

SECTION **PWC**

POWER WINDOW CONTROL SYSTEM

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PRECAUTIONS

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PRECAUTION

PRECAUTIONS

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

INFOID:000000009561098

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

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

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service.

Precaution for Work

INFOID:000000009560301

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, dry cloth.
 - Oily dirt:
 - Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
 - Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, dry cloth.
 - Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
 - For genuine leather seats, use a genuine leather seat cleaner.

PREPARATION

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PREPARATION

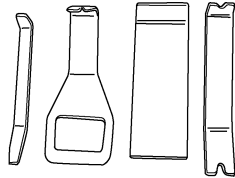
PREPARATION

Special Service Tool

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

Tool number (Kent-Moore No.) Tool name	Description
— (J-46534) Trim Tool Set	Removing trim components



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COMPONENT PARTS

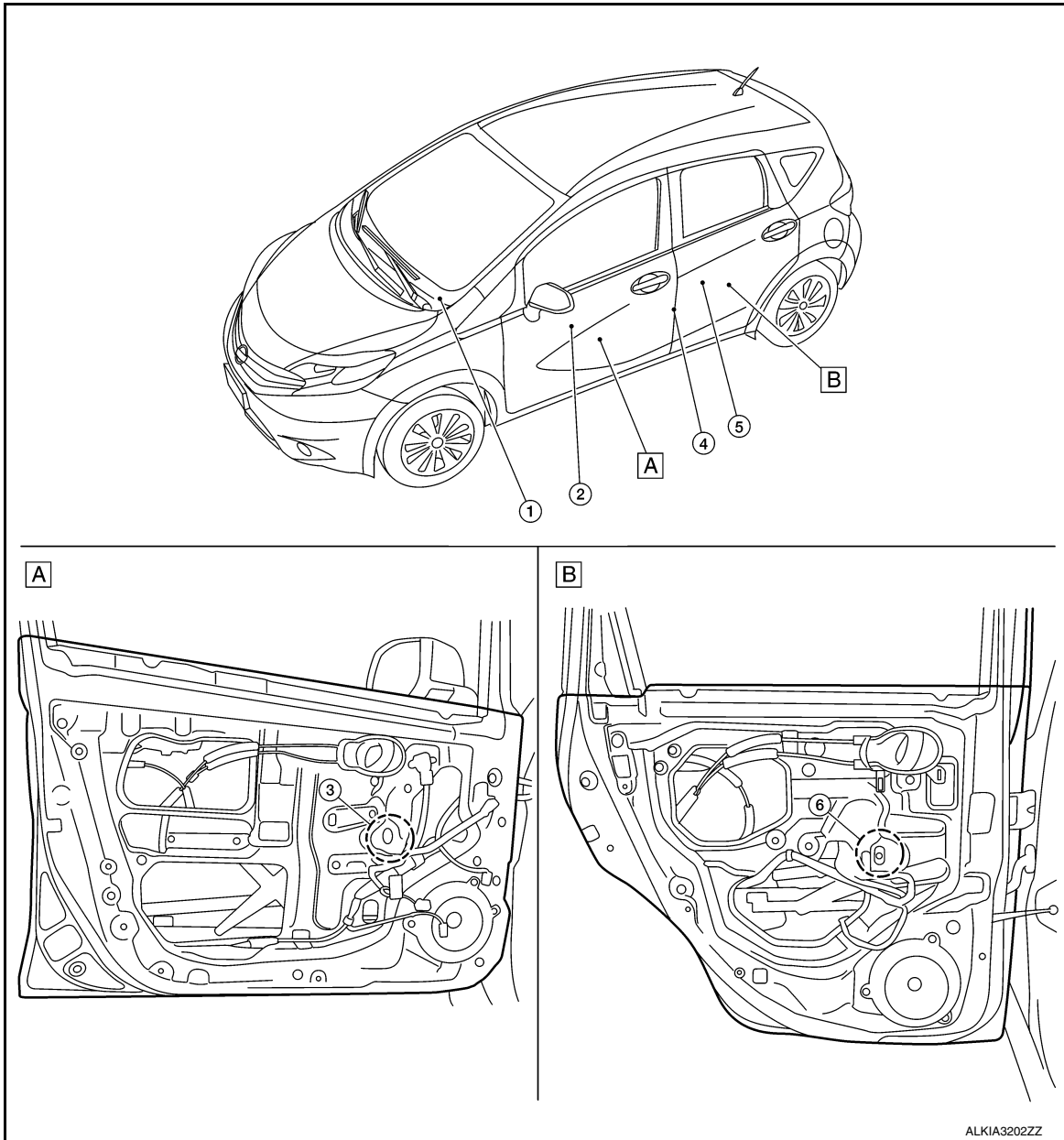
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SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000009619466



A. View with LH front door finisher removed B. View with LH rear door finisher removed

No.	Component parts	Function
1.	BCM	<ul style="list-style-type: none"> Supplies power supply to power window switch. Controls retained power. Refer to BCS-6, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
2.	Power window main switch	Refer to PWC-7, "Power Window Main Switch" .
3.	Front power window motor (driver side)	Refer to PWC-7, "Power Window Motor" .

COMPONENT PARTS

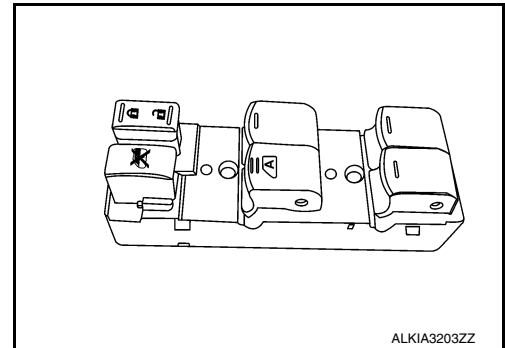
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No.	Component parts	Function
4.	Front door switch (driver side)	<ul style="list-style-type: none"> Inputs door open/close condition to BCM. Refer to DLK-19, "INTELLIGENT KEY SYSTEM : Door Switch" for detailed installation location.
5.	Rear power window switch LH	Refer to PWC-7, "Power Window Switch" .
6.	Rear power window motor LH	Refer to PWC-7, "Power Window Motor" .

Power Window Main Switch

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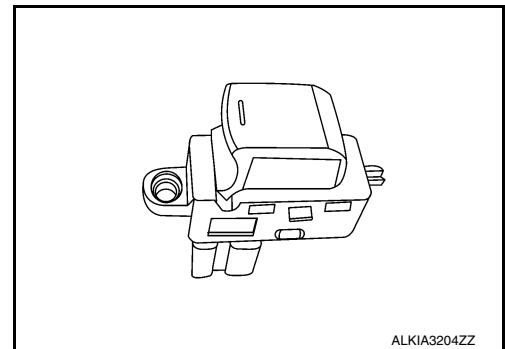
- Power window main switch controls all power windows.
- Power window main switch integrates UP/DOWN switch, power window lock switch, and door lock/unlock switch.
- Power window main switch controls the power window lock function.



