

Temperature and Humidity Sensor

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)

25. Temperature and Humidity Sensor

A: REMOVAL

For operation procedures, refer to “In-vehicle Sensor” section. <Ref. to AC-83, REMOVAL, In-Vehicle Sensor (Auto A/C Model).>

B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

On the vehicle inspection

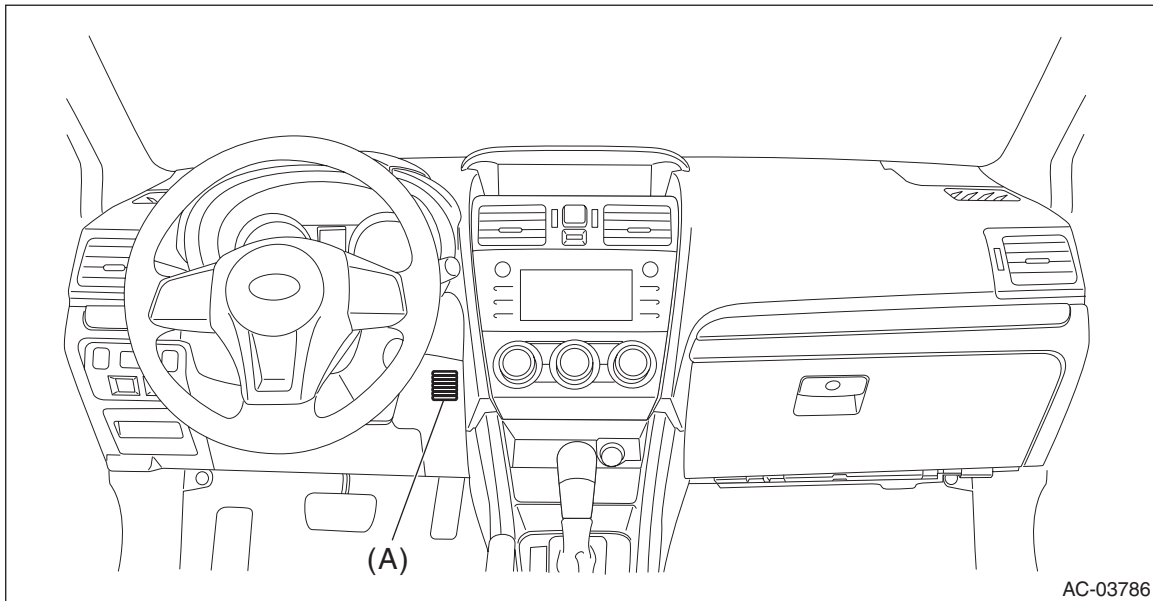
Preparation tool:

Circuit tester

1) Set the vehicle to the following conditions.

Item	Condition
Ambient temperature	Approx. 25°C (77°F)
Ignition switch	ON
A/C switch	ON
Temperature adjustment dial	HI (MAX HOT)
Mode change switch	DEF
Fan dial	HI (MAX)

2) Check the suction port (A) for the temperature and humidity sensor of the cover assembly - instrument panel LWR driver.



(1) Put a strip of paper close to the front side of the suction port (A).

(2) Can you see the paper moving towards the port and the air being sucked into the port?

CAUTION:

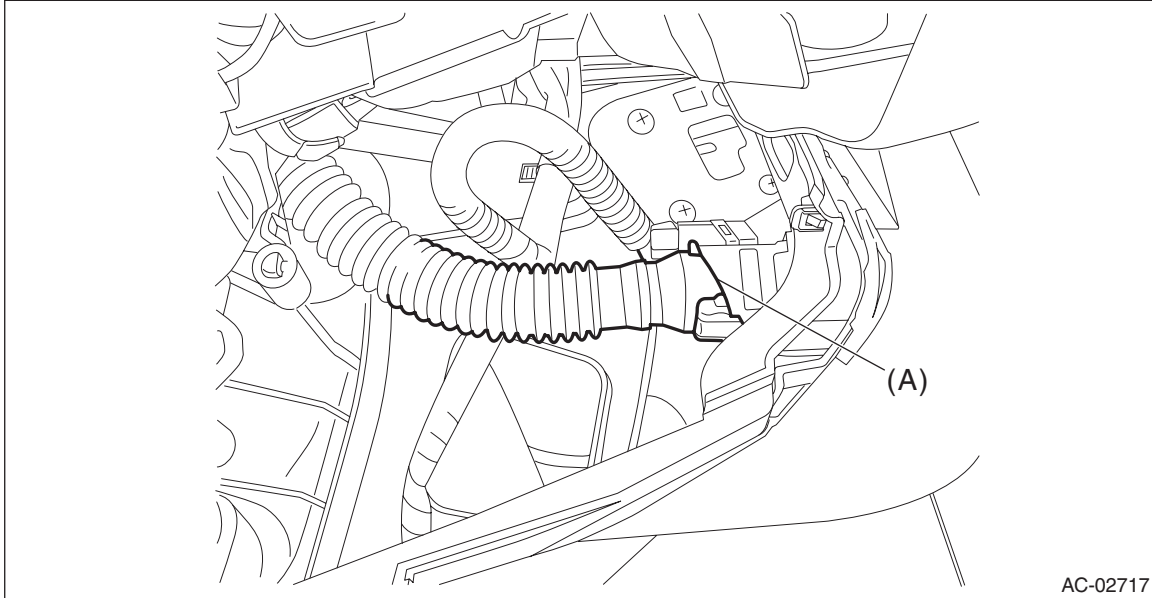
Be careful not to let the paper get sucked into the port.

