SECTION ADP AUTOMATIC DRIVE POSITIONER

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С

D

Е

CONTENTS

| BASIC INSPECTION6 | AUTOMATIC DRIVE POSITIONER SYSTEM : |
|--|---|
| DIAGNOSIS AND REPAIR WORKFLOW | System Diagram AUTOMATIC DRIVE POSITIONER SYSTEM : System Description |
| INSPECTION AND ADJUSTMENT | AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location |
| ADDITIONAL SERVICE WHEN REMOVING BAT- TERY NEGATIVE TERMINAL9 | AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description |
| ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description9 ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Re- pair Requirement9 | MANUAL FUNCTION MANUAL FUNCTION : System Diagram MANUAL FUNCTION : System Description MANUAL FUNCTION : Component Parts Loca- tion |
| ADDITIONAL SERVICE WHEN REPLACING | MANUAL FUNCTION : Component Description |
| CONTROL UNIT9 ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description9 ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement9 | SEAT SYNCHRONIZATION FUNCTION SEAT SYNCHRONIZATION FUNCTION : Sys- tem Diagram SEAT SYNCHRONIZATION FUNCTION : Sys- tem Description |
| SYSTEM INITIALIZATION 10 SYSTEM INITIALIZATION : Description 10 SYSTEM INITIALIZATION : Special Repair Requirement 10 | SEAT SYNCHRONIZATION FUNCTION : Com ponent Parts Location SEAT SYNCHRONIZATION FUNCTION : Component Description |
| MEMORY STORING | MEMORY FUNCTION MEMORY FUNCTION : System Diagram MEMORY FUNCTION : System Description MEMORY FUNCTION : Component Parts Loca tion |
| SYSTEM SETTING11 SYSTEM SETTING : Description11 | MEMORY FUNCTION : Component Descriptio |
| SYSTEM SETTING : Special Repair Requirement11 | INTELLIGENT KEY INTERLOCK FUNCTION INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram |
| SYSTEM DESCRIPTION13 | INTELLIGENT KEY INTERLOCK FUNCTION : System Description |
| AUTOMATIC DRIVE POSITIONER SYSTEM13 | INTELLIGENT KEY INTERLOCK FUNCTION : |
| AUTOMATIC DRIVE POSITIONER SYSTEM13 | Component Parts Location INTELLIGENT KEY INTERLOCK FUNCTION : |

F POSITIONER SYSTEM : POSITIONER SYSTEM : POSITIONER SYSTEM : ation15 POSITIONER SYSTEM : Н on17 : System Diagram19 : System Description19 : Component Parts Loca-ADP : Component Description23 FION FUNCTION24 ATION FUNCTION : Sys-Κ ATION FUNCTION : Sys-......24 L ATION FUNCTION : Com-ATION FUNCTION : Μ on28 N : System Diagram29 Ν N : System Description29 N : Component Parts Loca-N: Component Description....33 FERLOCK FUNCTION34 NTERLOCK FUNCTION : Ρ NTERLOCK FUNCTION : **NTERLOCK FUNCTION :** ation36

| POWER WALK-IN FUNCTION POWER WALK-IN FUNCTION : System Diagram POWER WALK-IN FUNCTION : System Descrip- | |
|---|--|
| tion POWER WALK-IN FUNCTION : Component Parts Location POWER WALK-IN FUNCTION : | |
| Component Description | 43 |
| DIAGNOSIS SYSTEM (DRIVER SEAT C/U) Diagnosis Description CONSULT-III Function | 45 |
| DTC/CIRCUIT DIAGNOSIS | 48 |
| U1000 CAN COMM CIRCUIT | 48 |
| Description DTC Logic Diagnosis Procedure Special Repair Requirement | 48 48 |
| B2112 SLIDING MOTOR | |
| Description DTC Logic Diagnosis Procedure | 49 49 |
| B2113 RECLINING MOTOR | |
| Description DTC Logic Diagnosis Procedure | 51 |
| | |
| B2118 TILT SENSOR Description | |
| | 53 53 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR | 53 53 53 56 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic | 53 53 53 56 56 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure | 53 53 53 56 56 56 56 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure B2126 DETENT SW Description | 53 53 53 56 56 56 56 59 59 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure B2126 DETENT SW Description DTC Logic | 53 53 53 56 56 56 56 56 59 59 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure B2126 DETENT SW Description DTC Logic DTC Logic Diagnosis Procedure B2127 PARKING BRAKE SWITCH | 53 53 56 56 56 56 59 59 59 59 59 59 59 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure B2126 DETENT SW Description DTC Logic Diagnosis Procedure B2127 PARKING BRAKE SWITCH Description DTC Logic | 53 53 53 56 56 56 56 59 59 59 59 61 61 61 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure B2126 DETENT SW Description DTC Logic Diagnosis Procedure B2127 PARKING BRAKE SWITCH Description DTC Logic DTC Logic DTC Logic Diagnosis Procedure | 53 53 53 56 56 56 56 59 59 59 59 59 61 61 61 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure B2126 DETENT SW Description DTC Logic Diagnosis Procedure B2127 PARKING BRAKE SWITCH Description DTC Logic | 53 53 53 56 56 56 56 59 59 59 59 61 61 61 62 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure B2126 DETENT SW Description DTC Logic Diagnosis Procedure B2127 PARKING BRAKE SWITCH DESCRIPTION DTC Logic DTC Logic DTC Logic DTC Logic Diagnosis Procedure Description DTC Logic DESCRIPTION DESCRIPTION DESCRIPTION | 53 53 53 56 56 56 56 59 59 59 59 61 61 61 61 61 62 63 63 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure B2126 DETENT SW Description DTC Logic Diagnosis Procedure B2127 PARKING BRAKE SWITCH DTC Logic DTC Logic DTC Logic DTC Logic DTC Logic DTC Logic DTC Logic Diagnosis Procedure Component Inspection B2128 UART COMMUNICATION LINE | 53 53 53 56 56 56 59 59 59 59 61 61 61 61 61 62 63 63 63 |
| Description DTC Logic Diagnosis Procedure B2119 TELESCOPIC SENSOR Description DTC Logic Diagnosis Procedure B2126 DETENT SW Description DTC Logic Diagnosis Procedure B2127 PARKING BRAKE SWITCH Description DTC Logic Diagnosis Procedure Diagnosis Procedure | 53 53 56 56 56 56 59 59 59 59 61 61 61 62 63 63 63 63 |

| DRIVER SEAT CONTROL UNIT64 DRIVER SEAT CONTROL UNIT : |
|---|
| Diagnosis Procedure |
| Requirement65 |
| AUTOMATIC DRIVE POSITIONER CONTROL UNIT |
| AUTOMATIC DRIVE POSITIONER CONTROL |
| UNIT : Diagnosis Procedure |
| UNIT : Special Repair Requirement66 |
| SLIDING SWITCH |
| Component Function Check |
| Diagnosis Procedure67 |
| Component Inspection68 |
| RECLINING SWITCH |
| Description69 Component Function Check69 |
| Diagnosis Procedure 69 |
| Component Inspection70 |
| LIFTING SWITCH (FRONT)71 |
| Description71 Component Function Check |
| Diagnosis Procedure |
| Component Inspection72 |
| LIFTING SWITCH (REAR)73 |
| Description73 Component Function Check |
| Diagnosis Procedure |
| Component Inspection74 |
| FORWARD SWITCH75 |
| Description75 |
| Component Function Check 75 |
| Component Function Check |
| |
| Diagnosis Procedure |
| Diagnosis Procedure |
| Diagnosis Procedure |
| Diagnosis Procedure |
| Diagnosis Procedure75Component Inspection76SEAT BELT BUCKLE SWITCH77Description77Component Function Check77Diagnosis Procedure77Component Inspection78SLIDING LIMIT SWITCH79 |
| Diagnosis Procedure 75 Component Inspection 76 SEAT BELT BUCKLE SWITCH 77 Description 77 Component Function Check 77 Diagnosis Procedure 77 Component Inspection 78 SLIDING LIMIT SWITCH 79 Description 79 |
| Diagnosis Procedure 75 Component Inspection 76 SEAT BELT BUCKLE SWITCH 77 Description 77 Component Function Check 77 Diagnosis Procedure 77 Component Inspection 78 SLIDING LIMIT SWITCH 79 Description 79 Component Function Check 79 |
| Diagnosis Procedure 75 Component Inspection 76 SEAT BELT BUCKLE SWITCH 77 Description 77 Component Function Check 77 Diagnosis Procedure 77 Component Inspection 78 SLIDING LIMIT SWITCH 79 Description 79 |
| Diagnosis Procedure75Component Inspection76SEAT BELT BUCKLE SWITCH77Description77Component Function Check77Diagnosis Procedure77Component Inspection78SLIDING LIMIT SWITCH79Description79Component Function Check79Description79Component Function Check79Diagnosis Procedure79Component Function Check79Diagnosis Procedure79Component Inspection80POWER WALK-IN SWITCH81 |
| Diagnosis Procedure75Component Inspection76SEAT BELT BUCKLE SWITCH77Description77Component Function Check77Diagnosis Procedure77Component Inspection78SLIDING LIMIT SWITCH79Description79Component Function Check79Diagnosis Procedure79Component Function Check79Diagnosis Procedure79Component Function Check79Diagnosis Procedure79Component Inspection80POWER WALK-IN SWITCH81Description81 |
| Diagnosis Procedure75Component Inspection76SEAT BELT BUCKLE SWITCH77Description77Component Function Check77Diagnosis Procedure77Component Inspection78SLIDING LIMIT SWITCH79Description79Component Function Check79Description79Component Function Check79Diagnosis Procedure79Component Function Check79Diagnosis Procedure79Component Inspection80POWER WALK-IN SWITCH81 |

| TILT SWITCH8 | 3 Corr |
|---|------------------|
| Description83 | |
| Component Function Check | |
| | |
| Diagnosis Procedure | |
| Component Inspection84 | 4 Com |
| TELESCOPIC SWITCH88 | |
| | |
| Description | |
| Component Function Check8 | ⁾ D |
| Diagnosis Procedure8 | · • • |
| Component Inspection8 | n |
| | Diag |
| SEAT MEMORY SWITCH8 | TILT |
| Description8 | / D |
| Component Function Check8 | 0 |
| Diagnosis Procedure8 | / Dia 4 |
| Component Inspection88 | B Diag |
| | TELE |
| DOOR MIRROR REMOTE CONTROL | D |
| SWITCH90 | Des Com |
| | |
| MIRROR SWITCH | |
| MIRROR SWITCH : Description | |
| MIRROR SWITCH : Component Function Check9 | J |
| MIRROR SWITCH : Diagnosis Procedure90 | |
| MIRROR SWITCH : Component Inspection9 | ¹ DRI |
| CHANGEOVER SWITCH92 | DRI |
| | 2 |
| CHANGEOVER SWITCH : Description | 2 514 |
| CHANGEOVER SWITCH : Component Function | PASS |
| Check | |
| CHANGEOVER SWITCH : Diagnosis Procedure92 | ² PAS |
| CHANGEOVER SWITCH : Component Inspec- | Corr |
| tion93 | ³ PAS |
| | - |
| POWER SEAT SWITCH GROUND CIRCUIT9 | JLIDI |
| Diagnosis Procedure99 | 5 Des |
| TILT & TELESCOPIC SWITCH GROUND CIR- | Corr |
| | Diag |
| CUIT9 | |
| Diagnosis Procedure90 | |
| DETENTION SWITCH9 | , RECL |
| | Des |
| Description | |
| Component Function Check | |
| Diagnosis Procedure | |
| Component Inspection98 | |
| PARKING BRAKE SWITCH | LIFTI |
| Description | |
| Component Function Check | |
| | |
| Diagnosis Procedure | |
| Component Inspection100 | |
| SLIDING SENSOR | |
| | 1149 |
| Description | |
| Component Function Check | 1 11:40 |
| Diagnosis Procedure10 | 1 Con |
| RECLINING SENSOR104 | 4 |
| Description | |
| | † Des |

| 83 | Component Function Check104 | |
|----------------------|--|------|
| 83 | Diagnosis Procedure104 | А |
| 83 | - | |
| 83 | LIFTING SENSOR (FRONT) 107 | |
| 84 | Description107 | В |
| | Component Function Check107 | D |
| 85 | Diagnosis Procedure107 | |
| 85 | | |
| 85 | LIFTING SENSOR (REAR)110 | С |
| 85 | Description110 | |
| 86 | Component Function Check110 | |
| | Diagnosis Procedure110 | D |
| 87 | TILT SENSOR113 | |
| 87 | | |
| 87 | Description | _ |
| 87 | Component Function Check | E |
| 88 | Diagnosis Procedure113 | |
| | TELESCOPIC SENSOR116 | |
| | Description | F |
| 90 | Component Function Check | |
| | Diagnosis Procedure | |
| 90 | Diagnosis Procedure | G |
| 90 | MIRROR SENSOR119 | G |
| k90 | | |
| 90 | DRIVER SIDE119 | |
| 91 | DRIVER SIDE : Description119 | H |
| 92 | DRIVER SIDE : Component Function Check 119 | |
| 92 | DRIVER SIDE : Diagnosis Procedure119 | |
| יייייי <u>י</u> ז | | |
| , 92 | PASSENGER SIDE | |
| e92 | PASSENGER SIDE : Description121 | _ |
| J 02 | PASSENGER SIDE : | ADF |
| 93 | Component Function Check | ADr |
| | PASSENGER SIDE : Diagnosis Procedure121 | |
| 95 | SLIDING MOTOR124 | |
| 95 | Description | Κ |
| _ | Component Function Check | |
| ?- | Diagnosis Procedure | |
| 96 | Component Inspection | L |
| 96 | | |
| | RECLINING MOTOR126 | |
| 97 | Description126 | M |
| 97 | Component Function Check | |
| 97 | Diagnosis Procedure126 | |
| 97 | Component Inspection127 | N.I. |
| 98 | · · · | Ν |
| 99 | LIFTING MOTOR (FRONT)128 | |
| 99 | Description128 | |
| 99 | Component Function Check128 | 0 |
| 99 | Diagnosis Procedure128 | |
| 99 | Component Inspection129 | |
| 100 | | Р |
| 101 | LIFTING MOTOR (REAR)130 | |
| 101 | Description | |
| 101 | Component Function Check | |
| 101 | Diagnosis Procedure130 | |
| | Component Inspection131 | |
| 104 | TILT MOTOR | |
| 104 | Description | |
| | Descududd 132 | |

| Component Function Check |
|---|
| Component Inspection133 |
| TELESCOPIC MOTOR 134 |
| Description134 |
| Component Function Check |
| Diagnosis Procedure134 |
| Component Inspection |
| DOOR MIRROR MOTOR 136 |
| Description |
| Component Function Check |
| |
| Diagnosis Procedure |
| Component Inspection137 |
| SEAT MEMORY INDICATOR 139 |
| Description |
| Component Function Check |
| Diagnosis Procedure139 |
| DOOR MIRROR SYSTEM 141 |
| Wiring Diagram - DOOR MIRROR (WITH AUTO- |
| MATIC DRIVE POSITIONER) |
| ECU DIAGNOSIS INFORMATION146 |
| |
| DRIVER SEAT CONTROL UNIT (WITH AU- |
| TOMATIC DRIVE POSITIONER) 146 |
| Reference Value146 |
| Wiring Diagram - AUTOMATIC DRIVE POSI- |
| TIONER CONTROL SYSTEM152 |
| Fail Safe161 |
| DTC Index162 |
| AUTOMATIC DRIVE POSITIONER CON- |
| TROL UNIT |
| Reference Value |
| |
| Wiring Diagram - AUTOMATIC DRIVE POSI- |
| TIONER CONTROL SYSTEM167 |
| BCM (BODY CONTROL MODULE) 177 |
| Reference Value177 |
| Wiring Diagram - BCM200 |
| Fail-safe205 |
| DTC Inspection Priority Chart207 |
| DTC Index209 |
| SYMPTOM DIAGNOSIS212 |
| |
| MANUAL FUNCTION DOES NOT OPERATE 212 |
| ALL COMPONENT212 |
| ALL COMPONENT : Description212 |
| ALL COMPONENT : Diagnosis Procedure |
| |
| POWER SEAT212 |
| POWER SEAT : Description212 |
| POWER SEAT : Diagnosis Procedure |
| - |
| STEERING POSITION FUNCTION DOES NOT OPERATE212 |

| STEERING POSITION FUNCTION DOES NOT OPERATE : Description |
|--|
| SEAT SLIDING : Description |
| SEAT RECLINING |
| SEAT LIFTING (FRONT) |
| SEAT LIFTING (REAR) |
| STEERING TILT215STEERING TILT : Description215STEERING TILT : Diagnosis Procedure215 |
| STEERING TELESCOPIC |
| DOOR MIRROR |
| DOOR MIRROR : Diagnosis Procedure |
| DOOR MIRROR : Diagnosis Procedure |
| - |
| MEMORY FUNCTION DOES NOT OPERATE.218 ALL COMPONENT |
| MEMORY FUNCTION DOES NOT OPERATE.218 ALL COMPONENT 218 ALL COMPONENT : Description 218 ALL COMPONENT : Diagnosis Procedure 218 SEAT SLIDING 218 SEAT SLIDING : Description 218 |
| MEMORY FUNCTION DOES NOT OPERATE.218ALL COMPONENT218ALL COMPONENT : Description218ALL COMPONENT : Diagnosis Procedure218SEAT SLIDING218SEAT SLIDING : Description218SEAT SLIDING : Diagnosis Procedure218SEAT SLIDING : Diagnosis Procedure218SEAT RECLINING : Description219SEAT RECLINING : Description219 |
| MEMORY FUNCTION DOES NOT OPERATE.218ALL COMPONENT218ALL COMPONENT : Description218ALL COMPONENT : Diagnosis Procedure218SEAT SLIDING218SEAT SLIDING : Description218SEAT SLIDING : Diagnosis Procedure218SEAT RECLINING219SEAT RECLINING : Diagnosis Procedure219SEAT RECLINING : Description219SEAT RECLINING : Diagnosis Procedure219SEAT LIFTING (FRONT)219SEAT LIFTING (FRONT) : Description219 |
| MEMORY FUNCTION DOES NOT OPERATE.218ALL COMPONENT218ALL COMPONENT : Description218ALL COMPONENT : Diagnosis Procedure218SEAT SLIDING218SEAT SLIDING : Description218SEAT SLIDING : Diagnosis Procedure218SEAT RECLINING219SEAT RECLINING : Description219SEAT RECLINING : Diagnosis Procedure219SEAT RECLINING : Diagnosis Procedure219SEAT LIFTING (FRONT)219SEAT LIFTING (FRONT) : Description219SEAT LIFTING (FRONT) : Diagnosis Procedure219SEAT LIFTING (FRONT) : Diagnosis Procedure219SEAT LIFTING (REAR)220SEAT LIFTING (REAR)220 |
| MEMORY FUNCTION DOES NOT OPERATE.218ALL COMPONENT218ALL COMPONENT : Description218ALL COMPONENT : Diagnosis Procedure218SEAT SLIDING218SEAT SLIDING : Description218SEAT SLIDING : Diagnosis Procedure218SEAT RECLINING : Diagnosis Procedure219SEAT LIFTING (FRONT)219SEAT LIFTING (FRONT) : Description219SEAT LIFTING (REAR)220SEAT LIFTING (REAR)220SEAT LIFTING (REAR) : Description220SEAT LIFTING (REAR) : Diagnosis Procedure220SEAT LIFTING (REAR) : Diagnosis Procedure220STEERING TELESCOPIC220STEERING TELESCOPIC : Description220 |

| DOOR MIRROR : Description | |
|---|----------------------------------|
| MEMORY INDICATE DOES NOT ILLUMI- | |
| NATE22 | |
| Diagnosis Procedure22 | 22 |
| SEAT SYNCHRONIZATION FUNCTION | |
| DOES NOT OPERATE22 | |
| Diagnosis Procedure22 | 23 |
| POWER WALK-IN FUNCTION DOES NOT | |
| OPERATE | 24 |
| Diagnosis Procedure22 | 24 |
| | |
| INTELLIGENT KEY INTERLOCK FUNCTION | |
| DOES NOT OPERATE22 | |
| | |
| DOES NOT OPERATE22 | 26 |
| DOES NOT OPERATE | 26 27 |
| DOES NOT OPERATE | 26 27 27 |
| DOES NOT OPERATE 22 Diagnosis Procedure 22 NORMAL OPERATING CONDITION 22 Description 22 | 26 27 27 28 |
| DOES NOT OPERATE 22 Diagnosis Procedure 22 NORMAL OPERATING CONDITION 22 Description 22 PRECAUTION 22 | 26 27 27 28 |
| DOES NOT OPERATE 22 Diagnosis Procedure 22 NORMAL OPERATING CONDITION 22 Description 22 PRECAUTION 22 PRECAUTIONS 22 Precaution for Supplemental Restraint System | 26 27 27 28 28 28 |

| Service | А |
|--|---|
| REMOVAL AND INSTALLATION | |
| DRIVER SEAT CONTROL UNIT230Exploded View230Removal and Installation230 | В |
| AUTOMATIC DRIVE POSITIONER CON- TROL UNIT231 | С |
| Exploded View | D |
| SEAT MEMORY SWITCH | E |
| POWER SEAT SWITCH233Exploded View233Removal and Installation233 | F |
| SIDE SUPPORT SWITCH | G |
| TILT&TELESCOPIC SWITCH235Exploded View235Removal and Installation235 | H |

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M

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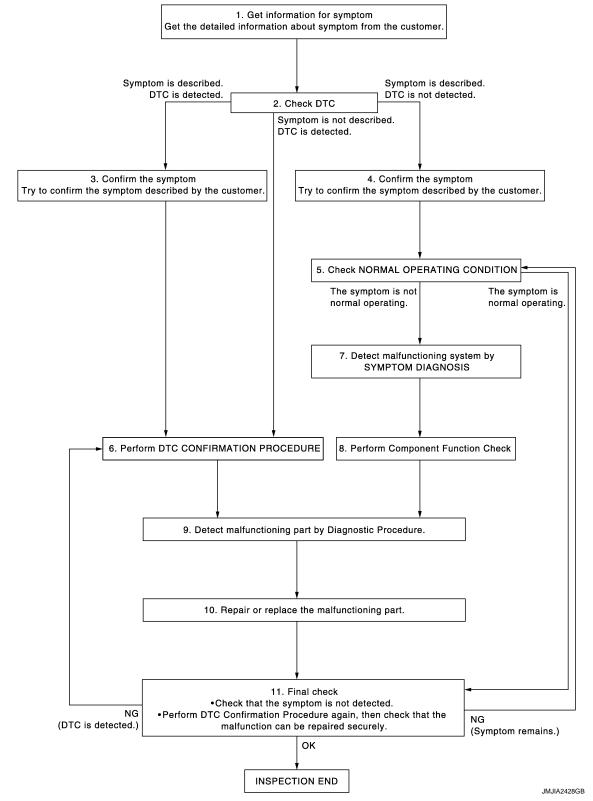
< BASIC INSPECTION >

BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

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OVERALL SEQUENCE



DETAILED FLOW

Revision: 2009 October

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

| 1.GET INFORMATION FOR SYMPTOM | |
|---|----|
| Get the detailed information from the customer about the symptom (the condition and the environment whe the incident/malfunction occurred). | en |
| >> GO TO 2. | |
| 2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM | |
| Check "Self Diagnostic Result" with CONSULT-III. Refer to ADP-162, "DTC Index" | _ |
| Is any symptom described and any DTC is displayed? | |
| Symptom is described, DTC is displayed.>>GO TO 3. Symptom is not described, DTC is displayed.>>GO TO 6. Symptom is described, DTC is not displayed.>>GO TO 4. | |
| 3. CONFIRM THE SYMPTOM | |
| Try to confirm the symptom described by the customer. | |
| >> GO TO 6. | |
| 4.CONFIRM THE SYMPTOM | |
| Try to confirm the symptom described by the customer. | |
| >> GO TO 5. | |
| 5. CHECK NORMAL OPERATING CONDITION | |
| Check normal operating condition. Refer to <u>ADP-227</u> , "Description". | _ |
| Is the incident normal operation? YES >> INSPECTION END NO >> GO TO 7. | |
| 6. PERFORM DTC CONFIRMATION PROCEDURE | A |
| Perform the confirmation procedure for the detected DTC. | |
| Is the DTC displayed? | |
| YES >> GO TO 8. NO >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . | |
| 7. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS | |
| Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in ste 4, and determine the trouble diagnosis order based on possible causes and symptom. | .p |
| >> GO TO 8. | |
| 8. PERFORM COMPONENT FUNCTION CHECK | |
| Perform the component function check for the isolated malfunctioning point. | |
| · | |
| >> GO TO 9. | |
| 9. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE | |
| Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during the component diagnosis. | e |
| >> 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

< 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.

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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:000000004535136 The setting of the automatic driving positioner system can be changed using the set switch. Ν SYSTEM SETTING : Special Repair Requirement INFOID:000000004535137 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

Revision: 2009 October

< BASIC INSPECTION >

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

NOTE:

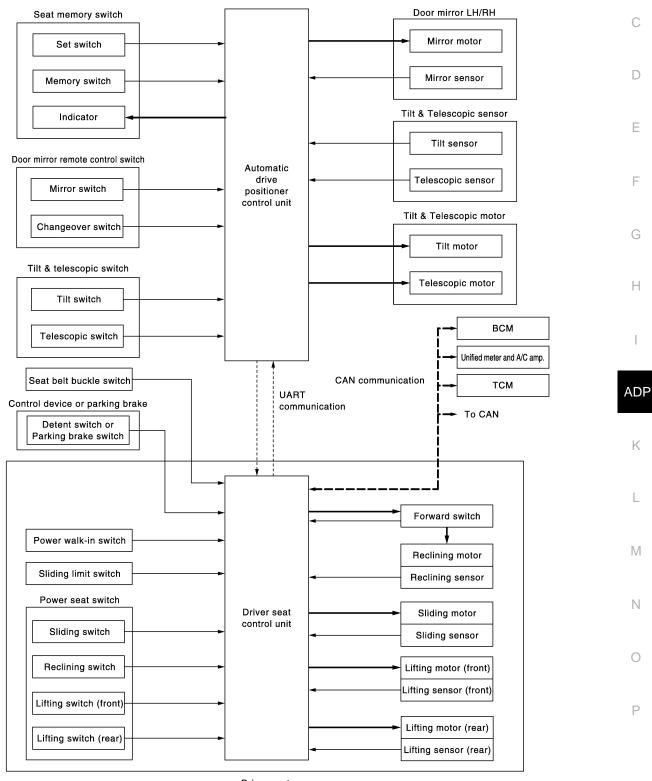
• After memory setting registration, by pushing set switch for approximately 10 seconds, memory switch indicator lamp turns 4 seconds. turns OFF, blinks 1 or 2 times, and then the switching operation is complete. Push and hold set switch during the switching operation.

>> END.

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM





Driver seat

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INFOID:000000004535060

< 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.

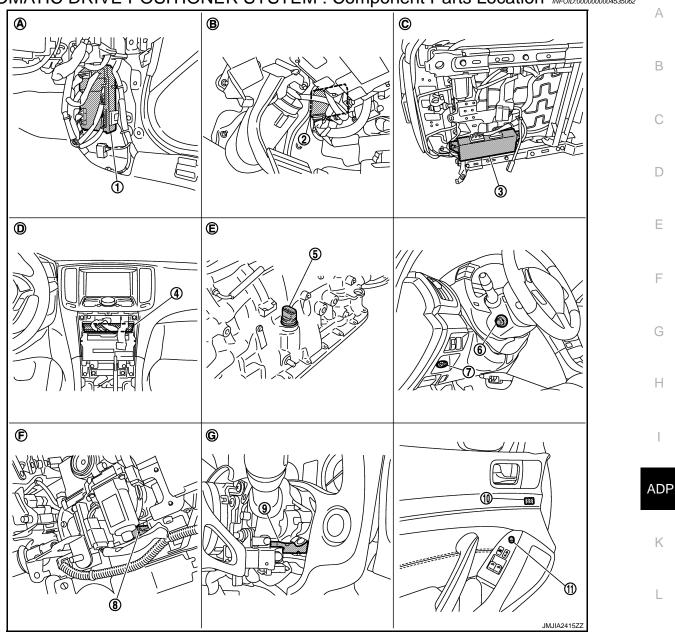
| Function | Description |
|------------------------------------|---|
| Manual function | The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch. |
| Seat synchronization function | 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:00000004535062



- 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

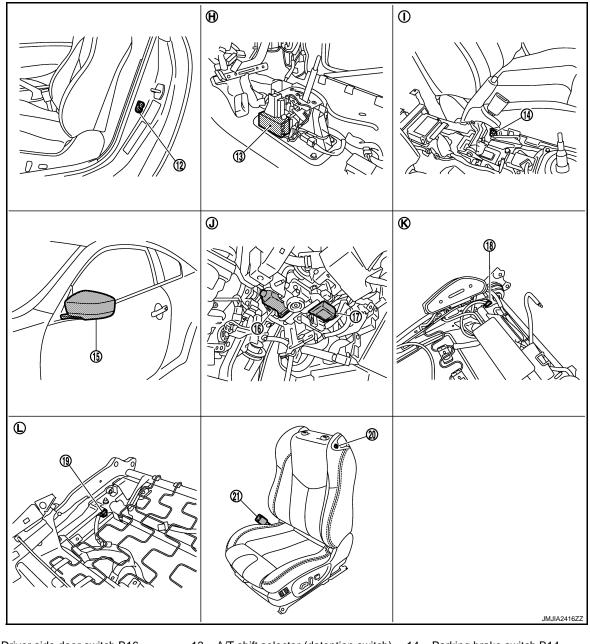
- Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52
 A/T assembly F51
 Tilt & telescopic switch M31
- A/T assembly F5
 Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed (Remove 4WAS front control unit 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 >



- 12. Driver side door switch B16
- 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.

- 13. A/T shift selector (detention switch) 14. Parking brake switch B14 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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| | I | | | | JMJIA2455ZZ | F |
| 22. | Reclining motor B523 | 23. | Reclining switch (Power seat switch) B510 | 24. | Sliding, lifting switch (Power seat switch) B510 | |
| 25. | Sliding sensor B526 | 26. | Lifting motor (front) 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 cushion | | | Н |

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:000000004535063

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. |
| BCM | Transmit the following status to the driver seat control unit via CAN communication. Driver door: OPEN/CLOSE Ignition switch position: ACC/ON Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation) Key ID Key switch: Insert/Pull out Intelligent Key Starter: CRANKING/OTHER |
| Unified meter and A/C amp. | Transmit the vehicle speed signal to the driver seat control unit via CAN 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

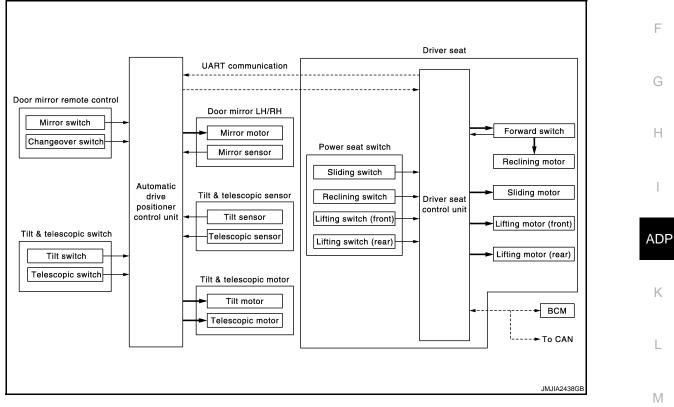
• The seat control unit adopts the sleep mode to reduce the electric power consumption.

< 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
- 2. Power seat switch
- 3. Set switch and memory switch (1 and 2)
- 4. Power walk-in switch
- 5. Door mirror switch
- Steering column switch 6.

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

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.

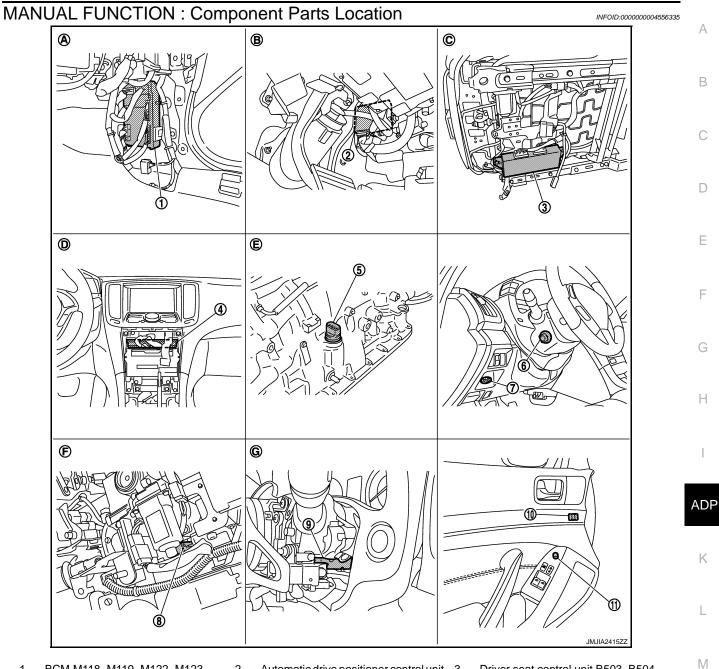
Door Mirror

| 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
- A/T assembly F5
 Tilt sensor M48
- 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

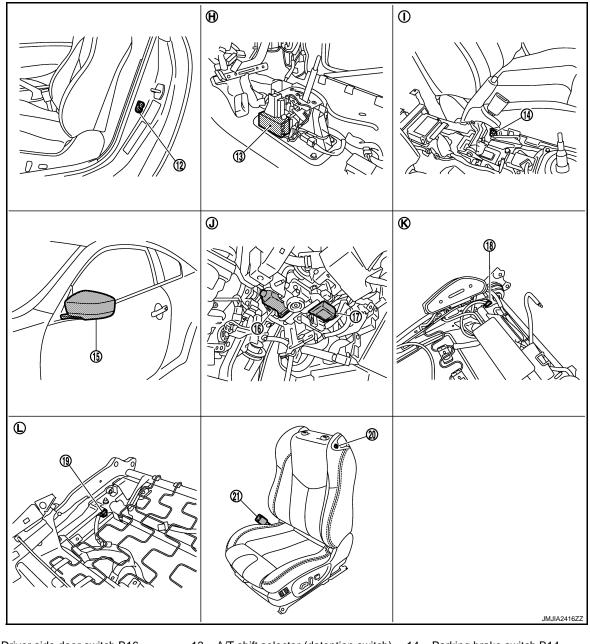
Backside of seat cushion (driver side)

F. View with instrument driver lower panel removed

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< SYSTEM DESCRIPTION >



- 12. Driver side door switch B16
- 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.

- 13. A/T shift selector (detention switch) 14. Parking brake switch B14 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 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 | at cushion | | | | Η |
| MAN | UAL FUNCTION : Com | pon | ent Descr | iption | | | INFOID:000000004535067 | |

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. | O P |
| 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. | |

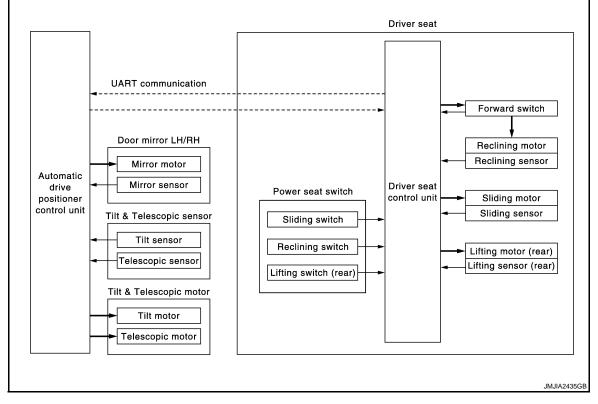
OUTPUT PARTS

| 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:000000004535068



SEAT SYNCHRONIZATION FUNCTION : System Description

INFOID:000000004535069

OUTLINE

Revision: 2009 October

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 <u>ADP-11, "SYSTEM SETTING : Description"</u>.

