# SECTION POWER WINDOW CONTROL SYSTEM

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# PRECAUTION PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. 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, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, 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 Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.

#### Precaution for Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and 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

# < PREPARATION > PREPARATION PREPARATION

# Special Service Tool

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name		Description	(
 (J-46534) Trim Tool Sot		Removing trim components	[
Trim tool Set			E
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#### < SYSTEM DESCRIPTION >

# SYSTEM DESCRIPTION COMPONENT PARTS

# Component Parts Location



No.	Part	Function
1.	Rear power slide glass motor	Refer to PWC-8. "Rear Power Slide Glass Motor".
2.	Rear power window switch RH	Refer to PWC-7, "Rear Power Window Switch".
3.	Rear power window motor RH	Refer to PWC-7, "Power Window Motor".
4.	Front door switch RH	<ul> <li>Detects door open/close condition and transmits to BCM.</li> <li>Refer to <u>DLK-15</u>. "Front Door Switch".</li> </ul>
5.	Power window and door lock/unlock switch RH	Refer to PWC-7, "Power Window and Door Lock/Unlock Switch RH".
6.	Front power window motor RH	Refer to PWC-7, "Power Window Motor".
7.	Rear power slide glass switch	Refer to PWC-8, "Rear Power Slide Glass Switch".
8.	ВСМ	<ul> <li>Supplies power to the window switches.</li> <li>Controls retained power.</li> <li>Refer to <u>BCS-5, "BODY CONTROL SYSTEM : Component Parts Location"</u> for detailed installation location.</li> </ul>
9.	Front power window motor LH	Refer to PWC-7, "Power Window Motor".
10.	Main power window and door lock/unlock switch	Refer to PWC-7. "Main Power Window and Door Lock/Unlock Switch".
11.	Front door lock assembly LH (key cylinder switch)	Transmits operation condition of door key cylinder switch to main pow- er window and door lock/unlock switch.
12.	Front door switch LH	<ul> <li>Detects door open/close condition and transmits to BCM.</li> <li>Refer to <u>DLK-15</u>, "Front Door Switch".</li> </ul>
13.	Rear power window motor LH	Refer to PWC-7, "Power Window Motor".
14.	Rear power window switch LH	Refer to PWC-7, "Rear Power Window Switch".

# **COMPONENT PARTS**

#### < SYSTEM DESCRIPTION >

#### Main Power Window and Door Lock/Unlock Switch

- Main power window and door lock/unlock switch controls all power windows.
- Main power window and door lock/unlock switch integrates UP/ DOWN switch, power window lock switch, and door lock/unlock switch.
- Main power window and door lock/unlock switch controls power window lock function and AUTO UP/DOWN function.
- Receives encoder pulse signal and then controls anti-pinch system.

# Power Window and Door Lock/Unlock Switch RH

- Power window and door lock/unlock switch RH transmits AUTO UP/DOWN signal to front power window motor RH.
- Receives AUTO UP/DOWN signal from BCM and then transmits to front power window motor RH.
- Receives encoder pulse signal and then controls anti-pinch system.

# **Rear Power Window Switch**

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



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# **Power Window Motor**

- · Integrates the encoder for front power windows.
- Starts operation according to signals from each power window switch.
- Transmits each power window motor rotation as a pulse signal to each power window switch.



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# **COMPONENT PARTS**

#### < SYSTEM DESCRIPTION >

# Rear Power Slide Glass Switch

- Rear power slide glass switch is located in the overhead console.
- Rear power slide glass transmits OPEN/CLOSE signal to the rear power slide glass motor.



# Rear Power Slide Glass Motor

- Starts operation according to signal from rear power sliding glass switch.
- Transmits rear power sliding glass motor rotation as a pulse signal to rear power sliding glass switch.



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# < SYSTEM DESCRIPTION >

# SYSTEM

# System Description

# SYSTEM DIAGRAM



#### POWER WINDOW OPERATION

- Power window system is activated by the power window switches when the ignition switch is in the ON position or during the retained power operation after ignition switch turns OFF.
- Main power window and door lock/unlock switch can open/close door glass.
- Front and rear power window switches can open/close the corresponding door glass.
- Power window lock switch can lock all power windows other than driver front.
- Front power windows open when pressing Intelligent Key unlock button for 3 seconds.
- If door glass receives resistance that is more than the specified value and the power window is in the AUTO-UP operation, power window will move in the reverse direction (anti-pinch function).

#### REAR POWER SLIDE GLASS OPERATION (IF EQUIPPED)

- Rear power slide glass system is operable during the retained power operation timer after turning ignition switch ON and OFF.
- Rear power slide glass switch can open/close the rear power slide glass.

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# SYSTEM

#### < SYSTEM DESCRIPTION >

#### POWER WINDOW AUTO-OPERATION

- AUTO-UP/DOWN operation can be performed when each power window motor turns to AUTO.
- Encoder continues detecting the movement of power window motor and outputs the encoder pulse signal to power window switch while power window motor is operating.
- Power window switch reads the changes of encoder signal and stops AUTO operation when door glass is at fully open/closed position.
- Power window motor is operable in case encoder is malfunctioning.
- AUTO function does not operate if encoder is malfunctioning.

#### POWER WINDOW SERIAL LINK

Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.

The signals mentioned below are transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH.

- Keyless power window down signal.
- Door switch signal. The signals mentioned below are transmitted from power window main switch to front power window switch (passenger side).
- Front passenger side door window operation signal.
- Retained power operation signal.

#### RETAINED POWER OPERATION

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

#### Retained Power Function Cancel Conditions:

- Front door CLOSED (door switch OFF) $\rightarrow$ OPEN (door switch ON).
- When ignition switch is ON again
- When timer time passes (45 seconds)

#### POWER WINDOW LOCK FUNCTION

Ground circuit inside main power window and door lock/unlock switch shuts off when power window lock switch is ON. This inhibits power window switch operation except with the main power window and door lock/ unlock switch.

#### ANTI-PINCH OPERATION

- Pinch foreign material in the door glass during AUTO-UP operation, and it is the anti-pinch function that lowers the door glass 150 mm (5.9 in) or 2 seconds when detected.
- Encoder continues detecting the movement of power window motor and transmits to the power window switch as the encoder pulse signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of encoder pulse signal if foreign material is trapped in the door glass.
- Power window switch lowers the door glass for 150 mm (5.9 in) or 2 seconds after it detects encoder pulse signal frequency change.

#### Operation Condition

When front door glass AUTO-UP operation is performed, anti-pinch function does not operate just before the door glass closes and is fully closed.

#### NOTĚ:

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

#### 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 an error beyond the regulation value is detected between the fully closed position and the actual position of the glass.

# SYSTEM

#### < SYSTEM DESCRIPTION >

Malfunction	Malfunction condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/close operation.
Pulse direction malfunc- tion	When the pulse signal that is detected during glass open/close operation detects the opposite con- dition 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 opera- tion.
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing for more than the specified value (approximately 10 strokes).

It changes to condition before initialization and the following functions do not operate when switched to failsafe 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 switch or in motor.

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< SYSTEM DESCRIPTION >

# DIAGNOSIS SYSTEM (BCM) COMMON ITEM

# COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

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# 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><li>The vehicle specification can be read and saved.</li><li>The vehicle specification can be written when replacing BCM.</li></ul>
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

#### SYSTEM APPLICATION BCM can perform the following functions:

				Direct D	Diagnosti	c Mode		
System	Sub System	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	HEADLAMP			×	×	×		
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			×				

#### FREEZE FRAME DATA (FFD)

The BCM records the following vehicle condition at the time a particular DTC is detected, and displays it on CONSULT.

# **DIAGNOSIS SYSTEM (BCM)**

#### < SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description	А								
Vehicle Speed	km/h	Vehicle speed at the mo	ment a particular DTC is detected								
Odo/Trip Meter	Indication/Unit           km/h           km           SLEEP>LOCK           SLEEP>OFF           LOCK>ACC           ACC>ON           RUN>ACC           CRANK>RUN           RUN>URGENT           ACC>OFF           OFF>LOCK           OFF>SLEEP           LOCK>SLEEP           LOCK>SLEEP           OFF>SLEEP           LOCK           OFF           RUN>URGENT           ACC>OFF           OFF>LOCK           OFF>SLEEP           LOCK           OFF           LOCK           OFF           CRANKING           ENGINE RUN           CRANKING           0- 39	Total mileage (Odometer	r value) at the moment a particular DTC is detected	_							
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*).	В							
	SLEEP>OFF	-	While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	С							
CONSULT screen item         Indication/Unit           Vehicle Speed         km/h           Odo/Trip Meter         km           SLEEP>LOCK         SLEEP>OFF           LOCK>ACC         ACC>ON           RUN>ACC         CRANK>RUN           Vehicle Condition         CRANK>RUN           Vehicle Condition         OFF>LOCK           OFF>LOCK         OFF>LOCK           OFF>SLEEP         LOCK>SLEEP           LOCK         OFF           ON>CRANK         OFF>SLEEP           LOCK         OFF           QFF>SLEEP         LOCK           ICOCK         OFF           ACC         ON           ICOCK         OFF           ICOCK         OFF           ACC         ON           ICOCK         OFF           ACC         ON           ICON         CRANKING		While turning power supply position from "LOCK" *to "ACC"									
	Indication/Unit     Indication/Unit       cle Speed     km/h     Vehicle speed at the       /Trip Meter     km     Total mileage (Odom       SLEEP>LOCK     SLEEP>OFF     IOCK>ACC       IOCK>ACC     ACC>ON     RUN>ACC       CRANK>RUN     RUN>URGENT     ACC>OFF       OFF>LOCK     OFF>LOCK     Power position status the moment a particul DTC is detected*       ON>CRANK     OFF>SLEEP     IOCK>SLEEP       LOCK     OFF     ACC       ON     ENGINE RUN     CRANKING       Counter     0 - 39     The number of times whenever ignition is to we impresent in the part is 0 we impresent in the part is 0 we impresent ignition is 0		While turning power supply position from "ACC" to "IGN"	D							
		-	While turning power supply position from "RUN" to "ACC" (Vehicle is stopped and selector lever is in P position.)	D							
	CRANK>RUN	-	While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	E							
	RUN>URGENT	-	While turning power supply position from "RUN" to "ACC" (Emer- gency stop operation)	_							
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	F							
Vehicle Condition	OFF>LOCK	Power position status at	While turning power supply position from "OFF" to "LOCK"*								
	OFF>ACC	the moment a particular DTC is detected*	While turning power supply position from "OFF" to "ACC"	G							
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"								
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	Н							
	LOCK>SLEEP	-	While turning BCM status from normal mode (Power supply position is "LOCK"*.) to low power consumption mode								
	ACC>OFFPower position status at the moment a particular DTC is detected*While turning power supply positio While turning power supply positioOFF>ACCOFF>ACCWhile turning power supply positioON>CRANKOFF>SLEEPWhile turning BCM status from nor tion is "OFF".) to low power consultLOCK>SLEEPWhile turning BCM status from nor tion is "LOCK"*.) to low power consultLOCKOFFACCPower supply position is "ACC" (Ig Power supply position is "IGN" (Igr 	Power supply position is "LOCK" (Ignition switch OFF)*									
	OFF		Power supply position is "OFF" (Ignition switch OFF)	TC is detectedBpower consumption mode to in is "LOCK"*).Cpower consumption mode to in is "OFF".)Ca from "LOCK" *to "ACC"Da from "ACC" to "IGN"Dfrom "RUN" to "ACC" (Vehicle Position.)Da from "RUN" to "ACC" (Vehicle Position.)Ea from "RUN" to "ACC" (Vehicle Position.)Fa from "CRANKING" to "RUN" in it)Ea from "OFF" to "ACC" (Emer- in from "OFF" to "LOCK"* a from "OFF" to "LOCK"* a from "IGN" to "CRANKING"Ga from "IGN" to "CRANKING" mal mode (Power supply posi- umption modeHmal mode (Power supply posi- umption modeHmal mode (Power supply posi- umption modeJmal mode (Power supply posi- umption switch OFF)Jmaterial mode (Power supply posi- umption switch ON with enginePWMaterial mode (Power supply posi- umption switch ON with engineLmaterial mode (Power supply posi- umption switch ON with engine							
	ACC		Power supply position is "ACC" (Ignition switch ACC)								
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	Ũ							
	ENGINE RUN	-	Power supply position is "RUN" (Ignition switch ON with engine running)	PW							
	CRANKING		Power supply position is "CRANKING" (At engine cranking)								
IGN Counter	0 - 39	<ul> <li>The number of times that</li> <li>The number is 0 wher</li> <li>The number increases whenever ignition is so</li> <li>The number is fixed to</li> </ul>	Power supply position is "CRANKING" (At engine cranking) nat ignition switch is turned ON after DTC is detected en a malfunction is detected now. es like $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition switched OFF $\rightarrow$ ON. to 39 until the self-diagnosis results are erased if it is over 39								

#### NOTE:

\*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met:

Closing door

Opening door

Door is locked using door request switch

Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

# **RETAINED PWR**

# RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000013834822

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#### DATA MONITOR

# **DIAGNOSIS SYSTEM (BCM)**

#### < SYSTEM DESCRIPTION >

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.

#### < ECU DIAGNOSIS INFORMATION >

# ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

# List of ECU Reference

INFOID:000000013052252

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ECU	Reference	
	BCS-32, "Reference Value"	
DOM	BCS-51, "Fail Safe"	
ВСМ	BCS-51, "DTC Inspection Priority Chart"	
	BCS-52, "DTC Index"	

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# MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

#### < ECU DIAGNOSIS INFORMATION >

# MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

# **Reference Value**

INFOID:000000013163263

#### **TERMINAL LAYOUT**



#### PHYSICAL VALUES

Termi (Wire	nal No. e color)	Description		Condition	Voltage						
+	-	Signal name	Input/ Output	Condition	(Approx.)						
1 (B)	Ground	Ground	Output		0 V						
3 (W/R)	Ground	Door lock actuator signal	Output	_	_						
4 (R)	12 (B)	Encoder pulse signal 2	Input	When power window mo- tor operates	(V) 6 4 2 0 10 ms JMKIA0070GB						
5 (BG)	12 (B)	Encoder pulse signal 1	Input	When power window mo- tor operates	(V) 6 4 2 0 10 ms JMKIA0070GB						
6 (SB)	Ground	Rear power window motor RH DOWN signal.	Output	When rear power window switch RH is operated DOWN	Battery voltage						
7 (V)	Ground	Rear power window motor RH UP signal.	Output	When rear power window switch RH is operated UP	Battery voltage						
8 (L)	Ground	Rear power window motor LH DOWN signal.	Output	When rear power window switch LH is operated DOWN	Battery voltage						
9 (Y)	Ground	Rear power window motor LH UP signal.	Output	When rear power window switch LH is operated UP	Battery voltage						
10	Ground	lanition switch power supply	Innut	Ignition switch ON	Battery voltage						
(LG)	Ground	ignition switch power supply	input	Other than above	0 V						

# MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

# < ECU DIAGNOSIS INFORMATION >

Termi (Wire	nal No. e color)	Description		Condition	Voltage	A
+	-	Signal name	Input/ Output	Condition	(Approx.)	
11 (W/L)	Ground	Power window serial link	Input/ Output	IGN SW ON or power win- dow operating	(V) 15 0 0 10 ms JPMIA0013GB	B C D
12 (B)	Ground	Encoder ground	_	_	0 V	_
14 (P)	Ground	Encoder power supply	Output	When ignition is ON or power window timer oper- ates	Battery voltage	E
15 (B/W)	Ground	Ind       Encoder ground         Ind       Encoder power supply         Ind       Door lock actuator signal         Ind       Main power window and door lock/unlock switch UP signal	Output	—	Battery voltage	F
17 (W)	19 (R)	Main power window and door lock/unlock switch UP signal	Output	When main power window and door lock/unlock switch is operated UP	Battery voltage	G
18 (V)	Ground	Battery power supply	Input	_	Battery voltage	Н
19 (R)	17 (W)	Main power window and door lock/unlock switch DOWN sig- nal	Output	When main power window and door lock/unlock switch is operated DOWN	Battery voltage	1

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# POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

