

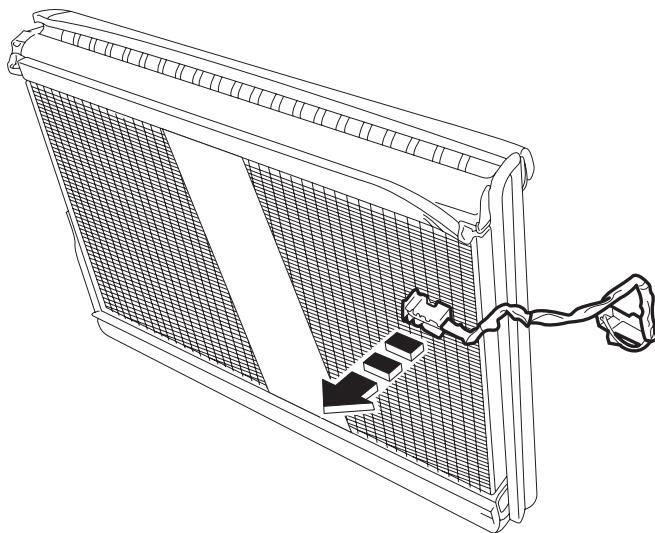
Evaporator Sensor

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)

26. Evaporator Sensor

A: REMOVAL

- 1) Remove the evaporator. <Ref. to AC-70, REMOVAL, Evaporator.>
- 2) Remove the evaporator sensor from the evaporator.



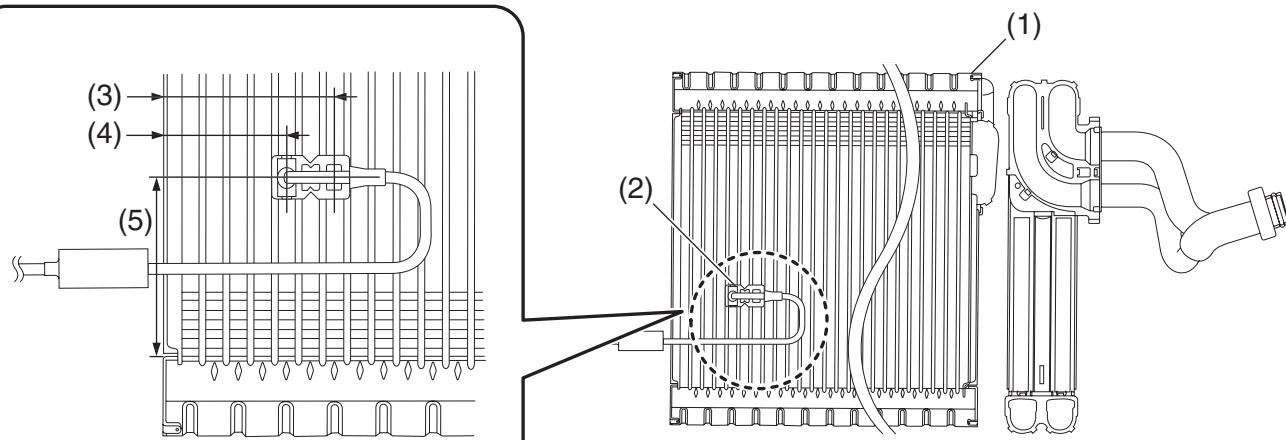
AC-02766

B: INSTALLATION

CAUTION:

- Do not start the engine before charging refrigerant.
- If the engine is started with no refrigerant charge, replace the compressor.
- Make sure that the water seal packing on the cover attachment area is securely attached.
- Replace the O-rings with new parts, and then apply compressor oil.

- 1) Install the evaporator sensor at the position shown in the figure below.



AC-02176

(1) Evaporator

(2) Evaporator sensor

(3) 47.7 mm (1.88 in)

(4) 34.3 mm (1.35 in)

(5) 50 mm (1.97 in)

2) Install each part in the reverse order of removal.

NOTE:

Refer to "INSTALLATION" of "Evaporator". <Ref. to AC-77, INSTALLATION, Evaporator.>

C: INSPECTION

Preparation tool:

Subaru Select Monitor III kit

Circuit tester

Thermometer and hygrometer

1) Prepare the vehicle.

NOTE:

Check that the ambient temperature is 25 — 40°C (77 — 104°F) and that the humidity is 30% — 80%.

• Place the vehicle in the workshop or in the shade and windless condition.

• Open all windows.

2) Set the vehicle to the following conditions.

Item	Condition
Engine	Idling
Air vent grille	Shutter is fully open.
AC switch	OFF
Temperature control switch or dial	LO (MAX COOL)
FRESH/RECIRC switch	CIRC
Air flow control switch	VENT
Fan switch (auto A/C model)	4 — 6 levels
Fan dial (manual A/C model)	3 — 4 levels

3) Using the Subaru Select Monitor, check the evaporator sensor.

