

# SECTION **ADP**

## AUTOMATIC DRIVE POSITIONER

A  
B  
C  
D  
E  
F  
G  
H  
I  
K  
L  
M  
N  
O  
P

### CONTENTS

<p><b>BASIC INSPECTION</b> ..... 6</p> <p><b>DIAGNOSIS AND REPAIR WORK FLOW</b> ..... 6</p> <p style="padding-left: 20px;">Work Flow .....6</p> <p><b>INSPECTION AND ADJUSTMENT</b> ..... 9</p> <p><b>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</b> .....9</p> <p style="padding-left: 20px;">ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description .....9</p> <p style="padding-left: 20px;">ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement .....9</p> <p><b>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT</b> .....9</p> <p style="padding-left: 20px;">ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description .....9</p> <p style="padding-left: 20px;">ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement .... 10</p> <p><b>SYSTEM INITIALIZATION</b> ..... 10</p> <p style="padding-left: 20px;">SYSTEM INITIALIZATION : Description ..... 10</p> <p style="padding-left: 20px;">SYSTEM INITIALIZATION : Special Repair Requirement ..... 10</p> <p><b>MEMORY STORING</b> ..... 10</p> <p style="padding-left: 20px;">MEMORY STORING : Description ..... 11</p> <p style="padding-left: 20px;">MEMORY STORING : Special Repair Requirement ..... 11</p> <p><b>SYSTEM SETTING</b> ..... 12</p> <p style="padding-left: 20px;">SYSTEM SETTING : Description ..... 12</p> <p style="padding-left: 20px;">SYSTEM SETTING : Special Repair Requirement ..... 12</p> <p><b>SYSTEM DESCRIPTION</b> ..... 14</p> <p><b>AUTOMATIC DRIVE POSITIONER SYSTEM</b>....14</p> <p><b>AUTOMATIC DRIVE POSITIONER SYSTEM</b> ..... 14</p>	<p><b>AUTOMATIC DRIVE POSITIONER SYSTEM :</b></p> <p style="padding-left: 20px;">System Diagram .....14</p> <p><b>AUTOMATIC DRIVE POSITIONER SYSTEM :</b></p> <p style="padding-left: 20px;">System Description .....15</p> <p><b>AUTOMATIC DRIVE POSITIONER SYSTEM :</b></p> <p style="padding-left: 20px;">Component Parts Location .....16</p> <p><b>AUTOMATIC DRIVE POSITIONER SYSTEM :</b></p> <p style="padding-left: 20px;">Component Description .....17</p> <p><b>MANUAL FUNCTION</b> .....19</p> <p style="padding-left: 20px;">MANUAL FUNCTION : System Diagram .....19</p> <p style="padding-left: 20px;">MANUAL FUNCTION : System Description .....19</p> <p style="padding-left: 20px;">MANUAL FUNCTION : Component Parts Location .....21</p> <p style="padding-left: 20px;">MANUAL FUNCTION : Component Description ....22</p> <p><b>SEAT SYNCHRONIZATION FUNCTION</b> .....23</p> <p style="padding-left: 20px;">SEAT SYNCHRONIZATION FUNCTION : System Diagram .....24</p> <p style="padding-left: 20px;">SEAT SYNCHRONIZATION FUNCTION : System Description .....24</p> <p style="padding-left: 20px;">SEAT SYNCHRONIZATION FUNCTION : Component Parts Location .....26</p> <p style="padding-left: 20px;">SEAT SYNCHRONIZATION FUNCTION : Component Description .....27</p> <p><b>MEMORY FUNCTION</b> .....28</p> <p style="padding-left: 20px;">MEMORY FUNCTION : System Diagram .....29</p> <p style="padding-left: 20px;">MEMORY FUNCTION : System Description .....29</p> <p style="padding-left: 20px;">MEMORY FUNCTION : Component Parts Location .....31</p> <p style="padding-left: 20px;">MEMORY FUNCTION : Component Description....32</p> <p><b>EXIT ASSIST FUNCTION</b> .....33</p> <p style="padding-left: 20px;">EXIT ASSIST FUNCTION : System Diagram .....34</p> <p style="padding-left: 20px;">EXIT ASSIST FUNCTION : System Description ....34</p> <p style="padding-left: 20px;">EXIT ASSIST FUNCTION : Component Parts Location .....35</p> <p style="padding-left: 20px;">EXIT ASSIST FUNCTION : Component Description .....37</p> <p><b>ENTRY ASSIST FUNCTION</b> .....37</p>
---	---

ADP

ENTRY ASSIST FUNCTION : System Diagram ....	38	<b>B2128 UART COMMUNICATION LINE .....</b>	<b>64</b>
ENTRY ASSIST FUNCTION : System Description	... 38	Description .....	64
ENTRY ASSIST FUNCTION : Component Parts		DTC Logic .....	64
Location .....	39	Diagnosis Procedure .....	64
ENTRY ASSIST FUNCTION :		<b>POWER SUPPLY AND GROUND CIRCUIT ....</b>	<b>65</b>
Component Description .....	41	<b>BCM .....</b>	<b>65</b>
<b>INTELLIGENT KEY INTERLOCK FUNCTION .....</b>	<b>41</b>	BCM : Diagnosis Procedure .....	65
INTELLIGENT KEY INTERLOCK FUNCTION :		<b>DRIVER SEAT CONTROL UNIT .....</b>	<b>65</b>
System Diagram .....	42	DRIVER SEAT CONTROL UNIT :	
INTELLIGENT KEY INTERLOCK FUNCTION :		Diagnosis Procedure .....	65
System Description .....	42	DRIVER SEAT CONTROL UNIT : Special Repair	
INTELLIGENT KEY INTERLOCK FUNCTION :		Requirement .....	66
Component Parts Location .....	43	<b>AUTOMATIC DRIVE POSITIONER CONTROL</b>	
INTELLIGENT KEY INTERLOCK FUNCTION :		<b>UNIT .....</b>	<b>66</b>
Component Description .....	45	AUTOMATIC DRIVE POSITIONER CONTROL	
<b>DIAGNOSIS SYSTEM (DRIVER SEAT C/U) ....</b>	<b>46</b>	UNIT : Diagnosis Procedure .....	66
Diagnosis Description .....	46	AUTOMATIC DRIVE POSITIONER CONTROL	
CONSULT-III Function .....	46	UNIT : Special Repair Requirement .....	67
<b>DTC/CIRCUIT DIAGNOSIS .....</b>	<b>49</b>	<b>SLIDING SWITCH .....</b>	<b>68</b>
<b>U1000 CAN COMM CIRCUIT .....</b>	<b>49</b>	Description .....	68
Description .....	49	Component Function Check .....	68
DTC Logic .....	49	Diagnosis Procedure .....	68
Diagnosis Procedure .....	49	Component Inspection .....	69
Special Repair Requirement .....	49	<b>RECLINING SWITCH .....</b>	<b>70</b>
<b>B2112 SLIDING MOTOR .....</b>	<b>50</b>	Description .....	70
Description .....	50	Component Function Check .....	70
DTC Logic .....	50	Diagnosis Procedure .....	70
Diagnosis Procedure .....	50	Component Inspection .....	71
<b>B2113 RECLINING MOTOR .....</b>	<b>52</b>	<b>LIFTING SWITCH (FRONT) .....</b>	<b>72</b>
Description .....	52	Description .....	72
DTC Logic .....	52	Component Function Check .....	72
Diagnosis Procedure .....	52	Diagnosis Procedure .....	72
<b>B2118 TILT SENSOR .....</b>	<b>54</b>	Component Inspection .....	73
Description .....	54	<b>LIFTING SWITCH (REAR) .....</b>	<b>74</b>
DTC Logic .....	54	Description .....	74
Diagnosis Procedure .....	54	Component Function Check .....	74
<b>B2119 TELESCOPIC SENSOR .....</b>	<b>57</b>	Diagnosis Procedure .....	74
Description .....	57	Component Inspection .....	75
DTC Logic .....	57	<b>TILT SWITCH .....</b>	<b>76</b>
Diagnosis Procedure .....	57	Description .....	76
<b>B2126 DETENT SW .....</b>	<b>60</b>	Component Function Check .....	76
Description .....	60	Diagnosis Procedure .....	76
DTC Logic .....	60	Component Inspection .....	77
Diagnosis Procedure .....	60	<b>TELESCOPIC SWITCH .....</b>	<b>78</b>
<b>B2127 PARKING BRAKE SWITCH .....</b>	<b>62</b>	Description .....	78
Description .....	62	Component Function Check .....	78
DTC Logic .....	62	Diagnosis Procedure .....	78
Diagnosis Procedure .....	62	Component Inspection .....	79
Component Inspection .....	63	<b>SEAT MEMORY SWITCH .....</b>	<b>80</b>
		Description .....	80
		Component Function Check .....	80

Diagnosis Procedure .....	80	Diagnosis Procedure .....	106
Component Inspection .....	81	<b>TELESCOPIC SENSOR .....</b>	<b>109</b>
<b>DOOR MIRROR REMOTE CONTROL SWITCH .....</b>	<b>83</b>	Description .....	109
<b>MIRROR SWITCH .....</b>	<b>83</b>	Component Function Check .....	109
MIRROR SWITCH : Description .....	83	Diagnosis Procedure .....	109
MIRROR SWITCH : Component Function Check...	83	<b>MIRROR SENSOR .....</b>	<b>112</b>
MIRROR SWITCH : Diagnosis Procedure .....	83	<b>DRIVER SIDE .....</b>	<b>112</b>
MIRROR SWITCH : Component Inspection .....	84	DRIVER SIDE : Description .....	112
<b>CHANGEOVER SWITCH .....</b>	<b>85</b>	DRIVER SIDE : Component Function Check .....	112
CHANGEOVER SWITCH : Description .....	85	DRIVER SIDE : Diagnosis Procedure .....	112
CHANGEOVER SWITCH : Component Function Check .....	85	<b>PASSENGER SIDE .....</b>	<b>114</b>
CHANGEOVER SWITCH : Diagnosis Procedure...	85	PASSENGER SIDE : Description .....	114
CHANGEOVER SWITCH : Component Inspection .....	86	PASSENGER SIDE :	
<b>POWER SEAT SWITCH GROUND CIRCUIT ....</b>	<b>88</b>	Component Function Check .....	114
Diagnosis Procedure .....	88	PASSENGER SIDE : Diagnosis Procedure .....	114
<b>TILT &amp; TELESCOPIC SWITCH GROUND CIRCUIT .....</b>	<b>89</b>	<b>SLIDING MOTOR .....</b>	<b>117</b>
Diagnosis Procedure .....	89	Description .....	117
<b>DETENTION SWITCH .....</b>	<b>90</b>	Component Function Check .....	117
Description .....	90	Diagnosis Procedure .....	117
Component Function Check .....	90	Component Inspection .....	118
Diagnosis Procedure .....	90	<b>RECLINING MOTOR .....</b>	<b>119</b>
Component Inspection .....	91	Description .....	119
<b>PARKING BRAKE SWITCH .....</b>	<b>92</b>	Component Function Check .....	119
Description .....	92	Diagnosis Procedure .....	119
Component Function Check .....	92	Component Inspection .....	120
Diagnosis Procedure .....	92	<b>LIFTING MOTOR (FRONT) .....</b>	<b>121</b>
Component Inspection .....	93	Description .....	121
<b>SLIDING SENSOR .....</b>	<b>94</b>	Component Function Check .....	121
Description .....	94	Diagnosis Procedure .....	121
Component Function Check .....	94	Component Inspection .....	122
Diagnosis Procedure .....	94	<b>LIFTING MOTOR (REAR) .....</b>	<b>123</b>
<b>RECLINING SENSOR .....</b>	<b>97</b>	Description .....	123
Description .....	97	Component Function Check .....	123
Component Function Check .....	97	Diagnosis Procedure .....	123
Diagnosis Procedure .....	97	Component Inspection .....	124
<b>LIFTING SENSOR (FRONT) .....</b>	<b>100</b>	<b>TILT MOTOR .....</b>	<b>125</b>
Description .....	100	Description .....	125
Component Function Check .....	100	Component Function Check .....	125
Diagnosis Procedure .....	100	Diagnosis Procedure .....	125
<b>LIFTING SENSOR (REAR) .....</b>	<b>103</b>	Component Inspection .....	126
Description .....	103	<b>TELESCOPIC MOTOR .....</b>	<b>127</b>
Component Function Check .....	103	Description .....	127
Diagnosis Procedure .....	103	Component Function Check .....	127
<b>TILT SENSOR .....</b>	<b>106</b>	Diagnosis Procedure .....	127
Description .....	106	Component Inspection .....	128
Component Function Check .....	106	<b>DOOR MIRROR MOTOR .....</b>	<b>129</b>
		Description .....	129
		Component Function Check .....	129
		Diagnosis Procedure .....	129
		Component Inspection .....	130

A  
B  
C  
D  
E  
F  
G  
H  
I  
K  
L  
M  
N  
O  
P

ADP

<b>SEAT MEMORY INDICATOR</b> .....	<b>132</b>	<b>SEAT LIFTING (REAR)</b> .....	<b>206</b>
Description .....	132	SEAT LIFTING (REAR) : Description .....	206
Component Function Check .....	132	SEAT LIFTING (REAR) : Diagnosis Procedure ...	206
Diagnosis Procedure .....	132	<b>STEERING TILT</b> .....	<b>206</b>
<b>DOOR MIRROR SYSTEM</b> .....	<b>134</b>	STEERING TILT : Description .....	206
Wiring Diagram - DOOR MIRROR (WITH AUTO-		STEERING TILT : Diagnosis Procedure .....	206
MATIC DRIVE POSITIONER) - .....	134	<b>STEERING TELESCOPIC</b> .....	<b>207</b>
<b>ECU DIAGNOSIS INFORMATION</b> .....	<b>139</b>	STEERING TELESCOPIC : Description .....	207
<b>DRIVER SEAT CONTROL UNIT</b> .....	<b>139</b>	STEERING TELESCOPIC : Diagnosis Procedure.	207
Reference Value .....	139	<b>DOOR MIRROR</b> .....	<b>207</b>
Wiring Diagram - AUTOMATIC DRIVE POSI-		DOOR MIRROR : Description .....	208
TIONER CONTROL SYSTEM - .....	144	DOOR MIRROR : Diagnosis Procedure .....	208
Fail Safe .....	152	<b>MEMORY FUNCTION DOES NOT OPERATE.</b>	<b>209</b>
DTC Index .....	153	<b>ALL COMPONENT</b> .....	<b>209</b>
<b>AUTOMATIC DRIVE POSITIONER CON-</b>		ALL COMPONENT : Description .....	209
<b>TROL UNIT</b> .....	<b>154</b>	ALL COMPONENT : Diagnosis Procedure .....	209
Reference Value .....	154	<b>SEAT SLIDING</b> .....	<b>209</b>
Wiring Diagram - AUTOMATIC DRIVE POSI-		SEAT SLIDING : Description .....	209
TIONER CONTROL SYSTEM - .....	158	SEAT SLIDING : Diagnosis Procedure .....	209
<b>BCM (BODY CONTROL MODULE)</b> .....	<b>167</b>	<b>SEAT RECLINING</b> .....	<b>210</b>
Reference Value .....	167	SEAT RECLINING : Description .....	210
Wiring Diagram - BCM - .....	191	SEAT RECLINING : Diagnosis Procedure .....	210
Fail-safe .....	196	<b>SEAT LIFTING (FRONT)</b> .....	<b>210</b>
DTC Inspection Priority Chart .....	198	SEAT LIFTING (FRONT) : Description .....	210
DTC Index .....	200	SEAT LIFTING (FRONT) : Diagnosis Procedure .	210
<b>SYMPTOM DIAGNOSIS</b> .....	<b>203</b>	<b>SEAT LIFTING (REAR)</b> .....	<b>211</b>
<b>MANUAL FUNCTION DOES NOT OPERATE</b>	<b>203</b>	SEAT LIFTING (REAR) : Description .....	211
<b>ALL COMPONENT</b> .....	<b>203</b>	SEAT LIFTING (REAR) : Diagnosis Procedure ...	211
ALL COMPONENT : Description .....	203	<b>STEERING TELESCOPIC</b> .....	<b>211</b>
ALL COMPONENT : Diagnosis Procedure .....	203	STEERING TELESCOPIC : Description .....	211
<b>POWER SEAT</b> .....	<b>203</b>	STEERING TELESCOPIC : Diagnosis Procedure.	211
POWER SEAT : Description .....	203	<b>STEERING TILT</b> .....	<b>212</b>
POWER SEAT : Diagnosis Procedure .....	203	STEERING TILT : Description .....	212
<b>STEERING POSITION FUNCTION DOES NOT</b>		STEERING TILT : Diagnosis Procedure .....	212
<b>OPERATE</b> .....	<b>203</b>	<b>DOOR MIRROR</b> .....	<b>212</b>
STEERING POSITION FUNCTION DOES NOT		DOOR MIRROR : Description .....	212
OPERATE : Description .....	203	DOOR MIRROR : Diagnosis Procedure .....	212
STEERING POSITION FUNCTION DOES NOT		<b>MEMORY INDICATE DOES NOT ILLUMI-</b>	<b>213</b>
OPERATE : Diagnosis Procedure .....	204	<b>NATE</b> .....	<b>213</b>
<b>SEAT SLIDING</b> .....	<b>204</b>	Diagnosis Procedure .....	213
SEAT SLIDING : Description .....	204	<b>SEAT SYNCHRONIZATION FUNCTION</b>	
SEAT SLIDING : Diagnosis Procedure .....	204	<b>DOES NOT OPERATE</b> .....	<b>214</b>
<b>SEAT RECLINING</b> .....	<b>204</b>	Diagnosis Procedure .....	214
SEAT RECLINING : Description .....	204	<b>ENTRY/EXIT ASSIST FUNCTION DOES NOT</b>	
SEAT RECLINING : Diagnosis Procedure .....	205	<b>OPERATE</b> .....	<b>215</b>
<b>SEAT LIFTING (FRONT)</b> .....	<b>205</b>	Diagnosis Procedure .....	215
SEAT LIFTING (FRONT) : Description .....	205		
SEAT LIFTING (FRONT) : Diagnosis Procedure ..	205		

<b>INTELLIGENT KEY INTERLOCK FUNCTION</b>		
<b>DOES NOT OPERATE</b> .....	216	
Diagnosis Procedure .....	216	
<b>ALL FUNCTIONS DO NOT OPERATE</b> .....	217	
Diagnosis Procedure .....	217	
<b>NORMAL OPERATING CONDITION</b> .....	218	
Description .....	218	
<b>PRECAUTION</b> .....	219	
<b>PRECAUTIONS</b> .....	219	
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER" .....	219	
Service .....	219	
Work .....	219	
<b>REMOVAL AND INSTALLATION</b> .....	221	
<b>DRIVER SEAT CONTROL UNIT</b> .....	221	A
Exploded View .....	221	
Removal and Installation .....	221	
<b>AUTOMATIC DRIVE POSITIONER CON- TROL UNIT</b> .....	222	B
Exploded View .....	222	
Removal and Installation .....	222	
<b>SEAT MEMORY SWITCH</b> .....	223	C
Exploded View .....	223	
Removal and Installation .....	223	
<b>POWER SEAT SWITCH</b> .....	224	D
Exploded View .....	224	
Removal and Installation .....	224	
<b>TILT&amp;TELESCOPIC SWITCH</b> .....	225	E
Exploded View .....	225	
Removal and Installation .....	225	
		F
		G
		H
		I
		ADP
		K
		L
		M
		N
		O
		P

# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

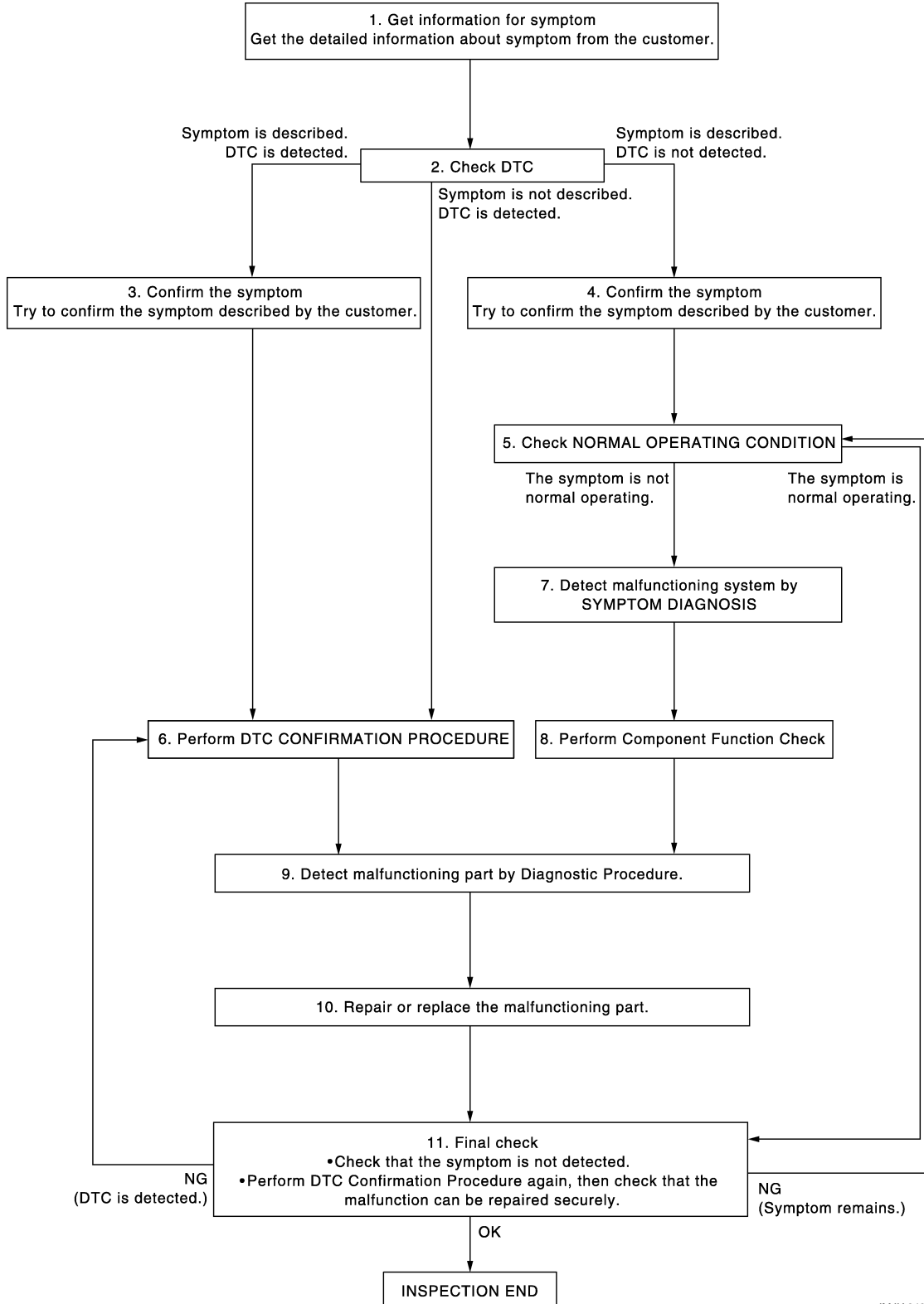
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000004556684

#### OVERALL SEQUENCE



JMJIA2428GB

#### DETAILED FLOW

# DIAGNOSIS AND REPAIR WORK FLOW

## < BASIC INSPECTION >

### 1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

### 2.CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

Check "Self Diagnostic Result" with CONSULT-III. Refer to [ADP-153, "DTC Index"](#)

Is any symptom described and any DTC is displayed?

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

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

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

### 3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 6.

### 4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 5.

### 5.CHECK NORMAL OPERATING CONDITION

Check normal operating condition. Refer to [ADP-218, "Description"](#).

Is the incident normal operation?

YES >> INSPECTION END

NO >> GO TO 7.

### 6.PERFORM DTC CONFIRMATION PROCEDURE

Perform the confirmation procedure for the detected DTC.

Is the DTC displayed?

YES >> GO TO 8.

NO >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).

### 7.PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 8.

### 8.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

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

>> GO TO 9.

### 9.REPARE OR REPLACE

Repair or replace the malfunctioning part.

>> GO TO 10.

### 10.FINAL CHECK

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

Are all malfunctions corrected?

A  
B  
C  
D  
E  
F  
G  
H  
I  
K  
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M  
N  
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P

ADP

## DIAGNOSIS AND REPAIR WORK FLOW

### < BASIC INSPECTION >

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



# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

## INSPECTION AND ADJUSTMENT

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:000000004556685

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

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

\*1: This function only for AT model.

\*2: Default value is 40mm.

#### NOTE:

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

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:000000004556686

#### 1.SYSTEM INITIALIZATION

Perform system initialization. Refer to [ADP-10, "SYSTEM INITIALIZATION : Description"](#).

>> GO TO 2.

#### 2.SYSTEM SETTING

Perform system setting. Refer to [ADP-12, "SYSTEM SETTING : Description"](#).

>> GO TO 3.

#### 3.MEMORY STORAGE

Perform memory storage. Refer to [ADP-11, "MEMORY STORING : Description"](#).

>> END

### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000004556687

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

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

\*1: This function only for AT model.

\*2: Default value is 40mm.

#### NOTE:

# 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

INFOID:000000004556688

### 1. SYSTEM INITIALIZATION

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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:000000004556689

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:000000004556690

## INITIALIZATION PROCEDURE

### 1. CHOOSE METHOD

---

There are two initialization methods.

Which method do you use?

With door switch>>GO TO 2.

With vehicle speed>>GO TO 4.

### 2. STEP A-1

---

Turn ignition switch from ACC to OFF position.

>> GO TO 3.

### 3. STEP A-2

---

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

>> END

### 4. STEP B-1

---

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

>> END

## MEMORY STORING

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

## MEMORY STORING : Description

INFOID:000000004637260

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

## MEMORY STORING : Special Repair Requirement

INFOID:000000004637261

### Memory Storage Procedure

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

#### 1. STEP 1

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

>> GO TO 2.

#### 2. STEP 2

Turn ignition switch ON.

>> GO TO 3.

#### 3. STEP 3

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

>> GO TO 4.

#### 4. STEP 4

1. Push set switch.

**NOTE:**

- Memory indicator for which driver seat position is already retained in memory is illuminated for 5 seconds.
- Memory indicator for which driver seat position is not retained in memory is illuminated for 0.5 second.

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

**NOTE:**

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

Do you need linking of Intelligent Key?

YES >> GO TO 6.

NO >> GO TO 5.

#### 5. STEP 5

Confirm the operation of each part with memory operation.

>> END

#### 6. STEP 6

Turn ignition switch OFF (LOCK).

>> GO TO 7.

#### 7. STEP 7

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

**NOTE:**

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

>> GO TO 8.

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# 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

INFOID:000000004556693

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)

×: Applicable

Item	Content	CONSULT-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]	x	—	40mm
Entry/exit assist (seat)	Entry/exit assist (seat) can be selected: ON (operated) – OFF (not operated)	x	x	ON
Entry/exit assist (steering column)	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	x		ON
Seat synchronization	Seat synchronization can be selected: ON (operated) – OFF (not operated)	—	—	OFF
Reset custom settings	All settings can be set to default (factory setting).	—	—	—

#### Setting Change (For MT models)

×: Applicable

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

### SYSTEM SETTING : Special Repair Requirement

INFOID:000000004556694

## 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.

With CONSULT-III>>GO TO 7.

---

## 5. WITH SET SWITCH - STEP 1 (FOR AT MODELS)

---

1. Turn ignition switch OFF.
2. Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.
  - Entry/exit assist (seat/steering column) and seat are ON: Memory switch indicator blink two times.
  - Entry/exit assist (seat/steering column) and seat are OFF: Memory switch indicator blink once.

>> GO TO 6.

---

## 6. WITH SET SWITCH - STEP 2 (FOR AT MODELS)

---

1. Turn ignition switch ACC.
2. Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.
  - Seat synchronization are ON: Memory switch indicator blink two times.
  - Seat synchronization are OFF: Memory switch indicator blink once.

>> END

---

## 7. WITH CONSULT-III - STEP 1 (FOR AT MODELS)

---

Select "Work support".

>> GO TO 8.

---

## 8. WITH CONSULT-III - STEP 2 (FOR AT MODELS)

---

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

>> END

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ADP

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

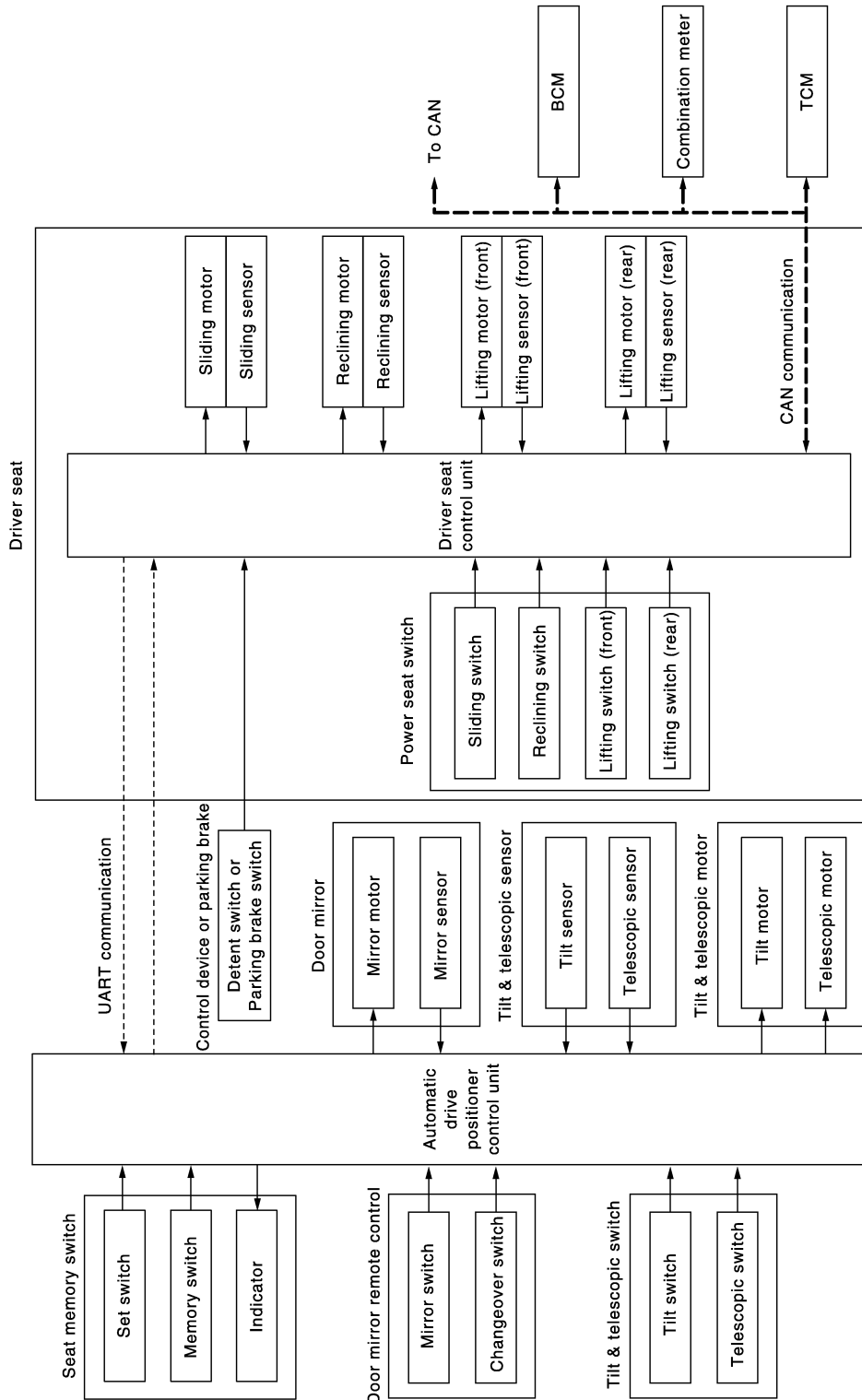
## SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram

INFOID:000000004556695



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# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

INFOID:000000004556696

### OUTLINE

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

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

### NOTE:

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

### SLEEP MODE

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

### WAKE-UP MODE

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

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

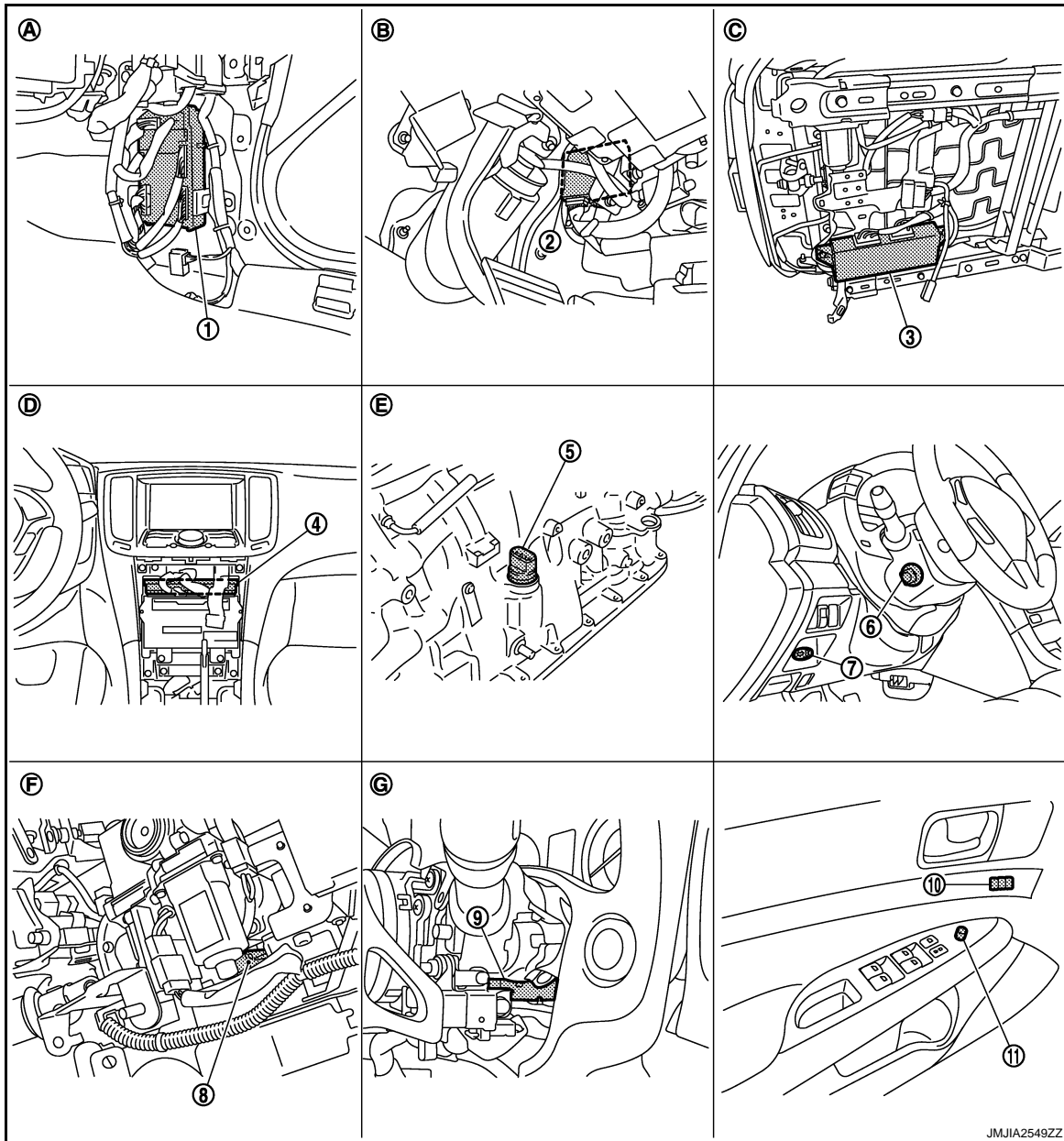
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ADP

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location INFOID:000000004556697



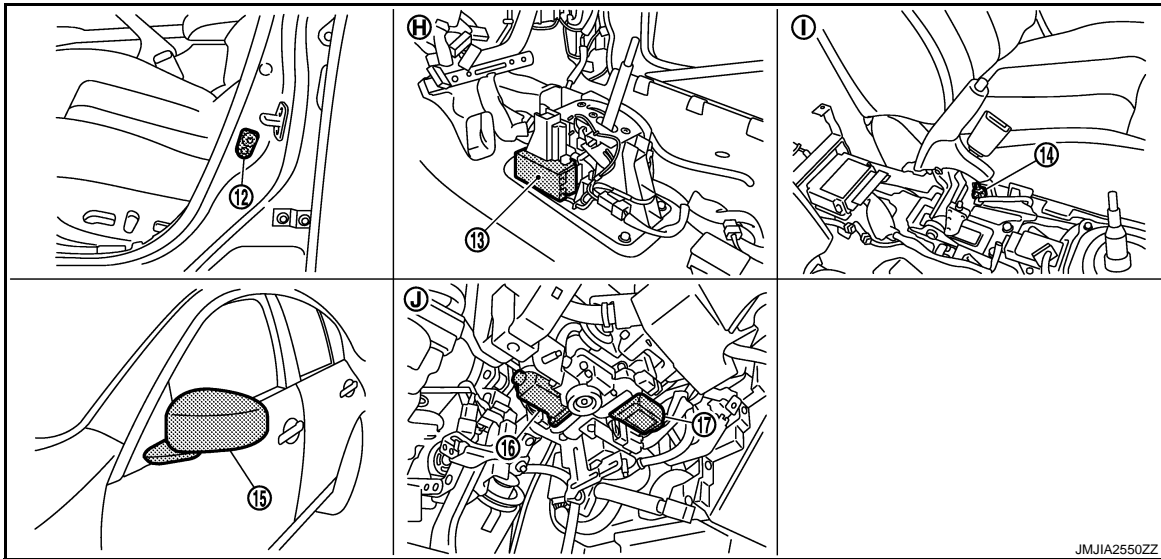
JMJJA2549ZZ

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

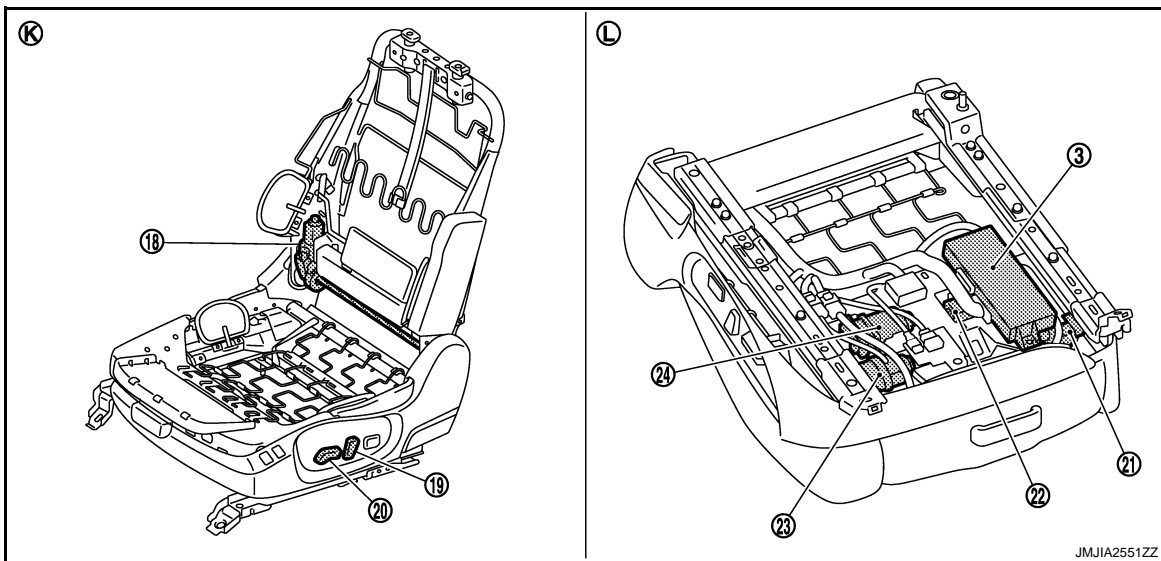


# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >



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



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

## AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:000000004556698

### CONTROL UNITS

# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

Item	Function
Driver seat control unit	<ul style="list-style-type: none"> <li>• Main units of automatic drive positioner system</li> <li>• It is connected to the CAN.</li> <li>• It communicates with the automatic drive positioner control via UART communication.</li> </ul>
Automatic drive positioner control unit	<ul style="list-style-type: none"> <li>• It communicates with the driver seat control unit via UART communication.</li> <li>• Perform various controls with the instructions of driver seat control unit.</li> <li>• Perform the controls of the tilt &amp; telescopic, door mirror and the seat memory switch.</li> </ul>
BCM	Transmit the following status to the driver seat control unit via CAN communication. <ul style="list-style-type: none"> <li>• Driver door: OPEN/CLOSE</li> <li>• Ignition switch position: ACC/ON</li> <li>• Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation)</li> <li>• Key ID</li> <li>• Key switch: Insert/Pull out Intelligent Key</li> <li>• Starter: CRANKING/OTHER</li> </ul>
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. <ul style="list-style-type: none"> <li>• Reclining switch</li> <li>• Lifting switch (front)</li> <li>• Lifting switch (rear)</li> <li>• Sliding switch</li> </ul> The specific parts can be operated with the operation of each switch.
Tilt & telescopic switch	The following switch is installed. <ul style="list-style-type: none"> <li>• Tilt switch</li> <li>• Telescopic switch</li> </ul> The specific parts can be operated with the operation of each switch.
Door mirror remote control switch	The following switch is installed. <ul style="list-style-type: none"> <li>• Mirror switch</li> <li>• Changeover switch</li> </ul> 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).

# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

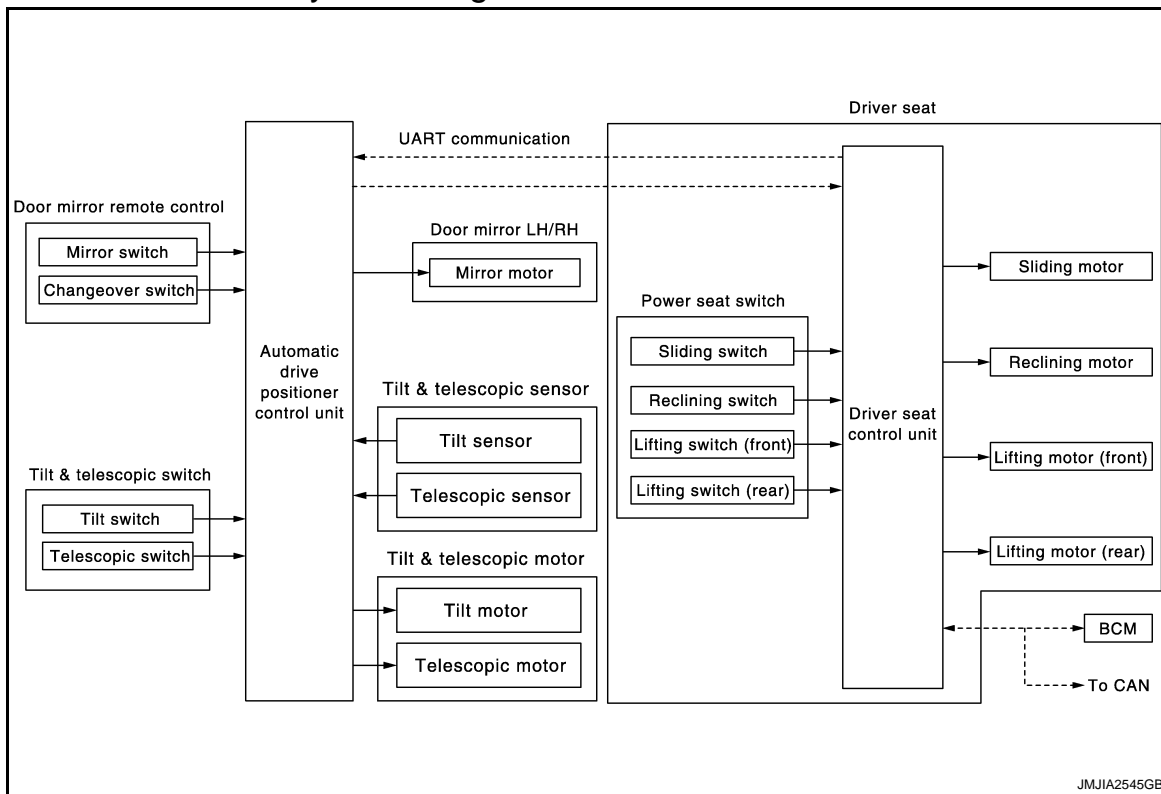
Item	Function
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the front/rear position of seat.

## OUTPUT PARTS

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

## MANUAL FUNCTION

### MANUAL FUNCTION : System Diagram



### MANUAL FUNCTION : System Description

INFOID:000000004556700

#### OUTLINE

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

#### OPERATION PROCEDURE

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

#### DETAIL FLOW

# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

### Seat

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

### Tilt & Telescopic

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

\*: Tilt does not operate upward when tilt sensor voltage is less than 1.2 V, tilt does not operate downward when the sensor value is bigger than 3.4 V. Telescopic does not operate 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:**

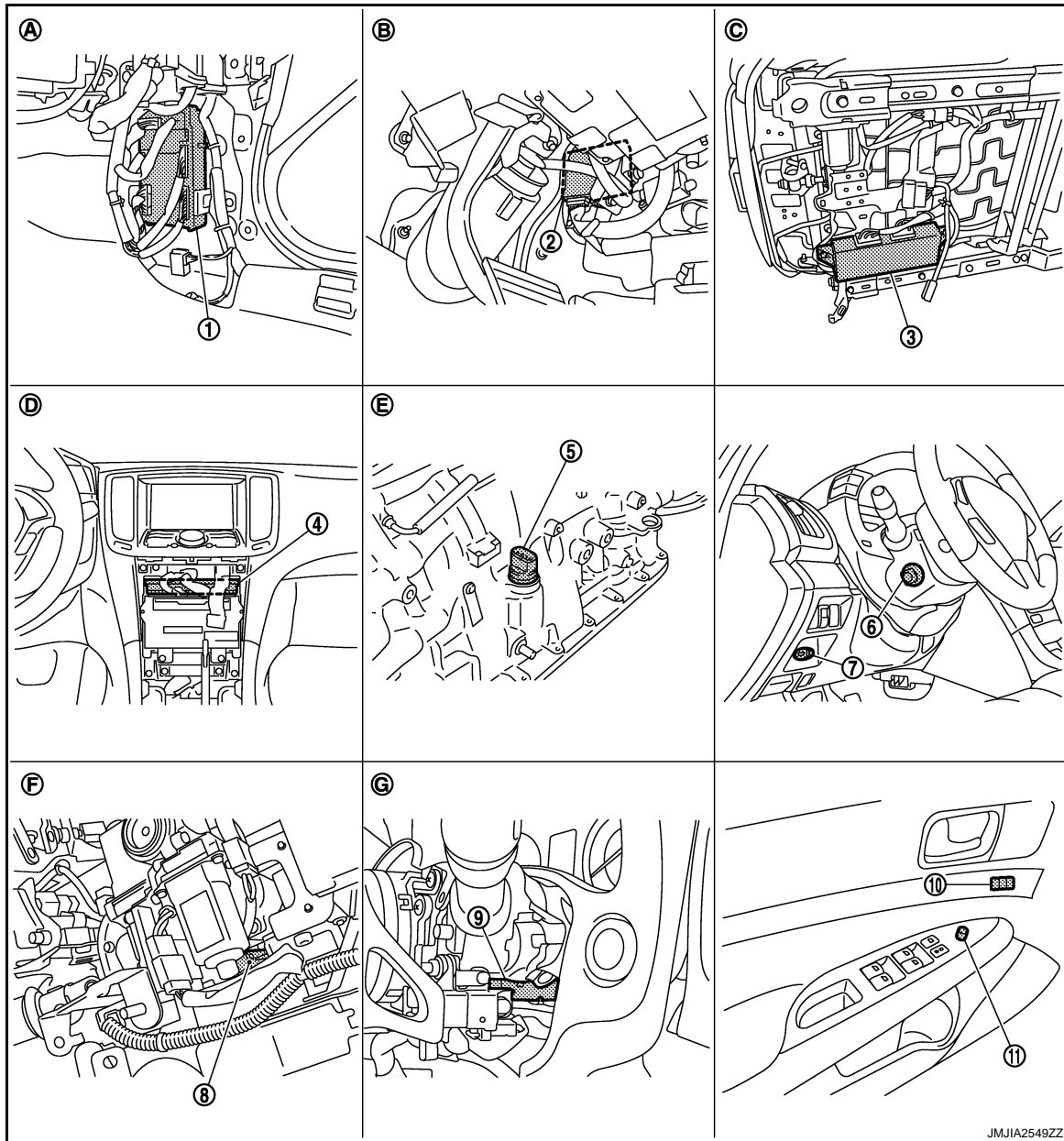
The door mirrors can be operated manually when ignition switch is in either ACC or ON position. The ignition switch signal (ACC/ON) is transmitted from BCM to the driver seat control unit via CAN communication and from the driver seat control unit to the automatic drive positioner control unit via UART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

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## MANUAL FUNCTION : Component Parts Location

INFOID:000000004556701



1. BCM M118, M119, M122, M123

2. Automatic drive positioner control unit M51, M52

3. Driver seat control unit B451, B452

4. Unified meter and A/C amp. M67

5. AT assembly F51

6. Tilt & telescopic switch M31

7. Key slot M22

8. Tilt sensor M48

9. Telescopic sensor M48

10. Seat memory switch D5

11. Door mirror remote control switch D17

A. Dash side lower (passenger side)

B. View with instrument driver lower panel removed

C. Backside of seat cushion (driver side)

D. Behind cluster lid C

E. AT assembly (TCM is built in AT assembly)

F. View with instrument driver lower panel removed

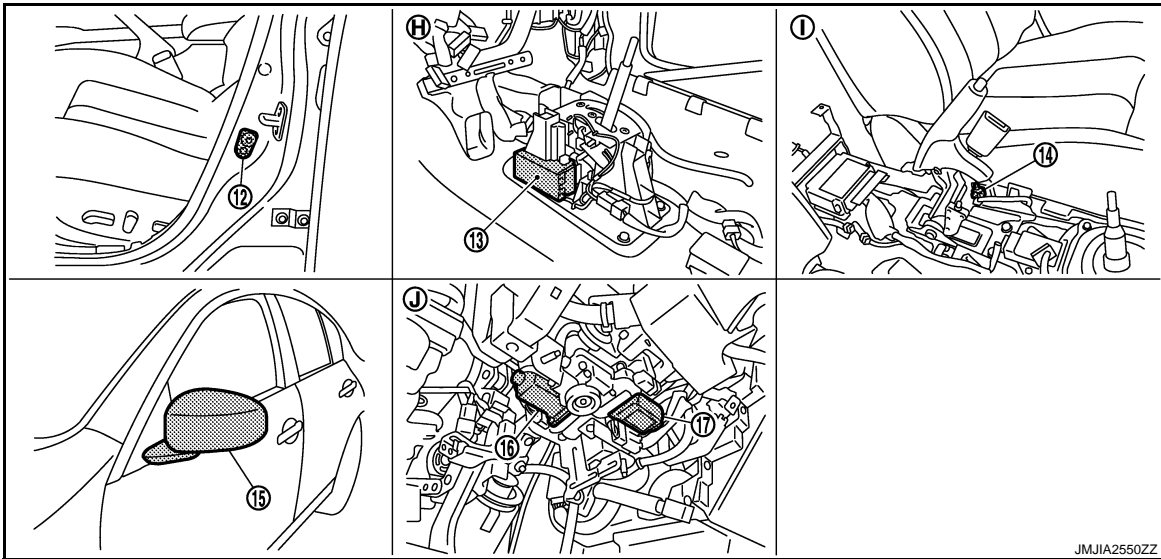
G. View with steering column cover lower and upper removed

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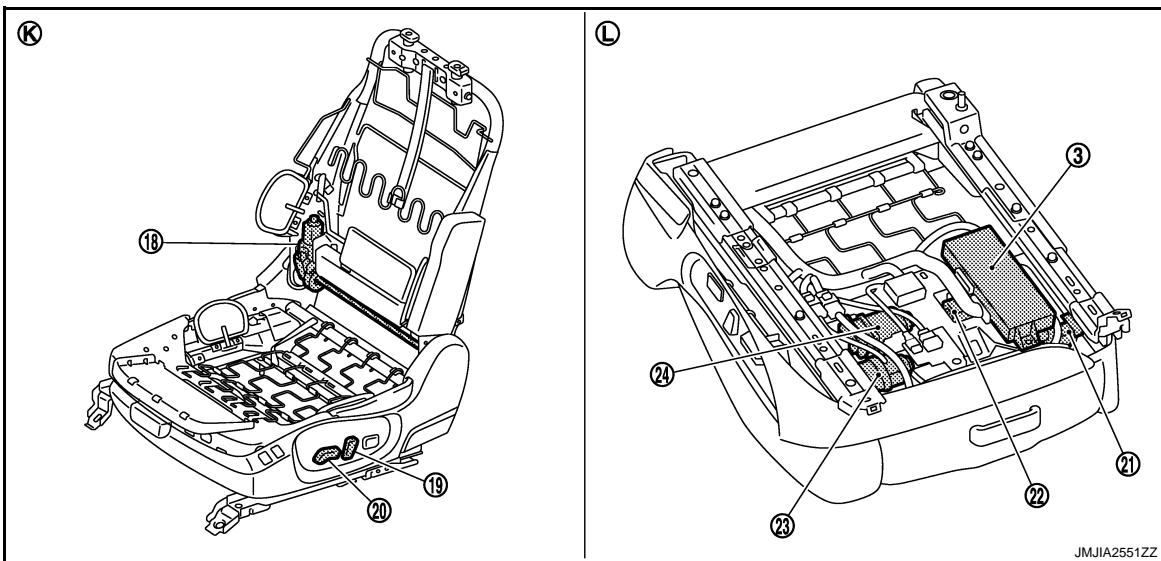
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# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >



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



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

## MANUAL FUNCTION : Component Description

INFOID:000000004556702

## CONTROL UNITS

# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

Item	Function
Driver seat control unit	<ul style="list-style-type: none"> <li>• Operates the specific seat motor with the signal from the power seat switch.</li> <li>• Transmits the ignition switch signal (ACC/ON) via UART communication to the automatic drive positioner control unit.</li> </ul>
Automatic drive positioner control unit	Operates the specific motor with the signal from tilt & telescopic switch or door mirror remote control switch.
BCM	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. <ul style="list-style-type: none"> <li>• Ignition position: ACC/ON</li> </ul>

## INPUT PARTS

### Switches

Item	Function
Power seat switch	The following switch is installed. <ul style="list-style-type: none"> <li>• Reclining switch</li> <li>• Lifting switch (front)</li> <li>• Lifting switch (rear)</li> <li>• Sliding switch</li> </ul> The specific parts can be operated with the operation of each switch.
Tilt & telescopic switch	The following switch is installed. <ul style="list-style-type: none"> <li>• Tilt switch</li> <li>• Telescopic switch</li> </ul> The specific parts can be operated with the operation of each switch.
Door mirror remote control switch	The following switch is installed. <ul style="list-style-type: none"> <li>• Mirror switch</li> <li>• Changeover switch</li> </ul> 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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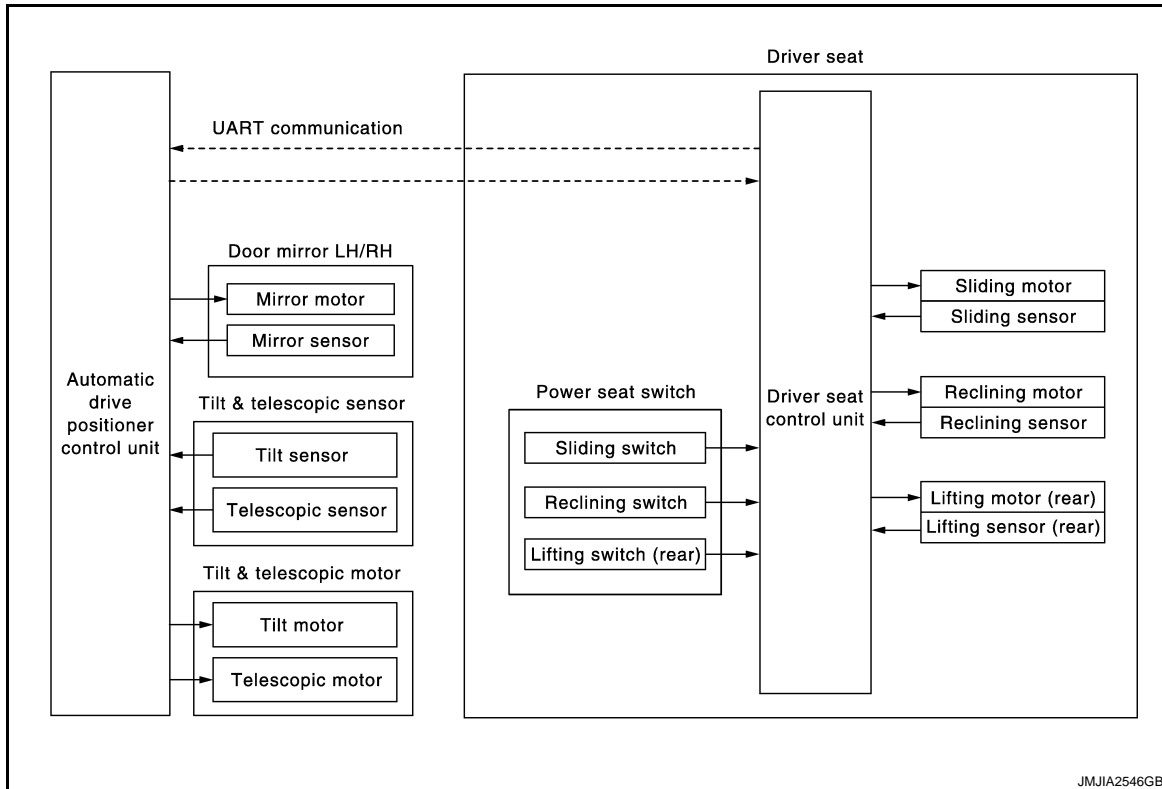
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# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## SEAT SYNCHRONIZATION FUNCTION : System Diagram

INFOID:000000004556703



## SEAT SYNCHRONIZATION FUNCTION : System Description

INFOID:000000004556704

### OUTLINE

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

#### NOTE:

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

For the system setting procedure. Refer to [ADP-12, "SYSTEM SETTING : Description"](#).

### OPERATION PROCEDURE

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

#### NOTE:

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

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

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

### OPERATION CONDITION

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



# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

Item	Request status
Ignition position	ON
System setting	ON
Switch inputs <ul style="list-style-type: none"> <li>• Power seat switch</li> <li>• Tilt &amp; telescopic switch</li> <li>• Door mirror remote control switch</li> <li>• Set switch</li> <li>• Memory switch</li> </ul>	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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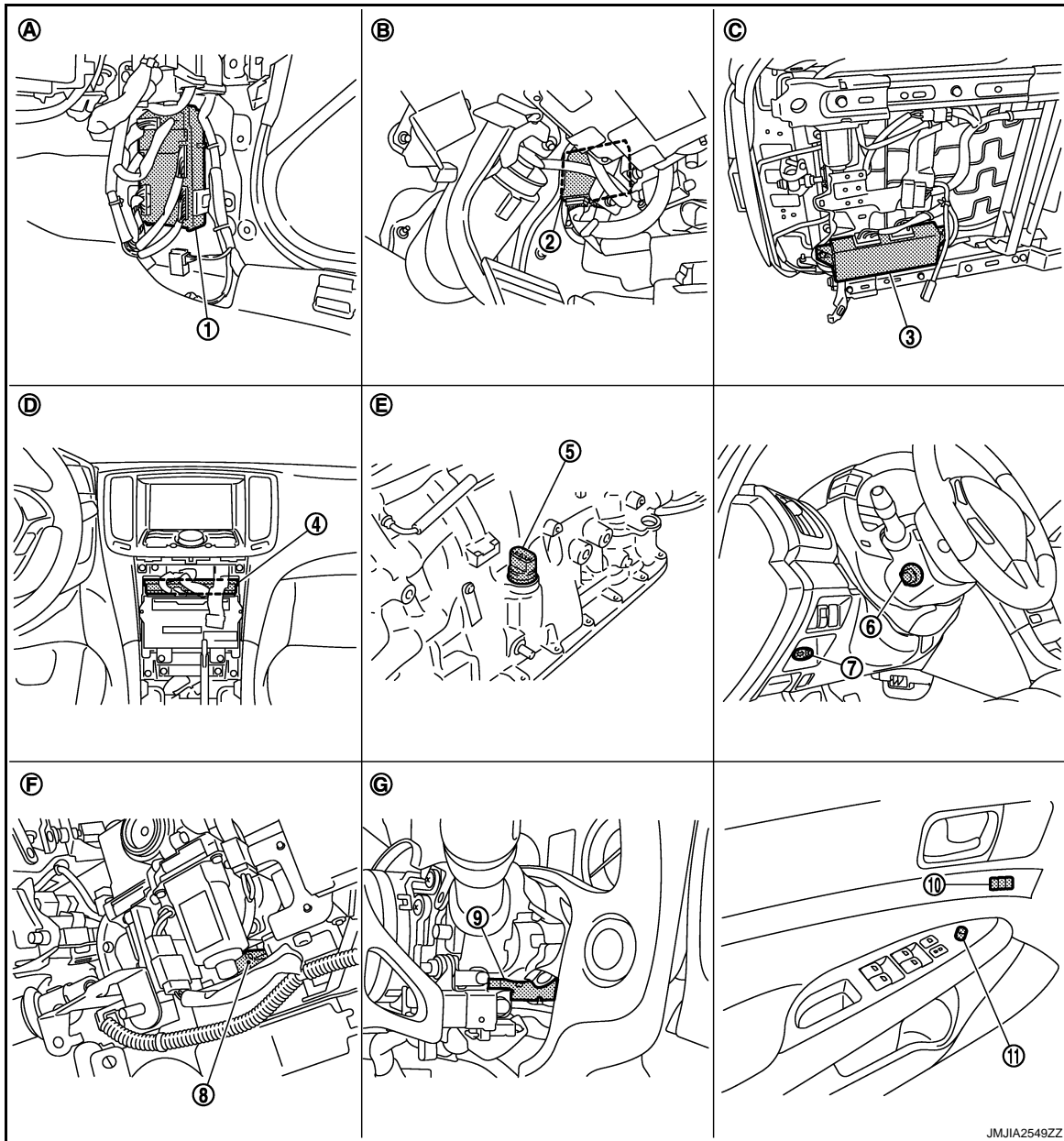
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# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## SEAT SYNCHRONIZATION FUNCTION : Component Parts Location

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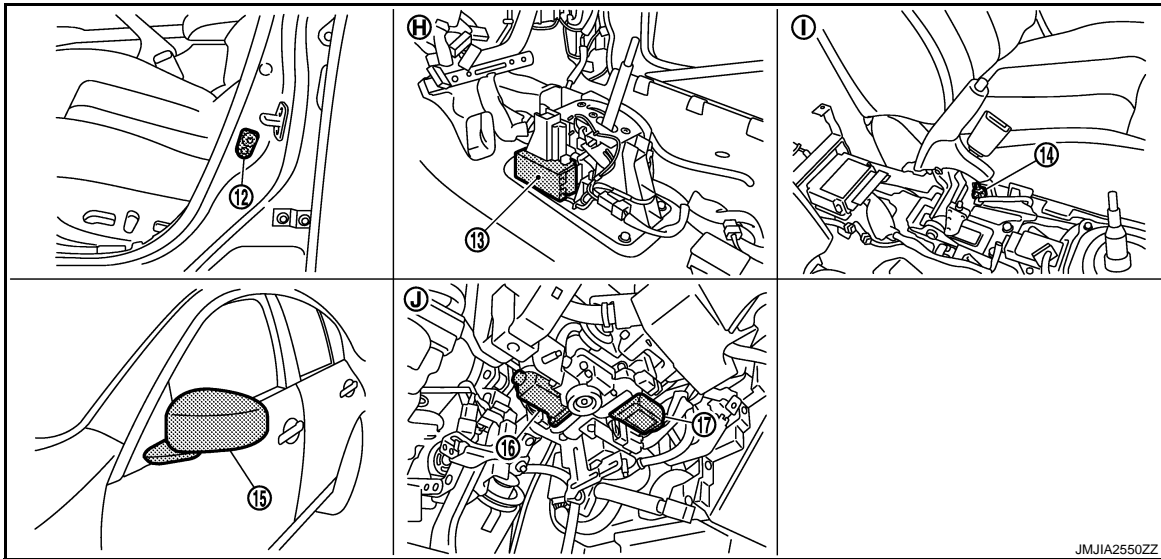


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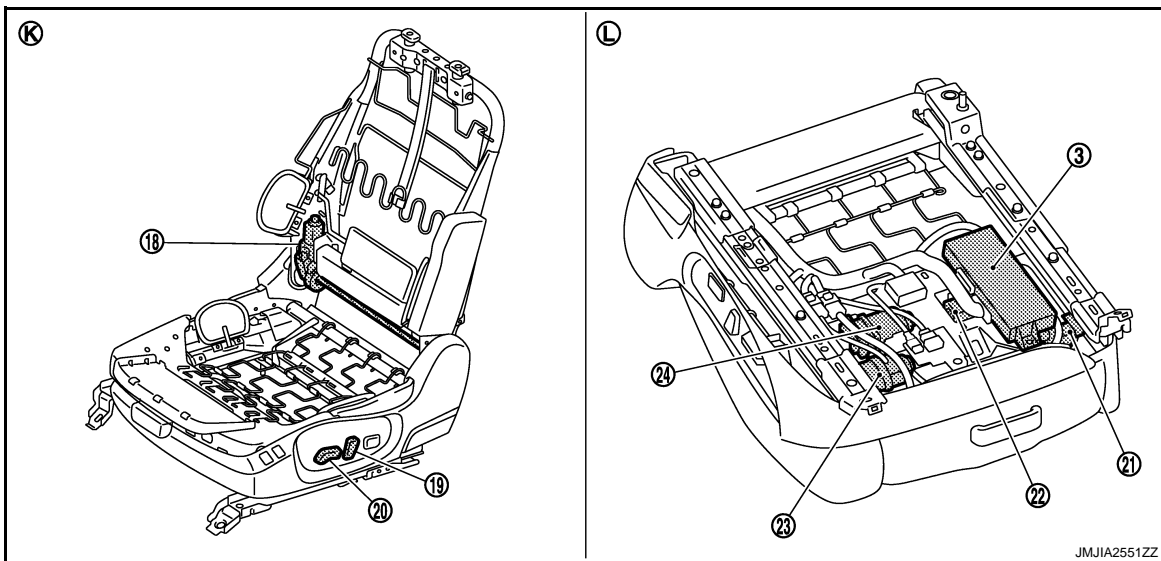
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|--|---|--|
| 1. BCM M118, M119, M122, M123                              | 2. Automatic drive positioner control unit M51, M52 | 3. Driver seat control unit B451, B452             |
| 4. Unified meter and A/C amp. M67                          | 5.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

# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >



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



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

## SEAT SYNCHRONIZATION FUNCTION : Component Description

INFOID:000000004556706

### 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.

# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

### INPUT PARTS

#### Switches

Item	Function
Power seat switch	The following switch is installed. <ul style="list-style-type: none"><li>• Reclining switch</li><li>• Lifting switch (front)</li><li>• Lifting switch (rear)</li><li>• Sliding switch</li></ul> 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.

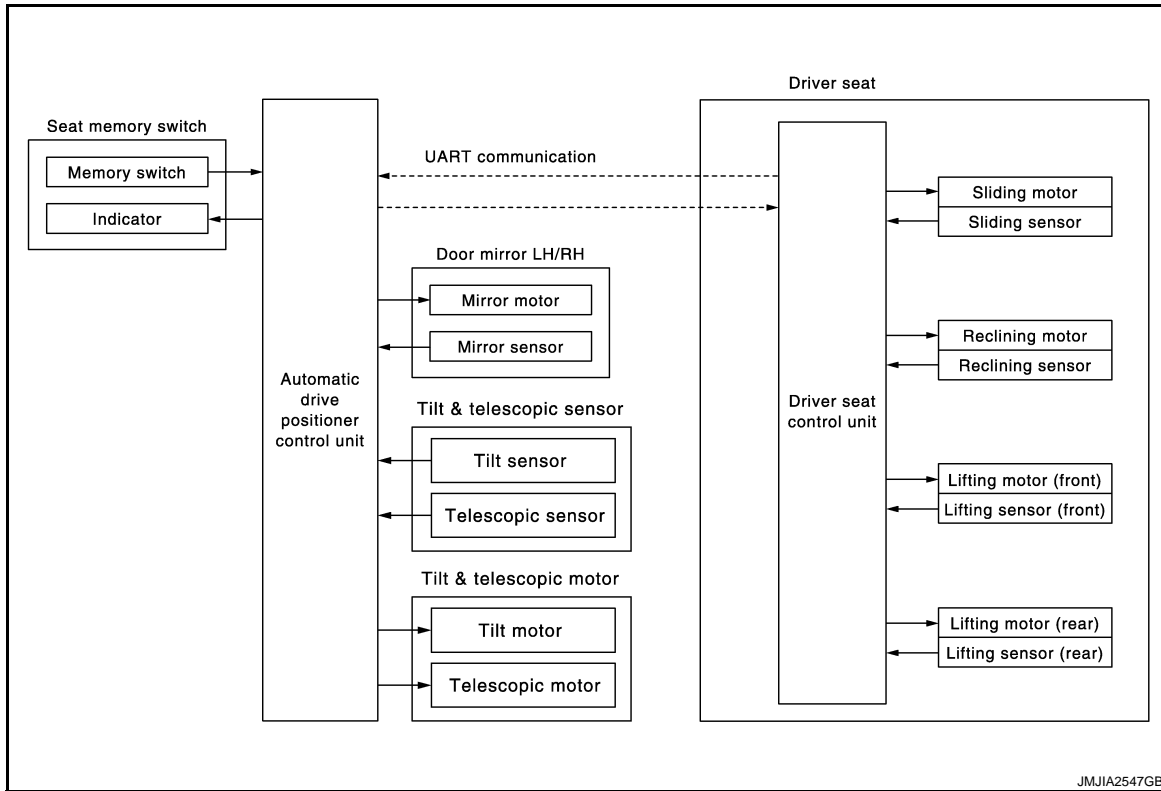
### MEMORY FUNCTION

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## MEMORY FUNCTION : System Diagram

INFOID:000000004556707



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## MEMORY FUNCTION : System Description

INFOID:000000004556708

### OUTLINE

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

### NOTE:

Further information for the memory storage procedure. Refer to [ADP-11, "MEMORY STORING : Description"](#).

