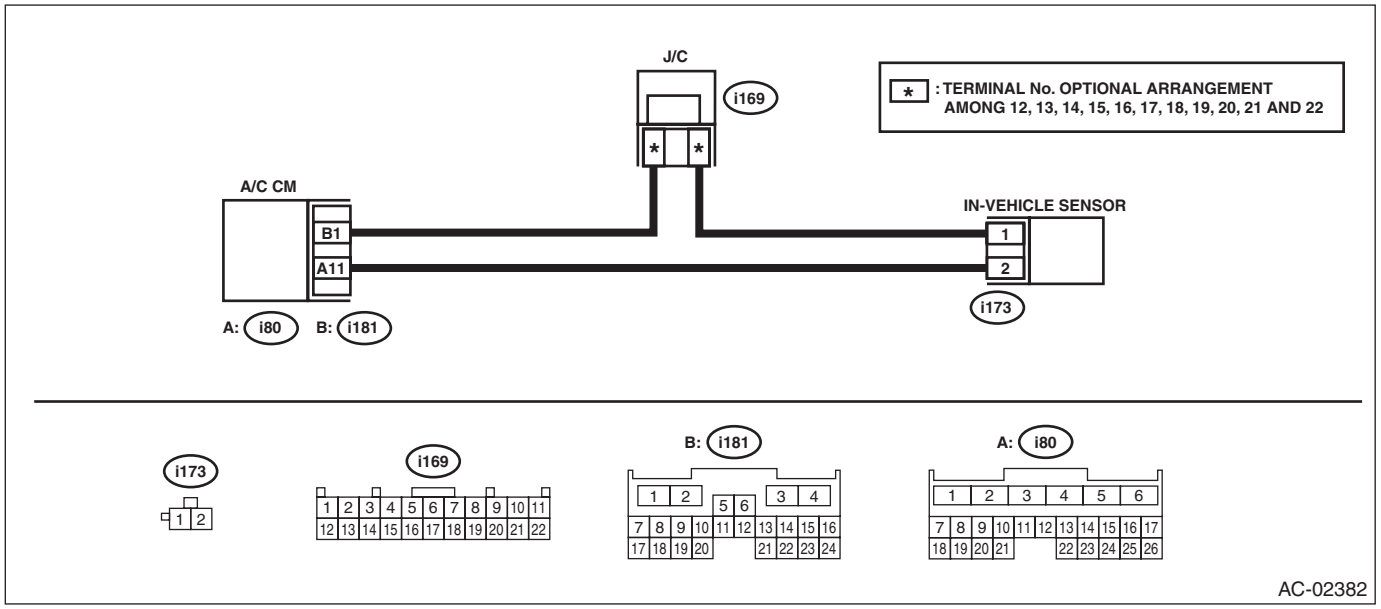
13.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC B1601 IN-VEHICLE SENSOR SHORT

DTC DETECTING CONDITION:
In-vehicle sensor circuit is shorted.
TROUBLE SYMPTOM:
- In-vehicle air temperature is falsely recognized as 25°C (77°F), and the compartment temperature is adjusted.
- DTC “B1601” Short-circuit in in-vehicle sensor was detected.
- DTC “-21” Short-circuit in in-vehicle sensor was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



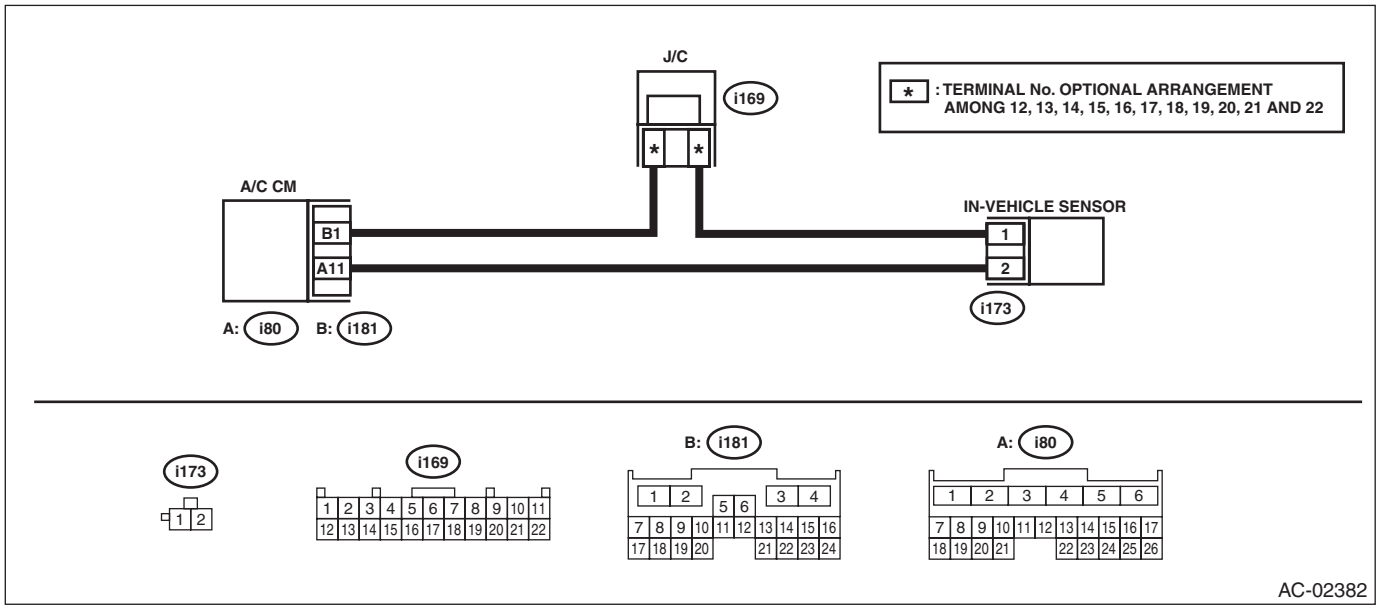
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1601 displayed?	Go to step **2**.	Check the connection of the in-vehicle sensor circuit.
2	**CHECK IN-VEHICLE SENSOR.** 1) Disconnect the in-vehicle sensor. <Ref. to AC-82, REMOVAL, In-Vehicle Sensor (Auto A/C Model).> 2) Read the DTC of the A/C ECM using the Subaru Select Monitor.	Is B1602 displayed?	Replace the in-vehicle sensor. <Ref. to AC-82, REMOVAL, In-Vehicle Sensor (Auto A/C Model).>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i173) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Check the connection of the in-vehicle sensor circuit.	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i173) No. 1 — No. 2:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

B: DTC B1602 IN-VEHICLE SENSOR OPEN

DTC DETECTING CONDITION:
In-vehicle sensor circuit is open.

TROUBLE SYMPTOM:
- In-vehicle air temperature is falsely recognized as 25°C (77°F), and the compartment temperature is adjusted.
- DTC “B1602” Open circuit in in-vehicle sensor was detected.
- DTC “21” Open circuit in in-vehicle sensor was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



