# CONTENTS

BASIC INSPECTION6	POWER WALK-IN FUNCTION : Component
	Parts Location
WorkFlow 6	Component Description 13
INSPECTION AND ADJUSTMENT7	POWER SEAT FOR PASSENGER SIDE15
ADDITIONAL SERVICE WHEN REMOVING BAT- TERY NEGATIVE TERMINAL	POWER SEAT FUNCTION       15         POWER SEAT FUNCTION : System Diagram       15         POWER SEAT FUNCTION : System Description15       15         POWER SEAT FUNCTION : Component Parts       16         POWER SEAT FUNCTION : Component Description       17
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT	POWER WALK-IN FUNCTION
ADDITIONAL SERVICE WHEN REPLACING	POWER WALK-IN FUNCTION : System Descrip-
CONTROL UNIT : Description7	tion
ADDITIONAL SERVICE WHEN REPLACING	POWER WALK-IN FUNCTION : Component
CONTROL UNIT : Special Repair Requirement7	Parts Location19
	POWER WALK-IN FUNCTION :
SYSTEM INITIALIZATION · Description 7	Component Description20
SYSTEM INITIALIZATION : Special Repair Re-	
quirement7	System Diagram 21
	System Description
FUNCTION DIAGNOSIS8	Component Parts Location22
POWER SEAT FOR DRIVER SIDE	Component Description22
	SIDE SUPPORT UNIT23
POWER SEAT FUNCTION	System Description23
POWER SEAT FUNCTION : System Diagram	Component Parts Location23
POWER SEAT FUNCTION : Component Parts	Component Description23
Location9	
POWER SEAT FUNCTION : Component Descrip-	System Description 24
tion10	Component Parts Location 24
	Component Description 24
POWER WALK-IN FUNCTION	
POWER WALK-IN FUNCTION - System Diagram10	LUMBAR SUPPORT25
tion	System Description25

POWER WALK-IN FUNCTION : Component Parts Location	F
OWER SEAT FOR PASSENGER SIDE15	
OWER SEAT FUNCTION15POWER SEAT FUNCTION : System Diagram15POWER SEAT FUNCTION : System Description15	Н
POWER SEAT FUNCTION : Component Parts _ocation16 POWER SEAT FUNCTION : Component Descrip- ion 17	I
	SE
POWER WALK-IN FUNCTION : System Diagram17 POWER WALK-IN FUNCTION : System Descrip- ion	K
Power Walk-IN FUNCTION : Component Description20	L
LT&TELESCOPIC SYSTEM21 System Diagram21 System Description	M
DE SUPPORT UNIT       23         System Description       23         Component Parts Location       23         Component Parts Location       23	0
EATED SEAT24	Ρ
System Description       24         Component Parts Location       24         Component Description       24	
JMBAR SUPPORT25	

SECTION SE

А

С

D

Е

SEAT

	_
Component Parts Location	
Component Description	
DIAGNOSIS SYSTEM (DRIVER SEAT C/U) 26	
Diagnosis Description	
CONSULT-III Function	
COMPONENT DIAGNOSIS 29	
U1000 CAN COMM CIRCUIT 29	
Description 29	
DTC Logic	
Diagnosis Procedure	
Special Repair Requirement	
B2112 SLIDING MOTOR	
Description	
Die Logic	
POWER SUPPLY AND GROUND CIRCUIT 31	
AUTOMATIC DRIVE POSITIONER CONTROL	
UNIT · Diagnosis Procedure 31	
AUTOMATIC DRIVE POSITIONER CONTROL	
UNIT : Special Repair Requirement 31	
DRIVER SEAT CONTROL UNIT	
DRIVER SEAT CONTROL UNIT :	
Diagnosis Procedure 31	
DRIVER SEAT CONTROL UNIT : Special Repair	
Requirement	
PASSENGER SEAT CONTROL UNIT 32	
PASSENGER SEAT CONTROL UNIT :	
Diagnosis Procedure	
Repair Requirement	
POWER SEAT SWITCH	
DRIVER SIDE 34	
DRIVER SIDE : Description	
DRIVER SIDE : Component Function Check	
DRIVER SIDE : Diagnosis Flocedule	
PASSENGER SIDE	
PASSENGER SIDE : Description	
36	
PASSENGER SIDE : Diagnosis Procedure	
SLIDING SWITCH 40	
SEATBACK	
SEATBACK : Description 40	
SEATBACK : Component Function Check 40	
SEATBACK : Diagnosis Procedure	

SEATBACK : Component Inspection 41
FORWARD SWITCH 42
DRIVER SIDE 42
DRIVER SIDE · Description 42
DRIVER SIDE : Component Function Check 42
DRIVER SIDE : Component Function Oneck
DRIVER SIDE : Diagnosis Flucedule
DRIVER SIDE : Component inspection43
PASSENGER SIDE43
PASSENGER SIDE : Description43
PASSENGER SIDE : Diagnosis Procedure43
PASSENGER SIDE : Component Inspection 45
SEAT BELT BUCKLE SWITCH
UKIVER SIDE
DRIVER SIDE : Description
DRIVER SIDE : Component Function Check 46
DRIVER SIDE : Diagnosis Procedure
DRIVER SIDE : Component Inspection47
PASSENGER SIDE 47
PASSENGER SIDE · Description 47
PASSENGER SIDE : Diagnosis Procedure 47
PASSENGER SIDE : Component Inspection 40
SLIDING LIMIT SWITCH 50
DRIVER SIDE
DRIVER SIDE : Description50
DRIVER SIDE : Component Function Check 50
DRIVER SIDE : Diagnosis Procedure
DRIVER SIDE : Component Inspection
PASSENGER SIDE
PASSENGER SIDE : Description
PASSENGER SIDE : Diagnosis Procedure
PASSENGER SIDE : Component Inspection 53
POWER WALK-IN SWITCH
DRIVER SIDE
DRIVER SIDE : Description
DRIVER SIDE : Component Function Check
DRIVER SIDE : Diagnosis Procedure
DRIVER SIDE : Component Inspection55
PASSENGER SIDE
PASSENGER SIDE : Description 55
PASSENGER SIDE · Diagnosis Procedure 55
PASSENGER SIDE : Component Inspection 57
· ACCENCENCIDE · Component inspection
DOOR SWITCH 58
DRIVER SIDE
DRIVER SIDE : Description
DRIVER SIDE : Component Function Check 58
DRIVER SIDE : Diagnosis Procedure 58
DRIVER SIDE : Component Inspection 59
PASSENGER SIDE

PASSENGER SIDE : Description
Description 61
Component Function Check 61
Diagnosis Procedure
Component Inspection 62
SLIDING SENSOR64
DRIVER SIDE64
DRIVER SIDE : Description64
DRIVER SIDE : Component Function Check64
DRIVER SIDE : Diagnosis Procedure64
PASSENGER SIDE
PASSENGER SIDE : Description66
PASSENGER SIDE : Diagnosis Procedure66
TIL 1& TELESCOPIC SENSOR
Description
Component Function Check
Diagnosis Procedure68
SLIDING MOTOR70
DRIVER SIDE 70
DRIVER SIDE · Description 70
DRIVER SIDE : Component Function Check 70
DRIVER SIDE : Diagnosis Procedure
DRIVER SIDE : Component Inspection71
PASSENGER SIDE71
PASSENGER SIDE : Description
PASSENGER SIDE :
Component Function Check71
PASSENGER SIDE : Diagnosis Procedure
PASSENGER SIDE : Component Inspection72
RECLINING MOTOR73
DRIVER SIDE
DRIVER SIDE : Description
DRIVER SIDE : Component Function Check
DRIVER SIDE : Diagnosis Flocedule
DRIVER SIDE : Component inspection
PASSENGER SIDE74
PASSENGER SIDE : Description74
PASSENGER SIDE : Component Function Check
74
PASSENGER SIDE : Diagnosis Procedure
PASSENGER SIDE : Component Inspection74
LIFTING MOTOR76
FRONT
FRONT : Description76
FRONT : Component Function Check76
FRONT : Diagnosis Procedure76
FRONT : Component Inspection77

REAR77REAR : Description77REAR : Component Function Check77REAR : Diagnosis Procedure77REAR : Component Inspection78	A
TILT&TELESCOPIC MOTOR	С
SLIDING RELAY81	D
FORWARD81 FORWARD : Diagnosis Procedure81 FORWARD : Component Inspection (Sliding Re- lay)	E
BACKWARD	F
RECLINING RELAY88	G
FORWARD	Н
FORWARD : Component Inspection (Diode 1)90	I
BACKWARD	SE
HEATED SEAT94 Wiring Diagram - HEATED SEAT SYSTEM94	Κ
LUMBAR SUPPORT98 Wiring Diagram - LUMBAR SUPPORT SYSTEM98	L
SIDE SUPPORT	M
ECU DIAGNOSIS 104	
DRIVER SEAT CONTROL UNIT	N
Fail Safe111 DTC Index112	_
PASSENGER SEAT CONTROL UNIT       113         Reference Value       113         Wiring Diagram - POWER SEAT CONTROL SYS-       115         TEM FOR PASSENGER SIDE -       115	Ρ
AUTOMATIC DRIVE POSITIONER CON- TROL UNIT	

Reference Value	121
Wiring Diagram - TILT AND TELESCOPIC CON	-
TROL SYSTEM	123
SYMPTOM DIAGNOSIS	126
SEAT SYSTEM AND STEERING POSITION	
SYSTEM	. 126
DRIVER SIDE	. <b>126</b>
DRIVER SIDE : Symptom Table	126
PASSENGER SIDE	. <b>126</b>
PASSENGER SIDE : Symptom Table	126
TILT FUNCTION DOES NOT OPERATE	. <b>126</b>
TILT FUNCTION DOES NOT OPERATE : Symp	)-
tom Table	126
EITHER DRIVER SEAT OR PASSENGER POWER SEAT DOES NOT OPERATE	127
DRIVER SIDE	<b>127</b>
DRIVER SIDE : Diagnosis Procedure	127
PASSENGER SIDE	<b>127</b>
PASSENGER SIDE : Diagnosis Procedure	127
SLIDING FUNCTION DOES NOT OPERATE	. 128
DRIVER SIDE	. <b>128</b>
DRIVER SIDE : Diagnosis Procedure	128
PASSENGER SIDE	. <b>128</b>
PASSENGER SIDE : Diagnosis Procedure	129
SEATBACK	. <b>129</b>
SEATBACK : Diagnosis Procedure	130
RECLINING FUNCTION DOES NOT OPER-	. 131
DRIVER SIDE	. <b>131</b>
DRIVER SIDE : Diagnosis Procedure	131
PASSENGER SIDE	. <b>131</b>
PASSENGER SIDE : Diagnosis Procedure	131
LIFTING FUNCTION DOES NOT OPERATE	. 133
FRONT	. <b>133</b>
FRONT : Diagnosis Procedure	133
REAR	. <b>133</b>
REAR : Diagnosis Procedure	133
POWER WALK-IN FUNCTION DOES NOT OPERATE	135
DRIVER SIDE	<b>135</b>
DRIVER SIDE : Diagnosis Procedure	135
PASSENGER SIDE	<b>136</b>
PASSENGER SIDE : Diagnosis Procedure	136

STEERING POSITION FUNCTION DOES NOT OPERATE
TILT FUNCTION DOES NOT OPERATE139 Diagnosis Procedure
TELESCOPIC FUNCTION DOES NOT OPER-         ATE         Diagnosis Procedure         140
SQUEAK AND RATTLE TROUBLE DIAG- NOSES
Diagnostic Worksheet 145 PRECAUTION
PRECAUTIONS       147         Precaution for Supplemental Restraint System       (SRS) "AIR BAG" and "SEAT BELT PRE-TEN-SIONER"         SIONER"       147         Service Notice       147         Precaution for Work       147
PREPARATION148
PREPARATION148Special Service Tool148Commercial Service Tool148
ON-VEHICLE REPAIR149
FRONT SEAT149Exploded View149Removal and Installation152Disassembly and Assembly153
REAR SEAT160Exploded View160Removal and Installation160Disassembly and Assembly161
SEATBACK CONTROL CABLE
DRIVER SEAT CONTROL UNIT
PASSENGER SEAT CONTROL UNIT165Exploded View165Removal and Installation165
AUTOMATIC DRIVE POSITIONER CON- TROL UNIT
POWER SEAT SWITCH

Removal and Installation	167
SLIDING SWITCH	168
SEATBACK	168
SEATBACK : Removal and Installation	168
SIDE SUPPORT SWITCH	169

Removal and Installation169	
LUMBAR SUPPORT SWITCH	A
TILT&TELESCOPIC SWITCH	В
	С
	D
	E
	F
	G
	Н
	I
	SE

Κ

M

Ν

0

Ρ

< BASIC INSPECTION >

## BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

WorkFlow

INFOID:000000001734372

DETAILED FLOW

### **1.**OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred) as much as possible when the customer brings the vehicle in.

>> GO TO 2.

### **2.**REPRODUCE THE MALFUNCTION INFORMATION

Check the malfunction on the vehicle that the customer describes. Inspect the relation of the symptoms and the condition when the symptoms occur.

#### >> GO TO 3.

### **3.** IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS"

Use "Symptom diagnosis" from the symptom inspection result in step 2 and then identify where to start performing the diagnosis based on possible causes and symptoms.

#### >> GO TO 4.

#### **4.** IDENTIFY THE MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"

Perform the diagnosis with "Component diagnosis" of the applicable system.

#### >> GO TO 5.

**5.**REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

#### >> GO TO 6.

#### **6.**FINAL CHECK

Check that malfunctions are not reproduced when obtaining the malfunction information from the customer, referring to the symptom inspection result in step 2.

Are the malfunctions corrected?

YES >> INSPECTION END NO >> GO TO 3.

### **INSPECTION AND ADJUSTMENT**

Revision: 2007 June

>> Work end.

< BASIC INSPECTION >

**INSPECTION AND ADJUSTMENT** 

scription	В
Initial setting is necessary when battery terminal is removed, driver seat control unit or passenger seat control unit is replaced. NOTE:	С
When disconnecting the battery terminal or replacing the driver seat control unit, DTC, registered items of memory storing, and setting details of system setting detected in the past are erased. Perform operation after checking the contents.	D
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Spe-	
cial Repair Requirement	E
1.SYSTEM INITIALIZATION	
Perform system initialization. Refer to <u>SE-7, "SYSTEM INITIALIZATION : Description"</u> .	F
>> Work end	
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT	G
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description	Н
Initial setting is necessary when battery terminal is removed, driver seat control unit or passenger seat control unit is replaced. <b>NOTE:</b> When disconnecting the battery terminal or replacing the driver seat control unit, DTC, registered items of	I
checking the contents.	SE
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Re-	
quirement	Κ
1.SYSTEM INITIALIZATION	
Perform system initialization. Refer to <u>SE-7, "SYSTEM INITIALIZATION : Description"</u> .	L
>> Work end. SYSTEM INITIALIZATION	M
SYSTEM INITIALIZATION : Description	
Always perform the initialization when the battery terminal is removed, driver seat control unit or passenger seat control unit is replaced. If the initialization is not performed, power walk-in function does not operation.	Ν
SYSTEM INITIALIZATION : Special Repair Requirement	0
INITIALIZATION PROCEDURE	
<b>1.</b> STEP-1	Ρ
Slide the seat to the front edge. NOTE:	

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : De-

А

**SE-7** 

If seat sliding position is already at the front edge, slide the seat backward once it to the front edge again.

< FUNCTION DIAGNOSIS >

## FUNCTION DIAGNOSIS POWER SEAT FOR DRIVER SIDE POWER SEAT FUNCTION

### POWER SEAT FUNCTION : System Diagram



### POWER SEAT FUNCTION : System Description

INFOID:000000001694077

INFOID:000000001729823

### SLIDING OPERATION

While operating the sliding switch located in power seat switch, sliding motor operates and makes possible the seat front and back position adjustment.

#### **RECLINING OPERATION**

While operating the reclining switch located in power seat switch, reclining motor operates and makes possible the seat back forward and backward position adjustment.

#### LIFTING OPERATION

While operating the lifting switch located in power seat switch, lifting motor operates and makes possible the seat cushion (front and rear) up and down position adjustment.

#### < FUNCTION DIAGNOSIS >



#### < FUNCTION DIAGNOSIS >

### POWER SEAT FUNCTION : Component Description

INFOID:000000001694079

Item	Function
Driver seat control unit	Operates the sliding motor with the signal from the sliding switch.
Power seat switch	Built-in reclining switch, sliding switch and lifting switch, controls the power supplied to each motor.
Forward switch	Detect the folded up/folded down condition of seat back.
Reclining motor	With the power supplied to power seat switch, operates the forward and backward movement of seatback.
Sliding motor	With the power supplied to power seat switch, operates the forward and backward slide of seat.
Lifting motor (front/rear)	With the power supplied to power seat switch, operates the up and down movement of seat cush- ion.

### POWER WALK-IN FUNCTION

## POWER WALK-IN FUNCTION : System Diagram

INFOID:000000001728885



### POWER WALK-IN FUNCTION : System Description

INFOID:000000001837448

#### OUTLINE

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

#### Forward Operation

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

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

#### Backward Operation

The seat back is folded up after performing the forward operation of power walk-in function. Slide (backward) it to the position before performing the forward operation by operating the power walk-in switch.

If the sliding operation is performed after performing the forward operation, do not perform the backward operation.

#### < FUNCTION DIAGNOSIS >

#### **OPERATION PROCEDURE** А Forward Operation 1. Open driver door. 2. Pull the walk-in lever on the upper part of seatback, and then the seatback is folded down. В 3. Press the power walk-in switch. 4. Slide the seat to the front end position. С **Backward Operation** 1. Open driver door. 2. Fold up the seatback after performing the forward operation. D 3. Press the power walk-in switch. 4. Slide the seat to the previous position before the forward operation was performed. Е **OPERATION CONDITION** Perform the power walk-in function when the following conditions are satisfied.

Forward Operation

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

#### Backward Operation

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

#### DETAIL FLOW

#### Forward Operation

Order	Inputs	Outputs	Control unit condition
1	Forward switch	_	Driver seat control unit detects that the seatback is folded down by the signal from the forward switch.
2	Power walk-in switch	_	The operation signal is inputted to the driver seat control unit when the power walk-in switch is operated.

Ν

Ρ

F

#### < FUNCTION DIAGNOSIS >

	Order	Inputs	Outputs	Control unit condition
	3	_	Sliding motor (forward)	Driver seat control unit operates the seat sliding motor forward when it detects that the power walk- in switch is operated.
-	4	Sliding limit switch	_	Driver seat control unit stops the seat sliding motor when it detects that the seat sliding reaches the front end position by the sliding limit switch.

**Backward Operation** 

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

#### < FUNCTION DIAGNOSIS >



#### CONTROL UNITS

#### < FUNCTION DIAGNOSIS >

Item	Function
Driver seat control unit	Operates the specific seat motor with the signal from the power seat switch.
Unified meter and A/C amp.	Transmit the vehicle speed signal to the driver seat control unit via CAN communi- cation.
BCM	<ul> <li>Transmit the following status to the driver seat control unit via CAN communication.</li> <li>Driver door: OPEN/CLOSE</li> <li>Starter: CRANKING/OTHER</li> </ul>

### **INPUT PARTS**

Switches

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

#### Sensors

Item	Function
Sliding sensor	Detect the frontward/rearward position of seat.

#### OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat frontward/rearward.

#### < FUNCTION DIAGNOSIS >

### POWER SEAT FOR PASSENGER SIDE POWER SEAT FUNCTION

### POWER SEAT FUNCTION : System Diagram



\*: If seat lifting (front/rear) function is equipped.

### **POWER SEAT FUNCTION : System Description**

BCM can operate regardless of the ignition switch position, because battery power is supplied at all times to power seat switch.

#### SLIDING OPERATION

While operating the sliding switch located in power seat switch, sliding motor operates and makes possible the seat frontward and backward position adjustment.

#### **RECLINING OPERATION**

While operating the reclining switch located in power seat switch, reclining motor operates and makes possible the seat back forward and backward position adjustment.

#### LIFTING OPERATION

Revision: 2007 June

While operating the lifting switch located in power seat switch, lifting motor operates and makes possible the seat cushion (front/rear) upward and downward position adjustment.

INFOID:000000001705181

Κ

L

Μ

Ν

Ρ

А

В

#### < FUNCTION DIAGNOSIS >



- BCM M118, M119 1.
- Reclining switch 4. (Power seat switch B554)
- 7. Forward switch B556
- 10. Reclining motor B566
- 13. Door switch (passenger side) B216
- 16. Sliding sensor B568
- 19. Lifting motor (rear) B570
- Α. Dash side lower (passenger side)
- D. Back side of seat cushion.

- 2. Power walk-in switch B557
- 5. Sliding switch (seat back) B561
- Reclining relay (forward) B562 8.
- 11. Sliding relay (forward) B559
- 14. Sliding limit switch B558
- 17. Lifting motor (front) B569
- В.

- Sliding, lifting switch 3. (Power seat switch B554)
- Seat belt buckle switch (passenger 6. side) B213
- Sliding relay (backward) B560 9.
- 12. Reclining relay (backward) B563
- Passenger seat control unit B552, 15. B553
- 18. Sliding motor B567
- View with seat back pad is removed. C. View with seat back pad is removed.

#### < FUNCTION DIAGNOSIS >

## POWER SEAT FUNCTION : Component Description

INFOID:000000001705183

INFOID:000000001728889

INFOID:000000001837454

А

Item	Function
BCM	Supplies at all times the power received from battery to power seat switch and passenger seat con- trol unit.
Passenger seat control unit	Operates the sliding motor with the signal from the sliding switch.
Power seat switch	Built-in reclining switch, sliding switch and lifting switch, controls the power supplied to each motor.
Reclining motor	With the power supplied to power seat switch, operates the forward and backward movement of seatback.
Sliding motor	With the power supplied to power seat switch, operates the forward and backward slide of seat.
Lifting motor (front/rear)	With the power supplied to power seat switch, operates the up and down movement of seat cush- ion.

### POWER WALK-IN FUNCTION

### POWER WALK-IN FUNCTION : System Diagram



### POWER WALK-IN FUNCTION : System Description

OUTLINE

#### Forward Operation

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

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

#### **Backward Operation**

The seat back is folded up after performing the forward operation of power walk-in function. Slide (backward) it to the position [maximum amount is 178 mm (7.0 in) from front edge] before performing the forward operation by operating the power walk-in switch.

If the manual operation is performed after performing the forward operation, do not perform the backward P operation.

#### OPERATION PROCEDURE

#### Forward Operation

- 1. Open passenger door.
- 2. Pull the walk-in lever on the upper part of seatback, and then the seatback is folded down.

### SE-17

#### < FUNCTION DIAGNOSIS >

- 3. Press the power walk-in switch.
- 4. Slide the seat to the front end position.

#### **Backward Operation**

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

#### **OPERATION CONDITION**

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

Forward Operation

Item	Request status
Passenger side door	Open
Passenger side seat belt	Not fastened
Power seat switch (sliding)	Not operated
Seat position (sliding)	Other than front end
Seat back	Folded down

#### **Backward Operation**

Item	Request status
Initialize	Done
Passenger side seat belt	Not fastened
Switch inputs <ul> <li>Power seat switch (sliding)</li> <li>Set switch</li> <li>Memory switch</li> </ul>	Not operated
Seat position (sliding)	The seat sliding position will not move after per- forming the forward operation.
Seat back	Folded up

### DETAIL FLOW

#### Forward Operation

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

**Backward Operation** 

#### < FUNCTION DIAGNOSIS >

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

### POWER WALK-IN FUNCTION : Component Parts Location



#### < FUNCTION DIAGNOSIS >

1.	BCM M118, M119	2.	Power walk-in switch B557	3.	Sliding, lifting switch (Power seat switch B554)
4.	Reclining switch (Power seat switch B554)	5.	Sliding switch (seat back) B561	6.	Seat belt buckle switch (passenger side) B213
7.	Forward switch B556	8.	Reclining relay (forward) B562	9.	Sliding relay (backward) B560
10.	Reclining motor B566	11.	Sliding relay (forward) B559	12.	Reclining relay (backward) B563
13.	Door switch (passenger side) B216	14.	Sliding limit switch B558	15.	Passenger seat control unit B552, B553
16.	Sliding sensor B568	17.	Lifting motor (front) B569	18.	Sliding motor B567
19.	Lifting motor (rear) B570				
Α.	Dash side lower (passenger side)	В.	View with seat back pad is removed.	C.	View with seat back pad is removed.
D.	Back side of seat cushion.				

## POWER WALK-IN FUNCTION : Component Description

INFOID:000000001837455

### CONTROL UNITS

Item	Function
Passenger seat control unit	Operates the sliding motor with the signal from the power seat switch.

#### **INPUT PARTS**

#### Switches

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

#### Sensors

Item	Function
Sliding sensor	Detect the frontward/rearward position of seat.

#### OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat frontward/rearward.

### TILT&TELESCOPIC SYSTEM

#### < FUNCTION DIAGNOSIS >

### TILT&TELESCOPIC SYSTEM



### System Description

INFOID:000000001694080

Power from battery is supplied at all times to automatic driver positioner control unit, tilt & telescopic system H can operate regardless of the ignition switch position.

#### TILT OPERATION

- While operating the tilt & telescopic switch, tilt motor operates, and allows up or down position adjustment of steering wheel.
- During tilt motor operation tilt sensor detects the position of steering wheel and automatically cuts the power when the operation limit is reached.

#### TELESCOPIC OPERATION

- Operating the tilt & telescopic switch, telescopic motor operates and allows forward and backward position regulation of steering wheel.
- During telescopic motor operation telescopic sensor detects the position of steering wheel and automatically cuts the power when the operation limit is reached.

Κ

L

Μ

Ν

Ρ

SE

### TILT&TELESCOPIC SYSTEM

### < FUNCTION DIAGNOSIS >

### **Component Parts Location**





- 1. Automatic drive positioner control unit M51, M52
- 4. Tilt sensor M48
- A. View with instrument driver lower panel is removed.
- D. View with steering column cover is removed.

### **Component Description**

- 2. Tilt & telescopic switch M31
- 5. Telescopic motor M49
- B. Steering column cover
- E. View with instrument lower cover is removed.
- 3. Telescopic sensor M48
- 6. Tilt motor M49
- C. View with steering column cover is removed.