#### < ECU DIAGNOSIS INFORMATION >

# POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

#### **Reference Value**

INFOID:000000013163264

#### TERMINAL LAYOUT



#### PHYSICAL VALUES

Termii (Wire	nal No. color)	Description		Condition	Voltage
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (W/L)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window operating	(V) 15 0 0 10 ms JPMIA0013GB
4 (G/B)	Ground	Encoder ground		_	_
5 (W)	Ground	Encoder power supply	Output	When ignition switch is ON or power window timer operates	Battery voltage
7 (B)	Ground	Ground		_	_
8 (V)	Ground	Battery power supply	Input	_	Battery voltage
9 (R/L)	4 (G/B)	Encoder pulse signal 1	Input	When power window motor operates	(V) 6 4 0 10 ms JMKIA0070GB
10 (L/W)	4 (G/B)	Encoder pulse signal 2	Input	When power window motor operates	(V) 6 4 2 0 10 ms JMKIA0070GB

# POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

#### < ECU DIAGNOSIS INFORMATION >

Termi (Wire	inal No. e color)	Description		Condition	Voltage	А
+	-	Signal name	Input/ Output	Condition	(Approx.)	
11 (G)	12 (L)	Assistant window switch UP signal	Output	When power window and door lock/unlock switch RH is oper- ated UP	Battery voltage	В
12 (L)	11 (G)	Assistant window switch DOWN signal	Output	When power window and door lock/unlock switch RH is oper- ated DOWN	Battery voltage	С

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#### < WIRING DIAGRAM >

# WIRING DIAGRAM POWER WINDOW SYSTEM

# Wiring Diagram





28.J	L	TO MAIN HARNESS
29J	G/O	TO MAIN HARNESS
30J	SB	TO MAIN HARNESS
31J	ГG	TO MAIN HARNESS
32J	æ	TO MAIN HARNESS
33J	L	TO MAIN HARNESS
34J	7	TO MAIN HARNESS
35J	٩	TO MAIN HARNESS
36J	G/R	TO MAIN HARNESS
37J	LG/B	TO MAIN HARNESS
38J	SB	TO MAIN HARNESS
39/	٨٦	TO MAIN HARNESS
40J	BR	TO MAIN HARNESS
41J		TO MAIN HARNESS
42J	-	TO MAIN HARNESS
43J	SB	TO MAIN HARNESS
44J	BR	TO MAIN HARNESS
45J	BG	TO MAIN HARNESS
46J	ΡΛ	TO MAIN HARNESS
47J	Y/GR	TO MAIN HARNESS
48J	^	TO MAIN HARNESS
49J	BR/Y	TO MAIN HARNESS
50J	G/W	TO MAIN HARNESS
51J	1	TO MAIN HARNESS
52J	SHIELD	TO MAIN HARNESS
53J	œ	TO MAIN HARNESS
54J	-	TO MAIN HARNESS
55J	н	TO MAIN HARNESS
56J	M	TO MAIN HARNESS
57J	٦NG	TO MAIN HARNESS
58J	0	TO MAIN HARNESS
59J	1	TO MAIN HARNESS
60J	SHIELD	TO MAIN HARNESS
61J	σ	TO MAIN HARNESS
62J	ı	TO MAIN HARNESS
63.1	RW	TO MAIN HARNESS
64J	N	TO MAIN HARNESS
65J	SHIELD	TO MAIN HARNESS
66J	m	TO MAIN HARNESS
F73	SHIELD	TO MAIN HARNESS
68J	0/L	TO MAIN HARNESS
69	SHIELD	TO MAIN HARNESS
70.7	BR	TO MAIN HARNESS
C17	M	TO MAIN HARNESS
72J	1	TO MAIN HARNESS
72J	ı	TO MAIN HARNESS
73J	ı	TO MAIN HARNESS
74.J	SHIELD	TO MAIN HARNESS
75J	LG/B	TO MAIN HARNESS
76J	œ	TO MAIN HARNESS
L77	SHIELD	TO MAIN HARNESS
78.J	GR/B	TO MAIN HARNESS
79J	8	TO MAIN HARNESS

**POWER WINDOW SYSTEM** 

ONNECTORS	Connector No. B69	Connector Name WIRE TO WIRE	Connector Type TH80MW-CS16-TM4	Connector Color WHITE			[21]201 [32] [33] [33] [33] [33] [35] [35] [34] [33] [31] [32] [32] [32] [32] [32] [32] [32] [32	41/ 40/ 380 380 380 380 380 381 382 382 341 382 323 31	61/1 60/1 58/1 58/1 57/1 56/1 56/1 53/1 52/1 51/1	700 9631 6531 6531 6641 6531 6231	85 881/ 881/ 881/ 881/ 881/ 881/ 881/ 88		95.1 94.1 93.1 93.1 91.1 1011 001 001 001 001 001 001 001	Na art from loop was	2	92 99	s lerminal Color or Signal Name	S 1J P TO MAIN HARNESS	S 2J R/Y TO MAIN HARNESS	S 3J L TO MAIN HARNESS	S 4J L/B TO MAIN HARNESS	S 5J G/W TO MAIN HARNESS	6J LG/Y TO MAIN HARNESS	2 7J BR/LG TO MAIN HARNESS 8.1 SR/BR TO MAIN HARNESS	9J BR TO MAIN HARNESS	H 10J BR TO MAIN HARNESS	11J O/B TO MAIN HARNESS	13.1 SR/O TO MAIN HARNESS	14J Y TO MAIN HARNESS	15J – TO MAIN HARNESS	16J R TO MAIN HARNESS	17J G TO MAIN HARNESS	18J SB TO MAIN HARNESS	19J O TO MAIN HARNESS	200 0/B IO MAIN HAHNESS 21.1 V/B TO MAIN HARNESS	22J P TO MAIN HARNESS	23J W TO MAIN HARNESS	24J W/R TO MAIN HARNESS	25J V TO MAIN HAHNESS
OW SYSTEM	B6	WIRE TO WIRE	TK10FW-NS8	WHITE		10         9         8         7         6         5         4         3         2           18         17         16         15         14         13         12		of Signal Name	TO REAR DOOR LH HAR	TO REAR DOOR LH HARI	TO REAR DOOR LH HARI	TO REAR DOOR LH HARI	TO REAR DOOR LH HARI	TO REAR DOOR LH HARI	TO REAR DOOR LH HARI	TO REAR DOOR LH HARI	TO REAR DOOR LH HARI	TO REAR DOOR LH HAR	TO REAR DOOR LH HARI	TO REAR DOOR LH HAR	TO REAR DOOR LH HARI	TO REAR DOOR LH HARI	TO REAR DOOR LH HARI		Bß	FRONT DOOR SWITCH	TH04FW-NH	WHITE			K	1 2 3 4	1 2 7			of Signal Name	,		DR DOOR SW
WIND	No.	Name	Type	Color	L	لصلت	L	Color o Wire	1	ı	' '	1	1	ī	Ъ	'	BV	SB	BR	۲	8	9 .	- 5	8	ÖN	Name	Type	Color								Color o		1	-
OWER '	Connector	Connector	Connector	Connector		2		Terminal No.	-	7	е <		9	7	8	б Ç	= =	12	13	14	15	16	12	18	Connector	Connector	Connector	Connector	Ę		H.S.					Terminal	-	2	8
д																																-					A	AKI.	A37

Connector	ON ON	Be
Connector	Name	WIRE TO WIRE
Connector	Type	TK10FW-NS8
Connector	Color	WHITE
E		
Ч.С. У.Н.		0     9     8     7     6     6     7     7     1
Terminal No.	Color of Wire	Signal Name
-	•	TO REAR DOOR LH HARNESS
N	1	TO REAR DOOR LH HARNESS
8	1	TO REAR DOOR LH HARNESS
4	1	TO REAR DOOR LH HARNESS
5	1	TO REAR DOOR LH HARNESS
9	-	TO REAR DOOR LH HARNESS
7	1	TO REAR DOOR LH HARNESS
8	O/L	TO REAR DOOR LH HARNESS
6	1	TO REAR DOOR LH HARNESS
10	-	TO REAR DOOR LH HARNESS
11	ΒΛ	TO REAR DOOR LH HARNESS
12	SB	TO REAR DOOR LH HARNESS
13	BB	TO REAR DOOR LH HARNESS
14	٢	TO REAR DOOR LH HARNESS
15	8	TO REAR DOOR LH HARNESS
16	ГG	TO REAR DOOR LH HARNESS
17	-	TO REAR DOOR LH HARNESS

K		H.S.
		E
WHITE	Color	Connector
TH04FW-NH	Type	Connector
FRONT DOOR SWITCH LH	Name	Connector
B8	No.	Connector
TO REAR DOOR LH HARNES	SB	18

Signal Name	1	T	DR DOOR SW	I	
Color of Wire			-		
Terminal No.	F	7	ъ	4	

TO MAIN HARNESS

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TO MAIN HARNESS	TO MAIN HARNESS																			
W	SHIELD	L/R	ı	-	Y/B	IJ	B/R	SHIELD	GR/R	L	L/B	SB	в	L	ΓC	ж	ВΛ	L/B	W/L	SB
80J	81J	82J	83J	84J	85J	86.1	87J	88.1	89J	90	91J	92J	93.1	94J	95J	69	C76	98,1	0 <del>0</del> 0	1001

TO MAIN HARNESS 76A GR/R TO M	IO MAIN HARNESS         I.I.M.         L         I.V. MAIN HARNESS           FO MAIN HARNESS         78A         SHIELD         TO MAIN HAR	TO MAIN HARNESS 79A Y TO MAIN HAF	TO MAIN HARNESS 80A L TO MAIN HAF	TO MAIN HARNESS 82A SHIELD TO MAIN HAF	TO MAIN HARNESS 83A LG/B TO MAIN HAF	TO MAIN HARNESS 84A R TO MAIN HAF	TO MAIN HARNESS 85A SHIELD TO MAIN HAF		TO MAIN FARINESS 0/A D TO MAIN FAR TO MAIN HARNESS 88A W TO MAIN HAF	TO MAIN HARNESS 89A SHIELD TO MAIN HAF	TO MAIN HARNESS 90A G TO MAIN HAF	TO MAIN HARNESS 91A W/L TO MAIN HAF TO MAIN HADNESS 22A BD TO MAIN HAF	TO MAIN HARNESS 93A L/Y TO MAIN HAF	TO MAIN HARNESS 94A R/L TO MAIN HAF	TO MAIN HARNESS 95A BR TO MAIN HAF TO MAIN HARNESS 95A B TO MAIN HAF	TO MAIN HARNESS 97A LG TO MAIN HAF	TO MAIN HARNESS 98A B/V TO MAIN HAF	TO MAIN HARNESS 99A 0/L TO MAIN HAF	TO MAIN HARNESS 100A BR/W TO MAIN HAF TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS CONNECTOR NAME REAR POWER SL	TO MAIN HARNESS GLASS MOTOR	TO MAIN HARNESS Connector Type RS02FB	TO MAIN HARNESS Connector Color BLACK	TO MAIN HARNESS [[파파]] DO MAIN HARNESS	TO MAIN HARNESS H.S.	TO MAIN HARNESS		TO MAIN HARNESS	TO MAIN HARNESS Terminal Color of Signal Na	TO MAIN HARNESS	TO MAIN HARNESS 2 B/V REAR SIDE GLA	TO MAIN HARNESS	TO MAIN HARNESS		O MAIN HARNESS O MAIN HARNESS	TO MAIN HARNESS		FO MAIN HARNESS	TO MAIN HARNESS
0	2 2	TO	2 2	2 2	10	10	2	2 6	10	10	10	2 2	2	10	2 2	10	10	2	2 2	10	TO	2 2	2 2	10	22	10	0 P	2 2	TO		2 2	TO	10	2	2 4	2 2	2 2		10	2 2
7/LG		GR	e lea	3	1	W/R	G/R			8	1	BNB COS	>	SHIELD	SHIELD	: <b>o</b>	ſ	1	≻ Ma	RL	æ		1	1	1	1	1	G/W	1		'	1	'	'	۰ Ş	B/G			Y/B	¶∦ u
23A	25A	26A	27A 28A	29A	30A	31A	32A	MUC ANC	35A	36A	37A	38A	40A	41A	42A	44A	45A	46A	47A 48A	49A	50A	51A 62A	53A	54A	55A 56A	57A	58A	Per Per	61A	62A	64A	65A	66A	67A	68A	70A	71A		72A	72A 734
	RE TO WIRE	H80MDGY-CS16-TM4	3HAY			54 34 3A 2A 1A	10A 8A 7A 6A	218 208 198 158 178 168 158 148 138 128 118	304 294 284 274 264 254 244 234 224	A 40A 39A 35A 37A 36A 35A 34A 33A 32A 31A	Jun aski 40% 47% aski 40% 40% 44% aski 44%	004 6924 6834 672 6634 653 643 633 623	34 794 794 774 764 754 744 734 724 714		95A 94A 93A 92A 91A 100A 99A 93A 92A 97A				Signal Name	2	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS TO MAIN HARNESS	TO MAIN HARNESS -(WITHOUT CLIMATE CONTECULED SEATS)	TO MAIN HARNESS -(WITH	CLIMATE CONTROLLED SEATS) TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS TO MAIN LADNIESS	TO MAIN HADNESS	LO IMAIN FIAMMEDD	TO MAIN LADNESS	TO MAIN HARNESS
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stor No. B149	ctor Name WI	stor Type T	stor Color							te l	10		81A 80	<u></u>			And a second sec		nal Color of	Wire	SB/G	SB	-	>	SB/R	ГG/Y	P	8	в	8	× -	BR/O	Wλ	R/G	٨	- or			2	
Connector No. B149	Connector Name WI	Connector Type T	Connector Color	1991	5 H	) -			]	4			81A8	<u></u>			. Province and a second s		Terminal Color of	No. Wire	1A SB/G	1A SB	2A L	3A V	5A SB/R	6A LG/Y	6A LG	7A W	8A B	9A L/B	W 414	12A BR/O	13A Y/W	14A R/G	15A Y/L	16A O/L	1/A L	194 1.0		p
B106 Connector No. B149	WIRE TO WIRE WIRE TO WIRE WIR	TK10FW-NS8 Connector Type T	WHITE Connector Color	1 AL						Signal Name	TO REAR DOOR BH HARNESS	TO REAR DOOR RH HARNESS	TO REAR DOOR RH HARNESS	TO REAR DOOR RH HARNESS	TO REAR DOOR RH HARNESS	TO REAR DOOR RH HARNESS	TO REAR DOOR RH HARNESS	TO REAR DOOR RH HARNESS	TO REAR DOOR RH HARNESS Terminal Color of	TO REAR DOOR RH HARNESS NO. WIRE	TO REAR DOOR RH HARNESS 1A 1A SB/G TO REAR DOOR RH HARNESS	TO REAR DOOR RH HARNESS 1A SB	TO REAR DOOR RH HARNESS 2A L	TO BEAR DOOR HH HARNESS 3A V TO BEAR DOOR BH HARNESS 3A V	4A SB/R = 5A = 5	B108 6A LG/Y	FRONT DOOR SWITCH RH 6A LG	TH04FW-NH WHITE 7A W	8A B	9A L/B		1 2 3 4 12A BR/O	13A Y/W	14A R/G	15A Y/L	Signal Name				
r No. B106 Connector No. B149	r Name WIRE TO WIRE Connector Name WI	r Type TK10FW-NS8 Connector Type T	r Color WHITE Connector Color Color	LE DE						Color of Signal Name	TO REAR DOOR RH HARNESS	- TO REAR DOOR RH HARNESS	- TO REAR DOOR RH HARNESS	- TO REAR DOOR BH HARNESS	- TO REAR DOOR RH HARNESS	- TO REAR DOOR RH HARNESS	O/L TO REAR DOOR RH HARNESS	- TO REAR DOOR BH HARNESS	R/L TO REAR DOOR RH HARNESS Terminal Color of	O/L TO REAR DOOR RH HARNESS NO. Wire	YLG TO REAR DOOR RH HARNESS 1A SB/G RR/O TO REAR DOOR RH HARNESS	B TO REAR DOOR RH HARNESS 1A SB	SB/R TO REAR DOOR RH HARNESS 2A L	L I'U HEAR DOUR HH HARNESS 3A V V TO BEAR DOOR BH HARNESS 3A V	5A - 5	r No. B108 64 LG/Y	r Name FRONT DOOR SWITCH RH 6A LG	r Type TH04FW-NH	8A B	9A L/B	M NI	1 2 3 4 12 12 12 12 12 12 12 12 12 12 12 12 12	13A YW	14A R/G	15A V/L	Vire Signal Name 164 0/L			- <	16/B AS DOOD SW