Power Window Switch

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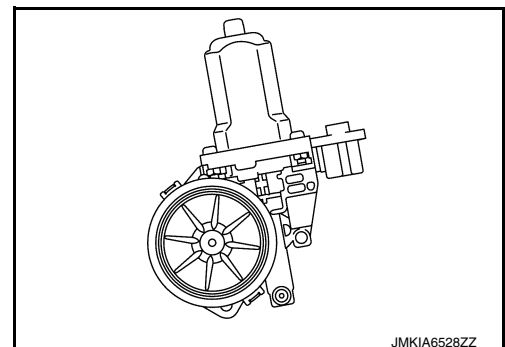
- Each power window switch transmits UP/DOWN signal to each motor.
- Each power window switch transmits UP/DOWN signal from power window main switch to each motor.



Power Window Motor

INFOID:000000009619469

- Starts operation according to signals from power window main switch (front driver side).
- Transmits front power window motor (driver side) rotation as a pulse signal to power window main switch.
- Excepting power window motor for driver door, starts operation according to signals from power window main switch or each power window switches.



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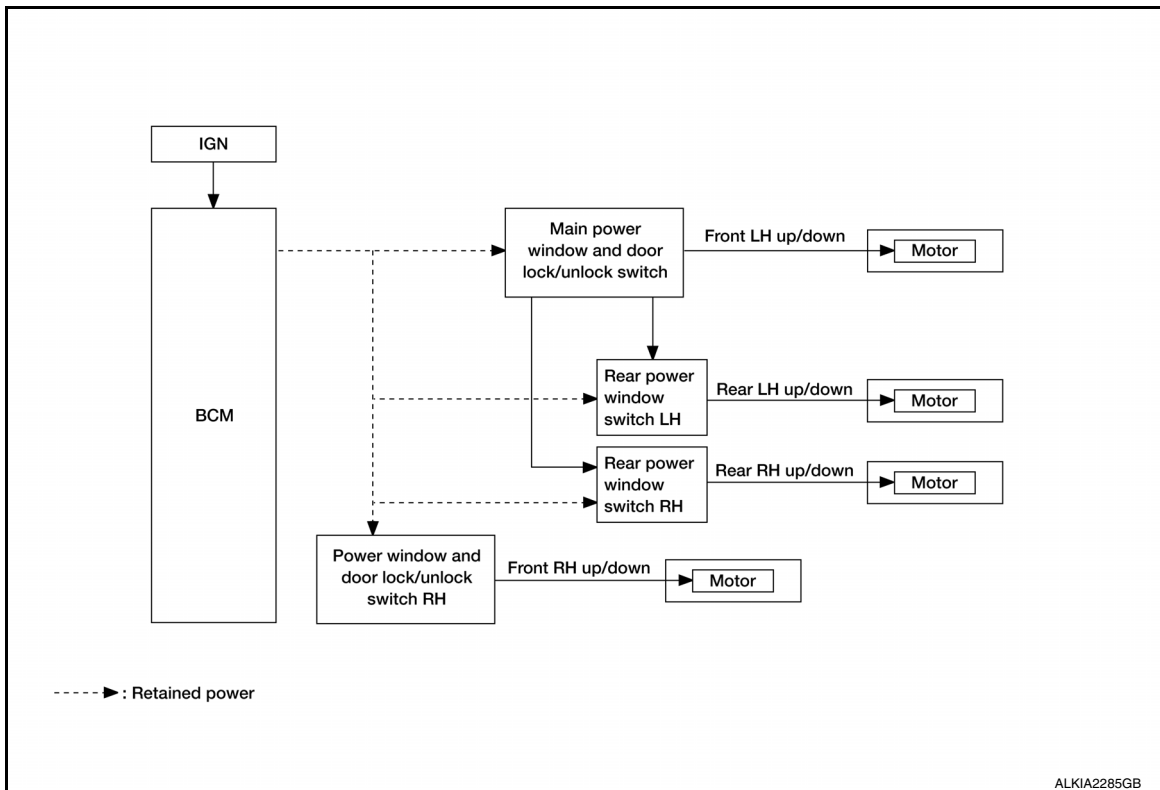
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SYSTEM

System Description

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SYSTEM DIAGRAM



BASIC 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 DOWN operation can be performed when power window main switch is depressed to the second detent.
- Power window lock switch can lock all power windows other than driver seat.

POWER WINDOW AUTO-OPERATION (FRONT DRIVER SIDE)

AUTO DOWN operation can be performed when power window main switch is depressed to the second detent.

POWER WINDOW LOCK

Ground circuit inside power window main switch shuts off when power window lock switch is ON. This inhibits each power window switch operation except the power window main switch.

RETAINED POWER OPERATION

- Retained power operation is an additional power supply function that enables power window system to operate for an additional 45 seconds after the ignition switch is turned OFF.

RETAINED ACCESSORY POWER CANCEL CONDITIONS:

- Front door CLOSE (door switch OFF)→OPEN (door switch ON).
- When ignition switch is ON again.
- When timer expires. (45 seconds)

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000009693709

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	<ul style="list-style-type: none"> The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

System	Sub System	Direct Diagnostic Mode						
		ECU identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEAD LAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×		×	×		
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×		×		
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		
Panic alarm system	PANIC ALARM				×			

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000009693710

DATA MONITOR

Monitor Item [Unit]	Description
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000009693728

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	<ul style="list-style-type: none"> The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

System	Sub System	Direct Diagnostic Mode						
		ECU identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Remote keyless entry system	MULTI REMOTE ENT			×	×	×		
Exterior lamp	HEAD LAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Air conditioner	AIR CONDITIONER			×				
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×		×	×		
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×		×		
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×	×		
Panic alarm system	PANIC ALARM				×			

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000009724732

DATA MONITOR

Monitor Item [Unit]	Description
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.

BCM

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM

List of ECU Reference

INFOID:000000008969494

ECU	Reference
BCM (with Intelligent Key system)	BCS-28, "Reference Value"
	BCS-46, "Fail-safe"
	BCS-47, "DTC Inspection Priority Chart"
	BCS-48, "DTC Index"
BCM (without Intelligent Key system)	BCS-95, "Reference Value"
	BCS-108, "Fail-safe"
	BCS-109, "DTC Inspection Priority Chart"
	BCS-109, "DTC Index"

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POWER WINDOW MAIN SWITCH

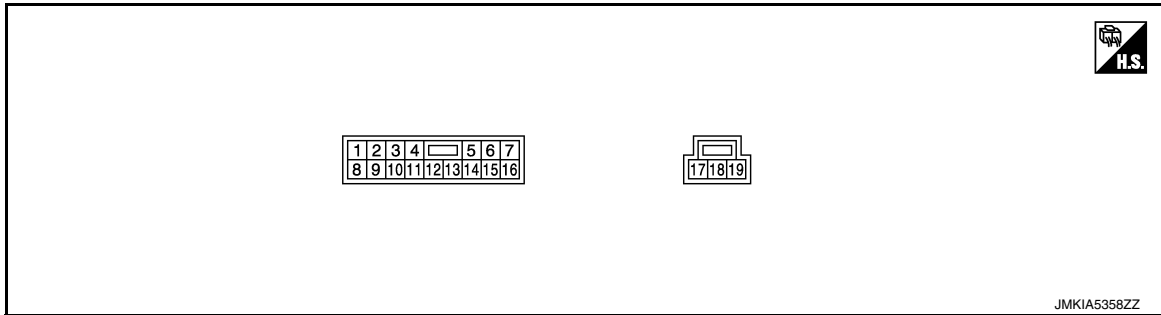
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POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000008969495

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
1 (BR)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is UP at operated.	Battery voltage
3 (G)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is DOWN at operated.	Battery voltage
5 (Y)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is DOWN at operated.	Battery voltage
7 (V)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is UP at operated.	Battery voltage
8 (R)	Ground	Front power window motor (driver side) UP signal	Output	When front LH switch in power window main switch is UP at operated.	Battery voltage
10 (L)	Ground	Ignition switch power supply	Input	Ignition switch ON	Battery voltage
				Other than above	0
11 (LG)	Ground	Front power window motor (driver side) DOWN signal	Output	When front LH switch in power window main switch is DOWN at operated.	Battery voltage
12 (SB)	Ground	Front power window motor (passenger side) DOWN signal	Output	When front RH switch in power window main switch is DOWN at operated.	Battery voltage
16 (W)	Ground	Front power window motor (passenger side) UP signal	Output	When front RH switch in power window main switch is UP at operated.	Battery voltage
17 (B)	Ground	Ground	—	—	0

Fail Safe

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FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when error beyond regulation value is detected between the fully closed position and the actual position of the glass.

