SECTION PWC
POWER WINDOW CONTROL SYSTEM

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PRECAUTION

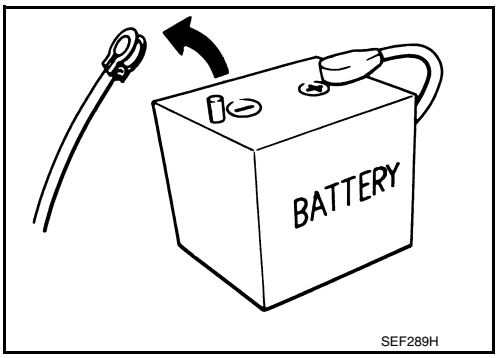
PRECAUTIONS

Precautions for Removing Battery Terminal

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When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:



BR08DE	: 4 minutes	YD25DDTi	: 2 minutes
D4D engine	: 20 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		
V9X engine	: 4 minutes		

NOTE:
ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:
- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
  - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
  - Driving for 30 minutes or more on a steep slope.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

NOTE:
If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

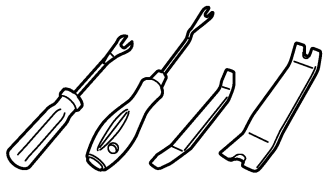
NOTE:
The removal of 12V battery may cause a DTC detection error.

PREPARATION

PREPARATION

Commercial Service Tools

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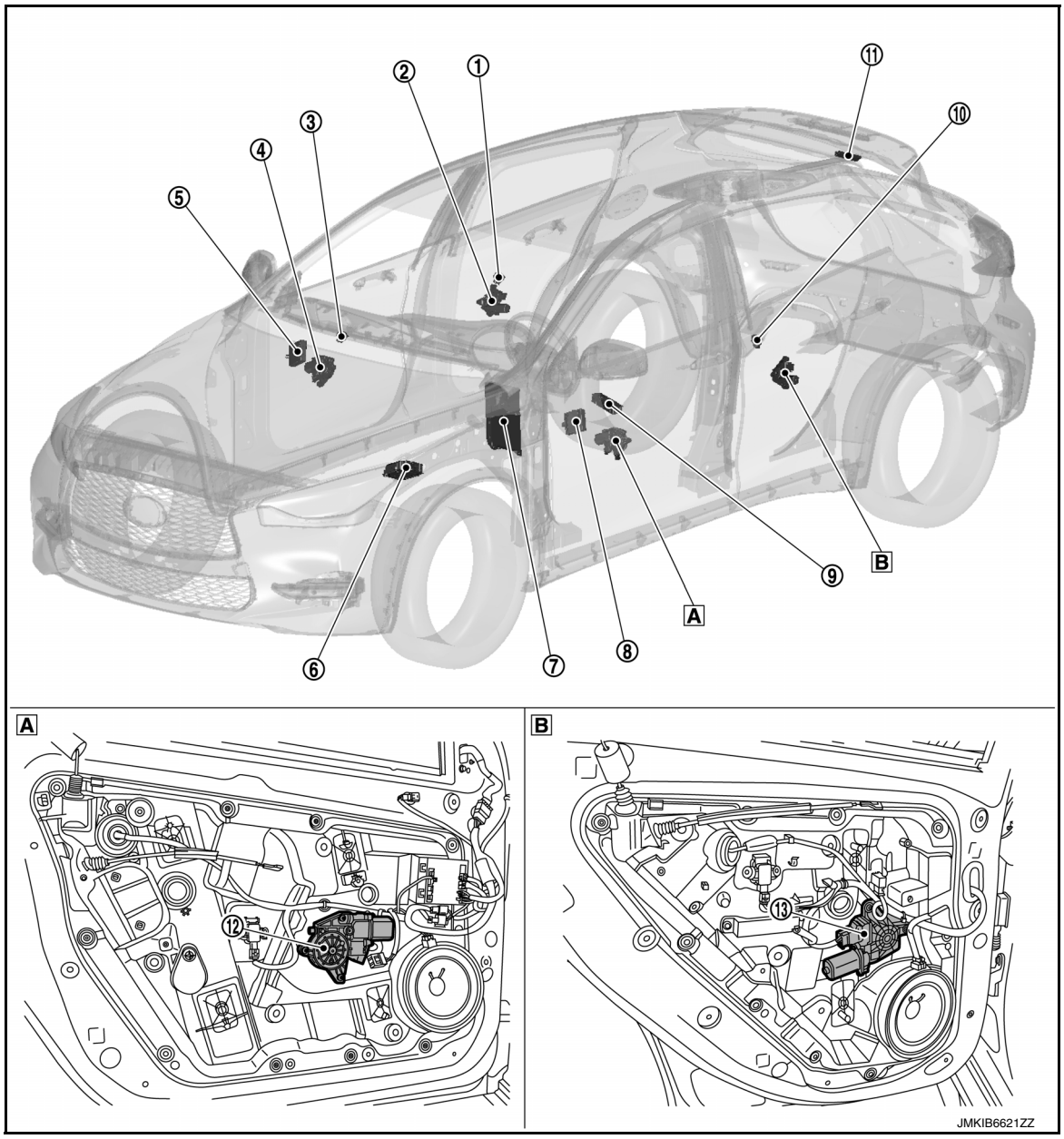
Tool name	Description
Remover tool  JMKIA3050ZZ	Removes the clips, pawls and metal clips

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000013479196



A View with front door finisher (driver side) removed

B View with rear door finisher LH removed

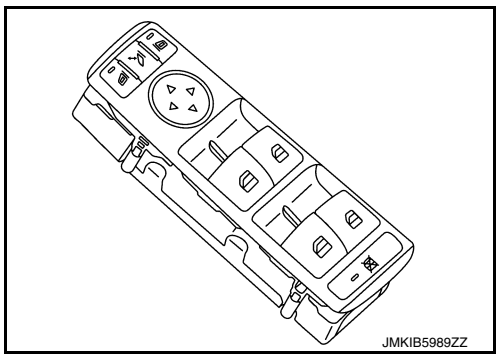
No.	Component parts	Function
①	Rear power window switch RH	Refer to PWC-8, "Rear Power Window Switch".
②	Rear power window motor RH	Refer to PWC-8, "Rear Power Window Motor".
③	Front power window switch (passenger side)	Refer to PWC-7, "Front Power Window Switch (Passenger side)".
④	Front power window motor (passenger side)	Refer to PWC-8, "Front Power Window Motor".

No.	Component parts	Function
⑤	Right front door control unit	• Supplies power supply to front power window switch (passenger side) and front power window motor (passenger side). • Refer to DLK-10, "DOOR LOCK SYSTEM : Component Parts Location" for detailed installation location.
⑥	Air bag diagnosis sensor unit	• Air bag diagnosis sensor unit transmits car crash information signal to left front door control unit, right front door control unit and BCM via CAN communication. • Refer to SRC-8, "Component Parts Location" for detailed installation location.
⑦	BCM	• Supplies power supply to rear power window switch and rear power window motor. • Refer to BCS-8, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑧	Left front door control unit	• Supplies power supply to power window main switch and front power window motor (driver side). • Refer to DLK-10, "DOOR LOCK SYSTEM : Component Parts Location" for detailed installation location.
⑨	Power window main switch	Refer to PWC-7, "Power Window Main Switch".
⑩	Rear power window switch LH	Refer to PWC-8, "Rear Power Window Switch".
⑪	Remote keyless entry receiver	• Remote keyless entry receiver transmits remote keyless entry receiver communication signal to Intelligent Key unit. • Refer to DLK-10, "DOOR LOCK SYSTEM : Component Parts Location" for detailed installation location.
⑫	Front power window motor (driver side)	Refer to PWC-8, "Front Power Window Motor".
⑬	Rear power window motor LH	Refer to PWC-8, "Rear Power Window Motor".

Power Window Main Switch

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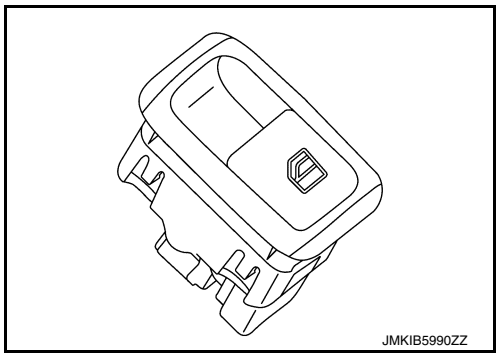
- Power window main switch controls all power windows.
- Power window main switch integrates UP/DOWN switch, power window lock switch, and door mirror remote control switch.


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Front Power Window Switch (Passenger side)

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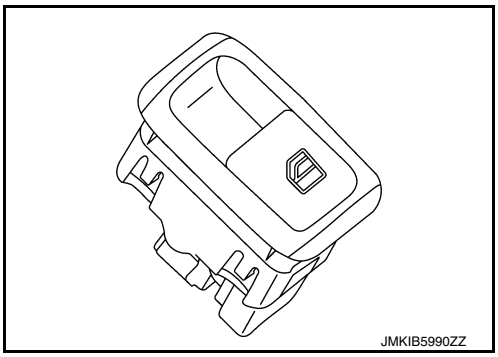
Front power window switch (passenger side) transmits UP/DOWN signal to right front door control unit to the front power window motor (passenger side) operation condition.


JMKIB5990ZZ

Rear Power Window Switch

INFOID:0000000013479199

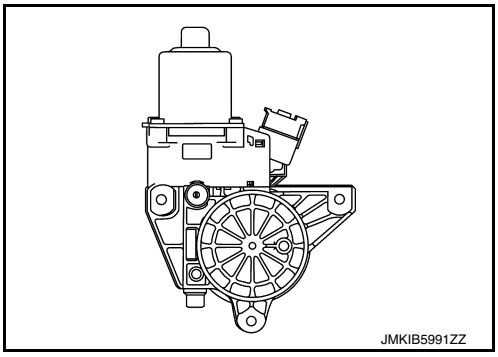
Rear power window switch transmits UP/DOWN signal to BCM to the each rear power window motor operation condition.



Front Power Window Motor

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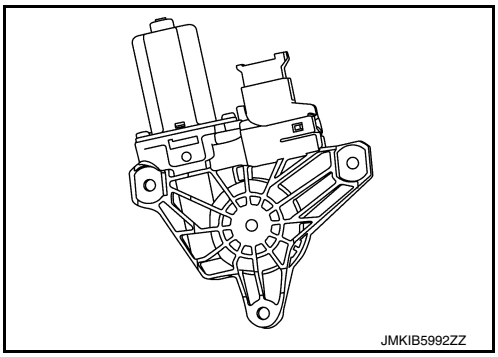
- Integrates the hall sensor.
- Starts operation according to signal from each front door control unit.
- Transmits front power window motor rotation as a pulse signal to hall sensor in front power window motor.



Rear Power Window Motor

INFOID:0000000013479201

- Integrates the hall sensor.
- Starts operation according to signals from BCM.
- Transmits rear power window motor rotation as a pulse signal to hall sensor in rear power window motor.

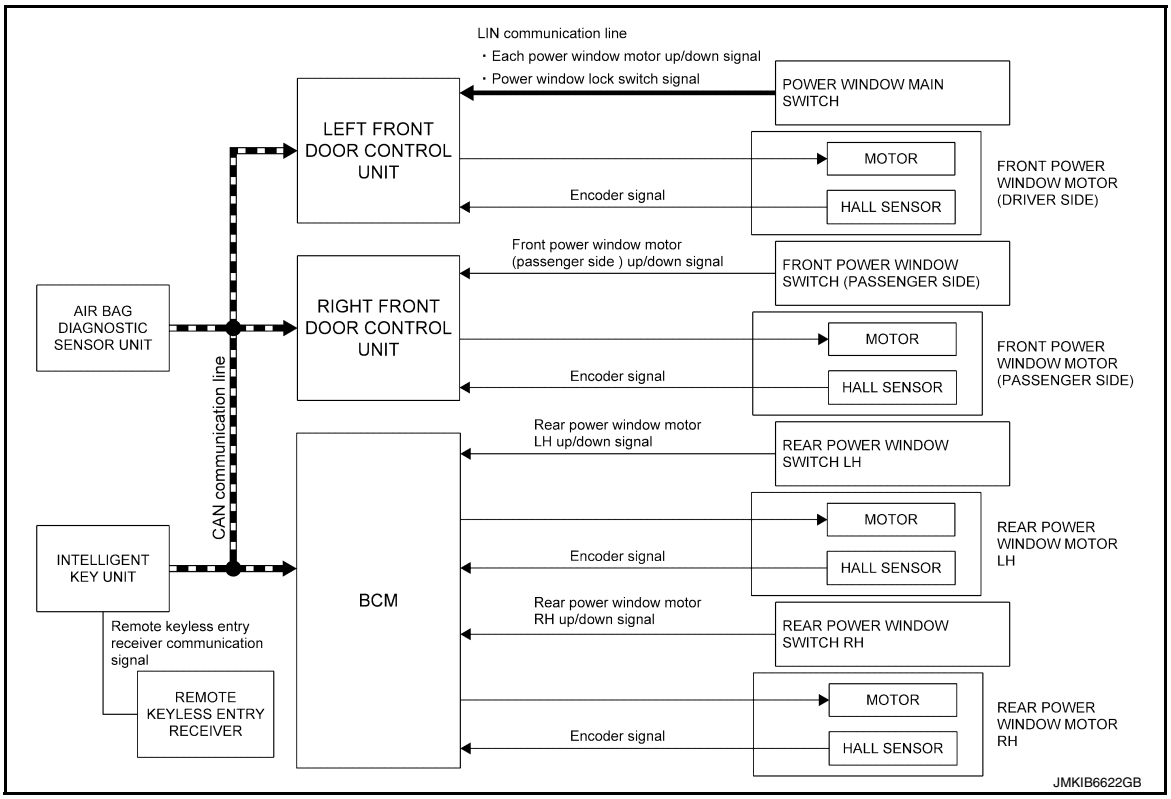


SYSTEM

System Description

INFOID:0000000013479202

SYSTEM DIAGRAM



POWER WINDOW OPERATION

- Power window system is activated by power window switch when ignition switch turns ON.
- Power window main switch opens/closes all door glass.
- Front and rear power window switch opens/closes the corresponding door glass.
- AUTO UP/DOWN operation can be performed when each power window switch turns to AUTO.
- Power window lock switch can lock rear power windows.
- If door glass receives resistance that is the specified value or more while power window is in AUTO-UP operation, power window operates in the reverse direction.

POWER WINDOW AUTO-OPERATION

- AUTO UP/DOWN operation can be performed when each power window switch turns to AUTO.
- Hall sensor continues detecting the movement of power window motor and transmits to power window switch as the hall sensor signal while power window motor is operating.
- Power window switch reads the changes of hall sensor signal and stops AUTO operation when door glass is at fully opened/closed position.

LIN COMMUNICATION

- Power window main switch and left front door control unit transmit and receive the LIN communication.
- LIN communication transmits the power window main switch operation signals to left front door control unit.

REAR POWER WINDOW LOCK

When power window lock switch is turned ON, it controls each rear power window switch and disables the operation of the power window by the rear power window switch.

RETAINED POWER OPERATION

Retained power operation is an additional power supply function that enables power window system to operate for 5 minutes after ignition switch turns OFF.