< WIRING DIAGRAM >

Revision: March 2016

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< WIRING DIAGRAM >

# Revision: March 2016

**OWER WINDOW SYSTEM CONNECTORS** 

	n	۲	MOTOR UP	12	0/L	TO BODY NO. 2 HARNESS	8	>	CONT UP
	9	EG	MOTOR DOWN	13	٢	TO BODY NO. 2 HARNESS			
nector Name WIRE IO WIRE	7	BB	SW DOWN	14	BR	TO BODY NO. 2 HARNESS			
Inector Type TK10MW-NS8	¢	>	SW UP	15	~	TO BODY NO 2 HARNESS			
mector Color WHITE						TO DODY NO 2 HABNESS			
				2					
	Connector	No.	D204	-	-	10 BOUT NO. 2 HANNESS			
	Connector	Name	REAR POWER WINDOW	18	>	I O BODY NO. 2 HAHNESS			
H.S.			MOTOR LH						
	Connector	Type	RS06FG	Connector N	-o	304			
	Connector	Color	GREEN	Connector N	Jame F	EAR POWER WINDOW			
					2	NOTOR RH			
	A HA HA			Connector 1	ype F	SOGFG			
minal Color of Signal Name	H.S.			Connector (	Color 0	ireen			
MIE .			(3 2 1)	Æ					
			6 5 4						
				H.S.					
	Terminal	Color				6 5 4			
	No.	Wire	Signal Name						
	-	-	MOTOB IIP						
7 - TO BODY HARNESS	-	1	LO LO LOMI						
8 O/L TO BODY HARNESS	2	'	-	Terminal	Color of	Signal Name			
9 – TO BODY HARNESS	e	P	MOTOR DOWN	No.	Wire	0			
10 - TO BODY HARNESS	4	1	I	-	L	MOTOR UP			
TO BODY HABNESS	2	1	-	2	1				
20 CE TO BODY HADNESS	9	.	-	3	LG	MOTOR DOWN			
			-	4	1	1			
		:							
14 Y TO BODY HARNESS	Connector	No.	D301	, ,					
15 B TO BODY HARNESS	Connector	Name	WIRE TO WIRE	0	1	I			
16 BR TO BODY HARNESS	Connector	Type	TK10MW-NS8						
17 Y TO BODY HARNESS				Connector N	o,	309			
18 V TO BODY HARNESS	Connector	Color	WHILE	Connector	ame	FAR POWFR WINDOW			
-	E				200	WITCH RH			
				Connector					
	H.S.H	Ľ			Drha	50-M 1005			
Dector Name REAR POWER WINDOW			1 2 3 4 5 - 6 7 8 9 10	Connector (	color V	HITE			
SWILCH LH				fe					
nector Type NS08FW-CS					-				
nector Color WHITE				H S		•			
						3 2 1			
	Terminal	Color o	Signal Name			8 7 6 5 4			
	NO.	MILE			_				
3 2 1			I U BUDY NU. 2 HAHNESS	_					
0 1 2 2	2	•	TO BODY NO. 2 HARNESS						
	3	1	TO BODY NO. 2 HARNESS	Terminal	Color of	Signal Name			
	4		TO BODY NO. 2 HARNESS	No.	Wire				
	ß	1	TO BODY NO. 2 HARNESS	-	1	1			
minel Color of	9		TO BODY NO. 2 HARNESS	2	в	GROUND			
Signal Name									
					>	ICNITION BOWED			
1	20	or	I U BOUY NU. 2 HAHNESS	+					
2 B GROUND	6	1	TO BODY NO. 2 HARNESS		-	WINDOW MUTCH UP			
۱ ۱	10	1	TO BODY NO. 2 HARNESS	9	ГG	WINDOW MOTOR DOWN			
4 Y IGNITION POWER	F	R/L	TO BODY NO. 2 HARNESS	2	BR	CONT DOWN			

**POWER WINDOW SYSTEM** 

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Connector No	o.	E152	22G	GY	TO MAIN HARNESS - (WITH VK56VD)	74G	×	TO MAIN HARNESS	12		TO ROOM LAMP HARNESS
Connector Na	lame	WIRE TO WIRE	23G	Y/R	TO MAIN HARNESS	75G	œ 2	TO MAIN HARNESS	13	eg d	TO ROOM LAMP HARNESS
Connector Tv	ADe	TH80MW-CS16-TM4	24G	G/B	TO MAIN HARNESS	50/	2	TO MAIN HARNESS	4	r Ş	TO POOM LAMP HARNESS
Connector Cc	olor	WHITE	25G	RW	TO MAIN HARNESS	786	5 ≥	TO MAIN HARNESS	9	a 8/1	TO ROOM LAWF HARNESS TO ROOM LAMP HARNESS
		1	26G	œ	TO MAIN HARNESS	202	:	TO MAIN HADNESS	2 -	3	TO DOOM LAND HADNESS
역외			27G	ΓC	TO MAIN HARNESS	806		TO MAIN HARNESS	- 4		TO ROOM LAMP HARNESS
ů.			28G	G/B	TO MAIN HARNESS	816	: _	TO MAIN HARNESS	19	T/M	TO ROOM LAMP HARNESS
0.E		Manual	29G	G/B	TO MAIN HARNESS	826		TO MAIN HABNESS	2 02	W/B	TO ROOM I AMP HARNESS
		5G 4G 3G 2G 1G	30G	BR/Y	TO MAIN HARNESS	83G	:	TO MAIN HARNESS	5		TO ROOM LAMP HARNESS
		10G 9G 8G 7G 6G	31G	٩	TO MAIN HARNESS	84G		TO MAIN HARNESS	22		TO ROOM LAMP HARNESS
		216206196186176166156146136126116	32G	٩	TO MAIN HARNESS	85G	W/B	TO MAIN HARNESS	23	,	TO ROOM LAMP HARNESS
		306 296 286 276 266 256 246 236 226	33G	٨L	TO MAIN HARNESS	86G	B/R	TO MAIN HARNESS	24		TO ROOM LAMP HARNESS
	1	416406396386376386356386336336336336336326316	34G	В	TO MAIN HARNESS	87G	W/B	TO MAIN HARNESS	25		TO ROOM LAMP HARNESS
		50G 49G 48G 47G 46G 45G 44G 43G 42G	35G	G/R	TO MAIN HARNESS	88G	۵.	TO MAIN HARNESS	26		TO ROOM LAMP HARNESS
		610โคกตรีธุรตรีธรตรีธรตรีธรตรีธรตรีรรตรีราตรี	36G	ß	TO MAIN HARNESS	896	-	TO MAIN HARNESS	27		TO ROOM LAMP HARNESS
		7006906806706806556643633622	37G	RW	TO MAIN HARNESS	906	σ	TO MAIN HARNESS	28	Y/R	TO ROOM LAMP HARNESS
	19	810 800 730 730 730 730 730 730 730	38G	BB	TO MAIN HARNESS	91G	g	TO MAIN HARNESS	59	G/R	TO ROOM LAMP HARNESS
	<u>د</u>	90C89G88C87G86C85C85C85C82G	39G	BR	TO MAIN HARNESS	92G	MV	TO MAIN HABNESS	30	GW	TO ROOM LAMP HARNESS
			40G	-	TO MAIN HARNESS	936	BB	TO MAIN HABNESS	3	1 G/B	TO ROOM LAMP HARNESS
		956 946 936 926 <sup>91G</sup>	41G	R/G	TO MAIN HARNESS	946	5 0	TO MAIN HABNESS	5 6	2	TO ROOM I AMP HARNESS
		1006 996 986 976 966	42G	0	TO MAIN HARNESS	956		TO MAIN HARNESS			
			43G	8	TO MAIN HARNESS	590		TO MAIN HARNESS			
			44G	RY	TO MAIN HARNESS	040	: 0	TO MAIN LIADNESS	Connector	.No.	M3
			45G	σ	TO MAIN HARNESS	586	a M/W	TO MAIN HARNESS	Connector	Name F	EUSE BLOCK (J/B)
-			46G	FG	TO MAIN HARNESS	500		TO MAIN HADNESS	Connector	Type 0	CS06FW-M2
No C	Color o	of Signal Name	47G	н	TO MAIN HARNESS	1006	GR/W	TO MAIN HARNESS	Connector	Color	NHITE
			48G	M	TO MAIN HARNESS				Į		
51	5	TO MAIN HARNESS	49G	'	TO MAIN HARNESS				1414h		
2 00		TO MAIN LADNESS	50G	BR	TO MAIN HARNESS	COLLIACION	20.	=	U H C		
90 90	BR/W	TO MAIN HARNESS	51G	œ	TO MAIN HARNESS	Connector	Name V	/IRE TO WIRE	0		
2			52G	L	TO MAIN HARNESS	Connector	Type T	H32FW-NH			an 7N 6N 5N 4N
200			53G	×	TO MAIN HARNESS	Connector	Color V	/HITE			
5	L	VK56VD)	54G	>	TO MAIN HARNESS	Æ					]
66	RW	TO MAIN HARNESS - (WITH	55G	σ	TO MAIN HARNESS				Terminal	Color of	
04	>	TO MAIN LADNESS	596	*		H.S.			No.	Wire	Signal Name
2 28	. 0	TO MAIN HARNESS	585	- Ba	TO MAIN HARNESS		16 15 14 13	12 11 10 9 8 7 6 5 4 3 2	1 N	0	IGN
96	ж	TO MAIN HARNESS	596	BG	TO MAIN HABNESS		32 31 30 29	28 27 26 25 24 23 22 21 20 19 18	17 2N	×	BATTERY
10G	×	TO MAIN HARNESS	60G	BG	TO MAIN HARNESS				ЯN	M	IGNITION
11G	R/G	TO MAIN HARNESS	61G	8	TO MAIN HARNESS				4N	>	BATTERY
12G	W/B	TO MAIN HARNESS	62G	>	TO MAIN HARNESS	Terminal	Color of	Cianal Mamo	SN	7	BATTERY
13G	BR	TO MAIN HARNESS	63G	œ	TO MAIN HARNESS	No.	Wire	Signal Name	9N	W	BATTERY
14G	Y/B	TO MAIN HARNESS	64G	ML	TO MAIN HARNESS	-	SHIELD	TO ROOM LAMP HARNESS	7N	L	ACC RELAY OUT
15G	GW	TO MAIN HARNESS	65G	W/R	TO MAIN HARNESS	2	н	TO ROOM LAMP HARNESS	8N	>	IGNITION
16G	5	TO MAIN HARNESS	66G	BG	TO MAIN HARNESS	e	M	TO ROOM LAMP HARNESS			
17G	G√	TO MAIN HARNESS	67G	BG	TO MAIN HARNESS	4	SB	TO ROOM LAMP HARNESS			
18G	G√	TO MAIN HARNESS	68G	8	TO MAIN HARNESS	5	G/W	TO ROOM LAMP HARNESS			
19G	٨X	TO MAIN HARNESS	69G	٨	TO MAIN HARNESS	9	G/R	TO ROOM LAMP HARNESS			
20G	G√	TO MAIN HARNESS	70G	-	TO MAIN HARNESS	2	8	TO ROOM LAMP HARNESS			
21G	ΒΛ	TO MAIN HARNESS	71G	R/W	TO MAIN HARNESS	8	-	TO ROOM LAMP HARNESS			
22G	G/R	TO MAIN HARNESS - (WITH	72G	N	TO MAIN HARNESS	σ	R/G	TO ROOM LAMP HARNESS			
-			73G	SHIELD	TO MAIN HARNESS	10	<u>ت</u>	TO ROOM LAMP HARNESS			
						F	3	TO ROOM LAMP HARNESS			

#### 2016 Titan NAM

# **POWER WINDOW SYSTEM**

#### < WIRING DIAGRAM >

-	BLOWER FAN RELAY OUT	IGN ELEC RELAY OUT 2	MR OUTPUT			AS REGUEST SW		1	COMBI SW OUT 5	COMBI SW OUT 4	COMBI SW OUT 3	COMBI SW OUT 2	COMBI SW OUT 1																																		
	>	σ.	- "	8 4		<u>ه</u>	, ,	1	N	٩	-	0/B	MA																																		
65	99	67	89	8 8	5 4	- 44	73	74	75	76	77	78	97 BN	3																																	
BLOWER FAN SW	DR DOOR LOCK STATUS	1	REAR DEFOGGER SW	1					SHIFT N/P	1		19	CM (BODY CONTROL		H40FB-NH	LACK				75 74 73 72 71 70 69 68 67 66 65 64 63 62 61			Signal Name		TRAILER LIGHT CHECK RELAY	CARGO LAMP OUT	1	LOCK LED	-	1		HIGH SIDE START SW LED		1	AUDIO DONGLE	-	PW UART	L&R SENSOR K-LINE	-	1			DEAD RECOCCED DELAY OUT	STADTED DELAY OUT	וטט ואששה השוואוט		
M	•		>		, <u>,</u>	B/M		1	B/B	-		No.	Name B	21	Iype	Color B			o   ro   ro   ro	92 /C 9C 6C 00			Color of	Wire	٨L	RY		1		,		r		,	M	-	WL	W/B	'					> 3	AA	· •	
29	30	31	32	8 3	5 5	с ж	37	38	68	40		Connector	Connector		Connector	Connector	E		0. E		1		Terminal	No.	41	42	43	44	45	46	47	48	6 <sup>+</sup>	51	52	53	54	55	36	20	8 5	80 0	00 5	10	20	8	5
TO FRONT DOOR LH HARNESS	TO FROME DOOR LH HARNESS		TO EBONT DOOR I H HARNESS	TO FRONT DOOR I H HARNESS		MIB			TH40FG-NH	GREEN				16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 26 5 3 23 21 31 20 20 21 20 27 26 26 20 23 20 20	17 77 177 177 177 177 177 177 177 177 1			f Signal Name	ENG START SW NO ESCL	1	A/L POWER SUPPLY 5V	A/L SIGNAL			1	-	COMBI SW IN 5	COMBI SW IN 4	COMBI SW IN 3	COMBI SW IN 2	COMBI SW IN 1	1	GND RF A/L	SECURITY INDICATOR	1	SHIFT P	STEP LAMP CONT	1	AIRCON SW	I	BRAKE SW FUSE	SHORT IN PIN INPUT	BRAKE SW LAMP				
•	3	5	<u>₹</u> .	J ;	- 8	8 >	. 9		CN NO	Nomo	r name	r Type	r Color	-			20 19 18 17 1	1/0 00 60 /14			Color of	5	-	н	W/R			'	'	SB	G√	>	G/B	>		•	>	1	æ	RW	'	>	1	≥	-	R/G	1
80	6	<del>2</del>	=	2 9	2	<u></u>	91		Connector	Connecto	Connecto	Connecto	Connecto	Ę		H.S.					Terminal	-	2	3	4	8		. ∞	6	10	H	12	13	14	<u>c</u>	17	18	19	20	54	53	83	24	25	26	27	28
M4	PLISE BLOCK (J/B)	NSTREM_CS					6P 5P 4P 3P 2P 1P	15P 14P 13P 12P 11P 10P 9P 8P				or or Signal Name	IGNITION	IGNITION	G IGNITION RELAY OUT	W RR DEF RLY W BR DEF RLY	D RR DEF RLY OUT	G IGNITION	V IGNITION	L BATTERY	-		RATTERY	Y BATTERY	LG BATTERY	W BLOWER FAN RELAY OUT		M8	e WIRE TO WIRE	NS16MW-CS	r WHITE			23 4 5 6 7	1 0 1 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0				or of Signal Name		TO FROM DOUR LH HARNESS						
Connector No.	Connector Name	Connector Type	Connector Color				Н.О. 7Р	16P	]		Torminal Colo	No. Wi	1P R	2P Y	g B	4P B/	0 69	7P G	8P W	BP L	10P -	11P	13P R	14P Y	15P Y/L	16P W		Connector No.	Connector Name	Connector Type	Connector Color	ľ		H.S.	- c	0			Terminal Colo	-0N		× •		4 4	0 9	9 h	•

