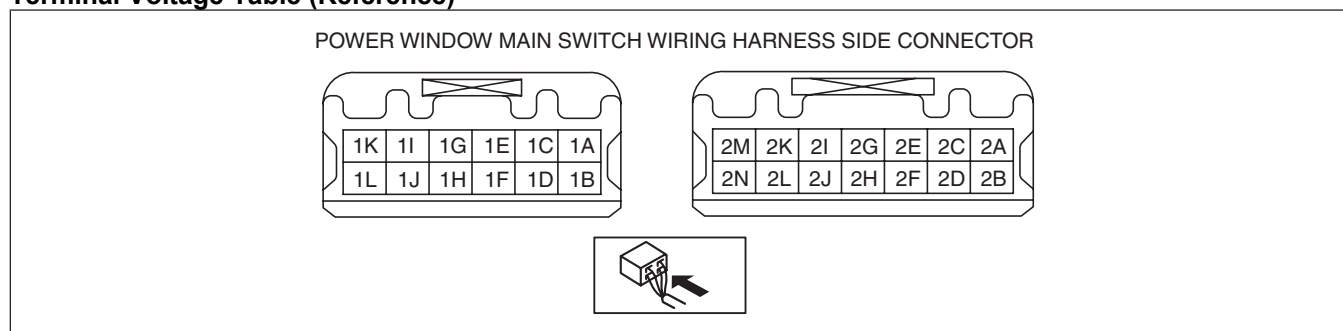


## POWER WINDOW MAIN SWITCH INSPECTION

id091200002100

1. Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].)
2. Remove the following parts:
  - (1) Inner garnish. (driver's side) (See INNER GARNISH REMOVAL/INSTALLATION.)
  - (2) Front door trim. (driver's side) (See FRONT DOOR TRIM REMOVAL/INSTALLATION.)
  - (3) Power window main switch (See POWER WINDOW MAIN SWITCH REMOVAL/INSTALLATION.)
3. Connect the power window main switch connector.
4. Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].)
5. Measure the voltage at each terminal.
  - If the voltage is not as specified in the terminal voltage table, inspect the parts under Inspection item (s) and related wiring harnesses.
  - If the system does not work normally even though the inspection items or related wiring harnesses do not have any malfunction, replace the power window main switch.

### Terminal Voltage Table (Reference)



ac5wzw00004908

### Auto-open/close Function For All Windows

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item (s)
1A	Sensor power supply	Power window motor (driver's side)	Switch the ignition ON (engine on or off)	B+	<ul style="list-style-type: none"> <li>• Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>• Related wiring harness</li> </ul>
			Switch the ignition ACC or OFF	1.0 or less	
1B	Power supply	P.WINDOW3 30A fuse	Under any condition	B+	<ul style="list-style-type: none"> <li>• P.WINDOW3 30A fuse</li> <li>• Related wiring harness</li> </ul>
1C	-	-	-	-	-
1D	Driver's side window open signal	Power window motor (driver's side)	Door glass (driver's side) opening	B+	<ul style="list-style-type: none"> <li>• Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>• Related wiring harness</li> </ul>
			while door glass (driver-side) is opening for approx. 40 s after ignition is switched OFF (LOCK) from ON	B+	
			Other	1.0 or less	
1E	Door open/close signal	Rear body control module (RBCM)	Any door is open	1.0 or less	<ul style="list-style-type: none"> <li>• Rear body control module (RBCM)</li> <li>• Related wiring harness</li> </ul>
			All door is close	approx. 6.0	
1F	Driver's side window close signal	Power window motor (driver's side)	Door glass (driver's side) closing	B+	<ul style="list-style-type: none"> <li>• Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>• Related wiring harness</li> </ul>
			while door glass (driver-side) is closing for approx. 40 s after ignition is switched OFF (LOCK) from ON	B+	
			Other	1.0 or less	
1G	IG1	C/U IG1 15A fuse	Switch the ignition ON (engine on or off)	B+	<ul style="list-style-type: none"> <li>• C/U IG1 15A fuse</li> <li>• Related wiring harness</li> </ul>
			Switch the ignition OFF (LOCK)	1.0 or less	