Item	Function
Automatic drive positioner control unit	Detects data input signal of tilt & telescopic switch and tilt & telescopic sensor, performs tilt & telescopic motor control.
Tilt & telescopic switch	Tilt switch and telescopic switch, as a unit, transmit switch operation signal to automatic drive positioner control unit.
Tilt & telescopic motor	Operates with the power received from automatic drive positioner control unit.
Tilt & telescopic sensor	Detects the position of steering, send signal to automatic drive positioner control unit.

### SIDE SUPPORT UNIT

#### < FUNCTION DIAGNOSIS >

### SIDE SUPPORT UNIT

### System Description

- While operating the side support switch, the pump located inside side support unit operates and adjust the В air pressure in seat cushion and seatback side support.
- It is possible to soften the side support, by allowing some air to escape, by deflating the solenoid located inside side support.
- It is possible to adjust seat cushion and seatback differently while inflating or deflating solenoid located in С side support unit.

#### Component Parts Location



Item	Function
Side support switch	With a built-in cushion side and seat back side, controls the power supplied to pump and to each solenoid.
Side support unit	Built-in pump, pump relay and solenoid, operates when pressing ON/OFF on side support switch.

Ε

F

Κ

L

Μ

Ν

Ρ

INFOID:000000001728895

### **HEATED SEAT**

### < FUNCTION DIAGNOSIS >

### HEATED SEAT

### System Description

INFOID:000000001694225

- Heated seat is a system that operates when ignition switch is in ON or START position.
- While operating the heated seat switch, seat cushion heater and seat back heater operate.
- · Changing heated seat switch to LOW/HIGH position, depending on working heater number it is possible to adjust the seat temperature.

### **Component Parts Location**



Heated seat switch (driver side) 1. M138: A/T models M172: M/T models

4. Seat back heater

- Heated seat switch (passenger side) 3. M140: A/T models M173: M/T models
- 5. Seat cushion heater B507: Driver side B555: Passenger side
- A. View with cluster lid C is removed.

### **Component Description**

Item	Function
Heated seat switch (driver side / passenger side)	<ul> <li>Power is supplied to each heater.</li> <li>Depending on LOW/HIGH position of switch, operating heater number is changeable.</li> </ul>
Seat cushion heater	Built-in seat cushion, the heater operates with the power supplied by heater seat switch.
Seat back heater	Built-in seatback, the heater operates with the power supplied by heater seat switch.

### LUMBAR SUPPORT

### < FUNCTION DIAGNOSIS >

### LUMBAR SUPPORT

### System Description

- Lumbar support can operate regardless of the ignition switch position because battery power is supplied to it В at all times.
- · While operating the lumbar support switch, lumbar support motor operates which allows forward and backward operation of seatback support.

### **Component Parts Location**



- Lumbar support switch B547 1.
- Lumbar support motor B548 2.

### **Component Description**

INFOID:000000001694230

Item	Function	
Lumbar support switch	Controls the power supplied to lumbar support motor.	ŀ
Lumbar support motor	With the power supplied to lumbar support switch, operates the forward and backward movement of seatback support device.	

SE

А

С

INFOID:000000001694228

Ν

0

### **DIAGNOSIS SYSTEM (DRIVER SEAT C/U)**

#### < FUNCTION DIAGNOSIS >

## DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

### **Diagnosis Description**

INFOID:000000001730051

INFOID:000000001730052

The power seat system can be checked and diagnosed for component operation with CONSULT-III. DIAGNOSTIC MODE

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

### **CONSULT-III** Function

#### SELF DIAGNOSTIC RESULTS Refer to <u>SE-112, "DTC Index"</u>.

Refer to <u>OL-112, DTO Index</u>

### DATA MONITOR

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

Revision: 2007 June

## DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

#### < FUNCTION DIAGNOSIS >

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 (upward) signal.	
TILT SW-DOWN	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (downward) signal.	
TELESCO SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (for- ward) signal.	
TELESCO SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (back- ward) signal.	
FORWARD SW* <sup>3</sup>	"ON/OFF"	×	×	ON/OFF status judged from the forward switch signal.	
WALK-IN SW* <sup>3</sup>	"ON/OFF"	×	×	ON/OFF status judged from the power walk-in switch signal.	
FWD LIMIT SW* <sup>3</sup>	"ON/OFF"	×	×	ON/OFF status judged from the sliding limit switch signal.	
SEAT BELT SW* <sup>3</sup>	"ON/OFF"	×	×	ON/OFF status judged from the seat belt backle switch signal.	
DETENT SW <sup>*1</sup>	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal.	
PARK BRAKE SW <sup>*2</sup>	"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) sta- tus judged from the ignition switch signal.	
SLIDE PULSE*3	_	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.	
RECLN 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- ward/downward is displayed.	
MIR/SEN RH R-L	"V"	-	×	Voltage input from door mirror sensor (passenger side) left- ward/rightward is displayed.	
MIR/SEN LH U-D	"V"	_	×	Voltage input from door mirror sensor (driver side) upward/ downward is displayed.	
MIR/SEN LH R-L	"V"	_	×	Voltage input from door mirror sensor (driver side) leftward/ rightward is displayed.	
TILT SEN	"V"	_	×	Voltage input from tilt sensor upward/downward is displayed.	
TELESCO SEN	"V"	-	×	Voltage input from telescopic sensor forward/backward is displayed.	

<sup>\*1</sup>: M/T models display all item except this item.

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

\*<sup>3</sup>: Only this item is displayed for driver seat without automatic drive positioner system.

### DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< FUNCTION DIAGNOSIS >

#### 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.
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.

\*: Driver seat without automatic driver position system display only "SEAT SLIDE".

## COMPONENT DIAGNOSIS U1000 CAN COMM CIRCUIT

### Description

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, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

### DTC Logic

#### DTC DETECTION LOGIC

-	DTC	Trouble diagnosis name	DTC detecting condition	Possible cause	F
-	U1000	CAN COMM CIR- CUIT	<ul> <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)	(
DT	C CONF	IRMATION PROC	EDURE		
1.	STEP 1				ŀ
Tu	rn ignition	switch ON and wai	t at least 3 seconds.		
2	>> (	30 10 2.			
	STEP 2				S
Cn Is f	eck "Self   the DTC d	Diagnostic Result"			
Y	ES >>   O >>	Perform diagnosis p NSPECTION END	procedure. Refer to <u>SE-29, "Diagnosis Procedure</u>	<u>).</u>	ŀ
Di	agnosis	Procedure		INFOID:000000001729813	
Re	fer to LAN	I-16 "Trouble Diagr	oosis Flow Chart"		l
Sr	ecial R	pair Requirem	ent		
Οp				INFOID:00000001729814	N
Re	fer to <u>SE</u>	-7, "ADDITIONAL irement"	SERVICE WHEN REMOVING BATTERY NEG	ATIVE TERMINAL : Special	
	pan negu	<u>irement</u> .			1
					-

A

В

Е

INFOID:000000001729811

INFOID:000000001729812

Ρ

< COMPONENT DIAGNOSIS >

### **B2112 SLIDING MOTOR**

### Description

The seat sliding motor is installed on the seat cushion frame.

• The seat sliding motor is activated with the driver seat control unit.

Slides the seat forward/backward by changing the rotation direction of sliding motor.

### **DTC Logic**

INFOID:000000001729816

INFOID:000000001729815

### DTC DETECTION LOGIC

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

### DTC CONFIRMATION PROCEDURE

### **1.**STEP 1

Turn ignition switch ON.

#### >> GO TO 2.

### **2.**STEP 2

Check "Self Diagnostic Result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>SE-30, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 or B2127 if B2126 or B2127 is detected.

### **Diagnosis** Procedure

INFOID:000000001729817

### **1.**PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self Diagnostic Result" with CONSULT-III.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to <u>SE-30, "DTC Logic"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u>.

2.REPLACE DRIVER SEAT CONTROL UNIT

Replace driver seat control unit. Refer to SE-164, "Removal and Installation".

>> INSPECTION END

#### POWER SUPPLY AND GROUND CIRCUIT < COMPONENT DIAGNOSIS > POWER SUPPLY AND GROUND CIRCUIT А AUTOMATIC DRIVE POSITIONER CONTROL UNIT AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure INFOID:000000001694221 NOTE: Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT-III. 1.CHECK POWER SUPPLY CIRCUIT 1. Turn ignition switch OFF. D Check voltage between automatic drive positioner control unit harness connector and ground. 2. Terminals Е (+) Voltage (V) (Approx.) (-) Automatic drive positioner control Terminal unit connector F 34 M52 Ground Battery voltage 39 Is the inspection result normal? YES >> GO TO 2. NO Check the following. >> Н Repair or replace harness between driver seat control unit and fuse block (J/B). Circuit breaker 2.CHECK GROUND CIRCUIT Check continuity between the automatic drive positioner control unit harness connector and ground. Automatic drive positioner control Terminal Continuity SE unit connector Ground 40 M52 Existed 48 K Is the inspection result normal? YES >> Automatic drive positioner control unit power supply and ground circuit are OK. >> Repair or replace harness between automatic drive positioner control unit and ground. NO L AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement INFOID:000000001694222 M **1.**PERFORM ADDITIONAL SERVICE Perform additional service when removing battery negative terminal. Ν >> Refer to SE-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL Description". DRIVER SEAT CONTROL UNIT **DRIVER SEAT CONTROL UNIT : Diagnosis Procedure** INFOID:000000001694217 Ρ NOTE: Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with 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

#### < COMPONENT DIAGNOSIS >

	Voltage (V) (Approx.)		
(+)			
Driver seat control unit connector	Terminal	(-)	
	33	Ground	Battery voltage
B004	40	Ground	

Is the inspection result normal?

YES >> GO TO 2. NO >> Check the

>> Check the following.

• Repair or replace harness between driver seat control unit and fuse block (J/B).

Circuit breaker

#### 2. CHECK GROUND CIRCUIT

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

Driver seat control unit connector	Terminal	Ground	Continuity
B503	32		Evisted
B504	48		Existed

Is the inspection result normal?

YES >> Driver seat control unit power supply and ground circuit are OK.

NO >> Repair or replace harness between driver seat control unit and ground.

### DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:000000001694218

### **1.**PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

#### >> Refer to <u>SE-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL :</u> Description".

### PASSENGER SEAT CONTROL UNIT

### PASSENGER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:000000001694219

#### NOTE:

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

### 1. CHECK POWER SUPPLY CIRCUIT

#### 1. Turn ignition switch OFF.

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

	Voltage (V)		
(+			
Passenger seat control unit con- nector	Terminal	()	(Approx.)
B553	33	Ground	Battery voltage
	40		

#### Is the inspection result normal?

YES >> GO TO 2.

NO

- >> Check the following.
  - Repair or replace harness between passenger seat control unit and fuse block (J/B).
  - Repair or replace harness between passenger seat control unit and BCM.

### 2. CHECK GROUND CIRCUIT

### POWER SUPPLY AND GROUND CIRCUIT

## < COMPONENT DIAGNOSIS >

Passenger seat control unit	Terminal		Continuity
B552	32	Ground	
B553	48		Existed
the inspection result normal?			
YES >> Passenger seat cor NO >> Repair or replace ha	ntrol unit power supply arness between driver	and ground circuit are OK. seat control unit and grour	ıd.
ASSENGER SEAT COM	NTROL UNIT : Sp	ecial Repair Require	ment INFOID:000000001694220
PERFORM ADDITIONAL SE	RVICE		
erform additional service when	removing battery neg	ative terminal	
>> Refer to <u>SE-7, "ADI</u> <u>Description"</u> .	DITIONAL SERVICE V	WHEN REMOVING BATTE	RY NEGATIVE TERMINAL :

### **POWER SEAT SWITCH**

< COMPONENT DIAGNOSIS >

## POWER SEAT SWITCH DRIVER SIDE

### **DRIVER SIDE** : Description

With a built-in reclining switch, sliding switch and lifting switch, power seat switch controls the power supplied to each motor.

### **DRIVER SIDE : Component Function Check**

1. CHECK POWER SEAT SWITCH FUNCTION

Check power seat operation with power seat switch.

#### Is the inspection results normal?

YES >> Power seat switch is OK.

NO >> Refer to <u>SE-34, "DRIVER SIDE : Diagnosis Procedure"</u>...

### **DRIVER SIDE : Diagnosis Procedure**

1. CHECK CIRCUIT BREAKER AND FUSIBLE LINK

Check that following circuit breaker and fusible link.

Terminal No.	Signal name	Item
33	Batton, power supply	Circuit breaker
	Battery power supply	Fusible link K

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace circuit breaker or fusible link after repairing affected circuit.

2. CHECK POWER SUPPLY

1. Turn ignition switch OFF.

2. Disconnect power seat switch connector.

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

Power se	at switch	Ground	Voltage (V) (Approx.)
Connector	Terminal		
B511	33	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

Check continuity between power seat switch and ground.

Power seat swit	ch	Ground	Continuity
Connector	Terminal	Ground	
B511	48	Ground	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

**4.**CHECK POWER SEAT SWITCH

Check power seat switch function. Refer to <u>SE-35, "DRIVER SIDE : Component Inspection"</u>. Is the inspection result normal? INFOID:0000000001694094

INFOID:000000001694095

INFOID-000000001694093

< COMPONENT	DIAGNOSIS >			
YES >> Powe NO >> Repla	r seat switch is OK. ce power seat switc	ch.		A
DRIVER SIDE	: Component I	nspection	INFOID:000000001694	1096
1.CHECK POWE	R SEAT SWITCH			В
<ol> <li>Turn ignition s</li> <li>Remove powe</li> <li>Detect the matrix</li> </ol>	switch OFF. er seat switch. Ilfunctioning switch.			С
<u>Which switch is malfunctioning?</u> RECLINING SWITCH>>GO TO 2. SLIDING SWITCH>>GO TO 3. LIFTING SWITCH (FRONT)>>GO TO 4.				
LIFTING SWITC 2.CHECK RECLI	H (REAR)>>GO TO NING SWITCH	5.		E
Check continuity b	between power seat	switch terminals.		_
<u></u> т	Terminal Switch condition Continuity			
		Forward	Existed	
27		Neutral	Not existed	G
	22	Backward	Not existed	
		Forward	Not existed	
12		Neutral	Not existed	H

Backward

Forward

Neutral

Backward

Forward

Neutral Backward

Is the inspection result normal?

27

12

YES >> Power seat switch (reclining switch) is OK.

48

NO >> Replace power seat switch. Refer to <u>SE-167, "Removal and Installation"</u>.

3. CHECK SLIDING SWITCH

Check continuity between power seat switch terminals.

_	Continuity	Switch condition	ninal	Terminal	
_	Existed	Forward			
— P	Not existed	Neutral		22	
	Not existed	Backward			
	Not existed	Forward	33		
	Not existed	Neutral		23	
	Existed	Backward			

Is the inspection result normal?

YES >> Power seat switch (sliding switch) is OK.

NO >> Replace power seat switch. Refer to <u>SE-167, "Removal and Installation"</u>.

**4.**CHECK LIFTING SWITCH (FRONT)

Check continuity between power seat switch terminals.

Existed

Not existed

Not existed

Existed

Existed Not existed

Not existed

SE

Κ

L

Μ

### **POWER SEAT SWITCH**

#### < COMPONENT DIAGNOSIS >

Terminal		Switch condition	Continuity
	- 33	Up	Existed
28		Neutral	Not existed
		Down	Not existed
		Up	Not existed
13		Neutral	Not existed
		Down	Existed
	- 48	Up	Not existed
28		Neutral	Not existed
		Down	Existed
		Up	Existed
13		Neutral	Not existed
		Down	Not existed

Is the inspection result normal?

YES >> Power seat switch (front lifting switch) is OK.

NO >> Replace power seat switch. Refer to <u>SE-167, "Removal and Installation"</u>.

#### **5.**CHECK LIFTING SWITCH (REAR)

Check continuity between power seat switch terminals.

Terminal		Switch condition	Continuity
29	- 33	Up	Existed
		Neutral	Not existed
		Down	Not existed
14		Up	Not existed
		Neutral	Not existed
		Down	Existed
29	- 48	Up	Not existed
		Neutral	Not existed
		Down	Existed
14		Up	Existed
		Neutral	Not existed
		Down	Not existed

Is the inspection result normal?

YES >> Power seat switch (rear lifting switch) is OK.

NO >> Replace power seat switch. Refer to SE-167, "Removal and Installation".

#### PASSENGER SIDE

### PASSENGER SIDE : Description

With a built-in reclining switch, sliding switch and lifting switch, power seat switch controls the power supplied to each motor.

#### PASSENGER SIDE : Component Function Check

1.CHECK POWER SEAT SWITCH FUNCTION

Check power seat operation with power seat switch.

Is the inspection results normal?

YES >> Power seat switch is OK.

#### SE-36

G37 Coupe

INFOID:000000001772477
## **POWER SEAT SWITCH**

#### < COMPONENT DIAGNOSIS > NO >> Refer to SE-37, "PASSENGER SIDE : Diagnosis Procedure"... А PASSENGER SIDE : Diagnosis Procedure INFOID:000000001772792 **1.**CHECK POWER SUPPLY Turn ignition switch OFF. 1. 2. Disconnect power seat switch connector. 3. Check continuity between power seat switch harness connector and ground. Power seat switch Voltage (V) Ground (Approx.) Terminal Connector D B554 33 Ground Battery voltage Is the inspection result normal? >> GO TO 3. YES NO >> GO TO 2. 2.CHECK POWER SUPPLY CIRCUIT 1. Disconnect BCM connector. 2. Check continuity between power seat switch harness connector and BCM harness connector. BCM Power seat switch Continuity Connector Terminal Connector Terminal B554 33 M118 2 Existed Н Check continuity between power seat switch harness connector and ground. Power seat switch Ground Continuity Connector Terminal B554 33 Ground Not existed SE Is the inspection result normal? >> Replace BCM. YES >> Repair or replace harness. NO Κ ${\it 3.}$ CHECK GROUND Check continuity between power seat switch and ground. Power seat switch Ground Continuity Connector Terminal B554 48 Ground Existed M Is the inspection result normal? YES >> GO TO 5. Ν NO >> GO TO 4. 4.CHECK GROUND CIRCUIT 1. Disconnect passenger seat control unit connector. Check continuity between power seat switch harness connector and ground. 2. Power seat switch Ground Continuity Terminal Connector B554 48 Ground Existed Is the inspection result normal?

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

NO >> Repair or replace harness.

**5.**CHECK POWER SEAT SWITCH

## **POWER SEAT SWITCH**

< COMPONENT DIAGNOSIS >

Check power seat switch function. Refer to <u>SE-38, "PASSENGER SIDE : Component Inspection"</u>.

Is the inspection result normal?

YES >> Power seat switch is OK.

NO >> Replace power seat switch.

PASSENGER SIDE : Component Inspection

INFOID:000000001904496

## **1.**CHECK POWER SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Remove power seat switch.
- 3. Detect the malfunctioning switch.

#### Which switch is malfunctioning?

RECLINING SWITCH>>GO TO 2. SLIDING SWITCH>>GO TO 3. LIFTING SWITCH (FRONT)>>GO TO 4. LIFTING SWITCH (REAR)>>GO TO 5.

2. CHECK RECLINING SWITCH

Check continuity between power seat switch terminals.

Terr	ninal	Switch condition	Continuity
		Forward	Existed
27		Neutral	Not existed
	22	Backward	Not existed
		Forward	Not existed
12		Neutral	Not existed
		Backward	Existed
		Forward	Not existed
27		Neutral	Not existed
	40	Backward	Existed
	48	Forward	Existed
12		Neutral	Not existed
	_	Backward	Not existed

Is the inspection result normal?

YES >> Power seat switch (reclining switch) is OK.

NO >> Replace power seat switch. Refer to <u>SE-167, "Removal and Installation"</u>.

## **3.**CHECK SLIDING SWITCH

Check continuity between power seat switch terminals.

Terr	ninal	Switch condition	Continuity	
		Forward	Existed	
22		Neutral	Not existed	
		Backward	Not existed	
	23	33	Forward	Not existed
23		Neutral	Not existed	
		Backward	Existed	

Is the inspection result normal?

YES >> Power seat switch (sliding switch) is OK.

NO >> Replace power seat switch. Refer to <u>SE-167, "Removal and Installation"</u>.

#### < COMPONENT DIAGNOSIS >

# 4. CHECK LIFTING SWITCH (FRONT)

Check continuity between power seat switch terminals.

Teri	minal	Switch condition	Continuity	
		Up	Existed	
28		Neutral	Not existed	
	22	Down	Not existed	
	33	Up	Not existed	
13		Neutral	Not existed	
		Down	Existed	
		Up	Not existed	
28		Neutral	Not existed	
	10	Down	Existed	
	40	Up	Existed	
13		Neutral	Not existed	
		Down	Not existed	

#### Is the inspection result normal?

YES >> Power seat switch (front lifting switch) is OK.

NO >> Replace power seat switch. Refer to <u>SE-167, "Removal and Installation"</u>.

**5.**CHECK LIFTING SWITCH (REAR)

Check continuity between power seat switch terminals.

Termi	nal	Switch condition	Continuity	
		Up	Existed	
29		Neutral	Not existed	S
		Down	Not existed	
	33	Up	Not existed	
14		Neutral	Not existed	K
		Down	Existed	
		Up	Not existed	
29		Neutral	Not existed	
	40	Down	Existed	
14	48	Up	Existed	N
		Neutral	Not existed	
		Down	Not existed	

Is the inspection result normal?

YES >> Power seat switch (rear lifting switch) is OK.

NO >> Replace power seat switch. Refer to <u>SE-167, "Removal and Installation"</u>.

Р

Ο

А

Н

## **SLIDING SWITCH**

#### < COMPONENT DIAGNOSIS >

# SLIDING SWITCH SEATBACK

## SEATBACK : Description

Sliding switch is equipped on the seat back. The operation signal inputted to passenger seat control unit when sliding switch (seat back) is operated.

## SEATBACK : Component Function Check

**1.**CHECK SLIDING SWITCH (SEAT BACK) FUNCTION

Check seat sliding operation with sliding switch (seat back).

#### Is the inspection results normal?

YES >> Power seat switch is OK.

NO >> Refer to <u>SE-40, "SEATBACK : Diagnosis Procedure"</u>.

## SEATBACK : Diagnosis Procedure

#### INFOID:000000001848763

INFOID-000000001848726

INFOID:000000001848727

## **1.**CHECK SLIDING SWITCH (SEAT BACK) SIGNAL

#### 1. Turn ignition switch ON.

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

Passenger seat control	Terminals				Voltage (V)
unit connector	(+)	(-)		Condition (Approx.)	
	11	Ground		Operate (backward)	0
P550			Sliding switch (seat back)	Release	Battery voltage
DDDZ	26			Operate (forward)	0
				Release	Battery voltage

Is the inspection result normal?

YES >> GO TO 6. NO >> GO TO 2.

2.check sliding switch (seat back) circuit

1. Turn ignition switch OFF.

2. Disconnect passenger seat control unit connector and sliding switch (seat back) connector.

3. Check continuity between passenger seat control unit harness connector and sliding switch (seat back) harness connector.

Passenger seat control unit connector	Terminal	Sliding switch (seat back) connector	Terminal	Continuity
R552	11	R561	11	Existed
D002	26		26	LAISted

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

Passenger seat control unit connector	Terminal		Continuity
DEED	11	Ground	Not ovisted
D002	26		NUL EXISTED

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

 ${
m 3.}$  CHECK PASSENGER SEAT CONTROL UNIT OUTPUT

1. Connect passenger seat control unit connector.

## **SLIDING SWITCH**

#### < COMPONENT DIAGNOSIS >

2. Turn ignition switch ON. 3. Check voltage between passenger seat control unit harness connector and ground. А Terminals Passenger seat control unit Voltage (V) connector (Approx.) (+) (-) В 11 B552 Ground Battery voltage 26 Is the inspection result normal? YES >> GO TO 4. NO >> Replace passenger seat control unit. D 4.CHECK SLIDING SWITCH (SEAT BACK) GROUND CIRCUIT Turn ignition switch OFF. 1. 2. Check continuity between sliding switch (seat back) harness connector and ground. Е Sliding switch (seat back) Terminal Ground Continuity connector F B561 32 Ground Existed Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace harness.  ${f 5.}$ CHECK SLIDING SWITCH (SEAT BACK) Н Refer to SE-41, "SEATBACK : Component Inspection". Is the inspection result normal? YES >> GO TO 6. NO >> Replace power seat switch. **6.**CHECK INTERMITTENT INCIDENT SE Refer to GI-38, "Intermittent Incident". Is the inspection result normal? YES >> Replace passenger seat control unit. Κ >> Repair or replace malfunctioning part. NO SEATBACK : Component Inspection INFOID:000000001848764 L **1.**CHECK SLIDING SWITCH 1. Turn ignition switch OFF. 2. Disconnect sliding switch (seat back) connector. M 3. Check continuity between sliding switch (seat back) terminals. Terminal Ν Condition Continuity Sliding switch (seat back) Operate Existed (backward) 11 Sliding switch Release Not existed 32 Operate Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace sliding switch (seat back).

26

Sliding switch

(forward)

Release

Not existed

Ρ

#### < COMPONENT DIAGNOSIS >

# FORWARD SWITCH DRIVER SIDE

#### **DRIVER SIDE : Description**

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

**DRIVER SIDE : Component Function Check** 

## **1.**CHECK FUNCTION

1. Select "FORWARD SW" in "Data Monitor" mode with CONSULT-III.

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

Test item	Condition		Status
	Driver side seat back	Folded up	ON
I ORWARD SW	Driver side sear back	Folded down	OFF

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to <u>SE-42, "DRIVER SIDE : Diagnosis Procedure"</u>.

## **DRIVER SIDE : Diagnosis Procedure**

INFOID:000000001751584

INFOID:000000001751582

INFOID:000000001751583

## **1.**CHECK FORWARD SWITCH SIGNAL

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

Driver seat	Driver seat control unit		Condition	Voltage (V) (Approx.)
			Seat back is folded down and power walk-in switch is pressed.	0
B504	B504 41	Ground	Seat back is folded up and power walk-in switch is pressed.	5
			Seat back is folded up and seat reclining switch is operated.	Battery voltage

#### Is the inspection result normal?

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

NO >> GO TO 2.

#### 2.check forward switch circuit

1. Disconnect driver seat control unit connector and forward switch connector.

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

Driver seat	Driver seat control unit		I switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B504	41	B512	41	Existed

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

#### < COMPONENT DIAGNOSIS >

# **3.**FORWARD SWITCH GROUND CIRCUIT

Check continuity between forward switch harness connector and ground.

