGNOSIS >

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	9		Not existed
	10		

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-136. "Removal and Installation"](#).
- NO >> Repair or replace harness.

ADP

LIFTING MOTOR (REAR)

< COMPONENT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description

INFOID:000000003759194

- The lifting motor (rear) is installed to the seat cushion frame.
- The lifting motor (rear) is activated via 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:000000003759195

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

- YES >> Lifting motor (rear) function is OK.
NO >> Refer to [ADP-74, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759196

1.CHECK LIFTING MOTOR (REAR) POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect lifting motor (rear) connector.
3. Check voltage between lifting motor (rear) harness connector and ground.

(+)		(-)	Condition		Voltage (V) (Approx.)
Lifting motor (rear)					
Connector	Terminal				
B456	7	Ground	Seat lifting (rear)	Downward	Battery voltage
				Other than above	0
	8			Upward	Battery voltage
				Other than above	0

Is the inspection result normal?

- YES >> Replace lifting motor (rear). Refer to [SE-89, "Exploded View"](#).
NO >> GO TO 2.

2.CHECK LIFTING MOTOR (REAR) CIRCUIT

1. Disconnect driver seat control unit connector.
2. 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	
B451	7	B456	7	Existed
	8		8	

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

LIFTING MOTOR (REAR)

< COMPONENT DIAGNOSIS >

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B451	7		Not existed
	8		

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-136. "Removal and Installation"](#).
- NO >> Repair or replace harness.

ADP

SEAT MEMORY INDICATOR

< COMPONENT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description

INFOID:000000003759207

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

Component Function Check

INFOID:000000003759208

1.CHECK FUNCTION

1. Select "MEMORY SW INDCTR" in "Active test" mode with CONSULT-III.
2. 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 >> Seat memory indicator function is OK.
NO >> Refer to [ADP-76, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003759209

1.CHECK SEAT MEMORY INDICATOR OPERATION

Check seat memory indicator operation.

Which is the malfunctioning indicator?

- All indicators are NG>>GO TO 2.
An indicator is NG>>GO TO 4.

2.CHECK FUSE

1. Turn ignition switch OFF.
2. Check that the blown fuse after repairing the affected circuit if a fuse is blown.

Signal name	Fuse No.
Battery power supply	10 (10A)

Is the fuse blown?

- YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.
NO >> GO TO 3.

3.CHECK SEAT MEMORY INDICATOR POWER SUPPLY

1. Disconnect seat memory switch connector.
2. Check voltage between seat memory switch harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Seat memory switch			
Connector	Terminal		
D13	5	Ground	Battery voltage

Is the inspection result normal?

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

4.CHECK SEAT MEMORY INDICATOR

Check seat memory indicator. Refer to [ADP-77, "Component Inspection"](#).

SEAT MEMORY INDICATOR

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat memory switch. Refer to [ADP-137, "Removal and Installation"](#).

5.CHECK SEAT MEMORY INDICATOR CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector and seat memory switch harness connector.

Driver seat control unit		Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	
B452	25	D13	6	Existed
	26		7	

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B452	25		Not existed
	26		

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-136, "Removal and Installation"](#).

NO >> Repair or replace harness.

Component Inspection

INFOID:000000003759210

1.CHECK SEAT MEMORY INDICATOR

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

Terminal		Continuity
Seat memory switch		
(+)*	(-)*	
5	6	Existed
	7	

*: For a digital tester.

NOTE:

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to [ADP-137, "Removal and Installation"](#).

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000003940046

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III 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	Off
	Front wiper switch INT	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent 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	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
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 RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Monitor Item	Condition	Value/Status	
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off	A
CDL LOCK SW	Other than power door lock switch LOCK	Off	B
	Power door lock switch LOCK	On	
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off	C
	Power door lock switch UNLOCK	On	
KEY CYL LK-SW	NOTE: The item is indicated, but not monitored.	Off	
KEY CYL UN-SW	NOTE: The item is indicated, but not monitored.	Off	D
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	E
HAZARD SW	Hazard switch is OFF	Off	F
	Hazard switch is ON	On	
REAR DEF SW NOTE: At model with BOSE audio system this item is indicated, but is not monitored.	Rear window defogger switch is OFF	Off	G
	Rear window defogger switch is ON	On	
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off	H
TR/BD OPEN SW	Trunk lid opener switch OFF	Off	I
	While the trunk lid opener switch is turned ON	On	
TRNK/HAT MNTR	Trunk lid closed	Off	ADP
	Trunk lid opened	On	
RKE-LOCK	LOCK button of the key is not pressed	Off	K
	LOCK button of the key is pressed	On	
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off	L
	UNLOCK button of the key is pressed	On	
RKE-TR/BD	TRUNK OPEN button of the key is not pressed	Off	M
	TRUNK OPEN button of the key is pressed	On	
RKE-PANIC	NOTE: The item is indicated, but not monitored.	Off	
RKE-P/W OPEN	NOTE: The item is indicated, but not monitored.	Off	
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off	N
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On	
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V	O
	Dark outside of the vehicle	Close to 0 V	
REQ SW -DR	Driver door request switch is not pressed	Off	P
	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	
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Monitor Item	Condition	Value/Status
REQ SW -RR	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	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
BRAKE SW 1	The brake pedal is not depressed	On
	The brake pedal is depressed	Off
DETE/CANCL SW	Selector lever in P position	Off
	Selector lever in any position other than P	On
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	Steering is locked	Off
	Steering is unlocked	On
S/L -UNLOCK	Steering is unlocked	Off
	Steering is locked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in P position	Off
	Selector lever in any position other than P	On
SFT PN -IPDM	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	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
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is locked	Off
	Steering is unlocked	On
S/L UNLK-IPDM	Steering is unlocked	Off
	Steering is locked	On

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

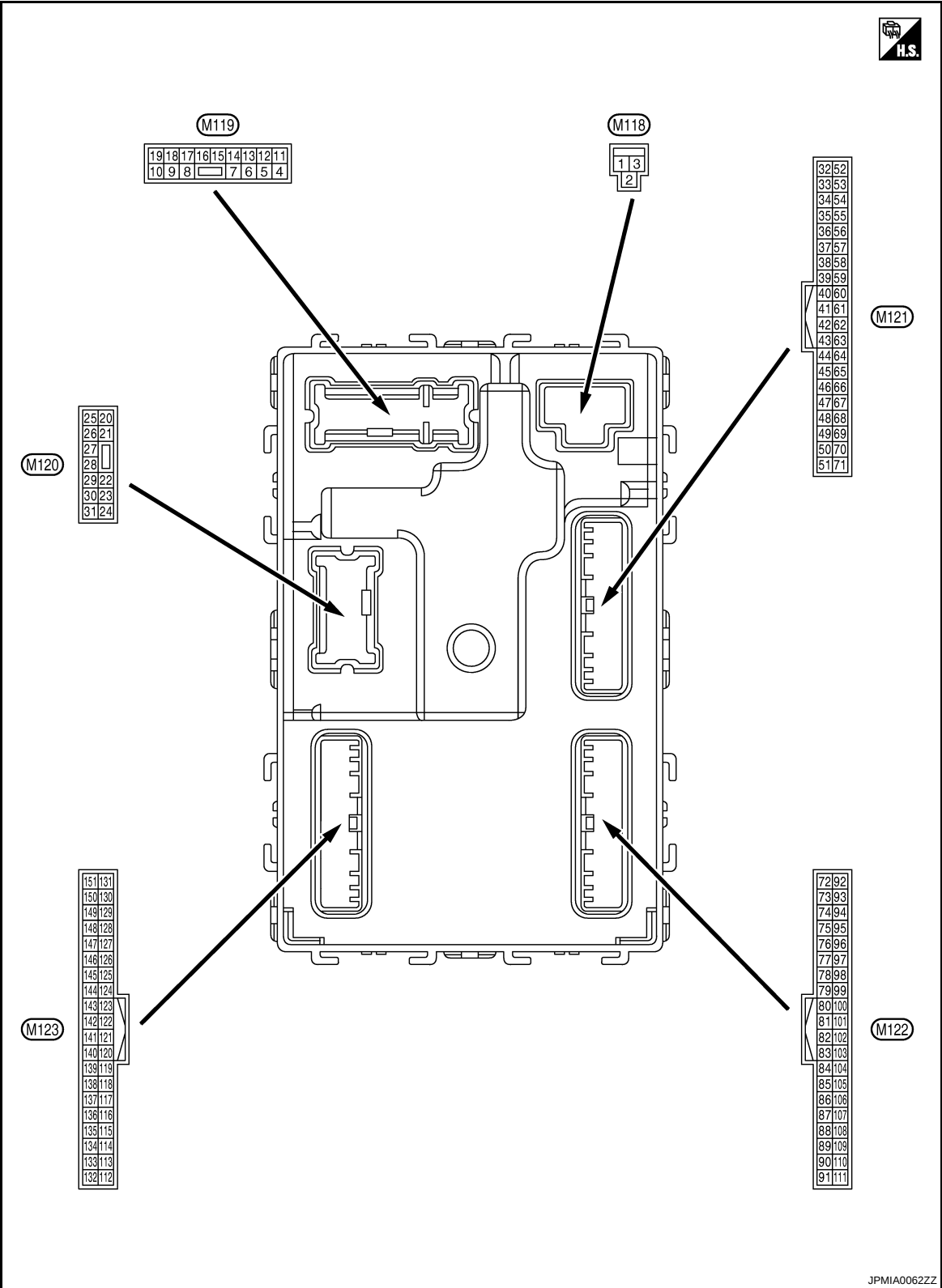
Monitor Item	Condition	Value/Status	
S/L RELAY-REQ	Ignition switch in OFF or ACC position	Off	A
	Ignition switch in ON position	On	
VEH SPEED 1	While driving	Equivalent to speedometer reading	B
VEH SPEED 2	While driving	Equivalent to speedometer reading	
DOOR STAT-DR	Driver door is locked	LOCK	C
	Wait with selective UNLOCK operation (5 seconds)	READY	
	Driver door is unlocked	UNLOCK	
DOOR STAT-AS	Passenger door is locked	LOCK	D
	Wait with selective UNLOCK operation (5 seconds)	READY	
	Passenger door is unlocked	UNLOCK	
ID OK FLAG	Ignition switch in ACC or ON position	Reset	E
	Ignition switch in OFF position	Set	
PRMT ENG STRT	The engine start is prohibited	Reset	F
	The engine start is permitted	Set	
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	G
KEY SW -SLOT	The key is not inserted into key slot	Off	
	The key is inserted into key slot	On	H
RKE OPE COUN1	During the operation of the key	Operation frequency of the key	
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—	I
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done	ADP
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done	K
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done	L
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done	M
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done	N
TP 4	The ID of fourth key is not registered to BCM	Yet	
	The ID of fourth key is registered to BCM	Done	O
TP 3	The ID of third key is not registered to BCM	Yet	
	The ID of third key is registered to BCM	Done	P
TP 2	The ID of second key is not registered to BCM	Yet	
	The ID of second key is registered to BCM	Done	