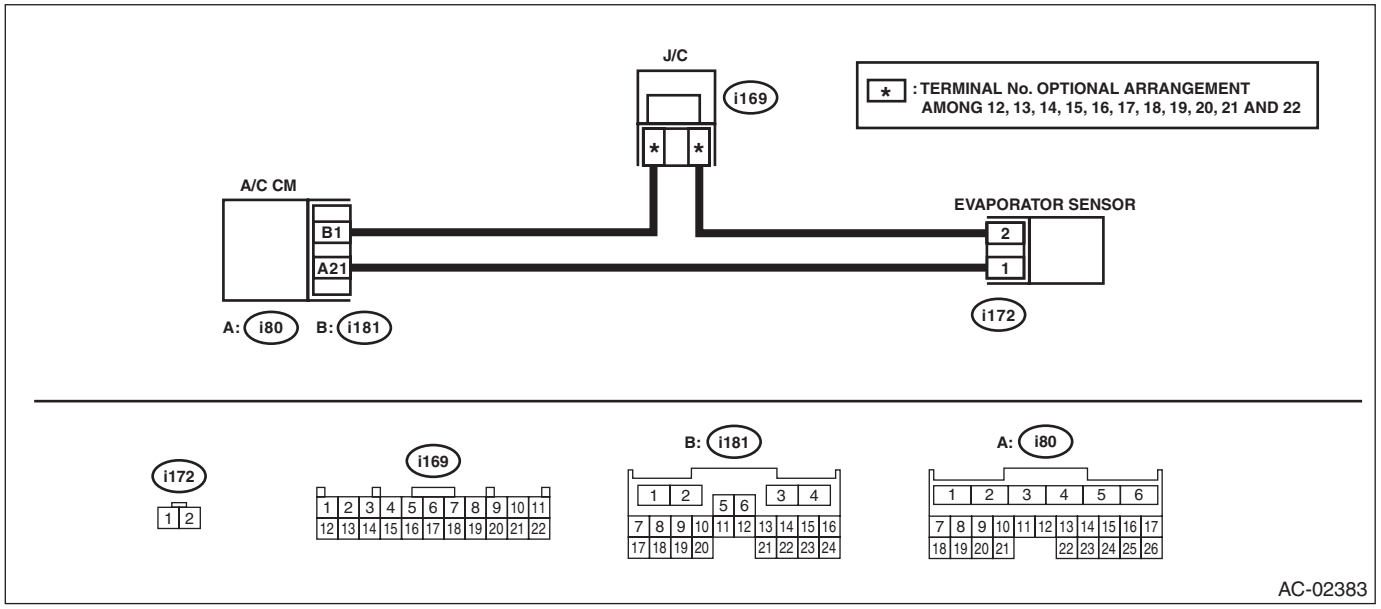
	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1602 displayed?	Go to step **2**.	Check the connection of the in-vehicle sensor circuit.
2	**CHECK IN-VEHICLE SENSOR.** 1) Disconnect the in-vehicle sensor. 2) Short the connector i173. 3) Read the DTC of the A/C ECM using the Subaru Select Monitor.	Is B1601 displayed?	Replace the in-vehicle sensor. <Ref. to AC-82, REMOVAL, In-Vehicle Sensor (Auto A/C Model).>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i173) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i173) No. 1 — (i181) No. 1:*** ***(i173) No. 2 — (i80) No. 11:***	Is there continuity?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Repair or replace the open circuit of harness.

C: DTC B1603 EVAPORATOR SENSOR SHORT

DTC DETECTING CONDITION:
Evaporator sensor circuit is shorted.

TROUBLE SYMPTOM:
- Compressor does not operate. (Variable compressor)
- Evaporator temperature is falsely recognized as high, and the compartment temperature is adjusted.
- DTC “B1603” Short-circuit in evaporator sensor was detected.
- DTC “-23” Short-circuit in evaporator sensor was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



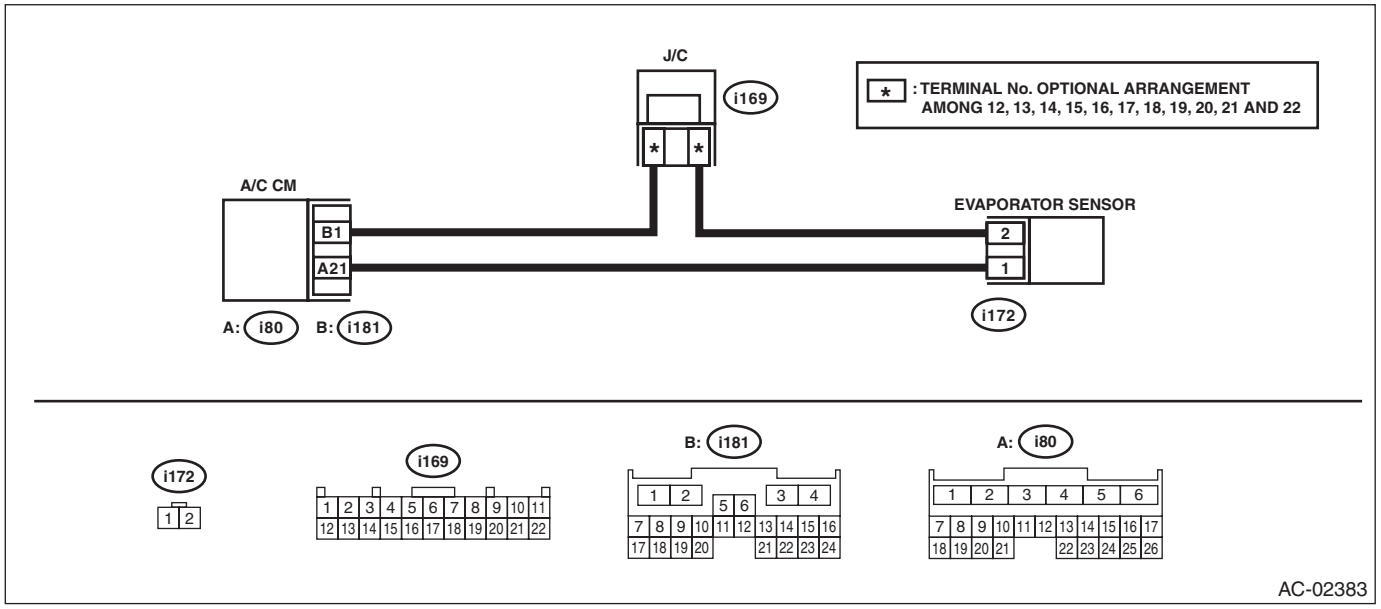
	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1603 displayed?	Go to step **2**.	Check the connection of the evaporator sensor circuit.
2	**CHECK EVAPORATOR SENSOR.** 1) Disconnect the evaporator sensor. 2) Read the DTC of the A/C ECM using the Subaru Select Monitor.	Is B1604 displayed?	Replace the evaporator sensor. <Ref. to AC-67, REMOVAL, Evaporator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i172) No. 1 (+) — No. 2 (–):***	Is the voltage 4.5 — 5.0 V?	Check the connection of the evaporator sensor circuit.	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i172) No. 1 — No. 2:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

D: DTC B1604 EVAPORATOR SENSOR OPEN

DTC DETECTING CONDITION:
Evaporator sensor circuit is open.

TROUBLE SYMPTOM:
- Compressor does not operate.
- Evaporator temperature is falsely recognized as low, and the compartment temperature is adjusted.
- DTC “B1604” Open circuit in evaporator sensor was detected.
- DTC “23” Open circuit in evaporator sensor was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



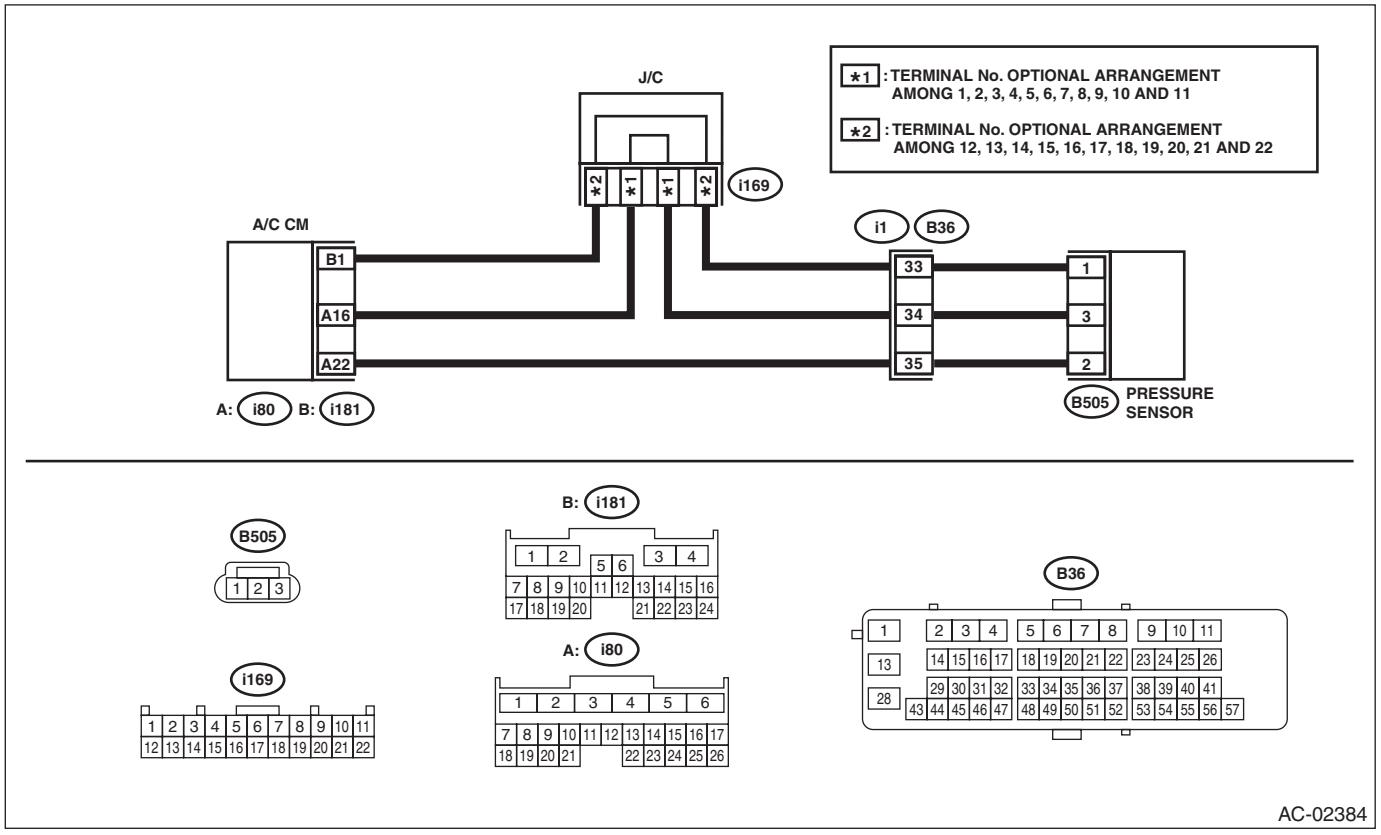
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1604 displayed?	Go to step **2**.	Check the connection of the evaporator sensor circuit.
2	**CHECK EVAPORATOR SENSOR.** 1) Disconnect the evaporator sensor. 2) Short the i172 connector. 3) Read the DTC of the A/C ECM using the Subaru Select Monitor.	Is B1603 displayed?	Replace the evaporator sensor. <Ref. to AC-67, REMOVAL, Evaporator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i172) No. 1 (+) — No. 2 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i172) No. 1 — (i80) No. 21:*** ***(i172) No. 2 — (i181) No. 1:***	Is there continuity?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Repair or replace the open circuit of harness.

