SECTION ADD AUTOMATIC DRIVE POSITIONER

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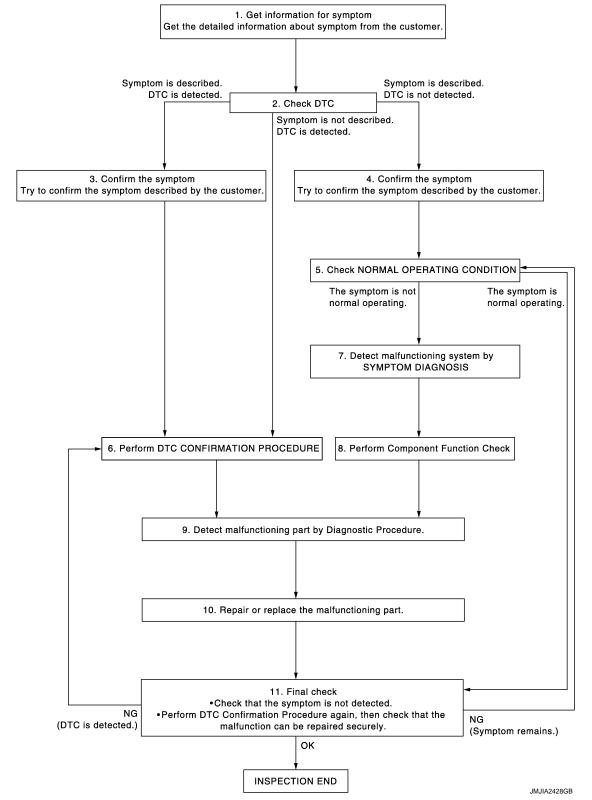
< BASIC INSPECTION >

BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000008163541

OVERALL SEQUENCE



DETAILED FLOW

Revision: 2012 July

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

1.GET INFORMATION FOR SYMPTOM	А
Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).	
>> GO TO 2.	В
2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM	
Check "Self Diagnostic Result" with CONSULT. Refer to ADP-181, "DTC Index"	С
Is any symptom described and any DTC is displayed?	
Symptom is described, DTC is displayed.>>GO TO 3. Symptom is not described, DTC is displayed.>>GO TO 6. Symptom is described, DTC is not displayed.>>GO TO 4.	D
3. CONFIRM THE SYMPTOM	Е
Try to confirm the symptom described by the customer.	
>> GO TO 6.	F
4.CONFIRM THE SYMPTOM	
Try to confirm the symptom described by the customer.	G
>> GO TO 5.	
5. CHECK NORMAL OPERATING CONDITION	Н
Check normal operating condition. Refer to ADP-204, "Description".	
Is the incident normal operation? YES >> INSPECTION END NO >> GO TO 7.	
6.PERFORM DTC CONFIRMATION PROCEDURE	AD
Perform the confirmation procedure for the detected DTC.	
Is the DTC displayed?	K
YES >> GO TO 8. NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
7. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS	
Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.	L
>> GO TO 8.	M
8. PERFORM COMPONENT FUNCTION CHECK	
Perform the component function check for the isolated malfunctioning point.	Ν
r chom the component function check for the isolated manufacturing point.	
>> GO TO 9.	0
9. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE	
Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during the component diagnosis.	Ρ
>> GO TO 10.	
10.repare or replace	

Repair or replace the malfunctioning part.

< BASIC INSPECTION >

>> GO TO 11.

11.FINAL CHECK

Perform the DTC confirmation procedure (if DTC is detected) or component function check (if no DTC is detected) again, and then check that the malfunction can be repaired securely.

Are all malfunctions corrected?

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

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

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

Function	Condition	Procedure	
Memory (Seat, steering, mirror)	Erased	Perform memory storing	
Intelligent Key interlock	Erased	Perform memory storing	
Seat synchronization	OFF	—	

NOTE:

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

1.SYSTEM INITIALIZATION

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

>> GO TO 2.

2.SYSTEM SETTING

Perform system setting. Refer to ADP-11, "SYSTEM SETTING : Description".

>> GO TO 3.

3.MEMORY STORING

Perform memory storing. Refer to ADP-10, "MEMORY STORING : Description".

>> END ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

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

Function	Condition	Procedure	N
Memory (Seat, steering, mirror)	Erased	Perform memory storing	
Intelligent Key interlock	Erased	Perform memory storing	
Seat synchronization	OFF		0

NOTE:

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

1.SYSTEM INITIALIZATION

Revision: 2012 July

2013 G Coupe

< BASIC INSPECTION >

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

>> GO TO 2.

2.system setting

Perform system setting. Refer to ADP-11, "SYSTEM SETTING : Description".

>> GO TO 3.

3.MEMORY STORING

Perform memory storing. Refer to ADP-10, "MEMORY STORING : Description".

>> END SYSTEM INITIALIZATION

SYSTEM INITIALIZATION : Description

When disconnecting battery negative terminal or replacing control unit, always perform the system initialization. Otherwise, the backward operation for power walk-in function does not activate normally.

SYSTEM INITIALIZATION : Special Repair Requirement

INITIALIZATION PROCEDURE

1. STEP-1

Slide the seat to the front edge.

NOTE:

- STEP-1 is the initialization procedure for power walk-in function.
- If the seat sliding position is already at the front edge, slide the seat rearward once, and then slide it to the front edge again.

>> END MEMORY STORING

MEMORY STORING : Description

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

MEMORY STORING : Special Repair Requirement

Memory Storage Procedure

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

1.STEP 1

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

>> GO TO 2.

2.STEP 2

Turn ignition switch ON.

>> GO TO 3.

3.STEP 3

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

INFOID:000000008163548

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INFOID:00000008163549

А >> GO TO 4. **4**.STEP 4 1. Push set switch. В NOTE: • Memory indicator for which driver seat position is already retained in memory is illuminated for 5 seconds. Memory indicator for which driver seat position is not retained in memory is illuminated for 0.5 second. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch. NOTE: If memory is stored in the same memory switch, the previous memory will be deleted. D Do you need linking of Intelligent Key? YES >> GO TO 6. NO >> GO TO 5. Е **5.**STEP 5 Confirm the operation of each part with memory operation. F >> END **6.**STEP 6 Turn ignition switch OFF (LOCK). Н >> GO TO 7. 7.STEP 7 Press and release set switch. Memory switch indicator is illuminated for 5 seconds. During memory switch indicator is illuminated, press Intelligent Key unlock button while pressing memory switch 1 or 2. NOTE: Memory switch indicator lamp blinks for 5 seconds when registration is complete. ADP >> GO TO 8. 8.STEP 8 Κ Confirm the operation of each part with memory operation and Intelligent Key interlock operation. L >> END SYSTEM SETTING M SYSTEM SETTING : Description INFOID:00000008163550 The setting of the automatic driving positioner system can be changed using the set switch. Ν SYSTEM SETTING : Special Repair Requirement INFOID:00000000816355 SETTING PROCEDURE **1**.STEP-1 Set the vehicle to the following condition. Ρ Ignition position: ACC A/T selector lever: P position (A/T models) • Parking brake: Applied only (M/T models) >> GO TO 2.

2.STEP-2

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

< BASIC INSPECTION >

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

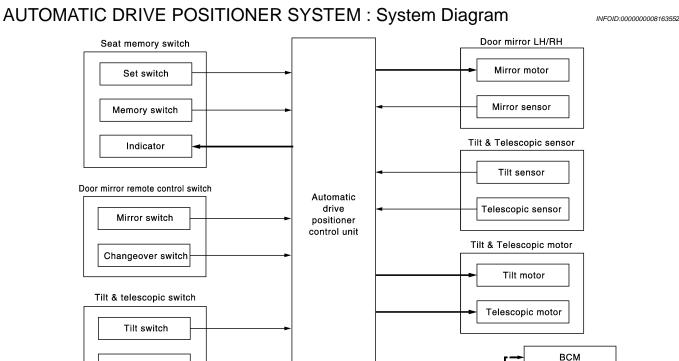
NOTE:

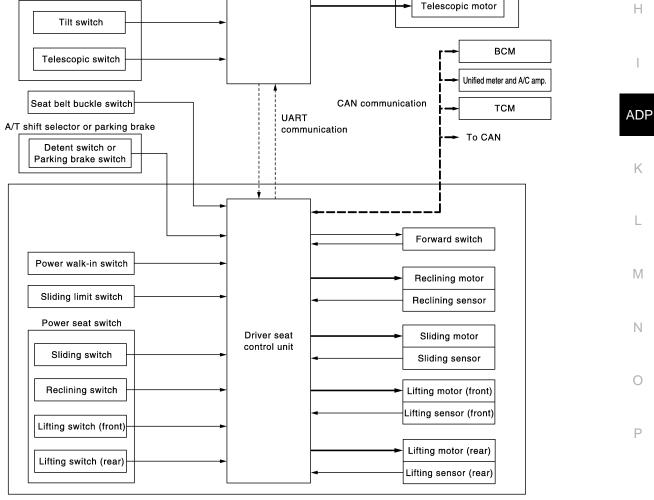
• After memory setting registration, by pushing set switch for approximately 10 seconds, memory switch indicator lamp turns 4 seconds. turns OFF, blinks 1 or 2 times, and then the switching operation is complete. Push and hold set switch during the switching operation.

>> END.

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM





Driver seat

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< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

OUTLINE

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

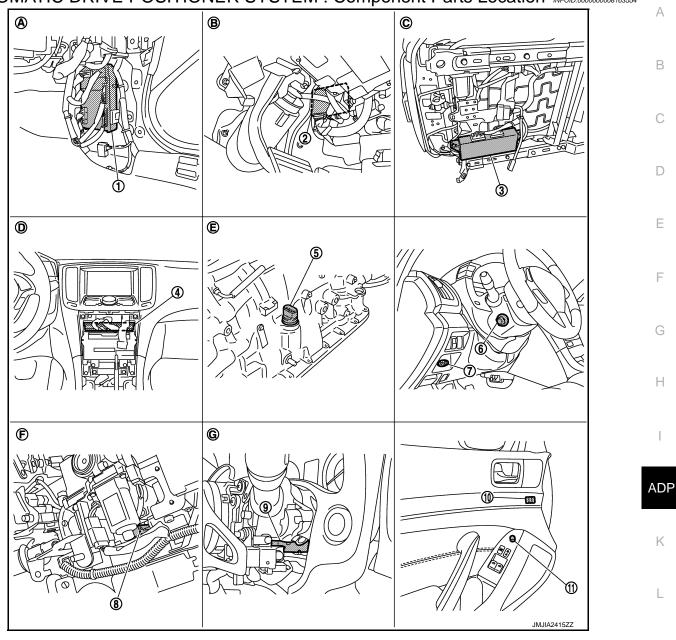
Function	Description
Manual function	The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch.
Seat synchronization function	The positions of the steering column and door mirror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

NOTE:

The lumbar support system and the side support system are controlled independently with no link to the automatic drive positioner system.

< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location INFOLD:000000008163554



- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

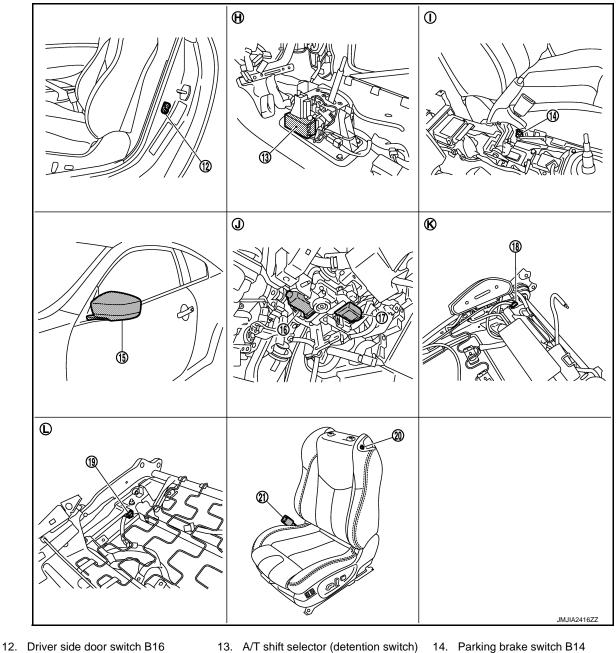
- Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52
 A/T assembly F51
 Tilt & telescopic switch M31
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed (Remove 4WAS front control unit with 4WAS models)
- E. A/T assembly (TCM is built in A/T assembly)
- 6. Tilt & telescopic switch M31
 9. Telescopic sensor M48
 - C. Backside of seat cushion (driver side)
 - F. View with instrument driver lower panel removed

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< SYSTEM DESCRIPTION >



- 15. Door mirror (driver side) D3
- 18. Forward switch B512
- 21. Seat belt buckle switch (driver side) B13
- H. View with center console assembly ١. is removed.
- K. View with seat back pad is removed. L.

- M137
- 16. Telescopic motor M49
- 19. Sliding limit switch B514
 - View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 17. Tilt motor M49
- 20. Power walk-in switch B513
- J. View with instrument driver lower panel is removed.

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22.	Reclining motor B523	23.	Reclining switch (Power seat switc B510	h)	24.	Sliding, lifting switch (Power seat switch) B510	0
25.	Sliding sensor B526	26.	Lifting motor (fron	t) B527	27.	Sliding motor B525	G
28.	Lifting motor (rear) B529						
M.	View with seat cushion pad and seat- back pad are removed.	N.	Backside of seat of	cushion			Н

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:000000008163555

CONTROL UNITS

Item	Function
Driver seat control unit	 Main units of automatic drive positioner system. It is connected to the CAN. It communicates with the automatic drive positioner control unit via UART communication.
Automatic drive positioner control unit	 It communicates with the driver seat control unit via UART communication. Perform various controls with the instructions of driver seat control unit. Perform the controls of the tilt & telescopic, door mirror and the seat memory switch.
ВСМ	 Transmit the following status to the driver seat control unit via CAN communication. Driver door: OPEN/CLOSE Ignition switch position: ACC/ON Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation) Key ID Key switch: Insert/Pull out Intelligent Key Starter: CRANKING/OTHER
Unified meter and A/C amp.	Transmit the vehicle speed signal to the driver seat control unit via CAN communi- cation.
ТСМ	Transmit the shift position signal (P range) to the driver seat control unit via CAN communication.

INPUT PARTS

Switches

< SYSTEM DESCRIPTION >

Item	Function
Key slot	The key switch is installed to detect the key inserted/removed status.
Driver side door switch	Detect front door (driver side) open/close status.
A/T shift selector (detention switch)	Detect the P range position of A/T selector lever. (A/T models)
Parking break switch	Detect the parking brake status. (M/T models)
Set switch	The registration and system setting can be performed with its operation.
Memory switch 1/2	The registration and operation can be performed with its operation.
Power seat switch	 The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch.
Power walk-in switch	Perform the power walk-in operation by operating the power walk-in switch.
Sliding limit switch	Detect the front end position of seat sliding during the power walk-in function front- ward operation.
Seat belt buckle switch	Detect the seat belt fastening/releasing condition.
Forward switch	Detect the folded up/folded down condition of seatback that is the operation condi- tion of power walk-in function.
Tilt & telescopic switch	 The following switch is installed. Tilt switch Telescopic switch The specific parts can be operated with the operation of each switch.
Door mirror remote control switch	 The following switch is installed. Mirror switch Changeover switch The specific parts can be operated with the operation of each switch.

Sensors

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

OUTPUT PARTS

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

SLEEP MODE

• The seat control unit adopts the sleep mode to reduce the electric power consumption.

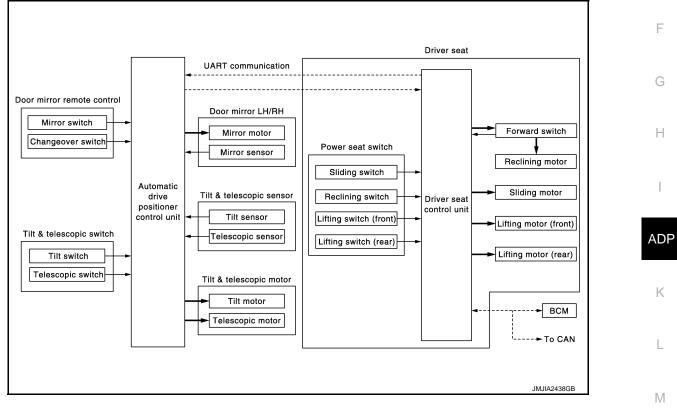
< SYSTEM DESCRIPTION >

- The sleep mode is activated when all of the following condition are fulfilled. Ignition switch turn OFF (steering LOCK position) 1. No load is applied to the seat control 2. The seat control unit 45seconds timer in not activated 3. Set switch and memory switch (1 and 2) turn OFF 4. WAKE-UP MODE The sleep mode is cancelled when any status change is detected for the followings. CAN communication 1 Power seat switch 2. 3. Set switch and memory switch (1 and 2) 4. Power walk-in switch
- 5. Door mirror switch

6. Steering column switch

MANUAL FUNCTION

MANUAL FUNCTION : System Diagram



MANUAL FUNCTION : System Description

OUTLINE

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

OPERATION PROCEDURE

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

DETAIL FLOW

Seat

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< SYSTEM DESCRIPTION >

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

Tilt & Telescopic

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

*: Tilt does not operates upward when tilt sensor value is less than 1.1 V, tilt does not operate downward when the sensor value is more than 3.9 V. Telescopic does not operates backward when telescopic sensor value is less than 0.5 V, telescopic does not operate forward when the sensor value is more than 4.5 V.

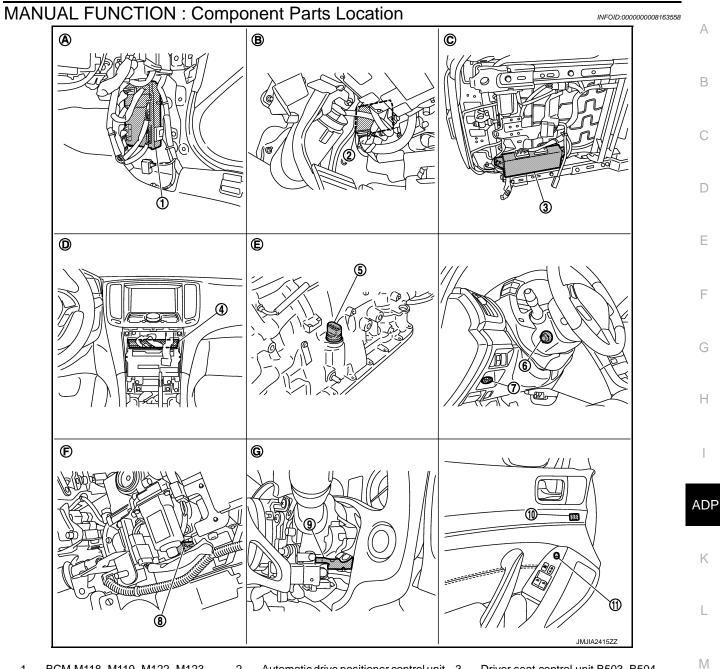
Door Mirror

Order	Input	Output	Control unit condition
1	Door mirror remote control switch	_	The door mirror remote control switch signal is inputted to the au- tomatic drive positioner control unit when the door mirror remote control switch is operated.
2	_	Motors (Door mirror motor)	The automatic drive positioner control unit actuates each motor according to the signal from the door mirror remote control switch.
3	Sensors (Mirror)	_	The automatic drive positioner control unit monitors the input of mirror sensor. It stops the operation if the input reaches the operation limit.

NOTE:

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

< SYSTEM DESCRIPTION >



- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

 Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52
 A/T assembly F51
 Tilt & telescopic switch M31

9.

Tilt sensor M48

8.

- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed (Remove 4WAS front control unit with 4WAS models)
- E. A/T assembly (TCM is built in A/T assembly)
- C. Backside of seat cushion (driver side)

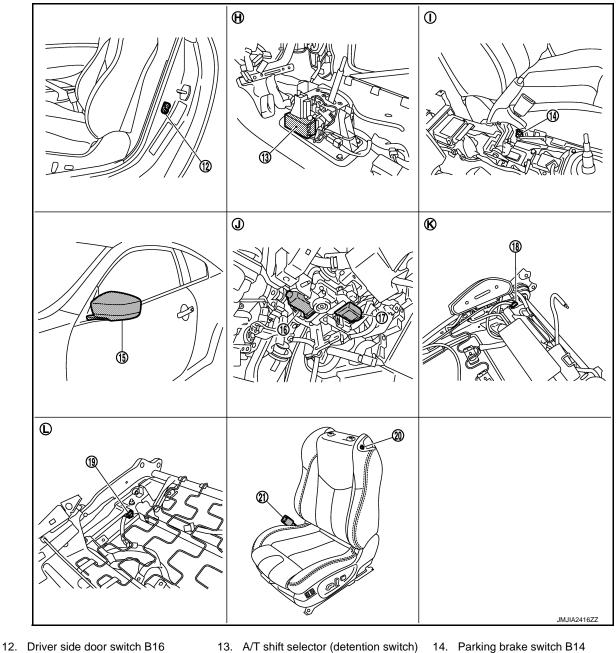
Telescopic sensor M48

F. View with instrument driver lower panel removed

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< SYSTEM DESCRIPTION >



- 15. Door mirror (driver side) D3
- 18. Forward switch B512
- 21. Seat belt buckle switch (driver side) B13
- H. View with center console assembly ١. is removed.
- K. View with seat back pad is removed. L.

- M137
- 16. Telescopic motor M49
- 19. Sliding limit switch B514
 - View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 17. Tilt motor M49
- 20. Power walk-in switch B513
- J. View with instrument driver lower panel is removed.

< SYSTEM DESCRIPTION >

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22.	Reclining motor B523	23.	Reclining switch (Power seat sw B510		24.	Sliding, lifting switch (Power seat switch) B510	
25.	Sliding sensor B526	26.	Lifting motor (fro	ont) B527	27.	Sliding motor B525	G
28.	Lifting motor (rear) B529						
М.	View with seat cushion pad and seat- back pad are removed.	N.	Backside of sea	t cushion			Н
MAN	UAL FUNCTION : Com	oor	ent Descr	iption		INFOID:0000000810	63559

CONTROL UNITS

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

INPUT PARTS

Switches

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

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< SYSTEM DESCRIPTION >

Item	Function	
Forward switch	Detect folded down or folded up of the seat back.	
Door mirror remote control switch	 The following switch is installed. Mirror switch Changeover switch The specific parts can be operated with the operation of each switch. 	

Sensors

Item	Function	
Tilt & telescopic sensor	Detect the upward/downward & forward/backward position of steering column.	
Door mirror sensor (driver side / passenger side)	Detect the upward/downward and leftward/rightward position of outside mirror face.	

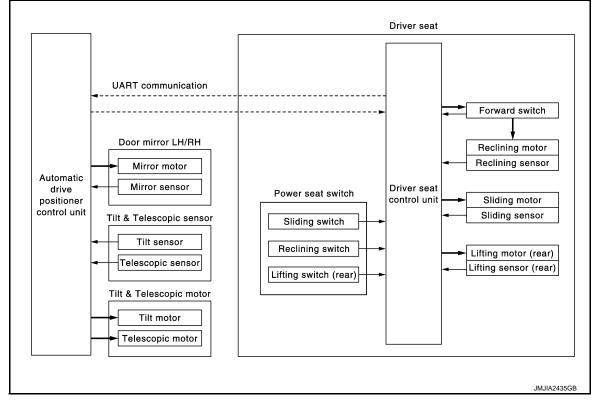
OUTPUT PARTS

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

SEAT SYNCHRONIZATION FUNCTION

SEAT SYNCHRONIZATION FUNCTION : System Diagram

INFOID:000000008163560



SEAT SYNCHRONIZATION FUNCTION : System Description

INFOID:000000008163561

OUTLINE

Revision: 2012 July

ADP-24

< SYSTEM DESCRIPTION >

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

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

OPERATION PROCEDURE

1. Turn ignition switch ON.

Adjust seat position [sliding, reclining, lifting (rear)]. 2.

The steering and outside mirror is adjusted automatically. 3.

NOTE:

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

ltem	Limit value	
Seat sliding	76 mm	E
Seat reclining	9.1 degrees	-
Seat lifter (rear)	20 mm	F

 The seat synchronization function will not operate if the steering column or door mirror moves to the operating end while this function is operating. Perform memory function or drive the vehicle at vehicle speed of 7 km/h or more once to activate this function again.

 If the seat position is uncomfortable after the adjustment, seat position can be adjusted easily by memory operation.

OPERATION CONDITION

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

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

DETAIL FLOW

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

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

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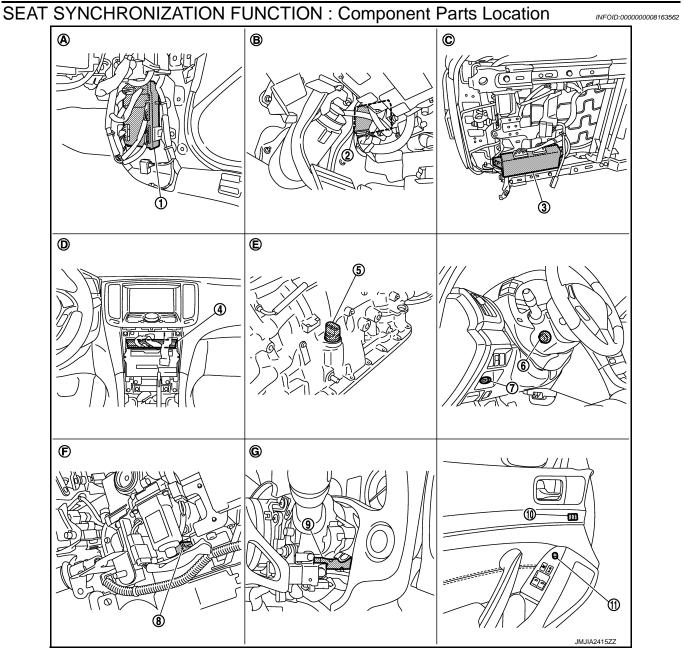
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< SYSTEM DESCRIPTION >



- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

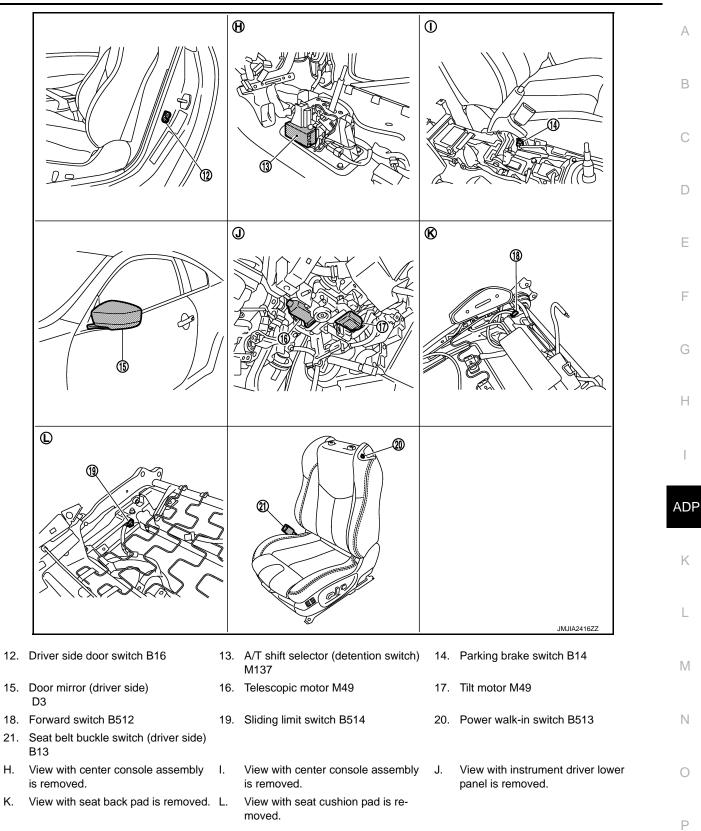
- Automatic drive positioner control unit 3. M51, M52
- 5. A/T assembly F51
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed (Remove 4WAS front control unit with 4WAS models)
- E. A/T assembly (TCM is built in A/T assembly)

- Driver seat control unit B503, B504
- 6. Tilt & telescopic switch M31
 - Telescopic sensor M48

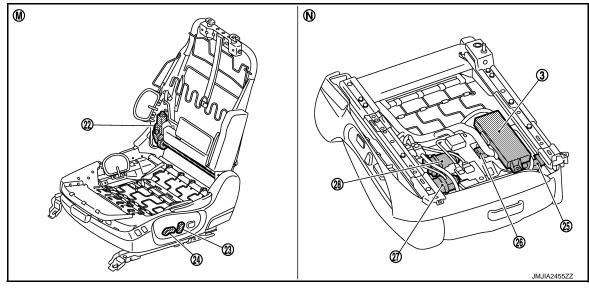
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- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



< SYSTEM DESCRIPTION >



22. Reclining motor B523

25. Sliding sensor B526

- 23. Reclining switch (Power seat switch) B510
- 26. Lifting motor (front) B527
- 24. Sliding, lifting switch (Power seat switch) B510
- 27. Sliding motor B525

- 28. Lifting motor (rear) B529
- M. View with seat cushion pad and seat- N. Backside of seat cushion back pad are removed.

SEAT SYNCHRONIZATION FUNCTION : Component Description

INFOID:000000008163563

CONTROL UNITS

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

INPUT PARTS

Switches

Item	Function	
Power seat switch	 The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch. 	
Forward switch	Detect folded down or folded up of the seat back.	