< WIRING DIAGRAM >

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TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS TO ENGINE DOOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS TO ENCINE ROOM HARNESS	TO ENGINE ROOM HARNESS TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS																																			
٩	1	œ		~	:	L	w	B/R	M	σ	<u>م</u> ر	, a	M/N	BR	•	σ	œ a	a M/M	œ	GR/W																										
78G	79G	80G	81G	82G	83G	84G	85G	86G	87G	88G	89G	916	92G	93G	94G	95G	96G	086	966	100G																										
TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS TO ENGINE DOOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS		TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE POOM HARNESS TO ENGINE POOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS									
R/W	æ	P	G/B	G/B	BRN	œ	в	٨Л	GR	G/R	SB	BB	BB	1	R/G	0	σÈ	2 0	re r	æ	W	ľ	BB	œ .	× L	. >	σ	×	> 6	g	n 8	0	W	0	WL	W/B	22 0		>	-	RW	Γ	SHIELD	M	ж	R/G
25G	26G	27G	28G	29G	30G	31G	32G	33G	34G	35G	36G	386	39G	40G	41G	42G	43G	456	46G	47G	48G	49G	50G	51G	52G	54G	55G	56G	57G	58G	509	61G	62G	63G	64G	65G	686	686	969	70G	71G	72G	73G	74G	75G	76G
M21	ICM	WIRE TO WIRE	TH80FW-CS16-TM4	WHITE				16 26 36 46 56	66 76 86 96 106		716/126/130/146/130/166/176/186/196/206/206	31G32G33G24G35G36G37G38G39G40G41G	42G43G44G45G46G47G48G49G50G	51G52G53G54G55G56G57G58G59C60G61G	620630640650660670680690700	716/26/36/76/756/766/76/76/786/796/806/816	82G 83G 84G 85G 86G 87G 88G 89G 90G	916 920 930 940 950	966 976 986 996 1003				r of Signal Name	0	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	W TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	V TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	G TO ENGINE ROOM HARNESS	B TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	B TO ENGINE ROOM HARNESS	V TO ENGINE ROOM HARNESS	TO ENGINE ROOM HARNESS	Y TO ENGINE ROOM HARNESS	V TO ENGINE ROOM HARNESS	Y TO ENGINE ROOM HARNESS	Y TO ENGINE ROOM HARNESS	R TO ENGINE ROOM HARNESS -	(WITH CUMMINS 5.0L)	Y TO ENGINE ROOM HARNESS - (WITH VK56VD)	R TO ENGINE ROOM HARNESS
Connector No	CONTRECTOR NO.	Connector Name	Connector Type	Connector Color			SH	5				l											Terminal Colo	No.	9 00	57	46 BR	5G BF	6G RA	7G Y	59 C0	10G	11G R/	12G W/	13G BF	14G Y/I	15G GA	196	186 6/	19G	20G G/	21G B/	22G G/		22G G/	23G Y/
		DY CONTROL		HN-Y					88 87 86 85 84 83 82 81	00 99 98 97 96 95 94 93			Signal Name		RL DOOR SW		-		TRAILER FLASHER RL	I HAILEH FLASHEH KH	1	-		RR FLASHER	RR DOOR SW	AS DOOR SW	-	CARGO LAMP SW		-	1	1	EI EI ASHER	-												
UCIV	INIZU	e BCM (BOD	MODULE	TH24FG	r GRAY		l		92 91 90 89	104 103 102 101 1			or of "ire		N			_	8	9/			 	0	æ	5		2 2			_	_	e,	, ,												

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< WIRING DIAGRAM >

			23A	~	TO BODY NO. 2 HARNESS	76A	œ	TO BODY NO. 2 HARNESS
Connecto	. No.	MI36	24A	_	TO BODY NO. 2 HARNESS	77A	_	TO BODY NO. 2 HARNESS
Connecto	Name	WIRE TO WIRE	25A	•	TO BODY NO. 2 HARNESS	78A	SHIELD	TO BODY NO. 2 HARNESS
Connector	Type	TH80FDGY-CS16-TM4	26A	GR	TO BODY NO. 2 HARNESS	79A	ß	TO BODY NO. 2 HARNESS
Connector	Color	GRAY	27A	ГG	TO BODY NO. 2 HARNESS	80A	>	TO BODY NO. 2 HARNESS
f			28A	ΓC	TO BODY NO. 2 HARNESS	81A	œ	TO BODY NO. 2 HARNESS
			29A	GR	TO BODY NO. 2 HARNESS	82A	SHIELD	TO BODY NO. 2 HARNESS
S H			30A	1	TO BODY NO. 2 HARNESS	83A	œ	TO BODY NO. 2 HARNESS
		13	31A	W/R	TO BODY NO. 2 HARNESS	84A	0	TO BODY NO. 2 HARNESS
		1A 2A 3A 4A 3A EA 7A 8A 6A 22	32A	G/R	TO BODY NO. 2 HARNESS	85A	SHIELD	TO BODY NO. 2 HARNESS
			33A	,	TO BODY NO. 2 HARNESS	86A	M	TO BODY NO. 2 HARNESS
		11A 12A 13A 14A 15A 16A 17A 18A 18A 20A 21A	34A	SHIELD	TO BODY NO. 2 HARNESS	87A	•	TO BODY NO. 2 HARNESS
		224 234 244 254 264 274 284 294 304	35A	۹.	TO BODY NO. 2 HARNESS	88A	M	TO BODY NO. 2 HARNESS
	1	310 328 328 348 358 358 378 388 300 408 418	36A	8	TO BODY NO. 2 HARNESS	89A	SHIELD	TO BODY NO. 2 HARNESS
		42A43A44A45A46A47A48A48A45A645A6A	37A		TO BODY NO. 2 HARNESS	90A	σ	TO BODY NO. 2 HARNESS
		644 674 624 624 664 674 604 604 644 644	38A	R/B	TO BODY NO. 2 HARNESS	91A	WL	TO BODY NO. 2 HARNESS
		62A 63A 65A 65A 66A 67A 68A 69A 70A	39A	G/O	TO BODY NO. 2 HARNESS	92A	BR	TO BODY NO. 2 HARNESS
			40A	>	TO BODY NO. 2 HARNESS	93A	ΓΛ	TO BODY NO. 2 HARNESS
		/1/A / 2A / 2A / 2A / 2A / 70A / 70A / 70A / 3A 80A 61A 878 878 848 858 858 878 878 898 904	41A	SHIELD	TO BODY NO. 2 HARNESS	94A	RIL	TO BODY NO. 2 HARNESS
		hane haso haso haso haso haso haso haso haso	42A	SHIELD	TO BODY NO. 2 HARNESS	95A	BR	TO BODY NO. 2 HARNESS
		91A 97A 92A 94A 95A	43A	æ	TO BODY NO. 2 HARNESS	96A	œ	TO BODY NO. 2 HARNESS
		96A 97A 98A 100A	44A	IJ	TO BODY NO. 2 HARNESS	97A	P	TO BODY NO. 2 HARNESS
			45A	'	TO BODY NO. 2 HARNESS	98A	BN	TO BODY NO. 2 HARNESS
			46A		TO BODY NO. 2 HARNESS	99A	O/L	TO BODY NO. 2 HARNESS
			47A	>	TO BODY NO. 2 HARNESS	100A	BR/W	TO BODY NO. 2 HARNESS
			48A	RW	TO BODY NO. 2 HARNESS			
Terminal	Color c	of Signal Namo	49A	RL	TO BODY NO. 2 HARNESS			
No.	Wire		50A	8	TO BODY NO. 2 HARNESS			
1A	≥	TO BODY NO. 2 HARNESS	51A	1	TO BODY NO. 2 HARNESS			
2A	ГG	TO BODY NO. 2 HARNESS	52A	'	TO BODY NO. 2 HARNESS			
3A	>	TO BODY NO. 2 HARNESS	53A	'	TO BODY NO. 2 HARNESS			
4A	ß	TO BODY NO. 2 HARNESS	54A	I	TO BODY NO. 2 HARNESS			
5A	1	TO BODY NO. 2 HARNESS	55A	1	TO BODY NO. 2 HARNESS			
6A	BG	TO BODY NO. 2 HARNESS - (WITH CLIMATE CONTROLLED SEAT)	56A	1	TO BODY NO. 2 HARNESS			
6A	ГС	TO BODY NO. 2 HARNESS -	5/A		I U BODY NO. 2 HAHNESS			
		(WITHOUT CLIMATE CONTROLLED SEAT)	58A 59A		TO BODY NO. 2 HARNESS TO BODY NO. 2 HARNESS			
A7	>	TO BODY NO. 2 HARNESS	60A	NV5	TO BODY NO 2 HABNESS			
8A	•	TO BODY NO. 2 HARNESS	61A		TO BODY NO. 2 HARNESS			
9A	ß	TO BODY NO. 2 HARNESS	62A		TO BODY NO. 2 HARNESS			
10A	>	TO BODY NO. 2 HARNESS	63A		TO BODY NO. 2 HARNESS			
11A	ж	TO BODY NO. 2 HARNESS	64A		TO BODY NO. 2 HARNESS			
12A	BB	TO BODY NO. 2 HARNESS	65A		TO BODY NO. 2 HARNESS			
13A	σ	TO BODY NO. 2 HARNESS	66A		TO BODY NO. 2 HARNESS			
14A	R/G	TO BODY NO. 2 HARNESS	67A		TO BODY NO. 2 HARNESS			
15A	0	TO BODY NO. 2 HARNESS	68A		TO BODY NO. 2 HARNESS			
16A	νо	TO BODY NO. 2 HARNESS	<b>A</b> 68	Υ/B	TO BODY NO. 2 HARNESS			
17A	-	TO BODY NO. 2 HARNESS	70A	R/G	TO BODY NO. 2 HARNESS			
T8A	>	TO BODY NO. 2 HARNESS	A17		TO BODY NO. 2 HARNESS			
19A	B/W	TO BODY NO. 2 HARNESS	72A	>	TO BODY NO. 2 HARNESS			
20A	BRV	TO BODY NO. 2 HARNESS	73A	σ	TO BODY NO. 2 HARNESS			
51 <b>P</b>	BG	TO BODY NO. 2 HARNESS	74A	×	TO BODY NO. 2 HARNESS			
55 <b>A</b>	σ	TO BODY NO. 2 HARNESS	75A	SHIELD	TO BODY NO. 2 HARNESS			

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DOWER WINDOW SYSTEM CONN

S	-	G/O	SB	L/G	н	BG	٢	0
ECTOR	28J	29J	301	31J	32J	33.1	34J	261
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TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS	TO MAIN HARNESS				
R/G	g	۲W	_	GR	ж	W/B	L/B	•	٩	W/L	W/B	-	-	-	-	•	•	•	Y/R	G/R	G/W	LG/B	٨٨				
6	10	÷	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32				
REAR POWER SLIDE	GLASS OPEN RELAY	MS03FB-M2-LC		BLACK	1		3		2 4 1				Signal Name	P/W POWER SUPPLY IGN	REAR GLASS SW OPEN	REAR PWR SLIDE MOTOR	GND	BATTERY									
Name	Ū	Tvne	246									Color of	Wire	P	N	BV	•	L/BR									
Connector		Connector		Connector	E		H.S.					Terminal	No.	-	2	e	4	5						,	VVK.	133	6201
																								1	ıAK.	LAJ	o∠GB

Connector No.	M154
Connector Name	REAR POWER SLIDE GLASS CLOSE RELAY
Connector Type	MS03FB-M2-LC
Connector Color	BLACK
H.S.	3
	2 4 1

A155	No.	Connector
BATTERY	ΓW	5
GND	в	4
REAR PWR SLIDE MOTOR	Ŋ	8
REAR GLASS SW CLOSE	g	2
P/W POWER SUPPLY IGN	ГС	1
Signal Name	Color of Wire	Terminal No.

REAR POWER SLIDE GLASS CLOSE ILLMINATION -GROUND ILLUMINATION + REAR POWER SLIDE GLASS OPEN

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TO MAIN HARNESS TO MAIN HARNESS

B G/R √/R ⊌

TO MAIN HARNESS

Signal Name

Color of Wire

Terminal No.

Signal Name

Color of Wire SHIELD

Terminal

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4 5 5

H.S.

H.S.

GND	BATTERY	A155	REAR POWER SLIDE	ILASS OPEN RELAY	AS03FB-M2-LC	
8	۲W	No.	Name F	5	Type N	
4	5	onnector	onnector		onnector	nnactor

< WIRING DIAGRAM >

R19 REAR POWER SLIDE GLASS SWITCH TK06FW-1V

Connector Name Connector No.

WIRE TO WIRE TH32MW-NH

Connector No. R1 Connector Name WIRE TO V Connector Type TH32MW-I Connector Color WHITE

WHITE

Connector Type Connector Color

# **POWER WINDOW SYSTEM**

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< BASIC INSPECTION >

# BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

#### Work Flow

INFOID:000000013174402

**OVERALL SEQUENCE** 



#### DETAILED FLOW

# 1. INTERVIEW CUSTOMER

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

# **DIAGNOSIS AND REPAIR WORKFLOW**

< BASIC INSPECTION >

>> GO TO 2.	А
2. REPRODUCE THE MALFUNCTION	
Reproduce the malfunction that the customer describes on the vehicle. Inspect the relation of the symptoms and the condition when the symptoms occur.	В
>> GO TO 3.	С
3. SYMPTOM DIAGNOSIS	
Use Symptom Diagnosis from the symptom inspection result in step 2 and then identify where to start perform- ing the diagnosis based on possible causes and symptoms.	D
>> GO TO 4.	Г
4. COMPONENT DIAGNOSIS	
Perform the diagnosis with Component Diagnosis of the applicable system.	_
>> GO TO 5.	F
5. REPAIR OR REPLACE THE MALFUNCTIONING PART	C
Repair or replace the specified malfunctioning parts.	G
>> GO TO 6.	Н
6. PERFORM FINAL OPERATIONAL 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.	J
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# **INSPECTION AND ADJUSTMENT**

< BASIC INSPECTION >

# INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

# ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

If any of the following work has been done Initial setting is necessary:

Power supply to the main power window and door lock/unlock switch or power window motor is cut off by the removal

of battery terminal or the battery fuse is blown.

- Disconnection and connection of main power window and door lock/unlock switch harness connector.
- · Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- · Removal and installation of glass.

• Removal and installation of door glass run.

- The following specified operations can not be performed under the non-initialized condition:
- Auto-up operation
- Anti-pinch function

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

#### INITIALIZATION PROCEDURE

- 1. Disconnect battery minus terminal or main power and window door lock/unlock switch connector. Reconnect it after a minute or more.
- 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. Initializing procedure is completely.
- 6. Inspect anti-pinch function.

#### CHECK ANTI-PINCH FUNCTION

- 1. Fully open the door window.
- 2. Place a piece of wood near fully closed position.
- 3. Close door glass completely with AUTO-UP.
- Check that glass lowers for approximately 150 mm (5.9 in) without pinching piece of wood and stops.

• Check that glass does not rise when operating the main power and door lock/unlock switch while lowering. CAUTION:

- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- Do not check with hands and other body parts because they may be pinched. Do not get pinched.
- It may switch to fail-safe mode if open/close operation is performed continuously without full close. Perform initial setting in that situation. Refer to <u>PWC-10</u>, <u>"Fail-safe"</u>
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000013198413

Refer to <u>PWC-34</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Re-

# **INSPECTION AND ADJUSTMENT**

< BASIC INSPECTION >	-
quirement	1
Refer to <u>PWC-34</u> , "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special <u>Repair Requirement</u> " for initialization procedure and check anti-pinch function.	
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< DTC/CIRCUIT DIAGNOSIS >

# DTC/CIRCUIT DIAGNOSIS POWER SUPPLY AND GROUND CIRCUIT BCM

**BCM** : Diagnosis Procedure

INFOID:000000013060600

Regarding Wiring Diagram information, refer to BCS-54, "Wiring Diagram".

# **1.** CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.				
Signa name	Cummins 5.0L	VK56VD			
Fusible link battery power	R (50A)	N (50A)			
BCM battery fuse	1 (10A)	1 (10A)			

Is the fuse or fusible link 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 M81.

2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

В	CM	Ground	Voltage (Approx.)		
Connector	Terminal	Ground			
M81	131	()	Battery voltage		
WOT	139	()	Ballery vollage		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

**3.** CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

B	CM	Cround	Continuity		
Connector	Terminal	Giouna			
 M81	134		Vec		
WO I	143	—	res		

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

POWER WINDOW MAIN SWITCH

# POWER WINDOW MAIN SWITCH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-20, "Wiring Diagram".
# POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

# 1.CHECK POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch connectors.
- 3. Turn ignition switch ON.
- 4. Check voltage between main power window and door lock/unlock switch harness connectors and ground.

(+) Main power window and door lock/unlock switch		()	Voltage (Approx.)	C
Connector	Terminal		( FF - )	
D7	10	Cround	Pattony voltago	D
D8	18	Gibuna	Ballery Vollage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M81.
- Check continuity between BCM harness connector M81 and main power window and door lock/unlock switch harness connector.