OPERATION PROCEDURE

1. Turn ignition switch ON.

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

3. The steering and outside mirror is adjusted automatically.

NOTE:

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

| Item | Limit value | • |
|--------------------|-------------|---|
| Seat sliding | 76 mm | 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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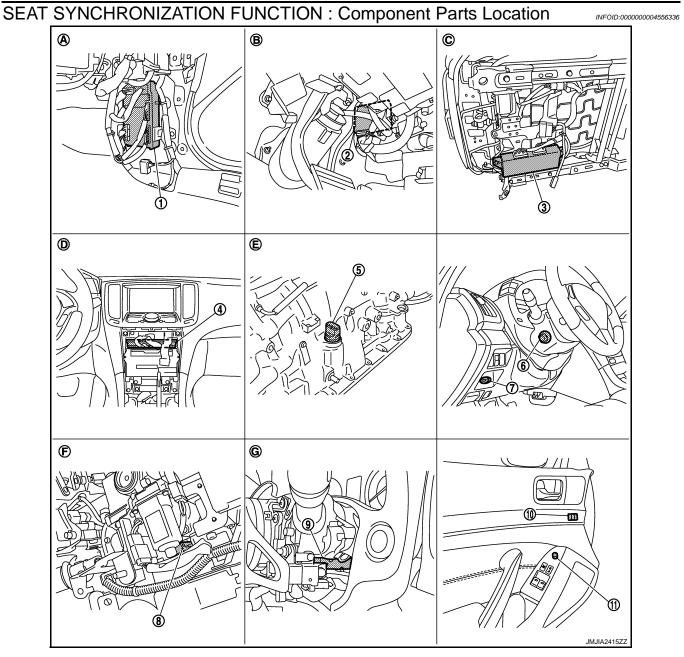
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< SYSTEM DESCRIPTION >



- 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

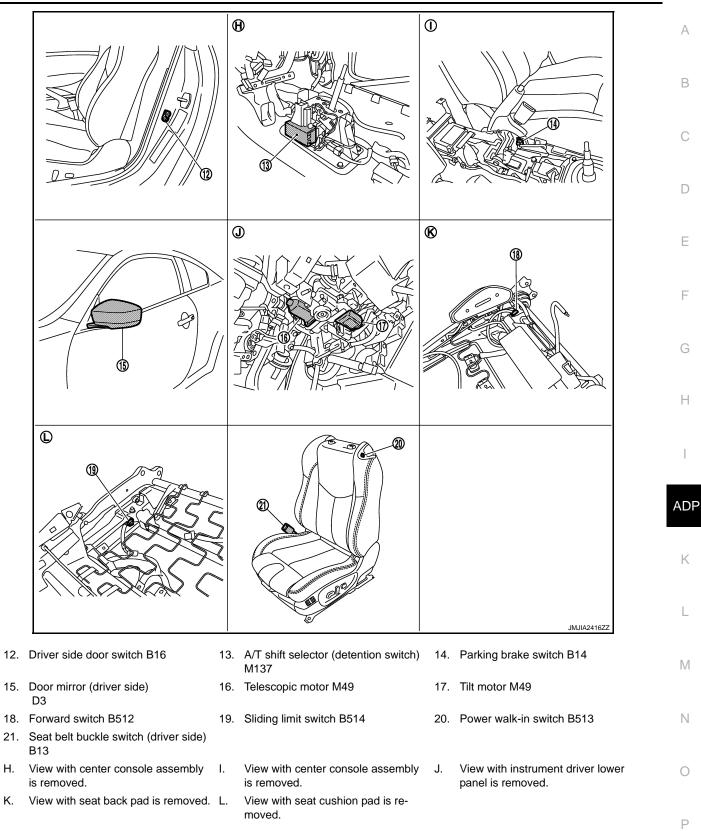
- Automatic drive positioner control unit 3. M51, M52
- 5. A/T assembly F51
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed (Remove 4WAS front control unit with 4WAS models)
- E. A/T assembly (TCM is built in A/T assembly)

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

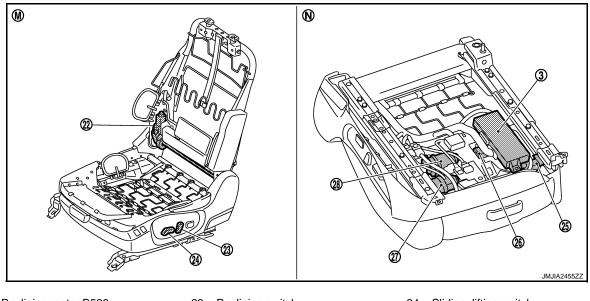
9.

- 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:000000004535071

CONTROL UNITS

| Item | Function | |
|--|--|--|
| Driver seat control unit Operates the specific seat motor with the signal from the power s | | |
| 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 >

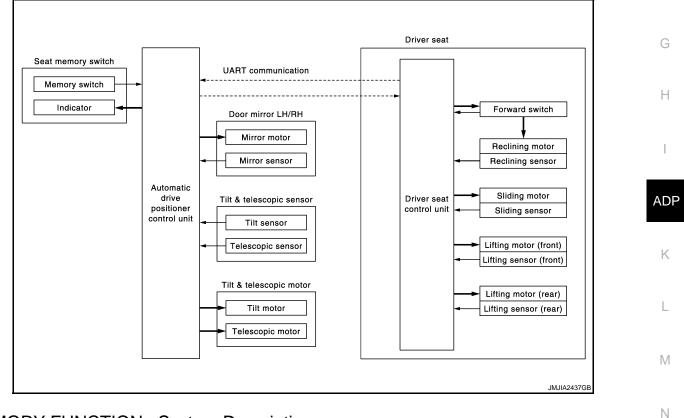
| Item | Function | ^ |
|----------------------|---|---|
| Reclining sensor | Detect the tilt of seatback. | A |
| Sliding sensor | Detect the frontward/rearward position of seat. | |

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: 2009 October

ADP-29

< SYSTEM DESCRIPTION >

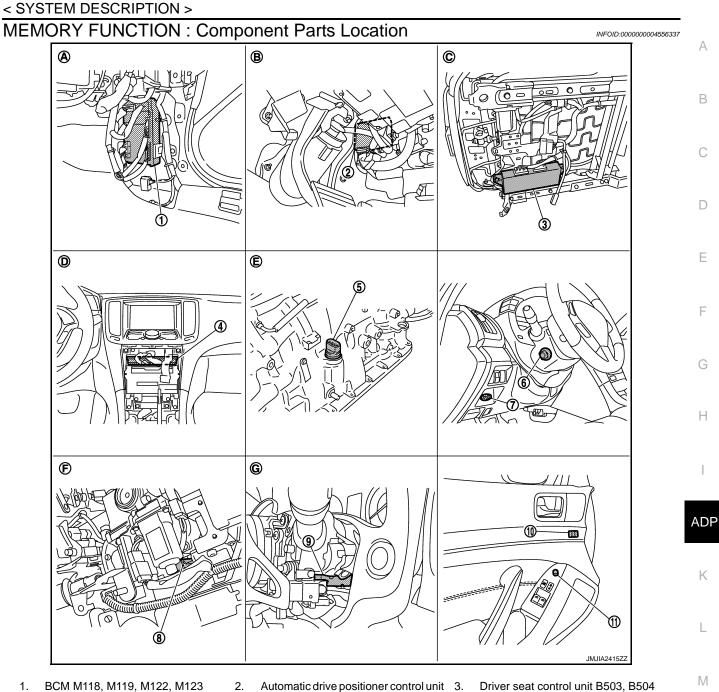
Satisfy all of the following items. The memory function is not performed if these items are not satisfied.

| 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 >



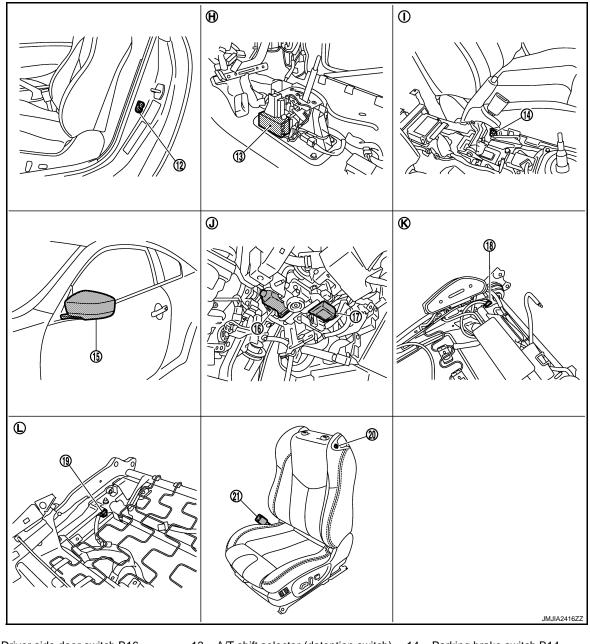
- Unified meter and A/C amp. M67 4.
- Key slot M22 7.
- 10. Seat memory switch D5
- Dash side lower (passenger side) Α.
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52 A/T assembly F51
- 5. 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 >



- 12. Driver side door switch B16
- 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.

- 13. A/T shift selector (detention switch) 14. Parking brake switch B14 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 | | ing switch r seat switch) | 24. | Sliding, lifting switch (Power seat switch) B510 | | F |
| 25. | Sliding sensor B526 | 26. Lifting | motor (front) B527 | 27. | Sliding motor B525 | | G |
| 28. | Lifting motor (rear) B529 | | | | | | |
| М. | View with seat cushion pad and seat- back pad are removed. | N. Backsi | de of seat cushion | | | | Η |
| MEMORY FUNCTION : Component Description | | | | | | | |

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

INTELLIGENT KEY INTERLOCK FUNCTION

INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram

 Automatic drive positionner control unit
 Driver seat

 Control unit
 Driver seat

 Control unit
 BCM

INTELLIGENT KEY INTERLOCK FUNCTION : System Description

INFOID:000000004535077

INFOID:000000004535076

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 | 1 (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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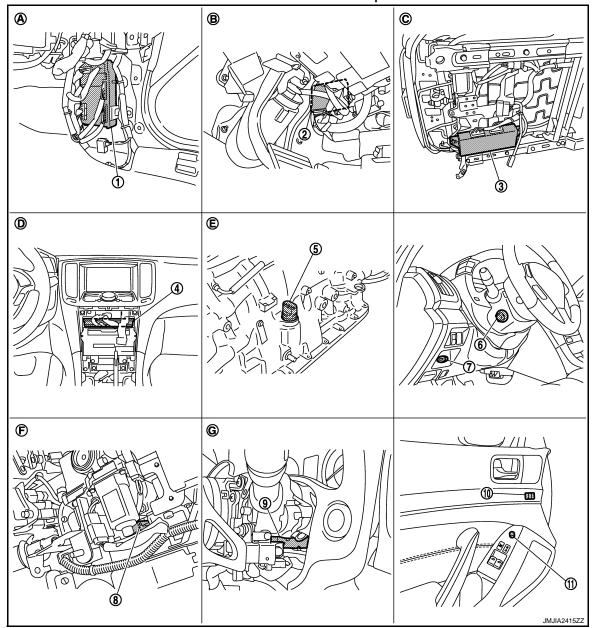
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< SYSTEM DESCRIPTION >

INTELLIGENT KEY INTERLOCK FUNCTION : Component Parts Location INFOLD CONDUCTION STATES



- 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

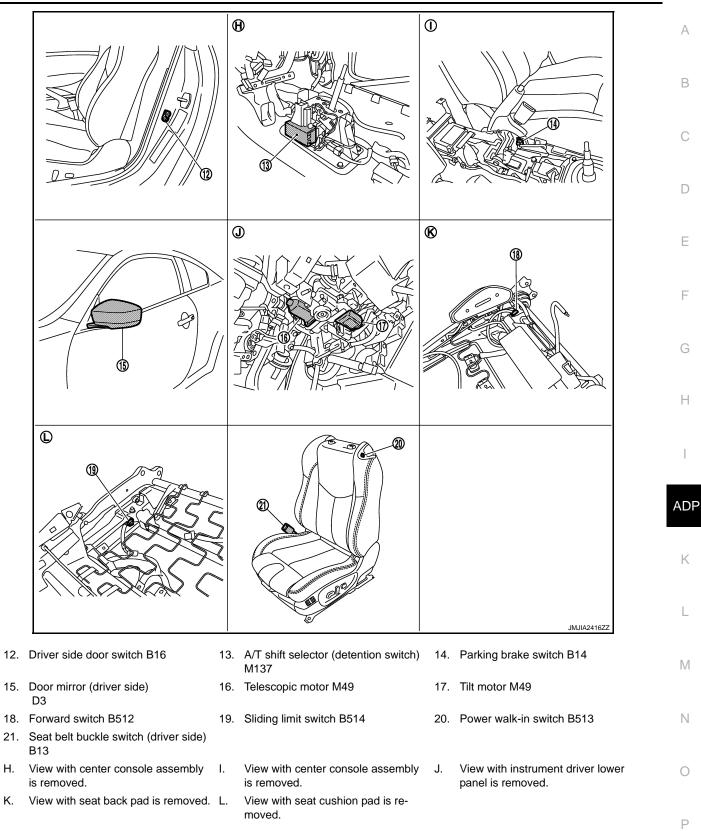
- Automatic drive positioner control unit 3. M51, M52
- 5. A/T assembly F51
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed (Remove 4WAS front control unit with 4WAS models)
- E. A/T assembly (TCM is built in A/T assembly)

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

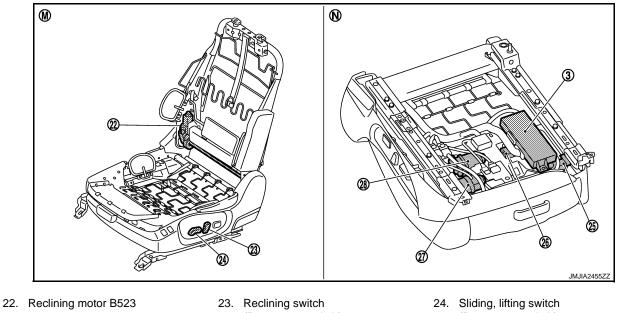
9.

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

< SYSTEM DESCRIPTION >



< SYSTEM DESCRIPTION >



- 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

INFOID:000000004535079

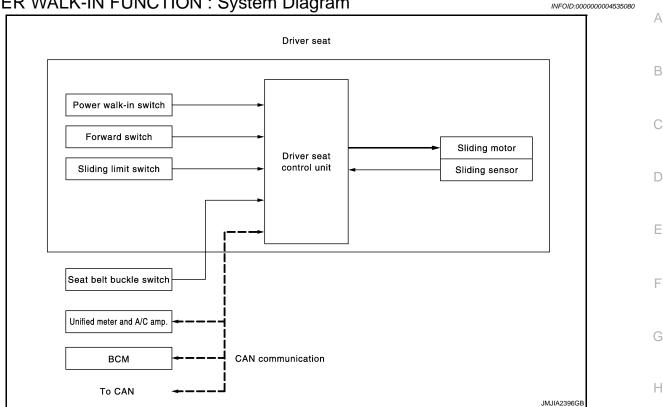
CONTROL UNITS

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

POWER WALK-IN FUNCTION

< SYSTEM DESCRIPTION >

POWER WALK-IN FUNCTION : System Diagram



POWER WALK-IN FUNCTION : System Description

INFOID:000000004535081

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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: 2009 October

ADP-39

< 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

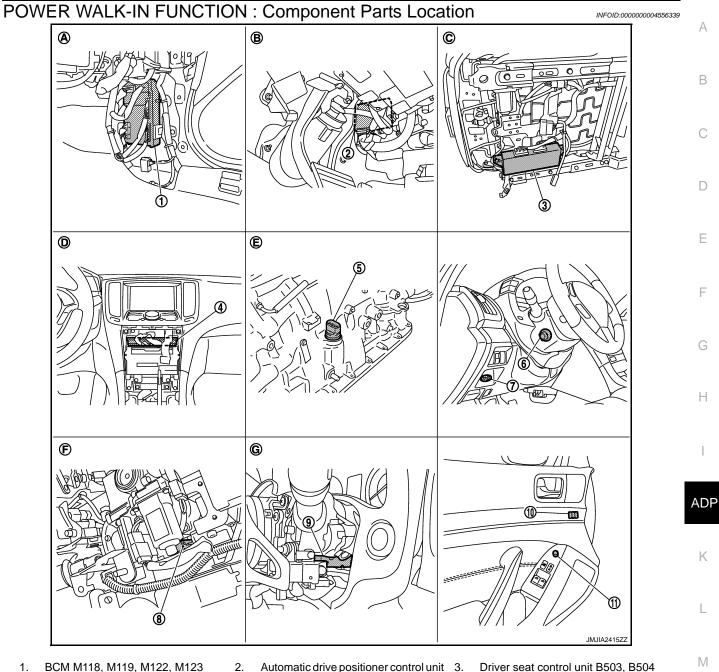
Forward Operation

| 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 oper- ated. | |
| 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 | 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 >



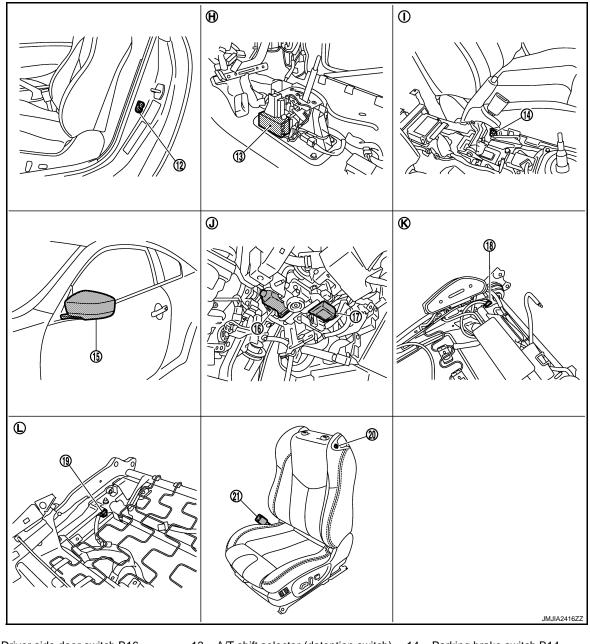
- BCM M118, M119, M122, M123 1.
- Unified meter and A/C amp. M67 4.
- Key slot M22 7.
- 10. Seat memory switch D5
- Dash side lower (passenger side) Α.
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52 A/T assembly F51
- 5. 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 >



- 12. Driver side door switch B16
- 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.

- 13. A/T shift selector (detention switch) 14. Parking brake switch B14 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 >

| | 00 | Æ | | 0 | | | | А |
|-----|---|------|--|---------------|-----|--|------------------------|---|
| | | | | | | | | В |
| | | | | | | | | С |
| | | | | 23 | | | | D |
| | | | 23 | 0 | | | 3 | E |
| | | | | | | JM | IJIA2455ZZ | F |
| 22. | Reclining motor B523 | 23. | Reclining switch (Power seat sw B510 | | 24. | Sliding, lifting switch (Power seat switch) B510 | | 0 |
| 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 | at cushion | | | | Н |
| POW | /ER WALK-IN FUNCTIC |)N : | Compone | nt Descriptio | on | | INFOID:000000004535083 | I |

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)

Diagnosis Description

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

DIAGNOSTIC MODE

| | | (|
|-----------------------|---|---|
| Diagnostic mode | Description | |
| SELF-DIAG RESULTS | Performs self-diagnosis for the auto drive positioner system and displays the results. | |
| DATA MONITOR | Displays input signals transmitted from various switches and sensors to driver seat 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. | |

CONSULT-III Function

SELF DIAGNOSTIC RESULTS Refer to <u>ADP-162</u>, "<u>DTC Index</u>".

DATA MONITOR

| Monitor Item | Unit | Main Signals | Selection From Menu | Contents |
|-----------------------------|----------|-----------------|---------------------------|--|
| SET SW | "ON/OFF" | × | × | ON/OFF status judged from the setting switch signal. |
| MEMORY SW 1 | "ON/OFF" | × | × | ON/OFF status judged from the seat memory switch 1 signal. |
| MEMORY SW 2 | "ON/OFF" | × | × | ON/OFF status judged from the seat memory switch 2 signal. |
| SLIDE SW-FR* ³ | "ON/OFF" | × | × | ON/OFF status judged from the sliding switch (forward) signal. |
| SLIDE SW-RR* ³ | "ON/OFF" | × | × | ON/OFF status judged from the sliding switch (backward) signal. |
| RECLN SW-FR* 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. |
| _IFT 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. |
| -IFT RR SW-UP* ³ | "ON/OFF" | × | × | ON/OFF status judged from the lifting switch rear (upward) signal. |
| 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. |

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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 | "∨" | - | × | Voltage input from door mirror sensor (passenger side) upward/ downward is displayed. |
| MIR/SEN RH R-L | "∨" | - | × | Voltage input from door mirror sensor (passenger side) leftward/ rightward is displayed. |
| MIR/SEN LH U-D | "∨" | - | × | Voltage input from door mirror sensor (driver side) upward/down- ward is displayed. |
| MIR/SEN LH R-L | "∨" | - | × | 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 | "√" | _ | × | 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. |

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

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

*: Does not display without automatic driver position system.

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DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM CIRCUIT

Description

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

DTC Logic

INFOID:000000004534911

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-III.

Is the DTC detected?

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

Diagnosis Procedure

Refer to LAN-18, "Trouble Diagnosis Flow Chart".

Special Repair Requirement

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

INFOID:000000004534912

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

А Description INFOID:000000004534914 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 INFOID:000000004534915 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 Turn ignition switch ON. 1. Check "Self diagnostic result" using CONSULT-III. 2. Н Is the DTC detected? >> Perform diagnosis procedure. Refer to ADP-49, "Diagnosis Procedure". YES NO >> INSPECTION END Diagnosis Procedure INFOID:000000004534916 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.

| (| +) | | | |
|-------------|--------------|----------|--------------------------|--|
| Driver seat | control unit | (-) | Voltage (V) (Approx.) | |
| Connector | Terminals | | | |
| B525 | 35 | - Ground | 0 | |
| 6020 | 42 | | 0 | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to <u>ADP-230</u>, "Removal and Installation"

3.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Description INFOID:000000004534917 The seat reclining motor is installed to the seatback frame. The seat reclining motor is activated with the driver seat control unit. Tilts the seatback frontward/rearward by changing the rotation direction of reclining motor. DTC Logic INFOID:000000004534918 DTC DETECTION LOGIC NOTE: 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 re-· Driver seat control unit SEAT RECLINING B2113 clining motor output terminal for 0.1 second or more Reclining motor harness is poweven if the reclining switch is not input. er shorted DTC CONFIRMATION PROCEDURE 1.PEFORM DTC CONFIRMATION PROCEDURE 1. Turn ignition switch ON. Check "Self diagnostic result" using CONSULT-III. 2. Is the DTC detected? >> Perform diagnosis procedure. Refer to ADP-51, "Diagnosis Procedure". YES >> INSPECTION END NO Diagnosis Procedure INFOID:000000004534919

1.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

| (+) Reclining motor | | (-) | Voltage (V) (Approx.) | L |
|------------------------|-----------|----------|--------------------------|---|
| Connector | Terminals | | (//pp/ox./ | |
| D500 | 15 | Ground | 0 | |
| B523 | 71 | - Ground | 0 | M |

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

1. Connect driver seat control unit connector.

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

| (+) Driver seat control unit | | (-) | Voltage (V) (Approx.) | Ρ |
|---------------------------------|-----------|--------|---|---|
| Connector | Terminals | | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| B523 | 15 | Ground | 0 | |
| D020 | 71 | Ground | 0 | |

Is the inspection result normal?

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YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to <u>ADP-230</u>, "Removal and Installation".

3.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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:000000004534921

INFOID:000000004534922

INFOID:000000004534920

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DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

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-III.
- 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) | - L |
| s the value normal? | | | - I\ |

YES >> GO TO 6.

NO >> GO TO 2.

2. CHECK TILT SENSOR CIRCUIT

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

| Automatic d | rive po | sitioner control unit | Tilt & teleso | Continuity | | |
|-------------|---------|-----------------------|---------------|------------|------------|--|
| Connector | | Terminal | Connector | Terminal | Continuity | |
| M51 | | 7 | M48 | 3 | Existed | |

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

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 | 1 | Ground | 5 | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TILT SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

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

| Automatic drive po | ositioner control unit | Tilt & teleso | copic sensor | 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 | Automatic drive positioner control unit | | Continuity | |
|--------------------|---|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| M52 | 33 | | Not existed | |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-231, "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 | sitioner control unit | Tilt & teleso | copic sensor | Continuity | |
|--------------------|-----------------------|--------------------|--------------|------------|--|
| 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-41, "Intermittent Incident".

| < DTC/CIRCUIT | DIAGNOSIS > |
|---------------|-------------|
|---------------|-------------|

| >> INSPECTION END | А |
|-------------------|-----|
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B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2119 TELESCOPIC SENSOR

Description

INFOID:000000004534923

- 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:000000004534924

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-III.

Is the DTC is detected?

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

Diagnosis Procedure

INFOID:000000004534925

1.CHECK TELESCOPIC SENSOR SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SEN" in the "Data monitor" mode using CONSULT-III.
- 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 | sitioner control unit | Tilt & teleso | 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 | | | Continuity | |
|--|--|--|---|--|---|
| Connector | Termina | al | Ground | Continuity | |
| M51 | 23 | | | Not existed | |
| CHECK TELESCOP Connect automatic Turn ignition switch | eplace harness. IC SENSOR POWEF drive positioner contr | rol unit connecto | | nd. | |
| | (+) | | | | |
| | telescopic sensor | | () | Voltage (V) | 1 |
| Connector | Termina | al | | (Approx.) | |
| M48 | 1 | | Ground | 5 | |
| YES >> GO TO 5. IO >> GO TO 4. | | | | | |
| Turn ignition switch Disconnect automa | | ontrol unit conne | ctor. | connector and tilt & | telesco |
| Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po | OFF. tic drive positioner co etween automatic driv nnector. sitioner control unit | ontrol unit conne ve positioner co Tilt & | ctor. ntrol unit harness c telescopic sensor | connector and tilt & | |
| Turn ignition switch Disconnect automa Check continuity be sensor harness cor | OFF. tic drive positioner co etween automatic driv nnector. | ontrol unit conne ve positioner co | ctor. ntrol unit harness c | | uity |
| Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be Automatic drive | OFF. tic drive positioner co etween automatic driven nector. sitioner control unit Terminal 33 etween automatic driven rive positioner control unit | ontrol unit conne ve positioner co Tilt & Connector M48 ve positioner cor | ctor. ntrol unit harness c telescopic sensor Terminal 1 trol unit harness co | Continu Existe | uity ed |
| Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be Automatic drive Connector | OFF. tic drive positioner co etween automatic driven nector. sitioner control unit Terminal 33 etween automatic driven rive positioner control unit Terminal | ontrol unit conne ve positioner co Tilt & Connector M48 ve positioner cor | ctor. ntrol unit harness c telescopic sensor Terminal 1 | Continu Existe nnector and ground Continuity | uity ed d. |
| Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be Automatic drive Connector M52 | OFF. tic drive positioner co etween automatic driven sitioner control unit Terminal 33 etween automatic driven rive positioner control unit Terminal 33 33 | ontrol unit conne ve positioner co Tilt & Connector M48 ve positioner cor | ctor. ntrol unit harness c telescopic sensor Terminal 1 trol unit harness co | Continu Existe | uity ed d. |
| Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be Automatic du Connector M52 the inspection result of YES >> Replace au NO >> Repair or re .CHECK TELESCOP Turn ignition switch Disconnect automa | OFF. tic drive positioner co etween automatic driven sitioner control unit Terminal 33 etween automatic driven rive positioner control unit Terminal 33 etween automatic driven tomatic drive positioner eplace harness. PIC SENSOR GROUN OFF. tic drive positioner co etween automatic driven tomatic drive positioner co | ontrol unit conne ve positioner co Tilt & Connector M48 re positioner cor al ner control unit. I ND CIRCUIT | ctor. ntrol unit harness c telescopic sensor Terminal 1 trol unit harness co Ground Refer to <u>ADP-231, "</u> | Continu Existe nnector and ground Continuity Not existed Removal and Insta | uity d. I Ilation". |
| Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be Automatic du Connector M52 the inspection result of YES >> Replace au NO >> Repair or re CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor | OFF. tic drive positioner co etween automatic driven sitioner control unit Terminal 33 etween automatic driven rive positioner control unit Terminal 33 etween automatic driven itomatic drive positioner eplace harness. PIC SENSOR GROUN OFF. tic drive positioner co etween automatic driven tic drive positioner co | ontrol unit conne ve positioner co Tilt & Connector M48 re positioner cor al her control unit. I ND CIRCUIT ontrol unit conne ve positioner co | ctor. ntrol unit harness c telescopic sensor Terminal 1 trol unit harness co Ground Refer to <u>ADP-231, "</u> ctor. ntrol unit harness c | Continu Existe nnector and ground Continuity Not existed Removal and Insta | uity d. I Ilation". |
| Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be Automatic drive po Connector M52 the inspection result of Connector M52 the inspection result of CS >> Replace au NO >> Repair or re .CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor | OFF. tic drive positioner co etween automatic driven sitioner control unit Terminal 33 etween automatic driven rive positioner control unit Terminal 33 etween automatic driven positioner control unit CSENSOR GROUN OFF. tic drive positioner co etween automatic driven sitioner control unit | ontrol unit conne ve positioner co Tilt & Connector M48 re positioner cor al ner control unit. I ND CIRCUIT ontrol unit conne ve positioner co | ctor. ntrol unit harness c telescopic sensor Terminal 1 trol unit harness co Ground Refer to <u>ADP-231, "</u> | Continu Existe nnector and ground Continuity Not existed Removal and Insta | uity ed d. I Ilation". |
| Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po Connector M52 Check continuity be Automatic du Connector M52 the inspection result of (ES >> Replace au NO >> Repair or re .CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity be sensor harness cor | OFF. tic drive positioner co etween automatic driven sitioner control unit Terminal 33 etween automatic driven rive positioner control unit Terminal 33 etween automatic driven itomatic drive positioner eplace harness. PIC SENSOR GROUN OFF. tic drive positioner co etween automatic driven tic drive positioner co | ontrol unit conne ve positioner co Tilt & Connector M48 re positioner cor al her control unit. I ND CIRCUIT ontrol unit conne ve positioner co | ctor. ntrol unit harness c telescopic sensor Terminal 1 trol unit harness co Ground Refer to <u>ADP-231</u> , " ctor. ntrol unit harness c | Continu Existe Innector and ground Continuity Not existed Removal and Insta | uity d. l llation". telesco |

Revision: 2009 October

Refer to GI-41, "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 | | |
| | e vehicle at 7±4 km/ | h or more. t" using CONSULT-III. | | |
| Is the DTC de | - | | | |
| YES >> F | Perform diagnosis p | rocedure. Refer to <u>ADP-59</u> |), "Diagnosis Proc | edure". |
| | NSPECTION END | | | |
| Jiagnosis | Procedure | | | INFOID:00000004534928 |
| 1. CHECK D | TC WITH "BCM" | | | |
| | 0 | BCM using CONSULT-III. | | |
| | | B2603, B2604 or B2605 d er to BCS-76, "DTC Index | | |
| NO >> (| GO TO 2. | | <u> </u> | |
| 2.CHECK D | TC WITH "METER | /M&A" | | |
| | | r METER/M&A using CON | SULT-III. | |
| l <u>s the DTC de</u> YES >> (| | er to <u>MWI-81, "DTC Index</u> | | |
| NO >> (| GO TO 3. | | - | |
| 3.CHECK D | ETENTION SWITC | H SIGNAL | | |
| 2. Select "D | | "Data Monitor" mode using al under the following cond | | |
| | Monitor item | Con | dition | Status |
| r | DETENT SW | selector lever | P position | OFF |
| L | | | 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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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-230</u>, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 | |
|---------|------------------------|--|---|--|
| B2127 | PARKING BRAKE | Parking brake is engaged and the vehicle speed of 7 km/h (4MPH) or more is detected. | Harness and connectors (Parking brake switch circuit is opened/shorted.) Parking brake switch Combination meter (CAN communication) Driver seat control unit | |

DTC CONFIRMATION PROCEDURE

1.STEP 1

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

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-III.
- 3. Check parking brake switch signal under the following condition.

| Monitor item | | Condition | Status | | |
|----------------------|----------------|-----------------------|---------|-----|--|
| | De dúa a basta | Applied | ON | | |
| PARK BRAKE SW | Parking brake | Parking brake Release | Release | OFF | |
| s the status normal? | | | | | |
| YES >> GO TO 5. | | | | | |
| NO >> GO TO 2. | | | | | |

2.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 4.

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 | 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-230, "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-41, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:000000004534932

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.

| Те | erminal | Condition | | Continuity |
|---------|----------------------|---------------|------------------|-------------|
| Parking | brake switch | Condition | 1 | Continuity |
| 1 | Ground part of | Parking brake | Applied | Existed |
| 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

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-III.

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 | Automatic drive positioner control unit | | Driver seat control unit | |
|--------------|------------|---|-----------|--------------------------|-----------|
| \mathbb{M} | Continuity | Terminal | Connector | Terminal | Connector |
| | Existed | 10 | M51 | 1 | B503 |
| N | Existed | 26 | | 17 | D303 |

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

| Driver sea | Driver seat 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-41, "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:000000004534936

1.CHECK FUSE AND FUSIBLE LINK

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

| Signal name | Fuse and fusible link No. | |
|----------------------|---------------------------|--|
| Battory power supply | K (40A) | |
| Battery power supply | 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 | _ | (Applox.) | |
| M118 | 1 | Ground | Pottony voltage | |
| M119 | 11 | Ground | Battery voltage | |

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.

| ВС | BCM | | 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:000000004534937

NOTE:

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

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 |
| 0004 | 40 | Clound | Dattery voltage |
| inspection result norr S >> GO TO 2. >> Check the fol Repair or rep Circuit break HECK GROUND CIRC | lowing. lace harness between driver er. | seat control unit and fus | e block (J/B). |
| ck continuity between t | he driver seat control unit ha | rness connector and gro | und. |
| Driver se | at control unit | | |
| Connector | Terminal | - Continuity Ground | |
| B503 | 32 | Ground | Existed |
| B504 | 48 | | EXISTED |
| ERFORM ADDITIONA | END ce harness. FROL UNIT : Special R | · · | INFOID:00 |
| S >> INSPECTION I >> Repair or repla IVER SEAT CONT ERFORM ADDITIONA orm additional service >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE | END ce harness. ROL UNIT : Special R L SERVICE when removing battery negative A, <u>"DRIVER SEAT CONTRO</u> POSITIONER CONTR POSITIONER CONTR POSITIONER CONTR | tive terminal. <u>DL UNIT : Diagnosis Pro</u> ROL UNIT ROL UNIT : Diagnos | cedure". sis Procedure |
| S >> INSPECTION I >> Repair or repla IVER SEAT CONT ERFORM ADDITIONA orm additional service v >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE | END ce harness. ROL UNIT : Special R L SERVICE when removing battery negative POSITIONER CONTR POSITIONER CONTR POSITIONER CONTR ery negative terminal and th | tive terminal. <u>OL UNIT : Diagnosis Pro</u> ROL UNIT ROL UNIT : Diagnos e driver seat control uni | cedure". sis Procedure INFOID:00 |
| S >> INSPECTION I >> Repair or repla IVER SEAT CONT ERFORM ADDITIONA orm additional service v >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE | END ce harness. ROL UNIT : Special R L SERVICE when removing battery negative A. "DRIVER SEAT CONTRON POSITIONER CONTR POSITIONER CONTR ery negative terminal and th LY CIRCUIT F. | tive terminal. <u>OL UNIT : Diagnosis Pro</u> ROL UNIT ROL UNIT : Diagnos e driver seat control uni | cedure". sis Procedure INFOID OC It connector until DTC |
| S >> INSPECTION I >> Repair or repla IVER SEAT CONT ERFORM ADDITIONA orm additional service of >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE | END ce harness. ROL UNIT : Special R L SERVICE when removing battery negative 4. "DRIVER SEAT CONTROM POSITIONER CONTROM POSITIONER CONTR ery negative terminal and th LY CIRCUIT F. a automatic drive positioner of | tive terminal. <u>OL UNIT : Diagnosis Pro</u> ROL UNIT ROL UNIT : Diagnos e driver seat control uni | cedure". sis Procedure INFOID OF It connector until DTC ector and ground. Voltage (V) |
| S >> INSPECTION I >> Repair or repla IVER SEAT CONT ERFORM ADDITIONA orm additional service of >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE | END ce harness. FROL UNIT : Special R L SERVICE when removing battery negative A, "DRIVER SEAT CONTRON POSITIONER CONTR POSITIONER CONTR POSITIONER CONTR ery negative terminal and th LY CIRCUIT F. a automatic drive positioner control (+) | tive terminal. <u>DL UNIT : Diagnosis Pro</u> ROL UNIT ROL UNIT : Diagnos e driver seat control uni control unit harness conn | cedure". sis Procedure INFOID OC It connector until DTC |
| S >> INSPECTION I >> Repair or repla IVER SEAT CONT ERFORM ADDITIONA orm additional service v >> Refer to <u>ADP-6</u> TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE TOMATIC DRIVE | END ce harness. ROL UNIT : Special R L SERVICE when removing battery negative 4. "DRIVER SEAT CONTROM POSITIONER CONTROM POSITIONER CONTROM POSITIONER CONTROM POSITIONER CONTROM CONTROM POSITIONER CONTROM CONTROM POSITIONER CONTROM C | tive terminal. <u>DL UNIT : Diagnosis Pro</u> ROL UNIT ROL UNIT : Diagnos e driver seat control uni control unit harness conn | cedure". sis Procedure INFOID OF It 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 | Automatic drive positioner control unit | | Continuity |
|--------------------|---|--------|------------|
| Connector | Terminal | Ground | Continuity |
| M52 | 40 | Ground | Existed |
| IVIJZ | 48 | | LAISIEU |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement

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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-III.
- 3. Check sliding switch signal under the following conditions.

| Condition | n | Status | |
|-----------------------------------|---|---|--|
| | Operate | ON | _ |
| Sliding switch (forward) | Release | OFF | |
| Cliding quitch (he alward) | Operate | ON | _ |
| Sliding switch (backward) Release | | OFF | |
| | | | |
| D | | | |
| | Sliding switch (forward) Sliding switch (backward) | Sliding switch (forward) Sliding switch (backward) Release Sliding switch (backward) Operate Release Release | Sliding switch (forward) Operate ON Sliding switch (backward) Operate OFF Sliding switch (backward) Operate ON Release OFF |

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.

| (+) Power seat switch | | | Voltage (V) (Approx.) | |
|--------------------------|----------|--------|--------------------------|---|
| | | () | | K |
| Connector | Terminal | | | |
| B510 | 11 | Ground | Battery voltage | |
| 6310 | 26 | Ground | Dattery voltage | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check sliding switch circuit

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

| Driver sea | t control unit | Power seat switch | | Continuity | |
|------------|----------------|-------------------|----------|------------|---|
| Connector | Terminal | Connector | Terminal | Continuity | Р |
| B503 | 11 | B510 | 11 | Existed | - |
| 6003 | 26 | B310 | 26 | Existed | |

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

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SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Driver sea | Driver seat control unit | | Continuity |
|------------|--------------------------|--------|-------------|
| Connector | Terminal | Ground | |
| B503 | 11 | Ground | Not existed |
| B303 | 26 | Not | Not existed |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-230, "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-233. "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 s | eat switch | Condition | | Continuity |
|---------|------------|---------------------------|---------|-------------|
| Ter | minal | | | Continuity |
| | 11 | Sliding switch (backward) | Operate | Existed |
| 32 | | Silding Switch (Dackward) | Release | Not existed |
| 52 | 26 | Sliding switch (forward) | Operate | Existed |
| | 20 | Silding Switch (Iorward) | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-233, "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-III. 2.
- Check reclining switch signal under the following conditions. 3.

| Monitor item | Condition | | Status | |
|---|---|-------------------|--------|---|
| | | Operate | ON | _ |
| RECLINE SW-FR | Reclining switch (forward) | Release | OFF | |
| | Reclining switch (backward) | Operate | ON | |
| RECLINE SW-RR | Reclining switch (backward) | Release | OFF | |
| the indication normal? | · | | | _ |
| ES >> INSPECTION EN O >> Perform diagnosis | D s procedure. Refer to <u>ADP-69, "Diag</u> | nosis 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) (Approx.) | |
|-----------|-------------------|------------------------|--------------------------|---|
| Power | Power seat switch | | | K |
| Connector | Terminal | | | |
| B510 | 12 | Ground | Battony voltago | |
| | 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.
- 2. Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and power seat switch harness con-3. nector.

| Driver sea | t control unit | Power seat switch | | Continuity | |
|---------------|----------------|-------------------|----------|--------------|---|
| Connector | Terminal | Connector | Terminal | - Continuity | Р |
| B503 | 12 | B510 | 12 | Existed | |
| B303 | 27 | B310 | 27 | EXISTED | |

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

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RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Driver seat control unit | | | Continuity | |
|--------------------------|----------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B503 | 12 | | Not existed | |
| | 27 | | NOT EXISTED | |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-230. "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-233. "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 Terminal | | Condition | | Continuity |
|--|-------------------------------|------|-------------------------------|---------|-------------|
| | | | | | |
| | 32 | 12 R | Reclining switch (backward) | Operate | Existed |
| | | | | Release | Not existed |
| | | 07 | 27 Reclining switch (forward) | Operate | Existed |
| | | 21 | | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-233, "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-III.
- 3. Check lifting switch (front) signal under the following conditions.

| Monitor item | Condition | Condition | | |
|---------------|-----------------------------|-----------|-----|---|
| LIFT FR SW-UP | Little a suiteb faset (| Operate | ON | |
| | Lifting switch front (up) | Release | OFF | |
| LIFT FR SW-DN | Lifting switch front (down) | Operate | ON | |
| | | Release | OFF | _ |

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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) (Approx.) | IZ. |
|--------------------------|----------|------------|--------------------------|-----|
| Connector | Terminal | (—) (Appro | | ΓX |
| 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 seat switch | | Continuity | |
|---------------|----------------|-------------------|----------|------------|---|
| Connector | Terminal | Connector | Terminal | Continuity | Р |
| B503 | 13 | B510 | 13 | Existed | |
| 8000 | 28 | B310 | 28 | Existed | |

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

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-230. "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-233. "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 seat switch Terminal | | Condition | | Continuity |
|-------------------------------|------------------------------|-----------|-------------|------------|
| | | | | |
| Release | Not existed | | | |
| 20 | 28 Lifting switch front (up) | Operate | Existed | |
| 20 | | Release | Not existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-233, "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-III.
- 3. Check lifting switch (rear) signal under the following conditions.