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

Error	Error condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors malfunction	When both pulse signals have not been detected for more than the specified value during glass open/close operation.
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close operation.

It changes to condition before initialization and the following functions do not operate when switched to fail-safe control.

- Auto-up operation
- Anti-pinch function
- Retained power function

Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window main switch or front power window motor (driver side).

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POWER WINDOW SYSTEM

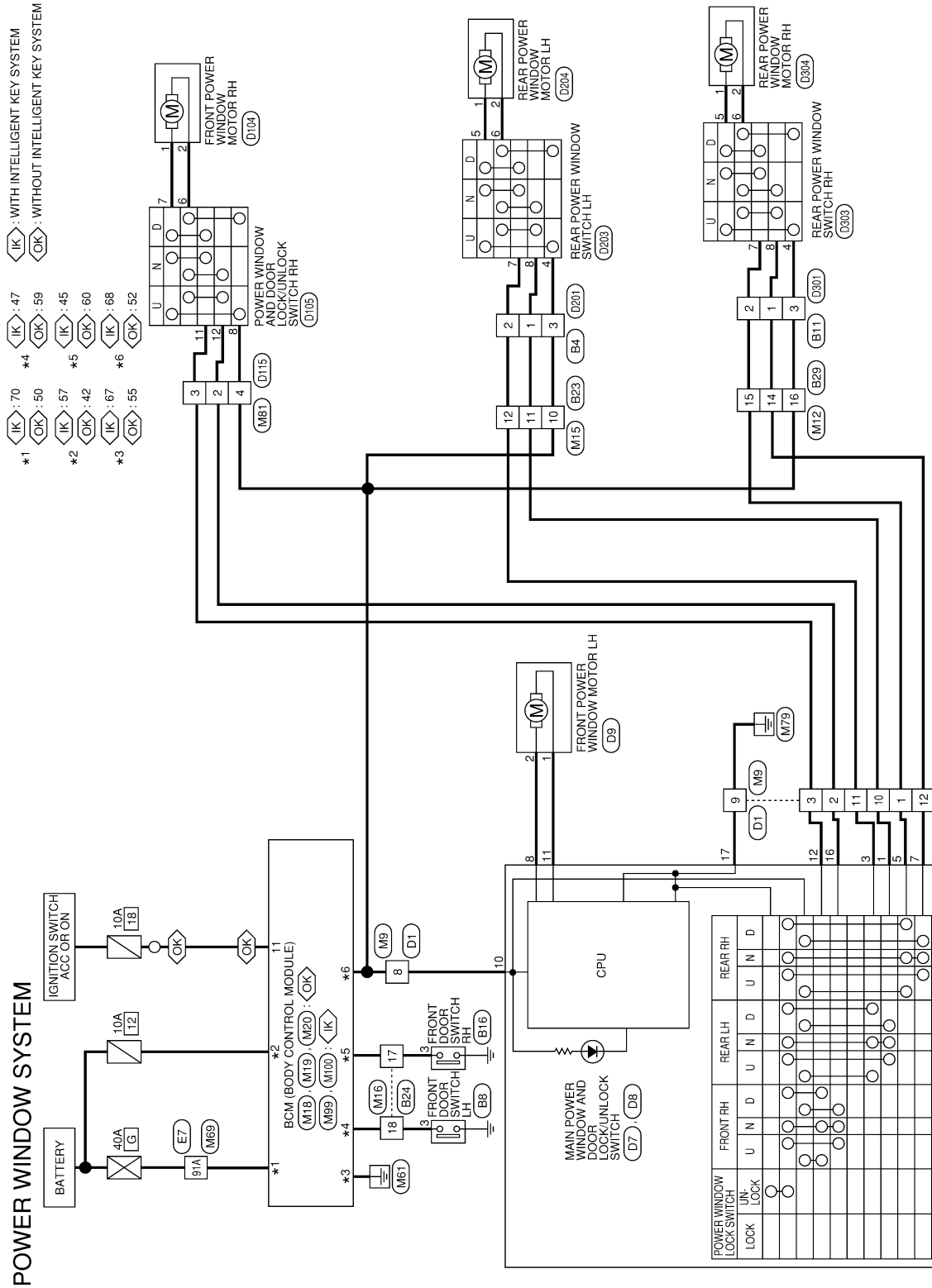
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WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram

INFOID:000000008969497




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POWER WINDOW SYSTEM

< WIRING DIAGRAM >

POWER WINDOW SYSTEM CONNECTORS


Connector No.	M9
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5
6	7	8	9	10
11	12			

Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	V	-
8	L	-
9	B	-
10	GR	-
11	O	-
12	LG	-


Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Color	WHITE



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

Terminal No.	Color of Wire	Signal Name
14	LG	-
15	R	-
16	L	-


Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Color	WHITE



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

Terminal No.	Color of Wire	Signal Name
10	L	-
11	GR	-
12	O	-


Connector No.	M16
Connector Name	WIRE TO WIRE
Connector Color	WHITE



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name
17	O	-
18	SB	-


Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
11	L	ACC SW

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE



41	42	43	44	45	46	47	48	49
50	51	52	53	54	55			

Terminal No.	Color of Wire	Signal Name
42	Y	BATTERY (FUSE)
50	G	BATTERY (F/L)
52	L	POWER WINDOW POWER SUPPLY (RAP)
55	B	GND

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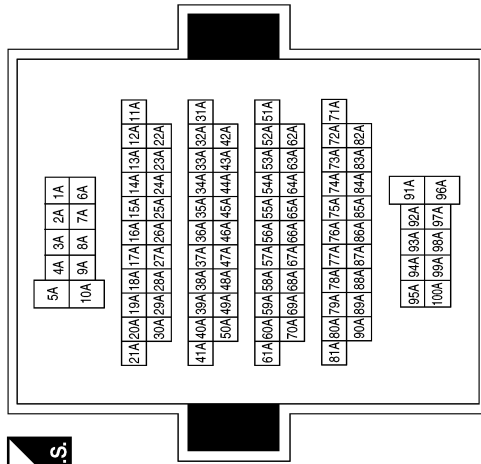
PWC

