SECTION ADP AUTOMATIC DRIVE POSITIONER

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CONTENTS

| BASIC INSPECTION6 | AUTOMATIC DRIVE POSITIONER SYSTEM: | F |
|---|--|----|
| DIA ONO DIO AND DEDAID WORK FLOW | System Diagram14 | |
| DIAGNOSIS AND REPAIR WORK FLOW 6 | AUTOMATIC DRIVE POSITIONER SYSTEM: | |
| Work Flow6 | System Description15 | G |
| INSPECTION AND ADJUSTMENT9 | AUTOMATIC DRIVE POSITIONER SYSTEM: | |
| THO LOTION AND ADDOOT MENT III | Component Parts Location16 | |
| ADDITIONAL SERVICE WHEN REMOVING BAT- | AUTOMATIC DRIVE POSITIONER SYSTEM: | H |
| TERY NEGATIVE TERMINAL9 | Component Description17 | |
| ADDITIONAL SERVICE WHEN REMOVING | MANUAL FUNCTION19 | |
| BATTERY NEGATIVE TERMINAL : Description9 | MANUAL FUNCTION : System Diagram19 | |
| ADDITIONAL SERVICE WHEN REMOVING | MANUAL FUNCTION : System Description19 | |
| BATTERY NEGATIVE TERMINAL : Special Re- | MANUAL FUNCTION : Component Parts Loca- | |
| pair Requirement9 | 4100 | |
| ADDITIONAL OFFICIAL DEPLACING | MANUAL FUNCTION : Component Description22 | l |
| ADDITIONAL SERVICE WHEN REPLACING | With the NET effection. Component Becomption22 | |
| CONTROL UNIT9 | SEAT SYNCHRONIZATION FUNCTION23 | |
| ADDITIONAL SERVICE WHEN REPLACING | SEAT SYNCHRONIZATION FUNCTION: Sys- | K |
| CONTROL UNIT: Description9 | tem Diagram24 | |
| ADDITIONAL SERVICE WHEN REPLACING | SEAT SYNCHRONIZATION FUNCTION: Sys- | |
| CONTROL UNIT : Special Repair Requirement10 | tem Description24 | ı |
| SYSTEM INITIALIZATION10 | SEAT SYNCHRONIZATION FUNCTION: Com- | |
| SYSTEM INITIALIZATION : Description10 | ponent Parts Location26 | |
| SYSTEM INITIALIZATION : Special Repair Re- | SEAT SYNCHRONIZATION FUNCTION: | B. |
| quirement10 | Component Description27 | V |
| · | MEMORY FUNCTION28 | |
| MEMORY STORING10 | MEMORY FUNCTION : Cyclero Diograms | |
| MEMORY STORING : Description11 | MEMORY FUNCTION: System Diagram29 MEMORY FUNCTION: System Description29 | Ν |
| MEMORY STORING : Special Repair Require- | MEMORY FUNCTION: System Description29 MEMORY FUNCTION: Component Parts Loca- | |
| ment11 | tion31 | |
| SYSTEM SETTING12 | | С |
| SYSTEM SETTING: Description12 | MEMORT FORCTION : Component Description32 | |
| SYSTEM SETTING: Special Repair Requirement | EXIT ASSIST FUNCTION33 | |
| 12 | EXIT ASSIST FUNCTION: System Diagram34 | Ρ |
| 12 | EXIT ASSIST FUNCTION: System Description34 | |
| SYSTEM DESCRIPTION14 | EXIT ASSIST FUNCTION : Component Parts Lo- | |
| | cation35 | |
| AUTOMATIC DRIVE POSITIONER SYSTEM14 | EXIT ASSIST FUNCTION: | |
| ALITOMATIC DRIVE DOCITIONED SYSTEM | Component Description37 | |
| AUTOMATIC DRIVE POSITIONER SYSTEM14 | ENTRY A COICT FUNCTION | |
| | ENTRY ASSIST FUNCTION37 | |

| ENTRY ASSIST FUNCTION : System Diagram | . 38 | B2128 UART COMMUNICATION LINE | 64 |
|--|------|---|-----|
| ENTRY ASSIST FUNCTION: System Description | | Description | 64 |
| | . 38 | DTC Logic | 64 |
| ENTRY ASSIST FUNCTION : Component Parts | | Diagnosis Procedure | 64 |
| Location ENTRY ASSIST FUNCTION: | . 39 | POWER SUPPLY AND GROUND CIRCUIT | 65 |
| Component Description | . 41 | BCM | 6 E |
| INTELLIGENT KEY INTERLOOK EUNOTION | | BCM : Diagnosis Procedure | |
| INTELLIGENT KEY INTERLOCK FUNCTION INTELLIGENT KEY INTERLOCK FUNCTION: | . 41 | DOM : Diagnosis Frocedure | 03 |
| System Diagram | 42 | DRIVER SEAT CONTROL UNIT | 65 |
| INTELLIGENT KEY INTERLOCK FUNCTION: | . 42 | DRIVER SEAT CONTROL UNIT : | |
| System Description | . 42 | Diagnosis Procedure | |
| INTELLIGENT KEY INTERLOCK FUNCTION : | | DRIVER SEAT CONTROL UNIT : Special Repair | |
| Component Parts Location | . 43 | Requirement | 66 |
| INTELLIGENT KEY INTERLOCK FUNCTION: | | AUTOMATIC DRIVE POSITIONER CONTROL | |
| Component Description | . 45 | UNIT | 66 |
| DIACNOCIC CVCTEM (DDIVED CEAT C/II) | 40 | AUTOMATIC DRIVE POSITIONER CONTROL | |
| DIAGNOSIS SYSTEM (DRIVER SEAT C/U) | | UNIT : Diagnosis Procedure | 66 |
| Diagnosis Description | | AUTOMATIC DRIVE POSITIONER CONTROL | |
| CONSULT-III Function | . 46 | UNIT : Special Repair Requirement | 67 |
| DTC/CIRCUIT DIAGNOSIS | . 49 | SLIDING SWITCH | 68 |
| U1000 CAN COMM CIRCUIT | 40 | Description | 68 |
| Description | | Component Function Check | 68 |
| DTC Logic | | Diagnosis Procedure | 68 |
| Diagnosis Procedure | | Component Inspection | 69 |
| Special Repair Requirement | | RECLINING SWITCH | 70 |
| | | | |
| B2112 SLIDING MOTOR | | Description Component Function Check | |
| Description | | Diagnosis Procedure | |
| DTC Logic | | Component Inspection | |
| Diagnosis Procedure | . 50 | | |
| B2113 RECLINING MOTOR | . 52 | LIFTING SWITCH (FRONT) | |
| Description | | Description | |
| DTC Logic | | Component Function Check | |
| Diagnosis Procedure | | Diagnosis Procedure | |
| DOMAN THE T CENCOD | | Component Inspection | 73 |
| B2118 TILT SENSOR | | LIFTING SWITCH (REAR) | 74 |
| Description | | Description | |
| DTC Logic Diagnosis Procedure | | Component Function Check | |
| Diagnosis Flocedule | . 34 | Diagnosis Procedure | 74 |
| B2119 TELESCOPIC SENSOR | . 57 | Component Inspection | 75 |
| Description | . 57 | TILT SWITCH | 70 |
| DTC Logic | | | |
| Diagnosis Procedure | . 57 | Description Component Function Check | |
| B2126 DETENT SW | 60 | Diagnosis Procedure | |
| Description | | Component Inspection | |
| DTC Logic | | · | |
| Diagnosis Procedure | | TELESCOPIC SWITCH | 78 |
| | | Description | |
| B2127 PARKING BRAKE SWITCH | | Component Function Check | |
| Description | | Diagnosis Procedure | |
| DTC Logic | | Component Inspection | 79 |
| Diagnosis Procedure | | SEAT MEMORY SWITCH | ጸበ |
| Component Inspection | . 63 | Description | |
| | | Component Function Check | |

| Diagnosis Procedure80 | Diagnosis Procedure106 | = |
|---|---|------|
| Component Inspection81 | TELESCOPIC SENSOR109 | Α |
| DOOR MIRROR REMOTE CONTROL | Description | |
| SWITCH83 | | |
| ЭWIIСПоз | Diagnosis Procedure109 | |
| MIRROR SWITCH83 | Diagnosis i roccuire109 | |
| MIRROR SWITCH: Description83 | MIRROR SENSOR112 | |
| MIRROR SWITCH: Component Function Check83 | | С |
| MIRROR SWITCH: Diagnosis Procedure83 | DRIVER SIDE112 | |
| MIRROR SWITCH: Component Inspection84 | DRIVER SIDE : Description112 | |
| | DRIVER SIDE : Component Function Check112 | |
| CHANGEOVER SWITCH85 | • | D |
| CHANGEOVER SWITCH : Description85 | PASSENGER SIDE114 | |
| CHANGEOVER SWITCH : Component Function | DACCENCED CIDE - Description | |
| Check | DAGOENOED OIDE | Е |
| CHANGEOVER SWITCH : Diagnosis Procedure85 | Component Function Check114 | |
| CHANGEOVER SWITCH : Component Inspec- | DACCENCED CIDE : Diagnosia Drocodura 444 | |
| tion86 | 1 ASSENGEN SIDE : Diagnosis 1 locedure | F |
| POWER SEAT SWITCH GROUND CIRCUIT88 | SLIDING MOTOR117 | |
| Diagnosis Procedure88 | D | |
| Diagnosis Flocedule | Component Function Check117 | G |
| TILT &TELESCOPIC SWITCH GROUND CIR- | Diagnosis Procedure117 | G |
| CUIT89 | - | |
| Diagnosis Procedure89 | · | |
| Diagnosis i roccare | RECLINING MOTOR119 | Н |
| DETENTION SWITCH90 | | |
| Description90 | Component Function Check119 | |
| Component Function Check90 | | |
| Diagnosis Procedure90 | | |
| Component Inspection91 | | |
| | LIFTING MOTOR (FRONT)121 | ADF |
| PARKING BRAKE SWITCH92 | | ADI |
| Description92 | | |
| Component Function Check92 | | 1.6 |
| Diagnosis Procedure92 | | K |
| Component Inspection93 | LIFTING MOTOR (REAR)123 | |
| SLIDING SENSOR94 | Description | |
| | 0 | |
| Description | | |
| Component Function Check | | |
| Diagnosis Procedure94 | Component mopoulon124 | M |
| RECLINING SENSOR97 | TILT MOTOR125 | |
| Description97 | B 1.4 | |
| Component Function Check97 | | N.I. |
| Diagnosis Procedure97 | | Ν |
| | Component Inspection126 | |
| LIFTING SENSOR (FRONT)100 | | |
| Description100 | | 0 |
| Component Function Check100 | | |
| Diagnosis Procedure100 | Component Function Check127 | |
| | Diagnosis Procedure127 | Р |
| LIFTING SENSOR (REAR)103 | | - |
| Description | | |
| Component Function Check | | |
| Diagnosis Procedure103 | Description | |
| TILT SENSOR106 | Component Function Check | |
| | 9 | |
| Description | Component Inspection130 | |
| | | |

| SEAT MEMORY INDICATOR 132 | SEAT LIFTING (REAR)213 |
|---|---|
| Description132 | SEAT LIFTING (REAR): Description |
| Component Function Check132 | SEAT LIFTING (REAR) : Diagnosis Procedure 213 |
| Diagnosis Procedure132 | CTEEDING THE |
| | STEERING TILT |
| DOOR MIRROR SYSTEM134 | STEERING TILT : Description |
| Wiring Diagram - DOOR MIRROR (WITH AUTO- | STEERING TIET . Diagnosis Procedure 213 |
| MATIC DRIVE POSITIONER)134 | STEERING TELESCOPIC214 |
| ECU DIAGNOSIS INFORMATION142 | STEERING TELESCOPIC : Description 214 |
| | STEERING TELESCOPIC : Diagnosis Procedure. 214 |
| DRIVER SEAT CONTROL UNIT 142 | DOOD MIDDOD |
| Reference Value142 | DOOR MIRROR |
| Wiring Diagram - AUTOMATIC DRIVE POSI- | DOOR MIRROR : Description |
| TIONER CONTROL SYSTEM147 | DOOR WIRKOR . Diagnosis Procedure215 |
| Fail Safe157 | MEMORY FUNCTION DOES NOT OPERATE.216 |
| DTC Index158 | |
| AUTOMATIC DRIVE POSITIONER CON- | ALL COMPONENT216 |
| TROL UNIT | ALL COMPONENT : Description |
| | ALL COMPONENT : Diagnosis Procedure 216 |
| Reference Value159 Wiring Diagram - AUTOMATIC DRIVE POSI- | SEAT SLIDING216 |
| TIONER CONTROL SYSTEM163 | SEAT SLIDING : Description |
| HONER CONTROL STSTEW163 | SEAT SLIDING : Diagnosis Procedure |
| BCM (BODY CONTROL MODULE) 174 | |
| Reference Value174 | SEAT RECLINING217 |
| Wiring Diagram - BCM198 | SEAT RECLINING : Description217 |
| Fail-safe204 | SEAT RECLINING : Diagnosis Procedure 217 |
| DTC Inspection Priority Chart206 | SEAT LIFTING (FRONT)217 |
| DTC Index207 | SEAT LIFTING (FRONT): Description |
| SYMPTOM DIAGNOSIS210 | SEAT LIFTING (FRONT): Diagnosis Procedure . 217 |
| 31WF10W DIAGNOSIS210 | , , , , , , , , , , , , , , , , , , , |
| MANUAL FUNCTION DOES NOT OPERATE. 210 | SEAT LIFTING (REAR)218 |
| | SEAT LIFTING (REAR) : Description |
| ALL COMPONENT210 | SEAT LIFTING (REAR) : Diagnosis Procedure 218 |
| ALL COMPONENT : Description210 | STEERING TELESCOPIC218 |
| ALL COMPONENT : Diagnosis Procedure210 | STEERING TELESCOPIC : Description |
| POWER SEAT210 | STEERING TELESCOPIC : Diagnosis Procedure. 218 |
| POWER SEAT : Description210 | |
| POWER SEAT : Diagnosis Procedure210 | STEERING TILT219 |
| | STEERING TILT : Description |
| STEERING POSITION FUNCTION DOES NOT | STEERING TILT : Diagnosis Procedure219 |
| OPERATE210 | DOOR MIRROR219 |
| STEERING POSITION FUNCTION DOES NOT | DOOR MIRROR : Description219 |
| OPERATE: Description210 | DOOR MIRROR : Diagnosis Procedure219 |
| STEERING POSITION FUNCTION DOES NOT | <u>-</u> |
| OPERATE : Diagnosis Procedure211 | MEMORY INDICATE DOES NOT ILLUMI- |
| SEAT SLIDING211 | NATE220 |
| SEAT SLIDING : Description211 | Diagnosis Procedure220 |
| SEAT SLIDING : Diagnosis Procedure211 | SEAT SYNCHOONIZATION ELINOTION |
| • | SEAT SYNCHRONIZATION FUNCTION |
| SEAT RECLINING211 | DOES NOT OPERATE221 |
| SEAT RECLINING : Description211 | Diagnosis Procedure221 |
| SEAT RECLINING : Diagnosis Procedure212 | ENTRY/EXIT ASSIST FUNCTION DOES NOT |
| SEAT LIFTING (FRONT)212 | OPERATE222 |
| SEAT LIFTING (FRONT) : Description212 | Diagnosis Procedure222 |
| SEAT LIFTING (FRONT) : Diagnosis Procedure 212 | 5 |

| INTELLIGENT KEY INTERLOCK FUNCTION | DRIVER SEAT CONTROL UNIT22 | 8 |
|--|---------------------------------|---|
| DOES NOT OPERATE223 | Exploded View22 | 8 |
| Diagnosis Procedure223 | Removal and Installation22 | 8 |
| ALL FUNCTIONS DO NOT OPERATE224 | AUTOMATIC DRIVE POSITIONER CON- | |
| Diagnosis Procedure224 | TROL UNIT22 | 9 |
| | Exploded View22 | 9 |
| NORMAL OPERATING CONDITION225 Description225 | Removal and Installation22 | 9 |
| · | SEAT MEMORY SWITCH23 | 0 |
| PRECAUTION226 | Exploded View23 | 0 |
| DDECALITIONS | Removal and Installation23 | |
| PRECAUTIONS226 | | |
| Precaution for Supplemental Restraint System | POWER SEAT SWITCH23 | 1 |
| (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- | Exploded View23 | 1 |
| SIONER"226 | Removal and Installation23 | |
| Service226 | | |
| Work226 | TILT&TELESCOPIC SWITCH23 | 2 |
| | Exploded View23 | |
| REMOVAL AND INSTALLATION228 | Removal and Installation23 | 2 |
| | | |

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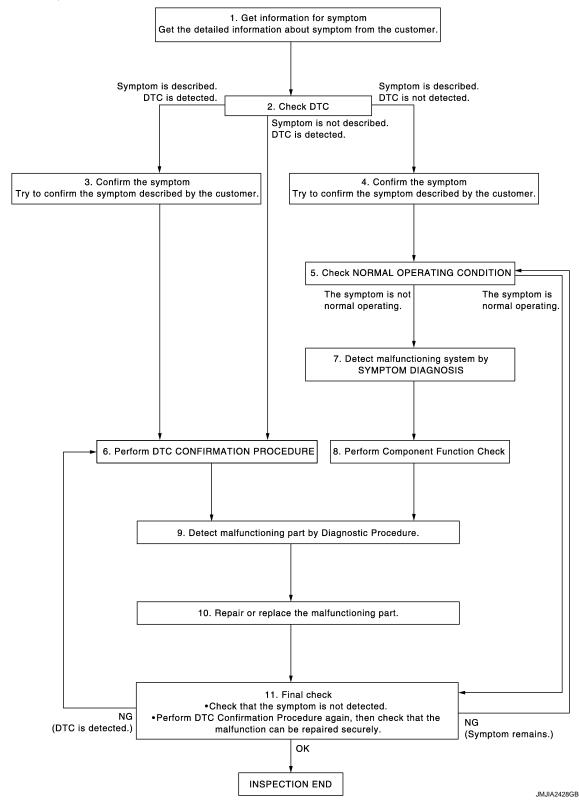
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

OVERALL SEQUENCE



DIAGNOSIS AND REPAIR WORK FLOW < BASIC INSPECTION > 1.GET INFORMATION FOR SYMPTOM Α Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred). В >> GO TO 2. 2.CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM Check "Self Diagnostic Result" with CONSULT-III. Refer to ADP-158, "DTC Index" Is any symptom described and any DTC is displayed? Symptom is described, DTC is displayed.>>GO TO 3. D Symptom is not described, DTC is displayed.>>GO TO 6. Symptom is described, DTC is not displayed.>>GO TO 4. 3.CONFIRM THE SYMPTOM Е Try to confirm the symptom described by the customer. >> GO TO 6. 4.CONFIRM THE SYMPTOM Try to confirm the symptom described by the customer. >> GO TO 5. CHECK NORMAL OPERATING CONDITION Н Check normal operating condition. Refer to ADP-225, "Description". Is the incident normal operation? >> INSPECTION END YES NO >> GO TO 7. $\mathsf{6}.$ PERFORM DTC CONFIRMATION PROCEDURE ADP Perform the confirmation procedure for the detected DTC. Is the DTC displayed? YES >> GO TO 8. NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". 7. PERFORM COMPONENT FUNCTION CHECK Perform the component function check for the isolated malfunctioning point. >> GO TO 8. M 8.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during the component diagnosis.

>> GO TO 9.

REPARE OR REPLACE

Repair or replace the malfunctioning part.

>> GO TO 10.

10. FINAL CHECK

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

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Are all malfunctions corrected?

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

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

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

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

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

^{*1:} This function only for AT model.

NOTE:

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

1. SYSTEM INITIALIZATION

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

>> GO TO 2.

2. SYSTEM SETTING

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

>> GO TO 3.

3.MEMORY STORAGE

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

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

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

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

^{*1:} This function only for AT model.

NOTE:

Revision: 2009 November ADP-9 2010 G37 Sedan

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^{*2:} Default value is 40mm.

^{*2:} Default value is 40mm.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

1.SYSTEM INITIALIZATION

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

>> GO TO 2.

2. SYSTEM SETTING

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

>> GO TO 3.

3.MEMORY STORAGE

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

>> END

SYSTEM INITIALIZATION

SYSTEM INITIALIZATION: Description

INFOID:0000000005630063

Always perform the initialization when the battery terminal is disconnected or the driver seat control unit is replaced.

The entry/exit assist function will not operate normally if no initialization is performed.

SYSTEM INITIALIZATION : Special Repair Requirement

INFOID:0000000005630064

INITIALIZATION PROCEDURE

1. CHOOSE METHOD

There are two initialization methods.

Which method do you use?

With door switch>>GO TO 2.

With vehicle speed>>GO TO 4.

2. STEP A-1

Turn ignition switch from ACC to OFF position.

>> GO TO 3.

3. STEP A-2

Driver door switch is ON (open) \rightarrow OFF (close) \rightarrow ON (open).

>> END

4. STEP B-1

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

>> END

MEMORY STORING

INSPECTION AND ADJUSTMENT < BASIC INSPECTION > **MEMORY STORING: Description** INFOID:0000000005630065 Α 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. В MEMORY STORING: Special Repair Requirement INFOID:0000000005630066 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 D 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 ${\mathfrak 3}$ Adjust driver seat, steering column and outside mirror position manually. Н >> GO TO 4. **4.**STEP 4 Push set switch. NOTE: Memory indicator for which driver seat position is already retained in memory is illuminated for 5 sec-ADP Memory indicator for which driver seat position is not retained in memory is illuminated for 0.5 second. 2. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch. K NOTE: If memory is stored in the same memory switch, the previous memory will be deleted. Do you need linking of Intelligent Key? YES >> GO TO 6. NO >> GO TO 5. **5.**STEP 5 Confirm the operation of each part with memory operation. >> END N **6.**STEP 6

Turn ignition switch OFF (LOCK).

>> GO TO 7.

7.STEP 7

Press and release set switch. Memory switch indicator is illuminated for 5 seconds. During memory switch indicator is illuminated, press Intelligent Key unlock button while pressing memory switch 1 or 2.

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NOTE:

Memory switch indicator lamp blinks for 5 seconds when registration is complete.

>> GO TO 8.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

8.STEP 8

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

>> END SYSTEM SETTING

SYSTEM SETTING: Description

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

Setting Change (For AT models)

x: Applicable

INFOID:0000000005630067

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

Setting Change (For MT models)

×: Applicable

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

SYSTEM SETTING: Special Repair Requirement

INFOID:0000000005630068

1. CHECK TYPE OF TRANSMISSION

Check type of transmission for the vehicle.

Witch type of transmission is used for the vehicle?

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

2. STEP 1 (FOR MT MODELS)

Turn ignition switch OFF.

>> GO TO 3.

3. STEP 2 (FOR MT MODELS)

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

- Seat synchronization function is ON: Memory switch indicator blink two times.
- · Seat synchronization is OFF: Memory switch indicator blink once.

>> END

INSPECTION AND ADJUSTMENT

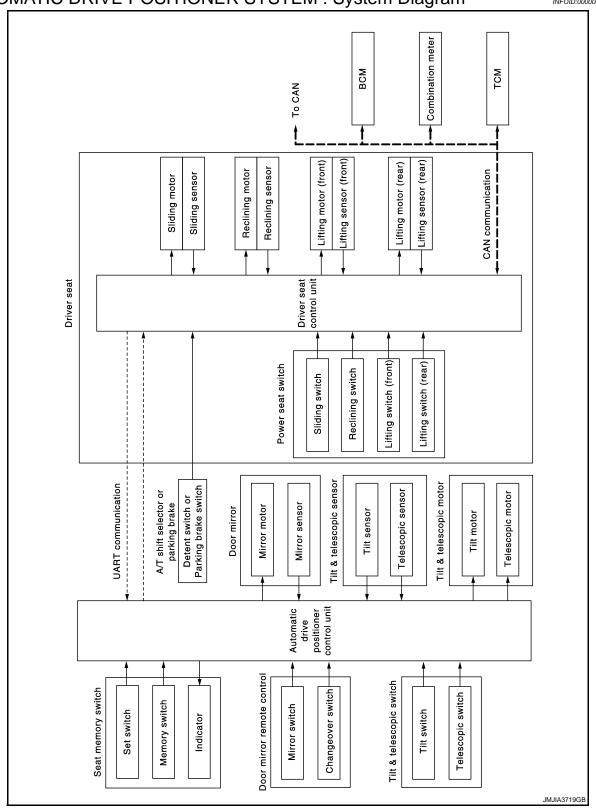
< BASIC INSPECTION > 4. CHOOSE METHOD There are three way of setting method. Which method do you choose? With set switch>>GO TO 5. В With CONSULT-III>>GO TO 7. 5. WITH SET SWITCH - STEP 1 (FOR AT MODELS) Turn ignition switch OFF. Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indi-• Entry/exit assist (seat/steering column) and seat are ON: Memory switch indicator blink two times. D Entry/exit assist (seat/steering column) and seat are OFF: Memory switch indicator blink once. Е >> GO TO 6. 6. WITH SET SWITCH - STEP 2 (FOR AT MODELS) Turn ignition switch ACC. Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indi- Seat synchronization are ON: Memory switch indicator blink two times. · Seat synchronization are OFF: Memory switch indicator blink once. >> END Н 7. WITH CONSULT-III - STEP 1 (FOR AT MODELS) Select "Work support". >> GO TO 8. 8. WITH CONSULT-III - STEP 2 (FOR AT MODELS) ADP Select "EXIT SEAT SLIDE SETTING", "EXIT TILT SETTING" or "SEAT SLIDE VOLUME SET" then touch display to change between ON and OFF. EXIT SEAT SLIDE SETTING: Entry/exit assist (seat) K EXIT TILT SETTING: Entry/exit assist (steering column) Then touch "OK". >> END Ν Р

SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram

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< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

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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 | ı | The positions of the steering column and door mirror are adjusted to the proper position automatically while linking with manual operation [seat sliding, seat lifting (rear) or seat reclining]. |
| Memory function | | The seat, steering column and outside mirror move to the stored driving position by pressing seat memory switch (1 or 2). |
| Entry/Evit assist function | Exit | On exit, the seat moves backward and the steering column moves upward and forward. |
| Entry/Exit assist function Entry | | On entry, the seat and steering column returns from exiting position to the previous driving position. |
| Intelligent Key interlock functi | on | Perform memory operation, exiting operation and entry operation by Intelligent Key unlock operation or driver side door request switch unlock operation. |

NOTE:

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

SLEEP MODE

- The seat control unit adopts the sleep mode to reduce the electric power consumption.
- The sleep mode is activated when all of the following condition are fulfilled.
- 1. Ignition switch turn OFF (Steering LOCK position)
- 2. No load is applied to the seat control
- 3. The seat control unit 45 seconds timer is not activated
- 4. Set switch and memory switch (1 and 2) turn OFF

WAKE-UP MODE

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

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

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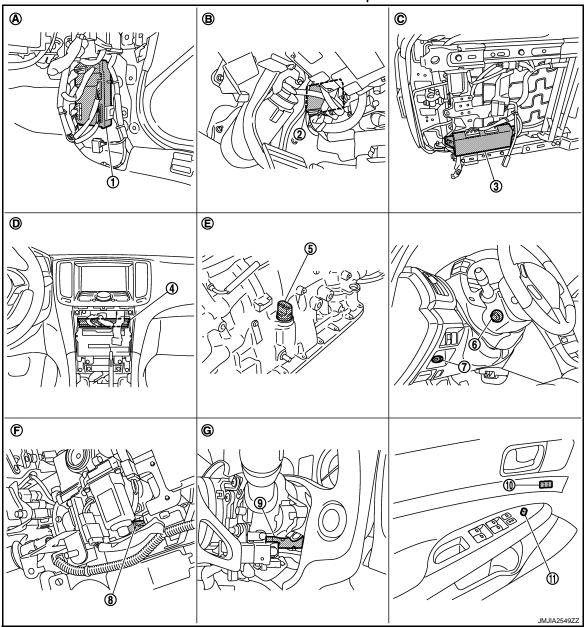
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< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location INFOID-000000005630071

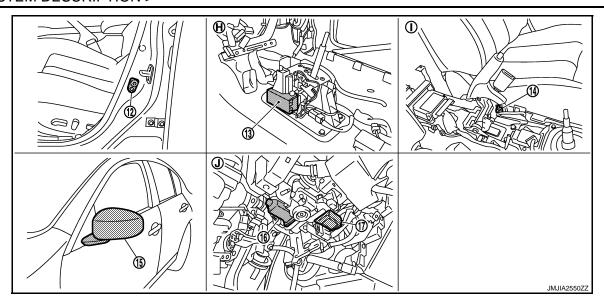


- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

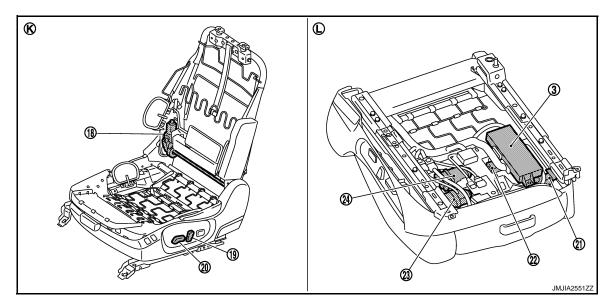
- Automatic drive positioner control unit 3. M51, M52
- 5. AT assembly F51
- 8. Tilt sensor M48
- Door mirror remote control switch D17
- 3. View with instrument driver lower panel removed
- E. AT assembly (TCM is built in AT assembly)

- . Driver seat control unit B451, B452
- 6. Tilt & telescopic switch M31
- 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



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



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

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:0000000005630072

CONTROL UNITS

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ADP-17 Revision: 2009 November 2010 G37 Sedan

< SYSTEM DESCRIPTION >

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

INPUT PARTS

Switches

| Item | Function |
|---------------------------------------|--|
| Key slot | The key switch is installed to detect the key inserted/removed status. |
| Front door switch (driver side) | Detect front door (driver side) open/close status. |
| A/T shift selector (detention switch) | Detect the P range position of AT selector lever. (only for AT models) |
| Parking break switch | Detect the parking brake status. (only for MT models) |
| Set switch | The registration and system setting can be performed with its operation. |
| Memory switch 1/2 | The registration and operation can be performed with its operation. |
| Power seat switch | The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch. |
| Tilt & telescopic switch | The following switch is installed. • Tilt switch • Telescopic switch The specific parts can be operated with the operation of each switch. |
| Door mirror remote control switch | The following switch is installed. • Mirror switch • Changeover switch The specific parts can be operated with the operation of each switch. |

Sensors

| Item | Function | |
|---|--|--|
| Door mirror sensor (driverside/passenger side) | Detect the up/down and left/right position of outside mirror face. | |
| Tilt and telescopic sensor | Detect the up/down and left/right position of steering column. | |
| Lifting sensor (front) | Detect the up/down position of seat lifting (front). | |
| Lifting sensor (rear) | Detect the up/down position of seat lifting (rear). | |

< SYSTEM DESCRIPTION >

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

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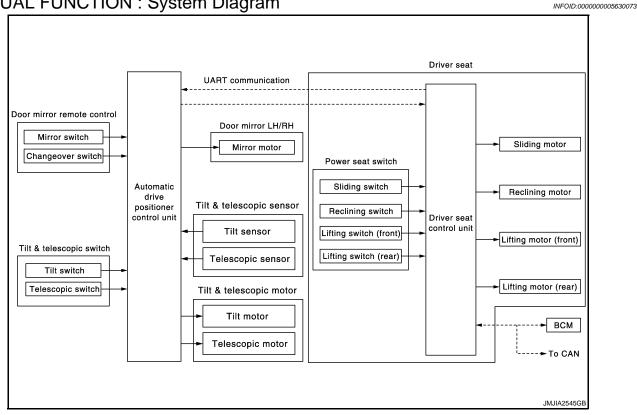
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OUTPUT PARTS

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

MANUAL FUNCTION

MANUAL FUNCTION : System Diagram



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

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

DETAIL FLOW

< SYSTEM DESCRIPTION >

Seat

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

Tilt & Telescopic

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

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

Door Mirror

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

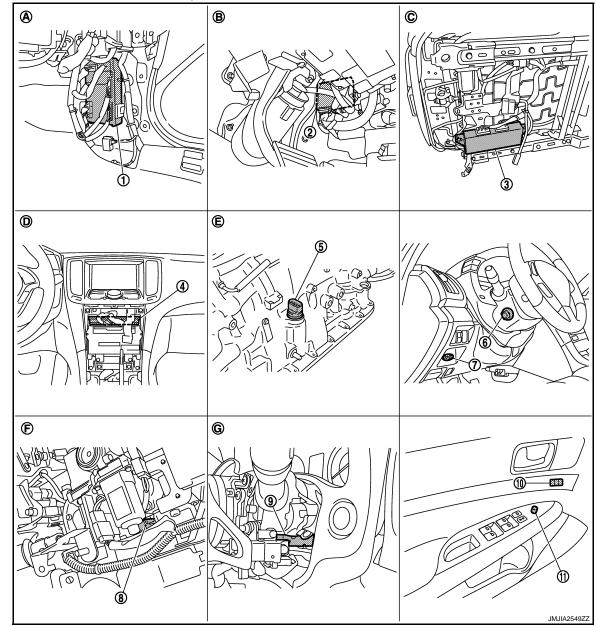
NOTE:

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

< SYSTEM DESCRIPTION >

MANUAL FUNCTION : Component Parts Location

INFOID:0000000005630075



- 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. AT assembly F51
- 8. Tilt sensor M48
- Door mirror remote control switch D17
- B. View with instrument driver lower panel removed
- E. AT assembly (TCM is built in AT assembly)

- Driver seat control unit B451, B452
- 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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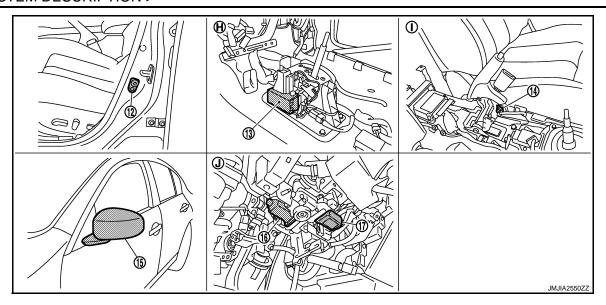
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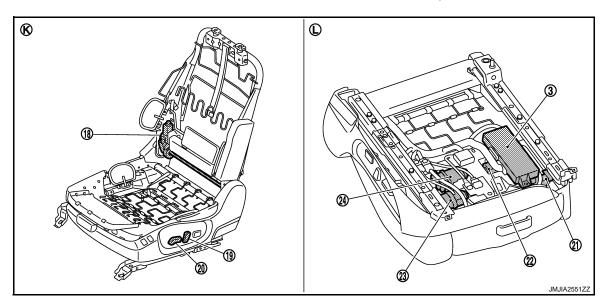
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- 12. Front door switch (driver side) B16
- 15. Door mirror (driver side) D3
- H. View with center console assembly removed
- 13. A/T shift selector (detention switch) M137
- 16. Telescopic motor M49
- View with center console assembly removed
- 14. Parking brake switch B14
- 17. Tilt motor M49
- View with instrument driver lower panel removed



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

MANUAL FUNCTION: Component Description

CONTROL UNITS

INFOID:0000000005630076

< SYSTEM DESCRIPTION >

| 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 m ror remote control switch. | |
| BCM | Recognizes the following status and transmits it to the driver seat control unit via CAN communication. • Ignition position: ACC/ON | |

INPUT PARTS

Switches

| Item Function | |
|-----------------------------------|--|
| Power seat switch | The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch. |
| Tilt & telescopic switch | The following switch is installed. • Tilt switch • Telescopic switch The specific parts can be operated with the operation of each switch. |
| Door mirror remote control switch | The following switch is installed. • Mirror switch • Changeover switch The specific parts can be operated with the operation of each switch. |

Sensors

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

OUTPUT PARTS

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

SEAT SYNCHRONIZATION FUNCTION

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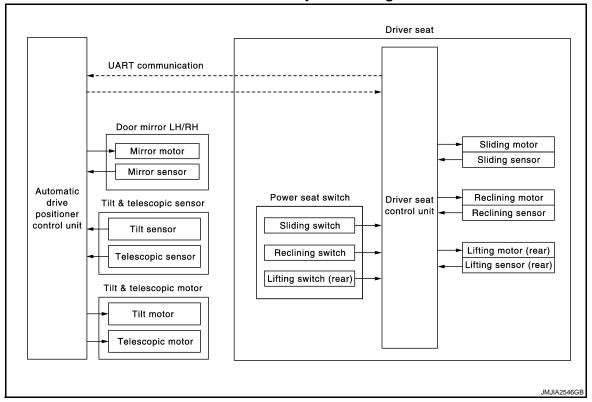
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< SYSTEM DESCRIPTION >

SEAT SYNCHRONIZATION FUNCTION: System Diagram

INFOID:0000000005630077



SEAT SYNCHRONIZATION FUNCTION: System Description

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OUTLINE

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

NOTE:

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

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

OPERATION PROCEDURE

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

NOTE:

