

BATTERY INSPECTION [SKYACTIV-G 2.0 (WITHOUT i-stop)]

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Warning

- Since battery acid is toxic, be careful when handling the battery.
- Since battery acid is highly corrosive, be careful not to allow it to contact clothing or the vehicle.
- In case battery acid contacts skin, eyes, or clothing, flush it immediately with running water. If the acid gets in the eyes, flush with water for more than 15 min and get prompt medical attention.

Electrolyte Specific Gravity

1. Measure the electrolyte specific gravity using a hydrometer.
 - If it is less than the specification, recharge the battery. (See BATTERY RECHARGING [SKYACTIV-G 2.0 (WITHOUT i-stop)].)

Battery electrolyte specific gravity [20 °C {68 °F}]

1.22—1.29

Battery Voltage

1. Inspect the battery as follows:

Step	Inspection	Results	Action
1	Measure the battery positive voltage.	12.4 V or more	Go to Step 3.
		Less than 12.4 V	Go to the next step.
2	Quick charge for 30 min and recheck voltage.	12.4 V or more	Go to the next step.
		Less than 12.4 V	Replace the battery.
3	Using the battery load tester, apply load current (see battery load test current) and record battery voltage after 15 s . Is voltage more than the specification?	Yes	Normal
		No	Replace the battery.

Battery load test current

55D23L (48 A·h/5HR, 55 A·h/20HR): 180 A

75D23L (52 A·h/5HR, 65 A·h/20HR): 195 A

Standard specification

Battery temp. (°C {°F})	Minimum voltage (V)
4 {39}	9.3
10 {50}	9.4
16 {61}	9.5
21 {70}	9.6

Parasitic Draw

1. Verify that the ignition is off (lock) and that all doors are closed.
2. Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0 (WITHOUT i-stop)])

Caution

- Operating electrical loads while the parasitic draw is being measured can damage the tester.

Note

- If the battery is not left undisturbed for **10 min or more, but less than 30 min**, the tester will indicate a high value (**approx. 300 mA**).
 - If the ignition or any electrical accessory is operated after the tester is connected, the battery must be left undisturbed for **10 min or more, but less than 30 min** from that point.
 - For vehicles with the immobilizer system, the system periodically shifts synchronization of the security indicator light flashing. Therefore, **65 mA (0.1 s)** current is supplied when the security indicator light is illuminated, and **40 mA (2 s)** current is supplied when the security indicator light is not illuminated. In addition, the measuring instrument, which shows the average value, indicates around **55 mA**.
3. Connect the tester between the negative battery terminal and negative battery cable, leave the battery undisturbed for **10 min or more, but less than 30 min**, and then measure the parasitic draw.
 - If not within specification, measure the parasitic draw while removing the fuses one by one from the inside of the main fuse block and the inside of the fuse block.
 - Inspect and repair wiring harnesses and connectors of the fuse where the current has decreased.

Battery parasitic draw (When the ignition is off (lock), all doors and the bonnet are closed.)
40—65 mA

Note

- If the battery is left for **30 min**, a battery parasitic draw value of **25—45 mA** is indicated.