RETAINED POWER FUNCTION CANCEL CONDITIONS

- When ignition switch turns ON again.
- When timer times out. (5 minutes)

ANTI-PINCH SYSTEM

- Pinch foreign material in the door glass during AUTO-UP operation, and it is the anti-pinch function that lowers the door glass 125 – 130 mm (4.9 – 5.1 in) when detected.
- Hall sensor continues detecting the movement of power window motor and transmits to hall sensor in power window motor as the hall sensor signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of Hall sensor signal if foreign material is trapped in the door glass.
- Power window switch controls to lower the window glass for 125 – 130 mm (4.9 – 5.1 in) after it detects hall sensor signal frequency change.

Operation Condition

When all door glass AUTO-UP operation is performed (anti-pinch function does not operate just before the door glass closes and is fully closed)

NOTE:

Depending on environment and driving conditions, if a similar impact or load is applied to the door glass, it may lower.

KEYLESS POWER WINDOW UP FUNCTION

All power windows close when the lock button on Intelligent Key is activated and kept pressed for more than 2 seconds with the ignition switch OFF. The windows keep closing if the lock button is continuously pressed.

The power window closing stops when the following operations are performed.

- When hall sensor in power window motor detects top dead centre.
- When the ignition switch is turned ON while the power window closing is operated.
- When the lock button is released.

While retained power operation activate, keyless power window up function cannot be operated.

Keyless power window up function does not activate if anti-pinch system is malfunctioning.

KEYLESS POWER WINDOW DOWN FUNCTION

All power windows open when the unlock button on Intelligent Key is activated and kept pressed for more than 2 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed.

The power window opening stops when the following operations are performed.

- When hall sensor in power window motor detects bottom dead centre.
- When the ignition switch is turned ON while the power window opening is operated.
- When the unlock button is released.

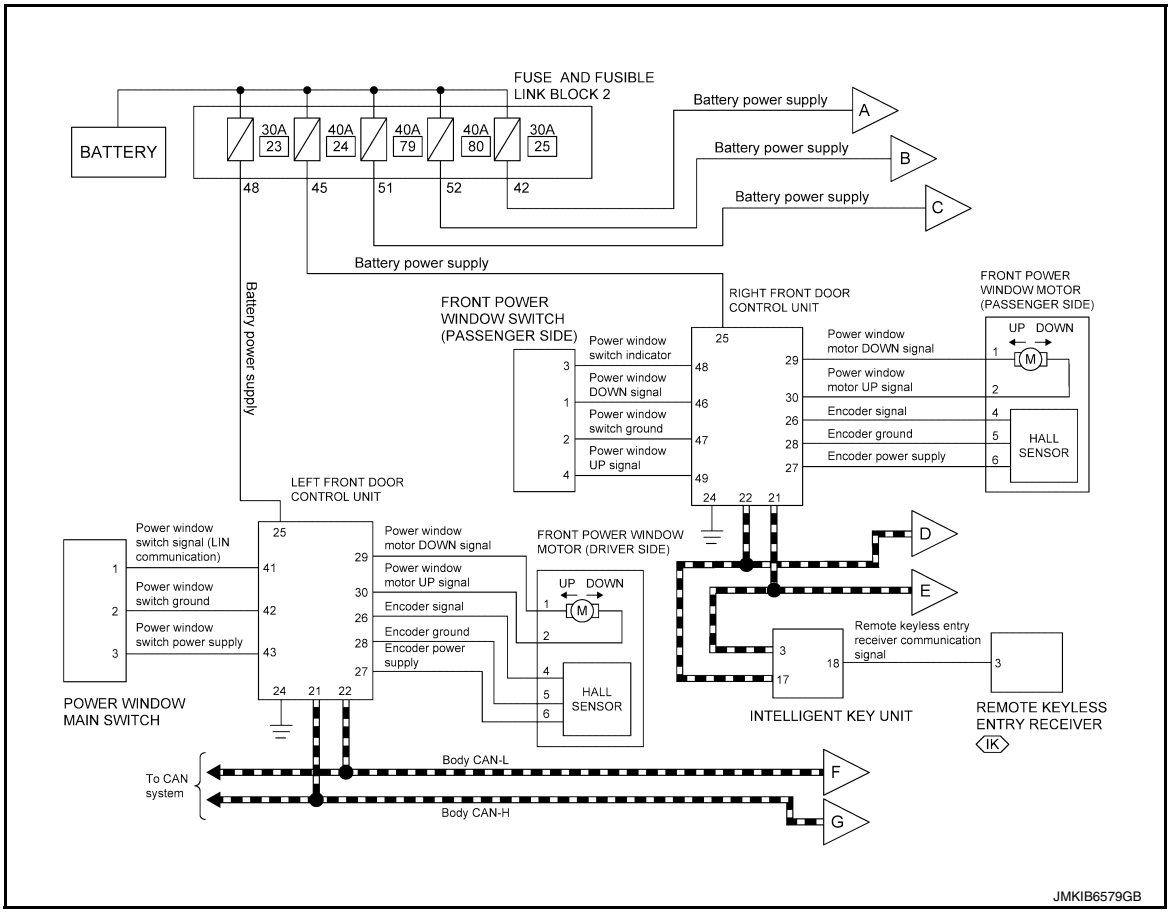
While retained power operation activate, keyless power window down function cannot be operated.

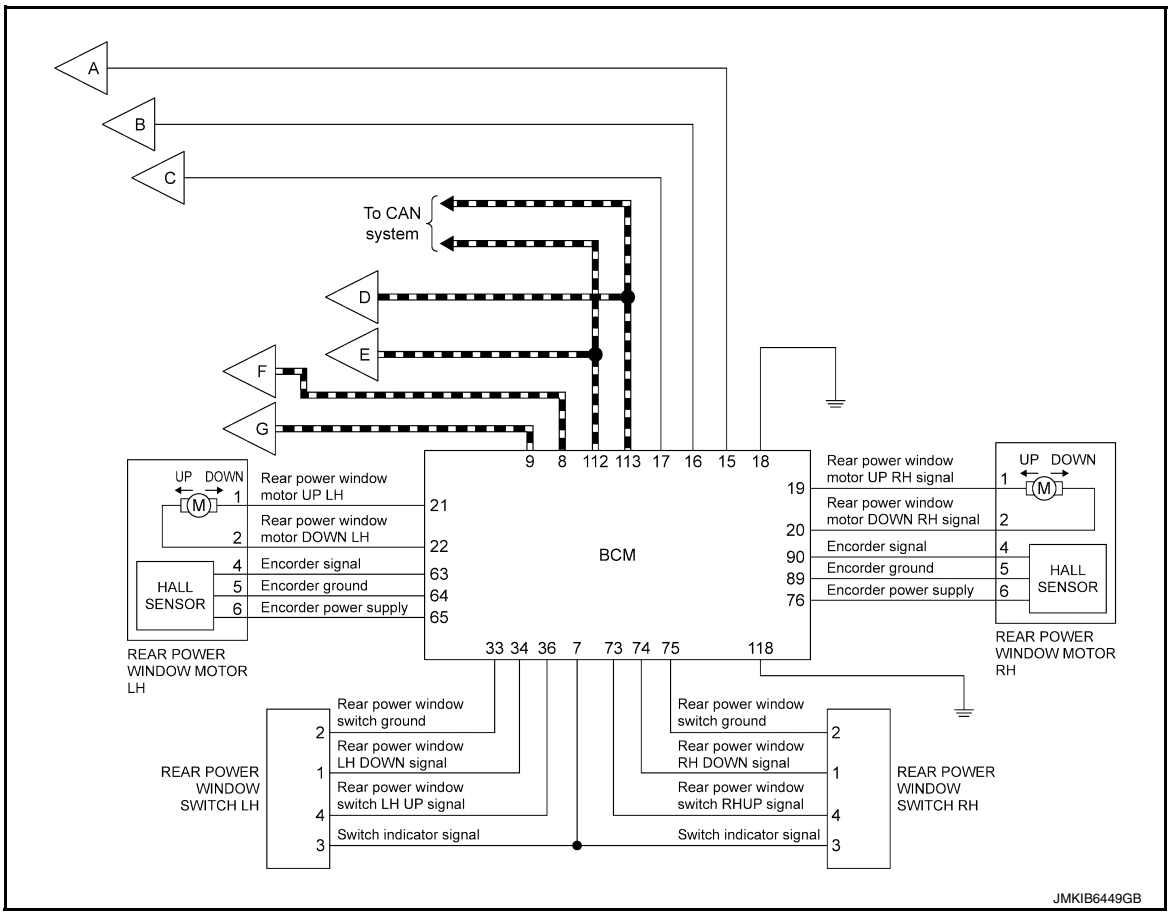
POST-CRASH FUNCTION

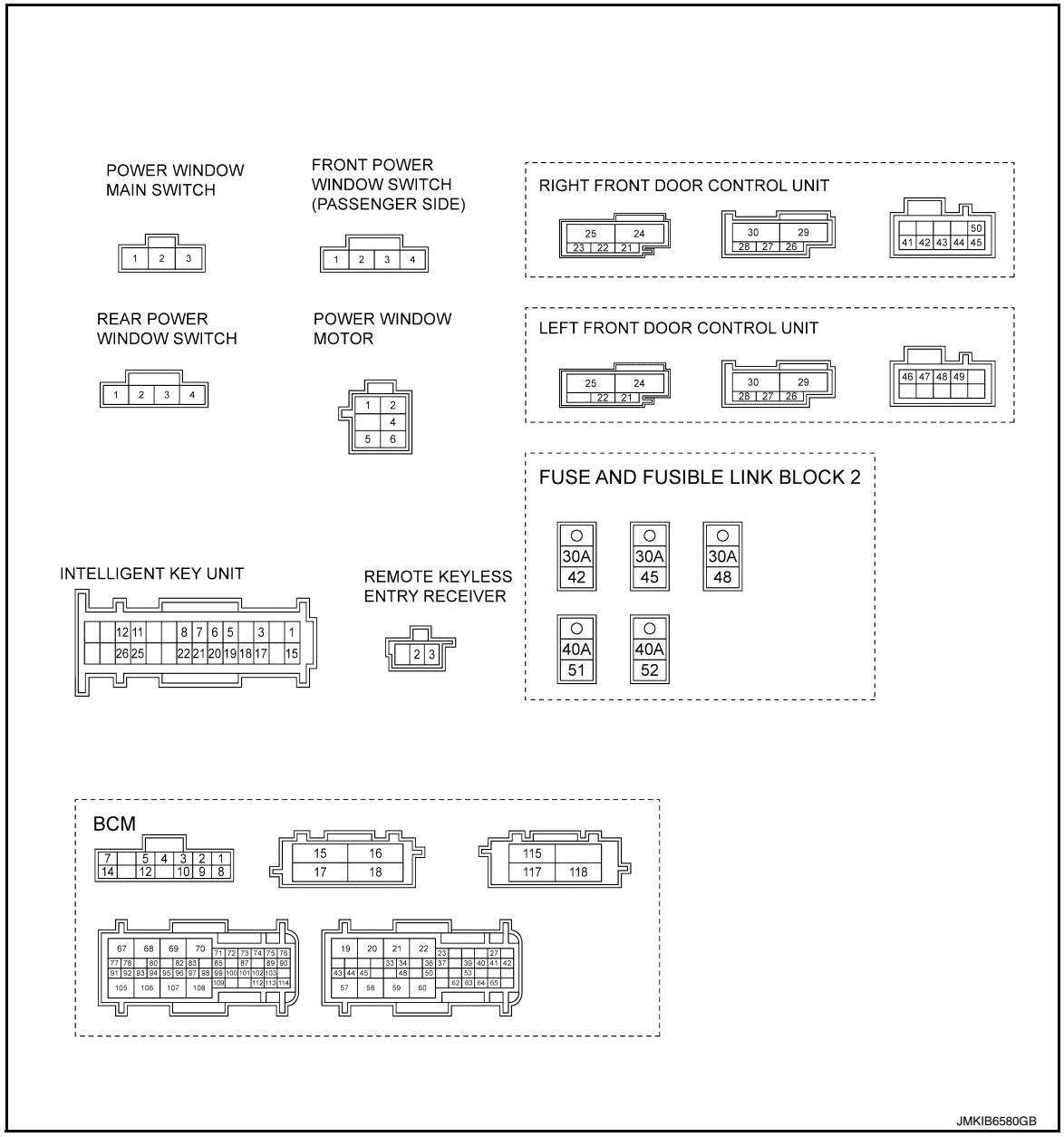
The air bag diagnosis sensor unit transmits the car crash information signal via CAN communication to left front door control unit, right front door control unit, and BCM, which then actuate all power window motors downward. This creates a gap to allow the smoke generated during air bag inflation to disperse.

Circuit Diagram

INFOID:0000000013479203






POWER WINDOW MAIN SWITCH
1 2 3
FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
1 2 3 4
RIGHT FRONT DOOR CONTROL UNIT
25 24 23 22 21
30 29 28 27 26
50 41 42 43 44 45
REAR POWER WINDOW SWITCH
1 2 3 4
POWER WINDOW MOTOR
1 2 4 5 6
LEFT FRONT DOOR CONTROL UNIT
25 24 22 21
30 29 28 27 26
46 47 48 49
FUSE AND FUSIBLE LINK BLOCK 2
30A 42
30A 45
30A 48
40A 51
40A 52
INTELLIGENT KEY UNIT
12 11 8 7 6 5 3 1
26 25 22 21 20 19 18 17 15
REMOTE KEYLESS ENTRY RECEIVER
2 3
BCM
7 5 4 3 2 1
14 12 10 9 8
15 16 17 18
115 117 118
67 68 69 70 71 72 73 74 75 76
77 78 80 82 83 85 87 89 90
91 92 93 94 95 96 97 98 99 100 101 102 103
105 106 107 108 109 112 113 114
19 20 21 22 33 27
33 34 36 37 39 40 41 42
43 44 45 48 50 53
57 58 59 60 62 63 64 65
JMKIB6580GB