Sensors

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

< SYSTEM DESCRIPTION >

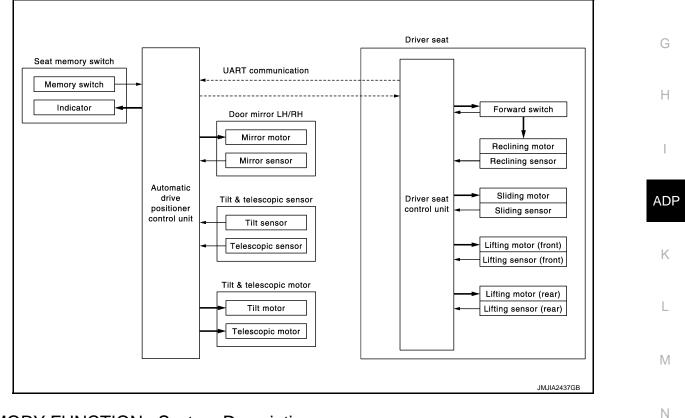
Item	Function	^
 Reclining sensor	Detect the tilt of seatback.	A
 Sliding sensor	Detect the frontward/rearward position of seat.	

OUTPUT PARTS

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

MEMORY FUNCTION

MEMORY FUNCTION : System Diagram



MEMORY FUNCTION : System Description

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OUTLINE

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

Further information for the memory storing procedure. Refer to <u>ADP-10, "MEMORY STORING : Description"</u>.

OPERATION PROCEDURE

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

OPERATION CONDITION

Revision: 2012 July

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< SYSTEM DESCRIPTION >

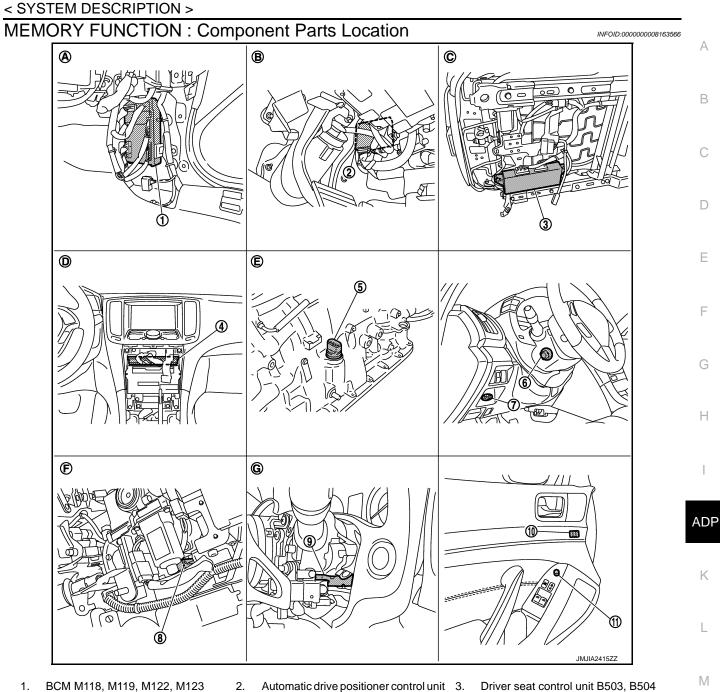
Satisfy all of the following items. The memory function is not performed if these items are not satisfied.

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

DETAIL FLOW

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

< SYSTEM DESCRIPTION >



- Unified meter and A/C amp. M67 4.
- Key slot M22 7.
- 10. Seat memory switch D5
- Dash side lower (passenger side) Α.
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52 5. A/T assembly F51 6. Tilt & telescopic switch M31

9.

Tilt sensor M48

8.

- 11. Door mirror remote control switch D17
- Β. View with instrument driver lower panel removed (Remove 4WAS front control unit with 4WAS models)
- E. A/T assembly (TCM is built in A/T assembly)
- C. Backside of seat cushion (driver side)

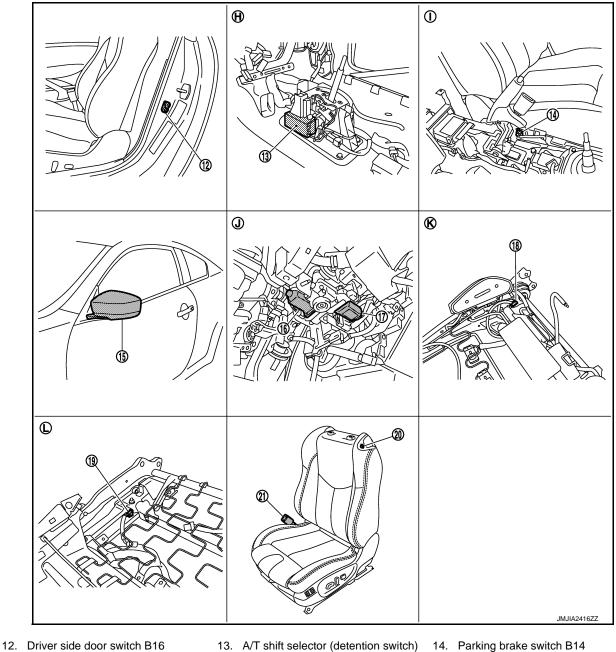
Telescopic sensor M48

F. View with instrument driver lower panel removed

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< SYSTEM DESCRIPTION >



- 15. Door mirror (driver side) D3
- 18. Forward switch B512
- 21. Seat belt buckle switch (driver side) B13
- H. View with center console assembly Ι. is removed.
- K. View with seat back pad is removed. L.

- M137
- 16. Telescopic motor M49
- 19. Sliding limit switch B514
 - View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 17. Tilt motor M49
- 20. Power walk-in switch B513
- J. View with instrument driver lower panel is removed.

< SYSTEM DESCRIPTION >

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22.	Reclining motor B523	23.	Reclining switcl (Power seat sw B510		24.	Sliding, lifting switch (Power seat switch) B510		F
25.	Sliding sensor B526	26.	Lifting motor (fr	ont) B527	27.	Sliding motor B525		G
28.	Lifting motor (rear) B529							
М.	View with seat cushion pad and seat- back pad are removed.	N.	Backside of sea	at cushion				Η
MEM	IORY FUNCTION : Com	ipol	nent Desc	ription			INFOID:000000008163567	I

CONTROL UNITS

INPUT PARTS

Switches

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

Sensors

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

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< SYSTEM DESCRIPTION >

Item Function	
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the forward/backward position of seat.

OUTPUT PARTS

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

INTELLIGENT KEY INTERLOCK FUNCTION

INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram

 Automatic drive positionner control unit
 Driver seat

 Control unit
 Driver seat

 Control unit
 BCM

INTELLIGENT KEY INTERLOCK FUNCTION : System Description

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OUTLINE

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

OPERATION PROCEDURE

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

NOTE:

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

ADP-34

< SYSTEM DESCRIPTION >

Further information for Intelligent Key interlock function. Refer to <u>ADP-10. "MEMORY STORING : Descrip-</u>tion".

OPERATION CONDITION

Satisfy all of the following items. The Intelligent Key interlock function is performed if these items are satisfied.

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

DETAIL FLOW

-	Order	Input	Output	Control unit condition	G
-	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.	Н
-	2	—	—	Driver seat control unit performs the memory function.	

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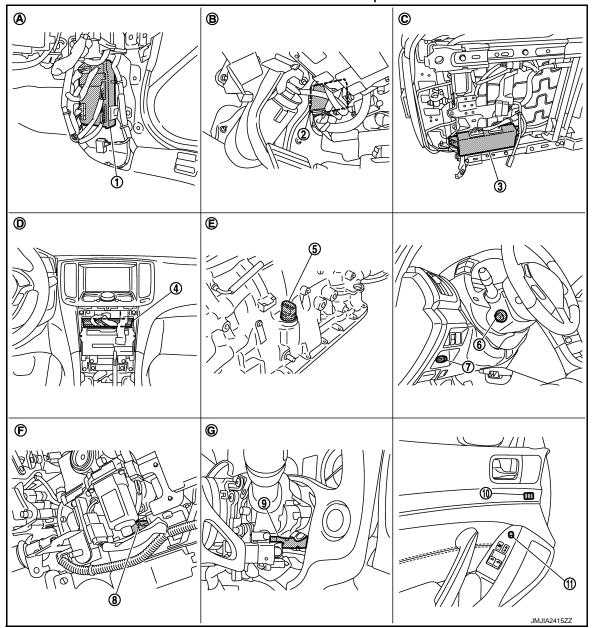
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< SYSTEM DESCRIPTION >

INTELLIGENT KEY INTERLOCK FUNCTION : Component Parts Location INFOLD 2000000008163570



- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

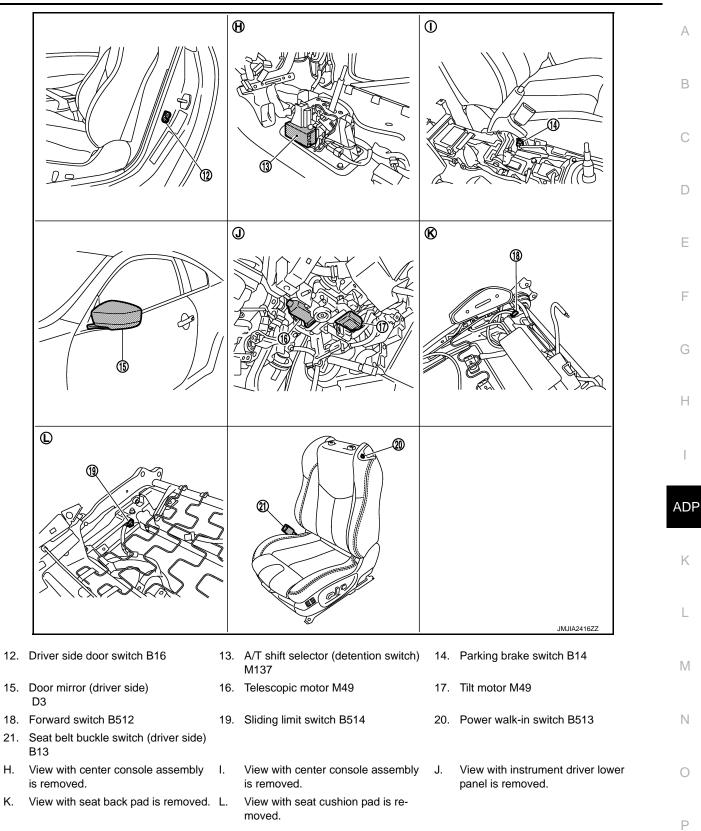
- Automatic drive positioner control unit 3. M51, M52
- 5. A/T assembly F51
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed (Remove 4WAS front control unit with 4WAS models)
- E. A/T assembly (TCM is built in A/T assembly)

- Driver seat control unit B503, B504
- 6. Tilt & telescopic switch M31
 - Telescopic sensor M48

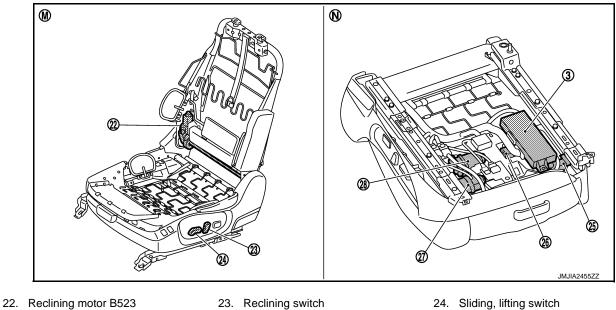
9.

- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



< SYSTEM DESCRIPTION >



- Reclining motor B523
- 23. Reclining switch (Power seat switch) B510
- 26. Lifting motor (front) B527
- 24. Sliding, lifting switch (Power seat switch) B510
- 27. Sliding motor B525

28. Lifting motor (rear) B529

25. Sliding sensor B526

M. View with seat cushion pad and seat- N. Backside of seat cushion back pad are removed.

INTELLIGENT KEY INTERLOCK FUNCTION : Component Description

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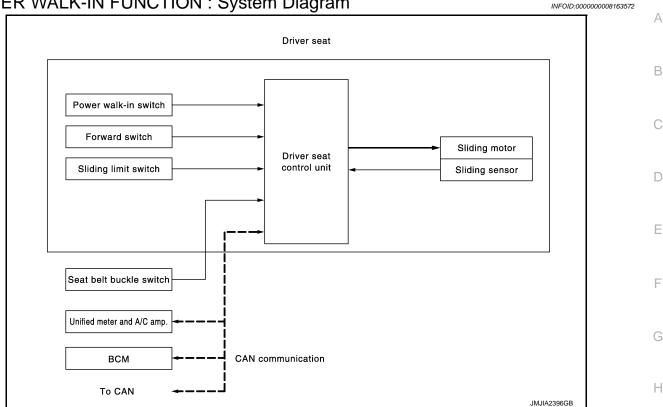
CONTROL UNITS

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

POWER WALK-IN FUNCTION

< SYSTEM DESCRIPTION >

POWER WALK-IN FUNCTION : System Diagram



POWER WALK-IN FUNCTION : System Description

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OUTLINE

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

Forward Operation

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

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

Backward Operation

The seat back is folded up after performing the forward operation of power walk-in function. Slide (backward) it to the position before performing the forward operation by operating the power walk-in switch. If the manual operation, memory operation, and Intelligent Key interlock operation are performed after per-Μ forming the forward operation, do not perform the backward operation.

OPERATION PROCEDURE

Forward Operation	Ν
1. Open driver door.	

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

Backward Operation

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

OPERATION CONDITION

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

Revision: 2012 July

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< SYSTEM DESCRIPTION >

Forward Operation

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

Backward Operation

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

DETAIL FLOW

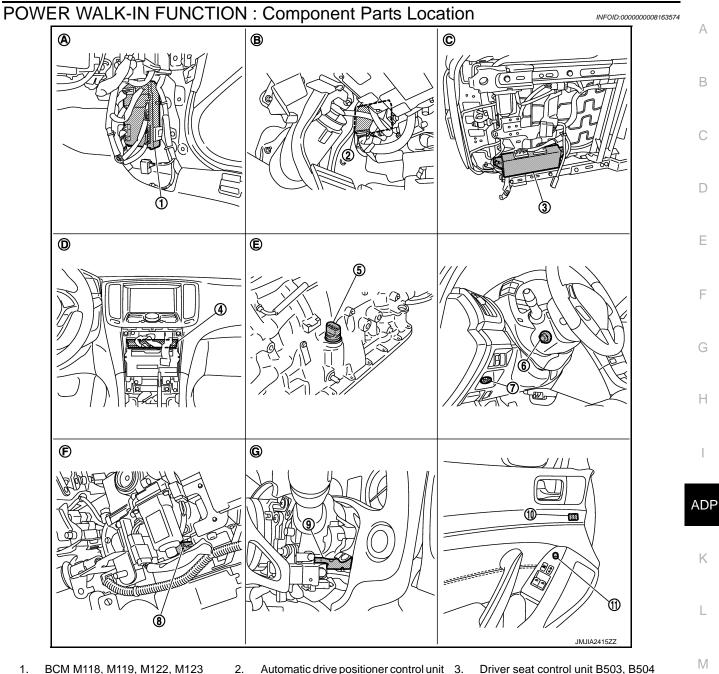
Forward Operation

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

Backward Operation

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

< SYSTEM DESCRIPTION >



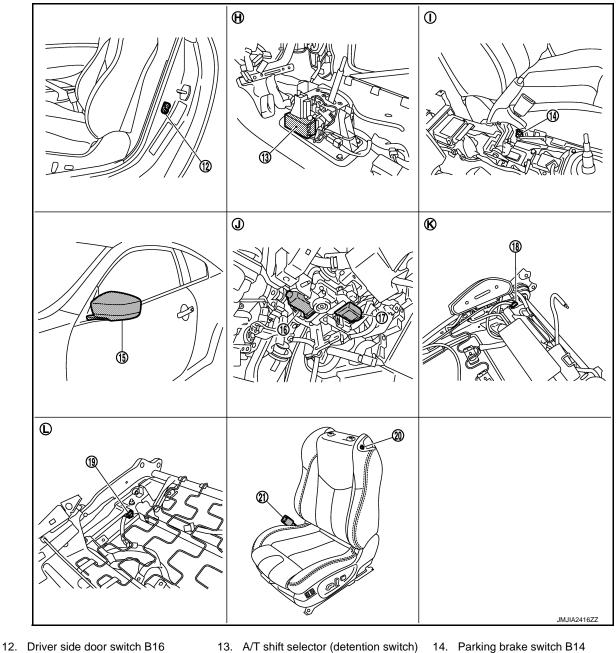
- BCM M118, M119, M122, M123 1.
- Unified meter and A/C amp. M67 4.
- Key slot M22 7.
- 10. Seat memory switch D5
- Dash side lower (passenger side) Α.
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52 5. A/T assembly F51
- Tilt sensor M48 8.
- 11. Door mirror remote control switch D17
- Β. View with instrument driver lower panel removed (Remove 4WAS front control unit with 4WAS models)
- E. A/T assembly (TCM is built in A/T assembly)
- 6. Tilt & telescopic switch M31 9. Telescopic sensor M48 C. Backside of seat cushion (driver side)
 - F. View with instrument driver lower panel removed

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< SYSTEM DESCRIPTION >



- 15. Door mirror (driver side) D3
- 18. Forward switch B512
- 21. Seat belt buckle switch (driver side) B13
- H. View with center console assembly ١. is removed.
- K. View with seat back pad is removed. L.

- M137
- 16. Telescopic motor M49
- 19. Sliding limit switch B514
 - View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 17. Tilt motor M49
- 20. Power walk-in switch B513
- J. View with instrument driver lower panel is removed.

< SYSTEM DESCRIPTION >

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								В
								С
								D
			9 B	T T	K		3	Е
						JMJIA	2455ZZ	F
22.	Reclining motor B523	(F	eclining switch Power seat swit 3510		24.	Sliding, lifting switch (Power seat switch) B510		
25.	Sliding sensor B526	26. Li	ifting motor (fro	nt) B527	27.	Sliding motor B525		G
28.	Lifting motor (rear) B529							
М.	View with seat cushion pad and seat- back pad are removed.	N. B	ackside of seat	cushion				Η
POW	/ER WALK-IN FUNCTIC)N : C	Componei	nt Descriptio	n		INFOID:000000008163575	

CONTROL UNITS

ltem	Function
Driver seat control unit	 Main units of automatic drive positioner system It is connected to the CAN. It communicates with the automatic drive positioner control unit via UART communication.
BCM	Transmit the following status to the driver seat control unit via CAN communication • Driver door: OPEN/CLOSE • Starter: CRANKING/OTHER
Unified meter and A/C amp.	Transmit the vehicle speed signal to the driver seat control unit via CAN communi- cation.

INPUT PARTS

Switches

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

Sensors

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< SYSTEM DESCRIPTION >

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

OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat forward/backward.

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

CONSULT Function

INFOID:000000008163576

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DIAGNOSTIC MODE

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

SELF DIAGNOSTIC RESULTS

Refer to <u>ADP-181, "DTC Index"</u>.

DATA MONITOR

NOTE:

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

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

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
TILT SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (upward) signal.
TILT SW-DOWN	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (downward) signal.
TELESCO SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (forward) signal.
TELESCO SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (backward) signal.
FORWARD SW* ³	"ON/OFF"	×	×	ON/OFF status judged from the forward switch signal.
WALK-IN SW* ³	"ON/OFF"	×	×	ON/OFF status judged from the power walk-in switch signal.
FWD LIMIT SW*3	"ON/OFF"	×	×	ON/OFF status judged from the sliding limit switch signal.
SEAT BELT SW* ³	"ON/OFF"	×	×	ON/OFF status judged from the seat belt buckle switch signal.
DETENT SW ^{*1}	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than the P position)" judged from the detention switch signal.
PARK BRAKE SW ^{*2}	"ON/OFF"	×	×	The parking brake condition "ON (applied) / OFF (release)" judged from the parking brake switch signal.
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON) /OFF (ACC, OFF) status judged from the ignition switch signal.
SLIDE PULSE*3	-	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
RECLN PULS*4	-	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE*4	-	_	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE*4	-	-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH U-D	"V"	-	×	Voltage input from door mirror sensor (passenger side) upward/ downward is displayed.
MIR/SEN RH R-L	"V"	-	×	Voltage input from door mirror sensor (passenger side) leftward/ rightward is displayed.
MIR/SEN LH U-D	"V"	-	×	Voltage input from door mirror sensor (driver side) upward/down- ward is displayed.
MIR/SEN LH R-L	"V"	-	×	Voltage input from door mirror sensor (driver side) leftward/right- ward is displayed.
TILT SEN	"V"	_	×	Voltage input from tilt sensor upward/downward is displayed.
TELESCO SEN	"V"	_	×	Voltage input from telescopic sensor forward/backward is displayed.

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

*2: A/T models display all item except this item.

*³: Only this item is displayed for driver seat without automatic drive positioner system.

*⁴: It is displayed but is not operated for models with driver seat without automatic driver positioner system.

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.	

Revision: 2012 July

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

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

*: Does not display without automatic driver position system.

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DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM CIRCUIT

Description

INFOID:000000008163577

INFOID-000000008163578

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

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
U1000	CAN COMM CIR- CUIT	 Driver seat control unit cannot communicate to other control units. Driver seat control unit cannot communicate for more than the specified time. 	Harness or connectors (CAN communication line is open or shorted)

DTC CONFIRMATION PROCEDURE

1.STEP 1

- 1. Turn ignition switch ON and wait for 3 seconds or more.
- 2. Check "Self diagnostic result" using CONSULT.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-48, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

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

Special Repair Requirement

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

INFOID:000000008163579

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

А Description INFOID:000000008163581 The seat sliding motor is installed to the seat cushion frame. В The seat sliding motor is installed with the driver seat control unit. Slides the seat frontward/ rearward by changing the rotation direction of sliding motor. DTC Logic INEOID:000000008163582 DTC DETECTION LOGIC NOTE: D First perform diagnosis for B2126 if B2126 is detected. Trouble diagnosis DTC No. DTC detecting condition Possible cause name The driver seat control unit detects the output of slid-Driver seat control unit SEAT SLIDE B2112 ing motor output terminal for 0.1 second or more ٠ Slide motor harness is power even if the sliding switch is not input. shorted DTC CONFIRMATION PROCEDURE **1**.PERFORM DTC CONFIRMATION PROCEDURE 1. Turn ignition switch ON. Check "Self diagnostic result" using CONSULT. 2. Н Is the DTC detected? >> Perform diagnosis procedure. Refer to ADP-49, "Diagnosis Procedure". YES NO >> INSPECTION END Diagnosis Procedure INFOID:000000008163583 1. CHECK SLIDING MOTOR CIRCUIT (POWER SHORT) ADP 1. Turn ignition switch OFF. 2. Disconnect sliding motor and driver seat control unit connector. Check voltage between sliding motor harness connector and ground. Κ 3. (+) Voltage (V) Sliding motor (-) (Approx.) Connector Terminals 35 Ground 0 Μ B525 42 Is the inspection result normal? YES >> GO TO 2. Ν NO >> Repair or replace harness. 2.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL Connect driver seat control unit connector. 1. 2. Check voltage between driver seat control unit harness connector and ground. P

(Driver seat	(+) Driver seat control unit		Voltage (V) (Approx.)
Connector	Terminals		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
B525	35	Ground	0
	42	Ground	0

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to <u>ADP-207</u>, "Removal and Installation"

3.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

А Description INFOID:00000008163584 The seat reclining motor is installed to the seatback frame. В The seat reclining motor is activated with the driver seat control unit. Tilts the seatback frontward/rearward by changing the rotation direction of reclining motor. DTC Logic INEOID-000000008163585 DTC DETECTION LOGIC NOTE: D First perform diagnosis for B2126 if B2126 is detected. Trouble diagnosis Е DTC No. DTC detecting condition Possible cause name The driver seat control unit detects the output of re-· Driver seat control unit SEAT RECLINING B2113 clining motor output terminal for 0.1 second or more Reclining motor harness is pow-F even if the reclining switch is not input. er shorted DTC CONFIRMATION PROCEDURE 1.PEFORM DTC CONFIRMATION PROCEDURE 1. Turn ignition switch ON. 2. Check "Self diagnostic result" using CONSULT. Н Is the DTC detected? >> Perform diagnosis procedure. Refer to <u>ADP-51, "Diagnosis Proce</u>dure". YES >> INSPECTION END NO **Diagnosis** Procedure INFOID-00000008163586 1.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT) ADP 1. Turn ignition switch OFF. 2. Disconnect reclining motor and driver seat control unit connector. 3. Check voltage between reclining motor harness connector and ground. Κ (+) Voltage (V) Reclining motor (-) (Approx.) Connector Terminals 15 B523 Ground 0 Μ 71 Is the inspection result normal? YES >> GO TO 2. Ν NO >> Repair or replace harness. 2.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL 1. Connect driver seat control unit connector. 2. Check voltage between driver seat control unit harness connector and ground.

	+) t control unit	()	Voltage (V) (Approx.)
Connector	Terminals		
B523	15	Ground	0
6020	71	Giouna	U

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to <u>ADP-207</u>, "Removal and Installation".

3.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2118 TILT SENSOR

Description

• The tilt sensor is installed to the steering column assembly.

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

DTC Logic

INFOID:000000008163588

INFOID:000000008163589

INFOID:00000008163587

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to ADP-53, "Diagnosis Procedure".
- NO >> INSPECTION END

Diagnosis Procedure

1.CHECK TILT SENSOR SIGNAL

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

Monitor item	Condition	Value	_
TILT SEN	Tilt position	Change between 1.1 V (close to top) 3.9 V (close to bottom)	-
the value normal?			- 1

YES >> GO TO 6.

NO >> GO TO 2.

2. CHECK TILT SENSOR CIRCUIT

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

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

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

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B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TILT SENSOR POWER SUPPLY

1. Connect automatic drive positioner control unit connector.

2. Turn ignition switch ON.

3. Check voltage between tilt & telescopic sensor harness connector and ground.

(+)			
Tilt & teles	copic sensor	()	Voltage (V) (Approx.)	
Connector	Terminal			
M48	M48 1		5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

Automatic drive po	Automatic drive positioner control unit		Tilt & telescopic sensor		
Connector	Terminal	Connector	Terminal	Continuity	
M52	33	M48	1	Existed	

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

Automatic drive po	sitioner control unit		Continuity	
Connector	Connector Terminal		Continuity	
M52	33		Not existed	

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u>.
- NO >> Repair or replace harness.

5.CHECK TILT SENSOR GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

< DTC/CIRCUIT	DIAGNOSIS >
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B2119 TELESCOPIC SENSOR

Description

INFOID:000000008163590

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

DTC Logic

INFOID:000000008163591

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC is detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-56, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000008163592

1.CHECK TELESCOPIC SENSOR SIGNAL

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

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

Is the valve normal?

YES >> GO TO 6.

2. CHECK TELESCOPIC SENSOR CIRCUIT

1. Turn ignition switch OFF.

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

-	Automatic drive po	Automatic drive positioner control unit		copic sensor	Continuity	
-	Connector	Terminal	Connector Terminal		Continuity	
-	M51	23	M48	2	Existed	

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

B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic d	rive positioner control unit			
Connector	Termina	al	Ground	Continuity
M51	23			Not existed
CHECK TELESCOP Connect automatic Turn ignition switch	eplace harness. PIC SENSOR POWER drive positioner contr	ol unit connector.	nnector and groun	nd.
	(+)			
Tilt 8	telescopic sensor		()	Voltage (V)
Connector	Termina	al	()	(Approx.)
M48	1		Ground	5
NO >> GO TO 4.				
CHECK TELESCOP . Turn ignition switch . Disconnect automa	OFF. atic drive positioner co etween automatic driv	ontrol unit connecto	or.	onnector and tilt & telesco
CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor	OFF. atic drive positioner co etween automatic driv	ontrol unit connecto ve positioner cont	or.	
CHECK TELESCOP. Turn ignition switch Disconnect automa Check continuity be sensor harness cor	OFF. atic drive positioner co etween automatic driv nnector.	ontrol unit connecto ve positioner cont	or. ol unit harness co	onnector and tilt & telesco
CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52	OFF. tic drive positioner co etween automatic driv nector. sitioner control unit Terminal 33	ontrol unit connecto ve positioner cont Tilt & tel Connector M48	or. ol unit harness co escopic sensor Terminal 1	Continuity Existed
CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52	OFF. tic drive positioner co etween automatic driv nector. sitioner control unit Terminal	ontrol unit connecto ve positioner cont Tilt & tel Connector M48	or. ol unit harness co escopic sensor Terminal 1	Continuity Existed
CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be	OFF. tic drive positioner co etween automatic driv nector. sitioner control unit Terminal 33	ontrol unit connecto ve positioner cont Tilt & tel Connector M48	or. ol unit harness co escopic sensor Terminal 1	Continuity Existed
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CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be Automatic d Connector M52 the inspection result YES >> Replace au NO >> Repair or re CCHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor	OFF. tic drive positioner co etween automatic driv nector. sitioner control unit Terminal	Tilt & tel Connector M48 re positioner contro al her control unit. Re ID CIRCUIT	or. rol unit harness co escopic sensor Terminal 1 ol unit harness cor Ground fer to <u>ADP-208, "F</u> or. rol unit harness co	Continuity Existed nector and ground. Continuity Not existed Removal and Installation".
CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be Automatic d Connector M52 the inspection result YES >> Replace au NO >> Repair or re CCHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor	OFF. tic drive positioner co etween automatic driven positioner control unit Terminal 33 etween automatic driven rive positioner control unit Terminal 33 normal? utomatic drive positioner eplace harness. PIC SENSOR GROUN o OFF. tic drive positioner co etween automatic driven off.	Tilt & tel Connector M48 re positioner contro al her control unit. Re ID CIRCUIT	or. rol unit harness co escopic sensor Terminal 1 ol unit harness cor Ground fer to <u>ADP-208, "F</u> or.	Continuity Existed nector and ground. Continuity Not existed Removal and Installation".