ADP

### OPERATION PROCEDURE

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

### OPERATION CONDITION

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

Item	Request status
Ignition position	ON
Switch inputs <ul style="list-style-type: none"> <li>• Power seat switch</li> <li>• Tilt &amp; telescopic switch</li> <li>• Door mirror control switch</li> <li>• Set switch</li> <li>• Memory switch</li> </ul>	OFF (Not operated)
AT selector lever (only for AT model)	P position
Parking break (only for MT models)	Applied

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### DETAIL FLOW

# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

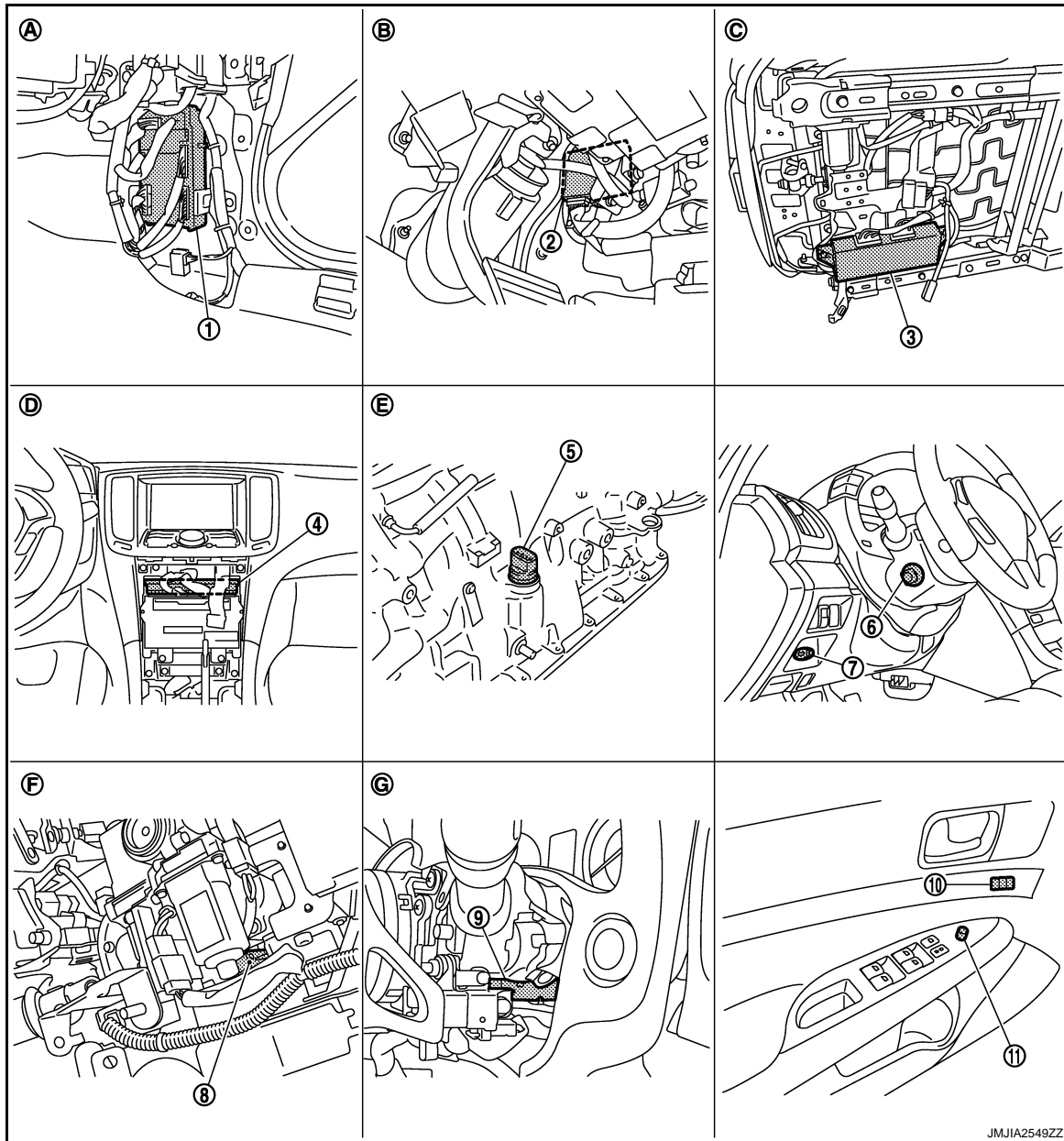
Order	Input	Output	Control unit condition
1	Memory switch	—	The memory switch signal is inputted to the automatic drive positioner control unit when memory switch 1 or 2 is operated. Memory switch signal is input to driver seat control unit via UART communication.
2	—	Motors (Seat, Steering, door mirror)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

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## MEMORY FUNCTION : Component Parts Location

INFOID:000000004556709

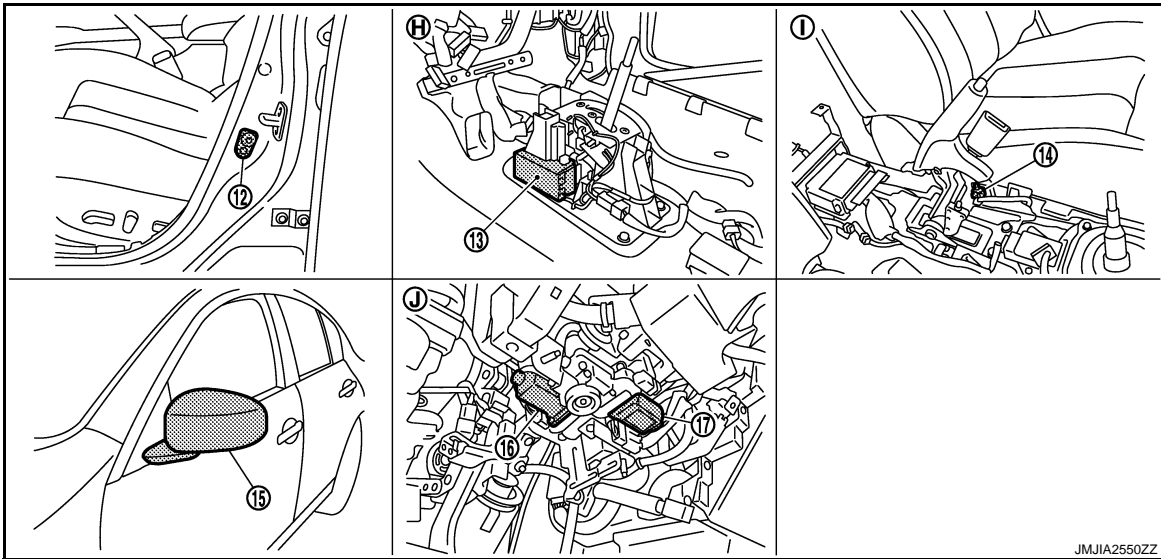


- |  |   |  |
|--|---|--|
| 1. BCM M118, M119, M122, M123                              | 2. Automatic drive positioner control unit M51, M52 | 3. Driver seat control unit B451, B452             |
| 4. Unified meter and A/C amp. M67                          | 5. AT assembly F51                       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

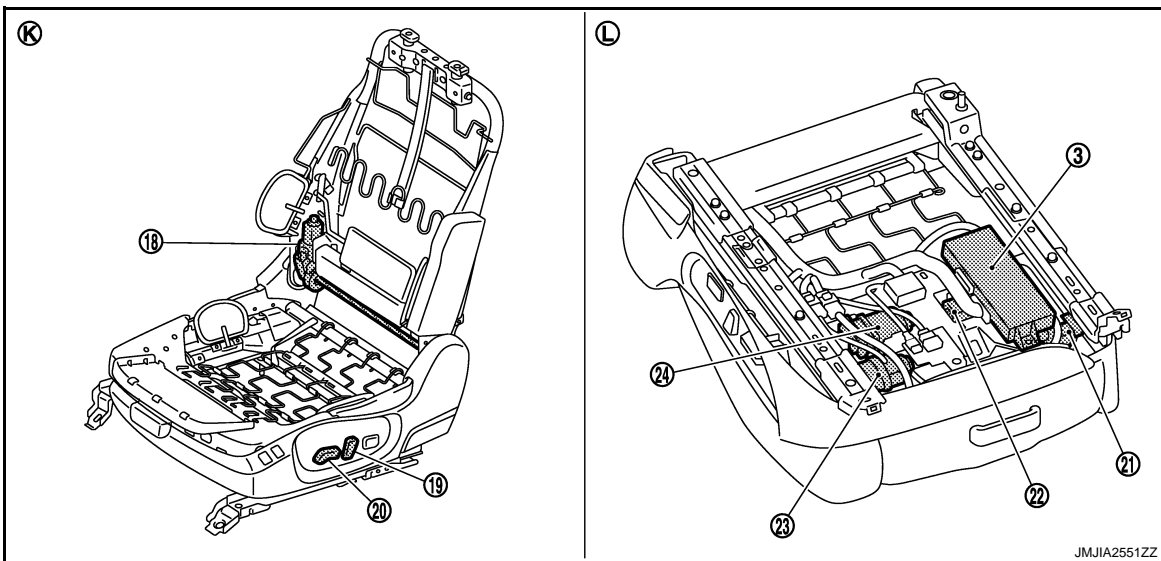
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# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >



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



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

## MEMORY FUNCTION : Component Description

INFOID:000000004556710

### CONTROL UNITS



# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

Item	Function
Driver seat control unit	<ul style="list-style-type: none"> <li>The address of each part is recorded.</li> <li>Operates each motor of seat to the registered position.</li> <li>Requests the operations of steering column and door mirror to automatic drive positioner control unit</li> </ul>
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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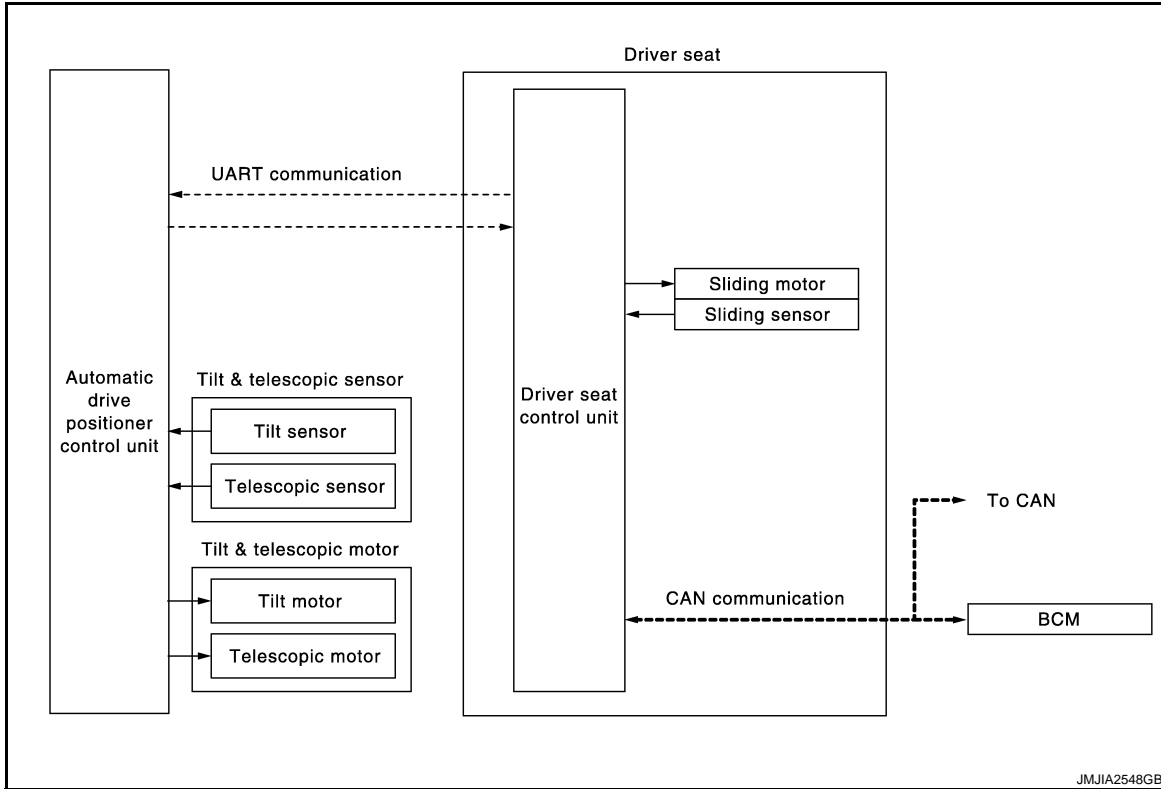
ADP

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## EXIT ASSIST FUNCTION : System Diagram

INFOID:000000004556711



## EXIT ASSIST FUNCTION : System Description

INFOID:000000004556712

### OUTLINE

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

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

### NOTE:

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

### OPERATION PROCEDURE

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

### OPERATION CONDITION

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

Item	Request status
Ignition position	OFF
System setting	ON
Initialization	Done
Switch inputs <ul style="list-style-type: none"> <li>• Power seat switch</li> <li>• Tilt &amp; telescopic switch</li> <li>• Door mirror remote control switch</li> <li>• Set switch</li> <li>• Memory switch</li> </ul>	OFF (Not operated)
AT selector lever	P position

### DETAIL FLOW

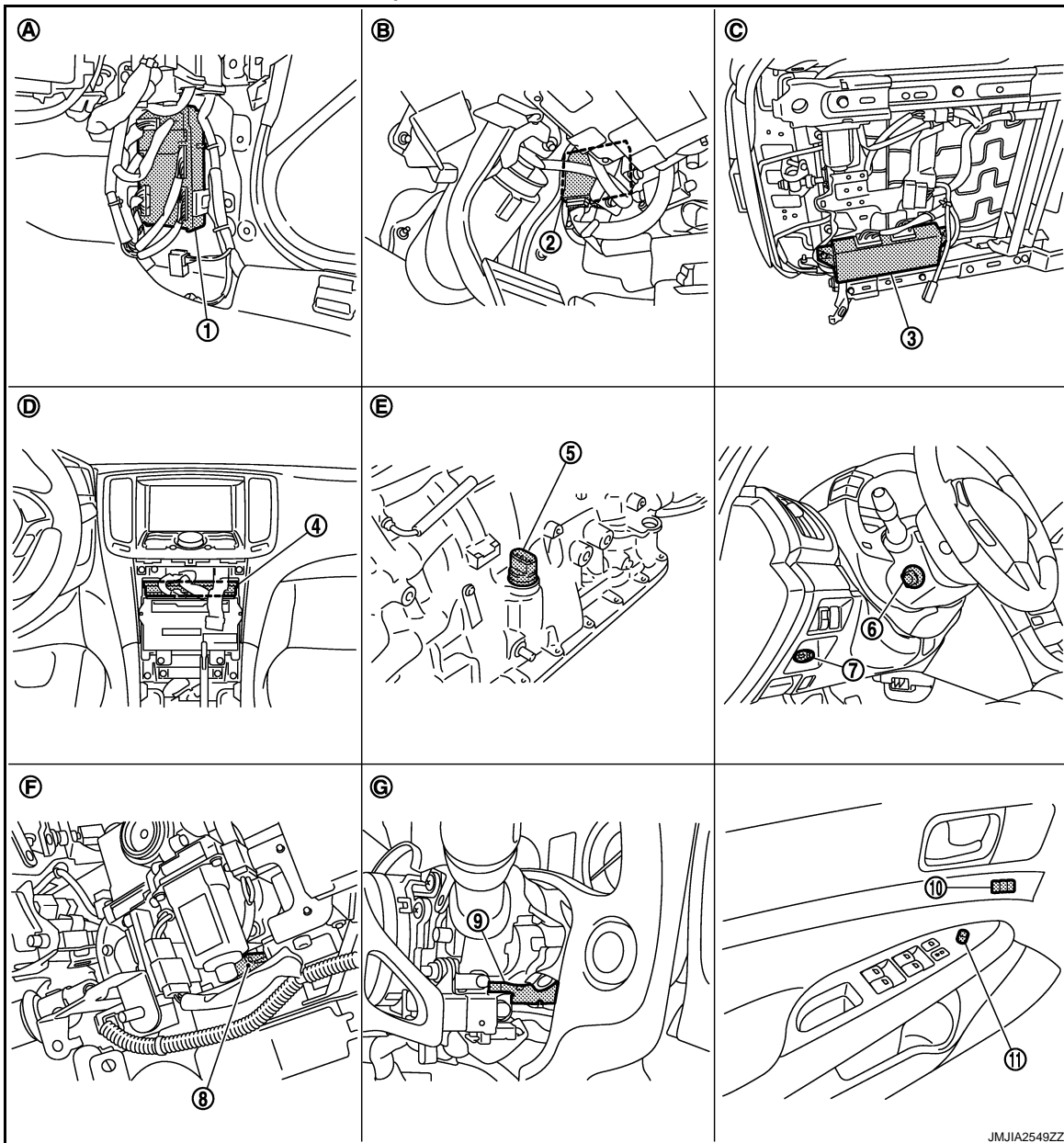
# AUTOMATIC DRIVE POSITIONER SYSTEM

## < 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.

## EXIT ASSIST FUNCTION : Component Parts Location

INFOID:000000004556713

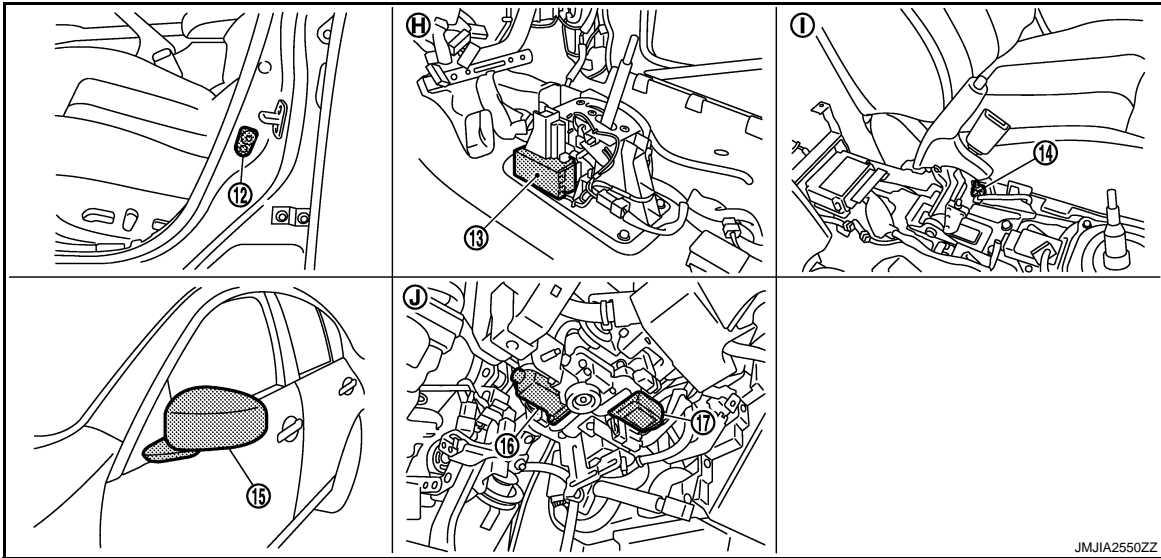


- |                                   |   |  |
|-----------------------------------|---|--|
| 1. BCM M118, M119, M122, M123     | 2. Automatic drive positioner control unit M51, M52 | 3. Driver seat control unit B451, B452 |
| 4. Unified meter and A/C amp. M67 | 5. AT assembly F51                   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

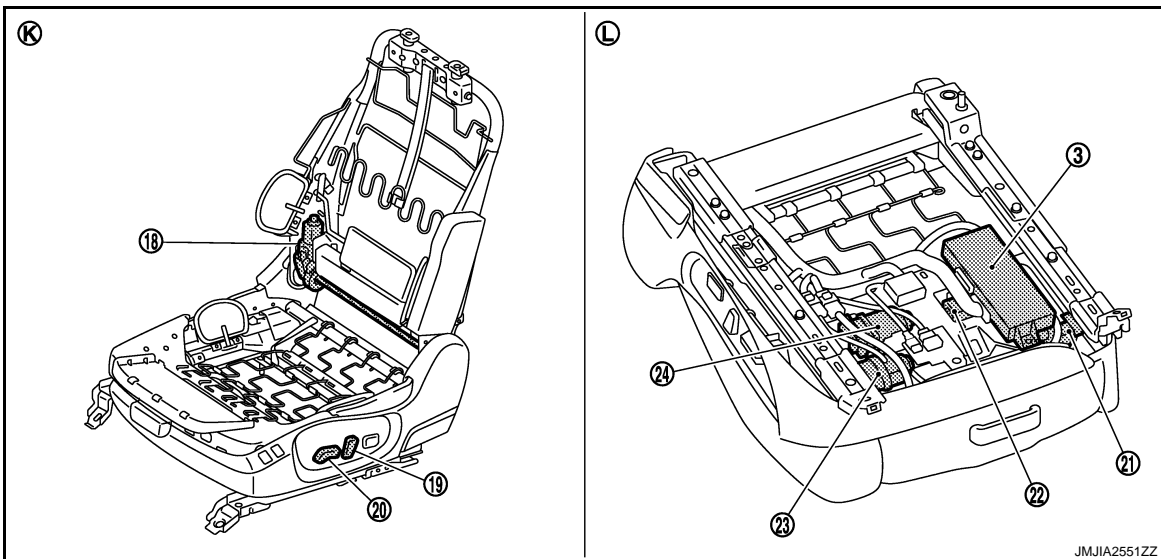
# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

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



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



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

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## EXIT ASSIST FUNCTION : Component Description

INFOID:000000004556714

### CONTROL UNITS

Item	Function
Driver seat control unit	<ul style="list-style-type: none"><li>Operates the seat sliding motor for a constant amount.</li><li>Requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit.</li></ul>
Automatic drive positioner control unit	Operates the tilt motor and telescopic motor with the request from the driver seat control.
BCM	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. <ul style="list-style-type: none"><li>Driver door: OPEN/CLOSE</li></ul>

### 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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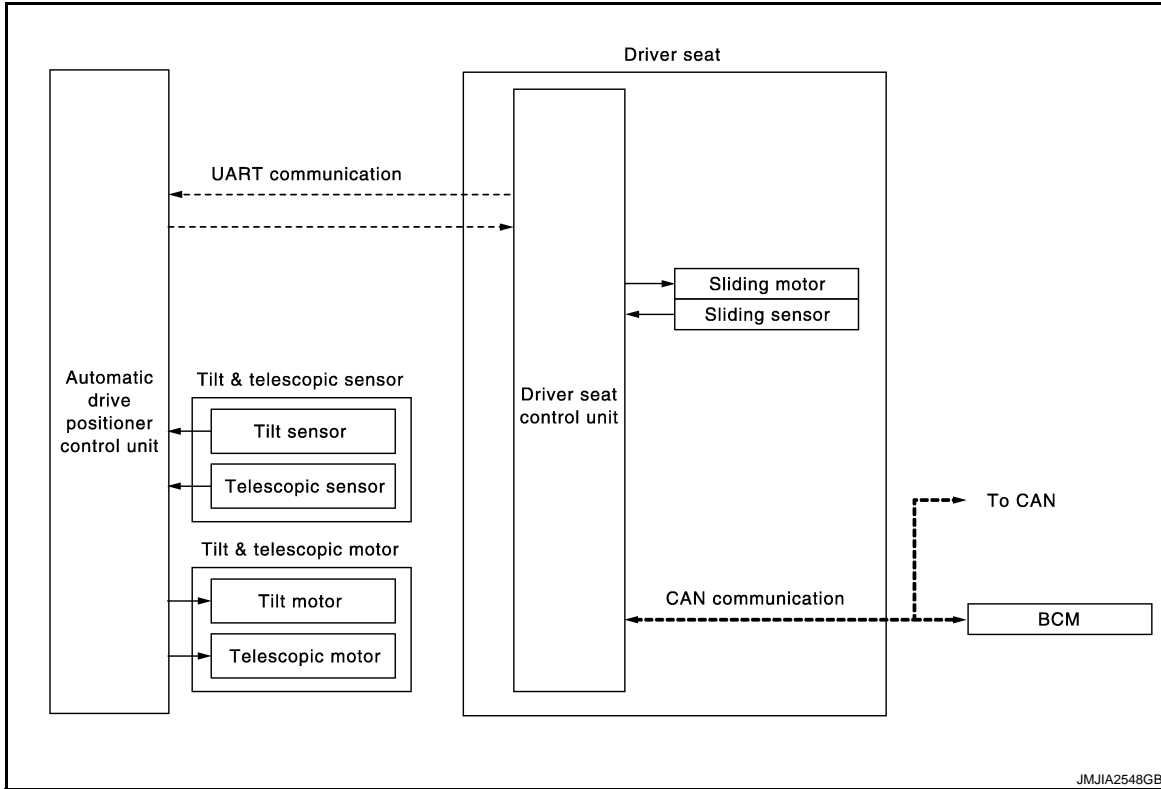
ADP

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## ENTRY ASSIST FUNCTION : System Diagram

INFOID:000000004556715



JMJIA2548GB

## ENTRY ASSIST FUNCTION : System Description

INFOID:000000004556716

### OUTLINE

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

#### NOTE:

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

### OPERATION PROCEDURE

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

### OPERATION CONDITION

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

Item	Request status
Seat, steering column	The vehicle is not moved after performing the exit assist function.
Switch inputs <ul style="list-style-type: none"> <li>• Power seat switch</li> <li>• Tilt &amp; telescopic switch</li> <li>• Door mirror control switch</li> <li>• Set switch</li> <li>• Memory switch</li> </ul>	OFF (Not operated)
AT selector lever (only for AT model)	P position
Parking break (only for MT models)	Applied

### DETAIL FLOW

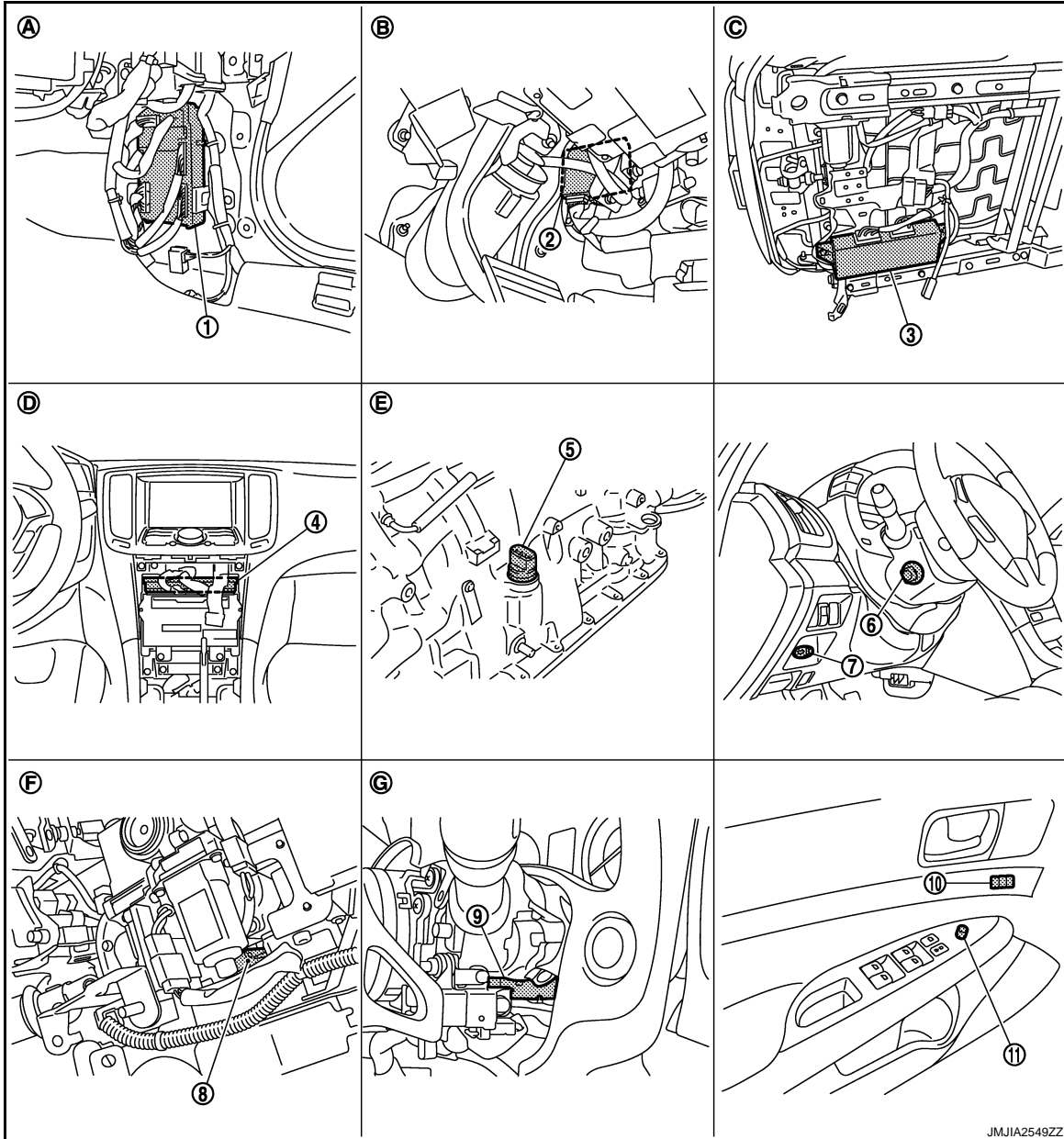
# AUTOMATIC DRIVE POSITIONER SYSTEM

## < 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	—	Motors (Sliding, tilt, telescopic)	Driver side control unit operates the sliding motor when the operating conditions are satisfied and requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit via UART communication. The automatic drive positioner operates each motor.
	Sensors (Sliding, tilt, telescopic)	—	Each sensor monitors the operating positions of seat and steering, and then stops the operation of each motor when each part reaches the recorded address.

## ENTRY ASSIST FUNCTION : Component Parts Location

INFOID:000000004556717

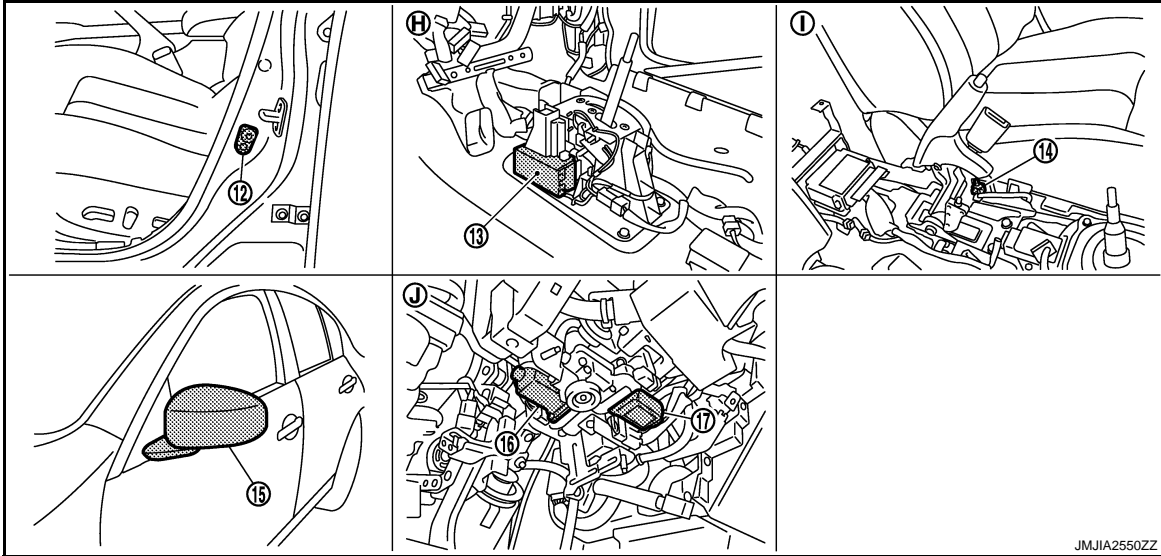


- |                                   |   |  |
|-----------------------------------|---|--|
| 1. BCM M118, M119, M122, M123     | 2. Automatic drive positioner control unit M51, M52 | 3. Driver seat control unit B451, B452 |
| 4. Unified meter and A/C amp. M67 | 5. AT assembly F51                   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

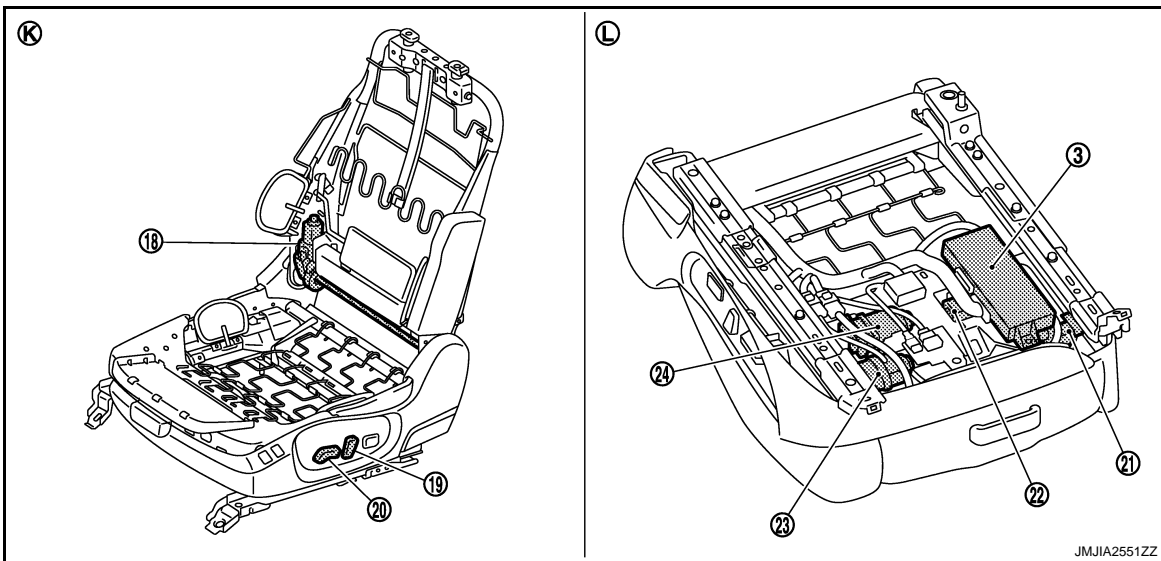
# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

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



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



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



# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## ENTRY ASSIST FUNCTION : Component Description

INFOID:000000004556718

### CONTROL UNITS

Item	Function
Driver seat control unit	According to the ignition signal and door switch signal (driver side) from BCM, <ul style="list-style-type: none"><li>• Operates the seat sliding motor for a constant amount.</li><li>• Requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit.</li></ul>
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. <ul style="list-style-type: none"><li>• Driver door: OPEN/CLOSE</li><li>• Ignition switch position: ACC/ON</li></ul>

### 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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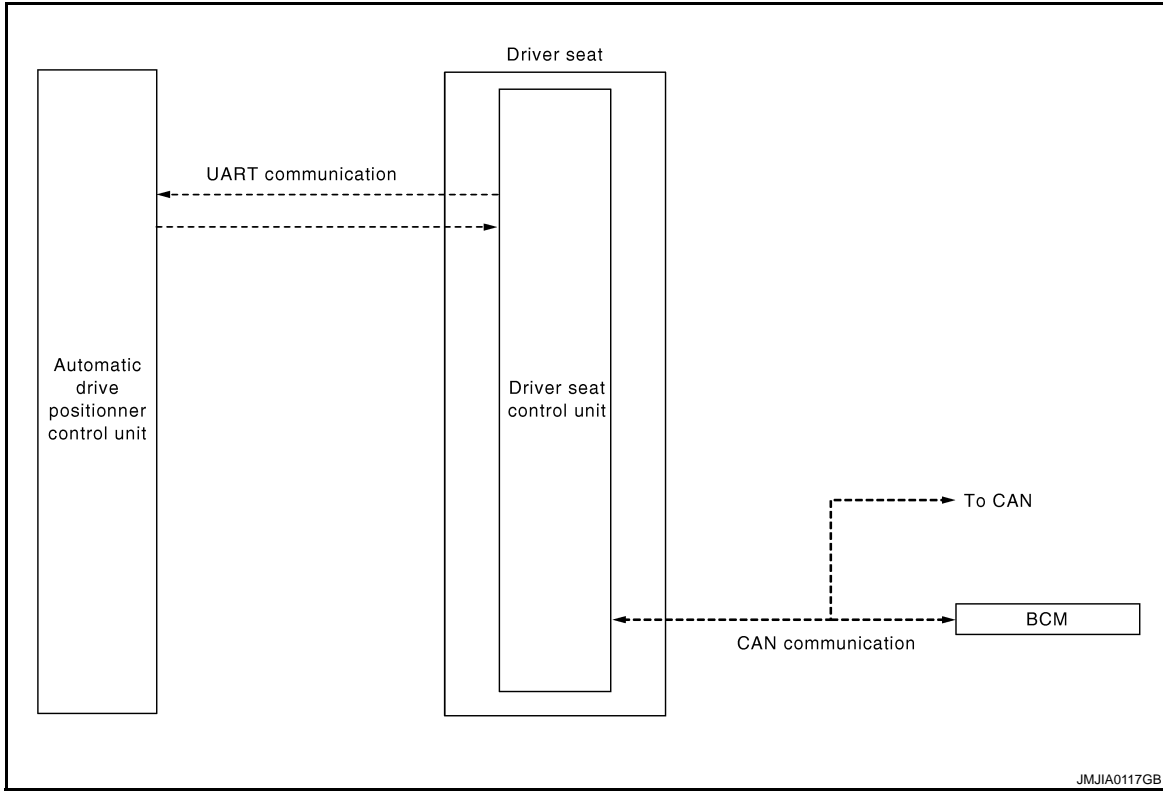
ADP

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram

INFOID:000000004556719



JMJIA0117GB

## INTELLIGENT KEY INTERLOCK FUNCTION : System Description

INFOID:000000004556720

### 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 <ul style="list-style-type: none"> <li>• Power seat switch</li> <li>• Tilt &amp; telescopic switch</li> <li>• Door mirror control switch</li> <li>• Set switch</li> <li>• Memory switch</li> </ul>	OFF (Not operated)
AT selector lever (only for AT model)	P position
Parking break (only for MT models)	Applied

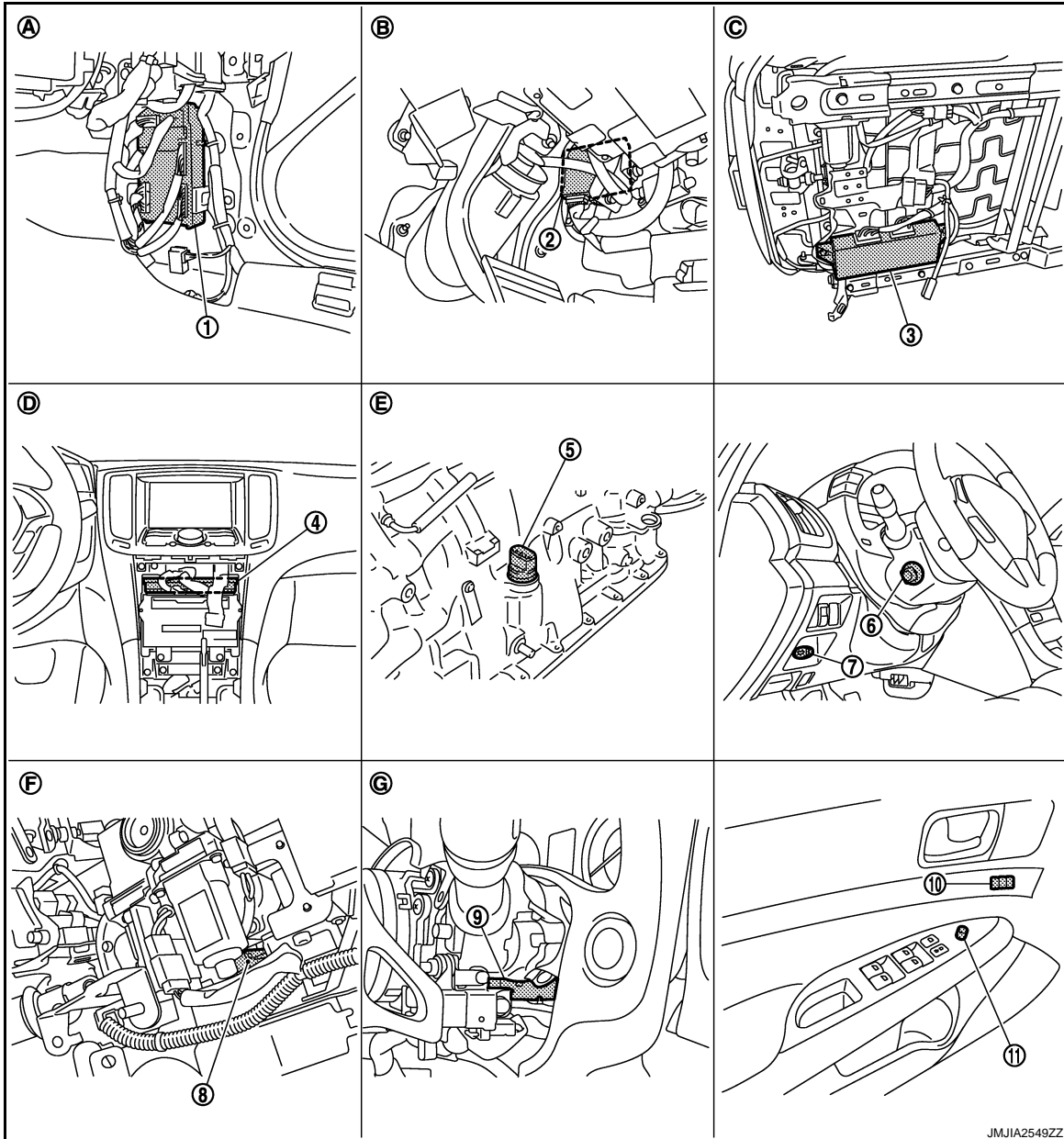
# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## DETAIL FLOW

Order	Input	Output	Control unit condition
1	<ul style="list-style-type: none"> <li>• Door unlock signal (CAN)</li> <li>• Key ID signal (CAN)</li> </ul>	—	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:000000004556721

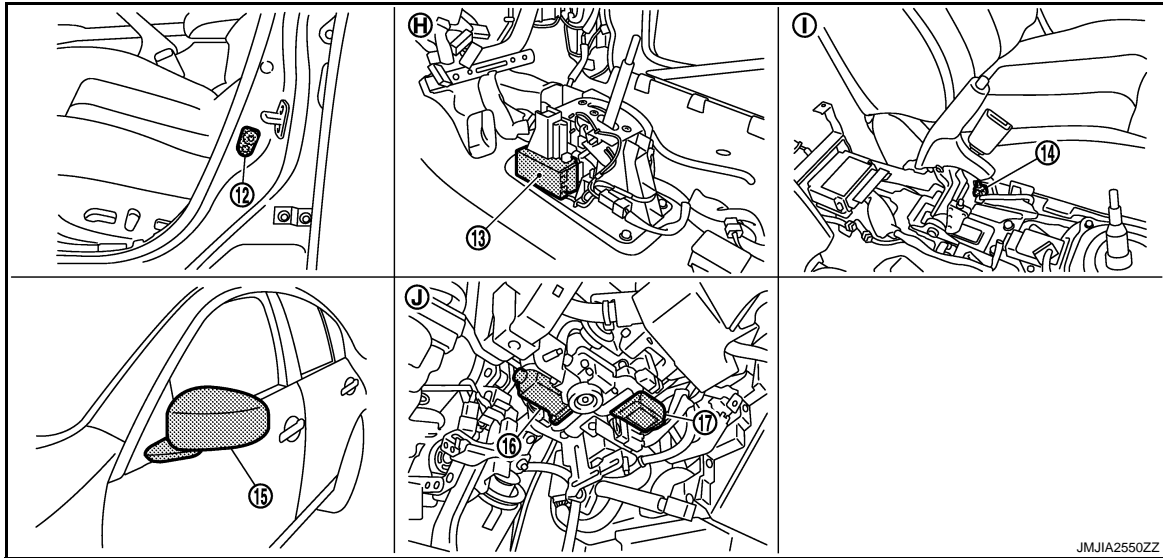


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|-----------------------------------|---|--|
| 1. BCM M118, M119, M122, M123     | 2. Automatic drive positioner control unit M51, M52 | 3. Driver seat control unit B451, B452 |
| 4. Unified meter and A/C amp. M67 | 5. AT assembly F51             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

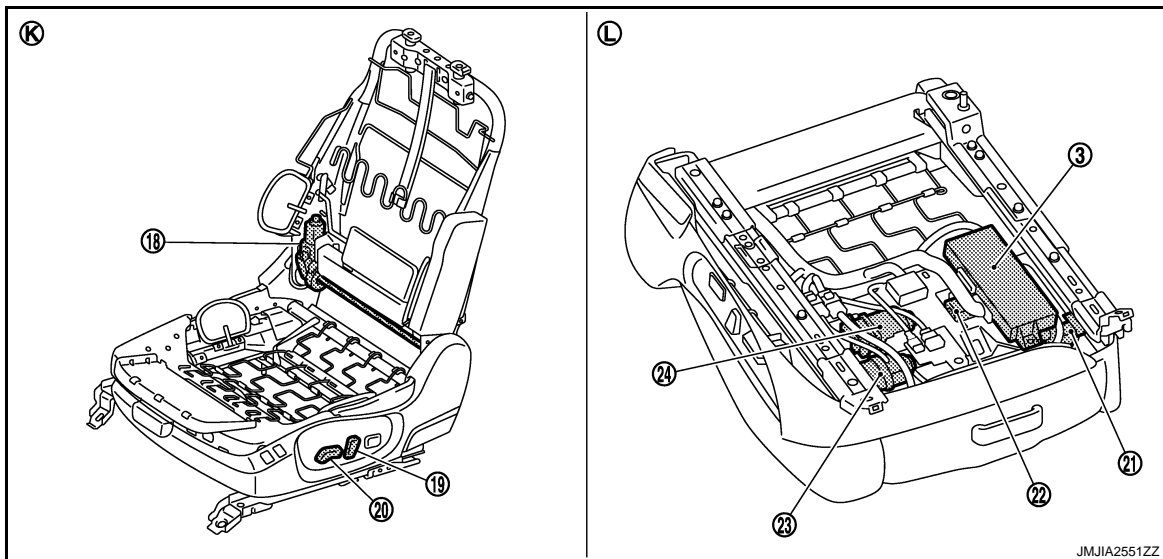
# AUTOMATIC DRIVE POSITIONER SYSTEM

## < SYSTEM DESCRIPTION >

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



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



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

# AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

## INTELLIGENT KEY INTERLOCK FUNCTION : Component Description

INFOID:000000004556722

### CONTROL UNITS

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

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# DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

### Diagnosis Description

INFOID:000000004556723

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:000000004556724

### SELF-DIAGNOSIS RESULTS

Refer to [ADP-153, "DTC Index"](#).