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

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

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

OPERATION CONDITION

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

< SYSTEM DESCRIPTION >

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

DETAIL FLOW

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

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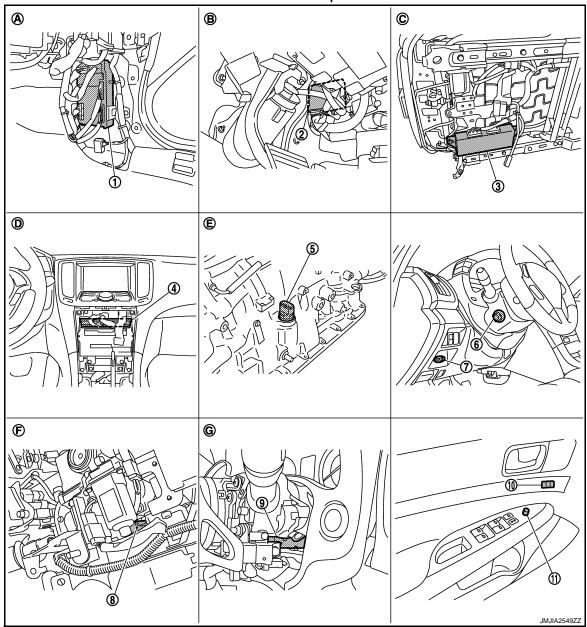
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< SYSTEM DESCRIPTION >

SEAT SYNCHRONIZATION FUNCTION: Component Parts Location

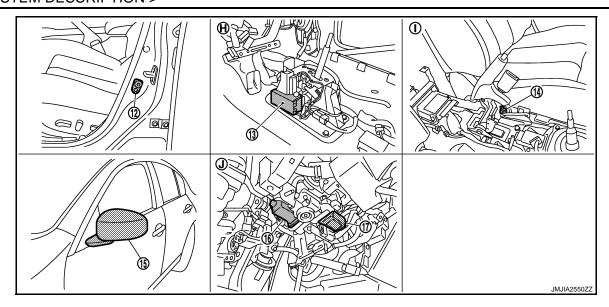
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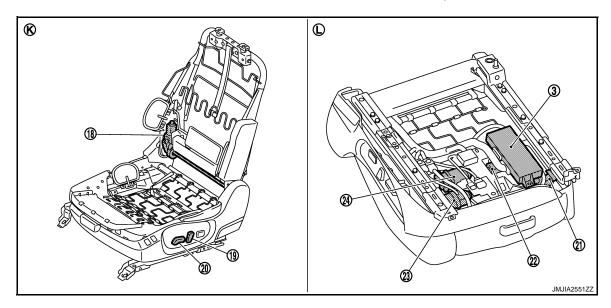
- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. AT assembly F51
- 8. Tilt sensor M48
- Door mirror remote control switch D17
- 3. View with instrument driver lower panel removed
- E. AT assembly (TCM is built in AT assembly)

- Driver seat control unit B451, B452
- 6. Tilt & telescopic switch M31
- 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side)
- View with instrument driver lower panel removed



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



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

SEAT SYNCHRONIZATION FUNCTION: Component Description

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CONTROL UNITS

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

< SYSTEM DESCRIPTION >

INPUT PARTS

Switches

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

Sensors

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

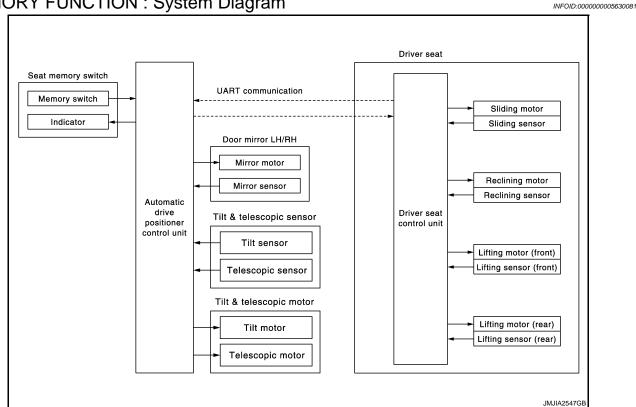
OUTPUT PARTS

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

MEMORY FUNCTION

< SYSTEM DESCRIPTION >

MEMORY FUNCTION: System Diagram



MEMORY FUNCTION: System Description

OUTLINE

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

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

OPERATION PROCEDURE

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

OPERATION CONDITION

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

| Item | Request status |
|---|-----------------------|
| Ignition position | ON |
| Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch | OFF (Not operated) |
| AT selector lever (only for AT model) | P position |
| Parking break (only for MT models) | Applied |

DETAIL FLOW

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< SYSTEM DESCRIPTION >

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

< SYSTEM DESCRIPTION > **MEMORY FUNCTION: Component Parts Location** INFOID:0000000005630083 Α B **©** В D Е Œ **(D)** F Н (G Ð

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

- Automatic drive positioner control unit 3. 2. M51, M52
- AT assembly F51 5.
- Tilt sensor M48
- 11. Door mirror remote control switch D17
- View with instrument driver lower B. panel removed
- AT assembly (TCM is built in AT assembly)

Driver seat control unit B451, B452

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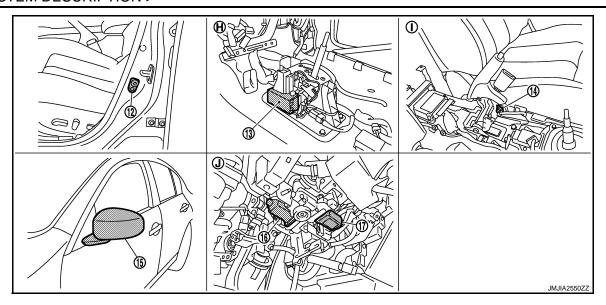
- 6. Tilt & telescopic switch M31
- 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side)
- View with instrument driver lower panel removed

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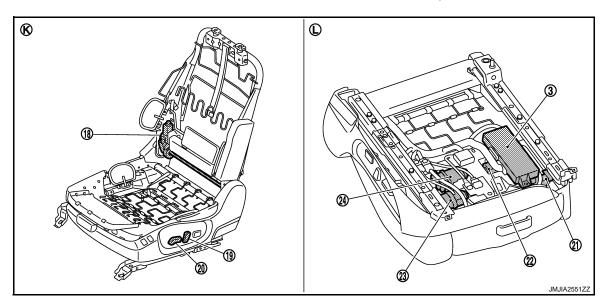
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- 12. Front door switch (driver side) B16
- 15. Door mirror (driver side) D3
- H. View with center console assembly removed
- 13. A/T shift selector (detention switch) M137
- 16. Telescopic motor M49
- View with center console assembly removed
- 14.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



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

MEMORY FUNCTION: Component Description

CONTROL UNITS

INFOID:0000000005630084

< SYSTEM DESCRIPTION >

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

INPUT PARTS

Switches

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

Sensors

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

OUTPUT PARTS

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

EXIT ASSIST FUNCTION

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Revision: 2009 November ADP-33 2010 G37 Sedan

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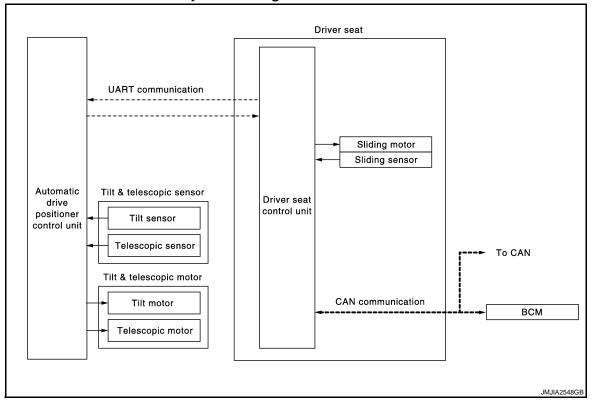
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< SYSTEM DESCRIPTION >

EXIT ASSIST FUNCTION: System Diagram

INFOID:0000000005630085



EXIT ASSIST FUNCTION: System Description

INFOID:0000000005630086

OUTLINE

When exiting, the condition is satisfied, the seat is moved backward 40 mm (1.57 in) from normal sitting position and the steering is moved to the most upper position and front position.

The seat slide amount and the steering operation at entry/exit operation can be changed.

NOTE:

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

OPERATION PROCEDURE

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

OPERATION CONDITION

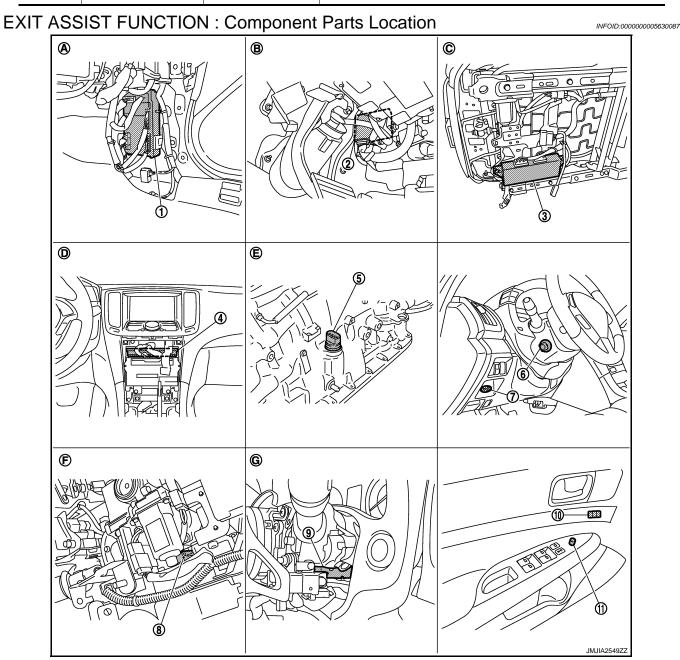
Satisfy all of the following items. The exit assist function is not performed if these items are not satisfied.

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

DETAIL FLOW

< SYSTEM DESCRIPTION >

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



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

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ADP-35 Revision: 2009 November 2010 G37 Sedan

< SYSTEM DESCRIPTION >

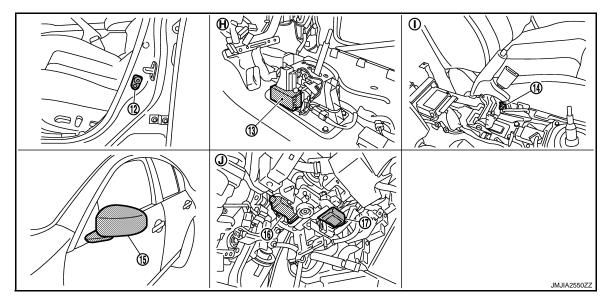
er and upper removed

- Dash side lower (passenger side)
- D. Behind cluster lid C
- View with steering column cover low-G
- В. View with instrument driver lower panel removed
- E. AT assembly (TCM is built in AT assembly)

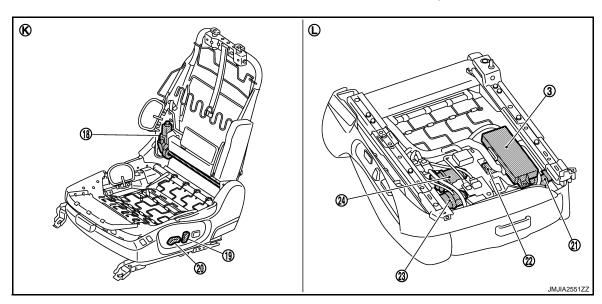
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View with instrument driver lower panel removed

Backside of seat cushion (driver side)



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



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

< SYSTEM DESCRIPTION >

EXIT ASSIST FUNCTION : Component Description

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CONTROL UNITS

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

INPUT PARTS

Switches

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

Sensors

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

OUTPUT PARTS

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

ENTRY ASSIST FUNCTION

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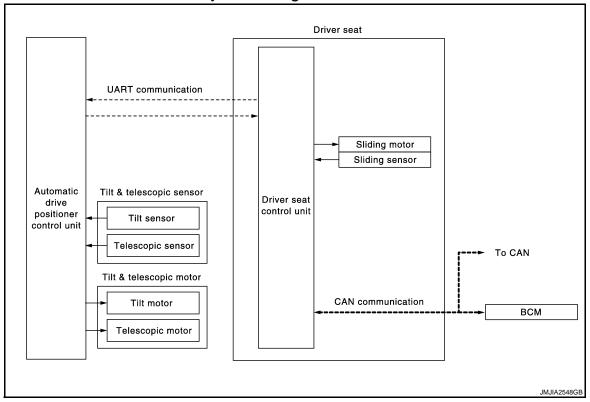
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Revision: 2009 November ADP-37 2010 G37 Sedan

< SYSTEM DESCRIPTION >

ENTRY ASSIST FUNCTION: System Diagram

INFOID:0000000005630089



ENTRY ASSIST FUNCTION: System Description

INFOID:0000000005630090

OUTLINE

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

NOTE:

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

OPERATION PROCEDURE

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

OPERATION CONDITION

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

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

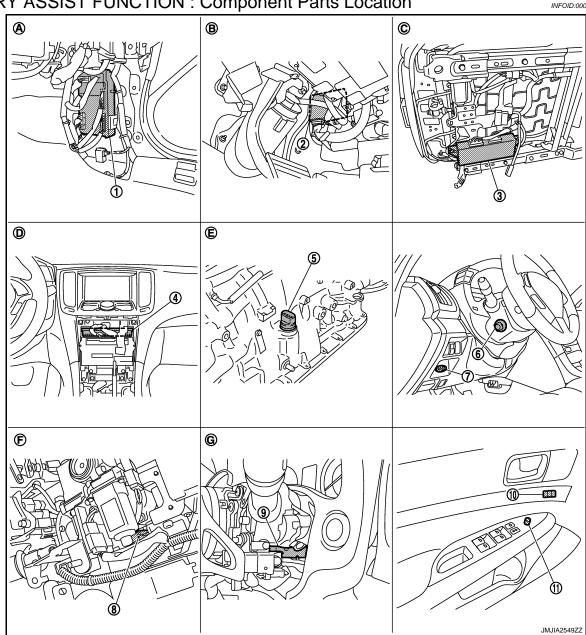
DETAIL FLOW

< SYSTEM DESCRIPTION >

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

ENTRY ASSIST FUNCTION: Component Parts Location

INFOID:0000000005630091



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

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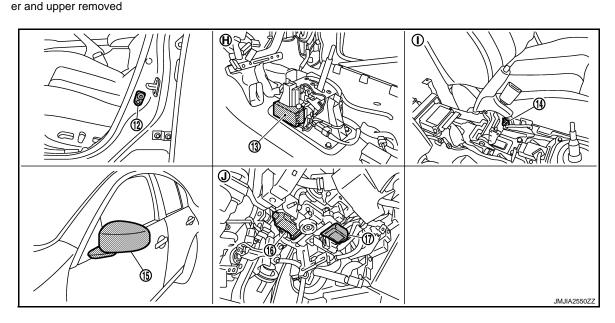
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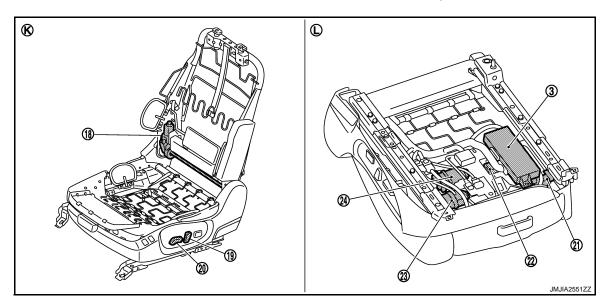
ADP-39 Revision: 2009 November 2010 G37 Sedan

< SYSTEM DESCRIPTION >

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



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



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

< SYSTEM DESCRIPTION >

ENTRY ASSIST FUNCTION: Component Description

INFOID:0000000005630092

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CONTROL UNITS

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

INPUT PARTS

Switches

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

Sensors

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

OUTPUT PARTS

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

INTELLIGENT KEY INTERLOCK FUNCTION

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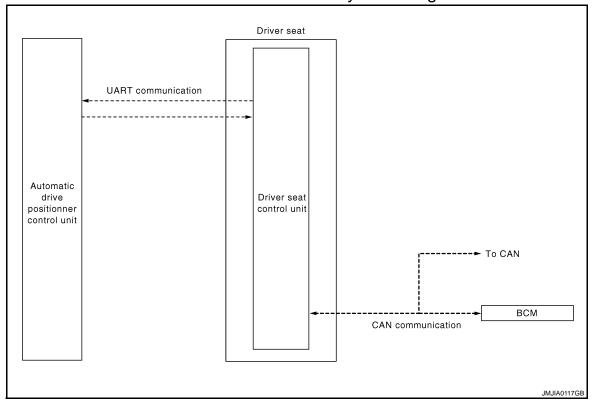
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Revision: 2009 November ADP-41 2010 G37 Sedan

< SYSTEM DESCRIPTION >

INTELLIGENT KEY INTERLOCK FUNCTION: System Diagram

INFOID:0000000005630093



INTELLIGENT KEY INTERLOCK FUNCTION: System Description

INFOID:0000000005630094

OUTLINE

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

OPERATION PROCEDURE

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

NOTE:

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

Further information for Intelligent Key interlock function. Refer to ADP-11, "MEMORY STORING: Description".

OPERATION CONDITION

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

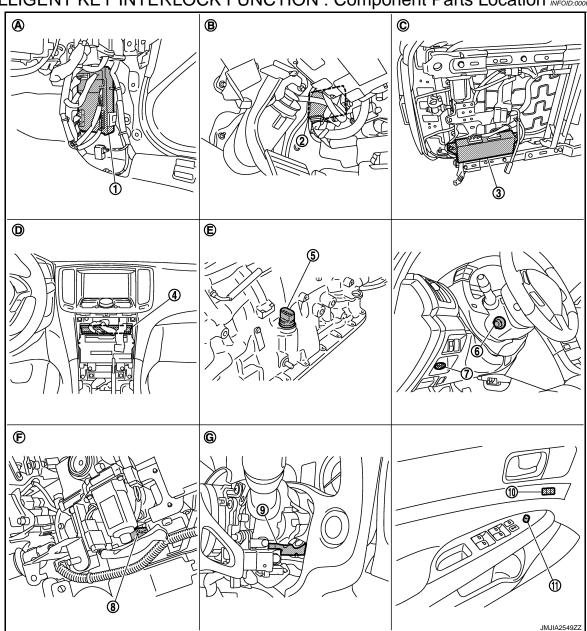
| Item | Request status |
|---|-----------------------|
| Ignition position | OFF |
| System setting | ON |
| Key switch | OFF (Key is removed.) |
| Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch | OFF (Not operated) |
| AT selector lever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

< SYSTEM DESCRIPTION >

DETAIL FLOW

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

INTELLIGENT KEY INTERLOCK FUNCTION: Component Parts Location INFOID:0000000056530095



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

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Revision: 2009 November ADP-43 2010 G37 Sedan

View with instrument driver lower

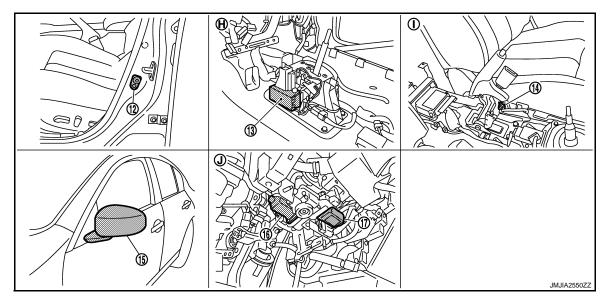
< SYSTEM DESCRIPTION >

- Dash side lower (passenger side)
- D. Behind cluster lid C
- panel removed E. AT assembly

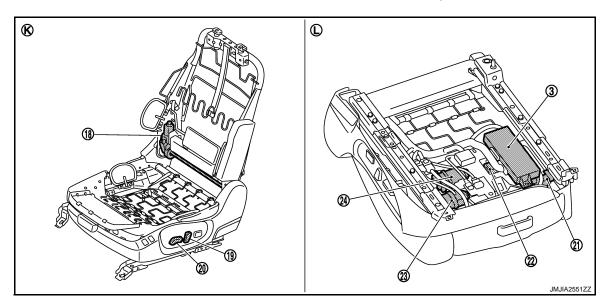
В.

- (TCM is built in AT assembly)
- C. Backside of seat cushion (driver side)
- View with instrument driver lower panel removed

View with steering column cover low-G er and upper removed



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



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

< SYSTEM DESCRIPTION >

INTELLIGENT KEY INTERLOCK FUNCTION: Component Description INFOID:00000005630096

CONTROL UNITS

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

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

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

DIAGNOSTIC MODE

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

CONSULT-III Function

INFOID:0000000005630098

INFOID:0000000005630097

SELF-DIAGNOSIS RESULTS Refer to <u>ADP-158</u>, "DTC <u>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 | "ON/OFF" | × | × | ON/OFF status judged from the sliding switch (forward) signal. |
| SLIDE SW-RR | "ON/OFF" | × | × | ON/OFF status judged from the sliding switch (backward) signal. |
| RECLN SW-FR | "ON/OFF" | × | × | ON/OFF status judged from the reclining switch (forward) signal. |
| RECLN SW-RR | "ON/OFF" | × | × | ON/OFF status judged from the reclining switch (backward) signal. |
| LIFT FR SW-UP | "ON/OFF" | × | × | ON/OFF status judged from the lifting switch front (up) signal. |
| LIFT FR SW-DN | "ON/OFF" | × | × | ON/OFF status judged from the lifting switch front (down) signal. |
| LIFT RR SW-UP | "ON/OFF" | × | × | ON/OFF status judged from the lifting switch rear (up) signal. |
| LIFT RR SW-DN | "ON/OFF" | × | × | ON/OFF status judged from the lifting switch rear (down) signal. |
| MIR CON SW-UP | "ON/OFF" | × | × | ON/OFF status judged from the mirror switch (up) signal. |
| MIR CON SW-DN | "ON/OFF" | × | × | ON/OFF status judged from the mirror switch (down) signal. |
| 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. |

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

| Monitor Item | Unit | Main Signals | Selection From Menu | Contents |
|-----------------|----------|-----------------|---------------------------|---|
| MIR CHNG SW-R | "ON/OFF" | × | × | ON/OFF status judged from the door mirror remote control switch (switching to right) signal. |
| MIR CHNG SW-L | "ON/OFF" | × | × | ON/OFF status judged from the door mirror remote control switch (switching to left) signal. |
| TILT SW-UP | "ON/OFF" | × | × | ON/OFF status judged from the tilt switch (up) signal. |
| TILT SW-DOWN | "ON/OFF" | × | × | ON/OFF status judged from the tilt switch (down) signal. |
| TELESCO SW-FR | "ON/OFF" | × | × | ON/OFF status judged from the telescoping switch (forward) signal. |
| TELESCO SW-RR | "ON/OFF" | × | × | ON/OFF status judged from the telescoping switch (backward) signal. |
| DETENT SW*1 | "ON/OFF" | × | × | The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal. |
| PARK BRAKE SW*2 | "ON/OFF" | × | × | The parking brake condition "ON (applied) / OFF (release)" judged from the parking brake switch signal. |
| STARTER SW | "ON/OFF" | × | × | Ignition key switch ON (START, ON) /OFF (ACC, OFF) status judged from the ignition switch signal. |
| SLIDE PULSE | _ | - | × | Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases. |
| RECLN PULSE | _ | - | × | Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases. |
| LIFT FR PULSE | _ | - | × | Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases. |
| LIFT RR PULSE | _ | - | × | Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases. |
| MIR/SEN RH U-D | "√" | _ | × | Voltage input from door mirror sensor (passenger side) up/down is displayed. |
| MIR/SEN RH R-L | "√" | - | × | Voltage input from door mirror sensor (passenger side) left/right is displayed. |
| MIR/SEN LH U-D | "∨" | - | × | Voltage input from door mirror sensor (driver side) up/down is displayed. |
| MIR/SEN LH R-L | "√" | - | × | Voltage input from door mirror sensor (driver side) left/right is displayed. |
| TILT SEN | "V" | _ | × | Voltage input from tilt sensor is displayed. |
| TELESCO SEN | "V" | _ | × | Voltage input from telescopic sensor is displayed. |

^{*1:}Only for AT models.

ACTIVE TEST

CAUTION:

When driving vehicle, do not perform active test.

| Test item | Description |
|----------------|--|
| SEAT SLIDE | Activates/deactivates the sliding motor. |
| SEAT RECLINING | Activates/deactivates the reclining motor. |
| SEAT LIFTER FR | Activates/deactivates the lifting motor (front). |
| SEAT LIFTER RR | Activates/deactivates the lifting motor (rear). |
| TILT MOTOR | Activates/deactivates the tilt motor. |

Revision: 2009 November ADP-47 2010 G37 Sedan

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^{*2:}Only for MT models.

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

| Test item | Description |
|------------------|--|
| TELESCO MOTOR | Activates/deactivates the telescopic motor. |
| MIRROR MOTOR RH | Activates/deactivates the mirror motor (passenger side). |
| MIRROR MOTOR LH | Activates/deactivates the mirror motor (driver side). |
| MEMORY SW INDCTR | Turns ON/OFF the memory indicator. |

WORK SUPPORT

NOTE:

This mode is only for AT model.

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

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:0000000005630099

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:0000000005630100

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.STEP 1

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

Is the DTC detected?

YFS >> Perform diagnosis procedure. Refer to ADP-49, "Diagnosis Procedure".

>> INSPECTION END NO

Diagnosis Procedure

Refer to LAN-19, "Trouble Diagnosis Flow Chart".

Special Repair Requirement

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

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ADP-49 Revision: 2009 November 2010 G37 Sedan

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

Description

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

First perform diagnosis for B2126 if B2126 is detected.

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

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

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000005630105

1.CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

| (+) Sliding motor | | (–) | Voltage (V) (Approx.) |
|-------------------|----------|---------|--------------------------|
| Connector | Terminal | | (11 / |
| B461 | 35 | Ground | 0 |
| D401 | 42 | Giodila | 0 |

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 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.) |
|------------------------------|----------|--------|--------------------------|
| Connector | Terminal | | (/ (pp. 0) |
| B452 | 35 | Ground | 0 |
| D432 | 42 | Ground | U |

Is the inspection result normal?

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation"

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

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B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2113 RECLINING MOTOR

Description

- 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

DTC DETECTION LOGIC

NOTE:

First perform diagnosis for B2126 if B2126 is detected.

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---------|------------------------|--|----------------|
| B2113 | SEAT RECLINING | The driver seat control unit detects the output of re- clining motor output terminal for 0.1 second or more even if the reclining switch is not input. | |

DTC CONFIRMATION PROCEDURE

1. PEFORM 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 <u>ADP-52</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000005630108

1. CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

| (+) Reclining motor | | (–) | Voltage (V) (Approx.) | |
|---------------------|----------|--------|--------------------------|--|
| Connector | Terminal | | (/ (pprox.) | |
| B454 | 36 | Ground | 0 | |
| D434 | 44 | Ground | U | |

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

| (+) | | | Voltage (V) |
|--------------------------|----------|----------|--------------------------|
| Driver seat control unit | | (–) | Voltage (V) (Approx.) |
| Connector | Terminal | | |
| B452 | 36 | Ground | 0 |
| D432 | 44 | - Ground | |

Is the inspection result normal?

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to <u>ADP-228, "Removal and Installation"</u>.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

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B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2118 TILT SENSOR

Description INFOID:0000000005630109

- 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

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

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

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000005630111

1. CHECK TILT SENSOR SIGNAL

- 1. Turn ignition switch ON.
- Select "TILT SEN" in "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) |

Is the value normal?

YES >> GO TO 6.

NO >> GO TO 2.

2.CHECK TILT SENSOR CIRCUIT

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

| Automatic drive po | sitioner control unit | Tilt & teleso | copic sensor | Continuity |
|--------------------|-----------------------|---------------|--------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M51 | 7 | M48 | 3 | Existed |

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

B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

| Automatic drive po | Automatic drive positioner 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 & telesc | (+) Tilt & telescopic sensor | | Voltage (V) (Approx.) |
|---------------|------------------------------|--------|---|
| Connector | Terminal | | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| M48 | 1 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

| Automatic drive po | Automatic drive positioner control unit | | 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 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 ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK TILT SENSOR GROUND CIRCUIT

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

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

Is the inspection result normal?

Revision: 2009 November

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

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B2118 TILT SENSOR

>> INSPECTION END

B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2119 TELESCOPIC SENSOR

Description INFOID:000000005630112

- 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

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC is detected?

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

NO >> INSPECTION END

Diagnosis Procedure

1. CHECK TELESCOPIC SENSOR SIGNAL

- 1. Turn ignition switch ON.
- Select "TELESCO SEN" in "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.

NO >> GO TO 2.

2.CHECK TELESCOPIC SENSOR CIRCUIT

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

| Automatic drive po | sitioner 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.

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B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check telescopic sensor power supply

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

| (+) Tilt & telescopic sensor | | (-) | Voltage (V) (Approx.) |
|------------------------------|----------|--------|--------------------------|
| Connector | Terminal | | (/ .pp. 3/) |
| M48 | 1 | Ground | 5 |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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

| Automatic drive po | sitioner control unit | Tilt & telescopic 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 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 ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK TELESCOPIC SENSOR GROUND CIRCUIT

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

| Automatic drive po | ositioner control unit | Tilt & telescopic 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-38, "Intermittent Incident".

B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

>> INSPECTION END

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B2126 DETENT SW

Description INFOID:0000000005630115

Detention switch is installed on A/T shift selector. It is turned OFF when the A/T selector lever is in P posi-

• The driver seat control unit judges that the A/T selector lever is in P position if continuity does not exist in this circuit.

DTC Logic INFOID:0000000005630116

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Drive the vehicle at 7±4 km/h or more.
- Check "Self diagnostic result" using CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-60, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000005630117

CHECK DTC WITH "BCM"

Check "Self diagnostic result" for BCM using CONSULT-III.

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

>> Check the DTC. Refer to BCS-75, "DTC Index". YES

NO >> GO TO 2.

2.CHECK DTC WITH "METER/M&A"

Check "Self diagnostic result" for METER/M&A using CONSULT-III.

Is the DTC detected?

YES >> Check the DTC. Refer to MWI-107, "DTC Index".

NO >> GO TO 3.

3.CHECK DETENTION SWITCH SIGNAL

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

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

Is the status normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK DETENTION SWITCH CIRCUIT

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 | t control unit | A/T shift selector | | Continuity |
|-------------|----------------|--------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B451 | 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 |
| B451 | 21 | | Not existed |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-228</u>, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

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B2127 PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

B2127 PARKING BRAKE SWITCH

Description INFOID:0000000005630118

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.STEP 1

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

>> GO TO 2.

2,STEP 2

Check "Self Diagnostic Result" using CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-62, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000005630120

1. CHECK PARKING BRAKE SWITCH SIGNAL

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

| Monitor item | Con | Status | |
|-------------------|---------------|---------|-----|
| PARK BRAKE SW | Parking brake | Applied | ON |
| I AINN BINAINE OW | | Release | OFF |

Is the status normal?

YES >> GO TO 5.

NO >> GO TO 2.

2.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

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

B2127 PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| | +) | | V-14 () () | |
|----------------------|----------|--------|--------------------------|--|
| Parking brake switch | | (-) | Voltage (V) (Approx.) | |
| Connector | Terminal | | | |
| B14 | 1 | Ground | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

${f 3.}$ CHECK PARKING BRAKE SWITCH HARNESS CONTINUITY

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

| Driver seat | Driver seat control unit | | rake switch | Continuity |
|-------------|--------------------------|-----------|-------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B451 | 8 | B14 | 1 | Existed |

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

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

Is the inspection result normal?

>> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation". YES

NO >> Repair or replace harness.

4. CHECK PARKING BRAKE SWITCH

Refer to ADP-63, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Adjust or replace parking brake switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK PARKING BRAKE SWITCH

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

| Terminal | | Condition | | Continuity |
|-----------|---------------------------------------|---------------|------------------|-------------|
| Parking b | rake switch | Condition | | Continuity |
| 4 | 1 Ground part of parking brake switch | Parking brake | Applied | Existed |
| | | Faiking blake | Other than above | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Adjust or replace parking brake switch. ADP

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INFOID:0000000005630121

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B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description INFOID.000000005630122

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-64, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000005630124

1. CHECK UART COMMUNICATION LINE CONTINUITY

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

| Driver seat | control unit | Automatic drive po | sitioner control unit | Continuity | |
|-------------|--------------|--------------------|-----------------------|------------|--|
| Connector | Terminal | Connector | Terminal | Continuity | |
| B451 | 1 | M51 | 10 | Existed | |
| D431 | 17 | 1 Civi | 26 | EXISTEC | |

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

| Driver seat control unit | | | Continuity |
|--------------------------|----------|-------------------|-------------|
| Connector | Terminal | Ground Not existe | Continuity |
| B451 | 1 | | Not existed |
| D431 | 17 | | Not existed |

Is the inspection result normal?

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

NO >> Repair or replace harness.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM: Diagnosis Procedure

INFOID:0000000005630125

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1. CHECK FUSE AND FUSIBLE LINK

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

| Signal name | Fuse and fusible link No. | |
|----------------------|---------------------------|--|
| Rattery nower 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

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

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

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

| BCM | | | 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

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

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

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INFOID:0000000005630126

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

| (+) Driver seat control unit | | (-) | Voltage (V) (Approx.) |
|------------------------------|----------|----------|--------------------------|
| Connector | Terminal | | (* 1941 - 3711) |
| B452 | 33 40 | - Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).

NO-2 >> Check circuit breaker.

2 CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT: Special Repair Requirement

INFOID:0000000005630127

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

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

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

INFOID:0000000005630128

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 automatic drive positioner control unit harness connector and ground.

| | +) ositioner control unit | ontrol unit (–) Voltage (V) (Approx.) | | |
|-----------|---------------------------|---------------------------------------|-----------------|--|
| Connector | Terminal | | (11 -) | |
| M52 | 34 | Ground | Pattony voltago | |
| W52 | 39 | Giound | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 2.

NO - 1 >> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).

NO - 2 >> Check circuit breaker.

2.CHECK GROUND CIRCUIT

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

| 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

INFOID:0000000005630129

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1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

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

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SLIDING SWITCH

Description INFOID:0000000005630130

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

Component Function Check

INFOID:0000000005630131

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-68. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005630132

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.

| <u></u> | +) eat switch | (–) | Voltage (V) (Approx.) | |
|-----------|------------------|--------|--------------------------|--|
| Connector | Terminal | | (, ,pp. 6,11) | |
| B459 | 11 | Ground | Pattory voltage | |
| D439 | 26 | Ground | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK SLIDING SWITCH CIRCUIT

- 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 seat switch | | Continuity |
|-------------|--------------|-------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B451 | 11 | B459 | 11 | Existed |
| D+31 | 26 | D-100 | 26 | LAISIEU |

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

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Driver seat | Driver seat control unit | | Continuity | |
|-------------|--------------------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B451 | 11 | Ground | Not existed | |
| D40 I | 26 | | Not existed | |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK SLIDING SWITCH

Refer to ADP-69, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-231, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK SLIDING SWITCH

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

| Power seat switch Terminal | | Condition | | Continuity |
|----------------------------|----|----------------------------|---------|-------------|
| | | | | |
| 32 | 11 | Siluling Switch (backward) | Release | Not existed |
| 32 | 26 | Sliding switch (forward) | Operate | Existed |
| | 20 | Sliding switch (forward) | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-231, "Removal and Installation".

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INFOID:0000000005630133

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RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SWITCH

Description INFOID:000000005630134

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

Component Function Check

INFOID:0000000005630135

1. CHECK FUNCTION

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

| Monitor item | Condition | | Status |
|---------------|-----------------------------|---------|--------|
| RECLINE SW-FR | Reclining switch (forward) | Operate | ON |
| RECLINE SW-FR | Reclining Switch (lorward) | Release | OFF |
| RECLINE SW-RR | Poolining switch (hookward) | Operate | ON |
| RECLINE SW-RR | Reclining switch (backward) | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005630136

1. CHECK RECLINING SWITCH SIGNAL

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

| (+) Power seat switch | | (-) | Voltage (V) (Approx.) | |
|-----------------------|----------|--------|--------------------------|--|
| Connector | Terminal | | (· .FP10/) | |
| B459 | 12 | Ground | Rattony voltago | |
| D439 | 27 | Ground | Battery voltage | |

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 connector.

| Driver seat | control unit | Power seat switch | | Continuity |
|-------------|--------------|-------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B451 | 12 | B459 | 12 | Existed |
| D431 | 27 | D409 | 27 | LXISIEU |

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

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Driver sea | Driver seat control unit | | Continuity | |
|------------|--------------------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B451 | 12 Ground | | Not existed | |
| D431 | 27 | | Not existed | |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK RECLINING SWITCH

Refer to ADP-71, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-231, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK RECLINING SWITCH

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

| Power se | eat switch | Condition | | Continuity |
|----------|------------|-----------------------------|---------|-------------|
| Terr | minal | Condit | IOH | Continuity |
| | 12 | Reclining switch (backward) | Operate | Existed |
| 32 | 12 | Tracining Switch (Dackward) | Release | Not existed |
| 32 | 27 | | Operate | Existed |
| | 21 | Reclining switch (forward) | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-231, "Removal and Installation".

