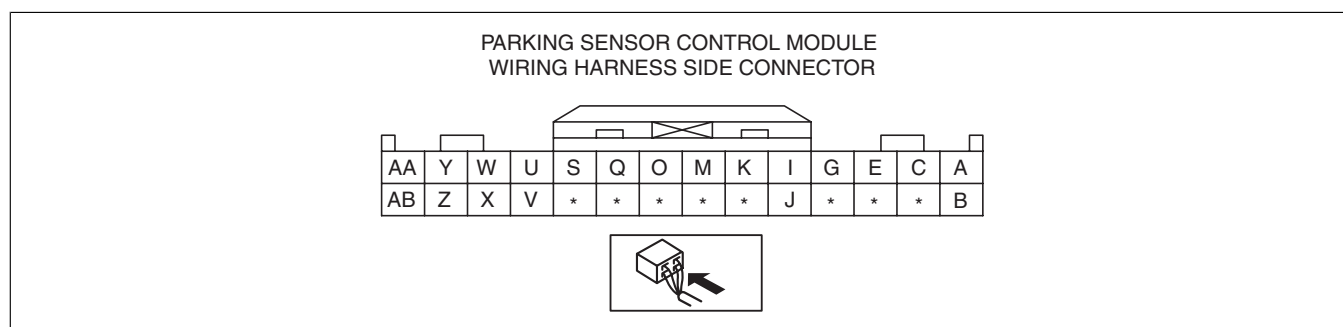


## PARKING SENSOR CONTROL MODULE INSPECTION

id092200023600

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) Passenger-side front scuff plate (See FRONT SCUFF PLATE REMOVAL/INSTALLATION.)
  - (2) Passenger-side front side trim (See FRONT SIDE TRIM REMOVAL/INSTALLATION.)
  - (3) Glove compartment (See GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
  - (4) Decoration panel (See DECORATION PANEL REMOVAL/INSTALLATION.)
  - (5) Passenger-side lower panel (See LOWER PANEL REMOVAL/INSTALLATION.)
3. 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].)
4. Verify that the voltages of each of the terminals are as indicated in the terminal voltage table (reference).
  - If the voltage is not as specified in the terminal voltage table (reference), inspect the parts under Inspection item(s).
  - If the system does not operate normally even though the inspection items are normal, replace the parking sensor control module.

### Terminal Voltage Table (Reference)



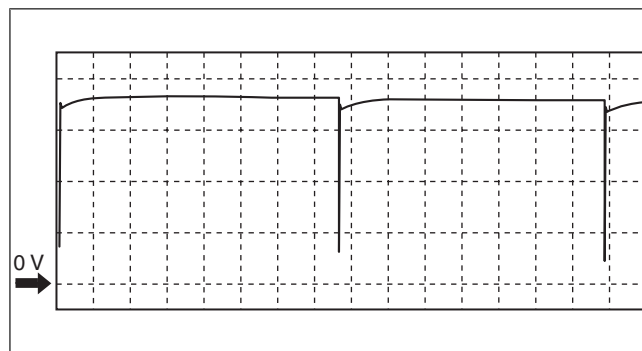
ac5wzw00002435

Terminal	Signal name	Connected to	Measured item	Test condition	Voltage (V)	Inspection item
A	Ultrasonic sensor	Rear ultrasonic sensor (LH)	Wave profile	(See Generated Pulse (reference).)		<ul style="list-style-type: none"> <li>• Rear ultrasonic sensor (LH)</li> <li>• Related wiring harnesses</li> </ul>
B	Ultrasonic sensor GND	Rear ultrasonic sensor	Voltage	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>• Rear ultrasonic sensor</li> <li>• Related wiring harnesses</li> </ul>
C	Ultrasonic sensor	Rear ultrasonic sensor (RH)	Wave profile	(See Generated Pulse (reference).)		<ul style="list-style-type: none"> <li>• Rear ultrasonic sensor (RH)</li> <li>• Related wiring harnesses</li> </ul>
D	—	—	—	—	—	—
E	Ultrasonic sensor	Rear corner ultrasonic sensor (LH)	Wave profile	(See Generated Pulse (reference).)		<ul style="list-style-type: none"> <li>• Rear corner ultrasonic sensor (LH)</li> <li>• Related wiring harnesses</li> </ul>
F	—	—	—	—	—	—
G	Ultrasonic sensor	Rear corner ultrasonic sensor (RH)	Wave profile	(See Generated Pulse (reference).)		<ul style="list-style-type: none"> <li>• Rear corner ultrasonic sensor (RH)</li> <li>• Related wiring harnesses</li> </ul>
H	—	—	—	—	—	—
I	Ultrasonic sensor	Front corner ultrasonic sensor (LH)	Wave profile	(See Generated Pulse (reference).)		<ul style="list-style-type: none"> <li>• Front corner ultrasonic sensor (LH)</li> <li>• Related wiring harnesses</li> </ul>
J	Ultrasonic sensor GND	Front ultrasonic sensor	Voltage	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>• Front ultrasonic sensor</li> <li>• Related wiring harnesses</li> </ul>
K	Ultrasonic sensor	Front ultrasonic sensor (LH)	Wave profile	(See Generated Pulse (reference).)		<ul style="list-style-type: none"> <li>• Front ultrasonic sensor (LH)</li> <li>• Related wiring harnesses</li> </ul>
L	—	—	—	—	—	—