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

Terminal No.	Color of Wire	Signal Name
91A	G	-

Connector No.	M69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	BLACK

56 57 58 59 60 61 62 63 64
65 66 67 68 69 70



Terminal No.	Color of Wire	Signal Name
59	SB	DOOR SW (DR)
60	O	DOOR SW (AS)

Connector No.	M100
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	BLACK

41 42 43 44 45 46 47 48 49
50 51 52 53 54 55



Terminal No.	Color of Wire	Signal Name
45	O	DOOR SW (AS)
47	SB	DOOR SW (DR)

Connector No.	M99
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

56 57 58 59 60 61 62 63 64
65 66 67 68 69 70



Terminal No.	Color of Wire	Signal Name
57	Y	BATTERY (FUSE)
67	B	GND
68	L	POWER WINDOW POWER SUPPLY (RAP)
70	G	BATTERY (F/L)

Connector No.	M81
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1 2 3 4 5
6 7 8 9 10 11 12



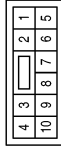
Terminal No.	Color of Wire	Signal Name
2	W	-
3	V	-
4	L	-

AAKIA1302GB

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

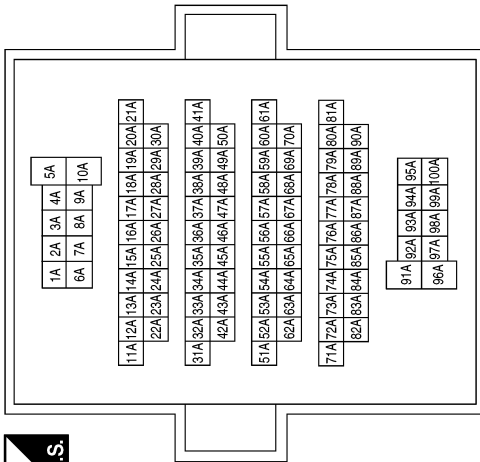
Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	V	-
2	O	-
3	L	-

Terminal No.	91A	Color of Wire	Y	Signal Name	-
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Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Color	WHITE

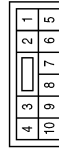


Connector No.	B16
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



Terminal No.	3	Color of Wire	L	Signal Name	-
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Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	1	Color of Wire	R	Signal Name	-
2		R/L			-
3		L			-

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	3	Color of Wire	LG	Signal Name	-
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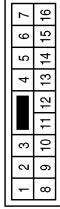
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POWER WINDOW SYSTEM

< WIRING DIAGRAM >

Connector No.	B29
Connector Name	WIRE TO WIRE
Connector Color	WHITE



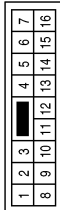
Terminal No.	Color of Wire	Signal Name
14	R	-
15	R/L	-
16	L	-

Connector No.	B24
Connector Name	WIRE TO WIRE
Connector Color	WHITE



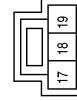
Terminal No.	Color of Wire	Signal Name
17	L	-
18	LG	-

Connector No.	B23
Connector Name	WIRE TO WIRE
Connector Color	WHITE



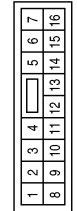
Terminal No.	Color of Wire	Signal Name
10	L	-
11	V	-
12	O	-

Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17	B	GND

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	BR	MOTOR UP RL
3	G	MOTOR DN RL
5	Y	MOTOR DN RR
7	V	MOTOR UP RR
8	R	MOTOR UP DR
10	L	IGN
11	LG	MOTOR DN DR
12	SB	MOTOR DN AS
16	W	MOTOR UP AS

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



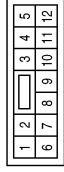
Terminal No.	Color of Wire	Signal Name
1	Y	-
2	W	-
3	SB	-
8	L	-
9	B	-
10	BR	-
11	G	-
12	V	-

AAKIA1304GB

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	Y	-
7	R	-
8	L	-
11	SB	-
12	W	-

Connector No.	D104
Connector Name	FRONT POWER WINDOW MOTOR RH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	-
2	Y	-

Connector No.	D9
Connector Name	FRONT POWER WINDOW MOTOR LH
Connector Color	BLACK



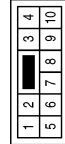
Terminal No.	Color of Wire	Signal Name
1	LG	-
2	R	-

Connector No.	D203
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Color	WHITE



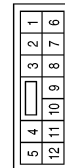
Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	-	-
4	L	-
5	R	-
6	G	-
7	Y	-
8	BR	-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	BR	-
2	Y	-
3	L	-

Connector No.	D115
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W	-
3	SB	-
4	L	-

AAKIA1305GB

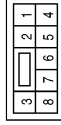
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POWER WINDOW SYSTEM

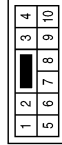
< WIRING DIAGRAM >

Connector No.	D303
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	-	-
4	L	-
5	R	-
6	G	-
7	Y	-
8	BR	-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	BR	-
2	Y	-
3	L	-

Connector No.	D204
Connector Name	REAR POWER WINDOW MOTOR LH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	-
2	G	-

Connector No.	D304
Connector Name	REAR POWER WINDOW MOTOR RH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	-
2	G	-

AAKIA1306GB

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

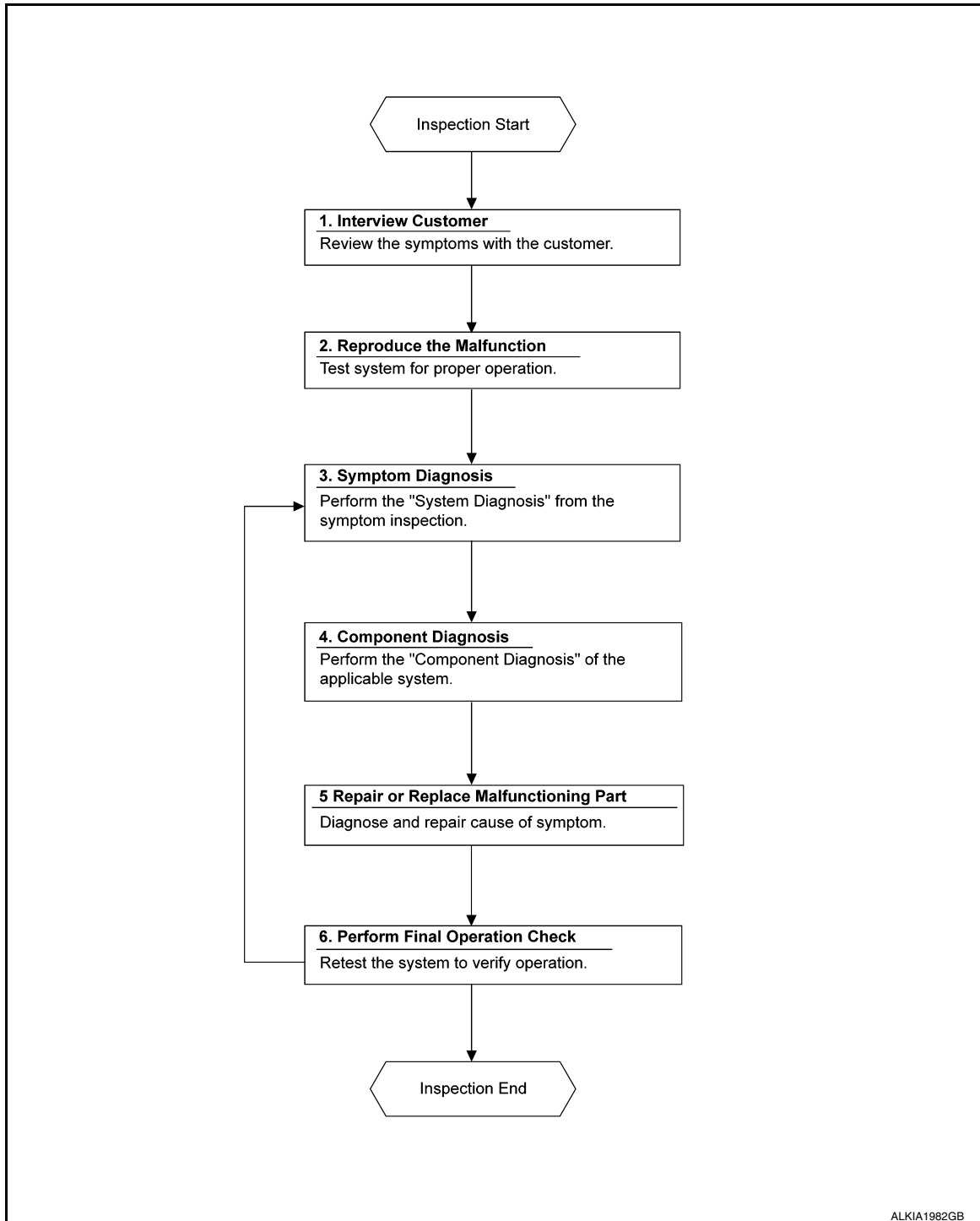
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000009619465