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

Is the indication normal?

- 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.

| | (+) | | Voltage (V/) | |
|-----------|-------------|--------|--------------------------|---|
| Powers | seat switch | (–) | Voltage (V) (Approx.) | K |
| Connector | Terminal | | () | |
| B510 | 14 | Ground | Battony voltago | |
| 8510 | 29 | Ground | Battery voltage | |

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 | Power se | ear switch | Continuity | |
|---------------|--------------|-----------|------------|------------|---|
| Connector | Terminal | Connector | Terminal | Continuity | Р |
| B503 | 14 | B510 | 14 | Existed | |
| 5005 | 29 | 6510 | 29 | Existed | |

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

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LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-230. "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-233. "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 | | Condition | |
|---------|-------------------|----------------------------|-----------|-------------|
| Ter | minal | Condi | | Continuity |
| | 14 | Lifting switch rear (down) | Operate | Existed |
| 32 | 14 | | 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-233, "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-III.

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

| Test item | С | ondition | Status | |
|------------|-----------------------|-------------|--------|---|
| FORWARD SW | Driver side seat back | Folded up | ON | |
| FORWARD SW | Driver side seat back | Folded down | OFF | Ŀ |

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 | control unit | Forwar | d switch | Continuity | - |
|---|-------------|--------------|-----------|----------|------------|---|
| _ | 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 | P |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-230</u>, "Removal and Installation"

NO >> Repair or replace harness.

3.FORWARD SWITCH GROUND CIRCUIT

Check continuity between forward switch harness connector and ground.

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|---|---|----|
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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 <u>SE-179, "Exploded View"</u>.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 32 | Driver side seat | 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-179, "Exploded View"</u>.

Revision: 2009 October

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-III.

2. Check the seat belt buckle switch signal under the following condition.

| Test item | Condition | | Status | |
|--------------|-----------------------|----------|--------|---|
| SEAT BELT SW | Driver side seat helt | Fastened | ON | |
| | Driver side seat belt | 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 sea | Driver seat control unit | | Seat belt buckle switch | | - |
| 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-230, "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 bu | uckle 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-179, "Exploded View"</u>.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 | | | Cor | dition | Continuity |
|-------------------------|------|-------|------------------|----------|-------------|
| Connector | Terr | ninal | | lanion | Continuity |
| B13 | 1 | 2 | Driver side seat | Fastened | Not existed |
| ВІЗ | 1 | | 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-179, "Exploded View".

SLIDING LIMIT SWITCH

< DTC/CIRCUIT DIAGNOSIS > SLIDING LIMIT SWITCH А Description INFOID:00000004534965 Sliding limit switch is installed on seat cushion frame. Sliding limit switch detects condition of seat sliding. В **Component Function Check** INFOID:00000004534966 **1.**CHECK FUNCTION 1. Select "FWD LIMIT SW" in the "Data Monitor" mode using CONSULT-III. 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:000000004534967 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-230, "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 lin | nit 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-179, "Exploded View"</u>.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 | ninal | Condition | | Continuity | |
| B514 | 4 22 Soot olidiog | | Front edge | Existed | | |
| B314 | 4 | 32 | Seat sliding | 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-179, "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-III.
- 2. Check the power walk-in switch signal under the following condition.

| Test item | Condition | | Status | | |
|------------|----------------------|----------|--------|---|--|
| WALK-IN SW | Power walk-in switch | Pressed | ON | E | |
| | FOWER WAIK-IN SWICH | 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 | Driver seat control unit | | Power walk-in switch | | |
|-------------|--------------------------|-----------|----------------------|------------|---|
| 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 | |
| _ | B503 | 30 | | Not existed | P |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-230, "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 wal | 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-179, "Exploded View"</u>.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 | | | Condition | |
|-----------|----------------------|-------|---------------|-----------|-------------|
| Connector | Terr | minal | | | Continuity |
| B513 | 30 | 32 | Power walk-in | Pressed | Existed |
| 0010 | 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-179, "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-III.
- 3. Check tilt switch signal under the following conditions.

| Monitor item | Monitor item Condition | | Status | |
|---|--|-----------------------|------------------------|--|
| | | Operate | ON | |
| TILT SW-UP | Tilt switch (up) | Release | OFF | |
| TILT SW-DN | | Operate | ON | |
| | Tilt switch (down) | Release | OFF | |
| the indication normal? | | | | |
| YES >> INSPECTION EN NO >> Perform diagnosis | D s procedure. Refer to <u>ADP-83, "I</u> | Diagnosis Procedure". | | |
| agnosis Procedure | | | INFOID:000000004534975 | |
| | | | | |

1.CHECK TILT SWITCH SIGNAL

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

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

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 | Р |
| M51 | 1 | M31 | 4 | Existed | - |
| | 17 | | 5 | Existed | |

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 | | Not existed |
| M51 | 17 | | NOT EXISTED |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-231, "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-235, "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 & teleso | Tilt & telescopic switch Terminal | | Condition | |
|---------------|--------------------------------------|--------------------|-----------|-------------|
| Terr | | | | |
| | 4 | Tilt switch (up) | Operate | Existed |
| 1 | 4 Int switch (up) | The switch (up) | Release | Not existed |
| I | 5 | Tilt switch (down) | Operate | Existed |
| | 5 | The Switch (down) | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-235, "Removal and Installation"</u>.

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-III.
- 3. Check telescopic switch signal under the following conditions.

| ic switch (forward) | Operate | ON |
|----------------------|-----------------------|-----------------------|
| ic switch (forward) | | |
| | Release | OFF |
| | Operate | ON |
| ic Switch (backward) | Release | OFF |
|) | vic switch (backward) | bic switch (backward) |

NO >> Perform diagnosis procedure. Refer to <u>ADP-85. "Diagnosis Procedure"</u>.

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 | - Ground | 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 EXIS | NOT EXISTED |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-231, "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-235</u>, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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 | | Release | Not existed | |
| I | 3 | Telessonia awitch (heekward) | Operate | Existed | |
| | 5 | Telescopic switch (backward) | Release | Not existed | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-235, "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-III.
- 3. Check seat memory switch signal under the following conditions.

| Monitor item | Cond | Condition | | |
|--------------|-------------------|-----------|-----|-----|
| | | Push | ON | _ |
| SET SW | SET SW | Release | OFF | F |
| | | Push | ON | |
| MEMORY SW 1 | Memory switch 1 | Release | OFF | _ |
| | Manager guitale 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.) | |
| Connector | Terminal | _ | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| | 3 | | | _ |
| D5 | 1 | Ground | 5 | |
| | 2 | | | |
| e inspection result norma | l <u>?</u> | 1 | 1 | _ |
| S >> GO TO 3. | | | | |

NO >> GO TO 2.

2.check memory switch circuit

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

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

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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-231, "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-232</u>, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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.

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Seat memory switch | | | Condition | |
|--------------------|-------|-----------------|-----------|-------------|
| Terr | ninal | | Condition | |
| | 3 | Set switch | Push | Existed |
| | 5 | Set Switch | Release | Not existed |
| 4 | 1 | Mamony owitch 1 | Push | Existed |
| 4 | I | Memory switch 1 | Release | Not existed |
| | 2 | Mamany awitch 2 | Push | Existed |
| | 2 | Memory switch 2 | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

>> Replace seat memory switch.Refer to <u>ADP-232, "Removal and Installation"</u>. NO

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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-III.

| 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 <u>ADP-90</u>, "<u>MIRROR SWITCH</u> : <u>Diagnosis Procedure</u>".

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 remo | Door mirror remote control switch | | Voltage (V) (Approx.) | |
| Connector | Terminal | | () | |
| | 4 | | | |
| D17 | 12 | Ground | 5 | |
| | 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 >

| | ositioner control unit | Door mirror re | emote control switch | Continuity |
|--|--|----------------|----------------------|-----------------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| | 3 | | 15 | |
| M51 | 4 | D17 | 13 | Existed |
| I CIVI | 19 | | 12 | Existed |
| | 20 | | 4 | |
| | etween automatic driv | | ol unit harness conn | ector and ground. |
| | drive positioner control unit | | | Continuity |
| Connector | Termina | al | | |
| | 3 | | Ground | |
| M51 | 4 | | | Not existed |
| - | 19 | | | |
| | 20 | | | |
| Turn ignition switc | ROR REMOTE CON h OFF. between door mirror re | | | |
| Check continuity b | | | i namess connecto | r and ground. |
| - | ror remote control switch | | | |
| - | | | Ground | continuity |
| Door mir | ror remote control switch | | | |
| Door mir Connector | ror remote control switch Termina 7 | | | Continuity |
| Door mir Connector D17 he inspection result ES >> GO TO 4. | ror remote control switch Termina 7 normal? | | | Continuity |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or | ror remote control switch Termina 7 <u>normal?</u> replace harness. | | | Continuity |
| Door mir Connector D17 he inspection result ES >> GO TO 4. | ror remote control switch Termina 7 <u>normal?</u> replace harness. | | | Continuity |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or CHECK MIRROR S eck door mirror rem | ror remote control switch Termina 7 <u>normal?</u> replace harness. SWITCH ote control switch (min | al | | Continuity |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or 1 CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> | ror remote control switch Termina 7 normal? replace harness. SWITCH ote control switch (min ROR SWITCH : Comp | al | | Continuity |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> he inspection result | ror remote control switch Termina 7 normal? replace harness. SWITCH ote control switch (min ROR SWITCH : Comp | al | | Continuity |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> he inspection result ES >> GO TO 5. | ror remote control switch Termina 7 inormal? replace harness. SWITCH ote control switch (min ROR SWITCH : Comp inormal? | al | Ground | Continuity Existed |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> he inspection result ES >> GO TO 5. | ror remote control switch Termina 7 inormal? replace harness. SWITCH ote control switch (min ROR SWITCH : Comp inormal? | al | Ground | Continuity |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or P CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> he inspection result ES >> GO TO 5. O >> Replace d | ror remote control switch Termina 7 normal? replace harness. WITCH ote control switch (min ROR SWITCH : Comp normal? oor mirror remote con | al | Ground | Continuity Existed |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or P CHECK MIRROR S eck door mirror rem fer to ADP-91, "MIR he inspection result ES >> GO TO 5. O >> Replace d lation". | ror remote control switch Termina 7 normal? replace harness. WITCH ote control switch (min ROR SWITCH : Comp normal? oor mirror remote con TENT INCIDENT | al | Ground | Continuity Existed |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or P CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> he inspection result ES >> GO TO 5. O >> Replace d <u>lation"</u> . CHECK INTERMIT | ror remote control switch Termina 7 normal? replace harness. WITCH ote control switch (min ROR SWITCH : Comp normal? oor mirror remote con TENT INCIDENT dent. | al | Ground | Continuity Existed |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or P CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> he inspection result ES >> GO TO 5. O >> Replace d lation". CHECK INTERMIT eck intermittent inci- fer to <u>GI-41, "Interm</u> | ror remote control switch Termina 7 normal? replace harness. WITCH ote control switch (min ROR SWITCH : Comp normal? oor mirror remote con TENT INCIDENT dent. hittent Incident". | al | Ground | Continuity Existed |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or P CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> he inspection result ES >> GO TO 5. O >> Replace d <u>lation"</u> . CHECK INTERMIT eck intermittent inci- | ror remote control switch Termina 7 normal? replace harness. WITCH ote control switch (min ROR SWITCH : Comp normal? oor mirror remote con TENT INCIDENT dent. hittent Incident". | al | Ground | Continuity Existed |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or P CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> he inspection result ES >> GO TO 5. O >> Replace d lation". CHECK INTERMIT eck intermittent inci- fer to <u>GI-41, "Interm</u> >> INSPECTI | ror remote control switch Termina 7 normal? replace harness. WITCH ote control switch (min ROR SWITCH : Comp normal? oor mirror remote con TENT INCIDENT dent. hittent Incident". | al | Ground | Continuity Existed |
| Door mir Connector D17 he inspection result ES >> GO TO 4. O >> Repair or P CHECK MIRROR S eck door mirror rem fer to <u>ADP-91, "MIR</u> he inspection result ES >> GO TO 5. O >> Replace d lation". CHECK INTERMIT eck intermittent inci- fer to <u>GI-41, "Interm</u> >> INSPECTI | ror remote control switch Termina rormal? replace harness. WITCH ote control switch (min ROR SWITCH : Comp normal? oor mirror remote con TENT INCIDENT dent. hittent Incident". ON END H : Component In | al | Ground | Continuity Existed |

2. Disconnect door mirror remote control switch connector.

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

< DTC/CIRCUIT DIAGNOSIS >

| Door ı | Door mirror remote control switch | | | condition | Continuity |
|-----------|-----------------------------------|--------------|---------------|------------------|-------------|
| Connector | Te | rminal | | onution | Continuity |
| | 4 | | | RIGHT | Existed |
| | 4 | 4 13 7 | | Other than above | Not existed |
| - | 40 | | | LEFT | Existed |
| D17 | 13 | | Mirror switch | Other than above | Not existed |
| | 45 | 15 | WIITOF SWITCH | UP | Existed |
| | 15 | | | Other than above | Not existed |
| - | 40 | | | | DOWN |
| | 12 | | | | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to <u>MIR-21, "Removal and Installation"</u>. CHANGEOVER SWITCH

CHANGEOVER SWITCH : Description

Changeover switch is integrated into door mirror remote control switch. Changeover switch has three positions (L, N and R).

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

CHANGEOVER SWITCH : Component Function Check

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-III.

| 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.

| (| +) | | | |
|-----------------|--------------------|--------|---|--|
| Door mirror rem | ote control switch | () | Voltage (V) (Approx.) | |
| Connector | Terminal | | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| D17 | 10 | Ground | 5 | |
| | 11 | Gibana | 5 | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK CHANGEOVER SWITCH CIRCUIT

INFOID:000000004534989

INFOID:000000004534990

< 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 posit | ioner control unit | Door | mirror rem | ote control switch | |
|------------------------------------|---|--|--------------|------------|--------------------|----------------------------------|
| - | Connector | Terminal | Connec | ctor | Terminal | Continuity |
| - | N/54 | 2 | D17 | | 11 | |
| | M51 | 18 | D17 | | 10 | Existed |
| 4. | Check continuity betw | ween automatic driv | e positioner | control u | unit harness conn | ector and ground. |
| - | Automatic driv | e positioner control unit | | | | Continuity |
| - | Connector | Termina | al | | Ground | Continuity |
| - | M51 | 2 | | | Ground | Not existed |
| Ν | | lace harness. OR REMOTE CON DFF. | TROL SWIT | CH GRC | OUND CIRCUIT | r and ground. |
| - | Door mirror | remote control switch | | | | Continuity |
| _ | Connector | Termina | al | | Ground | Continuity |
| _ | D17 | 7 | | | | Existed |
| N Ch Re 1 <u>s t</u> N | CHECK CHANGEOVE eck door mirror remote fer to <u>ADP-93, "CHAN</u> he inspection result no ES >> GO TO 5. | ER SWITCH control switch (cha <u>GEOVER SWITCH</u> <u>ormal?</u> r mirror remote cor | : Čomponer | nt Inspec | | r to <u>MIR-21. "Removal and</u> |
| Ch | eck intermittent incider fer to <u>GI-41, "Intermitte</u> | nt. | | | | |
| | >> INSPECTION | N END | nent Insp | ection | | INFOID:00000000453499 |
| 1. | CHECK CHANGEOVE | ER SWITCH | | | | |
| 1. 2. | Turn ignition switch C Disconnect door mirr | | witch conned | ctor. | | |

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

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< DTC/CIRCUIT DIAGNOSIS >

| Door mirror remote control switch | | | Condition | | Continuity | |
|-----------------------------------|------|-------|-------------------|------------------|-------------|--|
| Connector | Terr | ninal | - Condition | | Continuity | |
| | 10 | - 7 | Changeover switch | LEFT | Existed | |
| D17 | 10 | | | Other than above | Not existed | |
| יוט | D17 | | | 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-21, "Removal and Installation"</u>.

POWER SEAT SWITCH GROUND CIRCUIT

| < DTC/CIRCUIT DIAGNOS | | | |
|---|------------------------------------|----------------------------|-----------------------|
| POWER SEAT SWI | TCH GROUND CI | RCUIT | |
| Diagnosis Procedure | | | INFOID:00000004534993 |
| 1. CHECK POWER SEAT S | | т | |
| 1. Turn ignition switch OFF | | | |
| Disconnect power seat s | switch connector. | | |
| Check continuity betwee | en power seat switch conne | ector and ground. | |
| Power sea | it switch | | |
| Connector | Terminal | Ground | Continuity |
| B510 | 32 | | Existed |
| s the inspection result norm | <u>al?</u> | | |
| YES >> GO TO 2. | | | |
| NO >> Repair or replac | | U | |
| CHECK POWER SEAT S | | Л | |
| Check reclining switch. Refer to <u>ADP-70, "Compone</u> | nt Inspection" | | |
| s the inspection result norm | - | | |
| YES >> GO TO 3. | | | |
| | seat switch. Refer to <u>ADP-2</u> | 233, "Removal and Installa | <u>ition"</u> . |
| $\mathbf{B}.$ CHECK INTERMITTENT | INCIDENT | | |
| Refer to GI-41, "Intermittent | Incident". | | |
| | | | |
| >> INSPECTION E | ND | | |
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TILT & TELESCOPIC SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

TILT & TELESCOPIC SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000004534994

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-235</u>, "Removal and Installation".

3.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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-III. 2.
- Check detention switch signal under the following conditions. 3.

| | | Condition | Status | |
|---|--|------------------------------|--------------------|------------------------------|
| | P position | P position | OFF | |
| DETENT SW | Selector | lever | Other than above | ON |
| the indication normal? |) _ | | | |
| YES >> INSPECTIO | | efer to <u>ADP-97, "Diac</u> | gnosis Procedure". | |
| iagnosis Procedu | ıre | | | INFOID:0000000045 |
| CHECK DTC WITH " | BCM" | | | |
| Check "Self Diagnostic F | Result" for BCM usir | ng CONSULT-III. | | |
| s the either DTC B2601 | <u>, B2602, B2603, B2</u> | 604 or B2605 detecte | ed? | |
| | TC. Refer to ADP-2 | 209, "DTC Index". | | |
| NO >> GO TO 2. | | | | |
| CHECK DETENTION | I SWITCH INPUT S | IGNAL | | |
| . Turn ignition switch Disconnect A/T shift | orr. selector harness co | | | |
| . Turn ignition switch | | Shnector. | | |
| 5. Turn ignition switch | ON. | or harness connector | and ground. | |
| 5. Turn ignition switch | ON. | | and ground. | |
| Turn ignition switch Check voltage between | ON. een A/T shift selecto | | and ground. | Voltage (V) |
| Turn ignition switch Check voltage between | ON. een A/T shift selecto | or harness connector | - | Voltage (V) (Approx.) |
| Turn ignition switch Check voltage between | ON. een A/T shift selecto (+) T shift selector | or harness connector | - | • • • • |
| 5. Turn ignition switch Check voltage between A/T Connector M137 S the inspection result n YES >> GO TO 4. NO >> GO TO 3. | ON. een A/T shift selecto (+) T shift selector Termin 11 oormal? | al | (-) | (Approx.) |
| . Turn ignition switch . Check voltage between A/T Connector M137 s the inspection result n YES >> GO TO 4. NO >> GO TO 3. | ON. een A/T shift selecto (+) T shift selector Termin 11 oormal? | al | (-) | (Approx.) |
| Check voltage between Check voltage between Connector M137 Sthe inspection result n YES >> GO TO 4. NO >> GO TO 3. CHECK DETENTION Turn ignition switch Disconnect driver set | ON. een A/T shift selecto (+) T shift selector Termin 11 ormal? I SWITCH CIRCUIT OFF. eat control unit. | al | (-) Ground | (Approx.) |
| Turn ignition switch Check voltage between Ar Connector M137 Sthe inspection result n YES >> GO TO 4. NO >> GO TO 3. CHECK DETENTION Turn ignition switch Disconnect driver sets Check continuity be | ON. een A/T shift selecto (+) T shift selector I shift selector 11 ormal? I SWITCH CIRCUIT OFF. eat control unit. tween driver seat co | or harness connector | (-) Ground | (Approx.) Battery voltage |
| Turn ignition switch Check voltage between | ON. een A/T shift selecto (+) T shift selector I shift selector 11 ormal? I SWITCH CIRCUIT OFF. eat control unit. tween driver seat co | or harness connector | (-) Ground | (Approx.) Battery voltage |

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

Revision: 2009 October

ADP-97

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INFOID:000000004534995

DETENTION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Dr | Driver seat control unit | | | Continuity |
|--|--------------------------|---------------------------------|---------------------------|-----------------------|
| Connector | | Terminal | Ground | Continuity |
| B503 | | 21 | | Not existed |
| Is the inspection resul | t normal? | <u>?</u> | | |
| YES >> Replace of NO >> Repair or | | | DP-230, "Removal and Ins | tallation". |
| 4.CHECK DETENTI | ON SWIT | ГСН | | |
| Refer to <u>ADP-98, "Co</u> | mponent | Inspection". | | |
| Is the inspection resul | t normal? | <u>?</u> | | |
| YES >> GO TO 5 NO >> Replace | | selector. Refer to <u>TM-27</u> | 7. "2WD : Removal and Ins | stallation". |
| 5. CHECK INTERMIT | FTENT IN | ICIDENT | | |
| Refer to <u>GI-41, "Interr</u> | nittent Ind | <u>cident"</u> . | | |
| >> INSPECT | | 0 | | |
| Component Insp | ection | | | INFOID:00000004534998 |
| 1.CHECK DETENTION | ON SWIT | ГСН | | |
| Turn ignition swite Disconnect A/T sl Check A/T shift se | hift select | | | |

| | A/T shift selector | | Condition | | Continuity | |
|-----------|--------------------|-------|------------------|-------------|------------|--|
| Connector | Terr | ninal | 001 | | Continuity | |
| M137 | M137 10 11 | | Selector lever | P position | Existed | |
| 101137 | M137 10 11 Se | | Other than above | Not existed | | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace A/T shift selector. Refer to <u>TM-277, "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

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1. CHECK PARKING BRAKE SWITCH INPUT SIGNAL

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

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

| Monitor item | | Condition | | Status |
|--|-------------------------------|------------------------------------|-------------------|--------------------------|
| | Darking broke | Applied | | ON |
| PARK BRAKE SW | Parking brake | Release | | OFF |
| the indication normal? (ES >> INSPECTIO IO >> Perform diag | N END | efer to <u>ADP-99. "Diag</u> | nosis Procedure" | |
| iagnosis Procedu | ire | | | INFOID:0000000453500 |
| CHECK PARKING BI | RAKE SWITCH INP | UT SIGNAL | | |
| Turn ignition switch Disconnect A/T shift Turn ignition switch Check voltage betwo | selector harness co ON. | onnector. witch harness connect | or and ground. | |
| | (+) | | | |
| Park | ing brake switch | | (-) | Voltage (V) (Approx.) |
| Connector | Termina | al | | |
| B14 | 1 | 0 | Ground | Battery voltage |
| YES >> GO TO 3. NO >> GO TO 2. CHECK PARKING BI Turn ignition switch Disconnect driver see Check continuity be connector. | OFF. eat control unit conn | ector. | onnector and park | ing brake switch harness |
| Driver seat of | control unit | Parking bra | ake switch | Continuity |
| Connector | Terminal | Connector | Terminal | Continuity |
| B503 | 8 | B14 | 1 | Existed |
| Check continuity be | tween driver seat co | ntrol unit harness con | nector and ground | 1. |
| | r agat control unit | | | |
| Drive | r seat control unit | | | Continuit |
| Driver | Termin | al C | Ground | Continuity |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-230, "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-41, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:000000004535002

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 Terminal | | Condition | | Continuity | |
|---|---------------------------|------------------------|---------------|---------|-------------|--|
| | | | | | | |
| 1 | | Ground part of parking | Parking brake | Applied | Existed | |
| | 1 | 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</u>, "LEVER TYPE : Exploded <u>View</u>".

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

| Description | | | | | INFOID:000000004535003 |
|---|--|------------------------------------|--------------------|--------------------------------|--|
| The sliding sensor | is installed to | the seat slide | a cushion frame | | |
| The pulse signal is The driver seat cor | input to the o | driver seat co | ntrol unit when s | liding is perform | |
| omponent Fur | ction Che | eck | | | INFOID:00000004535004 |
| CHECK FUNCTIO | DN | | | | |
| Turn ignition swit Select "SLIDE P Check sliding se | ULSE" in the | | | ONSULT-III. | |
| Monitor item | | Con | dition | | Valve |
| | | 0 | perate (forward) | | Change (increase) ^{*1} |
| SLIDE PULSE | Seat slidi | ng O | perate (backward) | | Change (decrease) ^{*1} |
| | | R | elease | | No change ^{*1} |
| .CHECK SLIDING | SENSOR SI | GNAL | | | INFOID:000000004535005 |
| CHECK SLIDING | SENSOR SI | | control unit harne | ess connector a | INFOID:00000004535005 |
| CHECK SLIDING Turn ignition swit Check voltage si | SENSOR SI tch ON. gnal betweer | n driver seat c | | | |
| CHECK SLIDING | SENSOR SI tch ON. gnal betweer | | | ess connector an | nd ground with oscilloscope. |
| 2. Check voltage si (+) Driver seat cor | SENSOR SI tch ON. gnal betweer | n driver seat c | | Operate Other than | Notage (V) (Approx.) |
| CHECK SLIDING Turn ignition swit Check voltage si (+) Driver seat cor Connector | SENSOR SI tch ON. gnal betweer ntrol unit Terminal 24 | n driver seat c | Co | ndition Operate | Notage (V) (Approx.) |
| CHECK SLIDING Turn ignition swit Check voltage si (+) Driver seat cor Connector B503 sthe inspection resu | SENSOR SI tch ON. gnal betweer htrol unit Terminal 24 24 <u>ult normal?</u> driver seat co | on driver seat of (-) Ground | Co | Operate Other than above | nd ground with oscilloscope. Voltage (V) (Approx.) 10mSec/div UMJA011922 0 or 5 |

Revision: 2009 October

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

| Driver seat | control unit | Sliding sensor Connector Terminal | | Continuity |
|-------------|--------------|--------------------------------------|----|------------|
| 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 |
|-------------|--------------|--------|-------------|
| Connector | Terminal | Ground | Continuity |
| B503 | 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.

| (+) Sliding sensor | | () | Voltage (V) (Approx.) | |
|-----------------------|--------------------|----|--------------------------|--|
| Connector | Connector Terminal | | | |
| B526 | B526 16 | | 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 | 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-230, "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. | | |
| 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 |
| s the inspection result norma | al? | | |
| NO >> Replace driver s | | DP-230, "Removal and Ins | tallation". |
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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-III.
- 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:000000004535008

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 control unit | | (–) C | | ndition | 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-230, "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 >

| 0 | control unit | | ing motor | Continuity | |
|--|---|--|--|--|--|
| Connector | Terminal | Connector | Terminal | Estista d | |
| B503 | 9 | B523 | 9 | Existed | |
| Check continuity be | etween driver seat co | ntrol unit narness co | onnector and groun | 0. | |
| Drive | er seat control unit | | | Continuity | |
| Connector | Termina | al | Ground | Continuity | |
| B503 | 9 | | | Not existed | |
| e inspection result | normal? | | | | |
| ES >> GO TO 3. D >> Repair or re | | | | | |
| | eplace harness. SENSOR POWER \$ | | | | |
| | | | | | |
| Connect driver sea Turn ignition switch | t control unit connect | or. | | | |
| | veen reclining motor I | harness connector a | ind ground. | | |
| ç | | 1 | , | | |
| | (+) | | | Voltage (V) | |
| | Reclining motor | | () | (Approx.) | |
| Connector | Termina | al | | D <i>u</i> | |
| B523 | 16 | | Ground | Battery voltage | |
| | SENSOR POWER | SUPPLY CIRCUIT | | | |
| Turn ignition switch Disconnect driver s | | ector. | onnector and reclin | ing motor harness co | |
| Turn ignition switch Disconnect driver s Check continuity be tor. | o OFF. seat control unit conne etween driver seat co | ector. ntrol unit harness co | | ing motor harness co | |
| Turn ignition switch Disconnect driver s Check continuity be tor. | OFF. | ector. ntrol unit harness co | onnector and reclin ing motor Terminal | ing motor harness co | |
| urn ignition switch Disconnect driver s Check continuity be Driver seat | o OFF. seat control unit conne etween driver seat co | ector. ntrol unit harness co Reclin | ing motor | | |
| Furn ignition switch Disconnect driver s Check continuity be or. Driver seat Connector B503 | o OFF. seat control unit connective etween driver seat co control unit Terminal | ector. ntrol unit harness co Reclin Connector B523 | ing motor Terminal 16 | Continuity Existed | |
| 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 harness co Reclin Connector B523 | ing motor Terminal 16 | Continuity Existed | |
| 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 harness co Reclin Connector B523 ntrol unit harness co | ing motor Terminal 16 onnector and groun | Continuity Existed | |
| 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 harness co Reclin Connector B523 ntrol unit harness co | ing motor Terminal 16 | Continuity Existed d. Continuity | |
| Turn ignition switch Disconnect driver s Check continuity be or. 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 harness co Reclin Connector B523 ntrol unit harness co | ing motor Terminal 16 onnector and groun | Continuity Existed d. | |
| Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Drive Connector B503 e inspection result | 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 harness co Reclin Connector B523 ntrol unit harness co al | ing motor Terminal 16 onnector and groun Ground | Continuity Existed d. Continuity Not existed | |
| Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Connector B503 ie inspection result S >> Replace dr | a OFF. seat control unit connective etween driver seat control unit control unit Terminal 16 etween driver seat control unit remina 16 normal? iver seat control unit. | ector. ntrol unit harness co Reclin Connector B523 ntrol unit harness co al | ing motor Terminal 16 onnector and groun Ground | Continuity Existed d. Continuity Not existed | |
| Furn ignition switch Disconnect driver s Check continuity be or. Driver seat Connector B503 Check continuity be Drive Connector B503 e inspection result S >> Replace dr >> Repair or re | 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 harness co Reclin Connector B523 ntrol unit harness co al Refer to <u>ADP-230</u> , | ing motor Terminal 16 onnector and groun Ground | Continuity Existed d. Continuity Not existed | |
| Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Connector B503 e inspection result S >> Replace dr >> Repair or re CHECK RECLINING | 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 harness co Reclin Connector B523 ntrol unit harness co al Refer to <u>ADP-230</u> , | ing motor Terminal 16 onnector and groun Ground | Continuity Existed d. Continuity Not existed | |
| Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Drive Connector B503 he inspection result ES >> Replace dr D >> Repair or re CHECK RECLINING Turn ignition switch Disconnect driver s | 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 harness co Reclin Connector B523 ntrol unit harness co al Refer to <u>ADP-230,</u> O CIRCUIT 1 ector. | ing motor Terminal 16 onnector and groun Ground | Continuity Existed d. Continuity Not existed | |
| Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Connector B503 Check continuity be Connector B503 he inspection result S >> Replace dr D >> Repair or re CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity be tor. | OFF. seat control unit connectiveen driver seat control unit Terminal 16 tween driver seat co er seat control unit Termina 16 tween driver seat co er seat control unit Termina 16 ormal? iver seat control unit. eplace harness. SENSOR GROUND OFF. seat control unit connective seat co er seat control unit seat co er seat co er seat control unit seat co er seat control unit | ector. ntrol unit harness co Reclin Connector B523 ntrol unit harness co al Refer to ADP-230, O CIRCUIT 1 ector. ntrol unit harness co | ing motor Terminal 16 Onnector and groun Ground 'Removal and Insta | Continuity Existed d. Continuity Not existed | |
| Turn ignition switch Disconnect driver s Check continuity be tor. Driver seat Connector B503 Check continuity be Connector B503 Check continuity be Connector B503 he inspection result ES >> 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 harness co Reclin Connector B523 ntrol unit harness co al Refer to ADP-230, O CIRCUIT 1 ector. ntrol unit harness co | ing motor Terminal 16 onnector and groun Ground | Continuity Existed d. Continuity Not existed | |

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 | control unit | | Continuity |
|-------------|--------------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| B503 | 31 | | Existed |

Is the inspection result normal?

YES >> Replace reclining motor. Refer to <u>SE-179, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-230, "Removal and Installation"</u>.

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (FRONT)

А Description INFOID:000000004535009 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:000000004535010 **1.**CHECK FUNCTION 1. Turn ignition switch ON. D Select "LIFT FR PULSE" in the "Data monitor" mode using CONSULT-III. 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:000000004535011 1.CHECK LIFTING SENSOR (FRONT) SIGNAL Turn ignition switch ON. 1. Check the voltage signal driver seat control unit harness connector and ground with an oscilloscope. 2. ADP

| (+) | | () Condition Voltage (V) | | | |
|----------------|-------------|---------------------------|-------------------------|------------------|---|
| Driver seat co | ontrol unit | (-) | C | ondition | (Approx.) |
| Connector | Terminal | | | | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| B503 | 25 | Ground | Seat Lifting (front) | Operate | 10mSec/div |
| | | | | Other than above | 0 or 5 |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-230</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.

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

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

| Driver seat | Driver seat control unit | | otor (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.
- 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-230, "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/CIRCUIT DIAGNOS | | | | |
|---|--|---------------------------------|-------------|--------------|
| Is the inspection result norm | <u>al?</u> | | | A |
| YES >> GO TO 6. NO >> Repair or replac | e harness. | | | \cap |
| 6. CHECK LIFTING SENSC | | RCUIT 2 | | |
| 1. Connect driver seat cont | | | | Β |
| | en lifting motor (front) harne | ess connector and ground. | | |
| | | | | С |
| | | | Continuity | 0 |
| Connector | Terminal | Ground | Eviated | - |
| B503 | 31 | | Existed | D |
| Is the inspection result norm YES >> Replace lifting m | ar <u>?</u> notor (front). Refer to <u>SE-1</u> | 70 "Exploded View" | | |
| NO >> Replace driver s | seat control unit. Refer to <u>SE-1</u> | <u>DP-230, "Removal and Ins</u> | tallation". | 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-III.
- 3. Check lifting sensor (rear) signal under the following conditions.