В	BCM		Main power window and door lock/unlock switch		
Connector	Terminal	Connector	Terminal	Continuity	
M17	140	D7	10	Vaa	
	141	D8	18	Yes	

4. Check continuity between BCM harness connector M81 and ground.

В	СМ		Continuity	J
Connector	Terminal	Ground	Continuity	
M01	140	Giouna	No	
IVIO I	141		INU	PW

Is the inspection result normal?

YES	>> Replace BCM.	Refer to BCS-79,	"Removal and	Installation".
-----	-----------------	------------------	--------------	----------------

NO >> Repair or replace harness.

**3.**CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

 Check continuity between main power window and door lock/unlock switch harness connector D7 and ground.

				N
Main power window and	d door lock/unlock switch		Continuity	
Connector	Terminal	Ground	Continuity	
D7	1		Yes	0

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> Inspection End. FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

## **PWC-37**

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# POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:000000013053539

Regarding Wiring Diagram information, refer to PWC-20, "Wiring Diagram".

## **1.**CHECK POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH connector D129.
- 3. Turn ignition switch ON.
- 4. Check voltage between power window and door lock/unlock switch RH harness connector D129 and ground.

( Power window and doc	(+) Power window and door lock/unlock switch RH		Voltage (Approx.)	
Connector	Terminal		(********)	
D129	8	Ground	Battery voltage	

Is the inspection result normal?

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

2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M81.
- Check continuity between BCM harness connector M81 and power window and door lock/unlock switch RH harness connector D129.

B	BCM		Power window and door lock/unlock switch RH	
Connector	Terminal	Connector	Terminal	Continuity
M81	141	D129	8	Yes

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-79, "Removal and Installation"</u>.

NO >> Repair or replace harness.

# 3. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Check continuity between power window and door lock/unlock switch RH harness connector D129 and ground.

Power window and doc	r lock/unlock switch RH		Continuity
Connector	Terminal	Ground	Continuity
D129	7		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

## >> Inspection End. REAR POWER WINDOW SWITCH

# POWER SUPPLY AND GROUND CIRCUIT

< [	DTC/CIRCUIT DIA	GNOSIS >				
RE	EAR POWER V	VINDOW SWITC	CH : Diagnos	sis Pro	ocedure	INFOID:000000013053540
Re	garding Wiring Dia	gram information, ref	er to <u>PWC-20, "</u>	'Wiring	<u>Diagram"</u> .	
1.	CHECK POWER S	SUPPLY				
1. 2. 3. 4.	Turn ignition swite Disconnect rear p D309. Turn ignition swite Check voltage be	ch OFF. bower window switch ch ON. htween rear power wir	LH connector	D203 a	nd rear power windo onnector D203, D309	w switch RH connector , and ground.
-		(+)				
-		Rear power window swi	tch		(-)	Voltage (Approx.)
_	Co	nnector	Termina	ıl		
-	LH	D203	4		Ground	Battery voltage
- Is f	the inspection resu	It normal?				
N 2. 1. 2. 3.	O >> GO TO 2 CHECK POWER S Turn ignition swite Disconnect BCM Check continuity D203 and D309.	SUPPLY CIRCUIT ch OFF. connector. between BCM harnes	ss connector M1	17 and r	ear power window sv	vitch harness connector
-	BCN	1	Rear p	oower wir	dow switch	Continuity
-	Connector	Terminal	Connecto	or	Terminal	Continuity
_	M17	140	LH RH	D203	3 4	Yes
ls t	the inspection resu	It normal?				
ү N 3.	ES >> Replace   O >> Repair or CHECK GROUND	BCM. Refer to <u>BCS-7</u> replace harness. CIRCUIT	9. "Removal an	<u>id Instal</u>	lation".	
1. 2.	Turn ignition swite Check continuity	ch OFF. between rear power v	window switch h	narness	connector D203, D3	09, and ground.
-		Rear power window swi	tch			Continuity
_	Cc	nnector	Termina	ıl	Ground	
	IН	D203				
-	RH	D309	2			Yes
s	RH	D309	2			Yes

Refer to GI-43, "Intermittent Incident".

>> Inspection End.

< DTC/CIRCUIT DIAGNOSIS >

# POWER WINDOW MOTOR DRIVER SIDE

**DRIVER SIDE : Component Function Check** 

# 1. CHECK POWER WINDOW MOTOR CIRCUIT

Check front power window motor LH operation with main power window and door lock/unlock switch. Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Refer to <u>PWC-40, "DRIVER SIDE : Diagnosis Procedure"</u>.

**DRIVER SIDE : Diagnosis Procedure** 

INFOID:000000013053542

INFOID:000000013053541

Regarding Wiring Diagram information, refer to <u>PWC-20, "Wiring Diagram"</u>.

# 1. CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor LH connector D9.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor LH harness connector D9 and ground.

(+)					Valtage	
Front power window motor LH		(-)	Condition		(Approx.)	
Connector	Terminal				( + P) ( ) (	
	1	Cround	Main power window and door	UP	Battery voltage	
DQ				DOWN	0	
3	Ground	lock/unlock switch	UP	0		
	3			DOWN	Battery voltage	

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to <u>GW-19</u>, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK POWER WINDOW MOTOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch connector D8.
- 3. Check continuity between main power window and door lock/unlock switch harness connector D8 and front power window motor LH harness connector D9.

Main power window and door lock/unlock switch Front power window motor LH				Continuity
Connector	Terminal	Connector	Terminal	Continuity
٩٩	17	00	1	Voc
D8	19	D9	3	165

# 4. Check continuity between main power window and door lock/unlock switch harness connector D8 and ground.

Main power window and	d door lock/unlock switch		Continuity	
Connector	Terminal	Ground	Continuity	
	17	Ground	No	
	19		NO	

Is the inspection result normal?

< [	DTC/CIRCUIT DIA	GNOSIS >						
Y	ES >> Replace I lation"	main power windo	ow and door loc	k/unlock sv	vitch. Refer to <u>P</u>	<u>WC-77, "I</u>	Removal and Instal	
N	IO >> Repair or	replace harness						
P	ASSENGER S	IDE						R
PA	ASSENGER SI	DE : Compon	ent Functior	n Check			INFOID:00000001305354	3
1.	CHECK POWER	WINDOW MOTO	R CIRCUIT					C
Ch	eck front power wi	ndow motor RH o	peration with m	ain power v	window and doc	or lock/unl	ock switch or powe	r C
wir Is t	ndow and door lock	//unlock switch Ri It normal?	H.					5
<u>Y</u>	ES >> Front pov	ver window moto	r RH is OK.					D
N	IO >> Refer to I	<u>PWC-41, "PASSE</u>	<u>NGER SIDE : [</u>	<u>Diagnosis F</u>	<u>Procedure"</u> .			
PA	ASSENGER SI	DE : Diagnos	is Procedure	9			INFOID:00000001305354	4 E
Re	egarding Wiring Dia	gram information	, refer to <u>PWC-2</u>	20, "Wiring	<u>Diagram"</u> .			F
1								
1.			/ MOTOR INPU	I SIGNAL				G
2.	Disconnect front	power window mo	otor RH connec	tor D105.				
3. 4.	Turn ignition swite Check voltage be	ch ON. etween front powe	er window motor	RH harne	ss connector D'	105 and a	round.	Η
-								
-	(+)	) dow motor RH	()		Condition		Voltage	I
-	Connector	Terminal	(-)		Condition		(Approx.)	
-		1				UP	Battery voltage	J
	D105	1	Ground	Power windo	ow and door lock/	DOWN	0	
		3		unlock	switch RH	UP	0	PW
le i	the inspection resu	lt normal?				DOWN	Battery voltage	
<u>13</u> Y	ES >> Replace	front power windo	w motor RH. R	efer to <u>GW</u>	-19, "Removal a	and Install	ation".	I
N	10 >> GO TO 2							
Ζ.			R CIRCUIT					
1. 2.	Turn ignition swite	ch OFF. r window and doo	or lock/switch R	H connecto	or D129.			IVI
3.	Check continuity	between power	window and do	or lock/unic	ock switch RH I	narness c	onnector D129 and	ł
	front power windo	ow motor RH narr	less connector	D105.				Ν
-	Power window and d	loor lock/unlock switc	h RH F	ront power w	indow motor RH		Continuity	
-	Connector	Terminal	Cor	nnector	Terminal			0
	D129	11	D	105	1		Yes	
4.	Check continuity	between power	window and do	or lock/unio	ock switch RH I	narness c	onnector D105 and	d P
	ground.							
-	Power window	/ and door lock/unlock	switch RH					
-	Connector		Terminal		Ground		Continuity	
-	D129		11	_	Ground		No	

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< DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

- YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-79</u>, "<u>Removal and Installa-</u> tion".
- NO >> Repair or replace harness.

## REAR LH

# **REAR LH : Component Function Check**

INFOID:000000013053545

## 1. CHECK POWER WINDOW MOTOR CIRCUIT

Check rear power window motor LH operation with main power window and door lock/unlock switch or rear power window switch LH.

#### Is the inspection result normal?

- YES >> Rear power window motor LH is OK.
- NO >> Refer to <u>PWC-42, "REAR LH : Diagnosis Procedure"</u>.

## **REAR LH** : Diagnosis Procedure

INFOID:000000013053546

Regarding Wiring Diagram information, refer to PWC-20, "Wiring Diagram".

## **1.**CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window motor LH connector D204.
- 3. Turn ignition switch ON.
- 4. Check voltage between rear power window motor LH harness connector D204 and ground.

(+) Rear power window motor LH		(-)	Condition		Voltage (Approx.)
Connector	Terminal				
	2			UP	Battery voltage
D204	5	Ground	Rear power window switch LH	DOWN	0
D204	1			UP	0
				DOWN	Battery voltage

#### Is the inspection result normal?

YES >> Replace rear power window motor LH. Refer to <u>GW-25, "Removal and Installation"</u>.

NO >> GO TO 2.

# 2. CHECK POWER WINDOW MOTOR CIRCUIT

#### 1. Turn ignition switch OFF.

- 2. Disconnect rear power window switch LH connector D203.
- 3. Check continuity between rear power window switch LH harness connector D203 and rear power window motor LH harness connector D204.

Rear power window switch LH		Rear power wi	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
D203	5	D204	1	Ves
D203	6	0204	3	165

4. Check continuity between rear power window switch LH harness connector D203 and ground.

#### < DTC/CIRCUIT DIAGNOSIS >

Rea	ar power window s	switch LH				
Connector		Termina	al	Cround		Continuity
D203		5		Giouna		No
		6				NO
the inspection result n /ES >> Replace rea NO >> Repair or re EAR RH	<u>ormal?</u> r power windov place harness.	w switch LH. F	Refer to <u>PW</u>	<u>C-80, "Removal</u>	and Insta	<u>allation"</u> .
EAR RH : Compo	nent Functi	ion Check				INFOID:000000013053547
. CHECK POWER WI	NDOW MOTO	R CIRCUIT				
heck rear power windo ower window switch RH	ow motor RH o I.	peration with	main power	r window and de	oor lock/u	inlock switch or rear
the inspection result n	ormal?					
YES >> Rear power NO >> Refer to <u>PW</u>	window motor /C-43, "REAR I	RH is OK. <u>RH : Diagnosi</u>	s Procedure	<u>}"</u> .		
EAR RH : Diagno	sis Procedu	ure				INFOID:000000013053548
egarding Wiring Diagra	am information,	, refer to <u>PWC</u>	20, "Wiring	<u>Diagram"</u> .		
.CHECK REAR POWE			IT SIGNAI			
.CHECK REAR POWE		MOTOR INPU	IT SIGNAL			
CHECK REAR POWE	ER WINDOW N OFF. ver window mo	MOTOR INPU	IT SIGNAL			
CHECK REAR POWE Turn ignition switch Disconnect rear pow Turn ignition switch	ER WINDOW N OFF. ver window mo ON.	MOTOR INPU	IT SIGNAL		04	round
CHECK REAR POWE Turn ignition switch Disconnect rear pow Turn ignition switch Check voltage betwe	ER WINDOW N OFF. ver window mo ON. een rear power	MOTOR INPU	IT SIGNAL ctor D304. or RH harne	ss connector D3	304 and g	round.
CHECK REAR POWE Turn ignition switch ( Disconnect rear pow Turn ignition switch ( Check voltage between (+)	ER WINDOW N OFF. ver window mo ON. een rear power	MOTOR INPU tor RH connect	IT SIGNAL ctor D304. or RH harne	ss connector D3	304 and g	round.
CHECK REAR POWE Turn ignition switch of Disconnect rear pow Turn ignition switch of Check voltage betwee (+) Rear power window	ER WINDOW N OFF. ver window mo ON. een rear power	MOTOR INPU tor RH connect r window moto (-)	IT SIGNAL ctor D304. or RH harne	ss connector D3	304 and g	round. Voltage (Approx.)
.CHECK REAR POWE	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal	MOTOR INPU tor RH connect r window moto (-)	IT SIGNAL ctor D304. or RH harne	ss connector D3 Condition	304 and g	Voltage (Approx.)
CHECK REAR POWE	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal	MOTOR INPU tor RH connect r window moto (–)	IT SIGNAL ctor D304. or RH harne	ss connector D3	304 and g	Voltage (Approx.) Battery voltage
CHECK REAR POWE Turn ignition switch ( Disconnect rear pow Turn ignition switch ( Check voltage between (+) Rear power window Connector	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal	MOTOR INPU tor RH connect r window moto (-) Ground	IT SIGNAL ctor D304. or RH harne	ss connector D3 Condition window switch RH	304 and g UP DOWN	Voltage (Approx.) Battery voltage 0
CHECK REAR POWE Turn ignition switch ( Disconnect rear pow Turn ignition switch ( Check voltage betwe (+) Rear power window Connector D304	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal 1 3	MOTOR INPU tor RH connect r window moto (–) Ground	IT SIGNAL ctor D304. or RH harne Rear power	ss connector D3 Condition window switch RH	304 and g UP DOWN UP	round. Voltage (Approx.) Battery voltage 0 Battery voltage
CHECK REAR POWE Turn ignition switch of Disconnect rear pow Turn ignition switch of Check voltage betwe (+) Rear power window Connector D304	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal 1 3 ormal2	MOTOR INPU tor RH connec r window moto (–) Ground	IT SIGNAL ctor D304. or RH harne Rear power	ss connector D3 Condition window switch RH	304 and g UP DOWN UP DOWN	round. Voltage (Approx.) Battery voltage 0 Battery voltage 0
CHECK REAR POWE Turn ignition switch ( Disconnect rear powe) Turn ignition switch ( Check voltage betwee) (+) Rear power window Connector D304 the inspection result n YES >> Replace real	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal 1 1 3 ormal?	MOTOR INPU tor RH connect r window moto (-) Ground	IT SIGNAL ctor D304. or RH harne Rear power	ss connector D3 Condition window switch RH	04 and g UP DOWN UP DOWN	round. Voltage (Approx.) Battery voltage 0 Battery voltage 0
.CHECK REAR POWE . Turn ignition switch ( . Disconnect rear pow . Turn ignition switch ( . Check voltage betwe (+) Rear power window Connector D304 . D304 . the inspection result n YES >> Replace rea NO >> GO TO 2.	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal 1 3 ormal? r power window	MOTOR INPU tor RH connec r window moto (-) Ground	IT SIGNAL ctor D304. or RH harne Rear power	SS CONNECTOR DS Condition window switch RH	04 and g UP DOWN UP DOWN	round. Voltage (Approx.) Battery voltage 0 Battery voltage 0
CHECK REAR POWE Turn ignition switch ( Disconnect rear pow Turn ignition switch ( Check voltage betwe (+) Rear power window Connector D304 the inspection result n YES >> Replace rea NO >> GO TO 2.	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal 1 3 ormal? r power window	MOTOR INPU tor RH connect r window moto (–) Ground w motor RH. F	IT SIGNAL ctor D304. or RH harne Rear power	ss connector D3 Condition window switch RH	UP UP DOWN UP DOWN	round. Voltage (Approx.) Battery voltage 0 Battery voltage 0
.CHECK REAR POWE . Turn ignition switch ( . Disconnect rear powe . Turn ignition switch ( . Check voltage betwee) . (+) . Rear power window . (+) . (+	ER WINDOW N OFF. ver window mo ON. een rear power motor RH 1 1 3 <u>ormal?</u> r power window NDOW MOTOF	MOTOR INPU tor RH connect r window moto (-) Ground w motor RH. F	IT SIGNAL ctor D304. or RH harne Rear power	SS CONNECTOR DS Condition window switch RH	UP UP DOWN UP DOWN	round. Voltage (Approx.) Battery voltage 0 Battery voltage 0
CHECK REAR POWE Turn ignition switch Disconnect rear pow Turn ignition switch Check voltage betwe (+) Rear power window Connector D304 Sthe inspection result n YES >> Replace rea NO >> GO TO 2. CHECK POWER WIN Turn ignition switch Disconnect rear pow Check continuity bet	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal 1 3 ormal? r power window NDOW MOTOF OFF. ver window swi tween rear pow	MOTOR INPU tor RH connect r window moto (-) Ground w motor RH. F R CIRCUIT	T SIGNAL ctor D304. or RH harne Rear power Refer to <u>GW</u> ector D309. vitch RH har	ss connector D3 Condition window switch RH	304 and g UP DOWN UP DOWN and Install	round. Voltage (Approx.) Battery voltage 0 Battery voltage 0 lation".
CHECK REAR POWE Turn ignition switch Disconnect rear pow Turn ignition switch Check voltage betwe (+) Rear power window Connector D304 D304 Turn ignition result n YES >> Replace rea NO >> GO TO 2. CHECK POWER WIN Turn ignition switch Disconnect rear pow Check continuity bet motor RH harness c	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal 1 3 <u>ormal?</u> r power window NDOW MOTOF OFF. ver window swi tween rear pow onnector D304	VIOTOR INPU tor RH connect r window moto (-) Ground w motor RH. F R CIRCUIT itch RH connect ver window sw	IT SIGNAL ctor D304. or RH harne Rear power Refer to <u>GW</u> ector D309. vitch RH har	ss connector D3 Condition window switch RH	304 and g UP DOWN UP DOWN and Install	round. Voltage (Approx.) Battery voltage 0 Battery voltage 0 lation". d rear power window
CHECK REAR POWE Turn ignition switch ( Disconnect rear power Turn ignition switch ( Check voltage between (+) Rear power window Connector D304 D304 Sthe inspection result n YES >> Replace rea NO >> GO TO 2. CHECK POWER WIN Turn ignition switch ( Disconnect rear power Check continuity bet motor RH harness c	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal 1 3 ormal? r power window NDOW MOTOF OFF. ver window switch RH	MOTOR INPU tor RH connect r window moto (-) Ground w motor RH. F R CIRCUIT itch RH connect ver window sw t.	IT SIGNAL ctor D304. or RH harne Rear power Refer to <u>GW</u> ector D309. vitch RH har Rear power w	ss connector D3 Condition window switch RH -25. "Removal a ness connector	304 and g UP DOWN UP DOWN and Install	round. Voltage (Approx.) Battery voltage 0 Battery voltage 0 lation". d rear power window
CHECK REAR POWE Turn ignition switch ( Disconnect rear powe) Turn ignition switch ( Check voltage betwee) (+) Rear power window Connector D304 Sthe inspection result n YES >> Replace rea NO >> GO TO 2. CHECK POWER WIN Turn ignition switch ( Disconnect rear powe) Check continuity bet motor RH harness c Rear power wind Connector	ER WINDOW N OFF. ver window mo ON. een rear power motor RH Terminal 1 3 <u>ormal?</u> r power window NDOW MOTOF OFF. ver window swith tween rear pow onnector D304 dow switch RH Terminal	VIOTOR INPU tor RH connect r window moto (-) Ground w motor RH. F R CIRCUIT itch RH connect ver window sw	IT SIGNAL ctor D304. or RH harne Rear power Refer to <u>GW</u> ector D309. vitch RH har Rear power woonnector	ss connector D3 Condition window switch RH -25, "Removal a ness connector vindow motor RH Terminal	304 and g UP DOWN UP DOWN and Install	round. Voltage (Approx.) Battery voltage 0 Battery voltage 0 lation". d rear power window Continuity
CHECK REAR POWE Turn ignition switch ( Disconnect rear powe) Turn ignition switch ( Check voltage betwee) (+) Rear power window Connector D304 Sthe inspection result n YES >> Replace rea NO >> GO TO 2. CHECK POWER WIN Turn ignition switch ( Disconnect rear powe) Check continuity bet motor RH harness c Rear power wind Connector	ER WINDOW N OFF. ver window mo ON. een rear power motor RH 1 1 3 ormal? r power window NDOW MOTOF OFF. ver window swit tween rear pow onnector D304 dow switch RH Terminal 5	VIOTOR INPU tor RH connect r window moto (-) Ground w motor RH. F R CIRCUIT itch RH connect ver window sw L. Contect	IT SIGNAL ctor D304. or RH harne Rear power Refer to <u>GW</u> ector D309. vitch RH har Rear power wonnector	ss connector D3 Condition window switch RH -25. "Removal a ness connector vindow motor RH Terminal 1	UP UP DOWN UP DOWN and Install	round.  Voltage (Approx.)  Battery voltage 0 Battery voltage 0 lation".  d rear power window Continuity