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description INFOID.000000005630138

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

Component Function Check

INFOID:0000000005630139

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005630140

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.

| | (Approx.) |
|--------|-----------------|
| | (/ IPP (|
| Ground | Battery voltage |
| | Ground |

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 control unit | | Power seat switch | | Continuity |
|--------------------------|----------|-------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B451 = | 13 | B459 | 13 | Existed |
| | 28 | | 28 | |

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

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

| Driver seat control unit | | | Continuity |
|--------------------------|----------|--------|--------------|
| Connector | Terminal | Cround | Continuity |
| B451 | 13 | Ground | Not existed |
| B451 | 28 | | ivoi existed |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-73, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-231, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK LIFTING SWITCH (FRONT)

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

| Power se | eat switch | - Condition | | Continuity |
|----------|---------------|-----------------------------|---------|-------------|
| Terr | minal | | | Continuity |
| | 13 Lifting sy | Lifting switch front (down) | Operate | Existed |
| 32 | 13 | Litting Switch from (down) | Release | Not existed |
| 32 | 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-231, "Removal and Installation"</u>.

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LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description INFOID:000000005630142

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

Component Function Check

INFOID:0000000005630143

1. CHECK FUNCTION

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

| Monitor item | Condition | | Status |
|-------------------|----------------------------|---------|--------|
| LIFT RR SW-UP | Lifting switch rear (up) | Operate | ON |
| LIFT RR SW-UP | Litting Switch rear (up) | Release | OFF |
| LIFT RR SW-DN | Lifting switch rear (down) | Operate | ON |
| LII I KIK SVV-DIN | Litting Switch real (down) | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-74, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005630144

1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

| | (+) Power seat switch (-) Voltage (V) (Approx.) | | Voltage (V) (Approx.) |
|-----------|---|----------|--------------------------|
| Connector | Terminal | | (· + - · · · ·) |
| B459 | 14 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 sear switch | | Continuity |
|-------------|--------------|-------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| B451 | 14 | B459 | 14 | Existed |
| D+31 | 29 | D-03 | 29 | Existed |

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

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

| Driver seat | control unit | | Continuity |
|-------------|--------------|----------|-------------|
| Connector | Terminal | Ground | Continuity |
| B451 | 14 | - Ground | Not existed |
| D40 I | 29 | | NOI EXISIEU |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (REAR)

Refer to ADP-75, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-231, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK LIFTING SWITCH (REAR)

- 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 | 14 | Release | Not existed | |
| 32 | 29 | Lifting quitch roor (up) | Operate | Existed |
| | 29 | Lifting switch rear (up) | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to ADP-231, "Removal and Installation".

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TILT SWITCH

Description INFOID:000000005630146

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

Component Function Check

INFOID:0000000005630147

1. CHECK FUNCTION

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

| Monitor item | Condition | Status | |
|--------------|--------------------|---------|-----|
| TILT SW-UP | Tilt quitch (up) | Operate | ON |
| TILI 3W-OF | Tilt switch (up) | Release | OFF |
| TILT SW-DN | Tilt switch (down) | Operate | ON |
| TILI SW-DIN | Tilt switch (down) | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-76. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005630148

1. CHECK TILT SWITCH SIGNAL

- 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.

| | +) copic switch | (-) | Voltage (V) (Approx.) |
|-----------|--------------------|---------|--------------------------|
| Connector | Terminal | | (/ .pp. 3/11) |
| M31 | 4 | Ground | Rattory voltago |
| I GIVI | 5 | Giodila | Battery voltage |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TILT SWITCH CIRCUIT

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

| Automatic drive po | sitioner control unit | Tilt & telescopic switch | | Continuity |
|--------------------|-----------------------|--------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M51 | 1 | M31 | 4 | Existed |
| IVIOT | 17 | I CIVI | 5 | LAISIEU |

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

TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Automatic drive po | sitioner control unit | | Continuity | |
|--------------------|-----------------------|--------|--------------|--|
| Connector | Terminal | Ground | Continuity | |
| M51 | 1 | Ground | Not existed | |
| I GIVI | 17 | | inot existed | |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK TILT SWITCH

Refer to ADP-77, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-232, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "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 | copic switch | Con | dition | Continuity |
|---------------|--------------------|--------------------|---------|-------------|
| Terr | ninal | Con | dition | Continuity |
| | 4 Tilt switch (up) | Tilt switch (up) | Operate | Existed |
| 1 | 7 | | Release | Not existed |
| | 5 | Tilt switch (down) | Operate | Existed |
| | 3 | | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-232, "Removal and Installation".

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TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SWITCH

Description INFOID:000000005630150

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

Component Function Check

INFOID:0000000005630151

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005630152

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.

| | +) copic switch | voltage (V) (Approx.) | |
|-----------|--------------------|-----------------------|-----------------|
| Connector | Terminal | | (FF. 6/4) |
| M31 | 2 | Ground | Rattory voltago |
| I GIVI | 3 | | Battery voltage |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TELESCOPIC SWITCH CIRCUIT

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

| Automatic drive po | sitioner control unit | Tilt & telescopic switch | | Continuity |
|--------------------|-----------------------|--------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M51 | 11 | M31 | 2 | Existed |
| IVIOI | 27 | IVIO I | 3 | LXISIEU |

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

TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Automatic drive positioner control unit | | | Continuity |
|---|----------|--------|-------------|
| Connector | Terminal | Ground | Continuity |
| M51 | 11 | Ground | Not existed |
| I GIVI | 27 | = | Not existed |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK TELESCOPIC SWITCH

Refer to ADP-79, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-232, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "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 & teleso | copic switch | Condition | | Continuity |
|---------------|--------------|------------------------------|---------|-------------|
| Terr | minal | Conditi | OH | Continuity |
| | 2 | Telescopic switch (forward) | Operate | Existed |
| 1 | 2 | | Release | Not existed |
| | 3 | Talagania awitah (hagiward) | Operate | Existed |
| | 3 | Telescopic switch (backward) | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-232, "Removal and Installation".

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SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Description INFOID:000000005630154

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

Component Function Check

INFOID:0000000005630155

1. CHECK FUNCTION

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

| Monitor item | Conc | dition | Status |
|-----------------------|------------------|---------|--------|
| SET SW | SET SW | Push | ON |
| SET SW | SET SW | Release | OFF |
| MEMORY SW 1 | Momony quitab 1 | Push | ON |
| | Memory switch 1 | Release | OFF |
| MEMORY SW 2 Memory sv | Marrary quitab 2 | Push | ON |
| | Wernory switch 2 | Release | OFF |

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-80, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005630156

1. CHECK SEAT MEMORY SWITCH SIGNAL

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

| | (+) | | Voltage (V) (Approx.) |
|--------------------|----------|--------|--------------------------|
| Seat memory switch | | (–) | |
| Connector | Terminal | | (, 44, 2, 11) |
| | 1 | | |
| D5 | 2 | Ground | 5 |
| | 3 | | |

Is the inspection result normal?

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

2. CHECK MEMORY SWITCH CIRCUIT

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

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Automatic drive po | ositioner control unit | Seat mem | ory switch | Continuity |
|--------------------|------------------------|-----------|------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| | 9 | | 1 | |
| M51 | 24 | D5 | 3 | Existed |
| | 25 | | 2 | |

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

| Automatic drive po | natic drive positioner control unit | | Continuity |
|--------------------|-------------------------------------|--------|-------------|
| Connector | Terminal | | Continuity |
| | 9 | Ground | |
| M51 | 24 | | Not existed |
| | 25 | | |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

3.check memory switch ground circuit

Turn ignition switch OFF.

Check continuity between seat memory switch harness connector and ground.

| Seat men | Seat memory switch | | Seat memory 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-81, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat memory switch. Refer to ADP-230, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK SEAT MEMORY SWITCH

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

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SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Seat mem | nory switch | 0 | ondition | Continuity |
|----------|-------------|---------------------|----------|-------------|
| Terr | ninal | Condition | | Continuity |
| | 3 | Set switch | Push | Existed |
| | 3 | Set Switch | Release | Not existed |
| 4 | 4 | Mamony assistable 1 | Push | Existed |
| 4 | ı | Memory switch 1 | Release | Not existed |
| | 2 | Mamanu avvitah 2 | Push | Existed |
| 2 | 2 | Memory switch 2 | Release | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch.Refer to <u>ADP-230, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH MIRROR SWITCH

INFOID:0000000005630158

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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

INFOID:0000000005630159

1. CHECK MIRROR SWITCH FUNCTION

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

| Monitor item | Condition | | |
|---------------------|--|-------|--|
| MIR CON SW-UP/DN | When operating the mirror switch up or down side. | : ON | |
| MIR CON SW-UP/DN | Other than above. | : OFF | |
| MIR CON SW-RH/LH | When operating the mirror switch right or left side. | : ON | |
| WIIN COIN 3VV-NA/LA | Other than above. | : OFF | |

Is the inspection result normal?

YES >> Mirror switch function is OK.

NO >> Refer to ADP-83, "MIRROR SWITCH: Diagnosis Procedure".

MIRROR SWITCH: Diagnosis Procedure

INFOID:0000000005630160

1. CHECK MIRROR SWITCH INPUT SIGNAL

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

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

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Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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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 >

| Automatic drive po | ositioner control unit | Door mirror rem | ote control switch | Continuity |
|--------------------|------------------------|-----------------|--------------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| | 3 | D17 | 15 | |
| ME4 | 4 | | 13 | Existed |
| M51 | 19 | | 12 | Existed |
| | 20 | | 4 | |

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

3.check door mirror remote control switch ground circuit

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

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK MIRROR SWITCH

Check door mirror remote control switch (mirror switch).

Refer to ADP-84, "MIRROR SWITCH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace door mirror remote control switch (mirror switch). Refer to MIR-21, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

MIRROR SWITCH: Component Inspection

INFOID:0000000005630161

1. CHECK MIRROR SWITCH

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

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YFS >> INSPECTION END

>> Replace door mirror remote control switch. Refer to MIR-21, "Removal and Installation". NO

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 "DATA MONITOR" mode using CON-SULT-III.

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

Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to ADP-85, "CHANGEOVER SWITCH: Diagnosis Procedure".

CHANGEOVER SWITCH: Diagnosis Procedure

1. CHECK CHANGEOVER SWITCH INPUT SIGNAL

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

| (+) | | | Voltage (V) (Approx.) | |
|-----------------------------------|----------|--------|--------------------------|--|
| Door mirror remote control switch | | (–) | | |
| Connector | Terminal | | (11 - 7 | |
| D17 | 10 | Ground | 5 | |
| DII | 11 | Ground | 3 | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK CHANGEOVER SWITCH CIRCUIT

ADP-85 Revision: 2009 November 2010 G37 Sedan

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< DTC/CIRCUIT DIAGNOSIS >

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

| Automatic drive p | ositioner control unit | Door mirror remote control switch | | Continuity |
|-------------------|------------------------|-----------------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M51 | 2 | D17 | 11 | Existed |
| I CIVI | 18 | 017 | 10 | LAISIEU |

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

| Automatic drive po | sitioner control unit | | Continuity | |
|--------------------|-----------------------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| M51 | 2 | Ground | Not existed | |
| IVIO | 18 | | NOT EXISTED | |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

${f 3.}$ CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch (changeover switch).

Refer to ADP-86, "CHANGEOVER SWITCH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace door mirror remote control switch (changeover switch). Refer to MIR-21, "Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

CHANGEOVER SWITCH: Component Inspection

INFOID:0000000005630165

1. CHECK CHANGEOVER SWITCH

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

< DTC/CIRCUIT DIAGNOSIS >

| Door mirror remo | Door mirror remote control switch Terminal | | Condition | |
|------------------|---|-------------------|------------------|-------------|
| Terr | | | | |
| 10 | | | LEFT | Existed |
| 10 | 7 | Changeover switch | Other than above | Not existed |
| 11 | , , , , , , , , , , , , , , , , , , , | | 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 MIR-21, "Removal and Installation".

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POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000005630166

1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

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

| Power seat switch | | | Continuity |
|-------------------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| B459 | 32 | | Existed |

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK POWER SEAT SWITCH INTERNAL CIRCUIT

Check reclining switch.

Refer to ADP-71, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace power seat switch. Refer to ADP-231, "Removal and Installation".

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

TILT &TELESCOPIC SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

TILT &TELESCOPIC SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000005630167

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1. CHECK POWER TILT & TELESCOPIC SWITCH GROUND CIRCUIT

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

| Tilt & telescopic switch | | | Continuity |
|--------------------------|--------------------|--|------------|
| Connector | Connector Terminal | | Continuity |
| M31 | 1 | | Existed |

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.check power tilt & telescopic switch internal circuit

Check tilt switch.

Refer to ADP-77, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace tilt & telescopic switch. Refer to ADP-232, "Removal and Installation".

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

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DETENTION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DETENTION SWITCH

Description INFOID.000000005630168

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

Component Function Check

INFOID:0000000005630169

1. CHECK FUNCTION

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

| Monitor item | Condition | | Status |
|--------------------------|----------------|------------------|--------|
| DETENT SW Selector lever | Selector lever | P position | OFF |
| DETERM SW | Selector level | Other than above | ON |

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-90, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005630170

1. CHECK DTC WITH "BCM"

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

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

YES >> Check the DTC. Refer to BCS-75, "DTC Index".

NO >> GO TO 2.

2.CHECK DETENTION SWITCH INPUT SIGNAL

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

| (+) A/T shift selector | | (-) | Voltage (V) (Approx.) | |
|------------------------|--------------------|--------|--------------------------|--|
| Connector | Connector Terminal | | (11 - 7 | |
| M137 | 11 | Ground | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

${f 3.}$ check detention switch circuit 1

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

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

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

DETENTION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Driver seat control unit | | | Continuity |
|--------------------------|--------------------|--|-------------|
| Connector | Connector Terminal | | Continuity |
| B451 | 21 | | Not existed |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK DETENTION SWITCH

Refer to ADP-91, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace A/T shift selector. Refer to TM-267, "2WD : Exploded View".

5. CHECK DETENTION SWITCH CIRCUIT 2

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

| В | CM | A/T shif | t selector | Continuity |
|-----------|----------|-----------|------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M122 | 96 | M137 | 10 | Existed |

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

| BCM | | | Continuity |
|--------------------|----|--------|-------------|
| Connector Terminal | | Ground | Continuity |
| M122 | 96 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Exploded View".

NO >> Repair or replace harness.

Component Inspection

1. CHECK DETENTION SWITCH

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

| A/T shift selector | | Condition | | Continuity |
|--------------------|-------|----------------|------------------|-------------|
| Terr | ninal | 0011 | anton | Continuity |
| 10 | 11 | Selector lever | P position | Existed |
| | 11 | | Other than above | Not existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace A/T shift selector. Refer to TM-267, "2WD: Exploded View".

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PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

PARKING BRAKE SWITCH

Description INFOID:000000005630172

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

Component Function Check

INFOID:0000000005630173

1. CHECK PARKING BRAKE SWITCH INPUT SIGNAL

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-92, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005630174

1. CHECK PARKING BRAKE SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK PARKING BRAKE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect driver seat control unit connector.
- 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 |
| B451 | 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 |
| B451 | 8 | | Not existed |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

3.CHECK PARKING BRAKE SWITCH

Refer to ADP-93, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO-1 >> Adjust or replace parking brake switch (pedal type). Refer to PB-6, "PEDAL TYPE: Exploded View".

NO-2 >> Adjust or replace parking brake switch (lever type). Refer to PB-7, "LEVER TYPE: Exploded View".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK PARKING BRAKE SWITCH

Turn ignition switch OFF.

2. Disconnect parking brake switch connector.

3. Check continuity between parking brake switch terminal and ground part of parking brake switch.

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

Is the inspection result normal?

YES >> INSPECTION END

NO-1 >> Adjust or replace parking brake switch (pedal type). Refer to PB-6, "PEDAL TYPE: Exploded View".

NO-2 >> Adjust or replace parking brake switch (lever type). Refer to PB-7, "LEVER TYPE: Exploded View".

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SLIDING SENSOR

Description INFOID:000000005630176

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

Component Function Check

INFOID:0000000005630177

1. CHECK FUNCTION

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

| Monitor item | Condition | | Valve |
|----------------|--------------|--------------------|-------------------------|
| | | Operate (forward) | Change (increase)*1 |
| SLIDE PULSE Se | Seat sliding | 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-94</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000005630178

1. CHECK SLIDING SENSOR SIGNAL

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

| | (+) Driver seat control unit | | (-) Condition | | Voltage (V) (Approx.) |
|-----------|------------------------------|--------|---------------|---------------------------|--|
| Connector | Terminal | | | | (/ (/ (/ (/ (/ (/ (/ (/ (/ (/ (/ (/ (/ (|
| B451 | 24 | Ground | Seat sliding | Operate Other than above | 10mSec/div 2V/div JMJIA0119ZZ |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> GO TO 2.

2. CHECK SLIDING SENSOR CIRCUIT

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

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

| Driver sea | t control unit | Sliding | g sensor | Continuity | |
|------------|----------------|--------------------|----------|------------|--|
| Connector | Terminal | Connector Terminal | | Continuity | |
| B451 | 24 | B453 | 24 | Existed | |

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK SLIDING SENSOR POWER SUPPLY

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

| (+) Sliding sensor | | (-) | Voltage (V) (Approx.) | |
|-----------------------|----------|--------|--------------------------|--|
| Connector | Terminal | | (11 -) | |
| B453 | 16 | Ground | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK SLIDING SENSOR GROUND CIRCUIT 1

Turn ignition switch OFF.

Revision: 2009 November

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

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

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SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK SLIDING SENSOR GROUND CIRCUIT 2

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

| Driver seat control unit | | | Continuity |
|--------------------------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| B451 | 31 | | Existed |

Is the inspection result normal?

YES >> Replace sliding sensor (Built in seat slide cushion frame). Refer to <u>SE-125, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-228</u>, "Removal and Installation".

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SENSOR

Description INFOID:0000000005630179

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

Component Function Check

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "RECLN PULSE" in "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 re- | 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-97</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000005630181

INFOID:0000000005630180

1. CHECK RECLINING SENSOR SIGNAL

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

| (+) Driver seat control unit Connector Terminal | | (-) | Condition | | Voltage (V) (Approx.) |
|---|---|--------|----------------|--------------------------|----------------------------------|
| B451 | 9 | Ground | Seat reclining | Operate Other than above | 10mSec/div 2V/div JMJIA0119ZZ |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> GO TO 2.

2. CHECK RECLINING SENSOR CIRCUIT

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

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RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK RECLINING SENSOR POWER SUPPLY

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

| (+) Reclining motor | | (–) | Voltage (V) (Approx.) |
|---------------------|----------|--------|--------------------------|
| Connector | Terminal | | (11 - 7 |
| B454 | 16 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

- 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.

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-228, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5. CHECK RECLINING 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 reclining motor harness connector.

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

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6. CHECK RECLINING SENSOR GROUND CIRCUIT 2

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

| Driver seat control unit | | | Continuity |
|--------------------------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| B451 | 31 | | Existed |

Is the inspection result normal?

YES >> Replace reclining motor. Refer to <u>SE-125</u>, "Exploded View".

NO >> Replace driver seat control unit. Refer to <u>ADP-228</u>, "Removal and Installation".

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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (FRONT)

Description INFOID:000000005630182

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

Component Function Check

INFOID:0000000005630183

1. CHECK FUNCTION

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

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005630184

1. CHECK LIFTING SENSOR (FRONT) SIGNAL

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

| | +) control unit Terminal | (-) | Co | ondition | Voltage (V) (Approx.) |
|------|--------------------------|--------|-------------------------|--------------------------|--|
| B451 | 25 | Ground | Seat Lifting (front) | Operate Other than above | 10mSec/div 2V/div JMJIA0119ZZ 0 or 5 |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> GO TO 2.

2.CHECK LIFTING SENSOR (FRONT) CIRCUIT

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

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check lifting sensor (front) power supply

- 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 | | (11 - / |
| B455 | 16 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

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

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

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

| Driver seat | Driver seat control unit | | Continuity |
|-------------|--------------------------|--|-------------|
| Connector | Connector Terminal | | Continuity |
| B451 | 16 | | Not existed |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

${f 5.}$ CHECK LIFTING SENSOR (FRONT) GROUND CIRCUIT 1

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

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

ADP-101 Revision: 2009 November 2010 G37 Sedan

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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6. CHECK LIFTING SENSOR (FRONT) GROUND CIRCUIT 2

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

| Driver seat control unit | | | Continuity |
|--------------------------|---------|--------|------------|
| Connector Terminal | | Ground | Continuity |
| B451 | B451 31 | | Existed |

Is the inspection result normal?

YES >> Replace lifting motor (front). Refer to <u>SE-125. "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-228</u>, "Removal and Installation".

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description INFOID:000000005630185

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

Component Function Check

1.CHECK FUNCTION

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

| Monitor item | Condition | | Value |
|---------------|---------------------|----------------|-------------------------|
| LIFT RR PULSE | | Operate (Up) | Change (increase)*1 |
| | 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 ADP-103, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000005630187

1. CHECK LIFTING SENSOR (REAR) SIGNAL

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

| (+) Driver seat control unit | | (-) | Condition | | Voltage (V) (Approx.) |
|------------------------------|----------|--------|---------------------|------------------|----------------------------------|
| Connector | Terminal | | | | (πρριολ.) |
| B451 | 10 | Ground | Seat Lifting (rear) | Operate | 10mSec/div 2V/div JMJIA0119ZZ |
| | | | | Other than above | 0 or 5 |

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> GO TO 2.

2.check lifting sensor (rear) circuit

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

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Revision: 2009 November ADP-103 2010 G37 Sedan

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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

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

| Driver seat control unit | | | Continuity | |
|--------------------------|--------------------|--|-------------|--|
| Connector | Connector Terminal | | Continuity | |
| B451 | 10 | | Not Existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check lifting sensor (rear) power supply

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

| l thin a | (+) | | Voltage (V) (Approx.) | |
|-----------|------------------------|--------|--------------------------|--|
| Connector | notor (rear) Terminal | (-) | | |
| B463 | 16 | Ground | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK LIFTING SENSOR (REAR) POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-228, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5. CHECK LIFTING SENSOR (REAR) GROUND CIRCUIT 1

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

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

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6. CHECK LIFTING SENSOR (REAR) GROUND CIRCUIT 2

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

| Driver seat control unit | | | Continuity |
|--------------------------|----|--------|------------|
| Connector Terminal | | Ground | Continuity |
| B451 | 31 | | Existed |

Is the inspection result normal?

YES >> Replace lifting motor (rear). Refer to <u>SE-125, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

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TILT SENSOR

Description INFOID:000000005630188

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

Component Function Check

INFOID:0000000005630189

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-106, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005630190

1. CHECK TILT 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 | | | (47.5) |
| M51 | 7 | Ground | Tilt position | Change between 1.1 V (Close to top) 3.9 V (Close to bottom) |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> GO TO 2.

2. CHECK TILT SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TILT SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

>> GO TO 5. YES

NO >> GO TO 4.

4. CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

| Automatic drive po | tic drive positioner control unit Tilt & t | | 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 positioner control unit | | | Continuity | |
|---|--------------------|----|------------|-------------|
| Connec | Connector Terminal | | Ground | Continuity |
| M52 | | 33 | | Not existed |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK TILT SENSOR GROUND CIRCUIT 1

- Turn ignition switch OFF.
- 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 | Automatic drive positioner control unit | | Tilt & telescopic sensor | |
|--------------------|---|-----------|--------------------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M52 | 41 | M48 | 4 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

O.CHECK TILT SENSOR GROUND CIRCUIT 2

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

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

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TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to <u>ST-21, "WITH ELECTRIC MOTOR: Exploded View"</u>.
- NO >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SENSOR

Description INFOID:000000005630191

- 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

1.check function

- Turn ignition switch ON.
- 2. Select "TELESCO SEN" in "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 ADP-109, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK TELESCOPIC SENSOR SIGNAL

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

| | +) sitioner control unit | (-) | Condition | Voltage (V) (Approx.) |
|-----------|-----------------------------|--------|---------------------|---|
| Connector | Terminal | | | (44) |
| 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-229, "Removal and Installation"</u>. NO >> GO TO 2.

2.CHECK TELESCOPIC SENSOR CIRCUIT

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

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

ADP-109

Is the inspection result normal?

Revision: 2009 November

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TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check telescopic sensor power supply

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

| (| +) | | Voltage (V) | |
|---------------|--------------------------|--------|-------------|--|
| Tilt & teleso | copic sensor Terminal | (–) | (Approx.) | |
| Connector | Terriiriai | | | |
| M48 | 1 | Ground | 5 | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 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 | 33 | M48 | 1 | Existed |

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

| 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 ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

5.check telescopic sensor ground circuit 1

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

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

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK TELESCOPIC SENSOR GROUND CIRCUIT 2

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

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

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

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

NO >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

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< DTC/CIRCUIT DIAGNOSIS >

MIRROR SENSOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000005630194

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

DRIVER SIDE : Component Function Check

INFOID:0000000005630195

1. CHECK FUNCTION

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

| Monitor item | Condition | Value |
|----------------|---------------------------|---|
| MIR/SEN LH U-D | | Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley) |
| 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) |

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-112</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000005630196

1. CHECK DOOR MIRROR SENSOR (DRIVER SIDE) SIGNAL

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

| | +) ositioner control unit | (–) | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|---------------------------|---|
| Connector | Terminal | | | (11 - / |
| M51 | 6 | Ground | Door mirror (driver side) | Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley) |
| IVIO | 22 | Glound | 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-229, "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR CIRCUIT

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

< DTC/CIRCUIT DIAGNOSIS >

| Automatic drive p | ositioner control unit | Door mirror | (driver side) | Continuity |
|-------------------|------------------------|-------------|---------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M51 | 6 | D3 | 9 | Existed |
| I CIVI | 22 | DS | 10 | Existed |

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

| Automatic drive po | sitioner control unit | Continuity | |
|--------------------|-----------------------|------------|-------------|
| Connector | Terminal | | |
| M51 | 6 | | Not existed |
| IVIST | 22 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

- 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.

| | +) (driver side) | (–) | Voltage (V) (Approx.) | |
|-----------|---------------------|--------|--------------------------|--|
| Connector | Terminal | | (/ ippi ox.) | |
| 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

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) | | Continuity |
|--------------------|-----------------------|---------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M52 | 33 | D3 | 11 | Existed |

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

| Automatic drive po | 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 ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

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

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

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Revision: 2009 November ADP-113 2010 G37 Sedan

< DTC/CIRCUIT DIAGNOSIS >

| Automatic drive po | sitioner control unit | Door mirror (driver side) | | Continuity |
|--------------------|-----------------------|---------------------------|----|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| M52 | 41 | D3 | 12 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

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

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> Replace door mirror sensor (Built in driver side door mirror). Refer to MIR-18, "DOOR MIRROR ASSEMBLY: Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000005630197

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

PASSENGER SIDE: Component Function Check

INFOID:0000000005630198

1. CHECK FUNCTION

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

| Monitor item | Condition | Value |
|----------------|------------------------------|---|
| MIR/SEN RH U-D | Donasina (naganasida) | Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley) |
| MIR/SEN RH R-L | Door mirror (passenger side) | Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge) |

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-114, "PASSENGER SIDE : Diagnosis Procedure"</u>.

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000005630199

1. CHECK DOOR MIRROR SENSOR (PASSENGER SIDE) SIGNAL

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

< DTC/CIRCUIT DIAGNOSIS >

| (+) Automatic drive positioner control unit | | (-) | Condition | Voltage (V) |
|---|----------|-----------------------|---|--|
| Connector | Terminal | () | | (Approx.) |
| MEA | 5 | Canada | 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-229, "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 po | sitioner control unit | Door mirror (passenger side) | | Continuity |
|--------------------|-----------------------|------------------------------|----|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| M51 | 5 | D33 | 9 | Existed |
| IVIST | 21 | D33 | 10 | LAISIEU |

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

| Automatic drive | positioner control unit | | Continuity | |
|-----------------|-------------------------|--------|-------------|--|
| Connector | Terminal | Cround | Continuity | |
| M51 | 5 | Ground | Not existed | |
| I GIVI | 21 | | Not existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ 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 | +) assenger side) | (–) | Voltage (V) (Approx.) | |
|----------------|----------------------|--------|--------------------------|--|
| Connector | Terminal | | (17.5) | |
| D33 | 11 | Ground | 5 | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

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

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

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< DTC/CIRCUIT DIAGNOSIS >

| Automatic drive po | sitioner control unit | Door mirror (passenger side) | | Continuity |
|--------------------|-----------------------|------------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M52 | 33 | D33 | 11 | Existed |

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

| Automatic drive po | ositioner control unit | | Continuity |
|--------------------|------------------------|--------|-------------|
| Connector | Terminal | Ground | Continuity |
| M52 | 33 | | Not existed |

Is the inspection result normal?

YES >> Replace automatic driver positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

${f 5.}$ CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND CIRCUIT 1

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

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

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

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

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

| Automatic drive po | Automatic drive positioner control unit | | Continuity |
|--------------------|---|--|------------|
| Connector | Connector Terminal | | Continuity |
| M52 | 41 | | Existed |

Is the inspection result normal?

NO

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

>> Replace door mirror sensor (Built in passenger side door mirror). Refer to MIR-18, "DOOR MIR-ROR ASSEMBLY: Removal and Installation".

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING MOTOR

Description

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

Component Function Check

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

1. CHECK SLIDING MOTOR POWER SUPPLY

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

| | r) motor Terminal | (–) | C | Condition | Voltage (V) (Approx.) |
|------|-------------------------|--------|--------------|---------------|--------------------------|
| | | | | OFF | 0 |
| | 35 B461 | Ground | SEAT SLIDE | FR (forward) | Battery voltage |
| D461 | | | | RR (backward) | 0 |
| D401 | | | | 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-125. "Exploded View"</u>.

NO >> GO TO 2.

2.CHECK SLIDING MOTOR CIRCUIT

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

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SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Driver sea | t control unit | Sliding | g motor | Continuity | |
|------------|----------------|--------------------|---------|------------|--|
| Connector | Terminal | Connector Terminal | | Continuity | |
| B452 | 35 | B461 | 35 | Existed | |
| D432 | 42 | D401 | 42 | Existed | |

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

| Driver seat control unit | | | Continuity | |
|--------------------------|----------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B452 | 35 | Ground | Not existed | |
| D432 | 42 | | Not existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK SLIDING MOTOR

Refer to ADP-118, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to <u>SE-125. "Exploded View"</u>.

Component Inspection

INFOID:0000000005630203

1. CHECK SLIDING MOTOR-1

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace seat cushion frame (sliding motor).

2.CHECK SLIDING MOTOR-2

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

| Terminal | | Operation |
|----------|-----|-----------|
| (+) | (–) | Ореганоп |
| 35 | 42 | Forward |
| 42 | 35 | Backward |

Is the inspection result normal?

YES >> Sliding motor is OK.

NO >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to SE-125, "Exploded View".

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.
- 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-119</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

1. CHECK RECLINING MOTOR POWER SUPPLY

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

| (+) Reclining motor Connector Terminal | | (–) | Con | dition | Voltage (V) (Approx.) |
|--|------------|--------|----------------|---------------|--------------------------|
| | | | | OFF | 0 |
| | 36 B454 | Ground | SEAT RECLINING | FR (forward) | Battery voltage |
| D454 | | | | RR (backward) | 0 |
| B454 | | | | OFF | 0 |
| 44 | 44 | | | FR (forward) | 0 |
| | | | | RR (backward) | Battery voltage |

Is the inspection result normal?

YES >> Replace reclining motor. (Built in seat back frame.) Refer to <u>SE-125, "Exploded View"</u>.

NO >> GO TO 2.

2.CHECK RECLINING MOTOR CIRCUIT

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

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2010 G37 Sedan

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Driver sea | at control unit | Reclinir | ng motor | Continuity |
|------------|-----------------|--------------------|----------|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| B452 | 36 | B454 | 36 | Existed |
| D4J2 | 44 | D404 | 44 | LXISIEU |

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

| Driver seat control unit | | | Continuity |
|--------------------------|----------|---------|-------------|
| Connector | Terminal | Ground | Continuity |
| B452 | 36 | Giodila | Not existed |
| D432 | 44 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK RECLINING MOTOR

Refer to ADP-120, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Replace reclining motor. (Built in seat slide cushion frame.) Refer to <u>SE-125. "Exploded View"</u>.

Component Inspection

INFOID:0000000005630207

1. CHECK RECLINING MOTOR-1

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace seatback frame (reclining motor).

2. CHECK RECLINING MOTOR-2

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

| Terr | Terminal Operation | |
|------|--------------------|-----------|
| (+) | (-) | Operation |
| 36 | 44 | Forward |
| 44 | 36 | Backward |

Is the inspection result normal?

YES >> Reclining motor is OK.

NO >> Replace reclining motor. (Built in seat slide cushion frame.) Refer to SE-125, "Exploded View".

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description

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

Component Function Check

1. CHECK FUNCTION

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

| Test | item | Des | scription |
|----------------|------|----------------------|-----------|
| | 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-121, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

| | (+) Lifting motor (front) | | Con | dition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|----------------|------------|--------------------------|
| Connector | Terminal | | | | |
| | | | | OFF | 0 |
| | 37 | Ground | SEAT LIFTER FR | UP | 0 |
| D455 | B455 45 | | | DWN (down) | Battery voltage |
| D400 | | | SEAT LIFTER FR | OFF | 0 |
| | | | | UP | Battery voltage |
| | | | | DWN (down) | 0 |

Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to <u>SE-125. "Exploded View"</u>. NO >> GO TO 2.

2.CHECK LIFTING MOTOR (FRONT) CIRCUIT

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

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Revision: 2009 November ADP-121 2010 G37 Sedan

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

| Driver sea | t control unit | Lifting motor (front) Connector Terminal | | Continuity |
|------------|----------------|---|----|------------|
| Connector | Terminal | | | Continuity |
| B452 | 37 | B455 | 37 | Existed |
| D432 | 45 | B400 | 45 | Existed |

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

| Driver seat control unit | | | Continuity | |
|--------------------------|----------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B452 | 37 | Ground | Not existed | |
| D432 | 45 | | Not existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK LIFTING MOTOR (FRONT)

Refer to ADP-122, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to <u>SE-125. "Exploded View"</u>.

Component Inspection

INFOID:0000000005630211

1. CHECK LIFTING MOTOR-1

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace seat cushion frame (lifting motor).

2. CHECK LIFTING MOTOR-2

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

| Item | Terminal | | Operation | |
|-----------------------|----------|-----|-----------|--|
| item | (+) | (-) | Ореганоп | |
| Lifting motor (front) | 45 | 37 | Up | |
| Litting motor (nont) | 37 | 45 | Down | |

Is the inspection result normal?

YES >> Lifting motor (front) is OK.

NO >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to SE-125, "Exploded View".

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description INFOID:000000005630212

- 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.
- Check the lifting motor (rear) operation.

| Test | item | Des | cription |
|----------------|------|---------------------|----------|
| | 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 ADP-123, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK LIFTING MOTOR (REAR) POWER SUPPLY

- 1. Turn ignition switch OFF.
- 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 | | | | |
| | | Ground SEAT LIF | | OFF | 0 |
| | 38 B463 | | OF AT LIFTED DD | UP | Battery voltage |
| D.462 | | | | DWN (DOWN) | 0 |
| B463 | | | SEAT LIFTER RR | OFF | 0 |
| 39 | | | 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-125, "Exploded View"</u>. NO >> GO TO 2.

2.CHECK LIFTING MOTOR (REAR) CIRCUIT

- 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.

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Revision: 2009 November ADP-123 2010 G37 Sedan

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LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

| Continuity | Lifting motor (rear) Connector Terminal | | control unit | Driver seat |
|------------|--|------|--------------|-------------|
| Continuity | | | Terminal | Connector |
| Existed | 38 | B463 | 38 | B452 |
| Existed | 39 | D403 | 39 | D432 |

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

| Driver seat control unit | | | Continuity | |
|--------------------------|----------|--------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| B452 | 38 | Ground | Not existed | |
| D432 | 39 | - | Not existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK LIFTING MOTOR (REAR)

Refer to ADP-124, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation".

NO >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to <u>SE-125. "Exploded View"</u>.

Component Inspection

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1. CHECK LIFTING MOTOR-1

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace seat cushion frame (lifting motor).

2.CHECK LIFTING MOTOR-2

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

| Item | Terminal | | Operation | |
|----------------------|----------|-----|-----------|--|
| item | (+) | (-) | Ореганоп | |
| Lifting motor (rear) | 38 | 39 | Up | |
| Litting motor (real) | 39 | 38 | Down | |

Is the inspection result normal?

YES >> Lifting motor (rear) is OK.

NO >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to SE-125, "Exploded View".

TILT MOTOR

Description INFOID:000000005630216

- 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.
- Check the tilt motor operation.

| Tes | titem | 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-125, "Diagnosis Procedure"</u>.