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000004535014

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 con | trol unit | (–) Condition | | Voltage (V) (Approx.) | | | |
| Connector | Terminal | | | | | | (, , , , , , , , , , , , , , , , , , , |
| B503 | 10 | Ground | Seat Lifting (rear) | Operate | 10mSec/div 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-230, "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:000000004535012

INEOID:000000004535013

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

| Diver seat | control unit | Lifting m | Lifting motor (rear) | |
|---|--|---|---|---|
| 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 | ound. |
| Drive | er seat control unit | | | Continuity |
| Connector | Termina | al | Ground | - |
| B503 ne inspection result | 10 | | | Not Existed |
| CHECK LIFTING SE Connect driver sea Turn ignition switch | eplace harness. ENSOR (REAR) POW t control unit connect o ON. between lifting motor | or. | ector and ground. | |
| | (+) | | | |
| | notor (rear) | () | | Voltage (V) |
| Connector | Terminal | | | (Approx.) |
| B529 | 16 | Grour | nd | Battery voltage |
| | ENSOR (REAR) POW | /ER SUPPLY CIRCL | ЛТ | |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s | | ector. | | iting motor (rear) h |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. | OFF. | ector. at control unit harne: | | |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. | OFF. eat control unit conne ty between driver sea | ector. at control unit harne: | ss connector and lif | iting motor (rear) h |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat | OFF. eat control unit connecty ty between driver sea | ector. at control unit harne: Lifting m | ss connector and lif | |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 | OFF. eat control unit connecty ty between driver sea control unit Terminal | ector. at control unit harne: Lifting m Connector B529 | ss connector and lif notor (rear) Terminal 16 | Continuity Existed |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 Check the continuit | OFF. eat control unit connecty ty between driver sea control unit Terminal 16 | ector. at control unit harne: Lifting m Connector B529 | ss connector and lif notor (rear) Terminal 16 | Continuity Existed |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 Check the continuit | o OFF. eat control unit connecty ty between driver sea control unit Terminal 16 ty between driver sea | ector. at control unit harne: Lifting m Connector B529 t control unit harnes: | ss connector and lif notor (rear) Terminal 16 | Continuity Existed |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 Check the continuit Drive Connector B503 | o OFF. seat control unit connective ty between driver sea control unit Terminal 16 ty between driver sea er seat control unit Terminal 16 | ector. at control unit harne: Lifting m Connector B529 t control unit harnes: | ss connector and lif notor (rear) Terminal 16 s connector and gro | Continuity Existed |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 Check the continuit Driver Connector B503 Check the continuit Driver Connector B503 ne inspection result S >> Replace dr D >> Repair or re CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit | o OFF. seat control unit connective ty between driver seat control unit Terminal 16 ty between driver seat er seat control unit 16 normal? iver seat control unit. eplace harness. ENSOR (REAR) GRC | ector. at control unit harnes Lifting m Connector B529 It control unit harness al Refer to <u>ADP-230, "</u> DUND CIRCUIT 1 ector. | ss connector and lif | Continuity Existed ound. Continuity Not existed lation". |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit connector. Driver seat Connector B503 Check the continuit Drive Connector B503 the inspection result S >> Replace dr D >> Repair or re CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit | o OFF. control unit connective between driver seat control unit Terminal 16 ty between driver seat er seat control unit rermina 16 normal? iver seat control unit. eplace harness. ENSOR (REAR) GRC o OFF. seat control unit connective seat | ector. at control unit harnes Lifting m Connector B529 It control unit harness al Refer to <u>ADP-230, "</u> DUND CIRCUIT 1 ector. at control unit harnes | ss connector and lif | Continuity Existed ound. Continuity Not existed lation". |
| CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit connector. Driver seat Connector B503 Check the continuit Drive Connector B503 the inspection result S >> Replace dr D >> Repair or re CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit | o OFF. eat control unit connective ty between driver sea control unit Terminal 16 ty between driver sea er seat control unit er seat control unit 16 normal? iver seat control unit. eplace harness. ENSOR (REAR) GRC o OFF. seat control unit connective seat control unit connective | ector. at control unit harnes Lifting m Connector B529 It control unit harness al Refer to <u>ADP-230, "</u> DUND CIRCUIT 1 ector. at control unit harnes | 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-179, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-230, "Removal and Installation"</u>.

TILT SENSOR

TILT SENSOR

| FILT SENSOR | | | | | | | |
|--|------------------------|----------------------------|------------------------------|----------------------------|-------------------------|---------------|---|
| Description | | | | | | | INFOID:000000004535015 |
| The tilt sensor is ins The resistance of tilt The terminal voltage resistance. Automat | t sensor of autor | changes aco matic drive | cording to the positioner co | e up/down ontrol unit d | changes accord | ing to | a change of tilt sensor |
| Component Fund | ction C | heck | | | | | INFOID:000000004535016 |
| CHECK FUNCTIO | N | | | | | | |
| . Turn ignition swite | | | | | | | |
| Select "TILT SEN Check the tilt sen | | | | | LT-III. | | |
| Monitor i | tem | | Condition | n | | Va | lue |
| TILT SEN | | Tilt po | osition | | 1.1 | IV (Člo | between ose to top) e to bottom) |
| | ION ENE liagnosis | | Refer to <u>AD</u> | <u>P-113, "Dia</u> | agnosis Proced | <u>ure"</u> . | |
| iagnosis Proce | | | | | | | INFOID:000000004535017 |
| .CHECK TILT SEN | SOR SIG | NAL | | | | | |
| Turn ignition swite Check voltage au | | Irive positio | ner control u | nit harness | connector and | groun | ıd. |
| (| +) | | | | | | |
| Automatic drive po | sitioner cor | ntrol unit | (-) | | Condition | | Voltage (V) (Approx.) |
| Connector | Ter | rminal | | | | | |
| M51 | | 7 | Ground | Tilt | position | | Change between 1.1 V (Close to top) 9 V (Close to bottom) |
| the inspection resul | | _ | | | | | |
| YES >> Replace a NO >> GO TO 2. | | : drive posit | ioner control | unit. Refe | r to <u>adp-231, "R</u> | emov | al and Installation". |
| CHECK TILT SEN | SOR CIR | CUIT | | | | | |
| Turn ignition swite Disconnect autom Check continuity sensor harness continuity | natic drive between | automatic (| | | | | ector. or and tilt & telescopic |
| Automatic drive | positioner c | control unit | | Tilt & teleso | copic sensor | | Continuity |
| Connector | | Terminal | | nector | Terminal | | Continuity |
| M51 | | 7 | | 148 | 3 | | Existed |
| Check continuity | between | automatic d | Irive position | er control u | unit harness cor | necto | r and ground. |
| | drive posit | ioner control u | | - | | | Continuity |
| Connector | | Term | | - | Ground | | - |
| M51 | | 7 | <i>(</i> | | | | 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 | 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 po | ositioner control unit | Tilt & teleso | copic sensor | 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 | Terminal | Ground | Continuity |
| M52 | 33 | | Not existed |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-231, "Removal and Installation"</u>. NO >> Repair or replace harness.

5.CHECK TILT SENSOR GROUND CIRCUIT 1

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

| Automatic drive po | ositioner control unit | Tilt & telesc | copic 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 | 41 | | Existed |

TILT SENSOR

| > |
|---|
| > |

Is the inspection result normal?

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

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-231, "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:000000004535019

INFOID:000000004535018

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SEN" in the "Data monitor" mode using CONSULT-III.
- 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:000000004535020

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-231, "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 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 cont ON. veen tilt & telescopic | | nector and ground. | |
|---|---|--|---|---------------------------|
| | (+) | | | |
| | telescopic sensor | | () | Voltage (V) |
| Connector | Termina | al | | (Approx.) |
| M48 | 1 | | Ground | 5 |
| | OFF. tic drive positioner co etween automatic dri | ontrol unit connector. | | nector and tilt & telesco |
| Automatic drive po | sitioner control unit | Tilt & teles | copic sensor | |
| Connector | Terminal | Connector | Terminal | Continuity |
| M52 | 33 | M48 | 1 | Existed |
| Connector M52 | Termina 33 | | Ground | Not existed |
| | itomatic drive positior eplace harness. | er control unit. Refe | er to <u>ADP-231, "Rei</u> | noval and Installation". |
| CHECK TELESCOF Turn ignition switch Disconnect automa | OFF. tic drive positioner co etween automatic dri | ontrol unit connector. | | nector and tilt & telesco |
| CHECK TELESCOF Turn ignition switch Disconnect automa Check continuity b sensor harness cor | OFF. tic drive positioner co etween automatic dri | ontrol unit connector. ve positioner control | | |
| CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity b sensor harness cor Automatic drive po Connector | OFF. tic drive positioner co etween automatic dri nnector. sitioner control unit Terminal | ontrol unit connector. ve positioner control Tilt & teles Connector | I unit harness conr copic sensor Terminal | Continuity |
| CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity b sensor harness cor Automatic drive po Connector M52 | OFF. atic drive positioner co etween automatic dri nnector. sitioner control unit Terminal 41 | ontrol unit connector. ve positioner control Tilt & teles | l unit harness conr | |
| CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity b sensor harness cor Automatic drive po Connector M52 the inspection result YES >> GO TO 6. NO >> Repair or re CHECK TELESCOP Connect automatic | OFF. atic drive positioner co etween automatic dri nector. sitioner control unit Terminal 41 normal? eplace harness. | ontrol unit connector. ve positioner control Tilt & teles Connector M48 ND CIRCUIT 2 rol unit connector. | l unit harness conr | Continuity Existed |
| CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity b sensor harness cor Automatic drive po Connector M52 the inspection result YES >> GO TO 6. NO >> Repair or re CONNECK TELESCOP Connect automatic Check continuity be | OFF. atic drive positioner co etween automatic dri nector. sitioner control unit Terminal 41 normal? eplace harness. PIC SENSOR GROUN drive positioner cont | ontrol unit connector. ve positioner control Tilt & teles Connector M48 ND CIRCUIT 2 rol unit connector. /e control unit harnes | l unit harness conr | Continuity Existed |
| CHECK TELESCOP Turn ignition switch Disconnect automa Check continuity b sensor harness cor Automatic drive po Connector M52 the inspection result YES >> GO TO 6. NO >> Repair or re CONNECK TELESCOP Connect automatic Check continuity be | OFF. atic drive positioner co etween automatic dri nector. sitioner control unit Terminal 41 normal? eplace harness. PIC SENSOR GROUN drive positioner cont etween automatic drive | ontrol unit connector. ve positioner control Tilt & teles Connector M48 ND CIRCUIT 2 rol unit connector. /e control unit harnes | l unit harness conr | 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-231, "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

INFOID:00000000453502

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D INFOID:000000004535022

INFOID:000000004535023

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-III. 2.
- Check mirror sensor (driver side) signal under the following condition. 3.

| Monitor item | Condition | Value | |
|----------------|---------------------------|---|---|
| MIR/SEN LH U-D | Door mirror (driver side) | Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley) | 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 | | | | |
|--|----------|-------------------|---------------------------------------|---|
| | | () | Condition | Voltage (V) (Approx.) |
| Connector | Terminal | | | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| M54 | 6 | Door mirror (Driv | Door mirror (Driver | Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley) |
| M51 | 22 | Ground | boor mirror (Driver 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-231, "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 | Automatic drive positioner control unit | | Door mirror (driver side) | |
|-------------------|---|-----------|---------------------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M51 | 6 | D3 | 9 | Existed |
| | 22 | 03 | 10 | |

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 |
| M51 | 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 po | sitioner control unit | Door mirror (driver side) Connector Terminal | | Continuity |
|--------------------|-----------------------|--|----|------------|
| 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 | Connector Terminal | | Continuity |
| M52 | 33 | | Not existed |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-231, "Removal and Installation".

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 >

| Automatic drive pos | sitioner control unit | Door mirr | or (driver side) | |
|--|---|----------------------------|--------------------|--|
| Connector | Terminal | Connector | Terminal | Continuity |
| M52 | 41 | D3 | 12 | Existed |
| the inspection result n YES >> GO TO 6. NO >> Repair or re CHECK DOOR MIRF Connect automatic of Check continuity be | place harness. ROR (DRIVER SIDE) | ol unit connector. | | nector and ground. |
| Automatic dri | ive positioner control unit | | | <u>_</u> |
| Connector | Termina | al | Ground | Continuity |
| M52 | 41 | | - | Existed |
| the inspection result n | ormal? | | | |
| NO >> Replace do | or mirror sensor (Bu <u>MBLY : Removal and</u> | ilt in passenger sid | | <u>Removal and Installation"</u> . efr to <u>MIR-18, "DOOR MIR-</u> |
| PASSENGER SIDE | E : Description | | | INFOID:000000004535024 |
| The mirror sensor (pas | ssenger side) is insta | Illed to the door min | ror (passenger sid | de). |
| The resistance of 2 se | | | | or mirror (passenger side) is |
| operated. Automatic drive positic | oner control unit calc | ulates the door mirr | or position accord | ing to the change of the volt- |
| age of 2 sensor input t | | | | |
| ASSENGER SIDE | E : Component | Function Chec | k | INFOID:00000004535025 |
| .CHECK FUNCTION | | | | |
| Turn ignition switch Select "MIR/SEN RI Check the mirror se | | | | |
| Monitor iten | n | Condition | | Value |
| MIR/SEN RH U-D | Deermi | | 3.4 | hange between [V] (close to peak) V] (close to valley) |
| MIR/SEN RH R-L | Door mi | rror (passenger side) | 3.4 [V | hange between] (close to left edge) (close to right edge) |
| s the indication normal? | 2 | | 1 | |
| YES >> INSPECTIO | - N END | efer to <u>ADP-121, "F</u> | ASSENGER SID | <u>E : Diagnosis Procedure"</u> . |
| ASSENGER SIDE | | | | INFOID:000000004535026 |
| .CHECK DOOR MIRF | ROR SENSOR (PAS | SENGER SIDE) SI | GNAL | |
| . Turn ignition switch | | | | |
| . Check voltage autor | matic drive positione | r control unit harne | ss connector and | ground. |
| | | | | |

< 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-231, "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.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) harness connector.

| Automatic drive p | ositioner control unit | Door mirror (passenger side) | | Continuity |
|-------------------|------------------------|------------------------------|----------|------------|
| 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 | Automatic drive positioner control unit | | Continuity |
|--------------------|---|--------|-------------|
| Connector | Terminal | Ground | Continuity |
| M51 | 5 | Ground | Not existed |
| I GIVI | 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 (p | 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 >

| Automatic drive po | ositioner control unit | Doo | r mirror (passeng | jer side) | Continuity |
|---|---|---|---|---------------|-----------------------|
| Connector | Terminal | | Terminal | Continuity | |
| M52 | 33 | D33 | | 11 | Existed |
| Check continuity b | etween automatic driv | e positioner | control unit ha | arness connec | ctor and ground. |
| Automatic c | drive positioner control unit | | | | 0 |
| Connector | Termina | al | Ground | 1 | Continuity |
| M52 | 33 | | | | Not existed |
| the inspection result | normal? | | | · | |
| NO >> Repair or r CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b | atic drive positioner co etween automatic driv | SIDE) SENS | OR GROUND | 1 | |
| senger side) conne | ector. | Doo | r mirror (passeng | uor sido) | |
| Connector | Terminal | Connec | | Terminal | Continuity |
| M52 | 41 | D33 | | 12 | Existed |
| the inspection result | | | | | |
| NO >> Repair or r | eplace harness. | SIDE) SENS | OR GROUND | 2 | |
| NO >> Repair or r CHECK DOOR MIR . Connect automatic . Check continuity b | eplace harness. ROR (PASSENGER S c drive positioner contr etween automatic driv | rol unit conne /e positioner | ector. | | ctor and ground. |
| NO >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c | eplace harness. ROR (PASSENGER S drive positioner contr etween automatic driv | rol unit conne ve positioner | ector. control unit ha | arness connec | ctor and ground. |
| NO >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector | replace harness. ROR (PASSENGER S c drive positioner contr etween automatic driv drive positioner control unit | rol unit conne ve positioner | ector. | arness connec | Continuity |
| NO >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 | replace harness. ROR (PASSENGER S c drive positioner contr etween automatic driv drive positioner control unit Termina 41 | rol unit conne ve positioner | ector. control unit ha | arness connec | |
| NO >> Repair or r CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52 the inspection result YES >> Replace au NO >> Replace do | replace harness. ROR (PASSENGER S c drive positioner contr etween automatic driv drive positioner control unit Termina 41 | rol unit conne ve positioner al ner control un ilt in passeng | ector. control unit ha Ground nit. Refer to <u>AI</u> ger side door | arness connec | Continuity Existed |

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-III.
- 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:000000004535029

INFOID:000000004535027

INEOID:000000004535028

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

Is the inspection result normal?

YES >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to <u>SE-179, "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.

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Connector B504 | river seat control unit Sliding motor Con | | Continuity | |
|---|---|----------------------|----------------------|--|
| B504 | Terminal | Connector | Terminal | Continuity |
| 6504 | 35 | B525 | 35 | Existed |
| | 42 | DJZJ | 42 | LXISIEU |
| . Check continuity be | tween driver seat co | ntrol unit harness o | connector and groun | d. |
| Drive | r seat control unit | | | Continuity |
| Connector | Termina | al | Ground | Continuity |
| B504 | 35 | | | Not existed |
| D304 | 42 | | | Not existed |
| s the inspection result n YES >> GO TO 3. NO >> Repair or re CHECK SLIDING MC | place harness. DTOR | | | |
| NO >> Replace slic | normal? ver seat control unit. ding motor. (Built in s | | | <u>allation"</u> . 79. "Exploded View". |
| Component Inspec | | | | INFOID:00000004535030 |
| | | | | |
| .CHECK SLIDING MC | | | | |
| isually check the sliding | g motor for foreign o | bject, and check th | at the sliding motor | is not broken. |
| /isually check the sliding | g motor for foreign o | bject, and check th | at the sliding motor | is not broken. |
| /isually check the sliding s the inspection result n YES >> GO TO 2. | g motor for foreign o | | - | is not broken. |
| /isually check the sliding s the inspection result n YES >> GO TO 2. | g motor for foreign o <u>tormal?</u> place seat cushion f | | - | is not broken. |
| /isually check the sliding s the inspection result n YES >> GO TO 2. NO >> Repair or re CHECK SLIDING MC . Turn ignition switch . Disconnect sliding n | g motor for foreign o <u>tormal?</u> place seat cushion f DTOR-2 OFF. | rame (sliding moto | r). | is not broken. |
| /isually check the sliding s the inspection result n YES >> GO TO 2. NO >> Repair or re CHECK SLIDING MC . Turn ignition switch . Disconnect sliding n | g motor for foreign o normal? place seat cushion f DTOR-2 OFF. notor connector. | rame (sliding moto | r). ck operation. | |
| /isually check the sliding s the inspection result n YES >> GO TO 2. NO >> Repair or re CHECK SLIDING MC . Turn ignition switch . Disconnect sliding n | g motor for foreign o <u>hormal?</u> place seat cushion f DTOR-2 OFF. notor connector. r terminals with batte | rame (sliding moto | r). | |
| /isually check the sliding s the inspection result n YES >> GO TO 2. NO >> Repair or re CHECK SLIDING MC . Turn ignition switch . Disconnect sliding n . Supply sliding moto | g motor for foreign o normal? place seat cushion f DTOR-2 OFF. notor connector. r terminals with batte | rame (sliding moto | r). ck operation. | ion |

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-III.
- 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:000000004535033

INFOID:000000004535031

INEOID:000000004535032

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-III
- 5. Check voltage between reclining motor harness connector and ground.

| (+) Reclining motor | | (–) Con | | dition | Voltage (V) (Approx.) |
|------------------------|----------|-----------------------|----------------|---------------|--------------------------|
| Connector | Terminal | | | | (********* |
| | | | | OFF | 0 |
| | 36 | Ground SEAT RECLINING | | FR (forward) | Battery voltage |
| DEOD | | | RR (backward) | 0 | |
| B023 | B523 44 | | SEAT RECLINING | OFF | 0 |
| | | | | FR (forward) | 0 |
| | | | | RR (backward) | Battery voltage |

Is the inspection result normal?

YES >> Replace reclining motor. (Built in seat back frame.) Refer to <u>SE-179. "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.

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Connector | control unit | Reclin | Reclining motor Continuity | |
|--|--|----------------------|-----------------------------------|-------------------------------|
| | Terminal | Connector | Terminal | Continuity |
| B504 | 36 | B523 | 36 | Existed |
| 0004 | 44 | 6525 | 44 | Existed |
| Check continuity be | etween driver seat co | ntrol unit harness c | onnector and ground | |
| | er seat control unit | | | Continuity |
| Connector | Termina | al | Ground | |
| B504 | 36 | | | Not existed |
| | 44 | | | |
| the inspection result i | normal? | | | |
| YES >> GO TO 3. NO >> Repair or re | | | | |
| ' | eplace harness. | | | |
| CHECK RECLINING | | | | |
| Refer to <u>ADP-127, "Cor</u> | | | | |
| s the inspection result i | | | | |
| | iver seat control unit. | | | |
| · | C (| i seat slide cushion | trame.) Refer to \underline{SE} | <u>179, "Exploded View"</u> . |
| Component Inspec | ction | | | INFOID:00000000453 |
| | | | | |
| | | | | |
| isually check the reclin | • • | object, and check | that the reclining mot | or is not broken. |
| s the inspection result i | <u>normal?</u> | | | |
| YES >> GO TO 2. NO >> Repair or re | eplace seatback fram | e (reclining motor) | | |
| | splace sealback hain | | | |
| | | , , | | |
| CHECK RECLINING | | | | |
| CHECK RECLINING | OFF. | | | |
| CHECK RECLINING . Turn ignition switch . Disconnect reclining | OFF. g motor connector. | | neck operation. | |
| CHECK RECLINING . Turn ignition switch . Disconnect reclining | OFF. g motor connector. otor terminals with ba | | neck operation. | |
| CHECK RECLINING Turn ignition switch Disconnect reclining Supply reclining mo | OFF. g motor connector. | ttery voltage and ch | | eration |
| CHECK RECLINING Turn ignition switch Disconnect reclining Supply reclining mc (+) | OFF. g motor connector. otor terminals with ba | ttery voltage and cr | Ope | |
| CHECK RECLINING Turn ignition switch Disconnect reclining Supply reclining mo | OFF. g motor connector. otor terminals with ba | ttery voltage and ch | - Ope Fo | eration rward kward |

ADP-127

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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-III.
- 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:000000004535037

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

| (+) Lifting motor (front) | | () | (–) Con | | Voltage (V) (Approx.) |
|------------------------------|----------|--------|----------------|------------|--------------------------|
| Connector | Terminal | | | | |
| | | | | OFF | 0 |
| | 37 | Ground | SEAT LIFTER FR | UP | 0 |
| DEOZ | | | | DWN (down) | Battery voltage |
| B527 | | | | 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-179, "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:000000004535035

INFOID:000000004535036

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

| | t control unit | | Lifting motor | r (front) | Continuity |
|--|--|-----------------|-----------------|------------------|---|
| Connector | Terminal | Connect | or | Terminal | Continuity |
| B504 | 37 | B527 | | 37 | Existed |
| D304 | 45 | 5521 | | 45 | LAISted |
| Check continuity be | etween driver seat co | ntrol unit harn | iess conne | ector and grour | nd. |
| Driv | er seat control unit | | | | |
| Connector | Termina | al | 0 | 1 | Continuity |
| | 37 | | Gro | ound | |
| B504 | 45 | | | | Not existed |
| he inspection result | normal? | | | | |
| ES >> GO TO 3. | oplage horness | | | | |
| • | eplace harness. | | | | |
| CHECK LIFTING M | | | | | |
| | mponent Inspection". | | | | |
| he inspection result | | | | | - !! - !! !! |
| | iver seat control unit. | | | | <u>allation"</u> . 0 <u>SE-179, "Exploded Vi</u> |
| • | | | , eachier i | | |
| omponent Inspec | SUON | | | | INFOID:00000000 |
| CHECK LIFTING M | OTOR-1 | | | | |
| ually the lifting moto | r (front) for foreign ob | ject, and cheo | ck that the | lifting motor (f | ront) is not broken. |
| he inspection result | · / • | , , | | 5 (| , |
| ES >> GO TO 2. | | | | | |
| <u> </u> | eplace seat cushion f | rame (lifting m | 1 | | |
| • | | ianio (mang n | hotor). | | |
| O >> Repair or r CHECK LIFTING M | OTOR-2 | | notor). | | |
| CHECK LIFTING M | n OFF. | | | | |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m | n OFF. notor connector. | | | eration | |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m | n OFF. | | | eration. | |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m Supply lifting motor | n OFF. notor connector. | | | eration. | Operation |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m | n OFF. notor connector. | y voltage and | | eration. | Operation |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m Supply lifting motor | n OFF. notor connector. r terminals with batter | y voltage and | check op | eration. | Operation Up |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m Supply lifting motor | n OFF. notor connector. r terminals with batter | y voltage and | (-) | | • |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m Supply lifting motor Item | n OFF. notor connector. r terminals with batter (+) 45 37 | y voltage and | (-) 37 | eration. | Up |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m Supply lifting motor Item Lifting motor (front) the inspection result ES >> Lifting motor | n OFF. notor connector. r terminals with batter (+) 45 37 normal? or (front) is OK. | y voltage and | (–) 37 45 | | Up Down |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m Supply lifting motor Item Lifting motor (front) the inspection result ES >> Lifting motor | n OFF. notor connector. r terminals with batter (+) 45 37 normal? or (front) is OK. | y voltage and | (–) 37 45 | | Up |
| CHECK LIFTING M Turn ignition switch Disconnect lifting m Supply lifting motor Item Lifting motor (front) the inspection result ES >> Lifting motor | n OFF. notor connector. r terminals with batter (+) 45 37 normal? or (front) is OK. | y voltage and | (–) 37 45 | | Up Down |

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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-III.
- 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:000000004535041

INFOID:000000004535039

INFOID:000000004535040

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

| (+) Lifting motor (rear) | | () | Con | dition | Voltage (V) (Approx.) |
|-----------------------------|--------------------|--------|----------------|------------|--------------------------|
| Connector | Terminal | | | | (********* |
| | | | | OFF | 0 |
| | 38 B529 G 39 | Ground | SEAT LIFTER RR | UP | Battery voltage |
| DE20 | | | | DWN (DOWN) | 0 |
| B529 | | | | 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-179, "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.

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

| | control unit | | Lifting motor (rear) Continuity | | |
|---|--|--|---------------------------------|--|--|
| Connector | Terminal | Connector | Terminal | Continuity | |
| B504 | 38 | B529 | 38 | Existed | |
| 0004 | 39 | 8020 | 39 | Existed | |
| Check continuity be | etween driver seat co | ntrol unit harness c | onnector and groun | d. | |
| | er seat control unit | | | | |
| Connector | Termina | | | Continuity | |
| Connector | 38 | | Ground | | |
| B504 | 39 | | | Not existed | |
| the inspection result | normal? | | | | |
| 'ES >> GO TO 3. | | | | | |
| • | eplace harness. | | | | |
| CHECK LIFTING MO | OTOR (REAR) | | | | |
| efer to <u>ADP-131, "Cor</u> | mponent Inspection". | | | | |
| | normal? | | | | |
| the inspection result | | | | | |
| 'ES >> Replace dri | iver seat control unit. | | | | |
| YES >> Replace dri IO >> Replace lift | iver seat control unit. ing motor (rear). (Bui | | | <u>Illation"</u> . <u>SE-179, "Exploded Vie</u> | |
| 'ES >> Replace dri | iver seat control unit. ing motor (rear). (Bui | | | | |
| YES >> Replace dri IO >> Replace lift Component Inspec | iver seat control unit. ing motor (rear). (Bui ction | | | SE-179, "Exploded Vie | |
| ES >> Replace dri IO >> Replace lift Omponent Inspec | iver seat control unit. ing motor (rear). (Bui ction DTOR-1 | It in seat slide cush | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace dr NO >> Replace lift COMPONENT INSPECT CHECK LIFTING MO sually the lifting motor | iver seat control unit. ing motor (rear). (Bui ction DTOR-1 r (rear) for foreign obj | It in seat slide cush | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace dri NO >> Replace lift Omponent Inspect CHECK LIFTING MC sually the lifting motor the inspection result | iver seat control unit. ing motor (rear). (Bui ction DTOR-1 r (rear) for foreign obj | It in seat slide cush | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace dri NO >> Replace lift COMPONENT INSPECT CHECK LIFTING MC sually the lifting motor the inspection result YES >> GO TO 2. | iver seat control unit. ing motor (rear). (Bui ction DTOR-1 r (rear) for foreign obj | It in seat slide cush | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace dri NO >> Replace lift COMPONENT INSPECT CHECK LIFTING MC sually the lifting motor the inspection result YES >> GO TO 2. | iver seat control unit. ing motor (rear). (Bui ction DTOR-1 r (rear) for foreign obj normal? | It in seat slide cush | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace drives and the second | iver seat control unit. ing motor (rear). (Bui Ction DTOR-1 r (rear) for foreign obj normal? eplace seat cushion f DTOR-2 | It in seat slide cush | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace drives YES >> Replace lift YES >> Replace lift YES INTERCENTING MODEL YES >> GO TO 2. YES >> GO TO 2. YES >> Repair or result YES YES REPAIR OF THECK LIFTING MODEL YES YES YES YES YES YES YES YES YES YES | iver seat control unit. ing motor (rear). (Bui Ction DTOR-1 r (rear) for foreign obj normal? eplace seat cushion f DTOR-2 OFF. notor connector. | It in seat slide cush ject, and check that rame (lifting motor). | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace drives YES >> Replace lift YES >> Replace lift YES INTERCENTING MODEL YES >> GO TO 2. YES >> GO TO 2. YES >> Repair or result YES YES REPAIR OF THECK LIFTING MODEL YES YES YES YES YES YES YES YES YES YES | iver seat control unit. ing motor (rear). (Bui Ction DTOR-1 r (rear) for foreign obj normal? eplace seat cushion f DTOR-2 | It in seat slide cush ject, and check that rame (lifting motor). | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace drives YES >> Replace lift YES >> Replace lift YES INTROPORT INSPECTION YES >> GO TO 2. YES >> GO TO 2. YES >> GO TO 2. YES >> Repair or result YES YES CONTO 2. | iver seat control unit. ing motor (rear). (Bui Ction DTOR-1 r (rear) for foreign obj normal? eplace seat cushion f DTOR-2 OFF. notor connector. | It in seat slide cush ject, and check that rame (lifting motor). | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace drives YES >> Replace lift YES >> Replace lift YES INTERCENTING MODEL YES >> GO TO 2. YES >> GO TO 2. YES >> Repair or result YES YES REPAIR OF THECK LIFTING MODEL YES YES YES YES YES YES YES YES YES YES | iver seat control unit. ing motor (rear). (Bui Ction DTOR-1 r (rear) for foreign obj normal? eplace seat cushion f DTOR-2 OFF. notor connector. terminals with batter | It in seat slide cush ject, and check that rame (lifting motor). Ty voltage and check | ion frame.) Refer to | SE-179. "Exploded Vie | |
| YES >> Replace drives and the second | iver seat control unit. ing motor (rear). (Bui Ction DTOR-1 r (rear) for foreign obj normal? eplace seat cushion f DTOR-2 OFF. notor connector. | It in seat slide cush ject, and check that rame (lifting motor). | ion frame.) Refer to | SE-179. "Exploded Vie INFOID:00000004 ar) is not broken. | |
| YES >> Replace drives YES >> Replace lift YES >> Replace lift YES INTROPORT INSPECTION YES >> GO TO 2. YES >> GO TO 2. YES >> GO TO 2. YES >> Repair or result YES YES CONTO 2. | iver seat control unit. ing motor (rear). (Bui Ction DTOR-1 r (rear) for foreign obj normal? eplace seat cushion f DTOR-2 OFF. notor connector. terminals with batter (+) | It in seat slide cush ject, and check that rame (lifting motor). | ion frame.) Refer to | SE-179. "Exploded Vie | |

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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-III.
- 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:000000004535045

INFOID:000000004535043

INEOID-000000004535044

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-III.
- 5. Check voltage between tilt & telescopic motor harness connector and ground.

| (+) Tilt & telescopic motor | | (-) Ca | | ondition | Voltage (V) (Approx.) |
|--------------------------------|----------|------------------|-------------------|-----------------|---|
| Connector | Terminal | • | | | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| | | | | OFF | 0 |
| 3 | | | UP | 0 | |
| M40 | | Ground TILT MOTC | | DWN (down) | Battery voltage |
| M49 | | | Ground TILL 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.

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Connector Terminal Connector Terminal M52 35 M49 4 Existed Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Ground Continuity M52 35 Ground Continuity M52 35 Ground Not existed M52 35 42 Not existed the inspection result normal? Yes Yes Not existed VO >> Replace harness. CHECK TILT MOTOR Sere to ADP-133. "Component Inspection". Mot existed . VES >> Replace automatic drive positioner control unit. Refer to ADP-231. "Removal and Installation". . . VO >> Replace automatic drive positioner control unit. Refer to ST-21. "WITH ELECTRIX MOTOR: . . MOTOR : Explored View". CHECK SLIDING MOTOR <t< th=""><th>Automatic drive po</th><th>sitioner control unit</th><th>Tilt & tele</th><th>escopic motor</th><th>Continuity</th></t<> | Automatic drive po | sitioner control unit | Tilt & tele | escopic motor | Continuity |
|--|--|---|----------------------|---------------------|---------------------|
| M52 42 M49 3 Existed Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Connector Terminal Ground M52 42 Continuity Connector Terminal Ground Not existed M52 35 M52 42 Not existed Not existed S >> GO TO 3. > > Not existed S >> Replace automatic drive positioner control unit. Refer to ADP-231, "Removal and Installation". >> > > | Connector | Terminal | Connector | Terminal | Continuity |
| Automatic drive positioner control unit Continuity Connector Terminal Ground Not existed M52 35 Not existed Not existed me inspection result normal? S >> GO TO 3. Not existed D >> Repair or replace harness. CHECK TILT MOTOR er to ADP-133. "Component Inspection". ne inspection result normal? ES >> Replace automatic drive positioner control unit. Refer to ADP-231, "Removal and Installation". D >> Replace automatic drive positioner control unit. Refer to ADP-231, "Removal and Installation". D >> Replace automatic drive positioner control unit. Refer to ST-21, "WITH ELECTRIX MOTOR : Exploded View". mponent Inspection Notexisted CHECK SLIDING MOTOR Proceconcentro Turn ignition switch OFF. Disconnect fill motor connector. Supply tilt motor terminals with battery voltage and check operation. Operation (+) (-) Qperation (+) (-) Qperation 3 4 Down me inspection result normal? S S > Tilt motor is OK. Operation O >> Replace tilt motor. (Built in stee | M52 | | M49 | | Existed |
| Connector Terminal Ground Continuity M52 35 Not existed Not existed he inspection result normal? S >> GO TO 3. Not existed D >> Repair or replace harness. CHECK TILT MOTOR Not existed er to ADP-133. "Component Inspection". Not existed Not existed me inspection result normal? ES >> Replace automatic drive positioner control unit. Refer to ADP-231. "Removal and Installation". D >> Replace automatic drive positioner control unit. Refer to ADP-231. "Removal and Installation". D >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21. "WITH ELECTRIC MOTOR Turn ignition switch OFF. Disconnect tilt motor connector. Supply tilt motor terminals with battery voltage and check operation. Not existed (+) (-) Up 3 4 Down ne inspection result normal? ES S >> Tilt motor is OK. Down O >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21. "WITH ELECTRIC | Check continuity be | etween automatic driv | e positioner control | unit harness connec | ctor and ground. |
| Connector Terminal Ground M52 35 42 he inspection result normal? ES >> GO TO 3. O >> Repair or replace harness. CHECK TILT MOTOR fer to ADP-133. "Component Inspection". he inspection result normal? ES >> Replace automatic drive positioner control unit. Refer to ADP-231, "Removal and Installation". O >> Replace automatic drive positioner control unit. Refer to ADP-231, "Removal and Installation". O >> Replace automatic drive positioner control unit. Refer to ADP-231, "Removal and Installation". O >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21. "WITH ELECTRIX MOTOR : Exploded View". mponent Inspection MF000000000000000000000000000000000000 | Automatic d | rive positioner control unit | | | Continuity |
| M52 35 42 Not existed the inspection result normal? ES >> GO TO 3. IO >> Repair or replace harness. .CHECK TILT MOTOR offer to ADP-133. "Component Inspection". the inspection result normal? ES >> Replace automatic drive positioner control unit. Refer to ADP-231. "Removal and Installation". IO >> Replace automatic drive positioner control unit. Refer to ST-21. "WITH ELECTRIK MOTOR : Exploded View". Omponent Inspection CHECK SLIDING MOTOR Turn ignition switch OFF. Disconnect tilt motor connector. Supply tilt motor terminals with battery voltage and check operation. (+) (-) 4 3 3 4 Down the inspection result normal? ES >> Tilt motor is OK. IO >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21. "WITH ELECTRIK | Connector | Termina | al | Ground | Continuity |
| 42 the inspection result normal? YES >> GO TO 3. 40 >> Repair or replace harness. .CHECK TILT MOTOR effer to <u>ADP-133. "Component Inspection"</u> . the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-231. "Removal and Installation"</u> . 40 >> Replace automatic drive positioner control unit. Refer to <u>ADP-231. "Removal and Installation"</u> . 40 >> Replace automatic drive positioner control unit. Refer to <u>ADP-231. "Removal and Installation"</u> . 40 >> Replace automatic drive positioner control unit. Refer to <u>ADP-231. "Removal and Installation"</u> . 40 >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21. "WITH ELECTRIM MOTOR</u> Turn ignition switch OFF. Disconnect tilt motor connector. Supply tilt motor terminals with battery voltage and check operation. Image: Component Inspection result normal? (+) (-) Operation (+) (-) Operation 4 3 Up 3 4 Down the inspection result normal? YES >> Tilt motor is OK. IO >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21. "WITH ELECTRIM</u> | | 35 | | | Not existed |
| YES >> GO TO 3. IO >> Repair or replace harness. .CHECK TILT MOTOR after to ADP-133. "Component Inspection". the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to ADP-231, "Removal and Installation". IO >> Replace automatic drive positioner control unit. Refer to ADP-231, "Removal and Installation". IO >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21. "WITH ELECTRIC MOTOR : Exploded View". Omponent Inspection wron.commonsector. Supply tilt motor connector. Supply tilt motor terminals with battery voltage and check operation. Image: Terminal free model in the inspection result normal? Operation (+) (-) (-) (-) (-) (-) (-) (-) (-) (-) (- | MOZ | 42 | | | Not existed |
| Turn ignition switch OFF. Disconnect tilt motor connector. Supply tilt motor terminals with battery voltage and check operation. Terminal Operation (+) (-) Operation 4 3 Up 3 4 Down the inspection result normal? ES >> Tilt motor is OK. IO >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21. "WITH ELECTRIC | CHECK TILT MOTO fer to <u>ADP-133. "Cor</u> <u>the inspection result in</u> ES >> Replace au O >> Replace til <u>MOTOR : E</u> omponent Inspec | R nponent Inspection". normal? itomatic drive positior t motor. (Built in st Exploded View". | | | T-21, "WITH ELECTRI |
| (+) (-) Operation 4 3 Up 3 4 Down the inspection result normal? YES >> Tilt motor is OK. JO >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC | Turn ignition switch Disconnect tilt moto | OFF. or connector. | oltago and chack of | ocration | |
| 4 3 Up 3 4 Down the inspection result normal? K (ES >> Tilt motor is OK. Solution (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC | Turn ignition switch Disconnect tilt moto | OFF. or connector. rminals with battery v | oltage and check of | | |
| the inspection result normal? (ES >> Tilt motor is OK. IO >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21, "WITH ELECTRIC</u> | Turn ignition switch Disconnect tilt moto Supply tilt motor ter | OFF. or connector. rminals with battery v Terminal | oltage and check op | | |
| YES >> Tilt motor is OK. NO >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21. "WITH ELECTRIC</u> | Turn ignition switch Disconnect tilt moto Supply tilt motor ter (+) | OFF. or connector. rminals with battery v Terminal (-) | oltage and check or | Operatic | n |
| | Turn ignition switch Disconnect tilt moto Supply tilt motor ter (+) 4 | OFF. or connector. rminals with battery v Terminal (-) 3 | oltage and check of | Operatio | 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-III.
- 3. Check the telescopic motor operation.