ECU DIAGNOSIS INFORMATION

BCM, FRONT DOOR CONTROL UNIT

List of ECU Reference

INFOID:0000000013479204

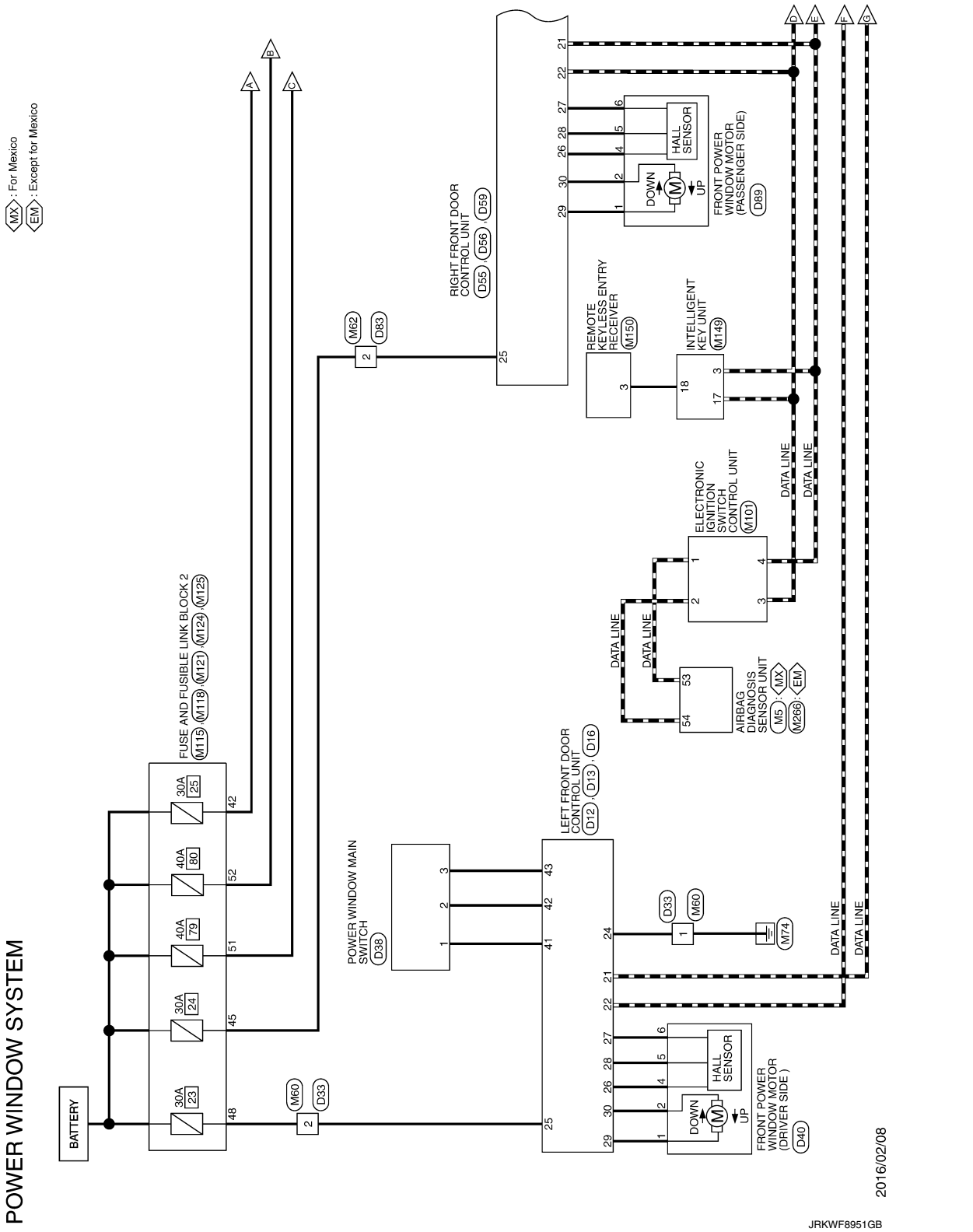
ECU	Reference
BCM	BCS-32, "Reference Value"
	BCS-50, "Fail-safe"
	BCS-51, "DTC Index"
Left Front Door Control Module	DLK-50, "Reference Value"
	DLK-57, "Fail-safe"
	DLK-58, "DTC Inspection Priority Chart"
	DLK-60, "DTC Index"
Right Front Door Control Module	DLK-62, "Reference Value"
	DLK-68, "Fail-safe"
	DLK-69, "DTC Inspection Priority Chart"
	DLK-70, "DTC Index"

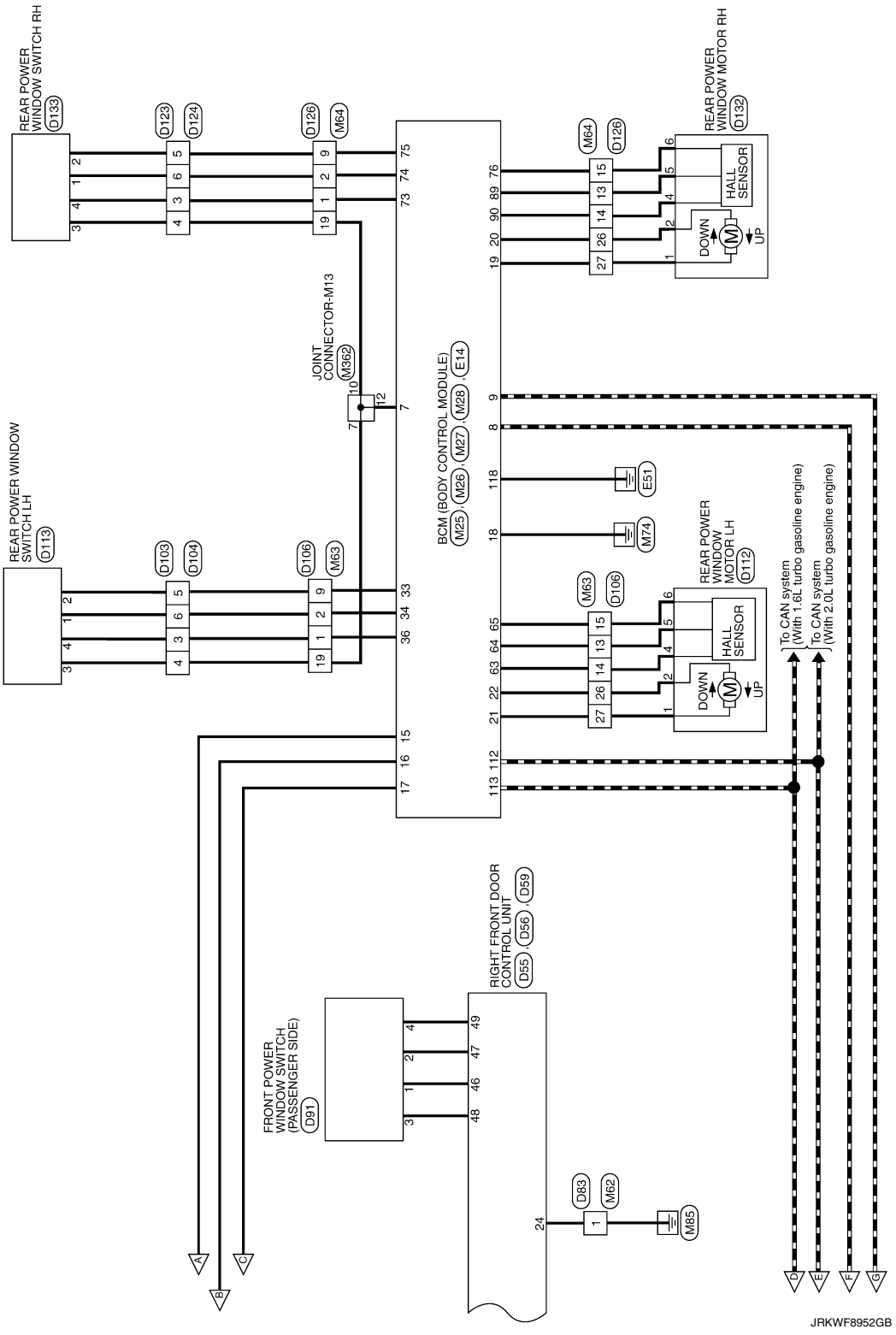
WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram

INFOID:0000000013479205




REAR POWER WINDOW SWITCH RH
D133
D123
D124
D126
M64
REAR POWER WINDOW MOTOR RH
D132
HALL SENSOR
DOWN
UP
JOINT CONNECTOR-M13
M362
BCM (BODY CONTROL MODULE)
M25
M26
M27
M28
E14
REAR POWER WINDOW SWITCH LH
D113
D103
D104
D106
M63
E51
M74
REAR POWER WINDOW MOTOR LH
D112
To CAN system
(With 1.6L turbo gasoline engine)
To CAN system
(With 2.0L turbo gasoline engine)
FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
D91
RIGHT FRONT DOOR CONTROL UNIT
D55
D56
D59
D83
M62
M85
JRKWF8952GB

POWER WINDOW SYSTEM

Connector No.	D12
Connector Name	LEFT FRONT DOOR CONTROL UNIT
Connector Type	MB_A0025406281

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
21	BR	BODY CAN 2-L
22	R	BODY CAN 2-H
23	L	ROTARY CATCH SIGNAL
24	BR	GROUND
25	R	BATTERY POWER SUPPLY

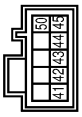
Connector No.	D13
Connector Name	LEFT FRONT DOOR CONTROL UNIT
Connector Type	MB_A0025406481

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
26	B/V	ENCODER SIGNAL
27	B/L	ENCODER POWER SUPPLY
28	B/BR	ENCODER GROUND
29	B	POWER WINDOW MOTOR DOWN
30	G	POWER WINDOW MOTOR UP

Connector No.	D16
Connector Name	LEFT FRONT DOOR CONTROL UNIT
Connector Type	MB_A0255459626

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
41	P	POWER WINDOW SW SIG (LIN)
42	BR	POWER WINDOW SW GND
43	R	POWER WINDOW SW PWR
44	L	DOOR LOCK AND UNLOCK SW SIG
45	W	DOOR LOCK AND UNLOCK SW GND
50	G	DOOR LOCK AND UNLOCK SW IND

Connector No.	D33
Connector Name	WIRE TO WIRE
Connector Type	MB_A2205453928

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	R	-
3	BR	-
4	R	-

Connector No.	D38
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	MB_A0395456728

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	BR	-
3	R	-

Connector No.	D40
Connector Name	FRONT POWER WINDOW MOTOR (DRIVER SIDE)
Connector Type	MB_A2205455228

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	G	-
4	B/V	-
5	B/BR	-
6	B/L	-

Connector No.	D55
Connector Name	RIGHT FRONT DOOR CONTROL UNIT
Connector Type	MB_A0025406281

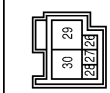
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
21	BR	BODY CAN 1-L
22	R	BODY CAN 1-H
24	BR	GROUND
25	R	BATTERY POWER SUPPLY

Connector No.	D56
Connector Name	RIGHT FRONT DOOR CONTROL UNIT
Connector Type	MB_A0025406481

H.S.

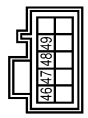


Terminal No.	Color Of Wire	Signal Name [Specification]
26	B/V	ENCODER SIGNAL
27	B/L	ENCODER POWER SUPPLY
28	B/BR	ENCODER GROUND
29	B	POWER WINDOW MOTOR DOWN
30	G	POWER WINDOW MOTOR UP

JRKWF8953GB

POWER WINDOW SYSTEM

Connector No.	D59
Connector Name	RIGHT FRONT DOOR CONTROL UNIT
Connector Type	MB_A0255459626



Terminal No.	Color Of Wire	Signal Name [Specification]
46	V	POWER WINDOW SW OPEN SIG
47	BR	SW GND
48	O	POWER WINDOW SW INDICATOR
49	G	POWER WINDOW SW CLOSE SIG

Connector No.	D89
Connector Name	FRONT POWER WINDOW MOTOR (PASSENGER SIDE)
Connector Type	MB_A2205455228



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	G	-
4	B/V	-
5	B/BR	-
6	B/L	-

Connector No.	D91
Connector Name	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
Connector Type	MB_A0385451228

Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	BR	-
3	O	-
4	G	-

Connector No.	D83
Connector Name	WIRE TO WIRE
Connector Type	MB_A2205453928

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	R	-
3	R	-
4	W	-

Connector No.	D103
Connector Name	WIRE TO WIRE
Connector Type	MB_A0265456526



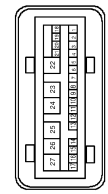
Terminal No.	Color Of Wire	Signal Name [Specification]
3	L	-
4	GR	-
5	P	-
6	B	-
8	W	-
9	Y	-
10	BR	-

Connector No.	D104
Connector Name	WIRE TO WIRE
Connector Type	MB_A2215450828



Terminal No.	Color Of Wire	Signal Name [Specification]
3	L	-
4	GR	-
5	P	-
6	B	-
8	W	-
9	Y	-
10	BR	-

Connector No.	D106
Connector Name	WIRE TO WIRE
Connector Type	MB_A0085408981



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	B	-
3	G	- [Without BOSE audio]
3	W	- [With BOSE audio]
4	B	- [With BOSE audio]
4	L	- [Without BOSE audio]
5	G	-
6	V	-
8	W	-
9	P	-
10	L	-
11	G	-
12	W	-
13	O	-
14	W	-
15	R	-
16	Y	-
17	BR	-
19	GR	-
20	W	-
21	R	-
26	G	-
27	L	-

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POWER WINDOW SYSTEM

Connector No.	D112
Connector Name	REAR POWER WINDOW MOTOR LH
Connector Type	MB_A2205455228

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	G	-
4	W	-
5	O	-
6	R	-

Connector No.	D113
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	MB_A0385451228

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	P	-
3	GR	-
4	L	-

Connector No.	D123
Connector Name	WIRE TO WIRE
Connector Type	MB_A0265456526

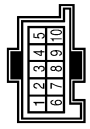
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
3	L	-
4	GR	-
5	P	-
6	B	-
8	W	-
9	Y	-
10	BR	-

Connector No.	D124
Connector Name	WIRE TO WIRE
Connector Type	MB_A2215450828

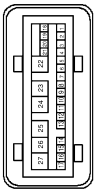
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
3	L	-
4	GR	-
5	P	-
6	B	-
8	W	-
9	Y	-
10	BR	-

Connector No.	D126
Connector Name	WIRE TO WIRE
Connector Type	MB_A0085408981

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	B	-
3	L	-
4	P	-
5	GR	-
6	O	-
8	W	-
9	P	-
10	L	-
11	G	-
12	W	-
13	O	-
14	W	-
15	R	-
16	Y	-
17	BR	-
19	GR	-
20	W	-
21	R	-
26	G	-
27	L	-

Connector No.	D132
Connector Name	REAR POWER WINDOW MOTOR RH
Connector Type	MB_A2205455228

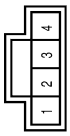
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	G	-
4	W	-
5	O	-
6	R	-

Connector No.	D133
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	MB_A0385451228

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	P	-
3	GR	-
4	L	-

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POWER WINDOW SYSTEM

Connector No.	E14
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB_A0235458926

Terminal No.	Color Of Wire	Signal Name [Specification]
115	R	BAT (VIA DECOUPLING RELAY)
117	R	BAT (VIA DECOUPLING RELAY)
118	BR	GND

Connector No.	M5
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	MB_A0095405681

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	BUMPER SENSOR RH GROUND
2	W	BUMPER SENSOR RH SIGNAL
3	B	BUMPER SENSOR LH SIGNAL
4	W	BUMPER SENSOR LH GROUND
9	L/G	POP-UP ENGINE HOOD ACTUATOR RH (-)
10	BR/B	POP-UP ENGINE HOOD ACTUATOR RH (+)
11	O	POP-UP ENGINE HOOD ACTUATOR LH (+)
12	BR/W	POP-UP ENGINE HOOD ACTUATOR LH (-)
37	V	FUSE(-)
38	W	FUSE(+)
40	Y	OCCUPANT LIN SIGNAL
41	V/G	RPRH(+)
42	BR/Y	RPRH(-)
43	BR/Y	RPLH(-)
44	V/G	RPLH(+)
45	B	REAR BUCKLE SWITCH RH(-)
46	G	REAR BUCKLE SWITCH RH(+)
47	B	REAR BUCKLE SWITCH CENTER(-)
48	G	REAR BUCKLE SWITCH CENTER(+)
49	B	REAR BUCKLE SWITCH RH(-)
50	G	REAR BUCKLE SWITCH RH(+)
51	Y	AIR BAG SIGNAL
52	P	AIR BAG SIGNAL
53	G	CAN-L
54	W	CAN-H
57	R	B-SATELITE LH(+)
58	B	B-SATELITE LH(-)
59	BR	B-SATELITE RH(+)
60	L	B-SATELITE RH(-)
61	BR	FRONT DOOR SATELLITE RH(-)
62	G	FRONT DOOR SATELLITE RH(+)
63	B	FRONT DOOR SATELLITE LH(+)
64	BR	FRONT DOOR SATELLITE LH(-)
67	W	REAR DOOR SATELLITE RH(-)
68	B	REAR DOOR SATELLITE RH(+)
69	R	REAR DOOR SATELLITE LH(-)
70	W	REAR DOOR SATELLITE LH(+)
71	Y	BUCKLE SWITCH AS(+)
72	O	BUCKLE SWITCH AS(-)
73	Y	BUCKLE SWITCH DR(+)
74	O	BUCKLE SWITCH DR(-)
75	V/G	CLH(+)
76	BR/Y	CLH(-)
77	W/BR	CRH(+)
78	R/V	CRH(-)
85	P	CZS RH(-)
86	W	CZS RH(+)
87	BR	CZS LH(-)
88	L	CZS LH(+)
89	O	SAB AS(-)
90	Y	SAB AS(+)
93	Y	SAB DR(+)
94	O	SAB DR(-)
95	BR	FPRH(-)
96	L/W	FPRH(+)
97	G	FPLH(+)
98	V	FPLH(-)
100	BR	GND
101	BR	GND
103	Y	KL15R
104	G	KL30