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Monitor Item	Condition	Value/Status
TP 1	The ID of first key is not registered to BCM	Yet
	The ID of first key is registered to BCM	Done

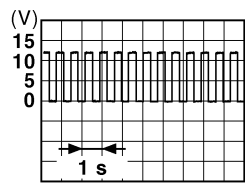
TERMINAL LAYOUT



PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R/Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (L/W)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		Battery voltage
4 (P/W)	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)		Battery voltage
5 (G/Y)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (R/W)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
10 (G/Y)	Ground	Rear RH door and rear LH door UNLOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC or ON	0 V
17 (G/B)	Ground	Turn signal RH (Front and door mirror)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 6.5 V

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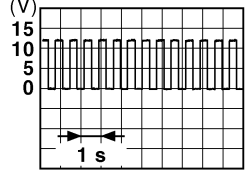
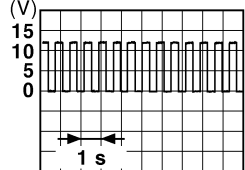
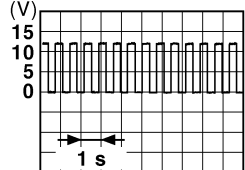
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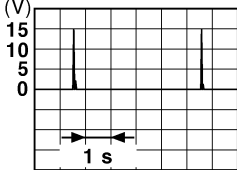
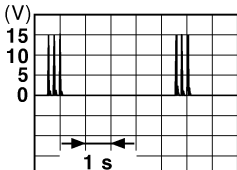
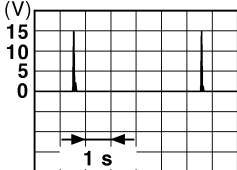
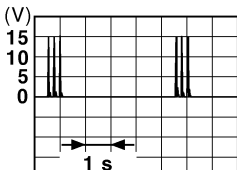
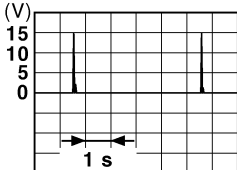
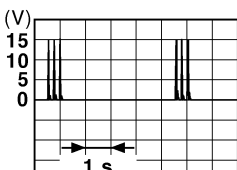
BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
18 (G/Y)	Ground	Turn signal LH (Front and door mirror)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.5 V
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
20 (G/B)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 6.5 V
23 (R)	Ground	Trunk lid opening	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated)	Battery voltage
					Other than OPEN (Trunk lid opener actuator is not activated)	0 V
24 (G)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	Battery voltage
25 (G/Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.5 V
30 (V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	OFF	0 V
					ON	Battery voltage

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)	
+	-	Signal name	Input/ Output				
34 (B)	Ground	Trunk room antenna (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB	A
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB	B
35 (W)	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB	C
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB	D
38 (L/O)	Ground	Rear bumper anten- na (-)	Output	When the trunk lid opener request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB	E
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB	F

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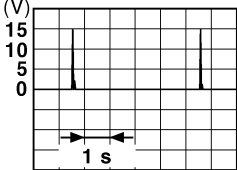
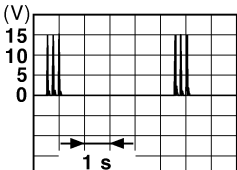
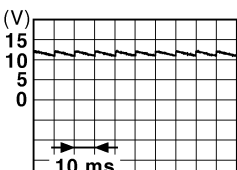
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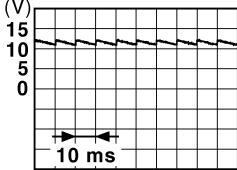
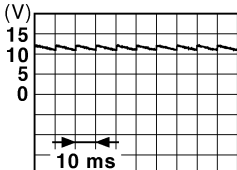
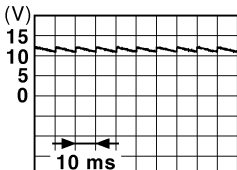
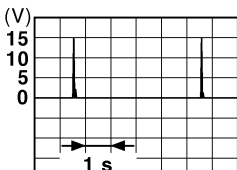
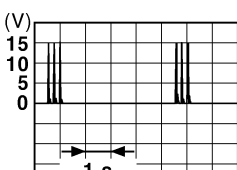
BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
39 (BR/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	When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (BR/W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
50 (W)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (When trunk lid closes)	 JPMIA0011GB 11.8 V
					ON (When trunk lid opens)	0 V
52 (R)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage
					When selector lever is not in P or N position	0.3 V
				Ignition switch OFF		0 V
61 (G/R)	Ground	Trunk lid request switch	Input	Trunk lid request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (GR)	Ground	Request switch buzzer	Output	Request switch buzzer	Sounding	0 V
					Not sounding	Battery voltage

BCM (BODY CONTROL MODULE)

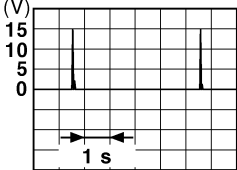
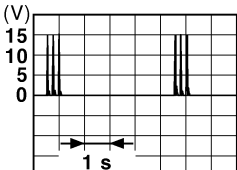
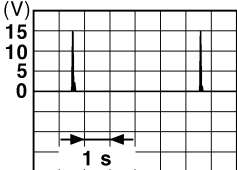
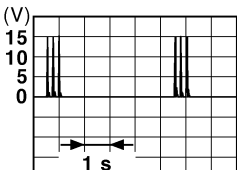
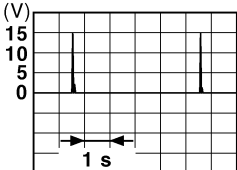
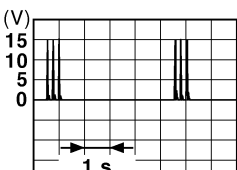
< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
67 (L/R)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 11.8 V
68 (R/W)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)	 11.8 V
					ON (When rear RH door opens)	0 V
69 (R/B)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	 11.8 V
					ON (When rear LH door opens)	0 V
72 (B/R)	Ground	Room antenna 2 (-) (center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 15 V
					When Intelligent Key is not in the passenger compartment	 15 V

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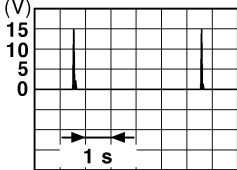
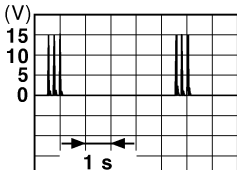
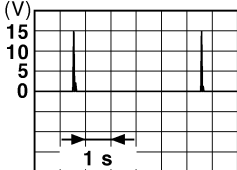
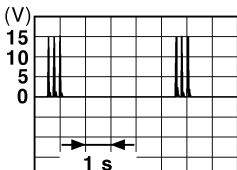
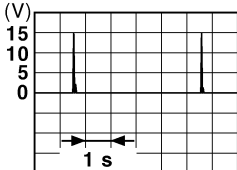
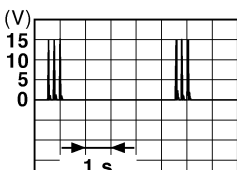
BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
73 (W/R)	Ground	Room antenna 2 (+) (center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
74 (B/Y)	Ground	Passenger door an- tenna (-)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
75 (LG)	Ground	Passenger door an- tenna (+)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB

BCM (BODY CONTROL MODULE)

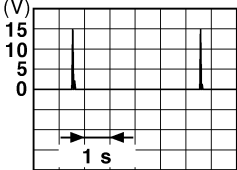
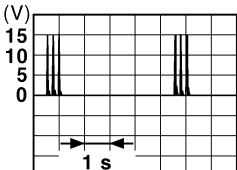
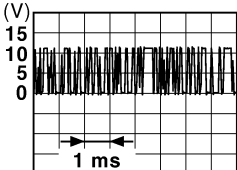
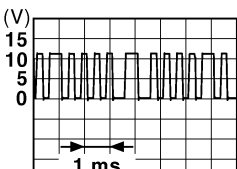
< COMPONENT DIAGNOSIS >

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 operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
				When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
77 (P)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
				When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
78 (R)	Ground	Room antenna 1 (-) (instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

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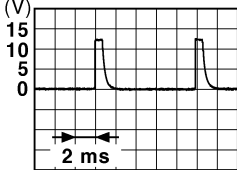
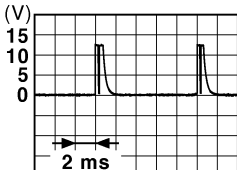
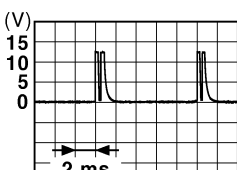
BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
79 (G)	Ground	Room antenna 1 (+) (instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
80 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R/B)	Ground	Ignition relay [fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
83 (L/O)	Ground	Remote keyless en- try receiver commu- nication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on the key		 JMKIA0065GB

BCM (BODY CONTROL MODULE)

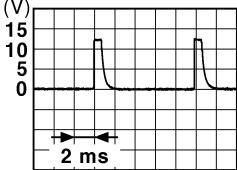
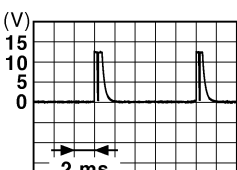
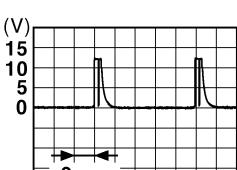
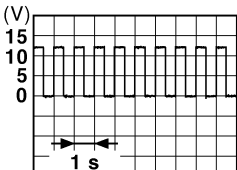
< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
87 (R/Y)	Ground	Combination switch INPUT 5	Input	Combination switch	 1.4 V
				Front fog lamp switch ON (Wiper intermittent dial 4)	 1.3 V
				Rear fog lamp switch ON (Wiper intermittent dial 4)	 1.2 V
				Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	 1.3 V