OVERALL SEQUENCE



DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred.

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

>> GO TO 2.

2. CONFIRM THE SYMPTOM

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

>> GO TO 3.

3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH SYMPTOM DIAGNOSIS

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

>> GO TO 4.

4. PERFORM THE COMPONENT DIAGNOSIS OF THE OF THE APPLICABLE SYSTEM

Perform the diagnosis with Component diagnosis of the applicable system.

>> GO TO 5.

5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6. FINAL CHECK

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

Are the malfunctions corrected?

YES >> Inspection End.

NO >> GO TO 3.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM)

BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

INFOID:000000009693707

Regarding Wiring Diagram information, refer to [BCS-51, "Wiring Diagram"](#).

1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
57	Battery power supply	12 (10A)
70		G (40A)

Is the fuse blown?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M99.
2. Check voltage between BCM connector M99 and ground.

BCM		Ground	Voltage
Connector	Terminal		
M99	57	—	Battery voltage
	70		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M99 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M99	67	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM)

BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

INFOID:000000009693708

Regarding Wiring Diagram information, refer to [BCS-111, "Wiring Diagram"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
37	Battery power supply	8 (10A)
42		12 (10A)
50		G (40A)
11	Ignition switch ACC or ON	18 (10A)
38	Ignition switch ON or START	2 (10A)

Is the fuse blown?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

BCM		Ground	Ignition switch position		
Connector	Terminal		OFF	ACC	ON
M18	11	—	0 V	Battery voltage	Battery voltage
	37		Battery voltage		
	38		0 V	0 V	
M19	42		Battery voltage	Battery voltage	
	50				

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M19	55	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000009693663

Regarding Wiring Diagram information, refer to [PWC-16, "Wiring Diagram"](#).

1. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

(+)		(-)	Condition		Voltage (Approx.)
Power window main switch					
Connector	Terminal	Ground	Ignition switch	ON	Battery voltage
D7	10				

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY CIRCUIT

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

BCM		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M99 (with Intelligent Key system)	68	D7	10	Yes
M19 (without Intelligent Key system)	52			

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M99 (with Intelligent Key system)	68		No
M19 (without Intelligent Key system)	52		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-70, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK POWER WINDOW MAIN SWITCH GROUND CIRCUIT

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D8	17		Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:000000009693664

Regarding Wiring Diagram information, refer to [PWC-16, "Wiring Diagram"](#).

1.CHECK FRONT POWER WINDOW SWITCH RH POWER SUPPLY

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

(+)		(-)	Voltage (Approx.)
Front power window switch RH			
Connector	Terminal	Ground	Battery voltage
D105	8		

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 2.

2.CHECK FRONT POWER WINDOW SWITCH RH POWER SUPPLY CIRCUIT

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

BCM		Front power window switch RH		Continuity
Connector	Terminal	Connector	Terminal	
M99 (with Intelligent Key system)	68	D105	8	Yes
M19 (without Intelligent Key system)	52			

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M99 (with Intelligent Key system)	68		No
M19 (without Intelligent Key system)	52		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-70, "Removal and Installation"](#).

NO >> Repair or replace harness.

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000009693665

Regarding Wiring Diagram information, refer to [PWC-16, "Wiring Diagram"](#).

1.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY

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

(+)		(-)	Voltage (V) (Approx.)
Rear power window switch			
Connector	Terminal	Ground	Battery voltage
LH	D203		
RH	D303		

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 2.

2.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

BCM		Rear power window switch		Continuity
Connector	Terminal	Connector	Terminal	
M99 (with Intelligent Key system)	68	LH	D203	4
		RH	D303	
M19 (without Intelligent Key system)	52	LH	D203	
		RH	D303	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M99 (with Intelligent Key system)	68		No
M19 (without Intelligent Key system)	52		

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-70, "Removal and Installation"](#).
 NO >> Repair or replace harness.

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FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Component Function Check

INFOID:000000009693666

1. CHECK FUNCTION

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

Is the inspection result normal?

- YES >> Inspection End.
 NO >> Refer to [PWC-30, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009693667

Regarding Wiring Diagram information, refer to [PWC-16, "Wiring Diagram"](#).

1. CHECK FRONT POWER WINDOW SWITCH RH INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D105	12	Ground	Power window main switch (front RH) NEUTRAL	0
			UP	Battery voltage
	11		NEUTRAL	0
			DOWN	Battery voltage

Is the inspection result normal?

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

2. CHECK FRONT POWER WINDOW SWITCH RH CIRCUIT

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

Power window main switch		Front power window switch RH		Continuity
Connector	Terminal	Connector	Terminal	
D7	12	D105	11	Yes
	16		12	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D7	12		No
	16		

Is the inspection result normal?

- YES >> Replace power window main switch. Refer to [PWC-56, "Removal and Installation"](#).
 NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

3. CHECK FRONT POWER WINDOW SWITCH RH

Check front power window switch RH.

Refer to [PWC-31, "Component Inspection"](#).

Is the inspection result normal?

YES >> Check Intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).

NO >> Replace front power window switch RH. Refer to [PWC-57, "Removal and Installation"](#).

Component Inspection

INFOID:000000009693668

1. CHECK FRONT POWER WINDOW SWITCH RH

1. Turn ignition switch OFF.
2. Disconnect front power window switch RH connector.
3. Check front power window switch RH terminals under the following conditions.

Front power window switch RH		Condition	Continuity
Terminal			
8	7	UP	Yes
12	6		
11	7	NEUTRAL	
12	6		
11	7	DOWN	
8	6		

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front power window switch RH. Refer to [PWC-57, "Removal and Installation"](#).

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REAR POWER WINDOW SWITCH

< DTC/CIRCUIT DIAGNOSIS >

REAR POWER WINDOW SWITCH

Component Function Check

INFOID:000000009693669

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [PWC-32, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009693670

Regarding Wiring Diagram information, refer to [PWC-16, "Wiring Diagram"](#).