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2126 DETENT SW

Description

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

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting	condition	Possible cause
B2126	DETENT SW	Selector lever is in P position of 7±4 km/h is detected.	and the vehicle speed	 Harness and connectors (Detention switch circuit is opened/shorted.) Detention switch Unified meter and A/C amp. (CAN communication)
	IRMATION PROC	EDURE		
1.PERFOR	M DTC CONFIRMA	TION PROCEDURE		
2. Check "S <u>Is the DTC de</u> YES >> F			9, "Diagnosis Proc	edure".
Diagnosis	Procedure			INFOID:00000000816355
1.снеск р	TC WITH "BCM"			
	0	r BCM using CONSULT.		
		B2603, B2604 or B2605 d er to BCS-73, "DTC Index		
NO >> (GO TO 2.		<u> </u>	
	TC WITH "METER			
	•	r METER/M&A using CON	SULT.	
l <u>s the DTC de</u> YES >> (er to <u>MWI-85, "DTC Index</u>	".	
NO >> (GO TO 3.			
3. CHECK D	ETENTION SWITC	HSIGNAL		
2. Select "D		"Data Monitor" mode using al under the following cond		
1	Monitor item	Con	dition	Status
	DETENT SW	selector lever	P position	OFF
			Other than above	ON

Is the status normal?

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

4.CHECK DETENTION SWITCH CIRCUIT

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INFOID:000000008163593

B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS >

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

Driver seat	Driver seat control unit		A/T shift selector		
Connector	Terminal	Connector Terminal		Continuity	
B503	21	M137	11	Existed	

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B503	21		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207</u>, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2127 PARKING BRAKE SWITCH

Description

• Parking brake switch is installed on parking brake lever. It is turned ON when the parking brake is applied.

• The driver seat control unit judges that the parking brake is engaged if continuity exists in this circuit.

DTC Logic

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DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.STEP 1

- 1. Drive the vehicle at 7 km/h (4 MPH) or more.
- 2. Check "Self Diagnostic Result" using CONSULT.

Is the DTC detected?

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

NO >> INSPECTION END

Diagnosis Procedure

1. CHECK PARKING BRAKE SWITCH SIGNAL

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

Monitor item		Condition	Status	
	Darking healer	Applied	ON	_ L
PARK BRAKE SW Parking brake	Release	OFF	_	
Is the status normal?				M
YES >> GO TO 5				

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

NO >> GO | O Z.

2.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

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

B2127 PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

$\overline{\mathbf{3.}}$ CHECK PARKING BRAKE SWITCH HARNESS CONTINUITY

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

Driver seat control unit		Parking brake switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B503	8	B14	1	Existed

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

Driver seat	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	8		Not existed

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.
- NO >> Repair or replace harness.

4.CHECK PARKING BRAKE SWITCH

Refer to ADP-62, "Component Inspection".

Is the inspection result normal?

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

5.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:000000008163599

1.CHECK PARKING BRAKE SWITCH

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

Terminal Parking brake switch		Condition		Continuity	
I	parking brake switch	Faiking blake	Other than above	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Adjust or replace parking brake switch.

B2128 UART COMMUNICATION LINE

Description

Driver seat control unit performs UART communication with the automatic drive positioner control unit using 2 communication lines, TX and RX line. Driver seat control unit receives the operation signals of tilt & telescopic switch, door mirror remote control switch, set switch and memory switch and the position signals of tilt & telescopic sensor and door mirror sensor from the automatic drive positioner control unit and transmits the operation request signal.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	
B2128	UART COMM	The communication between driver seat control unit and auto drive positioner control unit is interrupted for a period of time.	 UART communication line (UART communication line is open or shorted) Driver seat control unit Automatic drive positioner control unit 	
CONFI	RMATION PROCE	DURE		

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

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

Diagnosis Procedure

1. CHECK UART COMMUNICATION LINE CONTINUITY

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

	Continuity	ositioner control unit	Automatic drive po	t control unit	Driver seat
M	Continuity	Terminal	Connector	Terminal	Connector
	- Existed	10	M51	1	B503
N	Existed	26		17	D003

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

Driver sea	t control unit		Continuity	0
Connector	Terminal	Ground	Continuity	0
B503	1	Ground	Not existed	-
	17		Not existed	Р

Is the inspection result normal?

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

NO >> Repair or replace harness.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT BCM

BCM : Diagnosis Procedure

INFOID:000000008163603

1.CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.	
Battery power supply	К (40А)	
Dattery power suppry	10 (10A)	

Is the fuse fusing?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM connectors.

3. Check voltage between BCM harness connector and ground.

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

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

 $\mathbf{3.}$ CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BC	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:000000008163604

NOTE:

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

1.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Driver se	at control unit	()	Voltage (V) (Approx.)
Connector	Terminal		
B504	33	Ground	Battery voltage
	40		, , , , , , , , , , , , , , , , , , , ,
inspection result norr >> GO TO 2. >> Check the fo • Repair or rep • Circuit break	lowing. lace harness between driver er.	r seat control unit and fus	e block (J/B).
	he driver seat control unit ha	arness connector and gro	und.
Driver se	at control unit		_
Connector	Terminal	a .	Continuity
B503	32	Ground	– 1
B504	48		Existed
S >> INSPECTION >> Repair or repla VER SEAT CON ERFORM ADDITIONA	END ce harness. FROL UNIT : Special F L SERVICE when removing battery nega	tive terminal.	
>> Repair or repla IVER SEAT CON ERFORM ADDITIONA orm additional service >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE	END ce harness. FROL UNIT : Special F L SERVICE when removing battery nega <u>64. "DRIVER SEAT CONTRO</u> POSITIONER CONTR POSITIONER CONTR ery negative terminal and th	tive terminal. <u>DL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos	cedure". sis Procedure
S >> INSPECTION >> Repair or repla IVER SEAT CON PERFORM ADDITIONA orm additional service >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE	END ce harness. FROL UNIT : Special F L SERVICE when removing battery nega 64. "DRIVER SEAT CONTRO POSITIONER CONTR POSITIONER CONTF ery negative terminal and th LY CIRCUIT	tive terminal. <u>DL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos	cedure". sis Procedure
S >> INSPECTION >> Repair or repla IVER SEAT CON PERFORM ADDITIONA orm additional service >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE	END ce harness. FROL UNIT : Special F L SERVICE when removing battery nega 64. "DRIVER SEAT CONTRO POSITIONER CONTR POSITIONER CONTF ery negative terminal and th LY CIRCUIT	tive terminal. <u>DL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos ne driver seat control uni	cedure". sis Procedure INFOID:00 t connector until DTC
S >> INSPECTION >> Repair or repla IVER SEAT CON PERFORM ADDITIONA orm additional service >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE	END ce harness. FROL UNIT : Special F L SERVICE when removing battery nega 64. "DRIVER SEAT CONTRO POSITIONER CONTR POSITIONER CONTF ery negative terminal and th LY CIRCUIT F.	tive terminal. <u>DL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos ne driver seat control uni	cedure". sis Procedure INFOID:00 t connector until DTC ector and ground.
S >> INSPECTION >> Repair or repla IVER SEAT CON ERFORM ADDITIONA orm additional service >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE	END ce harness. FROL UNIT : Special F L SERVICE when removing battery nega 64. "DRIVER SEAT CONTRO POSITIONER CONTR POSITIONER CONTF ery negative terminal and th LY CIRCUIT F. n automatic drive positioner of	tive terminal. <u>DL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos ne driver seat control uni	cedure". sis Procedure INFOID:00 t connector until DTC
S >> INSPECTION >> Repair or repla IVER SEAT CON ERFORM ADDITIONA orm additional service >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE	END ce harness. FROL UNIT : Special F L SERVICE when removing battery nega 64. "DRIVER SEAT CONTRO POSITIONER CONTR POSITIONER CONTF ery negative terminal and th LY CIRCUIT F. n automatic drive positioner of (+)	tive terminal. <u>DL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos ne driver seat control uni control unit harness conn	cedure". sis Procedure INFOID-00 t connector until DTC ector and ground. Voltage (V)
S >> INSPECTION >> Repair or repla IVER SEAT CON PERFORM ADDITIONA orm additional service >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE	END ce harness. FROL UNIT : Special F L SERVICE when removing battery nega 64. "DRIVER SEAT CONTRO POSITIONER CONTR POSITIONER CONTF ery negative terminal and th LY CIRCUIT F. n automatic drive positioner of (+) positioner control unit	tive terminal. <u>DL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos ne driver seat control uni control unit harness conn	cedure". sis Procedure INFOID-00 t connector until DTC ector and ground. Voltage (V)

2.CHECK GROUND CIRCUIT

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	40	Ground	Existed
10152	48		Existed

Is the inspection result normal?

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

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement

INFOID:000000008163607

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

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

SLIDING SWITCH

Description

Sliding switch is equipped to the power seat switch on the seat cushion side surface. The operation signal is input to the driver seat control unit when the sliding switch is operated.

Component Function Check

1.CHECK FUNCTION

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

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

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

Diagnosis Procedure

1.CHECK SLIDING SWITCH SIGNAL

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

	(+)		Voltage (V) (Approx.)	
Power seat switch		(-)		K
Connector	Terminal		(, + F)	
B510	11	Ground	Battery voltage	
8510	26	Ground	Dallery vollage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check sliding switch circuit

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

Continuity	eat switch	Power se	control unit	Driver seat
l Continuity	Terminal	Connector	Terminal	Connector
Existed	11	B510	11	B503
EXISTED	26	6310	26	0000

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

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SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	11	- Ground	Not existed
D000 -	26		NOT EXISTED

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3. CHECK SLIDING SWITCH

Refer to ADP-68. "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-210. "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK SLIDING SWITCH

1. Turn ignition switch OFF.

2. Disconnect power seat switch connector.

3. Check continuity between power seat switch terminals.

Power	seat switch	Condi	tion	Continuity	
Те	rminal	- Condition		Continuity	
	11	Sliding switch (backward)	Operate	Existed	
32	11	Silding Switch (Dackward)	Release	Not existed	
52	26	Cliding owitch (forward)	Operate	Existed	
	20	Sliding switch (forward)	Release	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-210, "Removal and Installation"</u>.

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SWITCH

Description

Reclining switch is equipped to the power seat switch on the seat cushion side surface. The operation signal is В input to the driver seat control unit when the reclining switch is operated.

Component Function Check

1.CHECK FUNCTION

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

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

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

Diagnosis Procedure

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

	(+)		Voltage (V)	
Power s	Power seat switch		(Approx.)	K
Connector	Terminal		(* + + +)	
B510	12	Ground	Pottony voltago	- I
	27	Ground	Battery voltage	L

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK RECLINING SWITCH CIRCUIT

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

Driver seat	control unit	Power se	eat switch	Continuity	1
 Connector	Terminal	Connector	Terminal	Continuity	Р
 B503	12	B510	12	Existed	
6303	27	6310	27	Existed	

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

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RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	12	Ground	Not existed
	27		INDI EXISIEU

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3. CHECK RECLINING SWITCH

Refer to ADP-70, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-210. "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK RECLINING SWITCH

1. Turn ignition switch OFF.

2. Disconnect power seat switch connector.

3. Check continuity between power seat switch terminals.

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-210, "Removal and Installation"</u>.

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description

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

Component Function Check

1.CHECK FUNCTION

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

Operate	ON	
Release	OFF	
Operate	ON	
Release	OFF	_
r	n)	n) Operate ON

- YES >> INSPECTION END
- NO >> Perform diagnosis procedure. Refer to <u>ADP-71, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK LIFTING SWITCH SIGNAL

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

(+) Power seat switch			Voltage (V)	K	
Connector	Terminal	(-)	Voltage (V) (Approx.)		
B510	13	Ground	Pottony voltago	-	
	28	Ground Battery voltage		L	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

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

Driver seat	t control unit	Power se	Power seat switch		
Connector	Terminal	Connector	Terminal	Continuity	Ρ
B503	13	B510	13	Existed	
6003	28	6510	28		

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

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B503	13	Ground	Not existed	
6000	28		NUT EXISTED	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-72, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-210, "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK LIFTING SWITCH (FRONT)

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

Power se	eat switch	Condition		Continuity
Terr	minal			
	13	Lifting switch front (down)	Operate	Existed
32			Release	Not existed
52	28 Lifting switch front (up)	Lifting quitch front (up)	Operate	Existed
		Lining Switch none (up)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-210, "Removal and Installation"</u>.

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description

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

Component Function Check

1.CHECK FUNCTION

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

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

YES >> INSPECTION END

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

Diagnosis Procedure

- 1.CHECK LIFTING SWITCH (REAR) SIGNAL
- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power seat switch harness connector and ground.

(+) Power seat switch		()	Voltage (V) (Approx.)	K
Connector	Terminal		(дрргох.)	
B510	14	Ground	Potton voltage	-
6010	29	Ground	Battery voltage	L

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK LIFTING SWITCH (REAR) CIRCUIT

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

Driver seat control unit		Init Power sear switch		I unit Power s		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	Р		
B503	14	B510	14	Existed			
6003	29	6510	29	LAISIEU			

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

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LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity	
Connector	Terminal	Ground	Continuity	
B503	14	Ground	Not existed	
B503	29		NOT EXISTED	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (REAR)

Refer to ADP-74, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-210. "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK LIFTING SWITCH (REAR)

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

Power s	Power seat switch Terminal		Condition	
Ter				
	14	Lifting switch rear (down)	Operate	Existed
32			Release	Not existed
52	29	Lifting switch rear (up)	Operate	Existed
	29		Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-210, "Removal and Installation"</u>.

FORWARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

FORWARD SWITCH

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

Component Function Check

1.CHECK FUNCTION

1. Select "FORWARD SW" in the "Data Monitor" mode using CONSULT.

2. Check the forward switch signal under the following condition.

Test item	Cor	dition	Status	
FORWARD SW	Driver side seat back	Folded up	ON	_
FORWARD SW	Driver side seat back	Folded down	OFF	E
Is the indication normal?				

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-75, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK FORWARD SWITCH SIGNAL

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

-	(+) d switch	(-)	Condition	Voltage (V) (Approx.)		
-	Connector	Terminal			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	B512	41	Ground	Seat back is folded up and power walk-in switch pressed	5	ADP	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK FORWARD SWITCH CIRCUIT

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

_	Driver seat	Driver seat control unit Forward switch		Forward switch		-
	Connector	Terminal	Connector	Terminal	Continuity	Ν
_	B504	41	B512	41	Existed	_

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

Driver seat	control unit		Continuity	
Connector	Terminal	Ground	Continuity	_
B504	41		Not existed	Р

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207</u>, "Removal and Installation"

NO >> Repair or replace harness.

 $\mathbf{3.}$ FORWARD SWITCH GROUND CIRCUIT

Check continuity between forward switch harness connector and ground.

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FORWARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Forward switch			Continuity	
Connector	Terminal	Ground	Continuity	
B512	32		Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK FORWARD SWITCH

Refer to ADP-76, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace forward switch (Built in seat back frame). Refer to SE-163. "Exploded View".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK FORWARD SWITCH

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

	Forward switch		Cor	Condition		
Connector	Terr	minal	Condition		Continuity	
B512	41	dd Dr		Folded up	Not existed	
D312	41	32	back	Folded down	Existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace forward switch (Built in seat back frame). Refer to <u>SE-163, "Exploded View"</u>.

SEAT BELT BUCKLE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH

Description

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

Component Function Check

1.CHECK FUNCTION

- 1. Select "SEAT BELT SW" in the "Data Monitor" mode using CONSULT.
- 2. Check the seat belt buckle switch signal under the following condition.

Test item	Condition		Status	
SEAT BELT SW	Driver side seat belt	Fastened	ON	_
	Driver side seat beit	Released	OFF	E

Is the indication normal?

YES >> INSPECTION END

NO >> Refer to <u>ADP-77, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK SEAT BELT BUCKLE SWITCH SIGNAL

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

	(+) Seat belt buckle switch			Voltage (V) (Approx.)	
			()		
(Connector	Terminal		()	
	B13	1	Ground	5	- ADF

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

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

					M
Driver seat control unit		Seat belt b	uckle switch	Continuity	-
Connector	Terminal	Connector	Terminal	Continuity	
B503	5	B13	1	Existed	N

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

Driver seat control unit			Continuity	0
Connector	Terminal	Ground	Continuity	
B503	5		Not existed	Р

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> Repair or replace harness.

$\mathbf{3}$. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

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

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SEAT BELT BUCKLE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Seat belt buckle switch			Continuity
Connector	Terminal	Ground	Continuity
B13	2		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK SEAT BELT BUCKLE SWITCH

Refer to ADP-78. "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat belt buckle switch (Built in seat belt buckle). Refer to <u>SE-163, "Exploded View"</u>.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK SEAT BELT BUCKLE SWITCH

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

Seat belt buckle switch		Condition		Continuity		
Connector	Terr	ninal	Condition		Continuity	
P12	1	2	Driver side seat	Fastened	Not existed	
ВІЗ	B13 1	2	belt	Released	Existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch (Built in seat belt buckle). Refer to SE-163, "Exploded View".

SLIDING LIMIT SWITCH

< DTC/CIRCUIT DIAGNOSIS > SLIDING LIMIT SWITCH А Description INFOID:00000008163632 Sliding limit switch is installed on seat cushion frame. Sliding limit switch detects condition of seat sliding. В **Component Function Check** INFOID:00000008163633 **1.**CHECK FUNCTION 1. Select "FWD LIMIT SW" in the "Data Monitor" mode using CONSULT. 2. Check the sliding limit switch signal under the following condition. D Test item Condition Status ON Front edge FWD LIMIT SW Seat sliding Е Other than above OFF Is the indication normal? YES >> INSPECTION END >> Go to ADP-79, "Diagnosis Procedure". NO Diagnosis Procedure INFOID:000000008163634 1. CHECK SLIDING LIMIT SWITCH SIGNAL 1. Turn ignition switch OFF. Н 2. Disconnect sliding limit switch harness connector. Check voltage between sliding limit switch harness connector and ground. 3. (+) Voltage (V) Sliding limit switch (-) (Approx.) Connector Terminal ADP B514 4 5 Ground Is the inspection result normal? YES >> GO TO 3. Κ NO >> GO TO 2. 2.CHECK SLIDING LIMIT SWITCH CIRCUIT L Disconnect driver seat control unit connector. 1 2. Check continuity between driver seat control unit harness connector and sliding limit switch harness connector. Μ Driver seat control unit Sliding limit switch Continuity Connector Terminal Connector Terminal Ν B503 4 B514 4 Existed Check continuity between driver seat control unit harness connector and ground. 3. Driver seat control unit Continuity Connector Terminal Ground B503 4 Not existed Ρ Is the inspection result normal? YES >> Replace driver seat control unit. Refer to ADP-207, "Removal and Installation" NO >> Repair or replace harness.

3.CHECK SLIDING LIMIT SWITCH GROUND CIRCUIT

Check continuity between sliding limit switch harness connector and ground.

SLIDING LIMIT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Sliding limit switch			Continuity
Connector	Terminal	Ground	Continuity
B514	32		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

CHECK SLIDING LIMIT SWITCH

Refer to ADP-80, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace forward switch (Built in seat back frame). Refer to <u>SE-163, "Exploded View"</u>.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK SLIDING LIMIT SWITCH

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

	Sliding limit switch		Condition		Continuity	
Connector	Terr	minal	Condition		Continuity	
B514	4	22	Seat sliding	Front edge	Existed	
B314	4 32	Seat silulity	Other than above	Not existed		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace forward switch (Built in seat back frame). Refer to <u>SE-163, "Exploded View"</u>.

POWER WALK-IN SWITCH

< DTC/CIRCUIT DIAGNOSIS >

POWER WALK-IN SWITCH

Description

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

Component Function Check

1.CHECK FUNCTION

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

Test item	Condition		Status	
WALK-IN SW	Power welk in switch	Pressed	ON	E
	Power walk-in switch	Released	OFF	

Is the indication normal?

YES >> INSPECTION END

NO >> Refer to <u>ADP-81, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK POWER WALK-IN SWITCH SIGNAL

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

	(+) Power walk-in switch				_
			(—)	Voltage (V) (Approx.)	
	Connector	Terminal			ADP
	B513	30	Ground	5	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK POWER WALK-IN SWITCH CIRCUIT

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

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

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

Driver seat control unit			Continuity	
Connector	Terminal	Ground	Continuity	D
B503	30		Not existed	P

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> Repair or replace harness.

 ${
m 3.}$ CHECK POWER WALK-IN SWITCH GROUND CIRCUIT

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

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POWER WALK-IN SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Power wa	Power walk-in switch		Continuity
Connector	Terminal	Ground	Continuity
B513	32	_	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK POWER WALK-IN SWITCH

Refer to ADP-82. "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power walk-in switch (Built in walk-in lever). Refer to <u>SE-163, "Exploded View"</u>.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK POWER WALK-IN SWITCH

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

	Power walk-in switch	l	Condition		Continuity
Connector	Terr	minal			Continuity
B513	30	32	Power walk-in	Pressed	Existed
D313	30	32	switch	Released	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power walk-in switch (Built in walk-in lever). Refer to <u>SE-163, "Exploded View"</u>.

< DTC/CIRCUIT DIAGNOSIS >

TILT SWITCH

Description

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

Component Function Check

1.CHECK FUNCTION

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

Monitor item	Conc	Condition		
		Operate	ON	
TILT SW-UP	Tilt switch (up)	Release	OFF	
		Operate	ON	F
TILT SW-DN	Tilt switch (down)	Release	OFF	
the indication normal? (ES >> INSPECTION EN	D			(
IO >> Perform diagnosis	procedure. Refer to <u>ADP-83, "I</u>	Diagnosis Procedure".		
iagnosis Procedure			INFOID:00000008163642	ŀ
CHECK TILT SWITCH SIG	NAI			

1. Turn ignition switch OFF.

- 2. Disconnect tilt & telescopic switch connector.
- 3. Turn ignition switch ON.

4. Check voltage between tilt & telescopic switch harness connector and ground.

	(+)			
Tilt & teles	copic switch	()	Voltage (V) (Approx.)	K
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M31	4	Ground	Battery voltage	I
NIS I	5	Ground	Dattery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TILT SWITCH CIRCUIT

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

Automatic drive po	ositioner control unit	Tilt & telescopic switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	Ρ
M51	1	M31	4	Existed	
NIS I	17		5	LXISIEU	

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

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TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	1	- Ground	Not existed
	17		NOT EXISTED

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK TILT SWITCH

Refer to ADP-84, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-212</u>, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK TILT SWITCH

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

Tilt & teles	Tilt & telescopic switch		Condition		
Ter	minal	Condition		Continuity	
	A Tilt quitch (up)	Tilt switch (up)	Operate	Existed	
1	4		Release	Not existed	
I	r 7	Tilt switch (down)	Operate	Existed	
	5		Release	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-212</u>, "Removal and Installation".

TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SWITCH

Description

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

Component Function Check

1.CHECK FUNCTION

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

Monitor item	Condition	Condition		
		Operate	ON	_
TELESCO SW-FR	Telescopic switch (forward)	Release	OFF	
		Operate	ON	
TELESCO SW-RR	Telescopic switch (backward)	Release	OFF	
the indication normal?				
'ES >> INSPECTION	END			
NO >> Perform diagno	osis procedure. Refer to ADP-85, "Diagr	nosis Procedure".		

Diagnosis Procedure

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

	+)			
Tilt & teles	copic switch	(-)	Voltage (V) (Approx.)	K
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M31	2	Ground	Pottony voltago	1
WI31	3		Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TELESCOPIC SWITCH CIRCUIT

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

	Continuity	Tilt & telescopic switch		sitioner control unit	Automatic drive po
P	Continuity	Terminal	Connector	Terminal	Connector
	Existed	2	M31	11	M51
	Existed	3		27	IND I

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

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TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	sitioner control unit		Continuity	
Connector	Terminal	Ground		Continuity
M51	11	Ground	Not existed	
TCIVI	27		NOT EXISTED	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3. CHECK TELESCOPIC SWITCH

Refer to ADP-86. "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-212</u>, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK TELESCOPIC SWITCH

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

Tilt & teles	copic switch	Condition		Continuity	
Terr	minal	Condition		Continuity	
	2	Telescopic switch (forward)	Operate	Existed	
1	2	Telescopic switch (forward)	Release	Release	Not existed
I	3	Telessonia quitab (beelguard)	Operate	Existed	
		Telescopic switch (backward)	Release	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-212, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Description

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

Component Function Check

1.CHECK FUNCTION

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

Monitor item	Conc	Condition		
		Push	ON	
SET SW	SET SW	Release	OFF	
		Push	ON	
MEMORY SW 1	Memory switch 1	Release	OFF	_
	Manager guitable O	Push	ON	
MEMORY SW 2	Memory switch 2	Release	OFF	

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-87, "Diagnosis Procedure"</u>.

Diagnosis Procedure

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- 1.CHECK SEAT MEMORY SWITCH SIGNAL
 - 1. Turn ignition switch OFF.
 - 2. Disconnect seat memory switch connector.
 - 3. Turn ignition switch ON.
 - 4. Check voltage between seat memory switch harness connector and ground.

(+) Seat memory switch			Voltage (V) (Approx.)	L
		()		
Connector	Terminal		(//pp/0x.)	
	3			M
D5	1	Ground	5	
	2			
s the inspection result norma	<u> ?</u>			N
YES >> GO TO 3.				

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

NO 22 00 10 2. N

2.CHECK MEMORY SWITCH CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

3. Check continuity between automatic drive positioner control unit harness connector and seat memory switch harness connector.

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SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u>. NO >> Repair or replace harness.

3.CHECK MEMORY SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Check continuity between seat memory switch harness connector and ground.

Seat men	nory switch		Continuity
Connector	Terminal	Ground	Continuity
D5	4		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK SEAT MEMORY SWITCH

Refer to ADP-88, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat memory switch. Refer to <u>ADP-209</u>, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK SEAT MEMORY SWITCH

1. Turn ignition switch OFF.

2. Disconnect seat memory switch connector.

3. Check continuity between seat memory switch terminals.

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SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Seat memory switch			Condition		
Ter	minal		Condition		
	3	Set switch	Push	Existed	
	5	Set Switch	Release	Release	Not existed
4	1	Momony owitch 1	Push	Existed	
4	I	Memory switch 1	Release	Not existed	
		Mamany awitch 2	Push	Existed	
	2	Memory switch 2	Release	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch.Refer to <u>ADP-209</u>, "Removal and Installation".

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< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH MIRROR SWITCH

MIRROR SWITCH : Description

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

MIRROR SWITCH : Component Function Check

1.CHECK MIRROR SWITCH FUNCTION

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

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

Is the inspection result normal?

- YES >> Mirror switch function is OK.
- NO >> Refer to ADP-90, "MIRROR SWITCH : Diagnosis Procedure".

MIRROR SWITCH : Diagnosis Procedure

1.CHECK MIRROR SWITCH INPUT SIGNAL

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

((+)			
Door mirror rem	Door mirror remote control switch		Voltage (V) (Approx.)	
Connector	Terminal		(11 - 7	
	4			
D17	12	Ground	5	
ווס	13	Ground	5	
	15			

Is the inspection result normal?

2. CHECK MIRROR SWITCH CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror remote control switch harness connector.

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< DTC/CIRCUIT DIAGNOSIS >

2	Connector Terminal Connector Terminal		emote control switch	Continuity	
Connector	Terminal	Connector	Terminal		
	3		15		
M51	4	D17	13	Existed	
	19	BH	12	Existed	
	20		4		
-	etween automatic driv		I unit harness conneo	ctor and ground.	
Connector	Termina			Continuity	
Connector	3				
			Ground		
M51	4			Not existed	
	19				
ne inspection result i	20				
Turn ignition switch			n harness connector a	and ground.	
Door mirro	or remote control switch				
				Continuity	
Connector	Termina	al	Ground	Continuity	
D17 ne inspection result i	7	al	Ground	Continuity Existed	
D17 The inspection result in ES >> GO TO 4. D >> Repair or result CHECK MIRROR SV eck door mirror remoder to ADP-91, "MIRR The inspection result in ES >> GO TO 5. D >> Replace do <u>lation"</u> . CHECK INTERMITT	7 normal? eplace harness. WITCH ote control switch (min COR SWITCH : Comp normal? foor mirror remote con ENT INCIDENT	rror switch).		Existed	
D17 The inspection result in ES >> GO TO 4. D >> Repair or result CHECK MIRROR SM The character to ADP-91, "MIRR The inspection result in ES >> GO TO 5. D >> Replace do <u>lation"</u> . CHECK INTERMITT The character to GI-43, "Intermit	7 normal? eplace harness. WITCH te control switch (min COR SWITCH : Comp normal? bor mirror remote con ENT INCIDENT ent. ttent Incident".	rror switch).		-	
D17 the inspection result in ES >> GO TO 4. D >> Repair or result CHECK MIRROR SN eck door mirror remon ter to ADP-91, "MIRR the inspection result in ES >> GO TO 5. D >> Replace do lation". CHECK INTERMITT eck intermittent incid er to GI-43, "Intermit >> INSPECTIO	7 normal? eplace harness. WITCH te control switch (min COR SWITCH : Comp normal? bor mirror remote con ENT INCIDENT ent. ttent Incident".	rror switch). <u>conent Inspection"</u> .		Existed	

2. Disconnect door mirror remote control switch connector.

3. Check continuity between door mirror remote control switch terminals.

< DTC/CIRCUIT DIAGNOSIS >

Door mirror remote control switch			Condition		
Connector	Te	erminal		Condition	
	4			RIGHT	Existed
	4			Other than above	Not existed
	13	7		LEFT	Existed
D17			Mirror switch	Other than above	Not existed
	45	15	WIITOF SWITCH	UP	Existed
	15		Other than above	Not existed	
	40			DOWN	Existed
	12	12		Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to <u>MIR-39, "Removal and Installation"</u>. CHANGEOVER SWITCH

CHANGEOVER SWITCH : Description

INFOID:000000008163656

INFOID:000000008163657

INFOID:00000008163658

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

It changes operating door mirror motor by transmitting control signal to automatic drive positioner co

CHANGEOVER SWITCH : Component Function Check

1.CHECK CHANGEOVER SWITCH FUNCTION

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

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

Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to <u>ADP-92</u>, "CHANGEOVER SWITCH : Diagnosis Procedure".