Connector No.	M25
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB_A0075405081

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	ROTARY LIGHT SW GND
2	O	ROTARY LIGHT SW (PL/PR/TAL)
3	R	ROTARY LIGHT SW (AUTO/LOW)
4	G	ROTARY LIGHT SW (FR FOG)
5	Y	-
7	GR	SWITCH INDICATOR
8	R	CAN-H (BODY 2)
9	BR	CAN-L (BODY 2)
12	O	LIN (IBS)
14	G	FOOT LAMP

Connector No.	M26
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB_A0235459826

Terminal No.	Color Of Wire	Signal Name [Specification]
15	W	BAT (FUSE)
16	BR	BAT (FUSE)
17	R	BAT (FUSE)
18	B	GND

Connector No.	M27
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB_A1665400381

Terminal No.	Color Of Wire	Signal Name [Specification]
19	Y	RR POWER WINDOW MOTOR RH CONT (UP)
20	G	RR POWER WINDOW MOTOR RH CONT (DOWN)
21	B	RR POWER WINDOW MOTOR LH CONT (UP)
22	GR	RR POWER WINDOW MOTOR LH CONT (DOWN)
23	P	AIR BAG SIGNAL
27	GR	BACK DOOR OPENER SW
33	O	RR POWER WINDOW SW LH GND
34	BR	RR POWER WINDOW SW LH (DOWN)
36	O	RR POWER WINDOW SW LH (UP)
37	W	RR DOOR RH STATUS
39	Y	BACK DOOR STATUS
40	V	BACK DOOR LAMP
41	W	RR DOOR LH STATUS
42	V	LUGGAGE ROOM LAMP
43	GR	BACK-UP LAMP LH
44	W	HIGH-MOUNTED STOP LAMP
45	O	TAIL LAMP (BODY RH)
48	GR	TAIL LAMP (BK RH)
50	GR	-
57	Y	STOP LAMP (BODY LH)
58	B	REAR TURN SIGNAL RH
59	P	RR DOOR RH UNLOCK
60	G	RR DOOR RH LOCK
62	GR	LICENSE PLATE LAMP LH
63	W	HALL SENSOR LH SIGNAL
64	GR	HALL SENSOR LH GND
65	R	HALL SENSOR LH POWER SUPPLY

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POWER WINDOW SYSTEM

Connector No.	M28
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB A166540048



Terminal No.	Color Of Wire	Signal Name [Specification]
67	V	BACK DOOR UNLOCK
69	GR	STOP LAMP (BODY RH)
70	B	REAR TURN SIGNAL LH
71	GR	BACK-UP LAMP RH
72	Y	LICENSE PLATE LAMP RH
73	L	RR POWER WINDOW SW RH UP
74	B	RR POWER WINDOW SW RH DOWN
75	L	RR POWER WINDOW SW RH GND
76	GR	HALL SENSOR RH POWER SUPPLY
77	R	SUB BAT-
78	B	TERMINAL RELAY 15R1 CONT
80	B	REAR WIPER RELAY CONT
82	GR	TAIL LAMP (BODY LH)
83	P	TERMINAL RELAY 15R2 CONT
85	B	TAIL LAMP (BK LH)
87	R	BAT (VIA LATCHING TERMINAL RELAY 30G)
89	O	HALL SENSOR RH GND
90	V	HALL SENSOR RH SIGNAL
91	P	FUEL LEVEL SENSOR GND
92	L	FUEL LEVEL SENSOR
93	GR	FUEL LEVEL SENSOR
94	Y	FUEL FILLER LID STATUS
97	G	LATCHING TERMINAL RELAY 30G CONT 1
98	B	LATCHING TERMINAL RELAY 30G GND 1
99	W	LATCHING TERMINAL RELAY 30G GND 2
100	V	LATCHING TERMINAL RELAY 30G CONT 2
101	Y	REAR DOOR INSIDE HANDLE LAMP CONT
102	GR	AMBIENT LAMP CONT
103	V	SUB BAT RELAY CONT
105	G	RR DOOR LH UNLOCK
106	W	FUEL FILLER LID UNLOCK
107	L	RR DOOR LH LOCK
108	R	SUB BAT+
109	O	LIN (ROOF)
112	BR	CAN-L (BODY 1)
113	R	CAN-H (BODY 1)

114	B	INJECTION RELAY CONT

Connector No.	M60
Connector Name	WIRE TO WIRE
Connector Type	MB A0375450528



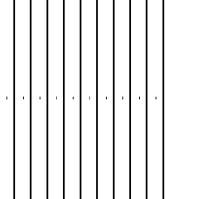
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	Y	-
3	BR	-
4	R	-

Connector No.	M62
Connector Name	WIRE TO WIRE
Connector Type	MB A0375450528



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	R	-
3	R	-
4	W	-

Connector No.	M63
Connector Name	WIRE TO WIRE
Connector Type	MB A0085409181

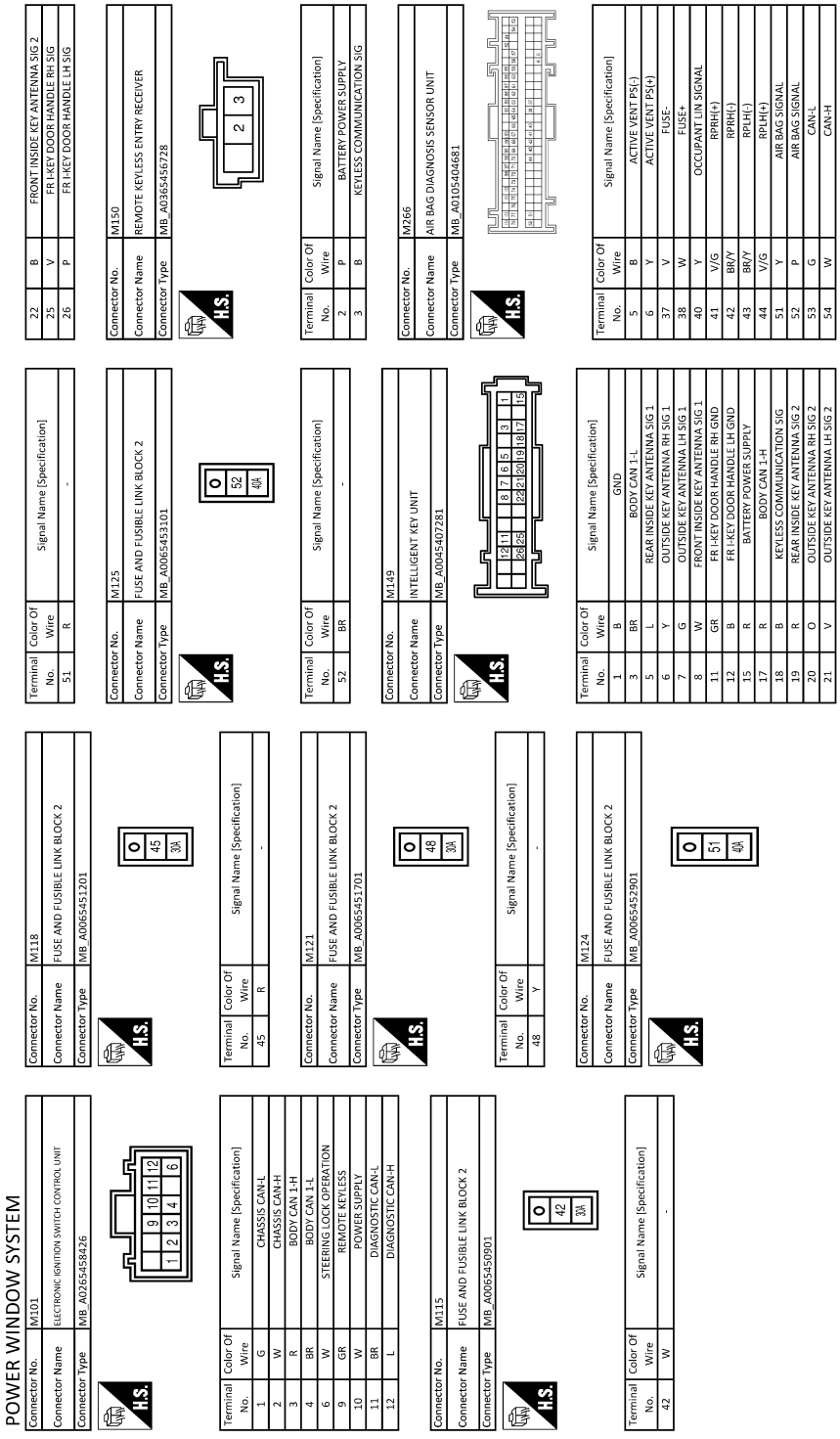


Terminal No.	Color Of Wire	Signal Name [Specification]
1	O	-
2	BR	-
3	G	- [Without BOSE audio]
3	W	- [With BOSE audio]
4	B	- [With BOSE audio]
4	L	- [Without BOSE audio]
5	G	-
6	V	-
8	GR	-
9	O	-
10	L	-
11	G	-
12	W	-
13	GR	-
14	W	-
15	R	-
16	Y	-
17	BR	-
19	GR	-
20	W	-
21	R	-
26	GR	-
27	B	-

Connector No.	M64
Connector Name	WIRE TO WIRE
Connector Type	MB A0085409181

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	B	-
3	L	-
4	P	-
5	Y	-
6	O	-
8	GR	-
9	L	-
10	G	-
11	P	-
12	W	-
13	O	-
14	V	-
15	GR	-
16	Y	-
17	BR	-
19	GR	-
20	W	-
21	B	-
26	G	-
27	Y	-

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POWER WINDOW SYSTEM

57	R	B-SATELITE LH(+)
58	B	B-SATELITE LH(-)
59	BR	B-SATELITE RH(-)
60	L	B-SATELITE RH(+)
61	BR	FRONT DOOR SATELLITE RH(-)
62	G	FRONT DOOR SATELLITE RH(+)
63	B	FRONT DOOR SATELLITE LH(+)
64	BR	FRONT DOOR SATELLITE LH(-)
65	G	SEAT POS PS(+)
66	BR	SEAT POS PS(-)
67	W	REAR DOOR SATELLITE RH(-)
68	B	REAR DOOR SATELLITE RH(+)
69	R	REAR DOOR SATELLITE LH(+)
70	W	REAR DOOR SATELLITE LH(-)
71	Y	BUCKLE_SWITCH_PS+
72	O	BUCKLE_SWITCH_PS-
73	Y	BUCKLE_SWITCH_DR+
74	O	BUCKLE_SWITCH_DR-
75	V/G	CLH(+)
76	BR/Y	CLH(-)
77	W/BR	CRH(+)
78	R/V	CRH(-)
81	R	FORCE LIMITER PS(-)
82	B	FORCE LIMITER PS(+)
85	P	CZS RH(-)
86	W	CZS RH(+)
87	BR	CZS LH(-)
88	L	CZS LH(+)
89	O	SAB AS(-)
90	Y	SAB AS(+)
93	Y	SAB DR(+)
94	O	SAB DR(-)
95	BR	FPRH(-)
96	L/W	FPRH(+)
97	G	FPLH(+)
98	V	FPLH(-)
100	BR	GND
101	BR	GND
103	Y	KI.15R
104	G	KI.30

Connector No.	M362
Connector Name	JOINT CONNECTOR-M13
Connector Type	FEA24JBR

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	V	-
6	G	-
7	GR	-
8	GR	-
10	GR	-
11	GR	-
12	GR	-
17	B	-
18	B	-
20	L	-
21	L	-
23	B	-
24	B	-

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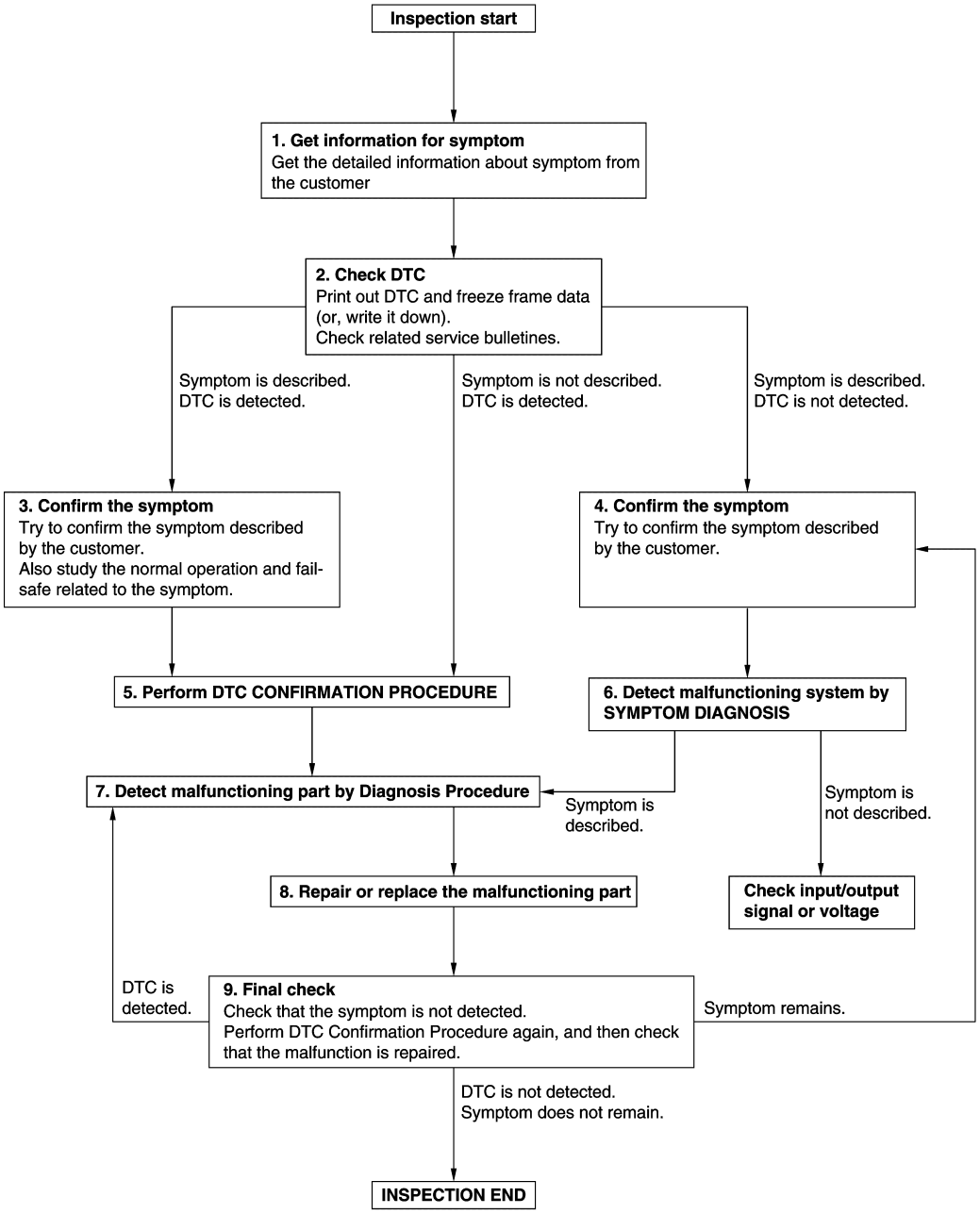
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000013479206

OVERALL SEQUENCE



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DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

2.CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is detected.