### DATA MONITOR

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
SET SW	"ON/OFF"	×	×	ON/OFF status judged from the setting switch signal.
MEMORY SW 1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal.
MEMORY SW 2	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 2 signal.
SLIDE SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (forward) signal.
SLIDE SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (backward) signal.
RECLN SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (forward) signal.
RECLN SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (backward) signal.
LIFT FR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (up) signal.
LIFT FR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (down) signal.
LIFT RR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (up) signal.
LIFT RR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (down) signal.
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	"V"	—	×	Voltage input from door mirror sensor (passenger side) up/down is displayed.
MIR/SEN RH R-L	"V"	—	×	Voltage input from door mirror sensor (passenger side) left/right is displayed.
MIR/SEN LH U-D	"V"	—	×	Voltage input from door mirror sensor (driver side) up/down is displayed.
MIR/SEN LH R-L	"V"	—	×	Voltage input from door mirror sensor (driver side) left/right is displayed.
TILT SEN	"V"	—	×	Voltage input from tilt sensor is displayed.
TELESCO SEN	"V"	—	×	Voltage input from telescopic sensor is displayed.

\*1:Only for AT models.

\*2:Only for MT models.

## ACTIVE TEST

### CAUTION:

**When driving vehicle, do not perform active test.**

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

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



# U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

#### Description

INFOID:000000004556725

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:000000004556726

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
U1000	CAN COMM CIRCUIT	<ul style="list-style-type: none"><li>Driver seat control unit cannot communicate to other control units.</li><li>Driver seat control unit cannot communicate for more than the specified time.</li></ul>	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?

- YES >> Perform diagnosis procedure. Refer to [ADP-49, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

#### Diagnosis Procedure

INFOID:000000004556727

Refer to [LAN-19, "Trouble Diagnosis Flow Chart"](#).

#### Special Repair Requirement

INFOID:000000004556728

Refer to [ADP-10, "SYSTEM INITIALIZATION : Description"](#).

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# B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## B2112 SLIDING MOTOR

### Description

INFOID:000000004556729

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

### DTC Logic

INFOID:000000004556730

### 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.	<ul style="list-style-type: none"><li>• Driver seat control unit</li><li>• Slide motor harness is power shorted</li></ul>

### 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-50, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000004556731

#### 1. CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

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

#### Is the inspection result normal?

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

#### 2. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

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

#### Is the inspection result normal?

## B2112 SLIDING MOTOR

### < DTC/CIRCUIT DIAGNOSIS >

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YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#)

### 3.CHECK INTERMITTENT INCIDENT

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Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

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# B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## B2113 RECLINING MOTOR

### Description

INFOID:000000004556732

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

### DTC Logic

INFOID:000000004556733

### DTC DETECTION LOGIC

#### NOTE:

First perform diagnosis for B2126 if B2126 is detected.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2113	SEAT RECLINING	The driver seat control unit detects the output of reclining motor output terminal for 0.1 second or more even if the reclining switch is not input.	<ul style="list-style-type: none"><li>• Driver seat control unit</li><li>• Reclining motor harness is power shorted</li></ul>

### 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-52, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000004556734

#### 1. CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

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

#### Is the inspection result normal?

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

#### 2. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

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

#### Is the inspection result normal?

## B2113 RECLINING MOTOR

### < DTC/CIRCUIT DIAGNOSIS >

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YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

### 3.CHECK INTERMITTENT INCIDENT

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Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

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# B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## B2118 TILT SENSOR

### Description

INFOID:000000004556735

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

### DTC Logic

INFOID:000000004556736

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2118	TILT SENSOR	The input voltage of tilt sensor is less than 0.1V or more than 4.9V.	<ul style="list-style-type: none"><li>• Harness and connectors (Tilt sensor circuit is opened/shorted, tilt sensor power supply circuit is opened/shorted.)</li><li>• Tilt sensor</li></ul>

### 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:000000004556737

#### 1. CHECK TILT SENSOR SIGNAL

1. Turn ignition switch ON.
2. 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

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

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

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

# B2118 TILT SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

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

### 3. CHECK TILT SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

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

### 4. CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).  
 NO >> Repair or replace harness.

### 5. CHECK TILT SENSOR GROUND CIRCUIT

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

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

Is the inspection result normal?

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

### 6. CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

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## B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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>> INSPECTION END



# B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## B2119 TELESCOPIC SENSOR

### Description

INFOID:000000004556738

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

### DTC Logic

INFOID:000000004556739

### 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.	<ul style="list-style-type: none"><li>• Harness and connectors (Telescopic sensor circuit is opened/shorted, telescopic sensor power supply circuit is opened/shorted.)</li><li>• Telescopic sensor</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC is detected?

- YES >> Perform diagnosis procedure. Refer to [ADP-57, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000004556740

ADP

#### 1.CHECK TELESCOPIC SENSOR SIGNAL

1. Turn ignition switch ON.
2. 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

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

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

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

# B2119 TELESCOPIC SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK TELESCOPIC SENSOR POWER SUPPLY

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

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

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 5.CHECK TELESCOPIC SENSOR GROUND CIRCUIT

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

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

### Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

# B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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>> INSPECTION END

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**ADP**

# B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS >

## B2126 DETENT SW

### Description

INFOID:000000004556741

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

### DTC Logic

INFOID:000000004556742

### 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.	<ul style="list-style-type: none"><li>• Harness and connectors (Detention switch circuit is opened/shorted.)</li><li>• Detention switch</li><li>• Unified meter and A/C amp. (CAN communication)</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to [ADP-60, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000004556743

#### 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 [ADP-200, "DTC Index"](#).  
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-82, "DTC Index"](#).  
NO >> GO TO 3.

#### 3. CHECK DETENTION SWITCH SIGNAL

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

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

Is the status normal?

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

#### 4. CHECK DETENTION SWITCH CIRCUIT

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

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

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

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).  
 NO >> Repair or replace harness.

### 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

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# B2127 PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## B2127 PARKING BRAKE SWITCH

### Description

INFOID:000000004556744

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

### DTC Logic

INFOID:000000004556745

### 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.	<ul style="list-style-type: none"><li>• Harness and connectors (Parking brake switch circuit is opened/shorted.)</li><li>• Parking brake switch</li><li>• Combination meter (CAN communication)</li><li>• Driver seat control unit</li></ul>

### 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:000000004556746

#### 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	Condition	Status
PARK BRAKE SW	Parking brake	Applied ON
		Release OFF

Is the status normal?

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

#### 2.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

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

# B2127 PARKING BRAKE SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

### 3.CHECK PARKING BRAKE SWITCH HARNESS CONTINUITY

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> Repair or replace harness.

### 4.CHECK PARKING BRAKE SWITCH

Refer to [ADP-63, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Adjust or replace parking brake switch.

### 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556747

### 1.CHECK PARKING BRAKE SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Adjust or replace parking brake switch.

# B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

## B2128 UART COMMUNICATION LINE

### Description

INFOID:000000004556748

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

### DTC Logic

INFOID:000000004556749

### 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.	<ul style="list-style-type: none"><li>• UART communication line (UART communication line is open or shorted)</li><li>• Driver seat control unit</li><li>• Automatic drive positioner control unit</li></ul>

### 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:000000004556750

#### 1.CHECK UART COMMUNICATION LINE CONTINUITY

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

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

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

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

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-41, "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:000000004556751

### 1.CHECK FUSE AND FUSIBLE LINK

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

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

#### Is the fuse fusing?

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

NO >> GO TO 2.

### 2.CHECK POWER SUPPLY CIRCUIT

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

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

#### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

#### Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

## DRIVER SEAT CONTROL UNIT

#### DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:000000004556752

#### NOTE:

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

### 1.CHECK POWER SUPPLY CIRCUIT

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

# POWER SUPPLY AND GROUND CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> GO TO 2.

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

NO-2 >> Check circuit breaker.

## 2.CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

## DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:000000004556754

## 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:000000004556754

### 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.

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

Is the inspection result normal?

YES >> GO TO 2.

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

NO - 2 >> Check circuit breaker.

## 2.CHECK GROUND CIRCUIT

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

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

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement

INFOID:000000004556755

### 1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to [ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description"](#).

ADP

# SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## SLIDING SWITCH

### Description

INFOID:000000004556756

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:000000004556757

#### 1. CHECK FUNCTION

1. 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 switch (forward)	Operate	ON
		Release	OFF
SLIDE SW-RR	Sliding switch (backward)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-68. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556758

#### 1. CHECK SLIDING SWITCH SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK SLIDING SWITCH CIRCUIT

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

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

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

# SLIDING SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-221, "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-224, "Removal and Installation"](#).

### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556759

### 1.CHECK SLIDING SWITCH

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

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

Is the inspection result normal?

- YES >> INSPECTION END  
 NO >> Replace power seat switch. Refer to [ADP-224, "Removal and Installation"](#).

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# RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## RECLINING SWITCH

### Description

INFOID:000000004556760

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:000000004556761

#### 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
		Release	OFF
RECLINE SW-RR	Reclining switch (backward)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-70. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556762

#### 1. CHECK RECLINING SWITCH SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK RECLINING SWITCH CIRCUIT

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

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

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

# RECLINING SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-221, "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-224, "Removal and Installation"](#).

### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556763

### 1.CHECK RECLINING SWITCH

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

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

Is the inspection result normal?

- YES >> INSPECTION END  
 NO >> Replace power seat switch. Refer to [ADP-224, "Removal and Installation"](#).

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# LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING SWITCH (FRONT)

### Description

INFOID:000000004556764

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:000000004556765

#### 1.CHECK FUNCTION

1. 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:000000004556766

#### 1.CHECK LIFTING SWITCH SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

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

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

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



# LIFTING SWITCH (FRONT)

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-221, "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-224, "Removal and Installation"](#).

### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556767

### 1.CHECK LIFTING SWITCH (FRONT)

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

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

Is the inspection result normal?

- YES >> INSPECTION END  
 NO >> Replace power seat switch. Refer to [ADP-224, "Removal and Installation"](#).

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# LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING SWITCH (REAR)

### Description

INFOID:000000004556768

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:000000004556769

#### 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
		Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-74, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556770

#### 1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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

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

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

# LIFTING SWITCH (REAR)

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-221, "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-224, "Removal and Installation"](#).

### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556771

### 1.CHECK LIFTING SWITCH (REAR)

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

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

Is the inspection result normal?

- YES >> INSPECTION END  
 NO >> Replace power seat switch. Refer to [ADP-224, "Removal and Installation"](#).

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# TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## TILT SWITCH

### Description

INFOID:000000004556772

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:000000004556773

#### 1. CHECK FUNCTION

1. 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 switch (up)	Operate	ON
		Release	OFF
TILT SW-DN	Tilt switch (down)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-76. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556774

#### 1. CHECK TILT SWITCH SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK TILT SWITCH CIRCUIT

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

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

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

# TILT SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-222. "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-225. "Removal and Installation"](#).

### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-41. "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556775

### 1.CHECK TILT SWITCH

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

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

Is the inspection result normal?

- YES >> INSPECTION END  
 NO >> Replace tilt & telescopic switch. Refer to [ADP-225. "Removal and Installation"](#).

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# TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC SWITCH

### Description

INFOID:000000004556776

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:000000004556777

#### 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
		Release	OFF
TELESCO SW-RR	Telescopic switch (backward)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-78. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556778

#### 1. CHECK TELESCOPIC SWITCH SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK TELESCOPIC SWITCH CIRCUIT

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

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

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

# TELESCOPIC SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-221, "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-225, "Removal and Installation"](#).

### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556779

### 1.CHECK TELESCOPIC SWITCH

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

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

Is the inspection result normal?

- YES >> INSPECTION END  
 NO >> Replace tilt & telescopic switch. Refer to [ADP-225, "Removal and Installation"](#).

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ADP

# SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## SEAT MEMORY SWITCH

### Description

INFOID:000000004556780

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:000000004556781

#### 1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-80, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556782

#### 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	Ground	5
D5	1		
	2		
	3		

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK MEMORY SWITCH CIRCUIT

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



# SEAT MEMORY SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "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 memory switch		Ground	Continuity
Connector	Terminal		
D5	4		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK SEAT MEMORY SWITCH

Refer to [ADP-81, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat memory switch. Refer to [ADP-223, "Removal and Installation"](#).

### 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556783

### 1. CHECK SEAT MEMORY SWITCH

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

## SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to [ADP-223, "Removal and Installation"](#).

# DOOR MIRROR REMOTE CONTROL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## DOOR MIRROR REMOTE CONTROL SWITCH MIRROR SWITCH

### MIRROR SWITCH : Description

INFOID:000000004556784

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:000000004556785

#### 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
	Other than above. : OFF
MIR CON SW-RH/LH	When operating the mirror switch right or left side. : ON
	Other than above. : OFF

Is the inspection result normal?

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

### MIRROR SWITCH : Diagnosis Procedure

INFOID:000000004556786

#### 1. CHECK MIRROR SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

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

#### 2. CHECK MIRROR SWITCH CIRCUIT

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

# DOOR MIRROR REMOTE CONTROL SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).

NO >> Repair or replace harness.

### 3.CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4.CHECK MIRROR SWITCH

Check door mirror remote control switch (mirror switch).

Refer 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-20, "Removal and Installation"](#).

### 5.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

## MIRROR SWITCH : Component Inspection

INFOID:000000004556787

### 1.CHECK MIRROR SWITCH

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

# DOOR MIRROR REMOTE CONTROL SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to [MIR-20. "Removal and Installation"](#).

## CHANGEOVER SWITCH

### CHANGEOVER SWITCH : Description

INFOID:000000004556788

Changeover switch is integrated into door mirror remote control switch.

Changeover switch has three positions (L, N and R).

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

### CHANGEOVER SWITCH : Component Function Check

INFOID:000000004556789

#### 1. CHECK CHANGEOVER SWITCH FUNCTION

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

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

Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to [ADP-85. "CHANGEOVER SWITCH : Diagnosis Procedure"](#).

### CHANGEOVER SWITCH : Diagnosis Procedure

INFOID:000000004556790

#### 1. CHECK CHANGEOVER SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK CHANGEOVER SWITCH CIRCUIT

# DOOR MIRROR REMOTE CONTROL SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

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

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-222. "Removal and Installation"](#).

NO >> Repair or replace harness.

## 3.CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

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

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

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4.CHECK CHANGE OVER SWITCH

Check door mirror remote control switch (changeover switch).

Refer to [ADP-86. "CHANGE OVER SWITCH : Component Inspection"](#).

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace door mirror remote control switch (changeover switch). Refer to [MIR-20. "Removal and Installation"](#).

## 5.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to [GI-41. "Intermittent Incident"](#).

>> INSPECTION END

## CHANGE OVER SWITCH : Component Inspection

INFOID:000000004556791

## 1.CHECK CHANGE OVER SWITCH

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

# DOOR MIRROR REMOTE CONTROL SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to [MIR-20. "Removal and Installation"](#).

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# POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## POWER SEAT SWITCH GROUND CIRCUIT

### Diagnosis Procedure

INFOID:000000004556792

#### 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

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

Power seat switch		Ground	Continuity
Connector	Terminal		Existed
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-224, "Removal and Installation"](#).

#### 3. CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END



# TILT & TELESCOPIC SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## TILT & TELESCOPIC SWITCH GROUND CIRCUIT

### Diagnosis Procedure

INFOID:000000004556793

#### 1. CHECK POWER TILT & TELESCOPIC SWITCH GROUND CIRCUIT

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

Tilt & telescopic switch		Ground	Continuity
Connector	Terminal		Existed
M31	1		

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-225, "Removal and Installation"](#).

#### 3. CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

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# DETENTION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## DETENTION SWITCH

### Description

INFOID:000000004556794

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:000000004556795

#### 1. CHECK FUNCTION

1. 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	P position	OFF
		Other than above	ON

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-90, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556796

#### 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 [ADP-200, "DTC Index"](#).

NO >> GO TO 2.

#### 2. CHECK DETENTION SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

#### 3. CHECK DETENTION SWITCH CIRCUIT 1

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

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

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

# DETENTION SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-221, "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-276, "2WD : Exploded View"](#).

### 5.CHECK DETENTION SWITCH CIRCUIT 2

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

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

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

BCM		Ground	Continuity
Connector	Terminal		
M122	96		Not existed

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-82, "Exploded View"](#).  
 NO >> Repair or replace harness.

## Component Inspection

INFOID:000000004556797

### 1.CHECK DETENTION SWITCH

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

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

Is the inspection result normal?

- YES >> INSPECTION END  
 NO >> Replace A/T shift selector. Refer to [TM-276, "2WD : Exploded View"](#).

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# PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## PARKING BRAKE SWITCH

### Description

INFOID:000000004556798

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:000000004556799

#### 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	Applied	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-92, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556800

#### 1.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2.CHECK PARKING BRAKE SWITCH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "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-41. "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556801

## 1.CHECK PARKING BRAKE SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END

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

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

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ADP

# SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## SLIDING SENSOR

### Description

INFOID:000000004556802

- 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:000000004556803

#### 1. CHECK FUNCTION

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

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

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

#### Is the indication normal?

YES >> INSPECTION END

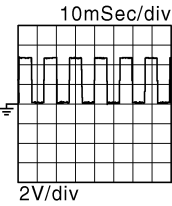
NO >> Perform diagnosis procedure. Refer to [ADP-94, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556804

#### 1. CHECK SLIDING SENSOR SIGNAL

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

(+) Driver seat control unit		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
B451	24	Ground	Seat sliding	 10mSec/div 2V/div JMJA0119ZZ
			Operate	
			Other than above	0 or 5

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> GO TO 2.

#### 2. CHECK SLIDING SENSOR CIRCUIT

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

# SLIDING SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK SLIDING SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4.CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> Repair or replace harness.

### 5.CHECK SLIDING SENSOR GROUND CIRCUIT 1

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

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

## 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		Ground	Continuity
Connector	Terminal		
B451	31		Existed

#### Is the inspection result normal?

YES >> Replace sliding sensor (Built in seat slide cushion frame). Refer to [SE-112. "Exploded View"](#).

NO >> Replace driver seat control unit. Refer to [ADP-221. "Removal and Installation"](#) .



# RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## RECLINING SENSOR

### Description

INFOID:000000004556805

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

### Component Function Check

INFOID:000000004556806

#### 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
RECLN PULSE	Seat reclining	Operate (forward)	Change (increase) <sup>*1</sup>
		Operate (backward)	Change (decrease) <sup>*1</sup>
		Release	No change <sup>*1</sup>

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

#### Is the indication normal?

YES >> INSPECTION END

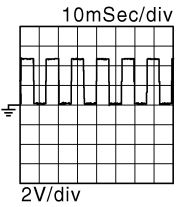
NO >> Perform diagnosis procedure. Refer to [ADP-97. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556807

#### 1. CHECK RECLINING SENSOR SIGNAL

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

(+) Driver seat control unit		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
B451	9	Ground	Seat reclining	 10mSec/div 2V/div JMJA0119ZZ
			Other than above	

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221. "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.

# RECLINING SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK RECLINING SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4.CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> Repair or replace harness.

### 5.CHECK RECLINING SENSOR GROUND CIRCUIT 1

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

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

# 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		Ground	Continuity
Connector	Terminal		
B451	31		Existed

Is the inspection result normal?

YES >> Replace reclining motor. Refer to [SE-112. "Exploded View"](#).

NO >> Replace driver seat control unit. Refer to [ADP-221. "Removal and Installation"](#).

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# LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING SENSOR (FRONT)

### Description

INFOID:000000004556808

- 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:000000004556809

#### 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
LIFT FR PULSE	Seat lifting (front)	Operate (Up)	Change (increase) <sup>*1</sup>
		Operate (Down)	Change (decrease) <sup>*1</sup>
		Release	No change <sup>*1</sup>

\*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"](#).

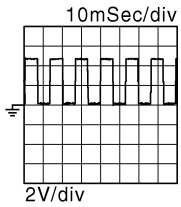
### Diagnosis Procedure

INFOID:000000004556810

#### 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.

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



10mSec/div  
2V/div  
JMJA0119ZZ

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> GO TO 2.

#### 2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

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

# LIFTING SENSOR (FRONT)

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> Repair or replace harness.

### 5.CHECK LIFTING SENSOR (FRONT) GROUND CIRCUIT 1

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

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

## 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		Ground	Continuity
Connector	Terminal		
B451	31		Existed

Is the inspection result normal?

YES >> Replace lifting motor (front). Refer to [SE-112. "Exploded View"](#).

NO >> Replace driver seat control unit. Refer to [ADP-221. "Removal and Installation"](#).

# LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING SENSOR (REAR)

### Description

INFOID:000000004556811

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

### Component Function Check

INFOID:000000004556812

#### 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	Seat lifting (rear)	Operate (Up)	Change (increase) <sup>*1</sup>
		Operate (Down)	Change (decrease) <sup>*1</sup>
		Release	No change <sup>*1</sup>

<sup>\*1</sup>: The value at the seat position attained when the battery is connected is considered to be 32768.

#### Is the indication normal?

YES >> INSPECTION END

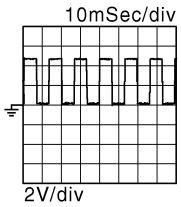
NO >> Perform diagnosis procedure. Refer to [ADP-103. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556813

#### 1.CHECK LIFTING SENSOR (REAR) SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
B451	10	Ground	Seat Lifting (rear)	 2V/div 10mSec/div JMJA0119ZZ
			Other than above	

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221. "Removal and Installation"](#).

NO >> GO TO 2.

#### 2.CHECK LIFTING SENSOR (REAR) CIRCUIT

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

## LIFTING SENSOR (REAR)

### < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3. CHECK LIFTING SENSOR (REAR) POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4. CHECK LIFTING SENSOR (REAR) POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> Repair or replace harness.

### 5. CHECK LIFTING SENSOR (REAR) GROUND CIRCUIT 1

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

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



# 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		Ground	Continuity
Connector	Terminal		
B451	31		Existed

### Is the inspection result normal?

YES >> Replace lifting motor (rear). Refer to [SE-112, "Exploded View"](#).

NO >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

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# TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## TILT SENSOR

### Description

INFOID:000000004556814

- 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:000000004556815

#### 1.CHECK FUNCTION

1. Turn ignition switch ON.
2. 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 [ADP-106, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556816

#### 1.CHECK TILT SENSOR SIGNAL

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).

NO >> GO TO 2.

#### 2.CHECK TILT SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

# TILT SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

### 3.CHECK TILT SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

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

### 4.CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).  
NO >> Repair or replace harness.

### 5.CHECK TILT SENSOR GROUND CIRCUIT 1

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

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

Is the inspection result normal?

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

### 6.CHECK TILT SENSOR GROUND CIRCUIT 2

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

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

## TILT SENSOR

### < DTC/CIRCUIT DIAGNOSIS >

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#### Is the inspection result normal?

- YES >> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to [ST-21, "WITH ELECTRIC MOTOR : Exploded View"](#).
- NO >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).

# TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC SENSOR

### Description

INFOID:000000004556817

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

### Component Function Check

INFOID:000000004556818

#### 1. CHECK FUNCTION

1. 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

INFOID:000000004556819

#### 1. CHECK TELESCOPIC SENSOR SIGNAL

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).

NO >> GO TO 2.

#### 2. CHECK TELESCOPIC SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

# TELESCOPIC SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

### 3.CHECK TELESCOPIC SENSOR POWER SUPPLY

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

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

#### Is the inspection result normal?

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

### 4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

#### Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).  
 NO >> Repair or replace harness.

### 5.CHECK TELESCOPIC SENSOR GROUND CIRCUIT 1

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

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

#### Is the inspection result normal?

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

### 6.CHECK TELESCOPIC SENSOR GROUND CIRCUIT 2

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

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

# TELESCOPIC SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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### Is the inspection result normal?

- YES >> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to [ST-21, "WITH ELECTRIC MOTOR : Exploded View"](#).
- NO >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).

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# MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## MIRROR SENSOR DRIVER SIDE

### DRIVER SIDE : Description

INFOID:000000004556820

- 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:000000004556821

#### 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	Door mirror (driver side)	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
MIR/SEN LH R-L		Change between 0.6 [V] (close to left edge) 3.4 [V] (close to right edge)

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-112. "DRIVER SIDE : Diagnosis Procedure"](#).

### DRIVER SIDE : Diagnosis Procedure

INFOID:000000004556822

#### 1.CHECK DOOR MIRROR SENSOR (DRIVER SIDE) SIGNAL

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-222. "Removal and Installation"](#).

NO >> GO TO 2.

#### 2.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR CIRCUIT

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



# MIRROR SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

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

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

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

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "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.

# MIRROR SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

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

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

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

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

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).  
 NO >> Replace door mirror sensor (Built in driver side door mirror). Refer to [MIR-17, "DOOR MIRROR ASSEMBLY : Removal and Installation"](#).

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000004556823

- 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:000000004556824

#### 1. CHECK FUNCTION

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

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

Is the indication normal?

- YES >> INSPECTION END  
 NO >> Perform diagnosis procedure. Refer to [ADP-114, "PASSENGER SIDE : Diagnosis Procedure"](#).

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000004556825

#### 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.

# MIRROR SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).  
 NO >> GO TO 2.

### 2.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR CIRCUIT

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

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

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

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

Is the inspection result normal?

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

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

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

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

Is the inspection result normal?

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

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

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

# MIRROR SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

- YES >> Replace automatic driver positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).  
 NO >> Repair or replace harness.

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

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

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

Is the inspection result normal?

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

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

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

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

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).  
 NO >> Replace door mirror sensor (Built in passenger side door mirror). Refer to [MIR-17, "DOOR MIRROR ASSEMBLY : Removal and Installation"](#).

# SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## SLIDING MOTOR

### Description

INFOID:000000004556826

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

### Component Function Check

INFOID:000000004556827

#### 1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-117, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556828

#### 1. CHECK SLIDING MOTOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).

NO >> GO TO 2.

#### 2. CHECK SLIDING MOTOR CIRCUIT

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

# SLIDING MOTOR

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Sliding motor		Continuity
Connector	Terminal	Connector	Terminal	
B452	35	B461	35	Existed
	42		42	

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK SLIDING MOTOR

Refer to [ADP-118, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).

## Component Inspection

INFOID:000000004556829

### 1.CHECK SLIDING MOTOR-1

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

Is the inspection result normal?

YES >> GO TO 2.

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

### 2.CHECK SLIDING MOTOR-2

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

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

Is the inspection result normal?

YES >> Sliding motor is OK.

NO >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).

# RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## RECLINING MOTOR

### Description

INFOID:000000004556830

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

### Component Function Check

INFOID:000000004556831

#### 1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-119, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556832

#### 1. CHECK RECLINING MOTOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> Replace reclining motor. (Built in seat back frame.) Refer to [SE-112, "Exploded View"](#).

NO >> GO TO 2.

#### 2. CHECK RECLINING MOTOR CIRCUIT

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

# RECLINING MOTOR

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK RECLINING MOTOR

Refer to [ADP-120, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> Replace reclining motor. (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).

## Component Inspection

INFOID:000000004556833

### 1.CHECK RECLINING MOTOR-1

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

Is the inspection result normal?

YES >> GO TO 2.

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

### 2.CHECK RECLINING MOTOR-2

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

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

Is the inspection result normal?

YES >> Reclining motor is OK.

NO >> Replace reclining motor. (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).



# LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING MOTOR (FRONT)

### Description

INFOID:000000004556834

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

### Component Function Check

INFOID:000000004556835

#### 1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-121, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556836

#### 1.CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
B455	37	Ground	SEAT LIFTER FR OFF	0
			UP	0
			DWN (down)	Battery voltage
	45		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 [SE-112, "Exploded View"](#).

NO >> GO TO 2.

#### 2.CHECK LIFTING MOTOR (FRONT) CIRCUIT

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

A  
B  
C  
D  
E  
F  
G  
H  
I  
K  
L  
M  
N  
O  
P

ADP

# LIFTING MOTOR (FRONT)

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK LIFTING MOTOR (FRONT)

Refer to [ADP-122, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).

## Component Inspection

INFOID:000000004556837

### 1.CHECK LIFTING MOTOR-1

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

Is the inspection result normal?

YES >> GO TO 2.

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

### 2.CHECK LIFTING MOTOR-2

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

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

Is the inspection result normal?

YES >> Lifting motor (front) is OK.

NO >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).

# LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING MOTOR (REAR)

### Description

INFOID:000000004556838

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

### Component Function Check

INFOID:000000004556839

#### 1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-123, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556840

#### 1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

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

ADP

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

Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).

NO >> GO TO 2.

#### 2. CHECK LIFTING MOTOR (REAR) CIRCUIT

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

## LIFTING MOTOR (REAR)

### < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK LIFTING MOTOR (REAR)

Refer to [ADP-124, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

NO >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).

### Component Inspection

INFOID:000000004556841

#### 1.CHECK LIFTING MOTOR-1

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

Is the inspection result normal?

YES >> GO TO 2.

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

#### 2.CHECK LIFTING MOTOR-2

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

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

Is the inspection result normal?

YES >> Lifting motor (rear) is OK.

NO >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to [SE-112, "Exploded View"](#).

# TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## TILT MOTOR

### Description

INFOID:000000004556842

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

### Component Function Check

INFOID:000000004556843

#### 1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-125, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556844

#### 1.CHECK TILT MOTOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> Replace tilt motor. (Built in steering column assembly.) Refer to [ST-21, "WITH ELECTRIC MOTOR : Exploded View"](#).

NO >> GO TO 2.

#### 2.CHECK TILT MOTOR CIRCUIT

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

# TILT MOTOR

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK TILT MOTOR

Refer to [ADP-126, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).

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

## Component Inspection

INFOID:000000004556845

### 1.CHECK SLIDING MOTOR

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

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

Is the inspection result normal?

YES >> Tilt motor is OK.

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

# TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC MOTOR

### Description

INFOID:000000004556846

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

### Component Function Check

INFOID:000000004556847

#### 1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-127, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556848

#### 1. CHECK TELESCOPIC MOTOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> Replace telescopic motor. (Built in steering column assembly.) Refer to [ST-21, "WITH ELECTRIC MOTOR : Exploded View"](#).

NO >> GO TO 2.

#### 2. CHECK TELESCOPIC MOTOR CIRCUIT

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

# TELESCOPIC MOTOR

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

Is the inspection result normal?

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

### 3.CHECK SLIDING MOTOR

Refer to [ADP-128, "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).  
 NO >> Replace telescopic motor. (Built in steering column assembly.) Refer to [ST-21, "WITH ELECTRIC MOTOR : Exploded View"](#).

## Component Inspection

INFOID:000000004556849

### 1.CHECK SLIDING MOTOR-2

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

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

Is the inspection result normal?

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



# DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## DOOR MIRROR MOTOR

### Description

INFOID:000000004556850

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

### Component Function Check

INFOID:000000004556851

#### 1. CHECK DOOR MIRROR MOTOR FUNCTION

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

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-129, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556852

#### 1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## 2. CHECK HARNESS CONTINUITY

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

[Door mirror driver side]

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

[Door mirror passenger side]

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

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

[Door mirror driver side]

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

[Door mirror passenger side]

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

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-222, "Removal and Installation"](#).  
NO >> Repair or replace harness.

## 3. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to [ADP-130, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 4.  
NO >> Replace door mirror. Refer to [MIR-17, "DOOR MIRROR ASSEMBLY : Removal and Installation"](#).

## 4. CHECK INTERMITTENT INCIDENT

Refer to [GI-41, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000004556853

### 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-17, "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-17, "DOOR MIRROR ASSEMBLY : Removal and Installation"](#).

## 2. CHECK DOOR MIRROR MOTOR-II

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

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror. Refer to [MIR-17, "DOOR MIRROR ASSEMBLY : Removal and Installation"](#).

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ADP

# SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

## SEAT MEMORY INDICATOR

### Description

INFOID:000000004556854

- 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:000000004556855

#### 1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to [ADP-132, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000004556856

#### 1. CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 2.

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

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

#### 2. CHECK MEMORY INDICATOR CIRCUIT

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

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

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

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

## SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

---

Is the inspection result normal?

YES >> Replace seat memory switch. Refer to [ADP-223, "Removal and Installation"](#).

NO >> Repair or replace harness.