Diagnosis Procedure

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

| (+) Tilt & telescopic motor | | (-) Co | | ndition | Voltage (V) (Approx.) |
|-----------------------------|-------|--------|-------------------|------------|--------------------------|
| Connector Terminal | | | | | |
| | 3 | | OFF | 0 | |
| | | | Ground TILT MOTOR | UP | 0 |
| M49 — | | Cround | | DWN (down) | Battery voltage |
| | Groun | Ground | | OFF | 0 |
| | 4 | 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 MOTOR</u>: Exploded View".

NO >> GO TO 2.

2. CHECK TILT MOTOR CIRCUIT

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

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Revision: 2009 November ADP-125 2010 G37 Sedan

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Automatic drive p | ositioner control unit | Tilt & telescopic motor | | Continuity |
|-------------------|------------------------|-------------------------|---|------------|
| Connector | Terminal | Connector Terminal | | |
| M52 | 35 | M49 | 4 | Existed |
| IVIOZ | 42 | 10149 | 3 | Existed |

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

| Automatic drive po | ositioner control unit | | Continuity |
|--------------------|------------------------|--------|-------------|
| Connector | Connector Terminal | | Continuity |
| M52 | 35 | Ground | Not existed |
| IVIDZ | 42 | | Not existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK TILT MOTOR

Refer to ADP-126, "Component Inspection".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21, "WITH ELECTRIC MOTOR: Exploded View"</u>.

Component Inspection

INFOID:0000000005630219

1. CHECK SLIDING MOTOR

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

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

Is the inspection result normal?

YES >> Tilt motor is OK.

NO >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21, "WITH ELECTRIC MOTOR: Exploded View"</u>.

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.
- Check the telescopic motor operation.

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

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

| (+) Tilt & telescopic motor | | (–) | Conditi | on | Voltage (V) (Approx.) |
|-----------------------------|----------|----------|------------------|---------------|--------------------------|
| Connector | Terminal | | | | |
| | | 1 Cround | TELESCOPIC MOTOR | OFF | 0 |
| | 1 Ground | | | FR (forward) | 0 |
| M49 | | | | RR (backward) | Battery voltage |
| IVI49 | | Glound | | OFF | 0 |
| | 2 | 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 MOTOR</u>: Exploded View".

NO >> GO TO 2.

2.CHECK TELESCOPIC MOTOR CIRCUIT

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

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TELESCOPIC MOTOR

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| Automatic drive p | Automatic drive positioner control unit Tilt & telescopic motor | | copic motor | Continuity |
|-------------------|---|--------------------|-------------|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| M52 | 36 | M49 | 2 | Existed |
| IVIOZ | 44 | | 1 | Existed |

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

| Automatic drive po | ositioner control unit | | Continuity | |
|--------------------|------------------------|---------|-------------|--|
| Connector | Terminal | Ground | Continuity | |
| M52 | 36 | Giodila | Not existed | |
| IVIOZ | 44 | - | Not existed | |

Is the inspection result normal?

YES >> GO TO 3.

NO

NO

NO >> Repair or replace harness.

3. CHECK SLIDING MOTOR

Refer to ADP-128, "Component Inspection".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

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

Component Inspection

INFOID:0000000005630223

1. CHECK SLIDING MOTOR-2

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

| Terminal | | Operation |
|----------|-----|-----------|
| (+) | (–) | Ореганоп |
| 2 | 1 | Forward |
| 1 | 2 | Backward |

Is the inspection result normal?

YES >> Telescopic motor is OK.

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

DOOR MIRROR MOTOR

Description INFOID:0000000005630224

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

1. CHECK DOOR MIRROR MOTOR FUNCTION

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

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

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

Is the operation of relevant parts normal?

>> INSPECTION END YES

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

Diagnosis Procedure

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

| (+) Door mirror | | (–) Cond | | dition | Voltage (V) (Approx.) |
|------------------------------------|----------|----------|-----------------------------------|------------------|--------------------------|
| Connector Terminal | | | | | (11 -) |
| | 5 | Ground | Door mirror remote control switch | UP | Battery voltage |
| | | | | Other than above | 0 |
| D3 (Driver side) D33 (Passenger | 6 Ground | | | LEFT | Battery voltage |
| side) | | | | Other than above | 0 |
| | | | | DOWN / RIGHT | Battery voltage |
| | | | | Other than above | 0 |

Is the inspection result normal?

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

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DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

$\overline{2}$.check harness continuity

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

[Door mirror driver side]

| Automatic drive pos | sitioner control unit | Door mirror | Continuity | |
|--|---------------------------------|-----------------|-------------------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| | 16 | | 7 | |
| M51 | 31 | D3 | 5 | Existed |
| | 32 | | 6 | |
| • | | | | |
| or mirror passenger sid | de] | | | |
| or mirror passenger sid Automatic drive pos | | Door mirror (pa | assenger side) | Continuity |
| | | Door mirror (pa | assenger side) Terminal | Continuity |
| Automatic drive pos | sitioner control unit | ** | | Continuity |
| | sitioner control unit Terminal | ** | Terminal | Continuity |

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

| [Door mirror driver side] | | | | | | | | |
|------------------------------|-----------------------|--------|-------------|--|--|--|--|--|
| Automatic drive po | sitioner control unit | | Continuity | | | | | |
| Connector | Terminal | | Continuity | | | | | |
| | 16 | Ground | | | | | | |
| M51 | 31 | | Not existed | | | | | |
| | 32 | | | | | | | |
| [Door mirror passenger side] | | | | | | | | |
| Automatic drive po | sitioner control unit | | Continuity | | | | | |
| Connector | Terminal | | Continuity | | | | | |
| | 14 | Ground | | | | | | |
| M51 | 15 | | Not existed | | | | | |
| | 30 | | | | | | | |

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-229, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-130, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

>> Replace door mirror. Refer to MIR-18, "DOOR MIRROR ASSEMBLY: Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000005630227

1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to MIR-18, "DOOR MIRROR ASSEMBLY: Exploded View".

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. Supply door mirror motor terminals with battery voltage and check operation.

| | Door mirror | | |
|---------------------------------------|-------------|-------|-----------------------|
| Connector _ | Terr | minal | Operational direction |
| Connector | (+) | (-) | |
| | 7 | 6 | RIGHT |
| D3 (Driver side) | 6 | 7 | LEFT |
| D3 (Driver side) D33 (Passenger side) | 5 | 7 | UP |
| | 7 | 5 | DOWN |

Is the inspection result normal?

YES >> INSPECTION END

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

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SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description INFOID.000000005630228

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

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

Component Function Check

INFOID:0000000005630229

1. CHECK FUNCTION

- 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 indicator | Indicator 1: ON |
| | ON-2 | | Indicator 2: ON |

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000005630230

1. CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

| (Seat mem | +) nory switch | (-) | Voltage (V) (Approx.) |
|---------------|-------------------|--------|--------------------------|
| Connector | Terminal | | (11 - 7 |
| D5 | 5 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> 10 A fuse [No. 10 located in fuse block (J/B)].

NO-2 >> Harness for open or short between memory indicator and fuse.

2. CHECK MEMORY INDICATOR CIRCUIT

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

| Automatic drive po | ositioner control unit | Seat mem | nory switch | Continuity |
|--------------------|------------------------|-----------|-------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M51 | 12 | D5 | 6 | Existed |
| IVIO | 13 | D5 | 7 | LXISIEU |

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 | 12 | Ground | Not existed |
| I GIVI | 13 | | NOT EXISTED |

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

| Is the | inspection | n result | normal? |
|--------|------------|----------|---------|

YES >> Replace seat memory switch. Refer to <u>ADP-230, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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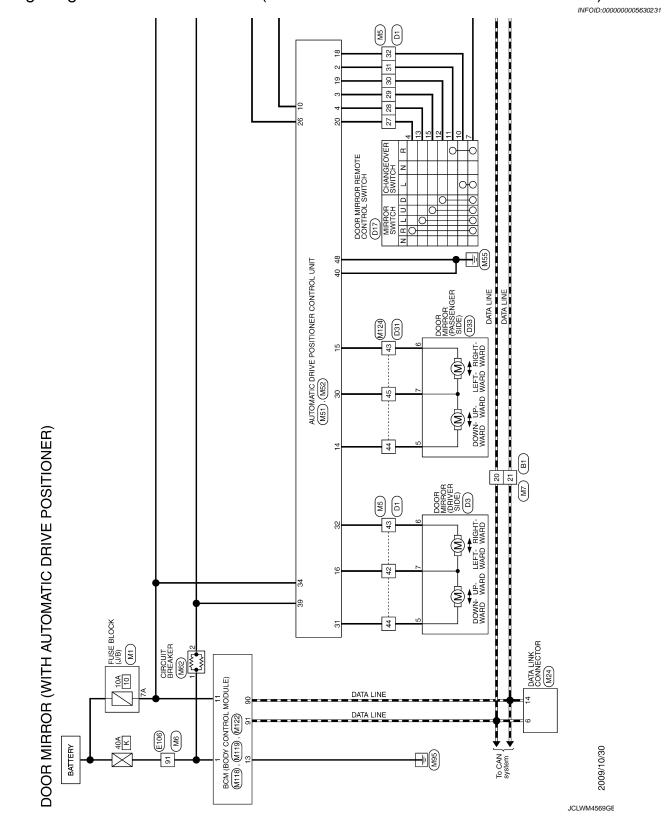
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DOOR MIRROR SYSTEM

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



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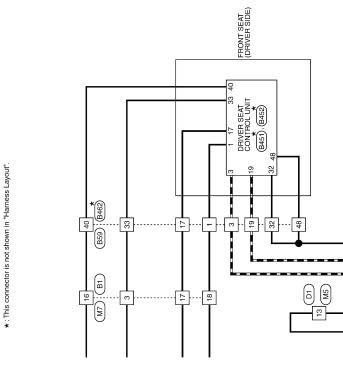
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Revision: 2009 November

DOOR MIRROR SYSTEM

| DOOR MIRRO | DOOR MIRROR (WITH AUTOMATIC DI | RIVE | : Posi | RIVE POSITIONER) | | | | | | |
|----------------------|--------------------------------|--------------|----------------|-----------------------------|---------------|-------------------|--|----------------|------------------------------------|----------|
| Connector No. B1 | | S | H | 1 | 48 | В | 1 | Connector No. | B452 | |
| Connector Name WIRE | WIRE TO WIRE | S 8 | SB SB | | 68 | gg gg | 1 1 | Connector Name | ne DRIVER SEAT CONTROL UNIT | |
| Connector Type TH80F | TH80FW-CS16-TM4 | 61 | ╁ | 1 | 8 69 | ś œ | 1 | Connector Type | NS16FW-CS | |
| | | 9 | Н | - | | | | þ | 1 | |
| 修 | | 9 | P3 F | 1 | | | | 厚 | | |
| 8 | | 9 | 7 | | Connector No. | | B451 | S | | |
| | 0 0 0 | 9 1 | 65 SHIELD | = 07 | Connect | Connector Name Di | DRIVER SEAT CONTROL UNIT | | 33 34 35 36 37 38 | 36 |
| 8 8 | | | $^{+}$ | | Connect | Connector Type Th | TH32FW | | 40 41 42 43 44 45 46 47 | 48 |
| 801 | | _ | H | 1 | | 1 | | | | 1 |
| | | | H | - | E | | | | | |
| la | Simal Name [Specification] | 8 | 81 V | - | 1 | | | lal | Color Simal Name [Specification] | lation |
| No. of Wire | Signal Name Copecinication | 8 | 82 B | - | = | | 7 | No. of | of Wire | arioni |
| 1 GR | - | ∞ | 84 ≺ | 1 | | 1 2 3 4 | 6 7 8 9 10 11 12 13 | 33 | R BAT (C/B) | |
| 2 BG | 1 | ∞ | \dashv | ı | | 2 | 19[20[21[22[23[24[25[26[27[28[29]30]31]32] | ┨ | 4 | WARD) |
| 3 | - | ω | \dashv | ı | | | | ┥ | 4 | RWARD) |
| 4 Y | _ | 80 | 87 R | • | | | | Н | G/W FRONT LIFTING MOTOR (DOWNWARD) | OWNWARD) |
| 6 R | | 80 | 88 BR | 1 | Terminal | _ | Simpl Name [Sassification] | 38 | L/Y REAR LIFTING MOTOR (UPWARD) | JPWARD) |
| W 8 | - | 8 | ¥ 68 | | No. | of Wire | orginal Ivalile Lopecinication | Н | R/B REAR LIFTING MOTOR (BACKWARD) | (CKWARD) |
| ^ 6 | - | 6 | 90 SB | | - | N/T | RX | Н | R/W BAT (FUSE) | |
| 15 Y | - | 91 | H BG | | 3 | R/Y | CAN-H | 42 V | W/B SLIDING MOTOR (BACKWARD) | (WARD) |
| 16 BR | 1 | 6 | 92 BR | 1 | 80 | 97 | PARKING BRAKE SW | 44 | P RECLINING MOTOR (BACKWARD) | KWARD) |
| 17 LG | 1 | 6 | 93 P | 1 | 6 | 9/M | PULSE (RECLINING) | 45 | L/R FRONT LIFTING MOTOR (UPWARD) | UPWARD) |
| 18 BG | 1 | 6 | 95 BG | 1 | 10 | B/B | PULSE (RR LIFTING) | 48 | B GND (POWER) | |
| 20 L | 1 | _ص | → 96 | 1 | = | BR. | SLIDING SW (BACKWARD) | | | |
| 21 P | 1 | ľ | 100 GR | 1 | 12 | SB | RECLINING SW (BACKWARD) | | | |
| 22 L | 1 | | | | 13 | LG/R | FRONT LIFTING SW (DOWNWARD) | | | |
| 23 P | 1 | | | | 14 | g/B | REAR LIFTING SW (DOWNWARD) | | | |
| 24 V | 1 | Con | Connector No. | B59 | 16 | 0 | VCC | | | |
| 25 SB | 1 | į | N | TO MADE | 17 | Y/R | XT | | | |
| H | 1 | 3 | ector Manne | | 19 | > | CAN-L | | | |
| _ | 1 | Con | Connector Type | NS16FW-CS | 21 | ٨٦ | P RANGE SW | | | |
| 28 R | 1 | [| | | 24 | œ | PULSE (SLIDING) | | | |
| | 1 | Ø | • | | 22 | Y/B | PULSE (FR LIFTING) | | | |
| 32 SB | 1 | _ | E | | 26 | > | SLIDING SW (FORWARD) | | | |
| 33 SHIELD | 1 | • | ė E | 40 17 13 19 | 27 | R/G | RECLINING SW (FORWARD) | | | |
| 34 W | - | | | 00 00 00 00 | 28 | M/B | FRONT LIFTING SW (UPWARD) | | | |
| | 1 | | | 00 33 21 40 32 | 59 | P/L | REAR LIFTING SW (UPWARD) | | | |
| H | 1 | | | | 31 | GR | SENSOR GND | | | |
| 37 SHIELD | 1 | | | | 32 | B/W | GND (SIGNAL) | | | |
| 38 × | 1 | Tern | Ferminal Color | | | | | | | |
| 39 SB | 1 | z | No. of Wire | Signal Name [Specification] | | | | | | |
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| 41 L | 1 | Ľ | 3 L | | | | | | | |
| 42 SHIELD | 1 | ľ | 8 | 1 | | | | | | |
| t | 1 | [| 17 LG | 1 | | | | | | |
| ┞ | | Γ | ╀ | 1 | | | | | | |
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JCLWM4571GE

DOOR MIRROR SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

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| DOOR MI THI2MW | С |
| 13 R | D |
| Name [Specification] 1 1 1 1 1 1 1 1 1 | Е |
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| D3 D00A MIRROR (DRIVER SIDE) | ADP |
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| NS16MW N | Ν |
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Revision: 2009 November ADP-137 2010 G37 Sedan

| Controller March Control | AR. | DRIVE POSITIONER) | | | | |
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| The graph CSS for TMA | | > @ | Connecto | r Name N | VIRE TO WIRE | > |
| Right Righ | | а | Connecto | | H40MW-CS15 | |
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| - 47 L | ı ec | | 44 | ٦ | - [Without automatic drive positioner] | |
| - 48 GR 49 SB 69 SB 60 S | SB | | 47 | ٦ | 1 | |
| 49 SB 50 P | - L | | 48 | GR | 1 | |
| d 09 | | | 49 | SB | _ | |
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DOOR MIRROR SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

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| | 1 | | DATA LINK CONNECTOR | | | | 10 11 12 13 14 15 16 | 234567 |] | | Signal Name [Specification] | | | - | - | - | - | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | 3 | |
| | а. | No. M24 | e. | | 1 | | 1 9 10 11 | 1 2 3 | 2 | | Color | | 2 a | n m | Г | ^ | 9 | SB | 2 0 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | (| 0 | |
| | 100 | Connector No. | Connector Name | Connector Type | 4 | 李 | HS. | | | | Terminal | | 2 | S | 9 | 7 | 80 | = | 14 | 2 | | | | | | | | | | | | | | | | | | | | | | | | _ | | | | | | | | | | | |) | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | | |
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| | + | 23 P | П | Т | П | \neg | Т | 34 GR | \neg | 37 SHIELD | П | + | 41 | φ | П | 44 G | П | + | 00 A | + | ╀ | Н | + | + | 50 50 | 65 CHIFLD | T | t | 73 SB 7 | t | H | H | Н | 85 BG | + | 87 G | + | + | + | \dashv | + | 93 | 95 BG | + | | | | | | | | | | | | 3 | |
| | | | П | T | | | | П | | _ | П | | _ T | | | П | | | T | _ T | _ | | | | | | 1_ | <u> </u> | <u> </u> | <u></u> | _ | L T | | _ | _ | | | | T | _ _ | _ | | _ Т | _ ┐ | | | | | | | | | | | - | - | |
| | 1 1 | 1 1 | ī | 1 1 | 1 | 1 1 | 1 | ı | 1 1 | 1 | - | - | | 1 | - | - | 1 | | | | | TM4 | | 2 | | 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 8 S S S S S S S S S S S S S S S S S S S | 2 2 | 84 | | Signal Name [Specification] | 1 | - | [With automatic drive positioner] | utomatic drive positioner] | 1 | | 1 | | 1 | 1 | | | | | | | | | | | | | | |] | |
| ONER) | | | | | | | | | | | | | | | | | | | 774 | (1) | WIRE TO WIRE | TH80MW-CS16-TM4 | | 2 | 200 | 3 2 2 | 12 22 35 45 17 27 35 45 | 8 | 3 | | Signal | | | - [With aut | - [Without a | | | | | | | | | | | | | | | | | | | 1 | ΑI | DF | 3 |
| DRIVE POSITIONER) | ВВ | LG SB | в: | > > | 7 | SR > | . ₀ | g (| ¥ ≥ | : > | BG | ۲ , | - 0 | . P | SHIELD | ^ | SB | | or No | 20.00 | Connector Name | Connector Type | | | e di | • | | | | | of Wire | | Ь | SB | ۵ | > | ٦ | | ≻ | œ | BR | ۵ | > . | - | | | | | | | | | | | ŀ | < | |
| RIVE | 54 | 80 | 8 | 83 | 84 | 82 | 87 | 88 | 8 6 | 92 | 93 | 94 | 68 | 97 | 86 | 66 | 100 | | ON rotograph No | 50 | Connec | Connec | q | 事 | E.S. | | | | | Termin | No. | - | 2 | က | က | 4 | 9 | ω , | 6 | 12 | 9 | 1 | æ 8 | 8 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | L | | |
| DOOR MIRROR (WITH AUTOMATIC | | 16-TM4 | [| 100 E | | 96 96 96 96 96 96 96 96 96 96 96 96 96 9 | | | Signal Name [Specification] | 1 | 1 | 1 | | 1 | - | 1 | 1 | | | | ı | ı | 1 | 1 | | 1 1 | 1 | | 1 1 | 1 | 1 | 1 | - | 1 | - [With A/T] | - [With M/T] | | | | 1 | 1 | | | ' | | | | | | | | | | | N | / | |
| ROR (V | M6 WIRE TO WIRE | TH80MW-CS16-TM4 | | 8 2 | 9 (S) (S) | 088 225 | | | Sig | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | V | |
| DOOR MIR | Connector No. | \neg | 1 | 李 | 61 | | | | No. of Wire | | 2 GR | + | s 0 | + | ۱۱ ۷ | 12 P | Н | \dashv | 15 16 | 17 GR | + | 29 G | 31 L | + | + | + | + | ╁ | 38 2 | ╁ | H | L | Н | 4 | + | + | + | 47 SB | 4 | \dashv | + | + | 25 W | 4 | | | | | | | | | | | |) | |
| | | | | | | | | _ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | - | | JC | LW | 'M4 | 157 | 4GI | Е | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | F | \supset | |

Revision: 2009 November ADP-139 2010 G37 Sedan

DOOR MIRROR SYSTEM

| DOOR I | ~ MIF | DOOR MIRROR (WITH AUTOMATIC D | DRIVE POSITIONER) Connector No. M52 | Connector No. M118 | Connector No. | | M122 | |
|-----------------|------------------|---|--|--|-----------------|------------------|---|--|
| Connector Name | Name | AUTOMATIC DRIVE POSITIONER CONTROL UNIT | e. | e e | Connect | ne | BCM (BODY CONTROL MODULE) | |
| Connector Type | Type | TH32FW-NH | Connector Type NS16FW-CS | Connector Type M03FB-LC | Connector Type | or Type | TH40FB-NH | |
| 匮 | | | 匮 | E | Œ | | | |
| H.S. | | | H.S. | H.S. | H.S. | | | |
| النب | 1 2 3 | 1 2 3 4 5 6 7 8 9 10 111213 141516 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 | 42 43 44 45 46 47 | | | 91 90 89 81 | 8 87 86 85 84 85 84 85 82 81 80 77 76 77 76 75 74 73 72 82 88 97 86 95 94 93 92 | |
| L. | | | - 1 | - 1 | | - 1 | | |
| Terminal No. | Color of Wire | Signal Name [Specification] | Terminal Color Signal Name [Specification] No. of Wire | Terminal Color Signal Name [Specification] No. of Wire | Terminal No. | Color of Wire | Signal Name [Specification] | |
| - | > | TILT SW (UPWARD) | 33 W POWER SUPPLY (SENSOR) | 1 W BAT (F/L) | 72 | ď | ROOM ANT 2- | |
| 2 | LG | MIRROR SELECT SW (RH) | > | \dashv | 73 | g | ROOM ANT 2+ | |
| 3 | g | MIRROR SW (UPWARD) | ٦ | 3 BG POWER WINDOW POWER SUPPLY (RAP) | 74 | SB | PASSENGER DOOR ANT- | |
| 4 | > | MIRROR SW (LEFTWARD) | TELESCOP | | 75 | BB | PASSENGER DOOR ANT+ | |
| 2 | ۳ | MIRROR SENSOR (RH VERTICAL) | × | | 9/ | > | DRIVER DOOR ANT- | |
| 9 1 | GR | MIRROR SENSOR (LH VERTICAL) | 40 B GND (SIGNAL) | Connector No. M119 | F 5 | g; | DRIVER DOOR ANT+ | |
| , | BG | ILLI SENSOR | → 32 | Connector Name BCM (BODY CONTROL MODULE) | æ ; | > 2 | ROOM ANI 1- | |
| 6 Ç | Hg/ | ADDRESS 1 | 42 BG IILI MOTOR (DOWNWARD) | Connector Line MoterM-00 | 6/ 8 | # C | NATE ANT AND | |
| = = | , a | TELESCOBIC SW (EDONITWARD) | 5 a | 7 | 8 2 | 5 ≥ | INATS ANT AMP | |
| 2 | į ď | IND 1 | | | 6 | . g | IGN BELAY (F/B) CONT | |
| 13 5 | 3 | IND 2 | | | 8 | } > | KEYLESS ENTRY RECEIVER COMM | |
| 14 | W | MIRROR MOTOR (RH VERTICAL) | Connector No. M62 | [4 5 6 7 1 8 9 10 | 87 | > | COMBI SW INPUT 5 | |
| 15 | BG | MIRROR MOTOR (RH HORIZONTAL) | Connector Name CIRCLIIT BREAKER | 13 1/ 15 16 | 88 | BG | COMBI SW INPUT 3 | |
| 16 | Υ | MIRROR MOTOR (LH COMMON) | . | 01 /1 01 01 +1 01 | 88 | BR | WSH SW | |
| 17 | BR | TILT SW (DOWNWARD) | Connector Type M02FW-P-LC | | 90 | ۵ | CAN-L | |
| 18 | Χ | MIRROR SELECT SW (LH) | d | ŀ | 91 | ٦ | CAN-H | |
| 19 | SB | MIRROR SW (DOWNWARD) | 医 | la l | 92 | g į | KEY SLOT ILL | |
| 20 | _[| MIRROR SW (RIGHTWARD) | | 9 | 93 | gR | ONI NO | |
| 21 | -[| MIRROR SENSOR (RH HORIZONTAL) | | I P | 92 | BG | ACC RELAY CONT | |
| 22 | 8 | MIRROR SENSOR (LH HORIZONTAL) | | PASSEN | 96 | g. | A/T SHIFT SELECTOR POWER SUPPLY | |
| 23 | ı 0 | IELESCOPIC SENSOR | 7 | SEP LAMP DUIPUI | 6 | ۵ ا | S/L CONDITION I | |
| 25 | < > | ADDRESS 2 | | o o | 66 | . « | SHIFT P [With A/T] | |
| 56 | ۵ | RX (UART) | Terminal Color | T | 66 | BR | ICC CLUTCH SW [With M/T and ICC] | |
| 27 | ŋ | TELESCOPIC SW (BACKWARD) | _ | œ | 66 | BR | ASCD CLUTCH SW [With M/T without ICC] | |
| 30 | SB | MIRROR MOTOR (RH COMMON) | - | 13 B GND | 100 | \ | PASSENGER DOOR REQUEST SW | |
| 31 | g | MIRROR MOTOR (LH VERTICAL) | 2 SB - | 14 W PUSH-BUTTON IGNITION SW ILL GND | 101 | Ь | DRIVER DOOR REQUEST SW | |
| 32 | ٦ | MIRROR MOTOR (LH HORIZONTAL) | | 15 BG ACC IND | 102 | BG | BLOWER FAN MOTOR RELAY CONT | |
| | | | | | 103 | Ь | KEYLESS ENTRY RECEIVER POWER SUPPLY | |
| | | | | 18 BG TURN SIGNAL LH (FRONT) | 901 | SB | S/L UNIT POWER SUPPLY | |
| | | | | 19 V ROOM LAMP TIMER CONTROL | 107 | LG | COMBI SW INPUT 1 | |
| | | | | | 90 5 | ≃ ; | COMBI SW INPUT 4 | |
| | | | | | 6 5 | ≥ 0 | COMBI SW INPUT 2 | |
| | | | | | 2 = | 5 > | HAZAKU SW | |
| | | | | | - | - | O/L CINE COMIN | |

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| ORIVE POSITIONER) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------------|--------------|----------------|---|---|---------------------------------|---|--|-----------------------------|---|----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| DOOR MIRROR (WITH AUTOMATIC DRIVE POSITIONER) | M124 WIRE TO WIRE | WINE TO WINE | TH40MW-CS15 | | | 3 4 5 6 7 8 9 10 11 12 13 14 15 | 16 17 16 19 20 21 22 22 24 22 28 26 27 28 39 40 41 42 43 44 45 46 27 28 29 20 31 32 33 34 35 47 48 49 50 51 52 53 54 55 | | Signal Name [Specification] | 1 | - | - | - | 1 | - | 1 | 1 | - | - | - | _ | - | _ | 1 | 1 | 1 | 1 | 1 | 1 | _ | - | - | _ | |
| R MIF | No. | i Name | r Type | | | 1 | 27282 | | Color of Wire | ≯ | GR | В | ۸ | ۵ | BR | œ | 5 | ď | 5 | œ | GR | Г | BG | BG | М | SB | 57 | d | λ | BR | SB | ٦ | ٦ | Υ |
| 000 | Connector No. | noallieon | Connector Type | 1 | 手 | Ź | | | Terminal No. | - | 2 | 3 | 7 | 8 | 10 | 11 | 12 | 13 | 36 | 37 | 38 | 39 | 42 | 43 | 44 | 45 | 47 | 48 | 49 | 20 | 51 | 52 | 53 | 54 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

DRIVER SEAT CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

| Monitor Item | Condit | ion | Value/Status | | | | | | |
|----------------|------------------------------|------------------|--------------|--|--|--|--|--|--|
| SET SW | Set switch | Push | ON | | | | | | |
| SET SW | Set Switch | Release | OFF | | | | | | |
| MEMORY SW1 | Mamary quitab 1 | Push | ON | | | | | | |
| WEWORT SWI | Memory switch 1 | Release | OFF | | | | | | |
| MEMORY SW2 | Mamary quitab 2 | Push | ON | | | | | | |
| MEMORY SW2 | Memory switch 2 | Release | OFF | | | | | | |
| OLIDE OW ED | Olishin an annitale (facust) | Operate | ON | | | | | | |
| SLIDE SW-FR | Sliding switch (front) | Release | OFF | | | | | | |
| CLIDE CW DD | Oliding quitab (root) | Operate | ON | | | | | | |
| SLIDE SW-RR | Sliding switch (rear) | Release | OFF | | | | | | |
| DEOLIN OW ED | 5 " ' ' ' ' ' ' ' | Operate | ON | | | | | | |
| RECLN SW-FR | Reclining switch (front) | Release | OFF | | | | | | |
| | 2 | Operate | ON | | | | | | |
| RECLN SW-RR | Reclining switch (rear) | Release | OFF | | | | | | |
| | | Operate | ON | | | | | | |
| LIFT FR SW-UP | Lifting switch front (up) | Release | OFF | | | | | | |
| | | Operate | ON | | | | | | |
| LIFT FR SW-DN | Lifting switch front (down) | Release | OFF | | | | | | |
| | | Operate | ON | | | | | | |
| LIFT RR SW-UP | Lifting switch rear (up) | Release | OFF | | | | | | |
| LIET DD OW DN | 1.6 (1 | Operate | ON | | | | | | |
| LIFT RR SW-DN | Lifting switch rear (down) | Release | OFF | | | | | | |
| MID 00M 0M 11D | | Up | ON | | | | | | |
| MIR CON SW-UP | Mirror switch | Other than above | OFF | | | | | | |
| | | Down | ON | | | | | | |
| MIR CON SW-DN | Mirror switch | Other than above | OFF | | | | | | |
| | | Right | ON | | | | | | |
| MIR CON SW-RH | Mirror switch | Other than above | OFF | | | | | | |
| | | Left | ON | | | | | | |
| MIR CON SW-LH | Mirror switch | Other than above | OFF | | | | | | |
| MID OURS ON T | | Right | ON | | | | | | |
| MIR CHNG SW-R | Changeover switch | Other than above | OFF | | | | | | |
| MD OURS SWY | | Left | ON | | | | | | |
| MIR CHNG SW-L | Changeover switch | Other than above | OFF | | | | | | |
| | | Up | ON | | | | | | |
| TILT SW-UP | Tilt switch | Other than above | OFF | | | | | | |
| | | Down | ON | | | | | | |
| TILT SW-DOWN | Tilt switch | Other than above | OFF | | | | | | |

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Cor | ndition | Value/Status | | | | | | | |
|-----------------------------|---------------------------|------------------|---|--|--|--|--|--|--|--|
| TELESCO SW ED | Talaggania awitah | Forward | ON | | | | | | | |
| TELESCO SW-FR | Telescopic switch | Other than above | OFF | | | | | | | |
| TELESCO SW-RR | Tilt switch | Backward | ON | | | | | | | |
| TELEGOO OW-KIK | The Switch | Other than above | OFF | | | | | | | |
| DETENT SW*1 | AT selector lever | P position | OFF | | | | | | | |
| DETENT SW | At solottor level | Other than above | ON | | | | | | | |
| PARK BRAKE SW ^{*2} | Parking brake | Applied | ON | | | | | | | |
| | T diking brake | Release | OFF | | | | | | | |
| STARTER SW | Ignition position | Cranking | ON | | | | | | | |
| | ignition position | 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 | side) | Change between 3.4 (close to peak) 0.6 (close to valley) | | | | | | | |
| MIR/SEN RH R-L | Door mirror (passenger | side) | Change between 3.4 (close to left edge) 0.6 (close to right edge) | | | | | | | |
| MIR/SEN LH U-D | Door mirror (driver side) | | Change between 3.4 (close to peak) 0.6 (close to valley) | | | | | | | |
| MIR/SEN LH R-L | Door mirror (driver side) | | Change between 0.6 (close to left edge) 3.4 (close to right edge) | | | | | | | |
| TILT SEN | Tilt position | | Change between 1.2 (close to top) 3.4 (close to bottom) | | | | | | | |
| TELESCO SEN | Telescopic position | | Change between 3.4 (close to top) 0.8 (close to bottom) | | | | | | | |

^{*1:} Only for AT model

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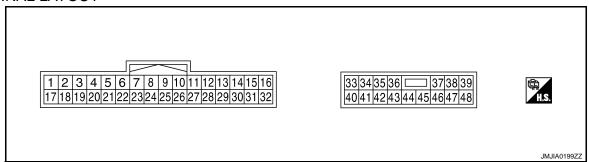
^{*2:} Only for MT model

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

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

| Terminal No. | | Description | | | | Voltage (V) | | | | | |
|--------------|--------|---------------------------------------|------------------|---------------------|----------------------------|----------------------------------|--|--|--|--|--|
| + | - | Signal name | Input/ Output | Conditio | n | (Approx) | | | | | |
| 1 (L/W) | Ground | UART communication (RX) | Input | Ignition switch ON | | 2mSec/div | | | | | |
| 3 (R/Y) | _ | CAN-H | | _ | | _ | | | | | |
| 8*1 | Ground | Parking brake switch | Input | Parking brake | Applied | 0 | | | | | |
| (LG) | Ground | signal | IIIput | Faiking blake | 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 2V/div JMJIA0119ZZ | | | | | |
| | | | | | Stop | 0 or 5 | | | | | |
| 11 (BR) | Ground | Sliding switch backward signal | Input | Sliding switch | Operate (back- ward) | 0 | | | | | |
| | | | | | Release | Battery voltage | | | | | |
| 12 (SB) | Ground | Reclining switch back- ward signal | Input | Reclining switch | Operate (back- ward) | 0 | | | | | |
| | | | | | Release | Battery voltage | | | | | |

| Termi | nal No. | Description | | | | Voltage (V) | |
|---------------|---------|---------------------------------------|------------------|------------------------|------------------------------|----------------------------------|--------------|
| + | - | Signal name | Input/ Output | Condition | 1 | Voltage (V) (Approx) | А |
| 13 (LG/R) | Ground | Lifting switch (front) down signal | Input | Lifting switch (front) | Operate (down) | 0 | В |
| 14 (GB) | Ground | Lifting switch (rear) down signal | Input | Lifting switch (rear) | Release Operate (down) | Battery voltage 0 | С |
| 16 (O) | Ground | Sensor power supply | Output | _ | Release | Battery voltage 5 | D |
| 17 (Y/R) | Ground | UART communication (TX) | Output | Ignition switch ON | | 10mSec/div 2V/div JMJIA0121ZZ | E |
| 19 (V) | _ | CAN-L | _ | _ | | _ | G |
| | | | | | P position | 0 | |
| 21*2 (L/Y) | Ground | Detention switch | Input | A/T selector lever | Except P position | 20mSec/div | H I AD |
| 24 (R) | Ground | Sliding sensor signal | Input | Seat sliding | Operate | 10mSec/div 2V/div JMJIA0119ZZ | K |
| | | | | | Stop | 0 or 5 | M |
| 25 (Y/B) | Ground | Lifting sensor (front) signal | Input | Seat lifting (front) | Operate | 10mSec/div | N |
| | | | | | Stop | 0 or 5 | |
| 26 (Y) | Ground | Sliding switch forward signal | Input | Sliding switch | Operate (forward) | 0 | Р |
| | | oigi ai | | | Release | Battery voltage | |
| 27 (R/G) | Ground | Reclining switch forward signal | Input | Reclining switch | Operate (forward) | 0 | |
| (10,0) | | 5.g. k. | | | Release | Battery voltage | |

| Tormi | nal No. | Docarintion | | | | |
|-------------|---------|---|------------------|-----------------------------|----------------------------|-------------------------|
| + | - - | Description Signal name | Input/ Output | Condition | า | Voltage (V) (Approx) |
| 28 (W/B) | Ground | Lifting switch (front) up signal | Input | Seat lifting switch (front) | Operate (up) | 0 |
| (W/D) | | Signal | | (Holle) | Release | Battery voltage |
| 29 (P/L) | Ground | Lifting switch (rear) up signal | Input | Seat lifting switch (rear) | Operate (up) | 0 |
| | | | | (. • a) | Release | Battery voltage |
| 31 (GR) | Ground | Sensor ground | _ | _ | | 0 |
| 32 (B/W) | Ground | Ground (signal) | _ | _ | | 0 |
| 33 (R) | Ground | Power source (C/B) | Input | _ | | Battery voltage |
| 35 | Ground | Sliding motor forward | Output | Seat sliding | Operate (forward) | Battery voltage |
| (W/R) | | output signal | | _ | Release | 0 |
| 36 | Ground | Reclining motor forward | Output | Seat reclining | Operate (forward) | Battery voltage |
| (G/Y) | | output signal | | | Release | 0 |
| 37 | Ground | Lifting motor (front) down output signal | Output | Seat lifting (front) | Operate (down) | Battery voltage |
| (G/W) | | down output signal | | | Stop | 0 |
| 38 (L/Y) | Ground | Lifting motor (rear) up output signal | Output | Seat lifting (rear) | Operate (up) | Battery voltage |
| (L/1) | | output signal | | | Stop | 0 |
| 39 (R/B) | Ground | Lifting motor (rear) down output signal | Output | Seat lifting (rear) | Operate (down) | Battery voltage |
| (100) | | output signal | | | Stop | 0 |
| 40 (R/W) | Ground | Power source (Fuse) | Input | _ | | Battery voltage |
| 42 (W/B) | Ground | Sliding motor backward output signal | Output | Seat sliding | Operate (back- ward) | Battery voltage |
| | | | | | Stop | 0 |
| 44 (P) | Ground | Reclining motor back- ward output signal | Output | Seat reclining | Operate (back- ward) | Battery voltage |
| | | | | | Stop | 0 |
| 45 (L/R) | Ground | Lifting motor (front) up output signal | Output | Seat lifting (front) | Operate (up) | Battery voltage |
| (=/15) | | o a par orginal | | | Stop | 0 |
| 48 (B) | Ground | Ground (power) | _ | _ | | 0 |