E: DTC B1605 REFRIGERANT FLOW SENSOR CIRCUIT OPEN

DTC DETECTING CONDITION:
Refrigerant pressure sensor circuit is open.

TROUBLE SYMPTOM:
- Compressor does not operate. (Variable compressor)
- DTC “B1605” Open circuit in refrigerant pressure sensor was detected.
- DTC “42” Open circuit in refrigerant pressure sensor was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1605 displayed?	Go to step **2**.	Check the connection of the refrigerant pressure sensor circuit.
2	**CHECK PRESSURE SENSOR.** 1) Disconnect the pressure sensor. 2) Short No. 1 and No. 2 of B505 connector. 3) Read the DTC of the A/C ECM using the Subaru Select Monitor.	Is B1606 displayed?	Replace the refrigerant pressure sensor. <Ref. to AC-76, REMOVAL, Hose and Pipe.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal (B505) No. 3 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.

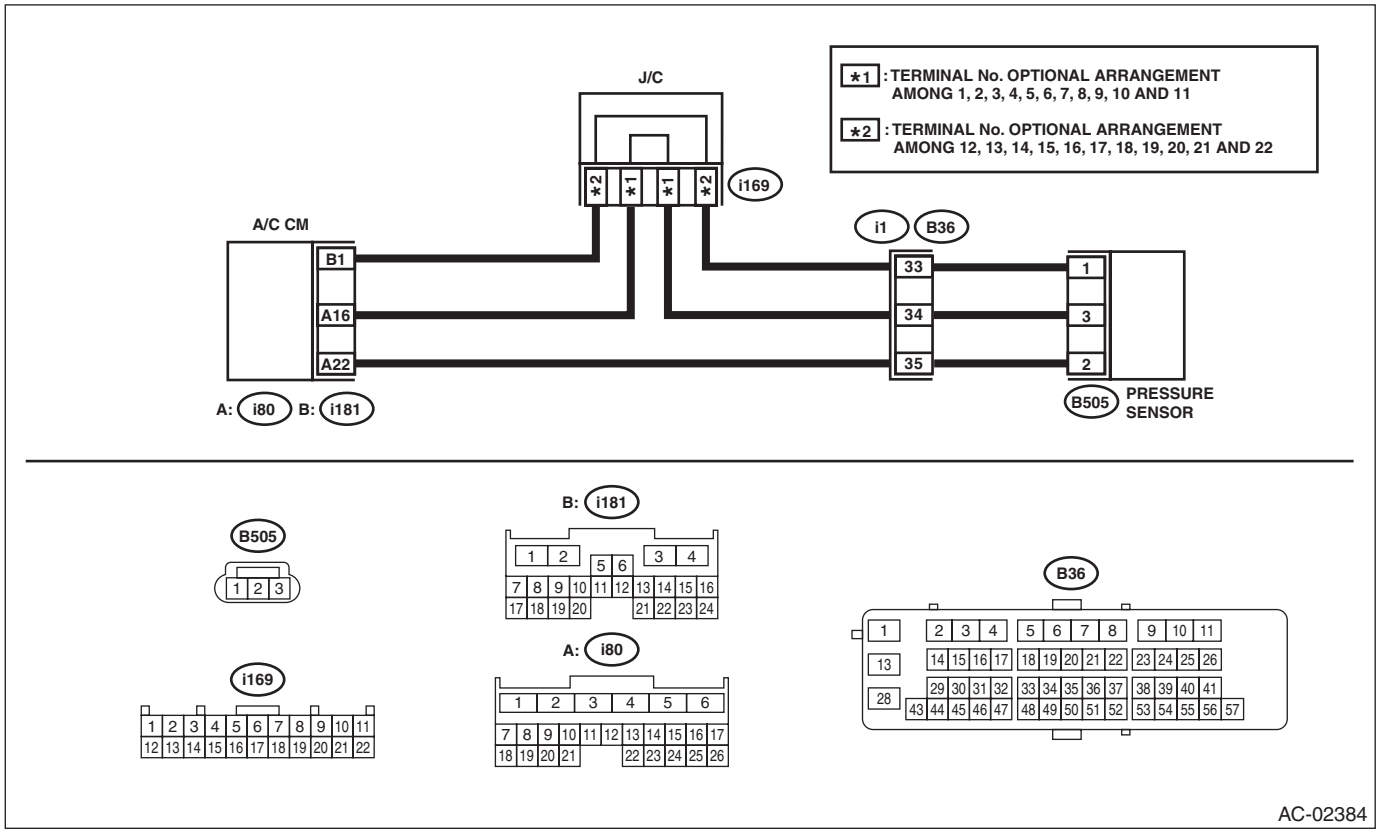
	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(B505) No. 1 — (i181) No. 1:*** ***(B505) No. 2 — (i80) No. 22:*** ***(B505) No. 3 — (i80) No. 16:***	Is there continuity?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Repair or replace the open circuit of harness.

F: DTC B1606 REFRIGERANT FLOW SENSOR CIRCUIT SHORT

DTC DETECTING CONDITION:
Refrigerant pressure sensor circuit is shorted.