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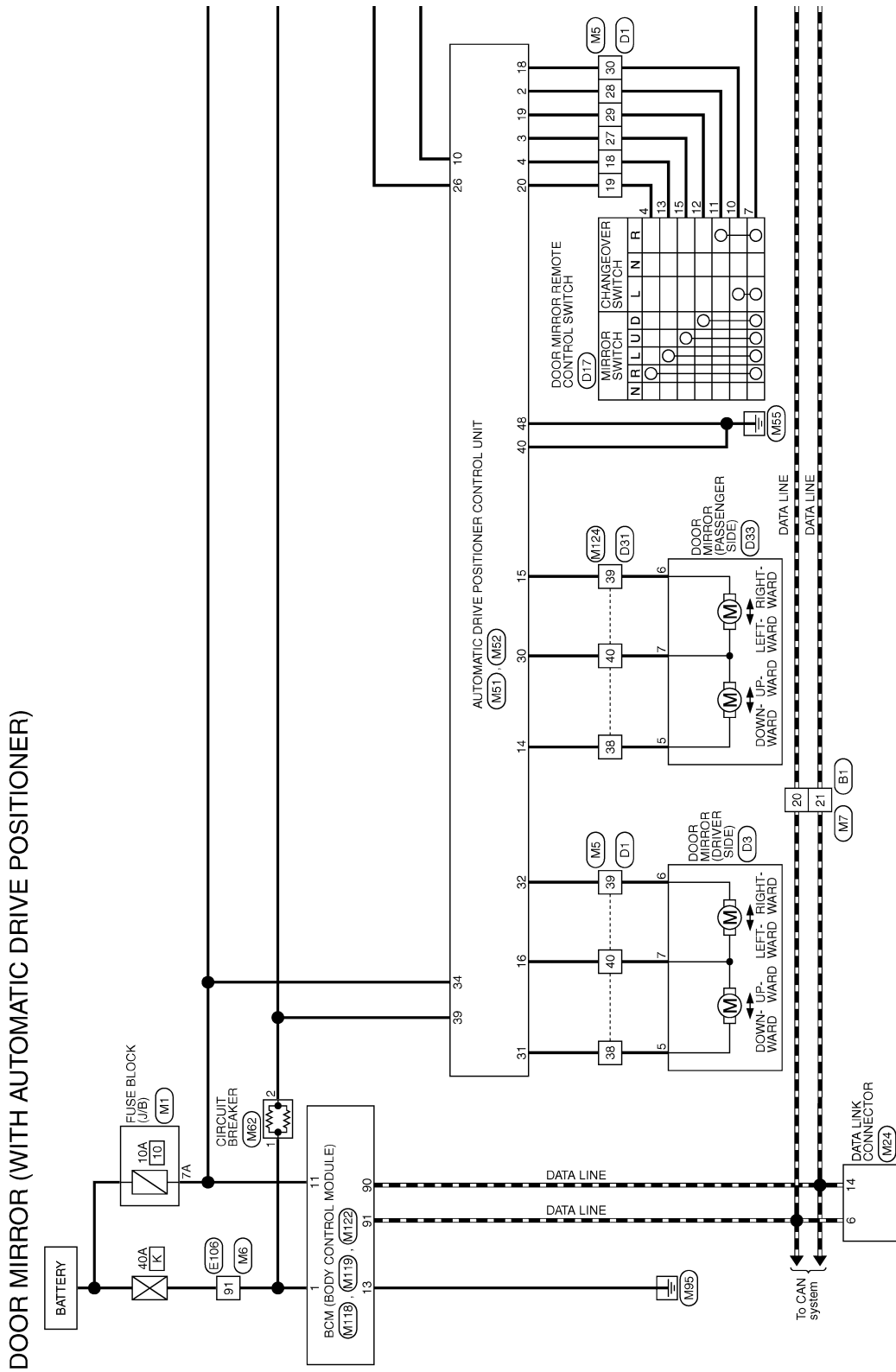
# DOOR MIRROR SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

## DOOR MIRROR SYSTEM

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

INFOID:000000004684730



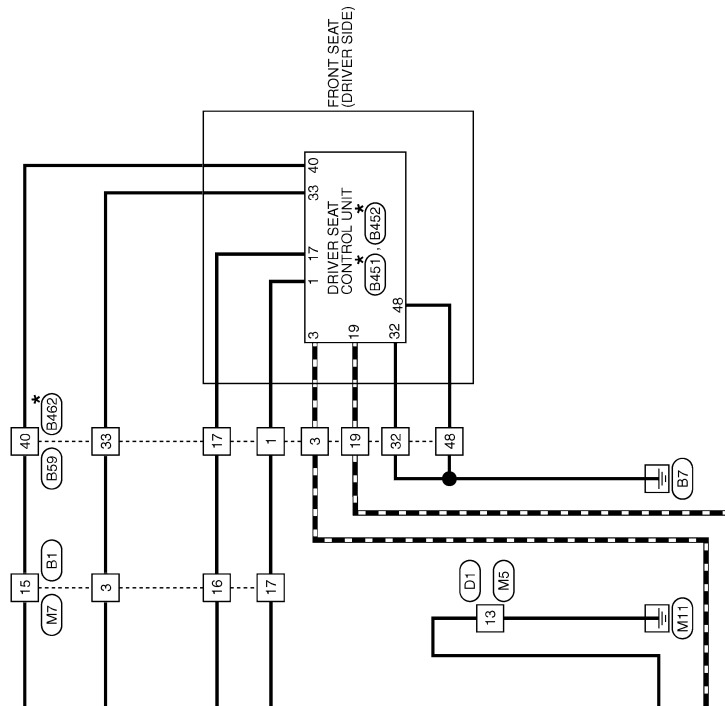
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# DOOR MIRROR SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

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



JCLWA2429GB

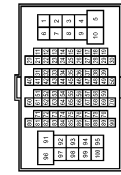
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# DOOR MIRROR SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

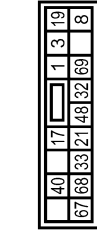
## DOOR MIRROR (WITH AUTOMATIC DRIVE POSITIONER)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH8DFW-CS16-TM4



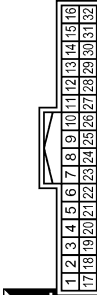
Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
15	BR	-
16	LG	-
17	G	-
20	L	-
21	P	-

Connector No.	B59
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



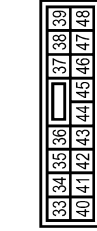
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
3	L	-
17	LG	-
19	P	-
32	B	-
33	SB	-
40	BR	-
48	B	-

Connector No.	B451
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH82FW



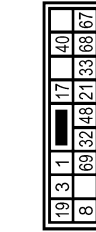
Terminal No.	Color of Wire	Signal Name [Specification]
1	L/W	RX
3	R/Y	GAN-H
17	Y/R	TX
19	V	GAN-L
32	B/W	GND (SIGNAL)

Connector No.	B452
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	NS16FW-CS



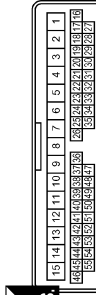
Terminal No.	Color of Wire	Signal Name [Specification]
33	R	BAT (C/B)
40	R/W	BAT(FUSE)
48	B	GND(POWER)

Connector No.	B482
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L/W	-
3	R/Y	-
17	Y/R	-
19	V	-
32	B/W	-
33	R	-
40	R/W	-
48	B	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH4DFW-CS15



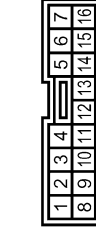
Terminal No.	Color of Wire	Signal Name [Specification]
13	B	-
18	W	-
19	BR	-
27	Y	-
28	LG	-
29	G	-
30	GR	-
38	O	-
39	GR	-
40	G	-

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH12MF-MH



Terminal No.	Color of Wire	Signal Name [Specification]
5	O	- [With automatic drive positioner]
6	GR	- [With automatic drive positioner]
7	G	- [With automatic drive positioner]

Connector No.	D17
Connector Name	DOOR MIRROR REAR STEER CONTROL SWITCH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	TK16FR



Terminal No.	Color of Wire	Signal Name [Specification]
4	BR	-
7	B	-
10	GR	-
11	LG	-
12	G	-
13	W	-
15	Y	-

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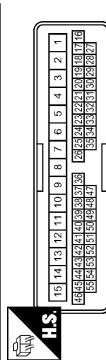


# DOOR MIRROR SYSTEM

## < DTC/CIRCUIT DIAGNOSIS >

### DOOR MIRROR (WITH AUTOMATIC DRIVE POSITIONER)

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



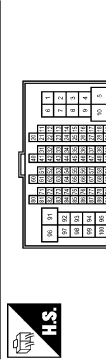
Terminal No.	Color of Wire	Signal Name [Specification]
38	W	- [With A/T]
39	O	- [With M/T]
39	G	- [With A/T]
39	GR	- [With M/T]
40	Y	- [With A/T]
40	G	- [With M/T]

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH12MW-NH



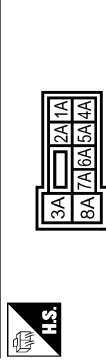
Terminal No.	Color of Wire	Signal Name [Specification]
5	O	- [Except for with A/T and automatic drive positioner]
5	W	- [With A/T and automatic drive positioner]
6	GR	- [Except for with A/T and automatic drive positioner]
6	G	- [With A/T and automatic drive positioner]
7	G	- [Except for with A/T and automatic drive positioner]
7	Y	- [With A/T and automatic drive positioner]

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



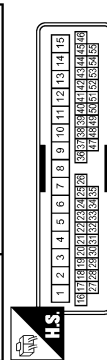
Terminal No.	Color of Wire	Signal Name [Specification]
91	W	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



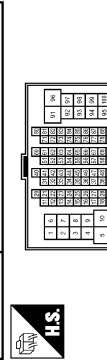
Terminal No.	Color of Wire	Signal Name [Specification]
7A	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



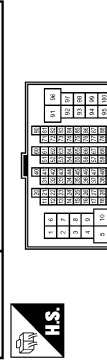
Terminal No.	Color of Wire	Signal Name [Specification]
13	B	-
18	V	-
19	BR	-
27	G	-
28	LG	-
29	SB	-
30	P	-
38	G	-
38	L	-
40	Y	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



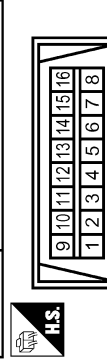
Terminal No.	Color of Wire	Signal Name [Specification]
91	W	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	SD	- [With automatic drive positioner]
15	BR	-
16	P	-
17	V	-
20	L	-
21	P	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FY-P



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

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# DOOR MIRROR SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

## DOOR MIRROR (WITH AUTOMATIC DRIVE POSITIONER)

Connector No.	M51
Connector Name	AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Color of Wire	LG	G	V	W	SB	W	SB	W	SB	W	SB	W	SB	W	SB	W
Signal Name [Specification]	MIRROR SELECT SW (RH)	MIRROR SW (UPWARD)	MIRROR SW (LEFTWARD)	TX (UART)	MIRROR MOTOR (RH VERTICAL)	MIRROR MOTOR (RH HORIZONTAL)	MIRROR MOTOR (LH COMMON)	MIRROR SELECT SW (LH)	MIRROR SW (DOWNWARD)	MIRROR SW (RIGHTWARD)	RX (UART)					



Terminal No.	30	31	32
Color of Wire	SB	G	L
Signal Name [Specification]	MIRROR MOTOR (RH COMMON)	MIRROR MOTOR (LH VERTICAL)	MIRROR MOTOR (LH HORIZONTAL)

Terminal No.	33	34	35	36	37	38	39
Color of Wire	V	W	B	B	B	B	B
Signal Name [Specification]	BAT (FUSE)	BAT (G/E)	GND(SIGNAL)	GND(POWER)			



Connector No.	M32
Connector Name	AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Type	NS16FW-CS

Terminal No.	33	34	35	36	37	38	39
Color of Wire	V	W	B	B	B	B	B
Signal Name [Specification]	BAT (FUSE)	BAT (G/E)	GND(SIGNAL)	GND(POWER)			



Connector No.	M32
Connector Name	CIRCUIT BREAKER
Connector Type	M02FW-LG

Terminal No.	1	2
Color of Wire	W	SB
Signal Name [Specification]		- [With automatic drive positioner]



Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FE-LC

Terminal No.	1	2
Color of Wire	W	SB
Signal Name [Specification]		BAT (F/L)



Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS

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



Connector No.	M22
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH

Terminal No.	33	34	35	36	37	38	39
Color of Wire	V	W	B	B	B	B	B
Signal Name [Specification]	BAT (FUSE)	BAT (G/E)	GND(SIGNAL)	GND(POWER)			



Connector No.	M24
Connector Name	WIRE TO WIRE
Connector Type	TH40MP-CS15

Terminal No.	38	39	40
Color of Wire	W	O	SB
Signal Name [Specification]			



JCLWA2432GB

# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## ECU DIAGNOSIS INFORMATION

### DRIVER SEAT CONTROL UNIT

Reference Value

INFOID:000000004556870

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status	
SET SW	Set switch	Push	ON
		Release	OFF
MEMORY SW1	Memory switch 1	Push	ON
		Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
		Release	OFF
SLIDE SW-FR	Sliding switch (front)	Operate	ON
		Release	OFF
SLIDE SW-RR	Sliding switch (rear)	Operate	ON
		Release	OFF
RECLN SW-FR	Reclining switch (front)	Operate	ON
		Release	OFF
RECLN SW-RR	Reclining switch (rear)	Operate	ON
		Release	OFF
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON
		Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
		Release	OFF
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
		Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
		Release	OFF
MIR CON SW-UP	Mirror switch	Up	ON
		Other than above	OFF
MIR CON SW-DN	Mirror switch	Down	ON
		Other than above	OFF
MIR CON SW-RH	Mirror switch	Right	ON
		Other than above	OFF
MIR CON SW-LH	Mirror switch	Left	ON
		Other than above	OFF
MIR CHNG SW-R	Changeover switch	Right	ON
		Other than above	OFF
MIR CHNG SW-L	Changeover switch	Left	ON
		Other than above	OFF
TILT SW-UP	Tilt switch	Up	ON
		Other than above	OFF
TILT SW-DOWN	Tilt switch	Down	ON
		Other than above	OFF

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# DRIVER SEAT CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition		Value/Status
TELESCO SW-FR	Telescopic switch	Forward	ON
		Other than above	OFF
TELESCO SW-RR	Tilt switch	Backward	ON
		Other than above	OFF
DETENT SW <sup>*1</sup>	AT selector lever	P position	OFF
		Other than above	ON
PARK BRAKE SW <sup>*2</sup>	Parking brake	Applied	ON
		Release	OFF
STARTER SW	Ignition position	Cranking	ON
		Other than above	OFF
SLIDE PULSE	Seat sliding	Forward	The numeral value decreases <sup>*3</sup>
		Backward	The numeral value increases <sup>*3</sup>
		Other than above	No change to numeral value <sup>*3</sup>
RECLN PULSE	Seat reclining	Forward	The numeral value decreases <sup>*3</sup>
		Backward	The numeral value increases <sup>*3</sup>
		Other than above	No change to numeral value <sup>*3</sup>
LIFT FR PULSE	Seat lifter (front)	Up	The numeral value decreases <sup>*3</sup>
		Down	The numeral value increases <sup>*3</sup>
		Other than above	No change to numeral value <sup>*3</sup>
LIFT RR PULSE	Seat lifter (rear)	Up	The numeral value decreases <sup>*3</sup>
		Down	The numeral value increases <sup>*3</sup>
		Other than above	No change to numeral value <sup>*3</sup>
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

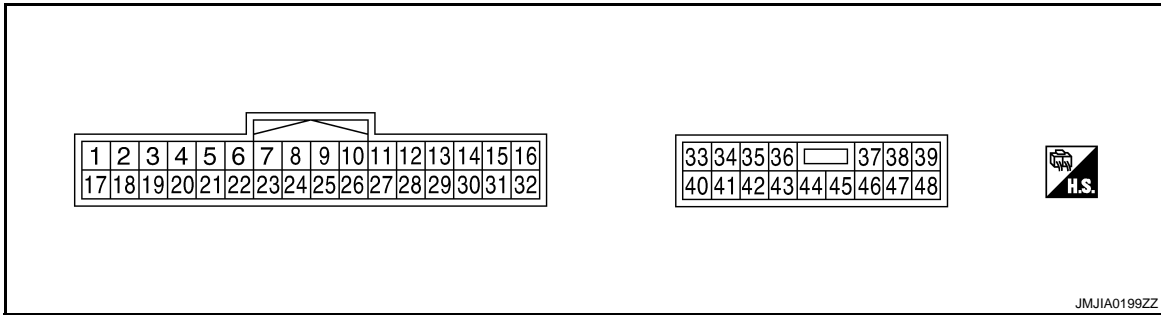
\*2: Only for MT model

\*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		Condition	Voltage (V) (Approx)				
+	-	Signal name	Input/ Output						
1 (L/W)	Ground	UART communication (RX)	Input	Ignition switch ON	 2mSec/div 2V/div JMJA0118ZZ				
3 (R/Y)	—	CAN-H	—	—	—				
8*1 (LG)	Ground	Parking brake switch signal	Input	Parking brake	<table border="1"> <tr> <td>Applied</td> <td>0</td> </tr> <tr> <td>Release</td> <td>Battery voltage</td> </tr> </table>	Applied	0	Release	Battery voltage
Applied	0								
Release	Battery voltage								
9 (W/G)	Ground	Reclining sensor signal	Input	Seat reclining	<table border="1"> <tr> <td>Operate</td> <td>  10mSec/div 2V/div JMJA0119ZZ           </td> </tr> <tr> <td>Stop</td> <td>0 or 5</td> </tr> </table>	Operate	 10mSec/div 2V/div JMJA0119ZZ	Stop	0 or 5
				Operate	 10mSec/div 2V/div JMJA0119ZZ				
Stop	0 or 5								
10 (P/B)	Ground	Lifting sensor (rear) sig- nal	Input	Seat lifting (rear)	<table border="1"> <tr> <td>Operate</td> <td>  10mSec/div 2V/div JMJA0119ZZ           </td> </tr> <tr> <td>Stop</td> <td>0 or 5</td> </tr> </table>	Operate	 10mSec/div 2V/div JMJA0119ZZ	Stop	0 or 5
				Operate	 10mSec/div 2V/div JMJA0119ZZ				
Stop	0 or 5								
11 (BR)	Ground	Sliding switch backward signal	Input	Sliding switch	<table border="1"> <tr> <td>Operate (back- ward)</td> <td>0</td> </tr> <tr> <td>Release</td> <td>Battery voltage</td> </tr> </table>	Operate (back- ward)	0	Release	Battery voltage
				Operate (back- ward)	0				
Release	Battery voltage								
12 (SB)	Ground	Reclining switch back- ward signal	Input	Reclining switch	<table border="1"> <tr> <td>Operate (back- ward)</td> <td>0</td> </tr> <tr> <td>Release</td> <td>Battery voltage</td> </tr> </table>	Operate (back- ward)	0	Release	Battery voltage
				Operate (back- ward)	0				
Release	Battery voltage								

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ADP

# DRIVER SEAT CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Terminal No.		Description		Condition		Voltage (V) (Approx)
+	-	Signal name	Input/ Output			
13 (LG/R)	Ground	Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0
					Release	Battery voltage
14 (GB)	Ground	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0
					Release	Battery voltage
16 (O)	Ground	Sensor power supply	Output	—	—	5
17 (Y/R)	Ground	UART communication (TX)	Output	Ignition switch ON		
19 (V)	—	CAN-L	—	—	—	—
21*2 (L/Y)	Ground	Detention switch	Input	A/T selector lever	P position	0
					Except P position	
24 (R)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	
					Stop	0 or 5
25 (Y/B)	Ground	Lifting sensor (front) sig- nal	Input	Seat lifting (front)	Operate	
					Stop	0 or 5
26 (Y)	Ground	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0
					Release	Battery voltage
27 (R/G)	Ground	Reclining switch forward signal	Input	Reclining switch	Operate (forward)	0
					Release	Battery voltage

# DRIVER SEAT CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Terminal No.		Description		Condition	Voltage (V) (Approx)	
+	-	Signal name	Input/ Output			
28 (W/B)	Ground	Lifting switch (front) up signal	Input	Seat lifting switch (front)	Operate (up)	0
					Release	Battery voltage
29 (P/L)	Ground	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0
					Release	Battery voltage
31 (GR)	Ground	Sensor ground	—	—	0	
32 (B/W)	Ground	Ground (signal)	—	—	0	
33 (R)	Ground	Power source (C/B)	Input	—	Battery voltage	
35 (W/R)	Ground	Sliding motor forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage
					Release	0
36 (G/Y)	Ground	Reclining motor forward output signal	Output	Seat reclining	Operate (forward)	Battery voltage
					Release	0
37 (G/W)	Ground	Lifting motor (front) down output signal	Output	Seat lifting (front)	Operate (down)	Battery voltage
					Stop	0
38 (L/Y)	Ground	Lifting motor (rear) up output signal	Output	Seat lifting (rear)	Operate (up)	Battery voltage
					Stop	0
39 (R/B)	Ground	Lifting motor (rear) down output signal	Output	Seat lifting (rear)	Operate (down)	Battery voltage
					Stop	0
40 (R/W)	Ground	Power source (Fuse)	Input	—	Battery voltage	
42 (W/B)	Ground	Sliding motor backward output signal	Output	Seat sliding	Operate (back- ward)	Battery voltage
					Stop	0
44 (P)	Ground	Reclining motor back- ward output signal	Output	Seat reclining	Operate (back- ward)	Battery voltage
					Stop	0
45 (L/R)	Ground	Lifting motor (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage
					Stop	0
48 (B)	Ground	Ground (power)	—	—	0	

\*1: Only for MT models

\*2: Only for AT models

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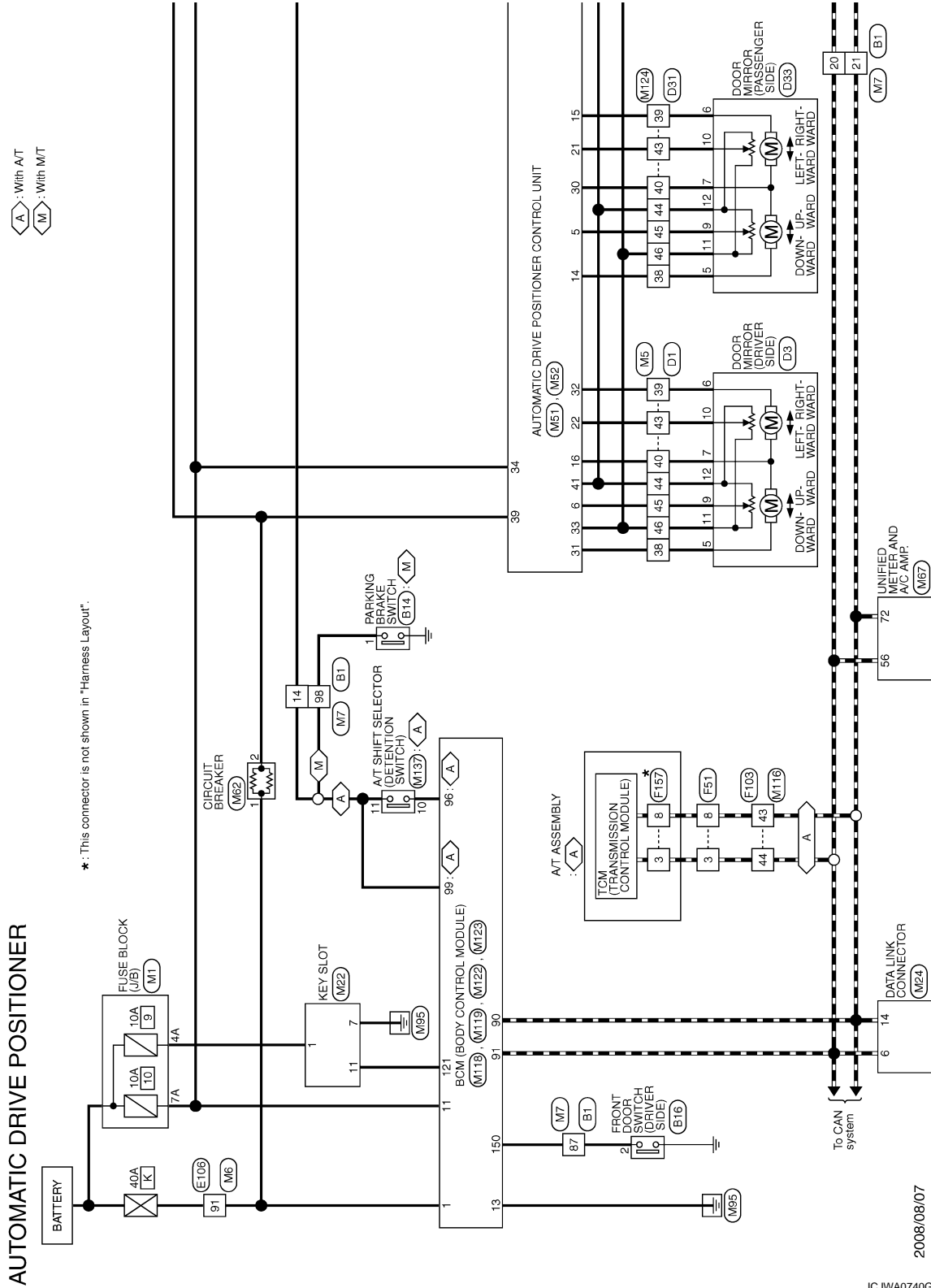
ADP

# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -

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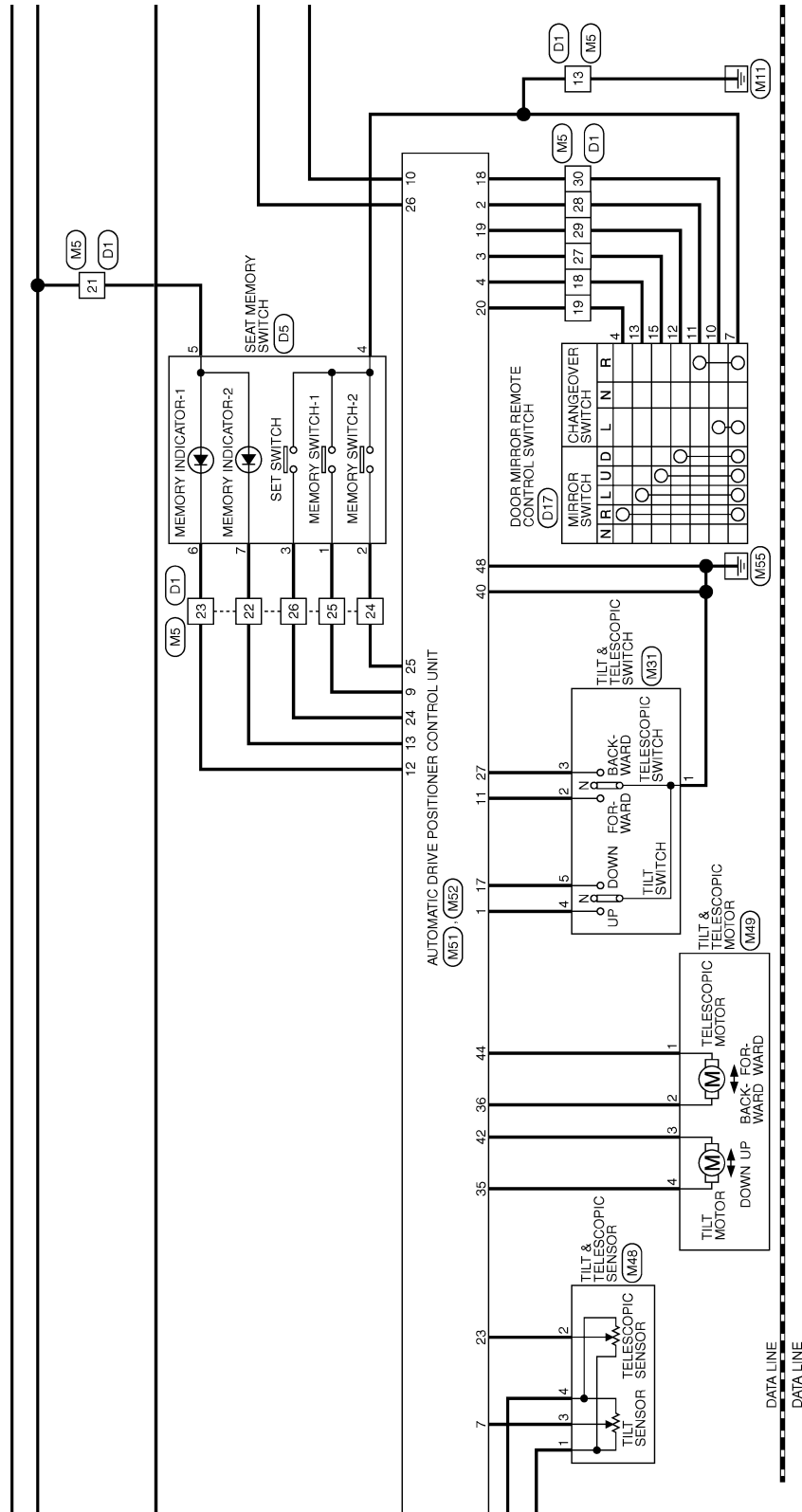
2008/08/07

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# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >



JCJWA0741GB

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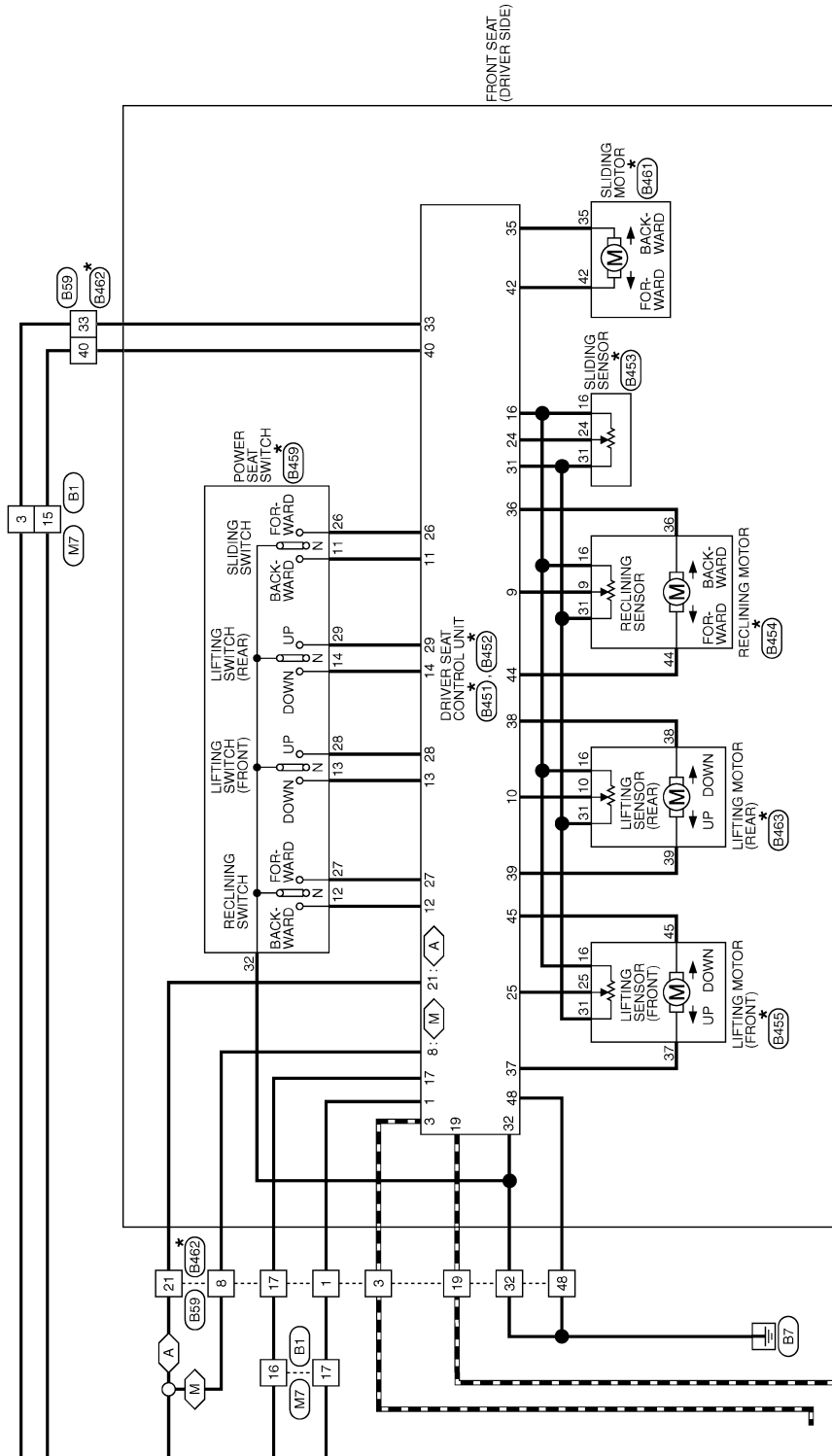
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# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

⬠ : With A/T  
 ⬢ : With M/T

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



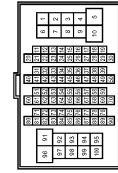
JCJWA0742GB

# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## AUTOMATIC DRIVE POSITIONER

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



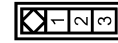
Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
14	Y	-
15	BR	-
16	LG	-
17	G	-
20	L	-
21	P	-
87	B	-
98	V	-

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH (WITH M/T)
Connector Type	P01EB-A



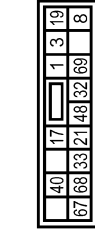
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03BW



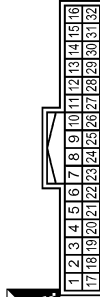
Terminal No.	Color of Wire	Signal Name [Specification]
2	B	-

Connector No.	B59
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
3	L	-
8	Y	-
17	LG	-
19	P	-
21	Y	-
32	B	-
33	SB	-
40	BR	-
48	B	-

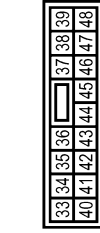
Connector No.	B4E1
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH82FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	L/W	RX
3	R/Y	CAN-H
8	LG	PARKING BRAKE SW
9	W/G	PULSE (RECLINING)
10	P/B	PULSE (RR LIFTING)
11	BR	SLIDING SW (BACKWARD)
12	SB	RECLINING SW (BACKWARD)
13	LG/R	FRONT LIFTING SW (DOWNWARD)
14	G/B	REAR LIFTING SW (DOWNWARD)
16	O	VCC
17	Y/R	TX

19	V	CAN-L
21	L/Y	P RANGE SW
24	R	PULSE (SLIDING)
25	Y/B	PULSE (FR LIFTING)
26	Y	SLIDING SW (FORWARD)
27	R/G	RECLINING SW (FORWARD)
28	W/B	FRONT LIFTING SW (UPWARD)
29	P/L	REAR LIFTING SW (UPWARD)
31	GR	SENSOR GND
32	B/W	GND (SIGNAL)

Connector No.	B6E2
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
33	R	BAT (C/B)
35	W/R	SLIDING MOTOR(FORWARD)
36	G/Y	RECLINING MOTOR(FORWARD)
37	G/W	FRONT LIFTING MOTOR(DOWNWARD)
38	L/Y	REAR LIFTING MOTOR(UPWARD)
39	R/B	REAR LIFTING MOTOR(BACKWARD)
40	P/W	BATTERYUSE
42	W/B	SLIDING MOTOR(BACKWARD)
44	P	RECLINING MOTOR(BACKWARD)
45	L/R	FRONT LIFTING MOTOR(UPWARD)
48	B	GND(POWER)

Connector No.	B4E3
Connector Name	SLIDING SENSOR
Connector Type	8095-0241



Terminal No.	Color of Wire	Signal Name [Specification]
16	O	-
24	R	-
31	GR	-

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# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## AUTOMATIC DRIVE POSITIONER

Connector No.	B454
Connector Name	RECLINING MOTOR (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS06FW-CS



36	44
16	31
9	17

Terminal No.	Color of Wire	Signal Name [Specification]
9	W/G	-
16	O	-
31	GR	-
36	G/Y	-
44	P	-

Connector No.	B455
Connector Name	LIFTING MOTOR (FRONT) (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS06FW-CS



45	37
16	31
25	10

Terminal No.	Color of Wire	Signal Name [Specification]
16	O	-
25	Y/B	-
31	GR	-
37	G/W	-
45	L/R	-

Connector No.	B459
Connector Name	POWER SEAT SWITCH (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS10FW-CS



32	14	29
12	27	11
27	11	26
13	26	13
28	13	28

Terminal No.	Color of Wire	Signal Name [Specification]
11	BR	-
12	SB	-
13	LG/R	-
14	G/B	-
26	Y	-
27	R/G	-
28	W/B	-
29	P/L	-
32	B/W	-

Connector No.	B461
Connector Name	SLIDING MOTOR (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	6088-0238



42	35
35	42

Terminal No.	Color of Wire	Signal Name [Specification]
35	W/R	-
42	W/B	-

Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



19	3	1	17	40
8	69	32	48	21
33	68	67		

Terminal No.	Color of Wire	Signal Name [Specification]
1	L/W	-
3	R/Y	-
8	LG	-
17	Y/R	-
19	V	-
21	L/Y	-
32	B/W	-
33	R	-
40	R/W	-
48	B	-

Connector No.	B463
Connector Name	LIFTING MOTOR (REAR) (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS06FB-CS



38	39
16	31
10	10

Terminal No.	Color of Wire	Signal Name [Specification]
10	P/B	-
16	O	-
31	GR	-
38	L/Y	-
39	R/B	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40PW-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
44	44	44	44	44	44	44	44	44	44	44	44	44	44	44

Terminal No.	Color of Wire	Signal Name [Specification]
13	B	-
18	W	-
19	BR	-
21	R	-
22	P	-
23	O	-
24	BR	-
25	L	-
26	GR	-
27	Y	-
28	LG	-

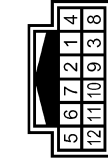
39	G
30	GR
38	O
39	GR
40	G
43	BR
44	V
45	P
46	W

# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

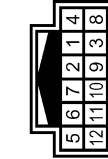
## AUTOMATIC DRIVE POSITIONER

Connector No.	D33
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	O	- [With automatic drive positioner]
6	GR	- [With automatic drive positioner]
7	G	- [With automatic drive positioner]
9	P	-
10	BR	-
11	W	-
12	V	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	O	- [Except for with A/T and automatic drive positioner]
6	GR	- [With A/T and automatic drive positioner]
7	G	- [With A/T and automatic drive positioner]
9	Y	- [Except for with A/T and automatic drive positioner]
10	BR	- [With A/T and automatic drive positioner]
11	W	-
12	V	-

Connector No.	D5
Connector Name	SEAT MEMORY SWITCH
Connector Type	A08FW



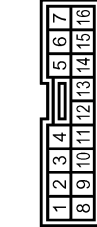
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	BR	-
3	GR	-
4	B	-
5	R	-
6	O	-
7	P	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS16-TM4



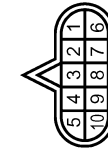
Terminal No.	Color of Wire	Signal Name [Specification]
91	W	-

Connector No.	D17
Connector Name	LOCK MIRROR REMOTE CONTROL SWITCH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	TK16EBR



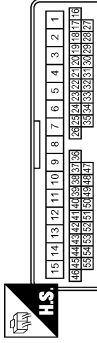
Terminal No.	Color of Wire	Signal Name [Specification]
4	BR	-
7	B	-
10	GR	-
11	LG	-
12	G	-
13	W	-
15	Y	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	FR10FG-DGY



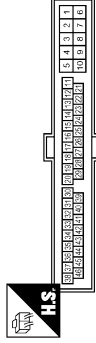
Terminal No.	Color of Wire	Signal Name [Specification]
3	L	-
8	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
38	W	- [With A/T]
39	O	- [With M/T]
39	G	- [With A/T]
39	GR	- [With M/T]
40	Y	- [With A/T]
40	G	- [With M/T]
43	BR	-
44	V	-
45	P	-
46	W	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
43	P	-
44	L	-

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# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

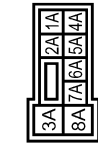
## AUTOMATIC DRIVE POSITIONER

Connector No.	F167
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



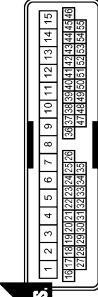
Terminal No.	Color of Wire	Signal Name [Specification]
3	R	CAN-H
8	BR	CAN-L

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



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

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	-
18	V	-
19	BR	-
21	W	-
22	P	-
23	O	-
24	V	-
25	BR	-
26	R	-
27	G	-
28	LG	-

29	SB	-
30	P	-
33	G	-
39	L	-
40	Y	-
43	G	-
44	Y	-
45	GR	-
46	W	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



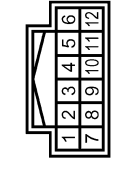
Terminal No.	Color of Wire	Signal Name [Specification]
91	W	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



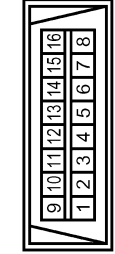
Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
14	R	- [With A/T]
14	O	- [With M/T]
15	BR	-
16	P	-
17	V	-
20	L	-
21	P	-
87	GR	-
98	O	-