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

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-III
- 5. Check voltage between tilt & telescopic motor harness connector and ground.

| (+) Tilt & telescopic motor | | (-) | Condition | | Voltage (V) (Approx.) |
|--------------------------------|----------|--------|---------------|-----------------|--------------------------|
| Connector | Terminal | | | | () |
| | | | | OFF | 0 |
| | 1 | | | FR (forward) | 0 |
| M40 | | Ground | | RR (backward) | Battery voltage |
| M49 | | Ground | 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.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic motor harness connector.

INEOID:000000004535048

INFOID:000000004535049

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Automatic drive po | sitioner control unit | | Tilt & telescopic motor | | |
|--|---|---------------|-------------------------|------------------|---|
| Connector | Terminal | Conne | ector | Terminal | Continuity |
| M52 | 36 | M4 | 10 | 2 | Existed |
| 10132 | 44 | - 1014 | +9 | 1 | Existed |
| Check continuity be | etween automatic driv | ve positione | er control | unit harness cor | nector and ground. |
| Automatic di | ive positioner control unit | t | | | Continuity |
| Connector | Termin | nal | | Ground | |
| M52 | 36 | | | | Not existed |
| s the inspection result i | 44 | | | | |
| CHECK SLIDING M Refer to <u>ADP-135. "Cor</u> <u>s the inspection result r</u> YES >> Replace au NO >> Replace tel | nponent Inspection". normal? tomatic drive position escopic motor. (Built exploded View". | ner control (| | | Removal and Installati to ST-21, "WITH ELE |
| CHECK SLIDING M Turn ignition switch | OTOR-2 | | age and c | heck operation. | INFOLD.000 |
| CHECK SLIDING M Turn ignition switch | OTOR-2 OFF. pic motor connector. | | age and c | | |
| CHECK SLIDING M Turn ignition switch | OTOR-2 OFF. pic motor connector. notor terminals with b | | age and c | | ration |
| CHECK SLIDING M Turn ignition switch Disconnect telesco Supply telescopic n | OTOR-2 OFF. pic motor connector. notor terminals with b Terminal | | age and c | Оре | |
| CHECK SLIDING MC Turn ignition switch Disconnect telescop Supply telescopic n | OTOR-2 OFF. pic motor connector. notor terminals with b Terminal (-) 1 2 | | age and c | Ope | ration |

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Description

INFOID:000000004535051

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:000000004535052

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-III.
- 3. Check the door mirror motor operation.

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

| Test | item | Descr | iption |
|----------------------|------|--------------------------------|----------|
| | OFF | | Stop |
| | L | L R Door mirror face | Inward |
| DOOR MIRROR MOTOR RH | 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:000000004535053

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.

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

Is the inspection result normal?

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

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

2. CHECK HARNESS CONTINUITY

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

| A | utomatic drive pos | itioner control unit | [| Door mirror (d | river side) | | | |
|-----------|--|--------------------------------------|--------------------|-------------------|------------------------|---------------------------|--|--|
| | Connector | Terminal | Conne | ctor | Terminal | Continuity | | |
| | | 16 | | | 7 | | | |
| | M51 | 31 | D3 | | 5 | Existed | | |
| | _ | 32 | | | 6 | | | |
| [Door | mirror passenger sic | le] | | | | | | |
| A | utomatic drive pos | itioner control unit | Do | or mirror (pas | senger side) | Continuity | | |
| | Connector | Terminal | Conne | ctor | Terminal | Continuity | | |
| | | 14 | | | 5 | | | |
| | M51 | 15 | D33 | 3 | 6 | Existed | | |
| | | 30 | | | 7 | | | |
| I. Cheo | k continuity be | tween automatic driv | e positioner | r control un | it connector and | ground. | | |
| [Door | mirror driver side] | | | | | | | |
| | Automatic dri | ve positioner control unit | | | | Continuity | | |
| | Connector | Termina | l | | | | | |
| | | 16 | | Ground | | Ground | | |
| | M51 | 31 | | | | Not existed | | |
| | | 32 | | | | | | |
| [Door | mirror passenger sic | - | | | 1 | | | |
| | Automatic dri | ve positioner control unit | | | | Continuity | | |
| . <u></u> | Connector | Termina | 1 | | | · | | |
| | | 14 | | Ground | | | | |
| | M51 | 15 | | | | Not existed | | |
| | | 30 | | | | | | |
| YES NO | | omatic drive position place harness. | er control u | nit. Refer to | 0 <u>ADP-231, "Rem</u> | noval and Installation". | | |
| | or mirror moto | | | | | | | |
| | | ponent Inspection". | | | | | | |
| | <u>pection result r</u> >> GO TO 4. | | | | | | | |
| | | or mirror. Refer to MII | <u>R-18, "DO</u> C | <u>DR MIRRO</u> F | R ASSEMBLY : R | emoval and Installation". | | |
| | • | | | | | | | |
| | GI-41, "Intermit | | | | | | | |
| | | | | | | | | |
| | >> INSPECTIC | N END | | | | | | |
| Compo | nent Inspec | tion | | | | INFOID:000000004535054 | | |
| 1 | | | | | | | | |
| I.CHEC | | | | | | | | |

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to <u>MIR-17</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-18, "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 |
| D33 (Passenger side) | 5 | 7 | UP |
| | 7 | 5 | DOWN |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror. Refer to MIR-18, "DOOR MIRROR ASSEMBLY : Removal and Installation".

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description

INFOID:000000004535055

INFOID:000000004535056

А

В

С

D

F

- 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-III.
- 3. Check the memory indicator operation.

| Test item | | | Description | | |
|---|---|---------------------------------------|---------------------------------|----------------------------------|--|
| | OFF | | | OFF | |
| MEMORY SW INDCTR | ON-1 | Memory switch | witch indicator Indicator 1: ON | Indicator 1: ON | |
| | ON-2 | | | Indicator 2: ON | |
| the operation of relev | ant parts normal? | | | | |
| YES >> INSPECTIO | | | | | |
| NO >> Perform dia | ignosis procedure. Re | efer to <u>ADP-139, "Dia</u> | gnosis Procedure | <u>_</u> . | |
| iagnosis Proced | Jre | | | INFOID:0000000453505 | |
| .CHECK MEMORY IN | | | | | |
| | | | | | |
| heck voltage between | seat memory switch | namess connector an | la grouna. | | |
| | (+) | | | | |
| Sea | t memory switch | | () | Voltage (V) (Approx.) | |
| Connector | Termina | I | | () | |
| D5 | 5 | G | Ground | Battery voltage | |
| Harness f | [No.10 located in fuse or open or short betw NDICATOR CIRCUIT | eblock (J/B)]. een memory indicato | r and fuse. | | |
| Turn ignition switch Disconnect automa | tic drive positioner co etween automatic dri | | | ector. nector and seat memory | |
| Turn ignition switch Disconnect automa Check continuity be | tic drive positioner co etween automatic dri nector. | | unit harness con | nector and seat memory | |
| Turn ignition switch Disconnect automa Check continuity b switch harness con | tic drive positioner co etween automatic dri nector. | ve positioner control | unit harness con | | |
| Turn ignition switch Disconnect automa Check continuity b switch harness con Automatic drive po | tic drive positioner co etween automatic dri nector. sitioner control unit | ve positioner control | unit harness con | nector and seat memory | |

| _ | Automatic drive po | sitioner control unit | | Continuity |
|---|--------------------|-----------------------|--------|-------------|
| _ | Connector | Terminal | Ground | Continuity |
| | M51 | 12 | Ground | Not existed |
| | WO I | 13 | | NUL EXISIEU |

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

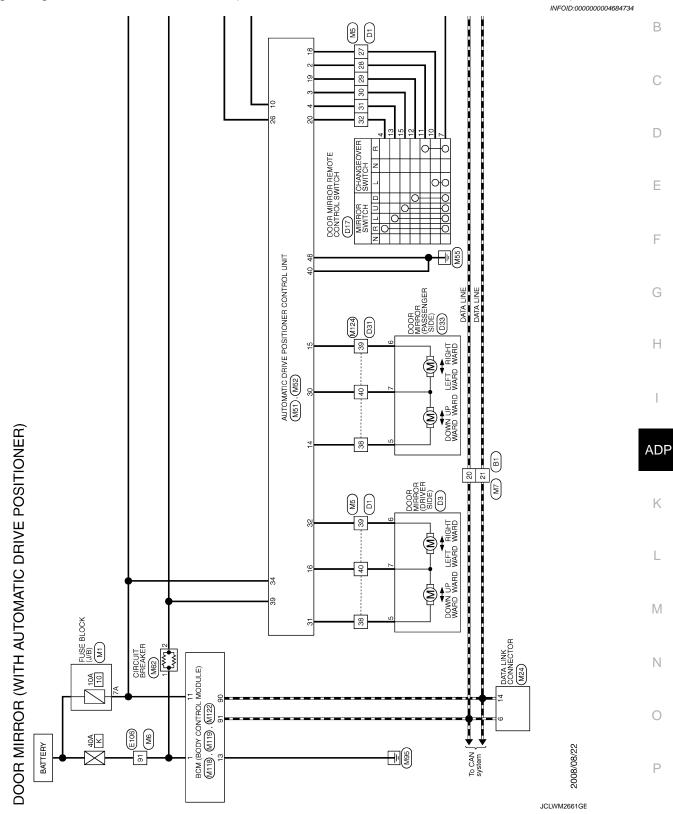
Is the inspection result normal?

- YES >> Replace seat memory switch. Refer to <u>ADP-232, "Removal and Installation"</u>.
- NO >> Repair or replace harness.

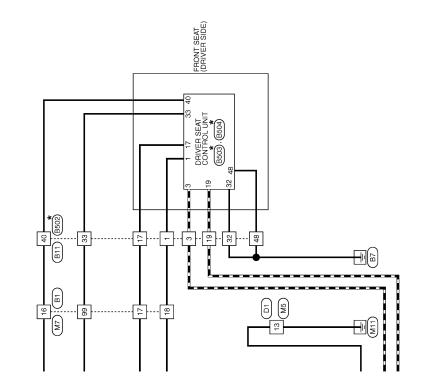
< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR SYSTEM

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



А

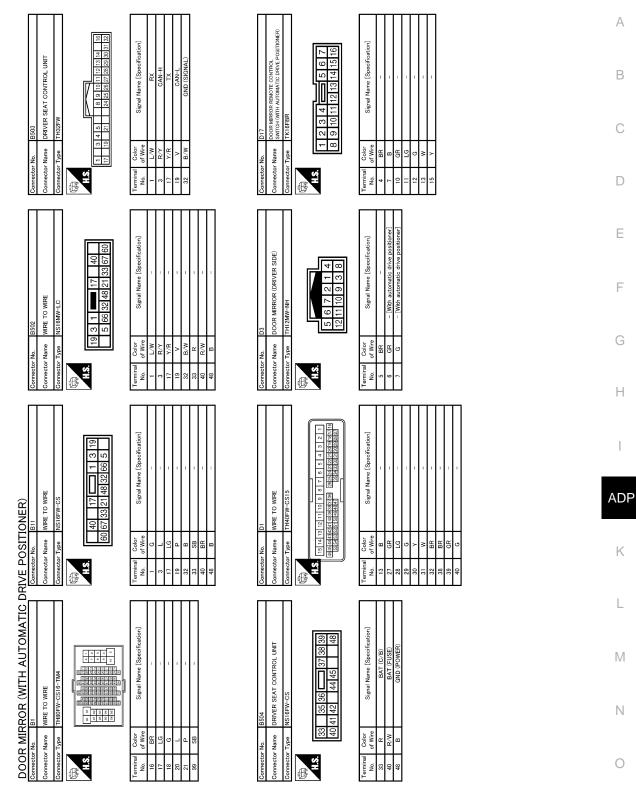


JCLWM2662GE

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

DOOR MIRROR SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

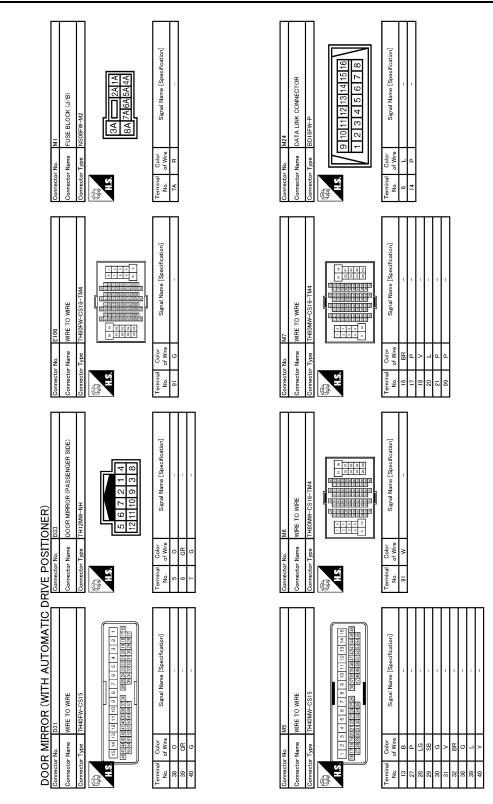


JCLWM2663GE

Ρ

DOOR MIRROR SYSTEM

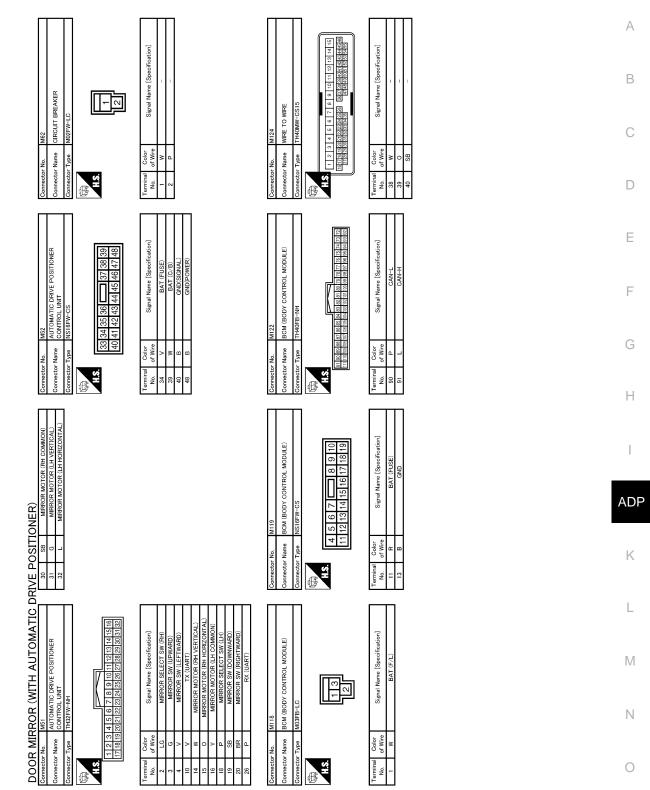
< DTC/CIRCUIT DIAGNOSIS >



JCLWM2664GE

DOOR MIRROR SYSTEM

< DTC/CIRCUIT DIAGNOSIS >



JCLWM2665GE

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

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

Reference Value

INFOID:000000004555928

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

| Monitor Item | Monitor Item Condition | | Value/Status |
|---------------|-----------------------------|------------------|--------------|
| SET SW | Set switch | Push | ON |
| 3ET 3W | Set Switch | Release | OFF |
| MEMORY SW1 | Momory quitch 1 | Push | ON |
| WEWORT SWI | Memory switch 1 | Release | OFF |
| | Momory quitch 2 | Push | ON |
| MEMORY SW2 | Memory switch 2 | Release | OFF |
| | Olidia a socitale (frant) | Operate | ON |
| SLIDE SW-FR | Sliding switch (front) | Release | OFF |
| | Oliding quaitab (rear) | Operate | ON |
| SLIDE SW-RR | Sliding switch (rear) | Release | OFF |
| | | Operate | ON |
| RECLN SW-FR | Reclining switch (front) | Release | OFF |
| | - | Operate | ON |
| RECLN SW-RR | Reclining switch (rear) | Release | OFF |
| | | Operate | ON |
| LIFT FR SW-UP | Lifting switch front (up) | Release | OFF |
| LIFT FR SW-DN | Lifting owitch front (down) | Operate | ON |
| | Lifting switch front (down) | Release | OFF |
| | Lifting switch rear (up) | Operate | ON |
| LIFT RR SW-UP | | Release | OFF |
| | | Operate | ON |
| LIFT RR SW-DN | Lifting switch rear (down) | Release | OFF |
| | NAimen suitek | Up | ON |
| MIR CON SW-UP | Mirror switch | Other than above | OFF |
| | NA ¹ | Down | ON |
| MIR CON SW-DN | Mirror switch | Other than above | OFF |
| | NAimen eusidek | Right | ON |
| MIR CON SW-RH | Mirror switch | Other than above | OFF |
| | NA ¹ | Left | ON |
| MIR CON SW-LH | Mirror switch | Other than above | OFF |
| | | Right | ON |
| MIR CHNG SW-R | Changeover switch | Other than above | OFF |
| | Ohannan ital | Left | ON |
| MIR CHNG SW-L | Changeover switch | Other than above | OFF |
| | T 'le , 'e l | Up | ON |
| TILT SW-UP | Tilt switch | Other than above | OFF |
| | T 'le , 'e l | Down | ON |
| TILT SW-DOWN | Tilt switch | Other than above | OFF |

< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Cone | dition | Value/Status |
|-----------------------------|---------------------------|------------------|--|
| TELESCO SW-FR | | Forward | ON |
| TELESCO SW-FR | Telescopic switch | Other than above | OFF |
| TELESCO SW-RR | Tilt switch | Backward | ON |
| TELESCO SW-KK | The Switch | Other than above | OFF |
| FORWARD SW | Seat back | Folded down | ON |
| I ORWARD SW | Jeal back | Other than above | OFF |
| WALK-IN SW | Power walk-in switch | Pressed | ON |
| WALK IN OW | | Other than above | OFF |
| FWD LIMIT SW | Seat sliding | Front edge | ON |
| | | Other than above | OFF |
| SEAT BELT SW | Seat belt | Fastened | ON |
| OLAT BEET OW | | 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 | ide) | Change between 3.4 (close to peak) 0.6 (close to valley) |
| MIR/SEN RH R-L | Door mirror (passenger s | ide) | Change between 3.4 (close to left edge) 0.6 (close to right edge) |
| MIR/SEN LH U-D | Door mirror (driver side) | | Change between 3.4 (close to peak) 0.6 (close to valley) |
| MIR/SEN LH R-L | Door mirror (driver side) | | Change between 0.6 (close to left edge) 3.4 (close to right edge) |
| TILT SEN | Tilt position | | Change between 1.2 (close to top) 3.4 (close to bottom) |
| TELESCO SEN | Telescopic position | | Change between 3.4 (close to top) 0.8 (close to bottom) |

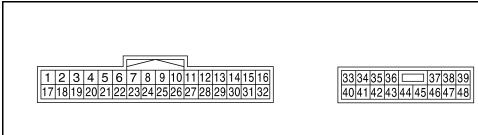
*1: A/T model

*2: M/T model

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

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

| Termir | nal No. | Description | | | | |
|-----------|---------|--|-----------------------|-------------------------------|----------------------|-------------------------|
| + | - | Signal name | Input/ Out- put | Con | dition | Voltage (V) (Approx) |
| 1 L/W | Ground | UART communica- tion (RX) | Input | Ignition switch ON | | 2mSec/div |
| 3 R/Y | — | CAN-H | — | - | _ | _ |
| 4 | _ | Sliding limit switch | | Seat sliding front e | | 0 |
| 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 | & seat switch | 5 |
| L | | er side) | - | Other than above | | 0 |
| 8 | Ground | Parking brake | Input | Parking brake | Applied | 0 |
| L/Y | | switch signal | p at | | Release | Battery voltage |
| 9 W/G | Ground | Reclining sensor signal | Input | Seat reclining | Operate | 10mSec/div |
| | | | | | Stop | 0 or 5 |
| 10 P/B | Ground | Lifting sensor (rear) signal | Input | Seat lifting (rear) | Operate | 10mSec/div |
| | | | | | Stop | 0 or 5 |

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JMJIA0199ZZ

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

| Termi | nal No. | Description | | | | |
|--------------|---------|---|-----------------------|---------------------------|-----------------------|--|
| + | - | Signal name | Input/ Out- put | Con | dition | Voltage (V) (Approx) |
| 11 (BR) | Ground | Sliding switch backward signal | Input | Sliding switch | Operate (backward) | 0 |
| () | | | | | Release | Battery voltage |
| 12 (SB) | Ground | Reclining switch backward signal | Input | Reclining switch | Operate (backward) | 0 |
| (-) | | | | | Release | Battery voltage |
| 13 (LG/R) | Ground | Lifting switch (front) downward signal | Input | Lifting switch (front) | Operate (downward) | 0 |
| (LO/IV) | | downward Signal | | (nont) | Release | Battery voltage |
| 14 (GB) | Ground | Lifting switch (rear) downward signal | Input | Lifting switch (rear) | Operate (downward) | 0 |
| (00) | | downward Signal | | (icai) | 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 | | 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 |
| | Ground | Lifting sensor (front) signal | Input | Seat lifting (front) | Operate | 10mSec/div |
| 25 (Y/B) | | | | | | 2V/div JMJIA0119ZZ |

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

| + - Signal name put (Y) Input Out (Aprox) Condition Voltage (Y) (Approx) 26 (Y) Ground Silding switch for- ward signal Input Silding switch (forward) 0 0 27 (R/G) Ground Silding switch forward signal Input Reclining switch (forward) 0 0 28 (W/B) Ground Editing switch form Input Seat iffing switch form Operate (forward) 0 28 (W/B) Ground Lifting switch (rear) upward signal Input Seat iffing switch form Operate (upward) 0 29 (PL) Ground Lifting switch (rear) upward signal Input Seat iffing switch frear) Operate (upward) 0 30 (P) Ground Prover walk-in switch signal Input Seat iffing switch frear) Pressed 0 31 (R) Ground Signal aname Power walk-in switch signal Input Seat iffing switch frear) Pressed 0 33 (R) Ground Signal - - 0 0 34 (W/R) Ground | Termi | nal No. | Description | | | | |
|---|------------|---------|--------------------|-------|----------------------|---------------------|-----------------|
| 26 (Y) Ground Silding switch for- ward signal Input Silding switch hput (forward) 0 27 (R/G) Ground Reclining switch forward signal Input Reclining switch forward signal Input Reclining switch forward signal 0 28 (W/B) Ground Lifting switch (front) upward signal Input Seat lifting switch (front) Release Battery voltage 28 (P/L) Ground Lifting switch (rear) upward signal Input Seat lifting switch (rear) Persete (upward) 0 30 (P) Ground Perser walk-in switch signal Input Seat lifting switch (rear) Persesed 0 31 (GR) Ground Ground (signal) - - 0 0 32 (BW/R) Ground Ground (signal) - - 0 0 33 (R) Ground Seasor ground - - - 0 0 33 (RW/R) Ground Siding motor for- ward output Out- put Seat silding Operate (forward) Battery voltage 34 (GYY) Groun | + | - | Signal name | Out- | Con | dition | |
| Z7 (RiG) Ground Reclining switch forward signal Input upward signal Reclining switch from Operate (upward) 0 28 (W/B) Ground Lifting switch (front) upward signal Input Seat lifting switch (front) Operate (upward) 0 29 (P/L) Ground Lifting switch (rear) upward signal Input Seat lifting switch (rear) Release Battery voltage 30 (P) Ground Power walk-in switch signal Input Seat lifting switch (rear) Pressed 0 31 (GR) Ground Sensor ground - - 0 0 33 (R) Ground Sensor ground (signal) - - 0 0 33 (R) Ground Sensor ground (signal) - - 0 0 33 (R) Ground Seliding motor for- ward output Out- put Seat reclining Operate (forward) Battery voltage 34 (G/W) Ground Lifting motor (front) (dwnward output Out- put Seat reclining Operate (forward) Operate (forward) Statery voltage | | Ground | | Input | Sliding switch | (forward) | |
| 27 (R/G) Ground Reclining switch forward signal Input Reclining switch (front) (forward) 0 28 (W/B) Ground Lifting switch (front) upward signal Input Seat lifting switch (front) Operate (upward) 0 29 (PL) Ground Lifting switch (front) upward signal Input Seat lifting switch (frear) Operate (upward) 0 30 Ground Lifting switch (front) upward signal Input Seat lifting switch (frear) Pressed 0 31 Ground Sensor ground — — 0 0 32 Ground Sensor ground — — 0 0 33 Ground Sensor ground (signal) — — 0 0 33 Ground Siding motor for- ward output Out- ward output Seat sliding Operate (forward) Battery voltage 34 Ground Lifting motor (front) ward output Out- put Seat sliding (front) Out- put Seat sliding (front) Out- genate 0 36 Ground< | | | | | | | Ballery voltage |
| 28 (W/B) Ground Lifting switch (front) upward signal Input Seat lifting switch (front) Operate (upward) Operate (upward) Operate (upward) O 29 (P/L) Ground Lifting switch (front) upward signal Input Seat lifting switch (frear) Seat lifting switch (frear) Operate (upward) 0 30 (P) Ground Lifting switch (frear) upward signal Input Seat lifting switch (frear) Pressed 0 31 (GR) Ground Sensor ground — — 0 0 32 (R) Ground Sensor ground — — — 0 33 (R) Ground Sensor ground for- ward output for- ward output for- put Out- put Seat sliding Operate (forward) Battery voltage 33 (R) Ground Siding motor for- ward output signal Out- put Seat sliding Operate (forward) Battery voltage 36 (GY) Ground Lifting motor (front) (GWW) Out- ward output Seat lifting (front) Out- put Seat lifting (front) Operate (downward) Operate (downward) Operate (downward) | | Ground | | Input | Reclining switch | (forward) | |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | . <u> </u> | | | | | | ballery voltage |
| 29 (P/L) Ground Lifting switch (rear) upward signal Input (rear) Seat lifting switch (rear) Operate (upward) 0 30 (P) Ground Power walk-in switch signal Input (rear) Seat lifting switch (rear) Pressed 0 31 (GR) Ground Sensor ground — — 0 0 32 (BW) Ground Sensor ground — — — 0 33 (R) Ground Sensor ground (signal) — — 0 0 33 (R) Ground Power source (C/B) Input — — 0 34 (RW) Ground Stiding motor for- ward output Out put Seat reclining put Operate (forward) Battery voltage 36 (GYY) Ground Lifting motor (front) downward output Out put Seat lifting (front) Operate (downward) Battery voltage 37 (GW) Ground Lifting motor (rear) upward output Out put Seat lifting (rear) Operate (downward) Battery voltage 38 (LY) Ground Lifting motor (rear) (RW) </td <td></td> <td>Ground</td> <td></td> <td>Input</td> <td></td> <td>(upward)</td> <td></td> | | Ground | | Input | | (upward) | |
| 29 (P/L) Ground Lifting switch (rear) upward signal Input (rear) Seat lifting switch (rear) (upward) 0 30 (P) Ground Power walk-in switch signal Input Power walk-in switch Power walk-in switch Pressed 0 31 (GR) Ground Sensor ground - - - 0 32 (BW) Ground Ground (signal) - - 0 33 (R) Ground Ground (signal) - - 0 33 (R) Ground Seat source (C/B) Input - Battery voltage 35 (W/R) Ground Siding motor for- ward output Out- put Seat sliding Operate (forward) Battery voltage 36 (GY) Ground Lifting motor for- ward output signal Out- put Seat reclining Operate (downward) Battery voltage 37 (GW) Ground Lifting motor (rear) upward output Out- put Seat lifting (rear) Operate (downward) Battery voltage 39 (R/R) Ground Lifting motor (rear) upward output Out- put Seat lifting (rear) Operate (downward) Battery voltage 39 (R/R) Ground Lifting motor (rear) upward output Out- put Seat lifting (rear) Operate (downward) Batter | | | | | | | Battery voltage |
| 30 (P) Ground Power walk-in switch signal Input Imput Power walk-in switch Release Battery voltage 31 (GR) Ground Sensor ground — — 0 | | Ground | | Input | - | (upward) | |
| 33GroundForward signalInputForward watch in switch signal1(GR)GroundSensor ground032GroundGround (signal)033GroundGround (signal)033GroundPower source (C/B)InputBattery voltage35GroundSliding motor for- ward outputOut- putSeat slidingOperate (forward)Battery voltage36GroundReclining motor for- ward outputOut- putSeat slidingOperate (forward)Battery voltage36GroundReclining motor for- ward output signalOut- putSeat slidingOperate (forward)Battery voltage37GroundLifting motor (front) downward outputOut- putSeat iffting (front)Operate (downward)Operate (downward)Battery voltage38GroundLifting motor (rear) upward outputOut- putSeat lifting (rear)Operate (downward)Battery voltage39GroundLifting motor (rear) downward outputOut- putSeat lifting (rear)Operate (downward)Battery voltage40GroundForward switch sig- nalInputSeat slifting (rear)Operate (downward)Battery voltage41Forward switch sig- nalInputSeat slifting (rear) vard outputSeat slifting (rear)Operate (downward)O42GroundForward switc | | | | | | | |
| 31 (GR) Ground Sensor ground — — — 0 32 (BW) Ground Ground (signal) — — 0 33 (R) Ground Ground (signal) — — 0 33 (R) Ground Power source (C/B) Input — — 0 35 (W/R) Ground Sliding motor for- ward output signal Out- put Seat sliding Operate (forward) Battery voltage 36 (G/V) Ground Reclining motor for- ward output signal Out- put Seat reclining Operate (forward) Battery voltage 37 (GW) Ground Lifting motor (front downward output Out- put Seat lifting (front) Out- put Seat lifting (rear) Operate (upward) Battery voltage 38 (LY) Ground Lifting motor (rear) downward output Out- put Seat lifting (rear) Operate (downward) Battery voltage 40 (R/W) Ground Lifting motor (rear) downward output Out- put Seat lifting (rear) Operate (downward) Battery voltage 41 (Y/G) <td< td=""><td></td><td>Ground</td><td></td><td>Input</td><td></td><td></td><td>-</td></td<> | | Ground | | Input | | | - |
| (GR) Ground Sensor ground 0 32 (BW) Ground Ground (signal) 0 33 (R) Ground Power source (C/B) Input Battery voltage 35 (W/R) Ground Siding motor for- ward output signal Out- put Seat sliding Operate (forward) Battery voltage 36 (G/Y) Ground Reclining motor for- ward output signal Out- put Seat reclining Operate (forward) Battery voltage 37 (G/W) Ground Lifting motor (front) downward output Out- put Seat lifting (front) Operate (downward) Battery voltage 38 (L/Y) Ground Lifting motor (rear) (D/Y) Out- put Seat lifting (rear) Operate (upward) Battery voltage 39 (R/B) Ground Lifting motor (rear) downward output Out- put Seat lifting (rear) Operate (upward) Battery voltage 40 (R/W) Ground Lifting motor (rear) downward output Out- put Seat lifting (rear) Operate (upward) Battery voltage 41 (Y/G) <t< td=""><td></td><td></td><td>Switch Signal</td><td></td><td>Switch</td><td>Other than above</td><td>Battery voltage</td></t<> | | | Switch Signal | | Switch | Other than above | Battery voltage |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | | Ground | Sensor ground | — | - | _ | 0 |
| (R)GroundPower source (C/B)input-Battery voltage35 (W/R)GroundStiding motor for- ward outputOut- putSeat slidingOperate (forward)Battery voltage36 (G/Y)GroundReclining motor for- ward output signalOut- putSeat recliningOperate (forward)Battery voltage37 (G/W)GroundLifting motor (front) downward outputOut- putSeat recliningOperate (downward)Battery voltage37 (G/W)GroundLifting motor (front) downward outputOut- putSeat lifting (front) putOperate (downward)Battery voltage38 (L/Y)GroundLifting motor (rear) upward outputOut- putSeat lifting (rear) putOperate (upward)Battery voltage39 (R/B)GroundLifting motor (rear) upward outputOut- putSeat lifting (rear) putOperate (downward)Battery voltage40 (R/W)GroundForward switch sig- nalInput-Battery voltage41 (Y/G)GroundForward switch sig- nalInput-Battery voltage42 (W)GroundStiding motor back- ward outputOut- putSeat sliding seat back is fold up and power walk- in switch is pressed042 (W)GroundStiding motor back- ward outputOut- putSeat sliding seat sliding is operationOperate (backward)Battery voltage | | Ground | Ground (signal) | _ | - | _ | 0 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | Ground | Power source (C/B) | Input | - | _ | Battery voltage |
| $ \begin{array}{c c c c c c } \hline \begin{tabular}{ c c c } \hline \end{tabular} tabul$ | | Ground | | | Seat sliding | | Battery voltage |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | (**/15) | | ward output | put | | Release | 0 |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | | Ground | | | Seat reclining | | Battery voltage |
| 37 (G/W)GroundLifting motor (front) downward outputOut- putSeat lifting (front) put(downward)Battery voltage38 (L/Y)GroundLifting motor (rear) upward outputOut- putSeat lifting (rear) putOperate (upward)Operate (upward)Battery voltage39 (R/B)GroundLifting motor (rear) downward outputOut- putSeat lifting (rear) putOperate (downward)Operate (downward)Battery voltage40 (R/W)GroundPower source (Fuse)InputSeat lifting (rear) putOperate Seat lifting (rear)Operate (downward)Battery voltage41 (Y/G)GroundForward switch sig- nalInputSeat back is floded down and power walk-in switch pressed042 (W)GroundSliding motor back- ward outputOut- putSeat sliding putOperate (backward)Operate Battery voltage42 (W)GroundSliding motor back- ward outputOut- putSeat sliding putOperate (backward)Operate Battery voltage | (G/T) | | ward output signal | put | | Release | 0 |
| AddGroundLifting motor (rear) upward outputOut- putSeat lifting (rear)Operate (upward)Battery voltage38 (L/Y)GroundLifting motor (rear) downward outputOut- putSeat lifting (rear)Operate (downward)Battery voltage39 (R/B)GroundLifting motor (rear) downward outputOut- putSeat lifting (rear)Operate (downward)Battery voltage40 (R/W)GroundPower source (Fuse)InputSeat lifting (rear)Operate (down and power walk-in switch pressedBattery voltage41 (Y/G)GroundForward switch sig- nalInputSeat back is fold up and seat rclining is operationDattery voltage41 (Y/G)GroundSliding motor back- ward outputOut- putSeat slidingOperate (backward)Derate Battery voltage42 (W)GroundSliding motor back- ward outputOut- putSeat slidingOperate (backward)Battery voltage | | Ground | | | Seat lifting (front) | | Battery voltage |
| 38 (L/Y)GroundLifting motor (rear) upward outputOut- putSeat lifting (rear)(upward)Battery voltage39 (R/B)GroundLifting motor (rear) downward outputOut- putOut- putSeat lifting (rear)Operate (downward)Battery voltage40 (R/W)GroundPower source (Fuse)InputOut- putSeat lifting (rear)Operate (downward)Battery voltage40 (R/W)GroundPower source (Fuse)InputSeat back is floded down and power walk-in switch pressed041 (Y/G)GroundForward switch sig- nalInputSeat back is fold up and seat rclining is operationbattery voltage42 (W)GroundSliding motor back- ward outputOut- putSeat slidingOperate (backward)Operate (backward)Battery voltage | (G/W) | | downward output | put | | Stop | 0 |
| 39 (R/B) (R/B)GroundLifting motor (rear) downward outputOut- putSeat lifting (rear)Operate (downward)Operate (downward)Battery voltage40 (R/W)GroundPower source (Fuse)InputBattery voltage40 (R/W)GroundPower source (Fuse)InputBattery voltage41 (Y/G)GroundForward switch sig- nalInputSeat back is floded down and power walk-in switch pressed041 (Y/G)GroundForward switch sig- nalInputSeat back is fold up and seat rclining is operationbattery voltage41 (Y/G)GroundSliding motor back- ward outputOut- putSeat slidingOperate (backward)Derate (backward)Battery voltage | | Ground | | | Seat lifting (rear) | • | Battery voltage |
| 39 (R/B)GroundLifting motor (rear) downward outputOut- putSeat lifting (rear)(downward)Battery voltage40 (R/W)GroundPower source (Fuse)Input | (L/ f) | | upward output | put | | Stop | 0 |
| 40 (R/W)GroundPower source (Fuse)InputInputStop041 (Y/G)GroundPower source (Fuse)Input | | Ground | | | Seat lifting (rear) | | Battery voltage |
| (R/W) Ground (Fuse) Input | (к/в) | | downward output | put | | Stop | 0 |
| 41 (Y/G) Ground Forward switch signal Input Seat back is fold up and seat rclining is operation battery voltage 42 (W) Ground Sliding motor back-ward output Output Seat sliding Operate (backward) Battery voltage | | Ground | | Input | - | _ | Battery voltage |
| (Y/G) Ground nal input is operation battery voltage 42 (W) Ground Sliding motor back- ward output Out- put Seat sliding Operate (backward) Operate (backward) Battery voltage | | | | | | | 0 |
| 42 (W) Ground Sliding motor back- ward output Out- put Seat sliding Operate (backward) Battery voltage | | Ground | • | Input | | p and seat rclining | battery voltage |
| 42 (W) Ground Sliding motor back- Out- ward output put Seat sliding (backward) Battery voltage | | | | | | | 5 |
| | | Ground | | | Seat sliding | • | Battery voltage |
| | (vv) | | พลาน อนเрนเ | ραι | _ | Stop | 0 |