1. CHECK REAR POWER WINDOW SWITCH INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (Approx.)	
Rear power window switch					
Connector	Terminal				
LH	D203	Ground	Power window main switch (rear LH)	NEUTRAL	0
				DOWN	Battery voltage
NEUTRAL	0				
UP	Battery voltage				
RH	D303		Power window main switch (rear RH)	NEUTRAL	0
				DOWN	Battery voltage
				NEUTRAL	0
				UP	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK REAR POWER WINDOW SWITCH CIRCUIT

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

Power window main switch		Rear power window switch		Continuity	
Connector	Terminal	Connector	Terminal		
D7	1	LH	D203	8	Yes
	3		7		
	5	RH	D303	7	
	7		8		

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

REAR POWER WINDOW SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Power window main switch		Ground	Continuity
Connector	Terminal		
D7	1	Ground	No
	3		
	5		
	7		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to [PWC-56, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-33, "Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).

NO >> Replace rear power window switch. Refer to [PWC-58, "Removal and Installation"](#).

Component Inspection

INFOID:000000009693671

1.CHECK REAR POWER WINDOW SWITCH

1. Turn ignition switch OFF.
2. Disconnect rear power window switch connector.
3. Check rear power window switch terminals under the following conditions.

Rear power window switch		Condition	Continuity
Terminal			
4	5	UP	Yes
8	6		
8	6	NEUTRAL	
7	5		
8	6	DOWN	
7	5		

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace rear power window switch. Refer to [PWC-58, "Removal and Installation"](#).

PWC

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW MOTOR DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:000000009693672

1. CHECK FUNCTION

Check front power window motor LH operation with power window main switch.

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [PWC-34, "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:000000009693673

Regarding Wiring Diagram information, refer to [PWC-16, "Wiring Diagram"](#).

1. CHECK FRONT POWER WINDOW MOTOR LH INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)	
Connector	Terminal				
D9	1	Ground	Power window main switch	NEUTRAL	0
			DOWN	Battery voltage	
	2		NEUTRAL	0	
			UP	Battery voltage	

Is the inspection result normal?

YES >> Replace front power window motor LH.

NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR LH CIRCUIT

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

Power window main switch		Front power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D7	8	D9	2	Yes
	11		1	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D7	8		No
	11		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to [PWC-56, "Removal and Installation"](#).

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:000000009693674

1. CHECK FUNCTION

Check front power window motor RH operation with power window main switch or front power window switch RH.

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [PWC-35, "PASSENGER SIDE : Diagnosis Procedure"](#).

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000009693675

Regarding Wiring Diagram information, refer to [PWC-16, "Wiring Diagram"](#).

1. CHECK FRONT POWER WINDOW MOTOR RH INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D104	1	Ground	NEUTRAL	0
			UP	Battery voltage
	2		NEUTRAL	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> Replace front power window motor RH.

NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

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

Front power window switch RH		Front power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D105	6	D104	2	Yes
	7		1	

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

Front power window switch RH		Ground	Continuity
Connector	Terminal		
D105	6		No
	7		

Is the inspection result normal?

YES >> Replace front power window switch RH. Refer to [PWC-57, "Removal and Installation"](#).

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POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

REAR LH

REAR LH : Component Function Check

INFOID:000000009693676

1.CHECK FUNCTION

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [PWC-36. "REAR LH : Diagnosis Procedure"](#).

REAR LH : Diagnosis Procedure

INFOID:000000009693677

Regarding Wiring Diagram information, refer to [PWC-16. "Wiring Diagram"](#).

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 (V) (Approx.)
Connector	Terminal			
D204	1	Ground	NEUTRAL	0
			UP	Battery voltage
	2		NEUTRAL	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> Replace rear power window motor LH.

NO >> GO TO 2.

2.CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

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

Rear power window switch LH		Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D203	6	D204	2	Yes
	5		1	

4. Check continuity between rear power window switch LH connector and ground.

Rear power window switch LH		Ground	Continuity
Connector	Terminal		
D203	6		No
	5		

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to [PWC-58. "Removal and Installation"](#).

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

REAR RH

REAR RH : Component Function Check

INFOID:000000009693678

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [PWC-37, "REAR RH : Diagnosis Procedure"](#).

REAR RH : Diagnosis Procedure

INFOID:000000009693679

Regarding Wiring Diagram information, refer to [PWC-16, "Wiring Diagram"](#).

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 (V) (Approx.)	
Connector	Terminal				
D304	1	Ground	Rear power window switch RH	NEUTRAL	0
			UP	Battery voltage	
	2		NEUTRAL	0	
			DOWN	Battery voltage	

Is the inspection result normal?

YES >> Replace rear power window motor RH.

NO >> GO TO 2.

2. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

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

Rear power window switch RH		Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D303	6	D304	2	Yes
	5		1	

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

Rear power window switch RH		Ground	Continuity
Connector	Terminal		
D303	6		No
	5		

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to [PWC-58, "Removal and Installation"](#).

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POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DOOR SWITCH WITH INTELLIGENT KEY

WITH INTELLIGENT KEY : Component Function Check

INFOID:000000009781481

1. CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR SW-DR, DOOR SW-AS, DOOR SW-RL and DOOR SW-RR in DATA MONITOR mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
DOOR SW-DR	Front door LH	Open	ON
		Closed	OFF
DOOR SW-AS	Front door RH	Open	ON
		Closed	OFF
DOOR SW-RL	Rear door LH	Open	ON
		Closed	OFF
DOOR SW-RR	Rear door RH	Open	ON
		Closed	OFF

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to [PWC-39, "WITH INTELLIGENT KEY : Diagnosis Procedure"](#).

WITH INTELLIGENT KEY : Diagnosis Procedure

INFOID:000000009781482

Regarding Wiring Diagram information, refer to [DLK-51, "POWER DOOR LOCK SYSTEM : Wiring Diagram"](#).

1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect malfunctioning door switch connector.
3. Check signal between malfunctioning door switch harness connector and ground using oscilloscope.

(+)			(-)	Signal (Reference value)
Door switch				
Connector	Terminal		Ground	
Front door switch LH	B8	3		
Front door switch RH	B16	3		
Rear door switch LH	B6	3		
Rear door switch RH	B17	3		

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between door switch harness connector and BCM harness connector.

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DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Door switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
Front door switch LH	B8	M100	47	Yes
Front door switch RH	B16		45	
Rear door switch LH	B6		48	
Rear door switch RH	B17		46	

3. Check continuity between door switch harness connector and ground.

Door switch		Ground	Continuity
Connector	Terminal		
Front door switch LH	B8	3	No
Front door switch RH	B16		
Rear door switch LH	B6		
Rear door switch RH	B17		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-70. "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK DOOR SWITCH

Refer to [PWC-40. "WITH INTELLIGENT KEY : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch.

4.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

WITH INTELLIGENT KEY : Component Inspection

INFOID:000000009781483

1.CHECK DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect malfunctioning door switch connector.
3. Check continuity between door switch terminals.