TROUBLE SYMPTOM:
- Compressor does not operate. (Variable compressor)
- DTC “B1606” Short-circuit in refrigerant pressure sensor was detected.
- DTC “-42” Short-circuit in refrigerant pressure sensor was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



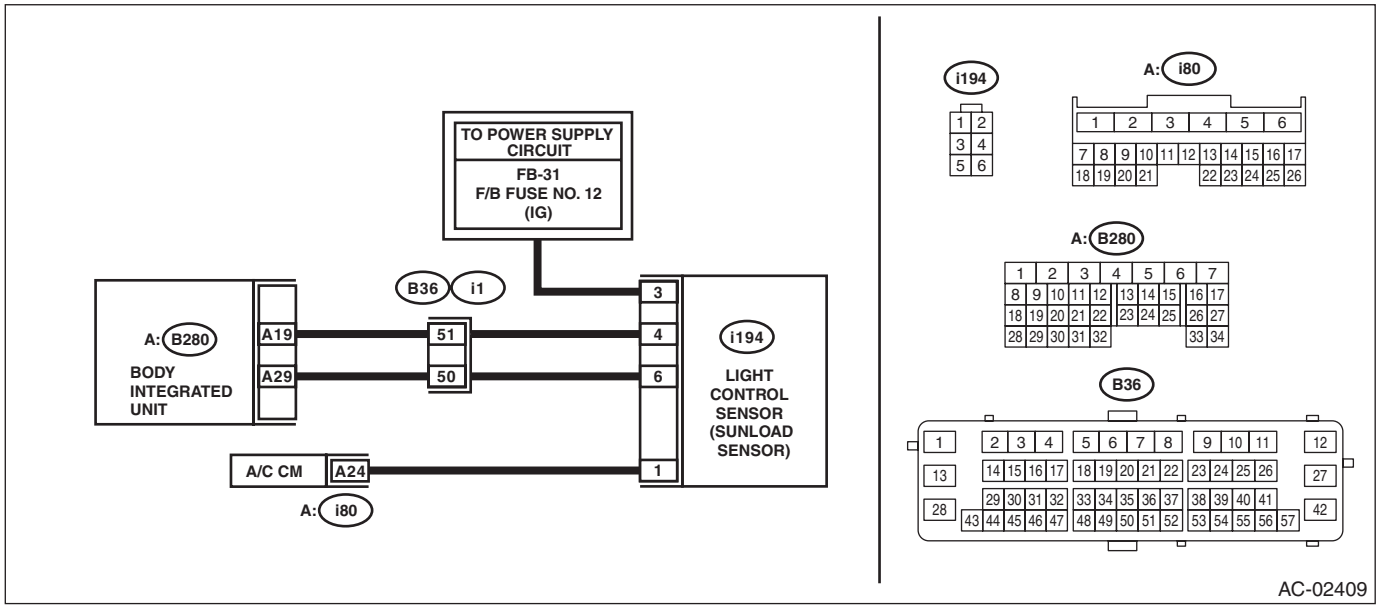
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1606 displayed?	Go to step **2**.	Check the connection of the refrigerant pressure sensor circuit.
2	**CHECK REFRIGERANT PRESSURE SENSOR.** 1) Disconnect the refrigerant pressure sensor. 2) Read the DTC of the A/C ECM using the Subaru Select Monitor.	Is B1605 displayed?	Replace the refrigerant pressure sensor. <Ref. to AC-76, REMOVAL, Hose and Pipe.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(B505) No. 1 — No. 2:*** ***(B505) No. 2 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

G: DTC B1607 SUNLOAD SENSOR SHORT

DTC DETECTING CONDITION:
Sunload sensor circuit is shorted.

TROUBLE SYMPTOM:
- Operation is performed as no sunload.
- DTC “B1607” Short-circuit in sunload sensor was detected.
- DTC “-25” Short-circuit in sunload sensor was detected.
- DTC “-45” Short-circuit in sunload sensor (auto light control) was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1607 displayed?	Go to step **2**.	Check the connection of the sunload sensor circuit.
2	**CHECK SUNLOAD SENSOR.** 1) Disconnect the sunload sensor. 2) Read the DTC of the A/C ECM using the Subaru Select Monitor.	Is B1608 displayed?	Replace the sunload sensor. <Ref. to AC-80, REMOVAL, Sunload Sensor (Auto A/C Model).>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i194) No. 3 (+) — No. 1 (–):***	Is the voltage 10 V or more?	Check the connection of the sunload sensor circuit.	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i194) No. 3 — 1:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

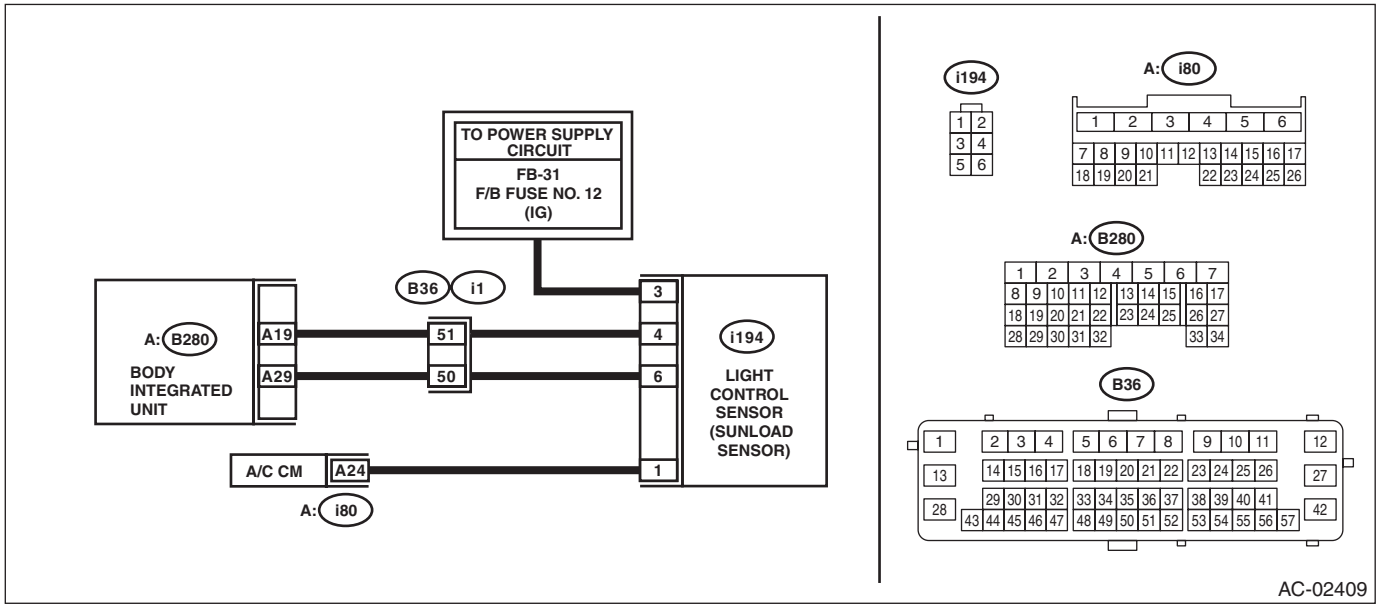
H: DTC B1608 SUNLOAD SENSOR OPEN

DTC DETECTING CONDITION:
Sunload sensor circuit is open. (Displayed for current malfunction)

NOTE:
When the sunload sensor check is performed indoors or in the shade, it could be diagnosed as having an open circuit. Always check the sunload sensor in direct sunlight.

TROUBLE SYMPTOM:
- Operation is performed as no sunload.
- DTC “B1608” Open circuit in sunload sensor was detected.
- DTC “25” Open circuit in sunload sensor was detected.
- DTC “45” Open circuit in sunload sensor (auto light control) was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