^{*1:} Only for MT models

^{*2:} Only for AT models

DRIVER SEAT CONTROL UNIT < ECU DIAGNOSIS INFORMATION > Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -Α INFOID:0000000005630233 20 В (P34) *: This connector is not shown in "Harness Layout". C AUTOMATIC DRIVE POSITIONER CONTROL UNIT (MST) · (MSZ) 88 37 D 36 Е $\langle A \rangle$: With A/T $\langle M \rangle$: With M/T <u>[</u> M5 F 42 38 DOWN- UF WARD WA G 37 36 44 Н AT SHIFT SELECTOR (DETENTION SWITCH) ADP CIRCUIT BREAKER (M62) TCM TRANSMISSION CONTROL MODULE) A/T ASSEMBLY K 121 BCM (BODY CONTROL MODULE) (M118) , (M119) , (M123) FUSE BLOCK (J/B) (M1) DATA LINK CONNECTOR (M24) L **AUTOMATIC DRIVE POSITIONER** KEY SLOT 9 10 9 M 10A

E106 (Me)

BATTERY

FRONT DOOR SWITCH (DRIVER SIDE)

To CAN system

2009/10/30

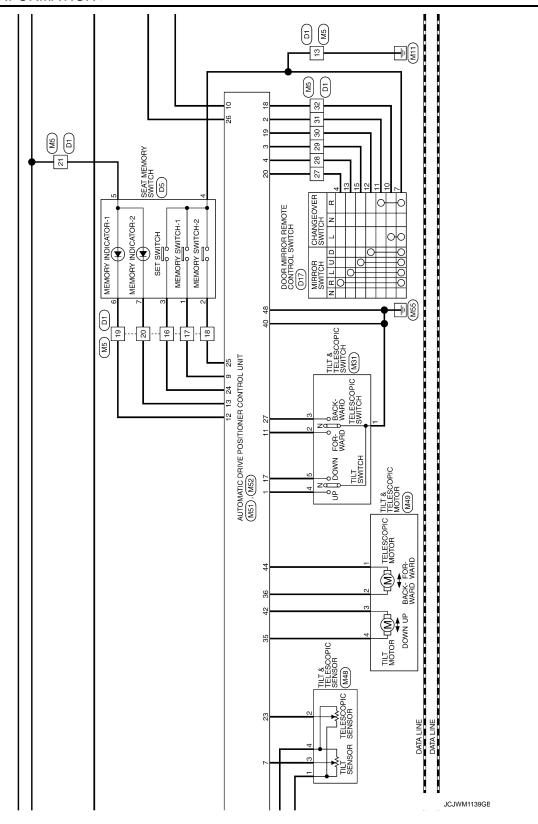
JCJWM1138GE

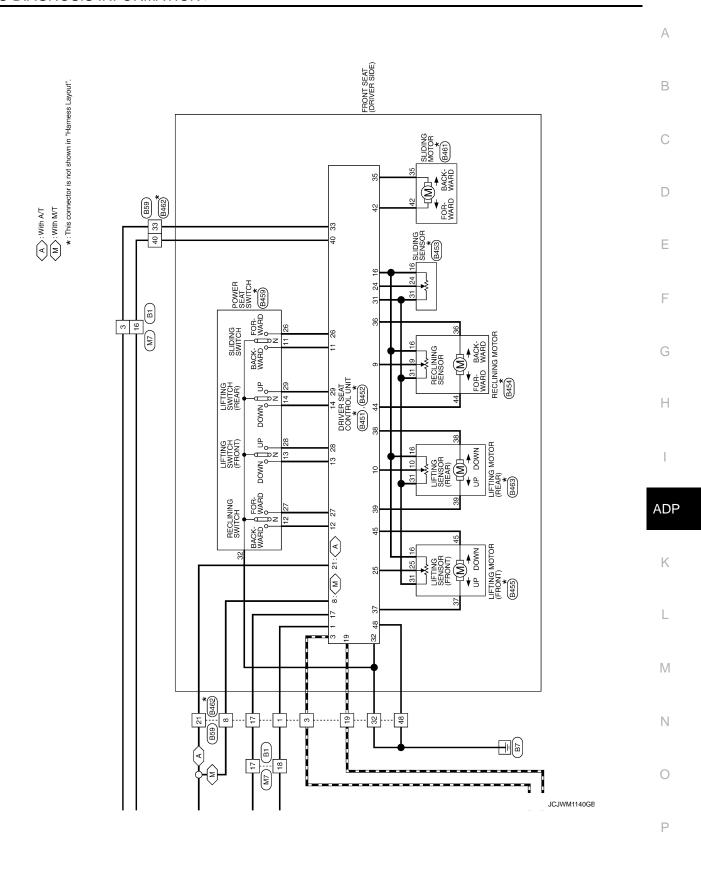
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Revision: 2009 November ADP-149 2010 G37 Sedan

| AUTOMATIC DRIVE POSITIONER | | | | |
|--|--|--|----------------|--|
| Connector No. B1 | > ! | Connector No. B16 | Connector No. | B451 |
| Connector Name WIRE TO WIRE | 1 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | Connector Name FRONT DOOR SWITCH (DRIVER SIDE) | Connector Name | DRIVER SEAT CONTROL UNIT |
| Connector Type TH80FW-CS16-TM4 | × × | Connector Type A03FW | Connector Type | TH32FW |
| 1 | æ | 1 | q | |
| 22 23 15 15 15 15 15 15 15 15 15 15 15 15 15 | | Ret . | 李 | |
| | 65 SHIELD – | Z = 1 | Ŕ. | / |
| 6. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. | Н | -[0 | 1 2 | 10 11 12 13 14 15 |
| | GR | 1 C | 1/18 | 19[20[21[22[23[24[25[26[27[28[29]30]31]32] |
| 33 | 73 P | อ | | |
| Terminal Color | 1> | Terminal Color | Terminal Color | L |
| | - B | | _ | Signal Name [Specification] |
| 1 GR - | | 2 BR – | 1 L/W | RX |
| 2 BG - | 85 G | | 3 R/Y | CAN-H |
| 3 L | - w 98 | | 8 LG | PARKING BRAKE SW |
| | Н | Connector No. B59 | 9/W 6 | |
| | 88 BR - | Connector Name WIRE TO WIRE | 10 P/B | |
| - | - ≻ 68 | П | 11 BR | SLIDING SW (BACKWARD) |
| > 6 | \dashv | Connector Type NS16FW-CS | + | _ |
| \dashv | \dashv | Q | 13 LG/R | FRONT LIFTING SW (DOWNWARD) |
| + | 4 | 医 | 4 | 4 |
| \dashv | \dashv | | \dashv | |
| 18 BG - | 95 BG – | 40 17 13 19 | 17 Y/R | |
| 20 L – | | 87 88 33 21 48 32 80 | ۱9 ۷ | CAN-L |
| 21 P – | 100 GR – | 30 50 E1 +0 0E 03 | _ | P RANGE SW |
| ٦ | | | - | PULSE (SLIDING) |
| | | ŀ | 25 Y/B | PULSE (FR LIFTING) |
| 24 V – | Connector No. B14 | la. | 26 Y | |
| | Connector Name PARKING BRAKE SWITCH | 9 | + | \downarrow |
| \dashv | Т | 1 BG – | + | |
| 4 | Connector Type P01FB-A | 3 L | \dashv | REAR LIFTING SW (UPWARD) |
| 28 R = | á | - 8 | \dashv | SENSOR GND |
| + | | _ | 32 B/W | |
| 7 | [| + | | |
| 33 SHIELD - | | + | | |
| + | <u>-</u> | 32 B – | | |
| 35 BR – |] | + | | |
| 1 | | + | | |
| 풄 | | + | | |
| 38 У – | Terminal Color Signal Name [Specification] | \dashv | | |
| ., | | Ĭ | | |
| 40 P – | 1 GR – | 69 R – | | |
| 41 L | | | | |
| 42 SHIELD – | | | | |
| 43 R - | | | | |
| Н | | | | |
| Ø | | | | |
| \dashv | | | | |
| 55 BR – | | | | |
| 4 | | | | |

JCJWM1141GE

< ECU DIAGNOSIS INFORMATION >

| Cooperation | 33 68 67 | peofication] | | A |
|--|--|--|----------|-----|
| Connector Name ECLIANCO WOTOR Connector Name Conn | RE 17 | Signal Name | | С |
| Connector No. Pust | Connector N Connector T | Terminal Connector N Conne | | D |
| Connector Name E444 Connector Name Connec | | fication] | | Е |
| Connector No. Bidst Connector No. Bidst Connector No. Bidst Connector Type NSI Connector Type Con | seaт swrrcн и-cs 32 11 26 13 2 | Signal Name (Spec | | F |
| Connector No. 2454 Connector Name RECLINING MOTOR Connector Type NSIGNEW-CS Connector Type NSIGNEW-CS Connector Type NSIGNEW-CS Connector Type NSIGNEW-CS Connector Name Color Connector Type NSIGNEW-CS Connector Type Connector Typ | POW NS11 | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | | G |
| Connector No. B454 Connector Name RECLINI Connector Type NS06FW 16 0 0 16 0 0 16 0 1 | Conne | Termin 11 11 11 11 11 11 11 11 11 11 11 11 11 | | Н |
| Connector No. Connector Name Connector Type Connector Type Connector Type Connector Type Connector No. Connect | INING MOTOR W-CS | | I | ADP |
| Signal Name (Specification) BAT (C/B) Signal Name (Specification) BAT (C/B) Signal Name (Specification) | | | _ | K |
| DRIVE POSITION | # T | 1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1 | | L |
| Color Colo | CONTROL UNIT | al Name [Specification] BAT (C/B) VG MOTOR (FORWAR) IING MOTOR (FORWAR) FING MOTOR (LOWN BAT (ELSE) G MOTOR (BACKWAF) MOTOR (BACKWAF) MOTOR (BACKWAF) INTING MOTOR (UPW GND (POWER) SOR al Name [Specification] | | M |
| Name B4 No. | MATIC DRIV B452 me DRIVER SEAT me DRIVER SEAT MS 16FW-CS 33 34 35 36 40 41 42 43 | 1 | | Ν |
| Connector No. Connector No | AUTON Connector Na Connector Na Connector Ty H.S. | Competer No. Comp | | 0 |
| JCJWM1142GB | | JCJV | VM1142GE | Р |

Revision: 2009 November ADP-151 2010 G37 Sedan

| 6FBR 42 L 43 GR 44 BG 45 | 9 10 11 12 13 14 15 16 | | П | Connector Type TH12MW-NH | | | 5 6 7 2 1 4 | | | WIRE TO WIRE Signal Name [Specification] | t | BG | | | Ь | 10 BR | + | Cincol Manual Constitution | Ogriai Ivaire Lopeciil cauorij | | | 1 | | | | | 1 | |
|--|-----------------------------|----------|-------------------------------------|----------------------------|------|------|--------------|---|-------------------|--|-------------------|--------------------|----------------|------------|------------------|--|---|----------------------------|--------------------------------|--|---------|------|------|--------|------|----|------|---|
| Connector No. D17 Connector Name D00 Connector Type TKI | Terminal Color | ++ | 8 B | 9 R | Н | 13 M | Т5 У | | Connector No. D31 | Connector Name WIF | Connector Type TH | 1 | 金 | 15 14 13 1 | 46 45 44 43 42 4 | a tra tra tra tra tra tra tra tra tra tr | | lal | No. of Wire | - \ \ | 3 B | 2 LG | 80 : | 2 : 20 | 12 W | Н | 36 W | + |
| V | 5 6 7 2 1 4 12 11 10 9 3 8 | | of Wire Signal Name [Specification] | | GR - | | BR - | M | | | . D5 | SEAT MEMORY SWITCH | oe A08FW | 1 | | | | 7 | | olor State S | of Wire | - | | GR | 0 00 | BG | ١ - | |
| S2 V Connector No. Connector Name Connector Type | H.S. | Terminal | $\overline{}$ | 4 S | Н | 8 | 9 10 B | Н | 12 | | Connector No. | Connector Name | Connector Type | 1 | 厚 | H.S. | | | | Terminal | _ | - | + | + | r io | Н | 7 | |
| SITIONER Simple | Signal Name [Specification] | 1 1 | 1 | | 1 1 | 1 | 1 1 | 1 | 1 | 1 1 | 1 | 1 | 1 1 | 1 | 1 | Í. | | 1 | 1 1 | 1 | - | 1 | 1 | | | - | 1 | |
| AUTOMATIC DRIVE POSITIONER Connector No. DI Connector Type ITH40FW-CS15 Connector Type ITH40FW-CS15 (Statistic) 10 8 7 8 4 8 1 | Color Signal N. | | | | | | | | | | | | | | | | | | | | | | | | | | | |

JCJWM1143GE

< ECU DIAGNOSIS INFORMATION >

| | А |
|--|-----------|
| Signal Name [Specification] VIGN VIGN RATT CAN-H K-LINE GND OND Signal Name [Specification] Signal Name [Specification] Signal Name [Specification] | В |
| | С |
| Terminal Color No. of Wire 1 W W W W W W W W W | D |
| ification] | E |
| No. F103 Name WIRE TO WIRE | F |
| 100 | G |
| Connector No. Connector No. Connector Name Connec | Н |
| EMBLY 1 | 1 |
| F51 RK10FC-DGY RK10FC-DGY Signal Nam | ADP |
| 1 | К |
| 57 58 58 58 58 58 58 58 | ı |
| ONE State of the s | |
| Signal Name (Specification) | M |
| Connector Name E108 Connector Name MIRE TO WIRE Connector Name MIRE TO WIRE Connector Name MIRE TO WIRE Connector Type TH80FW-CS16-TM4 | N |
| Connector Name V Connector Name V Connector Name V Connector Type Connector | 0 |
| | IWM1144GB |
| | Р |

Revision: 2009 November ADP-153 2010 G37 Sedan

| AUT | DMAT | AUTOMATIC DRIVE POSITIONER | | | | | | |
|----------------|--------------|--|---------------|----------------|--|-------|-------------|---|
| Connector No. | | M5 | 21 | ΓG | _ | 20 | 2 | - |
| Connector Mamo | | MIDE TO MIDE | 52 | ^ | - | 51 | ۳ | - |
| 2000 | | WINE TO WINE | | | | 52 | М | - |
| Connector Type | П | TH40MW-CS15 | | | | 53 | 9 | 1 |
| 4 | | | Connector No. | or No. | M6 | 54 | В | _ |
| 修 | | | 00000 | Connector Mame | MIDE TO WIDE | 57 | В | _ |
|) II (| | Γt | 50 | DI Malila | אוויב וס אוויב | 58 | LG | - |
| | - | 2 3 4 5 6 7 8 9 10 11 12 13 14 15 | Connect | Connector Type | TH80MW-CS16-TM4 | 80 | SB | - |
| | 161718192021 | 36 37 38 39 40 41 42 43 44 45 46 | ģ | | | 81 | В | - |
| | 272825 | 32/33/34/35 [47/48/49/50/51/52/53 | 厚 | | | 82 | ^ | - |
| | | |) H | | 112 344 115 118 | 83 | W | - |
| | | | | | 2 3 2 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | 84 | _ | - |
| Terminal | | Cimal Nama [Coacification] | | | 96 SG | 85 | GR | _ |
| No. | of Wire | | | | 6 10 HEZ 304 18 HE TO 17 HE 95 10 | 98 | Υ | - |
| - | χ. | - | | | | 87 | g | _ |
| 2 | В | _ | | | | 88 | g | _ |
| 3 | BG | | Terminal | I Color | Cimpl Nome [Consideration] | 88 | œ | - |
| 4 | > | 1 | N | of Wire | | 91 | Μ | - |
| 8 | SB | ı | - | ۸ | 1 | 92 | > | 1 |
| 6 | g | 1 | 2 | æ | 1 | 93 | BG | 1 |
| 9 | > | 1 | n | œ | | 94 | _ | |
| 12 | [| | ır | * | | 95 | > | |
| 2 5 | , ; | | 9 | : 6 | | CG GG | - - | |
| 2 | s | ' | ٥ | 1 | ' | 95 | r | ' |
| 14 | В | 1 | 7 | ٦ | 1 | 97 | LG | 1 |
| 12 | Μ | | 11 | > | | 98 | SHIELD | _ |
| 16 | œ | 1 | 12 | Д | 1 | 66 | > | - |
| 17 | BR | í | 13 | œ | 1 | 100 | SB | 1 |
| 18 | ^ | í | 14 | М | i | | | |
| 19 | BG | í | 15 | _ | 1 | | | |
| 20 | Д | í | 16 | GR | 1 | | | |
| 21 | Α | 1 | 17 | BR | 1 | | | |
| 22 | > | 1 | 18 | _ | 1 | | | |
| 96 | c | 1 | 58 | c | 1 | | | |
| 7.6 | - | 1 | 3 | - | 1 | | | |
| ę e | , > | 1 | 33 | , > | | | | |
| 2 00 | ی . | 1 | 33 | . g | | | | |
| ş | 9 | | 34 | 3 | | | | |
| 3 2 | 3 = | | 35 | : 8 | | | | |
| : | 3 | | 38 | ۵ | | | | |
| 8 | | | 37 | . a | | | | |
| 8 | 3 | 1 | 88 | ع . | 1 | | | |
| 22 | : 0 | | Ş | , > | | | | |
| 9 | 5 > | | 3 | ٠ د | | | | |
| 30 | - | 1 | 4 | 3 | | | | |
| 88 | 2 | 1 | 45 | <u>-</u> | 1 | | | |
| 45 | > | ı | 43 | g | 1 | | | |
| 43 | _ | 1 | 44 | g | ı | | | |
| 44 | g | [With automatic drive positioner] | 42 | В | [With A/T] | | | |
| 44 | ٦ | [Without automatic drive positioner] | 42 | æ | – [With M/T] | | | |
| 47 | 7 | ì | 46 | BG | = | | | |
| 48 | GR | | 47 | SB | - | | | |
| 49 | SB | 1 | 48 | ≻ | 1 | | | |
| 20 | ۵ | 1 | 49 | _ | 1 | | | |
| ; | | | | | | | | |

JCJWM1145GE

< ECU DIAGNOSIS INFORMATION >

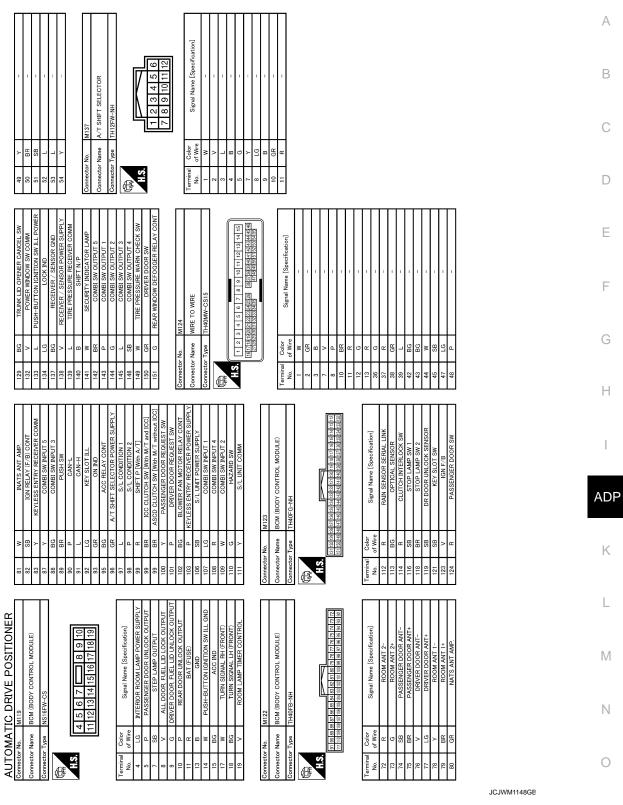
| teon] | А |
|--|-----|
| M48 TILT & TELESCOPIC SENSOR TKO4FW Signal Name [Specification] Signal Name [Specification] Signal Name [Specification] | В |
| NISO4FW NISO | С |
| Connector No. Connector Name Connector Type Terminal Color No. Connector Name Terminal Color No. Shift Shi | D |
| SwrTCH Specification | Е |
| Signal Nam. Signal Nam. | F |
| N N N N N N N N N N | G |
| Connecto | Н |
| T | ı |
| M22 KEV SLOT TH12EW-NIH TH12EW-NIH KEY KEV SLOT TH12EW-NIH TH12EW- | ADP |
| | K |
| 10 10 10 10 10 10 10 10 | |
| NER Interest Interes | L |
| Signal Name [Specification] Signal Name [Specification] Whithout automatic drive positioner] | M |
| Connector No. MJ Connector No. Connector Type TH800MW-CS16-TM4 TH800MW-CS16-TM4 TH800MW-CS16-TM4 Connector Type TH800MW-CS16-TM4 Th800MW-CS16-TM4 Connector Type Th800MW-CS16-TM4 Th800MW-C | NI |
| Name | N |
| Connector Name Conn | 0 |
| ✓ [8] [8] [8] ✓ [8] [8] [8] ✓ [8] [8] [8] ✓ [8] [8] [8] ✓ [9] [8] [8] ✓ [9] [8] [8] ✓ [9] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [1] [8] [8] ✓ [2] [8] [8] ✓ [2] [8] [8] ✓ [2] [8] [8] ✓ [2] [8] [8] ✓ [2] [8] [8] ✓ [2] [8] ✓ [2] [8] ✓ [3] [8] ✓ [4] [8] | |
| | Р |

Revision: 2009 November ADP-155 2010 G37 Sedan

| Color Colo | - Va 2 | 200 | . 82 | - B | | 52 53 | 67 [68 [69 70 71 72] 20 Y = | 28 B - | F | H | 31 W | AUC POWER SUPPLY 33 B | 35 - 6 | I | | | 14 | 45 | BATTERY POWER SUPPLY 43 P - | SAN-H 45 Y - | EL SWITCH | FUEL LEVEL SENSOR GROUND | | IN-VEHICLE SENSOR GROUND Connector No. M118 | AMBIENT SENSOR GROUND Connector Name BCM (BODY CONTROL MODULE) | ION CONTROL MODE OUTPUT SIGNAL Connector Type M03FB-LC | | A/C LAN SIGNAL | IOTOR POWER SUPPLY IS. | 113 | | | T | | 1 W BAT (F/L) | 2 Y POWER WINDOW POWER SLIPPLY (BAT) |
|--|----------------|--|------|--------|----------------------|----------------------|---|--------|---|-----------------------------|----------------------------------|-----------------------|-----------------------|----------------------------|-----------------------------|-----------------------------|--------------|-----------------------|-----------------------------|---------------------------|-------------|----------------------------|------------------|---|---|--|-----------------------|-------------------------------|-------------------------------|--------|-----------|-----------------------------|-------------------------|----------------------------|------------------------------|--------------------------------------|
| M67 UNIFIED METER AND A/C AMP. | TUSSEMENT | THOSE WEINIT | | | <u> </u> | 45 46 47 48 49 50 | 59 60 61 62 63 64 65 66 | | | Signal Name | in the second second | ACC POWER SUPPLY | INTAKE SENSOR SIGNAL | IN-VEHICLE SENSOR SIGNAL | AMBIENT SE | SUNLOAD SENSOR SIGNAL | GAS SENS | IGNITION PO | BATTERY PO | OHD IAC | BRAKE FLUID | FUEL LEVEL SE | INTAKE SENS | IN-VEHICLE SE | AMBIENT SEN | ION CONTROL MOD | ECV SIGNAL | NC LAN | EACH DOOR MOTOR POWER SUPPLY | CAN-I | 5 | | M116 | WIRE TO WIRE | TK36MW-NS10 | |
| Connector No. Connector Name | Connector Time | add i aba | 4 | 2 - | <u>[</u> | 42 | 27 58 5 | | | lal | No. of Wire | 40 60 | + | ┝ | 45 V | 46 Y | \dashv | + | 54 SB | 56 - B | 57 LG | 7 ∀ | 59 GR | + | 61 B | + | 65 BG | \dashv | 70 74 | + | ┨ | | Connector No. | Connector Name | Connector Type | 1 |
| M52 AUTOMATIC DRIVE POSITIONER CONTROL UNIT | NS18DM-CS | Notice and the control of the contro | | | 33 34 35 36 37 38 39 | 41 42 42 44 45 46 47 | 41 45 43 44 43 40 41 | | | Signal Name [Specification] | Tipopoliopedol output intelligio | POWER SUPPLY (SENSOR) | TII T MOTOR (LIPWARD) | TELESCOPIC MOTOR (FORWARD) | BAT (C/B) | GND (SIGNAL) | GND (SENSOR) | TILT MOTOR (DOWNWARD) | TELESCOPIC MOTOR (BACKWARD) | GND (POWER) | | M62 | CIRCLIIT BREAKER | | M02FW-P-LC | | | - | | 1 | | Signal Name [Specification] | | | | |
| Connector No. | Connector Time | oute of the | 4 | L S | ē | _ | | ı | | nal | ₽ | 33 34 | ╀ | 36 GR | H | 40 B | \dashv | 7 | 44 th | 48 B | | Connector No. | Connector Name | - Hanna | Connector Type | AFA | Š | ė | | | | la | No. of Wire | 2 SB | | |
| M51 AUTOMATIC DRIVE POSITIONER CONTROL UNIT CC | N-WGCCUT | | | | 7 | | 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 | | | Signal Name [Specification] | | MIDDOD SELECT SW (DH) | MIRROR SELECT SW (RR) | MIRROR SW (LEFTWARD) | MIRROR SENSOR (RH VERTICAL) | MIRROR SENSOR (LH VERTICAL) | TILT SENSOR | ADDRESS 1 | TX (UART) | IELESCOPIC SW (FRONTWARD) | IND 2 | MIRROR MOTOR (RH VERTICAL) | î | (NOI) | TILT SW (DOWNWARD) | MIRROR SW (DOWNWARD) | MIRROR SW (RIGHTWARD) | MIRROR SENSOR (RH HORIZONTAL) | MIRROR SENSOR (LH HORIZONTAL) | SET SW | ADDRESS 2 | | MISSOSPIC SW (BACKWARD) | MIRROR MOTOR (LH VERTICAL) | MIRROR MOTOR (LH HORIZONTAL) | |
| | Connector Time | 1 | | | | 1 2 3 | 17 18 19 | | | Terminal Color | of Wire | 2 - | 3 @ | >- | α | GR | BG | H : | > 8 | ¥ & | + | Μ | BG | + | + | s S | ٦ | H | ω α | - | + | Н | 5 E | + | ٦ | |
| Connector No. | Ę | 3 | 1 | S E | a | | | | | e . | ġ, | | | | | | | | el; | = ≏ | 2 1 | 4 | 15 | 9 ! | t 0 | 9 | 20 | | 2 2 | 2 2 | 25 | 56 | 2 8 | | 32 | |

JCJWM1147GE

< ECU DIAGNOSIS INFORMATION >



Fail Safe

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

< ECU DIAGNOSIS INFORMATION >

| Operating in fail-safe mode | Malfunction Item | Related DTC | Diagnosis |
|---|-----------------------|----------------|---------------|
| | CAN communication | U1000 | <u>ADP-49</u> |
| | Tilt sensor | B2118 | <u>ADP-54</u> |
| Only manual functions operate normally. | Telescopic sensor | B2119 | <u>ADP-57</u> |
| | Detent switch | B2126 | ADP-60 |
| | Parking brake switch | B2127 | ADP-62 |
| Only manual functions, except door mirror, operate normally. | UART communication | B2128 | ADP-64 |
| Only manual functions, except seat sliding, operate normally. | Seat sliding output | B2112 | ADP-50 |
| Only manual functions, except seat reclining, operate normally. | Seat reclining output | B2113 | <u>ADP-52</u> |

DTC Index

| CONSULT-III | Tim | ing ^{*1} | | Deference nego | | | | |
|-----------------------------|--------------------------|---------------------------|--------------------------------|----------------|--|--|--|--|
| display | Current mal- function | Previous mal- function | Item | Reference page | | | | |
| CAN COMM CIRCUIT [U1000] | 0 | 1-39 | CAN communication | ADP-49 | | | | |
| SEAT SLIDE [B2112] | 0 | 1-39 | Seat slide motor output | ADP-50 | | | | |
| SEAT RECLINING [B2113] | 0 | 1-39 | Seat reclining motor output | ADP-52 | | | | |
| TILT SENSOR [B2118] | 0 | 1-39 | Tilt sensor input | ADP-54 | | | | |
| TELESCO SENSOR [B2119] | 0 | 1-39 | Telescopic sensor input | ADP-57 | | | | |
| DETENT SW [B2126] | 0 | 1-39 | Detention switch condition | ADP-60 | | | | |
| PARKING BRAKE [B2127] | 0 | 1-39 | Parking brake switch condition | ADP-62 | | | | |
| UART COMM [B2128] | 0 | 1-39 | UART communication | <u>ADP-64</u> | | | | |

^{*1:}

^{• 0:} Current malfunction is present

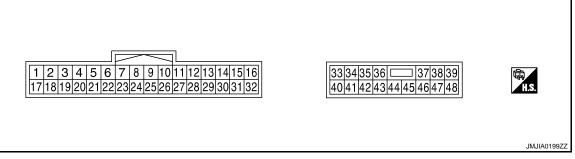
^{• 1-39:} Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset to 1 if any malfunction is detected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

< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value INFOID:0000000005630236

TERMINAL LAYOUT



PHYSICAL VALUES

| | nal No. e color) | Description | | Conditi | on | Voltage (V) | F |
|-----------|---------------------|--|------------------|---------------------|---------------------|---|-----|
| + | _ | Signal name | Input/ Output | Conditi | OII | (Approx.) | G |
| 1 | Ground | Tilt switch upward signal | Innut | Tilt switch | Operate (upward) | 0 | - |
| (Y) | Ground | Till Switch upward Signal | Input | THE SWILCH | Other than above | 5 | Н |
| 2 | | Changeover switch RH | | Changeover | RH | 0 | = |
| (LG) | Ground | signal | Input | switch position | Neutral or LH | 5 | |
| 3 | Ground | Mirror switch upward sig- | Input | Mirror switch | Operated (upward) | 0 | ADP |
| (G) | Ground | nal | input | WIIITOI SWITCH | Other than above | 5 | |
| 4 | Cround | Mirror switch leftward sig- | lan. it | Mirror switch | Operated (leftward) | 0 | K |
| (Y) | Ground | nal | Input | WIIITOT SWILCTI | 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) | M |
| 7 (BG) | Ground | Tilt sensor signal | Input | Tilt position | | Change between 1.2 (close to top) 3.8 (close to bottom) | N |
| 9 | | | | | Press | 0 | - |
| (BR) | 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 2V/div JMJIA0118ZZ | Р |

ADP-159 Revision: 2009 November 2010 G37 Sedan

C

Α

В

D

Е

| | nal No. color) | Description | | Condition | on. | Voltage (V) |
|------------|-------------------|---|------------------|---------------------|----------------------------|---|
| + | _ | Signal name | Input/ Output | Condition | JII | (Approx.) |
| 11 | Ground | Telescopic switch forward | Input | Telescopic switch | Operate (forward) | 0 |
| (GR) | Cround | signal | Прис | rologopio switori | Other than above | 5 |
| 12 (BG) | Ground | Memory indictor 1 signal | Output | Memory indictor 1 | Illuminate Other than | 1 Battery voltage |
| | | | | | above Illuminate | 1 |
| 13 (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) | Ground | upward output | Output | Door militor RH | Other than above | 0 |
| 15 | Ground | Door mirror motor (RH) | Output | Door mirror RH | Operate (leftward) | Battery voltage |
| (BG) | Cround | leftward output | Output | Door Hill of TAT | Other than above | 0 |
| | | Door mirror motor (LH) downward output | | | Operate (down- ward) | Battery voltage |
| 16 (Y) | Ground | downward output | Output | Door mirror (LH) | Other than above | 0 |
| (1) | | 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 |
| (BIV) | | Tiell | | | Other than above | 5 |
| 18 | O man variable | Changeover switch LH | lanat | Changeover | LH | 0 |
| (W) | Ground | signal | Input | switch position | Neutral or RH | 5 |
| 19 (SB) | Ground | Mirror switch downward signal | Input | Mirror switch | Operate (down- ward) | 0 |
| (36) | | Signal | | | Other than above | 5 |
| 20 | Ground | Mirror switch rightward | Input | Mirror switch | Operate (rightward) | 0 |
| (L) | Giodila | signal | прис | WILLOL SWILCH | 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 le edge) 0.6 (close to right edge) |
| 22 (B) | Ground | Door mirror sensor (LH) leftward/rightward signal | Input | Door mirror LH pos | sition | Change between 0.6 (close to le edge) 3.4 (close to right edge) |
| 23 (P) | Ground | Telescopic sensor signal | Input | Telescopic position | | Change between 0.8 (close to to 4.4 (close to bottom) |

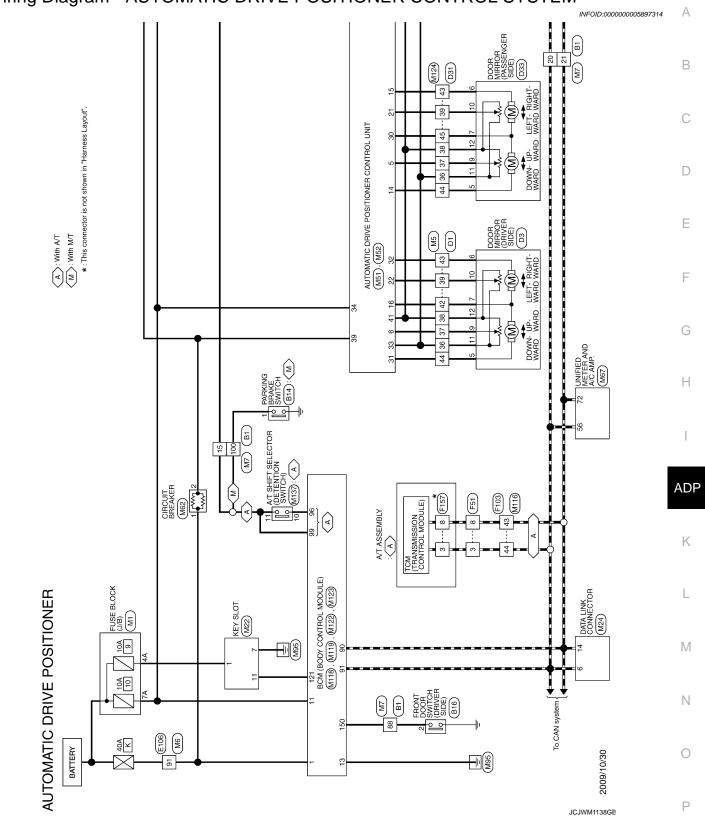
< ECU DIAGNOSIS INFORMATION >

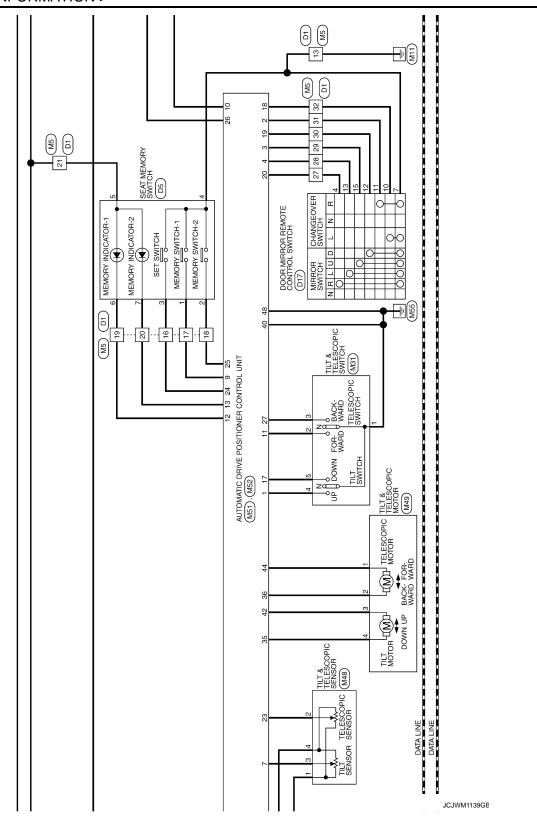
| | nal No. color) | Description | | Conditi | on | Voltage (V) |
|------------|-------------------|--------------------------|------------------|--------------------|----------------------------|----------------------------------|
| + | - | Signal name | Input/ Output | Conditi | UII | (Approx.) |
| 24 | Ground | Set switch signal | Input | Set switch | Press | 0 |
| (R) | Cround | Cot switch signal | mpat | Got ownor | Other than above | 5 |
| 25 | Ground | Memory switch 2 signal | Input | Memory switch 2 | Press Other than | 0 |
| (V) | | , c | | , | above | 5 |
| 26 (P) | Ground | UART communication (RX) | Input | Ignition switch ON | | 10mSec/div 2V/div JMJIA0121ZZ |
| 27 | | Telescopic switch back- | | | Operate (backward) | 0 |
| (G) | Ground | ward signal | Input | Telescopic switch | Other than above | 5 |
| | | Door mirror motor (RH) | | | Operate (down- ward) | Battery voltage |
| 30 (SB) | Ground | downward output | Output | Door mirror (RH) | Other than above | 0 |
| (00) | | Door mirror motor (RH) | | | Operate (rightward) | Battery voltage |
| | | rightward output | | | Other than above | 0 |
| 31 | Ground | Door mirror motor (LH) | Output | Door mirror (LH) | Operate (upward) | Battery voltage |
| (G) | Giodila | upward output | Output | Door million (Em) | Other than above | 0 |
| 32 | Ground | Door mirror motor (LH) | Output | Door mirror (LH) | Operate (leftward) | Battery voltage |
| (L) | Ground | leftward output | Output | Door Hillor (El 1) | Other than above | 0 |
| 33 (W) | Ground | Sensor power supply | Input | _ | | 5 |
| 34 (V) | Ground | Power source (Fuse) | Input | _ | | Battery voltage |
| 35 | Ground | Tilt motor upward output | Output | Steering tilt | Operate (upward) | Battery voltage |
| (L) | Giodila | The motor upward output | Output | Steering tilt | Other than above | 0 |
| 36 | Ground | Telescopic motor forward | Output | Steering telescop- | Operate (forward) | Battery voltage |
| (GR) | Giodila | output signal | Guiput | ic | Other than above | 0 |
| 39 (W) | Ground | Power source (C/B) | Input | _ | | Battery voltage |
| 40 (B) | Ground | Ground | _ | _ | | 0 |