For	ward switch		Ground	Continuity
Connector	Tern	ninal	Grouna	Continuity
B512	3	2	Ground	Existed
<u>s the inspection result no</u> YES >> GO TO 4. NO >> Repair or repl <b>1.</b> CHECK DRIVER SEAT	<u>rmal?</u> lace harness. Γ CONTROL UN	IT OUTPUT		
Connect driver seat c Check voltage betwee	ontrol unit conne en driver seat co	ector. ntrol unit harnes	ss connector and gro	bund.
Driver se	eat control unit		Ground	Voltage (V)
Connector	Termin	al	Clound	(Approx.)
B504	41		Ground	5
YES >> GO TO 5. NO >> Replace drive CHECK FORWARD S	er seat control ur WITCH	it. Refer to <u>SE-</u>	164, "Removal and I	nstallation".
YES >> Check interm NO >> Replace forward RIVER SIDE : Con .CHECK FORWARD SN . Turn ignition switch O . Disconnect forward so . Check continuity betw	ittent incident. R ard switch. (Built nponent Insp WITCH DFF. witch connector. veen forward sw	efer to <u>GI-38, "In</u> in seat back fra ection tch terminals.	<u>ntermittent Incident"</u> . ame.)	INFOID:000000001751585
Forward swi	itch			
Terminal		C	ondition	Continuity
41	32	Driver side seat	Folded up	Not existed
	-	back	Folded down	Existed
<u>s the inspection result no</u> YES >> INSPECTION NO >> Replace forwa PASSENGER SIDE	<u>rmai?</u> I END ard switch. (Built	in seat back fra	ame.)	
ASSENGER SIDE	: Description	I		INFOID:000000001831165
orward switch is installed	d on seat back fr	ame. Forward s	witch detects conditi	on of seat back.
PASSENGER SIDE	: Diagnosis	Procedure		INFOID:000000001770917
CHECK FORWARD S	WITCH SIGNAL			
1. Turn ignition switch O	)FF.			

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

А

#### < COMPONENT DIAGNOSIS >

Passenger seat control unit		Ground	Condition	Voltage (V)
Connector	Terminal	Ground	Condition	(Approx.)
	B553 41	Ground	Seat back is folded down and power walk-in switch is pressed.	0
B553			Seat back is folded up and power walk-in switch is pressed.	5
			Seat back is folded up and seat reclining switch is operated.	Battery voltage

Is the inspection result normal?

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

NO >> GO TO 2.

2. CHECK FORWARD SWITCH CIRCUIT

1. Disconnect passenger seat control unit connector and forward switch connector.

2. Check continuity between passenger seat control unit harness connector and forward switch harness connector.

Passenger seat control unit		Forward	Continuity	
Connector	Terminal	Connector Terminal		Continuity
B553	41	B556	41	Existed

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

Passenger se	at control unit	Ground	Continuity	
Connector	Terminal		Continuity	
B553	41	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

**3.** FORWARD SWITCH GROUND CIRCUIT

Check continuity between forward switch harness connector and ground.

Forwar	d switch	Ground	Continuity	
Connector Terminal		Croana	Continuity	
B556	32	Ground	Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### **4.**CHECK PASSENGER SEAT CONTROL UNIT OUTPUT

1. Connect passenger seat control unit connector.

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

Passenger s	eat control unit	Ground	Voltage (V)	
Connector	Connector Terminal		(Approx.)	
B553	41	Ground	5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace passenger seat control unit. Refer to <u>SE-165. "Removal and Installation"</u>.

**5.**CHECK FORWARD SWITCH

Refer to SE-45, "PASSENGER SIDE : Component Inspection".

< COMPONENT DIAGNOSIS >

#### Is the inspection result normal?

А >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". YES >> Replace forward switch. (Built in seat back frame.) NO **PASSENGER SIDE : Component Inspection** INFOID:000000001770918 В 1.CHECK FORWARD SWITCH 1. Turn ignition switch OFF. С 2. Disconnect forward switch connector. Check continuity between forward switch terminals. 3. D Forward switch Condition Continuity Terminal Folded up Not existed Passenger side Е 41 32 seat back Folded down Existed Is the inspection result normal? F

>> INSPECTION END YES

NO >> Replace forward switch. (Built in seat back frame.)

Н

SE

Κ

L

Μ

Ν

Ρ

< COMPONENT DIAGNOSIS >

# SEAT BELT BUCKLE SWITCH DRIVER SIDE

## **DRIVER SIDE : Description**

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

**DRIVER SIDE : Component Function Check** 

## **1.**CHECK FUNCTION

1. Select "SEAT BELT SW" in "Data Monitor" mode with CONSULT-III.

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

Test item	Condition		Status
	Driver side seat belt	Fastened	ON
	Driver side seat Deit	Released	OFF

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to <u>SE-46, "DRIVER SIDE : Diagnosis Procedure"</u>.

## DRIVER SIDE : Diagnosis Procedure

INFOID:000000001766496

INFOID:000000001766494

INFOID:000000001766495

## **1.**CHECK SEAT BELT BUCKLE SWITCH SIGNAL

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

Driver sea	Driver seat control unit		Condition	Voltage (V)
Connector	Terminal	Ground	Condition	(Approx.)
B503	B503 5 Ground		Passenger side seat belt is fastened, and power walk-in switch is pressed.	5
			Released	0

#### Is the inspection result normal?

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

NO >> GO TO 2.

#### 2.check seat belt buckle switch circuit

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

Driver seat control unit		Seat belt buckle switch		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B503	5	B13	1	Existed	

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

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

## **SE-46**

## SEAT BELT BUCKLE SWITCH

#### < COMPONENT DIAGNOSIS >

Seat belt buckle switch		<b>2</b>		
Connector	Ter	minal	Ground	Continuity
B13		2	Ground	Existed
Is the inspection result nor YES >> GO TO 4. NO >> Repair or repla 4.CHECK DRIVER SEAT 1. Connect driver seat co 2. Check voltage betwee	<u>mal?</u> ace harness. CONTROL UN ntrol unit conn n driver seat co	NIT OUTPUT ector. ontrol unit harne	ss connector and gro	ound.
Driver sea	t control unit			Voltage (V)
Connector	Termi	nal	Ground	(Approx.)
B503	5		Ground	5
YES >> GO TO 5. NO >> Replace driver 5.CHECK SEAT BELT BU	seat control u ICKLE SWITC	nit. Refer to <u>SE-</u> H	164, "Removal and I	nstallation".
Is the inspection result norm YES >> Check intermit NO >> Replace seat b DRIVER SIDE : Com	<u>mal?</u> tent incident. F pelt buckle swit ponent Insp	Refer to <u>GI-38, "I</u> ch. (Built in sea D <b>ection</b>	ntermittent Incident" t belt buckle.)	INFOID:000000001766497
<b>1.</b> CHECK SEAT BELT BU	ICKLE SWITC	н		
<ol> <li>Turn ignition switch OF</li> <li>Disconnect seat belt b</li> <li>Check continuity between</li> </ol>	F. uckle switch co een seat belt b	onnector. uckle switch terr	ninals.	
Seat belt buckle	switch			
Terminal			ondition	Continuity
1	2	Driver side seat	Fastened	Not existed
	-	belt	Released	Existed
<u>s the inspection result nor</u> YES >> INSPECTION NO >> Replace seat to PASSENGER SIDE	<u>mal?</u> END pelt buckle swit	ch. (Built in sea	t belt buckle.)	
PASSENGER SIDE :	Description	า		INFOID:000000001831182
Seat belt buckle switch is in	nstalled in seat	belt buckle. Se	at belt buckle switch	detects condition of seat belt.
PASSENGER SIDE :	Diagnosis	Procedure		INFOID:000000001770921
1.CHECK SEAT BELT BU	ICKLE SWITC	H SIGNAL		
<ol> <li>Turn ignition switch OF</li> <li>Check voltage betweet</li> </ol>	F. n passenger se	eat control unit h	arness connector ar	nd ground.

## SEAT BELT BUCKLE SWITCH

#### < COMPONENT DIAGNOSIS >

Passenger seat control unit		Ground	Condition	Voltage (V)	
Connector	Terminal	Gibana	Condition	(Approx.)	
B552	5	Ground	Passenger side seat belt is fastened, and power walk-in switch is pressed.	5	
			Released	0	

Is the inspection result normal?

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

NO >> GO TO 2.

# **2.**CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

1. Disconnect passenger seat control unit connector and seat belt buckle switch connector.

 Check continuity between passenger seat control unit harness connector and seat belt buckle switch harness connector.

Passenger seat control unit		Seat belt bu	Continuity	
Connector	Terminal	Connector Terminal		Continuity
B552	5	B213	1	Existed

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

Passenger se	at control unit	Ground	Continuity	
Connector	Terminal	Giodina	Communy	
B552	5	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# $\mathbf{3}$ .check seat belt buckle switch ground circuit

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

Seat belt b	uckle switch	Ground	Continuity	
Connector	Terminal		Continuity	
B213	2	Ground	Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4.CHECK PASSENGER SEAT CONTROL UNIT OUTPUT

#### 1. Connect passenger seat control unit connector.

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

Passenger s	seat control unit	Ground	Voltage (V) (Approx.)	
Connector	Terminal	Croana		
B552	5	Ground	5	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace passenger seat control unit. Refer to <u>SE-165</u>, "Removal and Installation".

**5.**CHECK SEAT BELT BUCKLE SWITCH

#### Refer to <u>SE-49. "PASSENGER SIDE : Component Inspection"</u>.

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u>.
- NO >> Replace seat belt buckle switch. (Built in seat belt buckle.)

## **SE-48**

## SEAT BELT BUCKLE SWITCH

#### < COMPONENT DIAGNOSIS >

## PASSENGER SIDE : Component Inspection

INFOID:000000001770922

А

В

Е

F

G

Н

# 1.CHECK SEAT BELT BUCKLE SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect seat belt buckle switch connector.

3. Check continuity between seat belt buckle switch terminals.

Seat belt buckle switch		0	andition	Continuity	С
Ten	minal	Condition		Continuity	
1	2	Passenger side	Fastened	Not existed	D
I	2	seat belt	Released	Existed	D

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch. (Built in seat belt buckle.)

Κ

L

Μ

Ν

Ο

Ρ

< COMPONENT DIAGNOSIS >

# SLIDING LIMIT SWITCH DRIVER SIDE

**DRIVER SIDE : Description** 

Sliding limit switch is installed on seat cushion frame. Sliding limit switch detects condition of seat sliding.

**DRIVER SIDE : Component Function Check** 

## **1.**CHECK FUNCTION

1. Select "FWD LIMIT SW" in "Data Monitor" mode with CONSULT-III.

2. Check the sliding limit switch signal under the following condition.

Test item	Condition		Status
	Sectoliding	Front edge	ON
	oeat shulling	Other than above	OFF

#### Is the indication normal?

YES >> INSPECTION END

NO >> Go to <u>SE-50, "DRIVER SIDE : Diagnosis Procedure"</u>.

## DRIVER SIDE : Diagnosis Procedure

INFOID:000000001766508

INFOID:000000001766506

INFOID:000000001766507

## **1.**CHECK SLIDING LIMIT SWITCH SIGNAL

1. Turn ignition switch OFF.

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

-	Driver sea	Driver seat control unit		Condition	Voltage (V)	
_	Connector	Terminal	Ground	Condition	(Approx.)	
_	B503	4	Ground	Sliding position is front edge and power walk in switch is pressed.	5	
				Other than above	0	

#### Is the inspection result normal?

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

NO >> GO TO 2.

2. CHECK SLIDING LIMIT SWITCH CIRCUIT

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

Driver seat control unit		Sliding limit switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
B503	4	B514	4	Existed

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

Driver seat	control unit	Groupd	Continuity	
Connector	Terminal	Ground	Continuity	
B503	4	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

**3.**CHECK SLIDING LIMIT SWITCH GROUND CIRCUIT

Check continuity between sliding limit switch harness connector and ground.

#### < COMPONENT DIAGNOSIS >

Sliding	Sliding limit switch		<b>a</b>	
Connector	Ter	minal	Ground	Continuity
B514		32	Ground	Existed
Is the inspection result norm         YES       >> GO TO 4.         NO       >> Repair or replation         4.CHECK DRIVER SEAT         1.       Connect driver seat co         2.       Check voltage between	mal? ace harness. CONTROL UI ntrol unit conn n driver seat c	NIT OUTPUT ector. ontrol unit harn	ess connector and gro	ound.
Driver sea	t control unit			Voltage (V)
Connector	Termi	inal	Ground	(Approx.)
B503	4		Ground	5
Is the inspection result norm         YES       >> Check intermit         NO       >> Replace sliding         DRIVER SIDE : Com         1.CHECK SLIDING LIMIT         1. Turn ignition switch OF         2. Disconnect cliding limit	mal? tent incident. F g limit switch. ( ponent Ins) SWITCH	Refer to <u>GI-38,</u> (Built in seat cu pection	- <sup>.</sup> "Intermittent Incident" shion frame.)	INFOID:000000001786
<ol> <li>Check continuity betwee</li> </ol>	een sliding limi	it switch termina	als.	
Sliding limit sw	itch		Condition	Continuity
			Front edge	Not existed
4	32	Seat sliding	Other than above	Existed
Is the inspection result norm YES >> INSPECTION NO >> Replace sliding PASSENGER SIDE	<u>mal?</u> END g limit switch. (	Built in seat cu	shion frame.)	
PASSENGER SIDE :	Descriptio	n		INFOID:000000001831
Sliding limit switch is install	ed on seat cu	shion frame. Sli	ding limit switch dete	cts condition of seat sliding.
	SWITCH SIG	NAI		INF0ID:000000001770
		· · •/ \∟		
2. Check voltage betweel	n passenger s	eat control unit	harness connector ar	nd ground.

#### < COMPONENT DIAGNOSIS >

Passenger seat control unit		Ground	Condition	Voltage (V)	
Connector	Terminal	Ciouna	Condition	(Approx.)	
B552	4	Ground	Sliding position is front edge and power walk in switch is pressed.	5	
			Other than above	0	

Is the inspection result normal?

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

NO >> GO TO 2.

# **2.**CHECK SLIDING LIMIT SWITCH CIRCUIT

1. Disconnect passenger seat control unit connector and sliding limit switch connector.

2. Check continuity between passenger seat control unit harness connector and sliding limit switch harness connector.

Passenger se	ssenger seat control unit Sliding limit switch		Continuity		
Connector	Terminal	Connector Terminal		Continuity	
B552	4	B558	4	Existed	

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

Passenger se	at control unit	Ground	Continuity	
Connector	Terminal	Giodila	Conditionly	
B552	4	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# $\mathbf{3}$ .check sliding limit switch ground circuit

Check continuity between sliding limit switch harness connector and ground.

Sliding li	mit switch	Ground	Continuity	
Connector	Terminal	Ground	Continuity	
B558	32	Ground	Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4.CHECK PASSENGER SEAT CONTROL UNIT OUTPUT

#### 1. Connect passenger seat control unit connector.

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

Passenger s	Passenger seat control unit		Voltage (V)
Connector	Terminal	Croana	(Approx.)
B552	4	Ground	5

#### Is the inspection result normal?

YES >> GO TO 5.

Ν

**5.**CHECK SLIDING LIMIT SWITCH

#### Refer to <u>SE-53</u>, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

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

NO >> Replace sliding limit switch. (Built in seat cushion frame.)

## SE-52

#### < COMPONENT DIAGNOSIS >

## **PASSENGER SIDE : Component Inspection** INFOID:000000001831220 А 1. CHECK SLIDING LIMIT SWITCH Turn ignition switch OFF. 1. В 2. Disconnect sliding limit switch connector. 3. Check continuity between sliding limit switch terminals. С Sliding limit switch Condition Continuity Terminal Front edge Not existed 4 32 Seat sliding D Other than above Existed Is the inspection result normal? YES >> INSPECTION END Ε NO >> Replace sliding limit switch. (Built in seat cushion frame.) F Н SE Κ L Μ Ν Ο Ρ

< COMPONENT DIAGNOSIS >

# POWER WALK-IN SWITCH DRIVER SIDE

## **DRIVER SIDE** : Description

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

DRIVER SIDE : Component Function Check

## **1.**CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

NO >> Go to <u>SE-54, "DRIVER SIDE : Diagnosis Procedure"</u>.

## DRIVER SIDE : Diagnosis Procedure

INFOID:000000001766500

## 1. CHECK POWER WALK-IN SWITCH SIGNAL

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

Driver sea	at control unit	Ground	Condition		Voltage (V)
Connector	Terminal	Cround			(Approx.)
B503	30	Cround	Power walk-	Pressed	0
0303		Ground	in switch	Released	Battery voltage

#### Is the inspection result normal?

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

NO >> GO TO 2.

#### 2.CHECK POWER WALK-IN SWITCH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

INFOID:000000001766498

INFOID:000000001766499

#### < COMPONENT DIAGNOSIS >

Power w	valk-in switch			
Connector	Ter	rminal	Ground	Continuity
B513		32	Ground	Existed
s the inspection result norr YES >> GO TO 4. NO >> Repair or repla CHECK DRIVER SEAT	<u>mal?</u> ice harness. CONTROL UI			
Check voltage between	n driver seat c	ontrol unit harne	ess connector and grou	ind.
Driver sea	t control unit		Ground	Voltage (V)
Connector	Termi	inal		(Approx.)
B503	30	)	Ground	Battery voltage
<u>s the inspection result norr</u> YES >> Check intermit	<u>mal?</u> tont incident	Pofor to CL 28 "	Intermittent Incident"	
NO >> Replace power DRIVER SIDE : Com 1.CHECK POWER WALK	r walk-in switc ponent Ins -IN SWITCH	h. pection	Intermittent incident .	INFOID:0000000017665
NO >> Replace power DRIVER SIDE : Com 1.CHECK POWER WALK 1. Turn ignition switch OF 2. Disconnect power walk 3. Check continuity between Power walk-in sw	r walk-in switc ponent Ins -IN SWITCH F. k-in switch con een power wal	h. pection nector. k-in switch term	inals.	INFOID:0000000017663
NO >> Replace power DRIVER SIDE : Com 1.CHECK POWER WALK 1. Turn ignition switch OF 2. Disconnect power walk 3. Check continuity betwee Power walk-in sw Terminal	F. SWITCH	nnector.	inals.	INFOID:0000000017668
NO >> Replace power DRIVER SIDE : Com I.CHECK POWER WALK I. Turn ignition switch OF 2. Disconnect power walk 3. Check continuity betwee Power walk-in sw Terminal	F. -IN SWITCH F. -in switch con een power wal witch	h. pection nector. lk-in switch term	inals.	INFOID:0000000017665
NO >> Replace power DRIVER SIDE : Com 1.CHECK POWER WALK 1. Turn ignition switch OF 2. Disconnect power walk 3. Check continuity betwee Power walk-in sw Terminal 30	F. S-IN SWITCH F. S-IN SWITCH F. S-in switch con een power wal witch 32	h. pection nector. lk-in switch term	inals. Condition Pressed Released	INFOID:0000000017665 Continuity Not existed Existed
NO >> Replace power DRIVER SIDE : Com 1.CHECK POWER WALK 1. Turn ignition switch OF 2. Disconnect power walk 3. Check continuity betwee Power walk-in switch of 30 s the inspection result norr YES >> INSPECTION NO >> Replace power PASSENGER SIDE : Power walk-in switch is ins when power walk-in switch is ins when power walk-in switch is ins NO PASSENGER SIDE :	r walk-in switch F. SWITCH SECOND	h. pection Inector. k-in switch term Power walk-in switch h. h. h. procedure	inals.	INFOID:0000000017663
NO >> Replace power DRIVER SIDE : Com 1.CHECK POWER WALK 1. Turn ignition switch OF 2. Disconnect power walk 3. Check continuity betwee Power walk-in switch OF 30 s the inspection result norre YES >> INSPECTION NO >> Replace power PASSENGER SIDE : Power walk-in switch is ins when power walk-in switch is ins when power walk-in switch is ins NO SASSENGER SIDE : PASSENGER SIDE : 1.CHECK POWER WALK	Arriveline and a search of the	h. pection Inector. Ik-in switch term Power walk-in switch h. h. h. pack. The opera Procedure SIGNAL	inals.  Condition  Pressed Released  ation signal is inputted	INFOID:000000001766: Continuity Not existed Existed INFOID:0000000017711 to passenger seat control un

#### < COMPONENT DIAGNOSIS >

Passenger seat control unit		Ground	Condition		Voltage (V)
Connector	Terminal	Ground	Condition		(Approx.)
B552	30	Ground	Power walk-	Pressed	0
5552	50	Ground	in switch	Released	Battery voltage

Is the inspection result normal?

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

NO >> GO TO 2.

# **2.**CHECK POWER WALK-IN SWITCH CIRCUIT

1. Disconnect passenger seat control unit connector and power walk-in switch connector.

 Check continuity between passenger seat control unit harness connector and power walk-in switch harness connector.

Passenger se	eat control unit	Power walk-in switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B552	30	B557	30	Existed

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

Passenger se	Passenger seat control unit		Continuity
Connector	Terminal	Giodila	Continuity
B552	30	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

**3.**CHECK POWER WALK-IN SWITCH GROUND CIRCUIT

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

Power walk-in switch		Ground	Continuity
Connector	Terminal	Ground	Continuity
B557	32	Ground	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4.CHECK PASSENGER SEAT CONTROL UNIT OUTPUT

1. Connect passenger seat control unit connector.

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

Passenger s	Passenger seat control unit		Voltage (V)
Connector	Terminal	Croand	(Approx.)
B552	30	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace passenger seat control unit. Refer to <u>SE-165, "Removal and Installation"</u>.

**5.**CHECK POWER WALK-IN SWITCH

Refer to <u>SE-57, "PASSENGER SIDE : Component Inspection"</u>.

Is the inspection result normal?

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

NO >> Replace power walk-in switch.

#### < COMPONENT DIAGNOSIS >

## PASSENGER SIDE : Component Inspection

INFOID:000000001831345

А

В

Ε

F

G

Н

# 1.CHECK POWER WALK-IN SWITCH

#### 1. Turn ignition switch OFF.

2. Disconnect power walk-in switch connector.

3. Check continuity between power walk-in switch terminals.

Power walk-in switch			Condition	Continuity	(
Terr	minal		Jonation	Continuity	
30	30	Power walk-in	Pressed	Not existed	г
30 3	52	switch	Released	Existed	L

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power walk-in switch.

Κ

L

Μ

Ν

Ο

Ρ

< COMPONENT DIAGNOSIS >

# DOOR SWITCH DRIVER SIDE

**DRIVER SIDE : Description** 

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

## **DRIVER SIDE : Component Function Check**

# **1.**CHECK FUNCTION

1. Select "DOOR SW-DR" in "Data Monitor" mode with CONSULT-III.

2. Check the driver side door switch signal under the following conditions.

Monitor item	Co	Status	
	Driver side deer	Open	ON
DOOR SW-DR	Driver side door	Close	OFF

Is the inspection result normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>SE-58, "DRIVER SIDE : Diagnosis Procedure"</u>.

## DRIVER SIDE : Diagnosis Procedure

INFOID:000000001879550

INFOID-000000001879548

INFOID:000000001879549

## **1.**CHECK DRIVER SIDE DOOR SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check signal between BCM connector and ground with oscilloscope.

	Terminals (+)		Condition			
(•					Voltage (V)	
BCM connector	Terminal	()	Condition		(Approx.)	
				Open	0	
M123	150	Ground	Driver side door	Close	(V) 15 10 5 0 10 ms JPMIA0011GB	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2. CHECK DRIVER SIDE DOOR SWITCH CIRCUIT

1. Disconnect BCM connector and driver side door switch connector.

2. Check continuity between BCM connector and driver side door switch connector.

BCM connector	Terminal	Door switch connector	Terminal	Continuity
M123	150	B16	2	Existed

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M123	150	Clound	Not existed

## **DOOR SWITCH**

< (			0 >				
ls t	he inspection	n result norma	<u>l?</u>				_
YI	ES >> GO	TO 3.	harnoss				А
2							
5.		VER SIDE DO	JOR SWITCH	1			В
Re	fer to <u>SE-60,</u>	"PASSENGE	R SIDE : Con	nponent Inspectio	<u>n"</u> .		
<u>ls t</u>	he inspectior	<u>n result norma</u>	<u>al?</u>				
YI Ni	=S >> GO ^ >> Ror	IO 4. Nace driver si	de door switc	h			С
Δ							
<u> </u>							D
Rei	er to <u>GI-38, "</u> he increation		<u>ncident"</u> . Jo				
		<u>i resuit norma</u>	<u>u :</u>				
N	-3 >> Rep 0 >> Rep	pair or replace	the malfunct	ioning part.			Ε
			nent Insn	ection			
				Collon		INFOID:00000001879551	
1.	CHECK DRI	VER SIDE DO	OOR SWITCH	ł			Г
1.	Turn ignition	n switch OFF.					
2.	Disconnect	driver side do	or switch con	nector.			G
3.	Check conti	inuity betweei	n driver side c	boor switch termina	als.		
-		Terminal					ш
_	C	)river side door s	witch		Condition	Continuity	П
		Gr	ound part of doo	r	Pressed	Not existed	
	2		switch	Driver side door	switch Released	Existed	
ls t	he inspectior	n result norma	<u>ul?</u>				
Y	ES >> INS	PECTION EN	ND				
N	0 >> Rep	place driver si	de door switc	h.			SE
PA	SSENGE	RSIDE					
PA	SSENGE	R SIDE : D	<b>Description</b>			INFOID:000000001879556	Κ
_		,					
Det	tects front do	or (passenge	r side) open/c	close condition.			
PA	SSENGE	R SIDE : D	iagnosis F	Procedure		INFOID:000000001879558	L
1							
<u> </u>		SENGER SIL	DE DOOR SM	ATCH SIGNAL			Μ
1. 2	Lurn ignition	n switch OFF. al between na	issender seat	control unit conne	ector and around	d with oscilloscope	
۷.	Oneok signa		isseriger sear	control unit connt		a with oscilloscope.	
-		Terminals					Ν
_	(·	+)				Voltage (V)	
	Passenger		()	Cond	ition	(Approx.)	$\cap$
	seat control	Terminal					0
-					Open	0	
					0000		Ρ
						(V)	
	B552	8	Ground	Front door			
	D002	o	Ground	(passenger side)	Close		
		1					
						+-+ 10ms	
						→ + 10ms	

. .