- Record DTC and freeze frame data (Print them out using CONSULT.)
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.

3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.
Symptom is described, DTC is not detected>>GO TO 4.
Symptom is not described, DTC is detected>>GO TO 5.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.
Also study the normal operation and fail-safe related to the symptom.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.
If two or more DTCs are detected, refer to DLK-58, "DTC Inspection Priority Chart" (left front door control unit), DLK-69, "DTC Inspection Priority Chart" (right front door control unit), or BCS-51, "DTC Index" (BCM), and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.
  If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.
NO >> Check according to GI-56, "Intermittent Incident".

6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

Is the symptom described?

YES >> GO TO 7.
NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

7.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.
NO >> Check according to GI-56, "Intermittent Incident".

8.REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

9.FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.
When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.
YES-2 >> Symptom remains: GO TO 4.
NO >> Before returning the vehicle to the customer, always erase DTC.

SYSTEM INITIALIZATION

Description

INFOID:0000000013479207

If any of the following operations are performed, the initialization is necessary for normal operation of power window system.
- When left front door control unit or right front door control unit replaced.
- When BCM replaced.

CAUTION:
The following specified operations cannot be performed under the non-initialized condition.
- **Auto-up operation**
- **Anti-pinch function**
- **Keyless power window up/down function**

Refer to PWC-26, "Work Procedure".

Work Procedure

INFOID:0000000013479208

1.SYSTEM INITIALIZATION

1. Close the door.
2. Turn ignition switch ON.
3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 2 seconds or more.
5. Check that AUTO-UP function operates normally.

>> INSPECTION END

DTC/CIRCUIT DIAGNOSIS

B18B5 POWER WINDOW MAIN SWITCH
LH

LH : DTC Description

INFOID:0000000013479209

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B5	2A	Front power window switch left (Front power window switch left)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (left front window switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE
- Power window main switch
- Left front door control unit

FAIL SAFE
Front power window motor (driver side) does not operate by power window main switch.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-27, "LH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

LH : Diagnosis Procedure

INFOID:0000000013479210

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B5–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-27, "LH : DTC Description".

Is DTC “B18B5–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.

2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".
3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-27, "LH : DTC Description".

Is DTC “B18B5–2A” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

RH

RH : DTC Description

INFOID:0000000013479211

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B5	2A	Front power window switch left (Front power window switch left)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (left front window switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Power window main switch
- Right front door control unit

FAIL SAFE

Front power window motor (passenger side) does not operate by power window main switch.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-28, "RH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

RH : Diagnosis Procedure

INFOID:0000000013479212

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B5–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-28, "RH : DTC Description".

Is DTC “B18B5–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3. REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".
3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-28, "RH : DTC Description".

Is DTC “B18B5–2A” detected?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

B18B6 POWER WINDOW MAIN SWITCH
LH

LH : DTC Description

INFOID:0000000013479213

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B6	2A	Front power window switch right (Front power window switch right)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (front right window switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE
- Power window main switch
- Left front door control unit

FAIL SAFE
Front power window motor (passenger side) does not operate by power window main switch.

DTC CONFIRMATION PROCEDURE
1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-30, "LH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

LH : Diagnosis Procedure

INFOID:0000000013479214

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B6–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-30, "LH : DTC Description".

Is DTC “B18B6–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".
3. Turn ignition switch ON.

4. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-30, "LH : DTC Description".

Is DTC “B18B6–2A” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

RH

RH : DTC Description

INFOID:0000000013479215

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B6	2A	Front power window switch right (Front power window switch right)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (front right window switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Power window main switch
- Right front door control unit

FAIL SAFE

Front power window motor (driver side) does not operate by power window main switch.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-31, "RH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

RH : Diagnosis Procedure

INFOID:0000000013479216

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B6–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-31, "RH : DTC Description".

Is DTC “B18B6–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3. REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".
3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-31, "RH : DTC Description".

Is DTC “B18B6–2A” detected?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

B18B7 POWER WINDOW MAIN SWITCH (REAR LH SWITCH) LH

LH : DTC Description

INFOID:0000000013479217

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B7	2A	Power window switch rl (Power window switch rear left)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (rear left window switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Power window main switch
- Left front door control unit

FAIL SAFE

Rear power window motor LH does not operate by power window main switch.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-33, "LH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

LH : Diagnosis Procedure

INFOID:0000000013479218

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B7–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-33, "LH : DTC Description".

Is DTC “B18B7–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to PWC-33, "LH : DTC Description".

3.REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".
3. Turn ignition switch ON.

4. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-33, "LH : DTC Description".

Is DTC “B18B7–2A” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

RH

RH : DTC Description

INFOID:0000000013479219

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B7	2A	Power window switch rl (Power window switch rear left)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (rear left window switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Power window main switch
- Right front door control unit

FAIL SAFE

Rear power window motor LH does not operate by power window main switch.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-34, "RH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

RH : Diagnosis Procedure

INFOID:0000000013479220

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B7–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-34, "RH : DTC Description".

Is DTC “B18B7–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".
3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-34, "RH : DTC Description".

Is DTC “B18B7–2A” detected?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

B18B8 POWER WINDOW MAIN SWITCH (REAR RH SWITCH)
LH

LH : DTC Description

INFOID:0000000013479221

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B8	2A	Power window switch rr (Power window switch rear right)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (rear right window switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Power window main switch
- Left front door control unit

FAIL SAFE

Rear power window motor RH does not operate by power window main switch.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-36, "LH : DTC Description".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

LH : Diagnosis Procedure

INFOID:0000000013479222

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B8–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-36, "LH : DTC Description".

Is DTC “B18B8–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".
3. Turn ignition switch ON.

4. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-36, "LH : DTC Description".

Is DTC “B18B8–2A” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

RH

RH : DTC Description

INFOID:0000000013479223

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B8	2A	Power window switch rr (Power window switch rear right)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (rear right window switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Power window main switch
- Right front door control unit

FAIL SAFE

Rear power window motor RH does not operate by power window main switch.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-37, "RH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

RH : Diagnosis Procedure

INFOID:0000000013479224

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B8–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-37, "RH : DTC Description".

Is DTC “B18B8–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".
3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-37, "RH : DTC Description".

Is DTC “B18B8–2A” detected?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

B18B9 POWER WINDOW MAIN SWITCH (POWER WINDOW LOCK SWITCH)

LH

LH : DTC Description

INFOID:0000000013479225

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B9	2A	Power window lock switch (Power window lock switch)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (power window lock switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Power window main switch
- Left front door control unit

FAIL SAFE

Inhibit power window lock operation.

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-39, "LH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

LH : Diagnosis Procedure

INFOID:0000000013479226

1. CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B9–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2. ERASE DTC

1. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-39, "LH : DTC Description".

Is DTC “B18B9–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3. REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".

3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-39, "LH : DTC Description".

Is DTC “B18B9–2A” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

RH

RH : DTC Description

INFOID:0000000013479227

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B9	2A	Power window lock switch (Power window lock switch)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window switch signal (LIN communication)
				Threshold	Power window main switch (power window lock switch) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Power window main switch
- Right front door control unit

FAIL SAFE

Inhibit power window lock operation.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-40, "RH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

RH : Diagnosis Procedure

INFOID:0000000013479228

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B9–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-40, "RH : DTC Description".

Is DTC “B18B9–2A” detected?

YES >> GO TO 3.

NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3. REPLACE POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Replace power window main switch. Refer to PWC-89, "Removal and Installation".
3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-40, "RH : DTC Description".

Is DTC “B18B9–2A” detected?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

B18C1 FRONT POWER WINDOW MOTOR HALL SENSOR LH

LH : DTC Description

INFOID:0000000013479229

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18C1	16	Power window motor position sensor 1 (Power window motor position sensor 1)	[CIRC VOLT BELOW THRESHOLD]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window encoder signal
				Threshold	Power window encoder signal is outside the value range. The limit value for electrical voltage has not been attained.
				Diagnosis delay time	0.5 seconds

POSSIBLE CAUSE

- Left front power window motor
- Harness or connector (hall sensor)

FAIL SAFE

–

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-42, "LH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

LH : Diagnosis Procedure

INFOID:0000000013479230

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18C1-16”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-42, "LH : DTC Description".

Is DTC “B18C1-16” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.CHECK BATTERY VOLTAGE

1. Turn ignition switch OFF.
2. Measure the battery voltage.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Perform battery inspection. Refer to PG-102, "MAIN BATTERY : How to Handle Battery".

4. CHECK HALL SENSOR POWER SUPPLY SIGNAL

1. Disconnect left front power window motor connector.
2. Check voltage between left power window motor harness connector and ground.

(+)		(-)	Voltage (Approx.)
Front power window motor (driver side)			
Connector	Terminal		
D40	6	Ground	12 V

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5. CHECK HALL SENSOR POWER SUPPLY CIRCUIT

1. Disconnect left front door control unit connector.
2. Check continuity between left front door control unit harness connector and left front power window motor harness connector.

Left front door control unit		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
D13	27	D40	6	Existed

Is the inspection result normal?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

6. CHECK HALL SENSOR OUTPUT SIGNAL

Check voltage between left power window motor connector harness and ground.

(+)		(-)	Voltage (Approx.)
Front power window motor (driver side)			
Connector	Terminal		
D40	4	Ground	12 V

Is the inspection result normal?

YES >> GO TO 8.
NO >> GO TO 7.

7. CHECK HALL SENSOR OUTPUT SIGNAL CIRCUIT

1. Disconnect left front door control unit connector.
2. Check continuity between left front door control unit harness connector and left front power window motor harness connector.

Left front door control unit		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
D13	26	D40	4	Existed

Is the inspection result normal?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

8. REPLACE LEFT FRONT POWER WINDOW MOTOR AND ERASE DTC

1. Replace left front power window motor. Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-42, "LH : DTC Description".

Is DTC “B18C1-16” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

RH

RH : DTC Description

INFOID:0000000013479231

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18C1	16	Power window motor position sensor 1 (Power window motor position sensor 1)	[CIRC VOLT BELOW THRESHOLD]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window encoder signal
				Threshold	Power window encoder signal is outside the value range. The limit value for electrical voltage has not been attained.
				Diagnosis delay time	0.5 seconds

POSSIBLE CAUSE

- Right front power window motor
- Harness or connector (hall sensor)

FAIL SAFE

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DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-44, "RH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

RH : Diagnosis Procedure

INFOID:0000000013479232

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18C1-16”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-44, "RH : DTC Description".

Is DTC “B18C1-16” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.CHECK BATTERY VOLTAGE

1. Turn ignition switch OFF.
2. Measure the battery voltage.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Perform battery inspection. Refer to PG-102, "MAIN BATTERY : How to Handle Battery".

4.CHECK HALL SENSOR POWER SUPPLY SIGNAL

1. Disconnect right front power window motor connector.
2. Check voltage between right power window motor harness connector and ground.

(+)		(-)	Voltage (Approx.)
Front power window motor (passenger side)			
Connector	Terminal		
D89	6	Ground	12 V

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5.CHECK HALL SENSOR POWER SUPPLY CIRCUIT

1. Disconnect right front door control unit connector.
2. Check continuity between right front door control unit harness connector and right front power window motor harness connector.

Right front door control unit		Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
D56	27	D89	6	Existed

Is the inspection result normal?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

6.CHECK HALL SENSOR OUTPUT SIGNAL

Check voltage between right power window motor harness connector and ground.

(+)		(-)	Voltage (Approx.)
Front power window motor (passenger side)			
Connector	Terminal		
D89	4	Ground	12 V

Is the inspection result normal?

YES >> GO TO 8.
NO >> GO TO 7.

7.CHECK HALL SENSOR OUTPUT SIGNAL CIRCUIT

1. Disconnect right front door control unit connector.
2. Check continuity between right front door control unit harness connector and right front power window motor harness connector.

Right front door control unit		Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
D56	26	D89	4	Existed

Is the inspection result normal?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

8.REPLACE RIGHT FRONT POWER WINDOW MOTOR AND ERASE DTC

1. Replace right front power window motor. Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-44, "RH : DTC Description".

Is DTC “B18C1-16” detected?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

B18C9 FRONT POWER WINDOW MOTOR HALL SENSOR POWER SUPPLY

LH

LH : DTC Description

INFOID:0000000013479233

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18C9	11	Power window motor (Power window motor)	[CIRC SHORT TO GRND]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window encoder power supply signal
				Threshold	The power supply to the hall sensor has a malfunction.There is a short circuit to ground
				Diagnosis delay time	0.02 seconds

POSSIBLE CAUSE

- Short to ground between circuit of left front door control unit and left front power window motor
- Left front power window motor
- Left front door control unit

FAIL SAFE

Left front power window motor stops after 0.5 seconds.

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-47, "LH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

LH : Diagnosis Procedure

INFOID:0000000013479234

1. CHECK HALL SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect left front door control unit and left front power window motor connector.
3. Check continuity between left front power window motor harness connector and ground.

Front power window motor (driver side)		Ground	Continuity
Connector	Terminal		
D40	6		Not existed

Is the inspection result normal?

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

2. ERASE DTC

1. Connect left front door control unit and left front power window motor connector.
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-47, "LH : DTC Description".

Is DTC “B18C9-11” detected?

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

3.REPLACE LEFT FRONT POWER WINDOW MOTOR

1. Turn ignition switch OFF.
2. Replace left front power window motor. Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".
3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-47, "LH : DTC Description".

Is DTC “B18C9-11” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

RH

RH : DTC Description

INFOID:0000000013479235

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18C9	11	Power window motor (Power window motor)	[CIRC SHORT TO GRND]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Power window encoder power supply signal
				Threshold	The power supply to the hall sensor has a malfunction.There is a short circuit to ground
				Diagnosis delay time	0.02 seconds

POSSIBLE CAUSE

- Short to ground between circuit of right front door control unit and right front power window motor
- Right front power window motor
- Right front door control unit

FAIL SAFE

Right front power window motor stops after 0.5 seconds.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-48, "RH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

RH : Diagnosis Procedure

INFOID:0000000013479236

1.CHECK HALL SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect right front door control unit and right front power window motor connector.

3. Check continuity between right front power window motor harness connector and ground.

Front power window motor (passenger side)		Ground	Continuity
Connector	Terminal		
D89	6		Not existed

Is the inspection result normal?