Door switch		Condition	Continuity		
Terminal					
Front door switch LH	3	Ground part of door switch	Door switch	Pressed	No
				Released	Yes
Front door switch RH				Pressed	No
				Released	Yes
Rear door switch LH	3	Ground part of door switch	Door switch	Pressed	No
				Released	Yes
Rear door switch RH				Pressed	No
				Released	Yes

Is the inspection result normal?

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

- YES >> Inspection End.
NO >> Replace malfunction door switch.

WITHOUT INTELLIGENT KEY

WITHOUT INTELLIGENT KEY : Description

INFOID:000000009781484

Detects door open/close condition.

WITHOUT INTELLIGENT KEY : Component Function Check

INFOID:000000009781485

1. CHECK FUNCTION

With CONSULT

Check door switches DOOR SW-DR, DOOR SW-AS, DOOR SW-RL, DOOR SW-RR in Data Monitor mode with CONSULT.

Monitor item	Condition
DOOR SW-DR	CLOSE → OPEN: OFF → ON
DOOR SW-AS	
DOOR SW-RL	
DOOR SW-RR	

Is the inspection result normal?

- YES >> Door switch is OK.
NO >> Refer to [PWC-41, "WITHOUT INTELLIGENT KEY : Diagnosis Procedure"](#).

WITHOUT INTELLIGENT KEY : Diagnosis Procedure

INFOID:000000009781486

Regarding Wiring Diagram information, refer to [DLK-199, "Wiring Diagram"](#).

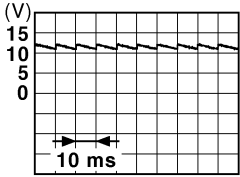
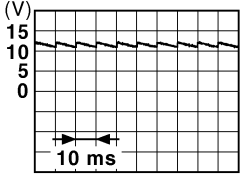
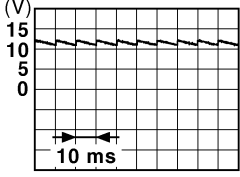
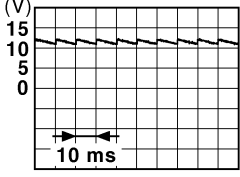
1. CHECK DOOR SWITCH INPUT SIGNAL

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

PWC

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Terminals		(-)	Door condition	Voltage (V) (Approx.)
(+)				
BCM connector	Terminal			
M20	60	Ground	OPEN	0
			CLOSE	 JPMIA0011GB
	57		OPEN	0
			CLOSE	 JPMIA0011GB
	59		OPEN	0
			CLOSE	 JPMIA0011GB
	58		OPEN	0
			CLOSE	 JPMIA0011GB

Is the inspection result normal?

- YES >> GO TO 4
- NO >> GO TO 2

2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM connector and door switch connector.

BCM connector	Terminal	Door switch connector	Terminal	Continuity
M20	60	B16 (Front RH)	3	Yes
	57	B17 (Rear RH)		
	59	B8 (Front LH)		
	58	B6 (Rear LH)		

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M20	60	Ground	No
	57		
	59		
	58		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and door switch.

3.CHECK DOOR SWITCH

Refer to [PWC-43, "WITHOUT INTELLIGENT KEY : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace malfunctioning door switch.

4.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

WITHOUT INTELLIGENT KEY : Component Inspection

INFOID:000000009781487

1.CHECK DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect door switch connector.
3. Check door switch.

Terminal		Door switch condition	Continuity
Door switch			
3	Ground part of door switch	Pressed	No
		Released	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning door switch.

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POWER WINDOW CONTROL SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

POWER WINDOW CONTROL SYSTEM SYMPTOMS

Symptom Table

INFOID:000000009693692

Symptom	Reference page
None of the power windows can be operated using any switch.	Refer to PWC-45. "Diagnosis Procedure" .
Driver side power window does not operate.	Refer to PWC-46. "Diagnosis Procedure" .
Front passenger side power window does not operate (When both power window main switch and front power window switch are operated).	Refer to PWC-47. "WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED : Diagnosis Procedure" .
Front passenger side power window does not operate (when front power window switch RH is operated).	Refer to PWC-47. "WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : Diagnosis Procedure" .
Front passenger side power window does not operate (when power window switch main is operated).	Refer to PWC-48. "WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure" .
Rear (LH) side power window does not operate (when both power window main switch and rear power window switch LH are operated).	Refer to PWC-49. "WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED : Diagnosis Procedure" .
Rear (LH) side power window does not operate (when rear power window switch LH is operated).	Refer to PWC-49. "WHEN REAR POWER WINDOW SWITCH LH IS OPERATED : Diagnosis Procedure" .
Rear (LH) side power window does not operate (when power window main switch is operated).	Refer to PWC-50. "WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure" .
Rear (RH) side power window does not operate (when both power window main switch and rear power window switch RH are operated).	Refer to PWC-51. "WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED : Diagnosis Procedure" .
Rear (RH) side power window does not operate (when rear power window switch RH is operated).	Refer to PWC-51. "WHEN REAR POWER WINDOW SWITCH RH IS OPERATED : Diagnosis Procedure" .
Rear (RH) side power window does not operate (when power window main switch is operated)	Refer to PWC-52. "WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure" .
Power window lock switch does not function.	Refer to PWC-55. "Diagnosis Procedure" .

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

< SYMPTOM DIAGNOSIS >

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

Diagnosis Procedure

INFOID:000000009693693

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. Refer to [PWC-25, "BCM \(BODY CONTROL SYSTEM\) \(WITH INTELLIGENT KEY SYSTEM\) : Diagnosis Procedure"](#) (with Intelligent Key system) or [PWC-25, "BCM \(BODY CONTROL SYSTEM\) \(WITHOUT INTELLIGENT KEY SYSTEM\) : Diagnosis Procedure"](#) (without Intelligent Key system).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

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

Check power window main switch power supply and ground circuit.
Refer to [PWC-26, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).

NO >> GO TO 1.

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DRIVER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000009693694

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to [PWC-34. "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41. "Intermittent Incident"](#).

NO >> GO TO 1.

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE
WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW
SWITCH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW
SWITCH ARE OPERATED : Diagnosis Procedure

INFOID:000000009693695

1. CHECK FRONT POWER WINDOW SWITCH RH

Check front power window switch RH.

Refer to [PWC-30, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to [PWC-35, "PASSENGER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).

NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED :
Diagnosis Procedure

INFOID:000000009693696

1. CHECK FRONT POWER WINDOW SWITCH RH POWER SUPPLY AND GROUND CIRCUIT

Check front power window switch RH power supply and ground circuit.

Refer to [PWC-30, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK FRONT POWER WINDOW SWITCH RH

Check front power window switch RH.

Refer to [PWC-30, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).

NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

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PWC

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000009693697

1. CHECK FRONT POWER WINDOW SWITCH RH

Check front power window switch RH.

Refer to [PWC-30. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41. "Intermittent Incident"](#).

NO >> GO TO 1.

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR LH SIDE POWER WINDOW DOES NOT OPERATE
WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED : Diagnosis Procedure

INFOID:000000009693698

1.CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.
Refer to [PWC-32, "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.
Refer to [PWC-36, "REAR LH : Component Function Check"](#).

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).
- NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED : Diagnosis Procedure

INFOID:000000009693699

1.CHECK REAR POWER WINDOW SWITCH LH POWER SUPPLY AND GROUND CIRCUIT

Check rear power window switch LH power supply and ground circuit.
Refer to [PWC-32, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.
Refer to [PWC-32, "Component Function Check"](#).