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

| Termi | inal No. | Description | | | | |
|-------------|-----------|-----------------------|-----------------------|-----------------------|---------------------|-------------------------|
| + | - | Signal name | Input/ Out- put | Conc | lition | Voltage (V) (Approx) |
| 44 (P) | (-round 9 | Out- put | Seat reclining | Operate (backward) | Battery voltage | |
| (F) | | backward output | | | Stop | 0 |
| 45 (L/R) | Ground | Lifting motor (front) | Out- | Seat lifting (front) | Operate (upward) | Battery voltage |
| (L/K) | | upward output | put | | Stop | 0 |
| 48 (B) | Ground | Ground (power) | _ | | | 0 |

Е

F

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ADP

Κ

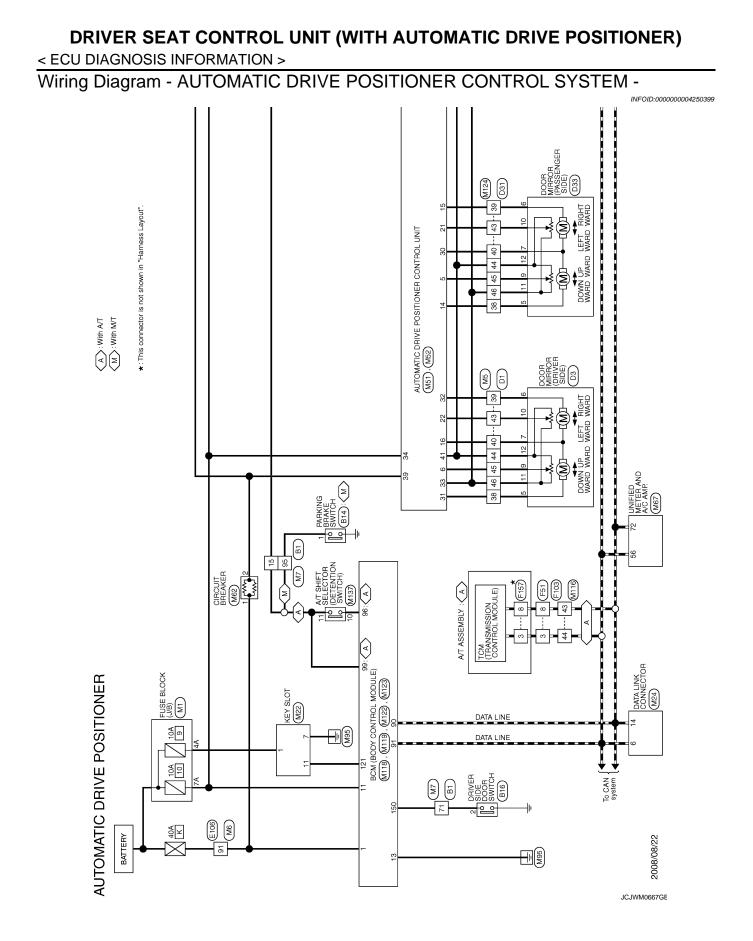
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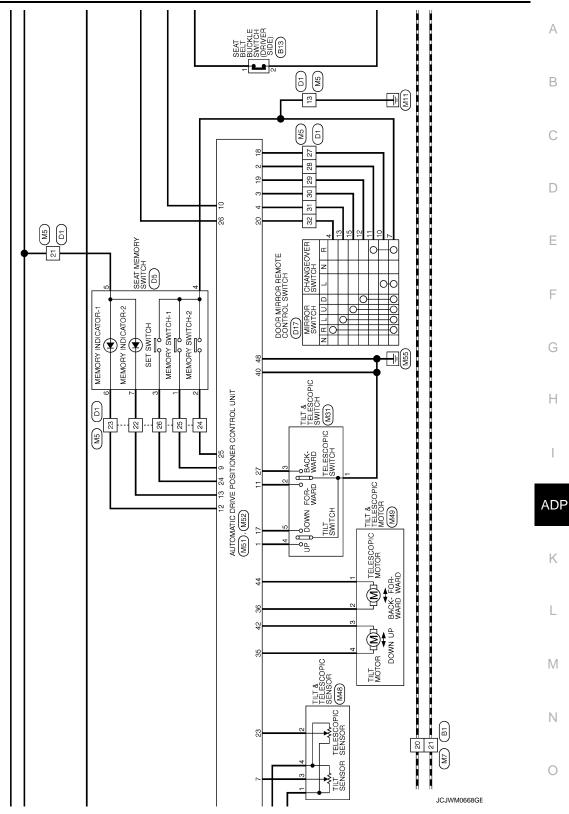
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0

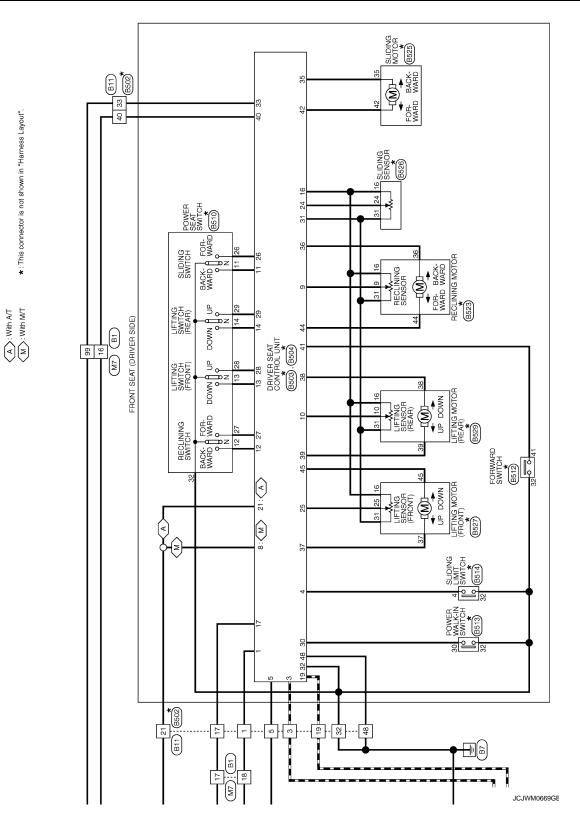
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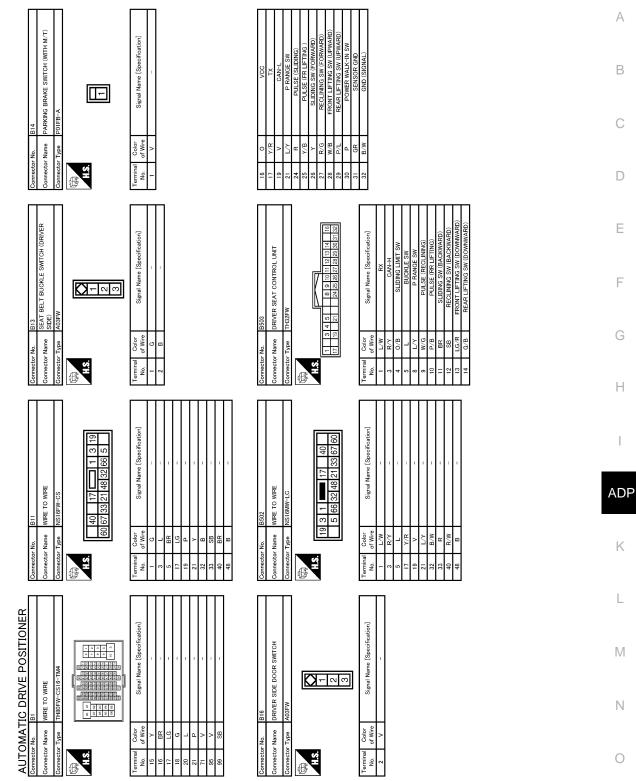


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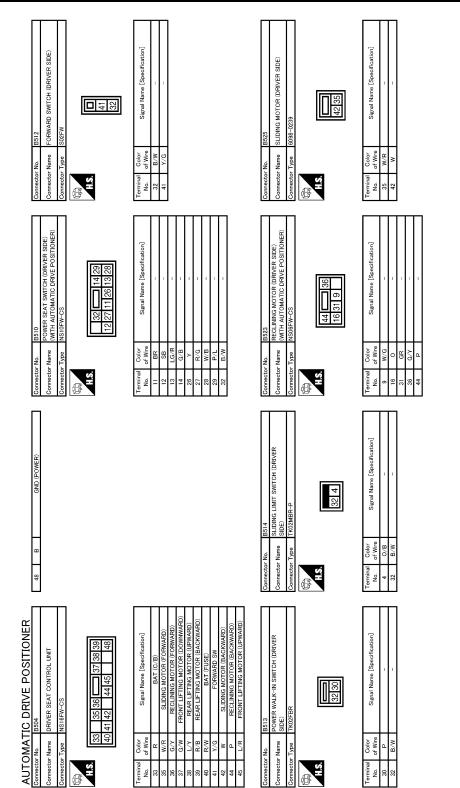
Revision: 2009 October

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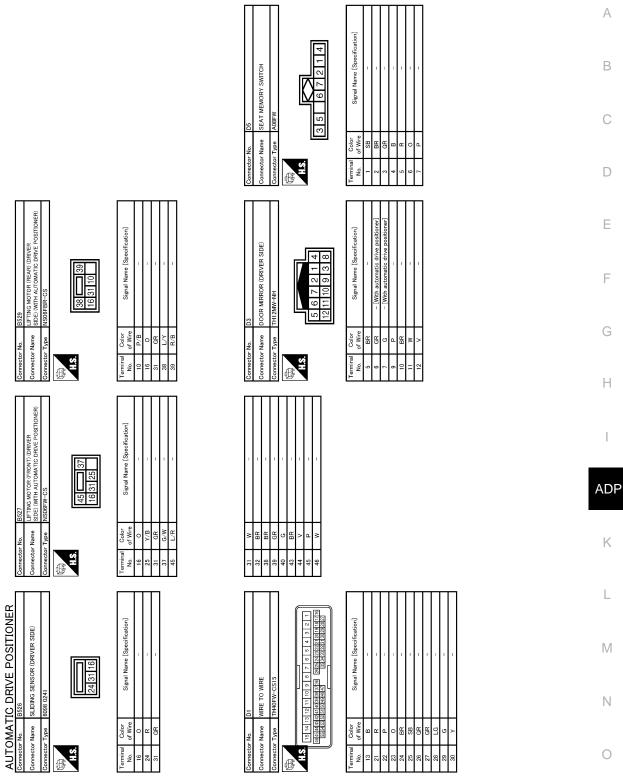
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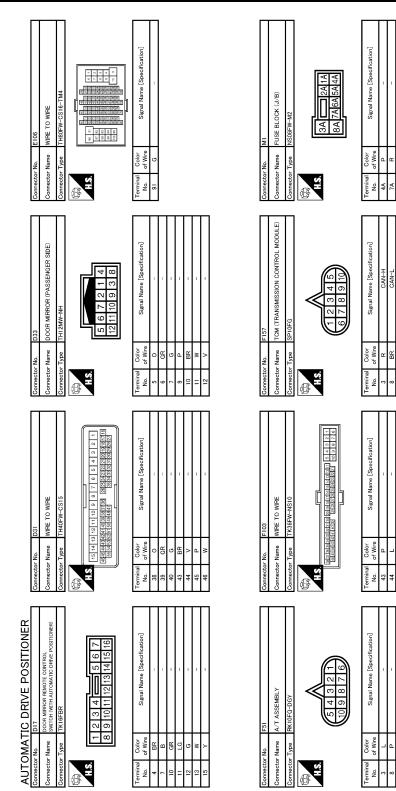
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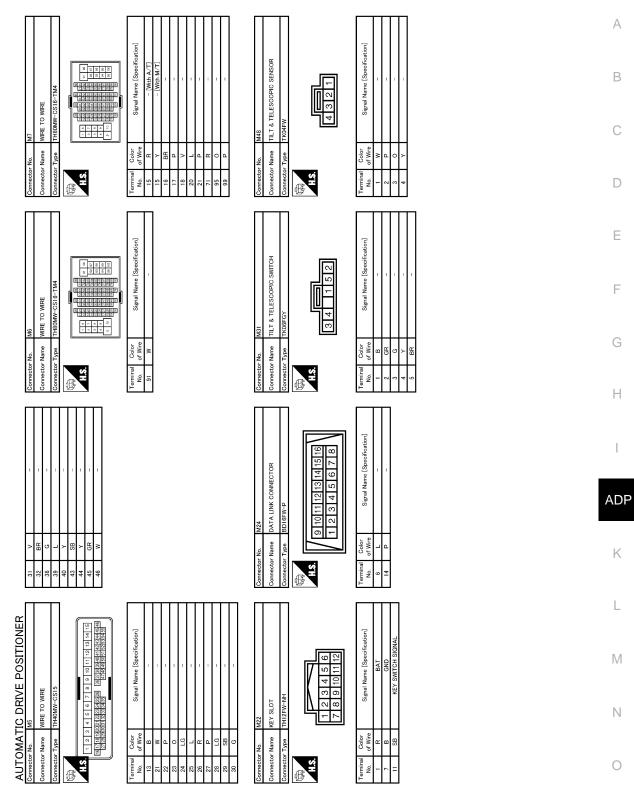
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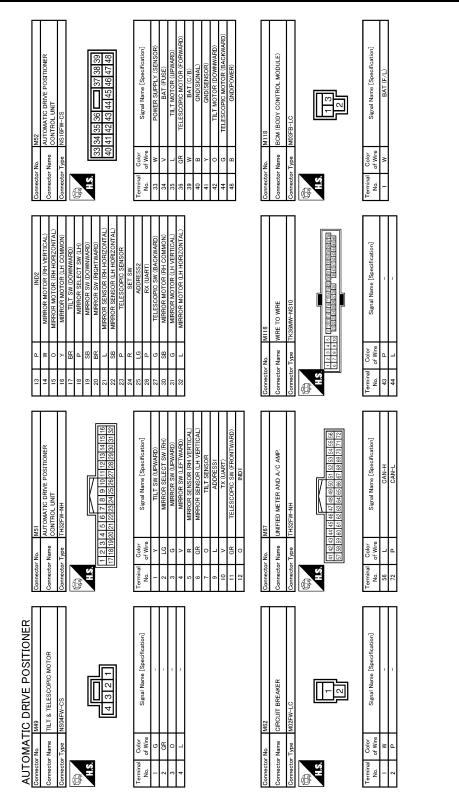
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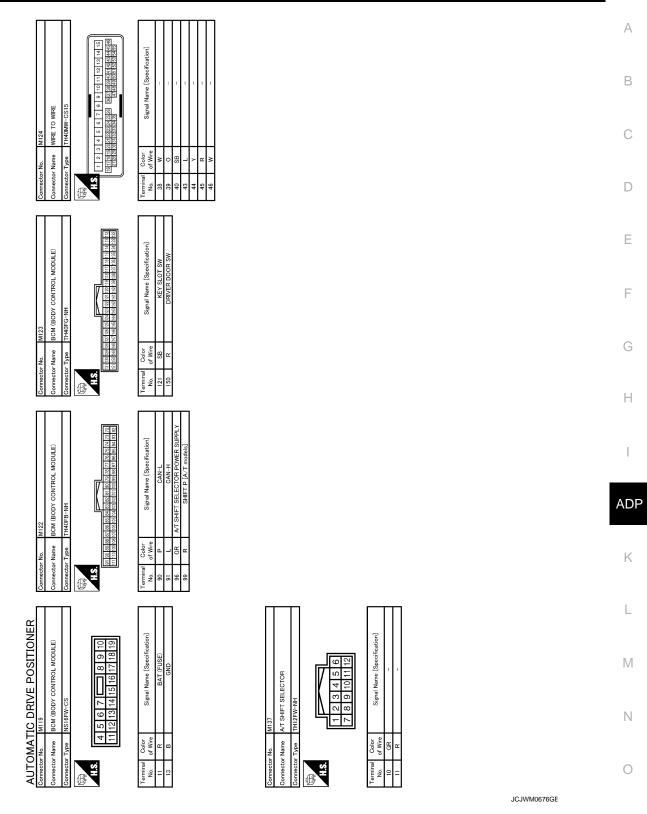
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< ECU DIAGNOSIS INFORMATION >



Fail Safe

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

INFOID:000000004250400

< ECU DIAGNOSIS INFORMATION >

| Operating in fail-safe mode | Malfunction Item | Related DTC | Diagnosis |
|---|-----------------------|----------------|-------------------------------|
| | 0.001 | 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 | B2118 | With ADP: <u>ADP-53</u> |
| | Tilt sensor" | DZIIO | Without ADP: <u>ADP-53</u> |
| | Telescopic sensor | B2119 | <u>ADP-56</u> |
| | Detent switch | B2126 | <u>ADP-59</u> |
| | 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:000000004250401

| CONSULT-III | Tim | ing ^{*1} | | |
|------------------------------------|-----------------------------------|-------------------|--------------------------------|-------------------------------|
| display | Current mal- function Function | | Item | Reference page |
| CAN COMM CIRCUIT*2 | 0 | 1-39 | CAN communication | With ADP: <u>ADP-48</u> |
| [U1000] | 0 1-39 | | CAN communication | Without ADP: <u>ADP-48</u> |
| SEAT SLIDE*2 | 0 | 1-39 | Seat slide motor output | With ADP: <u>ADP-49</u> |
| [B2112] | 0 1-39 | | Seat side 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".

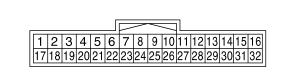
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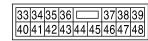
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

INFOID:000000004555929

TERMINAL LAYOUT







JMJIA0199ZZ

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|---|---|
| |) |

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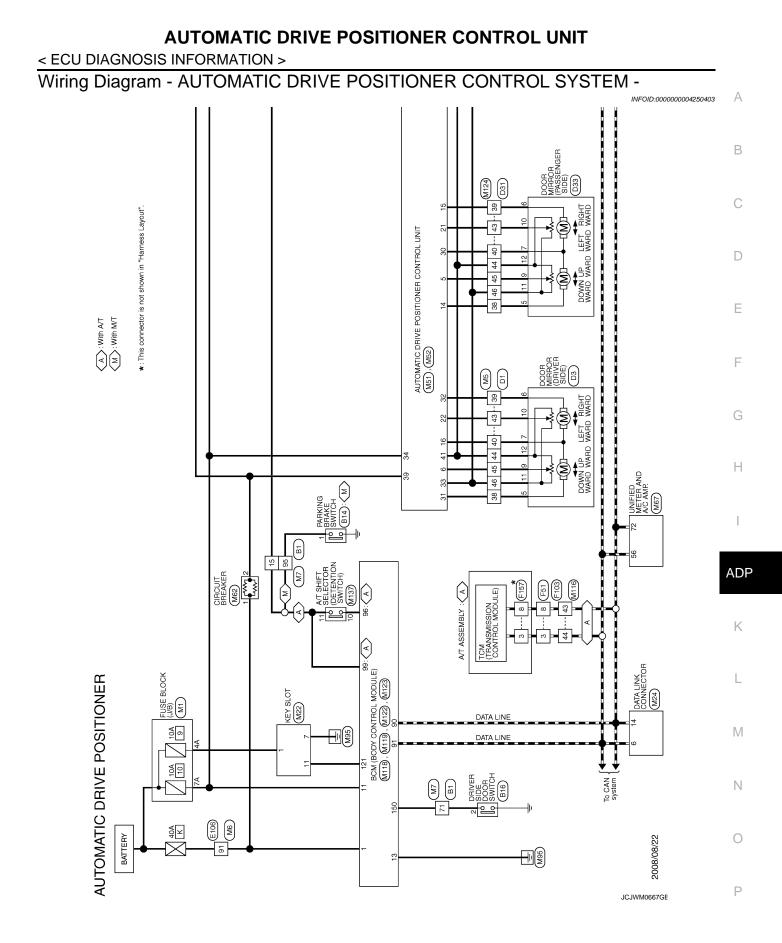
PHYSICAL VALUES

| | nal No. e color) | Description | | Conditi | on | Voltage (V) | F | | |
|-----------|---------------------|---|-----------------------|-------------------------------|----------------------|---|------------------------|---|---|
| + | - | Signal name | Input/ Output | Conditi | | (Approx.) | | | |
| 1 | Ground | Tilt switch upward signal | Input | Tilt switch | Operate (upward) | 0 | | | |
| (Y) | Ground | | input | | Other than above | 5 | Н | | |
| 2 | | Changeover owitch DH | | Changeover | RH | 0 | | | |
| 2 (LG) | Ground | Changeover switch RH signal | Input | Changeover switch position | Neutral or LH | 5 | | | |
| 3 | Ground | Mirror switch upward sig- | Input | Mirror switch | Operated (upward) | 0 | ADP | | |
| (G) | Ground | nal | input | WIND SWICH | Other than above | 5 | | | |
| 4 | Ground | Mirror switch leftward sig- | Input | (16 | | Minnerit-le | Operated (leftward) | 0 | K |
| (V) | Ground | nal | C Input Mirror switch | Other than above | 5 | L | | | |
| 5 (R) | Ground | Door mirror sensor (RH) upward/downward signal | Input | Mirror face (door n | nirror 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 n | nirror LH) | Change between 3.4 (close to peak) 0.6 (close to valley) | Μ | | |
| 7 (O) | Ground | Tilt sensor signal | Input | Tilt position | | Change between 1.2 (close to top) 3.8 (close to bottom) | Ν | | |
| 9 | | | | | Press | 0 | | | |
| (L) | Ground | Memory switch 1 signal | Input | Memory switch 1 | Other than above | 5 | 0 | | |
| 10 (V) | Ground | UART communication (TX) | Output | Ignition switch ON | | 2mSec/div | Ρ | | |

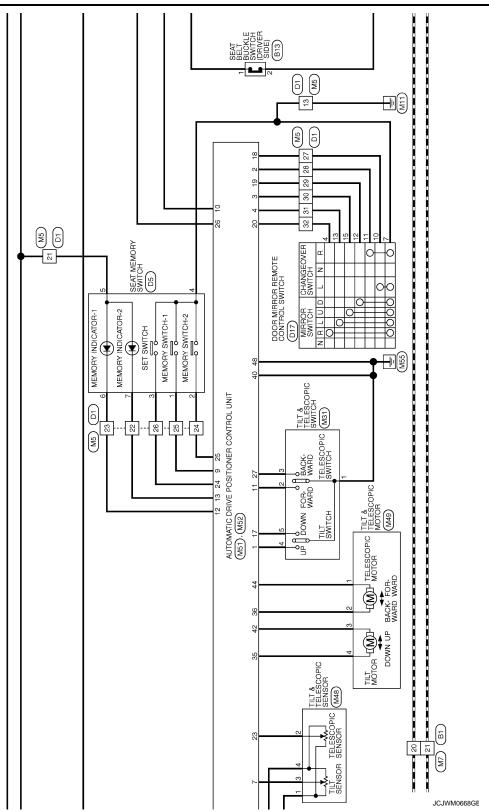
| | nal No. e color) | Description | | Conditio | | Voltage (V) | | | |
|------------|---------------------|--|------------------------|---------------------|----------------------------|---|-----------------|----------------------------|-----------------|
| + | _ | Signal name | Input/ Output | Conditio | ווכ | (Approx.) | | | |
| 11 | Ground | Telescopic switch forward | Input | Telescopic switch | Operate (forward) | 0 | | | |
| (GR) | | signal | | | Other than above | 5 | | | |
| 12 | | | 0.1.1 | | Illuminate | 1 | | | |
| (O) | Ground | Memory indictor 1 signal | Output | Memory indictor 1 | Other than above | Battery voltage | | | |
| 13 | Ground | Memory indictor 2 signal | Output | Momony indictor 2 | 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 | Crowned | Door mirror motor (RH) | Output | | Operate (leftward) | Battery voltage | | | |
| (O) | Ground | leftward output | | Other than above | 0 | | | | |
| | | | | | | | | Operate (down- ward) | Battery voltage |
| 16 | (-round | | Output | Door mirror (LH) | 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- | Input | Tilt switch | Operate (down- ward) | 0 | | | |
| (BR) | | nal | | | Other than above | 5 | | | |
| 18 | | Changeover switch LH | | Changeover | LH | 0 | | | |
| (P) | Ground | signal | Input | switch position | Neutral or RH | 5 | | | |
| 19 | Ground | Mirror switch downward | Input | Mirror switch | Operate (down- ward) | 0 | | | |
| (SB) | | signal | | | Other than above | 5 | | | |
| 20 | | Mirror switch rightward | | | Operate (rightward) | 0 | | | |
| (BR) | Ground | signal | Input | Input Mirror switch | Other than above | 5 | | | |
| 21 (L) | Ground | Door mirror sensor (RH) leftward/rightward signal | Input | Door mirror RH pos | sition | Change between 3.4 (close to left edge) 0.6 (close to right edge) | | | |
| 22 (SB) | 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 | 1 | Change between 0.8 (close to top) 4.4 (close to bottom) | | | |

| | nal No. e color) | Description | | Conditi | 00 | Voltage (V) | A | | | |
|------------|---------------------|----------------------------|-------------------------|-------------------------|------------------------------|-----------------------------------|----------------------------|------------------|---|---|
| + | - | Signal name | Input/ Output | Conditi | | (Approx.) | | | | |
| 24 (R) | Ground | Set switch signal | Input | Set switch | Press Other than above | 0 5 | В | | | |
| 25 (LG) | Ground | Memory switch 2 signal | Input | Memory switch 2 | Press Other than above | 0 5 | C | | | |
| 26 (P) | Ground | UART communication (RX) | Input | Ignition switch ON | | 10mSec/div | - D E F | | | |
| 27 | Ground | Telescopic switch back- | Input | Telescopic switch | Operate (backward) | 0 | - G | | | |
| (G) | Cround | ward signal | input | | Other than above | 5 | 0 | | | |
| | | | Door mirror motor (RH) | | | | Operate (down- ward) | Battery voltage | Н | |
| 30 (SD) | Ground | | | Output | Door mirror (RH) | Other than above | 0 | | | |
| (SB) | | | | | | Operate (rightward) | Battery voltage | | | |
| | | | | | Other than above | 0 | AD | | | |
| 31 | Ground | Door mirror motor (LH) | Output | Door mirror (LH) | Operate (upward) | Battery voltage | K | | | |
| (G) | Cround | upward output | ouput | | Other than above | 0 | | | | |
| 32 | Ground | Door mirror motor (LH) | Output | Door mirror (LH) | Operate (leftward) | Battery voltage | L | | | |
| (L) | Giouna | leftward output | Output | | Other than above | 0 | N | | | |
| 33 (W) | Ground | Sensor power supply | Input | _ | | 5 | - | | | |
| 34 (V) | Ground | Power source (Fuse) | Input | _ | | Battery voltage | N | | | |
| 35 | Ground | Tilt motor unused output | Output | Otooving tilt | Operate (upward) | Battery voltage | C | | | |
| (L) | Ground | Tilt motor upward output | The motor upward output | int motor upward output | | Tilt motor upward output Output S | Steering tilt | Other than above | 0 | - |
| 36 | O rour d | Telescopic motor forward | Outraint | Steering telescop- | Operate (forward) | Battery voltage | P | | | |
| (GR) | Ground | output signal | Output | ic | Other than above | 0 | - | | | |
| 39 (W) | Ground | Power source (C/B) | Input | _ | 1 | Battery voltage | - | | | |
| 40 (B) | Ground | Ground | _ | _ | | 0 | - | | | |

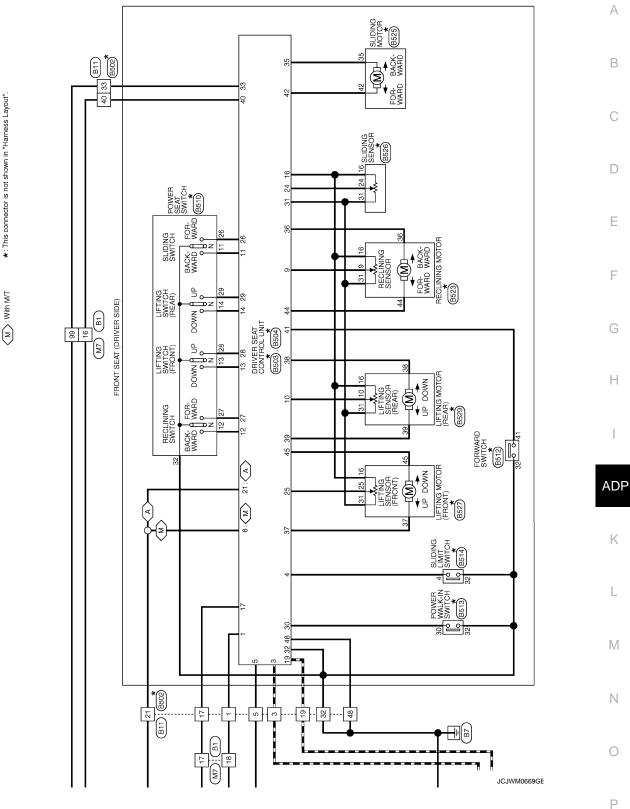
| | nal No. color) | Description | | Condition | | Voltage (V) |
|-----------|-------------------|--|-----------------------|-----------------|----------------------------|-----------------|
| + | _ | Signal name | Input/ Output | Condition | | (Approx.) |
| 41 (Y) | Ground | Sensor ground | _ | — |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



Revision: 2009 October

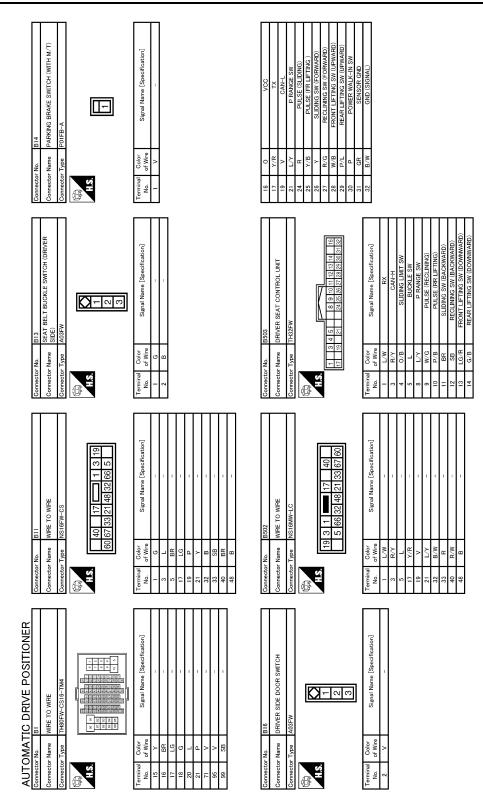


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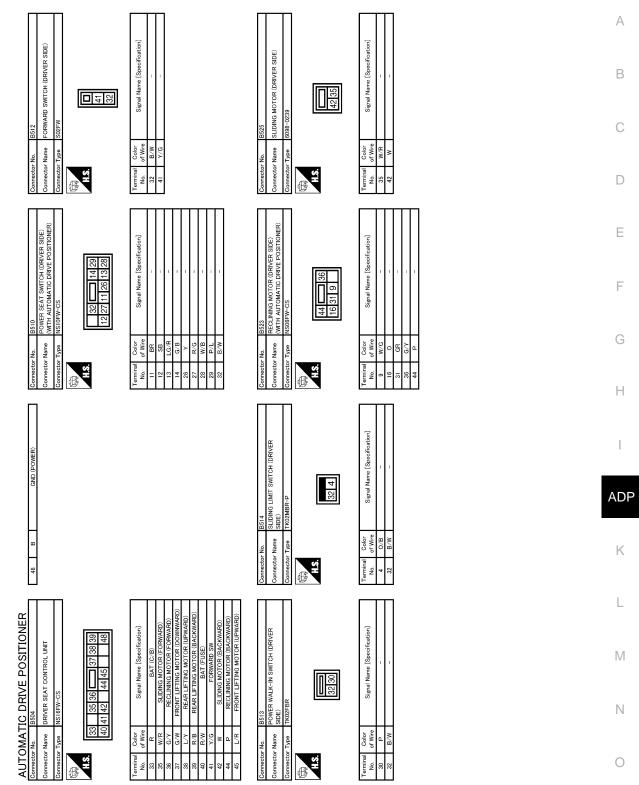
A : With A/T M : With M/T

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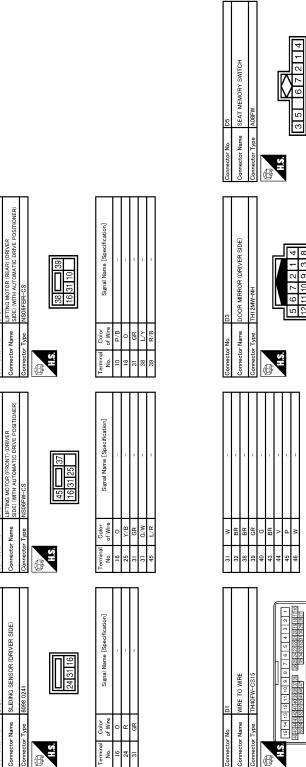
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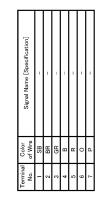
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SLIDING SENSOR (DRIVER SIDE)

nnector Name

AUTOMATIC DRIVE POSITIONER

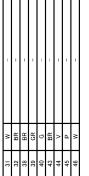




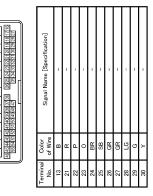
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| Signal Name [Specification] | - | [With automatic drive positioner] | [With automatic drive positioner] | - | - | - | - | |
|-----------------------------|----|---|---|---|----|----|----|--|
| Color of Wire | BR | GR | 9 | Ч | BR | W | ٨ | |
| Terminal No. | 5 | 9 | 7 | 6 | 10 | 11 | 12 | |