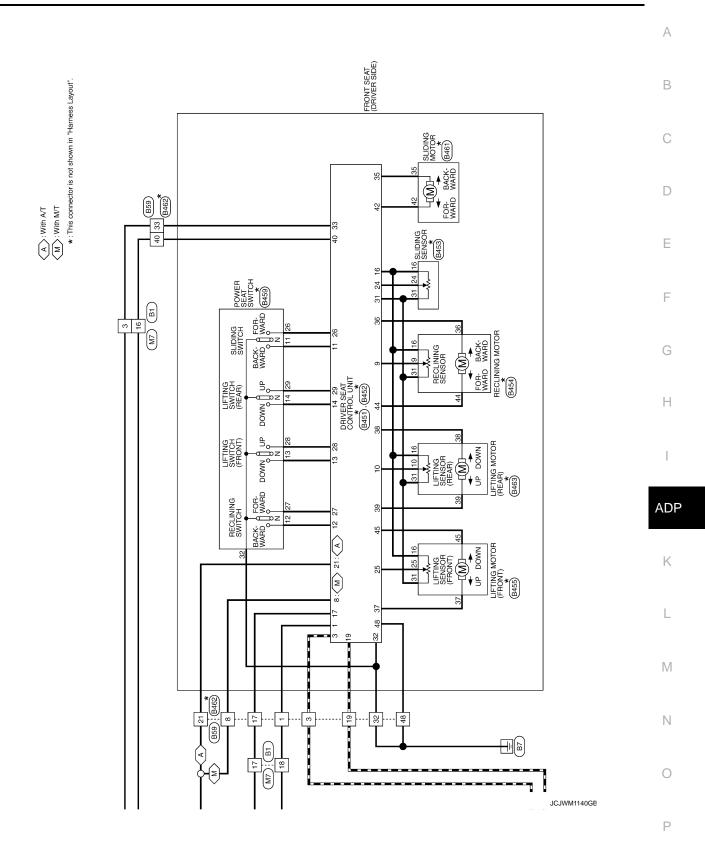
ADP-161 2010 G37 Sedan Revision: 2009 November

| | nal No. e color) | Description | | Condition | on. | Voltage (V) |
|------------|---------------------|--------------------------|------------------|--------------------|----------------------------|-----------------|
| + | _ | Signal name | Input/ Output | | JII | (Approx.) |
| 41 (Y) | Ground | Sensor ground | _ | _ | | 0 |
| 42 (BG) | Ground | Tilt motor downward out- | Output | Steering tilt | Operate (down- ward) | Battery voltage |
| (66) | | put | | | Other than above | 0 |
| 44 | Ground | Telescopic motor back- | Output | Steering telescop- | Operate (backward) | Battery voltage |
| (G) | Ground | ward output | Output | ic | Other than above | 0 |
| 48 (B) | Ground | Ground | _ | _ | | 0 |

Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -







Revision: 2009 November ADP-165 2010 G37 Sedan

< ECU DIAGNOSIS INFORMATION >

| AUTOMATIC DRIVE POSITIONER | | | |
|--|-------------------------------------|--|--|
| Connector No. B1 | - | Connector No. B16 | Connector No. B451 |
| Connector Name WIRE TO WIRE | 59 SB | Connector Name FRONT DOOR SWITCH (DRIVER SIDE) | Connector Name DRIVER SEAT CONTROL UNIT |
| Connector Type TH80FW-CS16-TM4 | Н | Connector Type A03FW | Connector Type TH32FW |
| | 62 R = = | | |
| 22 22 22 22 22 22 22 22 22 22 22 22 22 | × × × × × × × × × × × × × × × × × × | | |
| 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | S | 113 | _ |
| 10 00 00 10 00 00 10 00 00 10 00 00 10 00 00 | BG | 8 | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 14 15 16 14 15 16 14 15 16 14 15 16 14 15 16 14 15 16 14 15 16 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16 |
| | 72 GR – | 1 0 | 26 19 19 19 19 19 19 19 1 |
| | | 1 | |
| nal Color | - × 18 | | Terminal Color |
| No. of Wire Signal Name Copecinication. | 82 B - | No. of Wire Signal Name [Specification] | No. of Wire Signal Name [Specincation] |
| 1 GR - | 84 Y – | 2 BR – | |
| 2 BG - | \dashv | | 3 R/Y CAN-H |
| 3 | \dashv | - | re |
| + | + | Connector No. B59 | D/W |
| + | BR | Connector Name WIRE TO WIRE | P/B |
| + | | Т | HA : |
|) i | SB | Connector Type NS16FW-CS | ag S |
| + | Bg | d) | LG/R |
| + | BR | CHAT. | G/B REAR LIFTING |
| + | ۵. | | 0 |
| - BG - | 95 BG – | 40 17 1 3 19 | Y/R |
| 1 | + | 67 68 33 21 48 32 69 8 | > |
| 21 P - | 100 GR – | 20 -20 20 -20 20 | Š |
| \dashv | | | œ |
| - | ſ | Ŀ | Y/B |
| > | Connector No. B14 | la l | >- |
| SB | Connector Name PARKING BRAKE SWITCH | 0 | R/G |
| 9 | Т | BG | M/B |
| W | Connector Type P01FB-A | | 29 P/L REAR LIFTING SW (UPWARD) |
| | Q | 1 | GR |
| | 至 | _ | 32 B/W GND (SIGNAL) |
| SB | [| - d 61 | |
| က် | | + | |
| 34 W - | - | 32 B = | |
| 35 BR - |] | + | |
| > | | BR | |
| 37 SHIELD – | Ŀ | m | |
| + | ē | 67 BG – | |
| 39 SB - | е | 1 | |
| + | 1 GR - | 69 R – | |
| 1 | | | |
| ᇬ | | | |
| + | | | |
| 1 | | | |
| 7 | | | |
| + | | | |
| 55 BR - | | | |
| ┨ | | | |

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< ECU DIAGNOSIS INFORMATION >

| A TOMATIC DRIVE POSITIONER Control May State Control One Contr | 40 88 67 | ation] | | А |
|--|--|--|-------------|-----|
| Control Cont | 17 21 33 | Signal Name [Specification] | | В |
| AUTOMATC DRIVE POSITIONE R Suppose to the property of the pro | WIRE NS16 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | | | С |
| ATTOMATIC DRIVE POSITIONER Considerable District Dist | Connec | Termin No. | | D |
| AUTOMATIC DRAVE POSITIONER Control Mark Contr | <u> </u> | pecification] | | Е |
| AUTOMATIC DRIVE POSITIONER Connector Name Connector | ER SEA FW-CS 32 12 27 | Signal Name [S -0239 Signal Name [S | | F |
| AUTOMATIC DRIVE POSITIONER Convenient No. Biod Convenient No. Conv | | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | | G |
| AUTOMATIC DRIVE POSITIONER Connector Name Bistor Result Connector Name | | | | Н |
| AUTOMATIC DRIVE POSITIONER Connector Name Bistor Result Connector Name | | FRONT) The conficution of the c | _ | I |
| Connector Numerous National Connector National Connector Numerous National Connector National C | | Signal Na MOTOR (16 31 2 2 3 3 3 3 3 4 5 5 5 5 5 6 7 5 7 7 7 7 8 7 7 9 7 9 7 10 | | ADP |
| Connector Nume B452 Connector Nume DRIVER SEAT CONTROL UNIT Connector Nume Connecto | _ e _ e | No. | | K |
| Cornector Name St. | <u> </u> | 1 1 1 1 1 1 1 1 1 1 | | L |
| Cornector Name St. | CONTROL UNIT | In Name (Specification) BAT (C/B) Is MOTOR (CPRWAR) ING MOTOR (CPRWAR) TING MOTOR (CPRWAR) TING MOTOR (CACWAR) BAT (FURE) IS MOTOR (BACKWAR) BAT (FURE) IS MOTOR (BACKWAR) IN THAN MOTOR (CACWAR) IN Name (Specification) | | M |
| JCJWM1142GB | MATIC DRIV B452 B452 BRIVER SEAT WRIGHW-CS 33 34 35 36 40 41 42 43 | 8 9 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | Ν |
| | AUTOI Connector N Connector N Connector T | No. | | 0 |
| | | | JCJWM1142GE | Р |

Revision: 2009 November ADP-167 2010 G37 Sedan

< ECU DIAGNOSIS INFORMATION >

| - | DOOR MIRROR REMOTE CONTROL SWITCH 43 GR - 44 BG - | Н | 47 R = - | 49 W | 2 | GR | Н | - 24 G - | Signal Name [Specification] | - Connector No 1033 | | Connector Name DOOR MIRROR (PASSENGER SIDE) | Connector Type TH12MW-NH | ά <u>.</u> | B | | 5 6 7 2 1 4 | - 0 | 0 6 01 11 | | MRE Signal Name [Specification] | | r ic | 28 89 | | | 262점2423222121201120118111716 | [35]34[33]32[31]30[23]28[27] 10 BR | - 11 W | 12 V = - | Signal Name [Specification] | | | | | | | | | | | | |
|--------------------------------------|---|------------------------|--|--------------------------|-----------------|--------|---|----------|-----------------------------|---------------------|-------|---|--------------------------|------------|----------|---|-------------|------|-----------|-------------------|---------------------------------|----------------------------|------|-----------------------------------|----------------------|-------------------|----------------------------------|--------------------------------------|-----------------|----------|-----------------------------|----|-------|-----------------------------|------|------|------|-----|-----|------|------|-------|---|
| Connector No. D17 | Connector Name DOOR MIRR | Connector Type TK16FBR | € | ν | - | 8 9 10 | | L | Terminal Color | t | t | 8 | H | H | 11 LG | + | 13 × × | 2 | | Connector No. D31 | Connector Name WIRE TO WIRE | Gonnector Type THADEN-0815 | 1 | | | 15 14 13 12 11 10 | 46 45 44 43 42 41 40 39 38 37 36 | 555545352515045946 | | - 1 | nal Color | | | ╁ | 7 LG | 8 | ł | 2 : | + | 12 5 | + | 33 20 | 4 |
| 1 | | D3 | DOOR MIRROR (DRIVER SIDE) | TH12MW-NH | | | | 567214 | 12 11 10 9 3 8 | | | Signal Name [Specification] | - | 1 | 1 | 1 | 1 1 | | 1 | 1 | | 80 | | SEAT MEMORY SWITCH | AO8FW | | | |] | 35 67214 | | | | Signal Name [Specification] | 1 | 1 | ı | 1 | 1 1 | i ı | i I | i | |
| 52 V | | Connector No. D3 | Connector Name DOOR MIRROR (DRIVER SIDE) | Connector Type TH12MW-NH | | | | 7 2 1 | 10 9 3 | | | of Wire | - · · | BG | | 0 | m c | | <u></u> ≥ | | | Connector No Da | Т | Connector Name SEAT MEMORY SWITCH | Connector Type A08FW | 1 | | | | 7 9 1 | | | | of Wire | T | 2 BR | GR | á a | 0 0 | r G | | | |
| AUTOMATIC DRIVE POSITIONER S2 v | Connector Name WIRE TO WIRE | П | | Connector Type | 2 / 6 9 4 3 2 1 | F | | 56721 | 10 9 3 | | Color | of Wire | H | BG | GR | 0 | m c | 1 88 | | 12 V | | | | Connector Name | Г | | | | | 6791 | | GR | Color | of Wire | T | H | 3 CB | á a | 1 1 | X 0 | 50 0 | | |

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< ECU DIAGNOSIS INFORMATION >

| | А |
|--|-----------|
| Signal Name [Specification] VIGN VIGN RATT CAN-H K-LINE GND OND Signal Name [Specification] Signal Name [Specification] Signal Name [Specification] | В |
| | С |
| Terminal Color No. of Wire 1 W W W W W W W W W | D |
| ification] | E |
| No. F103 Name WIRE TO WIRE | F |
| 100 | G |
| Connector No. Connector No. Connector Name Connec | Н |
| EMBLY 1 | 1 |
| F51 RK10FC-DGY RK10FC-DGY Signal Nam | ADP |
| 1 | К |
| 57 58 58 58 58 58 58 58 | ı |
| ONE State of the s | |
| Signal Name (Specification) | M |
| Connector Name E108 Connector Name MIRE TO WIRE Connector Name MIRE TO WIRE Connector Name MIRE TO WIRE Connector Type TH80FW-CS16-TM4 | N |
| Connector Name V Connector Name V Connector Name V Connector Type Connector | 0 |
| | IWM1144GB |
| | Р |

Revision: 2009 November ADP-169 2010 G37 Sedan

| | - | _ | _ | _ | _ | _ | _ | - | _ | _ | _ | | _ | - | _ | _ | _ | _ | _ | | | _ | _ | | | | | | | | | | | | | | | | | | | | | | | |
|-------|--------------|--|---|--|--------------|---------------------------------|---|-----------|---|----------|---------------------------------------|-----|-------------------------------|-----------------------------|---------|-----|------------|-----|-------------------------|--|--------|---|---|---------------------------|-----------------------------|--------------|--------------|--|---|--------------|---|--|--|---|--|---|---|---------------------------------------|--------------------------|---|---|---|--|---|--|---|
| - | - | 1 1 | | 1 | ı | 1 | 1 | I | 1 | 1 1 | - | - | 1 | 1 | ' | | 1 | 1 | | - | _ | _ | - | | | | | | | | | | | | | | | | | | | | | | | |
| ď | œ : | × (| 2 00 | n m | 57 | SB | В | > | ≱ . | <u>ا</u> | <u> </u> | g | g | ~ | ≥ ; | - 6 | 3 - | > | œ | PT | SHIELD | ^ | SB | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 51 | 52 | 3 2 | 57 | 58 | 08 | 81 | 82 | 8 3 | 8 8 | 8 8 | 87 | 88 | 68 | 91 | 35 | 98 | 92 | 96 | Н | Н | 66 | 100 | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | | 98 | | WIRE TO WIRE | TH80MW-CS16-TM4 | | | 1 E 122 214 116 116 116 116 116 116 116 116 116 1 | | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | | | Signal Name [Specification] | | | 1 | 1 | | - | - | _ | 1 | _ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | I | 1 | 1 | 1 | 1 | 1 | 1 | = Dwest A /T | = [With A/1] = [With M/T] | - [WITH W/ I] | 1 | - | 1 |
| ΓG | > | | Γ | Г | | П | | | | | | | ĺ | Color | of Wire | ¥ 0 | ś | м | ۵ | 7 | > | Ь | ď | W | ٦ | GR | H . | 7 | 5 | , > | BG | W | BR | ۵ | ۵ | 5 | > | LG | ¥ . | 5 | 5 0 | 20 0 | r a | 3 8% | 3 > | _ |
| 51 | 52 | | Connector | | Connector | Connector | q | 厚 | | | | | | Terminal | Š, | | 4 65 | 2 | 9 | 7 | 1 | 12 | 13 | 14 | 15 | 16 | 17 | 8 8 | 29 | 33 | 33 | 34 | 32 | 36 | 37 | | 40 | 41 | 4.5 | 43 | \$ 4 | 45 | £ 49 | 47 | 48 | 49 |
| M5 | WIRE TO WIRE | TH40MW-CS15 | CISC MINOSITI | | | 3 4 5 6 7 8 9 10 11 12 13 14 15 | 22 23 24 25 26 36 37 38 39 40 41 42 43 | 343333433 | | | Signal Name [Specification] | - | 1 | ı | 1 | 1 | , | 1 | ı | 1 | - | 1 | _ | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | I | 1 | 1 | 1 | 1 | 1 | 1 | Parent and the second second | - [Without automatic drive positioner] | - [Without automatic drive positioner] | | | 1 |
| | | Т | 7 | | | 1 2 3 | 161718192 | 2/2/2/2/2 | | olor | of Wire | > | В | BG | > 8 | ŋ c | > | _ | Μ | В | W | œ | BR | > | BG | ۵ | × : | × (| . e | - | . 5 | SB | ΓC | м | В : | 3 | æ | > 0 | 2 | <u>-</u> | ٦, | 5 - | - | , ag | § 88 | _ |
| ector | ector | pector | | 4 | ě | 2 | | | | Terminal | | _ | 2 | 8 | 4 (| | , <u>c</u> | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 25 | 97 5 | 282 | 62 | 30 | 31 | 32 | g : | , e | 37 | , g | 65 | 24; | 2 5 | 4 5 | \$ 5 | ı s | ę ę | ١ |
| | 51 LG - 50 | M5 51 LG - 50 R WIST TO WIRE 52 V - 51 R | M5 51 LG - 50 R WIRE TO WIRE 52 V - 51 R TLADARMAL CKIK K2 V - 52 V | MS 51 LG - 50 R WIRE TO WIRE 52 V - 51 R TH40MM-CS15 50 R 82 W TO Connector No MR 64 B G | Mis | Mis | Mis | MS | Mise TO WIRE Sign Lig Sign R | Mis | MIS | MIS | MS MS MS WIRE TO WIRE | MIS | MIS | MIS | MIS | MIS | MIS LG LG RD RD | MISE TO WIRE LC LC N R R R R R R R R R | MIS | MIS L C L C Signal Name Specification Signal Name Specification Color C C C C C C C C C C C C C C C C C C | Miscrophysical Signal Name Specification Signal Name | MIS L C L C S M C | MIS L C L C R M M | MISE TO WIRE | MINE TO WINE | MIS Signal Name Specification MIS Signal Name Specificat | MISE TO WIRE MISE LC LC LC R Sign R Sign Sign | MINE TO WINE | MIS Signal Name Specification Signal Name Specification Specification Signal Name Specification Signal Name | Minche M | With E TO WITHE Signal Name [Specification] Signal Name [Spe | Mine Specification Connector Name Connector Name | Minchester Min | Mine Specification Sign Mine Specification Mine Mine | Minchanic Signal Name Specification Signal Name Signal Name Specification Signal Name Signal Name Signal Name Signal Name Signal Name Signal Name Signal Name | MS MS MS MS MS MS MS MS | Mine Specification 1 | Wie Wie | Mine Mine | Mine Mine | Wine To Wine Wine | Mine Mine | Minior M | MINE MINE |

JCJWM1145GE

< ECU DIAGNOSIS INFORMATION >

| [total] | А |
|---|-------|
| M48 TILT & TELESCOPIC SENSOR TKO4FW Signal Name [Specification] Signal Name [Specification] Signal Name [Specification] | В |
| NISO4FW NISO | С |
| Connector No. Connector Name Connector Type Terminal Color No. Connector Name C | D |
| ecification] | Е |
| M24 BD16FW-P 9 10 11 12 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 3 4 1 5 2 | F |
| ector No. Color Intel B B B B B B B B B B B B B B B B B B B | G |
| 1 1 1 1 1 1 1 1 1 1 | Н |
| T T Signal Name [Specification] BAT CLOCK DATA | I |
| ▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗ | ADP |
| | K |
| 56 8 59 9 7 7 7 7 7 7 7 7 | |
| | L |
| Signal Name [Specification] Signal Name [Specification] | M |
| Connector No. M/T CONNECTOR Connector No. M/T Connector No. M/T Connector No. M/T Connector Type THEOMW-CS16-TM4 THEOMW-CS16-TM4 THEOMW-CS16-TM4 THEOMW-CS16-TM4 Theometic Type Th | N |
| Connector Name Conn | |
| AUTC Connector Connector | O GGP |
| | P |

ADP-171 2010 G37 Sedan Revision: 2009 November

< ECU DIAGNOSIS INFORMATION >

| AUT | OMAT | AUTOMATIC DRIVE POSITIONER | | | | | | | | | | |
|----------------|----------------|---|----------|----------------|---|----------------|----------------|---|---------------|----------------|---------------------------------|--|
| Connector No. | | M51 | Conne | Connector No. | M52 | Connector No. | | M67 | Terminal | | Signal Name [Specification] | |
| Connect | Connector Name | AUTOMATIC DRIVE POSITIONER CONTROL UNIT | Conne | Connector Name | AUTOMATIC DRIVE POSITIONER CONTROL UNIT | Connecto | Connector Name | UNIFIED METER AND A/C AMP. | No. | of Wire | | |
| | | | | | Т | | T | | 2 | * | İ | |
| Connector Type | or Type | TH32FW-NH | Conne | Connector Type | NS16FW-CS | Connector Type | | TH32FW-NH | 8 | BG | _ | |
| þ | - | | þ | | | þ | - | | 4 | a. | 1 | |
| 厚 | | | 厚 | _ | | 厚 | | | 2 | В | - | |
|) II (| | | \ | ď | |) II (| | | 6 | œ | - | |
| = | _ | 7 | 1 | 3 | 33 34 35 36 37 37 38 39 | Ē | [| 7 | 10 | ۳ | • | |
| | 1 2 3 | 12 13 14 15 | | | 4 40 40 41 | | 42 | 44 45 46 47 48 49 50 51 52 53 | 16 | BG | 1 | |
| | 17 18 1 | 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 | | | 40 4 1 42 43 44 45 46 47 48 | | 57 58 59 | 59 60 61 62 63 64 65 66 67 68 69 70 71 72 | 20 | > | 1 | |
| | | | | • | | | | | 28 | В | 1 | |
| | | | | | | | | | 59 | 9 | 1 | |
| Terminal | Color | 4 | Terminal | inal Color | | Terminal | Color | 4 | 8 | 2 | 1 | |
| Š. | | Signal Name [Specification] | No. | _ | e Signal Name [Specification] | Š. | of Wire | Signal Name [Specification] | 3 | ≥ | 1 | |
| - | > | TILT SW (UPWARD) | 33 | > | POWER SUPPLY (SENSOR) | 41 | 7 | ACC POWER SUPPLY | 33 | а | 1 | |
| 2 | P | MIRROR SELECT SW (RH) | 34 | > | BAT (FUSE) | 45 | BR | FUEL LEVEL SENSOR SIGNAL | 34 | В | 1 | |
| en | g | MIRROR SW (UPWARD) | 35 | _ | TILT MOTOR (UPWARD) | 43 | HB | INTAKE SENSOR SIGNAL | 32 | _ | 1 | |
| 4 | >- | MIRROR SW (LEFTWARD) | 36 | æ | TELE | 44 | 9 | IN-VEHICLE SENSOR SIGNAL | 36 | ۵ | 1 | |
| 2 | ~ | MIRROR SENSOR (RH VERTICAL) | 39 | > | BAT (C/B) | 42 | > | AMBIENT SENSOR SIGNAL | 37 | ~ | 1 | |
| 9 | GR | MIRROR SENSOR (LH VERTICAL) | 40 | ω | GND (SIGNAL) | 46 | > | SUNLOAD SENSOR SIGNAL | 38 | g | 1 | |
| _ | BG | TILT SENSOR | 41 | > | GND (SENSOR) | 47 | 5 | GAS SENSOR SIGNAL | 14 | BG | 1 | |
| 6 | BR | ADDRESS 1 | 45 | BG | TILT MOTOR (DOWNWARD) | 53 | Α | IGNITION POWER SUPPLY | 42 | g | 1 | |
| 10 | > | TX (UART) | 44 | 9 | TELESCOPIC MOTOR (BACKWARD) | 54 | SB | BATTERY POWER SUPPLY | 43 | ۵ | 1 | |
| = | GR | TELESCOPIC SW (FRONTWARD) | 48 | ω | GND (POWER) | 22 | В | GROUND | 44 | _ | 1 | |
| 12 | BG | IND 1 | | | | 56 | _ | CAN-H | 45 | > | 1 | |
| 13 | ۵ | IND 2 | | | | 22 | Ρ | BRAKE FLUID LEVEL SWITCH | 46 | SB | 1 | |
| 14 | W | MIRROR MOTOR (RH VERTICAL) | Conne | Connector No. | M62 | 28 | Υ | FUEL LEVEL SENSOR GROUND | | | | |
| 15 | BG | MIRROR MOTOR (RH HORIZONTAL) | 0000 | Constant Name | CIDCI IIT BBEAKED | 29 | GR | INTAKE SENSOR GROUND | | | | |
| 16 | Υ | MIRROR MOTOR (LH COMMON) | | acron Manne | | 09 | W | IN-VEHICLE SENSOR GROUND | Connector No. | tor No. | M118 | |
| 17 | BR | TILT SW (DOWNWARD) | Conne | Connector Type | M02FW-P-LC | 61 | В | AMBIENT SENSOR GROUND | ,00000 | Occupant Name | BCM (BODY CONTBOL MODILE) | |
| 18 | М | MIRROR SELECT SW (LH) | | | | 62 | SB | SUNLOAD SENSOR GROUND | 2000 | or Name | DOM (DOD) CONTROL MODOLE) | |
| 19 | SB | MIRROR SW (DOWNWARD) | ß | _ | | 63 | ٦ | ION CONTROL MODE OUTPUT SIGNAL | Connect | Connector Type | M03FB-LC | |
| 20 | L | MIRROR SW (RIGHTWARD) | 7 | e | [| 65 | BG | ECV SIGNAL | ſ | | | |
| 21 | _ | MIRROR SENSOR (RH HORIZONTAL) | 1 | ą | Ţ, | 69 | ۵ | A/C LAN SIGNAL | | | | |
| 22 | В | MIRROR SENSOR (LH HORIZONTAL) | | | <u>_</u> | 70 | œ | EACH DOOR MOTOR POWER SUPPLY | · · | | | |
| 23 | ۵ | TELESCOPIC SENSOR | | | 1 2 L | 7.1 | GR | GROUND | Ş | - | Ţ, | |
| 24 | œ | SET SW | | |] | 72 | ۵ | CAN-L | | | <u></u> | |
| 22 | > | ADDRESS 2 | | | | | | | | | 2 | |
| 56 | ۵ | RX (UART) | Terminal | inal Color | | | | | | | | |
| 27 | g | TELESCOPIC SW (BACKWARD) | No. | _ | Signal Name [Specification] | Connector No. | | M116 | | | | |
| 30 | SB | MIRROR MOTOR (RH COMMON) | _ | - | - | | Г | L Carr | Terminal | al Color | | |
| 31 | G | MIRROR MOTOR (LH VERTICAL) | 2 | S | - | Connect | Connector Name | WIRE TO WIRE | N | of Wire | Signal Name [Specification] | |
| 32 | _ | MIRROR MOTOR (LH HORIZONTAL) | | | | Connector Type | Г | TK36MW-NS10 | - | > | BAT (F/L) | |
| | | | | | | | 1 | | ~ | > | POWER WINDOW POWER SUPPLY (BAT) | |
| | | | | | | C C | | | က | BG | POWER WINDOW POWER SUPPLY (RAP) | |
| | | | | | | T T | | [| | | | |
| | | | | | | 2 | 1 2 3 | u: | | | | |
| | | | | | | | 9 9 | 10 21 22 23 24 25 26 27 28 29 39 40 41 42 43 44 45 46 | | | | |
| | | | | | | | | | | | | |

JCJWM1147GE

< ECU DIAGNOSIS INFORMATION >

| | А |
|--|-----|
| T SELECTOR NH Signal Name (Specification) | В |
| WH137 | С |
| 1 2 3 49 7 5 5 5 5 5 5 5 5 5 | D |
| WINDOW, SW COMM WINDOW, SW COMM IN IGNITION SW ILL POWER LOKE NID ERRY SENSOR ROWD SENSOR POWER SUPPLY SURE RECEIVER COMM SENSOR POWER SUPPLY SURE RECEIVER COMM SW OUTPUT 5 BIS SW OUTPUT 1 BIS SW OUTPUT 3 BIS SW OUTPUT 4 BIS SW OUTPUT 3 BIS SW OUTPUT 3 BIS SW OUTPUT 3 BIS SW OUTPUT 3 BIS SW OUTPUT 4 BIS SW OUTPUT 3 BIS SW OUTPUT 4 BIS SW OUTPUT 4 BIS SW OUTPUT 6 | Е |
| POWER SWINDOW SW COMM PUSH-BUTTON GATTON SW ILL POWER RECEIVER A SENSOR GAN THE PRESSURE RECEIVER COMM SHET N.P SECURITY INDICATOR COMBIS SW OUTPUT I COMBIS SW OUTPUT 3 THE PRESSURE WARN CHECK SW DRAVER DOOR SW DRAVER DOOR SW DRAVER DOOR SW DRAVER DOOR SW DRAVER TO WIRE THADAM-CS IS THADAM-CS IS SIGNAI Name [Specification] Signai Name [Specification] Signai Name [Specification] | F |
| | G |
| 129 BG 134 LG 137 LG 137 LG 138 LG 138 LG 138 LG 144 LG LG LG LG LG LG LG | Н |
| INATS ANT AMP ION RELAY FEGUREO COMM COMBIS SW INPUT 3 COMBIS SW INPUT 3 COMBIS SW INPUT 3 COMBIS SW INPUT 3 CAN-L CAN-H KEY SLOT TILL COMBIS SW INPUT 16 CAN-H KEY SLOT TILL COMBIS SW INPUT 16 COMBIS SW INPUT 16 SALC COUNTION 1 SALC CONDITION 1 SAL | I |
| MAZS BLOWER KEYLESS EN PASSEE BLOWER MEYLESS EN PASSEE BLOWER MEY BLOWER MEN BLOWER ME | ADF |
| 81 W 82 S S S S S S S S S | K |
| | L |
| AUTOMATIC DRIVE POSITIONER Connector Name ECM (BODY CONTROL MODULE) | М |
| | Ν |
| AUTOMAT Connector Name Connector Type Connector Type 1 | 0 |
| JCJWM1148GB | |
| | Р |

Revision: 2009 November ADP-173 2010 G37 Sedan

< 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 |
| FR WIFER HI | Front wiper switch HI | On |
| FR WIPER LOW | Other than front wiper switch LO | Off |
| TR WIFER LOW | Front wiper switch LO | On |
| FR WASHER SW | Front washer switch OFF | Off |
| FR WASHER SW | Front washer switch ON | On |
| FR WIPER INT | Other than front wiper switch INT/AUTO | Off |
| I IX WIF LIX IIVI | Front wiper switch INT/AUTO | On |
| FR WIPER STOP | Front wiper is not in STOP position | Off |
| FR WIPER STOP | Front wiper is in STOP position | On |
| INT VOLUME | Wiper volume dial is in a dial position 1 - 7 | Wiper volume dial pos tion |
| TUDNI CIONAL D | Other than turn signal switch RH | Off |
| TURN SIGNAL R | Turn signal switch RH | On |
| TUDNI CIONALI | Other than turn signal switch LH | Off |
| TURN SIGNAL L | Turn signal switch LH | On |
| TALL LAND OW | Other than lighting switch 1ST and 2ND | Off |
| TAIL LAMP SW | Lighting switch 1ST or 2ND | On |
| LU DE AM OW | Other than lighting switch HI | Off |
| HI BEAM SW | Lighting switch HI | On |
| LIEAD LAMD CVA/A | Other than lighting switch 2ND | Off |
| HEAD LAMP SW 1 | Lighting switch 2ND | On |
| LIEAD LAMB CVV | Other than lighting switch 2ND | Off |
| HEAD LAMP SW 2 | Lighting switch 2ND | On |
| DA COING OW | Other than lighting switch PASS | Off |
| PASSING SW | Lighting switch PASS | On |
| ALITO LIQUIT OW | Other than lighting switch AUTO | Off |
| AUTO LIGHT SW | Lighting switch AUTO | On |
| ED 500 0W | Front fog lamp switch OFF | Off |
| FR FOG SW | Front fog lamp switch ON | On |
| RR FOG SW | NOTE: The item is indicated, but not monitored. | Off |
| DOOD CW DD | Driver door closed | Off |
| DOOR SW-DR | Driver door opened | On |
| DOOD CIAL AC | Passenger door closed | Off |
| DOOR SW-AS | Passenger door opened | On |
| D00D 0W 55 | Rear RH door closed | Off |
| DOOR SW-RR | Rear LH door opened | On |
| D00D 0W 5' | Rear LH door closed | Off |
| DOOR SW-RL | Rear LH door opened | On |

< 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 | | |
| CDL LOCK SW | Power door lock switch LOCK | On | | |
| | Other than power door lock switch UNLOCK | Off | _ | |
| CDL UNLOCK SW | Power door lock switch UNLOCK | On | _ | |
| KEN ON TROM | Other than driver door key cylinder LOCK | Off | _ | |
| KEY CYL LK-SW | Driver door key cylinder LOCK | On | | |
| KEY CYL LINI CW | Other than driver door key cylinder UNLOCK | Off | | |
| KEY CYL UN-SW | Driver door key cylinder LOCK | On | | |
| KEY CYL SW-TR | NOTE: The item is indicated, but not monitored. | Off | | |
| HAZARD SW | Hazard switch is OFF | Off | | |
| IIAZAND 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 | | |
| 0, 11022 011 | Trunk lid opener cancel switch ON | On | | |
| TR/BD OPEN SW | Trunk lid opener switch OFF | Off | | |
| ,55 0. 2 0 | While the trunk lid opener switch is turned ON | On | | |
| TRNK/HAT MNTR | Trunk lid closed | Off | | |
| THE TOTAL WHAT IN | 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 | _ | |
| RKE-UNLOCK | UNLOCK button of the Intelligent Key is not pressed | Off | | |
| THE STREET | UNLOCK button of the Intelligent Key is pressed | On | | |
| RKE-TR/BD | TRUNK OPEN button of the Intelligent Key is not pressed | Off | | |
| THE THUBB | TRUNK OPEN button of the Intelligent Key is pressed | On | _ | |
| RKE-PANIC | PANIC button of the Intelligent Key is not pressed | Off | | |
| TATAL TATALO | PANIC button of the Intelligent Key is pressed | On | _ | |
| RKE-P/W OPEN | UNLOCK button of the Intelligent Key is not pressed | Off | _ | |
| | UNLOCK button of the Intelligent Key is pressed and held | On | | |
| RKE-MODE CHG | LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously | Off | | |
| | LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously | On | | |
| OPTICAL SENSOR | Bright outside of the vehicle | Close to 5 V | | |
| 5. 115/12 SE110OIK | 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 | | |
| NEW OW -MO | 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 | | | |