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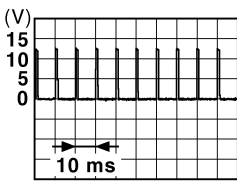
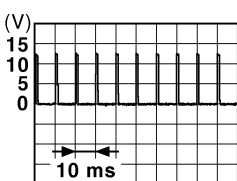
BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
88 (R/G)	Ground	Combination switch INPUT 3	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	 JPMIA0036GB 1.3 V
					Lighting switch 2ND (Wiper intermittent dial 4)	 JPMIA0037GB 1.3 V
					Any of the conditions below with all switch OFF - Wiper intermittent dial 1 - Wiper intermittent dial 2 - Wiper intermittent dial 3	 JPMIA0040GB 1.3 V
89 (BR)	Ground	Push-button ignition switch (push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
90 (P)	Ground	CAN-L	Input/ Output	—	—	—
91 (L)	Ground	CAN-H	Input/ Output	—	—	—
92 (R/L)	Ground	Key slot illumination	Output	Key slot illumination	OFF	Battery voltage
					Blinking	 JPMIA0015GB 6.5 V
					ON	0 V

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
93 (Y)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON or ACC	0 V
95 (L)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (Y/R)	Ground	Control device (detention switch) power supply	Output	—		Battery voltage
97 (L/O)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	Battery voltage
98 (G/R)	Ground	Steering lock condition No. 2	Input	Steering lock	LOCK status	Battery voltage
					UNLOCK status	0 V
99 (G/B)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	Battery voltage
100 (P/L)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	
101 (B/W)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	
102 (Y)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
103 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage
106 (G/Y)	Ground	Steering wheel lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V

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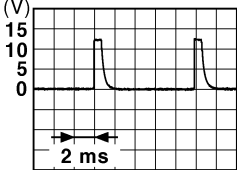
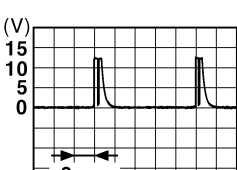
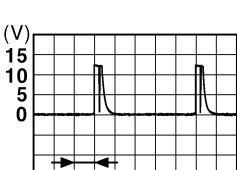
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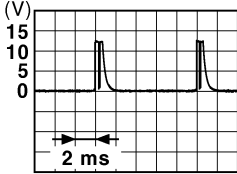
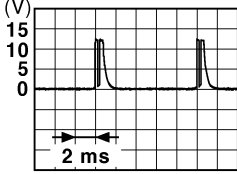
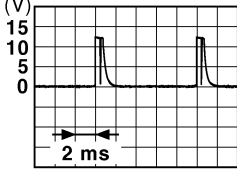
BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
107 (R/W)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	 JPMIA0041GB 1.4 V
					 JPMIA0037GB 1.3 V
					 JPMIA0036GB 1.3 V
					 JPMIA0038GB 1.3 V
					 JPMIA0039GB 1.3 V

BCM (BODY CONTROL MODULE)

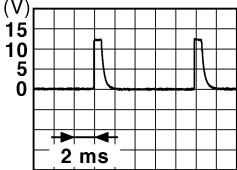
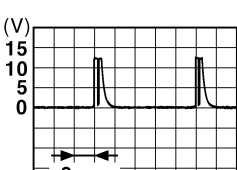
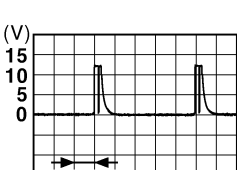
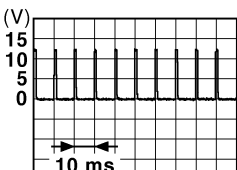
< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
108 (P/B)	Ground	Combination switch INPUT 4	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)	 1.3 V
					Lighting switch 1ST (Wiper intermittent dial 4)	 1.3 V
					Any of the conditions be- low with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	 1.3 V

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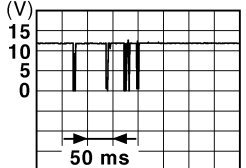
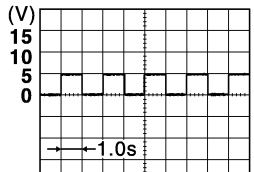
BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
109 (R/B)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 JPMIA0041GB 1.4 V
					Lighting switch PASS	 JPMIA0037GB 1.3 V
					Lighting switch 2ND	 JPMIA0036GB 1.3 V
					Front wiper switch INT	 JPMIA0038GB 1.3 V
					Front wiper switch HI	 JPMIA0040GB 1.3 V
110 (G/O)	Ground	Hazard switch	Input	Hazard switch	ON	0 V
					OFF	 JPMIA0012GB 1.1 V

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
111 (L/Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	Battery voltage
					LOCK or UNLOCK	 JMKIA0066GB
					For 15 seconds after UN- LOCK	Battery voltage
					15 seconds or later after UNLOCK	0 V
113 (P/B)	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
115 (L)	Ground	Shock sensor	Input	Ignition switch	OFF	0 V
					ACC	5.0 V
					ON	 JPMIA1034GB
						2.5 V
116 (R/W)	Ground	Fuse check (Stop lamp switch)	Input	—		Battery voltage
118 (O/L)	Ground	Stop lamp switch	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
119 (G/W)	Ground	Front door lock as- sembly driver side (unlock sensor)	Input	Driver door	LOCK status (unlock sen- sor switch OFF)	 JPMIA0012GB
					UNLOCK status (unlock sensor switch ON)	0 V
						1.1 V
121 (Y)	Ground	Key slot switch	Input	When the key is inserted into key slot	Battery voltage	
				When the key is not inserted into key slot	0 V	
122 (V/R)	Ground	ACC feedback	Input	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
123 (G/W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

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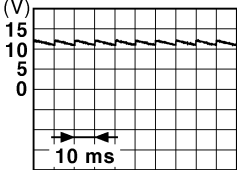
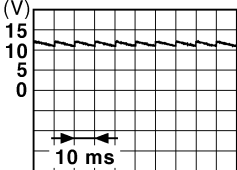
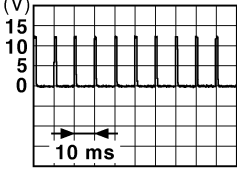
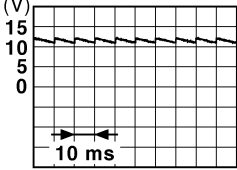
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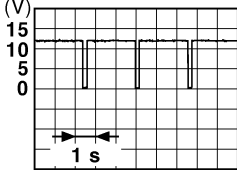
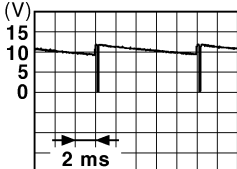
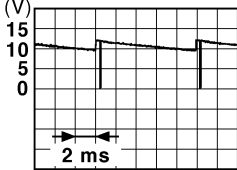
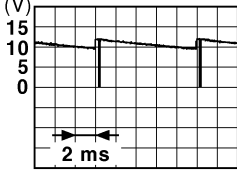
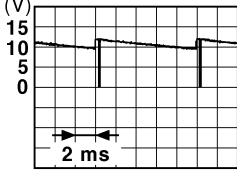
BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
124 (R/B)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closes)	 JPMIA0011GB 11.8 V
					ON (When passenger door opens)	0 V
128 (GR)	Ground	Door lock and un- lock switch LOCK	Input	Door lock and un- lock switch [pow- er window main switch or front power window switch (passen- ger side)]	NEUTRAL position	 JPMIA0011GB 11.8 V
					LOCK position	0 V
130* (GR/W)	Ground	Rear window defog- ger switch	Input	Ignition switch ON	Rear window defogger switch OFF	 JPMIA0012GB 1.1 V
					Rear window defogger switch ON	0 V
131 (GR/R)	Ground	Door lock and un- lock switch UN- LOCK	Input	Door lock and un- lock switch [pow- er window main switch or front power window switch (passen- ger side)]	NEUTRAL position	 JPMIA0011GB 11.8 V
					UNLOCK position	0 V
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button igni- tion switch illum- ination	ON	9.5 V
					OFF	0 V
134 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (P)	Ground	Receiver and sen- sor ground	Input	Ignition switch ON		0 V
138 (V/W)	Ground	Receiver and sen- sor power supply output	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V
140 (R/G)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0 V

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

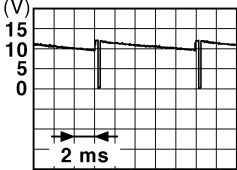
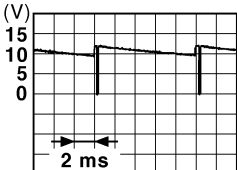
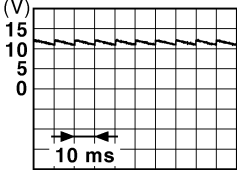
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
141 (L/O)	Ground	Security indicator	Output	Security indicator	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
142 (LG/B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	OFF	Battery voltage
					All switch OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting switch 2ND	
					Turn signal switch RH	
143 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	 JPMIA0032GB 10.7 V
144 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions be- low with all switch OFF	
					• Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	 JPMIA0033GB 10.7 V
144 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	 JPMIA0033GB 10.7 V
144 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions be- low with all switch OFF	
					• Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	

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BCM (BODY CONTROL MODULE)