CHANGEOVER SWITCH : Diagnosis Procedure

1.CHECK CHANGEOVER SWITCH INPUT SIGNAL

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

	+) ote control switch	()	Voltage (V) (Approx.)
Connector	Terminal		(дрргох.)
D17	10	Ground	5
	11	Ground	5

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK CHANGEOVER SWITCH CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

Automatic drive p	ositioner control unit	Door mirror re	emote control switch	
Connector	Terminal	Connector	Terminal	Continuity
	2	D./-7	11	–
M51	18	D17	10	Existed
4. Check continuity b	petween automatic driv	e positioner contro	ol unit harness con	nector and ground.
Automatic	drive positioner control unit			
Connector	Termina	al	Ground	Continuity
M51	2		Ground	Not existed
s the inspection result				
CHECK DOOR MIF	replace harness. RROR REMOTE CON h OFF. petween door mirror re			or and ground.
Door mir	ror remote control switch			Continuity
Connector	Termina	al	Ground	Continuity
D17	7		-	Existed
4.CHECK CHANGEC Check door mirror rem Refer to <u>ADP-93, "CH</u> <u>s the inspection result</u> YES >> GO TO 5. NO >> Replace d <u>Installation</u>	note control switch (cha <u>ANGEOVER SWITCH</u> <u>t normal?</u> loor mirror remote con <u>n"</u> .	: Component Insp		er to <u>MIR-39. "Removal and</u>
5. CHECK INTERMIT	TENT INCIDENT			
Check intermittent inci Refer to <u>GI-43, "Interm</u>				
>> INSPECT	ION END SWITCH : Compo	nent Incractio	n	
				INFOID:0000000816365
1.CHECK CHANGEC	OVER SWITCH			
1. Turn ignition switc	h OFF.			

2. Disconnect door mirror remote control switch connector.

3. Check continuity between door mirror remote control switch terminals.

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< DTC/CIRCUIT DIAGNOSIS >

Door mi	rror remote control s	witch	Con	dition	Continuity
Connector	Terr	ninal			Continuity
	10			LEFT	Existed
D17	10	7	Ohan an ann an itala	Other than above	Not existed
יוט	11	/	Changeover switch	RIGHT	Existed
	11			Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to <u>MIR-39. "Removal and Installation"</u>.

POWER SEAT SWITCH GROUND CIRCUIT

 DTC/CIRCUIT DIAGNOSIS > POWER SEAT SWITCH GROUND CIRCUIT Diagnosis Procedure CHECK POWER SEAT SWITCH GROUND CIRCUIT Turn ignition switch OFF. Disconnect power seat switch connector. Check continuity between power seat switch connector and ground. 	INFOID:00000008163660
Diagnosis Procedure 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT 1. Turn ignition switch OFF. 2. Disconnect power seat switch connector.	INFOID:000000008163660
 CHECK POWER SEAT SWITCH GROUND CIRCUIT Turn ignition switch OFF. Disconnect power seat switch connector. 	INFOID:00000008163660
 Turn ignition switch OFF. Disconnect power seat switch connector. 	
 Turn ignition switch OFF. Disconnect power seat switch connector. 	
2. Disconnect power seat switch connector.	
Power seat switch	
Connector Terminal Ground	Continuity
B510 32	Existed
s the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace harness.	
2. CHECK POWER SEAT SWITCH INTERNAL CIRCUIT	
Check reclining switch.	
Refer to <u>ADP-70, "Component Inspection"</u> .	
s the inspection result normal?	
YES >> GO TO 3.	
NO >> Replace power seat switch. Refer to <u>ADP-210, "Removal and Installation"</u>	
3. CHECK INTERMITTENT INCIDENT	
Refer to GI-43, "Intermittent Incident".	
>> INSPECTION END	

TILT & TELESCOPIC SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

TILT & TELESCOPIC SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000008163661

1. CHECK POWER TILT & TELESCOPIC SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect power tilt & telescopic switch connector.

3. Check continuity between power seat switch connector and ground.

Tilt & teles	copic switch		Continuity
Connector	Terminal	Ground	Continuity
M31	1	1	Existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK POWER TILT & TELESCOPIC SWITCH INTERNAL CIRCUIT

Check tilt switch.

Refer to ADP-84, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-212</u>, "Removal and Installation".

3.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

DETENTION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DETENTION SWITCH

Description

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

Component Function Check

1.CHECK FUNCTION

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

Monitor item		Conditio	n	Status
			P position	OFF
DETENT SW	Selector	lever	Other than above	ON
the indication normal?) 			
YES >> INSPECTIO NO >> Perform dia		efer to <u>ADP-97, "Dia</u>	gnosis Procedure".	
Diagnosis Procedu	ıre			INFOID:0000000816
CHECK DTC WITH "				
Check "Self Diagnostic F		•		
<u>s the either DTC B2601</u> YES >> Check the D	, <u>B2602, B2603, B2</u> 0TC. Refer to <u>BCS-7</u>		<u>90 /</u>	
NO $>>$ GO TO 2.	10. Relei to <u>603-7</u>	<u>3, DTC IIIdex</u> .		
2. CHECK DETENTION	SWITCH INPUT SI	GNAL		
 Turn ignition switch Check voltage betw 		or harness connector	and ground.	
	(+) T shift selector		(-)	Voltage (V)
Connector	Termin	al	(-)	(Approx.)
M137	11		Ground	Battery voltage
s the inspection result n YES >> GO TO 4. NO >> GO TO 3. J.CHECK DETENTION . Turn ignition switch 2. Disconnect driver set 3. Check continuity be nector.	I SWITCH CIRCUIT OFF. eat control unit.		onnector and A/T sh	nift selector harness co
Driver seat of	control unit	A/T shif	t selector	
Connector	Terminal	Connector	Terminal	- Continuity

				Continuity
Connector	Terminal	Connector	Terminal	
B503	21	M137	11	Existed

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

ADP-97

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INFOID:000000008163662

DETENTION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

	Driver seat	control unit		Continuity
	Connector	Terminal	Ground	Continuity
	B503	21		Not existed
ls the i	nspection result norm	al?		
YES NO	>> Replace driver s >> Repair or replace		DP-207, "Removal and Ins	tallation".
4.сн	ECK DETENTION SW	/ITCH		
Refer t	o ADP-98, "Compone	nt Inspection".		
ls the i	nspection result norm	al?		
YES NO	>> GO TO 5. >> Replace A/T shit	ft selector. Refer to <u>TM-270</u>	0. "2WD : Removal and Ins	stallation".
5. сн	ECK INTERMITTENT	INCIDENT		
Refer t	o <u>GI-43, "Intermittent</u>	Incident".		
	>> INSPECTION E	ND		
Comp	onent Inspectior	ı		INFOID:00000008163665
1. сн	ECK DETENTION SW	/ITCH		
2. Dis	rn ignition switch OFF sconnect A/T shift sele eck A/T shift selector	ector connector.		

	A/T shift selector		Con	dition	Continuity
Connector	Terr	minal	Con		Continuity
M137	10	11	Selector lever	P position	Existed
W157	10		Selector level	Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace A/T shift selector. Refer to <u>TM-270, "2WD : Removal and Installation"</u>.

PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

PARKING BRAKE SWITCH

Description

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

Component Function Check

INFOID:000000008163667

INFOID:000000008163666

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1. CHECK PARKING BRAKE SWITCH INPUT SIGNAL

1. Select "PARK BRAKE SW" in the "Data Monitor" mode using CONSULT.

2. Check parking brake switch signal under the following conditions.

Monitor item		Condition		Status	
	Dertie e broke	Applied		ON	
PARK BRAKE SW	Parking brake	Release)	OFF	
the indication normal	?				
ES >> INSPECTION					
	-	efer to <u>ADP-99, "Diac</u>	<u>anosis Procedure"</u> .		
iagnosis Proced	ure			INFOID:0000000816366	
.CHECK PARKING B	RAKE SWITCH INP	UT SIGNAL			
Turn ignition switch	OFF.				
Disconnect A/T shi	ft selector harness co	onnector.			
Turn ignition switch Check voltage betw		witch harness conned	tor and around		
	boll parking brake of		for and ground.		
	(+)				
Par	king brake switch		(-)	Voltage (V) (Approx.)	
Connector	Termina	al			
B14	1		Ground	Battery voltage	
the inspection result	normal?				
<pre>/ES >> GO TO 3. NO >> GO TO 2.</pre>					
CHECK PARKING B		СШТ			
Turn ignition switch Disconnect driver s	eat control unit conne	ector.			
Check continuity b			onnector and park	ing brake switch harness	
connector.					
	control unit	Parking bi	ake switch		
Driver seat		1			
Driver seat	Terminal	Connector	Terminal	Continuity	
	Terminal 8	Connector B14	Terminal 1	Existed	
Connector B503	8		1	Existed	
Connector B503 Check continuity be	8 etween driver seat co	B14	1	Existed	
Connector B503 Check continuity be	8	B14 ntrol unit harness cor	1	Existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> Repair or replace harness.

PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

3.CHECK PARKING BRAKE SWITCH

Refer to ADP-100, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Adjust or replace parking brake switch.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:000000008163669

1. CHECK PARKING BRAKE SWITCH

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

	Parking brake		Condition		Continuity	
	Terr	minal	Con		Continuity	
1		Ground part of parking	Parking brake	Applied	Existed	
		brake switch	Farking bidke	Release	Not existed	

Is the inspection result normal?

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

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS > SLIDING SENSOR

Description					
•					INFOID:00000008163670
The sliding sensor is The pulse signal is in The driver seat contro	put to the d	Iriver seat co	ntrol unit when s	liding is perform	
component Funct	tion Che	ck			INFOID:00000008163671
.CHECK FUNCTION	l				
 Turn ignition switch Select "SLIDE PUL Check sliding sens 	SE" in the			ONSULT.	
Monitor item		Con	dition		Valve
		C	perate (forward)		Change (increase) ^{*1}
SLIDE PULSE	Seat slidir	ng C	perate (backward)		Change (decrease) ^{*1}
		R	elease		No change ^{*1}
Diagnosis Proced	agnosis pro lure ENSOR SIG	GNAL	er to <u>ADP-101. "I</u>	Diagnosis Proce	edure". INFOID:00000008163672
(1)		n driver seat o	control unit harne	ess connector a	nd ground with oscilloscope.
(+)					nd ground with oscilloscope. Voltage (V)
(+) Driver seat contro Connector		(-)		ess connector a	
Driver seat contro	ol unit			Operate Other than	Voltage (V)
Driver seat contro Connector B503 the inspection result	24 normal?	(–) Ground	Co Seat sliding	Operate Other than above	Voltage (V) (Approx.)
Driver seat contro Connector B503 s the inspection result YES >> Replace dr	24 normal?	(–) Ground	Co	Operate Other than above	Voltage (V) (Approx.)
Driver seat contro Connector B503 s the inspection result YES >> Replace dr	24 normal? iver seat co	(-) Ground	Co Seat sliding	Operate Other than above	Voltage (V) (Approx.)

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	Driver seat control unit		Sliding sensor	
Connector	Terminal	Connector	Terminal	Continuity
B503	24	B526	24	Existed

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

	Driver seat control unit			Continuity
Conr	nector	Terminal	Ground	Continuity
B	503	24		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${\it 3.}$ Check sliding sensor power supply

1. Connect driver seat control unit connector.

2. Turn ignition switch ON.

3. Check voltage between sliding sensor harness connector and ground.

Slidin	(+) g sensor	()	Voltage (V) (Approx.)
Connector	Terminal		
B526	16	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

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

Driver seat	Driver seat control unit		Sliding sensor	
Connector	Terminal	Connector	Terminal	Continuity
B503	16	B526	16	Existed

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

Driver seat	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5.CHECK SLIDING SENSOR GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

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

Driver seat	Driver seat control unit		Sliding sensor	
Connector	Terminal	Connector	Terminal	Continuity
B503	31	B526	31	Existed

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOS	IS >		
s the inspection result norma			
YES >> GO TO 6.			
NO >> Repair or replace	e harness.		
${\mathfrak S}.$ CHECK SLIDING SENSC	R GROUND CIRCUIT 2		
. Connect driver seat cont 2. Check continuity betwee		arness connector and grou	nd.
Driver seat	control unit		
Connector	Terminal	Ground	Continuity
B503	31	_	Existed
MOTOR : Explor	sensor (Built in seat slide ded View".	e cushion frame). Refer to DP-207, "Removal and Inst	ST-21, "WITH ELECTRIC

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SENSOR

Description

- The reclining motor is installed to the seatback frame.
- The pulse signal is input 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

1.CHECK FUNCTION

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

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-104, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000008163675

1.CHECK RECLINING SENSOR SIGNAL

1. Turn ignition switch ON.

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

(+) Driver seat cor	ntrol unit	(—)	Cor	dition	Voltage (V) (Approx.)
Connector	Terminal				(, () ()
B503	9	Ground	Seat reclining	Operate Other than above	10mSec/div 10mSec/div 2V/div JMJIA0119ZZ 0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

2. CHECK RECLINING SENSOR CIRCUIT

1. Turn ignition switch OFF.

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

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RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

_	control unit		Reclining n		Continuity	
Connector	Terminal	Connec		Terminal		
B503	9	B523		9	Existed	
Check continuity be	etween driver seat co	ntrol unit har	ness conne	ector and ground	1.	
Drive	er seat control unit				Continuity	
Connector	Termina	al	Ground		Ground	Continuity
B503	9				Not existed	
e inspection result	normal?					
ES >> GO TO 3. D >> Repair or re	anlago harnago					
,	eplace harness. SENSOR POWER \$	עוססנופ				
Turn ignition switch	t control unit connect ON	or.				
	veen reclining motor l	narness conr	nector and g	ground.		
	(.)			1		
r	(+)				Voltage (V)	
	Reclining motor		(-) Ground		(Approx.)	
Connector	Termina	ai			Potton voltago	
B523 ne inspection result	16		GIO	und	Battery voltage	
CHECK RECLINING	SENSOR POWER		CUIT			
CHECK RECLINING Turn ignition switch Disconnect driver s	OFF.	ector.		ector and reclinir	ng motor harness o	
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor.	o OFF. seat control unit conne etween driver seat co	ector.	ness conne		ng motor harness o	
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat	o OFF. seat control unit conne etween driver seat co	ector. ntrol unit har	ness conne Reclining n	notor	ng motor harness o Continuity	
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor.	o OFF. seat control unit conne etween driver seat co	ector.	ness conne Reclining n			
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503	o OFF. seat control unit connective etween driver seat co control unit Terminal	ector. ntrol unit har Connec B523	Reclining n	notor Terminal 16	Continuity Existed	
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be	o OFF. Seat control unit connective etween driver seat co control unit Terminal 16 etween driver seat co	ector. ntrol unit har Connec B523	Reclining n	notor Terminal 16	Continuity Existed	
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Drive	o OFF. eat control unit connective etween driver seat co control unit Terminal 16 etween driver seat co er seat control unit	ector. ntrol unit har Connec B523 ntrol unit har	Reclining n tor	notor Terminal 16 ector and ground	Continuity Existed	
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Drive Connector	a OFF. seat control unit connective etween driver seat co control unit Terminal 16 etween driver seat co er seat control unit Termina	ector. ntrol unit har Connec B523 ntrol unit har	Reclining n tor	notor Terminal 16	Continuity Existed Continuity	
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Drive Connector B503	a OFF. seat control unit connective etween driver seat co control unit Terminal 16 etween driver seat co er seat control unit Termina 16	ector. ntrol unit har Connec B523 ntrol unit har	Reclining n tor	notor Terminal 16 ector and ground	Continuity Existed	
HECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Driver Connector B503 check continuity be Driver Connector B503 check continuity be	a OFF. seat control unit connectiveen driver seat control unit control unit Terminal 16 etween driver seat co er seat control unit Termina 16 normal?	ector. ntrol unit har Connec B523 ntrol unit har	rness conne Reclining n tor 3 ness conne Gro	notor Terminal 16 ector and ground	Continuity Existed d. Continuity Not existed	
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Drive Connector B503 Check continuity be Drive Connector B503 Check continuity be Solve a statement of the seat Connector a statement of the seat Co	a OFF. seat control unit connective etween driver seat control unit Terminal 16 etween driver seat control unit remina 16 normal? iver seat control unit.	ector. ntrol unit har Connec B523 ntrol unit har	rness conne Reclining n tor 3 ness conne Gro	notor Terminal 16 ector and ground	Continuity Existed d. Continuity Not existed	
CHECK RECLINING Turn ignition switch Disconnect driver so Check continuity be tor. Driver seat Connector B503 Check continuity be Driver Connector B503 te inspection result S >> Replace dr D >> Repair or result	o OFF. seat control unit connectiveen driver seat control unit control unit Terminal 16 etween driver seat co er seat control unit Termina 16 normal? iver seat control unit. eplace harness.	ector. ntrol unit har Connec B523 ntrol unit har al Refer to AD	rness conne Reclining n tor 3 ness conne Gro	notor Terminal 16 ector and ground	Continuity Existed d. Continuity Not existed	
CHECK RECLINING Turn ignition switch Disconnect driver so Check continuity be tor. Driver seat Connector B503 Check continuity be Driver Connector B503 Check continuity be Driver Connector B503 Check continuity be Connector B503 Check continuity be Connector B503 Check continuity be Connector B503 Check continuity be Connector B503 Check continuity be Connector Connector B503 Check continuity be Connector CONNECTOR CONNECTO	OFF. seat control unit connective etween driver seat control unit Terminal 16 etween driver seat control unit rerminal 16 etween driver seat control unit 16 etween driver seat control unit 6 SENSOR GROUND	ector. ntrol unit har Connec B523 ntrol unit har al Refer to AD	rness conne Reclining n tor 3 ness conne Gro	notor Terminal 16 ector and ground	Continuity Existed d. Continuity Not existed	
CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Driver Connector B503 Check continuity be Driver Connector B503 Check continuity be Connector B503 Check continuity be Connector B503 Check continuity be Connector B503 Check continuity be Connector Connector B503 Check continuity be Connector Connector B503 Check continuity be Connector Connector B503 Check continuity be Connector Connector B503 Check continuity be Connector Connector B503 Check continuity be	OFF. seat control unit connective etween driver seat control unit Terminal 16 etween driver seat control unit rerminal 16 etween driver seat control unit 16 etween driver seat control unit 6 SENSOR GROUND	ector. ntrol unit har Connec B523 ntrol unit har al Refer to AD 0 CIRCUIT 1 ector.	rness conne Reclining n xtor 3 rness conne Gro P-207, "Rer	notor Terminal 16 ector and ground und moval and Instal	Continuity Existed d. Continuity Not existed lation".	
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CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Drive Connector B503 the inspection result S >> Replace dr D >> Repair or re CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor.	OFF. control unit connective control unit Terminal 16 etween driver seat co er seat control unit Termina 16 normal? iver seat control unit. eplace harness. SENSOR GROUND OFF. ceat control unit connective control unit connective c	ector. ntrol unit har Connec B523 ntrol unit har al Refer to AD 0 CIRCUIT 1 ector.	rness conne Reclining n tor rness conne Gro P-207, "Ref rness conne Reclining n	notor Terminal 16 ector and ground und moval and Instal ector and reclinir	Continuity Existed d. Continuity Not existed lation".	

B503

31

B523

31

Existed

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

 $6. {\sf CHECK RECLINING SENSOR GROUND CIRCUIT 2}$

1. Connect driver seat control unit connector.

2. Check continuity between reclining sensor harness connector and ground.

Driver seat	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	31		Existed

Is the inspection result normal?

YES >> Replace reclining motor. Refer to <u>SE-163, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (FRONT)

А Description INFOID:00000008163676 The lifting sensor (front) is installed to the seat slide cushion frame. В The pulse signal is input 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:000000008163677 **1.**CHECK FUNCTION 1. Turn ignition switch ON. D Select "LIFT FR PULSE" in the "Data monitor" mode using CONSULT. 2. Check the lifting sensor (front) signal under the following conditions. 3. Condition Value Monitor item Operate (Up) Change (increase)*1 F LIFT FR PULSE Seat lifting (front) Operate (Down) Change (decrease)*1 No change^{*1} Release ^{*1}:The value at the seat position attained when the battery is connected is considered to be 32768. Is the indication normal? YES >> INSPECTION END Н >> Perform diagnosis procedure. Refer to ADP-107, "Diagnosis Procedure". NO Diagnosis Procedure INFOID:000000008163678 **1.**CHECK LIFTING SENSOR (FRONT) SIGNAL Turn ignition switch ON

B503 25 Ground Seat Lifting (front) Operate	(+)					
Dennector Terminal B503 25 Ground Seat Lifting (front) Operate	Driver seat co	ontrol unit	(—)	Condition		0 ()
B503 25 Ground Seat Lifting (front) Operate	Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	B503	25	Ground	•	Operate	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207</u>, "Removal and Installation".

2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit and lifting motor (front) connector.

3. Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector. DP

Ρ

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Lifting motor (front)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B503	25	B527	25	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B503	25		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK LIFTING SENSOR (FRONT) POWER SUPPLY

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

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

(+) Lifting motor (front)		(-)	Voltage (V) (Approx.)	
Connector	Terminal			
B527	16	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

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

Driver seat control unit		Lifting motor (front)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B503	16	B527	16	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B503	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5.CHECK LIFTING SENSOR (FRONT) GROUND CIRCUIT 1

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit connector.
- 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	Continuity
B503	31	B527	31	Existed

LIFTING SENSOR (FRONT)

< DTC/CIR	CUIT DIAGNOS	IS >			
	ction result norma				
	GO TO 6.				А
-	Repair or replace				
		R (FRONT) GROUND CI	RCUIT 2		— В
		trol unit connector. In lifting motor (front) harne	ess connector and ground.		
	Driver seat	control unit			С
	Connector	Terminal	Ground	Continuity	
	B503	31		Existed	_ D
Is the inspe	ction result norma	al?			
YES >> NO >>	Replace lifting m Replace driver s	notor (front). Refer to <u>SE-1</u> eat control unit. Refer to <u>A</u>	<u>63, "Exploded View"</u> . DP-207, "Removal and Ins	stallation".	E
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< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description

- The lifting sensor (rear) is installed to the seat slide cushion frame.
- The pulse signal is input 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

1.CHECK FUNCTION

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

Monitor item	Conditio	n	Value
		Operate (Up)	Change (increase) ^{*1}
LIFT RR PULSE	Seat lifting (rear)	Operate (Down)	Change (decrease) ^{*1}
		Release	No change ^{*1}

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008163681

1.CHECK LIFTING SENSOR (REAR) SIGNAL

1. Turn ignition switch ON.

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

(+)					
Driver seat control unit		(–) Con		Condition	Voltage (V) (Approx.)
Connector	Terminal				(, , , , , , , , , , , , , , , , , , ,
B503	10	Ground	Seat Lifting (rear)	Operate	10mSec/div 2V/div JMJIA0119ZZ
				Other than above	0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK LIFTING SENSOR (REAR) CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000008163679

INEOID:000000008163680

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Connector	Terminal	Connector	Terminal	Continuity
B503	10	B529	10	Existed
Check the continuit	ty between driver sea	t control unit harnes	s connector and gro	bund.
	•			
	er seat control unit			Continuity
Connector	Termina	al	Ground	
B503 ne inspection result	10			Not Existed
ES >> GO TO 3. D >> Repair or re	eplace harness. ENSOR (REAR) POW	VER SUPPLY		
Connect driver sea Turn ignition switch	t control unit connect	or.	ector and ground.	
	(+)			
Lifting n	notor (rear)	(-)		Voltage (V) (Approx.)
Connector	Terminal			,
B529	16	Grou	nd	Battery voltage
	ENSOR (REAR) POW	VER SUPPLY CIRCU	JIT	
Turn ignition switch Disconnect driver s		ector.		ting motor (rear) h
Turn ignition switch Disconnect driver s Check the continui connector.	OFF.	ector. at control unit harne		
Turn ignition switch Disconnect driver s Check the continui connector.	OFF. seat control unit conne ty between driver sea	ector. at control unit harne	ss connector and lit	iting motor (rear) h
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Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 Check the continuit Connector B503 he inspection result ES >> Replace dr D >> Repair or re CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector.	o OFF. control unit connective control unit Terminal 16 ty between driver sea er seat control unit rermina 16 ty between driver sea er seat control unit 16 normal? iver seat control unit. eplace harness. ENSOR (REAR) GRC o OFF. seat control unit connective ty between driver sea	ector. at control unit harne Lifting n Connector B529 at control unit harnes al Refer to ADP-207, " DUND CIRCUIT 1 ector. at control unit harne	ss connector and lif	Continuity Existed ound. Continuity Not existed lation".
Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 Check the continuit Connector B503 he inspection result ES >> Replace dr D >> Repair or re CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector.	o OFF. eat control unit connective ty between driver sea control unit Terminal 16 ty between driver sea er seat control unit rermina 16 normal? iver seat control unit. eplace harness. ENSOR (REAR) GRC OFF. seat control unit connective seat control unit connective	ector. at control unit harne Lifting n Connector B529 at control unit harnes al Refer to ADP-207, " DUND CIRCUIT 1 ector. at control unit harne	ss connector and lif	Continuity Existed ound. Continuity Not existed lation".

B503

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B529

31

Existed

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

 $6. {\sf CHECK\ LIFTING\ SENSOR\ (REAR)\ GROUND\ CIRCUIT\ 2}$

1. Connect driver seat control unit connector.

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	31		Existed

Is the inspection result normal?

YES >> Replace lifting motor (rear). Refer to <u>SE-163, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-207, "Removal and Installation"</u>.

TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS	>
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TILT SENSOR

А Description INFOID:00000008163682 The tilt sensor is installed to the steering column assembly. В The resistance of tilt sensor changes according to the up/down position of steering column. The terminal voltage of automatic drive positioner control unit changes according to a change of tilt sensor resistance. Automatic drive positioner control unit calculates the tilt position from the voltage. Component Function Check INFOID:00000008163683 **1.**CHECK FUNCTION D 1. Turn ignition switch ON. Select "TILT SEN" in the "Data monitor" mode using CONSULT. 2. 3. Check the tilt sensor signal under the following condition. Monitor item Condition Value Change between TILT SEN Tilt position 1.1 V (Close to top) 3.9 V (Close to bottom) Is the indication normal? YES >> INSPECTION END NO >> Perform diagnosis procedure. Refer to ADP-113, "Diagnosis Procedure". **Diagnosis** Procedure Н INFOID:000000008163684 **1.**CHECK TILT SENSOR SIGNAL 1 Turn ignition switch ON. 2. Check voltage automatic drive positioner control unit harness connector and ground. ADP (+) Voltage (V) Automatic drive positioner control unit (-) Condition (Approx.) Connector Terminal Change between M51 7 Ground Tilt position 1.1 V (Close to top) 3.9 V (Close to bottom) L Is the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to ADP-208, "Removal and Installation". NO >> GO TO 2. Μ 2. CHECK TILT SENSOR CIRCUIT 1. Turn ignition switch OFF. Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector. 2. Ν 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector. Automatic drive positioner control unit Tilt & telescopic sensor Continuity Connector Terminal Connector Terminal M51 7 M48 3 Existed Check continuity between automatic drive positioner control unit harness connector and ground. Δ Automatic drive positioner control unit Continuity Connector Terminal Ground M51 7 Not existed

Is the inspection result normal?

TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

3.CHECK TILT SENSOR POWER SUPPLY

- 1. Connect automatic drive positioner control unit connector.
- 2. Turn ignition switch ON.

3. Check voltage between tilt & telescopic sensor harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

Automatic drive positioner control unit		Tilt & teleso	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M52	33	M48	1	Existed

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

Automatic drive po	sitioner control unit		Continuity
Connector	Connector Terminal		Continuity
M52	M52 33		Not existed

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u>. NO >> Repair or replace harness.
- NO >> Repair of replace namess.

5.check tilt sensor ground circuit 1

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

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

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK TILT SENSOR GROUND CIRCUIT 2

1. Connect automatic drive positioner control unit connector.

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	M52 41		Existed

TILT SENSOR

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>

Is the inspection result normal?

YES	>> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to ST-18, "WITHOUT	A
	ELECTRIC MOTOR : Exploded View".	

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-208. "Removal and Installation"</u>.

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TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SENSOR

Description

• The telescopic sensor is installed to the steering column assembly.

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

Component Function Check

INFOID:000000008163686

INFOID:00000008163685

1.CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END.

NO >> Perform diagnosis procedure. Refer to <u>ADP-116, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000008163687

1.CHECK TELESCOPIC SENSOR SIGNAL

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u>. NO >> GO TO 2.