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

2.ERASE DTC

1. Connect right front door control unit and right front power window motor connector.
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-48, "RH : DTC Description".

Is DTC “B18C9-11” detected?

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

3.REPLACE RIGHT FRONT POWER WINDOW MOTOR

1. Turn ignition switch OFF.
2. Replace right front power window motor. Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".
3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-48, "RH : DTC Description".

Is DTC “B18C9-11” detected?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

B18E6 FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
LH

LH : DTC Description

INFOID:0000000013479237

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18E6	2A	Power window switch (Power window switch)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	• Power window switch DOWN signal • Power window switch UP signal
				Threshold	Front power window switch (passenger) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Front power window switch (passenger side)
- Left front door control unit

FAIL SAFE

Front power window motor (passenger side) cannot be opened or closed by front power window switch (passenger side).

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-50, "LH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

LH : Diagnosis Procedure

INFOID:0000000013479238

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18E6–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-50, "LH : DTC Description".

Is DTC “B18E6–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.CHECK FRONT POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between front power window switch (passenger side) harness connector and ground.

(+)		(-)	Condition		Voltage (approx.)
Front power window switch (passenger side)					
Connector	Terminal				
D91	1	Ground	Front power window switch (passenger side)	Pressed (DOWN)	4 V
				Released	12 V
	4			Pressed (UP)	4 V
				Released	12 V

Is inspection result normal?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> GO TO 4.

4. CHECK FRONT POWER WINDOW SWITCH INPUT SIGNAL

1. Disconnect front power window switch (passenger side) connector.
2. Check voltage between front power window switch (passenger side) harness connector and ground.

(+)		(-)	Voltage (approx.)
Front power window switch (passenger side)			
Connector	Terminal		
D91	1	Ground	12 V
	4		

Is inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5. CHECK FRONT POWER WINDOW SWITCH INPUT SIGNAL CIRCUIT

1. Disconnect left front door control unit connector.
2. Check continuity between left front door control unit harness connector and front power window switch (passenger side) harness connector.

Front power window switch (passenger side)		Ground	Continuity
Connector	Terminal		
D91	1		Not existed
	4		

Is inspection result normal?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness or connector.

6. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

1. Replace front power window switch (passenger side). Refer to PWC-90, "Removal and Installation".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-50, "LH : DTC Description".

Is DTC “B18E6–2A” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

RH

RH : DTC Description

INFOID:0000000013479239

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18E6	2A	Power window switch (Power window switch)	[SIGNAL STUCK IN RANGE]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	• Power window switch DOWN signal • Power window switch UP signal
				Threshold	Front power window switch (passenger) has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Front power window switch (passenger side)
- Right front door control unit

FAIL SAFE

Front power window motor (passenger side) cannot be opened or closed by front power window switch (passenger side).

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-52, "RH : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

RH : Diagnosis Procedure

INFOID:0000000013479240

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18E6–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-52, "RH : DTC Description".

Is DTC “B18E6–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.CHECK FRONT POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between front power window (passenger side) switch harness connector and ground.

(+)		(-)	Condition		Voltage (approx.)
Front power window switch (passenger side)					
Connector	Terminal				
D41	1	Ground	Front power window switch (passenger side)	Pressed (DOWN)	4 V
				Released	12 V
	4			Pressed (UP)	4 V
				Released	12 V

Is inspection result normal?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> GO TO 4.

4. CHECK FRONT POWER WINDOW SWITCH INPUT SIGNAL

1. Disconnect front power window switch (passenger side) connector.
2. Check voltage between front power window switch (passenger side) harness connector and ground.

(+)		(-)	Voltage (approx.)
Front power window switch (passenger side)			
Connector	Terminal		
D41	1	Ground	12 V
	4		

Is inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5. CHECK FRONT POWER WINDOW SWITCH INPUT SIGNAL CIRCUIT

1. Disconnect right front door control unit connector.
2. Check continuity between right front door control unit harness connector and front power window switch (passenger side) harness connector.

Front power window switch (passenger side)		Ground	Continuity
Connector	Terminal		
D41	1		Not existed
	4		

Is inspection result normal?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness or connector.

6. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

1. Replace front power window switch (passenger side). Refer to PWC-90, "Removal and Installation".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-52, "RH : DTC Description".

Is DTC “B18E6–2A” detected?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

B1A7B POWER WINDOW OPERATION
LEFT FRONT DOOR CONTROL UNIT

LEFT FRONT DOOR CONTROL UNIT : DTC Description

INFOID:0000000013479241

DTC DETECTION LOGIC

DTC		CONSULT screen items (Trouble diagnosis content)	CONSULT screen items [Malfunction type]	DTC detecting condition	
B1A7B	00	Power window initialization (Power window initialization)	[NO SUBTYPE INFO]	Diagnosis condition	Anti-pinch function: activate
				Signal (terminal)	–
				Threshold	Initialization is not performed
				Diagnosis delay time	5 seconds

POSSIBLE CAUSE
- System initialization is not performed
- Left front door control unit

FAIL-SAFE
AUTO UP cannot be operated.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Anti-pinch function: activate.
3. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-54, "LEFT FRONT DOOR CONTROL UNIT : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

LEFT FRONT DOOR CONTROL UNIT : Diagnosis Procedure

INFOID:0000000013479242

1.PERFORM INITIALZATION

1. Perform initialization. Refer to PWC-26, "Description".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-54, "LEFT FRONT DOOR CONTROL UNIT : DTC Description".

Is DTC “B1A7B–00” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

RIGHT FRONT DOOR CONTROL UNIT

RIGHT FRONT DOOR CONTROL UNIT : DTC Description

INFOID:0000000013479243

DTC DETECTION LOGIC

DTC		CONSULT screen items (Trouble diagnosis content)	CONSULT screen items [Malfunction type]	DTC detecting condition	
B1A7B	00	Power window initialization (Power window initialization)	[NO SUBTYPE INFO]	Diagnosis condition	Anti-pinch function: activate
				Signal (terminal)	–
				Threshold	Initialization is not performed
				Diagnosis delay time	5 seconds

POSSIBLE CAUSE

- System initialization is not performed
- Right front door control unit

FAIL-SAFE

AUTO UP cannot be operated.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn ignition switch ON.
2. Anti-pinch function: activate.
3. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-55, "RIGHT FRONT DOOR CONTROL UNIT : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

RIGHT FRONT DOOR CONTROL UNIT : Diagnosis Procedure

INFOID:0000000013479244

1.PERFORM INITIALZATION

1. Perform initialization. Refer to PWC-26, "Description".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “Right front door control unit” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-54, "RIGHT FRONT DOOR CONTROL UNIT : DTC Description".

Is DTC “B1A7B–00” detected?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

BCM

BCM : DTC Description

INFOID:0000000013479245

DTC DETECTION LOGIC

DTC		CONSULT screen items (Trouble diagnosis content)	CONSULT screen items [Malfunction type]	DTC detecting condition	
B1A7B	00	Power window initialization (Power window initialization)	[NO SUBTYPE INFO]	Diagnosis condition	Anti-pinch function: activate
				Signal (terminal)	–
				Threshold	Initialization is not performed
				Diagnosis delay time	5 seconds

POSSIBLE CAUSE

- System initialization is not performed
- BCM

FAIL-SAFE

AUTO UP cannot be operated.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Anti-pinch function: activate.
3. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-56, "BCM : Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

BCM : Diagnosis Procedure

INFOID:0000000013479246

1.PERFORM INITIALZATION

1. Perform initialization. Refer to PWC-26, "Description".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-55, "BCM : DTC Description".

Is DTC “B1A7B–00” detected?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> INSPECTION END

B18B7 REAR POWER WINDOW SWITCH LH

DTC Description

INFOID:0000000013479247

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B7	2A	Power window switch rl (Power window switch rear left)	[SIGNAL STUCK IN RANGE]	Diagnosis condition	Turn ignition switch ON
				Signal (terminal)	• Rear power window switch LH (DOWN) signal • Rear power window switch LH (UP) signal
				Threshold	Rear power window switch LH has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Rear power window switch LH
- BCM

FAIL SAFE

Rear power window motor LH cannot be opened or closed by the rear power window switch LH.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-57, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013479248

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B7–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of BCM” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-57, "DTC Description".

Is DTC “B18B7–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between rear power window switch LH harness connector and ground.

(+)		(-)	Condition		Voltage (approx.)
Rear power window switch LH					
Connector	Terminal				
D113	1	Ground	Rear power window switch LH	Pressed (DOWN)	5 V
				Released	12 V
	4			Pressed (UP)	5 V
				Released	12 V

Is inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> GO TO 4.

4. CHECK REAR POWER WINDOW SWITCH LH INPUT SIGNAL

1. Disconnect rear power window switch LH connector.
2. Check voltage between rear power window switch LH harness connector and ground.

(+)		(-)	Voltage (approx.)
Rear power window switch LH			
Connector	Terminal		
D113	1	Ground	12 V
	4		

Is inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5. CHECK REAR POWER WINDOW SWITCH LH INPUT SIGNAL CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM unit harness connector and rear power window switch LH harness connector.

Rear power window switch LH		Ground	Continuity
Connector	Terminal		
D113	1		Not existed
	4		

Is inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness or connector.

6. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

1. Replace rear power window switch LH. Refer to PWC-91, "Removal and Installation".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “Left front door control unit” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-50, "LH : DTC Description".

Is DTC “B18E6–2A” detected?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> INSPECTION END

B18B8 REAR POWER WINDOW SWITCH RH

DTC Description

INFOID:0000000013479249

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18B8	2A	Power window switch rr (Power window switch rear right)	[SIGNAL STUCK IN RANGE]	Diagnosis condition	Turn ignition switch ON
				Signal (terminal)	• Rear power window switch RH (DOWN) signal • Rear power window switch RH (UP) signal
				Threshold	Rear power window switch LH has a malfunction. There is no signal change (stuck at ON position).
				Diagnosis delay time	25 seconds

POSSIBLE CAUSE

- Rear power window switch RH
- BCM

FAIL SAFE

Rear power window motor RH cannot be opened or closed by the rear power window switch RH.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-59, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013479250

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B18B8–2A”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of BCM” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-59, "DTC Description".

Is DTC “B18B8–2A” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Check voltage between front power window switch harness connector and ground.

(+)		(-)	Condition		Voltage (Approx.)
Rear power window switch RH					
Connector	Terminal				
D133	1	Ground	Rear power window switch RH	Pressed (DOWN)	5 V
				Released	12 V
	4			Pressed (UP)	5 V
				Released	12 V

Is inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> GO TO 4.

4. CHECK REAR POWER WINDOW SWITCH RH INPUT SIGNAL

1. Disconnect rear power window switch RH connector.
2. Check voltage between rear power window switch RH harness connector and ground.

(+)		(-)	Voltage (Approx.)
Rear power window switch RH			
Connector	Terminal		
D133	1	Ground	12 V
	4		

Is inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5. CHECK REAR POWER WINDOW SWITCH RH INPUT SIGNAL CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM unit harness connector and rear power window switch RH harness connector.

Rear power window switch RH		Ground	Continuity
Connector	Terminal		
D133	1		Not existed
	4		

Is inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness or connector.

6. REPLACE REAR POWER WINDOW SWITCH RH

1. Replace rear power window switch RH. Refer to PWC-91, "Removal and Installation".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-59, "DTC Description".

Is DTC “B18B8–2A” detected?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> INSPECTION END

B18C9 REAR POWER WINDOW MOTOR HALL SENSOR POWER SUPPLY

DTC Description

INFOID:0000000013479251

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B18C9	11	Power window motor (Power window motor)	[CIRC SHORT TO GRND]	Diagnosis condition	Turn ignition switch ON
				Signal (terminal)	Power window encoder power supply signal
				Threshold	The power supply to the hall sensor has a malfunction.There is a short circuit to ground
				Diagnosis delay time	0.02 seconds

POSSIBLE CAUSE

- Short to ground between circuit of BCM and rear power window motor
- Rear power window motor
- BCM

FAIL SAFE

Rear front power window motor stops after 0.5 seconds

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-61, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013479252

1.CHECK HALL SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and rear power window motor connector.
3. Check continuity between rear power window motor harness connector and ground.

Rear power window motor			Ground	Continuity
Connector		Terminal		
LH	D112	6		Not existed
RH	D132			

Is the inspection result normal?

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

2.ERASE DTC

1. Connect BCM and rear power window motor connector.
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-61, "DTC Description".

Is DTC “B18C9-11” detected?

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

3. REPLACE REAR POWER WINDOW MOTOR

1. Turn ignition switch OFF.
2. Replace rear power window motor. Refer to GW-55, "REAR DOOR POWER WINDOW MOTOR : Removal and Installation".
3. Turn ignition switch ON.
4. Select “Self Diagnostic Result” mode of BCM” using CONSULT.
5. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-47, "LH : DTC Description".

Is DTC “B18C9-11” detected?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> INSPECTION END

B2517 REAR POWER WINDOW MOTOR LH HALL SENSOR

DTC Description

INFOID:0000000013479253

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B2517	16	Power window motor rl (Power window motor rear left)	[CIRC VOLT BELOW THRESHOLD]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Rear power window hall sensor LH signal
				Threshold	Rear power window hall sensor LH signal is outside the value range. The limit value for electrical voltage has not been attained.
				Diagnosis delay time	0.5 seconds

POSSIBLE CAUSE

- Rear power window motor LH
- Harness or connector (hall sensor)

FAIL SAFE

–

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-63, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013479254

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B2517-16”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-63, "DTC Description".

Is DTC “B2517-16” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.CHECK BATTERY VOLTAGE

1. Turn ignition switch OFF.
2. Measure the battery voltage.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Perform battery inspection. Refer to PG-102, "MAIN BATTERY : How to Handle Battery".

4.CHECK HALL SENSOR POWER SUPPLY SIGNAL

1. Disconnect rear power window motor LH connector.
2. Check voltage between rear power window motor LH connector and ground.

(+)		(-)	Voltage (Approx.)
Rear power window motor LH			
Connector	Terminal		
D112	6	Ground	12 V

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5.CHECK HALL SENSOR POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and rear power window motor LH harness connector.

BCM		Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
M27	65	D112	6	Existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness.

6.CHECK HALL SENSOR SIGNAL CIRCUIT

1. Check voltage between rear power window motor LH connector and ground.

(+)		(-)	Voltage (Approx.)
Rear power window motor LH			
Connector	Terminal		
D112	4	Ground	12 V

Is the inspection result normal?

YES >> GO TO 8.
NO >> GO TO 7.

7.CHECK HALL SENSOR POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and rear power window motor LH harness connector.

BCM		Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
M27	63	D112	4	Existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness.

8.REPLACE REAR POWER WINDOW MOTOR LH ERASE DTC

1. Replace rear power window LH motor. Refer to GW-55, "REAR DOOR POWER WINDOW MOTOR : Removal and Installation".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-63, "DTC Description".

Is DTC “B2517-16” detected?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> INSPECTION END

B2519 REAR POWER WINDOW MOTOR RH HALL SENSOR

DTC Description

INFOID:0000000013479255

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis name)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B2519	16	Power window motor rr (Power window motor rear right)	[CIRC VOLT BELOW THRESHOLD]	Diagnosis	Turn ignition switch ON
				Signal (terminal)	Rear power window hall sensor RH signal
				Threshold	Rear power window hall sensor RH signal is outside the value range. The limit value for electrical voltage has not been attained.
				Diagnosis delay time	0.5 seconds

POSSIBLE CAUSE

- Rear power window motor RH
- Harness or connector (hall sensor)

FAIL SAFE

–

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.