ADONIENT DIA CNICCIC

## DOOR SWITCH

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2. CHECK PASSENGER SIDE DOOR SWITCH CIRCUIT

1. Disconnect passenger seat control unit connector.

Check continuity between BCM connector and passenger side door switch connector. 2.

Passenger seat control unit connector	Terminal	Door switch connector	Terminal	Continuity
B552	8	B216 (Passenger side)	2	Existed

Check continuity between BCM connector and ground. 3.

Passenger seat control unit connector	Terminal	Ground	Continuity
B552	8		Not existed

#### Is the inspection result normal?

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

**3.**CHECK PASSENGER SIDE DOOR SWITCH

#### Refer to SE-60, "PASSENGER SIDE : Component Inspection".

#### Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Replace passenger side door switch.

#### 4. CHECK INTERMITTENT INCIDENT

## Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

- >> Replace passenger seat control unit. YES
- >> Repair or replace the malfunctioning part. NO

#### PASSENGER SIDE : Component Inspection

#### 1.CHECK PASSENGER SIDE DOOR SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect passenger side door switch connector.
- Check continuity between passenger side door switch terminals. 3.

Terminal		Condition		Continuity	
Passenger side door switch				Continuity	
2	Ground part of door	Front door switch	Pressed	Not existed	
2	switch	(passenger side)	Released	Existed	

#### Is the inspection result normal?

YES >> INSPECTION END

>> Replace passenger side door switch. NO

INFOID:000000001879559

## **TILT&TELESCOPIC SWITCH**

#### < COMPONENT DIAGNOSIS >

# TILT&TELESCOPIC SWITCH

# Description INFOID:00000001694101 Tilt and telescopic switch as a unit, transmit switch operation signal to automatic drive positioner control unit. INFOID:0000001694102 Component Function Check INFOID:00000001694102 1.CHECK TILT AND TELESCOPIC SWITCH FUNCTION InfoiD:0000001694102 Check tilt and telescopic operation with tilt and telescopic switch. Is the inspection results normal? YES >> Tilt and telescopic switch is OK. NO >> Refer to SE-61, "Diagnosis Procedure". Diagnosis Procedure InfoiD:0000001694102

## 1. CHECK TILT AND TELESCOPIC SWITCH FUNCTION

Check voltage between tilt and telescopic switch and ground.

Tilt and tele	Tilt and telescopic switch		Switch condition	Voltage (V)	
Connector	Terminal	Ground	Switch condition	(Approx.)	G
	2		Forward position	0	
			Other than above	5	F
		_	Backward position	0	
M21	5	Ground	Other than above	5	
	Δ	Giodila	Upward position	0	
	4		Other than above	5	_
	F		Downward	0	01
	5		Other than above	5	3

#### Is the inspection result normal?

YES >> Tilt and telescopic switch is OK.

NO >> GO TO 2.

## 2.check tilt and telescopic switch signal circuit

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

Tilt and telescopic switch connector	Terminal	Automatic drive positioner control unit	Terminal	Continuity	N
	2		11		
M31	3	N64	27		
	4	- MD1	1	Existed	0
	5	-	17		

4. Check continuity between tilt and telescopic switch harness connector and ground.

А

В

D

Ε

F

Κ

Μ

Ρ

## TILT&TELESCOPIC SWITCH

#### < COMPONENT DIAGNOSIS >

Tilt and telescopic switch con- nector	Terminal		Continuity
M31	2		
	3	Ground	Not ovicted
	4		NUL EXISTEN
	5		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# **3.**CHECK TILT AND TELESCOPIC SWITCH GROUND CIRCUIT

Check continuity between tilt and telescopic switch harness connector and ground.

Tilt and telescopic switch connector	Terminal	Ground	Continuity
M31	1	Ground	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

**4.**CHECK TILT AND TELESCOPIC SWITCH

Check tilt and telescopic switch.

Refer to SE-62, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace tilt and telescopic switch.

#### **5.**CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT

1. Connect automatic drive positioner control unit connector.

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

Tilt and teles	Tilt and telescopic switch		Voltage (V)	
Connector	Terminal	Cround	(Approx.)	
	1		5	
M51	11	Cround	5	
I CIVI	17	Ground	5	
	27		5	

#### Is the inspection result normal?

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

NO >> Replace automatic drive positioner control unit. Refer to <u>SE-166, "Removal and Installation"</u>.

## **Component Inspection**

INFOID:000000001694104

## 1. CHECK TILT AND TELESCOPIC SWITCH

- 1. Turn ignition switch OFF.
- 2. Remove tilt and telescopic switch.
- 3. Check continuity between tilt and telescopic switch terminals.

## **TILT&TELESCOPIC SWITCH**

#### < COMPONENT DIAGNOSIS >

Termin	al	Switch condition	Continuity	A
0		Forward	Existed	
2		Other than above	Not existed	
0		Backward	Existed	B
3	_	Other than above	Not existed	
	1	Upward	Existed	С
4		Other than above	Not existed	
		Downward	Existed	
5		Other than above	Not existed	D

Is the inspection result normal?

YES >> Tilt and telescopic switch is OK.

NO >> Replace tilt and telescopic switch. Refer to <u>SE-171, "Removal and Installation"</u>.

Η

Е

F

G

Κ

L

Μ

Ν

Ο

Ρ

< COMPONENT DIAGNOSIS >

# SLIDING SENSOR DRIVER SIDE

## DRIVER SIDE : Description

• The sliding sensor is installed on the seat slide cushion frame.

- The pulse signal is transmitted to the driver seat control unit when sliding is operated.
- The driver seat control unit counts the pulse and calculates the sliding amount of the seat.

## DRIVER SIDE : Component Function Check

1.CHECK FUNCTION

- 1. Select "SLIDE PULSE" in "Data Monitor" mode with CONSULT-III.
- 2. Check sliding sensor signal under the following conditions.

Monitor item	Condition		Valve
		Operate (forward)	Change (increase) <sup>*1</sup>
SLIDE PULSE	Seat sliding	Operate (backward)	Change (decrease)*1
		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 daiagnosis procedure. Refer to <u>SE-64, "DRIVER SIDE : Diagnosis Procedure"</u>.

## **DRIVER SIDE : Diagnosis Procedure**

INFOID:000000001877725

## 1.CHECK SLIDING SENSOR SIGNAL

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

Terminals					
(+)		Condition		Voltage signal	
Driver seat control unit connector	Terminal	()	Contaition		
B503	24	Ground	Seat sliding	Operate Other than	10mSec/div 2V/div JMJIA0119ZZ

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2. CHECK SLIDING SENSOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector and sliding sensor connector.

INFOID:000000001877723

INFOID:000000001877724

<sup>3.</sup> Check continuity between driver seat control unit harness connector and sliding sensor harness connector.

#### < COMPONENT DIAGNOSIS >

Driver seat control unit connector	Terminal	Sliding sensor connector	Terminal	Continuity
B503	24	B526	24	Existed
4. Check continuity betwee	en driver seat cor	ntrol unit harness connector a	and ground.	
Driver seat control unit connector	Terminal	Ground		Continuity
B503	24			Not existed
<ul> <li>s the inspection result norm</li> <li>YES &gt;&gt; GO TO 3.</li> <li>NO &gt;&gt; Repair or replace</li> <li>CHECK SLIDING SENSO</li> <li>Connect driver seat con</li> <li>Turn ignition switch ON.</li> <li>Check voltage between</li> </ul>	al? e harness. DR POWER SUP trol unit connecto sliding sensor ha	PLY or. arness connector and ground		
	Ter	minals		
(+) Sliding sensor connector	) (–)		Voltage (V) (Approx.)	
B526	16	Ground	5	
<ol> <li>Disconnect driver seat of</li> <li>Check continuity between tor.</li> </ol>	control unit conne en driver seat co	ctor. ntrol unit harness connector Sliding sensor	and sliding sens	sor harness connec
control unit connector	Terminal	connector	Terminal	Continuity
B503	16	B526	16	Existed
Check continuity betwee	en driver seat cor	ntrol unit harness connector a	and ground.	
Driver seat control unit connector	Terminal	Ground		Continuity
B503	16			Not existed
<ul> <li><u>s the inspection result norm</u></li> <li>YES &gt;&gt; GO TO 6.</li> <li>NO &gt;&gt; Repair or replace</li> <li>D.CHECK SLIDING SENSO</li> <li>1. Turn ignition switch OFF</li> <li>2. Disconnect driver seat of</li> <li>3. Check continuity betwee tor.</li> </ul>	al? e harness. DR GROUND control unit conne en driver seat col	ctor. ntrol unit harness connector	and sliding sens	sor harness connec
Driver seat control unit connector	Terminal	Sliding sensor connector	Terminal	Continuity
B503	31	B526	31	Existed

#### Is the inspection result normal?

#### < COMPONENT DIAGNOSIS >

## NO >> Repair or replace harness.

**6.**CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

## Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>SE-164, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

## PASSENGER SIDE

# PASSENGER SIDE : Description

- The sliding sensor is installed on the seat slide cushion frame.
- The pulse signal is transmitted to the passenger seat control unit when sliding is operated.
- The passenger seat control unit counts the pulse and calculates the sliding amount of the seat.

# PASSENGER SIDE : Diagnosis Procedure

1.CHECK SLIDING SENSOR SIGNAL

- 1. Turn ignition switch ON.
- 2. Read voltage signal between passenger seat control unit harness connector and ground with oscilloscope.

Te	Terminals						
(+)			Condition		Voltage signal		
Passenger seat control unit connector	Terminal	(-)	Condition				
B552	24	Ground	Seat sliding	Operate	10mSec/div		
				Other than above	0 or 5		

## Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2. CHECK SLIDING SENSOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect passenger seat control unit connector and sliding sensor connector.

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

Passenger seat control unit connector	Terminal	Sliding sensor connector	Terminal	Continuity
B552	24	B568	24	Existed

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

Passenger seat control unit connector	Terminal	Ground	Continuity
B552	24		Not existed

Is the inspection result normal?

YES >> GO TO 3.

INFOID:000000001879586

INFOID:000000001879588

Connect passonger soat	R POWER SUPP	LY		
Turn ignition switch ON. Check voltage between sl	iding sensor harr	ness connector and ground	J.	
	Termi	nals		
(+)		()		Voltage (V) (Approx.)
Sliding sensor connector	Terminal			
B568	16	Ground		5
ES >> GO TO 5. O >> GO TO 4. CHECK SLIDING SENSOF		LY CIRCUIT		
Disconnect passenger sea Check continuity between nector.	at control unit cor passenger seat	nnector. control unit harness conne	ector and sliding s	ensor harness
control unit connector	Terminal	connector	Terminal	Continuity
B552	16	B568	16	Existed
Passenger seat control unit connector	Terminal	Ground		Continuity
_	16			Not existed
B552 the inspection result normal	?			
B552 the inspection result normal (ES >> GO TO 6. IO >> Repair or replace CHECK SLIDING SENSOF Turn ignition switch OFF. Disconnect passenger sea Check continuity between nector. Passenger seat control unit	? harness. R GROUND at control unit cor passenger seat	nnector. control unit harness conne Sliding sensor	ector and sliding s	sensor harness
B552 the inspection result normal 'ES >> GO TO 6. IO >> Repair or replace .CHECK SLIDING SENSOF Turn ignition switch OFF. Disconnect passenger sea Check continuity between nector. Passenger seat control unit connector	2 harness. R GROUND at control unit cor passenger seat	nnector. control unit harness conne Sliding sensor connector	ector and sliding s	continuity
B552 he inspection result normal ES >> GO TO 6. O >> Repair or replace CHECK SLIDING SENSOF Turn ignition switch OFF. Disconnect passenger sea Check continuity between nector. Passenger seat control unit connector B552 he inspection result normal	? harness. R GROUND at control unit cor passenger seat Terminal 31	nnector. control unit harness conne Sliding sensor connector B568	ector and sliding s Terminal 31	sensor harness Continuity Existed

< COMPONENT DIAGNOSIS >

## TILT&TELESCOPIC SENSOR

## Description

Tilt and telescopic sensor detects the position of steering wheel and transmits signals to automatic drive positioner control unit.

#### **Component Function Check**

## **1.**CHECK TILT AND TELESCOPIC SENSOR FUNCTION

Check tilt and telescopic operation with tilt and telescopic switch.

Is the inspection results normal?

YES >> Tilt and telescopic sensor is OK.

NO >> Refer to SE-68, "Diagnosis Procedure".

#### Diagnosis Procedure

INFOID:000000001694133

## 1. CHECK TILT AND TELESCOPIC SENSOR SIGNAL

1. Turn ignition switch ON.

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

Tilt and teles	Tilt and telescopic sensor		Condition	Voltage (V)
Connector	Terminal	Cround	Condition	(Approx.)
M51	7	- Ground -	Tilt position	Change between 1.2 (close to top) 3.4 (close to bottom)
I CIVI	23		Telescopic position	Change between 0.8 (close to top) 3.4 (close to bottom)

Is the inspection result normal?

YES >> Tilt and telescopic sensor are OK.

NO >> GO TO 2.

## **2.**CHECK TILT AND TELESCOPIC SENSOR CIRCUIT

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

Tilt and telescopic sensor connector	Terminal	Automatic drive posi- tioner control unit	Terminal	Continuity
	1		33	
M48	2	M51, M52	23	Evictod
	3		7	EXISTED
	4		41	

4. Check continuity between tilt and telescopic sensor harness connector and ground.

Tilt and telescopic sensor connector	Terminal	Ground	Continuity
M48	1	- Ground Not existed	
	2		Not existed
	3		
	4		

Is the inspection result normal?

INFOID:000000001694131

INEOID:000000001694132

# TILT&TELESCOPIC SENSOR

< COMPONENT DIAGNOSIS >

YES	>> GO	TO 3.	
	_		

NO >> Repair or replace circuit.

**3.**CHECK TILT AND TELESCOPIC SENSOR POWER SUPPLY

1. Connect automatic drive positioner control unit connector.

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

Automatic drive position control unit			Voltage (V)	_
Connector	Terminal	Ground	(Approx.)	C
M52	33		5	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit. Refer to <u>SE-166, "Removal and Installation"</u>.

#### **4.**CHECK TILT AND TELESCOPIC SENSOR GROUND

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

Automatic drive position control unit			Continuity	F
Connector	Terminal	Ground	Continuity	
M52	41		Existed	C

Is the inspection result normal?

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

NO >> Replace automatic drive positioner control unit. Refer to <u>SE-166, "Removal and Installation"</u>.

SE

Н

А

В

D

Е

L

Μ

Ν

~

Р

## **SLIDING MOTOR**

< COMPONENT DIAGNOSIS >

# SLIDING MOTOR DRIVER SIDE

**DRIVER SIDE : Description** 

With power supplied to power seat switch, sliding motor operates forward and backward slide of seat.

## DRIVER SIDE : Component Function Check

## **1.**CHECK FUNCTION

1. Select "SEAT SLIDE" in "Active Test" mode with CONSULT-III.

2. Check sliding motor operation.

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

#### Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>SE-70, "DRIVER SIDE : Diagnosis Procedure"</u>.

## **DRIVER SIDE : Diagnosis Procedure**

INFOID:000000001907784

#### **1.**CHECK SLIDING MOTOR POWER SUPPLY

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

	Terminal				
(+	(+)		Test item		Voltage (V)
Sliding motor connector	Terminal	(-)			(Approx.)
	35 B525 Gro		SEAT SLIDE	OFF	0
		- Ground		FR (forward)	Battery voltage
<b>B</b> 525				RR (backward)	0
D020				OFF	0
	42			FR (forward)	0
				RR (backward)	Battery voltage

#### Is the inspection result normal?

YES >> Replace sliding motor. (Built in seat slide cushion frame.)

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.

Driver seat control unit connector	Terminal	Sliding motor connector	Terminal	Continuity	
B504 35 42	35	P525	35	Existed	
	B020	42	EXISTED		

INFOID:000000001694112

INFOID:000000001907783

- 0		SIS >	LIDING MOTOR	
<u>&lt; (</u> 4.	Check continuity betwee	en driver seat cont	trol unit harness connector and ground.	
-	Driver seat control unit connector	Terminal		Continuity
_	B504	35	Ground	Not existed
		42		
$\frac{ s t}{Y }$	he inspection result norm ES >> GO TO 3. O >> Repair or replac CHECK SUDING MOTO	<u>aal?</u> ce harness. R		
Re	fer to SE-71 "DRIVER S	IDE · Component	Inspection"	
Is t Y	he inspection result norm ES >> Replace driver s O >> Repair or replace	nal? seat control unit. F ce the malfunction	Refer to <u>SE-164, "Removal and Installation"</u> . ing part.	
DF	CHECK SLIDING MOTO	R-1	tion	INFOID:0000000001694115
mo Is t Y N <b>2.</b> 1. 2.	tor is not broken. <u>he inspection result norm</u> ES >> GO TO 2. O >> Repair or replac CHECK SLIDING MOTO Turn ignition switch OFI Disconnect sliding moto	nal? ce seat cushion fra R-2 = r connector.	ame (sliding motor).	
3.	Supply sliding motor ter	minals with batter	y voltage and check operation.	
_	Ter	minal	Operation	
_	(+)	(-)		
_	42	42	Backward	
Is t Y N PA	he inspection result norm ES >> Sliding motor is O >> Replace sliding ASSENGER SIDE	nal? OK. motor. (Built in se	at cushion frame.)	
PA	SSENGER SIDE :	Description		INFOID:000000001826363
Wit PA	th power supplied to pow	er seat switch, slic Component F	ding motor operates forward and backward slide of Function Check	f seat.
1	CHECK SUDING MOTO	R CIRCUIT		
Ch Is t Y N PA	eck sliding operation with he inspection results nor ES >> Sliding motor is O >> Perform diagno	power seat switch mal? OK. sis procedure. Ref Diagnosis Pro	h. fer to <u>SE-71, "PASSENGER SIDE : Diagnosis_Pr</u> D <b>Cedure</b>	<u>Ocedure"</u> . INFOID:000000001907881

**1.**CHECK SLIDING MOTOR CIRCUIT

1. Turn ignition switch OFF.

А

В

С

D

Е

F

G

Н

SE

Κ

L

M

Ν

Ο

Ρ

## **SLIDING MOTOR**

#### < COMPONENT DIAGNOSIS >

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

passenger seat control unit connector	Terminal	Sliding motor connector	Terminal	Continuity	
B553	35	B567	35	Existed	
42	507	42	LAISIEU		

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

passenger seat control unit connector	Terminal		Continuity
B553	35 42	Ground	Not existed

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2. CHECK SLIDING MOTOR

Refer to <u>SE-72, "PASSENGER SIDE : Component Inspection"</u>.

#### Is the inspection result normal?

YES >> Replace passenger seat control unit. Refer to <u>SE-165, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

## PASSENGER SIDE : Component Inspection

## **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
(+)	(-)	Operation
35	42	Forward
42	35	Backward

#### Is the inspection result normal?

YES >> Sliding motor is OK.

NO >> Replace sliding motor. (Built in seat cushion frame.)

INFOID:000000001907882
## CLINUNIC MOTO

			RECLINING MC		K					
< (		DSIS >								
RI	ECLINING MOTO	JR					А			
וס										
DF	DRIVER SIDE : Description									
Wi of :	th the power supplied to seatback.	o power seat s	witch, reclining moto	r opera	ates the forward	and backward movement				
DF	DRIVER SIDE : Component Function Check									
1.	CHECK RECLINING M		ΓΙΟΝ							
Ch	eck reclining operation	with power sea	at switch.				D			
<u>ls t</u> v	the inspection results no	ormal?					_			
N	$\begin{array}{c} \text{O} \\ \text{O} \\ \text{S} \\ \text{S} \\ \text{Refer to } \\ \frac{\text{SE-7}}{3} \end{array}$	<u>3, "DRIVER SI</u>	DE : Diagnosis Proce	edure"			E			
DF	RIVER SIDE : Diag	nosis Proc	edure			INFOID:000000001694118				
1.	CHECK RECLINING M	OTOR CIRCU	IT				F			
1. 2. 3.	Turn ignition switch O Disconnect reclining n Check continuity betw	FF. notor connecto een reclining r	r and reclining relay. notor harness conne	ctor ar	nd reclining relay	harness connector.	G			
-	Reclining motor connector	Terminal	Reclining relay con	nector	Terminal	Continuity	Н			
=	B524	15	15 B518 (backward)		15	Existed				
	Charle continuity hotor	71	B517 (forward	)	71					
4.	Check continuity betw	een reclining r	notor namess conne	ctor ar	ia grouna.					
-	Reclining motor conne	ector	Terminal		Ground	Continuity	SE			
	B524		71	-	Ground	Not existed				
<u>Is 1</u> Y N 2.	the inspection result nor ES >> GO TO 2. O >> Repair or repla CHECK RECLINING M	<u>mal?</u> ace harness. IOTOR					K			
Ch Re	eck reclining motor.	SIDE · Compo	nent Inspection"							
<u>ls t</u>	the inspection result nor	mal?	<u>nent nopeotion</u> .				M			
Y N	ES >> Check intermi	ttent incident.	Refer to <u>GI-38, "Inter</u> ilt in seat reclining fra	mitten	t Incident".					
DF	RIVER SIDE · Com	noonent Ins	nection	anie.)		INECID-00000001804110	Ν			
1.	CHECK RECLINING M	OTOR-1	poonon			INFOID:000000001694119	0			
Ch	eck visually reclining m	notor to see if	any foreign object is	not di	isturbing the fun	ctioning or if the reclining	0			
<u>Is t</u>	the inspection result nor	mal?					Ρ			
Y	ES >> GO TO 2.	ace conthack f	rame (realiging moto	r)						
2.	CHECK RECLINING M	OTOR-2								
1.	Turn ignition switch O	FF.								
2. 3.	<ol> <li>Disconnect reclining motor connector.</li> <li>Supply reclining motor terminals with battery voltage and check operation.</li> </ol>									

## **SE-73**

## **RECLINING MOTOR**

### < COMPONENT DIAGNOSIS >

Terr	ninal	Operation	
(+)	(-)	Орегация	
71	15	Forward	
15	71	Backward	

### Is the inspection result normal?

YES >> Reclining motor is OK.

NO >> Replace reclining motor. (Built in seatback frame.)

### PASSENGER SIDE

## PASSENGER SIDE : Description

With the power supplied to power seat switch, reclining motor operates the forward and backward movement of seatback.

## PASSENGER SIDE : Component Function Check

1. CHECK RECLINING MOTOR FUNCTION

Check reclining operation with power seat switch.

### Is the inspection results normal?

YES >> Reclining motor is OK.

NO >> Refer to <u>SE-74, "PASSENGER SIDE : Diagnosis Procedure"</u>.

## PASSENGER SIDE : Diagnosis Procedure

**1.**CHECK RECLINING MOTOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect reclining motor connector and reclining relay.

3. Check continuity between reclining motor harness connector and reclining relay harness connector.

Reclining motor connector	Terminal	Reclining relay connector	Terminal	Continuity
<b>B566</b>	15	B563 (backward)	15	Existed
<b>D</b> 300	71	B562 (forward)	71	Existed

4. Check continuity between reclining motor harness connector and ground.

Reclining motor connector	Terminal	Ground	Continuity
B566	15	Ground	Not existed
2000	71	Cround	Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2. CHECK RECLINING MOTOR

#### Check reclining motor.

Refer to <u>SE-74</u>, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

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

NO >> Replace reclining motor. (Built in seat reclining frame.)

## PASSENGER SIDE : Component Inspection

**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.

### **SE-74**

INFOID:000000001826370

INFOID:000000001826369

INFOID:000000001826367

INFOID:000000001826368

## **RECLINING MOTOR**

< COMPONENT DIAGNOSIS >								
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 c	onnector.							
3. Supply reclining motor termin	hais with battery voltage and chec	ck operation.						
Tern	ninal							
(+)	()	Operation						
71	15	Forward						
15	71	Backward						
Is the inspection result normal?								
YES >> Reclining motor is O	K.							
NO >> Replace reclining mo	otor. (Built in seatback frame.)							
		-						

Ρ

< COMPONENT DIAGNOSIS >

## LIFTING MOTOR FRONT

## FRONT : Description

With the power supplied to power seat switch, lifting motor operates the up and down movement of seat cushion.

**FRONT : Component Function Check** 

**1.**CHECK LIFTING MOTOR FUNCTION

Check lifting operation with power seat switch.

Is the inspection results normal?

YES >> Lifting motor is OK.

NO >> Refer to <u>SE-76, "FRONT : Diagnosis Procedure"</u>.

## **FRONT** : Diagnosis Procedure

INFOID:000000001694122

Existed

INFOID-000000001694120

INFOID:000000001694121

## **1.**CHECK LIFTING MOTOR CIRCUIT

### 1. Turn ignition switch OFF.

B569

2. Disconnect lifting motor connector and power seat switch connector.

3. Check continuity between lifting motor harness connector and power seat switch harness connector.

Driver	side

Driver side							
Lifting motor connector	Terminal	Power seat switch con- nector	Terminal	Continuity			
B528	13	R511	13	Evisted			
D320	28	BSTI	28	Existed			
Passenger side							
Lifting motor connector	Terminal	Power seat switch con- nector	Terminal	Continuity			
	13		13				

4. Check continuity between lifting motor harness connector and ground.

Driver side

Lifting motor connector	Terminal	Ground	Continuity				
B528	13	Ground	Not existed				
D320	28	Crodina					

B554

28

Passenger side							
Lifting motor connector	Terminal	Ground	Continuity				
P560	13	Ground	Not ovistod				
D309	28	Ground	NOT EXISTED				

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace circuit.

2. CHECK LIFTING MOTOR

Check lifting motor.

Refer to <u>SE-77, "FRONT : Component Inspection"</u>.

Is the inspection result normal?

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

NO >> Replace lifting motor. (Built in seat cushion frame.)