2. CHECK TELESCOPIC SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Turn ignition switch	drive positioner contr ON. veen tilt & telescopic :		nnector and ground.	
	(+)			Voltage (V)
	k telescopic sensor		(-)	(Approx.)
Connector	Termina	<u>а</u>		
M48 the inspection result	1		Ground	5
	n OFF. atic drive positioner co etween automatic dri	ontrol unit connecto	ır.	ector and tilt & telescop
	ositioner control unit		escopic sensor	
Connector	Terminal	Connector	Terminal	Continuity
M52	33	M48	1	Existed
Connector M52	Termina 33	al	Ground	Continuity Not existed
s the inspection result YES >> Replace at		ner control unit. Ref	fer to <u>ADP-208, "Ren</u>	noval and Installation".
CHECK TELESCOF Turn ignition switch Disconnect automa	PIC SENSOR GROUN OFF. atic drive positioner co etween automatic dri	ontrol unit connecto		ector and tilt & telescop
 CHECK TELESCOF Turn ignition switch Disconnect automa Check continuity b sensor harness continuity 	PIC SENSOR GROUN OFF. atic drive positioner co etween automatic dri	ontrol unit connecto ve positioner contr		
 CHECK TELESCOF Turn ignition switch Disconnect automa Check continuity b sensor harness continuity 	PIC SENSOR GROUN OFF. atic drive positioner co etween automatic dri nnector.	ontrol unit connecto ve positioner contr	ol unit harness conn	ector and tilt & telescop
CHECK TELESCOF Turn ignition switch Disconnect automa Check continuity b sensor harness con Automatic drive po Connector M52	PIC SENSOR GROUN a OFF. atic drive positioner co etween automatic dri nnector. positioner control unit Terminal 41	ontrol unit connecto ve positioner contro Tilt & tele	ol unit harness conn	
CHECK TELESCOF Turn ignition switch Disconnect automa Check continuity b sensor harness con Automatic drive po Connector M52 the inspection result YES >> GO TO 6. NO >> Repair or re CONNECK TELESCOF Connect automatic	PIC SENSOR GROUN a OFF. atic drive positioner co etween automatic dri nnector. ositioner control unit Terminal 41 normal? eplace harness.	ontrol unit connecto ve positioner contro Tilt & tele Connector M48 ND CIRCUIT 2 rol unit connector.	ol unit harness conn escopic sensor Terminal 4	Continuity Existed
CHECK TELESCOF Turn ignition switch Disconnect automa Check continuity b sensor harness con Automatic drive po Connector M52 sthe inspection result YES >> GO TO 6. NO >> Repair or result CONNECK TELESCOF Connect automatic Check continuity b	PIC SENSOR GROUN OFF. atic drive positioner co etween automatic dri- nnector. positioner control unit Terminal 41 normal? PIC SENSOR GROUN drive positioner contri- etween automatic drive	ND CIRCUIT 2 rol unit connector.	ol unit harness conn escopic sensor Terminal 4	Continuity Existed
CHECK TELESCOF Turn ignition switch Disconnect automa Check continuity b sensor harness con Automatic drive po Connector M52 sthe inspection result YES >> GO TO 6. NO >> Repair or result CONNECK TELESCOF Connect automatic Check continuity b	PIC SENSOR GROUN OFF. atic drive positioner co etween automatic dri nnector. positioner control unit Terminal 41 normal? eplace harness. PIC SENSOR GROUN drive positioner control	ontrol unit connecto ve positioner contro Tilt & tele Connector M48 ND CIRCUIT 2 rol unit connector. /e control unit harne	ol unit harness conn escopic sensor Terminal 4	Continuity Existed

M52

41

Existed

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to <u>ST-18, "WITHOUT</u> <u>ELECTRIC MOTOR : Exploded View"</u>.
- NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS > MIRROR SENSOR **DRIVER SIDE**

DRIVER SIDE : Description

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

DRIVER SIDE : Component Function Check

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D INFOID:000000008163689

INFOID:000000008163690

1.CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-119, "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE : Diagnosis Procedure

1.CHECK DOOR MIRROR SENSOR (DRIVER SIDE) SIGNAL

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-208, "Removal and Installation". NO >> GO TO 2.

2.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR CIRCUIT

1. Turn ignition OFF.

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

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Door mirror (driver side)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M51	6	D3	9	Existed	
	22	03	10	EXISIEU	

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	6	Ground	Not existed
I CIVI	22		NUL EXISIEU

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

1. Connect automatic drive positioner control unit connector.

2. Turn ignition switch ON.

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

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

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

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

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

Automatic drive positioner control unit		Door mirror	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
M52	33	D3	11	Existed	

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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

1. Turn ignition switch OFF.

2. Disconnect automatic drive control unit connector.

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

< DTC/CIRCUIT DIAGNOSIS >

	sitioner control unit	Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	41	D3	12	Existed
CHECK DOOR MIR	eplace harness.	rol unit connector.		tor and ground.
Automatic d	rive positioner control unit			
Connector	Termina		Ground	Continuity
M52	41			Existed
NO >> Replace do	oor mirror sensor (Bu MBLY : Removal and	ilt in passenger side		oval and Installation". to MIR-36, "DOOR MIR
PASSENGER SID	E : Description			INFOID:0000000816365
age of 2 sensor input PASSENGER SID 1.CHECK FUNCTION	terminals. E : Component			to the change of the volt
age of 2 sensor input PASSENGER SID 1.CHECK FUNCTION 1. Turn ignition switch 2. Select "MIR/SEN R	terminals. E : Component	Function Check	K monitor" using CON	INFOID:00000000816368
age of 2 sensor input PASSENGER SID 1.CHECK FUNCTION 1. Turn ignition switch 2. Select "MIR/SEN R	terminals. E : Component ON. H U-D", "MIR/SEN R ensor (passenger side	Function Check	monitor" using CON	INFOID:00000000816368
age of 2 sensor input PASSENGER SID 1.CHECK FUNCTION 1. Turn ignition switch 2. Select "MIR/SEN R 3. Check the mirror se	terminals. E : Component ON. H U-D", "MIR/SEN R ensor (passenger side	Function Check H R-L" in the "Data e) signal under the fo	monitor" using CONs ollowing conditions.	INFOID:00000000816365 SULT. Value ge between close to peak) close to valley) ge between ose to left edge)
age of 2 sensor input PASSENGER SID 1.CHECK FUNCTION 1. Turn ignition switch 2. Select "MIR/SEN R 3. Check the mirror se MIR/SEN RH U-D MIR/SEN RH R-L	terminals. E : Component ON. H U-D", "MIR/SEN R ensor (passenger side m Door mi	Function Check H R-L" in the "Data e) signal under the for Condition	monitor" using CONs ollowing conditions.	INFOID:00000000816368 SULT. Value ge between close to peak) close to valley) ge between
age of 2 sensor input PASSENGER SID CHECK FUNCTION Turn ignition switch Select "MIR/SEN R Monitor ite MIR/SEN RH U-D MIR/SEN RH R-L S the indication normal YES >> INSPECTIO	terminals. E : Component ON. H U-D", "MIR/SEN R ensor (passenger side m Door mi	Function Check H R-L" in the "Data e) signal under the for Condition	(monitor" using CONs ollowing conditions. Chan 3.4 [V] (0.6 [V] (clo 0.6 [V] (clo	INFOID:00000000816365 SULT. Value ge between close to peak) close to valley) ge between ose to left edge)
age of 2 sensor input PASSENGER SID .CHECK FUNCTION . Turn ignition switch . Select "MIR/SEN R . Check the mirror se Monitor ite MIR/SEN RH U-D MIR/SEN RH R-L . Sthe indication normal YES >> INSPECTION NO >> Perform dia	terminals. E : Component	Function Check H R-L" in the "Data e) signal under the for Condition rror (passenger side)	(monitor" using CONs ollowing conditions. Chan 3.4 [V] (0.6 [V] (clo 0.6 [V] (clo	INFOID:00000000816368 SULT. Value ge between close to peak) close to valley) ge between ose to left edge) se to right edge)
age of 2 sensor input PASSENGER SID 1.CHECK FUNCTION 1. Turn ignition switch 2. Select "MIR/SEN R 3. Check the mirror se MIR/SEN RH U-D MIR/SEN RH R-L s the indication normal YES >> INSPECTIO	terminals. E : Component ON. H U-D", "MIR/SEN R ensor (passenger side m Door mi ? ON END agnosis procedure. R E : Diagnosis Pl	Function Check H R-L" in the "Data to b) signal under the for Condition rror (passenger side) efer to <u>ADP-121. "Pa</u> rocedure	Chan 3.4 [V] (0.6 [V] (clo 3.4 [V] (clo 0.6 [V] (clo ASSENGER SIDE :	INFOID:00000000816368 SULT. Value ge between close to peak) close to valley) ge between bse to left edge) se to right edge)

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive	(+) Automatic drive positioner control unit		Condition	Voltage (V)
Connector	Terminal	(-)		(Approx.)
M54	5	Oround	Door mirror (Passenger	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
M51	21	- Ground	side) position	Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208. "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR CIRCUIT

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

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

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	5	Ground	Not existed
I CIVI	21		NUL EXISIEU

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

	(+)		
Door mirror (Door mirror (passenger side)		Voltage (V) (Approx.)
Connector	Terminal		
D33	D33 11		5

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

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

1. Turn ignition switch OFF.

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

< DTC/CIRCUIT DIAGNOSIS >

Connector Terminal Connector Terminal Connector M52 33 D33 11 Existed Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Ground Continuity Connector Terminal Ground Continuity M52 33 Not existed the inspection result normal? S Replace automatic drive positioner control unit. Refer to ADP-208. "Removal and Installation O O >> Replace automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit and connector. Continuity Connector Terminal Connector Continuity Connector Terminal Continuity Continuity <		sitioner control unit	Door mirror	(passenger side)	Continuity
Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Ground Continuity M52 33 Not existed the inspection result normal? Seplace automatic drive positioner control unit. Refer to ADP-208, "Removal and Installation O >> Replace automatic driver positioner control unit. Refer to ADP-208, "Removal and Installation O O >> Replace automatic drive positioner control unit connector. Check CDOOR MIRROR (PASSENGER SIDE) SENSOR GROUND 1 Turn ignition switch OFF. Disconnect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) connector. Automatic drive positioner control unit Door mirror (passenger side) Continuity Connector Terminal Continuity M52 41 D33 12 Existed the inspection result normal? ES >> GO TO 6. >> Repair or replace harness. Continuity between automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit connector. Continuity Connector Terminal Ground Continuity M52 41 D33 12 Existed	Connector	Terminal	Connector	Terminal	Continuity
Automatic drive positioner control unit Ground Continuity M52 33 Not existed the inspection result normal? ES >> Replace automatic driver positioner control unit. Refer to ADP-208, "Removal and Installation" O O >> Repair or replace harness. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND 1 Turn ignition switch OFF. Disconnect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and door mirror (senger side) connector. Continuity Automatic drive positioner control unit Door mirror (passenger side) Continuity Connector Terminal Connector Continuity M52 41 D33 12 Existed the inspection result normal? ES >> GO TO 6. Control unit connector. Continuity between automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit connector. Continuity Connect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and ground. MECK DOOR MIRROR (PASSENGER SIDE) S	M52	33	D33	11	Existed
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Connector Terminal Ground Continuity M52 33 Not existed Not existed the inspection result normal? ES >> Replace automatic driver positioner control unit. Refer to ADP-208, "Removal and Installation O >> Repair or replace harness. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND 1 Turn ignition switch OFF. Disconnect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and door mirror (senger side) connector. Automatic drive positioner control unit Door mirror (passenger side) Continuity M52 41 D33 12 Existed the inspection result normal? ES >> Go TO 6. O >> Repair or replace harness. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND 2 Connector Continuity Continuity Concect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Ground Continuity Connect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and ground. Automatic dri	Automatic o	rive positioner control unit			
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ES >> Replace automatic driver positioner control unit. Refer to ADP-208, "Removal and Installation" O >> Repair or replace harness. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND 1 Turn ignition switch OFF. Disconnect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and door mirror (senger side) connector. Automatic drive positioner control unit Door mirror (passenger side) Connector Terminal M52 41 M52 41 D33 12 ES >> GO TO 6. O >> Repair or replace harness. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND 2 Connect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit at connector. Check continuity between automatic drive positioner control unit at connector. Check continuity between automatic drive positioner control unit at the inspection result normal? Automatic drive positioner control unit M52 41 Connector Continuity Connect automatic drive positioner control unit Continuity Connector Terminal	M52	33			Not existed
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Turn ignition switch OFF. Disconnect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and door mirror (senger side) connector. Automatic drive positioner control unit Door mirror (passenger side) Continuity Automatic drive positioner control unit Door mirror (passenger side) Continuity M52 41 D33 12 Existed the inspection result normal? ES >> GO TO 6. Sequer or replace harness. EXIST Connector. Connect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Ground Continuity M52 41 Continuity Existed M52 41 Existed Existed	•	•	SIDE) SENSOR GE		
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Check continuity between automatic drive positioner control unit harness connector and door mirror (senger side) connector. Automatic drive positioner control unit Door mirror (passenger side) Continuity M52 41 D33 12 Existed the inspection result normal? ES >> GO TO 6. Connector EXisted O >> Repair or replace harness. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND 2 Continuity Connector Terminal Ground Continuity Automatic drive positioner control unit Continuity Continuity Connector Terminal Continuity Connect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Ground Continuity M52 41 Existed M52 41 Existed the inspection result normal? Existed ES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u> O >> Replace door mirror sensor (Built in passenger side door mirror). Refer to <u>MIR-36, "DOOR</u>			ontrol unit connecto		
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Connector Terminal Connector Terminal Continuity M52 41 D33 12 Existed the inspection result normal? ES >> GO TO 6. ES Sequence					(
Connector Terminal Connector Terminal Continuity M52 41 D33 12 Existed the inspection result normal? ES >> GO TO 6. ES Sequence	Automotic drive -			(papapage side)	
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Automatic drive positioner control unit Ground Connector Terminal M52 41 Ground Existed the inspection result normal? ES >> Replace automatic drive positioner control unit. Refer to ADP-208, "Removal and Installation" O >> Replace door mirror sensor (Built in passenger side door mirror). Refer to MIR-36, "DOOR I	ES >> GO TO 6. O >> Repair or r	eplace harness.			Existed
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M52 41 Existed the inspection result normal? ES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation"</u> O >> Replace door mirror sensor (Built in passenger side door mirror). Refer to <u>MIR-36, "DOOR I</u>	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driv	SIDE) SENSOR GF rol unit connector. ve positioner control	OUND 2	
the inspection result normal? ES >> Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation</u> " O >> Replace door mirror sensor (Built in passenger side door mirror). Refer to <u>MIR-36, "DOOR I</u>	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driv	SIDE) SENSOR GF rol unit connector. ve positioner control	OUND 2 unit harness conne	ector and ground.
 Replace automatic drive positioner control unit. Refer to <u>ADP-208, "Removal and Installation</u>" Replace door mirror sensor (Built in passenger side door mirror). Refer to <u>MIR-36, "DOOR I</u> 	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driv rive positioner control unit	SIDE) SENSOR GF rol unit connector. ve positioner control	OUND 2 unit harness conne	ector and ground. Continuity
O >> Replace door mirror sensor (Built in passenger side door mirror). Refer to MIR-36, "DOOR I	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driv rive positioner control unit Termina 41	SIDE) SENSOR GF rol unit connector. ve positioner control	OUND 2 unit harness conne	ector and ground. Continuity
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driv rive positioner control unit Termina 41 normal?	SIDE) SENSOR GF rol unit connector. ve positioner control	OUND 2 unit harness conne Ground	ector and ground. Continuity Existed
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au	eplace harness. ROR (PASSENGER drive positioner cont etween automatic drive rive positioner control unit Termina 41 normal?	SIDE) SENSOR GF rol unit connector. ve positioner control	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au O >> Replace do	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driver rive positioner control unit Termina 41 normal? utomatic drive position por mirror sensor (Bu	SIDE) SENSOR GF rol unit connector. ve positioner control al	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au O >> Replace do	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driver rive positioner control unit Termina 41 normal? utomatic drive position por mirror sensor (Bu	SIDE) SENSOR GF rol unit connector. ve positioner control al	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au O >> Replace do	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driver rive positioner control unit Termina 41 normal? utomatic drive position por mirror sensor (Bu	SIDE) SENSOR GF rol unit connector. ve positioner control al	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au O >> Replace do	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driver rive positioner control unit Termina 41 normal? utomatic drive position por mirror sensor (Bu	SIDE) SENSOR GF rol unit connector. ve positioner control al	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au O >> Replace do	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driver rive positioner control unit Termina 41 normal? utomatic drive position por mirror sensor (Bu	SIDE) SENSOR GF rol unit connector. ve positioner control al	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au O >> Replace do	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driver rive positioner control unit Termina 41 normal? utomatic drive position por mirror sensor (Bu	SIDE) SENSOR GF rol unit connector. ve positioner control al	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au O >> Replace do	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driver rive positioner control unit Termina 41 normal? utomatic drive position por mirror sensor (Bu	SIDE) SENSOR GF rol unit connector. ve positioner control al	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au O >> Replace do	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driver rive positioner control unit Termina 41 normal? utomatic drive position por mirror sensor (Bu	SIDE) SENSOR GF rol unit connector. ve positioner control al	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"
	ES >> GO TO 6. O >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result ES >> Replace au O >> Replace do	eplace harness. ROR (PASSENGER drive positioner cont etween automatic driver rive positioner control unit Termina 41 normal? utomatic drive position por mirror sensor (Bu	SIDE) SENSOR GF rol unit connector. ve positioner control al	COUND 2 unit harness conne Ground	ector and ground. Continuity Existed moval and Installation"

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING MOTOR

Description

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

Component Function Check

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008163696

1. CHECK SLIDING MOTOR POWER SUPPLY

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

(+) Sliding ma	(+) Sliding motor		(-) Co		Voltage (V) (Approx.)			
Connector	Terminal							
				OFF	0			
	35						FR (forward)	Battery voltage
DEOE		Ground		RR (backward)				
B525		Ground	SEAT SLIDE OFF FR (forward) RR (backward)		0			
	42				0			
					Battery voltage			

Is the inspection result normal?

YES >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to <u>SE-163. "Exploded View"</u>. NO >> GO TO 2.

2. CHECK SLIDING MOTOR CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000008163694

INEOID-000000008163695

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit	Slidi	ing motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B504	35	B525	35	Existed
8004	42	8020	42	Existed
Check continuity b	etween driver seat co	ntrol unit harness c	onnector and groun	d.
	er seat control unit			
Connector	Termina	al		Continuity
	35		Ground	
B504	42			Not existed
the inspection result	normal?			
ES >> GO TO 3.				
	eplace harness.			
CHECK SLIDING M				
	mponent Inspection".			
<u>the inspection result</u> ES >> Replace di	<u>normal?</u> iver seat control unit.	Pofor to ADD 207	"Domoval and Insta	llation"
	iding motor. (Built in s			
			/	
omponent Inspe	ction			INFOID-000000000
omponent Inspe				INFOID:0000000810
OMPONENT INSPE				INFOID:00000000816
CHECK SLIDING M		bject, and check th	at the sliding motor i	
CHECK SLIDING M sually check the slidi the inspection result	OTOR-1 ng motor for foreign o	bject, and check the	at the sliding motor i	
CHECK SLIDING M sually check the slidii the inspection result 'ES >> GO TO 2.	OTOR-1 ng motor for foreign o normal?			
CHECK SLIDING M sually check the slidin the inspection result 'ES >> GO TO 2. IO >> Repair or r	OTOR-1 ng motor for foreign o normal? eplace seat cushion f			
CHECK SLIDING M sually check the slidi the inspection result 'ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2			
CHECK SLIDING M sually check the slidin the inspection result 'ES >> GO TO 2. IO >> Repair or r	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF.			
CHECK SLIDING M sually check the slidin the inspection result (ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M Turn ignition switch Disconnect sliding	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF.	rame (sliding motor).	
CHECK SLIDING M sually check the slidin the inspection result (ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M Turn ignition switch Disconnect sliding	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF. motor connector. or terminals with batte	rame (sliding motor). ck operation.	s not broken.
CHECK SLIDING M sually check the slidin the inspection result 'ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M Turn ignition switch Disconnect sliding Supply sliding mote	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF. motor connector. or terminals with batte	rame (sliding motor).	s not broken.
CHECK SLIDING M sually check the slidin the inspection result (ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M Turn ignition switch Disconnect sliding	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF. motor connector. or terminals with batte	rame (sliding motor). ck operation.	s not broken.
CHECK SLIDING M sually check the slidii the inspection result (ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M Turn ignition switch Disconnect sliding Supply sliding mot	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF. motor connector. or terminals with batter Terminal	rame (sliding motor). ck operation. Operati	s not broken.
CHECK SLIDING M sually check the slidii the inspection result (ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M Turn ignition switch Disconnect sliding Supply sliding mote (+) 35 42	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF. motor connector. or terminals with batter Terminal (-) 42 35	rame (sliding motor). ck operation. Operati Forwa	s not broken.
CHECK SLIDING M sually check the slidin the inspection result (ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M Turn ignition switch Disconnect sliding Supply sliding mote (+) 35 42 the inspection result	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF. motor connector. or terminals with batter Terminal (-) 42 35 normal?	rame (sliding motor). ck operation. Operati Forwa	s not broken.
CHECK SLIDING M sually check the slidin the inspection result (ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M Turn ignition switch Disconnect sliding Supply sliding mote (+) 35 42 the inspection result (ES >> Sliding mote	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF. motor connector. or terminals with batter Terminal (-) 42 35 normal?	rame (sliding motor). ck operation. Operati Forwa Backwa	s not broken.
CHECK SLIDING M sually check the slidin the inspection result (ES >> GO TO 2. IO >> Repair or r CHECK SLIDING M Turn ignition switch Disconnect sliding Supply sliding mote (+) 35 42 the inspection result (ES >> Sliding mote	OTOR-1 ng motor for foreign o normal? eplace seat cushion f OTOR-2 n OFF. motor connector. or terminals with batter Terminal (-) 42 35 normal? tor is OK.	rame (sliding motor). ck operation. Operati Forwa Backwa	s not broken.

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING MOTOR

Description

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

Component Function Check

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008163700

1.CHECK RECLINING MOTOR POWER SUPPLY

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

(+) Reclining motor		(–) Conc		dition	Voltage (V) (Approx.)				
Connector	Terminal								
				OFF	0				
	36	36	36	36		FR (forward)	Battery voltage		
DEOD		Oneveral		RR (backward)	0				
B523 -		Ground	SEAT RECLINING	OFF	0				
	44							FR (forward)	0
				RR (backward)	Battery voltage				

Is the inspection result normal?

YES >> Replace reclining motor. (Built in seat back frame.) Refer to <u>SE-163, "Exploded View"</u>. NO >> GO TO 2.

2. CHECK RECLINING MOTOR CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000008163698

INFOID-000000008163699

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit	Recli	ning motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B504	36	B523	36	Existed
	44	5020	44	Existed
Check continuity b	etween driver seat co	ontrol unit harness c	connector and ground	l.
-	er seat control unit			Continuity
Connector	Termin	al	Ground	,
B504	36			Not existed
	44			
the inspection result	normal?			
YES >> GO TO 3. NO >> Repair or r	eplace harness.			
.CHECK RECLINING	•			
	mponent Inspection".			
the inspection result			"Demonstructure of the	le Ce e U
	river seat control unit.			lation". 163, "Exploded View".
•	0	i seat side cusition		TOS, Exploded view.
omponent Inspe	Ction			INFOID:00000008163
.CHECK RECLINING	G MOTOR-1			
	ning motor for foreigr	object and check	that the reclining mot	or is not broken
the inspection result	• •			
(ES >> GO TO 2.	<u>norman.</u>			
	eplace seatback fram	ne (reclining motor).		
.CHECK RECLINING	G MOTOR-2			
Turn ignition switcl				
Disconnect reclinir	ng motor connector.			
Supply reclining m	otor terminals with ba	attery voltage and cl	neck operation.	
	Terminal		05	eration
(+)		(-)	Op	
36		44	Fo	rward
44		36	Bac	ckward
the inspection result	normal?			
YES >> Reclining r	notor is OK.			
		n seat slide cushion	frame.) Refer to SE-	163, "Exploded View".

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description

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

Component Function Check

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008163704

1.CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

(+) Lifting motor (front)		()	Condition		Voltage (V) (Approx.)
Connector	Terminal				
	37			OFF	0
		37 Ground SEAT LIFTER FR 45		UP	0
DEOZ				DWN (down)	Battery voltage
B527			SEAT LIFTER FR	OFF	0
	45			UP	Battery voltage
				DWN (down)	0

Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to <u>SE-163. "Exploded View"</u>. NO >> GO TO 2.

2.CHECK LIFTING MOTOR (FRONT) CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000008163702

INFOID:000000008163703

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		5	Lifting motor (front)		
Connector	Terminal	Connector	Terminal	Continuity	
B504	37	B527	37	Existed	
D004	45	D027	45	Existed	
Check continuity betwee	n driver seat co	ntrol unit harness c	onnector and ground	d.	
Driver seat	control unit			0	
Connector	Termina	al		Continuity	
B504	37 45		Ground	Not existed	
he inspection result norma	al?				
ES >> GO TO 3. O >> Repair or replace CHECK LIFTING MOTOR					
er to ADP-129, "Compone	ent Inspection".				
he inspection result norma	al?				
ES >> Replace driver se			"Removal and Insta		
	atan (frant) (Dui				
O >> Replace lifting m	otor (front). (Bui	ilt in seat slide cush	ion frame.) Refer to	SE-163, "Exploded Vie	
		ilt in seat slide cush	ion frame.) Refer to	SE-163, "Exploded Vie	
O >> Replace lifting m mponent Inspection		ilt in seat slide cush	ion frame.) Refer to		
O >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR	R-1			INFOID:00000000	
D >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from	R-1 It) for foreign ob			INFOID:00000000	
O >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normal	R-1 It) for foreign ob			INFOID:00000000	
 >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normation S >> GO TO 2. 	R-1 It) for foreign ob	ject, and check that	t the lifting motor (fro	INFOID:00000000	
 >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normation S >> GO TO 2. >> Repair or replace 	R-1 ht) for foreign ob al? e seat cushion f	ject, and check that	t the lifting motor (fro	INFOID:00000000	
 >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normation S >> GO TO 2. >> Repair or replace CHECK LIFTING MOTOR 	R-1 ht) for foreign ob al? e seat cushion fi R-2	ject, and check that	t the lifting motor (fro	INFOID:00000000	
 >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normation S >> GO TO 2. >> Repair or replace CHECK LIFTING MOTOR CHECK LIFTING MOTOR Turn ignition switch OFF. 	R-1 ht) for foreign ob al? e seat cushion f R-2	ject, and check that	t the lifting motor (fro	INFOID:00000000	
 >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normation S >> GO TO 2. >> Repair or replace CHECK LIFTING MOTOR 	R-1 ht) for foreign ob al? e seat cushion f R-2 connector.	ject, and check that rame (lifting motor).	the lifting motor (fro	INFOID:00000000	
 >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normation S >> GO TO 2. D >> Repair or replace CHECK LIFTING MOTOR Turn ignition switch OFF. Disconnect lifting motor of 	R-1 ht) for foreign ob al? e seat cushion f R-2 connector.	ject, and check that rame (lifting motor). y voltage and check	the lifting motor (fro	ont) is not broken.	
 >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normation S >> GO TO 2. D >> Repair or replace CHECK LIFTING MOTOR Turn ignition switch OFF. Disconnect lifting motor of 	R-1 at) for foreign ob al? e seat cushion for R-2 connector. inals with batter	ject, and check that rame (lifting motor). y voltage and check	the lifting motor (fro	INFOID:00000000	
 >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normation S >> GO TO 2. >> Repair or replace CHECK LIFTING MOTOR Turn ignition switch OFF. Disconnect lifting motor of Supply lifting motor term 	R-1 al? e seat cushion for R-2 connector. inals with batter (+)	ject, and check that rame (lifting motor). y voltage and check Terminal (-)	the lifting motor (fro	ont) is not broken.	
 >> Replace lifting m mponent Inspection CHECK LIFTING MOTOR ually the lifting motor (from he inspection result normation S >> GO TO 2. >> Repair or replace CHECK LIFTING MOTOR Turn ignition switch OFF. Disconnect lifting motor of Supply lifting motor term 	R-1 at) for foreign ob al? e seat cushion for R-2 connector. inals with batter	ject, and check that rame (lifting motor). y voltage and check	the lifting motor (fro	ont) is not broken.	

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LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description

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

Component Function Check

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-130, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000008163708

1.CHECK LIFTING MOTOR (REAR) POWER SUPPLY

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

(+) Lifting motor (rear)		(–) Conc		dition	Voltage (V) (Approx.)		
Connector	Terminal				(*********		
		- Ground			OFF	0	
	38			UP	Battery voltage		
DE20			Cround		SEAT LIFTER RR	DWN (DOWN)	0
B529	39		SEAT LIFTER RR	OFF	0		
				UP	0		
				DWN (DOWN)	Battery voltage		

Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to <u>SE-163. "Exploded View"</u>. NO >> GO TO 2.

2.CHECK LIFTING MOTOR (REAR) CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000008163706

INFOID:000000008163707

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TILT MOTOR

Description

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

Component Function Check

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-132, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000008163712

1. CHECK TILT MOTOR POWER SUPPLY

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

(+) Tilt & telescopic motor		(–) Con		ondition	Voltage (V) (Approx.)
Connector	Terminal				(*********
				OFF	0
	3			UP	0
M40		Ground		DWN (down)	Battery voltage
M49		Ground	TILT MOTOR	OFF	0
4			UP	Battery voltage	
				DWN (down)	0

Is the inspection result normal?

YES >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21. "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u>.

NO >> GO TO 2.