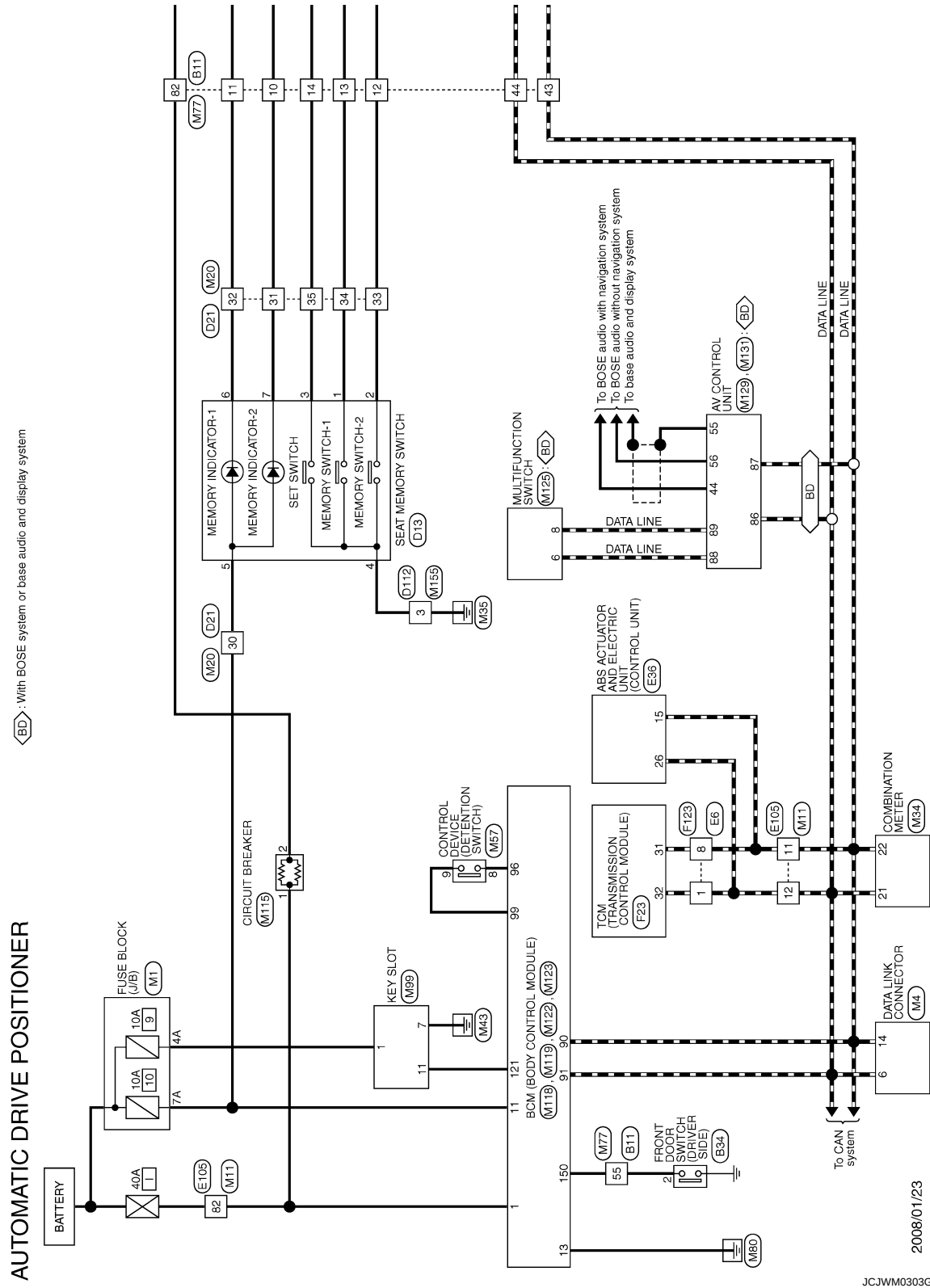
< COMPONENT DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
145 (LG/R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Front wiper switch INT	 10.7 V
					Front wiper switch LO	
					Lighting switch AUTO	
					Rear fog lamp switch ON	
146 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Front fog lamp switch ON	 10.7 V
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (SB)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closes)	 11.8 V
					ON (When driver door opens)	0 V
151 (G/R)	Ground	Rear window defog- ger relay	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

NOTE:

*: Without BOSE audio system

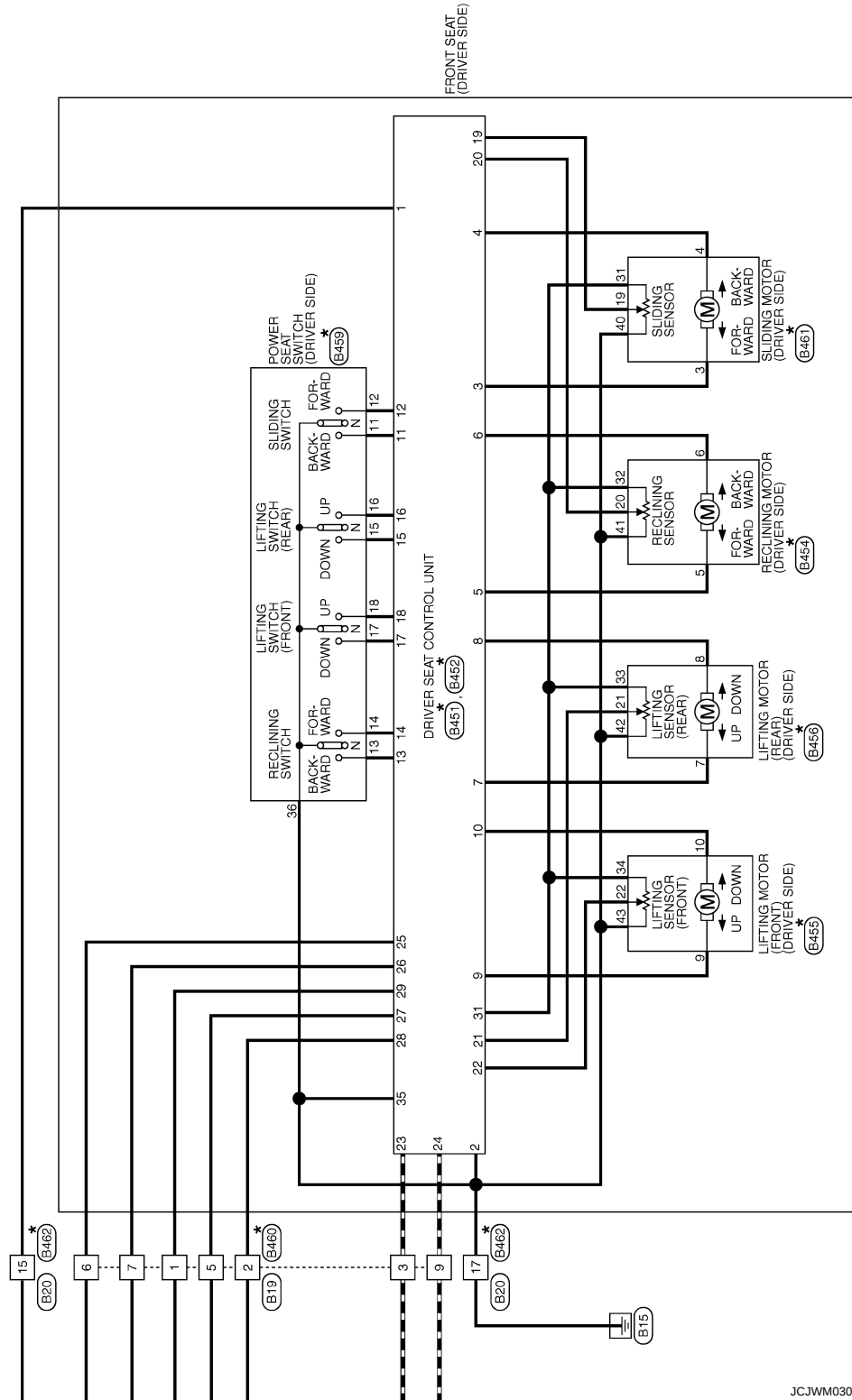
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BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

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



JCJWM0304GE

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

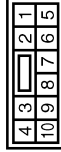
AUTOMATIC DRIVE POSITIONER

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
10	R	-
11	O	-
12	SB	-
13	LG	-
14	Y	-
43	P	-
44	L	-
55	SB	-
82	BR	-

Connector No.	B19
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



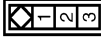
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SB	-
3	L	-
5	LG	-
6	O	-
7	R	-
9	P	-

Connector No.	B20
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



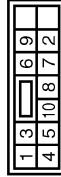
Terminal No.	Color of Wire	Signal Name [Specification]
15	BR	-
17	B/W	-

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	AG3FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	SB	-

Connector No.	B451
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	NS12FW-CS

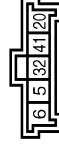


Connector No.	B452
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH432FW



Terminal No.	Color of Wire	Signal Name [Specification]
22	BR/Y	PULSE (FRONT LIFTER)
23	P	CAN-H
24	P/L	CAN-L
25	G/O	IND-1
26	L/O	IND-2
27	LG	ADDRESS 1
28	V/W	ADDRESS 2
29	O/L	SET SW
31	W	SENSOR POWER SUPPLY
33	B/Y	GND

Connector No.	B454
Connector Name	RECLINING MOTOR (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	F 6098-0344



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	BAT
2	B	GND
3	G	SLIDE MOTOR (BACKWARD)
4	G/R	SLIDE MOTOR (FORWARD)
5	V	RECLINER MOTOR (BACKWARD)
6	R/L	RECLINER MOTOR (FORWARD)
7	L	REAR LIFTER MOTOR (DOWNWARD)
8	L/W	REAR LIFTER MOTOR (UPWARD)
9	L/R	FRONT LIFTER MOTOR (DOWNWARD)
10	L/B	FRONT LIFTER MOTOR (UPWARD)

Terminal No.	Color of Wire	Signal Name [Specification]
11	G/B	SLIDE SW (BACKWARD)
12	G/W	SLIDE SW (FORWARD)
13	R/G	RECLINER SW (BACKWARD)
14	R/W	RECLINER SW (FORWARD)
15	Y/B	REAR LIFTER SW (DOWNWARD)
16	Y/R	REAR LIFTER SW (UPWARD)
17	LG/R	FRONT LIFTER SW (DOWNWARD)
18	LG/B	FRONT LIFTER SW (UPWARD)
19	G/Y	PULSE (SLIDE)
20	R/Y	PULSE (RECLINER)
21	L/Y	PULSE (REAR LIFTER)

Terminal No.	Color of Wire	Signal Name [Specification]
5	V	-
6	R/L	-
20	R/Y	-
32	W	-
41	W/B	-

JCJWM0305GE

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER

Connector No.	B455
Connector Name	LIFTING MOTOR (FRONT DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	F 6098-0344



Terminal No.	Color of Wire	Signal Name [Specification]
9	L/R	-
10	L/B	-
22	BR/Y	-
34	W	-
43	W/B	-

Connector No.	B456
Connector Name	LIFTING MOTOR (REAR DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	F 6098-0344



Terminal No.	Color of Wire	Signal Name [Specification]
7	L	-
8	L/W	-
21	L/Y	-
33	W	-
42	W/B	-

Connector No.	B459
Connector Name	POWER SEAT SWITCH (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
11	G/B	-
12	G/W	-
13	R/G	-
14	R/W	-
15	Y/B	-
16	Y/R	-
17	LG/B	-
18	LG/R	-
36	B/Y	-

Connector No.	B460
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	O/L	-
2	V/W	-
3	P	-
5	LG	-
6	G/O	-
7	L/O	-
9	P/L	-

Connector No.	B461
Connector Name	SLIDING MOTOR (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	F 6098-0344



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
4	G/R	-
19	G/Y	-
31	W	-
40	W/B	-

Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



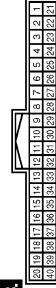
Terminal No.	Color of Wire	Signal Name [Specification]
15	R	-
17	B	-

Connector No.	D13
Connector Name	SEAT MEMORY SWITCH
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	SB	-
3	LG	-
4	B	-
5	BR	-
6	O	-
7	P	-

Connector No.	D21
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
30	BR	-
31	P	-
32	O	-
33	SB	-
34	G	-
35	LG	-

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER

Connector No.	D12
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK18MGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
8	P	-