## LIFTING MOTOR

< COMPONENT DIAGNOSIS >	>		
-RONT : Component Insp	pection		INFOID:000000001694123
1.CHECK LIFTING MOTOR-1			
Check visually the lifting motor to	see if any foreign o	object is not disturb	ing the functioning or if the lifting motor
s the inspection result normal?			
YES >> GO TO 2.			
NO >> Repair or replace se	at cushion frame (li	fting motor).	
CHECK LIFTING MOTOR-2			
<ol> <li>Turn ignition switch OFF.</li> <li>Disconnect lifting motor control</li> </ol>	pector		
B. Supply lifting motor terminal	s with battery voltag	e and check opera	tion.
	Term	ninal	
Item	(+)	()	Operation
Lifting motor	28	13	Up
Lining motor	13	28	Down
REAR : Description			INF0ID:000000001826422
With the power supplied to powe on.	r seat switch, lifting	motor operates the	e up and down movement of seat cush-
REAR : Component Func	tion Check		INFOID:000000001826423
1. CHECK LIFTING MOTOR FL	INCTION		
Check lifting operation with powe	er seat switch.		
s the inspection results normal?			
YES >> Lifting motor is OK.		coduro"	
PEAP : Diagnosis Proces		<u>cedure</u> .	
CEAR . Diagnosis Proced	luie		INFOID:00000001826424
<b>1</b> .CHECK LIFTING MOTOR CI	RCUIT		
<ol> <li>Turn ignition switch OFF.</li> <li>Disconnect lifting motor coni</li> <li>Check continuity between lifting between liftin</li></ol>	nector and power set ting motor harness	eat switch connecto connector and pow	or. er seat switch harness connector.
Driver side			
	– Powe	er seat switch con-	

Briver side					
Lifting motor connector	Terminal	Power seat switch con- nector	Terminal	Continuity	
<b>B530</b>	14	R511	14	Existed	-
B330	29		29		
Passenger side					
Lifting motor connector	Terminal	Power seat switch con- nector	Terminal	Continuity	
B570	14	B554	14	Existed	=
6570	29	D004	29	LXISIEU	

4. Check continuity between lifting motor harness connector and ground.

## LIFTING MOTOR

### < COMPONENT DIAGNOSIS >

Driver side				
Lifting motor connector	Terminal	Ground	Continuity	
B520	14	Ground	Not evicted	
5550	29	Ground	NOT EXISTED	
Passenger side				
Lifting motor connector	Terminal	Ground	Continuity	
<b>B</b> 570	14	Ground	Not existed	
570	29	Ground		

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace circuit.

2. CHECK LIFTING MOTOR

### Check lifting motor.

Refer to SE-78, "REAR : Component Inspection".

Is the inspection result normal?

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

NO >> Replace lifting motor. (Built in seat cushion frame.)

## **REAR** : Component Inspection

INFOID:000000001826425

## **1.**CHECK LIFTING MOTOR-1

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

ltom	Terr	ninal	Operation	
item	(+)	(-)	Operation	
Lifting motor	29	14	Up	
	14	29	Down	

Is the inspection result normal?

YES >> Lifting motor is OK.

NO >> Replace lifting motor. (Built in seat cushion frame.)

## 

< COMPONENT DIAGNO	SIS >	I ELESCOPIC MO	IOR	
TILT&TELESCOPI	C MOTOR			
Description				INFOID:000000001694124
Tilt and telescopic motor op	erates with the p	ower received from auto	omatic drive posi	tioner control unit.
<b>Component Function</b>	Check			INFOID:000000001694125
<b>1.</b> CHECK TILT AND TELE		R FUNCTION		
Check tilt and telescopic op	eration with tilt a	nd telescopic switch.		
Is the inspection results nor	mal?			
YES >> Tilt and telesco NO >> Refer to <u>SE-79</u>	pic motor are OK , "Diagnosis Proc	C. <u>cedure"</u> .		
Diagnosis Procedure				INFOID:000000001694126
1.CHECK MALFUNCTION	IING PART			
Check malfunctioning part.				
Is it tilt operation or telesco	pic operation?			
Tilt $>>$ GO TO 2.				
2  current that motor of				
<ol> <li>I urn ignition switch OF</li> <li>Disconnect tilt and television</li> </ol>	F. scopic motor con	nector and automatic dr	rive positioner co	ntrol unit connector
<ol> <li>Disconnect fill and tele</li> <li>Check continuity between</li> </ol>	en tilt motor harn	less connector and auto	matic drive positioner co	ioner control unit harness
connector.				
Tilt and tologoopic motor		Power cost switch con		
connector	Terminal	nector	Terminal	Continuity
N/40	3	MED	42	Eviated
W49	4	- 10152 -	35	Existed
Is the inspection result norr	nal?			
YES >> GO TO 4.				
NO >> Repair or repla	ce circuit.			
<b>3.</b> CHECK TELESCOPIC	<b>JOTOR CIRCUIT</b>	T		
1. Turn ignition switch OF	F.			
2. Disconnect tilt and tele	scopic motor con	nector and automatic dr	ive positioner co	ntrol unit connector.
3. Check continuity betwe	en telescopic mo	otor narness connector a	and automatic dr	ive positioner control unit
namess connector.				
Tilt and telescopic motor connector	Terminal	Power seat switch con- nector	Terminal	Continuity
	1		44	
M49	2	M52	36	Existed
			00	
Is the inspection result norr	<u>nal?</u>			
$1 = 3 >> G \cup 1 \cup 4$ . NO >> Repair or repla	ce circuit			

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

## **TILT&TELESCOPIC MOTOR**

### < COMPONENT DIAGNOSIS >

Automatic drive po	Automatic drive positioner control unit		Tilt and telescopic switch	Voltage (V)
Connector	Terminal		condition	(Approx.)
	25		Upward	Battery voltage
			Other than above	0
	26	Ground	Forward	Battery voltage
MEQ	30		Other than above	0
IVIJZ	40		Downward	Battery voltage
	42		Other than above	0
	44		Backward	Battery voltage
	44		Other than above	0

Is the inspection result normal?

YES

>> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u>.
>> Replace automatic drive positioner control unit. Refer to <u>SE-166, "Removal and Installation"</u>. NO

< COMPONENT DIAGNOSIS >

## SLIDING RELAY FORWARD

## FORWARD : Diagnosis Procedure

INFOID:000000001827806

## 1. CHECK DRIVER SEAT CONTROL UNIT/PASSENGER SEAT CONTROL UNIT INPUT SIGNAL

#### 1. Turn ignition switch ON.

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

Driver seat control unit/ Passenger seat control unit		Ground	Condition		Voltage (V)		
Connector	Terminal				(Approx.)		
Driver seat control		Slidina switc		Operate (forward)	Battery voltage		
unit: B503 (driver side)	26 Ground	Ground	Cround	Cround	(driver side)	Release	0
Passenger seat			Sliding switch	Operate (forward)	Battery voltage		
control unit: B553 (passenger side)			(passenger side)	Release	0		

#### Is the inspection result normal?

YES >> Sliding relay (forward) is OK.

NO >> GO TO 2.

## **2.**CHECK SLIDING RELAY (FORWARD) POWER SUPPLY

#### Turn ignition switch OFF. 1.

2. Disconnect sliding relay (forward).

Check voltage between sliding relay (forward) harness connector and ground. 3.

Sliding rela	Sliding relay (forward)		Ground		Voltage (V)										
Connector	Terminal	Ground	Condition		(Approx.)	S									
B515			Sliding switch	Operate (forward)	Battery	-									
(driver side)	(driver side)		Crowned	Cround	Cround	Ground	Crowned	Crowned	Crownd	Crownd	Oreverd	(driver side)	Release	0	-
B559	B559		Sliding switch	Operate (forward)	Battery	-									
(passenger side)		(passenger side)		0	-										

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

## $\mathbf{3.}$ CHECK SLIDING RELAY (FORWARD) POWER SUPPLY CIRCUIT

1. Disconnect power seat switch connector.

2. Check continuity between power seat switch harness connector and sliding relay (forward) harness connector.

Power se	Power seat switch		Sliding relay (forward)		
Connector	Terminal	Connector	Terminal	Continuity	С
B511 (driver side)	22	B515 (driver side)	22	Existed	
B554 (passenger side)	22	B559 (passenger side)	. 22	Existed	P

Check continuity between power seat switch harness connector and ground.

Revision: 2007 June

G37 Coupe

А

В

С

Н

L

Μ

Ν

### < COMPONENT DIAGNOSIS >

Power seat switch		Ground	Continuity	
Connector	Terminal	Giouna	Continuity	
B511 (driver side)	- 22	Ground	Not existed	
B554 (passenger side)		Gibunu	Not existed	

Is the inspection result normal?

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

NO >> Repair or replace harness.

**4.**CHECK SLIDING RELAY (FORWARD)

Refer to SE-83, "FORWARD : Component Inspection (Sliding Relay)".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace sliding relay.

**5.**CHECK SLIDING RELAY (FORWARD) CIRCUIT 1

1. Disconnect driver seat control unit/passenger seat control unit connector.

2. Check continuity between sliding relay (forward) harness connector and driver seat control unit/passenger seat control unit harness connector.

Sliding relay (forward)		Driver seat control unit/ Passenger seat control unit		Continuity	
Connector	Terminal	Connector	Terminal		
B515 (driver side)	48	Driver seat control unit: B504 (driver side)	48	Existed	
B559 (passenger side)	70	Passenger seat control unit: B553 (passenger side)	τu	Existed	

3. Check continuity between sliding relay (forward) harness connector and ground.

Sliding relay (forward)		Ground	Continuity	
Connector	Terminal	Giouna	Continuity	
B515 (driver side)	- 48	Ground	Not existed	
B559 (passenger side)		Cibulia	Not existed	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness or connector.

**6.**CHECK SLIDING RELAY (FORWARD) CIRCUIT 2

1. Check continuity between sliding relay (forward) harness connector and driver seat control unit/passenger seat control unit harness connector.

## < COMPONENT DIAGNOSIS >

5	ay (forward)		Driver seat Passenger se	eat control unit/	Continuity		
Connector	Terminal	Conr	nector	Terminal			
B515 (driver side)	26	Driver seat Bt (drive	control unit: 504 er side) 26		Existed		
B559 (passenger side)	20	Passenger unit: (passen	seat control B553 ger side)	20	Existed		
Check continuity be	etween sliding relay (	(forward) ha	arness con	nector and grou	nd.		
Slidi	ing relay (forward)						
Connector	Termir	nal		Ground	Continuity		
B515 (driver side)	26			Ground	Not existed		
B559 (passenger side)					Not existed		
the inspection result YES >> GO TO 7. NO >> Repair or re .CHECK SLIDING RI	<u>normal?</u> eplace harness. ELAY (FORWARD) (	GROUND C	IRCUIT				
heck continuity betwe	en sliding relay (forw	vard) harne	ss connect	tor and ground.			
Slidi	liding relay (forward)			Ground	Continuity		
Connector	Termir	Terminal		Ground	Continuity		
B515 (driver side)		32 Ground		32 Ground		Ground	Existed
B559 (passenger side)					Existed		
the inspection result of YES >> GO TO 8. NO >> Repair or re- CHECK DRIVER SE Connect driver sea Check voltage beinground.	normal? eplace harness or co AT CONTROL UNIT t control unit/passen tween driver seat c	onnector. /PASSENC ger seat co control unit/	GER SEAT	CONTROL UNI connector. r seat control u	T OUTPUT		
Drive Passer	er seat control unit/ nger seat control unit			Ground	Voltage (V)		
Connector	Termir	nal			(Approx.)		
	B503				Battery voltage		
Driver seat control unit: (driver side)							
Driver seat control unit: (driver side) Passenger seat control B552 (passenger side)	unit: 26			Ground	Battery voltage		

FORWARD : Component Inspection (Sliding Relay)

1. CHECK SLIDING RELAY

### < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Remove sliding relay (forward).
- 3. Check the continuity between sliding relay (forward) terminals under the following conditions.

Terminals	Condition	Continuity	
26 and 32	12V direct current supply between termi- nals 22 and 48	Existed	
	No current supply	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

### NO >> Replace sliding relay (forward)

```
BACKWARD
```

## **BACKWARD** : Diagnosis Procedure

INFOID:000000001827810

## 1. CHECK DRIVER SEAT CONTROL UNIT/PASSENGER SEAT CONTROL UNIT INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check continuity between driver seat control unit/passenger seat control unit harness connector and ground.

Driver seat control unit/ Passenger seat control unit		Ground Cor		dition	Voltage (V)
Connector	Terminal				(Approx.)
Driver seat control unit: B503	Driver seat control unit: B503 (driver side)		Sliding switch	Operate (back- ward)	Battery voltage
(driver side)		Cround	(driver side)	Release	0
Passenger seat control unit: B553 (passenger side)	Ground	Sliding switch	Operate (back- ward)	Battery voltage	
			(passenger side)	Release	0

Is the inspection result normal?

YES >> Sliding relay (backward) is OK.

NO >> GO TO 2.

2. CHECK SLIDING RELAY (BACKWARD) POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding relay (backward).

3. Check voltage between sliding relay (backward) harness connector and ground.

Sliding relay	Sliding relay (backward)		Con	Condition		
Connector	Terminal	Croana	Cond		(Approx.)	
B516 (driver side)			Sliding switch	Operate (back- ward)	Battery	
(unverside)	22	Ground	(unverside)	Release	0	
B560	B560 (passenger side) 23 Ground Sliding (passen		Sliding switch	Operate (back- ward)	Battery	
(passeriger side)			(passenger side)	Release	0	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

## **3.**CHECK SLIDING RELAY (BACKWARD) POWER SUPPLY CIRCUIT

1. Disconnect power seat switch connector.

 Check continuity between power seat switch harness connector and sliding relay (backward) harness connector.

### **SE-84**

### < COMPONENT DIAGNOSIS >

Connector         Terminal         Connector         Terminal         Continuity           B511 (driver side)         23         B560 (passenger side)         23         Existed           B554 (passenger side)         23         B560 (passenger side)         23         Existed           Connector         Terminal         Ground         Continuity           Connector         Terminal         Ground         Continuity           B511 (driver side)         23         Ground         Not existed           B54 (passenger side)         23         Ground         Not existed           Sthe inspection result normal?         YES         > Check intermittent incident. Refer to G1-38. "Intermittent Incident". NO >> Repair or replace harness.         A.           4. CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1         1         Disconnector result normal?         YES           YES         S 60 TO 5.         NO         >> Replace silding relay (backward)         Driver seat contro	Power se	eat switch	Sliding rel	ay (backward)	
B511 (driver side)         23         B566 (assenger side)         Existed           3.         Check continuity between power seat switch harness connector and ground.         Existed           3.         Check continuity between power seat switch harness connector and ground.         Continuity           90wer seat switch         Ground         Continuity           B511 (driver side)         23         Ground         Continuity           B554 (passenger side)         23         Ground         Not existed           B554 (passenger side)         23         Ground         Not existed           B554 (passenger side)         23         Ground         Not existed           Is the inspection result normal?         YES         > Check intermittent incident. Refer to GI-38. "Intermittent Incident". NO         >> Repair or replace harness.         4. CHECK SLIDING RELAY (BACKWARD)           Refer to SE-36. "BACKWARD : Component Inspection (Sliding Relay)". Is the inspection result normal?         YES         >> GO TO 5.           NO         >> Replace sliding relay.         5. CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1         1.           1.         Disconnect driver seat control unit/passenger seat control unit         Continuity           Sounect driver seat control unit is 553 (passenger side)         48         Existed           Sliding relay (backward)	Connector	Terminal	Connector	Terminal	Continuity
B554       Check continuity between power seat switch harness connector and ground.         Check continuity between power seat switch harness connector and ground.         Connector       Terminal         B511       Ground       Continuity         B511       Ground       Continuity         B511       Ground       Continuity         B554       23       Ground       Not existed         B554       B564       23       Ground       Not existed         B555       Scote intermittent incident. Refer to GI-38. "Intermittent Incident".       Not existed       Not existed         State inspection result normal?       YES       >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".       Not existed         YES       >> Check sLiDING RELAY (BACKWARD)       Component Inspection (Sliding Relay)".       Is the inspection result normal?         YES       >> GO TO 5.       NO       > Replace siding relay.       Scheck Continuity between sliding relay (backward) harness connector.         5.CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1       1       Disconnect driver seat control unit/passenger seat control unit/ ger seat control unit harness connector.       Continuity         Sliding relay (backward)       Driver seat control unit/ (driver side)       48       Existed         B516       48       Driver seat	B511 (driver side)	23	B516 (driver side)	23	Existed
3. Check continuity between power seat switch harness connector and ground.         Power seat switch       Ground       Continuity         B511 (driver side)       23       Ground       Not existed         B554 (passenger side)       23       Ground       Not existed         Sthe inspection result normal?       YES       >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".       Not existed         NO       >> Repair or replace harness.       4.       CHECK SLIDING RELAY (BACKWARD)       Refer to SE-86. "BACKWARD : Component Inspection (Sliding Relay)".       5.         4. CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1       1.       Disconnect driver seat control unit/passenger seat control unit connector.       5.         5. CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1       1.       Disconnect driver seat control unit/passenger seat control unit connector.       Continuity         6. Check continuity between sliding relay (backward)       Driver seat control unit       Continuity         6. Check continuity between sliding relay (backward)       Passenger seat control unit/ Passenger seat control unit       Continuity         6. Sho (passenger side)       48       Passenger seat control unit       Existed         8. Check continuity between sliding relay (backward)       Passenger seat control unit       Existed         8. Check continuity	B554 (passenger side)	20	B560 (passenger side)	20	Existed
Power seat switch         Ground         Continuity           B511 (driver side)         23         Ground         Not existed           B554 (passenger side)         23         Ground         Not existed           TYPES         >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". Not existed         Not existed           VPS         >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". Not existed         Not existed           VES         >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". Not existed         Not existed           VPS         >> Repair or replace harness.         .           -CHECK SLIDING RELAY (BACKWARD)         Component Inspection (Sliding Relay)". a the inspection result normal? YES         >> GO TO 5. NO           NO         >> Replace sliding relay.         .           O-CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1         .           Disconnect driver seat control unit/passenger seat control unit         Continuity           ger seat control unit harness connector.         .         .           Sliding relay (backward)         Passenger seat control unit         Continuity           B516 (driver side)         48         Existed         .           Massenger side)         48         Existed         .           Check continuity between sliding r	. Check continuity be	etween power seat sv	witch harness conne	ctor and ground.	
Connector         Terminal         Stound         Continuity           B511 (driver side)         23         Ground         Not existed           B554 (passenger side)         23         Ground         Not existed           The inspection result normal?         YES         >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".         Not existed           VPS         >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".         Not existed           VPS         >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".         Not existed           VPS         >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".         Not existed           VPS         >> Check intermittent incident Refer to GI-38. "Intermittent Incident".         No           VPS         >> Repair or replace harness.         .           -CHECK SLIDING RELAY (BACKWARD)         CIRCUIT 1         .           Disconnect driver seat control unit/passenger seat control unit         Continuity           Oriver seat control unit harness connector.         .         Continuity           Sliding relay (backward)         Passenger seat control unit         Existed           B516         B500         48         Existed           (driver side)         48         Existed         Existed     <	Pc	ower seat switch		Ground	Continuity
B511 (driver side)         23         Ground         Not existed           B554 (passenger side)         23         Ground         Not existed           a the inspection result normal? YES         >> Check intermittent incident. Refer to GI-38. "Intermittent Incident". NO         >> Repair or replace harness.          CHECK SLIDING RELAY (BACKWARD)         Ether inspection result normal? YES         >> GO TO 5.           NO         >> Replace sliding relay.           CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1             Disconnect driver seat control unit/passenger seat control unit connector.            Check continuity between sliding relay.            Driver seat control unit         Continuity           gerseat control unit harness connector.         Continuity           Sliding relay (backward)         Driver seat control unit/ Passenger seat control unit. B516 (driver side)         48           B560 (passenger side)         48         Existed            Connector         Terminal           Connector         Terminal         Connector and ground.            B560 (passenger side)         48         Existed            B516 (driver side)         48         Existed            Sliding re	Connector	Termin	al	Ground	Continuity
B554 (passenger side)       Not existed         a the inspection result normal?       YES       > Check intermittent incident. Refer to GI-38. "Intermittent Incident".         NO       >> Repair or replace harness.         CHECK SLIDING RELAY (BACKWARD)       Edition result normal?         YES       >> GO TO 5.         NO       >> Replace sliding relay.        CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1        Disconnect driver seat control unit/passenger seat control unit connector.        Check continuity between sliding relay (backward) harness connector and driver seat control unit/passenger seat control unit         Connector       Terminal         Driver seat control unit       Continuity         Connector       Terminal         B516 (driver side)       48         B560 (passenger side)       48         Sliding relay (backward)       Ground         Connector       Terminal         Driver seat control unit:       Existed         B560 (passenger side)       48         B560 (driver side)       48         B560 (driver side)       48         B560 (driver side)       48         B560 (passenger side)       48         B560 (driver side)       48         B560 (driver side)	B511 (driver side)	23		Ground	Not existed
sthe inspection result normal?         YES       >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".         NO       >> Repair or replace harness.	B554 (passenger side)				Not existed
YES       >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".         NO       >> Repair or replace harness.        CHECK SLIDING RELAY (BACKWARD)         tefer to SE-86. "BACKWARD : Component Inspection (Sliding Relay)".         a the inspection result normal?         YES       >> GO TO 5.         NO       >> Replace sliding relay.        CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1         Disconnect driver seat control unit/passenger seat control unit connector.         Check continuity between sliding relay (backward) harness connector and driver seat control unit/passenger seat control unit         Sliding relay (backward)       Driver seat control unit/passenger seat control unit         Connector       Terminal         B516       Driver seat control unit         (driver side)       48         B560       Passenger seat control unit: B563         (passenger side)       48         Existed       Existed         Sliding relay (backward)       Ground         Connector       Terminal         Passenger seat control unit: B560       48         B560       48         B560       Kate and the passenger seat control and ground.         Sliding relay (backward)       Ground       Continuity         Connector	the inspection result	normal?			
Intervention of replace indifference         Intervention         Interventin         Intervention	YES >> Check inter	rmittent incident. Refe	er to <u>GI-38, "Intermit</u>	tent Incident".	
Refer to SE-86. "BACKWARD : Component Inspection (Sliding Relay)".         s the inspection result normal?         YES       >> GO TO 5.         NO       >> Replace sliding relay.         Disconnect driver seat control unit/passenger seat control unit connector.         Check continuity between sliding relay (backward) harness connector and driver seat control unit/p ger seat control unit harness connector.         Sliding relay (backward)       Driver seat control unit/ Passenger seat control unit         Sliding relay (backward)       Driver seat control unit/ Passenger seat control unit         Sliding relay (backward)       Driver seat control unit/ Passenger seat control unit         B516 (driver side)       48         B560 (passenger side)       48         Sliding relay (backward)       Passenger seat control unit: B553 (passenger side)         Check continuity between sliding relay (backward) harness connector and ground.         Sliding relay (backward)       Ground         Connector       Terminal         Sliding relay (backward)       Ground         Sliding relay (backward)       Ground         Sliding relay (backward)       Ground         Karter       Not existed         Stiding relay (backward)       A8         Stiding relay (backward)       Ground         Karter       Not existed <td></td> <td>ELAV (BACKWARD)</td> <td></td> <td></td> <td></td>		ELAV (BACKWARD)			
Site inspection result normal?         YES       >> GO TO 5.         NO       >> Replace sliding relay.         D.CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1         .       Disconnect driver seat control unit/passenger seat control unit connector.         .       Check continuity between sliding relay (backward) harness connector and driver seat control unit/p ger seat control unit harness connector.         Sliding relay (backward)       Driver seat control unit/ Passenger seat control unit         Connector       Terminal         B516 (driver side)       48         B560 (passenger side)       48         Sliding relay (backward)       Passenger seat control unit: B553 (passenger side)         .       Check continuity between sliding relay (backward) harness connector and ground.         Sliding relay (backward)       Ground         Connector       Terminal         B560 (passenger side)       48         Sliding relay (backward)       Ground         Connector       Terminal         Sliding relay (backward)       Ground         Connector       Terminal         Sliding relay (backward)       Ground         Connector       Terminal         Sliding relay (backward)       Ground         Kortexisted       Not existed			Inspection (Sliding I	2012/1/1	
YES       >> GO TO 5. NO       >> Replace sliding relay.         D.CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1       .         Disconnect driver seat control unit/passenger seat control unit connector.       .         Check continuity between sliding relay (backward) harness connector and driver seat control unit/passenger seat control unit/ ger seat control unit harness connector.       .         Sliding relay (backward)       Driver seat control unit/ Passenger seat control unit (driver side)       Continuity         Connector       Terminal       Connector       Continuity         B516 (driver side)       48       Existed       Existed         B560 (passenger side)       48       Passenger seat control unit: B553 (passenger side)       Existed         Sliding relay (backward)       Ground       Continuity         Connector       Terminal       Mot existed         Sliding relay (backward)       48       Existed	s the inspection result	normal?		<u>veiay)</u> .	
NO       >> Replace sliding relay.         D.CHECK SLIDING RELAY (BACKWARD) CIRCUIT 1         .       Disconnect driver seat control unit/passenger seat control unit connector.         Check continuity between sliding relay (backward) harness connector and driver seat control unit/passenger seat control unit       Continuity         Sliding relay (backward)       Driver seat control unit/Passenger seat control unit/Passenger seat control unit       Continuity         Connector       Terminal       Connector       Terminal         B516 (driver side)       48       Existed         B560 (passenger side)       48       Existed         Sliding relay (backward)       Passenger seat control unit: B553 (passenger side)       48       Existed         Sliding relay (backward)       Passenger seat control unit: B553 (passenger side)       48       Existed         Sliding relay (backward)       Ground       Continuity       Continuity         Sliding relay (backward)       Ground       Continuity         B516 (driver side)       48       Ground       Not existed         B516 (driver side)       48       Ground       Not existed	YES >> GO TO 5.				
Disconnect driver seat control unit/passenger seat control unit connector.         Check continuity between sliding relay (backward) harness connector and driver seat control unit/p ger seat control unit harness connector.         Sliding relay (backward)       Driver seat control unit/Passenger seat control unit/Passenger seat control unit         Sliding relay (backward)       Driver seat control unit/Passenger seat control unit/Passenger seat control unit         Connector       Terminal         Driver seat control unit       Continuity         Connector       Terminal         B516 (driver side)       48         B560 (passenger side)       48         Connector       Terminal         Check continuity between sliding relay (backward) harness connector and ground.         Sliding relay (backward)       Passenger seat control unit: B553 (passenger side)       48         Sliding relay (backward)       Ground       Continuity         Sliding relay (backward)       Ground       Continuity         Sliding relay (backward)       48       Mot existed         B516 (driver side)       48       Not existed         B516 (driver side)       48       Not existed	NO >> Replace sli	ding relay.			
Disconnect driver seat control unit/passenger seat control unit connector.         Check continuity between sliding relay (backward) harness connector and driver seat control unit/p ger seat control unit harness connector.         Sliding relay (backward)       Driver seat control unit/Passenger seat control unit/Passenger seat control unit       Continuity         Connector       Terminal       Connector       Terminal         B516 (driver side)       48       Driver seat control unit: B504 (driver side)       Existed         B560 (passenger side)       48       Existed       Existed         Connector       Terminal       Control unit: B504 (driver side)       48       Existed         Sliding relay (backward)       Passenger seat control unit: B553 (passenger side)       Existed       Existed         Sliding relay (backward)       Ground       Continuity       Continuity         Sliding relay (backward)       Ground       Continuity         B516 (driver side)       48       Mot existed         B516 (driver side)       48       Not existed	CHECK SLIDING R	ELAY (BACKWARD)	CIRCUIT 1		
Sliding relay (backward)Driver seat control unit/ Passenger seat control unitContinuityConnectorTerminalConnectorTerminalB516 (driver side)A8Driver seat control unit: B504 (driver side)A8ExistedB560 (passenger side)A8Passenger seat control unit: B553 (passenger side)ExistedCheck continuity between sliding relay (backward) ConnectorGroundContinuitySliding relay (backward) (driver side)GroundContinuitySliding relay (backward) (driver side)GroundNot existedB516 (driver side)48GroundNot existed	<ul> <li>Disconnect driver s</li> <li>Check continuity be ger seat control uni</li> </ul>	eat control unit/pass etween sliding relay ( it harness connector.	enger seat control u backward) harness	nit connector. connector and drive	er seat control unit/pass
ConnectorTerminalConnectorTerminalB516 (driver side)48Driver seat control unit: B504 (driver side)48ExistedB560 (passenger side)48Passenger seat control unit: B553 (passenger side)48ExistedCheck continuity between sliding relay (backward) harness connector and ground.ExistedExistedSliding relay (backward) (driver side)GroundContinuityB516 (driver side)48GroundNot existedB516 (driver side)48GroundNot existed	Sliding relay	y (backward)	Driver sea Passenger	at control unit/ seat control unit	Continuity
B516 (driver side)       Driver seat control unit: B504 (driver side)       Driver seat control unit: B504 (driver side)       Existed         B560 (passenger side)       48       Passenger seat control unit: B553 (passenger side)       48       Existed         Check continuity between sliding relay (backward) harness connector and ground.       Existed       Existed         Sliding relay (backward)       Ground       Continuity         B516 (driver side)       48       Ground       Not existed         B516 (driver side)       48       Ground       Not existed	Connector	Terminal	Connector	Terminal	
B560 (passenger side)     48     48       B560 (passenger side)     Passenger seat control unit: B553 (passenger side)     48       3. Check continuity between sliding relay (backward) harness connector and ground.     Existed       Sliding relay (backward)     Ground     Continuity       Sliding relay (backward)     Ground     Continuity       B516 (driver side)     48     Ground     Not existed       B560 (passenger side)     48     Oround     Not existed	B516 (driver side)		Driver seat control unit B504 (driver side)		Existed
3. Check continuity between sliding relay (backward) harness connector and ground.           Sliding relay (backward)         Ground         Continuity           Connector         Terminal         Ground         Continuity           B516 (driver side)         48         Ground         Not existed           B560 (passenger side)         48         Mot existed         Not existed	B560 (passenger side)	48	Passenger seat contro unit: B553 (passenger side)	48 I	Existed
Sliding relay (backward)GroundContinuityConnectorTerminalGroundContinuityB516 (driver side)48GroundNot existedB560 (passenger side)48Mot existed	3. Check continuity be	etween sliding relay (	backward) harness	connector and grou	und.
ConnectorTerminalControlControlB516 (driver side)48GroundNot existedB560 (passonger side)48Or existedNot existed	Slidin	ng relay (backward)		Ground	Continuity
B516 (driver side)     Not existed       B560 (passonger side)     48     Ground	Connector	Termin	al	Ground	Continuity
B560 Not existed	B516 (driver side)	48		Ground	Not existed
(hasseniger side)	B560 (passenger side)				Not existed
s the inspection result normal?	s the inspection result	normal?			