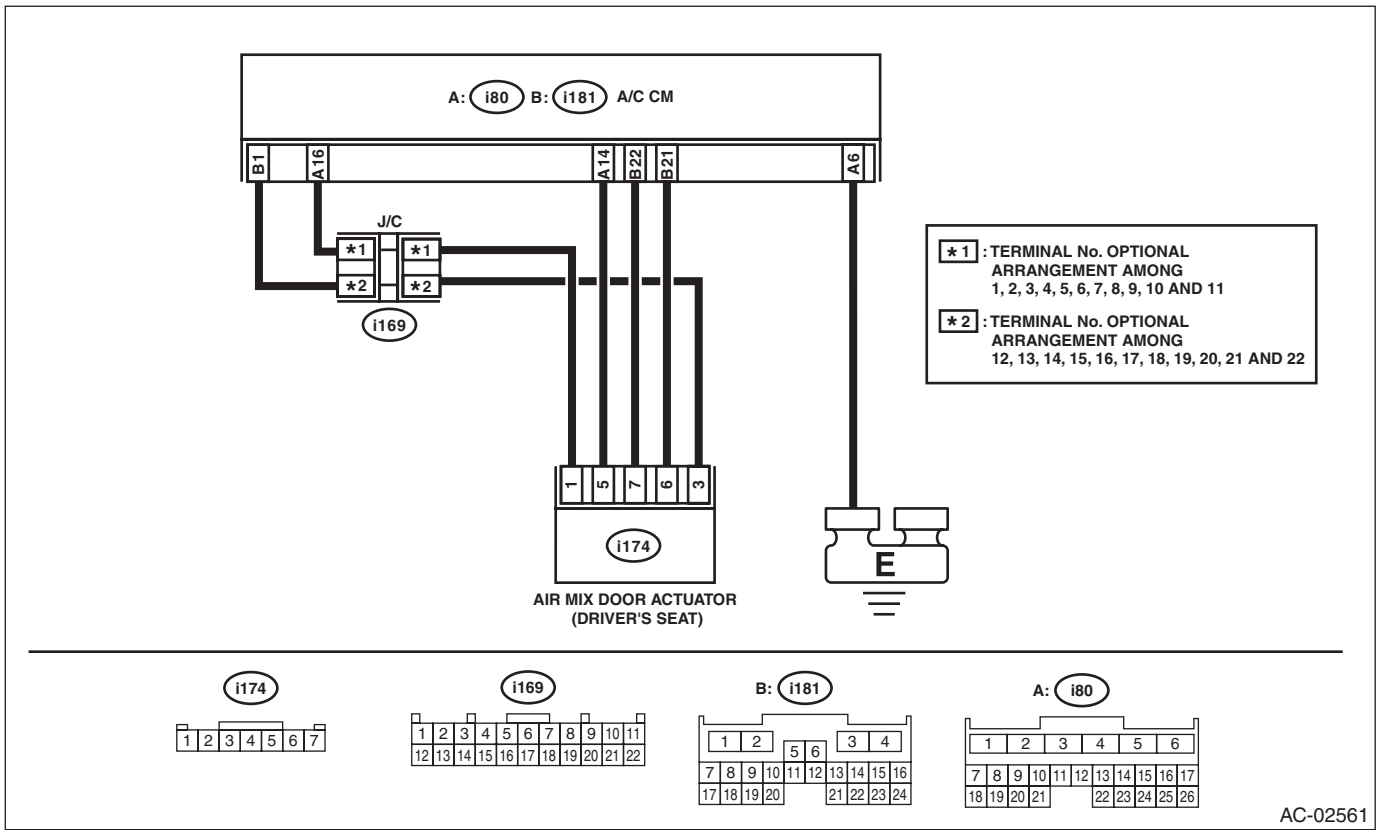
Step		Check	Yes	No
1	**CHECK CONNECTOR.** Read the DTC of the A/C CM using the Subaru Select Monitor.	Is B1608 displayed?	Go to step **2**.	Check the connection of the sunload sensor circuit.
2	**CHECK HARNESS.** 1) Disconnect the sunload sensor. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i194) No. 6 — Chassis ground:***	Is there continuity?	Go to step **3**.	Repair or replace the open circuit of harness.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i194) No. 3 (+) — No. 6 (–):***	Is the voltage 10.0 — 14.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK SUNLOAD SENSOR.** 1) Connect the sunload sensor. 2) Turn the ignition switch to ON. 3) Using the tester, measure the voltage between terminals. **CAUTION:** **Because the sensor may not respond to weak light, use incandescent light for the inspection and bring it to 30 cm or less from the sensor.** ***Connector & terminal*** ***(i194) No. 1 (+) — No. 6 (–):***	0.8 V or less with no direct sunlight (covering the sensor with cloth), & 0.8 — 4.3 V±0.3 V (according to the intensity of the light) with the inspection light brought closer	Go to step **5**.	Replace the sunload sensor. <Ref. to AC-80, REMOVAL, Sunload Sensor (Auto A/C Model).>
5	**CHECK HARNESS.** 1) Disconnect the sunload sensor. 2) Disconnect the connector from A/C CM. 3) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i194) No. 1 — (i80) No. 24:***	Is there continuity?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** 1) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i194) No. 3 — (B280) No. 9:***	Is there continuity?	Repair or replace the open circuit of harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

I: DTC B1610 AIRMIX DOOR ACTUATOR POTENTIOMETER CIRCUIT OPEN (DRIVER'S)

DTC DETECTING CONDITION:
Air mix door actuator potentiometer circuit is open.
TROUBLE SYMPTOM:
- Temperature cannot be adjusted.
- Temperature of the driver's side cannot be adjusted for model with left/right independent air conditioner.
- DTC "B1610" Open circuit in air mix door actuator — potentiometer (driver's) was detected.
- DTC "26" Open circuit in air mix door actuator — potentiometer (driver's) was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



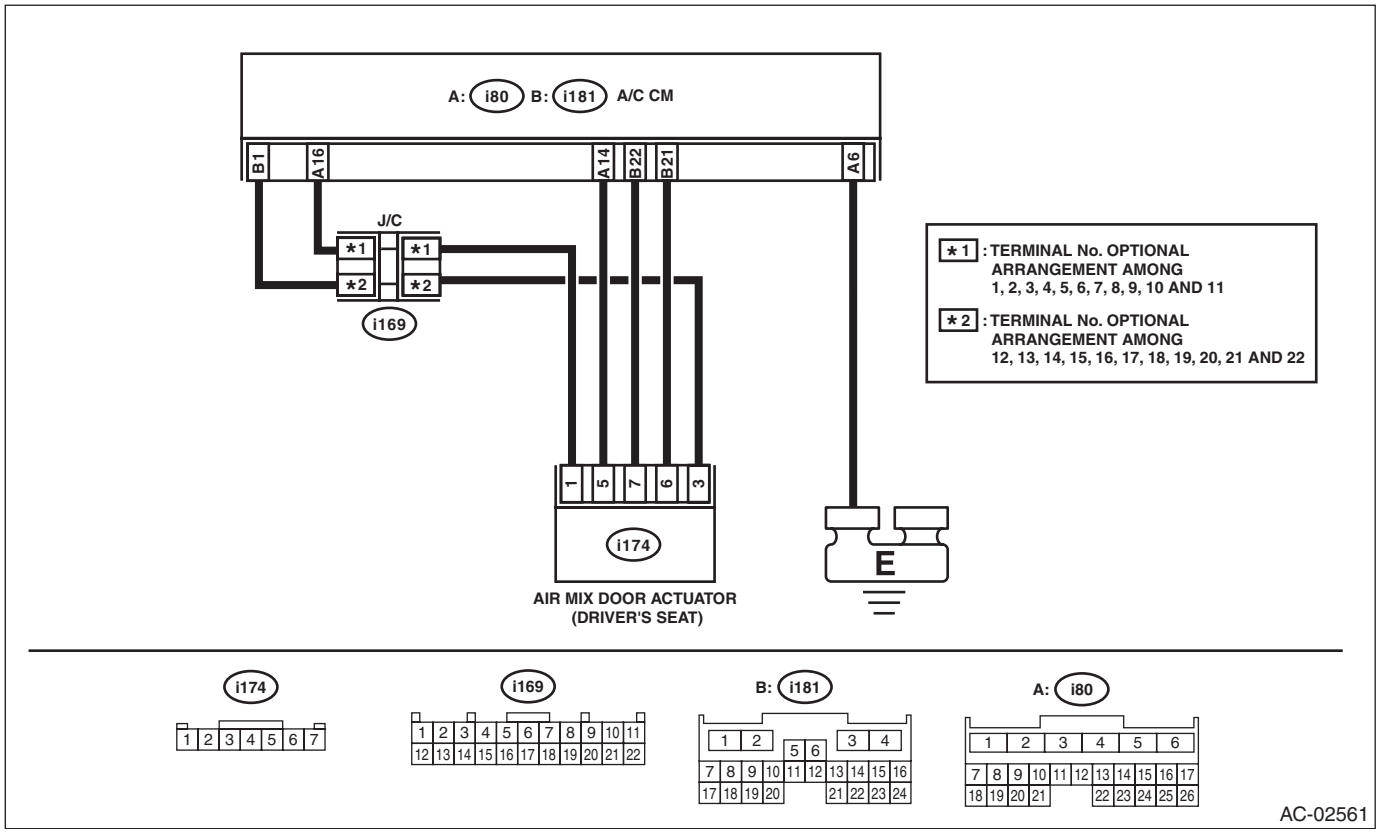
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1610 displayed?	Go to step **2**.	Repair the poor connection of the connector.
2	**CHECK ACTUATOR.** 1) Disconnect the air mix door actuator (driver's). 2) Short No. 3 and No. 5 of i174 connector. 3) Read the DTC using Subaru Select Monitor.	Is B1611 displayed?	Replace the air mix door actuator (driver's). <Ref. to AC-95, REMOVAL, Air Mix Door Actuator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i174) No. 1 (+) — No. 3 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.