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).
- NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

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PWC

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000009693700

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to [PWC-32. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41. "Intermittent Incident"](#).

NO >> GO TO 1.

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR RH SIDE POWER WINDOW DOES NOT OPERATE
WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED : Diagnosis Procedure

INFOID:000000009693701

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.
Refer to [PWC-32, "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to [PWC-37, "REAR RH : Component Function Check"](#).

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).
- NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED : Diagnosis Procedure

INFOID:000000009693702

1. CHECK REAR POWER WINDOW SWITCH RH POWER SUPPLY AND GROUND CIRCUIT

Check rear power window switch RH power supply and ground circuit.
Refer to [PWC-32, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.
Refer to [PWC-32, "Component Function Check"](#).

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-41, "Intermittent Incident"](#).
- NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

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PWC

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000009693703

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.

Refer to [PWC-32. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-41. "Intermittent Incident"](#).

NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY (DRIVER SIDE)

< SYMPTOM DIAGNOSIS >

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY (DRIVER SIDE)

Diagnosis Procedure

INFOID:000000009693704

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to [PWC-57. "Removal and Installation"](#).

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PWC

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:000000009693705

1. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to [DLK-96. "Component Inspection"](#) (with Intelligent Key system) or [DLK-227. "Component Inspection"](#) (without Intelligent Key system).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-41. "Intermittent Incident"](#).
- NO >> Repair or replace the malfunctioning parts.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:000000009693706

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to [PWC-56. "Removal and Installation"](#).

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MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

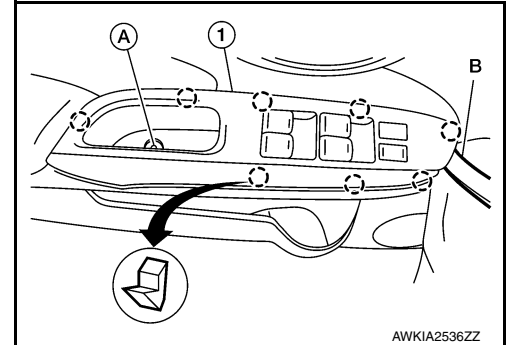
Removal and Installation

INFOID:000000009560296

REMOVAL

1. Remove main power window and door lock/unlock switch finisher door handle pull escutcheon.
2. Remove screw (A) from main power window and door lock/unlock switch finisher.
3. Remove main power window and door lock/unlock switch finisher (1) using a suitable tool (B).

○: Pawl

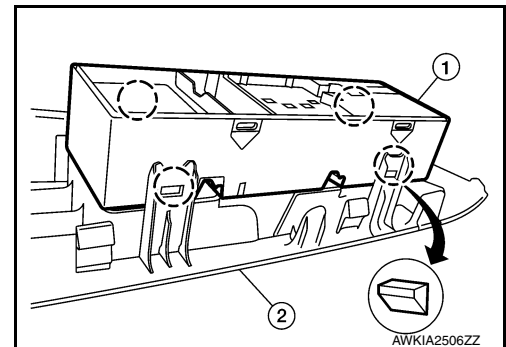


4. Disconnect the harness connectors from the main power window and door lock/unlock switch.
5. Release pawls and remove main power window and door lock/unlock switch (1) from main power window and door lock/unlock switch finisher assembly (2) using a suitable tool.

○: Pawl

CAUTION:

Do not bend back the pawls on the switch finisher too far or damage may occur.



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

When the main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to [PWC-23. "Work Flow"](#).

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< REMOVAL AND INSTALLATION >

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

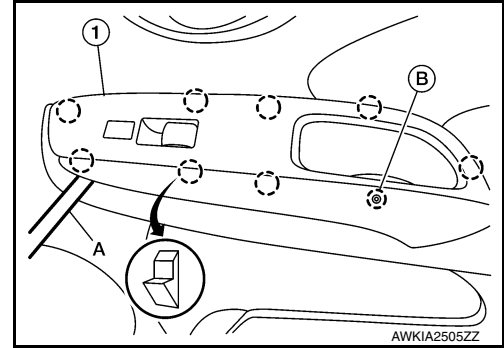
Removal and Installation

INFOID:00000009560297

REMOVAL

1. Remove power window and door lock/unlock switch (RH) finisher door handle pull escutcheon.
2. Remove screw (B) from power window and door lock/unlock switch (RH) finisher.
3. Remove power window and door lock/unlock switch (RH) finisher (1) using a suitable tool (A).

○: Pawl

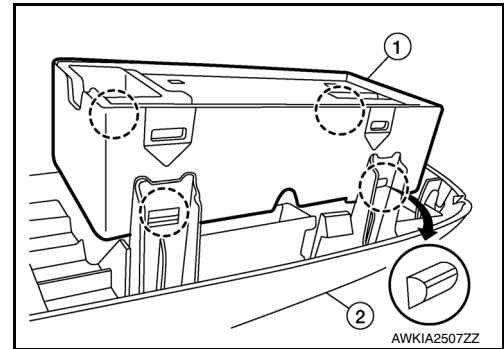


4. Disconnect the harness connector from the power window and door lock/unlock switch (RH).
5. Release pawls and remove power window and door lock/unlock switch (1) from power window and door lock/unlock switch (RH) finisher (2) using a suitable tool.

○: Pawl

CAUTION:

Do not bend back the pawls on the switch finisher too far or damage may occur.



INSTALLATION

Installation is in the reverse order of removal.

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PWC

REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

REAR POWER WINDOW SWITCH

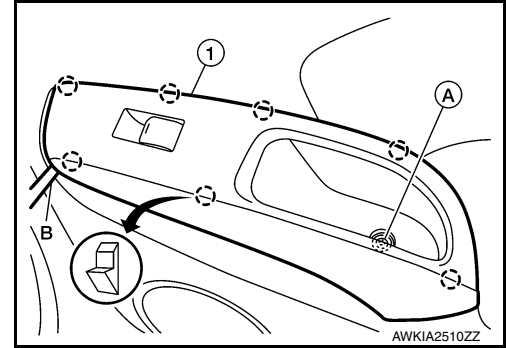
Removal and Installation

INFOID:000000009560298

REMOVAL

1. Remove rear power window switch door handle pull escutcheon.
2. Remove screw (A) from rear power window switch finisher.
3. Remove rear power window switch finisher (1) using a suitable tool (B).

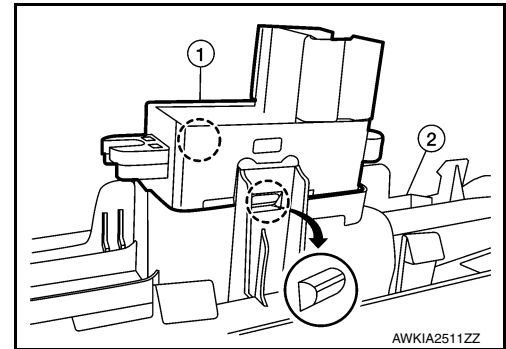
○: Pawl



4. Disconnect the harness connector from the rear power window switch.
5. Release pawls and remove rear power window switch (1) from rear power window switch finisher (2) using a suitable tool.

CAUTION:

Do not bend back the pawls on the switch finisher too far or damage may occur.



INSTALLATION

Installation is in the reverse order of removal.