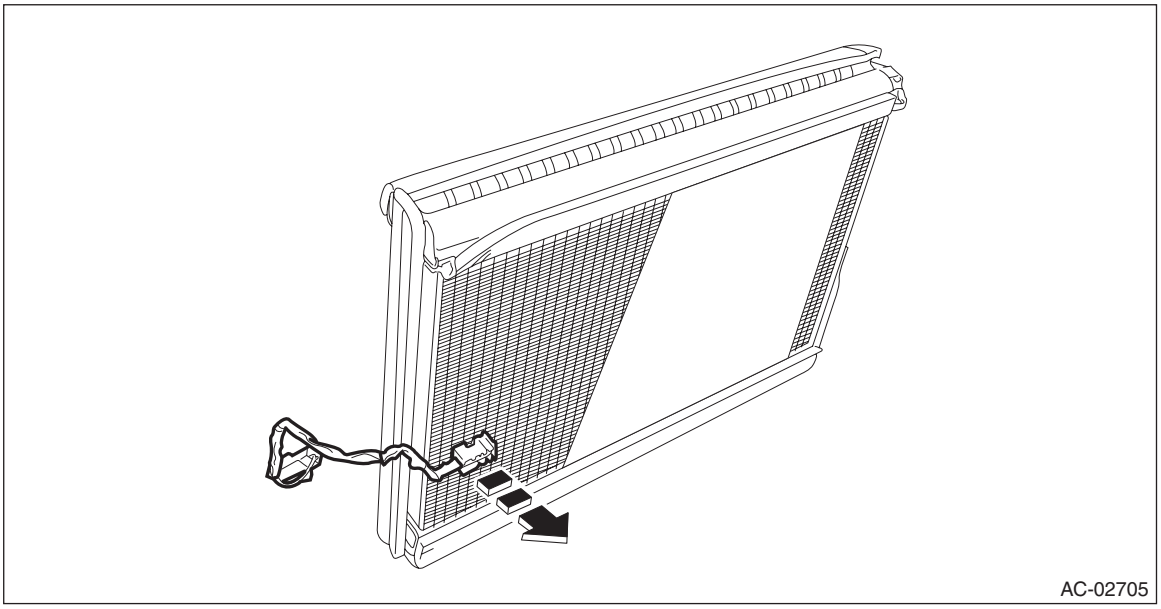
24.Evaporator Sensor

A: REMOVAL

1) Using the refrigerant recovery system, discharge refrigerant. <Ref. to AC-26, PROCEDURE, Refrigerant Recovery Procedure.>
2) Disconnect the ground cable from battery. <Ref. to NT-5, BATTERY, NOTE, Note.>

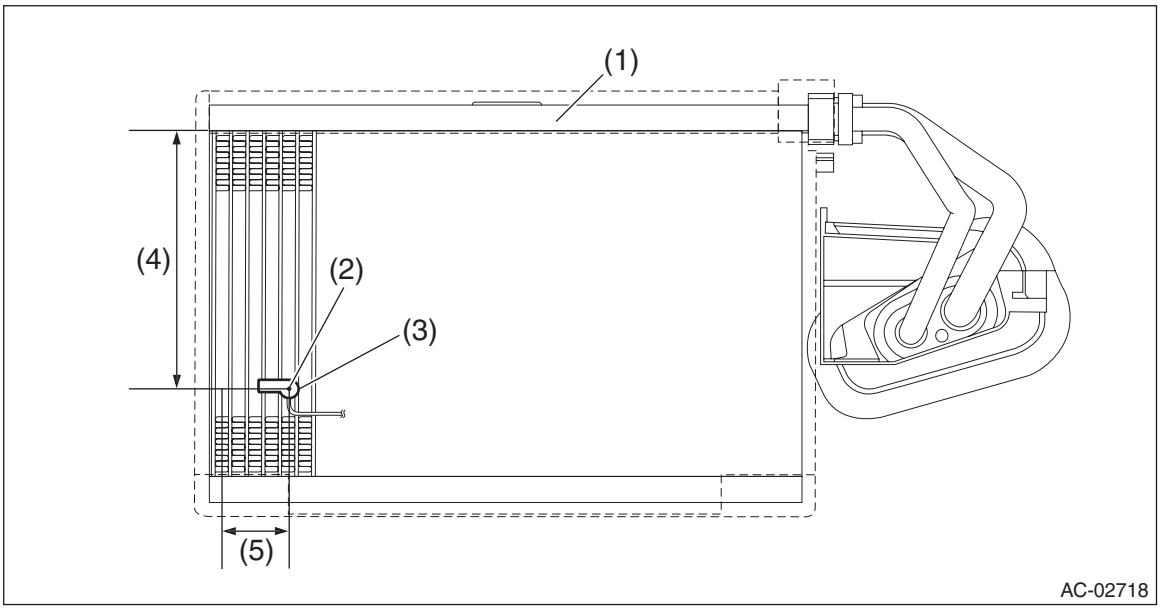
NOTE:
For models other than STI model, disconnect the ground terminal from battery sensor.
3) Remove the evaporator assembly - cooling. <Ref. to AC-57, REMOVAL, Evaporator.>
4) Remove the thermostat - cooling.