Step		Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i174) No. 1 — (i80) No. 16:*** ***(i174) No. 3 — (i80) No. 1:*** ***(i174) No. 5 — (i80) No. 14:***	Is there continuity?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Repair or replace the open circuit of harness.

J: DTC B1611 AIRMIX DOOR ACTUATOR POTENTIOMETER CIRCUIT SHORT (DRIVER'S)

DTC DETECTING CONDITION:
Air mix door actuator potentiometer circuit is shorted.
TROUBLE SYMPTOM:
- Temperature cannot be adjusted.
- Temperature of the driver's side cannot be adjusted for model with left/right independent air conditioner.
- DTC "B1611" Short circuit in air mix door actuator — potentiometer (driver's) was detected.
- "27" Short circuit in air mix door actuator — potentiometer (driver's) was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1611 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Disconnect the air mix door actuator (driver's). 2) Read the DTC using Subaru Select Monitor.	Is B1610 displayed?	Replace the air mix door actuator (driver's). <Ref. to AC-95, REMOVAL, Air Mix Door Actuator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i174) No. 3 — (i174) No. 5:*** ***(i174) No. 5 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

K: DTC B1612 AIRMIX DOOR ACTUATOR LOCK (DRIVER'S)

DTC DETECTING CONDITION:

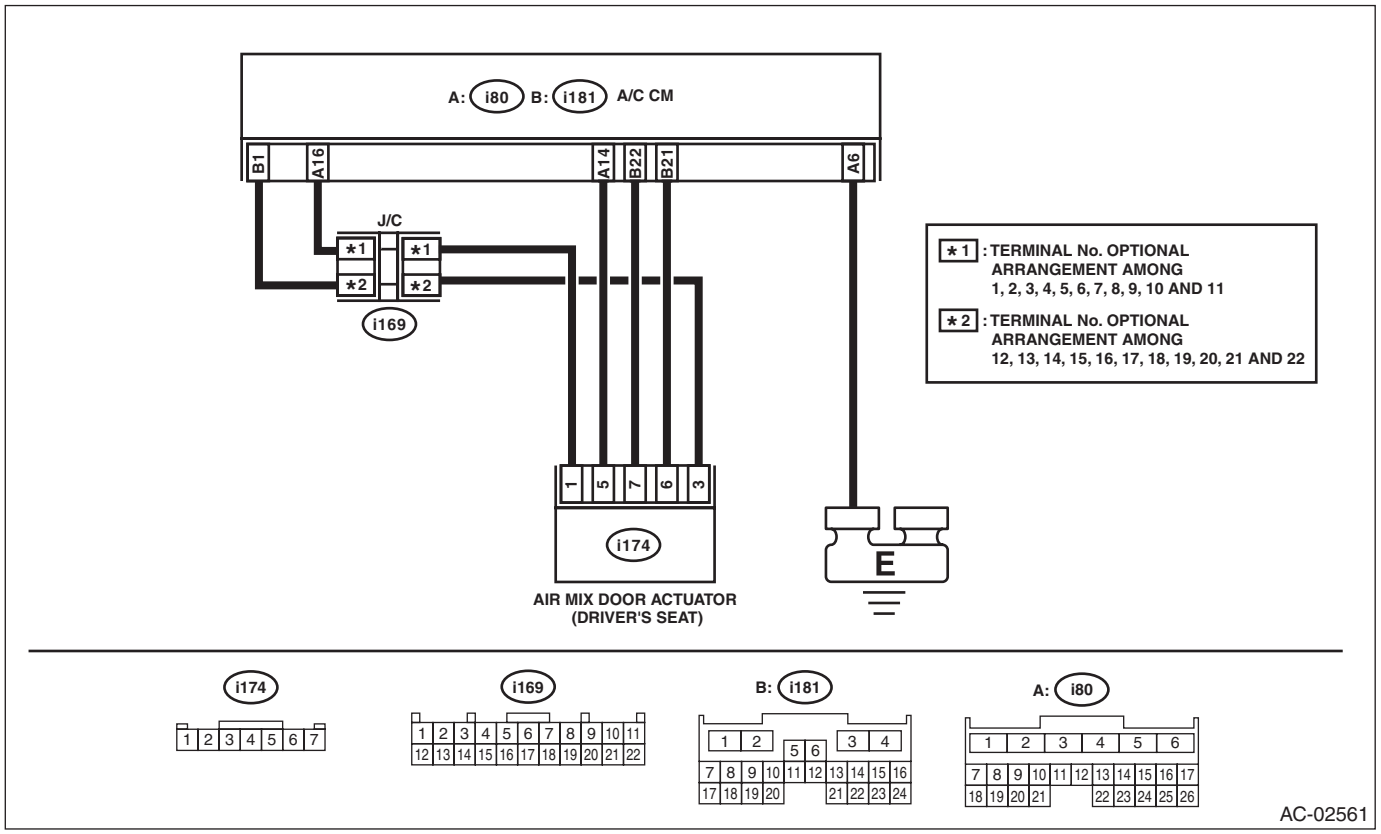
- Driver's air mix door actuator is locked.
- The potentiometer value of the actuator does not change.

TROUBLE SYMPTOM:

Temperature of the driver's side cannot be adjusted for model with left/right independent air conditioner.

WIRING DIAGRAM:

Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



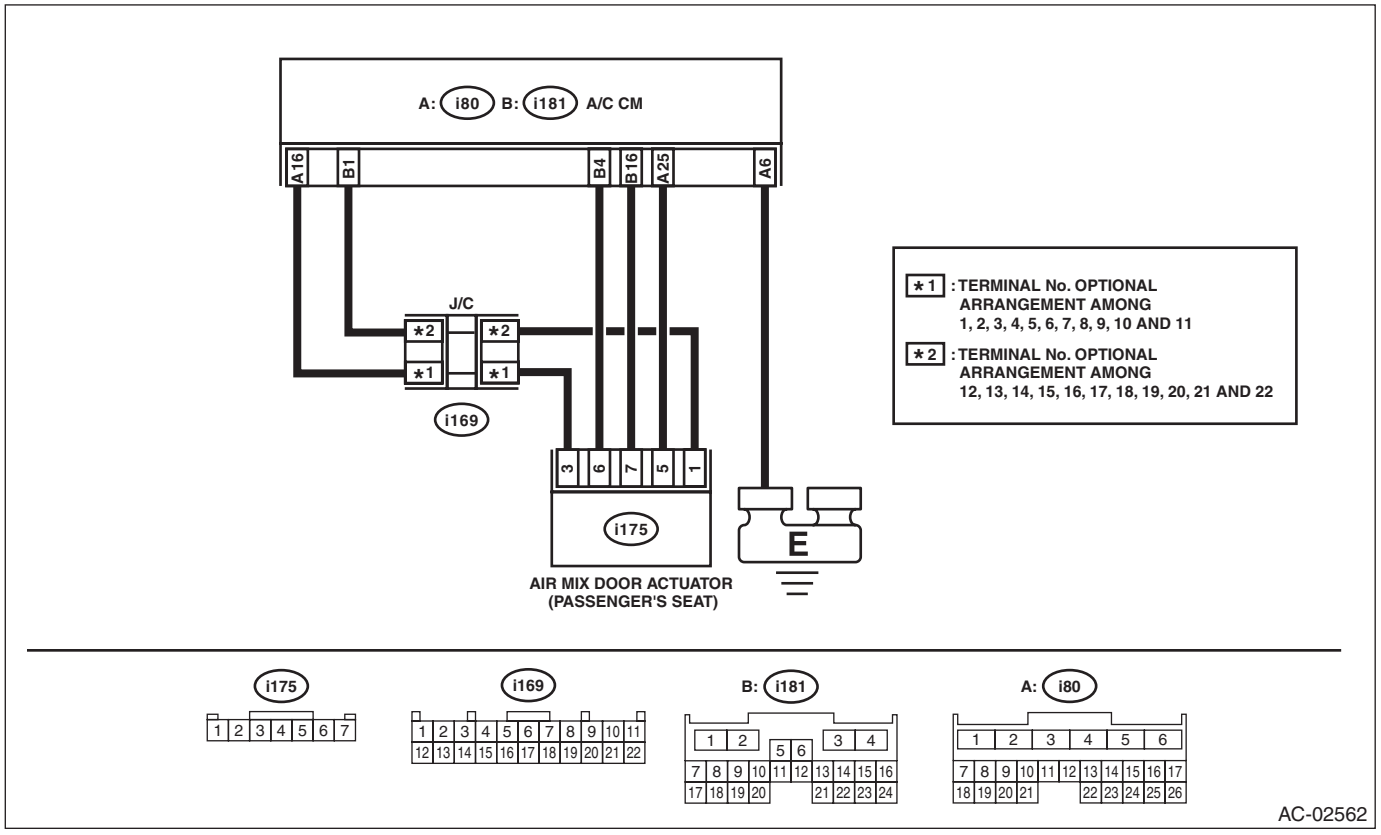
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1612 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, change the setting of "Airmix Dr Act Trgt Open Angle (Driver's)" from the A/C diagnosis and perform the active test.	Did the actuator move to the specified target opening angle?	Air mix door actuator circuit is normal.	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i174) No. 1 (+) — No. 3 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open, short circuit of the harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i174) No. 5 — (i80) No. 14:*** ***(i174) No. 1 — (i80) No. 16:*** ***(i174) No. 3 — (i181) No. 1:*** ***(i174) No. 6 — (i181) No. 21:*** ***(i174) No. 7 — (i181) No. 22:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK AIR MIX DOOR ACTUATOR.** Check the air mix door actuator parts. <Ref. to AC-98, INSPECTION, Air Mix Door Actuator.>	Is air mix door actuator normal?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Replace the air mix door actuator. <Ref. to AC-95, REMOVAL, Air Mix Door Actuator.>

