

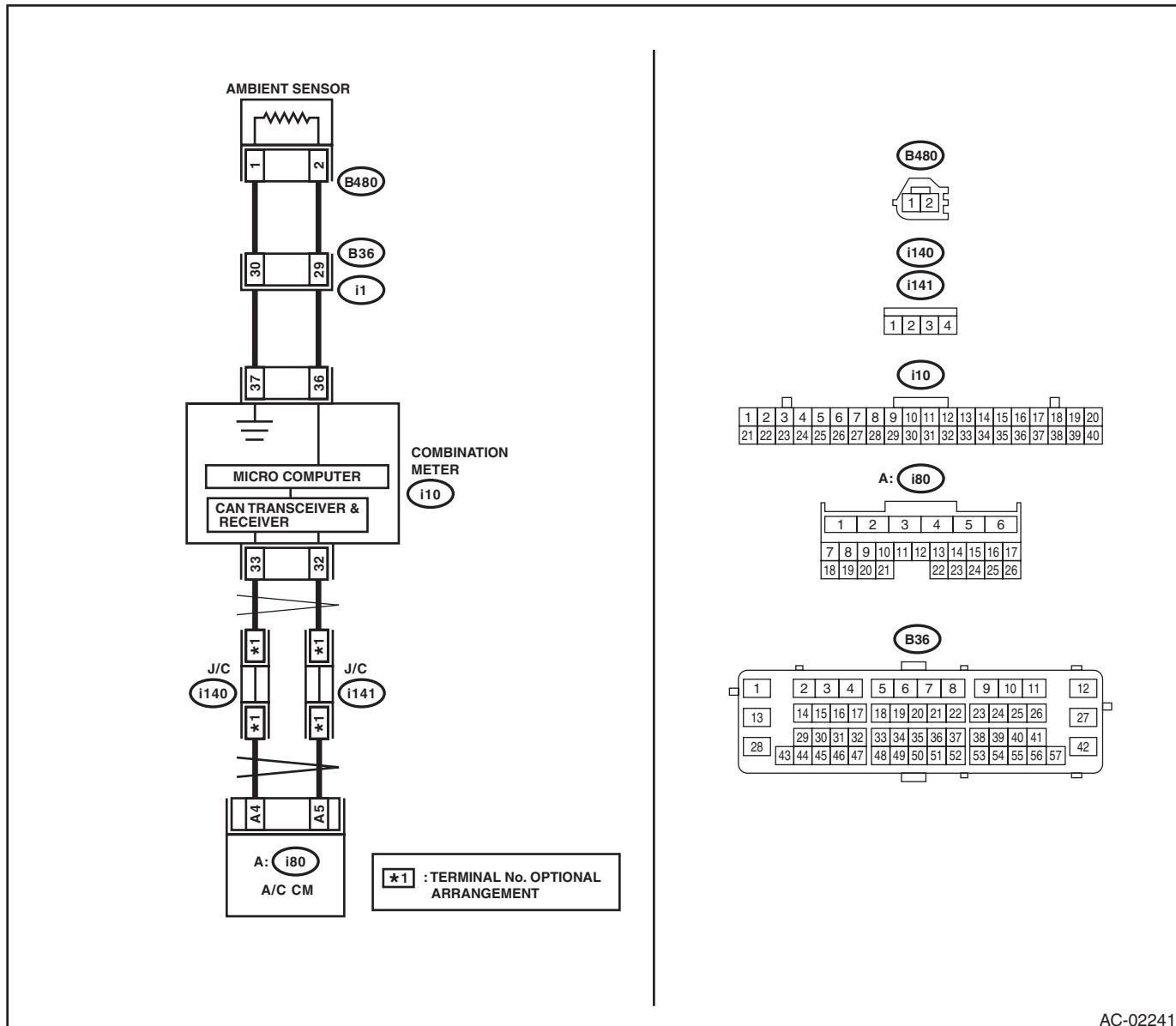
# Diagnostic Procedure for Sensors

HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)

## 7. Diagnostic Procedure for Sensors

### A: AMBIENT SENSOR

WIRING DIAGRAM:



AC-02241

Step	Check	Yes	No
1 <b>CHECK AMBIENT SENSOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the connector from ambient sensor. 3) Measure the resistance between terminals of ambient sensor. <b>Terminals</b> <b>No. 1 — No. 2:</b>	Is the resistance approximately 2.2 kΩ at 25°C (77°F)?	Go to step 2.	Replace the ambient sensor. <Ref. to AC-68, REMOVAL, Ambient Sensor (Auto A/C Model).>

# Diagnostic Procedure for Sensors

## HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)

Step	Check	Yes	No
<b>2</b> <b>CHECK INPUT SIGNAL FOR AMBIENT SENSOR.</b> 1) Turn the ignition to ON. 2) Measure the voltage between connector (F138) terminals. <i>Connector &amp; terminal (F138) No. 1 (+) — No. 2 (-):</i>	Is the voltage approx. 5 V?	Go to step 6.	Go to step 3.
<b>3</b> <b>CHECK COMBINATION METER OUTPUT SIGNAL.</b> 1) Turn the ignition switch to OFF. 2) Pull out the combination meter. 3) Disconnect the connector from ambient sensor. 4) Turn the ignition switch to ON. 5) Measure the voltage between the combination meter connector terminals. <i>Connector &amp; terminal (i10) No. 36 (+) — No. 37 (-):</i>	Is the voltage approx. 5 V?	Go to step 4.	Go to step 6.
<b>4</b> <b>CHECK HARNESS CONNECTOR BETWEEN COMBINATION METER AND AMBIENT SENSOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the combination meter. 3) Measure the resistance of harness between combination meter and ambient sensor. <i>Connector &amp; terminal (F138) No. 2 — (i10) No. 36:</i>	Is the resistance less than 10 Ω?	Go to step 5.	Repair the open circuit of the harness between the combination meter and ambient sensor.
<b>5</b> <b>CHECK HARNESS CONNECTOR BETWEEN COMBINATION METER AND AMBIENT SENSOR.</b> Measure the resistance of harness between combination meter and ambient sensor. <i>Connector &amp; terminal (F138) No. 2 — (i10) No. 36: (F138) No. 1 — (i10) No. 37:</i>	Is the resistance less than 1 Ω?	Go to step 6.	Repair the open circuit of the harness between the combination meter and ambient sensor.
<b>6</b> <b>CHECK DTC.</b> 1) Connect the disconnected connectors. 2) Read the DTC of the CAN system using the Subaru Select Monitor.	Is DTC for CAN system displayed?	Perform the diagnosis according to DTC. <Ref. to LAN(diag)-31, List of Diagnostic Trouble Code (DTC).>	Go to step 7.
<b>7</b> <b>CHECK CAN COMMUNICATION CIRCUIT.</b> Check the CAN communication circuit. <Ref. to LAN(diag)-12, CAN Communication Circuit Check.>	Is the CAN communication circuit normal?	Go to step 8.	Repair the CAN communication circuit. <Ref. to LAN(diag)-4, LAN SYSTEM, CAUTION, General Description.>
<b>8</b> <b>CHECK FOR POOR CONTACT.</b> Check poor contact of A/C CM connector.	Is there poor contact of connector?	Repair the connector.	Replace the A/C CM. <Ref. to AC-46, REMOVAL, Control Unit.>