Connector No.	E36
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) (WITH VDC)
Connector Type	BA42ZFB-APZ4-RH



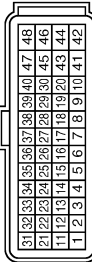
Terminal No.	Color of Wire	Signal Name [Specification]
15	P	CAN-L(VRS)
26	L	CAN-H(VRS)

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	FT70DMK-CS10-M3



Terminal No.	Color of Wire	Signal Name [Specification]
11	P	-
12	L	-
82	L/G	-

Connector No.	F23
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH



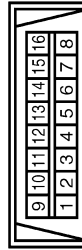
Terminal No.	Color of Wire	Signal Name [Specification]
31	P	CAN-L
32	L	CAN-H

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS86FW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
4A	G/Y	-
7A	Y/R	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

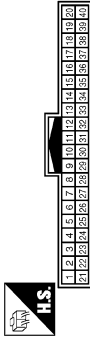
AUTOMATIC DRIVE POSITIONER

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3



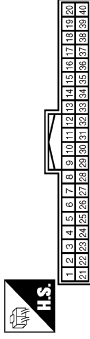
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	-
12	L	-
82	W/B	-

Connector No.	M20
Connector Name	WIRE TO WIRE
Connector Type	TH40MFV-NH



Terminal No.	Color of Wire	Signal Name [Specification]
30	Y/R	-
31	P	-
32	R/G	-
33	L/G/B	-
34	LG	-
35	BR/W	-

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



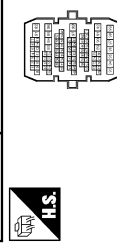
Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Connector No.	M57
Connector Name	CONTROL DEVICE
Connector Type	TK10FW



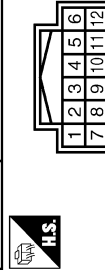
Terminal No.	Color of Wire	Signal Name [Specification]
8	Y/R	-
9	G/B	-

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
10	P	-
11	R/G	-
12	L/G/B	-
13	LG	-
14	BR/W	-
43	P	-
44	L	-
55	SB	-
82	W	[With automatic drive positioner]

Connector No.	M99
Connector Name	KEY SLOT
Connector Type	TH12FW-NH



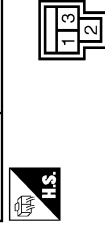
Terminal No.	Color of Wire	Signal Name [Specification]
1	G/Y	BAT
7	B	GND
11	Y	KEY SWITCH SIGNAL

Connector No.	M115
Connector Name	CIRCUIT BREAKER
Connector Type	M02FW-P-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W/B	-
2	W	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W/B	BAT (F/L)

JC3WM0308GE

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER

Connector No.	M119
Connector Name	BCM BODY CONTROL MODULE
Connector Type	NS16FW-CS



4	5	6	7	8	9	10		
11	12	13	14	15	16	17	18	19

Terminal No.	Color of Wire	Signal Name [Specification]
11	Y/R	BAT (FUSE)
13	B	GND

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4GFB-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72
111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H
96	Y/R	CONTROL DEVICE POWER SUPPLY
99	G/B	SHIFT P

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4GFG-NH



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions is fulfilled • Status 1 - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (battery voltage) - P range signal or N range signal (CAN): ON • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions is fulfilled • Ignition switch is in the ON position - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent - Starter motor relay control signal - Starter relay status signal (CAN)
B2609: S/L STATUS	- Inhibit engine cranking - Inhibit steering lock	When the following steering lock conditions agree - BCM steering lock control status - Steering lock condition No. 1 signal status - Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled - IGN relay (IPDM E/R) control signal: OFF (Battery voltage) - Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) - Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled - Power position changes to ACC - Receives engine status signal (CAN)
B2612: S/L STATUS	- Inhibit engine cranking - Inhibit steering lock	When any of the following conditions is fulfilled - Steering lock unit status signal (CAN) is received normally - The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RES	Inhibit engine cranking	When any of the following conditions is fulfilled - Power position changes to ACC - Receives engine status signal (CAN)
B26E9: S/L STATUS	- Inhibit engine cranking - Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions is fulfilled - Steering condition No. 1 signal: LOCK (0 V) - Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

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

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

NOTE:

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

DTC Inspection Priority Chart

INFOID:000000003940048

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

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

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

Priority	DTC
4	• B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SW • B2605: PNP SW • B2606: S/L RELAY • B2607: S/L RELAY • B2608: STARTER RELAY • B2609: S/L STATUS • B260A: IGNITION RELAY • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2612: S/L STATUS • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B2619: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E1: ENG STATE NO RES • B26E9: S/L STATUS • B26EA: KEY REGISTRATION • U0415: VEHICLE SPEED SIG
5	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:000000003940049

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 and IGN Counter, refer to [BCS-16, "COMMON ITEM : CONSULT-III Function \(BCM - COMMON ITEM\)"](#).

CONSULT display	Fail-safe	Freeze Frame Data	Intelligent Key warn- ing lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	BCS-33
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-34
U0415: VEHICLE SPEED SIG	—	—	—	BCS-35
B2013: ID DISCORD BCM-S/L	×	×	—	SEC-46
B2014: CHAIN OF S/L-BCM	×	×	—	SEC-47
B2190: NATS ANTENNA AMP	×	—	—	SEC-39
B2191: DIFFERENCE OF KEY	×	—	—	SEC-42

BCM (BODY CONTROL MODULE)

< COMPONENT DIAGNOSIS >

CONSULT display	Fail-safe	Freeze Frame Data	Intelligent Key warn- ing lamp ON	Reference page	
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-43	A
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-45	B
B2553: IGNITION RELAY	—	×	—	PCS-49	
B2555: STOP LAMP	—	×	—	SEC-50	
B2556: PUSH-BTN IGN SW	—	×	×	SEC-52	C
B2557: VEHICLE SPEED	×	×	×	SEC-54	
B2560: STARTER CONT RELAY	×	×	×	SEC-55	
B2562: LOW VOLTAGE	—	×	—	BCS-36	D
B2601: SHIFT POSITION	×	×	×	SEC-56	
B2602: SHIFT POSITION	×	×	×	SEC-59	E
B2603: SHIFT POSI STATUS	×	×	×	SEC-61	
B2604: PNP SW	×	×	×	SEC-64	F
B2605: PNP SW	×	×	×	SEC-67	
B2606: S/L RELAY	×	×	×	SEC-69	
B2607: S/L RELAY	×	×	×	SEC-70	G
B2608: STARTER RELAY	×	×	×	SEC-72	
B2609: S/L STATUS	×	×	×	SEC-74	
B260A: IGNITION RELAY	×	×	×	PCS-51	H
B260B: STEERING LOCK UNIT	—	×	×	SEC-78	
B260C: STEERING LOCK UNIT	—	×	×	SEC-79	I
B260D: STEERING LOCK UNIT	—	×	×	SEC-80	
B260F: ENG STATE SIG LOST	×	×	×	SEC-81	
B2612: S/L STATUS	×	×	×	SEC-85	ADP
B2614: ACC RELAY CIRC	—	×	×	PCS-53	
B2615: BLOWER RELAY CIRC	—	×	×	PCS-55	
B2616: IGN RELAY CIRC	—	×	×	PCS-57	K
B2617: STARTER RELAY CIRC	×	×	×	SEC-89	
B2618: BCM	×	×	×	PCS-59	L
B2619: BCM	×	×	×	SEC-91	
B261A: PUSH-BTN IGN SW	—	×	×	SEC-92	
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	SEC-95	M
B2621: INSIDE ANTENNA	—	×	—	DLK-50	
B2622: INSIDE ANTENNA	—	×	—	DLK-52	N
B2623: INSIDE ANTENNA	—	×	—	DLK-54	
B26E1: ENG STATE NO RES	×	×	×	SEC-82	O
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	SEC-83	
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	SEC-84	P

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

ECU DIAGNOSIS

DRIVER SEAT CONTROL UNIT

Reference Value

INFOID:000000003759211

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III 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 (forward)	Operate	ON
		Release	OFF
SLIDE SW-RR	Sliding switch (backward)	Operate	ON
		Release	OFF
RECLN SW-FR	Reclining switch (forward)	Operate	ON
		Release	OFF
RECLN SW-RR	Reclining switch (backward)	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
DETENT SW	Selector lever	P position	OFF
		Other than above	ON
STARTER SW	Ignition position	Cranking	ON
		Other than above	OFF
SLIDE PULSE	Seat sliding	Forward	The numeral value decreases *
		Backward	The numeral value increases*
		Other than above	No change to numeral value*
RECLN PULSE	Seat reclining	Forward	The numeral value decreases*
		Backward	The numeral value increases *
		Other than above	No change to numeral value *
LIFT FR PULSE	Seat lifter (front)	Up	The numeral value decreases *
		Down	The numeral value increases *
		Other than above	No change to numeral value *

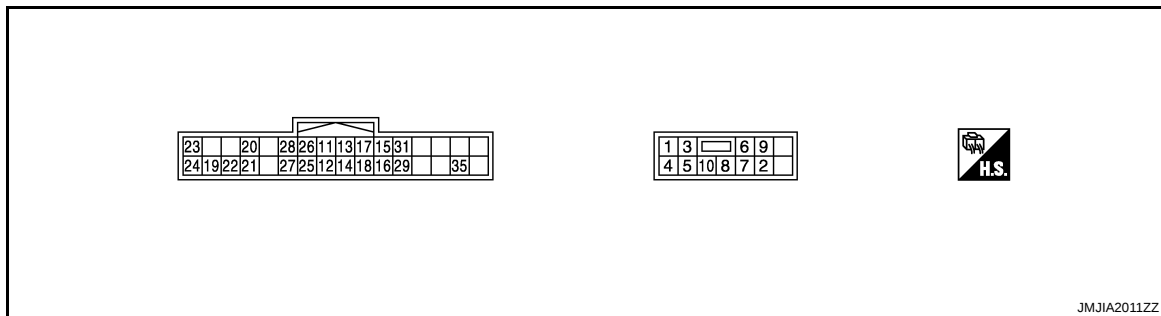
DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