#### < DTC/CIRCUIT DIAGNOSIS >

Rear power wi	ndow switch RH		Continuity
Connector	Connector Terminal		Continuity
D200	5	Ground	No
	6		NO

#### Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to <u>PWC-80. "Removal and Installation"</u>.

NO >> Repair or replace harness.

< DTC/CIRCUIT DIAGNOSIS >	
ENCODER	^
DRIVER SIDE	P
DRIVER SIDE : Component Function Check	
1.CHECK ENCODER	B
Check that driver side door glass performs AUTO open/close operation normally by main power window and door lock/unlock switch.	С
Is the inspection result normal?	
YES >> Encoder is OK. NO >> Refer to <u>PWC-45, "DRIVER SIDE : Diagnosis Procedure"</u> .	D
DRIVER SIDE : Diagnosis Procedure	
	E

Regarding Wiring Diagram information, refer to PWC-20. "Wiring Diagram".

# 1.CHECK ENCODER SIGNAL

1. Turn ignition switch ON.

 Check signal between main power window and door lock/unlock switch harness connector D7 and ground with oscilloscope.





#### Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-77, "Removal and Instal-</u> <u>lation"</u>.

NO >> GO TO 2.

2. CHECK ENCODER SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch connector D7 and front power window motor LH connector D9.
- Check continuity between main power window and door lock/unlock switch harness connector D7 and front power window motor LH harness connector D9.

Main power window and	d door lock/unlock switch	Front power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
 D7	4	0	5	Vec
Di	5	59	6	165

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#### < DTC/CIRCUIT DIAGNOSIS >

4. Check continuity between main power window and door lock/unlock switch harness connector D7 and ground.

Main power window a	nd door lock/unlock switch		Continuity	
Connector	Connector Terminal		Continuity	
D7 -	4		No	
	5		INU	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# **3.**CHECK ENCODER POWER SUPPLY

- 1. Connect main power window and door lock/unlock switch connector D9.
- 2. Turn ignition switch ON.

3. Check voltage between front power window motor LH harness connector D9 and ground.

( Front power wi	+) ndow motor LH	(-)	Voltage
Connector	Terminal		(
D9	2	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## **4.**CHECK ENCODER POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch connector D7.
- 3. Check continuity between main power window and door lock/unlock switch harness connector D7 and front power window motor LH harness connector D9.

Main power window and door lock/unlock switch		Front power w	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
D7	14	D9	2	Yes

4. Check continuity between main power window and door lock/unlock switch harness connector D7 and ground.

Main power window and	d door lock/unlock switch		Continuity
Connector	Connector Terminal		Continuity
D7	14		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-77, "Removal and Instal-</u> lation".

NO >> Repair or replace harness.

**5.**CHECK GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Check continuity between front power window motor LH harness connector D9 and ground.

Front power w	indow motor LH		Continuity
Connector	Connector Terminal		Continuity
D9	4		Yes

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to <u>GW-19, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

NO	>> GO TO 6.	
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## **Ó.**CHECK GROUND CIRCUIT 2

1. Disconnect main power window and door lock/unlock switch connector D7.

 Check continuity between main power window and door lock/unlock switch harness connector D7 and front power window motor LH harness connector D9.

Main power window and	d door lock/unlock switch	Front power w	indow motor LH	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	C
D7	12	D9	4	Yes	

3. Check continuity between main power window and door lock/unlock switch harness connector D7 and ground.

Main power window and	door lock/unlock switch		Continuity	
Connector	Terminal	Ground	Continuity	
D7	12	-	No	
s the inspection result norma	al?			

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-77, "Removal and Instal-</u><u>lation"</u>.

## NO >> Repair or replace harness.

# PASSENGER SIDE

# PASSENGER SIDE : Component Function Check

# 1.CHECK ENCODER

Check that passenger side door glass performs AUTO open/close operation normally by main power window and door lock/unlock switch or power window and door lock/unlock switch RH.

#### Is the inspection result normal?

YES	>> Encoder is OK.
NO	>> Refer to PWC-47, "PASSENGER SIDE : Diagnosis Procedure"

## **PASSENGER SIDE : Diagnosis Procedure**

Regarding Wiring Diagram information, refer to PWC-20, "Wiring Diagram".

#### **1.**CHECK ENCODER SIGNAL

1. Turn ignition switch ON.

 Check signal between power window and door lock/unlock switch RH harness connector D129 and ground with oscilloscope.

	(	+)			14
Signal name	Power window and doo	or lock/unlock switch RH	()	Signal (Reference value)	
	Connector	Terminal		(1.0.0.0.00 10.00)	0
Encoder signal 1	D120	9	Ground	Pofor to following signals	
Encoder signal 2	0129	10	Ground		D

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## < DTC/CIRCUIT DIAGNOSIS >



#### Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-79</u>, "<u>Removal and Installa-</u> tion".

NO >> GO TO 2.

2. CHECK ENCODER SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH connector D129 and front power window motor RH connector D105.
- 3. Check continuity between power window and door lock/unlock switch RH harness connector D129 and front power window motor RH harness connector D105.

Power window and doo	or lock/unlock switch RH	Front power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D120	9	D105	6	Vec
D129	10	D105	5	165

4. Check continuity between power window and door lock/unlock switch RH harness connector D129 and ground.

Power window and doo	Power window and door lock/unlock switch RH		Continuity
Connector	Terminal	Ground	Continuity
D120	9	Ground	No
D129	10		INU

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

**3.**CHECK ENCODER POWER SUPPLY

1. Connect power window and door lock/unlock switch RH connector D129.

- 2. Turn ignition switch ON.
- 3. Check voltage between power window and door lock/unlock switch RH harness connector D129 and ground.

(+) Power window and door lock/unlock switch RH		(-)	Voltage (Approx.)
Connector Terminal			(
D129	2	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4.CHECK ENCODER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect power window and door lock/unlock switch RH connector D129.

## **PWC-48**

#### < DTC/CIRCUIT DIAGNOSIS >

 Check continuity between power window and door lock/unlock switch RH harness connector D129 and power window and door lock/unlock motor RH harness connector D105.

Power window and doo	or lock/unlock switch RH	Front power window motor RH		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
D129	5	D105	2	Yes	

4. Check continuity between power window and door lock/unlock switch RH harness connector D129 and ground.

Power window and doo	or lock/unlock switch RH		Continuity	
Connector	Terminal	Ground	Continuity	D
D129	5		No	

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-79, "Removal and Installa-</u> <u>tion"</u>.

NO >> Repair or replace harness.

CHECK GROUND CIRCUIT 1

#### 1. Turn ignition switch OFF.

2. Check continuity between front power window motor RH harness connector D105 and ground.

Front power wind	dow motor RH		Continuity	
Connector	Terminal	Ground	Continuity	ŀ
D105	4		Yes	

Is the inspection result normal?

YES >> Replace front power window motor RH. Refer to GW-19, "Removal and Installation".

NO >> GO TO 6.

**6.**CHECK GROUND CIRCUIT 2

- 1. Disconnect power window and door lock/unlock switch RH connector D129.
- Check continuity between power window and door lock/unlock switch RH harness connector D129 and front power window motor RH harness connector D105.

Power window and doc	or lock/unlock switch RH	Front power window motor RH		Continuity
Connector	Terminal	Connector Terminal		Continuity
D129	4	D105	4	Yes

 Check continuity between power window and door lock/unlock switch RH harness connector D129 and ground.

	Power window and doo	or lock/unlock switch RH		Continuity	
_	Connector	Terminal	Ground	Continuity	ľ
_	D129	4		No	

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-79</u>, "<u>Removal and Installa-</u> tion".

NO >> Repair or replace harness.

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# < DTC/CIRCUIT DIAGNOSIS >

# DOOR SWITCH

# Component Function Check

INFOID:000000013181747

# **1.**CHECK FUNCTION

#### (I) CONSULT

- 1. Select "DOOR LOCK" of "BCM".
- 2. Select "DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL" or "DOOR SW-RR" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
	Front door L H	Open	On
DOOK SW-DR		Closed	Off
	Front door DU	Open	On
DOOR SW-AS	Front door RH	Closed	Off
	Decederated	Open	On
DOOR SW-RL		Closed	Off
		Open	On
DOOK SW-KK	Real uoor RH	Closed	Off

#### Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to PWC-50, "Diagnosis Procedure".

## **Diagnosis** Procedure

INFOID:000000013181748

Regarding Wiring Diagram information, refer to DLK-39, "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.

	(+)			
	Door switch		()	Signal (Reference value)
Conne	ctor	Terminal	*	( ,
Front LH	B8			
Front RH	B108			
Rear LH	B18			
Rear RH	B116	3	Ground	0 → + 10ms → + 10ms → + 10ms → + 10ms → → 10ms → → 10ms → → → → → → → → → → → → → → → → → → →

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.

# **DOOR SWITCH**

## < DTC/CIRCUIT DIAGNOSIS >

-	Door switch					BC	CM		А
-	Conn	ector	Te	erminal	Conne	ctor	Terminal	Continuity	
-	Front LH	B8			96		_		
-	Front RH	B108		2	M20 94 82		Yee	В	
-	Rear LH	B18		3			Tes		
-	Rear RH	B116					93		С
3.	Check continuity	y between door s	witch h	arness cor	nector and	d groun	d.		
-		Door swite	ch					Continuity	D
-	C	Connector		Terr	minal			Continuity	
-	Front LH	B8					Ground		_
-	Front RH	B108			3		Ground	No	E
-	Rear LH	B18			0			NO	
	Rear RH	B116							F
<u>ls t</u>	he inspection res	<u>ult normal?</u>							
й 3.	O >> Repair of CHECK DOOR S	WITCH	S.						G
Re	fer to <u>DLK-97, "C</u>	omponent Inspec	<u>tion"</u> .						Н
<u>Is t</u>	he inspection res	ult normal?							
r N	O >> Replace	4. e malfunctioning c	loor sw	vitch. Refer	to DLK-18	3. "Rer	noval and Insta	Illation".	
4.	CHECK INTERM	ITTENT INCIDE	NT						
Re	fer to <u>GI-43, "Inte</u>	rmittent Incident"							J
	>> Inspecti	on End.							
Сс	mponent Insp	pection						INFOID:000000013181749	PW
1.	CHECK DOOR S	WITCH							
1. 2. 3.	Turn ignition sw Disconnect malf Check continuity	itch OFF. functioning door s y between door s	witch c witch te	connector. erminals.					L
									Ь.Л

Door switch		Condition		Continuity	IVI
	Terminal	CON		Continuity	
2	Ground contact is part of the	Door switch	Pressed	No	Ν
3 switch.		Door Switch	Released	Yes	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning door switch. Refer to <u>DLK-183. "Removal and Installation"</u>.

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## < DTC/CIRCUIT DIAGNOSIS >

# DOOR KEY CYLINDER SWITCH

# Component Function Check

INFOID:000000013181784

# 1. CHECK FUNCTION

#### CONSULT

- 1. Select "DOOR LOCK" of "BCM".
- 2. Select "KEY CYL LK-SW" or "KEY CYL UN-SW" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
KEV OVI I K SW		Lock	ON
KEY CYLLK-SW	Driver eide deer key eylinder	Neutral / Unlock	OFF
		Unlock	ON
		Neutral / Lock	OFF

#### Is the inspection result normal?

- YES >> Door key cylinder switch is OK.
- NO >> Refer to PWC-52, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:000000013181785

Regarding Wiring Diagram information, refer to DLK-56. "Wiring Diagram".

# 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly LH connector.
- 3. Check voltage between front door lock assembly LH harness connector and ground.