ADP-175 2010 G37 Sedan Revision: 2009 November

| Monitor Item | Condition | Value/Status |
|----------------|---|--------------|
| REQ SW -BD/TR | Trunk lid opener request switch is not pressed | Off |
| NEQ 3W -DD/TK | Trunk lid opener request switch is pressed | On |
| PUSH SW | Push-button ignition switch (push switch) is not pressed | Off |
| F03113W | 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 |
| CLUCH SW | The clutch pedal is depressed | On |
| | The brake pedal is depressed when No. 7 fuse is blown | Off |
| BRAKE SW 1 | The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal | On |
| DDAKE SW 2 | 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 |
| DETE/CANCL SW | Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) | On |
| CET DAI/ALC/A/ | Selector lever in any position other than P and N | Off |
| SFT PN/N SW | Selector lever in P or N position | On |
| C/I | Steering is unlocked | Off |
| S/L -LOCK | Steering is locked | On |
| C/L LINII OCK | Steering is locked | Off |
| S/L -UNLOCK | Steering is unlocked | On |
| S/L RELAY-F/B | Ignition switch in OFF or ACC position | Off |
| 5/L RELAY-F/B | Ignition switch in ON position | On |
| LINILY OFN. DD | Driver door is unlocked | Off |
| UNLK SEN -DR | Driver door is locked | On |
| DUCU CW IDDM | Push-button ignition switch (push-switch) is not pressed | Off |
| PUSH SW -IPDM | Push-button ignition switch (push-switch) is pressed | On |
| ION DI V4 E/D | Ignition switch in OFF or ACC position | Off |
| IGN RLY1 -F/B | Ignition switch in ON position | On |
| DETE CALIBRA | Selector lever in any position other than P | Off |
| DETE SW -IPDM | Selector lever in P position | On |
| CET DN IDDM | 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 position (Except M/T models) The clutch pedal is depressed (M/T models) | On |
| SET D MET | Selector lever in any position other than P | Off |
| SFT P -MET | Selector lever in P position | On |
| OFT N. MET | Selector lever in any position other than N | Off |
| SFT N -MET | Selector lever in N position | On |

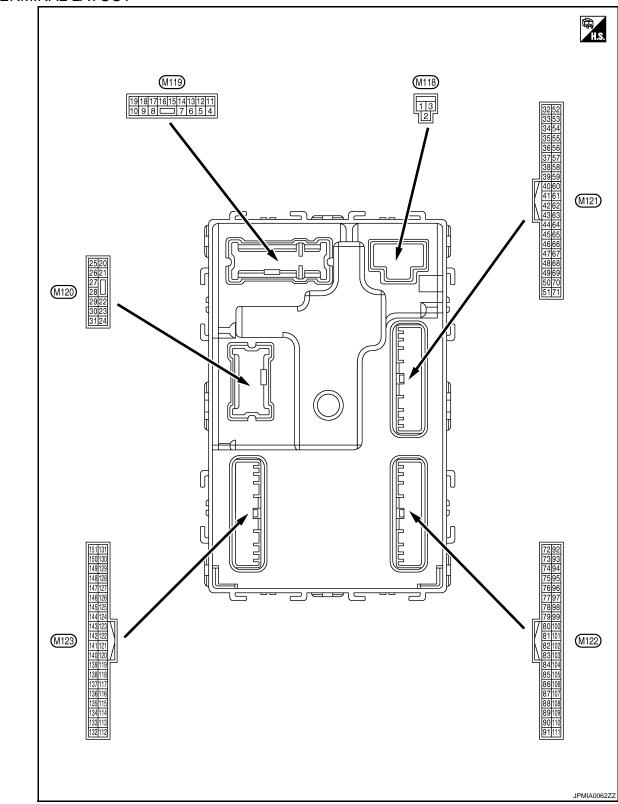
< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition | Value/Status | |
|------------------|---|--|--|
| | Engine stopped | Stop | |
| ENGINE STATE | While the engine stalls | Stall | |
| | At engine cranking | Crank | |
| | Engine running | Run | |
| S/L LOCK-IPDM | Steering is unlocked | Off | |
| | Steering is locked | On | |
| C/L LINUX IDDM | 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 | |
| 3/L RELAT-REQ | Steering lock system is 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 | |
| ID OK FLAG | Steering is unlocked | Set | |
| PRMT ENG STRT | The engine start is prohibited | Reset | |
| PRIVITENG SIKI | 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 | |
| INE I OVV -OLO I | The Intelligent Key is inserted into key slot | On | |
| RKE OPE COUN1 | During the operation of the Intelligent Key | Operation frequency of the Intelligent Key | |
| RKE OPE COUN2 | NOTE: The item is indicated, but not monitored. | _ | |
| CONEDM ID ALL | The key ID that the key slot receives is not recognized by any key ID registered to BCM. | Yet | |
| CONFRM ID ALL | The key ID that the key slot receives is recognized by any key ID registered to BCM. | Done | |
| CONFIDM ID4 | 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 | |
| CONFIDM ID2 | The key ID that the key slot receives is not recognized by the third key ID registered to BCM. | Yet | |
| CONFIRM ID3 | The key ID that the key slot receives is recognized by the third key ID registered to BCM. | Done | |

Revision: 2009 November ADP-177 2010 G37 Sedan

| Monitor Item | Condition | Value/Status | |
|--------------|---|-------------------------------|--|
| CONFIRM ID2 | The key ID that the key slot receives is not recognized by the second key ID registered to BCM. | Yet | |
| CONFIRM ID2 | The key ID that the key slot receives is recognized by the second key ID registered to BCM. | Done | |
| CONFIRM ID1 | The key ID that the key slot receives is not recognized by the first key ID registered to BCM. | Yet | |
| CONFIRMIDI | The key ID that the key slot receives is recognized by the first key ID registered to BCM. | Done | |
| TD 4 | The ID of fourth Intelligent Key is not registered to BCM | Yet | |
| TP 4 | The ID of fourth Intelligent Key is registered to BCM | Done | |
| TD 0 | The ID of third Intelligent Key is not registered to BCM | Yet | |
| TP 3 | The ID of third Intelligent Key is registered to BCM | Done | |
| TD 0 | The ID of second Intelligent Key is not registered to BCM | Yet | |
| TP 2 | The ID of second Intelligent Key is registered to BCM | Done | |
| TP 1 | The ID of first Intelligent Key is not registered to BCM | Yet | |
| IPI | The ID of first Intelligent Key is registered to BCM | Done | |
| AIR PRESS FL | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of front LH tire | |
| AIR PRESS FR | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of front RH tire | |
| AIR PRESS RR | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of rear RH tire | |
| AIR PRESS RL | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of rear LH tire | |
| ID REGST FL1 | ID of front LH tire transmitter is registered | Done | |
| ID REGST FLT | ID of front LH tire transmitter is not registered | Yet | |
| ID REGST FR1 | ID of front RH tire transmitter is registered | Done | |
| ID REGST FRT | ID of front RH tire transmitter is not registered | Yet | |
| ID REGST RR1 | ID of rear RH tire transmitter is registered | Done | |
| ID REGST KKT | ID of rear RH tire transmitter is not registered | Yet | |
| ID DECCT DL4 | ID of rear LH tire transmitter is registered | Done | |
| ID REGST RL1 | ID of rear LH tire transmitter is not registered | Yet | |
| WADNING LAMD | Tire pressure indicator OFF | Off | |
| WARNING LAMP | Tire pressure indicator ON | On | |
| DUZZED | Tire pressure warning alarm is not sounding | Off | |
| BUZZER | Tire pressure warning alarm is sounding | On | |

TERMINAL LAYOUT



PHYSICAL VALUES

Revision: 2009 November

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В

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M

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0

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ADP-179 2010 G37 Sedan

| Terminal No. (Wire color) | | Description | | | | Value | |
|------------------------------|--------|---|---------------------|--|---|--|--|
| + (vvire | – | Signal name | Input/ Output | | Condition | (Approx.) | |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage | |
| 2 (Y) | Ground | P/W power supply (BAT) | Output | Ignition switch OFF | | 12 V | |
| 3 (BG) | Ground | P/W power supply (RAP) | Output | Ignition switch ON | | 12 V | |
| | | | | Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply) | | 0 V | |
| 4 (LG) | Ground | Interior room lamp power supply | Output | Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply) | | 12 V | |
| 5 | Ground | Passenger door UN- LOCK | Output | Passenger door | UNLOCK (Actuator is activated) | 12 V | |
| (P) | | | | | Other than UNLOCK) Actuator is not activated | 0 V | |
| 7 | Cround | Cton lown | | | ON | 0 V | |
| (SB) | Ground | Step lamp | Output | Step lamp | OFF | 12 V | |
| 8 | Ground | All doors, fuel lid LOCK | Output | All doors, fuel | LOCK (Actuator is activated) | 12 V | |
| (V) | Ground | | | | Other than LOCK (Actuator is not activated) | 0 V | |
| 9 | Ground | Driver door, fuel lid UNLOCK | Output | Driver door, fuel lid | UNLOCK (Actuator is activated) | 12 V | |
| (G) | | | | | Other than UNLOCK (Actuator is not activated) | 0 V | |
| 10 | Ground | Rear RH door and rear LH door UN- LOCK | Output | Rear RH door and rear LH door | UNLOCK (Actuator is activated) | 12 V | |
| (P) | | | | | Other than UNLOCK (Actuator is not activated) | 0 V | |
| 11 (R) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage | |
| 13 (B) | Ground | Ground | _ | Ignition switch ON | | 0 V | |
| | | | illumination Output | itput Tail lamp | OFF | 0 V | |
| 14 (W) | | Push-button ignition switch illumination ground | | | ON | NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB | |
| 15 (BG) | Ground | Ground ACC indicator lamp | Output | Ignition switch | OFF (LOCK indicator is not illuminated) | Battery voltage | |
| (53) | | | | | ACC | 0 V | |

| Signal name | nal No. | Description | | | Condition | Value |
|--|---------|------------------------|------------------|-----------------|--|---|
| Ground Turn signal RH (Front) Output Interior room Output I | | Signal name | Input/ Output | | Condition | |
| 18 Ground Turn signal LH (Front) Output Ignition switch ON Turn signal switch OFF OV | Ground | | Output | | - | (V) 15 10 5 |
| 18 (BG) Ground Turn signal LH (Front) Output Ignition switch ON Turn signal switch LH Interior room Iamp ON ON | | | | | Turn signal switch OFF | 1 s PKID0926E 6.5 V |
| Control Cont | Ground | Turn signal LH (Front) | Output | | Turn signal switch LH | 15 10 5 0 1 s |
| Turn signal switch OFF OV Ground Turn signal RH (Rear) Output Turn signal switch OFF OV Turn signal switch OFF OV Turn signal switch RH OPEN (Trunk lid opener actuator is activated) Other than OPEN (Trunk lid opener actuator is not activated) Turn signal switch OFF OV | Ground | | Output | | | |
| 23 (LG) Ground Trunk lid open Trunk lid open Trunk lid Output Trunk lid Other than OPEN (Trunk lid opener actuator is activated) Other than OPEN (Trunk lid opener actuator is not activated) Turn signal switch OFF Ov Ignition switch ON Turn signal switch LH Ground Turn signal LH (Rear) Output Trunk room Output Trunk room ON Ov Trunk lid opener actuator is activated) Other than OPEN (Trunk lid opener actuator is activated) Ov Furn signal switch OFF OV Turn signal switch LH ON ON ON ON ON OV | Ground | Turn signal RH (Rear) | Output | | Turn signal switch RH | (V) 15 10 5 1 1 1 1 1 1 1 1 1 1 |
| Ground Turn signal LH (Rear) Output Ignition switch ON Turn signal switch LH Turn signal switch LH Ground Turn signal LH (Rear) Output Ignition switch ON Turn signal switch LH Turn signal switch LH ON ON OV | Ground | Trunk lid open | Output | Trunk lid | (Trunk lid opener actuator is activated) Other than OPEN (Trunk lid opener actuator | |
| Ground Trunk room lamp Output 1. Trunk room | Ground | Turn signal LH (Rear) | Output | | | (V) 15 10 5 0 1 s |
| (D) | Ground | Trunk room lamp | Output | Trunk room lamp | ON OFF | 0 V 12 V |

| | nal No. | Description | | | | Value |
|----------|---------|---------------------------|------------------|---|--|---|
| + (vvire | color) | Signal name | Input/ Output | | Condition | (Approx.) |
| 34 | | Trunk room antenna | | Ignition switch | When Intelligent Key is in the passenger compart- ment | (V) 15 10 5 0 1 S S S S S S S S S |
| (SB) | Ground | (–) | Output | OFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 1 |
| 35 | Ground | Trunk room antenna (+) | | Ignition switch | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0062GB |
| (V) | Glodina | | Output | OFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0063GB |
| 38 | Ground | Rear bumper anten- | Output | When the trunk lid opener re- quest switch is | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB |
| (B) | 2.54.14 | na (–) | • | operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 JMKIA0063GB |

| | nal No. color) | Description | | | Consultátions | Value | |
|------------|-------------------|---------------------------------|------------------|--|---|---|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) | |
| 39 | Crowd | Rear bumper anten- | Output | When the trunk | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB | |
| (W) | Ground | na (+) | Output | 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 | |
| 47 | | Ignition relay (IPDM | | | OFF or ACC | 12 V | |
| (Y) | Ground | E/R) control | Output | Ignition switch | ON | 0 V | |
| 50 (BG) | Ground | Trunk room lamp switch | Input | Trunk room lamp switch | OFF (Trunk lid is closed) | (V) 15 10 5 0 10 ms JPMIA0011GB | H |
| | | | | | ON (Trunk lid is opened) | 0 V | |
| | | | | Ignition switch ON (A/T mod- | When selector lever is in P or N position | 12 V | |
| 52 | | | _ | els) | When selector lever is not in P or N position | 0 V | |
| (R) | Ground | Starter relay control | Output | Ignition switch | When the clutch pedal is depressed | Battery voltage | |
| | | | | ON (M/T mod- els) | When the clutch pedal is not depressed | 0 V | |
| | | | | | ON (Pressed) | 0 V | |
| 61 (SB) | Ground | Trunk lid opener request switch | Input | Trunk lid open- er request switch | OFF (Not pressed) | (V) 15 10 5 0 10 ms JPMIA0016GB | |
| 64 | | Intelligent Key warn- | | Intelligent Key | Sounding | 0 V | |
| U . | Ground | ing buzzer (Engine | Output | warning buzzer (Engine room) | Not sounding | 12 V | |

| | nal No. | Description | | | | Value |
|------------|---------|-------------------------|------------------|------------------------------|--|---|
| + (VVire | color) | Signal name | Input/ Output | | Condition | (Approx.) |
| 67 (GR) | Ground | Trunk lid opener switch | Input | Trunk lid open- er switch | Pressed Not pressed | 0 V (V) 15 10 5 0 JPMIA0011GB 11.8 V |
| 68 (BG) | Ground | Rear RH door switch | Input | Rear RH door switch | OFF (When rear RH door closes) ON (When rear RH door | (V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V |
| 69 (L) | Ground | Rear LH door switch | Input | Rear LH door switch | OFF (When rear LH door closes) ON (When rear LH door opens) | (V) 15 10 5 0 10 ms 11.8 V |
| 72 | Ground | Room antenna 2 (–) | Output | Ignition switch | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0062GB |
| (R) | | (Center console) | | OFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 11 1 s JMKIA0063GB |

| | inal No. e color) | Description | T. | | | Value | А |
|----------|----------------------|--------------------|------------------|---|--|---|----------|
| + (vvire | e color) | Signal name | Input/ Output | | Condition | (Approx.) | Α |
| 73 | Ground | Room antenna 2 (+) | Output | Ignition switch | When Intelligent Key is in the passenger compart- ment | (V) 15 10 5 0 1 s JMKIA0062GB | B C |
| (G) | Glound | (Center console) | Output | OFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 JMKIA0063GB | E F |
| 74 | Ground | Passenger door an- | Output | When the passenger door request switch is | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB | G H |
| (SB) | O O O O O O | tenna (-) | Supu | operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0063GB | ADP K |
| 75 | 0 | Passenger door an- | 0.4.4 | When the passenger door re- | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB | M |
| (BR) | Ground | tenna (+) | Output | quest switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 JMKIA0063GB | O P |

| | nal No. color) | Description | | | 0 177 | Value |
|------|-------------------|----------------------------|------------------|--|--|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) |
| 76 | Ground | Driver door antenna | Output | When the driver door request switch is oper- | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 JMKIA0062GB |
| (V) | SISU.IIG | (-) | Guipui | ated with ignition switch OFF | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0063GB |
| 77 | Ground | Driver door antenna (+) | Output | When the driver door request | When Intelligent Key is in the antenna detection area | (V) 15 10 5 0 1 s JMKIA0062GB |
| (LG) | Glound | | | 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 |
| 78 | Ground | Room antenna 1 (–) | Output | Ignition switch | When Intelligent Key is in the passenger compart- ment | (V) 15 10 5 0 JMKIA0062GB |
| (Y) | 3.34.14 | (Instrument panel) | - 3.541 | OFF | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 JMKIA0063GB |

< ECU DIAGNOSIS INFORMATION >

| | nal No. color) | Description | | | • | Value |
|---|-------------------|--|---|-------------------------|---|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) |
| 79 | | | | Ignition switch | When Intelligent Key is in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0062GE |
| 79 (BR) Ground Room antenna 1 (+) (Instrument panel) Output OFF | | When Intelligent Key is not in the passenger compartment | (V) 15 10 5 0 1 s JMKIA0063GE | | | |
| 80 (GR) | Ground | NATS antenna amp. | Input/ Output | During waiting | Ignition switch is pressed while inserting the Intelligent Key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 81 (W) | Ground | NATS antenna amp. | Input/ Output | During waiting | Ignition switch is pressed while inserting the Intelligent Key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 82 (SB) | Ground | Ignition relay [Fuse block (J/B)] control | Output | Ignition switch | OFF or ACC | 0 V 12 V |
| 83 (Y) Ground | Ground | Remote keyless entry | Input/ | During waiting | | (V) 15 10 5 0 1 ms |
| | Ground | receiver communication | Output | When operating gent Key | g either button on the Intelli- | (V) 15 10 5 0 1 ms JMKIA0065GE |

Revision: 2009 November ADP-187 2010 G37 Sedan

| | nal No. | Description | | | | Value |
|------------|---------|----------------------------|------------------|--------------------|---|--|
| (Wire + | color) | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | | All switches OFF (Wiper volume dial 4) | (V) 15 10 5 0 2 ms JPMIA0041 |
| 87 (Y) | Ground | Combination switch INPUT 5 | Input | Combination switch | Front fog lamp switch ON (Wiper volume dial 4) | (V) 15 10 5 0 2 ms JPMIA0037 |
| | | | | | Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7 | (V) 15 10 5 0 2 ms JPMIA0040 |

| | nal No. | Description | | | | Value |
|-------------|---------|---|------------------|--|--|--|
| + (Wire | color) | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | | All switches OFF (Wiper volume dial 4) | (V) 15 10 5 0 2 ms JPMIA0041GB |
| 88 | Ground | Combination switch | Input | Combination switch | Lighting switch HI (Wiper volume dial 4) | (V) 15 10 5 0 2 ms JPMIA0036GB |
| (BG) Ground | INPUT 3 | · | | Lighting switch 2ND (Wiper volume dial 4) | (V) 15 10 5 0 2 ms JPMIA0037GB | |
| | | | | | Any of the conditions below with all switches OFF Wiper volume dial 1 Wiper volume dial 2 Wiper volume dial 3 | (V) 15 10 5 0 2 ms |
| | | | | Push-button ig- | Pressed | 1.3 V 0 V |
| 89 BR) | Ground | Push-button ignition switch (Push switch) | Input | nition switch (push switch) | Not pressed | Battery voltage |
| 90 (P) | Ground | CAN-L | Input/ Output | , | <u> </u> | _ |
| 91 (L) | Ground | CAN-H | Input/ Output | | _ | _ |
| | | | | | OFF | 0 V |
| 92 (LG) | Ground | Key slot illumination | Output | Key slot illumi- nation | Blinking | (V) 15 10 5 0 1 s |
| | | | | ON | 6.5 V | |
| | | | | | ON | 12 V |

| | nal No. color) | Description | | | 0 197 | Value |
|---|-------------------|--|------------------|-------------------------------------|---|---|
| + | - | Signal name | Input/ Output | | Condition | (Approx.) |
| 93 (GR) | Ground | ON indicator lamp | Output | Ignition switch | OFF (LOCK indicator is not illuminated) | Battery voltage |
| | | | | | ON | 0 V |
| 95 (BG) | Ground | ACC relay control | Output | Ignition switch | OFF ACC or ON | 0 V 12 V |
| 96 (GR) | Ground | A/T shift selector (Detention switch) power supply | Output | | _ | 12 V |
| 97 | Ground | Steering lock condi- | Input | Steering lock | LOCK status | 0 V |
| (L) | Oroana | tion No. 1 | mpar | Ctooming rook | UNLOCK status | 12 V |
| 98 | Ground | Steering lock condi- | Input | Steering lock | LOCK status | 12 V |
| (P) | | tion No. 2 | | | UNLOCK status | 0 V |
| | | Selector lever P position switch (A/T mod- | | Selector lever | P position | 0 V |
| | | els) | | Selector level | Any position other than P | 12 V |
| 99 | | ASCD clutch switch (M/T models without | | ASCD clutch | OFF (Clutch pedal is depressed) | 0 V |
| (R)* ¹ (BR)* ² | Ground | ICC) | Input | switch | ON (Clutch pedal is not depressed) | 12 V |
| | | ICC clutch switch (M/ | | ICC clutch | OFF (Clutch pedal is depressed) | 0 V |
| | | T models with ICC) | | switch | ON (Clutch pedal is not depressed) | 12 V |
| | | | | | ON (Pressed) | 0 V |
| 100 (Y) | Ground | Passenger door request switch | Input | Passenger door request switch | OFF (Not pressed) | (V) 15 10 5 0 10 ms JPMIA0016GB |
| - | | | | | ON (Pressed) | 0 V |
| 101 (P) | Ground | Driver door request switch | Input | Driver door request switch | OFF (Not pressed) | (V) 15 10 5 0 10 ms JPMIA0016GB |
| | | | | | OFF or ACC | 1.0 V |
| 102 (BG) | Ground | Blower fan motor re- lay control | Output | Ignition switch | OFF or ACC | 0 V 12 V |
| 103 (P) | Ground | Remote keyless entry receiver power sup- ply | Output | Ignition switch (| | 12 V |
| 106 (SB) | Ground | Steering lock unit power supply | Output | Ignition switch | OFF or ACC | 12 V 0 V |

< ECU DIAGNOSIS INFORMATION >

| | nal No. | Description | | | | Value |
|-------------|---------|----------------------------|------------------|---|------------------------|---|
| + (vvire | color) | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | | All switches OFF | (V) 15 10 5 0 2 ms JPMIA0041GB |
| | | | | | Turn signal switch LH | (V) 15 10 2 ms JPMIA0037GB 1.3 V |
| 107 (LG) | Ground | Combination switch INPUT 1 | Input | Combination switch (Wiper volume dial 4) | Turn signal switch RH | (V) 15 10 5 0 2 ms JPMIA0036GB |
| | | | | | Front wiper switch LO | (V) 15 10 5 0 2 ms JPMIA0038GB |
| | | | | | Front washer switch ON | (V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V |

Revision: 2009 November ADP-191 2010 G37 Sedan

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

| Terminal No. Description (Wire color) | | | | | Value | |
|---------------------------------------|--------|----------------------------|------------------|---|---------------------------------|--|
| (Wire + | color) | Signal name | Input/ Output | | Condition | (Approx.) |
| | | | | | All switches OFF | (V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V |
| 109 (W) | | Combination switch INPUT 2 | Input | Combination switch (Wiper volume dial 4) | Lighting switch PASS | (V) 15 10 5 0 2 ms JPMIA0037GB |
| | Ground | | | | Lighting switch 2ND | (V) 15 10 5 0 2 ms JPMIA0036GB |
| | | | | | Front wiper switch INT/ AUTO | (V) 15 10 5 0 2 ms JPMIA0038GB |
| | | | | | Front wiper switch HI | (V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V |
| | | | | | ON | 0 V |
| 110 (G) | Ground | Hazard switch | Input | Hazard switch | OFF | (V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V |

| | nal No. | Description | | | | Value | |
|-------------|---------|--|------------------|--------------------|---|--|--|
| (Wire | color) | Signal name | Input/ Output | | Condition | (Approx.) | |
| | | | | | LOCK status | 12 V | |
| 111 (Y) | Ground | Steering lock unit communication | Input/ Output | Steering lock | LOCK or UNLOCK | (V) 15 10 50 ms JMKIA0066GB | |
| | | | | | For 15 seconds after UN- LOCK | 12 V | |
| | | | | | 15 seconds or later after UNLOCK | 0 V | |
| 112 (R) | Ground | Light and rain sensor serial link | Input/ Output | Ignition switch (| DN | (V) 15 10 5 0 JPMIA0156GB 8.7 V | |
| | | | | | When bright outside of the | | |
| 113 (BG) | Ground | Optical sensor | Input | Ignition switch ON | vehicle | Close to 5 V | |
| | | | | | When dark outside of the vehicle | Close to 0 V | |
| 114 | Ground | Clutch interlock | Input | Clutchinterlock | OFF (Clutch pedal is not depressed) | 0 V | |
| (R) | | switch | | switch | ON (Clutch pedal is depressed) | Battery voltage | |
| 116 (SB) | Ground | Stop lamp switch 1 | Input | | _ | Battery voltage | |
| | | Stop lamp switch 2 | | Stop lamp | OFF (Brake pedal is not depressed) | 0 V | |
| 118 | Ground | (Without ICC) | Input | switch | ON (Brake pedal is depressed) | Battery voltage | |
| (BR) | Ground | Stop lamp switch 2 | mput | | h OFF (Brake pedal is not ICC brake hold relay OFF | 0 V | |
| | | (With ICC) | | | h ON (Brake pedal is de- brake hold relay ON | Battery voltage | |
| 119 (SB) | Ground | Front door lock assembly driver side (Unlock sensor) | Input | Driver door | LOCK status (Unlock sensor switch OFF) | (V) 15 10 5 0 10 ms 10 ms 1.1 V | |
| | | | | | UNLOCK status (Unlock switch sensor ON) | 0 V | |

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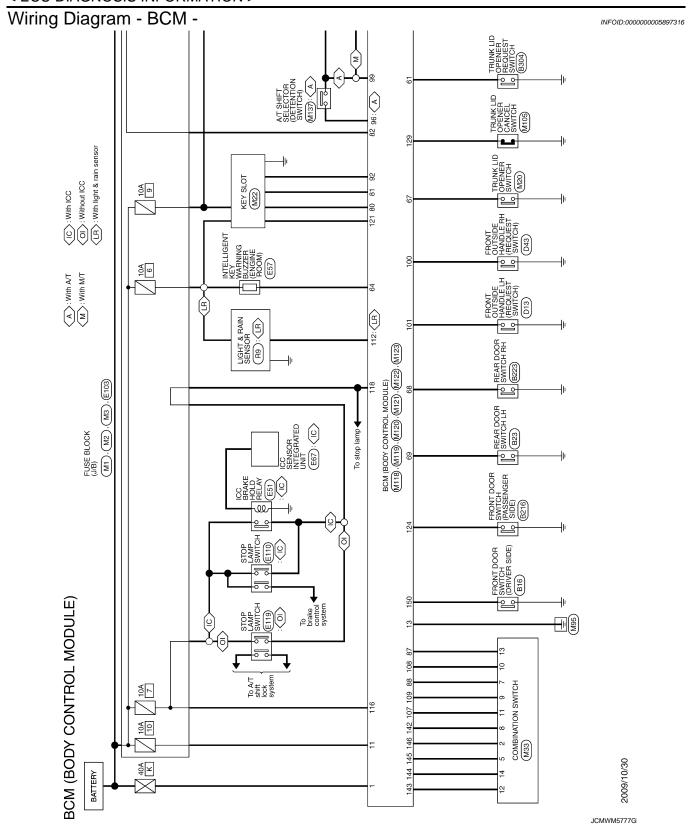
| Terminal No. (Wire color) | | Description | 1 | | | Value |
|------------------------------|--------|--|------------------|--|-------------------------------|---|
| + (vvire | color) | Signal name | Input/ Output | | Condition | (Approx.) |
| 121 (SB) | Ground | Key slot switch | Input | slot | gent Key is inserted into key | 12 V |
| (36) | | | | When the Intelliq | gent Key is not inserted into | 0 V |
| 123 (V) | Ground | IGN feedback | Input | Ignition switch | OFF or ACC ON | 0 V Battery voltage |
| 124 (R) Groun | | Passenger door switch | Input | Passenger door switch | OFF (Door close) | (V) 15 10 5 0 10 ms JPMIA0011G |
| | | | | | ON (Door open) | 0 V |
| 129 (BG) | Ground | Trunk lid opener can- cel switch | Input | Trunk lid open- er cancel switch | CANCEL | (V) 15 10 10 ms JPMIA0012GI |
| | | | | | ON | 0 V |
| 132 (V) | Ground | Power window switch communication | Input/ Output | Ignition switch C | DN | (V) 15 10 5 0 10 ms JPMIA0013G |
| | | | | Ignition switch C | OFF or ACC | 12 V |
| | | | | | ON (Tail lamps OFF) | 9.5 V |
| 133 (L) | Ground | Push-button ignition switch illumination | Output | Push-button ig- nition switch il- lumination | ON (Tail lamps ON) | NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level. (V) 15 10 5 0 JPMIA0159GI |
| | | | | | OFF | 0 V |
| 134 (LG) | Ground | LOCK indicator lamp | Output | LOCK indicator lamp | OFF ON | Battery voltage 0 V |
| 137 | Ground | Receiver and sensor | Input | Ignition switch C | N. | 0 V |

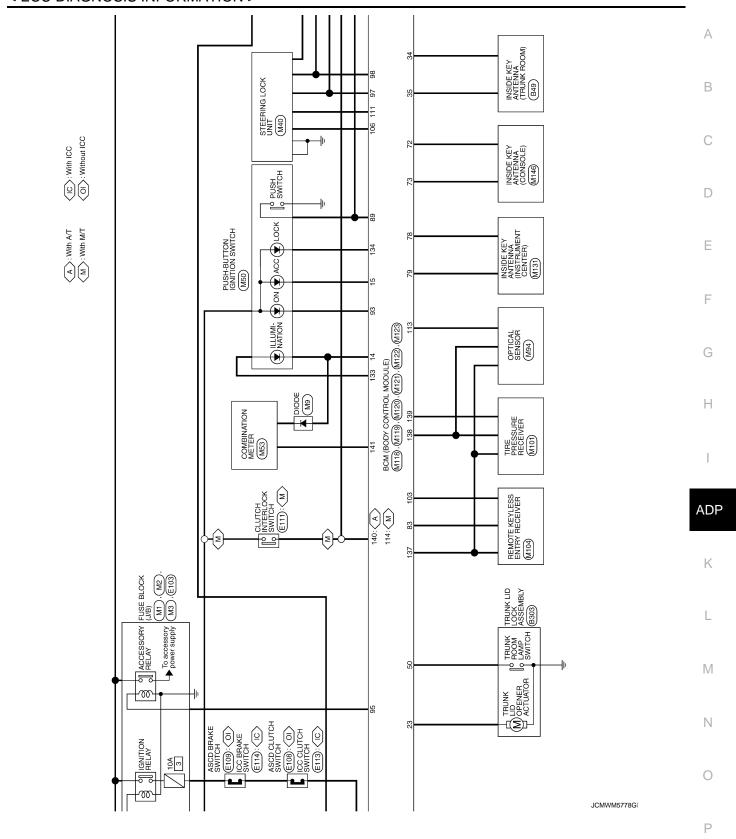
| | nal No. | Description | | | | Value |
|-------------|---------|-----------------------------|------------------|-----------------------|--|--|
| + (vvire | color) | Signal name | Input/ Output | | Condition | (Approx.) |
| 138 | Ground | Receiver and sensor | Output | Ignition switch | OFF | 0 V |
| (V) | Orouna | power supply | Output | igilia ori o viitori | ACC or ON | 5.0 V |
| 139 | Ground | Tire pressure receiv- | Input/ | Ignition switch | Standby state | (V) 6 4 2 0 ••• 0.2s |
| (L) | | er communication | Output | ON | When receiving the signal from the transmitter | (V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| 140 | Ground | Selector lever P/N | Input | Selector lever | P or N position | 12 V |
| (B) | Oround | position | IIIput | Coloctor level | Except P and N positions | 0 V |
| | | | | | ON | 0 V |
| 141 (W) | Ground | Security indicator | Output | Security indicator | Blinking | (V) 15 10 5 0 1 s JPMIA0014GB |
| | | | | | OFF | 12 V |
| | | | | | All switches OFF | 0 V |
| | | | | | Lighting switch 1ST | |
| | | | | Combination | Lighting switch HI | (V) |
| 142 (BR) | Ground | Combination switch | Output | switch | Lighting switch 2ND | 10 5 |
| (=: 1) | 0.000 | OUTPUT 5 | Output | (Wiper volume dial 4) | Turn signal switch RH | 0 |
| | | | | | All switches OFF (Wiper volume dial 4) | 0 V |
| | | | | | Front wiper switch HI (Wiper volume dial 4) | (V) |
| 143 (P) | Ground | Combination switch OUTPUT 1 | Output | Combination switch | Any of the conditions below with all switches OFF Wiper volume dial 1 Wiper volume dial 2 Wiper volume dial 3 Wiper volume dial 6 Wiper volume dial 7 | 15 10 5 0 2 ms JPMIA0032GB |

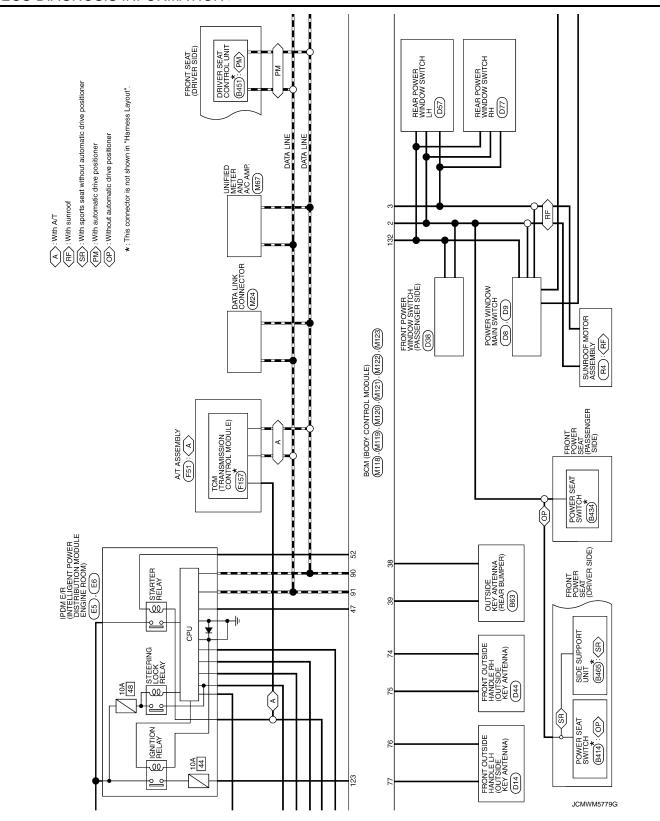
| Terminal No. (Wire color) | | Description | | | | Value | |
|---------------------------|----------|------------------------------------|------------------|---|--|-------------------------------|---|
| + (vvire | - COIOF) | Signal name | Input/ Output | | Condition | (Approx.) | |
| | | | | | All switches OFF (Wiper volume dial 4) | 0 V | |
| | | | | | Front washer switch ON (Wiper volume dial 4) | (V) | |
| 144 (G) | Ground | Combination switch OUTPUT 2 | Output | Combination switch | Any of the conditions below with all switches OFF Wiper volume dial 1 Wiper volume dial 5 Wiper volume dial 6 | 2 ms JPMIA0033GB | |
| | | | | | All switches OFF | 0 V | |
| | | | | | Front wiper switch INT/ AUTO | (V)[| |
| 145 | | Combination switch OUTPUT 3 | Output | Combination switch (Wiper volume dial 4) | Front wiper switch LO | 15 10 5 | |
| (L) | Ground | | | | Lighting switch AUTO | 2 ms JPMIA0034GB | |
| | | | | | All switches OFF | 0 V | |
| | | Combination switch OUTPUT 4 | | | Front fog lamp switch ON | | |
| | | | | | Lighting switch 2ND | (V) | |
| 146 | | | | Combination switch | Lighting switch PASS | 15 | |
| (SB) | Ground | | Output | (Wiper volume dial 4) | Turn signal switch LH | 3 0 2 ms JPMIA0035GB | A |
| 149 (W) | Ground | Tire pressure warning check switch | Input | | _ | 12 V | |
| | | | | | | (V) 15 10 5 | |
| 150 (GR) | Ground | Driver door switch | Input | Driver door switch | OFF (Door close) | 0 10 ms JPMIA0011GB | |
| | | | | | ON (Door open) | 0 V | |
| 151 | 0 | Rear window defog- | 0 | Rear window | Active | 0 V | |
| (G) | Ground | ger relay control | Output | defogger | Not activated | Battery voltage | |