- **Yes** → Go to step 5).
- **No** → Go to step 3).

Temperature and Humidity Sensor

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)

- 3) Remove the cover assembly - instrument panel LWR driver, and check the aspirator hose (A).



- (1) Are the aspirator hoses on both sides of the case and sensor connected securely?
 - (2) Is the aspirator hose free from any kinks or cracks?
 - **Yes** → Go to step 4).
 - **No** → Repair or replace the aspirator hose if necessary.
- 4) Check if there is anything that affects sensing around the temperature and humidity sensor.
- (1) Is the temperature and humidity sensor hole free from clogging?
 - (2) Is the peripheral area of the temperature and humidity sensor free from any heat-producing parts (such as audio, navigation system etc.)?
 - **Yes** → Go to step 5).
 - **No** → Remove everything that affects sensing.

Temperature and Humidity Sensor

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)

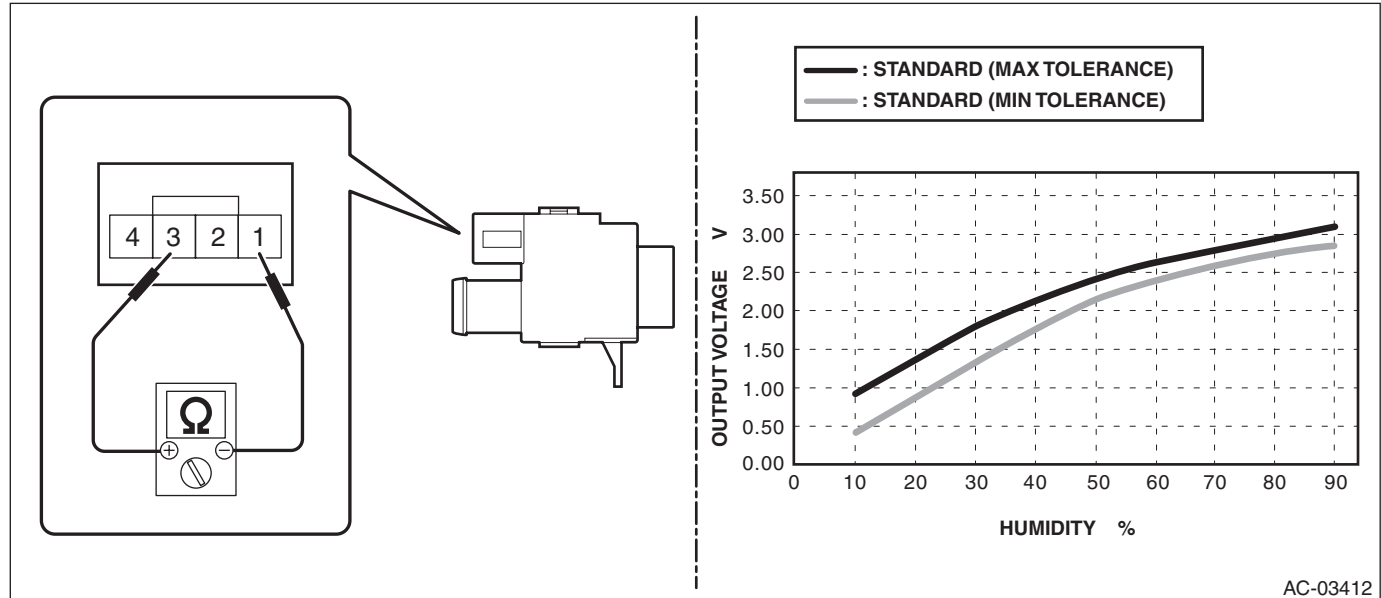
5) Perform the inspection of temperature and humidity sensor unit.

(1) Disconnect the temperature and humidity sensor connector.

(2) Is the voltage between terminals of temperature and humidity sensor within standard value?

CAUTION:

During inspection, be careful not to touch the sensor end in order to avoid misjudgment due to body temperature.



Terminal No.	Inspection conditions	Standard
1 — 3	10%	0.46 — 0.94 V
	20%	0.90 — 1.35 V
	30%	1.35 — 1.78 V
	40%	1.78 — 2.11 V
	50%	2.11 — 2.36 V
	60%	2.34 — 2.59 V
	70%	2.55 — 2.78 V
	80%	2.73 — 2.96 V
	90%	2.90 — 3.15 V

- **Yes** → The temperature and humidity sensor is normal.
- **No** → Replace the temperature and humidity sensor.