( Front door loc	(+) Front door lock assembly LH		Voltage (Approx.)	
Connector	Terminal		(, (p) (), ()	
D14	5	Cround	5.1/	
	6	Ground	5 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK DOOR KEY CYLINDER SWITCH SIGNAL CIRCUIT

1. Disconnect main power window and door lock/unlock switch connector.

 Check continuity between main power window and door lock/unlock switch harness connector and front door lock assembly LH harness connector.

Main power window and	d door lock/unlock switch	Front door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
 D7	3	D14	6	Vec
Di	15	014	5	165

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

# DOOR KEY CYLINDER SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

Main power	window and door	r lock/unlock switch		Continuity
Connector		Terminal	Terminal Ground –	
D7		3	Ground	No
Di		15		NO
the inspection re	sult normal?			
YES >> Replac	e main power	window and door lock	/unlock switch. Refer to	PWC-77, "Removal and
NO >> Renair	or replace ha	rness		
		ER SWITCH GROUNI		
			barness connector and	around
	stween nont u			ground.
Fr	ont door lock ass	embly LH		
Connecto	r	Terminal	Ground	Continuity
D14		4		Yes
s the inspection re	sult normal?			
YES >> GO TC	4.			
NO >> Repair	or replace ha	rness.		
	KEY CYLIND	ER SWITCH		
<b>4.</b> CHECK DOOR				
CHECK DOOR	Component I	nspection".		
CHECK DOOR Refer to <u>DLK-108, '</u> s the inspection re	<u>'Component I</u> sult normal?	nspection".		
<b>1.</b> CHECK DOOR         Refer to <u>DLK-108, '</u> s the inspection re         YES       >> GO TC	<u>"Component I sult normal?</u> 5.	nspection".		
CHECK DOOR Refer to <u>DLK-108,</u> <u>s the inspection re</u> YES >> GO TC NO >> Replac	<u>Component I</u> sult normal? 5. e front door le	nspection". ock assembly LH. Ref	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
Arrow CHECK DOOR Refer to <u>DLK-108,</u> s the inspection re YES >> GO TC NO >> Replac tion".	<u>Component I</u> sult normal? 5. e front door le	nspection". ock assembly LH. Ref	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
CHECK DOOR Refer to <u>DLK-108</u> , <u>s the inspection re</u> YES >> GO TC NO >> Replac tion". CHECK INTERN	Component I sult normal? 5. e front door le	nspection". ock assembly LH. Ref IDENT	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<b>1.</b> CHECK DOOR         Refer to <u>DLK-108, ''         s the inspection re         YES       &gt;&gt; GO TC         NO       &gt;&gt; Replac         tion".         <b>5.</b> CHECK INTERN         Refer to <u>GI-43, "Internet</u> </u>	Component I sult normal? 5. e front door le /ITTENT INC	<u>nspection"</u> . ock assembly LH. Ref IDENT <u>lent"</u> .	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<ul> <li>CHECK DOOR</li> <li>Refer to <u>DLK-108,</u></li> <li><u>s the inspection re</u></li> <li>YES &gt;&gt; GO TC</li> <li>NO &gt;&gt; Replac</li> <li><u>tion</u>".</li> <li>CHECK INTERN</li> <li>Refer to <u>GI-43, "Internet</u></li> </ul>	Component I sult normal? 5. e front door le /ITTENT INC ermittent Incic	<u>nspection"</u> . ock assembly LH. Ref IDENT <u>lent"</u> .	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<b>1.</b> CHECK DOOR         Refer to <u>DLK-108, ''         s the inspection re         YES       &gt;&gt; GO TC         NO       &gt;&gt; Replac         tion".         <b>5.</b> CHECK INTERN         Refer to <u>GI-43, "Internet of Sectors of Se</u></u>	Component I sult normal? 5. e front door le /ITTENT INC ermittent Incic	<u>nspection"</u> . ock assembly LH. Ref IDENT <u>lent"</u> .	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<ul> <li><b>4.</b> CHECK DOOR</li> <li>Refer to <u>DLK-108, 's the inspection re</u></li> <li>YES &gt;&gt; GO TC</li> <li>NO &gt;&gt; Replaction''.</li> <li><b>5.</b> CHECK INTERN</li> <li>Refer to <u>GI-43, "Intersection</u>".</li> <li>Component Inspection</li> </ul>	Component I sult normal? 5. e front door le /ITTENT INC ermittent Incic tion End. pection	<u>nspection"</u> . ock assembly LH. Ref IDENT <u>lent"</u> .	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<b>1.</b> CHECK DOOR         Refer to <u>DLK-108, ''</u> s the inspection registry         'YES         YES         Sepector         Somponent Ins         YES	Component I sult normal? 5. e front door In /ITTENT INC ermittent Incic tion End. pection	nspection". ock assembly LH. Ref IDENT lent". ER SWITCH	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<ul> <li>4. CHECK DOOR</li> <li>Refer to <u>DLK-108,</u></li> <li><u>s the inspection re</u></li> <li>YES &gt;&gt; GO TC</li> <li>NO &gt;&gt; Replaction".</li> <li>5. CHECK INTERN</li> <li>Refer to <u>GI-43, "Intervention</u>".</li> <li>Component Insection</li> <li>CHECK DOOR</li> <li>1. CHECK DOOR</li> </ul>	Component I sult normal? 5. e front door le /ITTENT INC armittent Incic tion End. pection KEY CYLIND	nspection". ock assembly LH. Ref IDENT lent". ER SWITCH	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
4.CHECK DOOR         Refer to DLK-108, '         s the inspection registry         yES       >> GO TC         NO       >> Replaction''.         5.CHECK INTERN         Refer to GI-43, "Internations".         COMPONENT INSPECT         Component Ins         1.CHECK DOOR         1. Turn ignition sw         2. Disconnect from	Component I sult normal? 5. e front door I /ITTENT INC ermittent Incic tion End. pection KEY CYLIND vitch OFF. 1t door lock as	nspection". ock assembly LH. Ref IDENT lent". ER SWITCH	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<ul> <li>CHECK DOOR</li> <li>Refer to <u>DLK-108,</u></li> <li>s the inspection re</li> <li>YES &gt;&gt; GO TC</li> <li>NO &gt;&gt; Replaction".</li> <li>CHECK INTERN</li> <li>Refer to <u>GI-43, "Intersection</u>".</li> <li>CHECK DOOR</li> <li>CHECK DOOR</li> <li>Turn ignition sw</li> <li>Check continui</li> </ul>	Component I sult normal? 5. e front door le AITTENT INC ermittent Incic tion End. pection KEY CYLIND vitch OFF. nt door lock as ty between fro	nspection". ock assembly LH. Ref IDENT lent". ER SWITCH ssembly LH connector ont door lock assembly	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<ul> <li>CHECK DOOR</li> <li>Refer to <u>DLK-108,</u></li> <li><u>s the inspection re</u></li> <li>YES &gt;&gt; GO TC</li> <li>NO &gt;&gt; Replaction".</li> <li>CHECK INTERN</li> <li>Refer to <u>GI-43, "Intractions</u>".</li> <li>COMPONENT INSPECT</li> <li>COMPONENT INSPECT</li> <li>COMPONENT INSPECT</li> <li>CHECK DOOR</li> <li>Turn ignition swatched in the continuit</li> </ul>	Component I sult normal? 5. e front door le /ITTENT INC ermittent Incic tion End. pection KEY CYLIND vitch OFF. It door lock as ty between fro	nspection". ock assembly LH. Ref IDENT lent". ER SWITCH ssembly LH connector ont door lock assembly	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
4.CHECK DOOR         Refer to DLK-108, 's         s the inspection re         YES       >> GO TC         NO       >> Replace         tion".       5.CHECK INTERN         Refer to GI-43, "Internet"       >> Inspector         Component Ins       1.CHECK DOOR         1. Turn ignition sv       2. Disconnect from         3. Check continui       Front door lock	Component I sult normal? 5. e front door le /ITTENT INC ermittent Incic tion End. pection KEY CYLIND vitch OFF. nt door lock as ty between fro	nspection". ock assembly LH. Ref IDENT lent". ER SWITCH ssembly LH connector ont door lock assembly	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<b>1</b> .CHECK DOOR         Refer to DLK-108, '         s the inspection register to PES         YES       >> GO TC         NO       >> Replace         tion". <b>5</b> .CHECK INTERN         Refer to GI-43, "Integer to GI-4	Component I sult normal? 5. e front door I //ITTENT INC ermittent Incic tion End. pection KEY CYLIND vitch OFF. nt door lock as ty between fro	nspection". ock assembly LH. Ref IDENT lent". ER SWITCH ssembly LH connector ont door lock assembly	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<ul> <li>CHECK DOOR</li> <li>Refer to <u>DLK-108,</u></li> <li><u>s the inspection re</u></li> <li>YES &gt;&gt; GO TC</li> <li>NO &gt;&gt; Replaction".</li> <li>CHECK INTERN</li> <li>Refer to <u>GI-43, "Intersection</u>".</li> <li>CHECK DOOR</li> <li>CHECK DOOR</li> <li>Turn ignition sv</li> <li>Check continui</li> <li>Front door lock</li> <li>Term</li> <li>5</li> </ul>	Component I sult normal? 5. e front door le AITTENT INC ermittent Incic tion End. pection KEY CYLIND vitch OFF. nt door lock as ty between fro	nspection". ock assembly LH. Ref IDENT lent". ER SWITCH ssembly LH connector ont door lock assembly	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<ul> <li>CHECK DOOR</li> <li>Refer to <u>DLK-108,</u></li> <li><u>s the inspection re</u></li> <li>YES &gt;&gt; GO TC</li> <li>NO &gt;&gt; Replaction".</li> <li>CHECK INTERN</li> <li>Refer to <u>GI-43, "Intraction".</u></li> <li>CHECK DOOR</li> <li>1. CHECK DOOR</li> <li>1. Turn ignition sw</li> <li>2. Disconnect from</li> <li>3. Check continui</li> <li>Front door lock</li> <li>Term</li> <li>5</li> </ul>	Component I sult normal? 5. e front door I AITTENT INC ermittent Incic tion End. pection KEY CYLIND vitch OFF. nt door lock as ty between fro	nspection". Dock assembly LH. Ref IDENT lent". ER SWITCH ssembly LH connector ont door lock assembly Driver side door key cy	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I
<b>1</b> .CHECK DOOR         Refer to DLK-108, '         s the inspection re         YES         YES         YES         YES         S do TC         NO         >> Replac         tion". <b>5</b> .CHECK INTERN         Refer to GI-43, "Internet"         >> Inspect <b>Component Ins 1</b> .CHECK DOOR         1. Turn ignition sv         2. Disconnect from         3. Check continui         Front door lock         Term         5         6	Component I sult normal? 5. e front door I /ITTENT INC ermittent Incic tion End. pection KEY CYLIND vitch OFF. nt door lock as ty between fro assembly LH inal	nspection". Dock assembly LH. Ref IDENT lent". ER SWITCH ssembly LH connector ont door lock assembly Driver side door key cy	er to <u>DLK-167, "DOOR</u>	LOCK : Removal and I

< DTC/CIRCUIT DIAGNOSIS >

# POWER WINDOW SERIAL LINK

POWER WINDOW MAIN SWITCH

## POWER WINDOW MAIN SWITCH : Description

INFOID:000000013053559

Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.

The signals mentioned below are transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH:

Keyless power window down signal

The signal mentioned below is transmitted from main power window and door lock/unlock switch to power window and door lock/unlock switch RH:

- Front door window RH operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

## POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:000000013053560

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

Check "CDL LOCK SW " or "CDL UNLOCK SW" in "Data Monitor" mode of "BCM (DOOR LOCK)" with CON-SULT. Refer to <u>BCS-20, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Monitor item	Condition	
	LOCK	: ON
CDE LOCK SW	UNLOCK	: OFF
	LOCK	: OFF
	UNLOCK	: ON

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to <u>PWC-54</u>, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

## POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000013053561

Regarding Wiring Diagram information, refer to <u>PWC-20, "Wiring Diagram"</u>.

Power Window Serial Link Check

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Remove key and close front door LH and RH.

2. Check signal between BCM harness connector M20 and ground with oscilloscope when door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".

3. Check that signals which are shown in the figure below can be detected during 10 seconds just after door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".

# POWER WINDOW SERIAL LINK

#### < DTC/CIRCUIT DIAGNOSIS >

(1)	ICITIIId		_	Signal	
BCM	Terminal	- (-)	(Re	eference value)	
M20	54	Ground	(V) 15 10 5 0	₩ ₩ ₩ ₩ ₩ 0 ms	75
s the inspection result	normal?				
YES >> Power wind NO >> GO TO 2.	dow serial link is (				
Disconnect BCM and     Check continuity b switch harness con	nd main power w etween BCM hai nector D7.	Indow and door io	ock/unlock switch. M20 and main power	r window and	door lock/unlock
		switch	connector		
. Chook continuity be		nector wizo and g	round.		
BCM connector		Terminal	Ground	C	ontinuity
BCM connector M20	normal?	Terminal 54	round. Ground	С	ontinuity No
BCM connector M20 Sthe inspection result YES >> Replace ma lation". NO >> Repair or re RONT POWER RONT POWER V Iain power window an	normal? ain power windov eplace harness o WINDOW SV WINDOW SW	Terminal 54 v and door lock/un r connectors. WITCH /ITCH : Descr ck switch, power	Ground Ground hlock switch. Refer to iption window and door loo	PWC-77, "Re ck/unlock swit	No Moval and Instal-
BCM connector M20 Sthe inspection result YES >> Replace main lation". NO >> Repair or re RONT POWER RONT POWER V Main power window and ransmit and receive the he signals mentioned nd power window and Keyless power window	normal? ain power windov eplace harness o WINDOW SV WINDOW SV MINDOW SV door lock/unlo e signal by power below are transr door lock/unlock w down signal	Terminal 54 v and door lock/un r connectors. WITCH : Descr v window serial lin mitted from BCM switch RH:	Ground Ground hlock switch. Refer to window and door loo k. to main power windo	PWC-77, "Rep ck/unlock swite ow and door lo	nontinuity No moval and Instal- INFOID:000000013053562 ch RH and BCM ock/unlock switch
BCM connector M20 Sthe inspection result YES >> Replace maintering NO >> Repair or result RONT POWER RONT POWER NO Alain power window and ransmit and receive the resignals mentioned nd power window and Keyless power window he signal mentioned b ow and door lock/unlo Front door window Rev Power window contro Retained power opera Power window lock sy	normal? ain power window eplace harness o WINDOW SV WINDOW SV MINDOW SV door lock/unlock w down signal elow is transmitte ck switch RH: H operation signal l by key cylinder ation signal witch signal	Terminal 54 v and door lock/un r connectors. WITCH /ITCH : Descr window serial lin mitted from BCM switch RH: ed from main pow	Ground Ground hlock switch. Refer to window and door loo k. to main power windo er window and door k	PWC-77, "Ref	no moval and Instal- INFOID:000000013053562 ch RH and BCM ock/unlock switch tch to power win-
BCM connector M20 Sthe inspection result YES >> Replace main lation". NO >> Repair or re RONT POWER RONT POWER V Main power window and ransmit and receive the re signals mentioned nd power window and Keyless power window he signal mentioned b ow and door lock/unlo Front door window RH Power window contro Retained power opera Power window lock sv RONT POWER V	normal? ain power window eplace harness o WINDOW SV WINDOW SV MINDOW SV door lock/unlock below are transmitted door lock/unlock w down signal elow is transmitted ck switch RH: H operation signal l by key cylinder ation signal witch signal	Terminal 54 v and door lock/un r connectors. WITCH : Descr window serial lin mitted from BCM switch RH: ed from main pow al switch signal	Ground Ground hlock switch. Refer to window and door loo k. to main power windo er window and door loo er window and door loo	PWC-77, "Rei	no moval and Instal- INFOID:000000013053562 ch RH and BCM ock/unlock switch tch to power win-

Check "CDL LOCK SW " or "CDL UNLOCK SW" in "Data Monitor" mode of "" with CONSULT. Refer to <u>BCS-20. "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

# POWER WINDOW SERIAL LINK

#### < DTC/CIRCUIT DIAGNOSIS >

Monitor item	Conditio	n
	LOCK	: ON
CDE LOCK SW	UNLOCK	: OFF
	LOCK	: OFF
CDE UNEOCK SW	UNLOCK	: ON

#### Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to <u>PWC-56</u>, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

## FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000013053564

Regarding Wiring Diagram information, refer to <u>PWC-20, "Wiring Diagram"</u>.