2. CHECK TILT MOTOR CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000008163710

INFOID:000000008163711

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	elescopic motor	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
M52	35 42	- M49	4 3	Existed	
Check continuity b	etween automatic driv	ve positioner conti	rol unit harness conne	ector and ground.	
Automatic c	drive positioner control unit	t		Continuity	
Connector	Termina	Terminal			
M52	35	Ground Ground			
WIJZ	42			Not existed	
<u>he inspection result</u> ES >> Replace au O >> Replace ti	mponent Inspection". normal? utomatic drive positior	ner control unit. R		moval and Installation". ST-21, "WITH ELECTRIC	
CHECK SLIDING M Turn ignition switch	IOTOR n OFF.			INFOID:0000000081637	
CHECK SLIDING M Turn ignition switch Disconnect tilt mot	IOTOR n OFF. or connector. erminals with battery v	voltage and check	operation.	INFOID:000000081637	
CHECK SLIDING M Turn ignition switch Disconnect tilt mot Supply tilt motor te	IOTOR n OFF. or connector. erminals with battery v Terminal	voltage and check	operation.		
CHECK SLIDING M Turn ignition switch Disconnect tilt mot Supply tilt motor te (+)	IOTOR n OFF. or connector. erminals with battery v Terminal (-)	voltage and check	Operat		
CHECK SLIDING M Turn ignition switch Disconnect tilt mot Supply tilt motor te (+) 4	IOTOR n OFF. or connector. erminals with battery v Terminal (-) 3	voltage and check	· Operat Up	ion	
CHECK SLIDING M Turn ignition switch Disconnect tilt mot Supply tilt motor te (+) 4 3	IOTOR n OFF. or connector. erminals with battery v Terminal (-) 3 4	voltage and check	Operat	ion	
CHECK SLIDING M Turn ignition switch Disconnect tilt mot Supply tilt motor te (+) 4 3 <u>he inspection result</u> ES >> Tilt motor i O >> Replace ti	IOTOR n OFF. or connector. erminals with battery v Terminal (-) 3 4 normal? s OK.		Operat Up Dow	ion	
CHECK SLIDING M Turn ignition switch Disconnect tilt mot Supply tilt motor te (+) 4 3 <u>he inspection result</u> ES >> Tilt motor i O >> Replace ti	IOTOR n OFF. or connector. erminals with battery v Terminal (-) 3 (-) 3 4 <u>normal?</u> s OK. ilt motor. (Built in st		Operat Up Dow	ion n	
CHECK SLIDING M Turn ignition switch Disconnect tilt mot Supply tilt motor te (+) 4 3 <u>he inspection result</u> ES >> Tilt motor i O >> Replace ti	IOTOR n OFF. or connector. erminals with battery v Terminal (-) 3 (-) 3 4 <u>normal?</u> s OK. ilt motor. (Built in st		Operat Up Dow	ion n	

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC MOTOR

Description

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

Component Function Check

1.CHECK FUNCTION

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

	Description	
OFF		Stop
FR	Steering telescopic	Forward
RR		Backward
	FR	OFF FR Steering telescopic

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-134, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK TELESCOPIC MOTOR POWER SUPPLY

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

(+) Tilt & telescopic motor		(–) Co		dition	Voltage (V) (Approx.)
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		- Ground TELES		OFF	0
	1			FR (forward)	0
M40			TELESCOPIC MO-	RR (backward)	Battery voltage
M49			TOR	OFF	0
	2			FR (forward)	Battery voltage
				RR (backward)	0

Is the inspection result normal?

YES >> Replace telescopic motor. (Built in steering column assembly.) Refer to <u>ST-21. "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u>.

2. CHECK TELESCOPIC MOTOR CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000008163714

INEOID:000000008163715

INFOID:000000008163716

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

	sitioner control unit	i iii d	Tilt & telescopic motor	
Connector	Terminal	Connector	Terminal	Continuity
M52	36	M49	2	Eviated
IVI52	44	- WI49	1	Existed
. Check continuity be	tween automatic driv	ve positioner cor	ntrol unit harness conn	ector and ground.
Automatic dr	ive positioner control unit			Continuity
Connector	Termina	al	Ground	Continuity
M52	36			Not existed
s the inspection result r	44			
NO >> Replace tel	DTOR <u>ponent Inspection</u> ". <u>normal?</u> tomatic drive position escopic motor. (Built <u>xploded View</u> ".			moval and Installation". ST-21, "WITH ELECTR
CHECK SLIDING MC	OFF.			
. Turn ignition switch 2. Disconnect telescop	OFF.	pattery voltage a	nd check operation.	
 Turn ignition switch Disconnect telescop Supply telescopic m 	OFF. Dic motor connector. notor terminals with b Terminal	pattery voltage a		tion
 Turn ignition switch Disconnect telescop Supply telescopic m (+) 	OFF. bic motor connector. notor terminals with b Terminal (-)	pattery voltage a	Opera	
Turn ignition switch Disconnect telescop Supply telescopic m (+) 2	OFF. Dic motor connector. notor terminals with b Terminal (-) 1	battery voltage a	Opera	ard
 Turn ignition switch Disconnect telescop Supply telescopic m (+) 	OFF. Dic motor connector. motor terminals with b Terminal (-) 1 2 mormal?	battery voltage a	Opera	ard

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Description

INFOID:000000008163718

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

Component Function Check

INFOID:000000008163719

1. CHECK DOOR MIRROR MOTOR FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "DOOR MIRROR MOTOR LH" and "DOOR MIRROR MOTOR RH" in "Active test" mode using CONSULT.
- 3. Check the door mirror motor operation.

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-136, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000008163720

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

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

Is the inspection result normal?

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

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.

	Automatic drive po	sitioner control unit		Door mirror	(driver side)		
-	Connector	Terminal	Conr	nector	Terminal	- Continuity	
_		16		D3 7 5			
	M51	31	C			Existed	
		32			6		
	[Door mirror passenger s	de]					
	Automatic drive po	sitioner control unit	C	Door mirror (pa	assenger side)		
_	Connector	Terminal	Conr	nector	Terminal	Continuity	
		14		_	5		
	M51	15	D	33	6	Existed	
_		30			7		
	Check continuity be	etween automatic driv	e position	er control u	nit connector and g	ground.	
_	[Door mirror driver side]			1	1		
_	Automatic d	rive positioner control unit				Continuity	
_	Connector	Termina	al			,	
		16		0	Ground		
	M51	31				Not existed	
-		32					
_	[Door mirror passenger s	-					
_		rive positioner control unit		-		Continuity	
_	Connector	Termina	al				
	N	14		(Ground		
	M51	15		_		Not existed	
-		30					
N B.	O >> Repair or re CHECK DOOR MIR	tomatic drive position eplace harness. ROR MOTOR	ner control	unit. Refer	to <u>ADP-208, "Rem</u>	oval and Installation".	
	eck door mirror moto						
		nponent Inspection".					
	<u>he inspection result</u> ES >> GO TO 4.						
N		or mirror. Refer to MI	<u>R-36, "DC</u>	OR MIRRO	OR ASSEMBLY : R	emoval and Installation".	
1.	CHECK INTERMITT						
	fer to <u>GI-43, "Intermi</u>						
.e							
	>> INSPECTIO	ON END					
_	mponent Inspec	rtion				INFOID:00000008163721	
C							
	CHECK DOOR MIR					IN 012.00000000103721	

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to <u>MIR-35</u>, "DOOR MIRROR ASSEMBLY : Exploded View". А

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror.Refer to MIR-36, "DOOR MIRROR ASSEMBLY : Removal and Installation".

2. CHECK DOOR MIRROR MOTOR-II

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror connector.

3. Apply 12V to each power supply terminal of door mirror motor.

Connector	Ter	minal	Operational direction
Connector	(+)	(-)	
	7	6	RIGHT
D3 (Driver side)	6	7	LEFT
D3 (Driver side) D33 (Passenger side)	5	7	UP
	7	5	DOWN

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror. Refer to MIR-36, "DOOR MIRROR ASSEMBLY : Removal and Installation".

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description

INFOID:000000008163722

INFOID:000000008163723

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D

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

Component Function Check

1.CHECK FUNCTION

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

	Test item		Descripti	ion	
	OFF			OFF	
MEMORY SW INDCTR	ON-1	Memory switc	h indicator	Indicator 1: ON	
	ON-2			Indicator 2: ON	
the operation of relevation	ant parts normal?				
YES >> INSPECTIC					
		efer to <u>ADP-139, "Dia</u>	ignosis Procedur	<u>e"</u> .	
iagnosis Procedu	lre			INFOID:000000081637	
.CHECK MEMORY IN		SUPPLY			
heck voltage between			ad around		
neck vollage between	seat memory switch	namess connector a	la grouna.		
	(+)				
Sea	Seat memory switch		(-)	Voltage (V) (Approx.)	
Connector	Termina	al			
D5	5	(Ground	Battery voltage	
	[No.10 located in fus or open or short betw	veen memory indicate	or and fuse.		
	tic drive positioner co etween automatic dr	ontrol unit and seat m ive positioner contro		nector. nnector and seat memor	
Automatic drive positioner control unit		Seat mem	ory switch	Continuity	
Connector	Terminal	Connector	Terminal		
	12		6		
M51	12	D5	7	Existed	

 Automatic drive positioner control unit
 Continuity

 Connector
 Terminal

 M51
 12

 13
 Not existed

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace seat memory switch. Refer to <u>ADP-209</u>, "Removal and Installation".
- NO >> Repair or replace harness.

ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

NOTE:

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

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status	D
	Other than front wiper switch HI	Off	
FR WIPER HI	Front wiper switch HI	On	Е
	Other than front wiper switch LO	Off	
FR WIPER LOW	Front wiper switch LO	On	
	Front washer switch OFF	Off	F
FR WASHER SW	Front washer switch ON	On	
	Other than front wiper switch INT/AUTO	Off	G
FR WIPER INT	Front wiper switch INT/AUTO	On	
	Front wiper is not in STOP position	Off	
FR WIPER STOP	Front wiper is in STOP position	On	Н
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial posi- tion	
	Other than turn signal switch RH	Off	
TURN SIGNAL R	Turn signal switch RH	On	
	Other than turn signal switch LH	Off	AD
TURN SIGNAL L	Turn signal switch LH	On	
	Other than lighting switch 1ST and 2ND	Off	
TAIL LAMP SW	Lighting switch 1ST or 2ND	On	Κ
	Other than lighting switch HI	Off	
HI BEAM SW	Lighting switch HI	On	1
	Other than lighting switch 2ND	Off	
HEAD LAMP SW 1	Lighting switch 2ND	On	
	Other than lighting switch 2ND	Off	M
HEAD LAMP SW 2	Lighting switch 2ND	On	
	Other than lighting switch PASS	Off	N
PASSING SW	Lighting switch PASS	On	IN
	Other than lighting switch AUTO	Off	
AUTO LIGHT SW	Lighting switch AUTO	On	0
	Front fog lamp switch OFF	Off	
FR FOG SW	Front fog lamp switch ON	On	_
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off	Ρ
	Driver door closed	Off	
DOOR SW-DR	Driver door opened	On	
	Passenger door closed	Off	
DOOR SW-AS	Passenger door opened	On	

Revision: 2012 July

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В

INFOID:000000008788109

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
DOOR SW-RR	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-RL	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off
TR CANCEL SW	Trunk lid opener cancel switch ON	On
TR/BD OPEN SW	Trunk lid opener switch OFF	Off
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	On
TRNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
KKE-LOOK	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
INC-UNEOOK	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
	TRUNK OPEN button of the Intelligent Key is pressed	On
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simulta- neously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On

Revision: 2012 July

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off
REQ SW -DD/TR	Trunk lid opener request switch is pressed	On
	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
GN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
	The clutch pedal is not depressed	Off
CLUCH SW	The clutch pedal is depressed	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is nor- mal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	 Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models) 	Off
DETE/CANCL SW	 Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) 	On
	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
S/L -LOCK	NOTE: The item is indicated, but not monitored.	Off
S/L -UNLOCK	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-F/B	NOTE: The item is indicated, but not monitored.	Off
UNLK SEN -DR	Driver door is unlocked	Off
UNER OLIN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
GN RLY1 -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
	 Selector lever in any position other than P and N (Except M/T models) The clutch pedal is not depressed (M/T models) 	Off
SFT PN -IPDM	Selector lever in P or N positionThe clutch pedal is depressed	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
ENGINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Selector lever is in the P position except for M/T models)	Reset
	Ignition switch is ON	Set
	The engine start is prohibited	Reset
PRMT ENG STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
	The Intelligent Key is not inserted into key slot	Off
KEY SW -SLOT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	
	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
CONFRM ID ALL	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
	The key ID that the key slot receives is not recognized by the first key ID regis- tered to BCM.	Yet
CONFIRM ID1	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
1P 4	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
1P 3	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
IF 2	The ID of second Intelligent Key is registered to BCM	Done
TD 1	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
	ID of front LH tire transmitter is registered	Done
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet
	ID of front RH tire transmitter is registered	Done
ID REGST FR1	ID of front RH tire transmitter is not registered	Yet
	ID of rear RH tire transmitter is registered	Done
ID REGST RR1	ID of rear RH tire transmitter is not registered	Yet
	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

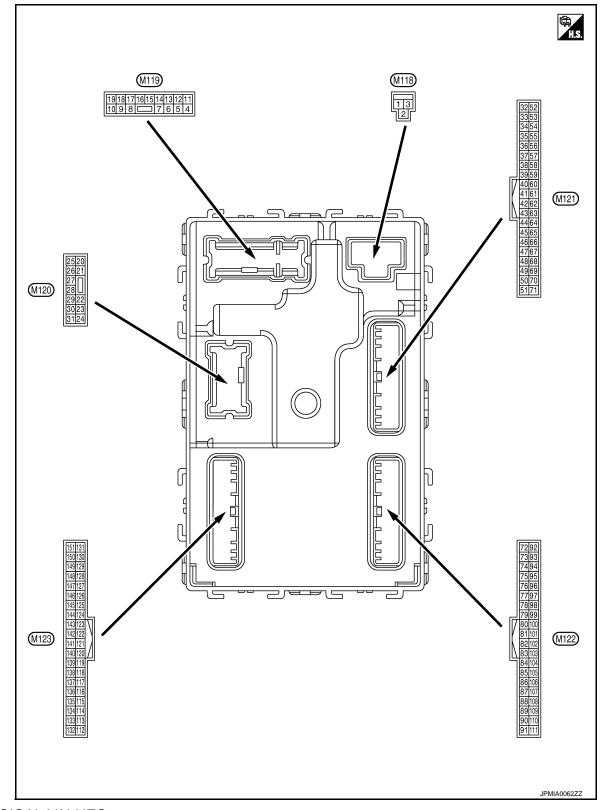
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< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description				Value
(vvire +	-	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (OFF	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (OFF	12 V
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch (NC	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V
5	Ground	Passenger door UN-	Output	Passenger	UNLOCK (Actuator is activated)	12 V
(P)	Ground	LOCK	Output	door	Other than UNLOCK (Ac- tuator is not activated)	0 V
7	Ground	Step lamp	Output	Step lamp	ON	0 V
(SB)	Ground		Output		OFF	12 V
8	Ground All doors, fuel lid	Output	All doors, fuel	LOCK (Actuator is activated)	12 V	
(V) Ground LOCK		lid	Other than LOCK (Actuator is not activated)	0 V		
9	Ground	Driver door, fuel lid	Output	ut Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK	Output		Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch (OFF	Battery voltage
13 (B)	Ground	Ground	—	Ignition switch (NC	0 V
					OFF	0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brighten- ing/dimming level is in the neutral position.
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(BG) Ground	2			ACC	0 V	

		Description				
(Wire +	color) –	Signal name	Input/ Output		Condition	Value (Approx.)
					Turn signal switch OFF	0 V
17 (W)	Ground	Turn signal RH (Front)	Output	lgnition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s 1 s 1 s 1 s 1 s 1 s 1 s 1 s
					Turn signal switch OFF	0 V
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 10 10 10 10 10 10 10 10 10
19 (V)	Ground	Interior room lamp control	Output	Interior room	OFF	12 V
(V)		Control		lamp	ON Turn signal switch OFF	0 V 0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	lgnition switch ON	Turn signal switch RH	(V) 15 10 15 15 15 15 15 15 15 15 15 15
23	Ground	Trunk lid open	Output	Truck lid	OPEN (Trunk lid opener actuator is activated)	12 V
(LG)	Ground		Output	Trunk lid	Other than OPEN (Trunk lid opener actuator is not activated)	0 V
					Turn signal switch OFF	0 V
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 10 10 10 10 10 10 10 10 10
30	Ground	Trunk room lamp	Output	Trunk room	ON	0 V
(P)	e.sund		- ciput	lamp	OFF	12 V

	Terminal No. Description (Wire color)					Value	Δ
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	А
34	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(SB)		()	Cutput	ut OFF	When Intelligent Key is not in the passenger compart- ment	(V) 10 5 0 1 s JMKIA0063GB	E F
35	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	G H I
(V)	Ciouna	(+)	Cupu	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	ADP K L
38	Ground	Rear bumper anten-	Output	When the trunk lid opener re-	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0062GB	M
(B)	Ground	na (–)	Cuput	quest switch is – operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	O P

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
39	Ground	Rear bumper anten-	When the trunk lid opener re-		When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 1 1 5 0 1 1 5 0 1 5 1	
(W)	Ciouna	na (+)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1	
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC ON	12 V 0 V	
50 (BG)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 0 10 10 ms JPMIA0011GB 11.8 V	
					ON (Trunk lid is opened)	0 V	
		Ground Starter relay control	Output	Ignition switch ON (A/T mod- els)	When selector lever is in P or N position	12 V	
52	Ground				When selector lever is not in P or N position	0 V	
(R)	Cround			Ignition switch	When the clutch pedal is depressed	Battery voltage	
				ON (M/T mod- els)	When the clutch pedal is not depressed	0 V	
60	Oneveral	Push-button ignition	la avat	Push-button ig-	Pressed	0 V	
(BR)	Ground	switch (Push switch)	Input	nition switch (Push switch)	Not pressed	Battery voltage	
					ON (Pressed)	0 V	
61 (SB)	Ground	Trunk lid opener re- quest switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 0 10 10 10 10 10 10 10 V	
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V	
(G)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V	

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description	1	-		Value	А	
+	-	Signal name	Input/ Output		Condition	(Approx.)	, ,	
					Pressed	0 V	В	
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Not pressed	(V) 15 0 5 0 10 ms JPMIA0011GB	C	
						11.8 V	_	
				Ignition switch		When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 • 1 s	F
72	72 (R) Ground	Room antenna 2 (–) (Center console)				JMKIA0062GB	G	
			Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 M	Η	
						JMKIA0063GB	A	
					When Intelligent Key is in the passenger compart-	(V) 15 10 5 0	K	
73		Room antenna 2 (+)		Ignition switch	ment	1 s JMKIA0062GB	L	
(G)	Ground	(Center console)	Output	OFF		(V)	N	
				When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ν		
						JMKIA0063GB	C	

	nal No.	Description				Value	
(Wire +	color) –	Signal name	Input/ Output		Condition	(Approx.)	
74	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 0 1 s JMKIA0062GB	
(SB)	Giouna	tenna (-)	Cutput	operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
75	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 15 10 15 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	
(BR)		tenna (+)	- Cuipai		When Intelligent Key is not in the antenna detection area	(V) 15 0 15 0 15 0 15 0 15 0 15 0 15 0 15	
76	Driver deer entenne	When the driv- er door request switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB			
(V)	Ground	()	Output	ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
77	Ground	Driver door antenna	Output	When the driv- er door request switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 0 1 s JMKIA0062GB	B C D
(LG)	Giouna	(+)	Cutput	ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E
78	Ground	Room antenna 1 (-)	Output	↓ Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(Y)		(Instrument panel)	Cupu	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	ADP K L
79	Ground	Room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15	M
(BR)	Ground	(Instrument panel)	Juput	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	O P

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (SB)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC ON	0 V 12 V
83	Remo	Remote keyless entry receiver communica-	Input/	During waiting		(V) 15 10 5 0 1 1 ms JMKIA0064GB
(Y)	Ground	tion	Output	When operating either button on the Intelli- gent Key		(V) 15 10 5 0 1 ms JMKIA0065GB
		Ind Combination switch Input	Input	Combination switch	All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
87 (Y)	Ground				Front fog lamp switch ON (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7	(V) 15 0 2 ms JPMIA0040GB 1.3 V

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 All switches OFF С (Wiper volume dial 4) 2 ms JPMIA0041GB D 1.4 V $(\setminus$ 15 10 Ε Lighting switch HI ٢ (Wiper volume dial 4) F 2 ms JPMIA0036GB 1.3 V Combination 88 Combination switch Ground Input (BG) **INPUT 3** switch 15 10 Н Lighting switch 2ND ٢ (Wiper volume dial 4) 2 ms JPMIA0037GB 1.3 V ADP 15 Any of the conditions be-10 low with all switches OFF ſ · Wiper volume dial 1 Κ · Wiper volume dial 2 · Wiper volume dial 3 2 ms JPMIA0040GB 1.3 V L 90 Input/ CAN-L Ground (P) Output Μ 91 Input/ Ground CAN-H ____ (L) Output OFF 12 V Ν (V 15 10 5 92 Key slot illumi-Key slot illumination Output Blinking Ground (LG) nation 1 s Ρ JPMIA0015GB 6.5 V ON 0 V OFF (LOCK indicator is Battery voltage 93 not illuminated) Ground ON indicator lamp Output Ignition switch (GR) ON 0 V

BCM (BODY CONTROL MODULE)

	nal No.	Description				Value
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BG)	Cround	-	output	Igridion official	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
		Selector lever P posi-		Solootor lover	P position	0 V
99		tion switch (A/T mod- els)		Selector lever	Any position other than P	12 V
(R)* ¹ Ground (BR)* ²	Ground	ASCD clutch switch	Input	ASCD clutch	OFF (Clutch pedal is de- pressed)	0 V
		(M/T models)		switch	ON (Clutch pedal is not depressed)	12 V
					ON (Pressed)	0 V
100 (Y)		Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 10 10 10 10 10 10 10 10 10	
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 0 10 10 ms JPMIA0016GB 1.0 V
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(BG)	Ground	lay control	Output	Ignition Switch	ON	12 V
103 (P)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch (DFF	12 V

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 Ō All switches OFF С 2 ms JPMIA0041GB D 1.4 V (V) 15 10 Ε 0 Turn signal switch LH F 2 ms JPMIA0037GB 1.3 V G (V 15 10 Combination Н 107 Combination switch switch Ground Input Turn signal switch RH 0 (LG) **INPUT 1** (Wiper volume dial 4) 2 ms JPMIA0036GB 1.3 V ADP (V 15 10 Ę 0 Front wiper switch LO Κ 2 ms JPMIA0038GB L 1.3 V (V 15 Μ 10 5 0 Front washer switch ON Ν 2 ms JPMIA0039GB 1.3 V Ο

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Revision: 2012 July

	nal No. color)	Description				Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	
108	Ground	Combination switch INPUT 4	Input	Combination	Lighting switch AUTO (Wiper volume dial 4)	(V) 15 10 2 ms JPMIA0038GB 1.3 V	
(R)				switch	Lighting switch 1ST (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	(V) 15 10 2 ms JPMIA0039GB 1.3 V	

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 ٢ All switches OFF С 2 m s JPMIA0041GB D 1.4 V (V) 15 10 Ε C Lighting switch PASS F 2 ms JPMIA0037GB 1.3 V G (V 15 10 Combination Н 109 Combination switch switch Lighting switch 2ND n Ground Input **INPUT 2** (W) (Wiper volume dial 4) 2 ms JPMIA0036GB 1.3 V ADP (V 15 10 Front wiper switch INT/ 0 Κ AUTO 2 ms JPMIA0038GB L 1.3 V (V 15 Μ 10 5 Front wiper switch HI 0 Ν 2 ms JPMIA0040GB 1.3 V Ο ON 0 V Ρ 10 110 Ground Hazard switch Input Hazard switch 5 (G) OFF 10 ms JPMIA0012GB 1.1 V

BCM (BODY CONTROL MODULE)

	nal No.	Description				Value
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)
112 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 10 10 10 10 10 10 10 10
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(BG)	Ground	Optical sensor	input	ON	When dark outside of the vehicle	Close to 0 V
114	Ground	Clutch interlock	Input	Input Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
(R)	(R) Ground switch	switch	Input		ON (Clutch pedal is de- pressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
	118	Stop lamp switch 2 (Without ICC)	- Input	Stop lamp	OFF (Brake pedal is not depressed)	0 V
118				switch	ON (Brake pedal is de- pressed)	Battery voltage
(BR)	Ground				h OFF (Brake pedal is not ICC brake hold relay OFF	0 V
		(With ICC)		Stop lamp switch ON (Brake pedal is de- pressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 10 10 10 11 J J J J J J J J J J J J J
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	Key slot switch	Input	When the Intellig	gent Key is inserted into key	12 V
(SB)	Ground	NEY SIDE SWILLI	input	When the Intellig key slot	gent Key is not inserted into	0 V
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(V)					ON	Battery voltage

	nal No.	Description				Value	٨
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms	B
					ON (Door open)	лрміаоо11GB 11.8 V 0 V	D
							Е
129 (BG)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB	F
						1.1 V	
					ON	0 V	
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch C	DN	(V) 15 0 10 10 10 10 10 10 10 10 10 10 10 10 1	H I ADI
				Ignition switch C	DFF or ACC	12 V	
					ON (Tail lamps OFF)	9.5 V	Κ
						NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level.	L
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps ON)	(V) 15 0 5 0 JPMIA0159GB	M
					OFF	0 V	
134	Ground	LOCK indicator lamp	Output	LOCK indicator	OFF	Battery voltage	0
(LG)		-	F	lamp	ON	0 V	
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch C	ON	0 V	Ρ
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V	
(V)		power supply		-	ACC or ON	5.0 V	

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
139		d Tire pressure receiv-	Input/	Input/ Ignition switch	Standby state	(V) 4 2 0 → 0.2s → 0.2s → 0.2s
(L)	Ground	er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 + 0.25 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0
140* ¹	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V
(B)	0.00.00	position	p.a.		Except P and N positions	0 V
141 (W)	Ground	Security indicator lamp	Output Security indica- tor lamp		ON Blinking	0 V
					OFF	12 V
142 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume dial 4)	All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND	0 V
					Turn signal switch RH	2 ms JPMIA0031GB 10.7 V
					All switches OFF (Wiper volume dial 4)	0 V
143 (P)	Ground	Ground Combination switch OUTPUT 1	Output	put Combination switch	Front wiper switch HI (Wiper volume dial 4) Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7	(V) 10 0 2 ms JPMIA0032GB 10.7 V

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value									
(vvire +		Signal name	Input/ Output	Condition		(Approx.)									
					All switches OFF (Wiper volume dial 4)	0 V									
					Front washer switch ON (Wiper volume dial 4)	$(\underline{v})_{[-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-$									
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions be- low with all switches OFF										
					Wiper volume dial 1Wiper volume dial 5Wiper volume dial 6	2 ms									
					All switches OFF	10.7 V 0 V									
					Front wiper switch INT/	0 V									
					AUTO	(V)									
145	0	Combination switch	0	Combination switch	Front wiper switch LO										
(L)	Ground		(Wiper volume dial 4)	Lighting switch AUTO	JPMIA0034GB										
						10.7 V									
					All switches OFF	0 V									
					Front fog lamp switch ON										
		round Combination switch		Combination	Lighting switch 2ND	(V) 15									
146	Ground		Output	switch	Lighting switch PASS										
(SB)		OUTPUT 4	dial 4)									(Wiper volume dial 4)	(wiper volume	Turn signal switch LH	0 2.ms 10.7 V
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 0 10 10 ms JPMIA0011GB									
						11.8 V									
					ON (Door open)	0 V									
151	Ground	Rear window defog-	Output	Rear window	Active	0 V									
(G)		ger relay control	r	defogger	Not activated	Battery voltage									

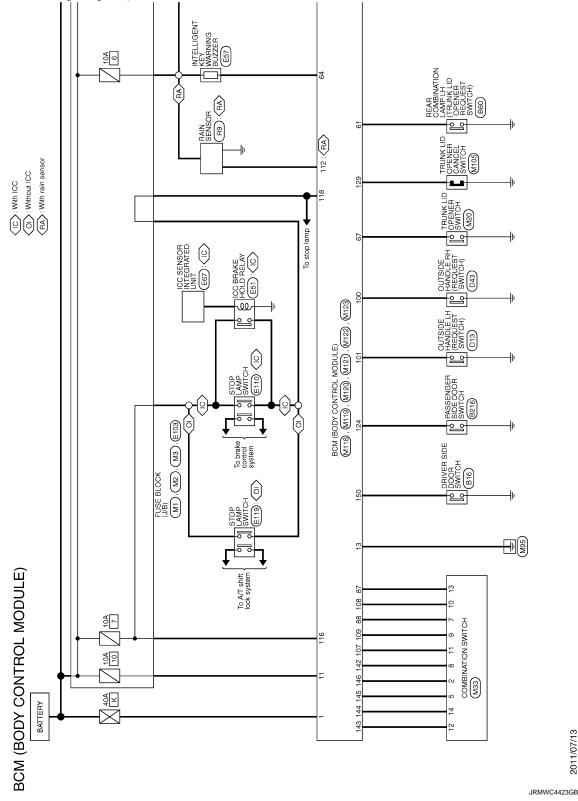
• *2: M/T models

< ECU DIAGNOSIS INFORMATION >

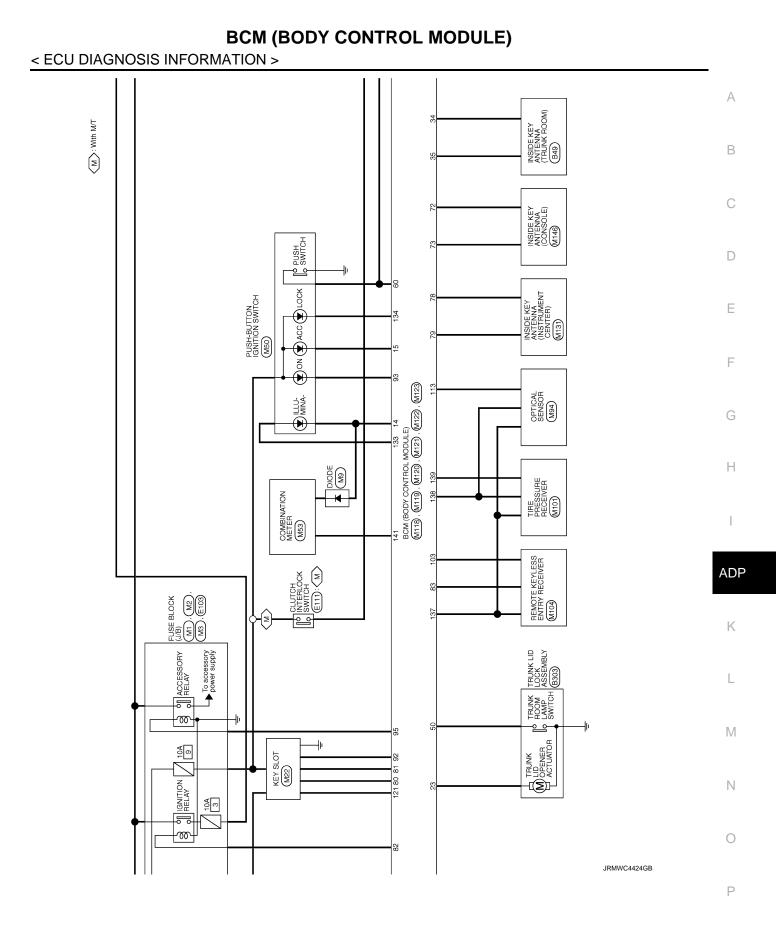
Wiring Diagram - BCM -

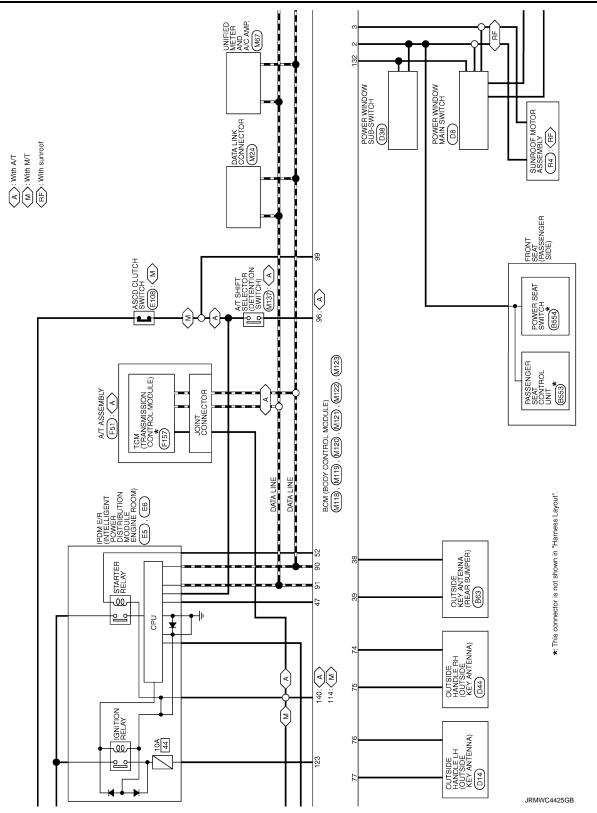
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For connector terminal arrangements, harness layouts, and alphabets in a 🗢 (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