1. Check continuity between sliding relay (backward) harness connector and driver seat control unit/passenger seat control unit harness connector.

### < COMPONENT DIAGNOSIS >

Sliding rela	y (backward)	Driver seat control unit/ Passenger seat control unit		Continuity	
Connector	Terminal	Connector	Terminal		
B516 (driver side)	11	Driver seat control unit: B504 (driver side)	11	Existed	
B560 (passenger side)		Passenger seat control unit: B553 (passenger side)		Existed	

2. Check continuity between sliding relay (backward) harness connector and ground.

Sliding relay	Sliding relay (backward)		Continuity	
Connector	Terminal	Giouna	Communy	
B516 (driver side)	11	Ground	Not existed	
B560 (passenger side)		Giouna	Not existed	

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

**I.**CHECK SLIDING RELAY (BACKWARD) GROUND CIRCUIT

Check continuity between sliding relay (backward) harness connector and ground.

Sliding relay	Sliding relay (backward)		Continuity	
Connector	Terminal	Giouna	Continuity	
B516 (driver side)	32	Ground	Existed	
B560 (passenger side)	B560 (passenger side)		Existed	

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness or connector.

8.CHECK DRIVER SEAT CONTROL UNIT/PASSENGER SEAT CONTROL UNIT OUTPUT

1. Connect driver seat control unit/passenger seat control unit connector.

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

Driver seat control unit/ Passenger seat control unit		Ground	Voltage (V)	
Connector	Terminal		(Approx.)	
Driver seat control unit: B503 (driver side)			Battery voltage	
Passenger seat control unit: B553 (passenger side)	11	Ground	Battery voltage	

### Is the inspection result normal?

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

NO >> Replace driver seat control unit/passenger seat control unit.

## BACKWARD : Component Inspection (Sliding Relay)

**1.**CHECK SLIDING RELAY

INFOID:000000001827811

## < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Remove sliding relay (backward).

3. Check the continuity between sliding relay (backward) terminals under the following conditions.

Terminals	Condition	Continuity	Е
11 and 32	12 V direct current supply between termi- nals 23 and 48	Existed	
	No current supply	Not existed	С

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace sliding relay (backward)

|

SE

Κ

L

Μ

Ν

Ο

Ρ

А

D

Е

F

G

Н

## RECLINING RELAY FORWARD

## FORWARD : Diagnosis Procedure

INFOID:000000001827822

## **1.**CHECK RECLINING RELAY (FORWARD) POWER SUPPLY

Check voltage between reclining relay (forward) harness connector and ground.

Reclining re	Reclining relay (forward)		Con	Condition		
Connector	Terminal	Croana	0011		(Approx.)	
B517	27		Reclining switch	Operate (forward)	Battery	
(driver side)	96	Ground	(driver side)	Release	0	
B562	27	Ground	Reclining switch	Operate (forward)	Battery	
(passenger side)	assenger side) 96 (passenger side)	Release	0			

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK RECLINING RELAY (FORWARD) POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector and reclining relay.
- 3. Check continuity between power seat switch harness connector and reclining relay (forward) harness connector.

Power se	eat switch	Reclining re	elay (forward)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B511		B517	27	Evisted
(driver side)	27	(driver side)	96	Existed
B554	21	B562	27	Existed
(passenger side)		(passenger side)	96	

4. Check continuity between power seat switch harness connector and ground.

Power s	Power seat switch		Continuity	
Connector	Terminal	Giouna	Continuity	
B511 (driver side)	27	Ground	Not existed	
B554 (passenger side)	21	Ground	Not existed	

#### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness or connector.

## **3.**CHECK RECLINING RELAY (FORWARD) CIRCUIT 1

- 1. Turn ignition switch OFF.
- 2. Disconnect reclining relay and diode 1 connector.
- 3. Check continuity between reclining relay (forward) harness connector and diode 1 harness connector.

### < COMPONENT DIAGNOSIS >

	Reclining rel	ay (forward)	Diode 1			
	Connector	Terminal	Connector		Terminal	Continuity
_	B517 (driver side)	18	B521 (driver side)		18	Existed
	B562 (passenger side)	10	B564 (passenger sid	564 liger side)		Existed
. –	Check continuity re	clining relay (forward	) harness conn	ector an	d ground.	
_	Reclin	ing relay (forward)				
	Connector	Termina	al	Gro	ound	Continuity
_	B517 (driver side)	18		Gro	ound	Not existed
_	B562 (passenger side)					Not existed
	er to <u>SE-90, "FORW</u> <u>he inspection result r</u> ES >> GO TO 5. D >> Replace dic FORWARD SWITCH Turn ignition switch Disconnect forward Check continuity be	ARD : Component In normal? de 1. (Built in seat b I CIRCUIT OFF. switch. stween forward switch	ack frame.)	ector an	d diode 1 harnes	s connector.
-	Forward	d switch		Diode	1	
_	Connector	Terminal	Connector		Terminal	- Continuity
	B512 (driver side)	41	B521 (driver side)		41	Existed
_	B556 (passenger side)		B564 (passenger sid	de)		Existed
	Check continuity be	tween forward harne	ess connector a	nd grour	nd.	
_	F	orward switch		Gro	ound	Continuity
	B512 (driver side)	Termina				Not existed
_	B556	41		Gro	ound	Not existed
	B512 (driver side) B556	41		Gro	bund	Not existed
<u>s th</u> YE	ne inspection result r S >> GO TO 6.	normal?				
<u>s tł</u> YE NC	(passenger side)         ne inspection result r         ES       >> GO TO 6.         D       >> Repair or re         CHECK RECLINING	normal? eplace harness or co RELAY (FORWARD	nnector. ))			
<u>s tł</u> YE NC <b>3.</b> 0 ₹ef	the inspection result r ES >> GO TO 6. D >> Repair or re CHECK RECLINING er to <u>SE-90, "FORW</u>	normal? eplace harness or con RELAY (FORWARD ARD : Component In	nnector. )) Ispection (Recli	ning Rel	l <u>ay)"</u> .	
<u>s tł</u> YE NC <b>3.</b> 0 Ref	(passenger side) the inspection result r ES >> GO TO 6. D >> Repair or re CHECK RECLINING the r to <u>SE-90, "FORW</u> the inspection result r	pormal? eplace harness or con RELAY (FORWARD ARD : Component In pormal?	nnector. )) Ispection (Recli	ning Rel	l <u>ay)"</u> .	

### < COMPONENT DIAGNOSIS >

## 7. CHECK INTERMITTENTE INCIDENT

Refer to GI-38, "Intermittent Incident".

### >> INSPECTION END

## FORWARD : Component Inspection (Reclining Relay)

INFOID:000000001827823

## **1.**CHECK RECLINING RELAY

### 1. Turn ignition switch OFF.

- 2. Remove reclining relay (forward).
- 3. Check the continuity between reclining relay (forward) terminals under the following conditions.

Terminals	Condition	Continuity
27 and 71	12 V direct current supply between termi- nals 18 and 96	Not existed
	No current supply	Existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace reclining relay (forward)

## FORWARD : Component Inspection (Diode 1)

## 1.CHECK DIODE 1

- 1. Turn ignition switch OFF.
- 2. Remove diode 1.

3. Check the continuity between diode 1 terminals under the following conditions.

Tern	Terminals		
(+)	(-)	Continuity	
18	41	Existed	
41	18	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace diode 1.

## BACKWARD

## **BACKWARD** : Diagnosis Procedure

INFOID:000000001837186

## 1.CHECK RECLINING RELAY (BACKWARD) POWER SUPPLY

Check voltage between reclining relay (backward) harness connector and ground.

Reclining relay (backward) Connector Terminal		Reclining relay (backward)         Ground         Condit           Connector         Terminal         Ground         Condit		dition	Voltage (V) (Approx.)
B518	12		Reclining switch	Operate (back- ward)	Battery
(driver side)	94	Ground	(unverside)	Release	0
B563	12		Reclining switch	Operate (back- ward)	Battery
	94	•	(passenger side)	Release	0

Is the inspection result normal?

YES >> GO TO 3. NO >> GO TO 2. INFOID:000000001832347

### < COMPONENT DIAGNOSIS >

# $\overline{2}$ . CHECK RECLINING RELAY (BACKWARD) POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector and reclining relay.
- 3. Check continuity between power seat switch harness connector and reclining relay (backward) harness connector.

Power seat switch		Reclining relay (backward)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
B511		B518	12	Existed	-
(driver side)	10	(driver side)	94		
B554	12	B563	12	Evieted	_
(passenger side)		(passenger side)	94	EXISTED	

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

Power s	eat switch	Ground	Continuity	
Connector	Terminal	Ground	Continuity	F
B511 (driver side)	12	Oround	Not existed	
B554 (passenger side)	- 12	Ground	Not existed	G

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness or connector.

## **3.**CHECK RECLINING RELAY (BACKWARD) CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect reclining relay and diode 2 connector.

3. Check continuity between reclining relay (backward) harness connector and diode 2 harness connector.

Reclining rela	ay (backward)	Dio	Diode 2		_
Connector	Terminal	Connector	Terminal	Continuity	
B518 (driver side)	6	B522 (driver side)	6	Existed	_
B563 (passenger side)	0	B565 (passenger side)	0	Existed	-

#### 4. Check continuity between reclining relay (backward) harness connector and ground.

Reclining rela	ay (backward)	Cround	Continuity	
Connector	Terminal	Ground	Continuity	
B518 (driver side)	ĉ	Ground	Not existed	٢
B563 (passenger side)	0	Ground	Not existed	C

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

**4.**CHECK DIODE 2

Refer to SE-92, "BACKWARD : Component Inspection (Diode 2)".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace diode 2. (Built in seat back frame.)

А

Н

SE

NЛ

Ρ

### < COMPONENT DIAGNOSIS >

## 5.FORWARD SWITCH CIRCUIT

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

Forwar	d switch	Dio	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B512 (driver side)	44	B522 (driver side)	41	Existed
B556 (passenger side)	41	B565 (passenger side)	41	Existed

4. Check continuity between forward switch harness connector and ground.

Forwar	d switch	Ground	Continuity	
Connector	Terminal	Giouna		
B512 (driver side)	41	Ground	Not existed	
B556 (passenger side)		Ground	Not existed	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness or connector.

### **6.**CHECK RECLINING RELAY (BACKWARD)

Refer to <u>SE-92, "BACKWARD : Component Inspection (Reclining Relay)"</u>.

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace reclining relay.

7. CHECK INTERMITTENTE INCIDENT

Refer to GI-38. "Intermittent Incident".

### >> INSPECTION END

## BACKWARD : Component Inspection (Reclining Relay)

INFOID:000000001837187

**1.**CHECK RECLINING RELAY

1. Turn ignition switch OFF.

2. Remove reclining relay (backward).

3. Check the continuity between reclining relay (backward) terminals under the following conditions.

Terminals	Condition	Continuity
12 and 15	12 V direct current supply between terminals 6 and 94         Not existed	
	No current supply	Existed

#### Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace reclining relay (backward)

## BACKWARD : Component Inspection (Diode 2)

## **1.**CHECK DIODE 2

- 1. Turn ignition switch OFF.
- 2. Remove diode 2.

INFOID:000000001837190

### < COMPONENT DIAGNOSIS >

## 3. Check the continuity between diode 2 terminals under the following conditions.

A			
	Continuity	ninals	Tern
у	Continuity	()	(+)
E	Existed	41	6
ed	Not existed	6	41

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace diode 2.

SE

Κ

L

Μ

Ν

Ο

Ρ

Н

С

D

Е

F

G

## HEATED SEAT

Wiring Diagram - HEATED SEAT SYSTEM -





## **HEATED SEAT**

### < COMPONENT DIAGNOSIS >



## **HEATED SEAT**



JCJWA0143GB



JCJWA0144GB

Ρ

< COMPONENT DIAGNOSIS >

LUMBAR SUPPORT

Wiring Diagram - LUMBAR SUPPORT SYSTEM -

INFOID:000000001694146



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

LUMBAR SUPPORT

BATTERY

2007/05/18

JCJWA0138GB

## LUMBAR SUPPORT

### < COMPONENT DIAGNOSIS >



< COMPONENT DIAGNOSIS >



JCJWA0140GB

# SIDE SUPPORT

## Wiring Diagram - LUMBAR SUPPORT SYSTEM -



А

INFOID:000000001848725

## SIDE SUPPORT

### < COMPONENT DIAGNOSIS >



JCJWA0136GB

### SIDE SUPPORT



< ECU DIAGNOSIS >

# ECU DIAGNOSIS DRIVER SEAT CONTROL UNIT

### **Reference Value**

INFOID:000000001879561

## VALUES ON THE DIAGNOSIS TOOL

#### CONSULT-III MONITOR ITEM

Monitor Item	Con	dition	Value/Status
	Sliding switch (front)	Operate	ON
SLIDE SW-FR	Sharing Switch (nonit)	Release	OFF
	Sliding switch (rear)	Operate	ON
SLIDE SW-RR	Shulling Switch (real)	Release	OFF
	Soat back	Folded down	ON
TORWARD SW	Seat back	Other than above	OFF
	Dowor wolk in owitch	Pressed	ON
WALK-IN SW	Fower waik-in Switch	Other than above	OFF
FWD LIMIT SW	Seat sliding	Front edge	ON
		Other than above	OFF
		Front edge	ON
SEAT BELT SW	Seal ben	Other than above	OFF
	A/T coloctor lover	P position	OFF
DETENT SW	A/1 Selector level	Other than above	ON
	Darking broke	Applied	ON
PARK BRAKE SW -	Faiking blake	Release	OFF
		Forward	The numeral value decreases *3
SLIDE PULSE	Seat sliding	Backward	The numeral value increases *3
		Other than above	No change to numeral value <sup>*3</sup>

\*1: A/T model

\*2: M/T model

<sup>\*3</sup>: The value at the position attained when the battery is connected is regarded as 32768.

#### **TERMINAL LAYOUT**



PHYSICAL VALUES

## DRIVER SEAT CONTROL UNIT

### < ECU DIAGNOSIS >

Tern	ninal No.	Miro	Description				
+	-	color	Signal name	Input/ Output	Condition	n	(Approx)
3	—	R/Y	CAN-H	—	_		_
			Sliding limit switch sig-			Front edge	5
4	Ground	O/B	nal	Input	Seat sliding	Other than above	0
						Fastened	5
5	Ground	L	Seat belt buckle switch signal (driver side)	Input	Seat belt	Other than above	0
11	Ground	BR	Sliding switch back- ward signal	Input	Sliding switch	Operate (back- ward)	0
						Release	Battery voltage
16	Ground	0	Sensor power supply	Output			5
19		V	CAN-L			1	
24	Ground	R	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div
						Stop	0 or 5
26	Ground	Y	Sliding switch forward	Input	Sliding switch	Operate (forward)	0
			olghai			Release	Battery voltage
						Pressed	0
30	Ground	Ρ	Power walk-in switch signal	Input	Power walk-in switch	Other than above	12
31	Ground	GR	Sensor ground	—	—	1	0
32	Ground	B/W	Ground (signal)				0
33	Ground	R	Power source (C/B)	Input			Battery voltage
35	Ground	W/R	Sliding motor forward	Output	Seat sliding	Operate (forward)	Battery voltage
						Release	0
40	Ground	R/W	Power source (Fuse)	Input	—	1	Battery voltage
A A	0			1	Coathart	Folded down	0
41	Ground	Y/G	Forward switch signal	Input	Seat Dack	Other than above	5
42	Ground	W	Sliding motor back- ward output	Output	Seat sliding	Operate (back- ward)	Battery voltage
						Stop	0
48	Ground	В	Ground (power)	-	—		0

## **DRIVER SEAT CONTROL UNIT**

< ECU DIAGNOSIS >

## Wiring Diagram - POWER SEAT CONTROL SYSTEM FOR DRIVER SIDE -



## **DRIVER SEAT CONTROL UNIT**

< ECU DIAGNOSIS >



Ρ



JCJWA0122GB
## DRIVER SEAT CONTROL UNIT



JCJWA0123GB

Ρ

#### < ECU DIAGNOSIS >



JCJWA0124GB



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

## **DRIVER SEAT CONTROL UNIT**

INFOID:000000001911594

Ρ

#### **DRIVER SEAT CONTROL UNIT**

#### < ECU DIAGNOSIS >

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
	CAN communication*1	11000	With ADP: ADP-48
	CAN communication	01000	Without ADP: <u>SE-29</u>
Only manual functions operate normally.	Tilt concer*1	P2118	With ADP: ADP-51
	The sensor	D2110	Without ADP: <u>SE-30</u>
	Telescopic sensor	B2119	<u>ADP-54</u>
	Detent switch	B2126	<u>ADP-57</u>
	Parking brake switch	B2127	<u>ADP-59</u>
Only manual functions, except door mirror, operate normally.	UART communication	B2128	<u>ADP-61</u>
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	<u>ADP-49</u>
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	<u>ADP-50</u>

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

#### DTC Index

INFOID:000000001911595

CONSULT-III	Tim	ing <sup>*1</sup>			
display	Current mal- function	Previous mal- function	Item	Reference page	
CAN COMM CIRCUIT*2	0	1-30		With ADP: <u>ADP-48</u>	
[U1000]	0	1-00	CAN communication	Without ADP: <u>SE-29</u>	
SEAT SLIDE*2	0	1 20	Soot slide motor output	With ADP: ADP-51	
[B2112]	0	1-39	Seat side motor output	Without ADP: <u>SE-30</u>	
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	<u>ADP-50</u>	
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	<u>ADP-51</u>	
TELESCO SENSOR [B2119]	0	1-39	Telescopic sensor input	<u>ADP-54</u>	
DETENT SW* <sup>2</sup> [B2126]	0	1-39	Detention switch condition	<u>ADP-57</u>	
PARKING BRAKE [B2127]	0	1-39	Parking brake switch condition	<u>ADP-59</u>	
UART COMM [B2128]	0	1-39	UART communication	<u>ADP-61</u>	

\*1.

• 0: Current malfunction is present

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

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

< ECU DIAGNOSIS >

## PASSENGER SEAT CONTROL UNIT

#### **Reference Value**

INFOID:000000001730059

А

В

С

D

Ε







JMJIA0199ZZ

PHYSICAL	VALUES
----------	--------

Term	ninal No.	Miro	Description				Voltage (V)
+	-	color	Signal name	Input/ Output	Condition	٦	(Approx)
4	Ground	O/B	Sliding limit switch sig- nal	Input	Sliding position is from power walk-in switch pressed.	ont edge & h is	5
					Other than above		0
5	Ground	L	Seat belt buckle switch signal (passenger	Input	Seat belt is released walk-in switch is pre	d & power essed.	5
			side)		Other than above		0
						Open	0
8	Ground	LG	Passenger side door switch signal	Input	Passenger door	Closed	(V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0
11	Ground	BR	Sliding switch back- ward signal	Input	Sliding switch	Operate (back- ward)	0 Battery voltage
16	Ground	0	Sensor power supply	Output		Release	5
24	Ground	R	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div
						Stop	0 or 5
26	Ground	Y	Sliding switch forward	Input	Sliding switch	Operate (forward)	0
						Release	Battery voltage

## PASSENGER SEAT CONTROL UNIT

#### < ECU DIAGNOSIS >

Term	ninal No.	Wiro	Description				Voltage (V/)
+	-	color	Signal name	Input/ Output	Condition	٦	(Approx)
						Pressed	0
30	Ground	Ρ	Power walk-in switch signal	Input	Power walk-in switch	Other than above	12
31	Ground	GR	Sensor ground	_	—		0
32	Ground	B/W	Ground (signal)	_	—		0
33	Ground	R	Power source (C/B)	Input	—		Battery voltage
35	Ground	W/R	Sliding motor forward	Output	Seat sliding	Operate (forward)	Battery voltage
			oupui			Release	0
40	Ground	R/W	Power source (Fuse)	Input	_		Battery voltage
					Seat back is folded down and power walk-in switch is pressed.		0
41	Ground	Y/G	Forward switch signal	Input	Seat back is folded reclining is operating	up and seat g.	Battery voltage
					Seat back is folded up and pow- er walk-in switch is pressed.		5
42	Ground	W	Sliding motor back- ward output	Output	Seat sliding	Operate (back- ward)	Battery voltage
						Stop	0
48	Ground	В	Ground (power)		—		0

#### PASSENGER SEAT CONTROL UNIT

< ECU DIAGNOSIS >





Revision: 2007 June

## PASSENGER SEAT CONTROL UNIT

< ECU DIAGNOSIS >





#### JCJWA0128GB

Ρ

< ECU DIAGNOSIS >



JCJWA0129GB

< ECU DIAGNOSIS >



Ρ





JCJWA0131GB

#### < ECU DIAGNOSIS >

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

#### **Reference Value**

INFOID:000000001879564







JMJIA0199ZZ

D

Е

А

В

С

#### PHYSICAL VALUES

Teri	minal No.		Description					F
+	-	Wire color	Signal name	Input/ Out- put	Conditi	on	Voltage (V) (Approx.)	G
1	Ground	V	Tilt switch upward signal	Innut	Tilt switch	Operate (upward)	0	
•	Cround		The Switch up ward signal	mput	The Switch	Other than above	5	Η
7	Ground	0	Tilt sensor signal	Input	Tilt position		Change between 1.2 (close to top) 3.4 (close to bottom)	
11	Ground	CP	Telescopic switch for-	locut	Telescopic	Operate (forward)	0	
	Ground	GK	ward signal	mput	switch	Other than above	5	SE
17	Ground	BR	Tilt switch downward	Input	Tilt switch	Operate (down- ward)	0	K
			Signal		Other above	Other than above	5	L
23	Ground	Ρ	Telescopic sensor signal	Input	Telescopic position		Change between 0.8 (close to top) 3.4 (close to bottom)	
27	Ground	G	Telescopic switch back-	Input	Telescopic	Operate (back- ward)	0	M
			waru signai		SWIICH	Other than above	5	Ν
33	Ground	W	Sensor power supply	Input			5	
34	Ground	V	Power source (Fuse)	Input	_		Battery voltage	0
35	Ground	I	Tilt motor unward output	Out-	Steering tilt	Operate (upward)	Battery voltage	-
00	Ground	L	The motor upward output	put	Sieering tiit	Other than above	0	Ρ
36	Ground	GR	Telescopic motor for-	Out-	Steering tele-	Operate (forward)	Battery voltage	
	Ground		ward output signal	put	scopic	Other than above	0	
39	Ground	W	Power source (C/B)	Input	—		Battery voltage	

#### < ECU DIAGNOSIS >

Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition		Voltage (V) (Approx.)
40	Ground	В	Ground	—	—		0
41	Ground	Y	Sensor ground	—			0
42	Ground	0	Tilt motor downward	Out-	Steering tilt	Operate (down- ward)	Battery voltage
			oupur	put		Other than above	0
44	Ground	G	Telescopic motor back-	Out-	Steering tele-	Operate (back- ward)	Battery voltage
				put		Other than above	0
48	Ground	В	Ground	_			0

< ECU DIAGNOSIS >





INFOID:000000001694147

А

#### < ECU DIAGNOSIS >



JCJWA0133GB

А

В

С

D

Е

F

G

Н

SE

Κ

L

M

Ν

Ο

Ρ

## SEAT SYSTEM AND STEERING POSITION SYSTEM

#### < SYMPTOM DIAGNOSIS >

## SYMPTOM DIAGNOSIS SEAT SYSTEM AND STEERING POSITION SYSTEM DRIVER SIDE

## DRIVER SIDE : Symptom Table

INFOID:000000001871836

The diagnostics item numbers show the sequence for inspection. Inspection in order from item 1.