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item (s)
1H	-	-	-	-	-
1I	Sensor ground	Power window motor (driver's side)	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
1J	-	-	-	-	-
1K	GND	Body ground	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
1L	Serial communication	Power window subswitch	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible		<ul style="list-style-type: none"> <li>Power window subswitch (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
2A	ACC	MIRROR 7.5 A fuse	Switch the ignition to ACC Other	1.0 or less B+	<ul style="list-style-type: none"> <li>MIRROR 7.5 A fuse</li> <li>Related wiring harness</li> </ul>
2B	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2C	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2D	Pulse 1	Power window motor (driver's side)	Door glass (driver's side) operating	Wave pattern (See Inspection Using an Oscilloscope (Reference).)	<ul style="list-style-type: none"> <li>Related wiring harness</li> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> </ul>
2E	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2F	Pulse 2	Power window motor (driver's side)	Door glass (driver's side) operating	Wave pattern (See Inspection Using an Oscilloscope (Reference).)	<ul style="list-style-type: none"> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
2G	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2H	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2I	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2J	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2K	-	-	-	-	-
2L	-	-	-	-	-
2M	-	-	-	-	-
2N	GND	Body ground	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>

**Auto-open/close Function for Driver-side (L.H.D.)**

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item (s)
1A	Rear right side window open signal	Power window motor (rear right side)	Door glass (rear right side) opening	B+	<ul style="list-style-type: none"> <li>Power window motor (rear right side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1B	Passenger's side window open signal	Power window motor (passenger's side)	Door glass (passenger's side) opening	B+	<ul style="list-style-type: none"> <li>Power window motor (passenger's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1C	Rear right side window close signal	Power window motor (rear right side)	Door glass (rear right side) closing	B+	<ul style="list-style-type: none"> <li>Power window motor (rear right side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1D	Passenger's side window close signal	Power window motor (passenger's side)	Door glass (passenger's side) closing	B+	<ul style="list-style-type: none"> <li>Power window motor (passenger's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1E	-	-	-	-	-
1F	Door open/close signal	Rear body control module (RBCM)	Any door is open	1.0 or less	<ul style="list-style-type: none"> <li>Rear body control module (RBCM)</li> <li>Related wiring harness</li> </ul>
			All door is close	approx. 6.0	
1G	Rear left side window open signal	Power window motor (rear left side)	Door glass (rear left side) opening	B+	<ul style="list-style-type: none"> <li>Power window motor (rear left side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1H	Driver's side window open signal	Power window motor (driver's side)	Door glass (driver's side) opening	B+	<ul style="list-style-type: none"> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1I	Rear left side window close signal	Power window motor (rear left side)	Door glass (rear left side) closing	B+	<ul style="list-style-type: none"> <li>Power window motor (rear left side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1J	Driver's side window close signal	Power window motor (driver's side)	Door glass (driver's side) closing	B+	<ul style="list-style-type: none"> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1K	IG1	P.WINDOW1 30 A fuse	Switch the ignition ON (engine on or off)	B+	<ul style="list-style-type: none"> <li>P.WINDOW3 30 A fuse</li> <li>Related wiring harness</li> </ul>
1L	Power supply	P.WINDOW2 25 A fuse	Under any condition	V <sub>B</sub>	<ul style="list-style-type: none"> <li>P.WINDOW2 25 A fuse</li> <li>Related wiring harness</li> </ul>
2A	GND	Body ground	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
2B	Sensor ground	Power window motor (driver's side)	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
2C	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item (s)
2D	Pulse 1	Power window motor (driver's side)	Door glass (driver's side) operating	Wave pattern (See Inspection Using an Oscilloscope (Reference).)	<ul style="list-style-type: none"> <li>• Related wiring harness</li> <li>• Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> </ul>
2E	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2F	Pulse 2	Power window motor (driver's side)	Door glass (driver's side) opening	Wave pattern (See Inspection Using an Oscilloscope (Reference).)	<ul style="list-style-type: none"> <li>• Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>• Related wiring harness</li> </ul>
2G	GND	Body ground	Under any condition	1.0 or less	• Related wiring harness
2H	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2I	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2J	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2K	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2L	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2M	ACC	MIRROR 7.5 A fuse	Switch the ignition to ACC	1.0 or less	<ul style="list-style-type: none"> <li>• MIRROR 7.5 A fuse</li> <li>• Related wiring harness</li> </ul>
			Other	B+	
2N	GND	Body ground	Under any condition	1.0 or less	• Related wiring harness