Connector No.	M22
Connector Name	KEY SLOT
Connector Type	TH12FW-NH



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

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW-P



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

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# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## AUTOMATIC DRIVE POSITIONER

Connector No.	M43
Connector Name	TILT & TELESCOPIC SWITCH
Connector Type	TK08FY



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
2	GR	-
3	G	-
4	Y	-
5	BR	-

Connector No.	M48
Connector Name	TILT & TELESCOPIC SENSOR
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	P	-
3	O	-
4	Y	-

Connector No.	M49
Connector Name	TILT & TELESCOPIC MOTOR
Connector Type	NS04FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	GR	-
3	O	-
4	L	-

Connector No.	M61
Connector Name	AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Type	THZ2FW-RH



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	TILT SW (UPWARD)
2	LG	MIRROR SELECT SW (RH)
3	G	MIRROR SW (UPWARD)
4	V	MIRROR SW (LEFTWARD)
5	R	MIRROR SENSOR (RH VERTICAL)
6	GR	MIRROR SENSOR (LH VERTICAL)
7	O	TILT SENSOR
8	BR	ADDRESS1
9	V	TX (UART)
10	GR	TELESCOPIC SW (FRONTWARD)
11	GR	IND1
12	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	P	IND2
14	W	MIRROR MOTOR (RH VERTICAL)
15	O	MIRROR MOTOR (RH HORIZONTAL)
16	Y	MIRROR MOTOR (LH COMMON)
17	BR	TILT SW (DOWNWARD)
18	P	MIRROR SELECT SW (LH)
19	SB	MIRROR SW (DOWNWARD)
20	BR	MIRROR SW (RIGHTWARD)
21	L	MIRROR SENSOR (RH HORIZONTAL)
22	G	MIRROR SENSOR (LH HORIZONTAL)
23	P	TELESCOPIC SENSOR
24	R	SET SW
25	V	ADDRESS2
26	P	RX (UART)
27	G	TELESCOPIC SW (BACKWARD)
30	SB	MIRROR MOTOR (RH COMMON)
31	G	MIRROR MOTOR (LH VERTICAL)
32	L	MIRROR MOTOR (LH HORIZONTAL)

Connector No.	ME2
Connector Name	AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
33	W	POWER SUPPLY (SENSOR)
34	V	BAT (FUSE)
35	L	TILT MOTOR (UPWARD)
36	GR	TELESCOPIC MOTOR (FORWARD)
39	W	BAT (C/E)
40	B	GNDSIGNAL
41	Y	GNDSIGNAL
42	O	TILT MOTOR (DOWNWARD)
44	G	TELESCOPIC MOTOR (BACKWARD)
48	B	GNDCOVER

Connector No.	ME2
Connector Name	CIRCUIT BREAKER
Connector Type	ME2FW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	SB	- [With automatic drive positioner]

A  
B  
C  
D  
E  
F  
G  
H  
I  
K  
L  
M  
N  
O  
P

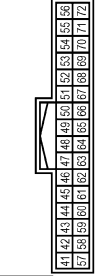
ADP

# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

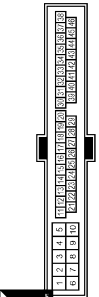
## AUTOMATIC DRIVE POSITIONER

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH82FW-NH



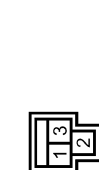
Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38AW-NS10



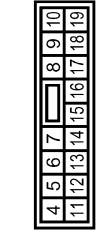
Terminal No.	Color of Wire	Signal Name [Specification]
43	P	-
44	L	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M83FB-LC



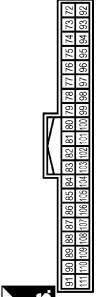
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	BAT (F/L)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS18FW-CS



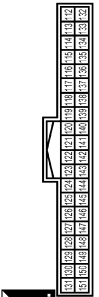
Terminal No.	Color of Wire	Signal Name [Specification]
11	R	BAT (FUSE)
13	B	GND

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



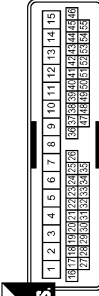
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H
96	GR	A/T SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P [With A/T]

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



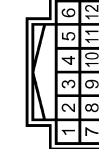
Terminal No.	Color of Wire	Signal Name [Specification]
121	SB	KEY SLOT SW
150	GR	DRIVER DOOR SW

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
38	W	-
39	O	-
40	SB	-
43	L	-
44	Y	-
45	R	-
46	W	-

Connector No.	M137
Connector Name	A/T SHIFT SELECTOR
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	GR	-
11	R	-

## Fail Safe

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

JCJWA0748GB

INFOID:000000004556872



# DRIVER SEAT CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

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

## DTC Index

INFOID:000000004556873

CONSULT-III display	Timing*1		Item	Reference page
	Current malfunction	Previous malfunction		
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	<a href="#">ADP-49</a>
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	<a href="#">ADP-50</a>
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	<a href="#">ADP-52</a>
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	<a href="#">ADP-54</a>
TELESCO SENSOR [B2119]	0	1-39	Telescopic sensor input	<a href="#">ADP-57</a>
DETENT SW [B2126]	0	1-39	Detention switch condition	<a href="#">ADP-60</a>
PARKING BRAKE [B2127]	0	1-39	Parking brake switch condition	<a href="#">ADP-62</a>
UART COMM [B2128]	0	1-39	UART communication	<a href="#">ADP-64</a>

\*1:

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

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

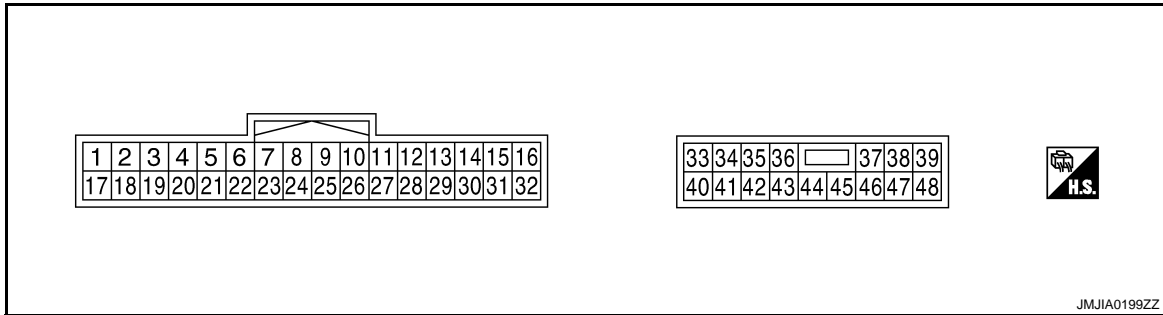
< ECU DIAGNOSIS INFORMATION >

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

INFOID:000000004556874

### TERMINAL LAYOUT



### PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Voltage (V) (Approx.)
+	-	Signal name	Input/ Output			
1 (Y)	Ground	Tilt switch upward signal	Input	Tilt switch	Operate (upward)	0
					Other than above	5
2 (LG)	Ground	Changeover switch RH signal	Input	Changeover switch position	RH	0
					Neutral or LH	5
3 (G)	Ground	Mirror switch upward signal	Input	Mirror switch	Operated (upward)	0
					Other than above	5
4 (V)	Ground	Mirror switch leftward signal	Input	Mirror switch	Operated (leftward)	0
					Other than above	5
5 (R)	Ground	Door mirror sensor (RH) upward/downward signal	Input	Mirror face (door mirror RH)	Change between 3.4 (close to peak) 0.6 (close to valley)	
6 (GR)	Ground	Door mirror sensor (LH) upward/downward signal	Input	Mirror face (door mirror LH)	Change between 3.4 (close to peak) 0.6 (close to valley)	
7 (O)	Ground	Tilt sensor signal	Input	Tilt position	Change between 1.2 (close to top) 3.8 (close to bottom)	
9 (BR)	Ground	Memory switch 1 signal	Input	Memory switch 1	Press	0
					Other than above	5
10 (V)	Ground	UART communication (TX)	Output	Ignition switch ON		

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

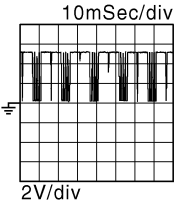
## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Voltage (V) (Approx.)		
+	-	Signal name	Input/ Output				
11 (GR)	Ground	Telescopic switch forward signal	Input	Telescopic switch	Operate (forward)	0	A
					Other than above	5	B
12 (O)	Ground	Memory indicator 1 signal	Output	Memory indicator 1	Illuminate	1	C
					Other than above	Battery voltage	D
13 (P)	Ground	Memory indicator 2 signal	Output	Memory indicator 2	Illuminate	1	E
					Other than above	Battery voltage	F
14 (W)	Ground	Door mirror motor (RH) upward output	Output	Door mirror RH	Operate (upward)	Battery voltage	G
					Other than above	0	H
15 (O)	Ground	Door mirror motor (RH) leftward output	Output	Door mirror RH	Operate (leftward)	Battery voltage	I
					Other than above	0	J
16 (Y)	Ground	Door mirror motor (LH) downward output	Output	Door mirror (LH)	Operate (downward)	Battery voltage	K
					Other than above	0	L
		Door mirror motor (LH) rightward output			Operate (rightward)	Battery voltage	M
					Other than above	0	N
17 (BR)	Ground	Tilt switch downward signal	Input	Tilt switch	Operate (downward)	0	O
					Other than above	5	P
18 (P)	Ground	Changeover switch LH signal	Input	Changeover switch position	LH	0	
					Neutral or RH	5	
19 (SB)	Ground	Mirror switch downward signal	Input	Mirror switch	Operate (downward)	0	
					Other than above	5	
20 (BR)	Ground	Mirror switch rightward signal	Input	Mirror switch	Operate (rightward)	0	
					Other than above	5	
21 (L)	Ground	Door mirror sensor (RH) leftward/rightward signal	Input	Door mirror RH position	Change between 3.4 (close to left edge) 0.6 (close to right edge)		
22 (G)	Ground	Door mirror sensor (LH) leftward/rightward signal	Input	Door mirror LH position	Change between 0.6 (close to left edge) 3.4 (close to right edge)		
23 (P)	Ground	Telescopic sensor signal	Input	Telescopic position	Change between 0.8 (close to top) 4.4 (close to bottom)		

ADP

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Voltage (V) (Approx.)
+	-	Signal name	Input/ Output			
24 (R)	Ground	Set switch signal	Input	Set switch	Press	0
					Other than above	5
25 (V)	Ground	Memory switch 2 signal	Input	Memory switch 2	Press	0
					Other than above	5
26 (P)	Ground	UART communication (RX)	Input	Ignition switch ON	 <small>JMJIA0121ZZ</small>	
27 (G)	Ground	Telescopic switch back- ward signal	Input	Telescopic switch	Operate (backward)	0
					Other than above	5
30 (SB)	Ground	Door mirror motor (RH) downward output	Output	Door mirror (RH)	Operate (down- ward)	Battery voltage
		Door mirror motor (RH) rightward output			Other than above	0
					Operate (rightward)	Battery voltage
					Other than above	0
31 (G)	Ground	Door mirror motor (LH) upward output	Output	Door mirror (LH)	Operate (upward)	Battery voltage
					Other than above	0
32 (L)	Ground	Door mirror motor (LH) leftward output	Output	Door mirror (LH)	Operate (leftward)	Battery voltage
					Other than above	0
33 (W)	Ground	Sensor power supply	Input	—	5	
34 (V)	Ground	Power source (Fuse)	Input	—	Battery voltage	
35 (L)	Ground	Tilt motor upward output	Output	Steering tilt	Operate (upward)	Battery voltage
					Other than above	0
36 (GR)	Ground	Telescopic motor forward output signal	Output	Steering telescopic	Operate (forward)	Battery voltage
					Other than above	0
39 (W)	Ground	Power source (C/B)	Input	—	Battery voltage	
40 (B)	Ground	Ground	—	—	0	

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Voltage (V) (Approx.)	A	
+	-	Signal name	Input/ Output			B	
41 (Y)	Ground	Sensor ground	—	—	0	C	
42 (O)	Ground	Tilt motor downward out- put	Output	Steering tilt	Operate (down- ward)	Battery voltage	D
					Other than above	0	E
44 (G)	Ground	Telescopic motor back- ward output	Output	Steering telescop- ic	Operate (backward)	Battery voltage	F
					Other than above	0	G
48 (B)	Ground	Ground	—	—	0	H	

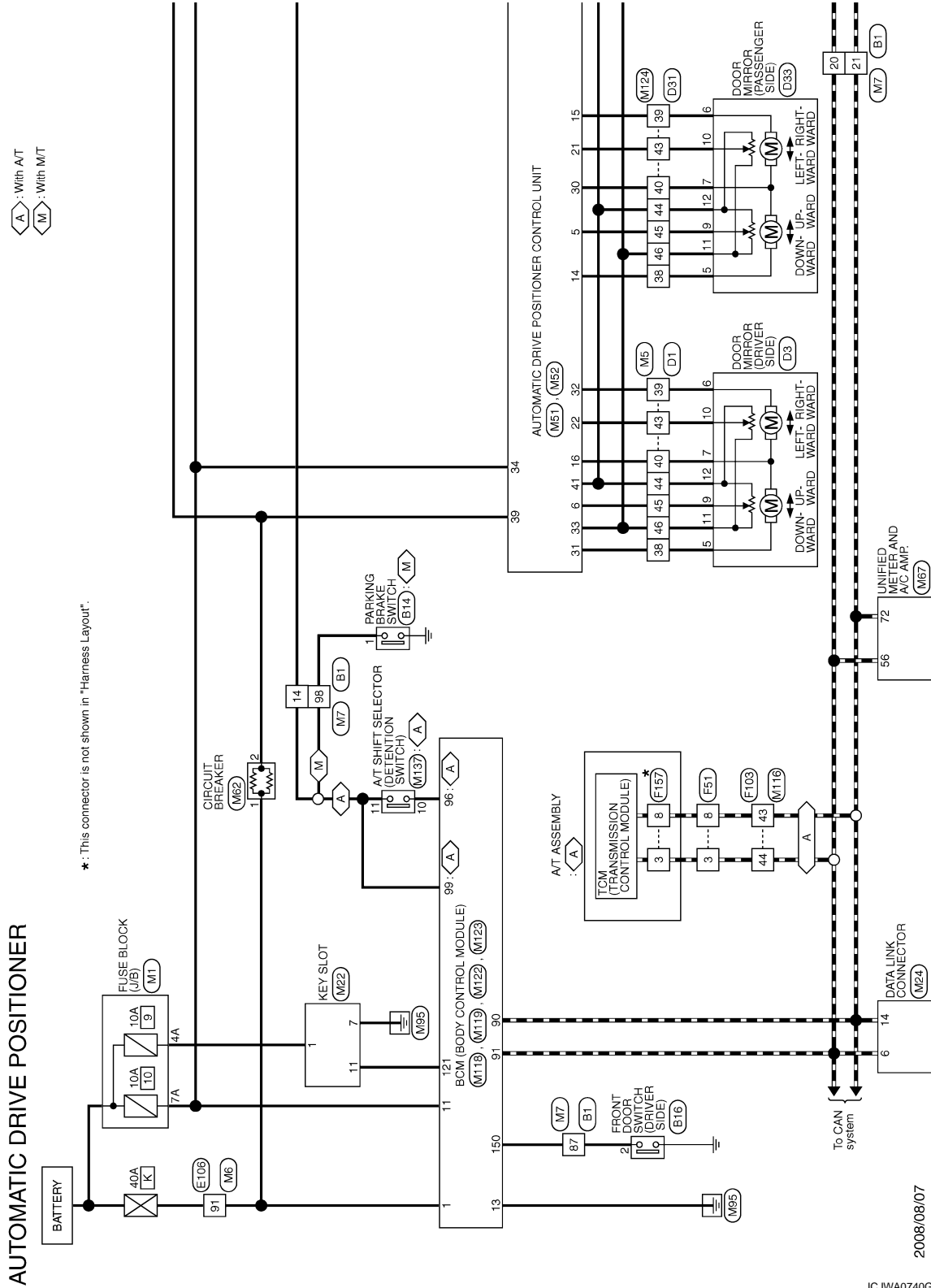
ADP

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -

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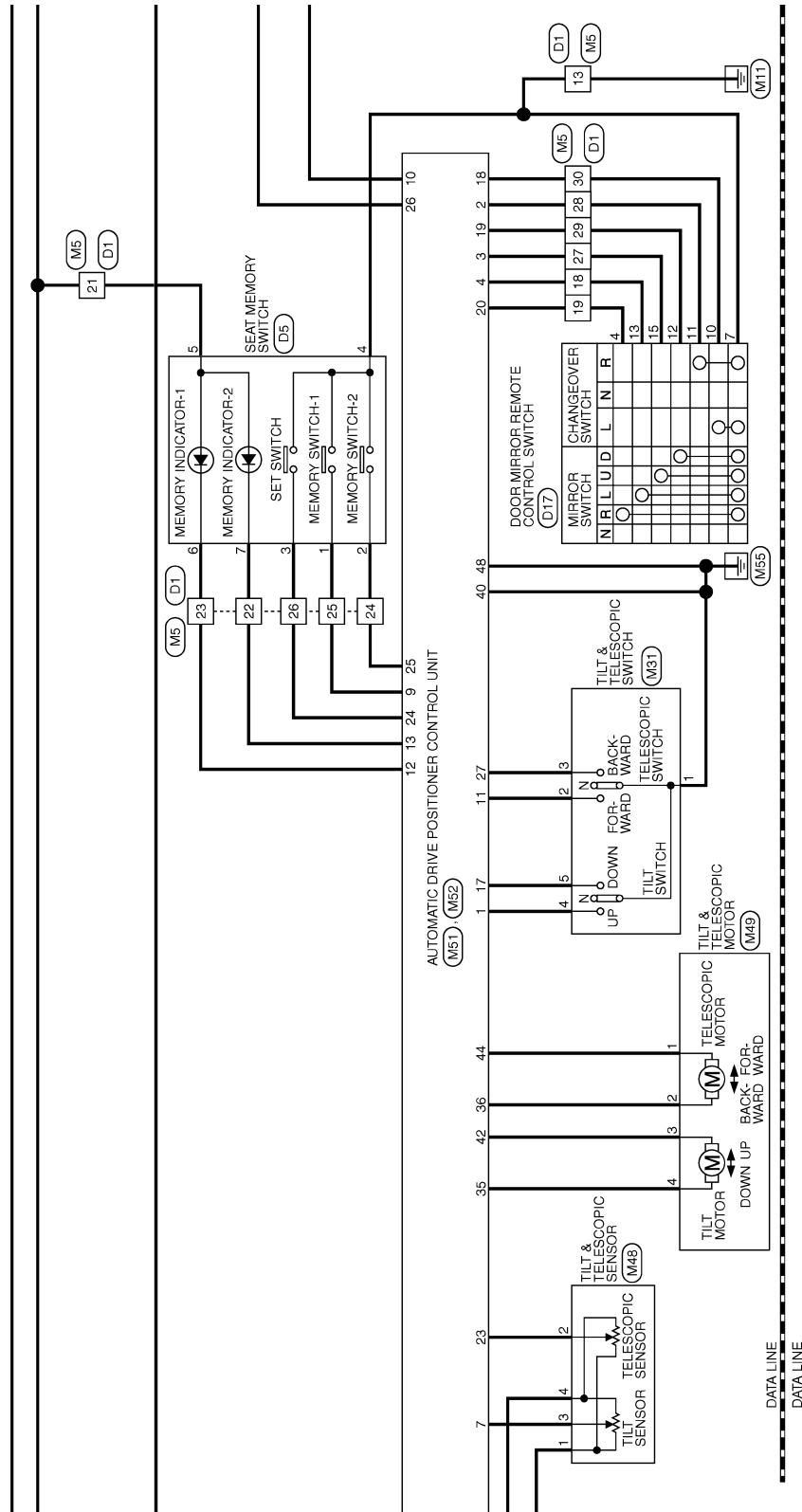


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# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >



JCJWA0741GB

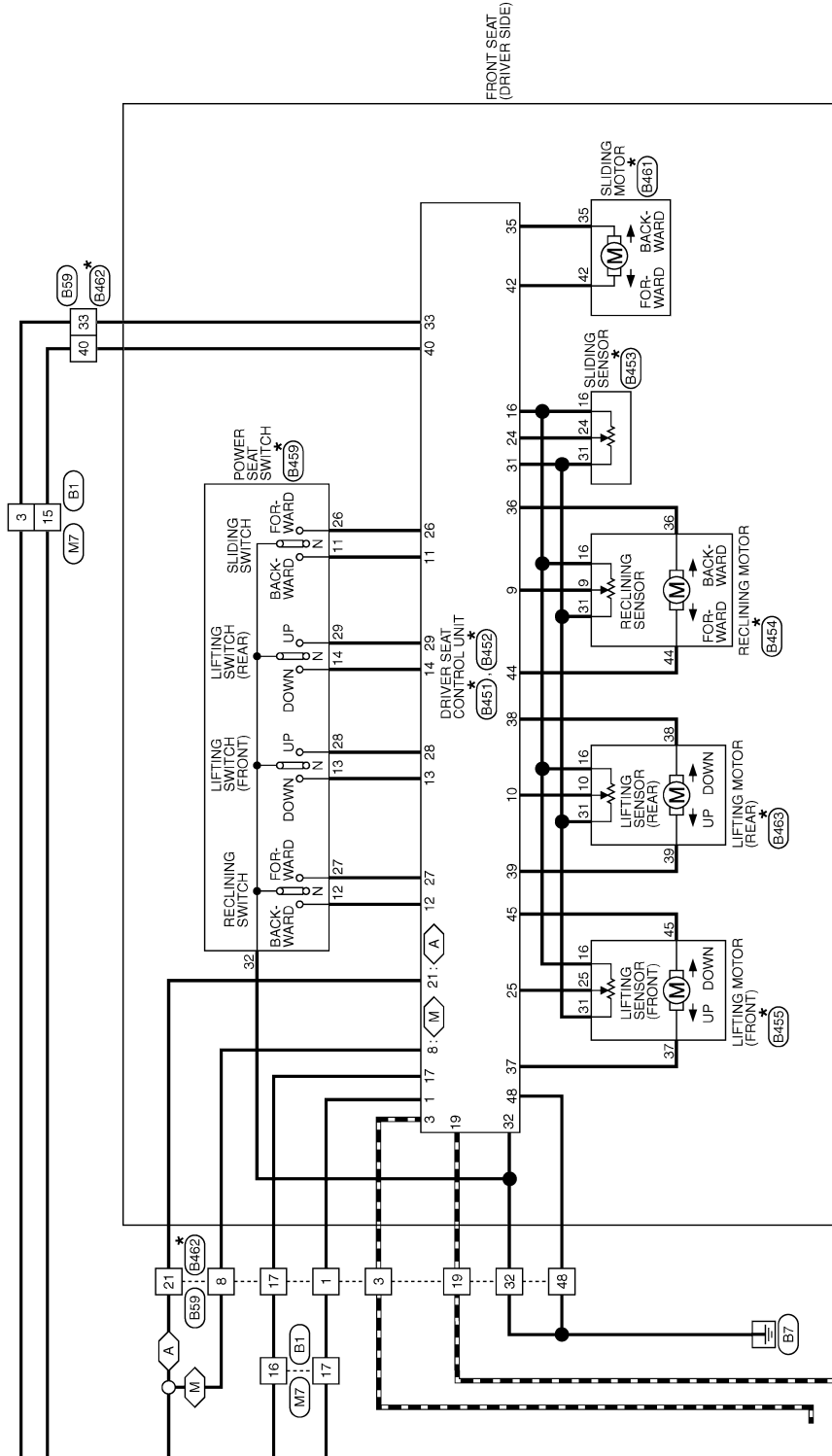
A  
B  
C  
D  
E  
F  
G  
H  
I  
ADP  
K  
L  
M  
N  
O  
P

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

⬠ : With A/T  
⬢ : With M/T

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



JCJWA0742GB

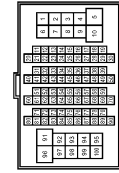


# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## AUTOMATIC DRIVE POSITIONER

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



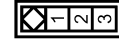
Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
14	Y	-
15	BR	-
16	LG	-
17	G	-
20	L	-
21	P	-
87	B	-
98	V	-

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH (WITH M/T)
Connector Type	P01EB-A



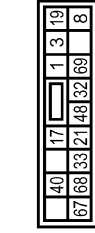
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03BW



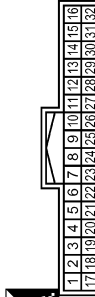
Terminal No.	Color of Wire	Signal Name [Specification]
2	B	-

Connector No.	B59
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
3	L	-
8	Y	-
17	LG	-
19	P	-
32	B	-
33	SB	-
40	BR	-
48	B	-

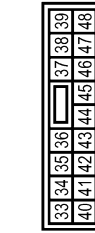
Connector No.	B4E1
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH82FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	L/W	RX
3	R/Y	CAN-H
8	LG	PARKING BRAKE SW
9	W/G	PULSE (RECLINING)
10	P/B	PULSE (RR LIFTING)
11	BR	SLIDING SW (BACKWARD)
12	SB	RECLINING SW (BACKWARD)
13	LG/R	FRONT LIFTING SW (DOWNWARD)
14	G/B	REAR LIFTING SW (DOWNWARD)
16	O	VCC
17	Y/R	TX

19	V	CAN-L
21	L/Y	P RANGE SW
24	R	PULSE (SLIDING)
25	Y/B	PULSE (FR LIFTING)
26	Y	SLIDING SW (FORWARD)
27	R/G	RECLINING SW (FORWARD)
28	W/B	FRONT LIFTING SW (UPWARD)
29	P/L	REAR LIFTING SW (UPWARD)
31	GR	SENSOR GND
32	B/W	GND (SIGNAL)

Connector No.	B4E2
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
33	R	BAT (C/B)
35	W/R	SLIDING MOTOR(FORWARD)
36	G/Y	RECLINING MOTOR(FORWARD)
37	G/W	FRONT LIFTING MOTOR(DOWNWARD)
38	L/Y	REAR LIFTING MOTOR(UPWARD)
39	R/B	REAR LIFTING MOTOR(BACKWARD)
40	P/W	BATTERYUSE
42	W/B	SLIDING MOTOR(BACKWARD)
43	P	RECLINING MOTOR(BACKWARD)
45	L/R	FRONT LIFTING MOTOR(UPWARD)
48	B	GND(POWER)

Connector No.	B4S3
Connector Name	SLIDING SENSOR
Connector Type	8898-0241



Terminal No.	Color of Wire	Signal Name [Specification]
16	O	-
24	R	-
31	GR	-

A  
B  
C  
D  
E  
F  
G  
H  
I  
ADP  
K  
L  
M  
N  
O  
P

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

### AUTOMATIC DRIVE POSITIONER

Connector No.	B454
Connector Name	RECLINING MOTOR (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS06FW-CS



36	44
16	31
9	17

Terminal No.	Color of Wire	Signal Name [Specification]
9	W/G	-
16	O	-
31	GR	-
36	G/Y	-
44	P	-

Connector No.	B455
Connector Name	LIFTING MOTOR (FRONT) (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS06FW-CS



45	37
16	31
25	25

Terminal No.	Color of Wire	Signal Name [Specification]
16	O	-
25	Y/B	-
31	GR	-
37	G/W	-
45	L/R	-

Connector No.	B459
Connector Name	POWER SEAT SWITCH (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS10FW-CS



32	14	29
12	27	11
27	11	26
13	26	13
26	13	28

Terminal No.	Color of Wire	Signal Name [Specification]
11	BR	-
12	SB	-
13	LG/R	-
14	G/B	-
26	Y	-
27	R/G	-
28	W/B	-
29	P/L	-
32	B/W	-

Connector No.	B461
Connector Name	SLIDING MOTOR (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	6088-0238



42	35
35	42

Terminal No.	Color of Wire	Signal Name [Specification]
35	W/R	-
42	W/B	-

Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



19	3	1	17	40
8	69	32	48	21
33	68	67		

Terminal No.	Color of Wire	Signal Name [Specification]
1	L/W	-
3	R/Y	-
8	LG	-
17	Y/R	-
19	V	-
21	L/Y	-
32	B/W	-
33	R	-
40	R/W	-
48	B	-

Connector No.	B463
Connector Name	LIFTING MOTOR (REAR) (DRIVER SIDE) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS06FB-CS



38	39
16	31
10	10

Terminal No.	Color of Wire	Signal Name [Specification]
10	P/B	-
16	O	-
31	GR	-
38	L/Y	-
39	R/B	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40PW-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
44	44	44	44	44	44	44	44	44	44	44	44	44	44	44

Terminal No.	Color of Wire	Signal Name [Specification]
13	B	-
18	W	-
19	BR	-
21	R	-
22	P	-
23	O	-
24	BR	-
25	L	-
26	GR	-
27	Y	-
28	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
39	G	-
39	GR	-
39	O	-
40	G	-
43	BR	-
44	V	-
45	P	-
46	W	-

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

### AUTOMATIC DRIVE POSITIONER

Connector No.	D33
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH12MW-NH



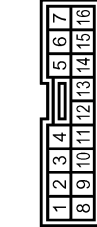
Terminal No.	Color of Wire	Signal Name [Specification]
5	O	- [With automatic drive positioner]
6	GR	- [With automatic drive positioner]
7	G	- [With automatic drive positioner]
9	P	-
10	BR	-
11	W	-
12	V	-

Connector No.	D5
Connector Name	SEAT MEMORY SWITCH
Connector Type	A08FW



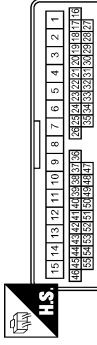
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	BR	-
3	GR	-
4	B	-
5	R	-
6	O	-
7	P	-

Connector No.	D17
Connector Name	IGNITION REMOTE CONTROL SWITCH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	TK16FER



Terminal No.	Color of Wire	Signal Name [Specification]
4	BR	-
7	B	-
10	GR	-
11	LG	-
12	G	-
13	W	-
15	Y	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



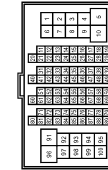
Terminal No.	Color of Wire	Signal Name [Specification]
38	W	- [With A/T]
38	O	- [With M/T]
39	G	- [With A/T]
39	GR	- [With M/T]
40	Y	- [With A/T]
40	G	- [With M/T]
43	BR	-
44	V	-
45	P	-
46	W	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH12MW-NH



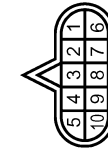
Terminal No.	Color of Wire	Signal Name [Specification]
5	O	- [Except for with A/T and automatic drive positioner]
5	W	- [With A/T and automatic drive positioner]
6	GR	- [Except for with A/T and automatic drive positioner]
6	G	- [With A/T and automatic drive positioner]
7	G	- [Except for with A/T and automatic drive positioner]
7	Y	- [With A/T and automatic drive positioner]
9	P	-
10	BR	-
11	W	-
12	V	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS16-TM4



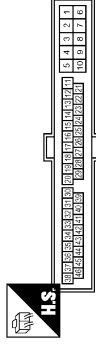
Terminal No.	Color of Wire	Signal Name [Specification]
91	W	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	FR10FG-DGY



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

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
43	P	-
44	L	-

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A  
B  
C  
D  
E  
F  
G  
H  
I  
K  
L  
M  
N  
O  
P

ADP

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

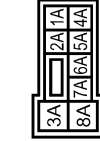
## AUTOMATIC DRIVE POSITIONER

Connector No.	F167
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



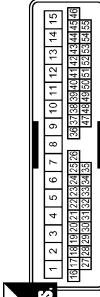
Terminal No.	Color of Wire	Signal Name [Specification]
3	R	CAN-H
8	BR	CAN-L

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



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

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	-
18	V	-
19	BR	-
21	W	-
22	P	-
23	O	-
24	V	-
25	BR	-
26	R	-
27	G	-
28	LG	-

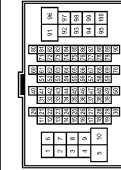
29	SB	-
30	P	-
33	G	-
39	L	-
40	Y	-
43	G	-
44	Y	-
45	GR	-
46	W	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



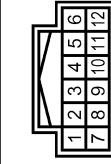
Terminal No.	Color of Wire	Signal Name [Specification]
91	W	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



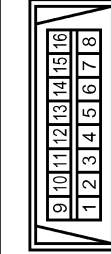
Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	- [With A/T]
14	R	- [With A/T]
14	O	- [With M/T]
15	BR	-
16	P	-
17	V	-
20	L	-
21	P	-
87	GR	-
98	O	-

Connector No.	M22
Connector Name	KEY SLOT
Connector Type	TH12FW-NH



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

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW-P



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

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# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## AUTOMATIC DRIVE POSITIONER

Connector No.	M43
Connector Name	TILT & TELESCOPIC SWITCH
Connector Type	TK08FY



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
2	GR	-
3	G	-
4	Y	-
5	BR	-

Connector No.	M48
Connector Name	TILT & TELESCOPIC SENSOR
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	P	-
3	O	-
4	Y	-

Connector No.	M49
Connector Name	TILT & TELESCOPIC MOTOR
Connector Type	NS04FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	GR	-
3	O	-
4	L	-

Connector No.	M61
Connector Name	AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Type	THZ2FW-RH



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	TILT SW (UPWARD)
2	LG	MIRROR SELECT SW (RH)
3	G	MIRROR SW (UPWARD)
4	V	MIRROR SW (LEFTWARD)
5	R	MIRROR SENSOR (RH VERTICAL)
6	GR	MIRROR SENSOR (LH VERTICAL)
7	O	TILT SENSOR
8	BR	ADDRESS1
10	V	TX (UART)
11	GR	TELESCOPIC SW (FRONTWARD)
12	O	IND1

Terminal No.	Color of Wire	Signal Name [Specification]
13	P	IND2
14	W	MIRROR MOTOR (RH VERTICAL)
15	O	MIRROR MOTOR (RH HORIZONTAL)
16	Y	MIRROR MOTOR (LH COMMON)
17	BR	TILT SW (DOWNWARD)
18	P	MIRROR SELECT SW (LH)
19	SB	MIRROR SW (DOWNWARD)
20	BR	MIRROR SW (RIGHTWARD)
21	L	MIRROR SENSOR (RH HORIZONTAL)
22	G	MIRROR SENSOR (LH HORIZONTAL)
23	P	TELESCOPIC SENSOR
24	R	SET SW
25	V	ADDRESS2
26	P	RX (UART)
27	G	TELESCOPIC SW (BACKWARD)
30	SB	MIRROR MOTOR (RH COMMON)
31	G	MIRROR MOTOR (LH VERTICAL)
32	L	MIRROR MOTOR (LH HORIZONTAL)

Connector No.	ME2
Connector Name	AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
33	W	POWER SUPPLY (SENSOR)
34	V	BAT (FUSE)
35	L	TILT MOTOR (UPWARD)
36	GR	TELESCOPIC MOTOR (FORWARD)
39	W	BAT (C/E)
40	B	GNDSIGNAL
41	Y	GNDSIGNAL
42	O	TILT MOTOR (DOWNWARD)
44	G	TELESCOPIC MOTOR (BACKWARD)
48	B	GNDCOMPER

Connector No.	ME2
Connector Name	CIRCUIT BREAKER
Connector Type	ME2FW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	SB	- [With automatic drive positioner]

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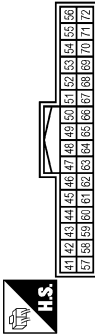
A  
B  
C  
D  
E  
F  
G  
H  
I  
ADP  
K  
L  
M  
N  
O  
P

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

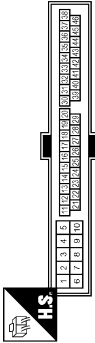
### AUTOMATIC DRIVE POSITIONER

Connector No.	M122
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH



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

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38AW-NS10



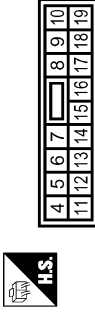
Terminal No.	Color of Wire	Signal Name [Specification]
43	P	-
44	L	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M38FB-LC



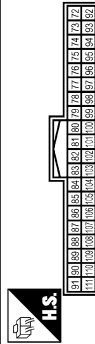
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	BAT (F/L)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS18FW-CS



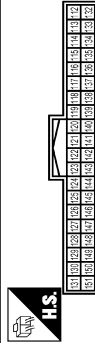
Terminal No.	Color of Wire	Signal Name [Specification]
11	R	BAT (FUSE)
13	B	GND

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



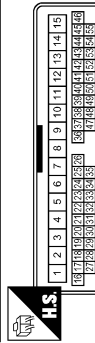
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H
96	GR	A/T SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P [With A/T]

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



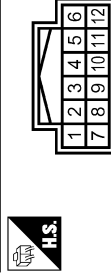
Terminal No.	Color of Wire	Signal Name [Specification]
121	SB	KEY SLOT SW
150	GR	DRIVER DOOR SW

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
38	W	-
39	O	-
40	SB	-
43	L	-
44	Y	-
45	R	-
46	W	-

Connector No.	M137
Connector Name	A/T SHIFT SELECTOR
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	GR	-
11	R	-

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

## BCM (BODY CONTROL MODULE)

### Reference Value

INFOID:000000004557020

### VALUES ON THE DIAGNOSIS TOOL

#### CONSULT-III MONITOR ITEM

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

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

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



## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off	A
	Trunk lid opener request switch is pressed	On	
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off	B
	Push-button ignition switch (push switch) is pressed	On	
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off	C
	Ignition switch in ON position	On	
ACC RLY -F/B	<b>NOTE:</b> The item is indicated, but not monitored.	Off	D
CLUCH SW	The clutch pedal is not depressed	Off	D
	The clutch pedal is depressed	On	
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off	E
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On	
BRAKE SW 2	The brake pedal is not depressed	Off	F
	The brake pedal is depressed	On	
DETE/CANCL SW	<ul style="list-style-type: none"> <li>• Selector lever in P position (Except M/T models)</li> <li>• The clutch pedal is depressed (M/T models)</li> </ul>	Off	G
	<ul style="list-style-type: none"> <li>• Selector lever in any position other than P (Except M/T models)</li> <li>• The clutch pedal is not depressed (M/T models)</li> </ul>	On	
SFT PN/N SW	Selector lever in any position other than P and N	Off	H
	Selector lever in P or N position	On	
S/L -LOCK	Steering is unlocked	Off	I
	Steering is locked	On	
S/L -UNLOCK	Steering is locked	Off	
	Steering is unlocked	On	ADP
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off	
	Ignition switch in ON position	On	
UNLK SEN -DR	Driver door is unlocked	Off	K
	Driver door is locked	On	
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off	L
	Push-button ignition switch (push-switch) is pressed	On	
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off	M
	Ignition switch in ON position	On	
DETE SW -IPDM	Selector lever in any position other than P	Off	
	Selector lever in P position	On	N
SFT PN -IPDM	<ul style="list-style-type: none"> <li>• Selector lever in any position other than P and N (Except M/T models)</li> <li>• The clutch pedal is not depressed (M/T models)</li> </ul>	Off	
	<ul style="list-style-type: none"> <li>• Selector lever in P or N position (Except M/T models)</li> <li>• The clutch pedal is depressed (M/T models)</li> </ul>	On	O
SFT P -MET	Selector lever in any position other than P	Off	
	Selector lever in P position	On	P
SFT N -MET	Selector lever in any position other than N	Off	
	Selector lever in N position	On	