Power Window Serial Link Check

1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

- 1. Remove key and close the front door LH and RH.
- 2. Check signal between BCM harness connector M20 and ground with oscilloscope when door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".
- 3. Check that signals which are shown in the figure below can be detected during 10 seconds just after door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".

Terminal (+)			
		()	Signal (Reference value)
BCM connector	Terminal	(-)	
M20	54	Ground	(V) 15 10 5 0 10 ms 10 ms 10 ms 11 algore

#### Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> GO TO 2.

# 2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM.

 Check continuity between BCM harness connector M20 and power window and door lock/unlock switch RH harness connector M129.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M20	54	D129	3	Yes

4. Check continuity between BCM connector M20 and ground.

BCM connector	Terminal	Ground	Continuity
M20	54	Ground	No

Is the inspection result normal?

# POWER WINDOW SERIAL LINK

< DTC	/CIRCUIT DIAGNOSIS >	
YES	>> Replace main power window and door lock/unlock switch. Refer to <u>PWC-77</u> , "Removal and Instal-	
NO	lation". >> Repair or replace the harness or connectors.	А
		_
		В
		0
		C
		П
		D
		F
		F
		G
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		IVI
		K.I
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		0
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< DTC/CIRCUIT DIAGNOSIS >

# REAR POWER SLIDE GLASS CIRCUIT CHECK

**Rear Power Slide Glass Circuit Inspection** 

INFOID:000000012546070

Regarding Wiring Diagram information, refer to PWC-20, "Wiring Diagram".

# 1. CHECK REAR POWER SLIDE GLASS SWITCH OPERATION

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power slide glass switch connector R19.
- 3. Check continuity between rear power slide glass switch terminals 1, 3 and 5.

Terminals		Condition	Continuity
5 Rear power drop		Rear power drop glass switch is pressed OPEN	Yes
5 -	1	Rear power drop glass switch is pressed CLOSE	Yes

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace rear power slide glass switch. Refer to <u>PWC-81, "Removal and Installation"</u>.

# $\mathbf{2}$ . CHECK REAR POWER SLIDE GLASS SWITCH GROUND CIRCUIT HARNESS CONTINUITY

Check continuity between rear power slide glass switch connector R19 and ground.

Connector	Terminal	Ground	Continuity
R19	3	Ground	Yes

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# **3.** CHECK REAR POWER SLIDE GLASS SIGNAL

- 1. Connect rear power slide glass switch.
- 2. Disconnect rear power slide glass motor connector B150.
- 3. Turn ignition switch ON.
- 4. Check voltage between rear power slide glass motor connector B150 and ground.

Connector	(+)	(-)	Condition	Voltage (Approx.)
B150	1	Ground	Close	Battery voltage
			Open	0
	2		Close	0
			Open	Battery voltage

Is the inspection result normal?

YES >> Replace rear power slide glass motor. Refer to <u>GW-27, "Removal and Installation"</u>.

NO >> Repair or replace harness.

#### **REAR POWER SLIDE GLASS OPEN RELAY CHECK** < DTC/CIRCUIT DIAGNOSIS > REAR POWER SLIDE GLASS OPEN RELAY CHECK А Rear Power Slide Glass Open Relay Check INFOID:000000012546071 В Regarding Wiring Diagram information, refer to PWC-20, "Wiring Diagram". 1. CHECK REAR POWER SLIDE GLASS OPEN RELAY POWER SUPPLY CIRCUIT 1. Turn ignition switch OFF. 2. Disconnect rear power slide glass open relay connector M155. D 3. Turn ignition switch ON. 4. Check voltage between rear power slide glass open relay connector M155 and ground. Ε Voltage Connector (+) (-) (Approx.) 1 M155 Ground Battery voltage 5 Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace harness. 2. CHECK REAR POWER SLIDE GLASS OPEN RELAY Н Check continuity between rear power slide glass open relay terminals. Terminals Condition Continuity 12V direct current supply between terminals 1 No and 2 4 No current supply Yes 3 12V direct current supply between terminals 1 Yes and 2 5 No current supply No PWC Is the inspection result normal? YES >> GO TO 3. NO >> Replace rear power slide glass open relay. 3. CHECK REAR POWER SLIDE GLASS OPEN RELAY GROUND CIRCUIT Check continuity between rear power slide glass open relay connector M155 and ground. Μ Connector Terminal Continuity Ground M155 4 Yes Ν Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. CHECK REAR POWER SLIDE GLASS OPEN RELAY CIRCUIT Disconnect rear power slide glass switch. 1. Check continuity between rear power slide glass open relay connector M155 and rear power slide glass 2. switch connector R19. Rear power slide glass open relay Rear power slide switch Continuity Connector Terminal Connector Terminal M155 2 R19 5 Yes

Is the inspection result normal?

# **REAR POWER SLIDE GLASS OPEN RELAY CHECK**

#### < DTC/CIRCUIT DIAGNOSIS >

>> Replace rear power slide glass switch. Refer to <u>PWC-81, "Removal and Installation"</u>. >> Repair or replace harness. YES

NO

#### REAR POWER SLIDE GLASS CLOSE RELAY CHECK < DTC/CIRCUIT DIAGNOSIS > REAR POWER SLIDE GLASS CLOSE RELAY CHECK А Rear Power Slide Glass Close Relay Check INFOID:000000012546072 В Regarding Wiring Diagram information, refer to PWC-20, "Wiring Diagram". 1. CHECK REAR POWER SLIDE GLASS CLOSE RELAY POWER SUPPLY CIRCUIT 1. Turn ignition switch OFF. 2. Disconnect rear power slide glass close relay connector M154. D 3. Turn ignition switch ON. 4. Check voltage between rear power slide glass close relay connector M154 and ground. Ε Voltage Connector (+) (-) (Approx.) 1 M154 Ground Battery voltage 5 Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace harness. 2. CHECK REAR POWER SLIDE GLASS CLOSE RELAY Н Check continuity between rear power slide glass close relay terminals. Terminals Condition Continuity 12V direct current supply between terminals 1 No and 2 4 No current supply Yes 3 12V direct current supply between terminals 1 Yes and 2 5 No current supply No PWC Is the inspection result normal? YES >> GO TO 3. NO >> Replace rear power drop glass close relay. 3. CHECK REAR POWER SLIDE GLASS CLOSE RELAY GROUND CIRCUIT Check continuity between rear power slide glass close relay connector M154 and ground. Μ Connector Terminal Continuity Ground M154 4 Yes Ν Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. CHECK REAR POWER SLIDE GLASS CLOSE RELAY CIRCUIT Disconnect rear power slide glass switch. 1. Check continuity between rear power slide glass close relay connector M154 and rear power slide glass 2. switch connector R19. Rear power slide glass open relay Rear power slide switch Continuity Connector Terminal Connector Terminal M154 2 R19 1 Yes

Is the inspection result normal?

# **REAR POWER SLIDE GLASS CLOSE RELAY CHECK**

#### < DTC/CIRCUIT DIAGNOSIS >

>> Replace rear power slide glass switch. Refer to <u>PWC-81, "Removal and Installation"</u>. >> Repair or replace harness. YES

NO

# NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

< SYMPTOM DIAGNOSIS >	
SYMPTOM DIAGNOSIS	٨
NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH	R
Diagnosis Procedure	D
1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT	С
Check BCM power supply and ground circuit. Refer to <u>PWC-36, "BCM : Diagnosis Procedure"</u> .	_
Is the inspection result normal?	D
NO >> Repair or replace the malfunctioning parts. 2. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND GROUND CIRCUIT	Е
Check power window switch main power supply and ground circuit. Refer to <u>PWC-36, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"</u> .	F
<u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	G
<b>J.</b> CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH SERIAL CIRCUIT Check main power window and door lock/unlock switch serial circuit. Refer to PWC-54. "POWER WINDOW MAIN SWITCH : Component Function Check".	Η
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	I
4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	J
Check main power window and door lock/unlock switch. Refer to PWC-36, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".	
Is the inspection result normal?	PWC
NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	L

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# DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

# DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

**Diagnosis** Procedure

INFOID:000000012546087

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH. Refer to <u>PWC-40</u>, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

# FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

# FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPER-ATE

Diagnosis Procedure	INFOID:000000012546088
1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	D
Check power window and door lock/unlock switch RH. Refer to <u>PWC-38, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Proc</u>	c <u>edure"</u> .
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	D
2. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH SERIAL LINK CIRC	UIT
Check power window and door lock/unlock switch RH serial link circuit. Refer to PWC-54, "POWER WINDOW MAIN SWITCH : Component Function Check".	E
Is the inspection result normal?	
YES >> GO TO 3.	F
NO >> Repair or replace the malfunctioning parts.	
<b>3.</b> CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT	
Check front power window motor RH circuit. Refer to <u>PWC-40, "DRIVER SIDE : Component Function Check"</u> .	G
Is the inspection result normal?	Н
<ul> <li>YES &gt;&gt; Inspection End.</li> <li>NO &gt;&gt; Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.</li> </ul>	
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# REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

# REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000012546089

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH. Refer to <u>PWC-39</u>, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

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 <u>PWC-42, "REAR LH : Component Function Check"</u>.

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

# REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

# REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

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Diagnosis Procedure	=OID:0000000012546090	A
1. CHECK REAR POWER WINDOW SWITCH RH		В
Check rear power window switch RH. Refer to <u>PWC-39</u> , "REAR POWER WINDOW SWITCH : Diagnosis Procedure".		
Is the inspection result normal?		С
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. <b>2.</b> CHECK REAR POWER WINDOW MOTOR RH		D
Check rear power window motor RH. Refer to <u>PWC-43</u> , "REAR RH : Component Function Check".		Е
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .		F
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# ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)

## < SYMPTOM DIAGNOSIS >

# ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)

# **Diagnosis** Procedure

INFOID:000000012546091

1. CHECK DOOR WINDOW SLIDING PART

- A foreign material adheres to window glass or glass run rubber.
- Glass run rubber wear or deformation.
- Sash is tilted too much or not enough.

Is the inspection result normal?

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

2. CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to PWC-45, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to <u>GI-43. "Intermittent Incident"</u>.

# ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE)

< SYMPTOM DIAGNOSIS >

# ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE)

Diagnosis Procedure	INFOID:000000012546092	R
1. CHECK DOOR WINDOW SLIDING PART		D
<ul> <li>A foreign material adheres to window glass or glass run rubber.</li> <li>Glass run rubber wear or deformation.</li> <li>Sash is tilted too much or not enough.</li> </ul>		С
Is the inspection result normal?		D
YES >> GO TO 2.		D
2. CHECK ENCODER CIRCUIT		Е
Check encoder circuit. Refer to <u>PWC-45, "DRIVER SIDE : Component Function Check"</u> .		
Is the inspection result normal?		F
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .		
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# AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (DRIVER SIDE)

< SYMPTOM DIAGNOSIS >

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

**Diagnosis** Procedure

INFOID:000000012546093

**1.** PERFORM INITIALIZATION PROCEDURE

Refer to PWC-34, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description".

Does automatic function operate normally?

YES >> Inspection End. NO >> GO TO 2.

2. CHECK ENCODER

Check encoder.

Refer to <u>PWC-45</u>, "DRIVER SIDE : Diagnosis Procedure".

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-43. "Intermittent Incident"</u>.

# AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (PASSENGER SIDE)

LI (FASSENGER SIDE)	
< SYMPTOM DIAGNOSIS >	
AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES	А
NORMALLY (PASSENGER SIDE)	
Diagnosis Procedure	В
1. PERFORM INITIALIZATION PROCEDURE	
Refer to PWC-34, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description".	С
Does automatic function operate normally?         YES       >> Inspection End.         NO       >> CO TO 2	
2. CHECK ENCODER	D
Check encoder. Refer to <u>PWC-45, "DRIVER SIDE : Component Function Check"</u> .	Е
Is the inspection result normal?	
NO >> Check intermittent incident. Refer to <u>GI-43. "Intermittent Incident"</u> .	F
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# POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

# POWER WINDOW RETAINED POWER OPERATION DOES NOT OPER-ATE PROPERLY

**Diagnosis** Procedure

INFOID:000000012546095

1. CHECK FRONT DOOR SWITCH

Check front door switch. Refer to <u>DLK-96, "Component Function Check"</u>.

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.
# DOES NOT OPERATE BY KEY CYLINDER SWITCH

< SYMPTOM DIAGNOSIS >		
DOES NOT OPERATE BY KEY CYLINDER SWITCH		Δ
Diagnosis Procedure	INFOID:000000012546096	~
1. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH)		В
Check front door lock assembly LH (key cylinder switch). Refer to <u>DLK-100, "DRIVER SIDE : Component Function Check"</u> .		
Is the inspection result normal?		С
<ul> <li>YES &gt;&gt; Inspection End.</li> <li>NO &gt;&gt; Check intermittent incident. Refer to <u>GI-43. "Intermittent Incident"</u>.</li> </ul>		
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## **KEYLESS POWER WINDOW DOWN DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

# KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

**Diagnosis** Procedure

INFOID:000000012546097

1. CHECK KEYFOB FUNCTION

Check keyfob function.

Refer to <u>BCS-26</u>, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)" with remote keyless entry system.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

NO >> Replace BCM. Refer to <u>BCS-79</u>, "Removal and Installation".

### POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

# POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure	INFOID:000000012546098
<b>1.</b> REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	
Replace main power window and door lock/unlock switch. Refer to <u>PWC-77, "Removal and Installation"</u> .	
Is the inspection result normal?	
<ul> <li>YES &gt;&gt; Inspection End.</li> <li>NO &gt;&gt; Check intermittent incident. Refer to <u>GI-43. "Intermittent Incident"</u>.</li> </ul>	

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## **REAR POWER SLIDE GLASS DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

# REAR POWER SLIDE GLASS DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000012546099

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. Refer to <u>PWC-36, "BCM : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER SLIDE GLASS SWITCH

Check rear power slide glass switch. Refer to <u>PWC-58, "Rear Power Slide Glass Circuit Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{3}$ . CHECK REAR POWER SLIDE GLASS MOTOR CIRCUIT

Check rear power slide glass motor circuit.

Refer to <u>PWC-58</u>, "Rear Power Slide Glass Circuit Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

**4.** CHECK REAR POWER SLIDE GLASS RELAYS

Check rear power slide glass relays.

Refer to <u>PWC-59</u>, "Rear Power Slide Glass Open Relay Check" and <u>PWC-61</u>, "Rear Power Slide Glass Close Relay Check".

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

# REMOVAL AND INSTALLATION POWER WINDOW MAIN SWITCH

### Removal and Installation

#### REMOVAL

1. Remove the main power window and door lock/unlock switch finisher and main power window and door lock/unlock switch (1) from the door finisher using suitable tool.

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2. Disconnect the harness connector (1) from main power window and door lock/unlock switch.



main power window and door lock/unlock switch (1).

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4. Remove the





INSTALLATION Installation is in the reverse order of removal. CAUTION:

### POWER WINDOW MAIN SWITCH

< REMOVAL AND INSTALLATION >

Whenever the main power window and door lock/unlock switch is disconnected from the harness connector, it is necessary to perform the initialization procedure. Refer to <u>PWC-34</u>, "ADDITIONAL SER-<u>VICE WHEN REPLACING CONTROL UNIT : Description</u>".

# FRONT POWER WINDOW SWITCH

### Removal and Installation

#### REMOVAL

1. Using a suitable tool release the clips and remove power window and door lock/unlock switch RH and the power window and door lock/unlock switch RH finisher (1).

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3. Release the pawls using suitable tool, then remove the power window and door lock/unlock switch RH (1).

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INSTALLATION Installation is in the reverse order of removal.

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# REAR POWER WINDOW SWITCH

### Removal and Installation

### REMOVAL

1. Remove the rear power window switch finisher and rear power window switch (1) using suitable tool.

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- 2. Disconnect the harness connector from the rear power window switch.
- 3. Using a suitable tool, release the pawls and remove the rear power window switch (1) from the rear power window switch finisher (2).

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INSTALLATION Installation is in the reverse order of removal.

# **REAR POWER SLIDE GLASS SWITCH**

### **Removal and Installation**

#### REMOVAL

- 1. Remove the overhead console. Refer to INT-32. "Removal and Installation".
- 2. Disconnect the harness connector from the rear power slide glass switch.
- 3. Remove rear power slide glass switch (1) from the overhead console using suitable tool.

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**INSTALLATION** Installation is in the reverse order of removal.

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