Monitor Item	Condition		Value/Status
LIFT RR PULSE	Seat lifter (rear)	Up	The numeral value decreases *
		Down	The numeral value increases *
		Other than above	No change to numeral value *
STEERING STATUS	Steering lock unit	LOCK	LOCK
		unlock	UNLOCK
VEHICLE SPEED	The condition of vehicle speed is displayed		km/h
P RANG SW CAN	Selector lever	P position	ON
		Other than above	OFF
R RANGE (CAN)	Selector lever	R position	ON
		Other than above	OFF
DOOR SW-FL	Driver door	Open	ON
		Close	OFF
DOOR SW-FR	Passenger door	Open	ON
		Close	OFF
IGN ON SW	Ignition switch	ON position	ON
		Other than above	OFF
ACC ON SW	Ignition switch	ACC or ON position	ON
		Other than above	OFF
KEY ON SW	Intelligent Key	Inserted is key slot	ON
		Inserted is not key slot	OFF
KEYLESS ID	UNLOCK button of Intelligent Key is pressed		1,2,3,4or5
KYL5 DR UNLK	Intelligent Key or driver side door request switch	ON	ON
		OFF	OFF
VHCL SPEED (ABS)	Can signal from ABS	Received	ON
		Not received	OFF
HANDLE	The BCM for handle position is displayed		LHD
			RHD
TRANSMISSION	Transmission type is displayed		CVT

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

TERMINAL LAYOUT



PHYSICAL VALUES

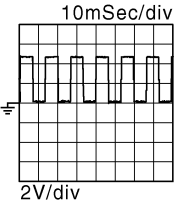
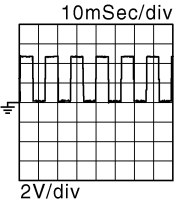
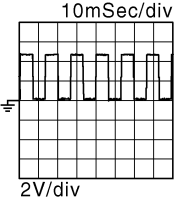
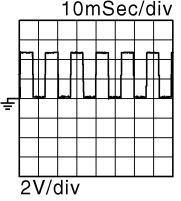
DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

Terminal No. (wire color)		Description		Condition		Voltage (V) (Approx)
+	-	Signal name	Input/ Output			
1 (R)	Ground	Power source	Input	—		Battery voltage
2 (B)	Ground	Ground (power)	—	—		0
3 (G)	Ground	Sliding motor backward output signal	Output	Seat sliding	Operate (backward)	Battery voltage
					Stop	0
4 (G/R)	Ground	Sliding motor forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage
					Release	0
5 (V)	Ground	Reclining motor backward output signal	Output	Seat reclining	Operate (backward)	Battery voltage
					Stop	0
6 (R/L)	Ground	Reclining motor forward output signal	Output	Seat reclining	Operate (forward)	Battery voltage
					Release	0
7 (L)	Ground	Lifting motor (rear) down output signal	Output	Seat lifting (rear)	Operate (down)	Battery voltage
					Stop	0
8 (L/W)	Ground	Lifting motor (rear) up output signal	Output	Seat lifting (rear)	Operate (up)	Battery voltage
					Stop	0
9 (L/R)	Ground	Lifting motor (front) down output signal	Output	Seat lifting (front)	Operate (down)	Battery voltage
					Stop	0
10 (L/B)	Ground	Lifting motor (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage
					Stop	0
11 (G/B)	Ground	Sliding switch backward signal	Input	Sliding switch	Operate (backward)	0
					Release	Battery voltage
12 (G/W)	Ground	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0
					Release	Battery voltage
13 (R/G)	Ground	Reclining switch backward signal	Input	Reclining switch	Operate (backward)	0
					Release	Battery voltage
14 (R/W)	Ground	Reclining switch forward signal	Input	Reclining switch	Operate (forward)	0
					Release	Battery voltage
15 (Y/B)	Ground	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0
					Release	Battery voltage
16 (Y/R)	Ground	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0
					Release	Battery voltage

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

Terminal No. (wire color)		Description		Condition		Voltage (V) (Approx)
+	-	Signal name	Input/ Output			
17 (LG/B)	Ground	Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0
					Release	Battery voltage
18 (LG/R)	Ground	Lifting switch (front) up signal	Input	Seat lifting switch (front)	Operate (up)	0
					Release	Battery voltage
19 (G/Y)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	
					Stop	0 or 5
20 (R/Y)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	
					Stop	0 or 5
21 (L/Y)	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	
					Stop	0 or 5
22 (BR/Y)	Ground	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	
					Stop	0 or 5
23 (P)	—	CAN-H	—	—	—	—
24 (P/L)	—	CAN-L	—	—	—	—
25 (G/O)	Ground	Memory indicator 1 signal	Output	Memory indicator 1	Illuminate	1
					Other than above	Battery voltage
26 (L/O)	Ground	Memory indicator 2 signal	Output	Memory indicator 2	Illuminate	1
					Other than above	Battery voltage

A

B

C

D

E

F

G

H

I

ADP

K

L

M

N

O

P

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

Terminal No. (wire color)		Description		Condition		Voltage (V) (Approx)
+	-	Signal name	Input/ Output			
27 (LG)	Ground	Memory switch 1 signal	Input	Memory switch 1	Press	0
					Other than above	5
28 (V/W)	Ground	Memory switch 2 signal	Input	Memory switch 2	Press	0
					Other than above	5
29 (O/L)	Ground	Set switch signal	Input	Set switch	Press	0
					Other than above	5
31 (W)	Ground	Sensor power supply	Output	—		Battery voltage
35 (BY)	Ground	Ground	—	—		0