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
	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
	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	<b>NOTE:</b> The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	<b>NOTE:</b> The item is indicated, but not monitored.	—
CONFIRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

## BCM (BODY CONTROL MODULE)

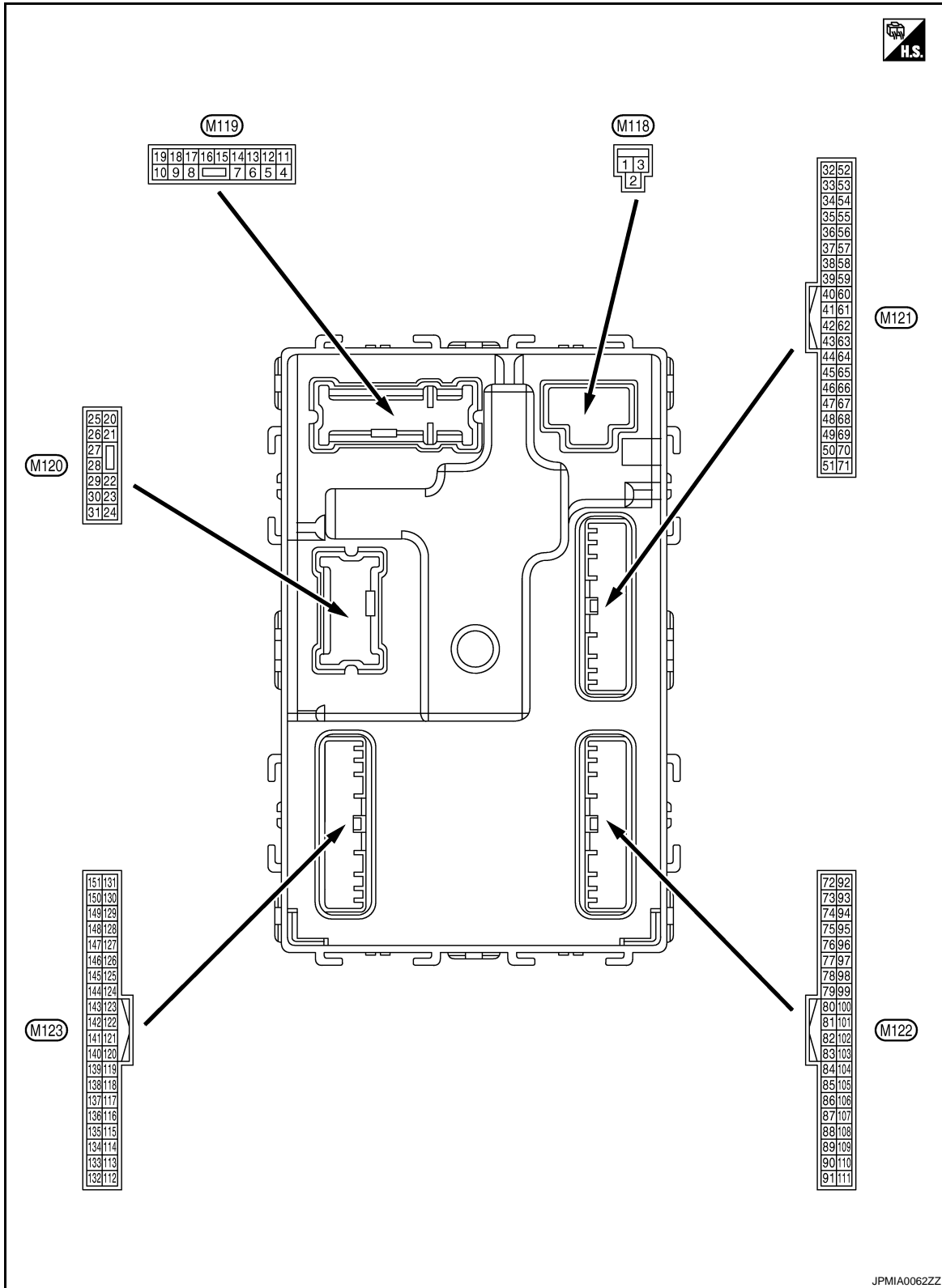
### < ECU DIAGNOSIS INFORMATION >

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	A
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done	B
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet	C
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done	
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet	D
	The ID of fourth Intelligent Key is registered to BCM	Done	
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet	E
	The ID of third Intelligent Key is registered to BCM	Done	
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet	F
	The ID of second Intelligent Key is registered to BCM	Done	
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet	
	The ID of first Intelligent Key is registered to BCM	Done	
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire	G
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire	H
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire	I
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire	
ID REGST FL1	ID of front LH tire transmitter is registered	Done	
	ID of front LH tire transmitter is not registered	Yet	ADP
ID REGST FR1	ID of front RH tire transmitter is registered	Done	
	ID of front RH tire transmitter is not registered	Yet	
ID REGST RR1	ID of rear RH tire transmitter is registered	Done	K
	ID of rear RH tire transmitter is not registered	Yet	
ID REGST RL1	ID of rear LH tire transmitter is registered	Done	L
	ID of rear LH tire transmitter is not registered	Yet	
WARNING LAMP	Tire pressure indicator OFF	Off	
	Tire pressure indicator ON	On	M
BUZZER	Tire pressure warning alarm is not sounding	Off	
	Tire pressure warning alarm is sounding	On	N

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

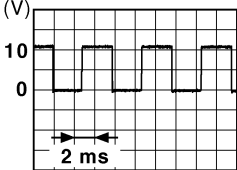
## TERMINAL LAYOUT



## PHYSICAL VALUES

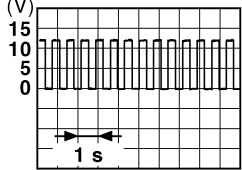
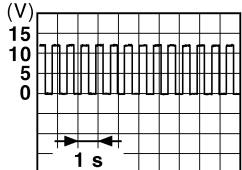
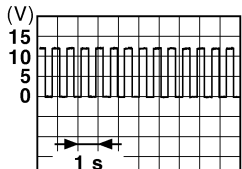
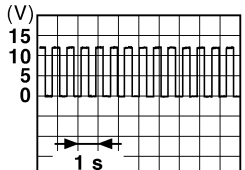
# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V
4 (LG)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
5 (P)	Ground	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK) Ac- tuator is not activated	0 V
7 (BR)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	12 V
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
10 (BR)	Ground	Rear RH door and rear LH UNLOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	<p><b>NOTE:</b> When the illumination brightening/dimming level is in the neutral position</p>  <p style="text-align: right; font-size: small;">JSNIA0010GB</p>
15 (O)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC	0 V

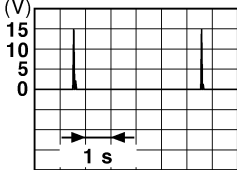
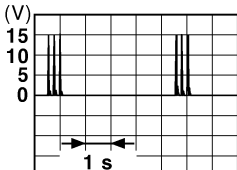
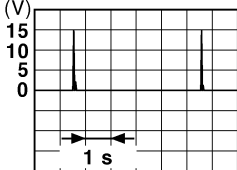
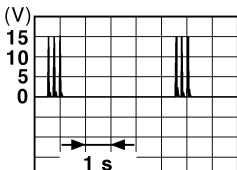
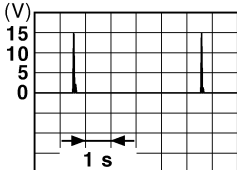
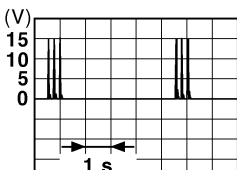
# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch RH	 <small style="text-align: right;">PKID0926E</small>	6.5 V
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch LH	 <small style="text-align: right;">PKID0926E</small>	6.5 V
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	12 V
				ON	0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch RH	 <small style="text-align: right;">PKID0926E</small>	6.5 V
23 (L)	Ground	Trunk lid open	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated)	12 V
				Other than OPEN (Trunk lid opener actuator is not activated)	0 V	
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch LH	 <small style="text-align: right;">PKID0926E</small>	6.5 V
30 (P)	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0 V
				OFF	12 V	

# BCM (BODY CONTROL MODULE)

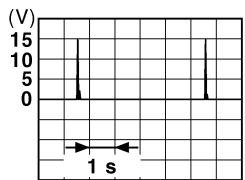
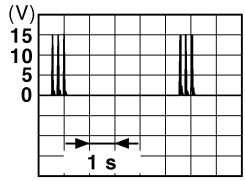
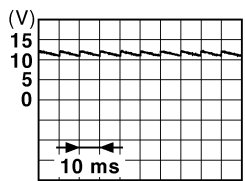
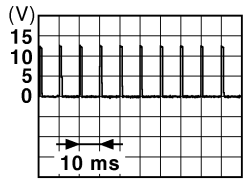
## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
34 (SB)	Ground	Trunk room antenna (-)	Output	Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
35 (V)	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
38 (B)	Ground	Rear bumper antenna (-)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

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# BCM (BODY CONTROL MODULE)

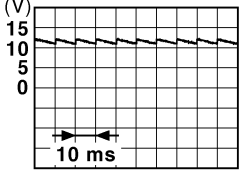
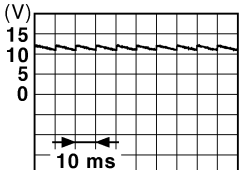
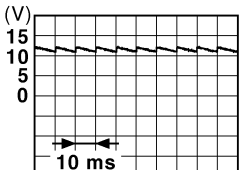
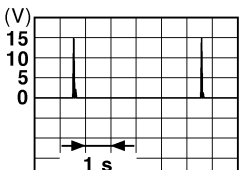
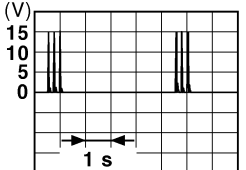
## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
39 (W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 <small>JMKIA0062GB</small>
				When Intelligent Key is not in the antenna detection area	 <small>JMKIA0063GB</small>	
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
50 (O)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	 <small>JPMIA0011GB</small> 11.8 V
					ON (Trunk lid is opened)	0 V
52 (SB)	Ground	Starter relay control	Output	Ignition switch ON (A/T models)	When selector lever is in P or N position	12 V
					When selector lever is not in P or N position	0 V
				Ignition switch ON (M/T models)	When the clutch pedal is depressed	Battery voltage
					When the clutch pedal is not depressed	0 V
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <small>JPMIA0016GB</small> 1.0 V
64 (G)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	12 V



# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

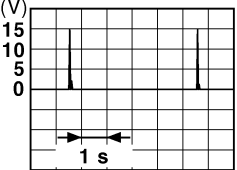
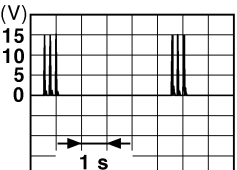
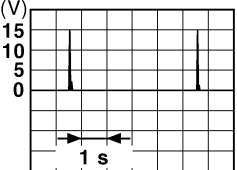
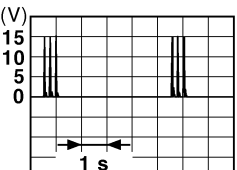
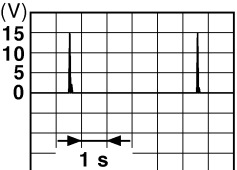
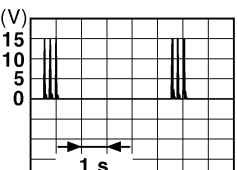
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
					ON (When rear RH door opens)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
					ON (When rear LH door opens)	0 V
72 (R)	Ground	Room antenna 2 (-) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
					When Intelligent Key is not in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

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# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
73 (G)	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment  <small style="float: right;">JMKIA0062GB</small>
				When Intelligent Key is not in the passenger compart- ment  <small style="float: right;">JMKIA0063GB</small>	
74 (SB)	Ground	Passenger door an- tenna (-)	Output	When the pas- senger door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area  <small style="float: right;">JMKIA0062GB</small>
				When Intelligent Key is not in the antenna detection area  <small style="float: right;">JMKIA0063GB</small>	
75 (BR)	Ground	Passenger door an- tenna (+)	Output	When the pas- senger door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area  <small style="float: right;">JMKIA0062GB</small>
				When Intelligent Key is not in the antenna detection area  <small style="float: right;">JMKIA0063GB</small>	

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

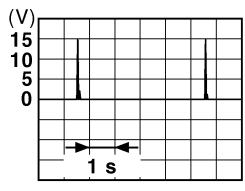
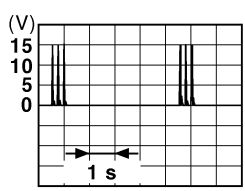
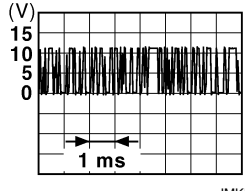
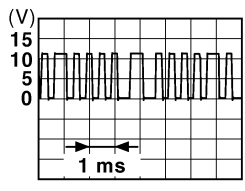
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
76 (V)	Ground	Driver door antenna (-)	Output	When the driver door request switch is operated with ignition switch OFF	<p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0063GB</p>
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	<p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0063GB</p>
78 (Y)	Ground	Room antenna 1 (-) (Instrument panel)	Output	Ignition switch OFF	<p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the passenger compartment	<p style="text-align: right; font-size: small;">JMKIA0063GB</p>

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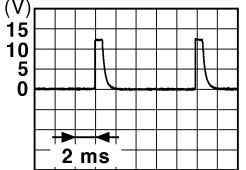

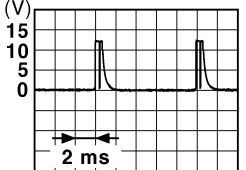
# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF		
				When Intelligent Key is not in the passenger compart- ment		
80 (GR)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	
81 (W)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
83 (Y)	Ground	Remote keyless entry receiver communica- tion	Input/ Output	During waiting		
				When operating either button on the Intelli- gent Key		

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

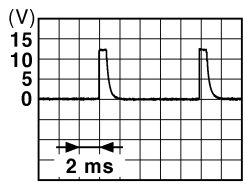
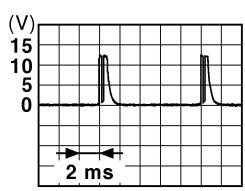

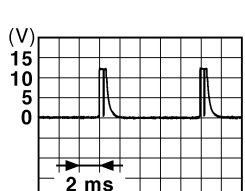
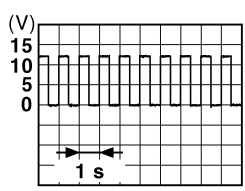
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 <p>1.4 V</p>
					Front fog lamp switch ON (Wiper intermittent dial 4)	 <p>1.3 V</p>
					Any of the conditions below with all switches OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>	 <p>1.3 V</p>

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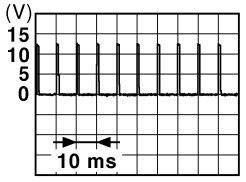
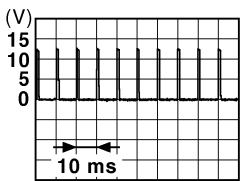
# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
88 (O)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0041GB</p> <p style="text-align: center;">1.4 V</p>
					Lighting switch HI (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0036GB</p> <p style="text-align: center;">1.3 V</p>
					Lighting switch 2ND (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0037GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the conditions below with all switches OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 3</li> </ul>	 <p style="text-align: right; font-size: small;">JPMA0040GB</p> <p style="text-align: center;">1.3 V</p>
89 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
90 (P)	Ground	CAN-L	Input/ Output	—	—	
91 (L)	Ground	CAN-H	Input/ Output	—	—	
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	0 V
					Blinking	 <p style="text-align: right; font-size: small;">JPMA0015GB</p> <p style="text-align: center;">6.5 V</p>
					ON	12 V

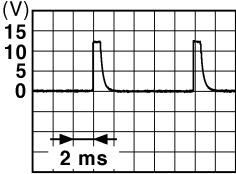




# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON	0 V
95 (O)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—		12 V
97 (L)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	12 V
98 (P)	Ground	Steering lock condition No. 2	Input	Steering lock	LOCK status	12 V
					UNLOCK status	0 V
99 (R)*1 (BR)*2	Ground	Selector lever P position switch (A/T models)	Input	Selector lever	P position	0 V
					Any position other than P	12 V
		ASCD clutch switch (M/T models without ICC)		ASCD clutch switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/T models with ICC)		ICC clutch switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	12 V
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p style="text-align: right; font-size: small;">JPMIA0016GB</p> <p style="text-align: center;">1.0 V</p>
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p style="text-align: right; font-size: small;">JPMIA0016GB</p> <p style="text-align: center;">1.0 V</p>
102 (O)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
103 (L)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		12 V
106 (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V

# BCM (BODY CONTROL MODULE)

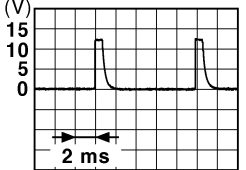

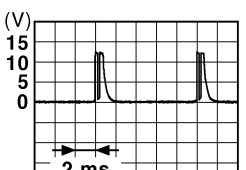
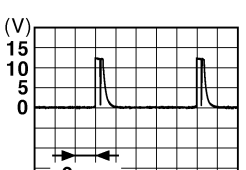
## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	 <small>JPMIA0041GB</small> 1.4 V
					Turn signal switch LH	 <small>JPMIA0037GB</small> 1.3 V
					Turn signal switch RH	 <small>JPMIA0036GB</small> 1.3 V
					Front wiper switch LO	 <small>JPMIA0038GB</small> 1.3 V
					Front washer switch ON	 <small>JPMIA0039GB</small> 1.3 V



# BCM (BODY CONTROL MODULE)

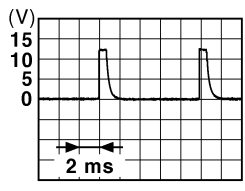
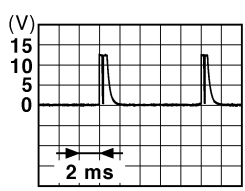
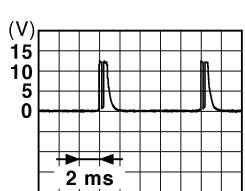
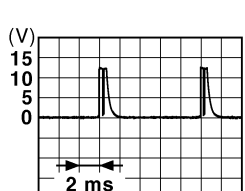
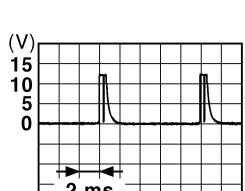
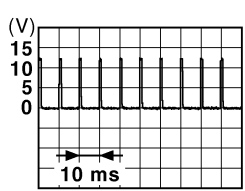
## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)  <p style="text-align: right; font-size: small;">JPMIA0041GB</p> <p style="text-align: center;">1.4 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)  <p style="text-align: right; font-size: small;">JPMIA0038GB</p> <p style="text-align: center;">1.3 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)  <p style="text-align: right; font-size: small;">JPMIA0036GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the conditions below with all switches OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 5</li> <li>• Wiper intermittent dial 6</li> </ul>  <p style="text-align: right; font-size: small;">JPMIA0039GB</p> <p style="text-align: center;">1.3 V</p>

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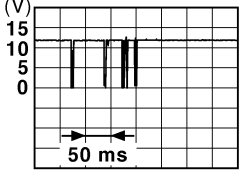
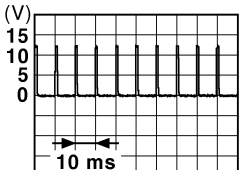
# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
109 (W)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 <p style="text-align: right;">JPMIA0041GB</p> <p style="text-align: center;">1.4 V</p>
					Lighting switch PASS	 <p style="text-align: right;">JPMIA0037GB</p> <p style="text-align: center;">1.3 V</p>
					Lighting switch 2ND	 <p style="text-align: right;">JPMIA0036GB</p> <p style="text-align: center;">1.3 V</p>
					Front wiper switch INT	 <p style="text-align: right;">JPMIA0038GB</p> <p style="text-align: center;">1.3 V</p>
					Front wiper switch HI	 <p style="text-align: right;">JPMIA0040GB</p> <p style="text-align: center;">1.3 V</p>
110 (G)	Ground	Hazard switch	Input	Hazard switch	ON	0 V
					OFF	 <p style="text-align: right;">JPMIA0012GB</p> <p style="text-align: center;">1.1 V</p>

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

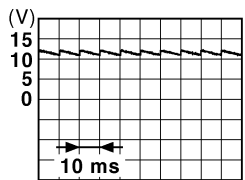
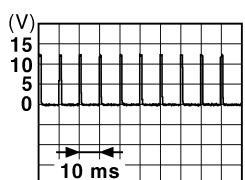
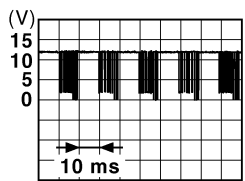
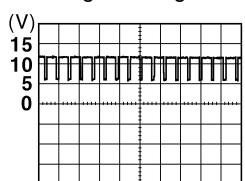
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	12 V
					LOCK or UNLOCK	
					For 15 seconds after UNLOCK	12 V
					15 seconds or later after UNLOCK	0 V
113 (O)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
				Ignition switch ON	When dark outside of the vehicle	Close to 0 V
114 (R)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
					ON (Clutch pedal is depressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input	—	Battery voltage	
118 (BR)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF	0 V	
				Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON	Battery voltage	
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	
					UNLOCK status (Unlock switch sensor ON)	1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (SB)	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot	12 V	
				When the Intelligent Key is not inserted into key slot	0 V	
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
				Ignition switch	ON	Battery voltage

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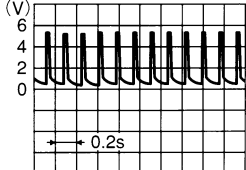

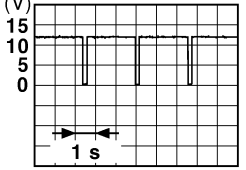
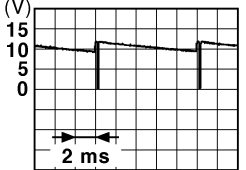

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p> <p style="text-align: center;">11.8 V</p>	
				OFF (Door close)	0 V	
129 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid open- er cancel switch	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p> <p style="text-align: center;">1.1 V</p>	
				CANCEL	0 V	
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON	 <p style="text-align: right; font-size: small;">JPMIA0013GB</p> <p style="text-align: center;">10.2 V</p>	
				Ignition switch OFF or ACC	12 V	
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	<p style="text-align: center;"><b>NOTE:</b> The pulse width of this wave is varied by the illumination bright- ening/dimming level.</p>  <p style="text-align: right; font-size: small;">JPMIA0159GB</p>	
				ON (Tail lamps ON)	9.5 V	
				OFF	0 V	
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
				ON	0 V	
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch ON	0 V	
138 (V)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
				ACC or ON	5.0 V	

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

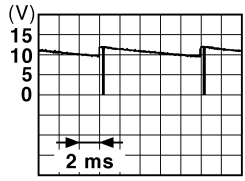
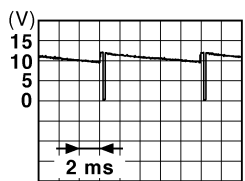
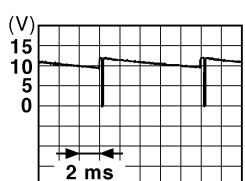
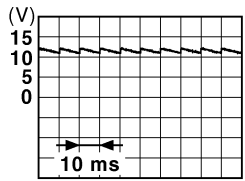
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
139 (L)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch ON	 <p style="text-align: right;">OCC3881D</p>
				When receiving the signal from the transmitter	 <p style="text-align: right;">OCC3880D</p>
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position 12 V Except P and N positions 0 V
				ON	0 V
141 (R)	Ground	Security indicator	Output	Security indicator	Blinking  <p style="text-align: right;">JPMA0014GB</p> 11.3 V
				OFF	12 V
142 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF 0 V Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH  <p style="text-align: right;">JPMA0031GB</p> 10.7 V
				Combination switch	All switches OFF (Wiper intermittent dial 4) 0 V Front wiper switch HI (Wiper intermittent dial 4) Any of the conditions below with all switches OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 3</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>  <p style="text-align: right;">JPMA0032GB</p> 10.7 V

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# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMAI0033GB</p>
Any of the conditions below with all switches OFF					10.7 V	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
					Front wiper switch INT	 <p style="text-align: right; font-size: small;">JPMAI0034GB</p>
					Front wiper switch LO	
					Lighting switch AUTO	
Lighting switch AUTO					10.7 V	
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	 <p style="text-align: right; font-size: small;">JPMAI0035GB</p>
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
Turn signal switch LH					10.7 V	
149 (W)	Ground	Tire pressure warning check switch	Input	—	12 V	
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 <p style="text-align: right; font-size: small;">JPMAI0011GB</p>
					ON (Door open)	
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

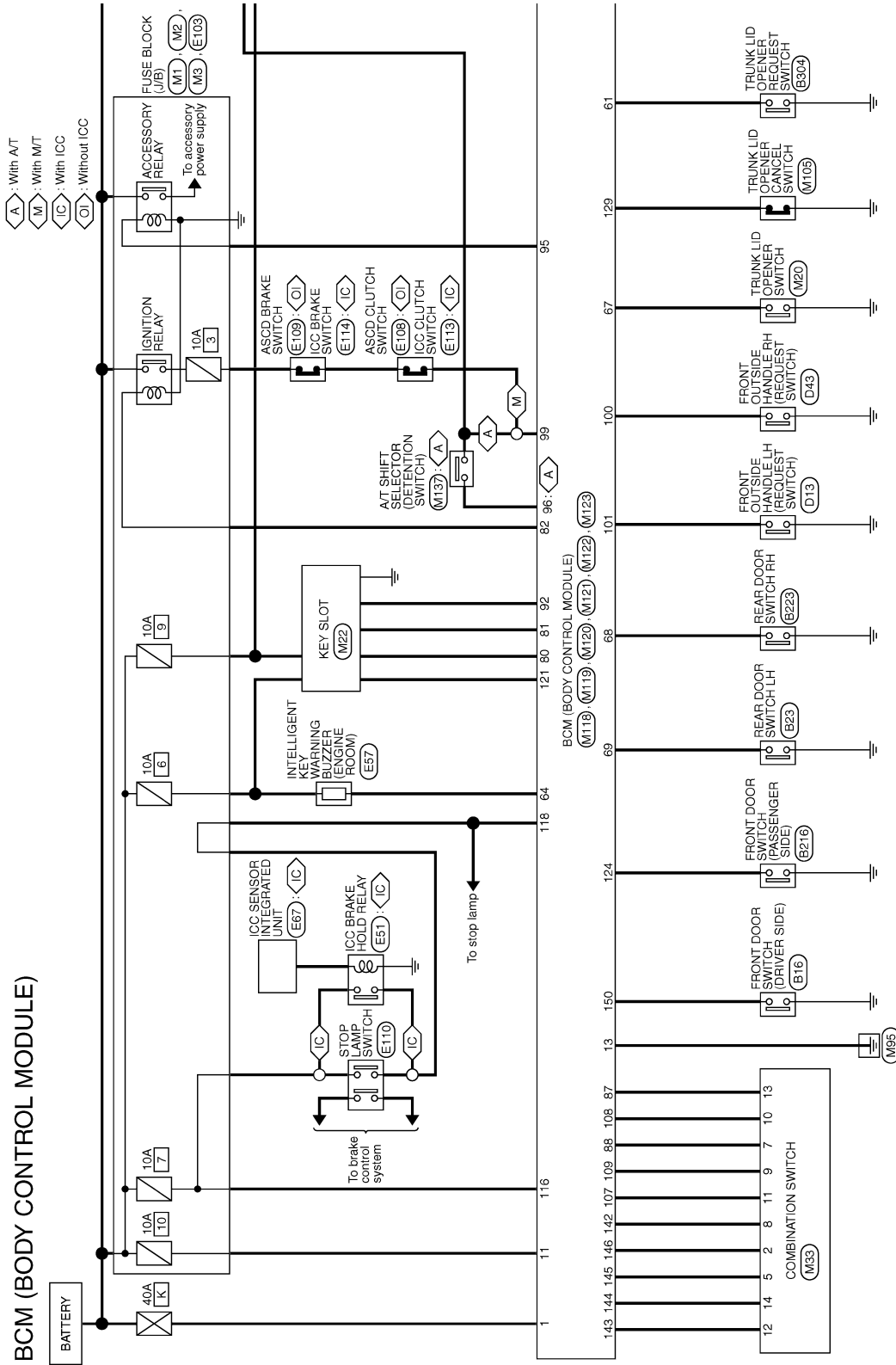
- \*1: A/T models
- \*2: M/T models

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

## Wiring Diagram - BCM -

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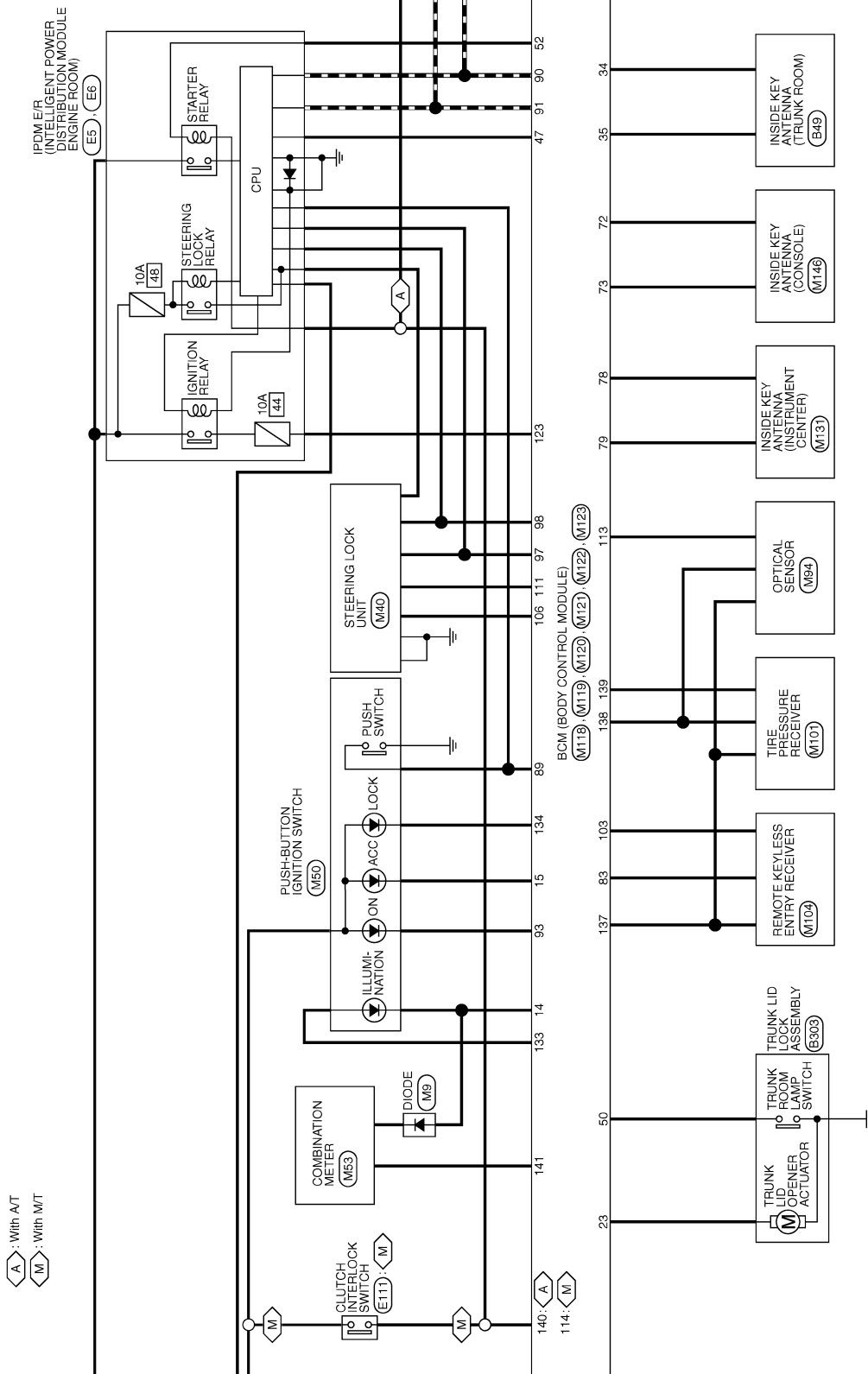
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JCMWA3019GE

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >



JCMWA3020Gf

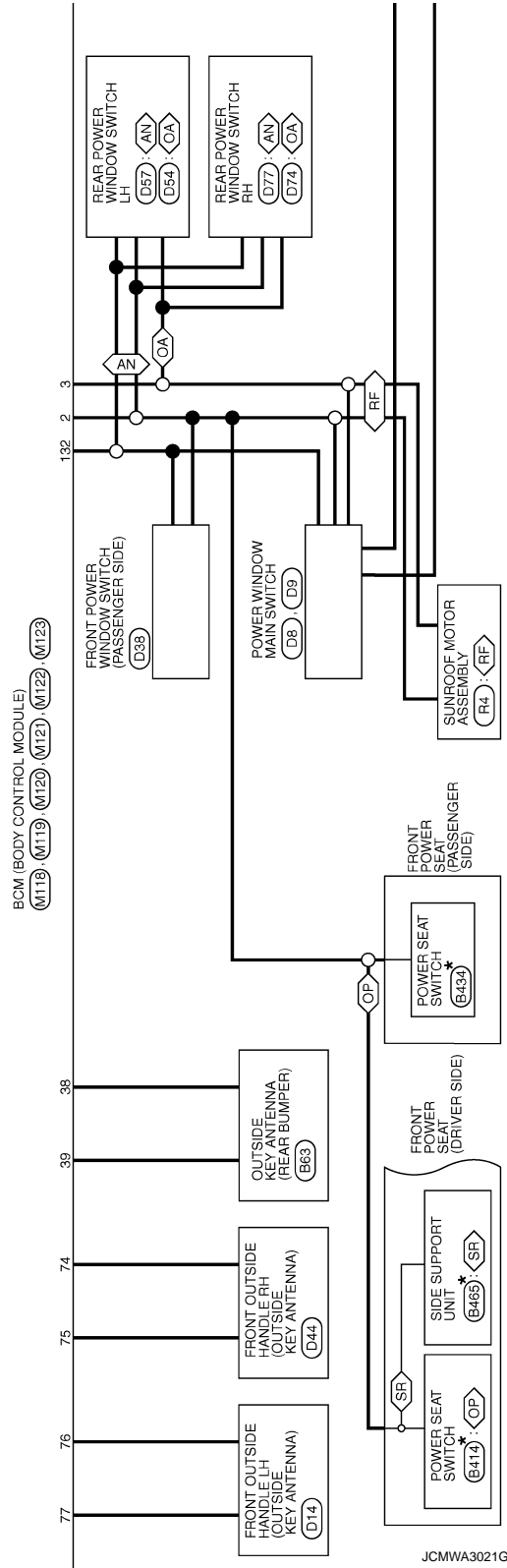
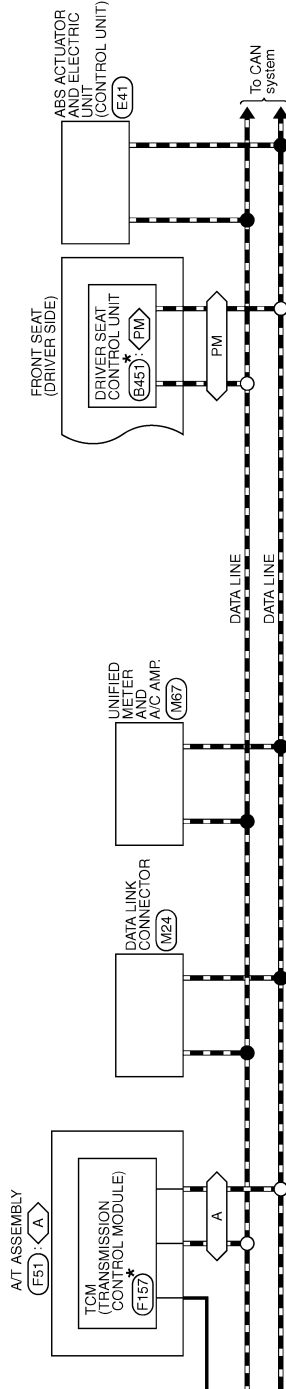


# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

- ◁ A ▷ : With AT
- ◁ RF ▷ : With sunroof
- ◁ AN ▷ : With rear anti-pinch system
- ◁ OA ▷ : Without rear anti-pinch system
- ◁ SR ▷ : With sports seat without automatic drive positioner
- ◁ PM ▷ : With automatic drive positioner
- ◁ OP ▷ : Without automatic drive positioner