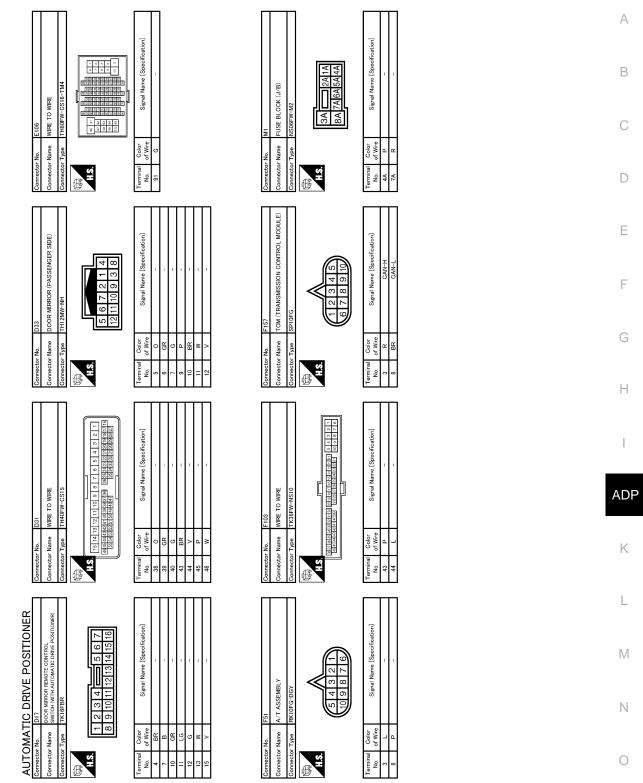


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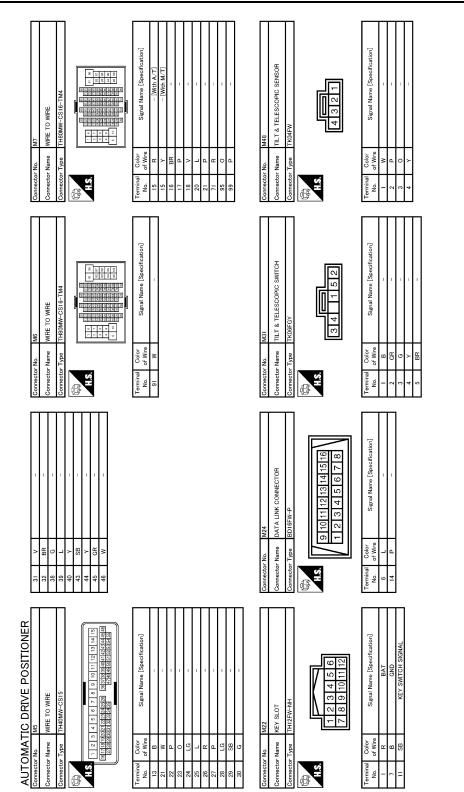
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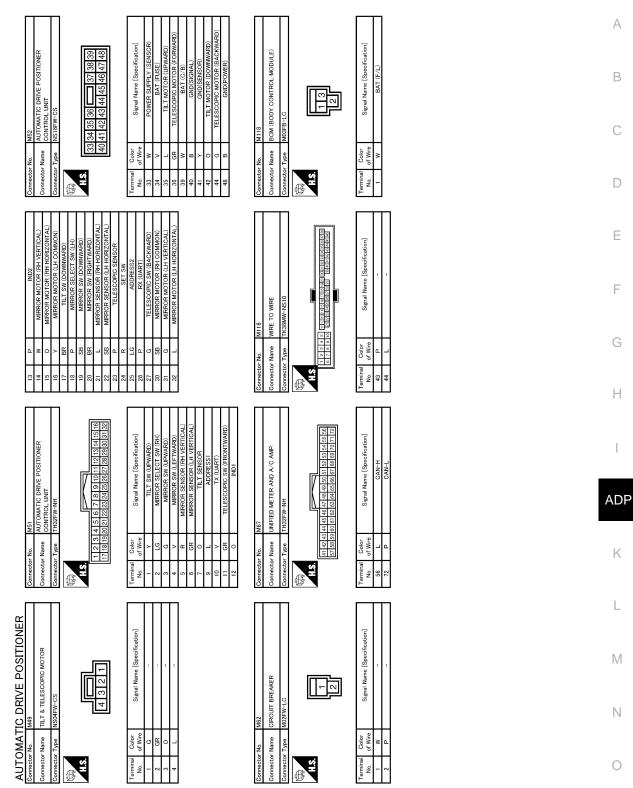
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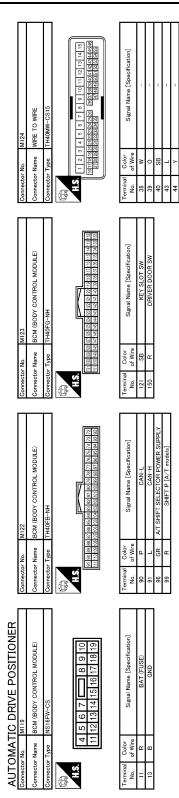


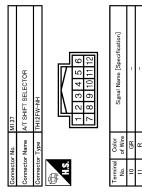
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< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition | Value/Status |
|----------------|---|--------------|
| DOOR SW-BK | NOTE: The item is indicated, but not monitored. | Off |
| | Other than power door lock switch LOCK | Off |
| DL LOCK SW | Power door lock switch LOCK | On |
| | Other than power door lock switch UNLOCK | Off |
| DL 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 |
| IAZARD SW | Hazard switch is ON | On |
| REAR DEF SW | NOTE: The item is indicated, but not monitored. | Off |
| H/L WASH SW | NOTE: The item is indicated, but not monitored. | Off |
| TR CANCEL SW | Trunk lid opener cancel switch OFF | Off |
| IR CANCEL SW | Trunk lid opener cancel switch ON | On |
| R/BD OPEN SW | Trunk lid opener switch OFF | Off |
| R/BD OPEN 3W | While the trunk lid opener switch is turned ON | On |
| RNK/HAT MNTR | Trunk lid closed | Off |
| | Trunk lid opened | On |
| RKE-LOCK | LOCK button of the Intelligent Key is not pressed | Off |
| | LOCK button of the Intelligent Key is pressed | On |
| | UNLOCK button of the Intelligent Key is not pressed | Off |
| | UNLOCK button of the Intelligent Key is pressed | On |
| RKE-TR/BD | TRUNK OPEN button of the Intelligent Key is not pressed | Off |
| | TRUNK OPEN button of the Intelligent Key is pressed | On |
| KE-PANIC | PANIC button of the Intelligent Key is not pressed | Off |
| | PANIC button of the Intelligent Key is pressed | On |
| | UNLOCK button of the Intelligent Key is not pressed | Off |
| RKE-P/W OPEN | 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 |
| OF NUAL JENJUK | 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 |
| REQ SW -RR | NOTE: The item is indicated, but not monitored. | Off |
| REQ SW -RL | NOTE: The item is indicated, but not monitored. | Off |

Revision: 2009 October

BCM (BODY CONTROL MODULE)

| Monitor Item | Condition | Value/Status | |
|----------------|---|--------------|---|
| REQ SW -BD/TR | Trunk lid opener request switch is not pressed | Off | |
| | Trunk lid opener request switch is pressed | On | |
| PUSH SW | Push-button ignition switch (push switch) is not pressed | Off | |
| 1001100 | Push-button ignition switch (push switch) is pressed | On | |
| IGN RLY2 -F/B | Ignition switch in OFF or ACC position | Off | |
| IGN KLTZ -F/B | Ignition switch in ON position | On | |
| ACC RLY -F/B | NOTE: The item is indicated, but not monitored. | Off | |
| CLUCH SW | The clutch pedal is not depressed | Off | |
| | The clutch pedal is depressed | On | |
| | 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 | |
| DETE/CANCL SW | Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models) | Off | |
| DE LE/CANCE SV | Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) | On | |
| SFT PN/N SW | Selector lever in any position other than P and N | Off | |
| | Selector lever in P or N position | On | |
| S/L -LOCK | Steering is unlocked | Off | |
| J/L -LUUN | Steering is locked | On | |
| | Steering is locked | Off | - |
| S/L -UNLOCK | Steering is unlocked | On | |
| | Ignition switch in OFF or ACC position | Off | |
| S/L RELAY-F/B | Ignition switch in ON position | On | |
| | Driver door is unlocked | Off | |
| UNLK SEN -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 | |
| IGN 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 |
| | Steering is unlocked | Off |
| S/L LOCK-IPDM | Steering is locked | On |
| | Steering is locked | Off |
| S/L UNLK-IPDM | Steering is unlocked | On |
| S/L RELAY-REQ | Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK | Off |
| S/L RELAT-REQ | Steering lock system are not the LOCK condition or the changing condition from LOCK to UNLOCK | On |
| 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 | Steering is locked | Reset |
| | Steering is unlocked | Set |
| PRMT ENG STRT | The engine start is prohibited | Reset |
| | The engine start is permitted | Set |
| PRMT RKE STRT | NOTE: The item is indicated, but not monitored. | Reset |
| KEY SW -SLOT | The Intelligent Key is not inserted into key slot | Off |
| RET 3W -3LOT | The Intelligent Key is inserted into key slot | On |
| RKE OPE COUN1 | During the operation of the Intelligent Key | Operation frequency o the Intelligent Key |
| RKE OPE COUN2 | NOTE: The item is indicated, but not monitored. | _ |
| CONFRM ID ALL | The key ID that the key slot receives is not recognized by any key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by any key ID registered to BCM. | Done |
| | The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM. | Yet |
| CONFIRM ID4 | 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 |

Revision: 2009 October

< ECU DIAGNOSIS INFORMATION >

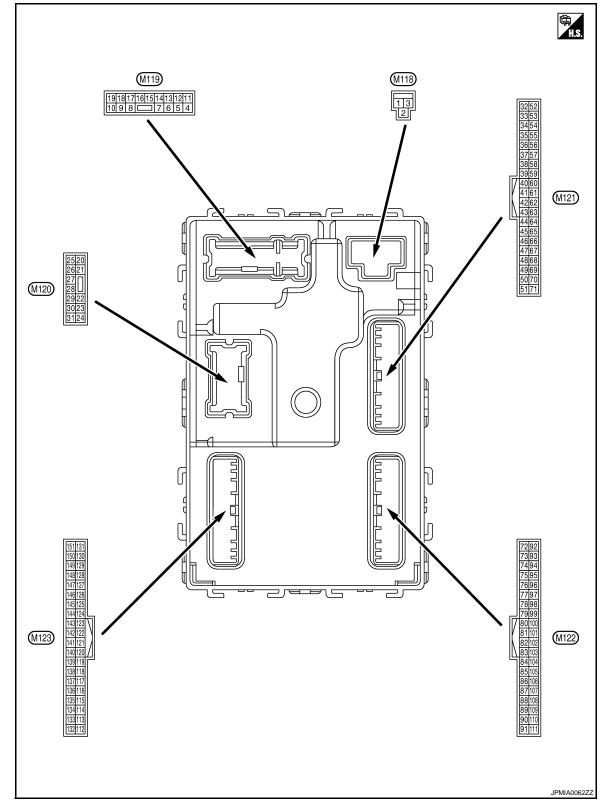
| Monitor Item | Condition | Value/Status |
|--------------|--|----------------------------------|
| | The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM. | Yet |
| CONFIRM ID2 | The key ID that the key slot receives is recognized by the second key ID regis- tered to BCM. | Done |
| | 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 |
| | The ID of fourth Intelligent Key is not registered to BCM | Yet |
| TP 4 | The ID of fourth Intelligent Key is registered to BCM | Done |
| TP 3 | The ID of third Intelligent Key is not registered to BCM | Yet |
| 1 Г Э | 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 |
| IP 2 | The ID of second Intelligent Key is registered to BCM | Done |
| TP 1 | The ID of first Intelligent Key is not registered to BCM | Yet |
| | The ID of first Intelligent Key is registered to BCM | Done |
| 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 |
| D REGST FL1 | ID of front LH tire transmitter is not registered | Yet |
| | ID of front RH tire transmitter is registered | Done |
| D 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 |
| D 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 | 1 | | | Value |
|-----------------|---------------------|---|--|---------------------------------|--|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch (| DFF | Battery voltage |
| 2 (Y) | Ground | P/W power supply (BAT) | Output | Ignition switch (| DFF | 12 V |
| 3 (O) | 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 | Cround | 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 | Sten Jamp | ON | 0 V |
| (SB) | Ground | Step lamp | Output | Step lamp | OFF | 12 V |
| 8 | All doors, fuel lid | Output | All doors, fuel | LOCK (Actuator is activated) | 12 V | |
| (V) Ground LOCK | Carpor | lid | Other than LOCK (Actuator is not activated) | 0 V | | |
| 9 | Ground | Driver door, fuel lid | Output | Driver door, | UNLOCK (Actuator is activated) | 12 V |
| (G) | Ground | UNLOCK | Output | fuel lid | Other than UNLOCK (Actuator is not activated) | 0 V |
| 11 (R) | Ground | Battery power supply | Input | Ignition switch (| DFF | Battery voltage |
| 13 (B) | Ground | Ground | _ | Ignition switch (| NC | 0 V |
| 14 (W) | Ground | Push-button ignition switch illumination ground | Output | Tail lamp | OFF | 0 V NOTE: When the illumination brighten- ing/dimming level is in the neutral position. (V) 10 0 2 ms |
| 15 (O) | Ground | ACC indicator lamp | Output | Ignition switch | OFF (LOCK indicator is not illuminated) | JSNIA0010GB Battery voltage |
| (0) | | | | | ACC | 0 V |

| Terminal No. (Wire color) | | 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 0 1 5 0 1 5 0 1 5 0 FKID0926E 6.5 V |
| | | | | | Turn signal switch OFF | 0 V |
| 18 (O) | 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 | Ground | Room lamp timer | Output | Interior room | OFF | 12 V |
| (V) | Ground | control | Output | lamp | ON | 0 V |
| | | | | | Turn signal switch OFF | 0 V |
| 20 (V) | Ground | Turn signal RH (Rear) | Output | Ignition switch ON | Turn signal switch RH | (V) 15 0 1 5 0 1 5 0 1 5 0 1 5 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| 23 | Ground | Trunk lid opop | Output | Trunk lid | OPEN (Trunk lid opener actuator is activated) | 12 V |
| (L) | Ground | Trunk lid open | Output | | 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 10 5 0 1 s 1 s 1 s 1 s 1 s 1 s 1 s 1 s |
| 30 | Ground | Trunk room lamp | Output | Trunk room | ON | 0 V |
| (P) | Ground | | Output | lamp | OFF | 12 V |

| | Terminal No. Description | | | | | Value | |
|------------|------------------------------|--------------------|----------------------------------|--|--|---|---------------|
| (Wire + | color) | Signal name | Input/ Output | | Condition | (Approx.) | А |
| 34 | 34 October 10 | | Ignition switch | When Intelligent Key is in the passenger compart- ment | (V) 15 10 5 0 1 s JMKIA0062GB | B C D | |
| (SB) | Ground | () | Output | OFF | When Intelligent Key is not in the passenger compart- ment | (V) 15 10 5 0 1 s JMKIA0063GB | E |
| 35 | Ground | Trunk room antenna | Outout | Ignition switch OFF | When Intelligent Key is in the passenger compart- ment | (V) 15 10 5 0 1 s JMKIA0062GB | G H |
| (V) | Citaria | (+) | Output | | When Intelligent Key is not in the passenger compart- ment | (V) 15 10 5 0 1 s JMKIA0063GB | ADP K L |
| 38 | 38 Cround Rear bumper anten- | Output | When the trunk lid opener re- | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB | M | |
| (B) | Ground | na (–) | Culput | 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- | Output | When the trunk lid opener re- | When Intelligent Key is in the antenna detection area | (V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| (W) | Giound | na (+) | Guiput | quest switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 0 1 s JMKIA0063GB |
| 47 | | Ignition relay (IPDM | . | | OFF or ACC | 12 V |
| (Y) | Ground | E/R) control | Output | Ignition switch | ON | 0 V |
| 50 (R) | Ground | Trunk room lamp switch | Input | Trunk room lamp switch | OFF (Trunk lid is closed) | (V) 10 ms JPMIA0011GB 11.8 V |
| | | | | | ON (Trunk lid is opened) | 0 V |
| | | Ind Starter relay control | | Ignition switch ON (A/T mod- els) | When selector lever is in P or N position | 12 V |
| 52 | Ground | | Output | | When selector lever is not in P or N position | 0 V |
| (SB) | | ,, | Output | Ignition switch ON (M/T mod- | When the clutch pedal is depressed | Battery voltage |
| | | | | els) | When the clutch pedal is not depressed | 0 V |
| | | | | | 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 10 10 ms JPMIA0016GB |
| | | latelline at 12 | | Intelline of K | O a vera dia a | 1.0 V |
| 64 (L) | Ground | Intelligent Key warn- ing buzzer (Engine | Output | Intelligent Key warning buzzer | Sounding | 0 V |
| (⊏) | | room) | | (Engine room) | Not sounding | 12 V |

< ECU DIAGNOSIS INFORMATION >

| | nal No. color) | Description | I | - | 2 W | 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 10 5 0 10 ms JPMIA0011GB 11.8 V | C |
| | | | | | | | E |
| | | | | | When Intelligent Key is in the passenger compart- ment | (V) 15 10 5 0 | F |
| 72 Cround | | Room antenna 2 (–) (Center console) | Output | Ignition switch | | JMKIA0062GB | G |
| (R) | Ground | | | ŎFF | When Intelligent Key is not in the passenger compart- ment | | Н |
| | | | | | | → ← 1 S JMKIA0063GB | |
| | | | | | | | AD |
| | | | | | When Intelligent Key is in the passenger compart- ment | | K |
| | | | | | | JMKIA0062GB | L |
| 73 (G) | Ground | Room antenna 2 (+) (Center console) | Output | Ignition switch OFF | | | N |
| | | | | | When Intelligent Key is not in the passenger compart- ment | | ιV |
| | | | | | | | Ν |
| | | | | | | JMKIA0063GB | C |

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

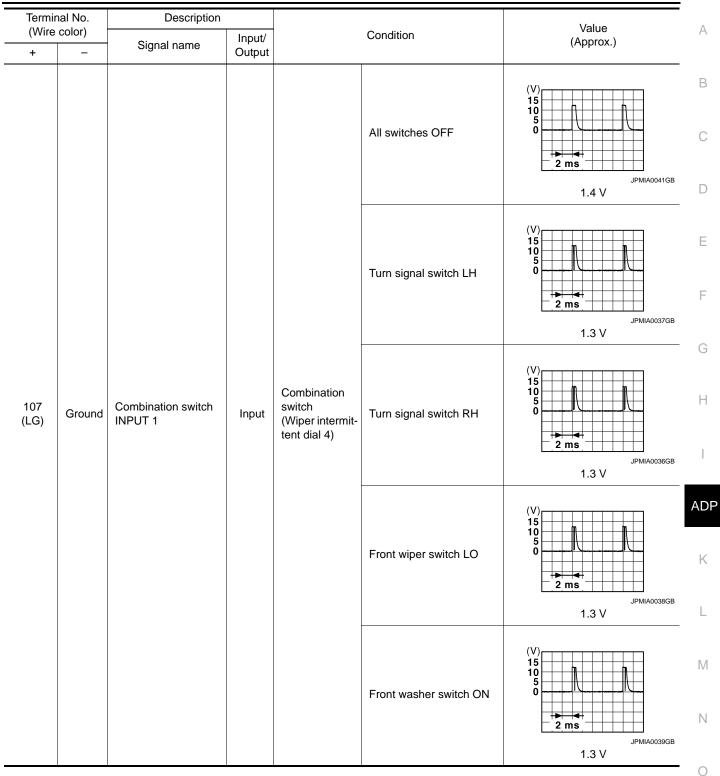
| | nal No. | Description | | | | Value | А |
|------|---------|---------------------|---|---|---|---|-------------|
| + | color) | Signal name | Input/ Output | | Condition | (Approx.) | ~ |
| 77 | | Driver door antenna | | When the driv- er door request | When Intelligent Key is in the antenna detection area | (V) 15 0 5 0 1 s JMKIA0062GB | B C D |
| (LG) | Ground | (+) | Output | switch is oper- ated with igni- tion 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 | E |
| 78 | Ground | Room antenna 1 (-) | om antenna 1 (–) trument panel) Output Ignition switch OFF When Intelligent | When Intelligent Key is in the passenger compart- ment | (V) 15 10 5 0 1 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1 | G H | |
| (Y) | | (Instrument panel) | | OFF | When Intelligent Key is not in the passenger compart- ment | (V) 15 10 5 0 1 s JMKIA0063GB | ADP K |
| 79 | 79 8 | Room antenna 1 (+) | Output | It Ignition switch OFF | When Intelligent Key is in the passenger compart- ment | (V) 15 10 5 0 1 s JMKIA0062GB | M |
| (BR) | Ground | (Instrument panel) | Caput | | When Intelligent Key is not in the passenger compart- ment | (V) 15 10 5 0 1 s JMKIA0063GB | O P |

| | nal No. | | | | Value | |
|------------|---------------------|--|------------------|-------------------------|--|---|
| (Wire + | color) – | Signal name | Input/ Output | | Condition | (Approx.) |
| 80 (GR) | Ground | NATS antenna amp (Built in key slot) | Input/ Output | During waiting | Ignition switch is pressed while inserting the Intelli- gent Key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 81 (W) | Ground | NATS antenna amp (Built in key slot) | Input/ Output | During waiting | Ignition switch is pressed while inserting the Intelli- gent Key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 82 (R) | Ground | Ignition relay [Fuse block (J/B)] control | Output | Ignition switch | OFF or ACC ON | 0 V 12 V |
| 83 | Remote keyless entr | | Input/ | During waiting | | (V) 15 10 50 1 ms JMKIA0064GB |
| (Y) | Ground | receiver communica- tion | Output | When operating gent Key | either button on the Intelli- | (V) 15 10 5 0 1 ms JMKIA0065GB |
| | | Combination switch Inp INPUT 5 | Input | Combination switch | All switches OFF (Wiper intermittent dial 4) | (V) 15 0 2 ms 10 2 ms JPMIA0041GB 1.4 V |
| 87 (Y) | Ground | | | | Front fog lamp switch ON (Wiper intermittent dial 4) | (V) 15 0 2 ms JPMIA0037GB 1.3 V |
| | | | | | Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent 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 (Wiper intermittent dial 4) 2 ms JPMIA0041GB D 1.4 V $(\setminus$ 15 10 Ε Lighting switch HI n (Wiper intermittent dial 4) F 2 ms JPMIA0036GB 1.3 V 88 Combination switch Combination Ground Input (O) **INPUT 3** switch 15 10 Н Lighting switch 2ND ٢ (Wiper intermittent dial 4) 2 ms JPMIA0037GB 1.3 V ADP 15 Any of the conditions be-10 low with all switches OFF 0 · Wiper intermittent dial 1 Κ · Wiper intermittent dial 2 · Wiper intermittent dial 3 2 ms JPMIA0040GB 1.3 V L Push-button ig-0 V Pressed 89 Push-button ignition Ground Input nition switch (BR) switch (Push switch) Not pressed Battery voltage (push switch) Μ 90 Input/ Ground CAN-L (P) Output 91 Input/ Ν CAN-H Ground (L) Output OFF 0 V (V 15 10 Ρ 92 Key slot illumi-Ground Key slot illumination Output Blinking (LG) nation 1 s JPMIA0015GB 6.5 V ON 12 V

BCM (BODY CONTROL MODULE)

| | nal No. | Description | | | | Value |
|-------------|---------|--|------------------|-------------------------------------|---|---|
| (Wire + | color) | Signal name | Input/ Output | | Condition | (Approx.) |
| 93 (Y) | Ground | ON indicator lamp | Output | Ignition switch | OFF (LOCK indicator is not illuminated) | Battery voltage |
| (1) | | | | | ON | 0 V |
| 95 | Ground | ACC relay control | Output | Ignition switch | OFF | 0 V |
| (O) | Ciouna | Acc relay control | Output | Ignition switch | ACC or ON | 12 V |
| 96 (GR) | Ground | A/T shift selector (De- tention switch) power supply | Output | | _ | 12 V |
| 97 | Ground | Steering lock condi- | Input | Input Steering lock | LOCK status | 0 V |
| (L) | | tion No. 1 | p at | | UNLOCK status | 12 V |
| 98 | Ground | Steering lock condi- | Input | Steering lock | LOCK status | 12 V |
| (P) | Croana | tion No. 2 | mpar | oleening look | UNLOCK status | 0 V |
| | | Selector lever P posi- | | Selector lever | P position | 0 V |
| | | tion switch | | | Any position other than P | 12 V |
| | | ASCD clutch switch (M/T models without d ICC) | | ASCD clutch | OFF (Clutch pedal is de- pressed) | 0 V |
| 99 (R) | Ground | | Input | switch | ON (Clutch pedal is not depressed) | 12 V |
| | | ICC clutch switch (M/ | | ICC clutch | OFF (Clutch pedal is de- pressed) | 0 V |
| | | T models with ICC) | | switch | ON (Clutch pedal is not depressed) | 12 V |
| | | | | | ON (Pressed) | 0 V |
| 100 (Y) | Ground | Passenger door re- quest switch | 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 10 10 10 10 10 10 10 10 10 10 |
| 102 | Ground | Blower fan motor re- | Output | Ignition switch | OFF or ACC | 0 V |
| (O) | | lay control | | 5 | ON | 12 V |
| 103 (LG) | Ground | Remote keyless entry receiver power sup- ply | Output | Ignition switch C | DFF | 12 V |
| 106 | Ground | Steering lock unit | Output | Ignition switch | OFF or ACC | 12 V |
| (W) | Ground | power supply | | | ON | 0 V |



< ECU DIAGNOSIS INFORMATION >

Revision: 2009 October

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| | nal No. | Description | | | | Value |
|-------------|-------------|--------------------|------------------|-------------|---|---|
| (vvire + | color) – | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | | All switches OFF (Wiper intermittent dial 4) | (V) 15 0 2 ms JPMIA0041GB 1.4 V |
| 108 | Ground | Combination switch | Input | Combination | Lighting switch AUTO (Wiper intermittent dial 4) | (V) 15 10 2 ms JPMIA0038GB 1.3 V |
| (R) | | INPUT 4 | | switch | Lighting switch 1ST (Wiper intermittent dial 4) | (V) 15 0 2 ms JPMIA0036GB 1.3 V |
| | | | | | Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent 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 č 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 (V 15 10 Combination Н 109 switch Combination switch n Ground Input Lighting switch 2ND **INPUT 2** (W) (Wiper intermittent dial 4) 2 ms JPMIA0036GB 1.3 V ADP (V 15 10 0 Front wiper switch INT Κ 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) ò OFF 10 ms JPMIA0012GB 1.1 V

BCM (BODY CONTROL MODULE)

| | nal No. | Description | | | |) (alua | |
|-------------|---------|---|------------------|--|---|--|-----|
| (Wire + | color) | Signal name | Input/ Output | | Condition | Value (Approx.) | |
| | | | | | LOCK status | 12 V | |
| 111 (Y) | Ground | Steering lock unit communication | Input/ Output | | LOCK or UNLOCK | (V) 15 10 50 50 ms JMKIA0066GB | |
| | | | | | For 15 seconds after UN- LOCK | 12 V | |
| | | | | | 15 seconds or later after UNLOCK | 0 V | |
| 113 | Ground | Optical sensor | Input | Ignition switch | When bright outside of the vehicle | Close to 5 V | |
| (O) | Cround | | mpar | ON | When dark outside of the vehicle | Close to 0 V | |
| 114 | Ground | Clutch interlock | Input | Innut | Clutchinterlock | OFF (Clutch pedal is not depressed) | 0 V |
| (R) | Ground | switch | mput | switch | ON (Clutch pedal is de- pressed) | Battery voltage | |
| 116 (SB) | Ground | Stop lamp switch 1 | Input | | _ | Battery voltage | |
| | | Stop lamp switch 2 (Without ICC) Stop lamp switch 2 (With ICC) | - Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V | |
| 118 | Ground | | | | ON (Brake pedal is de- pressed) | Battery voltage | |
| (BR) | Cround | | | Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF | | 0 V | |
| | | | | 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 ms JPMIA0012GB 1.1 V | |
| | | | | | UNLOCK status (Unlock switch sensor ON) | 0 V | |
| 121 | Ground | Key slot switch | Innut | When the Intellig | gent Key is inserted into key | 12 V | |
| (SB) | Ground | Ground Key slot switch | Input | When the Intelli key slot | gent Key is not inserted into | 0 V | |
| 123 | Ground | IGN feedback | Input | Ignition switch | OFF or ACC | 0 V | |
| (W) | 2.00110 | | | <u></u> | ON | Battery voltage | |

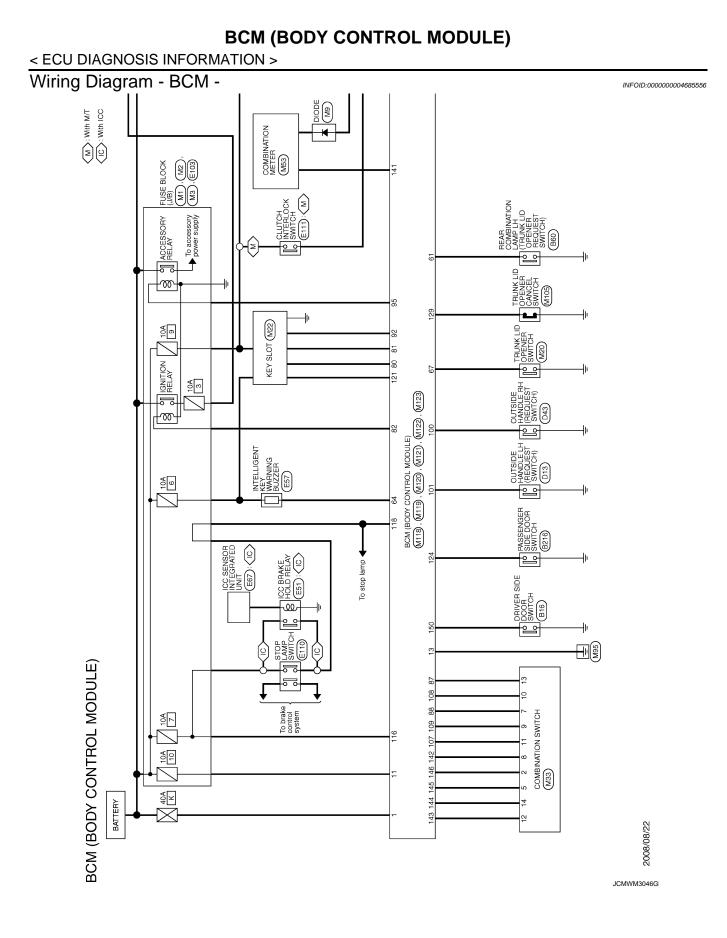
| | nal No. | Description | | | | Value | ^ |
|--------------------|---------|---|------------------|--|---------------------|--|---------------|
| (Wire + | color) | Signal name | Input/ Output | | Condition | (Approx.) | А |
| 124 (LG) | Ground | Passenger door switch | Input | Passenger door switch | OFF (Door close) | (V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1 | B |
| | | | | | ON (Door open) | JPMIA0011GB 11.8 V 0 V | D |
| | | | | | | | E |
| 129 (O) | 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 | G |
| | | | | | ON | 0 V | |
| 132 (V) | Ground | Power window switch communication | Input/ Output | Ignition switch ON | | (V) 15 10 5 0 10 ms JPMIA0013GB | H I ADF |
| | | | | Ignition switch C | OFF or ACC | 10.2 V 12 V | |
| | | | | | ON (Tail lamps OFF) | 9.5 V | K |
| | | | | Push-button ig- | | 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 | nition switch il- lumination | ON (Tail lamps ON) | (V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1 | M |
| | | | | | OFF | 0 V | |
| 134 | Ground | LOCK indicator lamp | Output | LOCK indicator | OFF | Battery voltage | 0 |
| (LG) 137 (O) | Ground | Receiver and sensor ground | Input | Ignition switch ON | | 0 V 0 V | E |
| 138 | | Receiver and sensor | | | OFF | 0 V | Ρ |
| (V) | Ground | power supply | Output | Ignition switch | ACC or ON | 5.0 V | |

| | nal No. | Description | | | | Value |
|------------|-------------|--------------------------------|------------------|----------------------------------|---|---|
| (Wire + | color) – | Signal name | Input/ Output | | Condition | (Approx.) |
| 139 | Ground | Tire pressure receiv- | Input/ | Ignition switch | Standby state | (V) 6 4 2 0 ••• 0.2s ••• 0.2s |
| (L) | Glound | er communication | Output | ON | When receiving the signal from the transmitter | (V) 4 2 0 • • 0.2s OCC3880D |
| 140 | Crownd | Selector lever P/N | lanut | | P or N position | 12 V |
| (GR) | Ground | position (A/T models) | Input | Selector lever | Except P and N positions | 0 V |
| | | | | | ON | 0 V |
| 141 (R) | Ground | Security indicator | Output | Security indica- tor | Blinking | (V) 15 10 5 0 1 s JPMIA0014GB 11.3 V |
| | | | | | OFF | 12 V |
| | | | | | All switches OFF | 0 V |
| | | | | | Lighting switch 1ST | |
| | | | | Combination | Lighting switch HI | (V) 15 |
| 142 | Ground | Combination switch | Output | switch | Lighting switch 2ND | |
| (BR) | Ground | OUTPUT 5 | Output | (Wiper intermit- tent dial 4) | Turn signal switch RH | 0 2 ms JPMIA0031GB |
| | | | | | | 10.7 V |
| | | | | | All switches OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front wiper switch HI (Wiper intermittent dial 4) | (V) 15 |
| 143 (V) | Ground | Combination switch OUTPUT 1 | Output | Combination switch | Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7 | 15 0 2 ms JPMIA0032GB 10.7 V |

< ECU DIAGNOSIS INFORMATION >

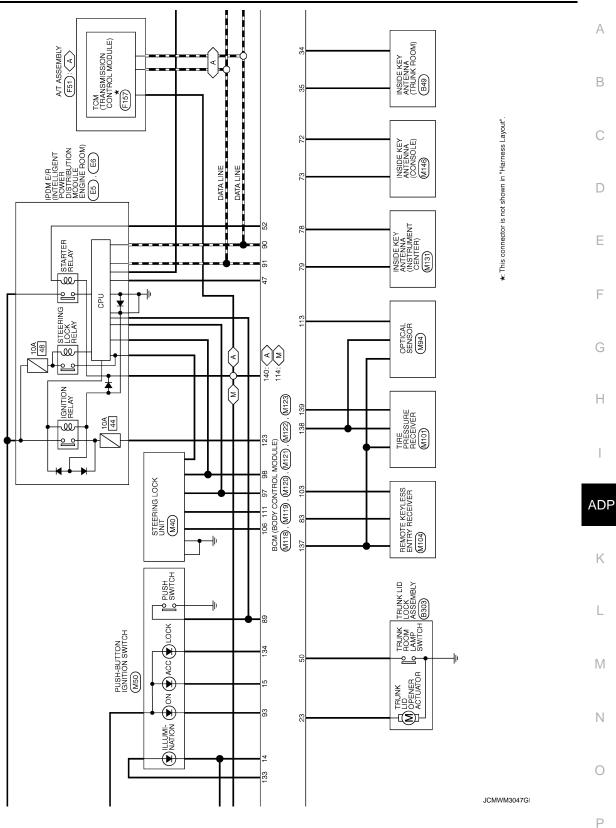
| Terminal No. [] (Wire color) | | Description | 1 | | | Value | | | | | | | |
|---------------------------------|--------|---------------------------------------|------------------|--|---|---|--|--|--|--------|-----------------------|----------------------|--|
| (wire + | - | Signal name | Input/ Output | | Condition | (Approx.) | | | | | | | |
| | | | | | All switches OFF (Wiper intermittent dial 4) Front washer switch ON (Wiper intermittent dial 4) | 0 V | | | | | | | |
| 144 (G) | Ground | Combination switch OUTPUT 2 | Output | Combination switch | (Wiper intermittent dial 4) Any of the conditions be- low with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6 | (V) 15 0 2 ms JPMIA0033GB 10.7 V | | | | | | | |
| | | | | | All switches OFF | 0 V | | | | | | | |
| | | | | | Front wiper switch INT | | | | | | | | |
| | | | | Combination | Front wiper switch LO | (V) 15 | | | | | | | |
| 145 (L) | Ground | Combination switch OUTPUT 3 | Output | switch (Wiper intermit- tent dial 4) | Lighting switch AUTO | 10 0 2 ms JPMIA0034GB 10.7 V | | | | | | | |
| | | | | | All switches OFF | 0 V | | | | | | | |
| | | | | | Front fog lamp switch ON | | | | | | | | |
| | | | | | Lighting switch 2ND | (V) 15 | | | | | | | |
| 146 | | Combination switch | Outrout | Quitaut | 0.1.1 | . | | | | switch | Combination switch | Lighting switch PASS | |
| (SB) | Ground | OUTPUT 4 | Output | (Wiper intermit- tent dial 4) | Turn signal switch LH | о 2 ms JPMIA0035GB 10.7 V | | | | | | | |
| 149 (W) | Ground | Tire pressure warning check switch | Input | | _ | 12 V | | | | | | | |
| 150 (R) | Ground | Driver door switch | Input | Driver door switch | OFF (Door close) | (V) 15 0 10 10 ms 11.8 V | | | | | | | |
| | | | | | ON (Door open) | 0 V | | | | | | | |
| 151 | Ground | Rear window defog- | Output | Rear window | Active | 0 V | | | | | | | |
| (G) | Ground | ger relay control | Culput | defogger | Not activated | Battery voltage | | | | | | | |

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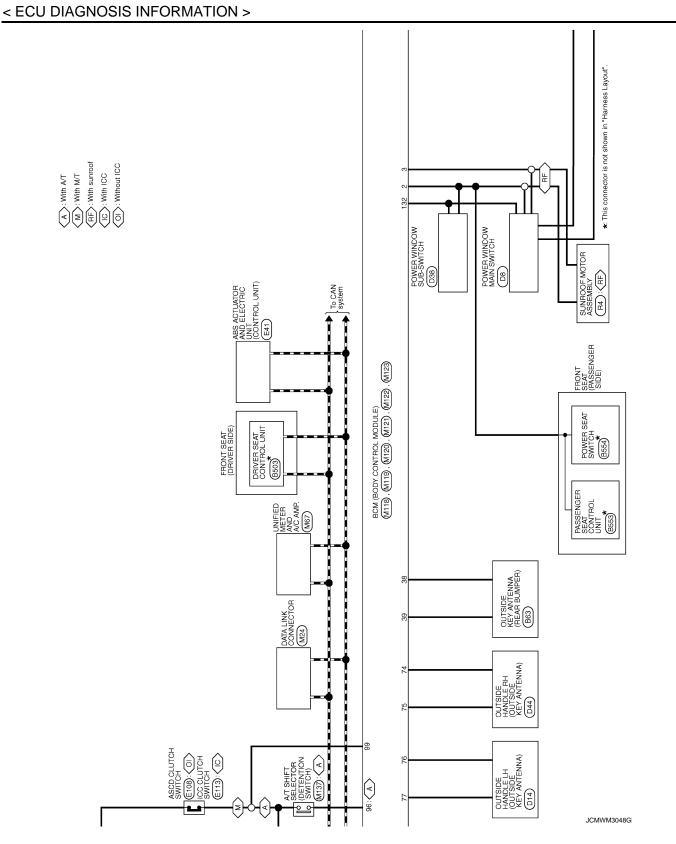