Is DTC detected?

YES >> Refer to PWC-66, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013479256

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC “B2519-16”?

“PAST” >> GO TO 2.
“CRNT”>> GO TO 3.

2.ERASE DTC

1. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.
2. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-66, "DTC Description".

Is DTC “B2519-16” detected?

YES >> GO TO 3.
NO >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".

3.CHECK BATTERY VOLTAGE

1. Turn ignition switch OFF.
2. Measure the battery voltage.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Perform battery inspection. Refer to PG-102, "MAIN BATTERY : How to Handle Battery".

4. CHECK HALL SENSOR POWER SUPPLY SIGNAL

1. Disconnect rear power window motor RH connector.
2. Check voltage between rear power window motor RH connector and ground.

(+)		(-)	Voltage (Approx.)
Rear power window motor RH			
Connector	Terminal		
D132	6	Ground	12 V

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5. CHECK HALL SENSOR POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and rear power window motor RH harness connector.

BCM		Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
M28	76	D132	6	Existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness.

6. CHECK HALL SENSOR SIGNAL CIRCUIT

1. Check voltage between rear power window motor RH connector and ground.

(+)		(-)	Voltage (Approx.)
Rear power window motor RH			
Connector	Terminal		
D132	4	Ground	12 V

Is the inspection result normal?

YES >> GO TO 8.
NO >> GO TO 7.

7. CHECK HALL SENSOR POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and rear power window motor RH harness connector.

BCM		Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
M28	90	D132	4	Existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness.

8. REPLACE REAR POWER WINDOW MOTOR LH ERASE DTC

1. Replace rear power window RH motor. Refer to GW-55, "REAR DOOR POWER WINDOW MOTOR : Removal and Installation".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.
4. Erase DTC, and then repeat “DTC CONFIRMATION PROCEDURE”. Refer to PWC-63, "DTC Description".

Is DTC “B2519-16” detected?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> INSPECTION END

POWER SUPPLY AND GROUND CIRCUIT
POWER WINDOW MAIN SWITCH
POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000013479257

1.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY

1. Turn ignition OFF.
2. Disconnect power window main switch connector.
3. Check voltage between power window main switch harness connector and ground.

(+)		(-)	Voltage (approx.)
Power window main switch			
Connector	Terminal		
D38	3	Ground	12 V

Is the inspection result normal?

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

2.CHECK POWER WINDOW MAIN SWITCH GROUND CIRCUIT

1. Disconnect left front door control unit connector.
2. Check continuity between power window main switch harness connector and left front door control unit harness connector.

Power window main switch		Left front door control unit		Continuity
Connector	Terminal	Connector	Terminal	
D38	3	D16	43	Existed

Is the inspection result normal?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK POWER WINDOW MAIN SWITCH GROUND CIRCUIT

Check continuity between power window main switch harness connector and ground.

Power window main switch		Ground	Continuity
Connector	Terminal		
D38	2		Existed

Is the inspection result normal?

YES >> INSPECTION END.
NO >> GO TO 4.

4.CHECK LEFT FRONT DOOR CONTROL UNIT GROUND CIRCUIT

1. Disconnect left front door control unit connector.
2. Check continuity between power window main switch harness connector and left front door control unit harness connector.

Left front door control unit		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
D16	42	D38	2	Existed

Is the inspection result normal?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

POWER WINDOW MAIN SWITCH

Component Function Check

INFOID:0000000013479258

1. CHECK POWER WINDOW MAIN SWITCH FUNCTION

Check front power window motor (driver side) operation using power window main switch.

Is the inspection result normal?

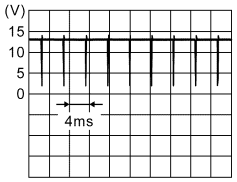
YES >> Power window main switch is OK.
NO >> Refer to PWC-70, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013479259

1. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check signal between left front door control unit harness connector and ground using oscilloscope.

(+)		(–)	Condition		Voltage (approx.)
Left front door control unit					
Connector	Terminal				
D16	41	Ground	Front power window LH	Operating	12 V
				Other than above	 JMKIB5942GB

Is the inspection result normal?

YES >> INSPECTION END.
NO >> GO TO 2.

2. CHECK POWER WINDOW MAIN SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector and left front door control unit connector.
3. Check continuity between power window main switch harness connector and left front door control unit harness connector.

Power window main switch		Left front door control unit		Continuity
Connector	Terminal	Connector	Terminal	
D38	1	D16	41	Existed

4. Check continuity between power window main switch harness connector and ground.

Power window main switch		Ground	Continuity
Connector	Terminal		
D38	1		Not existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-89, "Removal and Installation".
NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Component Function Check

INFOID:0000000013479260

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) FUNCTION

Check front power window motor (passenger side) operation using front power window switch (passenger side).

Is the inspection result normal?

YES >> Front power window switch (passenger side) is OK.
NO >> Refer to PWC-71, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013479261

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) connector and right front door control unit connector.
3. Check continuity between front power window switch (passenger side) harness connector and right front door control unit harness connector.

Front power window switch (passenger side)		Right front door control unit		Continuity
Connector	Terminal	Connector	Terminal	
D91	1	D59	46	Existed
	4		49	

4. Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window switch (passenger side)		Ground	Continuity
Connector	Terminal		
D91	1		Not existed
	4		

Is the inspection result normal?

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

2. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) GROUND CIRCUIT

Check continuity between front power window switch (passenger side) harness connector and right front door control unit.

Front power window switch (passenger side)		Right front door control unit		Continuity
Connector	Terminal	Connector	Terminal	
D91	2	D59	47	Existed

Is the inspection result normal?

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

REAR POWER WINDOW SWITCH
REAR LH
REAR LH : Component Function Check

INFOID:0000000013479262

1. CHECK REAR POWER WINDOW SWITCH LH FUNCTION

Check rear power window motor LH operation with rear power window switch LH.

Is the inspection result normal?

YES >> Rear power window switch is OK.
NO >> Refer to PWC-72, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

INFOID:0000000013479263

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground.

(+)		(-)	Condition		Voltage (approx.)
BCM					
Connector	Terminal				
M27	34	Ground	Rear power window switch LH	DOWN	5 V
				Other than above	12 V
	36			UP	5 V
				Other than above	12 V

Is the inspection result normal?

YES >> INSPECTION END.
NO >> GO TO 2.

2. CHECK REAR POWER WINDOW SWITCH LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH connector and BCM connector.
3. Check continuity between BCM harness connector and rear power window switch LH harness connector.

BCM		Rear power window switch LH		Continuity
Connector	Terminal	Connector	Terminal	
M27	34	D113	1	Existed
	36		4	

Is the inspection result normal?

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

3. CHECK REAR POWER WINDOW SWITCH LH GROUND CIRCUIT

Check continuity between rear power window switch LH harness connector and BCM.

Rear power window switch LH		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M27	33	D113	2	Existed

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-91, "Removal and Installation".
NO >> Repair or replace harness.

REAR RH

REAR RH : Component Function Check

INFOID:0000000013479264

1. CHECK REAR POWER WINDOW SWITCH RH FUNCTION

Check rear power window motor RH operation with rear power window switch RH.

Is the inspection result normal?

YES >> Rear power window switch is OK.
NO >> Refer to PWC-73, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:0000000013479265

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground.

(+)		(-)	Condition		Voltage (approx.)
BCM					
Connector	Terminal				
M28	73	Ground	Rear power window switch RH	UP	5 V
				Other than above	12 V
	74			DOWN	5 V
				Other than above	12 V

Is the inspection result normal?

YES >> INSPECTION END.
NO >> GO TO 2.

2. CHECK REAR POWER WINDOW SWITCH RH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch RH connector and BCM connector.
3. Check continuity between BCM harness connector and rear power window switch RH harness connector.

BCM		Rear power window switch RH		Continuity
Connector	Terminal	Connector	Terminal	
M28	73	D133	4	Existed
	74		1	

Is the inspection result normal?

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

3. CHECK REAR POWER WINDOW SWITCH RH GROUND CIRCUIT

Check continuity between BCM and rear power window switch RH harness connector.

BCM		Rear power window switch RH		Continuity
Connector	Terminal	Connector	Terminal	
M28	75	D133	2	Existed

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-91, "Removal and Installation".
NO >> Repair or replace harness.

POWER WINDOW MOTOR
DRIVER SIDE
DRIVER SIDE : Component Function Check

INFOID:0000000013479266

1. CHECK FUNCTION

Check front power window motor (driver side) operation with power window main switch.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-74, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000013479267

1. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front power window motor (driver side) connector.
3. Turn ignition switch ON.
4. Check voltage between front power window motor (driver side) harness connector and ground.

(+)		(-)	Condition		Voltage (approx)
Front power window motor (driver side)					
Connector	Terminal				
D40	1	Ground	Power window main switch	NEUTRAL	0 V
				DOWN	12 V
	2			NEUTRAL	0 V
				UP	12 V

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".
NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect left front door control unit connector.
3. Check continuity between left front door control unit harness connector and front power window motor (driver side) harness connector.

Left front door control unit		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
D13	29	D40	1	Existed
	30		2	

4. Check continuity between left front door control unit harness connector and ground.

Left front door control unit		Ground	Continuity
Connector	Terminal		
D13	29		Not existed
	30		

Is the inspection result normal?

YES >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000013479268

1. CHECK FUNCTION

Check front power window motor (passenger side) operation with power window main switch (passenger side switch) or front power window switch (passenger side).

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-75, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000013479269

1. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front power window motor (passenger side) connector.
3. Turn ignition switch ON.
4. Check voltage between front power window motor (passenger side) harness connector and ground.

(+)		(-)	Condition		Voltage (approx)
Front power window motor (passenger side)					
Connector	Terminal				
D89	1	Ground	Front power window switch (passenger side)	NEUTRAL	0 V
				DOWN	12 V
	2			NEUTRAL	0 V
				UP	12 V

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".
NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect right front door control unit connector.
3. Check continuity between right front door control unit harness connector and front power window motor (passenger side) harness connector.

Right front door control unit		Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
D56	29	D89	1	Existed
	30		2	

4. Check continuity between right front door control unit harness connector and ground.

Right front door control unit		Ground	Continuity
Connector	Terminal		
D56	29		Not existed
	30		

Is the inspection result normal?

YES >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

REAR LH

REAR LH : Component Function Check

INFOID:0000000013479270

1.CHECK FUNCTION

Check rear power window motor LH operation with power window main switch (rear LH switch) or rear power window switch LH.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-76, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

INFOID:0000000013479271

1.CHECK REAR POWER WINDOW MOTOR LH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect rear power window motor LH connector.
3. Turn ignition switch ON.
4. Check voltage between rear power window motor LH harness connector and ground.

(+)		(-)	Condition		Voltage (approx.)
Rear power window motor LH					
Connector	Terminal				
D112	1	Ground	Rear power window switch LH	NEUTRAL	0 V
				UP	12 V
	2			NEUTRAL	0 V
				DOWN	12 V

Is the inspection result normal?

YES >> Replace rear power window motor LH. Refer to GW-55, "REAR DOOR POWER WINDOW MOTOR : Removal and Installation".
NO >> GO TO 2.

2.CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between rear power window motor LH harness connector and BCM harness connector.

BCM		Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D27	21	D112	1	Existed
	22		2	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
D27	21		Not existed
	22		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness.

REAR RH

REAR RH : Component Function Check

INFOID:0000000013479272

1. CHECK FUNCTION

Check rear power window motor RH operation with power window main switch (rear RH switch) or rear power window switch RH.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-77, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:0000000013479273

1. CHECK REAR POWER WINDOW MOTOR RH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect rear power window motor RH connector.
3. Turn ignition switch ON.
4. Check voltage between rear power window motor RH harness connector and ground.

(+)		(-)	Condition		Voltage
Rear power window motor RH					
Connector	Terminal				
D132	1	Ground	Rear power window switch RH	NEUTRAL	0 V
				UP	12 V
	2			NEUTRAL	0 V
				DOWN	12 V

Is the inspection result normal?

YES >> Replace rear power window motor RH. Refer to GW-55, "REAR DOOR POWER WINDOW MOTOR : Removal and Installation".
NO >> GO TO 2.

2. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between rear power window motor RH harness connector and BCM harness connector.

BCM		Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D27	19	D132	1	Existed
	20		2	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
D27	19		Not existed
	20		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness.

SYMPTOM DIAGNOSIS

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Description

INFOID:0000000013479274

Driver side power window does not operate using power window main switch.

Diagnosis Procedure

INFOID:0000000013479275

1.CHECK DTC WITH LEFT FRONT DOOR CONTROL UNIT

Check that DTC is not detected with left front door control unit. Refer to DLK-60, "DTC Index".

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DLK-60, "DTC Index".
NO >> GO TO 2.

2.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check front power window motor (driver side) power supply and ground circuit.
Refer to PWC-69, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3.CHECK POWER WINDOW MAIN SWITCH

Check power window main switch.
Refer to PWC-70, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check front power window motor (driver side).
Refer to PWC-74, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace the malfunctioning parts.

5.REPLACE FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Replace front power window motor (driver side).
Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".

6.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".
NO >> GO TO 1.

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

Description

INFOID:0000000013479276

Front passenger side power window operates using power window main switch but does not operate using front power window switch (passenger side).

Diagnosis Procedure

INFOID:0000000013479277

1.CHECK DTC WITH RIGHT FRONT DOOR CONTROL UNIT

Check that DTC is not detected with right front door control unit. Refer to DLK-70, "DTC Index".

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DLK-70, "DTC Index".
NO >> GO TO 2.

2.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).
Refer to PWC-71, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

Check front power window motor (passenger side).
Refer to PWC-75, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4.REPLACE FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

Replace front power window motor (passenger side).
Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".
NO >> GO TO 1.

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

Description

INFOID:0000000013479278

Rear LH side power window operates using power window main switch but does not operate using rear power window switch LH.

Diagnosis Procedure

INFOID:0000000013479279

1.CHECK DTC WITH BCM

Check that DTC is not detected with BCM. Refer to BCS-51, "DTC Index"

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to BCS-51, "DTC Index".
NO >> GO TO 2.

2.CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.
Refer to PWC-72, "REAR LH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3.CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.
Refer to PWC-76, "REAR LH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4.REPLACE REAR POWER WINDOW MOTOR LH

Replace rear power window motor LH.
Refer to GW-55, "REAR DOOR POWER WINDOW MOTOR : Removal and Installation".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace BCM. Refer to BCS-248, "Removal and Installation".

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".
NO >> GO TO 1.

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

Description

INFOID:0000000013479280

Rear RH power window operates using power window main switch but does not operate using rear power window switch RH

Diagnosis Procedure

INFOID:0000000013479281

1.CHECK DTC WITH BCM

Check that DTC is not detected with BCM. Refer to BCS-51, "DTC Index"

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to BCS-51, "DTC Index".
NO >> GO TO 2.

2.CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.
Refer to PWC-73, "REAR RH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3.CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to PWC-76, "REAR RH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4.REPLACE REAR POWER WINDOW MOTOR RH

Replace rear power window motor RH.
Refer to GW-55, "REAR DOOR POWER WINDOW MOTOR : Removal and Installation".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace BCM. Refer to BCS-248, "Removal and Installation".