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

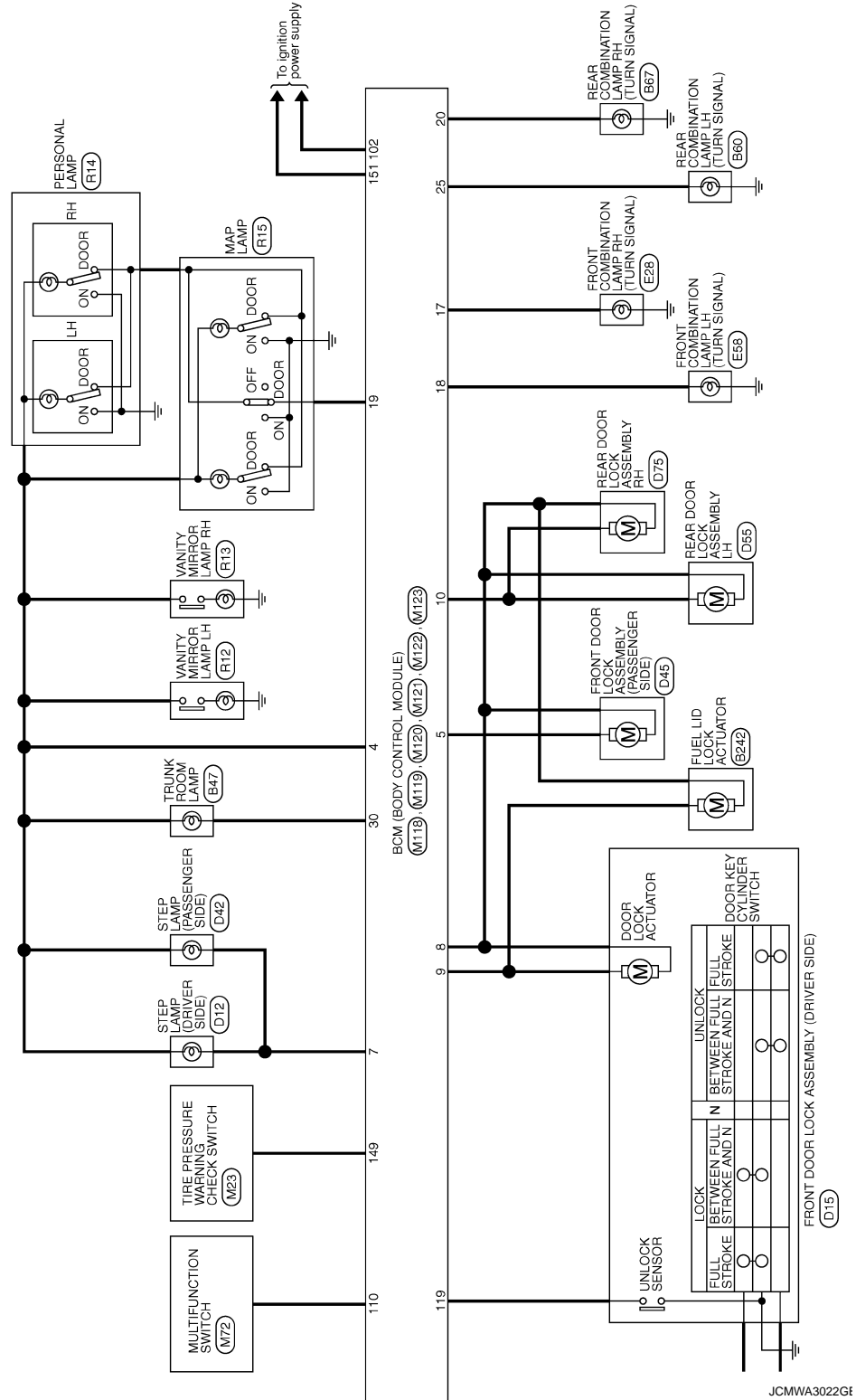


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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >



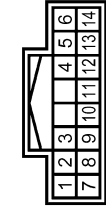
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

**BCM (BODY CONTROL MODULE)**

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-RH



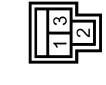
Terminal No.	Color of Wire	Signal Name [Specification]
2	SB	OUTPUT 4
5	L	OUTPUT 3
7	O	INPUT 3
8	BR	OUTPUT 5
9	W	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	Y	INPUT 5
14	G	OUTPUT 2

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MS12FW-CS



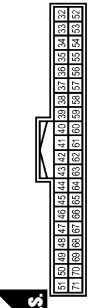
Terminal No.	Color of Wire	Signal Name [Specification]
20	V	TURN SIGNAL RH (REAR)
23	L	TRUNK LID OPEN OUTPUT
25	Y	TURN SIGNAL LH (REAR)
30	P	TRUNK ROOM LAMP

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MS3FB-LC



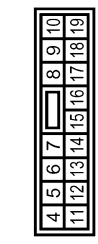
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	BAT (+/L)
2	Y	POWER WINDOW POWER SUPPLY(BAT)
3	O	POWER WINDOW POWER SUPPLY(IRAP)

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH



Terminal No.	Color of Wire	Signal Name [Specification]
34	SB	TRUNK ROOM ANT-
35	V	TRUNK ROOM ANT+
38	B	REAR BUMPER ANT-
39	W	REAR BUMPER ANT+
47	Y	IGN RELAY (IPDM E/R) CONT
50	O	TRUNK ROOM LAMP SW
52	SB	STARTER RELAY CONT
61	SB	TRUNK LID OPENER REQUEST SW
64	G	P-KEY WARN BUZZER (ENG ROOM)
67	GR	TRUNK LID OPENER SW
68	BR	REAR RH DOOR SW

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	P	PASSENGER DOOR UNLOCK OUTPUT
7	BR	STEP LAMP OUTPUT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT. ( FUSE)
13	B	GND
14	W	PUSH-BUTTON IGNITION SW ILL GND
15	O	ACC. IND
17	W	TURN SIGNAL RH (FRONT)

69	R	REAR LH DOOR SW
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18	O	TURN SIGNAL LH (FRONT)
19	V	ROOM LAMP TIMER CONTROL

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

134	LG	LOCK IND
137	O	RECEIVER/SENSOR GND
138	V	RECEIVER/SENSOR POWER SUPPLY
139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT N/P
141	R	SECURITY INDICATOR
142	BR	COMBI SW OUTPUT 3
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
149	W	TIRE PRESSURE WARN CHECK SW
150	GR	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



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

83	Y	KEYLESS ENTRY RECEIVER COMM
87	Y	COMBI SW INPUT 5
88	O	COMBI SW INPUT 3
89	BR	PUSH SW
90	P	CAN-L
91	L	CAN-H
92	LG	KEY SLOT ILL
93	V	GR IND
95	O	ACC RELAY CONT
96	GR	A/T SHIFT SELECTOR POWER SUPPLY
97	L	S/L CONDITION 1
98	P	S/L CONDITION 2
99	BR	ASCD CLUTCH SW [With M/T without ICC]
99	BR	ICC CLUTCH SW [With M/T and ICC]
99	R	SHIFT P [With A/T]
100	Y	PASSENGER DOOR REQUEST SW
101	P	DRIVER DOOR REQUEST SW
102	O	BLOWER FAN MOTOR RELAY CONT
103	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
106	W	S/L UNIT POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	W	COMBI SW INPUT 2
110	G	HAZARD SW
111	Y	S/L UNIT COMM

## BCM (BODY CONTROL MODULE)

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
72	R	ROOM ANT2-
73	G	ROOM ANT2+
74	SB	PASSENGER DOOR ANT-
75	BR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT1-
79	BR	ROOM ANT1+
80	GR	IMMOBI ANTENNA CONTROL
81	W	IMMOBI ANTENNA SIGNAL
82	R	IGN RELAY (F/B) CONT

JCMWA3024GE

## Fail-safe

INFOID:000000004557022

## FAIL-SAFE CONTROL BY DTC

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

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation	
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC	A
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC	
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC	B
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC	
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC	C
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	D
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> <li>• Starter control relay signal</li> <li>• Starter relay status signal</li> </ul>	E
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent <ul style="list-style-type: none"> <li>• Selector lever P position switch signal</li> <li>• P range signal (CAN)</li> </ul>	F
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>• Ignition switch is in the ON position</li> <li>• Selector lever P position switch signal: Except P position (battery voltage)</li> <li>• Vehicle speed: 4 km/h (2.5 MPH) or more</li> </ul>	G H
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>• Ignition switch is in the ON position</li> <li>• Selector lever P position switch signal: Except P position (battery voltage)</li> <li>• Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>	I
B2604: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>• Status 1 <ul style="list-style-type: none"> <li>- Ignition switch is in the ON position</li> <li>- Selector lever P/N position signal: P and N position (battery voltage)</li> <li>- P range signal or N range signal (CAN): ON</li> </ul> </li> <li>• Status 2 <ul style="list-style-type: none"> <li>- Ignition switch is in the ON position</li> <li>- Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>- P range signal and N range signal (CAN): OFF</li> </ul> </li> </ul>	ADP K L
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>• Status 1 <ul style="list-style-type: none"> <li>- Ignition switch is in the ON position</li> <li>- Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>- Interlock/PNP switch signal (CAN): OFF</li> </ul> </li> <li>• Status 2 <ul style="list-style-type: none"> <li>- Ignition switch is in the ON position</li> <li>- Selector lever P/N position signal: P or N position (battery voltage)</li> <li>- PNP switch signal (CAN): ON</li> </ul> </li> </ul>	M N O
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> <li>• Steering lock relay signal (Request signal)</li> <li>• Steering lock relay signal (Condition signal)</li> </ul>	P

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has becomes consistent <ul style="list-style-type: none"> <li>• Steering lock relay signal (Request signal)</li> <li>• Steering lock relay signal (Condition signal)</li> </ul>
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> <li>• Starter motor relay control signal</li> <li>• Starter relay status signal (CAN)</li> </ul>
B2609: S/L STATUS	<ul style="list-style-type: none"> <li>• Inhibit engine cranking</li> <li>• Inhibit steering lock</li> </ul>	When the following steering lock conditions agree <ul style="list-style-type: none"> <li>• BCM steering lock control status</li> <li>• Steering lock condition No. 1 signal status</li> <li>• Steering lock condition No. 2 signal status</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> <li>• IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>• Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>• Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
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 <ul style="list-style-type: none"> <li>• Power position changes to ACC</li> <li>• Receives engine status signal (CAN)</li> </ul>
B2612: S/L STATUS	<ul style="list-style-type: none"> <li>• Inhibit engine cranking</li> <li>• Inhibit steering lock</li> </ul>	When any of the following conditions are fulfilled <ul style="list-style-type: none"> <li>• Steering lock unit status signal (CAN) is received normally</li> <li>• The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)</li> </ul>
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>• Status 1               <ul style="list-style-type: none"> <li>- Clutch switch signal (CAN from ECM): ON</li> <li>- Clutch interlock switch signal: OFF (0 V)</li> </ul> </li> <li>• Status 2               <ul style="list-style-type: none"> <li>- Clutch switch signal (CAN from ECM): OFF</li> <li>- Clutch interlock switch signal: ON (Battery voltage)</li> </ul> </li> </ul>
B26E9: S/L STATUS	<ul style="list-style-type: none"> <li>• Inhibit engine cranking</li> <li>• Inhibit steering lock</li> </ul>	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 <ul style="list-style-type: none"> <li>• Steering condition No. 1 signal: LOCK (0 V)</li> <li>• Steering condition No. 2 signal: LOCK (Battery voltage)</li> </ul>

### HIGH FLASHER OPERATION

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

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

#### NOTE:

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

### DTC Inspection Priority Chart

INFOID:000000004557023

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

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

Priority	DTC	A
1	B2562: LOW VOLTAGE	A
2	<ul style="list-style-type: none"> <li>• U1000: CAN COMM</li> <li>• U1010: CONTROL UNIT(CAN)</li> </ul>	B
3	<ul style="list-style-type: none"> <li>• B2190: NATS ANTENNA AMP</li> <li>• B2191: DIFFERENCE OF KEY</li> <li>• B2192: ID DISCORD BCM-ECM</li> <li>• B2193: CHAIN OF BCM-ECM</li> <li>• B2195: ANTI SCANNING</li> </ul>	C
4	<ul style="list-style-type: none"> <li>• B2013: ID DISCORD BCM-S/L</li> <li>• B2014: CHAIN OF S/L-BCM</li> <li>• B2553: IGNITION RELAY</li> <li>• B2555: STOP LAMP</li> <li>• B2556: PUSH-BTN IGN SW</li> <li>• B2557: VEHICLE SPEED</li> <li>• B2560: STARTER CONT RELAY</li> <li>• B2601: SHIFT POSITION</li> <li>• B2602: SHIFT POSITION</li> <li>• B2603: SHIFT POSI STATUS</li> <li>• B2604: PNP SW</li> <li>• B2605: PNP SW</li> <li>• B2606: S/L RELAY</li> <li>• B2607: S/L RELAY</li> <li>• B2608: STARTER RELAY</li> <li>• B2609: S/L STATUS</li> <li>• B260A: IGNITION RELAY</li> <li>• B260B: STEERING LOCK UNIT</li> <li>• B260C: STEERING LOCK UNIT</li> <li>• B260D: STEERING LOCK UNIT</li> <li>• B260F: ENG STATE SIG LOST</li> <li>• B2612: S/L STATUS</li> <li>• B2614: ACC RELAY CIRC</li> <li>• B2615: BLOWER RELAY CIRC</li> <li>• B2616: IGN RELAY CIRC</li> <li>• B2617: STARTER RELAY CIRC</li> <li>• B2618: BCM</li> <li>• B2619: BCM</li> <li>• B261A: PUSH-BTN IGN SW</li> <li>• B261E: VEHICLE TYPE</li> <li>• B26E8: CLUTCH SW</li> <li>• B26E9: S/L STATUS</li> <li>• B26EA: KEY REGISTRATION</li> <li>• C1729: VHCL SPEED SIG ERR</li> <li>• U0415: VEHICLE SPEED SIG</li> </ul>	D E F G H I <b>ADP</b> K L M

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

Priority	DTC
5	<ul style="list-style-type: none"> <li>• C1704: LOW PRESSURE FL</li> <li>• C1705: LOW PRESSURE FR</li> <li>• C1706: LOW PRESSURE RR</li> <li>• C1707: LOW PRESSURE RL</li> <li>• C1708: [NO DATA] FL</li> <li>• C1709: [NO DATA] FR</li> <li>• C1710: [NO DATA] RR</li> <li>• C1711: [NO DATA] RL</li> <li>• C1712: [CHECKSUM ERR] FL</li> <li>• C1713: [CHECKSUM ERR] FR</li> <li>• C1714: [CHECKSUM ERR] RR</li> <li>• C1715: [CHECKSUM ERR] RL</li> <li>• C1716: [PRESSDATA ERR] FL</li> <li>• C1717: [PRESSDATA ERR] FR</li> <li>• C1718: [PRESSDATA ERR] RR</li> <li>• C1719: [PRESSDATA ERR] RL</li> <li>• C1720: [CODE ERR] FL</li> <li>• C1721: [CODE ERR] FR</li> <li>• C1722: [CODE ERR] RR</li> <li>• C1723: [CODE ERR] RL</li> <li>• C1724: [BATT VOLT LOW] FL</li> <li>• C1725: [BATT VOLT LOW] FR</li> <li>• C1726: [BATT VOLT LOW] RR</li> <li>• C1727: [BATT VOLT LOW] RL</li> <li>• C1734: CONTROL UNIT</li> </ul>
6	<ul style="list-style-type: none"> <li>• B2621: INSIDE ANTENNA</li> <li>• B2622: INSIDE ANTENNA</li> <li>• B2623: INSIDE ANTENNA</li> </ul>

## DTC Index

INFOID:000000004557024

### 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, "COMMON 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	—	—	—	—	<a href="#">BCS-35</a>
U1010: CONTROL UNIT(CAN)	—	—	—	—	<a href="#">BCS-36</a>
U0415: VEHICLE SPEED SIG	—	—	—	—	<a href="#">BCS-37</a>
B2013: ID DISCORD BCM-S/L	×	×	—	—	<a href="#">SEC-55</a>
B2014: CHAIN OF S/L-BCM	×	×	—	—	<a href="#">SEC-56</a>
B2190: NATS ANTENNA AMP	×	—	—	—	<a href="#">SEC-47</a>
B2191: DIFFERENCE OF KEY	×	—	—	—	<a href="#">SEC-50</a>
B2192: ID DISCORD BCM-ECM	×	—	—	—	<a href="#">SEC-51</a>
B2193: CHAIN OF BCM-ECM	×	—	—	—	<a href="#">SEC-53</a>
B2195: ANTI SCANNING	×	—	—	—	<a href="#">SEC-54</a>
B2553: IGNITION RELAY	—	×	—	—	<a href="#">PCS-49</a>
B2555: STOP LAMP	—	×	—	—	<a href="#">SEC-59</a>



## BCM (BODY CONTROL MODULE)

### < 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
B2556: PUSH-BTN IGN SW	—	×	×	—	<a href="#">SEC-61</a>
B2557: VEHICLE SPEED	×	×	×	—	<a href="#">SEC-63</a>
B2560: STARTER CONT RELAY	×	×	×	—	<a href="#">SEC-64</a>
B2562: LOW VOLTAGE	—	×	—	—	<a href="#">BCS-38</a>
B2601: SHIFT POSITION	×	×	×	—	<a href="#">SEC-65</a>
B2602: SHIFT POSITION	×	×	×	—	<a href="#">SEC-68</a>
B2603: SHIFT POSI STATUS	×	×	×	—	<a href="#">SEC-70</a>
B2604: PNP SW	×	×	×	—	<a href="#">SEC-73</a>
B2605: PNP SW	×	×	×	—	<a href="#">SEC-75</a>
B2606: S/L RELAY	×	×	×	—	<a href="#">SEC-77</a>
B2607: S/L RELAY	×	×	×	—	<a href="#">SEC-78</a>
B2608: STARTER RELAY	×	×	×	—	<a href="#">SEC-80</a>
B2609: S/L STATUS	×	×	×	—	<a href="#">SEC-82</a>
B260A: IGNITION RELAY	×	×	×	—	<a href="#">PCS-51</a>
B260B: STEERING LOCK UNIT	—	×	×	—	<a href="#">SEC-86</a>
B260C: STEERING LOCK UNIT	—	×	×	—	<a href="#">SEC-87</a>
B260D: STEERING LOCK UNIT	—	×	×	—	<a href="#">SEC-88</a>
B260F: ENG STATE SIG LOST	×	×	×	—	<a href="#">SEC-89</a>
B2612: S/L STATUS	×	×	×	—	<a href="#">SEC-94</a>
B2614: ACC RELAY CIRC	—	×	×	—	<a href="#">PCS-53</a>
B2615: BLOWER RELAY CIRC	—	×	×	—	<a href="#">PCS-55</a>
B2616: IGN RELAY CIRC	—	×	×	—	<a href="#">PCS-57</a>
B2617: STARTER RELAY CIRC	×	×	×	—	<a href="#">SEC-98</a>
B2618: BCM	×	×	×	—	<a href="#">PCS-59</a>
B2619: BCM	×	×	×	—	<a href="#">SEC-100</a>
B261A: PUSH-BTN IGN SW	—	×	×	—	<a href="#">PCS-60</a>
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-101</a>
B2621: INSIDE ANTENNA	—	×	—	—	<a href="#">DLK-59</a>
B2622: INSIDE ANTENNA	—	×	—	—	<a href="#">DLK-61</a>
B2623: INSIDE ANTENNA	—	×	—	—	<a href="#">DLK-63</a>
B26E8: CLUTCH SW	×	×	×	—	<a href="#">SEC-90</a>
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-92</a>
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-93</a>
C1704: LOW PRESSURE FL	—	—	—	×	<a href="#">WT-17</a>
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	

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## BCM (BODY CONTROL MODULE)

### < 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
C1708: [NO DATA] FL	—	—	—	×	<a href="#">WT-19</a>
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	
C1712: [CHECKSUM ERR] FL	—	—	—	×	<a href="#">WT-21</a>
C1713: [CHECKSUM ERR] FR	—	—	—	×	
C1714: [CHECKSUM ERR] RR	—	—	—	×	
C1715: [CHECKSUM ERR] RL	—	—	—	×	
C1716: [PRESSDATA ERR] FL	—	—	—	×	<a href="#">WT-24</a>
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1720: [CODE ERR] FL	—	—	—	×	<a href="#">WT-26</a>
C1721: [CODE ERR] FR	—	—	—	×	
C1722: [CODE ERR] RR	—	—	—	×	
C1723: [CODE ERR] RL	—	—	—	×	
C1724: [BATT VOLT LOW] FL	—	—	—	×	<a href="#">WT-29</a>
C1725: [BATT VOLT LOW] FR	—	—	—	×	
C1726: [BATT VOLT LOW] RR	—	—	—	×	
C1727: [BATT VOLT LOW] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	<a href="#">WT-32</a>
C1734: CONTROL UNIT	—	—	—	×	<a href="#">WT-33</a>

# MANUAL FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## SYMPTOM DIAGNOSIS

### MANUAL FUNCTION DOES NOT OPERATE

#### ALL COMPONENT

##### ALL COMPONENT : Description

INFOID:000000004556879

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

##### ALL COMPONENT : Diagnosis Procedure

INFOID:000000004556880

#### 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-41. "Intermittent Incident"](#).

NO >> GO TO 1.

#### POWER SEAT

##### POWER SEAT : Description

INFOID:000000004556881

Power seat does not operate when manually operated.

##### POWER SEAT : Diagnosis Procedure

INFOID:000000004556882

#### 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-41. "Intermittent Incident"](#).

NO >> GO TO 1.

#### STEERING POSITION FUNCTION DOES NOT OPERATE

##### STEERING POSITION FUNCTION DOES NOT OPERATE : Description

INFOID:000000004556883

Tilt & telescopic do not operate when manually operated.

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# MANUAL FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## STEERING POSITION FUNCTION DOES NOT OPERATE : Diagnosis Procedure

INFOID:000000004556884

### 1.CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT

Check tilt & telescopic switch ground circuit.

Refer to [ADP-89. "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connector.

### 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41. "Intermittent Incident"](#).

NO >> GO TO 1.

## SEAT SLIDING

### SEAT SLIDING : Description

INFOID:000000004556885

Seat sliding alone does not operate when manually operated.

### SEAT SLIDING : Diagnosis Procedure

INFOID:000000004556886

### 1.CHECK SLIDING MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

### 2.CHECK SLIDING SWITCH

Check sliding switch.

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

### 3.CHECK SLIDING MOTOR

Check sliding motor.

Refer to [ADP-117. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

### 4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41. "Intermittent Incident"](#).

NO >> GO TO 1.

## SEAT RECLINING

### SEAT RECLINING : Description

INFOID:000000004556887

Seat reclining only does not operate when manually operated.

# MANUAL FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## SEAT RECLINING : Diagnosis Procedure

INFOID:000000004556888

### 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-41. "Intermittent Incident"](#).

NO >> GO TO 1.

## SEAT LIFTING (FRONT)

ADP

### SEAT LIFTING (FRONT) : Description

INFOID:000000004556889

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

### SEAT LIFTING (FRONT) : Diagnosis Procedure

INFOID:000000004556890

### 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 DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

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- 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-41, "Intermittent Incident"](#).  
NO >> GO TO 1.

## SEAT LIFTING (REAR)

### SEAT LIFTING (REAR) : Description

INFOID:000000004556891

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

### SEAT LIFTING (REAR) : Diagnosis Procedure

INFOID:000000004556892

#### 1.CHECK LIFTING (REAR) MECHANISM

---

Check for the following.

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

#### Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair or replace the malfunction parts.

#### 2.CHECK LIFTING SWITCH (REAR)

---

Check lifting switch (rear).

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

#### Is the inspection result normal?

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

#### 3.CHECK LIFTING MOTOR (REAR)

---

Check lifting motor (rear).

Refer to [ADP-123, "Component Function Check"](#).

#### Is the inspection result normal?

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

#### 4.CONFIRM THE OPERATION

---

Check the operation again.

#### Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).  
NO >> GO TO 1.

## STEERING TILT

### STEERING TILT : Description

INFOID:000000004556893

Steering tilt only does not operate when manually operated.

### STEERING TILT : Diagnosis Procedure

INFOID:000000004556894

#### 1.CHECK STEERING TILT MECHANISM

---

Check for the following.

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

#### Is the inspection result normal?

- YES >> GO TO 2.

# MANUAL FUNCTION DOES NOT OPERATE

## < 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-41, "Intermittent Incident"](#).

NO >> GO TO 1.

## STEERING TELESCOPIC

### STEERING TELESCOPIC : Description

INFOID:000000004556895

Steering telescopic only does not operate when manually operated.

### STEERING TELESCOPIC : Diagnosis Procedure

INFOID:000000004556896

### 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-41, "Intermittent Incident"](#).

NO >> GO TO 1.

## DOOR MIRROR

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# MANUAL FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

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## DOOR MIRROR : Description

INFOID:000000004556897

Door mirror does not operate when manually operated.

## DOOR MIRROR : Diagnosis Procedure

INFOID:000000004556898

---

### 1.CHECK DOOR MIRROR MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

---

### 2.CHECK MIRROR SWITCH

Check mirror switch.

Refer to [ADP-83. "MIRROR SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

---

### 3.CHECK MIRROR MOTOR

Check mirror motor.

Refer to [ADP-129. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

---

### 4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-38. "How to Check Terminal"](#).

NO >> GO TO 1.



# MEMORY FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## MEMORY FUNCTION DOES NOT OPERATE

### ALL COMPONENT

#### ALL COMPONENT : Description

INFOID:000000004556899

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

#### ALL COMPONENT : Diagnosis Procedure

INFOID:000000004556900

### 1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-203, "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-41, "Intermittent Incident"](#).

NO >> GO TO 1.

## SEAT SLIDING

#### SEAT SLIDING : Description

INFOID:000000004556901

Seat sliding only does not operate when memory operated.

#### SEAT SLIDING : Diagnosis Procedure

INFOID:000000004556902

### 1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-204, "SEAT SLIDING : Diagnosis Procedure"](#)

### 2.CHECK SLIDING SENSOR

Check sliding sensor.

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# MEMORY FUNCTION DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

Refer to [ADP-94, "Component Function Check"](#).

Is the inspection result normal?

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

### 3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).
- NO >> GO TO 1.

## SEAT RECLINING

### SEAT RECLINING : Description

INFOID:000000004556903

Seat reclining only does not operate when memory operated.

### SEAT RECLINING : Diagnosis Procedure

INFOID:000000004556904

#### 1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Refer to [ADP-205, "SEAT RECLINING : Diagnosis Procedure"](#)

#### 2.CHECK RECLINING SENSOR

Check reclining sensor.

Refer to [ADP-97, "Component Function Check"](#).

Is the inspection result normal?

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

### 3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).
- NO >> GO TO 1.

## SEAT LIFTING (FRONT)

### SEAT LIFTING (FRONT) : Description

INFOID:000000004556905

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

### SEAT LIFTING (FRONT) : Diagnosis Procedure

INFOID:000000004556906

#### 1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Refer to [ADP-205, "SEAT LIFTING \(FRONT\) : Diagnosis Procedure"](#)

#### 2.CHECK LIFTING SENSOR (FRONT)

Check lifting sensor (front).

Refer to [ADP-100, "Component Function Check"](#).

Is the inspection result normal?

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

# 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-41, "Intermittent Incident"](#).

NO >> GO TO 1.

## SEAT LIFTING (REAR)

### SEAT LIFTING (REAR) : Description

INFOID:000000004556907

Seat lifting (rear) only does not operate when memory operated.

### SEAT LIFTING (REAR) : Diagnosis Procedure

INFOID:000000004556908

---

## 1.CHECK MANUAL OPERATION

---

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-206, "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-41, "Intermittent Incident"](#).

NO >> GO TO 1.

## STEERING TELESCOPIC

### STEERING TELESCOPIC : Description

INFOID:000000004556909

Steering telescopic only does not operate when memory operated.

### STEERING TELESCOPIC : Diagnosis Procedure

INFOID:000000004556910

---

## 1.CHECK MANUAL OPERATION

---

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-207, "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-41, "Intermittent Incident"](#).

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# MEMORY FUNCTION DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

---

NO >> GO TO 1.

### STEERING TILT

#### STEERING TILT : Description

INFOID:000000004556911

Steering tilt only does not operate when memory operated.

#### STEERING TILT : Diagnosis Procedure

INFOID:000000004556912

### 1.CHECK MANUAL OPERATION

---

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-206, "STEERING TILT : Diagnosis Procedure"](#)

### 2.CHECK TILT SENSOR

---

Check steering tilt sensor.

Refer to [ADP-106, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

### 3.CONFIRM THE OPERATION

---

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).

NO >> GO TO 1.

### DOOR MIRROR

#### DOOR MIRROR : Description

INFOID:000000004556913

Door mirror does not operate when memory operated.

#### DOOR MIRROR : Diagnosis Procedure

INFOID:000000004556914

### 1.CHECK MANUAL OPERATION

---

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [ADP-208, "DOOR MIRROR : Diagnosis Procedure"](#)

### 2.CHECK MIRROR SENSOR

---

Check mirror sensor.

Refer to [ADP-112, "DRIVER SIDE : Component Function Check"](#). (Driver side)

Refer to [ADP-114, "PASSENGER SIDE : Component Function Check"](#). (Passenger side)

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

### 3.CONFIRM THE OPERATION

---

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).

NO >> GO TO 1.

# MEMORY INDICATE DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

---

## MEMORY INDICATE DOES NOT ILLUMINATE

### Diagnosis Procedure

INFOID:000000004556915

#### 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-41, "Intermittent Incident"](#).

NO >> GO TO 1.

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# SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

---

## SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000004556916

#### 1. CHECK SYNCHRONIZATION FUNCTION

---

Check seat synchronization function.

Refer to [ADP-24, "SEAT SYNCHRONIZATION FUNCTION : System Description"](#).

Is the inspection result normal?

- YES >> Seat synchronization is OK.
- NO >> GO TO 2.

#### 2. CHECK SYSTEM SETTING

---

Check system setting.

Refer to [ADP-12, "SYSTEM SETTING : Special Repair Requirement"](#).

Is the inspection result normal?

- YES >> Synchronization function is normal.
- NO >> GO TO 3.

#### 3. CONFIRM THE OPERATION

---

Check the operation again.

Refer to [ADP-24, "SEAT SYNCHRONIZATION FUNCTION : System Description"](#).

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).
- NO >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).

# ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000004556917

#### 1.PERFORM SYSTEM INITIALIZATION

Check system initialization.

Refer to [ADP-10, "SYSTEM INITIALIZATION : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> Entry/Exit function is OK.

NO >> GO TO 2.

#### 2.CHECK FRONT DOOR SWITCH (DRIVER SIDE)

Check front door switch (driver side).

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).

NO >> Repair or replace the malfunction parts.

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# INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

---

## INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000004556918

#### 1. CHECK DOOR LOCK FUNCTION

---

Check door lock function.

Refer to [DLK-7, "Work Flow"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

#### 2. PERFORM MEMORY STORING PROCEDURE

---

1. Perform memory storing procedure.

Refer to [ADP-11, "MEMORY STORING : Special Repair Requirement"](#).

2. Check Intelligent Key interlock function.

Refer to [ADP-42, "INTELLIGENT KEY INTERLOCK FUNCTION : System Description"](#).

Is the inspection result normal?

YES >> Intelligent Key inter lock function is normal.

NO >> Replace driver seat control unit. Refer to [ADP-221, "Removal and Installation"](#).



# ALL FUNCTIONS DO NOT OPERATE

< SYMPTOM DIAGNOSIS >

---

## ALL FUNCTIONS DO NOT OPERATE

### Diagnosis Procedure

INFOID:000000004556919

#### 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-41, "Intermittent Incident"](#).

NO >> Repair or replace malfunction part.

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## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

### NORMAL OPERATING CONDITION

#### Description

INFOID:000000004655951

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

Symptom	Cause	Action to take	Reference page
Entry/exit assist function does not operate.	No initialization has been performed.	Perform initialization.	<a href="#">ADP-10</a>
	Entry/exit assist function is disabled. <b>NOTE:</b> The entry/exit assist function are enabled before delivery (initial setting).	Change the settings.	<a href="#">ADP-12</a>
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	<a href="#">ADP-11</a>
Seat synchronization function does not operate.	Seat synchronization function is disabled. <b>NOTE:</b> The entry/exit assist function are disabled before delivery (initial setting).	Change the settings.	<a href="#">ADP-12</a>
	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).	<a href="#">ADP-24</a>
	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: <a href="#">SE-11</a>
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: <a href="#">ADP-29</a>
			Exit assist function: <a href="#">ADP-34</a>
			Entry assist function: <a href="#">ADP-38</a>
			Seat synchronization function: <a href="#">ADP-24</a>
			Intelligent Key interlock function: <a href="#">ADP-42</a>

# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000004241212

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:000000004241213

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

#### Work

INFOID:000000004241214

- 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.

# DRIVER SEAT CONTROL UNIT

< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

### DRIVER SEAT CONTROL UNIT

#### Exploded View

INFOID:000000004241215

Refer to [SE-112, "Exploded View"](#).

#### Removal and Installation

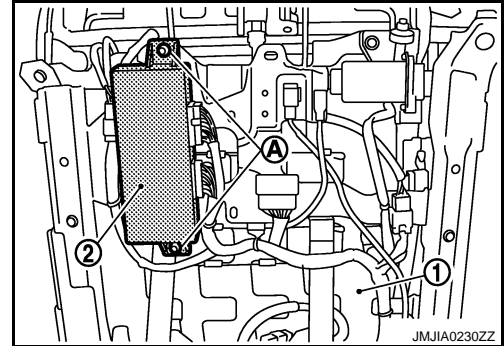
INFOID:000000004241216

#### REMOVAL

##### **CAUTION:**

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

1. Remove the driver seat (1). Refer to [SE-115, "Removal and Installation"](#).
2. Remove the mounting bolts (A).
3. Remove driver seat control unit (2).



#### INSTALLATION

Install in the reverse order of removal.

##### **CAUTION:**

**Be sure to clump the harness to the right place.**

##### **NOTE:**

After installing the driver seat, perform additional service when replacing control unit. Refer to [ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

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# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< REMOVAL AND INSTALLATION >

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

### Exploded View

INFOID:000000004241217

Refer to [IP-11, "Exploded View"](#).

### Removal and Installation

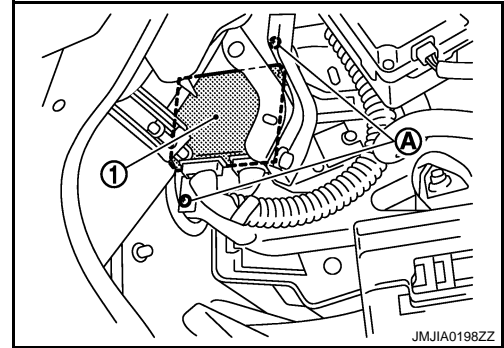
INFOID:000000004241218

#### REMOVAL

##### **CAUTION:**

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

1. Remove the battery negative terminal.
2. Remove the instrument driver lower panel. Refer to [IP-12, "Removal and Installation"](#).
3. Remove the screws (A).
4. Remove automatic drive positioner control unit (1).



#### INSTALLATION

Install in the reverse order of removal.

##### **CAUTION:**

**Be sure to clump the harness to the right place.**

##### **NOTE:**

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to [ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

# SEAT MEMORY SWITCH

< REMOVAL AND INSTALLATION >

## SEAT MEMORY SWITCH

### Exploded View

INFOID:000000004241219

Refer to [INT-11, "Exploded View"](#).

### Removal and Installation

INFOID:000000004241220

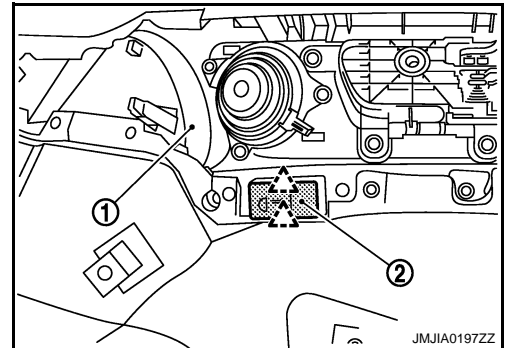
#### REMOVAL

##### **CAUTION:**

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

1. Disconnect battery negative terminal.
2. Remove the front door finisher (1). Refer to [INT-11, "Removal and Installation"](#).
3. Press pawls and remove seat memory switch (2) from front door finisher (1).

 Pawl



#### INSTALLATION

Install in the reverse order of removal.

##### **CAUTION:**

**Be sure to clump the harness to the right place.**

##### **NOTE:**

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to [ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

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ADP

# POWER SEAT SWITCH

< REMOVAL AND INSTALLATION >

## POWER SEAT SWITCH

### Exploded View

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Refer to [SE-112, "Exploded View"](#).

### Removal and Installation

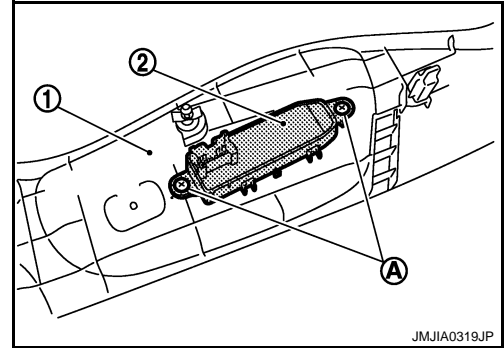
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#### REMOVAL

**CAUTION:**

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

1. Remove the seat cushion outer finisher (1). Refer to [SE-115, "Removal and Installation"](#).
2. Remove the screws (A).
3. Remove the power seat switch (2) from the seat cushion outer finisher (1).



#### INSTALLATION

Install in the reverse order of removal.

**CAUTION:**

**Be sure to clump the harness to the right place.**

**NOTE:**

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to [ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).



# TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

## TILT&TELESCOPIC SWITCH

### Exploded View

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Refer to [IP-11, "Exploded View"](#).

### Removal and Installation

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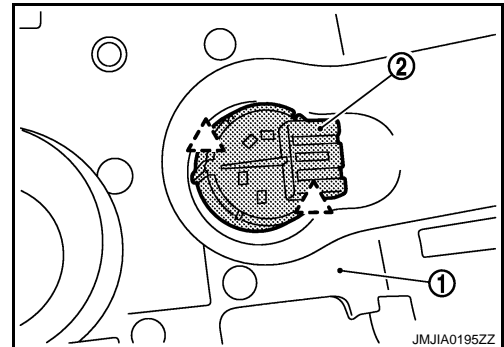
#### REMOVAL

##### **CAUTION:**

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

1. Disconnect battery negative terminal.
2. Remove the steering column mask (1). Refer to [IP-12, "Removal and Installation"](#).
3. Press pawls and remove tilt & telescopic switch (2) from the steering column mask (1).

 Pawl



#### INSTALLATION

Install in the reverse order of removal.

##### **CAUTION:**

**Be sure to clump the harness to the right place.**

##### **NOTE:**

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to [ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

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