L: DTC B1613 AIRMIX DOOR ACTUATOR POTENTIOMETER CIRCUIT OPEN (PASSENGER'S)

DTC DETECTING CONDITION:
Air mix door actuator potentiometer circuit is open.
TROUBLE SYMPTOM:
- Temperature of the passenger's side cannot be adjusted for model with left/right independent air conditioner.
- DTC "B1613" Open circuit in air mix door actuator — potentiometer (passenger's) was detected.
- DTC "-26" Open circuit in air mix door actuator — potentiometer (passenger's) was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1613 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Disconnect the air mix door actuator (passenger's). 2) Short No. 1 and No. 5 of connector i175. 3) Read the DTC using Subaru Select Monitor.	Is B1614 displayed?	Replace the air mix door actuator (passenger's). <Ref. to AC-95, REMOVAL, Air Mix Door Actuator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i175) No. 3 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.

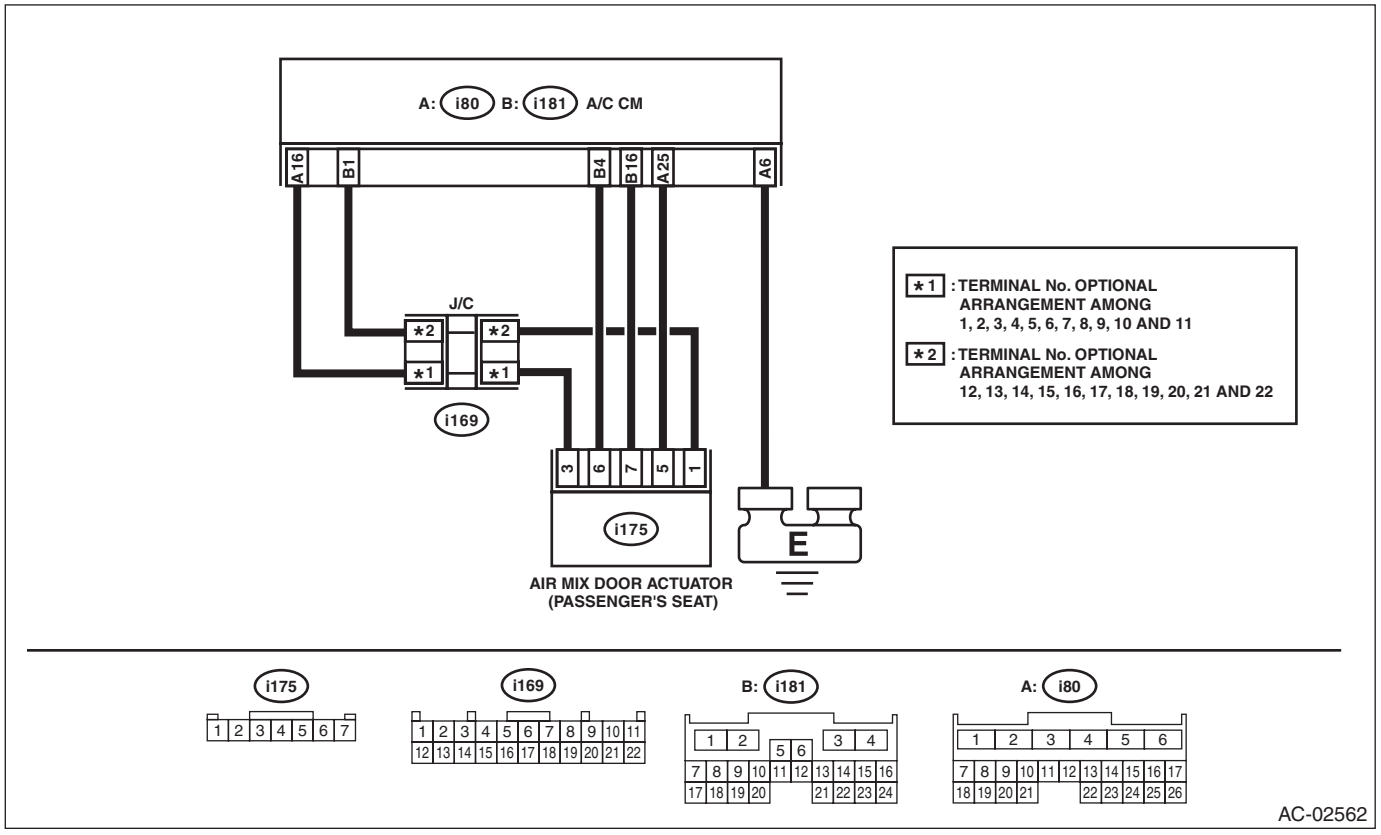
Step		Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i175) No. 1 — (i181) No. 1:*** ***(i175) No. 3 — (i80) No. 16:*** ***(i175) No. 5 — (i80) No. 25:***	Is there continuity?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Repair or replace the open circuit of harness.

M: DTC B1614 AIRMIX DOOR ACTUATOR POTENTIOMETER CIRCUIT SHORT (PASSENGER'S)

DTC DETECTING CONDITION:
Air mix door actuator potentiometer circuit is shorted.

TROUBLE SYMPTOM:
- Temperature of the passenger's side cannot be adjusted for model with left/right independent air conditioner.
- DTC "B1614" Short circuit in air mix door actuator — potentiometer (passenger's) was detected.
- DTC "-27" Short circuit in air mix door actuator — potentiometer (passenger's) was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1614 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Disconnect the air mix door actuator (passenger's). 2) Read the DTC of the A/C ECM using the Subaru Select Monitor.	Is B1613 displayed?	Replace the air mix door actuator (passenger's). <Ref. to AC-95, REMOVAL, Air Mix Door Actuator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i175) No. 3 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.