(1) Prepare the Subaru Select Monitor kit.

(2) Run the "PC application for Subaru Select Monitor".

(3) On «Main Menu» display, select {Each System Check}.

(4) On «System Selection Menu» display, select {Air Condition System}.

(5) On «Air Conditioning Diagnosis» display, select {Current Data Display & Save}.

(6) Select {Evaporator Temperature} with UP/DOWN key and set with the [OK] key.

(7) Idle the engine for 15 minutes, and then compare the outlet opening temperature with {Evaporator Temperature Target}.

NOTE:

For outlet opening temperature, measure the average temperature of center grille assembly and side grille assembly.

(8) Is the difference between outlet opening temperature and {Evaporator Temperature Target} by 3°C (5.4°F) or more?

• **Yes** → Go to step 4).

• **No** → Evaporator sensor is normal.

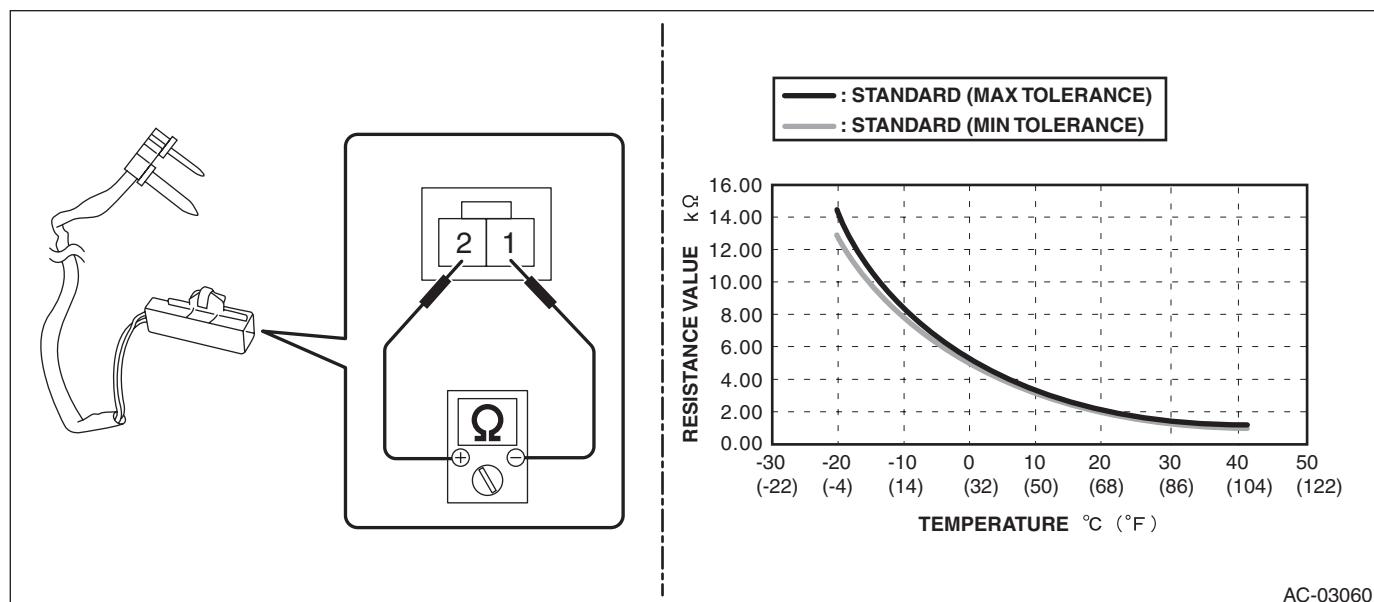
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4) Perform the inspection of evaporator sensor unit.

(1) Disconnect the evaporator sensor connector.

(2) Is the resistance between terminals of evaporator sensor within standard value?



AC-03060

Terminal No.	Inspection conditions	Standard
1 — 2	-20°C	13.584 — 14.541 $k\Omega$
	-15°C	10.34 — 10.946 $k\Omega$
	-10°C	7.938 — 8.313 $k\Omega$
	-5°C	6.143 — 6.366 $k\Omega$
	0°C	4.79 — 4.914 $k\Omega$
	5°C	3.718 — 3.829 $k\Omega$
	10°C	2.889 — 3.031 $k\Omega$
	15°C	2.247 — 2.435 $k\Omega$
	20°C	1.785 — 1.952 $k\Omega$
	25°C	1.427 — 1.574 $k\Omega$
	30°C	1.149 — 1.278 $k\Omega$
	35°C	0.931 — 1.044 $k\Omega$
	40°C	0.759 — 0.858 $k\Omega$

• **Yes** → Evaporator sensor is normal.

• **No** → Replace the evaporator sensor.