DRIVER SEAT CONTROL UNIT

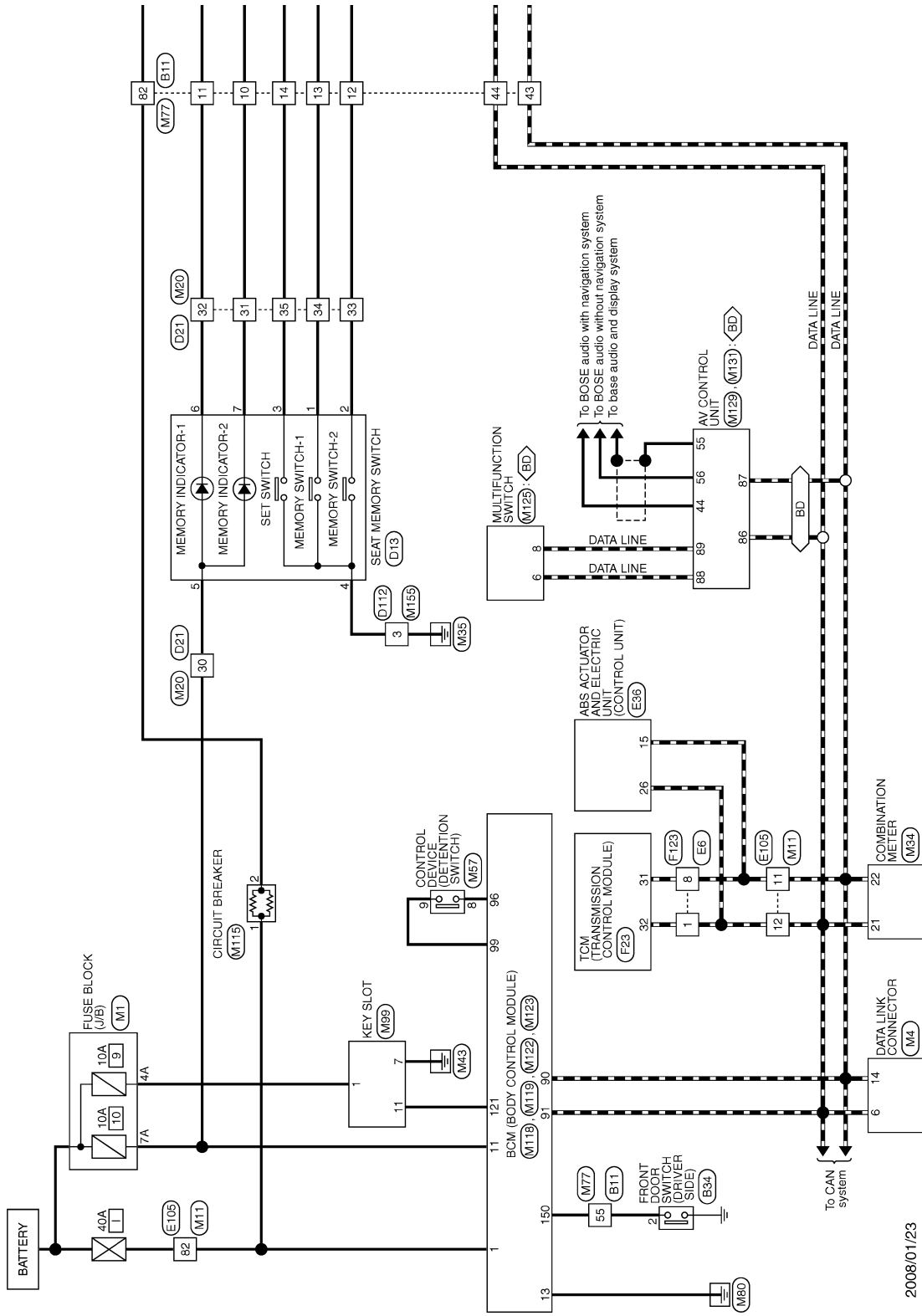
< ECU DIAGNOSIS >

Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -

INFOID:000000003759212

AUTOMATIC DRIVE POSITIONER

BD : With BOSE system or base audio and display system



2008/01/23

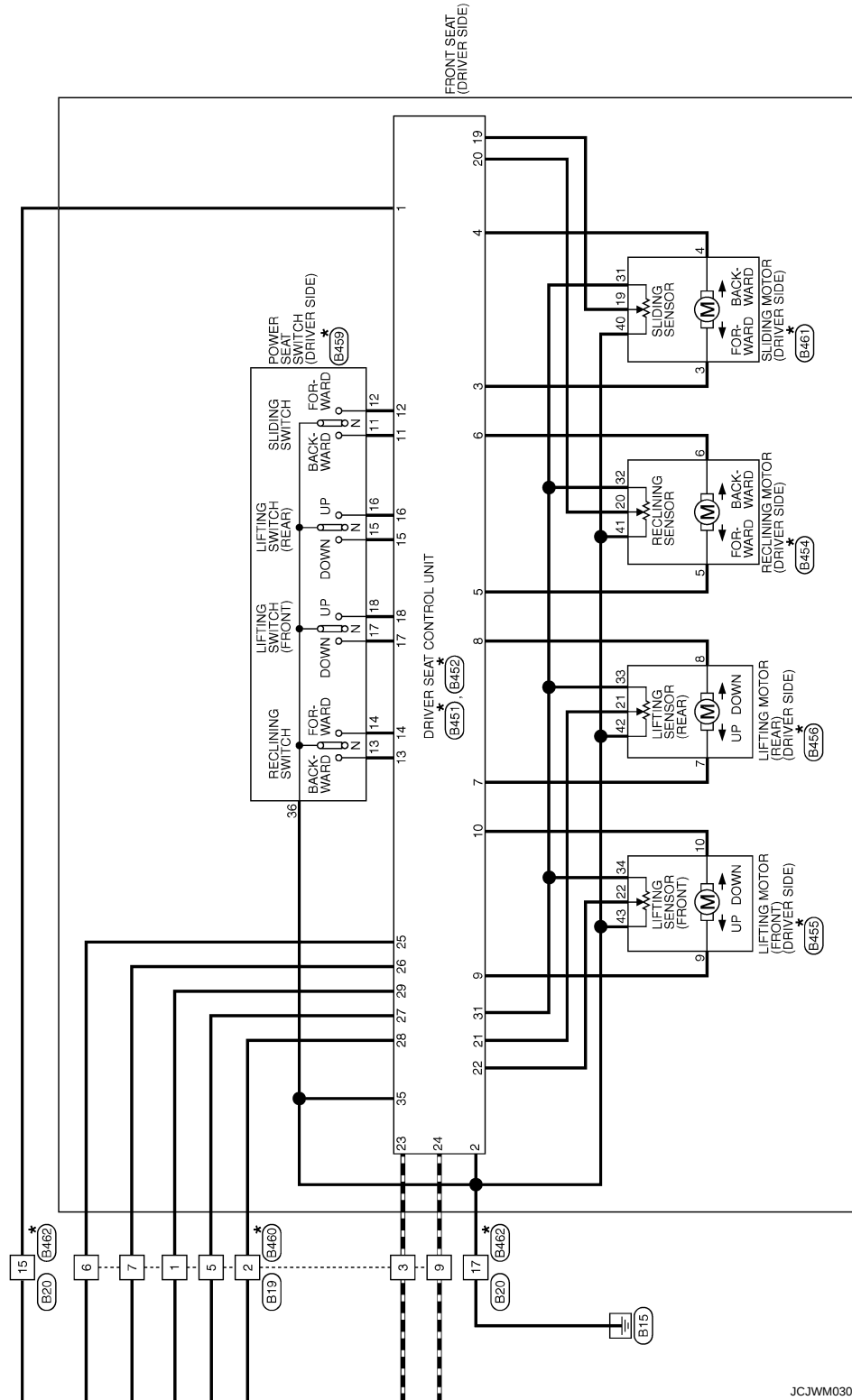
JCJWM0303GE

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DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

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



JCJWM0304GE

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



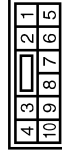
Terminal No.	Color of Wire	Signal Name [Specification]
10	R	-
11	O	-
12	SB	-
13	LG	-
14	Y	-
43	P	-
44	L	-
55	SB	-
82	BR	-

Connector No.	B461
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	NS12FW-CS



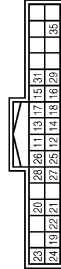
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	BAT
2	B	GND
3	G	SLIDE MOTOR (BACKWARD)
4	G/R	SLIDE MOTOR (FORWARD)
5	V	RECLINER MOTOR (BACKWARD)
6	R/L	RECLINER MOTOR (FORWARD)
7	L	REAR LIFTER MOTOR (DOWNWARD)
8	L/W	REAR LIFTER MOTOR (UPWARD)
9	L/R	FRONT LIFTER MOTOR (DOWNWARD)
10	L/B	FRONT LIFTER MOTOR (UPWARD)

Connector No.	B19
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SB	-
3	L	-
5	LG	-
6	O	-
7	R	-
9	P	-

Connector No.	B452
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH432FW



Terminal No.	Color of Wire	Signal Name [Specification]
11	G/B	SLIDE SW (BACKWARD)
12	G/W	SLIDE SW (FORWARD)
13	R/G	RECLINER SW (BACKWARD)
14	R/W	RECLINER SW (FORWARD)
15	Y/B	REAR LIFTER SW (DOWNWARD)
16	Y/R	REAR LIFTER SW (UPWARD)
17	LG/R	FRONT LIFTER SW (DOWNWARD)
18	LG/B	FRONT LIFTER SW (UPWARD)
19	G/Y	PULSE (SLIDE)
20	R/Y	PULSE (RECLINER)
21	L/Y	PULSE (REAR LIFTER)

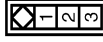
Connector No.	B20
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
15	BR	-
17	B/W	-

22	BR/Y	PULSE (FRONT LIFTER)
23	P	CAN-H
24	P/L	CAN-L
25	G/O	IND-1
26	L/O	IND-2
27	LG	ADDRESS 1
28	V/W	ADDRESS 2
29	O/L	SET SW
31	W	SENSOR POWER SUPPLY
33	B/Y	GND

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	AG3FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	SB	-

Connector No.	B454
Connector Name	RECLINING MOTOR (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	F 6098-0344



Terminal No.	Color of Wire	Signal Name [Specification]
5	V	-
6	R/L	-
20	R/Y	-
32	W	-
41	W/B	-

JCJWM0305GE

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER

Connector No.	B455
Connector Name	LIFTING MOTOR (FRONT (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER))
Connector Type	F 6098-0344



Terminal No.	Color of Wire	Signal Name [Specification]
9	L/R	-
10	L/B	-
22	BR/Y	-
34	W	-
43	W/B	-

Connector No.	B456
Connector Name	LIFTING MOTOR (REAR (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER))
Connector Type	F 6098-0344



Terminal No.	Color of Wire	Signal Name [Specification]
7	L	-
8	L/W	-
21	L/Y	-
33	W	-
42	W/B	-

Connector No.	B459
Connector Name	POWER SEAT SWITCH (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
11	G/B	-
12	G/W	-
13	R/G	-
14	R/W	-
15	Y/B	-
16	Y/R	-
17	LG/B	-
18	LG/R	-
36	B/Y	-

Connector No.	B460
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	O/L	-
2	V/W	-
3	P	-
5	LG	-
6	G/O	-
7	L/O	-
9	P/L	-

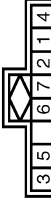
Connector No.	B461
Connector Name	SLIDING MOTOR (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	F 6098-0344



Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D13
Connector Name	SEAT MEMORY SWITCH
Connector Type	A08FW



Connector No.	D21
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
4	G/R	-
19	G/Y	-
31	W	-
40	W/B	-

Terminal No.	Color of Wire	Signal Name [Specification]
15	R	-
17	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	SB	-
3	LG	-
4	B	-
5	BR	-
6	O	-
7	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
30	BR	-
31	P	-
32	O	-
33	SB	-
34	G	-
35	LG	-

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER

Connector No.	D12
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK18MGY-1V



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
8	P	-

Connector No.	E36
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) (WITH VDC)
Connector Type	BA42ZFB-APZ4-RH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color of Wire	Signal Name [Specification]
15	P	CAN-L(VRS)
26	L	CAN-H(VRS)

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	FT70DMF-CS10-M3



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color of Wire	Signal Name [Specification]
11	P	-
12	L	-
82	L/G	-

Connector No.	F23
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
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Terminal No.	Color of Wire	Signal Name [Specification]
31	P	CAN-L
32	L	CAN-H

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS86FW-M2



1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A	13A	14A	15A	16A
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Terminal No.	Color of Wire	Signal Name [Specification]
4A	G/Y	-
7A	Y/R	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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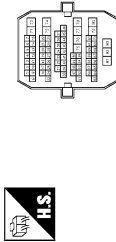
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

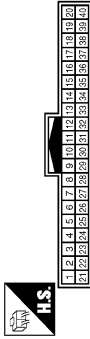
AUTOMATIC DRIVE POSITIONER

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3



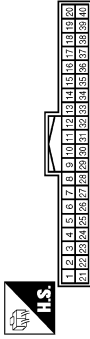
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	-
12	L	-
82	W/B	-

Connector No.	M20
Connector Name	WIRE TO WIRE
Connector Type	TH40MFV-NH



Terminal No.	Color of Wire	Signal Name [Specification]
30	Y/R	-
31	P	-
32	R/G	-
33	L/G/B	-
34	LG	-
35	BR/W	-

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



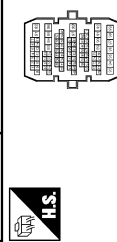
Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Connector No.	M57
Connector Name	CONTROL DEVICE
Connector Type	TK10FW



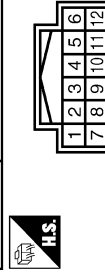
Terminal No.	Color of Wire	Signal Name [Specification]
8	Y/R	-
9	G/B	-

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS19



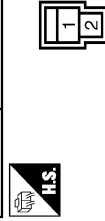
Terminal No.	Color of Wire	Signal Name [Specification]
10	P	-
11	R/G	-
12	L/G/B	-
13	LG	-
14	BR/W	-
43	P	-
44	L	-
55	SB	-
82	W	[With automatic drive positioner]

Connector No.	M99
Connector Name	KEY SLOT
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	G/Y	BAT
7	B	GND
11	Y	KEY SWITCH SIGNAL

Connector No.	M115
Connector Name	CIRCUIT BREAKER
Connector Type	M02FW-P-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W/B	-
2	W	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W/B	BAT (F/L)

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DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

AUTOMATIC DRIVE POSITIONER

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



4	5	6	7		8	9	10	
11	12	13	14	15	16	17	18	19

Terminal No.	Color of Wire	Signal Name [Specification]
11	Y/R	BAT (FUSE)
13	B	GND

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4GFB-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72
111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H
96	Y/R	CONTROL DEVICE POWER SUPPLY
99	G/B	SHIFT P

Connector No.	M128
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH



47	46	45	44	43	42	41	40	39	38	37	36
59	58	57	56	55	54	53	52	51	50	49	48

Terminal No.	Color of Wire	Signal Name [Specification]
44	G	COMM (DISP->CONT)
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92

Terminal No.	Color of Wire	Signal Name [Specification]
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4GFB-NH



11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270
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DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS >

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
Only manual functions operate normally	CAN communication	U1000	ADP-38
	CONTROL UNIT	U1010	ADP-39
	EEPROM	B2130	ADP-40
Only manual functions, except seat sliding, operate normally	Seat sliding output	B2112	ADP-41
Only manual functions, except seat reclining, operate normally	Seat reclining output	B2113	ADP-43

DTC Index

INFOID:000000003759214

CONSULT-III display	Timing ^{*1}		Item	Reference page
	Current malfunction	Previous malfunction		
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-38
CONTROL UNIT [U1010]	0	1-39	Control unit	ADP-39
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-41
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-43
EEPROM [B2130]	0	1-39	EEPROM	ADP-40

*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.

MANUAL FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

MANUAL FUNCTION DOES NOT OPERATE

ALL COMPONENTS

ALL COMPONENTS : Diagnosis Procedure

INFOID:0000000003759225

1.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit.

