

## 5. Engine Coolant Temperature Sensor

### A: REMOVAL

1) Disconnect the ground cable from battery. <Ref. to NT-5, BATTERY, NOTE, Note.>

#### NOTE:

For the 12 volt engine restart battery, disconnect the ground terminal from 12V engine restart battery sensor.

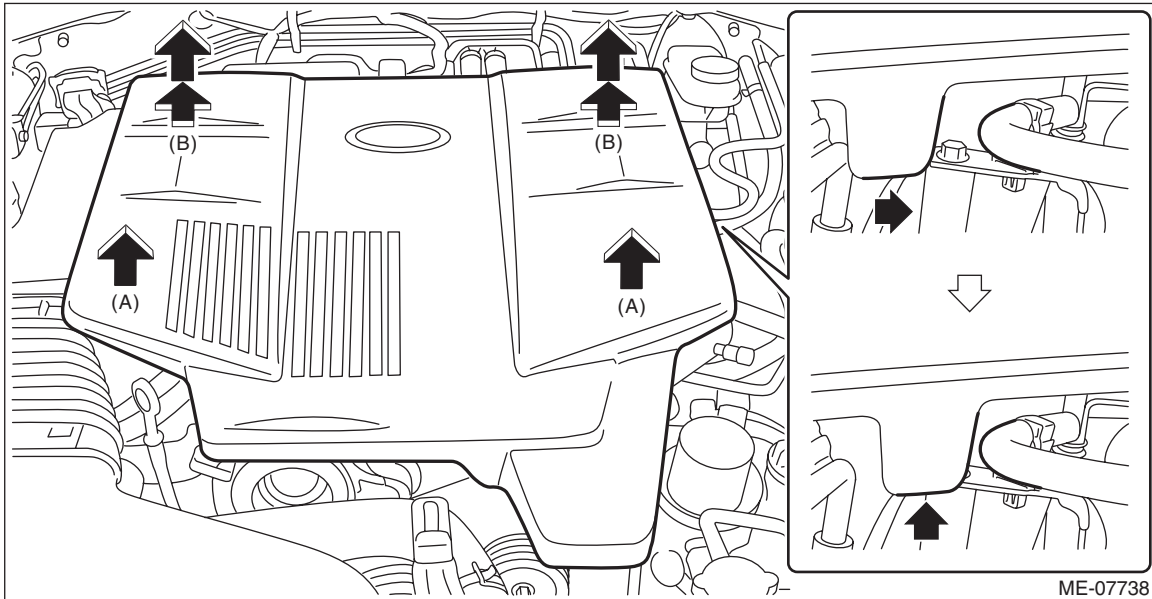
2) Remove the collector cover.

(1) Carefully pull up the front of collector cover at two positions (A).

(2) Carefully pull up the rear of collector cover at two positions (B) while moving it backward.

#### NOTE:

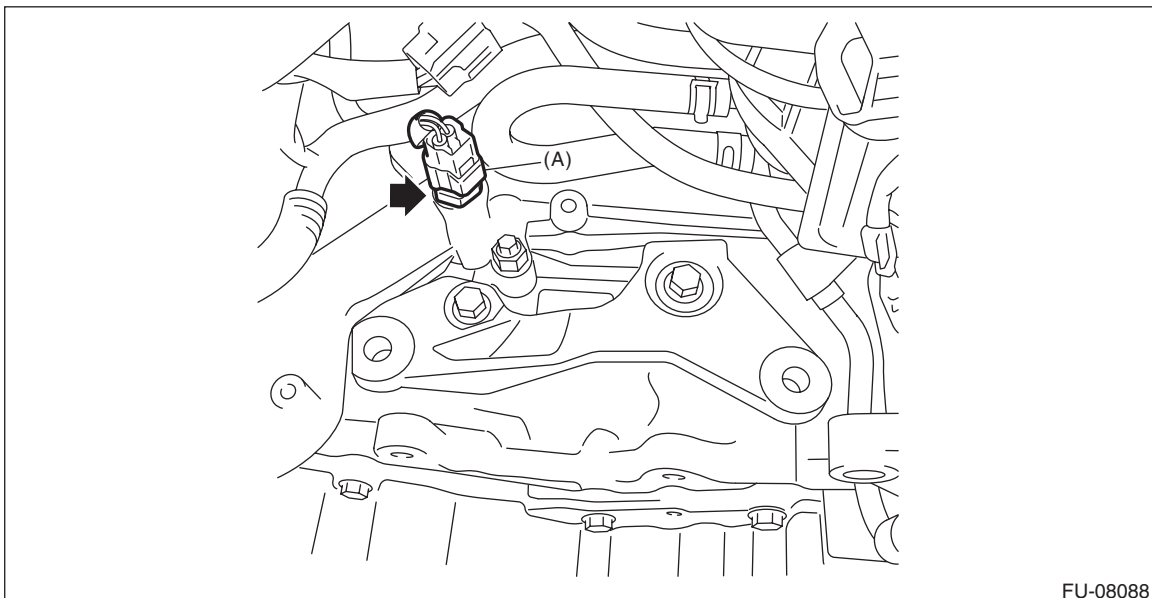
Be careful not to contact the fuel delivery tube when moving the collector cover rearward.



3) Drain engine coolant. <Ref. to CO(H4DO(w/o HEV))-16, DRAINING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>

4) Remove the ISG. <Ref. to SC(H4DO(HEV))-32, REMOVAL, Integrated Starter Generator (ISG).>

5) Disconnect the connector (A) from the engine coolant temperature sensor, and remove the engine coolant temperature sensor.



