

CAMSHAFT POSITION (CMP) SENSOR INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

id0140g2801400

Intake CMP Sensor

Visual inspection

Caution

- **When replacing the CMP sensor, make sure there is no foreign matter on it such as metal shavings. If it is installed with foreign matter, the sensor output signal will malfunction resulting from fluctuation in magnetic flux and cause a deterioration in engine control.**

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)].)
2. Remove the plug hole plate. (See PLUG HOLE PLATE REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
3. Remove the intake manifold. (See INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
4. Disconnect the intake CMP sensor connector.
5. Remove the intake CMP sensor. (See CAMSHAFT POSITION (CMP) SENSOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
6. Verify that there are no metal shavings on the intake CMP sensor.
 - If there is a malfunction, remove any metal shavings that are adhering.

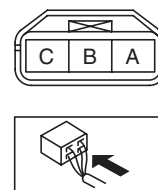
Voltage inspection

Caution

- **When replacing the CMP sensor, make sure there is no foreign matter on it such as metal shavings. If it is installed with foreign matter, the sensor output signal will malfunction resulting from fluctuation in magnetic flux and cause a deterioration in engine control.**
- **If the wiring harnesses or waterproof connectors are damaged, water penetrating the connector will cause a sensor malfunction. To prevent this, be careful not to damage wiring harnesses or waterproof connectors.**

1. Idle the engine.
2. Measure the intake CMP sensor output voltage using the oscilloscope.
 - If not as specified, replace the intake CMP sensor. (See CAMSHAFT POSITION (CMP) SENSOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)

INTAKE CMP SENSOR
WIRING HARNESS-SIDE CONNECTOR



ac5wzw00006329

Terminal	Voltage (V)	Condition
A	Above 4.8	High output*
	Below 0.8	Low output*
B	Below 1.0	Under any condition
C	B+	Under any condition

* : Output voltage varies with camshaft rotation.

Exhaust CMP Sensor

Visual inspection

Caution

- When replacing the CMP sensor, make sure there is no foreign matter on it such as metal shavings. If it is installed with foreign matter, the sensor output signal will malfunction resulting from fluctuation in magnetic flux and cause a deterioration in engine control.

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)].)
2. Remove the plug hole plate. (See PLUG HOLE PLATE REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
3. Disconnect the exhaust CMP sensor connector.
4. Remove the exhaust CMP sensor. (See CAMSHAFT POSITION (CMP) SENSOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
5. Verify that there are no metal shavings on the exhaust CMP sensor.
 - If there is a malfunction, remove any metal shavings that are adhering.

Voltage inspection

Caution

- When replacing the CMP sensor, make sure there is no foreign matter on it such as metal shavings. If it is installed with foreign matter, the sensor output signal will malfunction resulting from fluctuation in magnetic flux and cause a deterioration in engine control.
- If the wiring harnesses or waterproof connectors are damaged, water penetrating the connector will cause a sensor malfunction. To prevent this, be careful not to damage wiring harnesses or waterproof connectors.

1. Idle the engine.
2. Measure the exhaust CMP sensor output voltage using the oscilloscope.
 - If not as specified, replace the exhaust CMP sensor. (See CAMSHAFT POSITION (CMP) SENSOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)

EXHAUST CMP SENSOR
WIRING HARNESS-SIDE CONNECTOR



ac5wzw00006330

Terminal	Voltage (V)	Condition
A	Above 4.8	High output*
	Below 0.8	Low output*
B	Below 1.0	Under any condition
C	B+	Under any condition

* : Output voltage varies with camshaft rotation.