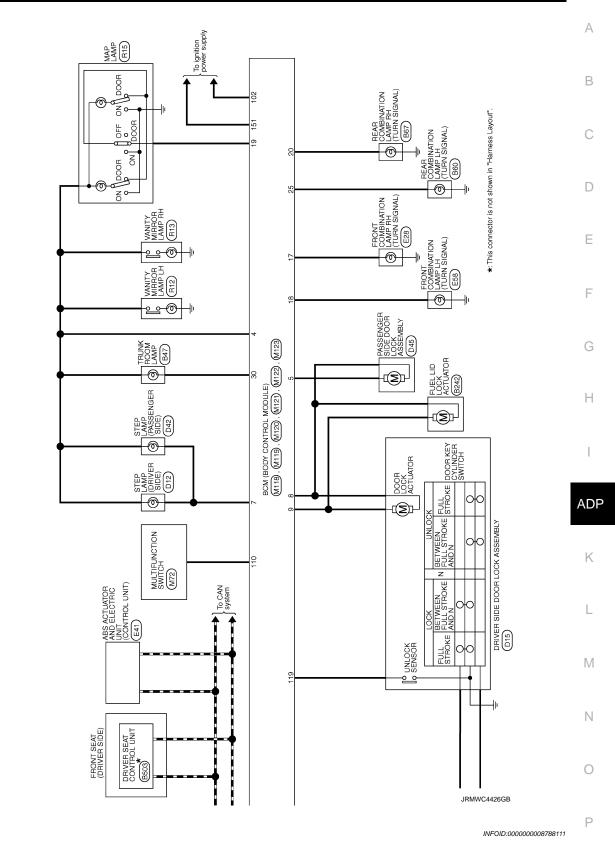


2011/07/13





< ECU DIAGNOSIS INFORMATION >



Fail-safe

FAIL-SAFE CONTROL BY DTC

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

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Display contents of CONSULT	Fail-safe	Cancellation		
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC		
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC		
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC		
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC		
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$		
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistentStarter control relay signalStarter relay status signal		
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN) 		
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (12 V) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) 		
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilledPower position changes to ACCReceives engine status signal (CAN)		
B2617: BCM	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal		
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal		
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization		
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage) 		

DTC Inspection Priority Chart

INFOID:000000008788112

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

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

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	B2553: IGNITION RELAY	A
	B2555: STOP LAMP	
	B2556: PUSH-BTN IGN SW	
	B2557: VEHICLE SPEED	В
	B2560: STARTER CONT RELAY	
	B2601: SHIFT POSITION	
	B2602: SHIFT POSITION	
	B2603: SHIFT POSI STATUS	С
	B2604: PNP/CLUTCH SW B2604: PNP/CLUTCH SW	
	B2605: PNP/CLUTCH SW	
	B2608: STARTER RELAY	D
4	B260A: IGNITION RELAY	D
	B260F: ENG STATE SIG LOST B2614: BCM	
	• B2615: BCM	
	• B2616: BCM	E
	• B2617: BCM	
	• B2618: BCM	
	B261A: PUSH-BTN IGN SW	_
	B261E: VEHICLE TYPE	F
	B26E8: CLUTCH SW	
	B26EA: KEY REGISTRATION	
	C1729: VHCL SPEED SIG ERR	G
	U0415: VEHICLE SPEED	0
	C1704: LOW PRESSURE FL	
	C1705: LOW PRESSURE FR	Н
	C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	
	C1708: [NO DATA] FL	
F	C1709: [NO DATA] FR C1740: [NO DATA] PR	
5	C1710: [NO DATA] RR C1711: [NO DATA] RI	
	 C1711: [NO DATA] RL C1716: [PRESSDATA ERR] FL 	
	C1710: [PRESSDATA ERR] FR C1717: [PRESSDATA ERR] FR	AD
	C1718: [PRESSDATA ERR] RR	AD
	C1719: [PRESSDATA ERR] RL	
	C1734: CONTROL UNIT	
	B2621: INSIDE ANTENNA	——————————————————————————————————————
6	B2622: INSIDE ANTENNA	
	B2623: INSIDE ANTENNA	

DTC Index

NOTE:

The details of time display are as follows.

CRNT: A malfunction is detected now.

• PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-16. "COM-</u> N <u>MON ITEM : CONSULT Function (BCM - COMMON ITEM)"</u>.

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	0
No DTC is detected. further testing may be required.	_	_	_	_		Ρ
U1000: CAN COMM	_	_			BCS-36	
U1010: CONTROL UNIT(CAN)	—	—	_	—	BCS-37	
U0415: VEHICLE SPEED	—	—	—	—	BCS-38	
B2190: NATS ANTENNA AMP	×	_			<u>SEC-51</u>	

INFOID:000000008788113

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CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
B2191: DIFFERENCE OF KEY	×	—	—	_	<u>SEC-54</u>
B2192: ID DISCORD BCM-ECM	×	—	—	—	<u>SEC-55</u>
B2193: CHAIN OF BCM-ECM	×	—	—	_	<u>SEC-57</u>
B2195: ANTI-SCANNING	×	—	—	_	<u>SEC-58</u>
B2553: IGNITION RELAY	_	×	—	_	PCS-48
B2555: STOP LAMP	_	×	—	_	<u>SEC-59</u>
B2556: PUSH-BTN IGN SW	_	×	×	_	<u>SEC-61</u>
B2557: VEHICLE SPEED	×	×	×	_	<u>SEC-63</u>
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-64</u>
B2562: LOW VOLTAGE	_	×		_	BCS-39
B2601: SHIFT POSITION	×	×	×		<u>SEC-65</u>
B2602: SHIFT POSITION	×	×	×		<u>SEC-68</u>
B2603: SHIFT POSI STATUS	×	×	×		<u>SEC-70</u>
B2604: PNP/CLUTCH SW	×	×	×		<u>SEC-73</u>
B2605: PNP/CLUTCH SW	×	×	×		<u>SEC-75</u>
B2608: STARTER RELAY	×	×	×		<u>SEC-77</u>
B260A: IGNITION RELAY	×	×	×		PCS-50
B260F: ENG STATE SIG LOST	×	×	×	_	<u>SEC-79</u>
B2614: BCM	_	×	×		PCS-52
B2615: BCM	_	×	×		PCS-54
B2616: BCM	_	×	×		PCS-56
B2617: BCM	×	×	×	_	<u>SEC-83</u>
B2618: BCM	×	×	×	_	PCS-58
B261A: PUSH-BTN IGN SW	_	×	×		PCS-59
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)		<u>SEC-85</u>
B2621: INSIDE ANTENNA	_	×			DLK-55
B2622: INSIDE ANTENNA	_	×	_		DLK-57
B2623: INSIDE ANTENNA	_	×			DLK-59
B26E8: CLUTCH SW	×	×	×		<u>SEC-80</u>
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)		<u>SEC-82</u>
C1704: LOW PRESSURE FL	_	_		×	
C1705: LOW PRESSURE FR		_		×	
C1706: LOW PRESSURE RR		_	_	×	<u>WT-19</u>
C1707: LOW PRESSURE RL		_	_	×	-
C1708: [NO DATA] FL		_		×	
C1709: [NO DATA] FR	_	_		×	-
C1710: [NO DATA] RR	_	— —		×	<u>WT-21</u>
C1711: [NO DATA] RL	_	_		×	-

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	A
C1716: [PRESSDATA ERR] FL	—	—	—	×		В
C1717: [PRESSDATA ERR] FR	—	—	—	×	WT-24	
C1718: [PRESSDATA ERR] RR	—	—	—	×	<u>VV1-24</u>	
C1719: [PRESSDATA ERR] RL	—	—	—	×		С
C1729: VHCL SPEED SIG ERR	—	—	_	×	<u>WT-25</u>	
C1734: CONTROL UNIT	—	—	—	×	<u>WT-26</u>	D

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< ECU DIAGNOSIS INFORMATION >

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER)

Reference Value

INFOID:000000008163730

VALUES ON THE DIAGNOSIS TOOL

NOTE:

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

CONSULT MONITOR ITEM

Monitor Item	Condit	ion	Value/Status
SET SW	Set switch	Push	ON
SET SW	Set Switch	Release	OFF
	Momory quitch 1	Push	ON
MEMORY SW1	Memory switch 1	Release	OFF
MEMORY SW2	Momory quitch 2	Push	ON
WEWORT SW2	Memory switch 2	Release	OFF
SLIDE SW-FR	Sliding switch (front)	Operate	ON
SLIDE SW-FR	Siding Switch (nonc)	Release	OFF
SLIDE SW-RR	Sliding switch (rear)	Operate	ON
SLIDE SW-RR	Sliding switch (rear)	Release	OFF
	Baclining outitab (front)	Operate	ON
RECLN SW-FR	Reclining switch (front)	Release	OFF
	Baclining quitch (rear)	Operate	ON
RECLN SW-RR	Reclining switch (rear)	Release	OFF
	Lifting quitch front (up)	Operate	ON
LIFT FR SW-UP	Lifting switch front (up)	Release	OFF
LIFT FR SW-DN	Lifting quitch front (down)	Operate	ON
	Lifting switch front (down)	Release	OFF
		Operate	ON
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF
		Operate	ON
LIFT RR SW-DN	Lifting switch rear (down)	Release	OFF
		Up	ON
MIR CON SW-UP	Mirror switch	Other than above	OFF
	Minner switch	Down	ON
MIR CON SW-DN	Mirror switch	Other than above	OFF
	Minner switch	Right	ON
MIR CON SW-RH	Mirror switch	Other than above	OFF
		Left	ON
MIR CON SW-LH	Mirror switch	Other than above	OFF
	Ohannan ital	Right	ON
MIR CHNG SW-R	Changeover switch	Other than above	OFF
		Left	ON
MIR CHNG SW-L	Changeover switch	Other than above	OFF
	Tile and take	Up	ON
TILT SW-UP	Tilt switch	Other than above	OFF

Monitor Item	Con	dition	Value/Status
TILT SW-DOWN	Tilt switch	Down	ON
		Other than above	OFF
TELESCO SW-FR	Telescopic switch	Forward	ON
		Other than above	OFF
TELESCO SW-RR	Tilt switch	Backward	ON
		Other than above	OFF
FORWARD SW	Seat back	Folded down	ON
		Other than above	OFF
WALK-IN SW	Power walk-in switch	Pressed	ON
-		Other than above	OFF
WD LIMIT SW	Seat sliding	Front edge	ON
-		Other than above	OFF
SEAT BELT SW	Seat belt	Fastened	ON
		Other than above	OFF
DETENT SW ^{*1}	A/T selector lever	P position	OFF
		Other than above	ON
PARK BRAKE SW ^{*2}	Parking brake	Applied	ON
		Release	OFF
STARTER SW	Ignition position	Cranking	ON
		Other than above	OFF
		Forward	The numeral value decreases *3
SLIDE PULSE	Seat sliding	Backward	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
		Forward	The numeral value decreases *3
RECLN PULSE	Seat reclining	Backward	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
		Up	The numeral value decreases *3
LIFT FR PULSE	Seat lifter (front)	Down	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
		Up	The numeral value decreases *3
LIFT RR PULSE	Seat lifter (rear)	Down	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
MIR/SEN RH U-D	Door mirror (passenger s	side)	Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN RH R-L	Door mirror (passenger s	side)	Change between 3.4 (close to left edge) 0.6 (close to right edge)
MIR/SEN LH U-D	Door mirror (driver side)		Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN LH R-L	Door mirror (driver side)		Change between 0.6 (close to left edge) 3.4 (close to right edge)
TILT SEN	Tilt position		Change between 1.2 (close to top) 3.4 (close to bottom)
TELESCO SEN	Telescopic position		Change between 3.4 (close to top) 0.8 (close to bottom)

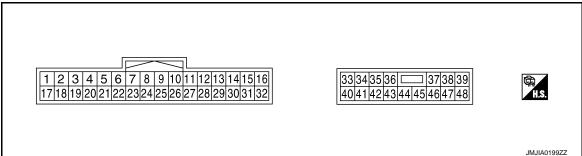
< ECU DIAGNOSIS INFORMATION >

*1: A/T model

*2: M/T model

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

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description				Voltage (V)	
+	-	Signal name	Input/ Out- put	Con	dition	(Approx)	
1 (L/W)	Ground	UART communica- tion (RX)	Input	Ignition switch ON		2mSec/div	
3 (R/Y)	_	CAN-H		_		_	
4		Sliding limit switch	Se Se		Seat sliding front edge		0
4 (O/B)	Ground		signal	Input	Seat switch & pow pressed	er walk-in switch is	5
5	Ground	Seat belt buckle switch signal (driv-	Input	Seat belt fastened pressed	1 & seat switch	5	
(L)		er side)		Other than above		0	
8	Ground	Parking brake	Input	Parking brake	Applied	0	
(L/Y)	Giouna	switch signal	input	Faiking blake	Release	Battery voltage	
9 (W/G)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	10mSec/div	
					Stop	0 or 5	

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Voltage (V)
+	-	Signal name	Input/ Out- put	Condition		Voltage (V) (Approx)
10 (P/B)	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	10mSec/div
					Stop	0 or 5
11 (BR)	Ground	Sliding switch backward signal	Input	Sliding switch	Operate (backward)	0
					Release	Battery voltage
12	Ground	Reclining switch backward signal	Input	Reclining switch	Operate (backward)	0
(SB)	2.00110				Release	Battery voltage
13	Ground	Lifting switch (front) downward signal	Input	Lifting switch (front)	Operate (downward)	0
(LG/R)	-				Release	Battery voltage
14 (G/B)	Ground	Lifting switch (rear) downward signal	Input	Lifting switch (rear)	Operate (downward)	0
(0/D)					Release	Battery voltage
16 (O)	Ground	Sensor power sup- ply	Out- put	-	_	Battery voltage
17 (Y/R)	Ground	UART communica- tion (TX)	Out- put	Ignition switch ON	I	10mSec/div
19 (V)	_	CAN-L	—	-	_	_
					P position	0
21 (L/Y)	Ground	Detention switch switch	Input	A/T selector le- ver	Except P position	20mSec/div
24 (R)	Ground	Sliding sensor sig- nal	Input	Seat sliding	Operate	10mSec/div
					Stop	0 or 5

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description					
+	-	Signal name	Input/ Out- put	Con	dition	Voltage (V) (Approx)	
25 (Y/B)	Ground	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	10mSec/div	
					Stop Operate	0 or 5	
26 (Y)	Ground	Sliding switch for- ward signal	Input	Sliding switch	(forward)	0	
					Release	Battery voltage	
27	Ground	Reclining switch	Input	Reclining switch	Operate (forward)	0	
(R/G)		forward signal		0	Release	Battery voltage	
28 (W/B)	Ground	Lifting switch (front) upward signal	Input	Seat lifting switch (front)	Operate (upward)	0	
(11)		upward Signal		(nont)	Release	Battery voltage	
29 (P/L)	Ground	Lifting switch (rear) upward signal	Input	Seat lifting switch (rear)	Operate (upward)	0	
(()	Release	Battery voltage	
30 (P)	Ground	Power walk-in switch signal	Input	Power walk-in switch	Pressed Other than above	0 Battery voltage	
31		-			Other than above		
(GR)	Ground	Sensor ground		-	_	0	
32 (B/W)	Ground	Ground (signal)	—	-	_	0	
33 (R)	Ground	Power source (C/B)	Input	-	_	Battery voltage	
35 (W/R)	Ground	Sliding motor for- ward output	Out- put	Seat sliding	Operate (forward)	Battery voltage	
()			P		Release	0	
36 (G/Y)	Ground	Reclining motor for- ward output signal	Out- put	Seat reclining	Operate (forward)	Battery voltage	
(P **		Release	0	
37 (G/W)	Ground	Lifting motor (front) downward output	Out- put	Seat lifting (front)	Operate (downward)	Battery voltage	
		•	-		Stop	0	
38 (L/Y)	Ground	Lifting motor (rear) upward output	Out- put	Seat lifting (rear)	Operate (upward)	Battery voltage	
			-		Stop	0	
39 (R/B)	Ground	Lifting motor (rear) downward output	Out- put	Seat lifting (rear)	Operate (downward)	Battery voltage	
		Device course			Stop	0	
40 (R/W)	Ground	Power source (Fuse)	Input	-	_	Battery voltage	

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Voltage (V)
+	-	Signal name	Input/ Out- put	Conc	lition	(Approx)
41 (Y/G)		Forward switch sig- nal	Input	Seat back is folded down and power walk-in switch pressed		0
	Ground			Seat back is fold up and seat reclin- ing is operation		battery voltage
				Seat back is fold up and power walk- in switch is pressed		5
42 (W)	Ground	Sliding motor back- ward output	Out- put	Seat sliding	Operate (backward)	Battery voltage
					Stop	0
44 (P) Gr	Ground	Reclining motor backward output	Out- put	Seat reclining	Operate (backward)	Battery voltage
					Stop	0
45 (L/R)	Ground	Lifting motor (front) upward output	Out- put	Seat lifting (front)	Operate (upward)	Battery voltage
					Stop	0
48 (B)	Ground	Ground (power)	_		-	0

ADP

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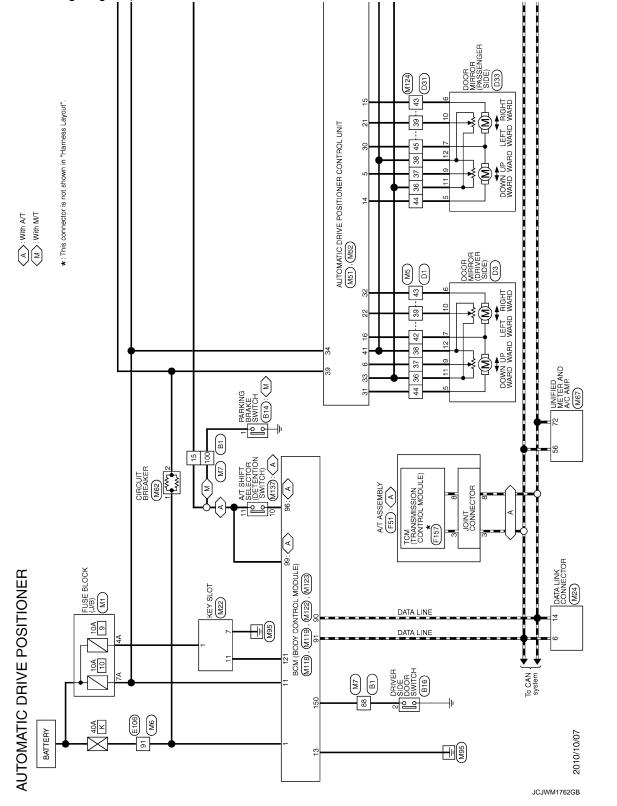
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< ECU DIAGNOSIS INFORMATION >

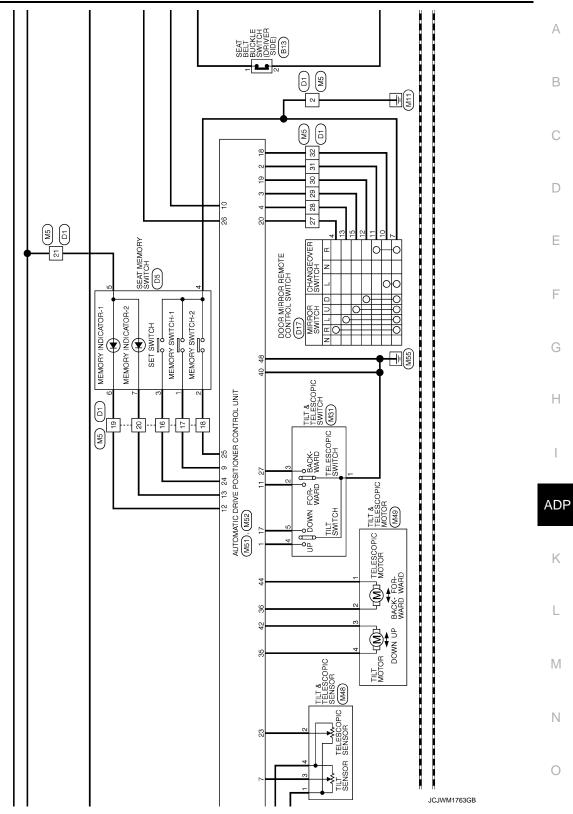
Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -

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

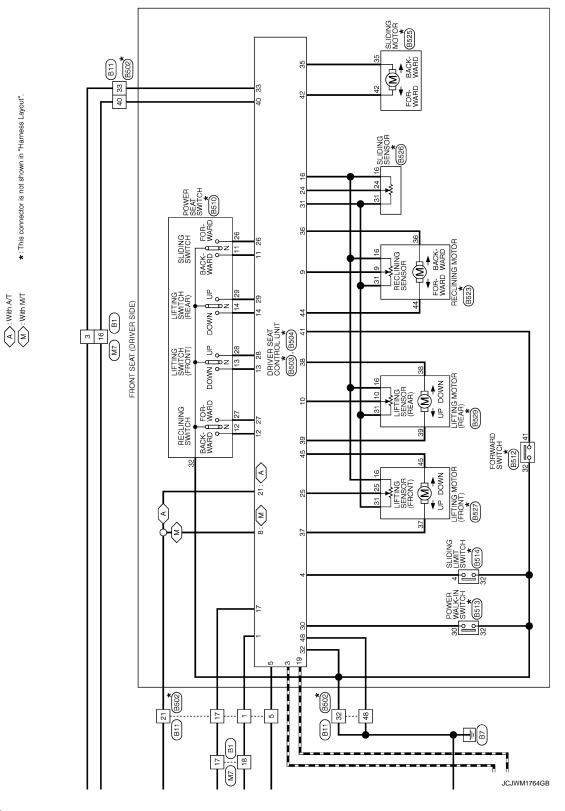


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< ECU DIAGNOSIS INFORMATION >



< ECU DIAGNOSIS INFORMATION >



Fail Safe

INFOID:000000008163732

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

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER)

< ECU DIAGNOSIS INFORMATION >

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
	0.00	U1000	With ADP: <u>ADP-48</u>
Only manual functions operate normally.	CAN communication*1	01000	Without ADP: <u>ADP-48</u>
	Tilt sensor ^{*1} Telescopic sensor	B2118	With ADP: ADP-53
			Without ADP: <u>ADP-53</u>
		B2119	ADP-56
	Detent switch	B2126	ADP-59
	Parking brake switch	B2127	<u>ADP-61</u>
Only manual functions, except door mirror, operate normally.	UART communication	B2128	<u>ADP-63</u>
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	<u>ADP-49</u>
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	<u>ADP-51</u>

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

DTC Index

INFOID:000000008163733

CONSULT	Tim	ing ^{*1}		
display	Current mal- function	Previous mal- function	Item	Reference page
CAN COMM CIRCUIT*2	0	1-39	CAN communication	With ADP: <u>ADP-48</u>
[U1000]	0			Without ADP: <u>ADP-48</u>
SEAT SLIDE*2	0	4.00		With ADP: <u>ADP-49</u>
[B2112]	0	1-39	Seat slide motor output	Without ADP: <u>ADP-49</u>
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	<u>ADP-51</u>
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	<u>ADP-53</u>
TELESCO SENSOR [B2119]	0	1-39	Telescopic sensor input	<u>ADP-56</u>
DETENT SW ^{*2} [B2126]	0	1-39	Detention switch condition	<u>ADP-59</u>
PARKING BRAKE [B2127]	0	1-39	Parking brake switch condition	<u>ADP-61</u>
UART COMM [B2128]	0	1-39	UART communication	<u>ADP-63</u>

*1.

• 0: Current malfunction is present

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

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

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< ECU DIAGNOSIS INFORMATION >

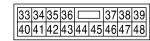
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

INFOID:000000008163734

TERMINAL LAYOUT







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PHYSICAL VALUES

	nal No. e color)	Description		Conditi	on	Voltage (V)
+	-	Signal name	Input/ Output	Conditi	UII	(Approx.)
1	Ground	Tilt switch upward signal	Input	Tilt switch	Operate (upward)	0
(Y)	Cround	The switch upward signal	mput		Other than above	5
2		Changeover switch RH		Changeover	RH	0
(LG)	Ground	signal	Input	switch position	Neutral or LH	5
3	Ground	Mirror switch upward sig-	Input	Mirror switch	Operated (upward)	0
(G)	Ground	nal	input	MITOL SWICH	Other than above	5
4	Ground	Mirror switch leftward sig-	Innut	Mirror owitch	Operated (leftward)	0
(Y)	Giouna	nal	Input	Mirror switch	Other than above	5
5 (R)	Ground	Door mirror sensor (RH) upward/downward signal	Input	Mirror face (door m	hirror RH)	Change between 3.4 (close to peak) 0.6 (close to valley)
6 (GR)	Ground	Door mirror sensor (LH) upward/downward signal	Input	Mirror face (door m	hirror LH)	Change between 3.4 (close to peak) 0.6 (close to valley)
7 (BG)	Ground	Tilt sensor signal	Input	Tilt position		Change between 1.2 (close to top) 3.8 (close to bottom)
9					Press	0
(BR)	Ground	Memory switch 1 signal	Input	Memory switch 1	Other than above	5
10 (V)	Ground	UART communication (TX)	Output	Ignition switch ON		2mSec/div

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Conditi	22	Voltage (V)
+	-	Signal name	Input/ Output	Conditio	ווע	(Approx.)
11	Ground	Telescopic switch forward	Input	Telescopic switch	Operate (forward)	0
(GR)	Ground	signal	input		Other than above	5
12					Illuminate	1
(BG)	Ground	Memory indictor 1 signal	Output	Memory indictor 1	Other than above	Battery voltage
13					Illuminate	1
(P)	Ground	Memory indictor 2 signal	Output	Memory indictor 2	Other than above	Battery voltage
14	Ground	Door mirror motor (RH)	Output	Door mirror RH	Operate (upward)	Battery voltage
(W)	Cround	upward output	Output		Other than above	0
15	Ground	Door mirror motor (RH)	Output	Door mirror RH	Operate (leftward)	Battery voltage
(BG)	Ground	leftward output	Output		Other than above	0
		Door mirror motor (LH)			Operate (down- ward)	Battery voltage
16	Ground	downward output	Output	_	Other than above	0
(Y)		Door mirror motor (LH)			Operate (rightward)	Battery voltage
		rightward output			Other than above	0
17 (BR)	Ground	Tilt switch downward sig- nal	Input	Tilt switch	Operate (down- ward)	0
(DIX)					Other than above	5
18		Changeover switch LH		Changeover	LH	0
(W)	Ground	signal	Input	switch position	Neutral or RH	5
19 (SB)	Ground	Mirror switch downward signal	Input	Mirror switch	Operate (down- ward)	0
(36)		Sigirai			Other than above	5
20	0	Mirror switch rightward	1	Minnen	Operate (rightward)	0
(L)	Ground	signal	Input	Mirror switch	Other than above	5
21 (L)	Ground	Door mirror sensor (RH) leftward/rightward signal	Input	Door mirror RH po	sition	Change between 3.4 (close to left edge) 0.6 (close to right edge)
22 (B)	Ground	Door mirror sensor (LH) leftward/rightward signal	Input	Door mirror LH pos	sition	Change between 0.6 (close to left edge) 3.4 (close to right edge)
23 (P)	Ground	Telescopic sensor signal	Input	Telescopic position		Change between 0.8 (close to top) 4.4 (close to bottom)