Order	Function	Operation procedure	Symptom	Diagnostic item	Reference page
			Driver seat power seat do not operate.	_	<u>SE-127</u>
				Sliding	<u>SE-128</u>
1	Manual function	Perform manual function (Refer to <u>SE-8</u> ).	Manual function does not operate. (for specific part)	Reclining	<u>SE-131</u>
				Lifting (front)	<u>SE-133</u>
				Lifting (rear)	<u>SE-133</u>
2	Power walk-in function	Perform power walk-in function (Refer to <u>SE-10</u> ).	Power walk-in function does not oper- ate.	_	<u>SE-135</u>

## PASSENGER SIDE

## PASSENGER SIDE : Symptom Table

INFOID:000000001871837

The diagnostics item numbers show the sequence for inspection. Inspection in order from item 1.

Order	Function	Operation procedure	Symptom	Diagnostic item	Reference page
			Passenger side power seat do not operate.	_	<u>SE-127</u>
				Sliding	<u>SE-129</u>
1	Manual function	function Perform manual function (Refer to <u>SE-15</u> ).	Manual function or memory function	Sliding [With sliding switch (seat back)]	<u>SE-130</u>
			does not operate. (for specific part)	Reclining	<u>SE-131</u>
				Lifting (front)	<u>SE-133</u>
				Lifting (rear)	<u>SE-133</u>
2	Power walk-in function	Perform power walk-in function (Refer to <u>SE-17</u> ).	Power walk-in function does not oper- ate.	_	<u>SE-136</u>

## TILT FUNCTION DOES NOT OPERATE

## TILT FUNCTION DOES NOT OPERATE : Symptom Table

INFOID:000000001871838

The diagnostics item numbers show the sequence for inspection. Inspection in order from item 1.

Order	Function	Operation procedure	Symptom	Diagnostic item	Reference page
1	_ Manual function	Perform manual function	Tilt or telescopic operation does not	Steering tilt	<u>SE-139</u>
			operate. (for specific part)	Steering telescopic	<u>SE-140</u>
2		(Reter to <u>SE-21</u> ).	All components of steering position function do not operate.		<u>SE-138</u>

## NOT ODED ATE

EITHER DRIVER SEAT OR PASSENGER POWER SEAT DUES NOT	JPERAIE				
< SYMPTOM DIAGNOSIS >					
EITHER DRIVER SEAT OR PASSENGER POWER SEAT DOES	NOT OP-				
ERATE		А			
DRIVER SIDE					
		В			
DRIVER SIDE : Diagnosis Procedure	INFOID:000000001872662				
1. CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT		С			
Check driver seat control unit power supply circuit.					
Relet to <u>SE-ST, DRIVER SEAT CONTROL UNIT</u> . Diagnosis Procedure.					
YES >> Check intermittent incident Refer to GI-38 "Intermittent Incident"		D			
NO >> Repair or replace the malfunctioning parts.					
PASSENGER SIDE		Ε			
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000001872663				
1. CHECK PASSENGER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT		F			
Check passenger seat control unit power supply circuit.					
Refer to <u>SE-32, "PASSENGER SEAT CONTROL UNIT : Diagnosis Procedure"</u> .		G			
VES Check intermittent incident. Refer to GL38. "Intermittent Incident"					
NO $>>$ Repair or replace the malfunctioning parts.		Н			

SE

Κ

L

Μ

Ν

0

Ρ

#### SLIDING FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

# SLIDING FUNCTION DOES NOT OPERATE DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure	INFOID:00000001872649
1.CHECK SLIDING MECHANISM	
<ul> <li>Check for the following.</li> <li>Mechanism deformation or pinched foreign materials.</li> <li>Interference with other parts because of poor installation.</li> <li>Is the inspection result normal?</li> <li>YES &gt;&gt; GO TO 2.</li> <li>NO &gt;&gt; Repair or replace the malfunction parts.</li> <li>2.CHECK SLIDING OPERATION</li> </ul>	
Check sliding operation.	_
Refer to <u>SE-8, "POWER SEAT FUNCTION : System Description"</u> .	
YES >> Check intermittent incident. Refer to <u>GI-38. "Intermittent Incident</u> NO >> GO TO 3.	<u>t"</u> .
3. CHECK SLIDING SWITCH	
Check sliding switch. Refer to <u>SE-34, "DRIVER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 4. NO >> Repair or replace the malfunction parts. <b>4.</b> CHECK SLIDING RELAY	
Check sliding relay. Refer to <u>SE-81, "FORWARD : Diagnosis Procedure"</u> . (Forward) Refer to <u>SE-84, "BACKWARD : Diagnosis Procedure"</u> . (Backward) <u>Is the inspection result normal?</u> YES >> GO TO 5. NO >> Repair or replace the malfunction parts. <b>5.</b> CHECK SLIDING MOTOR	
Check sliding motor. Refer to <u>SE-70. "DRIVER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 6. NO >> Repair or replace the malfunction parts. <b>6.</b> CHECK SLIDING SENSOR	
Check sliding sensor. Refer to <u>SE-64. "DRIVER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 7. NO >> Repair or replace the malfunction parts. <b>7.</b> CONFIRM THE OPERATION	
Check the operation again.	
Refer to <u>SE-8, "POWER SEAT FUNCTION : System Description"</u> .	
YES >> Check intermittent incident. Refer to <u>GI-38</u> , "Intermittent Incident NO >> Replace driver seat control unit. Refer to <u>SE-164</u> , "Removal and	<u>t"</u> . I Installation".

Revision: 2007 June

PASSENGER SIDE

## SLIDING FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	
PASSENGER SIDE : Diagnosis Procedure	01874419
1.CHECK SLIDING MECHANISM	A
Check for the following. • Mechanism deformation or pinched foreign materials	В
Interference with other parts because of poor installation.	
Is the inspection result normal?	0
YES >> GO TO 2.	C
2. CHECK SLIDING OPERATION	
Check sliding operation.	D
Refer to <u>SE-15. "POWER SEAT FUNCTION : System Description"</u> .	
Is the inspection result normal?	E
NO $>>$ GO TO 3.	
3. CHECK SLIDING SWITCH	F
Check sliding switch.	
Is the inspection result normal?	G
YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts.	Н
4.CHECK SLIDING RELAY	
Check sliding relay. Refer to SE-81 "FORWARD : Diagnosis, Procedure" (Forward)	
Refer to <u>SE-84, "BACKWARD : Diagnosis Procedure"</u> . (Backward)	
Is the inspection result normal?	
YES >> GO TO 5.	SE
<b>S</b> outputs motor	
	K
Check sliding motor. Refer to SE-71, "PASSENGER SIDE : Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 6.	L
NO >> Repair or replace the malfunction parts.	
O.CHECK SLIDING SENSOR	M
Check sliding sensor. Refer to SE-66. "PASSENGER SIDE : Diagnosis Procedure".	
Is the inspection result normal?	N
YES >> GO TO 7.	1.4
7.CONFIRM THE OPERATION	$\cap$
Check the operation again.	
Refer to SE-15. "POWER SEAT FUNCTION : System Description".	_
Is the result normal?	Р
YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> .	
SEATBACK	

## **SLIDING FUNCTION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

#### **SEATBACK : Diagnosis Procedure**

INFOID:000000001877726

1.CHECK SLIDING SWITCH (SEAT BACK)

Check sliding switch.

Refer to SE-36, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

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

Check the operation again. Refer to <u>SE-15, "POWER SEAT FUNCTION : System Description"</u>.

Is the result normal?

- YES
- >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u>. >> Replace passenger seat control unit. Refer to <u>SE-165, "Removal and Installation"</u>. NO

#### RECUNING FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >		
RECLINING FUNCTION DOES NOT OPERATE		
DRIVER SIDE		A
DRIVER SIDE : Diagnosis Procedure	INFOID:000000001875007	R
1.CHECK RECLINING MECHANISM		D
<ul><li>Check for the following.</li><li>Mechanism deformation or pinched foreign materials.</li><li>Interference with other parts because of poor installation.</li></ul>		С
Is the inspection result normal?         YES       >> GO TO 2.         NO       >> Repair or replace the malfunction parts.		D
2.CHECK RECLINING OPERATION		Е
Check reclining operation. Refer to <u>SE-8, "POWER SEAT FUNCTION : System Description"</u> .		
<u>Is the inspection result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-38. "Intermittent Incident"</u> . NO >> GO TO 3.		F
3. CHECK RECLINING SWITCH		G
Check reclining switch. Refer to <u>SE-34, "DRIVER SIDE : Component Function Check"</u> . Is the inspection result normal?		Н
YES >> GO TO 4. NO >> Repair or replace the malfunction parts.		
4. CHECK RECLINING RELAY		
Check reclining relay. Refer to <u>SE-88, "FORWARD : Diagnosis Procedure"</u> . (Forward) Refer to <u>SE-90, "BACKWARD : Diagnosis Procedure"</u> . (Backward)		SE
<u>Is the inspection result normal?</u> YES >> GO TO 5. NO >> Repair or replace the malfunction parts.		К
Check reclining motor		L
Refer to <u>SE-73, "DRIVER SIDE : Component Function Check"</u> .		
Is the inspection result normal?         YES       >> GO TO 6.         NO       >> Repair or replace the malfunction parts.		Μ
6.CONFIRM THE OPERATION		Ν
Check the operation again. Refer to <u>SE-8, "POWER SEAT FUNCTION : System Description"</u> .		
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> . NO >> Replace driver seat control unit. Refer to <u>SE-164, "Removal and Installation"</u> . PASSENGER SIDE		O P
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000001875948	
1.CHECK RECLINING MECHANISM		
Check for the following		

Check for the following.
Mechanism deformation or pinched foreign materials.
Interference with other parts because of poor installation.

## **RECLINING FUNCTION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2. CHECK RECLINING OPERATION

Check reclining operation.

Refer to <u>SE-8</u>, "POWER SEAT FUNCTION : System Description".

Is the inspection result normal?

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

NO >> GO TO 3.

**3.**CHECK RECLINING SWITCH

Check reclining switch.

Refer to <u>SE-36. "PASSENGER SIDE : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

**4.**CHECK RECLINING RELAY

Check reclining relay.

Refer to <u>SE-88, "FORWARD : Diagnosis Procedure"</u>. (Forward)

Refer to SE-90, "BACKWARD : Diagnosis Procedure". (Backward)

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunction parts.

**5.**CHECK RECLINING MOTOR

Check reclining motor.

Refer to SE-74, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunction parts.

**6.**CONFIRM THE OPERATION

Check the operation again.

Refer to <u>SE-8</u>, "POWER SEAT FUNCTION : System Description".

#### Is the result normal?

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

NO >> Replace passenger seat control unit. Refer to <u>SE-165</u>, "Removal and Installation".

## LIFTING FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	_
LIFTING FUNCTION DOES NOT OPERATE	A
FRONT : Diagnosis Procedure	, ,
1.CHECK LIFTING MECHANISM	D
<ul><li>Check for the following.</li><li>Mechanism deformation or pinched foreign materials.</li><li>Interference with other parts because of poor installation.</li></ul>	С
Is the inspection result normal?         YES       >> GO TO 2.         NO       >> Repair or replace the malfunction parts.	D
2.CHECK LIFTING OPERATION	E
Check lifting operation. Refer to <u>SE-81, "FORWARD : Diagnosis Procedure"</u> . Is the inspection result normal?	F
YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> . NO >> GO TO 3.	I
3. CHECK LIFTING SWITCH	G
Check lifting switch. Refer to <u>SE-76, "FRONT : Component Function Check"</u> .	
Is the inspection result normal?	Н
YES >> GO TO 4. NO >> Repair or replace the malfunction parts. <b>4</b> .CHECK LIETING MOTOR	I
Check lifting motor.	
Refer to <u>SE-76. "FRONT : Component Function Check"</u> .	SE
YES >> GO TO 5.	
NO >> Repair or replace the malfunction parts. 5.CONFIRM THE OPERATION	K
Check the operation again. Refer to <u>SE-8. "POWER SEAT FUNCTION : System Description"</u> .	L
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> . NO >> Replace driver seat control unit. Refer to <u>SE-164, "Removal and Installation"</u> . REAR	Μ
REAR : Diagnosis Procedure	, N
1.CHECK LIFTING MECHANISM	
<ul><li>Check for the following.</li><li>Mechanism deformation or pinched foreign materials.</li><li>Interference with other parts because of poor installation.</li></ul>	0
Is the inspection result normal?	Ρ
YES >> GO TO 2. NO >> Repair or replace the malfunction parts. 2.CHECK LIFTING OPERATION	
Check lifting operation. Refer to SE-81, "FORWARD : Diagnosis Procedure".	
Is the inspection result normal?	

## LIFTING FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

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

NO >> GO TO 3.

**3.**CHECK LIFTING SWITCH

Check lifting switch.

Refer to SE-76, "FRONT : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

**4.**CHECK LIFTING MOTOR

Check lifting motor.

Refer to SE-76, "FRONT : Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunction parts.

**5.**CONFIRM THE OPERATION

Check the operation again.

Refer to <u>SE-8, "POWER SEAT FUNCTION : System Description"</u>.

Is the result normal?

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

NO >> Replace driver seat control unit. Refer to <u>SE-164, "Removal and Installation"</u>.

## POWER WALK-IN FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	_
POWER WALK-IN FUNCTION DOES NOT OPERATE	
DRIVER SIDE	A
DRIVER SIDE : Diagnosis Procedure	95 B
1.CHECK POWER WALK-IN FUNCTION	
Check power walk-in function. Refer to <u>SE-10, "POWER WALK-IN FUNCTION : System Description"</u> .	С
Is the inspection result normal?	
YES >> GO TO 6. NO >> GO TO 2.	D
2.PERFORM INITIALIZATION PROCEDURE	
<ol> <li>Perform initialization procedure. Refer to <u>SE-7, "SYSTEM INITIALIZATION : Special Repair Requirement"</u>.</li> <li>Check power walk-in function. Refer to <u>SE-10</u> "POWER WALK-IN FUNCTION : System Description"</li> </ol>	E
Is the inspection result normal?	-
YES >> Power walk-in function is normal. NO >> GO TO 3.	G
3.CHECK POWER WALK-IN SWITCH	_
Check power walk-in switch. Refer to <u>SE-54, "DRIVER SIDE : Component Function Check"</u> .	Н
Is the inspection result normal?	
NO >> Repair or replace the malfunction parts.	I
4.CHECK SEAT BELT BUCKLE SWITCH	_
Check seat belt buckle switch. Refer to <u>SE-46, "DRIVER SIDE : Component Function Check"</u> .	SE
Is the inspection result normal?	
NO >> Repair or replace the malfunction parts.	K
<b>5.</b> CHECK FORWARD SWITCH	- 1
Check forward switch. Refer to <u>SE-42, "DRIVER SIDE : Component Function Check"</u> .	L
Is the inspection result normal?	M
NO >> Repair or replace the malfunction parts.	
6. CHECK SLIDING LIMIT SWITCH	NI
Check sliding limit switch. Refer to SE-50, "DRIVER SIDE : Component Function Check".	
Is the inspection result normal?	0
YES >> GO TO 7.	
<b>7.</b> CHECK DRIVER SIDE DOOR SWITCH	Ρ
Check driver side door switch. Refer to <u>ADP-89, "DRIVER SIDE : Component Function Check"</u>	-
Is the inspection result normal?	
YES >> GO 10 8	

YES >> GO TO 8. NO >> Repair or replace the malfunction parts.

#### POWER WALK-IN FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

8.CONFIRM THE OPERATION

Check the operation again. Refer to <u>SE-10, "POWER WALK-IN FUNCTION : System Description"</u>.

Is the result normal?

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

NO >> Replace driver seat control unit. Refer to <u>SE-164</u>, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000001879547

**1.**CHECK POWER WALK-IN FUNCTION

Check power walk-in function. Refer to <u>SE-17, "POWER WALK-IN FUNCTION : System Description"</u>.

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2. PERFORM INITIALIZATION PROCEDURE

- Perform initialization procedure. Refer to <u>SE-7, "SYSTEM INITIALIZATION : Special Repair Requirement"</u>.
- Check power walk-in function. Refer to <u>SE-17, "POWER WALK-IN FUNCTION : System Description"</u>.

Is the inspection result normal?

- YES >> Power walk-in function is normal.
- NO >> GO TO 3.

**3.**CHECK POWER WALK-IN SWITCH

Check power walk-in switch.

Refer to SE-55, "PASSENGER SIDE : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

**4.**CHECK SEAT BELT BUCKLE SWITCH

Check seat belt buckle switch.

Refer to SE-47, "PASSENGER SIDE : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunction parts.

**5.**CHECK FORWARD SWITCH

Check forward switch. Refer to <u>SE-43, "PASSENGER SIDE : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunction parts.

6. CHECK SLIDING LIMIT SWITCH

Check sliding limit switch.

Refer to <u>SE-51, "PASSENGER SIDE : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunction parts.

7.CHECK PASSENGER SIDE DOOR SWITCH

Check passenger side door switch.

## POWER WALK-IN FUNCTION DOES NOT OPERATE

F

G

Н

L

M

Ν

Ο

Ρ

SE

#### STEERING POSITION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## STEERING POSITION FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000001694167

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

Check automatic drive positioner control unit power supply and ground circuit. Refer to SE-31, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK TILT AND TELESCOPIC SWITCH

Check tilt and telescopic switch. Refer to <u>SE-61, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK TILT AND TELESCOPIC SENSOR

Check tilt and telescopic sensor. Refer to <u>SE-68. "Component Function Check"</u>.

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to <u>GI-38. "Intermittent Incident"</u>.
- NO >> Repair or replace the malfunctioning parts.

## TILT FUNCTION DOES NOT OPERATE

TILT FUNCTION DOES NOT OPERATE         Diagnosis Procedure         1.CHECK TILT AND TELESCOPIC SWITCH         Check tilt switch.         Refer to SE-61, "Component Function Check".         Is the inspection result normal?         YES         YES         >> GO TO 2.         NO         >> Repair or replace the malfunctioning parts.         2.CHECK TILT AND TELESCOPIC MOTOR         Check tilt motor.         Refer to SE-79, "Component Function Check".         Is the inspection result normal?         YES       >> GO TO 3.         NO       >> Repair or replace the malfunctioning parts.         3.CHECK TILT AND TELESCOPIC SENSOR         Check tilt sensor.         Refer to SE-68, "Component Function Check".         Is the inspection result normal?         YES       >> Check tilt sensor.         Refer to SE-68, "Component Function Check".         Is the inspection result normal?         YES       >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".         NO       >> Repair or replace the malfunctioning parts.	< SYMPTOM DIAGNOSIS >	
Diagnosis Procedure  1.CHECK TILT AND TELESCOPIC SWITCH  Check tilt switch. Refer to <u>SE-61, "Component Function Check"</u> . Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.  2.CHECK TILT AND TELESCOPIC MOTOR  Check tilt motor. Refer to <u>SE-79, "Component Function Check"</u> . Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.  3.CHECK TILT AND TELESCOPIC SENSOR  Check tilt sensor. Refer to <u>SE-61, "Component Function Check"</u> . Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK TILT AND TELESCOPIC SENSOR  Check tilt sensor. Refer to <u>SE-68, "Component Function Check"</u> . Is the inspection result normal? YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> . NO >> Repair or replace the malfunctioning parts.	TILT FUNCTION DOES NOT OPERATE	^
1.CHECK TILT AND TELESCOPIC SWITCH         Check tilt switch.         Refer to SE-61, "Component Function Check".         Is the inspection result normal?         YES       >> GO TO 2.         NO       >> Repair or replace the malfunctioning parts.         2.CHECK TILT AND TELESCOPIC MOTOR         Check tilt motor.         Refer to SE-79, "Component Function Check".         Is the inspection result normal?         YES       >> GO TO 3.         NO       >> Repair or replace the malfunctioning parts.         3.CHECK TILT AND TELESCOPIC SENSOR         Check tilt sensor.         Refer to SE-68, "Component Function Check".         Is the inspection result normal?         YES       >> GO TO 3.         NO       >> Repair or replace the malfunctioning parts.         3.CHECK TILT AND TELESCOPIC SENSOR         Check tilt sensor.         Refer to SE-68, "Component Function Check".         Is the inspection result normal?         YES       >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".         NO       >> Repair or replace the malfunctioning parts.	Diagnosis Procedure	INFOID:000000001694168
Check tilt switch. Refer to <u>SE-61, "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES $\Rightarrow$ GO TO 2. NO $\Rightarrow$ Repair or replace the malfunctioning parts. <b>2.</b> CHECK TILT AND TELESCOPIC MOTOR Check tilt motor. Refer to <u>SE-79, "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES $\Rightarrow$ GO TO 3. NO $\Rightarrow$ Repair or replace the malfunctioning parts. <b>3.</b> CHECK TILT AND TELESCOPIC SENSOR Check tilt sensor. Refer to <u>SE-68, "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES $\Rightarrow$ Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> . NO $\Rightarrow$ Repair or replace the malfunctioning parts.	1. CHECK TILT AND TELESCOPIC SWITCH	В
YES       >> GO TO 2.         NO       >> Repair or replace the malfunctioning parts.         2.CHECK TILT AND TELESCOPIC MOTOR         Check tilt motor.         Refer to SE-79, "Component Function Check".         Is the inspection result normal?         YES       >> GO TO 3.         NO       >> Repair or replace the malfunctioning parts.         3.CHECK TILT AND TELESCOPIC SENSOR         Check tilt sensor.         Refer to SE-68. "Component Function Check".         Is the inspection result normal?         YES       >> Check tilt sensor.         Refer to SE-68. "Component Function Check".         Is the inspection result normal?         YES       >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".         NO       >> Repair or replace the malfunctioning parts.	Check tilt switch. Refer to <u>SE-61, "Component Function Check"</u> . Is the inspection result normal?	С
Check tilt motor. Refer to <u>SE-79</u> , "Component Function Check". <u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. <b>3.</b> CHECK TILT AND TELESCOPIC SENSOR Check tilt sensor. Refer to <u>SE-68</u> , "Component Function Check". <u>Is the inspection result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-38</u> , "Intermittent Incident". NO >> Repair or replace the malfunctioning parts.	YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CHECK TILT AND TELESCOPIC MOTOR	D
Is the inspection result normal?         YES       >> GO TO 3.         NO       >> Repair or replace the malfunctioning parts.         3.CHECK TILT AND TELESCOPIC SENSOR         Check tilt sensor.         Refer to SE-68. "Component Function Check".         Is the inspection result normal?         YES       >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".         NO       >> Repair or replace the malfunctioning parts.	Check tilt motor. Refer to <u>SE-79, "Component Function Check"</u> .	E
J.CHECK TILT AND TELESCOPIC SENSOR         Check tilt sensor.         Refer to SE-68, "Component Function Check".         Is the inspection result normal?         YES       >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".         NO       >> Repair or replace the malfunctioning parts.	<u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	F
Check till sensor.         Refer to SE-68, "Component Function Check".         Is the inspection result normal?         YES       >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".         NO       >> Repair or replace the malfunctioning parts.		
YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> .	Check till sensor. Refer to <u>SE-68. "Component Function Check"</u> . Is the inspection result normal?	G
	YES >> Check intermittent incident. Refer to <u>GI-38, "Intermittent Incident"</u> . NO >> Repair or replace the malfunctioning parts.	н

SE

Κ

Μ

Ν

0

Ρ

#### **TELESCOPIC FUNCTION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

## TELESCOPIC FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000001694169

1. CHECK TILT AND TELESCOPIC SWITCH

Check telescopic switch. Refer to <u>SE-61</u>, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK TILT AND TELESCOPIC MOTOR

Check telescopic motor. Refer to <u>SE-79, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

**3.**CHECK TILT AND TELESCOPIC SENSOR

Check telescopic sensor. Refer to <u>SE-68. "Component Function Check"</u>.

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-38. "Intermittent Incident".
- NO >> Repair or replace the malfunctioning parts.

#### < SYMPTOM DIAGNOSIS >

## SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### Work Flow



#### CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to <u>SE-145</u>, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics SE are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak —(Like tennis shoes on a clean floor) Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces=higher pitch noise/softer surfaces=lower pitch noises/edge to surface=chirping
- Creak—(Like walking on an old wooden floor) Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle—(Like shaking a baby rattle) Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock —(Like a knock on a door) Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick—(Like a clock second hand) Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump—(Heavy, muffled knock noise) Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz—(Like a bumblebee)
   Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on the person. A noise that you may judge
   as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when you confirm the repair.

#### SE-141

А

E

Ν

#### < SYMPTOM DIAGNOSIS >

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models).
- 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.
- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
- If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

#### CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TSB relates to the symptom, follow the procedure to repair the noise.

#### LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

- 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J-39570, Engine Ear and mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- removing the components in the area that you suspect the noise is coming from.
   Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- tapping or pushing/pulling the component that you suspect is causing the noise.
   Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks. Refer to <u>SE-143. "Inspection Procedure"</u>.