#### Auto-open/close Function for Driver-side (R.H.D.)

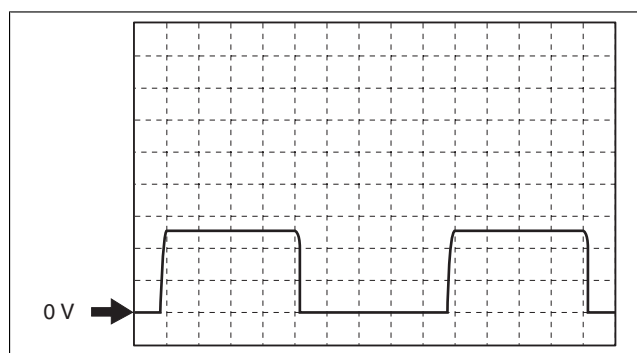
Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item (s)
1A	Rear right side window open signal	Power window motor (rear right side)	Door glass (rear right side) opening	B+	<ul style="list-style-type: none"> <li>• Power window motor (rear right side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>• Related wiring harness</li> </ul>
			Other	1.0 or less	
1B	Door open/close signal	Rear body control module (RBCM)	Any door is open	1.0 or less	<ul style="list-style-type: none"> <li>• Rear body control module (RBCM)</li> <li>• Related wiring harness</li> </ul>
			All door is close	approx. 6.0	
1C	Rear right side window close signal	Power window motor (rear right side)	Door glass (rear right side) closing	B+	<ul style="list-style-type: none"> <li>• Power window motor (rear right side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>• Related wiring harness</li> </ul>
			Other	1.0 or less	
1D	Passenger's side window open signal	Power window motor (passenger's side)	Door glass (passenger's side) opening	B+	<ul style="list-style-type: none"> <li>• Power window motor (passenger's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>• Related wiring harness</li> </ul>
			Other	1.0 or less	
1E	-	-	-	-	-

Ter mi nal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item (s)
1F	Driver's side window open signal	Power window motor (driver's side)	Door glass (driver's side) opening	B+	<ul style="list-style-type: none"> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1G	Rear left side window open signal	Power window motor (rear left side)	Door glass (rear left side) opening	B+	<ul style="list-style-type: none"> <li>Power window motor (rear left side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1H	Driver's side window close signal	Power window motor (driver's side)	Door glass (driver's side) closing	B+	<ul style="list-style-type: none"> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1I	Rear left side window close signal	Power window motor (rear left side)	Door glass (rear left side) closing	B+	<ul style="list-style-type: none"> <li>Power window motor (rear left side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1J	Passenger's side window close signal	Power window motor (passenger's side)	Door glass (passenger's side) closing	B+	<ul style="list-style-type: none"> <li>Power window motor (passenger's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
			Other	1.0 or less	
1K	IG1	P.WINDOW1 30 A fuse	Switch the ignition ON (engine on or off)	B+	<ul style="list-style-type: none"> <li>P.WINDOW3 30 A fuse</li> <li>Related wiring harness</li> </ul>
1L	Power supply	P.WINDOW2 25 A fuse	Under any condition	V <sub>B</sub>	<ul style="list-style-type: none"> <li>P.WINDOW2 25 A fuse</li> <li>Related wiring harness</li> </ul>
2A	GND	Body ground	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
2B	Sensor ground	Power window motor (driver's side)	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
2C	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2D	Pulse 1	Power window motor (driver's side)	Door glass (driver's side) operating	Wave pattern (See Inspection Using an Oscilloscope (Reference).)	<ul style="list-style-type: none"> <li>Related wiring harness</li> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> </ul>
2E	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2F	Pulse 2	Power window motor (driver's side)	Door glass (driver's side) opening	Wave pattern (See Inspection Using an Oscilloscope (Reference).)	<ul style="list-style-type: none"> <li>Power window motor (driver's side) (See POWER WINDOW MOTOR INSPECTION.)</li> <li>Related wiring harness</li> </ul>
2G	GND	Body ground	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
2H	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2I	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item (s)
2J	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2K	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2L	Power outer mirror control signal	Power outer mirror	Inspect the power outer mirror switch. (See POWER OUTER MIRROR SWITCH INSPECTION.)		
2M	ACC	MIRROR 7.5 A fuse	Switch the ignition to ACC	1.0 or less	<ul style="list-style-type: none"> <li>• MIRROR 7.5 A fuse</li> <li>• Related wiring harness</li> </ul>
			Other	B+	
2N	GND	Body ground	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>• Related wiring harness</li> </ul>

### Inspection Using an Oscilloscope (Reference)

- Terminal:  
2D, 2F(+) ↔ ground (-)
- Oscilloscope setting: 2 V/DIV (Y), 1 ms/DIV (X), DC range



ac5wzw00001663