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".
NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000013479282

DRIVER SIDE

1.CHECK DTC WITH INTELLIGENT KEY UNIT

Check that DTC is not detected with intelligent key unit. Refer to DLK-47, "DTC Index"

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DLK-47, "DTC Index".
NO >> GO TO 2.

2.CHECK DOOR LOCK OPERATION

Check door lock/unlock using Intelligent Key.

Does door lock/unlock using Intelligent Key?

YES >> GO TO 3
NO >> Refer to DLK-47, "DTC Index".

3.CHECK POWER WINDOW MOTOR

Check front power window motor (driver side). Refer to PWC-74, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace front power window motor (driver side). Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".

4.REPLACE FRONT DOOR CONTROL UNIT

1. Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
2. Confirm the operation again.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".

PASSENGER SIDE

1.CHECK DTC WITH INTELLIGENT KEY UNIT

Check that DTC is not detected with intelligent key unit. Refer to DLK-47, "DTC Index"

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DLK-47, "DTC Index".
NO >> GO TO 2.

2.CHECK DOOR LOCK OPERATION

Check door lock/unlock using Intelligent Key.

Does door lock/unlock using Intelligent Key?

YES >> GO TO 3
NO >> Refer to DLK-47, "DTC Index".

3.CHECK POWER WINDOW MOTOR

Check front power window motor (passenger side). Refer to PWC-75, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace front power window motor (passenger side). Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".

4.REPLACE FRONT DOOR CONTROL UNIT

1. Replace right front door control unit. Refer to DLK-286, "Removal and Installation".

2. Confirm the operation again.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".

REAR

1.CHECK DTC WITH INTELLIGENT KEY UNIT

Check that DTC is not detected with intelligent key unit. Refer to DLK-47, "DTC Index"

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DLK-47, "DTC Index".
NO >> GO TO 2.

2.CHECK DOOR LOCK OPERATION

Check door lock/unlock using Intelligent Key.

Does door lock/unlock using Intelligent Key?

YES >> GO TO 3
NO >> Refer to DLK-47, "DTC Index".

3.CHECK POWER WINDOW MOTOR

Check rear power window motor. Refer to PWC-76, "REAR LH : Component Function Check" (rear LH) or PWC-76, "REAR RH : Component Function Check" (rear RH).

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace rear power window motor LH or rear power window motor RH. Refer to GW-55, "REAR DOOR POWER WINDOW MOTOR : Removal and Installation".

4.REPLACE BCM

1. Replace BCM. Refer to BCS-248, "Removal and Installation".
2. Confirm the operation again.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace BCM. Refer to BCS-248, "Removal and Installation".

KEYLESS POWER WINDOW UP DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000013479283

DRIVER SIDE

1.CHECK DTC WITH INTELLIGENT KEY UNIT

Check that DTC is not detected with intelligent key unit. Refer to DLK-47, "DTC Index"

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DLK-47, "DTC Index".
NO >> GO TO 2.

2.CHECK DOOR LOCK OPERATION

Check door lock/unlock using Intelligent Key.

Does door lock/unlock using Intelligent Key?

YES >> GO TO 3
NO >> Refer to DLK-47, "DTC Index".

3.CHECK POWER WINDOW MOTOR

Check front power window motor (driver side). Refer to PWC-74, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace front power window motor (driver side). Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".

4.REPLACE FRONT DOOR CONTROL UNIT

1. Replace left front door control unit. Refer to DLK-286, "Removal and Installation".
2. Confirm the operation again.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace left front door control unit. Refer to DLK-286, "Removal and Installation".

PASSENGER SIDE

1.CHECK DTC WITH INTELLIGENT KEY UNIT

Check that DTC is not detected with intelligent key unit. Refer to DLK-47, "DTC Index"

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DLK-47, "DTC Index".
NO >> GO TO 2.

2.CHECK DOOR LOCK OPERATION

Check door lock/unlock using Intelligent Key.

Does door lock/unlock using Intelligent Key?

YES >> GO TO 3
NO >> Refer to DLK-47, "DTC Index".

3.CHECK POWER WINDOW MOTOR

Check front power window motor (passenger side). Refer to PWC-75, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace front power window motor (passenger side). Refer to GW-46, "FRONT DOOR POWER WINDOW MOTOR : Removal and Installation".

4.REPLACE FRONT DOOR CONTROL UNIT

1. Replace right front door control unit. Refer to DLK-286, "Removal and Installation".

2. Confirm the operation again.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace right front door control unit. Refer to DLK-286, "Removal and Installation".

REAR

1.CHECK DTC WITH INTELLIGENT KEY UNIT

Check that DTC is not detected with intelligent key unit. Refer to DLK-47, "DTC Index"

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DLK-47, "DTC Index".
NO >> GO TO 2.

2.CHECK DOOR LOCK OPERATION

Check door lock/unlock using Intelligent Key.

Does door lock/unlock using Intelligent Key?

YES >> GO TO 3
NO >> Refer to DLK-47, "DTC Index".

3.CHECK POWER WINDOW MOTOR

Check rear power window motor. Refer to PWC-76, "REAR LH : Component Function Check" (rear LH) or PWC-76, "REAR RH : Component Function Check" (rear RH).

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace rear power window motor LH or rear power window motor RH. Refer to GW-55, "REAR DOOR POWER WINDOW MOTOR : Removal and Installation".

4.REPLACE BCM

1. Replace BCM. Refer to BCS-248, "Removal and Installation".
2. Confirm the operation again.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace BCM. Refer to BCS-248, "Removal and Installation".

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE

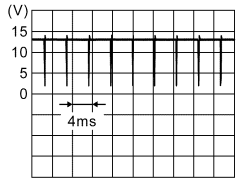
DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000013479284

1.CHECK POWER WINDOW SWITCH ILLUMINATION INPUT SIGNAL

1. Turn ignition switch ON.
2. Check signal between power window main switch harness connector and ground using osciloscope.

Power window main switch		Ground	Signal
Connector	Terminal		
D38	1		

JMKIB5942GB

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-89, "Removal and Installation".
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector and front door control unit connector.
3. Check continuity between front door control unit harness connector and power window main switch harness connector.

Left front door control unit		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
D16	41	D38	1	Existed

Is the inspection result normal?

YES >> Replace front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

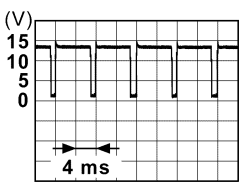
PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000013479285

1.CHECK POWER WINDOW SWITCH ILLUMINATION INPUT SIGNAL

1. Turn ignition switch ON.
2. Check signal between front power window switch (passenger side) harness connector and ground using oscilloscope.

Front power window switch (passenger side)		Ground	Signal
Connector	Terminal		
D91	3		

JMMIA2192GB

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-90, "Removal and Installation".
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) connector and front door control unit connector.
3. Check continuity between front door control unit harness connector and front power window switch (passenger side) harness connector.

Right front door control unit		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
D59	48	D91	3	Existed

Is the inspection result normal?

YES >> Replace front door control unit. Refer to DLK-286, "Removal and Installation".
NO >> Repair or replace harness.

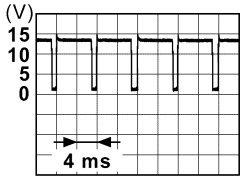
REAR LH

REAR LH : Diagnosis Procedure

INFOID:0000000013479286

1.CHECK POWER WINDOW SWITCH ILLUMINATION INPUT SIGNAL

1. Turn ignition switch ON.
2. Check signal between rear power window switch LH harness connector and ground using osciloscope.

Rear power window switch LH		Ground	Signal
Connector	Terminal		
D113	3		

JMMIA2192GB

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-91, "Removal and Installation".
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH connector and BCM connector.
3. Check continuity between rear power window switch LH harness connector and BCM harness connector.

Rear power window switch LH		BCM		Continuity
Connector	Terminal	Connector	Terminal	
D113	3	M25	7	Existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness.

REAR RH

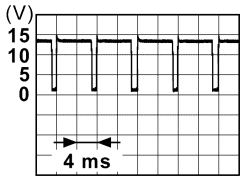
REAR RH : Diagnosis Procedure

INFOID:0000000013479287

1.CHECK POWER WINDOW SWITCH ILLUMINATION INPUT SIGNAL

1. Turn ignition switch ON.

2. Check voltage between rear power window switch RH harness connector and ground.

Rear power window switch RH		Ground	Signal
Connector	Terminal		
D133	3		

JMMIA2192GB

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-91, "Removal and Installation".
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch RH connector and BCM connector.
3. Check continuity between rear power window switch RH harness connector and BCM harness connector.

Rear power window switch RH		BCM		Continuity
Connector	Terminal	Connector	Terminal	
D133	3	M25	7	Existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace harness.

REMOVAL AND INSTALLATION

POWER WINDOW MAIN SWITCH

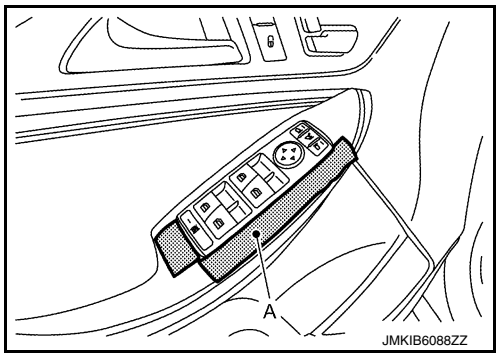
Removal and Installation

INFOID:0000000013479288

CAUTION:
Never bend the pawl of power window main switch.

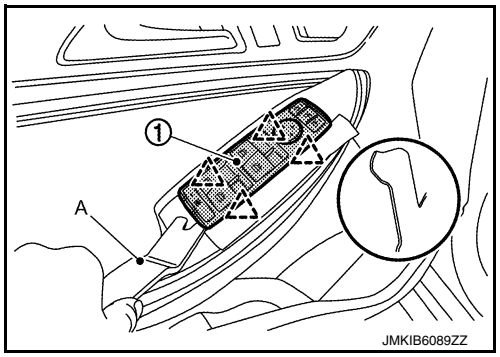
REMOVAL

1. Apply protective tape (A) on the front door grip to protect from damage.

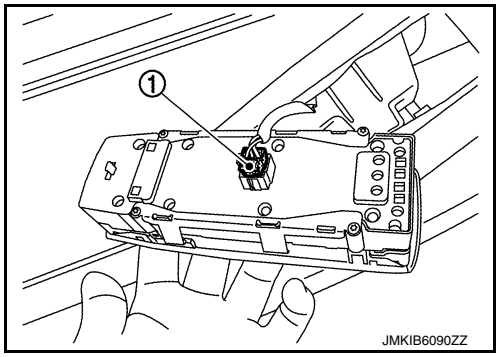


2. Disengage power window main switch fixing pawls using removal tool (A), and than remove power window main switch ① from door handle.

△ : Pawl



3. Disconnect power window main switch connector ① from power window main switch.



INSTALLATION

Install in the reverse order of removal.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

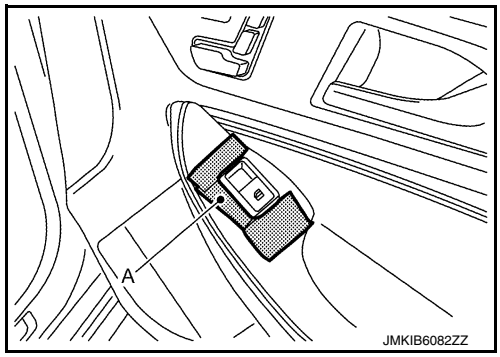
Removal and Installation

INFOID:0000000013479289

CAUTION:
Never bend the pawl of front power window switch (passenger side).

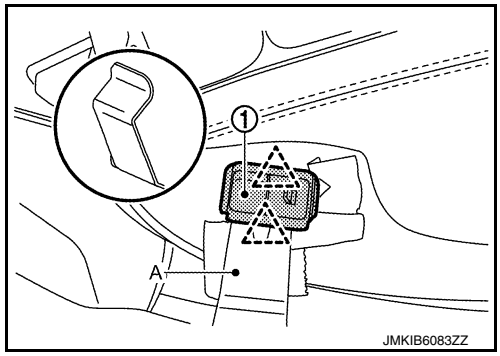
REMOVAL

1. Apply protective tape (A) on the front door grip to protect from damage.

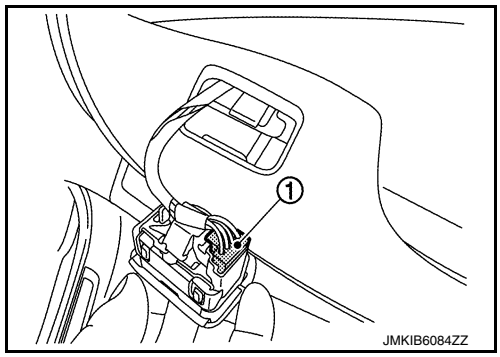


2. Disengage front power window switch (passenger side) fixing pawls using removal tool (A), and than remove front power window switch (passenger side) ① from door handle.

△ : Pawl



3. Disconnect front power window switch (passenger side) connector ① from front power window switch (passenger side).



INSTALLATION

Install in the reverse order of removal.

REAR POWER WINDOW SWITCH

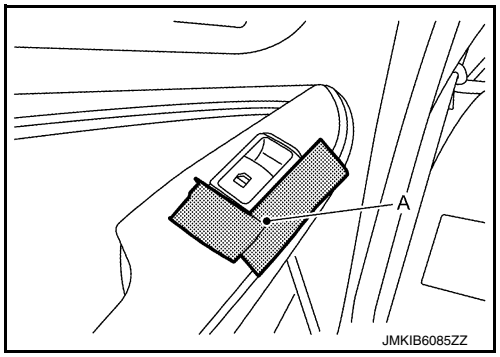
Removal and Installation

INFOID:0000000013479290

CAUTION:
Never bend the pawl of rear power window switch.

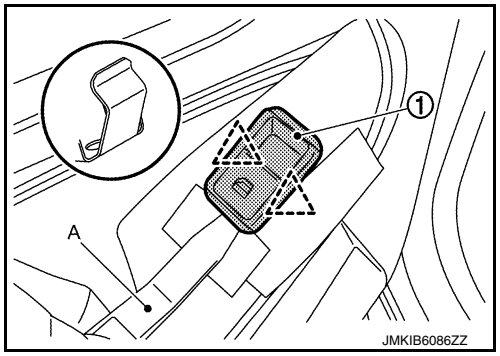
REMOVAL

1. Apply protective tape (A) on the rear door grip to protect from damage.

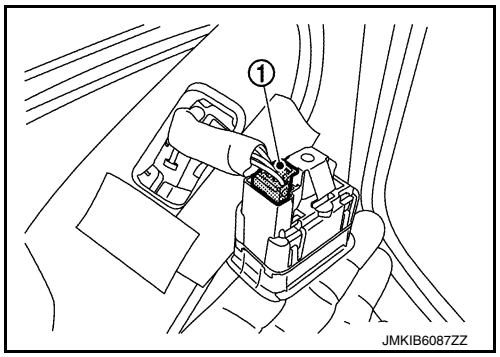


2. Disengage rear power window switch fixing pawls using removal tool (A), and than remove rear power window switch ① from door handle.

△ : Pawl



3. Disconnect rear power window switch connector ① from rear power window switch.



INSTALLATION
Install in the reverse order of removal.