#### **REPAIR THE CAUSE**

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- separate components by repositioning or loosening and retightening the component, if possible.
- insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through your authorized Nissan Parts Department.

#### **CAUTION:**

## Do not use excessive force as many components are constructed of plastic and may be damaged. NOTE:

Always check with the Parts Department for the latest parts information.

The following materials are contained in the Nissan Squeak and Rattle Kit (J-43980). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100  $\times$  135 mm (3.94  $\times$  5.31 in)/76884-71L01: 60  $\times$  85 mm (2.36  $\times$  3.35 in)/76884-71L02:15  $\times$  25 mm (0.59  $\times$  0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick,  $30 \times 50$  mm (1.18  $\times$  1.97in)

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications. 68370-4B000:  $15 \times 25$  mm (0.59  $\times$  0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll

The following materials, not found in the kit, can also be used to repair squeaks and rattles. UHMW (TEFLON) TAPE

#### < SYMPTOM DIAGNOSIS > Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE А Used in place of UHMW tape that will be visible or not fit. Will only last a few months. SILICONE SPRAY Use when grease cannot be applied. В DUCT TAPE Use to eliminate movement. CONFIRM THE REPAIR Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet. Inspection Procedure D INFOID:000000001694173 Refer to Table of Contents for specific component removal and installationinformation. INSTRUMENT PANEL Е Most incidents are caused by contact and movement between: 1. The cluster lid A and instrument panel F Acrylic lens and combination meter housing Instrument panel to front pillar garnish Instrument panel to windshield Instrument panel mounting pins Wiring harnesses behind the combination meter A/C defroster duct and duct joint Н These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness. CAUTION: Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair. SE CENTER CONSOLE Components to pay attention to include: Κ 1. Shifter assembly cover to finisher A/C control unit and cluster lid C Wiring harnesses behind audio and A/C control unit L The instrument panel repair and isolation procedures also apply to thecenter console. DOORS Pay attention to the: M 1. Finisher and inner panel making a slapping noise Inside handle escutcheon to door finisher Ν Wiring harnesses tapping Door striker out of alignment causing a popping noise on startsand stops Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise. TRUNK Ρ Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for: Trunk lid dumpers out of adjustment

- 2. Trunk lid striker out of adjustment
- 3. The trunk lid torsion bars knocking together
- 4. A loose license plate or bracket

#### < SYMPTOM DIAGNOSIS >

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

#### SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

- 1. Sunroof lid, rail, linkage or seals making a rattle or light knockingnoise
- 2. Sunvisor shaft shaking in the holder
- 3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist insulating with felt cloth tape.

#### SEATS

When isolating seat noise it's important to note the position the seatis in and the load placed on the seat when the noise is present. These conditions hould be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

- 1. Headrest rods and holder
- 2. A squeak between the seat pad cushion and frame
- 3. The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component orapplying urethane tape to the contact area.

#### **UNDERHOOD**

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

- 1. Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- 4. Loose radiator mounting pins
- 5. Hood bumpers out of adjustment
- 6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.
### SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

**Diagnostic Worksheet** 



**SQUEAK & RATTLE DIAGNOSTIC WORKSHEET** 

#### Dear Infiniti Customer:

We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service consultant or technician to ensure we confirm the noise you are hearing.

#### I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

PIIB8741E

INFOID:000000001694174

А

В

D

Е

F

Н

SE

Κ

L

Μ

Ν

### SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### < SYMPTOM DIAGNOSIS >

#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

II. WHEN DOES IT OCCUR? (please check the boxes that apply)				
<ul> <li>anytime</li> <li>1st time in the morning</li> <li>only when it is cold outside</li> <li>only when it is hot outside</li> </ul>	<ul> <li>after sitting out in the rain</li> <li>when it is raining or wet</li> <li>dry or dusty conditions</li> <li>other:</li> </ul>			
III. WHEN DRIVING:	IV. WHAT TYPE OF NOISE			
<ul> <li>through driveways</li> <li>over rough roads</li> <li>over speed bumps</li> <li>only about mph</li> <li>on acceleration</li> <li>coming to a stop</li> <li>on turns: left, right or either (circle)</li> <li>with passengers or cargo</li> <li>other:</li> <li>after drivingmiles or</li> </ul>	<ul> <li>squeak (like tennis shoes on a clean floor)</li> <li>creak (like walking on an old wooden floor)</li> <li>rattle (like shaking a baby rattle)</li> <li>knock (like a knock at the door)</li> <li>tick (like a clock second hand)</li> <li>thump (heavy, muffled knock noise)</li> <li>buzz (like a bumble bee)</li> </ul>			

#### TO BE COMPLETED BY DEALERSHIP PERSONNEL

**Test Drive Notes:** 

	YES	NO	Initials of person performing
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm repair			
VIN: Cus	tomer Na	me:	

# < PRECAUTION > PRECAUTION PRECAUTIONS

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

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

#### WARNING:

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

#### Service Notice

- 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.

### Precaution for Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.
  - Then rub with a soft and dry cloth.
- 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.

А

В

Е

F

Н

SE

Κ

L

Μ

Ν

INFOID:000000001694176

### PREPARATION

# < PREPARATION >

## PREPARATION PREPARATION

### Special Service Tool

INFOID:000000001694178

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description	
(J39570) Chassis ear	SIIA0993E	Locating the noise	
(J43980) NISSAN Squeak and Rattle Kit	SIIA0994E	Repairing the cause of noise	
Commercial Service Tool		INFOID	0000000001694179

Tool name		Description
Engine ear	SIIA0995E	Locating the noise
Remover tool	PIIB7923J	Remove the clips, pawls and metal clips
Hook and pick tool	JMJA0490ZZ	Remove the snap pins

#### < ON-VEHICLE REPAIR >

# **ON-VEHICLE REPAIR**

### **FRONT SEAT**

### Exploded View

### DRIVER'S SEAT

SEC. 870



JMJIA1021GB

А

В

С

D

Ε

F

G

Н

Κ

L

Μ

Ν

Ο

Ρ

#### < ON-VEHICLE REPAIR >

1.	Headrest
Т.	Headrest

- 4. Rear outer slide cover
- 7. Seat slide and lifter switch knob
- 10. Lumbar support switch
- 13. Seat cushion outer finisher inside (rear)
- 16. Seat cushion inner finisher inside (rear)
- 19. Walk-in lever cap
- 22. Headrest holder (locked)
- 25. Seatback trim
- 28. Seatback side support bag and uni
- 31. Reclining device inner cover (outside)
- 34. Walk-in lever
- 37. Seatback frame
- 40. Seat cushion pad (front)
- 43. Seat slide outer finisher (outside)
- 46. Seat control unit
- 49. Seat cushion frame

Refer to GI-4, "Components" for symbols in the figure.

#### PASSENGER'S SEAT

	2.	Front outer slide cover	3
	5.	Rear inner slide cover	6
	8.	Seat reclining switch knob	ç
	11.	Side support switch	1
	14.	Seat cushion inner finisher	1
	17.	Snap ring	1
	20.	Walk-in lever upper escutcheon	2
	23.	Seatback lower panel	2
	26.	Seatback pad	2
it	29.	Reclining device outer cover (out- side)	3
	32.	Reclining device inner cover (inside)	3
	35.	Reclining device wire	3
	38.	Seat cushion front finisher	3
	41.	Seat cushion trim	2
	44.	Seat slide outer finisher (inside)	2
		• · · · ·	

47. Seat cushion side support bag

- 3. Front inner slide cover
- Seat cushion outer finisher 6.
- 9. Seat control switch
- 12. Seat cushion outer finisher inside (front)
- Seat cushion inner finisher inside (front)
- Lumbar support lever knob 8.
- 21. Headrest holder (free)
- 24. Side air bag module
- 27. Seatback silencer
- 30. Reclining device outer cover (inside)
- 33. Push nut
- 36. Reclining and slide relay
- 39. Seat belt buckle
- 42. Seat cushion pad
- 45. Seat slide inner finisher
- Seat harness 48.



- Seat slide and lifter switch knob 7.
- 10. Seat cushion outer finisher inside (front)
- 13. Seat cushion inner finisher inside (front)
- 16. Walk-in lever cap
- 19. Headrest holder (locked)
- 22. Seatback trim

1.

4.

- 5. Rear inner slide cover
- Seat reclining switch knob 8.
- 11. Seat cushion outer finisher inside (rear)
- 14. Seat cushion inner finisher inside (rear)
- 17. Walk-in lever upper escutcheon
- 20. Seatback lower panel
- 23. Seatback pad

- 9. Seat control switch
- Seat cushion inner finisher 12.
- 15. Slide switch escutcheon
- 18. Headrest holder (free)
- 21. Side air bag module
- 24. Seatback silencer



32. Slide switch (seatback)

41. Seat control unit

35. Seat cushion front finisher

38. Seat slide outer finisher (outside)

### < ON-VEHICLE REPAIR >

- 25. Reclining device outer cover (out- 26. Reclining side)
- 28. Reclining device inner cover (inside) 29. Push nut
- 31. Reclining device wire
- 34. Seatback frame
- 37. Seat cushion pad (front)
- 40. Seat slide inner finisher
- 43. Seat cushion assembly

Refer to <u>GI-4, "Components"</u> for symbols in the figure.

### Removal and Installation

#### REMOVAL

#### CAUTION:

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

- 1. Remove the headrest.
- 2. Remove the front slide cover.
- a. Front outer slide cover
  - Slide the seat to the rearmost position.
  - Pull up the front edge of the front slide cover to release the pawls.
  - Slide the front slide cover forward to release the pawls.

Pawl ز\_\_\_



- b. Front inner slide cover
  - Slide the seat to the rearmost position.
  - Pull up the front edge of the front slide cover to release the pawls.
  - Slide the front slide cover forward to release the pawls.





- 3. Remove the mounting bolts on the front side of the front seat.
- 4. Remove the rear slide cover.
- a. Rear outer slide cover
  - Slide the seat to the foremost position.
  - Pull up the rear edge of the rear outer slide cover to release the pawls.
  - Open the front end of the rear outer slide cover to release the pawls.





- 26. Reclining device outer cover (inside) 27. Reclining device inner cover (outside)
  - 30. Walk-in lever
    - 33. Reclining and slide relay
    - 36. Seat belt buckle
    - 39. Seat slide outer finisher (inside)
    - 42. Seat harness

#### < ON-VEHICLE REPAIR >

- b. Rear inner slide cover
  - Slide the seat to the foremost position.
  - Pull up the rear edge of the rear inner slide cover to release the pawls.
  - Slide the rear inner slide cover rearward to release the pawls.

<u> </u>	Pawl
----------	------



Е

F

Н

SE

Κ

Ρ

INFOID:000000001694183

- 5. Remove the mounting bolts on the rear side of the front seat.
- 6. Set seatback in a standing position.
- Disconnect harness connector under the seat and remove harness securing clips. CAUTION: Before removal, turn ignition switch OFF, disconnect both battery cables, and then wait for at least 3 minutes.
- 8. Remove seat from the vehicle.

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

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Before installation, turn ignition switch OFF, disconnect both battery cables, and then wait for at least 3 minutes.
- Clamp the harness in position.

#### NOTE:

After installing the front seat, perform additional service when removing battery negative terminal.(With automatic drive positioner model) Refer to <u>ADP-9</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGA-</u> <u>TIVE TERMINAL</u> : <u>Description</u>". (Without automatic drive positioner model) Refer to <u>SE-7</u>, "<u>ADDITIONAL</u> <u>SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u> : <u>Description</u>".

#### **Disassembly and Assembly**

#### SEATBACK

#### Disassembly

- 1. Remove the seat cushion outer finisher.
  - Remove the metal clips, clips and pawls, and then pull out seat cushion outer finisher.

( ]) : Clip

八 :Pawl

• Disconnect the seat control switch, lumbar support switch and side support switch harness connector.



• Remove the seat cushion outer finisher inside (front, rear).

#### < ON-VEHICLE REPAIR >

- 2. Remove the seat cushion inner finisher.
  - Remove the seat cushion inner finisher inside (front, rear) by releasing the metal clip and pull it up together with the cover.
    Remove the seat cushion inner finisher inside (front, rear) from
  - the seat cushion inner finisher by releasing the pawls.

[]]	: Metal clip
$\hat{\Delta}$	: Pawl



3. Remove the lumbar support lever knob.(Manual lumbar support model only.) Pull snap ring (1) upward, and remove lumbar support lever

knob (2) from seatback frame.Using a hook and pick tool.



- 4. Remove the seatback trim and seatback pad.
  - Remove the pawls, and then pull out slide switch escutcheon (1).

Pawl ز



- Remove the walk-in lever cap.
- Remove the screw (A) and pawls, and then walk-in lever upper escutcheon (2).



∠\_\_\_ : Pawl

#### < ON-VEHICLE REPAIR >

• Remove the screw (B), and then pull the seatback trim from the walk-in lever (3) and walk-in lever lower escutcheon.

- Remove the seatback retainer, and then open the fastener.
- Remove the headrest holder.
   CAUTION:

Before installing headrest holder check its orientation. (front/rear and right/left)

- Remove the seatback lower panel.
- Remove the side air bag module. Refer to .
- Remove the side support hose joint (4) located backside the seat cushion. (Side support model only.)
- Disconnect the seatback heater unit harness connector (5).



0

А

В

D

Н

Μ

B



- Remove the seatback trim and seatback pad from the seatback frame.
- Remove the hog rings, and separate the seatback trim and seatback pad.
- 5. Remove the seatback silencer.
- 6. Disconnect the harness connectors.
  - Disconnect the side support unit harness connector (1) and remove the harness clamp.(Side support model only.)
  - Disconnect the reclining and slide relay harness connector (2) and remove the harness clamp.
  - Disconnect the power walk-in switch harness connector (3).
  - Disconnect the forward switch harness connector (4).
  - Disconnect the lumbar support motor harness connector (5) and remove the harness clamp.(Power lumbar support model only.)
  - Disconnect the reclining motor harness connector (6) and remove the harness clamp.
  - Disconnect the slide switch (seatback) harness connector. (Passenger's seat only)
- 7. Remove the side support bag and unit.(Side support model only.)



#### < ON-VEHICLE REPAIR >

- Remove the pawls, and then remove side support bag (1).
- Remove the side support unit.
  - ∴ : Pawl



- 8. Remove the seatback frame. Remove the seatback frame mounting bolt (A).
- ИЛИА0336ZZ
- 9. Remove the reclining device outer cover (front, rear).
- 10. Remove the reclining device inner cover (front, rear).
- 11. Remove the reclining device wire.
  - Remove the push nut (1).
  - Remove the reclining device wire (2) from the seatback frame and walk-in lever.



12. Remove the walk-in lever.

#### Assembly

Assemble in the reverse order of disassembly.

#### CAUTION:

Install the hog rings of seatback trim in position, and then securely connect the trim or trim cord with the pad side wire.

#### SEAT CUSHION

#### Disassembly

#### **CAUTION:**

Do not disassemble front passenger seat cushion assembly.

#### Always replace as an assembly.

For front passenger seat service parts, refer to the service part catalogue.

1. Remove the seat cushion outer finisher.

#### < ON-VEHICLE REPAIR >

- Remove the metal clips, clips and pawls, and then pull out seat cushion outer finisher.
  - (`) : Clip
  - : Metal clip
  - へ:Pawl



А

D

Μ

- Disconnect the seat control switch, lumbar support switch and side support switch harness connector.
- Remove the seat cushion outer finisher inside (front, rear).
- 2. Remove the seat cushion inner finisher.
  - Remove the seat cushion inner finisher inside (front, rear) by releasing the metal clip and pull it up together with the cover.
  - Remove the seat cushion inner finisher inside (front, rear) from the seat cushion inner finisher by releasing the pawls.

[]]	: Metal clip
	: Pawl



- Remove the seat cushion front finisher. Remove the metal clips, and then pull out seat cushion front finisher (1).
  - : Metal clip
  - 八 :Pawl



- 4. Remove the seatback assembly.
  - Remove the seatback lower panel.
  - Disconnect the side support unit harness connector (1) and remove the harness clamp.(Side support model only.)
  - Disconnect the reclining and slide relay harness connector (2) and remove the harness clamp.
  - Disconnect the power walk-in switch harness connector (3).
  - Disconnect the forward switch harness connector (4).
  - Disconnect the lumbar support motor harness connector (5) and remove the harness clamp.(Power lumbar support model only.)
  - Disconnect the reclining motor harness connector (6) and remove the harness clamp.
  - Disconnect the slide switch (seatback) harness connector. (Passenger's seat only)
  - Remove the side support hose joint located backside the seat cushion.(Side support model only.)
  - Remove the seat cushion retainer, and then side air bag harness clamp and seatback heater unit harness connector.



### SE-157

#### < ON-VEHICLE REPAIR >

• Remove the seatback mounting bolts (A), and then remove the seatback assembly.



- 5. Remove the seat cushion pad (front). (Thigh extension model only.)
  - Remove the retainer.
  - Remove the seat cushion pad (front).



- 6. Remove the seat cushion trim and seat cushion pad.
  - Remove the seat cushion trim wire (1) from the hook (2).





• Remove the clip (A).(Thigh extension model only.)

- Remove the seat cushion retainer.
- Disconnect the seat cushion heater unit harness connector.
- Remove the hog rings, and separate the seat cushion trim and seat cushion pad.
- 7. Remove the side support bag.(Side support model only.)
  - Remove the hose clamp.

- Remove the pawls, and then remove side support bag (1).
  - 2 : Pawl



- 8. Remove the seat slide outer finisher.
  - Remove the metal clip and pawls, and then pull out seat slide outer finisher (outside).
  - Remove the metal clip, and then pull out seat slide outer finisher (inside).
    - : Metal clip



- Remove the seat slide inner finisher. Remove the metal clip, and then pull out seat slide inner finisher.
  - [ ] : Metal clip



Assembly

Assemble in the reverse order of disassembly.

#### CAUTION:

Install the hog rings of seat cushion trim in position, and then securely connect the trim or trim cord with the pad side wire.

Μ

Ε

F

Н

0

# REAR SEAT

### Exploded View

REAR SEAT



- 1. Seatback board
- 4. Seatback lock assembly
- 7. Center tray
- 10. Seat cushion pad
- 13. Seat striker cover
- 16. Seatback control cable

Refer to  $\underline{\text{GI-4}, \text{"Components"}}$  for symbols in the figure.

### Removal and Installation

# REMOVAL CAUTION:

- 2. Seatback trim
- 8. Cup holder

Seatback lock cable

- 11. Seatback side bracket
- 14. Seat striker

5.

- 3. Seatback pad
- 6. Seatback frame
- 9. Seat cushion trim
- 12. Seat cushion hook
- 15. Seat control lever escutcheon

INFOID:000000001694185

### **REAR SEAT**

#### < ON-VEHICLE REPAIR >

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

#### 1. Remove the seat cushion.

- Pull the seat cushion up, and then remove the seat cushion from the seat cushion hook.
- Remove the seat cushion from the vehicle.



<ul> <li>2. Remove the seatback.</li> <li>Remove the seatback control cable. Refer to <u>SE-163</u>, "Removal and Installation".</li> <li>Remove the seatback mounting bolt.</li> <li>Remove the seatback frame the vehicle.</li> </ul>	l
<ul> <li>3. Remove the seatback side bracket.</li> <li>• Remove the seatback side bracket mounting nuts.</li> <li>• Remove the seatback side bracket from the vehicle.</li> </ul>	
<ul> <li>4. Remove the seat striker.</li> <li>• Remove the seat striker cover.</li> <li>• Remove the seat striker mounting bolt.</li> </ul>	(
INSTALLATION Install in the reverse order of removal. CAUTION: When removing and installing, use shop cloths to protect parts from damage.	ł

#### **Disassembly and Assembly**

#### Disassembly

1. Remove the seatback board. Remove the clip.

( ) : Clip



- 2. Remove the seatback trim and seatback pad.
  - Remove the hog rings, and remove the seatback retainer.
  - Remove the hog rings to separate the seatback trim and seatback pad.
- 3. Remove the seatback lock cable.
  - Remove the mounting bolt and cable clamp.
  - Remove the seatback lock cable from the seatback frame.
- 4. Remove the seatback lock assembly.
  - Remove the seatback lock assembly mounting bolt.
  - Remove the seatback lock assembly from the seatback frame.

#### Assembly

Assemble in the reverse order of disassembly.

INFOID:000000001694186

SE

### **REAR SEAT**

#### < ON-VEHICLE REPAIR >

#### **CAUTION:**

Install the hog rings of seatback trim in position, and then securely connect the trim or trim cord with the seatback frame.

#### SEAT CUSHION

#### Disassembly

- 1. Remove the center tray.
  - Remove the clip (A) from the seat cushion backside, and then remove pawls when pulling the center tray (1).



- Remove the center tray from the seat cushion assembly.
- 2. Remove the seat cushion trim and seat cushion pad. Remove the hog rings to separate the seat cushion trim and seat cushion pad.

#### Assembly

Assemble in the reverse order of disassembly.

#### **CAUTION:**

Install the hog rings of seat cushion trim in position, and then securely connect the trim or trim cord with the seat cushion pad wire.

### SEATBACK CONTROL CABLE

**SE-163** 

#### < ON-VEHICLE REPAIR >

### SEATBACK CONTROL CABLE

#### **Exploded View**

Refer to SE-160, "Exploded View".

**Removal and Installation** 

#### REMOVAL

- 1. Remove the trunk front finisher upper. Refer to INT-27, "Removal and Installation".
- 2. Remove the seatback control cable.
  - Fold the seatback before.
  - Remove the clip (A), and then pull up the seatback lower part.

• Remove the seatback control cable (1) from the seatback frame.

- Remove the seatback control cable mounting nut (A).
- Remove the seatback control cable (1) from the vehicle.











INFOID:000000001838109

INFOID:000000001838111

В

С

SE

Κ

L

### DRIVER SEAT CONTROL UNIT

**Exploded View** 

Refer to SE-149, "Exploded View".

Removal and Installation

# REMOVAL

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

- 1. Remove driver seat (1). Refer to <u>SE-152, "Removal and Installa-</u> tion".
- 2. Remove mounting bolts (A).
- 3. Remove driver seat control unit (2).



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

NOTE:

After installing the driver seat, perform additional service when replacing control unit. Refer to <u>SE-7, "ADDI-</u><u>TIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"</u>.

INFOID:000000001694202

INFOID:000000001694203

Revision: 2007 June

< ON-VEHICLE REPAIR >		
PASSENGER SEAT CONTROL UNIT		Δ
Exploded View	INFOID:000000001837332	~
Refer to <u>SE-149, "Exploded View"</u> . Removal and Installation	INFOID:000000001837333	В
REMOVAL CAUTION: When removing and installing, use shop cloths to protect parts from damage. NOTE: The same procedure is also performed for driver side. Refer to <u>SE-165, "Removal and Installation</u>	<u>on"</u>	C
INSTALLATION Install in the reverse order of removal. CAUTION:		E
Be sure to clamp the harness to the right place. NOTE: After installing the driver seat, perform additional service when replacing control unit. Refer to	9 <u>SE-7, "ADDI-</u>	F
TIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement		G

Н

|

K

SE

L

M

Ν

0

Р

### AUTOMATIC DRIVE POSITIONER CONTROL UNIT

#### < ON-VEHICLE REPAIR >

### AUTOMATIC DRIVE POSITIONER CONTROL UNIT

**Exploded** View

Refer to IP-11, "Exploded View".

Removal and Installation

### REMOVAL

**CAUTION:** 

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

- 1. Remove the battery negative terminal.
- 2. Remove the instrument driver lower panel. Refer to <u>IP-12</u>, <u>"Removal and Installation"</u>.
- 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 clamp the harness to the right place. INFOID:000000001694204

# POWER SEAT SWITCH

#### Removal and Installation

#### REMOVAL

#### **CAUTION:**

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

The same procedure is also performed for driver side and passenger side.

- 1. Remove the seat cushion outer finisher (1). Refer to <u>SE-152.</u> <u>"Removal and Installation"</u>.
- 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 clamp the harness to the right place. NOTE:

After installing the driver seat or passenger side, perform additional service when removing battery negative terminal. Refer to <u>SE-7. "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL :</u> <u>Special Repair Requirement</u>".

Н

А

В

INFOID:000000001694189

K

L

M

Ν

0

Р

### SLIDING SWITCH SEATBACK

**SEATBACK : Removal and Installation** 

INFOID:000000001837336

### REMOVAL

#### CAUTION:

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

- 1. Remove seat back pad. Refer to <u>SE-152. "Removal and Installa-</u> tion".
- 2. Remove screws (A).
- 3. Disconnect seat sliding switch (seat back) connector.
- Remove seat sliding switch (seat back) (2) from seat back frame (1).



INSTALLATION Install in the reverse order of removal. CAUTION:

# Be sure to clamp the harness to the right place. NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>SE-7. "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair</u> <u>Requirement"</u>.

### SIDE SUPPORT SWITCH

#### Removal and Installation

#### REMOVAL

#### CAUTION:

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

- 1. Remove seat cushion outer finisher (1). Refer to <u>SE-152, "Removal and Installation"</u>.
- 2. Remove screws (A).
- 3. Remove side support switch (2) from seat cushion outer finisher.



#### INSTALLATION

Install in the reverse order of removal. CAUTION:

#### Be sure to clamp the harness to the right place. NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>SE-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair</u> Requirement".

SE

Н

А

В

INFOID:000000001837334

Κ

L

Μ

Ν

# LUMBAR SUPPORT SWITCH

Removal and Installation

#### REMOVAL

#### CAUTION:

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

- 1. Remove seat cushion outer finisher (1). Refer to <u>SE-152</u>, <u>"Removal and Installation"</u>
- 2. Remove lumbar support switch (2).



INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

#### Be sure to clamp the harness to the right place.

#### NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>SE-7. "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair</u> <u>Requirement"</u>.



### TILT&TELESCOPIC SWITCH

#### Removal and Installation

### REMOVAL

#### CAUTION:

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

- 1. Disconnect battery negative terminal.
- 2. Remove the 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).



**INSTALLATION** 



Install in the reverse order of removal.	
CAUTION:	
<ul> <li>Clamp the harness in position.</li> </ul>	Η
NOTE:	
After installing the tilt & telescopic switch, perform additional service when removing battery negative terminal.	
Refer to <u>SE-7</u> , "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special	
Repair Requirement".	

SE

А

В

INFOID:000000001694192

L

Μ

Ν

Ο