# Engine Coolant Temperature Sensor

FUEL INJECTION (FUEL SYSTEMS)

## B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Use a new gasket.

**Tightening torque:**

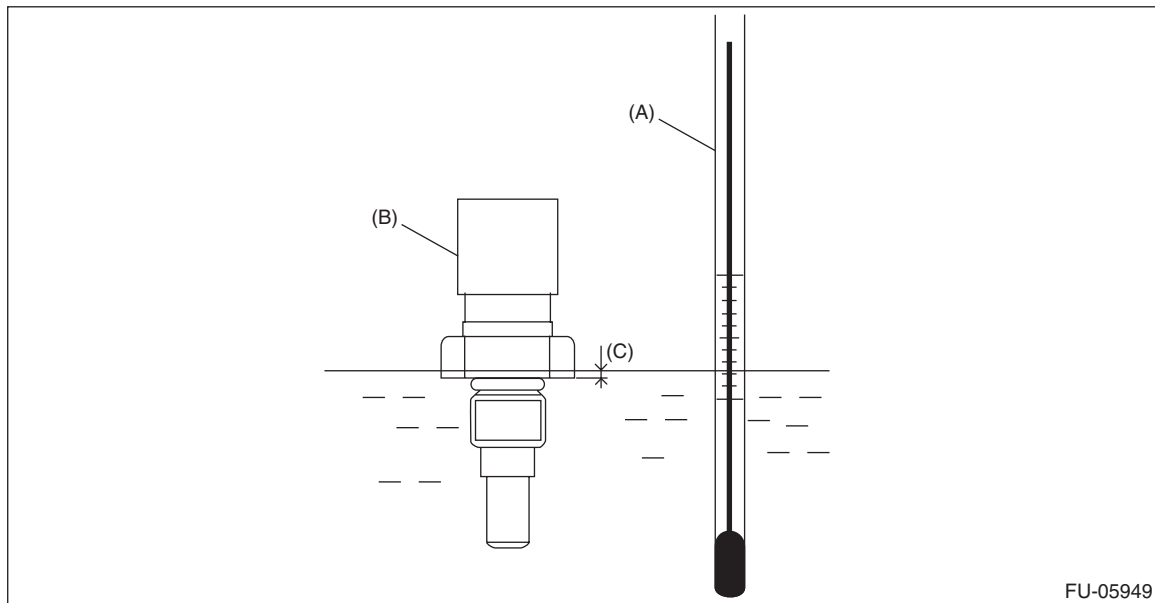
**18 N·m (1.8 kgf-m, 13.3 ft-lb)**

## C: INSPECTION

- 1) Check that the engine coolant temperature sensor has no deformation, cracks or other damages.
- 2) Immerse the engine coolant temperature sensor and a thermometer in water.

**CAUTION:**

**Take care not to allow water to get into the engine coolant temperature sensor connector. Completely remove any water inside.**



(A) Thermometer

(B) Engine coolant temperature sensor

(C) Hexagonal part height:  
To approx.  $\frac{1}{3}$

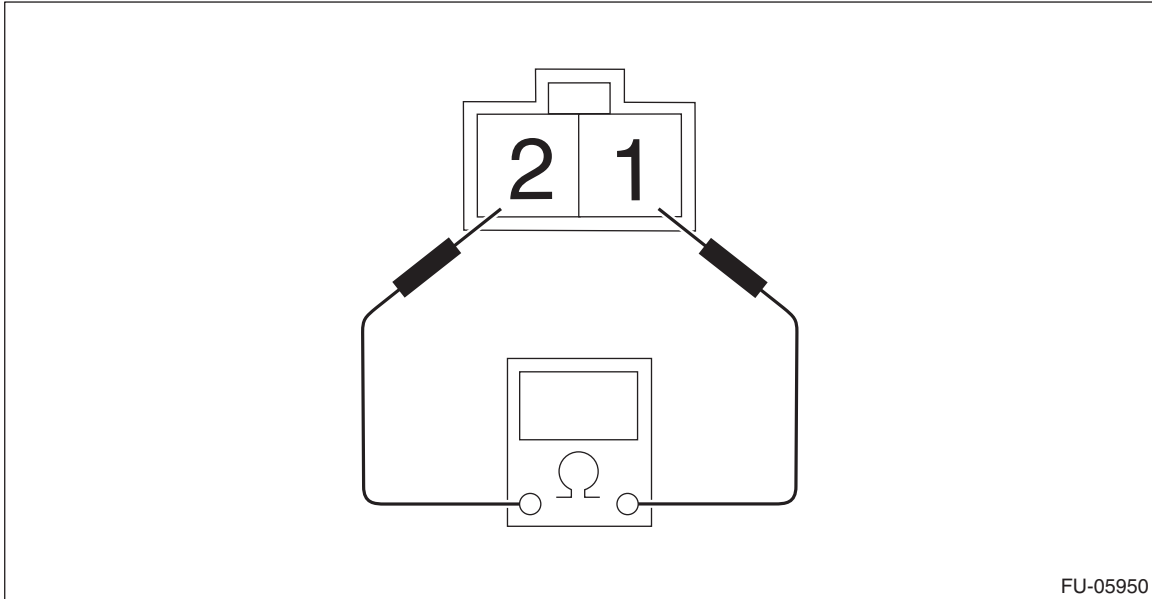
# Engine Coolant Temperature Sensor

FUEL INJECTION (FUEL SYSTEMS)

3) Raise water temperature gradually, measure the resistance between the engine coolant temperature sensor terminals when the temperature is 20°C (68°F) and 80°C (176°F).

NOTE:

Agitate the water for even temperature distribution.



Water temperature	Terminal No.	Standard
20°C (68°F)	1 and 2	Approx. 2.45±0.2 kΩ
80°C (176°F)		Approx. 0.318±0.013 kΩ