Refer to [ADP-45, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check power seat switch ground circuit.

Refer to [ADP-57, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

NO >> GO TO 1.

SEAT SLIDING

SEAT SLIDING : Diagnosis Procedure

INFOID:0000000003846564

ADP

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 malfunctioning parts.

2.CHECK SLIDING SWITCH

Check sliding switch.

Refer to [ADP-46, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK SLIDING MOTOR

Check sliding motor.

Refer to [ADP-68, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

MANUAL FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

YES >> Check intermittent incident. Refer to [GI-35. "Intermittent Incident"](#).

NO >> GO TO 1.

SEAT RECLINING

SEAT RECLINING : Diagnosis Procedure

INFOID:000000003846565

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 malfunctioning parts.

2.CHECK RECLINING SWITCH

Check reclining switch.

Refer to [ADP-48. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK RECLINING MOTOR

Check reclining motor.

Refer to [ADP-70. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35. "Intermittent Incident"](#).

NO >> GO TO 1.

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT) : Diagnosis Procedure

INFOID:000000003846566

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 malfunctioning parts.

2.CHECK LIFTING SWITCH (FRONT)

Check lifting switch (front).

Refer to [ADP-50. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK LIFTING MOTOR (FRONT)

Check lifting motor (front).

Refer to [ADP-72. "Component Function Check"](#).

Is the inspection result normal?

MANUAL FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

- YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).
NO >> GO TO 1.

SEAT LIFTING (REAR)

SEAT LIFTING (REAR) : Diagnosis Procedure

INFOID:000000003846567

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 malfunctioning parts.

2.CHECK LIFTING SWITCH (REAR)

Check lifting switch (rear).

Refer to [ADP-52, "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3.CHECK LIFTING MOTOR (REAR)

Check lifting motor (rear).

Refer to [ADP-74, "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).
NO >> GO TO 1.

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ADP

MEMORY FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

MEMORY FUNCTION DOES NOT OPERATE

ALL COMPONENTS

ALL COMPONENTS : Diagnosis Procedure

INFOID:000000003759223

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-125, "ALL COMPONENTS : Diagnosis Procedure"](#).

2.PERFORM INITIALIZATION AND MEMORY STORING PROCEDURE

1. Perform initialization procedure.

Refer to [ADP-8, "SYSTEM INITIALIZATION : Special Repair Requirement"](#).

2. Perform memory storing procedure.

Refer to [ADP-9, "MEMORY STORING : Special Repair Requirement"](#).

3. Check memory function.

Refer to [ADP-19, "MEMORY FUNCTION : System Description"](#).

Is the inspection result normal?

YES >> Memory function is normal.

NO >> GO TO 3.

3.CHECK DTC

Check the following DTC.

Vehicle speed signal

• "Self Diagnostic Result" with ABS actuator and electric unit (control unit). Refer to [BRC-48, "DTC No. Index"](#).

• "Self Diagnostic Result" with METER. Refer to [MWI-67, "DTC Index"](#).

Selector lever in P position signal, ignition position signal and key slot signal.

• "Self Diagnostic Result" with BCM. Refer to [ADP-110, "DTC Index"](#).

• "Self Diagnostic Result" with TCM. Refer to [TM-121, "DTC Index"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK SEAT MEMORY SWITCH

Check seat memory switch.

Refer to [ADP-54, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5.CHECK FRONT DOOR SWITCH (DRIVER SIDE)

Check front door switch (driver side).

Refer to [ADP-58, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

6.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

NO >> GO TO 1.

SEAT SLIDING

MEMORY FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

SEAT SLIDING : Diagnosis Procedure

INFOID:000000003759226

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-125, "SEAT SLIDING : Diagnosis Procedure"](#).

2.CHECK SLIDING SENSOR

Check sliding sensor.

Refer to [ADP-60, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

NO >> GO TO 1.

SEAT RECLINING

SEAT RECLINING : Diagnosis Procedure

INFOID:000000003759227

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-126, "SEAT RECLINING : Diagnosis Procedure"](#).

2.CHECK RECLINING SENSOR

Check reclining sensor.

Refer to [ADP-62, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

NO >> GO TO 1.

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT) : Diagnosis Procedure

INFOID:000000003759228

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-126, "SEAT LIFTING \(FRONT\) : Diagnosis Procedure"](#).

2.CHECK LIFTING SENSOR (FRONT)

Check lifting sensor (front).

Refer to [ADP-64, "Component Function Check"](#).

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MEMORY FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

NO >> GO TO 1.

SEAT LIFTING (REAR)

SEAT LIFTING (REAR) : Diagnosis Procedure

INFOID:000000003759229

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-127, "SEAT LIFTING \(REAR\) : Diagnosis Procedure"](#).

2.CHECK LIFTING SENSOR (REAR)

Check lifting sensor (rear).

Refer to [ADP-66, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

NO >> GO TO 1.

MEMORY INDICATE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

MEMORY INDICATE DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000003759224

1.CHECK MEMORY INDICATOR

Check memory indicator.

Refer to [ADP-76, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

NO >> GO TO 1.

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ADP

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000003759233

1.CHECK SYSTEM SETTING

1. Check system setting.
Refer to [ADP-10. "SYSTEM SETTING : Special Repair Requirement"](#).

2. Check the operation.

Is the inspection result normal?

- YES >> Entry/Exit function is OK.
NO >> GO TO 2.

2.PERFORM SYSTEM INITIALIZATION

1. Perform system initialization.
Refer to [ADP-8. "SYSTEM INITIALIZATION : Special Repair Requirement"](#).
2. Check the operation.

Is the inspection result normal?

- YES >> Entry/Exit function is OK.
NO >> GO TO 3.

3.CHECK DTC

Selector lever in Position signal, ignition position signal and key slot signal.

- "Self Diagnostic Result" with BCM. Refer to [ADP-110. "DTC Index"](#).
- "Self Diagnostic Result" with TCM. Refer to [TM-121. "DTC Index"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4.CHECK FRONT DOOR SWITCH (DRIVER SIDE)

Check front door switch (driver side).

Refer to [ADP-58. "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 5.
NO >> Repair or replace the malfunctioning parts.

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-35. "Intermittent Incident"](#).
NO >> GO TO 1.

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000003759234

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 malfunctioning parts.

2.PERFORM MEMORY STORING PROCEDURE

1. Perform memory storing procedure.

Refer to [ADP-9, "MEMORY STORING : Special Repair Requirement"](#).

2. Check Intelligent Key interlock function.

Refer to [ADP-31, "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-136, "Removal and Installation"](#).

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NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

INFOID:000000003759236

The following symptoms are normal operations, and they do not indicate a malfunction.

Symptom	Cause	Action to take	Reference page
Entry/exit assist function and seat synchronization do not operate.	No initialization has been performed.	Perform initialization.	ADP-8
	Entry/exit assist function is disabled. NOTE: The entry/exit assist function and seat synchronization function are disabled before delivery (initial setting).	Change the settings.	ADP-9
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	ADP-27
Memory function, entry/exit assist function, or Intelligent Key interlock function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Memory function: ADP-19
			Exit assist function: ADP-23
			Entry assist function: ADP-27
			Intelligent Key interlock function: ADP-31

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000003940050

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. Information necessary to service the system safely is included in the "SRS AIRBAG" and "SEAT BELT" of this Service Manual.

WARNING:

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

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DRIVER SEAT CONTROL UNIT

< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

DRIVER SEAT CONTROL UNIT

Exploded View

INFOID:000000003759238

Refer to [SE-89, "Exploded View"](#).

Removal and Installation

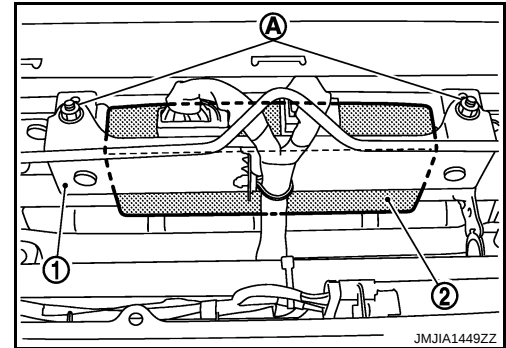
INFOID:000000003759239

REMOVAL

CAUTION:

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

1. Remove the driver seat (1). Refer to [SE-92, "Removal and Installation"](#).
2. Remove the mounting nut (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-7, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description"](#).

SEAT MEMORY SWITCH

< ON-VEHICLE REPAIR >

SEAT MEMORY SWITCH

Exploded View

INFOID:000000003759242

Refer to [INT-30. "DRIVER SIDE : Exploded View"](#).

Removal and Installation

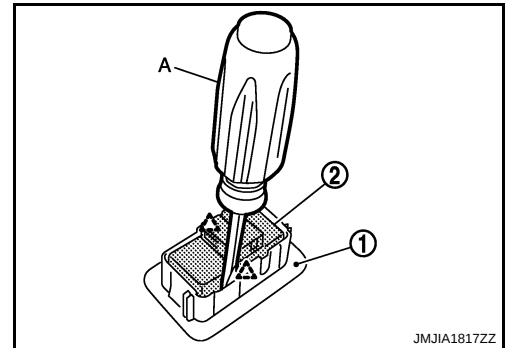
INFOID:000000003759243

REMOVAL

CAUTION:

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

1. Remove the seat memory finisher (1). Refer to [INT-30. "DRIVER SIDE : Removal and Installation"](#).
2. Press pawls and remove seat memory switch (2) from seat memory finisher, with flat-bladed screw driver (A).



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-7. "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description"](#).

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POWER SEAT SWITCH

< ON-VEHICLE REPAIR >

POWER SEAT SWITCH

Exploded View

INFOID:000000003940128

Refer to [SE-89, "Exploded View"](#).

Removal and Installation

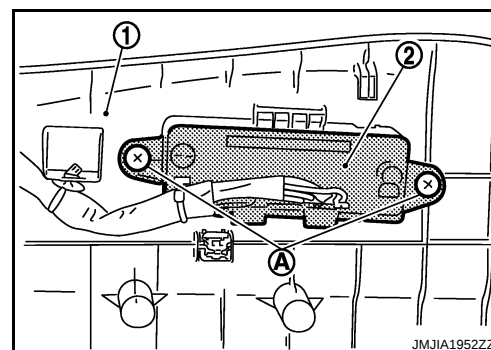
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REMOVAL

CAUTION:

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

1. Remove the seat cushion outer finisher (1). Refer to [SE-92, "Removal and Installation"](#).
2. Remove switch knob.
3. Remove screws (A).
4. Remove the power seat switch (2) from the seat cushion outer finisher.



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.