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Conditio		Voltage (V)
+	_	Signal name	Input/ Output	Conditio		(Approx.)
24 (R)	Ground	Set switch signal	Input	Set switch	Press Other than above	0 5
25 (V)	Ground	Memory switch 2 signal	Input	Memory switch 2	Press Other than above	0 5
26 (P)	Ground	UART communication (RX)	Input	Ignition switch ON		10mSec/div
27 (G)	Ground	Telescopic switch back- ward signal	Input	Telescopic switch	Operate (backward) Other than	0
					above Operate	5
		Door mirror motor (RH) downward output			(down- ward)	Battery voltage
30 (SB)	Ground		Output	Door mirror (RH)	Other than above	0
()		Door mirror motor (RH)			Operate (rightward)	Battery voltage
		rightward output			Other than above	0
31	Ground	Door mirror motor (LH)	Output	Door mirror (LH)	Operate (upward)	Battery voltage
(G)	Cround	upward output	Output		Other than above	0
32	Ground	Door mirror motor (LH)	Output	Door mirror (LH)	Operate (leftward)	Battery voltage
(L)	Ground	leftward output	Output		Other than above	0
33 (W)	Ground	Sensor power supply	Input	_		5
34 (V)	Ground	Power source (Fuse)	Input			Battery voltage
35	Ground	Tilt motor upward output	Outrout	Steering tilt	Operate (upward)	Battery voltage
(L)	Giouna		Output	Steering th	Other than above	0
36	Cround	Telescopic motor forward	Quitout	Steering telescop-	Operate (forward)	Battery voltage
(GR)	Ground	output signal	Output	ic	Other than above	0
39 (W)	Ground	Power source (C/B)	Input			Battery voltage
40 (B)	Ground	Ground				0

< ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description		Condition		Voltage (V)
+	-	Signal name	Input/ Output	Condition		(Approx.)
41 (Y)	Ground	Sensor ground	_	_		0
42 (BG)	Ground	Tilt motor downward out-	Output	Steering tilt	Operate (down- ward)	Battery voltage
(DG)		put			Other than above	0
44	Ground	Telescopic motor back-	Output	Steering telescop-	Operate (backward)	Battery voltage
(G)	Ground	ward output	Output	ic	Other than above	0
48 (B)	Ground	Ground	_	_		0

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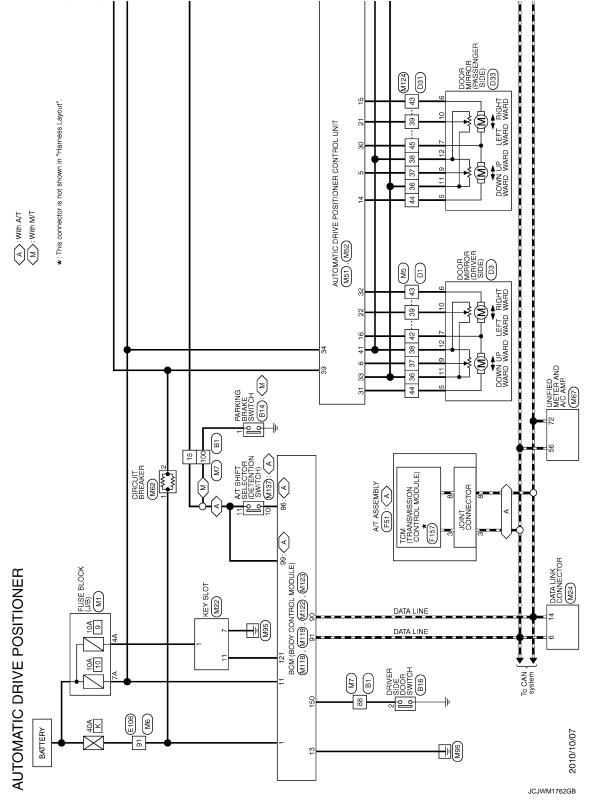
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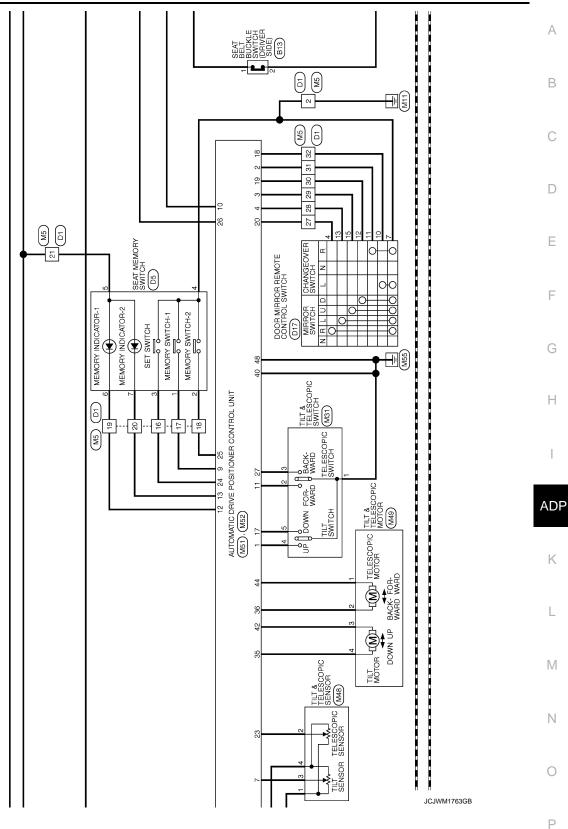
Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -

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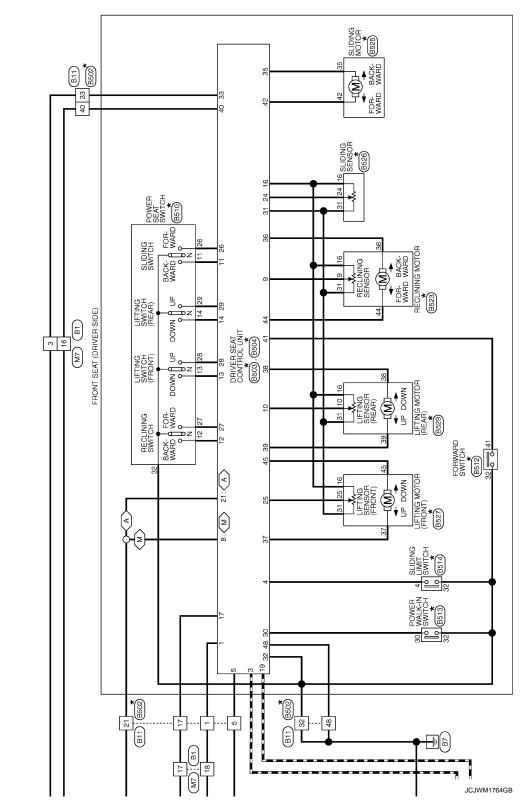
For connector terminal arrangements, harness layouts, and alphabets in a \bigcirc (option abbreviation; if not described in wiring diagram), refer to <u>GI-12, "Connector Information"</u>.



< ECU DIAGNOSIS INFORMATION >



AUTOMATIC DRIVE POSITIONER CONTROL UNIT < ECU DIAGNOSIS INFORMATION >



th A/T *****: This connector is not shown in "Harness Layout".

A): With A/T M): With M/T

MANUAL FUNCTION DOES NOT OPERATE < SYMPTOM DIAGNOSIS >	
SYMPTOM DIAGNOSIS	
MANUAL FUNCTION DOES NOT OPERATE	A
ALL COMPONENT	
ALL COMPONENT : Description	INFOID:000000008163736
All functions do not operate when manually operated. (power seat, tilt & telescopic, and door mi	rror. C
ALL COMPONENT : Diagnosis Procedure	INFOID:000000008163737
1. CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT	D
Check driver seat control unit power supply and ground circuit. Refer to <u>ADP-64</u> , " <u>DRIVER SEAT CONTROL UNIT</u> : <u>Diagnosis Procedure</u> ". <u>Is the inspection result normal?</u> YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	E
2. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT POWER SUPPLY AND GROU	UND CIRCUIT
Check automatic drive positioner control unit power supply and ground circuit. Refer to <u>ADP-65</u> , " <u>AUTOMATIC DRIVE POSITIONER CONTROL UNIT</u> : <u>Diagnosis</u> <u>Procedure</u> <u>Is the inspection result normal?</u>	<mark></mark> G
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	Н
3.CONFIRM THE OPERATION	
Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1. POWER SEAT	ADP
POWER SEAT : Description	INFOID:000000008163738
Power seat does not operate when manually operated.	i x
POWER SEAT : Diagnosis Procedure	INFOID:000000008163739
1. CHECK POWER SEAT SWITCH GROUND CIRCUIT	
Check power seat switch ground circuit. Refer to <u>ADP-95, "Diagnosis Procedure"</u> .	Μ
<u>Is the inspection result normal?</u> YES >> GO TO 2.	Ν
NO >> Repair or replace harness or connector. 2.CONFIRM THE OPERATION	1.4
Confirm the operation again.	0
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1.	Р
STEERING POSITION FUNCTION DOES NOT OPERATE	
STEERING POSITION FUNCTION DOES NOT OPERATE : Description	INFOID:000000008163740
Tilt & telescopic do not operate when manually operated.	

< SYMPTOM DIAGNOSIS >

STEERING POSITION FUNCTION DOES NOT OPERATE : Diagnosis Procedure

INFOID:000000008163741 1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT Check tilt & telescopic switch ground circuit. Refer to ADP-96, "Diagnosis Procedure". Is the inspection result normal? >> GO TO 2. YES NO >> Repair or replace harness or connector. 2.confirm the operation Confirm the operation again. Is the result normal? >> Check intermittent incident. Refer to GI-43, "Intermittent Incident". YES NO >> GO TO 1. SEAT SLIDING SEAT SLIDING : Description INFOID:000000008163742 Seat sliding alone does not operate when manually operated. SEAT SLIDING : Diagnosis Procedure INFOID:000000008163743 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? >> GO TO 2. YES NO >> Repair or replace the malfunctioning parts. 2.CHECK SLIDING SWITCH Check sliding switch. Refer to ADP-67, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. ${f 3.}$ CHECK SLIDING MOTOR Check sliding motor. Refer to ADP-124, "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-43, "Intermittent Incident". >> GO TO 1. NO SEAT RECLINING SEAT RECLINING : Description INFOID:000000008163744 Seat reclining only does not operate when manually operated.

ADP-190

< SYMPTOM DIAGNOSIS >		
SEAT RECLINING : Diagnosis Procedure	INFOID:00000008163745	٨
1.CHECK RECLINING MECHANISM		A
 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. 		B C
NO >> Repair or replace the malfunctioning parts.		
2.CHECK RECLINING SWITCH		D
Check reclining switch. Refer to <u>ADP-104</u> , "Component Function Check". <u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.		E
3. CHECK RECLINING MOTOR		F
Check reclining motor. Refer to <u>ADP-126</u> , "Component Function Check". <u>Is the inspection result normal?</u> YES >> GO TO 4.		G
NO >> Repair or replace the malfunctioning parts. 4.CONFIRM THE OPERATION		Н
Check the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1. SEAT LIFTING (FRONT)		 ADI
SEAT LIFTING (FRONT) : Description	INFOID:00000008163746	
Seat lifting (front) only does not operate when manually operated.		Κ
SEAT LIFTING (FRONT) : Diagnosis Procedure	INFOID:00000008163747	
1. CHECK LIFTING (FRONT) MECHANISM		L
 Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. Is the inspection result normal? 		Μ
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.		Ν
2.CHECK LIFTING SWITCH (FRONT)		\cap
Check lifting switch (front). Refer to <u>ADP-71, "Component Function Check"</u> .		0
Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.		Ρ
3. CHECK LIFTING MOTOR (FRONT)		
Check lifting motor (front). Refer to <u>ADP-128</u> , " <u>Component Function Check</u> ".		

Is the inspection result normal?

MANUAL FUNCTION DOES NOT OPER	ATE
< 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 <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1.	
SEAT LIFTING (REAR)	
SEAT LIFTING (REAR) : Description	INFOID:000000008163748
Seat lifting (rear) only does not operate when manually operated.	
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:000000008163749
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-73, "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-130, "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. <u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".	
NO >> GO TO 1.	
STEERING TILT	
STEERING TILT : Description	INFOID:000000008163750
Steering tilt only does not operate when manually operated.	
STEERING TILT : Diagnosis Procedure	INFOID:00000008163751
1.CHECK STEERING TILT MECHANISM	
Check for the following.	
 Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 	
Is the inspection result normal?	
YES >> GO TO 2.	

NO >> Repair or replace the malfunctioning parts.	
2.CHECK TILT SWITCH	А
Check tilt switch.	
Refer to <u>ADP-83. "Component Function Check"</u> . <u>Is the inspection result normal?</u>	В
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	С
3.CHECK TILT MOTOR	0
Check tilt motor.	_
Refer to <u>ADP-132, "Component Function Check"</u> .	D
Is the inspection result normal? YES >> GO TO 4.	
NO >> Repair or replace the malfunctioning parts.	E
4. CONFIRM THE OPERATION	
Check the operation again.	F
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1.	
NO >> GO TO 1. STEERING TELESCOPIC	G
STEERING TELESCOPIC : Description	Н
Steering telescopic only does not operate when manually operated.	
STEERING TELESCOPIC : Diagnosis Procedure	1
1.CHECK STEERING TELESCOPIC MECHANISM	
Check for the following.	ADF
 Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 	
Is the inspection result normal?	K
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	
2.CHECK TELESCOPIC SWITCH	L
2.CHECK TELESCOPIC SWITCH Check telescopic switch.	L
2.CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to <u>ADP-85, "Component Function Check"</u> .	L
2.CHECK TELESCOPIC SWITCH Check telescopic switch.	L
2.CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to <u>ADP-85. "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
2.CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to <u>ADP-85. "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 3.	L M
2.CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to <u>ADP-85. "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	Ν
2.CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to <u>ADP-85</u> . "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK TELESCOPIC MOTOR Check telescopic motor.	
2.CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to <u>ADP-85</u> , "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to <u>ADP-134</u> , "Component Function Check". Is the inspection result normal? YES >> GO TO 4.	N
2. CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to ADP-85, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-134, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	Ν
2. CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to ADP-85. "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-134, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CONFIRM THE OPERATION	N
2. CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to ADP-85, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-134, "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.	N
2. CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to ADP-85. "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-134, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CONFIRM THE OPERATION	N
2.CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to <u>ADP-85. "Component Function Check"</u> . Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to <u>ADP-134. "Component Function Check"</u> . 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?	N

MANUAL FUNCTION DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	
DOOR MIRROR : Description	INFOID:000000008163754
Door mirror does not operate when manually operated.	
DOOR MIRROR : Diagnosis Procedure	INFOID:000000008163755
1. CHECK DOOR MIRROR MECHANISM	
 Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2. CHECK MIRROR SWITCH	
Check mirror switch. Refer to <u>ADP-90, "MIRROR SWITCH : Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
3. CHECK MIRROR MOTOR	
Check mirror motor. Refer to <u>ADP-136, "Component Function Check"</u> .	
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 <u>GI-43, "Intermittent Incident"</u>.
- NO >> GO TO 1.

<pre></pre>	
MEMORY FUNCTION DOES NOT OPERATE	
ALL COMPONENT	
ALL COMPONENT : Description	INFOID:000000008163756
All functions do not operate when memory operated. (power seat, tilt & telescopic, and door m	irror)
ALL COMPONENT : Diagnosis Procedure	INFOID:000000008163757
1. CHECK MANUAL OPERATION	
Check manual operation.	
Is the inspection result normal? YES >> GO TO 2.	
YES >> GO TO 2. NO >> Refer to <u>ADP-189, "ALL COMPONENT : Diagnosis Procedure"</u>	
2. PERFORM MEMORY STORING PROCEDURE	
Perform memory storing procedure. Refer to ADP-10, "MEMORY STORING : Special Repair Requirement".	
Is the inspection result normal?	
YES >> Memory function is normal.	
NO >> GO TO 3.	
3.CHECK SEAT MEMORY SWITCH	
Check seat memory switch. Refer to <u>ADP-87, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 4. NO >> Replace seat memory switch.	
4. CHECK DETENTION SWITCH	
Check detention switch.	
Refer to <u>ADP-97, "Component Function Check"</u> .	-
Is the inspection result normal? YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.	
5.CONFIRM THE OPERATION	
Confirm the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1.	
SEAT SLIDING	
SEAT SLIDING : Description	INFOID:000000008163758
Seat sliding only does not operate when memory operated.	
SEAT SLIDING : Diagnosis Procedure	INFOID:000000008163759
1. CHECK MANUAL OPERATION	
Check manual operation.	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Refer to <u>ADP-190, "SEAT SLIDING : Diagnosis Procedure"</u>	
2. CHECK SLIDING SENSOR	

Check sliding sensor. Revision: 2012 July

MEMORY FUNCTION DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	
Refer to <u>ADP-101, "Component Function Check"</u> .	
<u>Is the inspection result normal?</u> 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 <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1.	
SEAT RECLINING	
SEAT RECLINING : Description	INFOID:000000008163760
Seat reclining only does not operate when memory operated.	
SEAT RECLINING : Diagnosis Procedure	INFOID:00000008163761
1.CHECK MANUAL OPERATION	
Check manual operation.	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Refer to <u>ADP-191, "SEAT RECLINING : Diagnosis Procedure"</u>	
2.CHECK RECLINING SENSOR	
Check reclining sensor. Refer to <u>ADP-104, "Component Function Check"</u> .	
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 <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1. SEAT LIFTING (FRONT)	
SEAT LIFTING (FRONT) : Description	INFOID:000000008163762
Seat lifting (front) only does not operate when memory operated.	
SEAT LIFTING (FRONT) : Diagnosis Procedure	
	INFOID:000000008163763
1.CHECK MANUAL OPERATION	
Check manual operation.	
<u>Is the inspection result normal?</u> YES >> GO TO 2.	
NO >> Refer to <u>ADP-191, "SEAT LIFTING (FRONT) : Diagnosis Procedure"</u>	
2.CHECK LIFTING SENSOR (FRONT)	
Check lifting sensor (front).	
Refer to <u>ADP-107, "Component Function Check"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	

< SYMPTOM DIAGNOSIS >	
3. CONFIRM THE OPERATION	
Check the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1.	
SEAT LIFTING (REAR)	
SEAT LIFTING (REAR) : Description	INFOID:00000008163764
Seat lifting (rear) only does not operate when memory operated.	
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:000000008163765
1.CHECK MANUAL OPERATION	
Check manual operation.	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Refer to <u>ADP-192, "SEAT LIFTING (REAR) : Diagnosis Procedure"</u>	
2.CHECK LIFTING SENSOR (REAR)	
Check lifting sensor (rear).	
Refer to <u>ADP-110, "Component Function Check"</u> .	
<u>Is the inspection result normal?</u> 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 <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1.	
STEERING TELESCOPIC	
STEERING TELESCOPIC : Description	INFOID:00000008163766
Steering telescopic only does not operate when memory operated.	
STEERING TELESCOPIC : Diagnosis Procedure	INIEO ID:00000008163767
	INFOID:00000008163767
1.CHECK MANUAL OPERATION	
Check manual operation. <u>Is the inspection result normal?</u>	
YES >> GO TO 2.	
NO >> Refer to <u>ADP-193</u> , "STEERING TELESCOPIC : Diagnosis Procedure"	
2.CHECK TELESCOPIC SENSOR	
Check steering telescopic sensor. Refer to <u>ADP-116, "Component Function Check"</u> .	
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-43. "Intermittent Incident".

< SYMPTOM DIAGNOSIS >

NO >> GO TO 1. STEERING TILT	
STEERING TILT : Description	INFOID:000000008163768
Steering tilt only does not operate when memory operated.	
STEERING TILT : Diagnosis Procedure	INFOID:000000008163769
1. CHECK MANUAL OPERATION	
Check manual operation.	
<u>Is the inspection result normal?</u> YES >> GO TO 2.	
NO >> Refer to <u>ADP-192</u> , " <u>STEERING TILT</u> : <u>Diagnosis Procedure</u> "	
2.CHECK TILT SENSOR	
Check steering tilt sensor. Refer to <u>ADP-113, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
3.CONFIRM THE OPERATION	
Check the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1.	
DOOR MIRROR	
DOOR MIRROR : Description	INFOID:000000008163770
Door mirror does not operate when memory operated.	
DOOR MIRROR : Diagnosis Procedure	INFOID:000000008163771
1.CHECK MANUAL OPERATION	
Check manual operation.	
<u>Is the inspection result normal?</u> YES >> GO TO 2.	
NO >> Refer to ADP-194. "DOOR MIRROR : Diagnosis Procedure"	
2.CHECK MIRROR SENSOR	
 Check mirror sensor. Refer to <u>ADP-119, "DRIVER SIDE : Component Function Check"</u>. (Driver side) 	
 Refer to <u>ADP-121, "PASSENGER SIDE : Component Function Check"</u>. (Passenger side) 	
<u>Is the inspection result normal?</u> YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3. CONFIRM THE OPERATION	
Check the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO $>>$ GO TO 1.	

MEMORY INDICATE DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >	
MEMORY INDICATE DOES NOT ILLUMINATE	А
Diagnosis Procedure	~
1.CHECK MEMORY INDICATOR	В
Check memory indicator. Refer to ADP-139, "Component Function Check".	
Is the inspection result normal?	С
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION	D
Confirm the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43. "Intermittent Incident"</u> . NO >> GO TO 1.	E
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SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000008163773

1.CHECK SYSTEM SETTING

Check system setting.

Refer to ADP-11, "SYSTEM SETTING : Special Repair Requirement".

Is the inspection result normal?

YES >> Synchronization function is normal.

NO >> GO TO 2.

2. CHECK ALL FUNCTIONS MAMUAL OPERATION

Check all functions manual operation.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Refer to <u>ADP-189</u>, "ALL COMPONENT : Diagnosis Procedure".

3. Confirm the operation

Check the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.
- NO >> GO TO 1.

WED WALK IN EUNCTION DOES NOT OBEDATE

< SYMPTOM DIAGNOSIS >	
POWER WALK-IN FUNCTION DOES NOT OPERATE	А
Diagnosis Procedure	
1.CHECK POWER WALK-IN FUNCTION	В
Check power walk-in function. Refer to <u>ADP-39</u> , "POWER WALK-IN FUNCTION : System Description".	
Is the inspection result normal?	С
YES >> Power walk-in function is OK. NO >> GO TO 2.	
2. PERFORM INITIALIZATION PROCEDURE	D
1. Perform initialization procedure. Refer to ADP-10, "SYSTEM INITIALIZATION : Special Repair Requirement".	
2. Check power walk-in function.	E
Refer to <u>ADP-39, "POWER WALK-IN FUNCTION : System Description"</u> . <u>Is the inspection result normal?</u>	
YES >> Power walk-in function is normal.	F
NO >> GO TO 3. 3.CHECK POWER WALK-IN SWITCH	
Check power walk-in switch.	G
Refer to <u>ADP-81, "Component Function Check"</u> .	
Is the inspection result normal?	Н
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	
4.CHECK SEAT BELT BUCKLE SWITCH	
Check seat belt buckle switch. Refer to ADP-77, "Component Function Check".	
Is the inspection result normal?	ADF
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
NO >> Repair or replace the malfunctioning parts. 5.CHECK FORWARD SWITCH	Κ
Check forward switch.	
Refer to <u>ADP-75</u> , "Component Function Check".	L
<u>Is the inspection result normal?</u> YES >> GO TO 6.	
NO >> Repair or replace the malfunctioning parts.	\mathbb{M}
6.CHECK SLIDING LIMIT SWITCH	
Check sliding limit switch. Refer to <u>ADP-79</u> , "Component Function Check".	Ν
Is the inspection result normal?	
YES >> GO TO 7. NO >> Repair or replace the malfunctioning parts.	0
7. CHECK DRIVER SIDE DOOR SWITCH	
Check driver side door switch.	Ρ
Refer to <u>DLK-62, "Component Function Check"</u> <u>Is the inspection result normal?</u>	
YES >> GO TO 8.	
NO >> Repair or replace the malfunctioning parts.	
8.CONFIRM THE OPERATION	
Check the operation again.	

Revision: 2012 July

POWER WALK-IN FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Refer to ADP-39, "POWER WALK-IN FUNCTION : System Description".

Is the result normal?

- YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.
- NO >> GO TO 1.

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

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Diagnosis Procedure	INFOID:000000008163775	A
1. CHECK DOOR LOCK FUNCTION		В
Check door lock function. Refer to <u>DLK-7, "Work Flow"</u> .		
Is the inspection result normal?		С
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.PERFORM MEMORY STORING PROCEDURE		D
 Perform memory storing procedure. Refer to <u>ADP-10, "MEMORY STORING : Special Repair Requirement"</u>. Check Intelligent Key interlock function. Refer to <u>ADP-34, "INTELLIGENT KEY INTERLOCK FUNCTION : System Description"</u>. 		E
Is the inspection result normal? YES >> Intelligent Key inter lock function is normal.		F
NO >> GO TO 1.		G

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< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

INFOID:000000008163776

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

Symptom	Cause	Action to take	Reference page
Seat synchronization function loes not operate. Seat sliding: 76 m Seat sliding: 76 m Seat reclining: 9.7	/km/n (4 MPH).	<u>ADP-24</u>	
	Seat adjustment value has exceed any of the values below. • Seat sliding: 76 mm • Seat reclining: 9.1 degrees • Seat lifting (rear): 20 mm	_	_
Side support or lumbar support does not perform memory operation.	The side support and the lumbar support are controlled independently with no link to the automatic drive positioner system.	_	Side support: <u>SE-23</u>
			Lumbar support: <u>SE-26</u>
Memory function, power walk-in function, seat synchronization function, or Intelligent Key inter- lock function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Memory function: <u>ADP-29</u>
			Power walk-in function: <u>ADP-39</u>
			Seat synchronization function: <u>ADP-24</u>
			Intelligent Key interlock function: <u>ADP-34</u>

< PRECAUTION > PRECAUTION PRECAUTIONS

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

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

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution for Battery Service

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Service

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- When removing or installing various parts, place a cloth or padding onto the vehicle body to prevent scratches.
- Handle trim, molding, instruments, grille, etc. carefully during removing or installing. Be careful not to oil or damage them.
- Apply sealing compound where necessary when installing parts.
- When applying sealing compound, be careful that the sealing compound does not protrude from parts.
- When replacing any metal parts (for example body outer panel, members, etc.), be sure to take rust prevention measures.

Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.

ADP-205

INFOID:000000008163780

PRECAUTIONS

< PRECAUTION >

- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.
 - Then rub with a soft and dry cloth.
- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION DRIVER SEAT CONTROL UNIT

Exploded View

Refer to SE-163, "Exploded View".

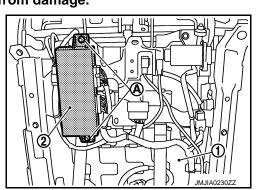
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove driver seat (1). Refer to <u>SE-166, "Removal and Installa-</u> tion".
- 2. Remove mounting bolts (A).
- 3. Remove driver seat control unit (2).



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place.

NOTE:

After installing driver seat, perform additional service when replacing control unit. Refer to <u>ADP-9</u>, "<u>ADDI-</u><u>TIONAL SERVICE WHEN REPLACING CONTROL UNIT</u> : <u>Special Repair Requirement</u>".

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INFOID:000000008163781

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< REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

Refer to <u>IP-12, "A/T MODELS : Exploded View"</u> (A/T models) or <u>IP-23, "M/T MODELS : Exploded View"</u> (M/T models).

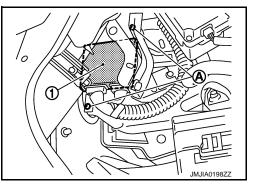
Removal and Installation

REMOVAL

CAUTION:

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

- Remove instrument driver lower panel. Refer to <u>IP-13, "A/T</u> <u>MODELS : Removal and Installation"</u> (A/T models) or <u>IP-24, "M/</u> <u>T MODELS : Removal and Installation"</u> (M/T models).
- 2. Remove screws (A).
- 3. Remove automatic drive positioner control unit (1).



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place. INFOID:000000008163783

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SEAT MEMORY SWITCH

< REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Exploded View

Refer to INT-12, "Exploded View"

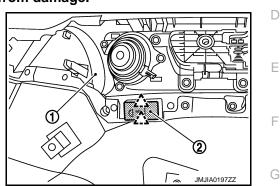
Removal and Installation

REMOVAL CAUTION:

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

- 1. Remove front door finisher (1). Refer to <u>INT-12</u>, "Removal and <u>Installation"</u>.
- 2. Press pawls and remove seat memory switch (2) from front door finisher (1).

A Pawl



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place.

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< REMOVAL AND INSTALLATION >

POWER SEAT SWITCH

Exploded View

Refer to SE-163, "Exploded View".

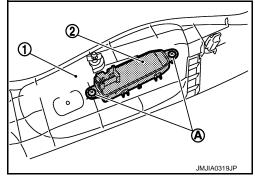
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove seat cushion outer finisher (1). Refer to <u>SE-166,</u> <u>"Removal and Installation"</u>.
- 2. Remove screws (A).
- Remove power seat switch (2) from seat cushion outer finisher (1).



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place. INFOID:000000008163787

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SIDE SUPPORT SWITCH

< REMOVAL AND INSTALLATION >

SIDE SUPPORT SWITCH

Exploded View

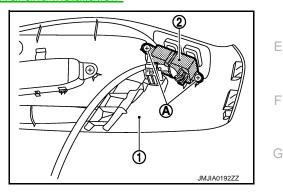
Refer to SE-163, "Exploded View"

Removal and Installation

REMOVAL CAUTION:

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

- 1. Remove seat cushion outer finisher (1). Refer to <u>SE-166, "Removal and Installation"</u>
- 2. Remove screws (A).
- 3. Remove side support switch (2) from seat cushion outer finisher.



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place.

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TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

TILT&TELESCOPIC SWITCH

Exploded View

INFOID:000000008163791

Refer to IP-12, "A/T MODELS : Exploded View" (A/T models) or IP-23, "M/T MODELS : Exploded View" (M/T models).

Removal and Installation

INFOID:000000008163792

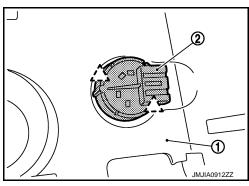
REMOVAL

CAUTION:

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

- 1. Remove steering column mask (1). Refer to <u>IP-13, "A/T MODELS : Removal and Installation"</u> (A/T models) or <u>IP-24, "M/T MODELS : Removal and Installation"</u> (M/T models).
- 2. Press pawls and remove tilt & telescopic switch (2) from steering column mask (1).





INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place.