AC-02705

B: INSTALLATION

CAUTION:
- **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 thermostat - cooling at the position shown in the figure below.



(1)	Evaporator ASSY - cooling	(3)	Thermostat - cooling	(5)	Fifth row fin from the left end
(2)	Center	(4)	130 mm (5.12 in) from the upper end of the fins		

2) Install the evaporator assembly - cooling. <Ref. to AC-60, INSTALLATION, Evaporator.>
3) Connect the battery ground terminal. <Ref. to NT-5, BATTERY, NOTE, Note.>

NOTE:
For models other than STI model, connect the ground terminal to battery sensor.

4) Charge refrigerant. <Ref. to AC-27, PROCEDURE, Refrigerant Charging Procedure.>

C: INSPECTION

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.
A/C switch	OFF
Temperature adjustment dial	LO (MAX COOL)
FRESH/RECIRC switch	CIRC
Air flow control dial or switch	VENT
Fan dial	5/7 level

3) Using the Subaru Select Monitor, check «Evaporator Temperature».

Preparation tool:
Subaru Select Monitor III kit

NOTE:
For detailed procedures, refer to “PC application help for Subaru Select Monitor”.

(1) Idle the engine for 15 minutes, and then compare the air flow outlet temperature with «Evaporator Temperature».

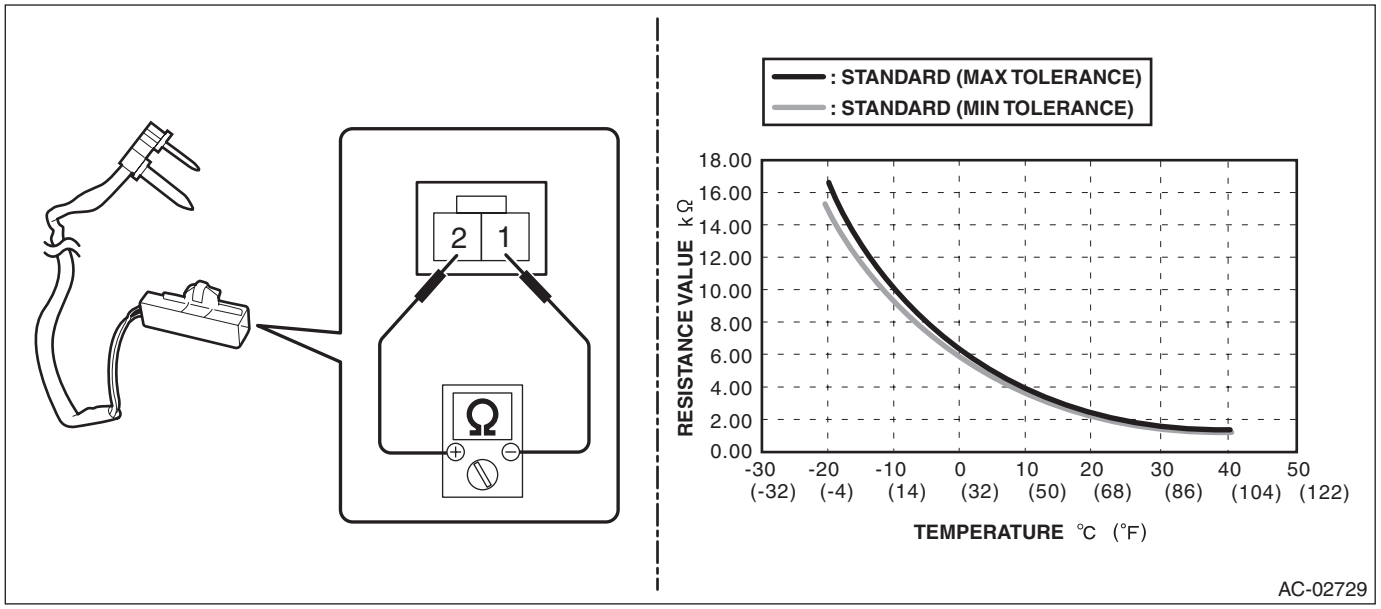
Preparation tool:
Thermometer and hygrometer

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

(2) Do the air flow outlet temperature and «Evaporator Temperature» differ by 3°C (5.4°F) or more?
- **Yes** → Go to step 4).
- **No** → Evaporator sensor is normal.

4) Check the evaporator sensor.
   (1) Disconnect the connector.
   (2) Measure the resistance between connector terminals.

Preparation tool:
Circuit tester



Terminal No.	Inspection conditions	Standard
1 — 2	-20°C	15.37 — 16.62 kΩ
	-15°C	12.09 — 12.87 kΩ
	-10°C	9.576 — 10.05 kΩ
	-5°C	7.636 — 7.899 kΩ
	0°C	6.132 — 6.256 kΩ
	5°C	4.891 — 5.057 kΩ
	10°C	3.928 — 4.113 kΩ
	15°C	3.174 — 3.366 kΩ
	20°C	2.581 — 2.77 kΩ
	25°C	2.111 — 2.292 kΩ
	30°C	1.737 — 1.907 kΩ
	35°C	1.437 — 1.595 kΩ
	40°C	1.195 — 1.34 kΩ

(3) Replace the evaporator sensor if the inspection result is not within the standard value.