Terminal	Signal name	Connected to	Measured item	Test condition		Voltage (V)	Inspection item
M	Ultrasonic sensor	Front ultrasonic sensor (RH)	Wave profile	(See Generated Pulse (reference).)			• Front ultrasonic sensor (RH) • Related wiring harnesses
N	—	—	—	—		—	—
O	Ultrasonic sensor	Front corner ultrasonic sensor (RH)	Wave profile	(See Generated Pulse (reference).)			• Front corner ultrasonic sensor (RH) • Related wiring harnesses
P	—	—	—	—		—	—
Q	GND	Body ground	Voltage	Under any condition		1.0 or less	Related wiring harnesses
R	—	—	—	—		—	—
S	Indicator	Parking sensor switch	Voltage	Ignition switch ed ON (engine off or on)	Parking sensor switch ON (indicator on)	1.0 or less	• Parking sensor switch • Climate control unit (with auto A/C) • Clock (with manual A/C) • Related wiring harnesses
					Parking sensor switch OFF (indicator off)	B+	
T	—	—	—	—		—	—
U	IG1	Ignition relay	Voltage	Ignition switched ON (engine off or on)		B+	• Ignition relay • METER2 7.5A fuse • Related wiring harnesses
				Ignition switched off (LOCK)		1.0 or less	
V	Parking sensor switch	Parking sensor switch	Voltage	Ignition switch ed ON (engine off or on)	Parking sensor switch ON (indicator on)	1.0 or less	• Parking sensor switch • Climate control unit (with auto A/C) • Clock (with manual A/C) • Related wiring harnesses
					Parking sensor switch OFF (indicator off)	B+	
W	Rear parking sensor buzzer	Rear parking sensor buzzer	Voltage	Ignition switched ON (engine off or on)		B+	• Rear parking sensor buzzer • Related wiring harnesses
				Ignition switched off (LOCK) or ACC		1.0 or less	
X	Rear parking sensor buzzer GND	Rear parking sensor buzzer	Voltage	Ignition switch ed ON (engine off or on) and parking sensor switch ON	Buzzer sounding	1.0 or less	• Rear parking sensor buzzer • Related wiring harnesses
					Buzzer stopped	B+	
Y	Front parking sensor buzzer	Front parking sensor buzzer	Voltage	Ignition switched ON (engine off or on)		B+	• Front parking sensor buzzer • Related wiring harnesses
				Ignition switched off (LOCK) or ACC		1.0 or less	
Z	Front parking sensor buzzer GND	Rear parking sensor buzzer	Voltage	Ignition switch ed ON (engine off or on) and parking sensor switch ON	Buzzer sounding	1.0 or less	• Front parking sensor buzzer • Related wiring harnesses
					Buzzer stopped	B+	
AA	CAN_H	CAN system related module	Voltage	Terminal used for communication therefore determination based on terminal voltage is not possible.			
AB	CAN_L	CAN system related module	Voltage	Terminal used for communication therefore determination based on terminal voltage is not possible.			

### Generated Pulse (reference)

- Oscilloscope setting:  
— 2 V/DIV (Y), 20 ms/DIV (X), DC range



am6zzw00006971

—: Does not operate

Oscilloscope setting:			Terminal							
Ignition	Shift lever position	Vehicle speed	Front corner ultrasonic sensor (LH)	Front ultrasonic sensor (LH)	Front ultrasonic sensor (RH)	Front corner ultrasonic sensor (RH)	Rear corner ultrasonic sensor (LH)	Rear ultrasonic sensor (LH)	Rear ultrasonic sensor (RH)	Rear corner ultrasonic sensor (RH)
ON (engine off or on)	Except R position	0—15 km/h {0—9.3 mph} or less	I—J	K—J	M—J	O—J	—	—	—	—
	R position		I—J	—	—	O—J	E—B	A—B	C—B	G—B