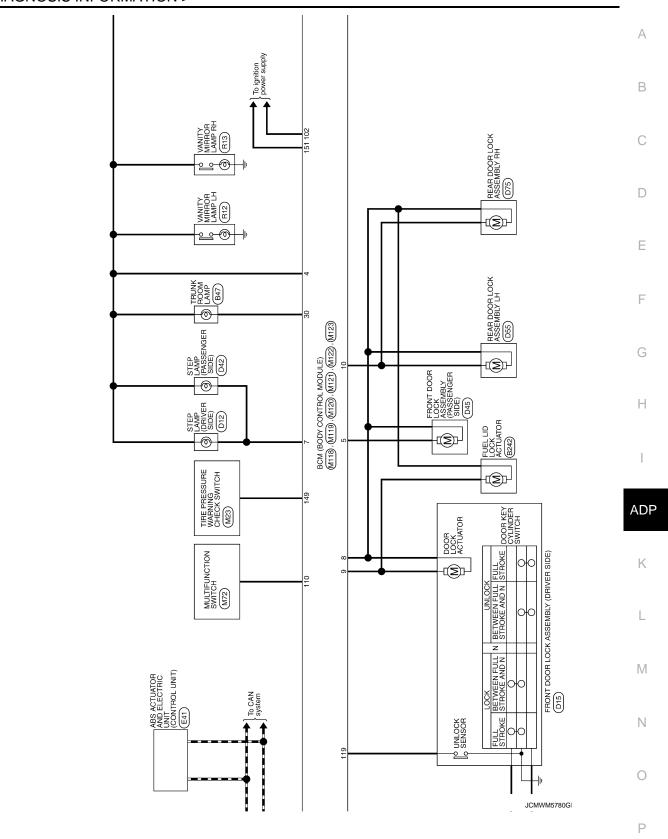
^{• *1:} A/T models

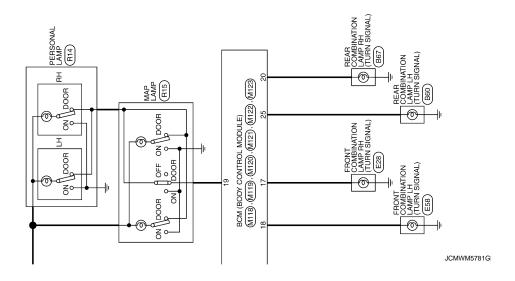
^{• *2:} M/T models Ρ







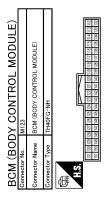




< ECU DIAGNOSIS INFORMATION >

| T COMM T SUPPLY T SUPPLY T SUPPLY T Y CONT THE SUPPLY T Y T T T T T T T T T T T T T T T T T | А |
|--|-------------|
| IGN RELAY (F/B) CONT COMBI SWINPUT 3 COMBI SWINPUT 2 SAL CONDITION 1 SAL CONDITION 1 SAL CONDITION 2 SALE CONDITION 1 SALE CONDITION 1 SALE CONDITION 1 COMBI SWINPUT 1 COMBI SWINPUT 1 COMBI SWINPUT 1 COMBI SWINPUT 2 COMBI SWINPUT 2 COMBI SWINPUT 2 COMBI SWINPUT 3 COMBI | В |
| 10 10 10 10 10 10 10 10 | С |
| 88 88 88 88 88 88 88 88 88 88 88 88 88 | D |
| MODULE) MAT 2+ MODOR ANT- DOOR ANT- DOOR ANT- MAT 2+ MAT 1+ MA | E |
| TO CONTROL AT A CONTROL AT A CONTROL TRUNK RO TRUNK RO TRUNK RO TRUNK RO TRUNK RO TRUNK RO TRUNK LID (TRUNK RO TRUNK LID (| F |
| 14 15 15 15 15 15 15 15 | G |
| Connector No. | Н |
| Signal Name [Specification] | I |
| 1 1 1 1 1 1 1 1 1 1 | ADF |
| Connector No. M Connector No. M M M M M M M M M | К |
| (GAAT) | L |
| CONTROL MODULE | М |
| | N |
| Commetter Name Commetter Type Comm | 0 |
| | JCMWM5782GI |

Revision: 2009 November ADP-203 2010 G37 Sedan



| Signal Name [Specification] | RAIN SENSOR SERIAL LINK | 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 SW | POWER WINDOW SW COMM | PUSH-BUTTON IGNITION SW ILL POWER | LOCK IND | RECEIVER / SENSOR GND | RECEIVER / SENSOR POWER SUPPLY | TIRE PRESSURE RECEIVER COMM | SHIFT N/P | SECURITY INDICATOR LAMP | COMBI SW OUTPUT 5 | COMBI SW OUTPUT 1 | COMBI SW OUTPUT 2 | COMBI SW OUTPUT 3 | COMBI SW OUTPUT 4 | TIRE PRESSURE WARN CHECK SW | DRIVER DOOR SW | THOO WALLIA GROOPING WOOLING GAID |
|-----------------------------|-------------------------|----------------|---------------------|----------------|----------------|-----------------------|-------------|---------|-------------------|----------------------------|----------------------|-----------------------------------|----------|-----------------------|--------------------------------|-----------------------------|-----------|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------------------|----------------|-----------------------------------|
| Color of Wire | ۳ | BG | В | SB | BR | SB | SB | ^ | ~ | BG | > | Г | ΓG | BG | ^ | 7 | В | W | BR | Ь | 9 | ٦ | SB | W | GR | |
| Terminal No. | 112 | 113 | 114 | 116 | 118 | 119 | 121 | 123 | 124 | 129 | 132 | 133 | 134 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 149 | 150 | ,,,, |

JCMWM5783G

INFOID:0000000005897317

FAIL-SAFE CONTROL BY DTC

Fail-safe

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

< ECU DIAGNOSIS INFORMATION >

| 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 → OFF |
| B2557: VEHICLE SPEED | Inhibit steering lock | When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms |
| B2560: STARTER CONT RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal |
| B2601: SHIFT POSITION | Inhibit steering lock | 500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN) |
| B2602: SHIFT POSITION | Inhibit steering lock | 5 seconds after the following BCM recognition conditions are ful- filled • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (12 V) • 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 (12 V) Selector lever P/N position signal: Except P and N positions (0 V) |
| B2604: PNP/CLUTCH 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 (12 V) - 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/CLUTCH 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 (12 V) - 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) |
| 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) |

Revision: 2009 November ADP-205 2010 G37 Sedan

< ECU DIAGNOSIS INFORMATION >

| Display contents of CONSULT | Fail-safe | Cancellation |
|-----------------------------|---|--|
| B2608: STARTER RELAY | Inhibit engine cranking | 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN) |
| B2609: S/L STATUS | Inhibit engine cranking Inhibit steering lock | When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status |
| B260A: IGNITION RELAY | Inhibit engine cranking | 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (12 V) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) |
| B260F: ENG STATE SIG LOST | Maintains the power supply position attained at the time of DTC detection | When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN) |
| B2612: S/L STATUS | Inhibit engine cranking Inhibit 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: BCM | Inhibit engine cranking | 1 second after the starter motor relay control inside BCM becomes normal |
| B2618: BCM | Inhibit engine cranking | 1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal |
| B2619: BCM | Inhibit engine cranking | 1 second after the steering lock unit power supply output control inside BCM becomes normal |
| B261E: VEHICLE TYPE | Inhibit engine cranking | BCM initialization |
| 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 cranking Inhibit steering lock | When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled • Steering condition No. 1 signal: LOCK (0 V) • Steering condition No. 2 signal: LOCK (12 V) |

DTC Inspection Priority Chart

INFOID:0000000005897318

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

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

< ECU DIAGNOSIS INFORMATION >

| Priority | DTC | |
|----------|--|--|
| | B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM | |
| | B2553: IGNITION RELAYB2555: STOP LAMPB2556: PUSH-BTN IGN SW | |
| | B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS | |
| | B2603: SHIFT POSISTATOS B2604: PNP/CLUTCH SW B2605: PNP/CLUTCH SW B2606: S/L RELAY B2607: S/L RELAY | |
| | B2608: STARTER RELAYB2609: S/L STATUSB260A: IGNITION RELAY | |
| 4 | B260B: STEERING LOCK UNIT B260C: STEERING LOCK UNIT B260D: STEERING LOCK UNIT B260F: ENG STATUS | |
| | B2612: S/L STATUS B2614: BCM B2615: BCM B2616: BCM | |
| | B2617: BCM B2618: BCM B2619: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE | |
| | B26E8: CLUTCH SW B26E9: S/L STATUS B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED | |
| | C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL | |
| 5 | C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1734: CONTROL UNIT | |
| 6 | B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA | |

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NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-14, "COM-MON ITEM: CONSULT-III Function (BCM - COMMON ITEM)".

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Refer- ence page |
|--|-----------|--|------------------------------------|---|---------------------|
| No DTC is detected. further testing may be required. | _ | _ | _ | _ | _ |
| U1000: CAN COMM | _ | _ | _ | _ | BCS-33 |
| U1010: CONTROL UNIT(CAN) | _ | _ | _ | _ | BCS-34 |
| U0415: VEHICLE SPEED | _ | _ | _ | _ | BCS-35 |
| B2013: ID DISCORD BCM-S/L | × | × | _ | _ | <u>SEC-55</u> |
| B2014: CHAIN OF S/L-BCM | × | × | _ | _ | SEC-56 |
| B2190: NATS ANTENNA AMP | × | _ | _ | _ | SEC-47 |
| B2191: DIFFERENCE OF KEY | × | _ | _ | _ | <u>SEC-50</u> |
| B2192: ID DISCORD BCM-ECM | × | _ | _ | _ | <u>SEC-51</u> |
| B2193: CHAIN OF BCM-ECM | × | _ | _ | _ | SEC-53 |
| B2195: ANTI-SCANNING | × | _ | _ | _ | <u>SEC-54</u> |
| B2553: IGNITION RELAY | _ | × | _ | _ | PCS-49 |
| B2555: STOP LAMP | _ | × | _ | _ | SEC-59 |
| B2556: PUSH-BTN IGN SW | _ | × | × | _ | SEC-61 |
| B2557: VEHICLE SPEED | × | × | × | _ | SEC-63 |
| B2560: STARTER CONT RELAY | × | × | × | _ | SEC-64 |
| B2562: LOW VOLTAGE | _ | × | _ | _ | BCS-36 |
| B2601: SHIFT POSITION | × | × | × | _ | SEC-65 |
| B2602: SHIFT POSITION | × | × | × | _ | SEC-68 |
| B2603: SHIFT POSI STATUS | × | × | × | _ | SEC-70 |
| B2604: PNP/CLUTCH SW | × | × | × | _ | SEC-73 |
| B2605: PNP/CLUTCH SW | × | × | × | _ | SEC-75 |
| B2606: S/L RELAY | × | × | × | _ | SEC-77 |
| B2607: S/L RELAY | × | × | × | _ | SEC-78 |
| B2608: STARTER RELAY | × | × | × | _ | SEC-80 |
| B2609: S/L STATUS | × | × | × | _ | SEC-82 |
| B260A: IGNITION RELAY | × | × | × | _ | PCS-51 |
| B260B: STEERING LOCK UNIT | _ | × | × | _ | SEC-86 |
| B260C: STEERING LOCK UNIT | _ | × | × | _ | SEC-87 |
| B260D: STEERING LOCK UNIT | _ | × | × | _ | SEC-88 |
| B260F: ENG STATE SIG LOST | × | × | × | _ | SEC-89 |
| B2612: S/L STATUS | × | × | × | _ | SEC-94 |
| B2614: BCM | _ | × | × | _ | PCS-53 |
| B2615: BCM | _ | × | × | _ | PCS-55 |
| B2616: BCM | _ | × | × | _ | PCS-57 |
| B2617: BCM | × | × | × | _ | SEC-98 |
| B2618: BCM | × | × | × | _ | PCS-59 |
| B2619: BCM | × | × | × | _ | SEC-100 |
| B261A: PUSH-BTN IGN SW | _ | × | × | _ | PCS-60 |
| B261E: VEHICLE TYPE | × | × | × (Turn ON for 15 seconds) | _ | SEC-101 |

< 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 |
|---------------------------|-----------|--|------------------------------------|---|---------------------|
| B2621: INSIDE ANTENNA | ' | × | | <u> </u> | DLK-59 |
| B2622: INSIDE ANTENNA | | × | _ ' | _ | DLK-61 |
| B2623: INSIDE ANTENNA | | × | | _ | DLK-63 |
| B26E8: CLUTCH SW | × | × | × | _ | <u>SEC-90</u> |
| B26E9: S/L STATUS | × | × | × (Turn ON for 15 seconds) | _ | SEC-92 |
| B26EA: KEY REGISTRATION | _ | × | × (Turn ON for 15 seconds) | _ | SEC-93 |
| C1704: LOW PRESSURE FL | _ | _ | | × | |
| C1705: LOW PRESSURE FR | _ | _ | _ ' | × | WT-26 |
| C1706: LOW PRESSURE RR | _ | _ | | × | <u> </u> |
| C1707: LOW PRESSURE RL | | _ | _ | × | 1 |
| C1708: [NO DATA] FL | | _ | _ | × | |
| C1709: [NO DATA] FR | _ ' | _ | _ | × | M/T 20 |
| C1710: [NO DATA] RR | | _ | _ | × | <u>WT-28</u> |
| C1711: [NO DATA] RL | | _ | _ | × | |
| C1716: [PRESSDATA ERR] FL | _ ' | _ | | × | |
| C1717: [PRESSDATA ERR] FR | _ ' | _ | _ | × | WT-31 |
| C1718: [PRESSDATA ERR] RR | _ ' | _ | _ | × | - <u>VV 1-3 1</u> |
| C1719: [PRESSDATA ERR] RL | | _ | _ | × | |
| C1729: VHCL SPEED SIG ERR | _ ' | _ | | × | <u>WT-33</u> |
| C1734: CONTROL UNIT | | _ | _ ' | × | <u>WT-35</u> |

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< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

MANUAL FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT: Description

INFOID:0000000005630243

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

ALL COMPONENT: Diagnosis Procedure

INFOID:0000000005630244

${f 1.}$ CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check driver seat control unit power supply and ground circuit.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

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

Refer to ADP-66, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

POWER SEAT

POWER SEAT: Description

INFOID:0000000005630245

Power seat does not operate when manually operated.

POWER SEAT: Diagnosis Procedure

INFOID:0000000005630246

1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check power seat switch ground circuit.

Refer to ADP-88, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connector.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

STEERING POSITION FUNCTION DOES NOT OPERATE

STEERING POSITION FUNCTION DOES NOT OPERATE: Description INFOID:000000005630247

Tilt & telescopic do not operate when manually operated.

< SYMPTOM DIAGNOSIS >

| STEERING POSITION FUNCTION DOES NOT OPERATE: Diagnosis Procedure | • |
|--|-----|
| INFOID:0000000005630248 | A |
| 1.CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT | |
| Check tilt & telescopic switch ground circuit. Refer to ADP-89, "Diagnosis Procedure". | В |
| Is the inspection result normal? | |
| YES >> GO TO 2. NO >> Repair or replace harness or connector. | С |
| NO >> Repair or replace harness or connector. 2.CONFIRM THE OPERATION | |
| Confirm the operation again. | D |
| Is the result normal? | |
| YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". | Е |
| NO >> GO TO 1. SEAT SLIDING | |
| | F |
| SEAT SLIDING : Description | ' |
| Seat sliding alone does not operate when manually operated. | |
| SEAT SLIDING : Diagnosis Procedure | G |
| 1. CHECK SLIDING MECHANISM | Н |
| Check for the following. | • |
| Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. | |
| Is the inspection result normal? | ı |
| YES >> GO TO 2. | |
| NO >> Repair or replace the malfunction parts. 2.CHECK SLIDING SWITCH | ADP |
| | |
| Check sliding switch. Refer to ADP-68, "Component Function Check". | K |
| Is the inspection result normal? | |
| YES >> GO TO 3. NO >> Repair or replace the malfunction parts. | L |
| 3. CHECK SLIDING MOTOR | |
| Check sliding motor. | M |
| Refer to ADP-117, "Component Function Check". | IVI |
| Is the inspection result normal? | |
| YES >> GO TO 4. NO >> Repair or replace the malfunction parts. | N |
| 4.CONFIRM THE OPERATION | |
| Check the operation again. | 0 |
| Is the result normal? | |
| YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. | Р |
| SEAT RECLINING | |
| SEAT RECLINING : Description | |
| Seat reclining only does not operate when manually operated. | |

Revision: 2009 November ADP-211 2010 G37 Sedan

< SYMPTOM DIAGNOSIS >

SEAT RECLINING: Diagnosis Procedure

INFOID:0000000005630252

1. CHECK RECLINING MECHANISM

Check for the following.

- · Mechanism deformation or pinched foreign materials.
- Interference with other parts because of poor installation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CHECK RECLINING SWITCH

Check reclining switch.

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK RECLINING MOTOR

Check reclining motor.

Refer to ADP-119, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

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

NO >> GO TO 1.

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT): Description

INFOID:0000000005630253

Seat lifting (front) only does not operate when manually operated.

SEAT LIFTING (FRONT): Diagnosis Procedure

INFOID:0000000005630254

1. CHECK LIFTING (FRONT) MECHANISM

Check for the following.

- · Mechanism deformation or pinched foreign materials.
- Interference with other parts because of poor installation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CHECK LIFTING SWITCH (FRONT)

Check lifting switch (front).

Refer to ADP-72, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK LIFTING MOTOR (FRONT)

Check lifting motor (front).

Refer to ADP-121, "Component Function Check".

Is the inspection result normal?

| MANUAL FUNCTION DOLS NOT OF LIKATE | |
|--|-------------------------|
| < SYMPTOM DIAGNOSIS > | |
| YES >> GO TO 4. NO >> Repair or replace the malfunction parts. | Λ |
| | А |
| 4.CONFIRM THE OPERATION | |
| Check the operation again. | В |
| Is the result normal? | |
| YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> . NO >> GO TO 1. | |
| SEAT LIFTING (REAR) | С |
| SEAT LIFTING (REAR): Description | INFOID:0000000005630255 |
| Seat lifting (rear) only does not operate when manually operated. | D |
| | |
| SEAT LIFTING (REAR) : Diagnosis Procedure | INFOID:0000000005630256 |
| 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. | G |
| NO >> Repair or replace the malfunction parts. | |
| 2.CHECK LIFTING SWITCH (REAR) | Н |
| Check lifting switch (rear). Refer to ADP-74, "Component Function Check". | |
| Is the inspection result normal? | 1 |
| YES >> GO TO 3. | |
| NO >> Repair or replace the malfunction parts. | ADF |
| 3.CHECK LIFTING MOTOR (REAR) | |
| Check lifting motor (rear). Refer to ADP-123, "Component Function Check". | |
| Is the inspection result normal? | K |
| YES >> GO TO 4. | |
| NO >> Repair or replace the malfunction parts. | L |
| 4.CONFIRM THE OPERATION | |
| Check the operation again. | |
| Is the result normal? | M |
| YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. | |
| STEERING TILT | N |
| STEERING TILT : Description | WEO/D coccessors |
| OTELNING TIET : Description | INFOID:0000000005630257 |
| Steering tilt only does not operate when manually operated. | |
| STEERING TILT : Diagnosis Procedure | INFOID:0000000005630258 |
| 1.CHECK STEERING TILT MECHANISM | |
| Check for the following.Mechanism deformation or pinched foreign materials. | |
| Interference with other parts because of poor installation. | |
| Is the inspection result normal? | |

Revision: 2009 November ADP-213 2010 G37 Sedan

YES >> GO TO 2.

< SYMPTOM DIAGNOSIS >

NO >> Repair or replace the malfunction parts.

2.check tilt switch

Check tilt switch.

Refer to ADP-76, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.check tilt motor

Check tilt motor.

Refer to ADP-125, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

4. CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

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

NO >> GO TO 1.

STEERING TELESCOPIC

STEERING TELESCOPIC : Description

INFOID:0000000005630259

Steering telescopic only does not operate when manually operated.

STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000005630260

1. CHECK STEERING TELESCOPIC MECHANISM

Check for the following.

- Mechanism deformation or pinched foreign materials.
- Interference with other parts because of poor installation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2. CHECK TELESCOPIC SWITCH

Check telescopic switch.

Refer to ADP-78, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK TELESCOPIC MOTOR

Check telescopic motor.

Refer to ADP-127, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

4. CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

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

NO >> GO TO 1.

DOOR MIRROR

| MANUAL FUNCTION DOES NOT OPERATE < SYMPTOM DIAGNOSIS > | |
|--|-------------------------|
| DOOR MIRROR : Description | INFOID:0000000005630261 |
| Door mirror does not operate when manually operated. | |
| DOOR MIRROR : Diagnosis Procedure | WEOD COCCOCCOCCOCC |
| | INFOID:0000000005630262 |
| 1.CHECK DOOR MIRROR MECHANISM | |
| Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. | |
| Is the inspection result normal? | |
| YES >> GO TO 2. | |
| NO >> Repair or replace the malfunction parts. 2.CHECK MIRROR SWITCH | |
| Check mirror switch. | |
| Refer to ADP-83, "MIRROR SWITCH: Component Function Check". | |
| Is the inspection result normal? | |
| YES >> GO TO 3. NO >> Repair or replace the malfunction parts. | |
| 3.check mirror motor | |
| Check mirror motor. | |
| Refer to ADP-129, "Component Function Check". | |
| Is the inspection result normal? | |
| YES >> GO TO 4. NO >> Repair or replace the malfunction parts. | |
| 4.CONFIRM THE OPERATION | |
| Check the operation again. | |
| <u>Is the result normal?</u> | |
| YES >> Check intermittent incident. Refer to GI-35, "How to Check Terminal". NO >> GO TO 1. | |
| NO >> GO TO 1. | |
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Revision: 2009 November ADP-215 2010 G37 Sedan

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MEMORY FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

MEMORY FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT: Description

INFOID:0000000005630263

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

ALL COMPONENT : Diagnosis Procedure

INFOID:0000000005630264

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-210, "ALL COMPONENT : Diagnosis Procedure"

2.perform memory storing procedure

Perform memory storing procedure.

Refer to ADP-11, "MEMORY STORING: Special Repair Requirement".

Is the inspection result normal?

YES >> Memory function is normal.

NO >> GO TO 3.

3.CHECK SEAT MEMORY SWITCH

Check seat memory switch.

Refer to ADP-80, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch.

4. CHECK DETENTION SWITCH

Check detention switch.

Refer to ADP-90, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunction parts.

5. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

SEAT SLIDING

SEAT SLIDING : Description

INFOID:0000000005630265

Seat sliding only does not operate when memory operated.

SEAT SLIDING: Diagnosis Procedure

INFOID:0000000005630266

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-211, "SEAT SLIDING : Diagnosis Procedure"

2. CHECK SLIDING SENSOR

Check sliding sensor.

Revision: 2009 November ADP-216 2010 G37 Sedan

MEMORY FUNCTION DOES NOT OPERATE

| < SYMPTOM DIAGNOSIS > | |
|---|---|
| Refer to ADP-94, "Component Function Check". | Δ. |
| Is the inspection result normal? | A |
| YES >> GO TO 3. NO >> Repair or replace the malfunction parts. | |
| 3.CONFIRM THE OPERATION | В |
| Check the operation again. | , |
| Is the result normal? | С |
| YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". | |
| NO >> GO TO 1. SEAT RECLINING | |
| SEAT RECLINING | D |
| SEAT RECLINING : Description | INFOID:0000000005630267 |
| Seat reclining only does not operate when memory operated. | Е |
| SEAT RECLINING : Diagnosis Procedure | INFOID:0000000005630268 |
| 1. CHECK MANUAL OPERATION | F |
| Check manual operation. | |
| Is the inspection result normal? | G |
| YES >> GO TO 2. NO >> Refer to ADP-212, "SEAT RECLINING: Diagnosis Procedure" | |
| 2.CHECK RECLINING SENSOR | Н |
| Check reclining sensor. | |
| Refer to ADP-97, "Component Function Check". | I |
| Is the inspection result normal? | |
| VEC | |
| YES >> GO TO 3. NO >> Repair or replace the malfunction parts. | |
| | ADP |
| NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION | ADP |
| NO >> Repair or replace the malfunction parts. | ADP |
| NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". | |
| NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. | |
| NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) | |
| NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. | K L |
| NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) | K |
| NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description | K L |
| NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description Seat lifting (front) only does not operate when memory operated. | K L INFOID:000000005630269 |
| 3. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description Seat lifting (front) only does not operate when memory operated. SEAT LIFTING (FRONT): Diagnosis Procedure 1. CHECK MANUAL OPERATION Check manual operation. | K L |
| 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description Seat lifting (front) only does not operate when memory operated. SEAT LIFTING (FRONT): Diagnosis Procedure 1.CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? | INFOID:0000000005630269 INFOID:0000000005630270 |
| 3. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description Seat lifting (front) only does not operate when memory operated. SEAT LIFTING (FRONT): Diagnosis Procedure 1. CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. | K L |
| 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description Seat lifting (front) only does not operate when memory operated. SEAT LIFTING (FRONT): Diagnosis Procedure 1.CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-212, "SEAT LIFTING (FRONT): Diagnosis Procedure" | K L |
| 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description Seat lifting (front) only does not operate when memory operated. SEAT LIFTING (FRONT): Diagnosis Procedure 1.CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-212, "SEAT LIFTING (FRONT): Diagnosis Procedure" 2.CHECK LIFTING SENSOR (FRONT) | M INFOID:0000000005630269 M INFOID:0000000005630270 N |
| 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description Seat lifting (front) only does not operate when memory operated. SEAT LIFTING (FRONT): Diagnosis Procedure 1.CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-212, "SEAT LIFTING (FRONT): Diagnosis Procedure" 2.CHECK LIFTING SENSOR (FRONT) Check lifting sensor (front). Refer to ADP-100, "Component Function Check". | M INFOID:0000000005630269 M INFOID:0000000005630270 N |
| 3.confirm the operation Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description Seat lifting (front) only does not operate when memory operated. SEAT LIFTING (FRONT): Diagnosis Procedure 1.CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-212, "SEAT LIFTING (FRONT): Diagnosis Procedure" 2.CHECK LIFTING SENSOR (FRONT) Check lifting sensor (front). Refer to ADP-100. "Component Function Check". Is the inspection result normal? | M INFOID:0000000005630269 M INFOID:0000000005630270 N |
| 3.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. SEAT LIFTING (FRONT) SEAT LIFTING (FRONT): Description Seat lifting (front) only does not operate when memory operated. SEAT LIFTING (FRONT): Diagnosis Procedure 1.CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-212, "SEAT LIFTING (FRONT): Diagnosis Procedure" 2.CHECK LIFTING SENSOR (FRONT) Check lifting sensor (front). Refer to ADP-100, "Component Function Check". | M INFOID:0000000005630269 M INFOID:0000000005630270 N |

MEMORY FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

3.confirm the operation

Check the operation again.

Is the result normal?

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

NO >> GO TO 1.

SEAT LIFTING (REAR)

SEAT LIFTING (REAR): Description

INFOID:0000000005630271

Seat lifting (rear) only does not operate when memory operated.

SEAT LIFTING (REAR) : Diagnosis Procedure

INFOID:0000000005630272

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-213, "SEAT LIFTING (REAR) : Diagnosis Procedure"

2.CHECK LIFTING SENSOR (REAR)

Check lifting sensor (rear).

Refer to ADP-103, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.confirm the operation

Check the operation again.

Is the result normal?

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

NO >> GO TO 1.

STEERING TELESCOPIC

STEERING TELESCOPIC : Description

INFOID:0000000005630273

Steering telescopic only does not operate when memory operated.

STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000005630274

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-214, "STEERING TELESCOPIC : Diagnosis Procedure"

2.CHECK TELESCOPIC SENSOR

Check steering telescopic sensor.

Refer to ADP-109, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

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

Revision: 2009 November ADP-218 2010 G37 Sedan

MEMORY FUNCTION DOES NOT OPERATE

| < SYMPTOM DIAGNOSIS > | | |
|--|-------------------------|--------------|
| NO >> GO TO 1. STEERING TILT | | А |
| STEERING TILT : Description | INFOID:0000000005630275 | |
| Steering tilt only does not operate when memory operated. | | В |
| STEERING TILT : Diagnosis Procedure | INFOID:0000000005630276 | |
| 1.CHECK MANUAL OPERATION | | С |
| Check manual operation. | | D |
| Is the inspection result normal? YES >> GO TO 2. | | |
| NO >> Refer to <u>ADP-213, "STEERING TILT : Diagnosis Procedure"</u> 2.CHECK TILT SENSOR | | Е |
| Check steering tilt sensor. | | |
| Refer to ADP-106, "Component Function Check". | | F |
| Is the inspection result normal? YES >> GO TO 3. | | |
| NO >> Repair or replace the malfunction parts. | | G |
| 3.CONFIRM THE OPERATION | | |
| Check the operation again. Is the result normal? | | Н |
| YES >> Check intermittent incident. Refer to GI-38. "Intermittent Incident". | | |
| NO >> GO TO 1. DOOR MIRROR | | I |
| DOOR MIRROR : Description | INFOID:0000000005630277 | ADF |
| Door mirror does not operate when memory operated. | | ADF |
| DOOR MIRROR : Diagnosis Procedure | INFOID:0000000005630278 | K |
| 1.CHECK MANUAL OPERATION | | |
| Check manual operation. | | L |
| Is the inspection result normal? YES >> GO TO 2. | | |
| NO >> Refer to ADP-215, "DOOR MIRROR : Diagnosis Procedure" | | \mathbb{N} |
| 2.CHECK MIRROR SENSOR | | |
| Check mirror sensor. Refer to <u>ADP-112, "DRIVER SIDE: Component Function Check"</u> . (Driver side) Refer to <u>ADP-114, "PASSENGER SIDE: Component Function Check"</u> . (Passenger side) | | Ν |
| Is the inspection result normal? | | 0 |
| YES >> GO TO 3. NO >> Repair or replace the malfunction parts. | | |
| 3.CONFIRM THE OPERATION | | P |
| Check the operation again. | | E. |
| <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-38</u> , " <u>Intermittent Incident</u> ". | | |
| NO >> GO TO 1. | | |

MEMORY INDICATE DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

MEMORY INDICATE DOES NOT ILLUMINATE

Diagnosis Procedure

INFOID:0000000005630279

1. CHECK MEMORY INDICATOR

Check memory indicator.

Refer to ADP-132, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

| SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE | - A | | |
|---|--------|--|--|
| Diagnosis Procedure | | | |
| 1. CHECK SYNCHRONIZATION FUNCTION | В | | |
| Check seat synchronization function. Refer to ADP-24, "SEAT SYNCHRONIZATION FUNCTION: System Description". | • | | |
| Is the inspection result normal? | С | | |
| YES >> Seat synchronization is OK. NO >> GO TO 2. | | | |
| 2.CHECK SYSTEM SETTING | D | | |
| Check system setting. Refer to ADP-12, "SYSTEM SETTING: Special Repair Requirement". | _ | | |
| Is the inspection result normal? | Е | | |
| YES >> Synchronization function is normal. NO >> GO TO 3. | F | | |
| 3.CONFIRM THE OPERATION | 1 | | |
| Check the operation again. Refer to ADP-24, "SEAT SYNCHRONIZATION FUNCTION: System Description". | G | | |
| Is the result normal? | | | |
| YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> . NO >> Replace driver seat control unit. Refer to <u>ADP-228, "Removal and Installation"</u> . | Н | | |
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ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000005630281

1. PERFORM SYSTEM INITIALIZATION

Check system initialization.

Refer to ADP-10, "SYSTEM INITIALIZATION: Special Repair Requirement".

Is the inspection result normal?

YES >> Entry/Exit function is OK.

NO >> GO TO 2.

 $2. {\sf CHECK} \ {\sf FRONT} \ {\sf DOOR} \ {\sf SWITCH} \ ({\sf DRIVER} \ {\sf SIDE})$

Check front door switch (driver side).

Refer to DLK-66, "Component Function Check".

Is the inspection result normal?

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

NO >> Repair or replace the malfunction parts.

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE Α **Diagnosis Procedure** INFOID:0000000005630282 1. CHECK DOOR LOCK FUNCTION В Check door lock function. Refer to DLK-7, "Work Flow". C Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. D 2.PERFORM MEMORY STORING PROCEDURE Perform memory storing procedure. Refer to ADP-11, "MEMORY STORING: Special Repair Requirement". Е 2. Check Intelligent Key interlock function. Refer to ADP-42, "INTELLIGENT KEY INTERLOCK FUNCTION: System Description". Is the inspection result normal? F >> Intelligent Key inter lock function is normal. YES >> Replace driver seat control unit. Refer to ADP-228, "Removal and Installation". NO Н ADP K L M Ν

ADP-223 Revision: 2009 November 2010 G37 Sedan

ALL FUNCTIONS DO NOT OPERATE

< SYMPTOM DIAGNOSIS >

ALL FUNCTIONS DO NOT OPERATE

Diagnosis Procedure

INFOID:0000000005630283

1. POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit for driver seat control unit.

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

Is the inspection result normal?

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

NO >> Repair or replace malfunction part.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description INFOID:0000000005630284

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

| Symptom | Cause | Action to take | Reference page |
|---|--|--|--|
| | No initialization has been performed. | Perform initialization. | ADP-10 |
| Entry/exit assist function does not operate. | Entry/exit assist function is disabled. NOTE: The entry/exit assist function are enabled before delivery (initial setting). | Change the settings. | ADP-12 |
| Entry assist function does not operate. | Manual operation with power seat switch was performed after exit assist function execution. | Perform the memory function. | ADP-11 |
| Seat synchronization function does not operate. | Seat synchronization function is disabled. NOTE: The entry/exit assist function are disabled before delivery (initial setting). | Change the settings. | ADP-12 |
| | The synchronization function will not operate if the steering (tilt, telescopic) or the door mirror moves to the operating end while the seat synchronization function is operating. | Perform the memory function or drive the vehicle at more than 7 km/h (4 MPH). | ADP-24 |
| | Seat adjustment load has exceed any of the volumes below. Seat sliding: 76 mm Seat reclining: 9.1 degrees Seat lifting (rear): 20 mm | _ | _ |
| Lumbar support does not perform memory operation. | The lumbar support system are controlled independently with no link to the automatic drive positioner system. | _ | Lumbar support system: SE-11 |
| Memory function, entry/exit assist function, seat synchronization function, or Intelligent Key interlock function does not operate. | The operating conditions are not fulfilled. | Fulfill the operation conditions. | Memory function: ADP-29 |
| | | | Exit assist function: <u>ADP-34</u> |
| | | | Entry assist function: <u>ADP-38</u> |
| | | | Seat synchronization function: <u>ADP-24</u> |
| | | | Intelligent Key interlock function: ADP-42 |

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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.

Service INFOID:000000005630286

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

Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.

Then rub with a soft and dry cloth.

PRECAUTIONS

< PRECAUTION >

- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.
 - Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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DRIVER SEAT CONTROL UNIT

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

DRIVER SEAT CONTROL UNIT

Exploded View

Refer to SE-125, "Exploded View".

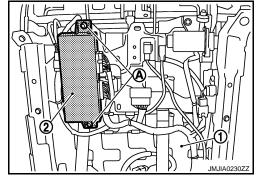
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove the driver seat (1). Refer to <u>SE-128, "Removal and Installation"</u>.
- 2. Remove the mounting bolts (A).
- 3. Remove driver seat control unit (2).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when replacing control unit. Refer to <u>ADP-10</u>, "ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

Refer to IP-12, "A/T MODELS: Exploded View".

Removal and Installation

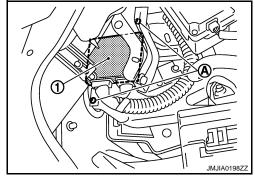
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove the battery negative terminal.
- 2. Remove the instrument driver lower panel. Refer to IP-13, "A/T MODELS: Removal and Installation".
- 3. Remove the screws (A).
- 4. Remove automatic drive positioner control unit (1).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

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SEAT MEMORY SWITCH

< REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Exploded View

Refer to INT-12, "Exploded View".

Removal and Installation

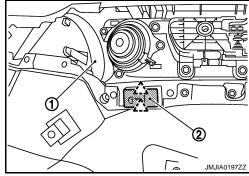
REMOVAL

CAUTION:

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

- 1. Disconnect battery negative terminal.
- 2. Remove the front door finisher (1). Refer to INT-12, "Removal and Installation".
- 3. Press pawls and remove seat memory switch (2) from front door finisher (1).





INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

POWER SEAT SWITCH

< REMOVAL AND INSTALLATION >

POWER SEAT SWITCH

Exploded View

Refer to SE-125, "Exploded View".

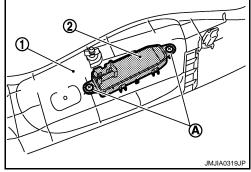
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove the seat cushion outer finisher (1). Refer to <u>SE-128</u>, "Removal and Installation".
- 2. Remove the screws (A).
- 3. Remove the power seat switch (2) from the seat cushion outer finisher (1).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".

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TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

TILT&TELESCOPIC SWITCH

Exploded View

Refer to IP-12, "A/T MODELS: Exploded View".

Removal and Installation

INFOID:0000000005630297

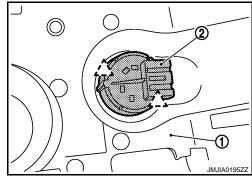
REMOVAL

CAUTION:

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

- 1. Disconnect battery negative terminal.
- 2. Remove the steering column mask (1). Refer to IP-13, "A/T MODELS: Removal and Installation".
- 3. Press pawls and remove tilt & telescopic switch (2) from the steering column mask (1).





INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to clump the harness to the right place.

NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".