< ECU DIAGNOSIS INFORMATION >

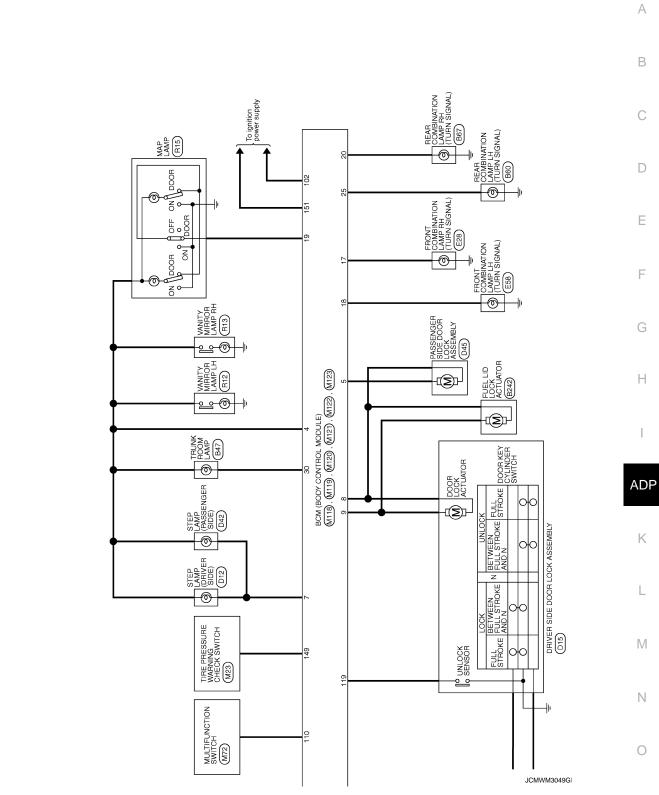


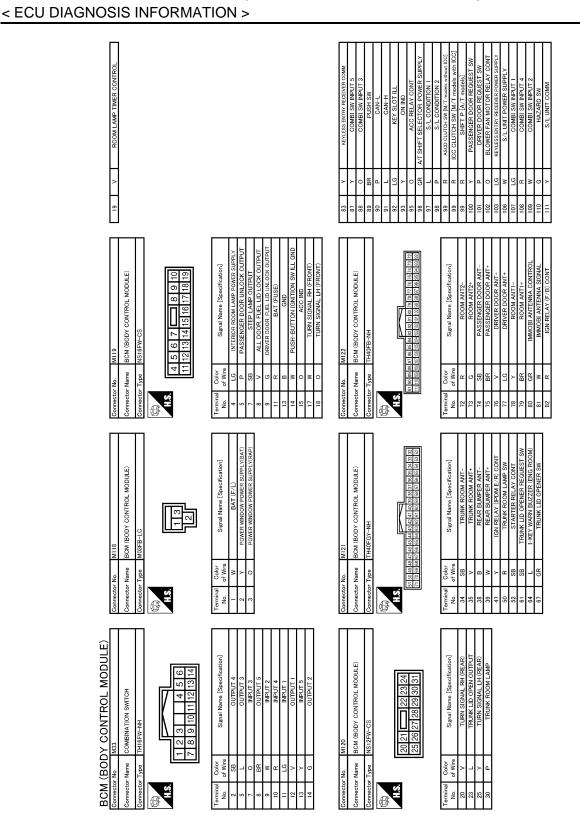


Revision: 2009 October



Revision: 2009 October



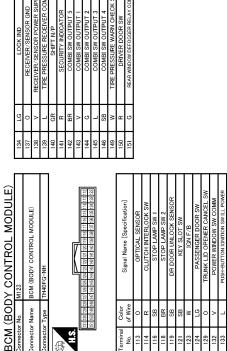


JCMWM3050G

BCM (BODY CONTROL MODULE)

Revision: 2009 October

< ECU DIAGNOSIS INFORMATION >



| | Signal Name [Specification] | OPTICAL SENSOR | CLUTCH INTERLOCK SW | STOP LAMP SW 1 | STOP LAMP SW 2 | DR DOOR UNLOCK SENSOR | KEY SLOT SW | IGN F/B | PASSENGER DOOR SW | TRUNK LID OPENER CANCEL SV | POWER WINDOW SW COMM | PUSH-BUTTON JGNITION SW ILL POWE | |
|----------------|-----------------------------|----------------|---------------------|----------------|----------------|-----------------------|-------------|---------|-------------------|----------------------------|----------------------|----------------------------------|--|
| 51 [50 [48 [48 | Color of Wire | 0 | R | SB | BR | SB | SB | W | LG | 0 | ٧ | L | |
| H.S. | Terminal No. | 113 | 114 | 116 | 118 | 119 | 121 | 123 | 124 | 129 | 132 | 133 | |

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

D Е F G Н ADP Κ L Μ Ν Ο JCMWM3051G Ρ INFOID:000000004685557

А

В

С

| Display contents of CONSULT | Fail-safe | Cancellation |
|-----------------------------|-------------------------|--|
| B2013: ID DISCORD BCM-S/L | Inhibit engine cranking | Erase DTC |
| B2014: CHAIN OF S/L-BCM | Inhibit engine cranking | Erase DTC |
| B2190: NATS ANTENNA AMP | Inhibit engine cranking | Erase DTC |
| B2191: DIFFERENCE OF KEY | Inhibit engine cranking | Erase DTC |
| B2192: ID DISCORD BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2193: CHAIN OF BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2195: ANTI SCANNING | Inhibit engine cranking | Ignition switch $ON \rightarrow OFF$ |
| B2557: VEHICLE SPEED | Inhibit steering lock | When normal vehicle speed signals are received from ABS actua- tor and electric unit (control unit) for 500 ms |
| B2560: STARTER CONT RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status be- comes consistentStarter control relay signalStarter relay status signal |
| B2601: SHIFT POSITION | Inhibit steering lock | 500 ms after the following signal reception status becomes consistent Selector lever P position switch signal P range signal (CAN) |
| B2602: SHIFT POSITION | Inhibit steering lock | 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 km/h (2.5 MPH) or more |
| B2603: SHIFT POSI STATUS | Inhibit steering lock | 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V) |
| B2604: PNP SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF |
| B2605: PNP SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) Interlock/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON |
| B2606: S/L RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal) |

< ECU DIAGNOSIS INFORMATION >

| Display contents of CONSULT | Fail-safe | Cancellation |
|-----------------------------|---|--|
| B2607: S/L RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status has becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition 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) |
| B2609: S/L STATUS | Inhibit engine crankingInhibit steering lock | When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status |
| B260A: IGNITION RELAY | Inhibit engine cranking | 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) |
| B260F: ENG STATE SIG LOST | Maintains the power supply position attained at the time of DTC detection | When any of the following conditions are fulfilledPower position changes to ACCReceives engine status signal (CAN) |
| B2612: S/L STATUS | Inhibit engine crankingInhibit steering lock | When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R) |
| B2617: STARTER RELAY CIRC | Inhibit engine cranking | 1 second after the starter motor relay control inside BCM becomes normal |
| B2618: BCM | Inhibit engine cranking | 1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal |
| B2619: BCM | Inhibit engine cranking | 1 second after the steering lock unit power supply output control in- side BCM becomes normal |
| B261E: VEHICLE TYPE | Inhibit engine cranking | BCM initialization |
| B26E8: CLUTCH SW | Inhibit engine cranking | When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage) |
| B26E9: S/L STATUS | Inhibit engine crankingInhibit steering lock | When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No. 1 signal: LOCK (0 V) Steering condition No. 2 signal: LOCK (Battery voltage) |

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

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

NOTE:

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

DTC Inspection Priority Chart

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

INFOID:000000004685558

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| Priority | DTC |
|----------|--|
| 1 | B2562: LOW VOLTAGE |
| 2 | U1000: CAN COMMU1010: 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 |
| 4 | B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNTION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSI TATUS B2603: SHIFT POSI STATUS B2604: PNP SW B2605: S/L RELAY B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2608: STARTER RELAY B2609: S/L STATUS B26000: STEERING LOCK UNIT B26010: STEERING LOCK UNIT B26011: SATUS B2611: SATUS B2611: SATUS B2611: SATUS B2612: S/L STATUS B2611: SATUS B2611: SATUS B2611: STERING LOCK UNIT B2602: STEERING LOCK UNIT B2603: STEERING LOCK UNIT B2604: B2611: BLOWER RELAY CIRC B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: IGN RELAY CIRC B2616: IGN RELAY CIRC B2611: STARTER RELAY CIRC B2612: S/L STATUS B2614: PUSH-BTN IGN SW B2614: CUTCH SWE B2619: S/L STATUS B2614: S/L STATUS B2614: S/L STATUS B2614: PUSH-BTN IGN SW B2614: CUTCH SWE B2619: S/L STATUS B2 |

< ECU DIAGNOSIS INFORMATION >

| Priority | DTC | |
|----------|---------------------------|--|
| | C1704: LOW PRESSURE FL | |
| | C1705: LOW PRESSURE FR | |
| | C1706: LOW PRESSURE RR | |
| | C1707: LOW PRESSURE RL | |
| | • C1708: [NO DATA] FL | |
| | • C1709: [NO DATA] FR | |
| | • C1710: [NO DATA] RR | |
| | • C1711: [NO DATA] RL | |
| | C1712: [CHECKSUM ERR] FL | |
| | C1713: [CHECKSUM ERR] FR | |
| | C1714: [CHECKSUM ERR] RR | |
| | C1715: [CHECKSUM ERR] RL | |
| 5 | C1716: [PRESSDATA ERR] FL | |
| | C1717: [PRESSDATA ERR] FR | |
| | C1718: [PRESSDATA ERR] RR | |
| | C1719: [PRESSDATA ERR] RL | |
| | • C1720: [CODE ERR] FL | |
| | C1721: [CODE ERR] FR | |
| | C1722: [CODE ERR] RR | |
| | C1723: [CODE ERR] RL | |
| | C1724: [BATT VOLT LOW] FL | |
| | C1725: [BATT VOLT LOW] FR | |
| | C1726: [BATT VOLT LOW] RR | |
| | C1727: [BATT VOLT LOW] 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-14, "COM-MON ITEM : CONSULT-III 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 | L |
|--|-----------|--|------------------------------------|---|---------------------|---|
| No DTC is detected. further testing may be required. | _ | _ | _ | _ | _ | Ν |
| U1000: CAN COMM | — | — | — | — | BCS-35 | |
| U1010: CONTROL UNIT(CAN) | — | — | — | — | BCS-36 | Ν |
| U0415: VEHICLE SPEED SIG | — | — | | — | BCS-37 | |
| B2013: ID DISCORD BCM-S/L | × | × | — | — | <u>SEC-55</u> | C |
| B2014: CHAIN OF S/L-BCM | × | × | — | — | <u>SEC-56</u> | |
| B2190: NATS ANTENNA AMP | × | — | — | — | <u>SEC-47</u> | |
| B2191: DIFFERENCE OF KEY | × | — | | — | <u>SEC-50</u> | F |
| B2192: ID DISCORD BCM-ECM | × | — | — | — | SEC-51 | |
| B2193: CHAIN OF BCM-ECM | × | — | — | — | <u>SEC-53</u> | |
| B2195: ANTI SCANNING | × | — | — | — | <u>SEC-54</u> | |
| B2553: IGNITION RELAY | — | × | — | — | PCS-48 | |
| B2555: STOP LAMP | | × | | _ | <u>SEC-59</u> | |

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INFOID:000000004685559

| 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 |
|---------------------------|-----------|--|------------------------------------|---|---------------------|
| 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-38 |
| B2601: SHIFT POSITION | × | × | × | _ | <u>SEC-65</u> |
| B2602: SHIFT POSITION | × | × | × | _ | <u>SEC-68</u> |
| B2603: SHIFT POSI STATUS | × | × | × | _ | <u>SEC-70</u> |
| B2604: PNP SW | × | × | × | _ | <u>SEC-73</u> |
| B2605: PNP SW | × | × | × | | <u>SEC-75</u> |
| B2606: S/L RELAY | × | × | × | _ | <u>SEC-77</u> |
| B2607: S/L RELAY | × | × | × | | <u>SEC-78</u> |
| B2608: STARTER RELAY | × | × | × | | <u>SEC-80</u> |
| B2609: S/L STATUS | × | × | × | | <u>SEC-82</u> |
| B260A: IGNITION RELAY | × | × | × | | PCS-50 |
| B260B: STEERING LOCK UNIT | _ | × | × | | <u>SEC-86</u> |
| B260C: STEERING LOCK UNIT | _ | × | × | | <u>SEC-87</u> |
| B260D: STEERING LOCK UNIT | _ | × | × | | <u>SEC-88</u> |
| B260F: ENG STATE SIG LOST | × | × | × | _ | SEC-89 |
| B2612: S/L STATUS | × | × | × | | <u>SEC-94</u> |
| B2614: ACC RELAY CIRC | _ | × | × | | PCS-52 |
| B2615: BLOWER RELAY CIRC | _ | × | × | | PCS-54 |
| B2616: IGN RELAY CIRC | _ | × | × | | PCS-56 |
| B2617: STARTER RELAY CIRC | × | × | × | | <u>SEC-98</u> |
| B2618: BCM | × | × | × | | PCS-58 |
| B2619: BCM | × | × | × | | SEC-100 |
| B261A: PUSH-BTN IGN SW | _ | × | × | | PCS-59 |
| B261E: VEHICLE TYPE | × | × | × (Turn ON for 15 seconds) | _ | <u>SEC-101</u> |
| B2621: INSIDE ANTENNA | _ | × | — | _ | DLK-55 |
| B2622: INSIDE ANTENNA | — | × | — | _ | DLK-57 |
| B2623: INSIDE ANTENNA | — | × | — | _ | DLK-59 |
| B26E8: CLUTCH SW | × | × | × | _ | <u>SEC-90</u> |
| B26E9: S/L STATUS | × | × | × (Turn ON for 15 seconds) | _ | <u>SEC-92</u> |
| B26EA: KEY REGISTRATION | _ | × | imes (Turn ON for 15 seconds) | _ | <u>SEC-93</u> |
| C1704: LOW PRESSURE FL | — | _ | | × | |
| C1705: LOW PRESSURE FR | — | — | — | × | |
| C1706: LOW PRESSURE RR | — | — | — | × | <u>WT-17</u> |
| C1707: LOW PRESSURE 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 | А |
|---------------------------|-----------|--|------------------------------------|---|---------------------|-----|
| C1708: [NO DATA] FL | — | — | — | × | | В |
| C1709: [NO DATA] FR | — | — | _ | × | WT 40 | |
| C1710: [NO DATA] RR | — | — | — | × | <u>WT-19</u> | |
| C1711: [NO DATA] RL | _ | — | _ | × | - | С |
| C1712: [CHECKSUM ERR] FL | _ | — | _ | × | | |
| C1713: [CHECKSUM ERR] FR | _ | — | _ | × | | D |
| C1714: [CHECKSUM ERR] RR | — | — | - | × | <u>WT-21</u> | |
| C1715: [CHECKSUM ERR] RL | _ | — | | × | - | |
| C1716: [PRESSDATA ERR] FL | _ | — | _ | × | | Е |
| C1717: [PRESSDATA ERR] FR | — | — | _ | × | | |
| C1718: [PRESSDATA ERR] RR | _ | — | _ | × | <u>WT-24</u> | F |
| C1719: [PRESSDATA ERR] RL | _ | — | _ | × | - | Г |
| C1720: [CODE ERR] FL | _ | — | _ | × | | |
| C1721: [CODE ERR] FR | — | — | - | × | | G |
| C1722: [CODE ERR] RR | _ | — | | × | <u>WT-26</u> | |
| C1723: [CODE ERR] RL | _ | — | | × | - | |
| C1724: [BATT VOLT LOW] FL | | _ | - | × | | Н |
| C1725: [BATT VOLT LOW] FR | _ | _ | _ | × | M/T 00 | |
| C1726: [BATT VOLT LOW] RR | _ | _ | _ | × | <u>WT-29</u> | |
| C1727: [BATT VOLT LOW] RL | — | — | | × | 4 | |
| C1729: VHCL SPEED SIG ERR | _ | _ | | × | <u>WT-32</u> | |
| C1734: CONTROL UNIT | _ | _ | | × | <u>WT-33</u> | ADF |

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< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

MANUAL FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Description

All functions do not operate when manually operated.(power seat, tilt & telescopic, and door mirror.

ALL COMPONENT : Diagnosis Procedure

1.CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check driver seat control unit power supply and ground circuit. Refer to <u>ADP-64, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. Check automatic drive positioner control unit power supply and ground circuit

Check automatic drive positioner control unit power supply and ground circuit. Refer to <u>ADP-65. "AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

POWER SEAT

POWER SEAT : Description

Power seat does not operate when manually operated.

POWER SEAT : Diagnosis Procedure

1.CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check power seat switch ground circuit. Refer to <u>ADP-95</u>, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connector.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

STEERING POSITION FUNCTION DOES NOT OPERATE

STEERING POSITION FUNCTION DOES NOT OPERATE : Description

Tilt & telescopic do not operate when manually operated.

Revision: 2009 October

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| < SYMPTOM DIAGNOSIS > | |
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| STEERING POSITION FUNCTION DOES NOT OPERATE : Diagnosis I | Procedure |
| 1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT | IN-012.000000004353091 |
| Check tilt & telescopic switch ground circuit. Refer to <u>ADP-96, "Diagnosis Procedure"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 2. | |
| NO >> Repair or replace harness or connector. 2.CONFIRM THE OPERATION | |
| Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. SEAT SLIDING | |
| SEAT SLIDING : Description | INFOID:000000004535092 |
| Seat sliding alone does not operate when manually operated. SEAT SLIDING : Diagnosis Procedure | INFOID:000000004535093 |
| 1.CHECK SLIDING MECHANISM | |
| Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. Is the inspection result normal? | |
| YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2. CHECK SLIDING SWITCH | A |
| Check sliding switch. Refer to <u>ADP-67, "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 3. | |
| NO >> Repair or replace the malfunctioning parts. 3. CHECK SLIDING MOTOR | |
| Check sliding motor. Refer to <u>ADP-124, "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. | |
| <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. SEAT RECLINING | |
| SEAT RECLINING : Description | INFOID:000000004535094 |

Seat reclining only does not operate when manually operated.

| < SYMPTOM DIAGNOSIS > | |
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| SEAT RECLINING : Diagnosis Procedure | INFOID:000000004535095 |
| 1.CHECK RECLINING MECHANISM | |
| Check for the following.Mechanism deformation or pinched foreign materials.Interference with other parts because of poor installation. | |
| Is the inspection result normal? | |
| YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. | |
| 2. CHECK RECLINING SWITCH | |
| Check reclining switch. | |
| Refer to <u>ADP-104, "Component Function Check"</u> . <u>Is the inspection result normal?</u> | |
| YES >> GO TO 3. | |
| NO >> Repair or replace the malfunctioning parts. | |
| 3.CHECK RECLINING MOTOR | |
| Check reclining motor. Refer to <u>ADP-126, "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-41, "Intermittent Incident"</u> . NO >> GO TO 1. | |
| SEAT LIFTING (FRONT) | |
| SEAT LIFTING (FRONT) : Description | INFOID:000000004535096 |
| Seat lifting (front) only does not operate when manually operated. | |
| SEAT LIFTING (FRONT) : Diagnosis Procedure | INFOID:000000004535097 |
| 1. CHECK LIFTING (FRONT) MECHANISM | |
| Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. | |
| Is the inspection result normal? | |
| YES >> GO TO 2. | |
| NO >> Repair or replace the malfunctioning parts. | |
| 2.CHECK LIFTING SWITCH (FRONT) | |
| Check lifting switch (front). Refer to <u>ADP-71, "Component Function Check"</u> . | |
| Is the inspection result normal? | |
| YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. | |
| 3. CHECK LIFTING MOTOR (FRONT) | |
| Check lifting motor (front). | |
| Refer to ADP-128, "Component Function Check". | |

Is the inspection result normal?

| < SYMPTOM DIAGNOSIS > | | |
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| YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. | | Δ |
| 4.CONFIRM THE OPERATION | | A |
| Check the operation again. | | В |
| Is the result normal? | | |
| YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. | | 0 |
| SEAT LIFTING (REAR) | | C |
| SEAT LIFTING (REAR) : Description | INFOID:000000004535098 | D |
| Seat lifting (rear) only does not operate when manually operated. | | |
| SEAT LIFTING (REAR) : Diagnosis Procedure | INFOID:000000004535099 | Е |
| 1.CHECK LIFTING (REAR) MECHANISM | | |
| Check for the following.Mechanism deformation or pinched foreign materials. | | F |
| Interference with other parts because of poor installation. | | |
| Is the inspection result normal? | | G |
| YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. | | |
| 2. CHECK LIFTING SWITCH (REAR) | | Н |
| Check lifting switch (rear). Refer to ADP-73, "Component Function Check". | | |
| Is the inspection result normal? | | Ι |
| YES >> GO TO 3. | | |
| NO >> Repair or replace the malfunctioning parts. | | ADP |
| 3.CHECK LIFTING MOTOR (REAR) | | |
| Check lifting motor (rear). Refer to <u>ADP-130, "Component Function Check"</u> . | | 1Z |
| Is the inspection result normal? | | K |
| YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. | | |
| 4. CONFIRM THE OPERATION | | L |
| Check the operation again. | | |
| Is the result normal? | | M |
| YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. | | |
| STEERING TILT | | Ν |
| STEERING TILT : Description | INFOID:000000004535100 | |
| Steering tilt only does not operate when manually operated. | | 0 |
| STEERING TILT : Diagnosis Procedure | INFOID:000000004535101 | - |
| 1.CHECK STEERING TILT MECHANISM | | Ρ |
| 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.

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| NO >> Repair or replace the malfunctioning parts. | |
| 2.CHECK TILT SWITCH | |
| Check tilt switch. Refer to ADP-83, "Component Function Check". | |
| Is the inspection result normal? | |
| YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. | |
| 3. CHECK TILT MOTOR | |
| Check tilt motor. Refer to ADP-132, "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 <u>GI-41, "Intermittent Incident"</u> . | |
| NO >> GO TO 1. STEERING TELESCOPIC | |
| STEERING TELESCOPIC : Description | INFOID:00000000453510 |
| Steering telescopic only does not operate when manually operated. | |
| STEERING TELESCOPIC : Diagnosis Procedure | INFOID:00000000453510 |
| 1. CHECK STEERING TELESCOPIC MECHANISM | |
| Check for the following. | |
| Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. | |
| Is the inspection result normal? | |
| YES >> GO TO 2. | |
| NO >> Repair or replace the malfunctioning parts. 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> . <u>Is the inspection result normal?</u> | |
| 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-41, "Intermittent Incident"</u> . | |
| NO >> GO TO 1. | |
| DOOR MIRROR | |

MANUAL FUNCTION DOES NOT OPERATE

| < SYMPTOM DIAGNOSIS > | |
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| DOOR MIRROR : Description | A |
| Door mirror does not operate when manually operated. | 1 |
| DOOR MIRROR : Diagnosis Procedure | В |
| 1.CHECK DOOR MIRROR MECHANISM | |
| Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. | С |
| <u>Is the inspection result normal?</u> YES >> GO TO 2. | D |
| NO >> Repair or replace the malfunctioning parts. 2.CHECK MIRROR SWITCH | Е |
| Check mirror switch. Refer to <u>ADP-90, "MIRROR SWITCH : Component Function Check"</u> . | L |
| Is the inspection result normal? | F |
| YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. | |
| 3. CHECK MIRROR MOTOR | G |
| Check mirror motor. Refer to <u>ADP-136, "Component Function Check"</u> . | Н |
| Is the inspection result normal? | 11 |
| YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. | |
| 4.CONFIRM THE OPERATION | |
| Check the operation again. | |
| Is the result normal? | ADP |
| YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>. NO >> GO TO 1. | |
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< SYMPTOM DIAGNOSIS >

MEMORY FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Description

All functions do not operate when memory operated. (power seat, tilt & telescopic, and door mirror)

ALL COMPONENT : Diagnosis Procedure

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to <u>ADP-212</u>, "ALL COMPONENT : Diagnosis Procedure"

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 ADP-87, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch.

4.CHECK DETENTION SWITCH

Check detention switch. Refer to ADP-97, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

SEAT SLIDING

SEAT SLIDING : Description

Seat sliding only does not operate when memory operated.

SEAT SLIDING : Diagnosis Procedure

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2. NO >> Refer to <u>ADP-213. "SEAT SLIDING : Diagnosis Procedure"</u> 2.CHECK SLIDING SENSOR

Check sliding sensor.

Revision: 2009 October

INFOID:000000004535108

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| Refer to <u>ADP-101, "Component Function Check"</u> . Is the inspection result normal? | А |
| YES >> GO TO 3. | |
| NO >> Repair or replace the malfunctioning parts. | 5 |
| 3.CONFIRM THE OPERATION | В |
| Check the operation again. | _ |
| Is the result normal? | С |
| YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. | |
| SEAT RECLINING | D |
| SEAT RECLINING : Description | 0 |
| Seat reclining only does not operate when memory operated. | Е |
| SEAT RECLINING : Diagnosis Procedure | 1 |
| 1. CHECK MANUAL OPERATION | F |
| | - |
| Check manual operation. <u>Is the inspection result normal?</u> | G |
| YES >> GO TO 2. | 9 |
| NO >> Refer to <u>ADP-214, "SEAT RECLINING : Diagnosis Procedure"</u> | |
| 2.CHECK RECLINING SENSOR | Н |
| Check reclining sensor. Refer to <u>ADP-104, "Component Function Check"</u> . | |
| Is the inspection result normal? | 1 |
| YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. | |
| 3. CONFIRM THE OPERATION | ADP |
| Check the operation again. | _ |
| Is the result normal? | Κ |
| YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . | |
| NO >> GO TO 1. SEAT LIFTING (FRONT) | L |
| | |
| SEAT LIFTING (FRONT) : Description | 2 M |
| Seat lifting (front) only does not operate when memory operated. | IVI |
| SEAT LIFTING (FRONT) : Diagnosis Procedure | |
| 1.CHECK MANUAL OPERATION | N |
| Check manual operation. | 0 |
| Is the inspection result normal? | 0 |
| YES >> GO TO 2. NO >> Refer to <u>ADP-214, "SEAT LIFTING (FRONT) : Diagnosis Procedure"</u> | |
| 2.CHECK LIFTING SENSOR (FRONT) | Ρ |
| Check lifting sensor (front). | - |
| Refer to <u>ADP-107</u> , "Component Function Check". | |
| <u>Is the inspection result normal?</u> YES >> GO TO 3. | |
| NO >> Repair or replace the malfunctioning parts. | |
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| 3. CONFIRM THE OPERATION | |
| Check the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. SEAT LIFTING (REAR) | |
| SEAT LIFTING (REAR) : Description | INFOID:000000004535114 |
| Seat lifting (rear) only does not operate when memory operated. | |
| SEAT LIFTING (REAR) : Diagnosis Procedure | INFOID:000000004535115 |
| 1.CHECK MANUAL OPERATION | |
| Check manual operation. | |
| <u>Is the inspection result normal?</u> YES >> GO TO 2. | |
| NO >> Refer to <u>ADP-215, "SEAT LIFTING (REAR) : Diagnosis Procedure"</u> | |
| 2.CHECK LIFTING SENSOR (REAR) | |
| Check lifting sensor (rear). Refer to <u>ADP-110, "Component Function Check"</u> . | |
| Is the inspection result normal? | |
| YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. | |
| 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-41, "Intermittent Incident"</u> . | |
| NO >> GO TO 1. STEERING TELESCOPIC | |
| | |
| STEERING TELESCOPIC : Description | INFOID:000000004535116 |
| Steering telescopic only does not operate when memory operated. | |
| STEERING TELESCOPIC : Diagnosis Procedure | INFOID:000000004535117 |
| 1.CHECK MANUAL OPERATION | |
| Check manual operation. | |
| <u>Is the inspection result normal?</u> YES >> GO TO 2. | |
| NO >> Refer to <u>ADP-216, "STEERING TELESCOPIC : Diagnosis Procedure"</u> | |
| 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. | |
| 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-41, "Intermittent Incident"</u> . | |
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| < SYMPTOM DIAGNOSIS > | | |
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| NO >> GO TO 1. STEERING TILT | | А |
| STEERING TILT : Description | INFOID:000000004535118 | _ |
| Steering tilt only does not operate when memory operated. | | В |
| STEERING TILT : Diagnosis Procedure | INFOID:000000004535119 | 0 |
| 1.CHECK MANUAL OPERATION | | С |
| Check manual operation. | | D |
| <u>Is the inspection result normal?</u> YES >> GO TO 2. | | D |
| NO >> Refer to <u>ADP-215, "STEERING TILT : Diagnosis Procedure"</u> | | |
| 2. CHECK TILT SENSOR | | Е |
| Check steering tilt sensor. | | |
| Refer to ADP-113. "Component Function Check". | | F |
| <u>Is the inspection result normal?</u> YES >> GO TO 3. | | |
| NO >> Repair or replace the malfunctioning parts. | | G |
| 3. CONFIRM THE OPERATION | | 0 |
| Check the operation again. | | |
| Is the result normal? | | Н |
| YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. | | |
| DOOR MIRROR | | |
| DOOR MIRROR : Description | INFOID:000000004535120 | |
| Door mirror does not operate when memory operated. | | ADF |
| DOOR MIRROR : Diagnosis Procedure | INFOID:000000004535121 | |
| 1. CHECK MANUAL OPERATION | IN 012.00000000000000000000000000000000000 | K |
| Check manual operation. | | |
| Is the inspection result normal? | | L |
| YES >> GO TO 2. | | |
| NO >> Refer to <u>ADP-217, "DOOR MIRROR : Diagnosis Procedure"</u> | | \mathbb{M} |
| 2.CHECK MIRROR SENSOR | | |
| Check mirror sensor. Refer to <u>ADP-119, "DRIVER SIDE : Component Function Check"</u>. (Driver side) | | Ν |
| • Refer to <u>ADP-121, "PASSENGER SIDE : Component Function Check"</u> . (Passenger side) | | |
| Is the inspection result normal? | | |
| YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. | | 0 |
| 3. CONFIRM THE OPERATION | | |
| Check the operation again. | | Ρ |
| Is the result normal? | | |
| YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . | | |
| NO >> GO TO 1. | | |

< SYMPTOM DIAGNOSIS >

MEMORY INDICATE DOES NOT ILLUMINATE

Diagnosis Procedure

1.CHECK MEMORY INDICATOR

Check memory indicator. Refer to <u>ADP-139, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

 $2. {\sf CONFIRM} \text{ THE OPERATION}$

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

NO >> GO TO 1.

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

| Diagnosis Procedure INFOID:00000004535123 1.CHECK SYSTEM SETTING E Check system setting. E Refer to ADP-11, "SYSTEM SETTING : Special Repair Requirement". E |
|--|
| Check system setting. |
| |
| |
| 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-212, "ALL COMPONENT : Diagnosis Procedure"</u> . |
| 3. CONFIRM THE OPERATION |
| Check the operation again. |
| Is the result normal? |
| YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. |

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POWER WALK-IN FUNCTION DOES NOT OPERATE

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POWER WALK-IN FUNCTION DOES NOT OPERATE

INFOID:000000004535124

Diagnosis Procedure **1**.CHECK POWER WALK-IN FUNCTION Check power walk-in function. Refer to ADP-39, "POWER WALK-IN FUNCTION : System Description". Is the inspection result normal? YES >> Power walk-in function is OK. NO >> GO TO 2. 2. PERFORM INITIALIZATION PROCEDURE 1 Perform initialization procedure. Refer to ADP-10, "SYSTEM INITIALIZATION : Special Repair Requirement". 2. Check power walk-in function. Refer to ADP-39, "POWER WALK-IN FUNCTION : System Description". Is the inspection result normal? YES >> Power walk-in function is normal. NO >> GO TO 3. ${f 3}$.CHECK POWER WALK-IN SWITCH Check power walk-in switch. Refer to ADP-81, "Component Function Check". Is the inspection result normal? 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?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5. CHECK FORWARD SWITCH

Check forward switch. Refer to ADP-75, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

6.CHECK SLIDING LIMIT SWITCH

Check sliding limit switch. Refer to ADP-79, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.

>> Repair or replace the malfunctioning parts. NO

CHECK DRIVER SIDE DOOR SWITCH

Check driver side door switch.

Refer to DLK-62, "Component Function Check"

Is the inspection result normal?

YES >> GO TO 8.

>> Repair or replace the malfunctioning parts. NO

 8_{CONFIRM} the operation

Check the operation again.

Revision: 2009 October

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| < SYMI | POWER WALK-IN FUNCTION DOES NOT OPERATE PTOM DIAGNOSIS > | |
|-----------|--|----|
| | ADP-39. "POWER WALK-IN FUNCTION : System Description". | |
| Is the re | esult normal? | A |
| YES NO | >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . >> GO TO 1. | |
| NO | | В |
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INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000004535125

1. CHECK DOOR LOCK FUNCTION

Check door lock function. Refer to DLK-7, "Work Flow".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. PERFORM MEMORY STORING PROCEDURE

- 1. Perform memory storing procedure. Refer to <u>ADP-10</u>, "<u>MEMORY STORING</u> : <u>Special Repair Requirement</u>".
- Check Intelligent Key interlock function. Refer to <u>ADP-34</u>, "INTELLIGENT KEY INTERLOCK FUNCTION : System Description".

Is the inspection result normal?

YES >> Intelligent Key inter lock function is normal.

NO >> GO TO 1.

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

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

| Symptom | Cause | Action to take | Reference page | |
|--|--|---|--|--|
| Seat synchronization function does not operate. | The synchronization function will not op- erate if the steering (tilt, telescopic) or the door mirror moves to the operating end while the seat synchronization function is operating. | Perform the memory function or drive the vehicle at more than 7km/h (4 MPH). | <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 opera- tion. | | 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 | Memory function: <u>ADP-29</u> | |
| | | | Power walk-in function: <u>ADP-39</u> | |
| | | oes not operate. | | Seat synchronization function: <u>ADP-24</u> |
| | | | | Intelligent Key interlock function: <u>ADP-34</u> |

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< 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:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT 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

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- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.

ADP-228

PRECAUTIONS

< PRECAUTION >

- 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 c a soft and dry cloth.

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

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< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION DRIVER SEAT CONTROL UNIT

Exploded View

Refer to SE-179, "Exploded View".

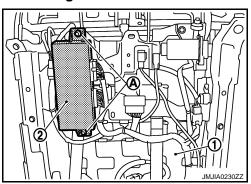
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove driver seat (1). Refer to <u>SE-182, "Removal and Installa-</u>
- 2. Remove mounting bolts (A).
- 3. Remove driver seat control unit (2).



INSTALLATION

Install in reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

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



AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

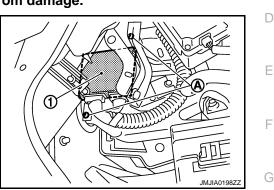
Refer to IP-11, "Exploded View".

Removal and Installation

REMOVAL

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

- 1. Remove instrument driver lower panel. Refer to <u>IP-12. "Removal</u> <u>and Installation"</u>.
- 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.

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< REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Exploded View

Refer to INT-11, "Exploded View"

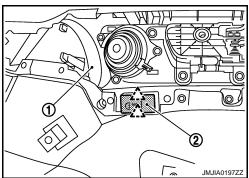
Removal and Installation

REMOVAL

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

- 1. Remove front door finisher (1). Refer to <u>INT-11, "Removal and</u> <u>Installation"</u>.
- 2. Press pawls and remove seat memory switch (2) from front door finisher (1).

22: Pawl



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place. INFOID:000000004250432

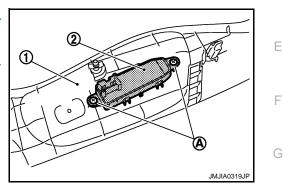
POWER SEAT SWITCH

< REMOVAL AND INSTALLATION >

POWER SEAT SWITCH

Exploded View INFOID:0000004250434 Refer to SE-179, "Exploded View". INFOID:0000004250435 Removal and Installation INFOID:00000004250435 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-182,</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.

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< REMOVAL AND INSTALLATION >

SIDE SUPPORT SWITCH

Exploded View

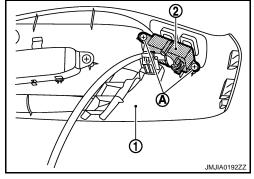
Refer to SE-179, "Exploded View"

Removal and Installation

REMOVAL

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

- 1. Remove seat cushion outer finisher (1). Refer to <u>SE-182, "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. INFOID:000000004250436

TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

TILT&TELESCOPIC SWITCH

А **Exploded View** INFOID:000000004250438 Refer to IP-11, "Exploded View". В **Removal and Installation** INFOID:000000004250439 С REMOVAL CAUTION: When removing and installing, use shop cloths to protect parts from damage. D Remove steering column mask (1). Refer to IP-12, "Removal and Installation". 1. 2. Press pawls and remove tilt & telescopic switch (2) from steering column mask (1). 2 Ε <u>/</u>]: Pawl F

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

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