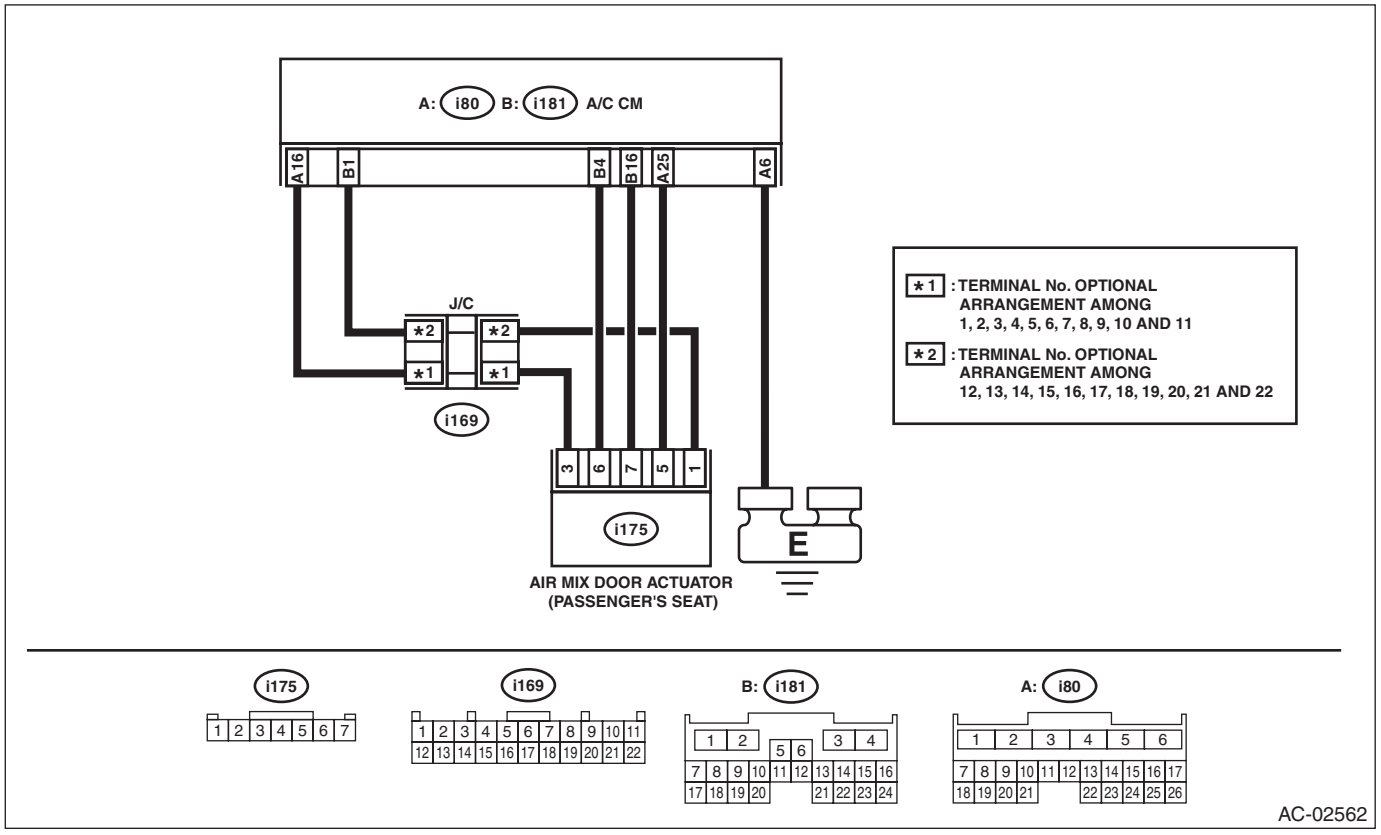
	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i175) No. 1 — No. 5:*** ***(i175) No. 5 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

N: DTC B1615 AIRMIX DOOR ACTUATOR LOCK (PASSENGER'S)

DTC DETECTING CONDITION:
Passenger's air mix door actuator is locked.

TROUBLE SYMPTOM:
- Temperature of the passenger's side cannot be adjusted for model with left/right independent air conditioner.
- DTC "B1615" Air mix door actuator — lock (passenger's) was detected.
- DTC "48" Air mix door actuator — lock (passenger's) was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1615 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, change the setting of "Airmix Dr Act Trgt Open Angle (Pas's)" from the A/C diagnosis and perform the active test.	Did the actuator move to the specified target opening angle?	Air mix door actuator circuit is normal.	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i175) No. 3 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open, short circuit of the harness.

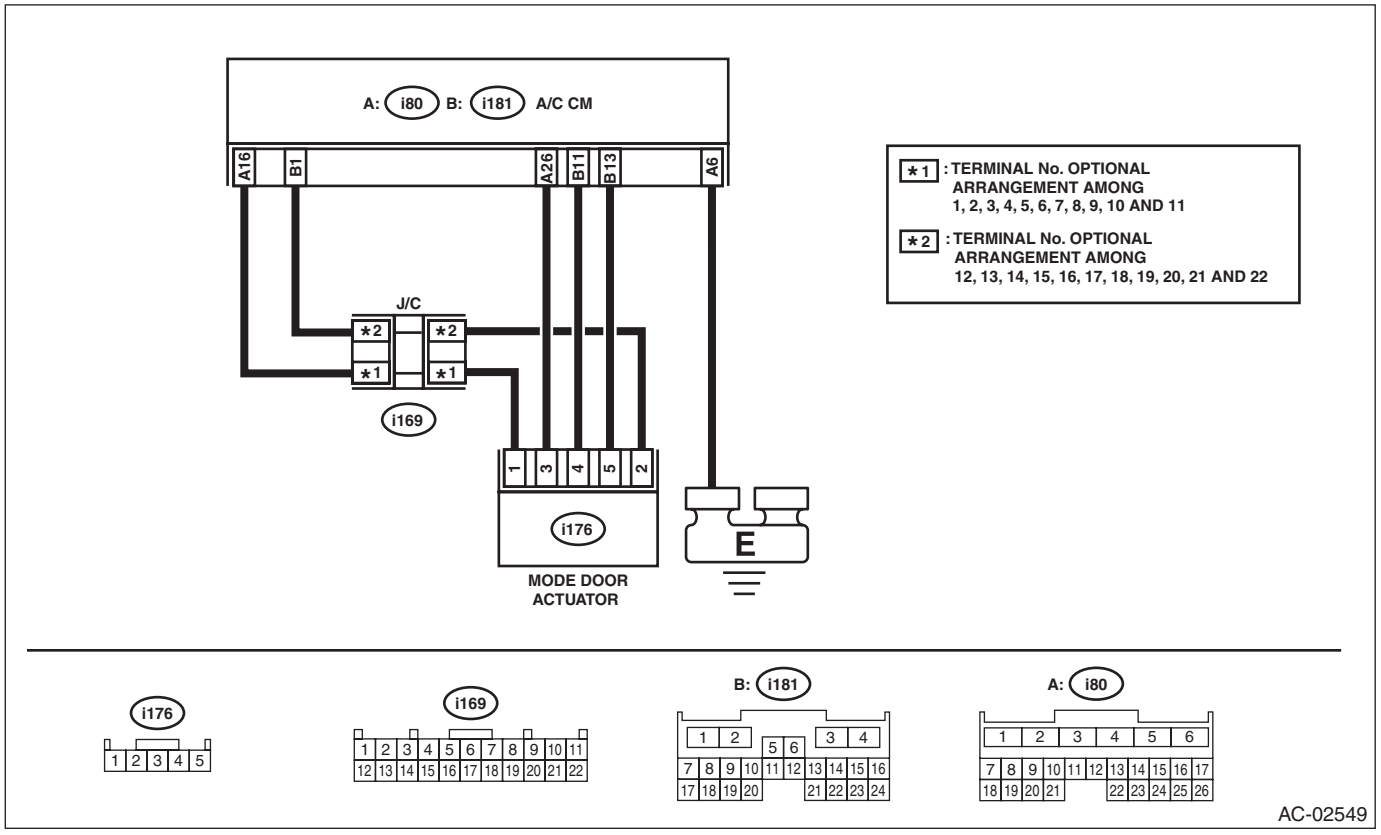
	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i175) No. 5 — (i80) No. 25:*** ***(i175) No. 3 — (i80) No. 16:*** ***(i175) No. 1 — (i181) No. 1:*** ***(i175) No. 7 — (i181) No. 16:*** ***(i175) No. 6 — (i181) No. 4:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK AIR MIX DOOR ACTUATOR.** Check the air mix door actuator parts. <Ref. to AC-98, INSPECTION, Air Mix Door Actuator.>	Is air mix door actuator normal?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Replace the air mix door actuator. <Ref. to AC-95, REMOVAL, Air Mix Door Actuator.>

O: DTC B1620 MODE DOOR ACTUATOR POTENTIOMETER CIRCUIT OPEN

DTC DETECTING CONDITION:
Mode door actuator potentiometer circuit is open.

TROUBLE SYMPTOM:
- Vent does not change.
- DTC “B1620” Open circuit in mode door actuator potentiometer was detected.
- DTC “28” Open circuit in mode door actuator potentiometer was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1620 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Disconnect the mode door actuator. 2) Short No. 2 and No. 3 of (i176) connector. 3) Read the DTC using Subaru Select Monitor.	Is B1621 displayed?	Replace the mode door actuator. <Ref. to AC-92, REMOVAL, Mode Door Actuator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal (i176) No. 1 (+) — No. 2 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair the open circuit of harness.

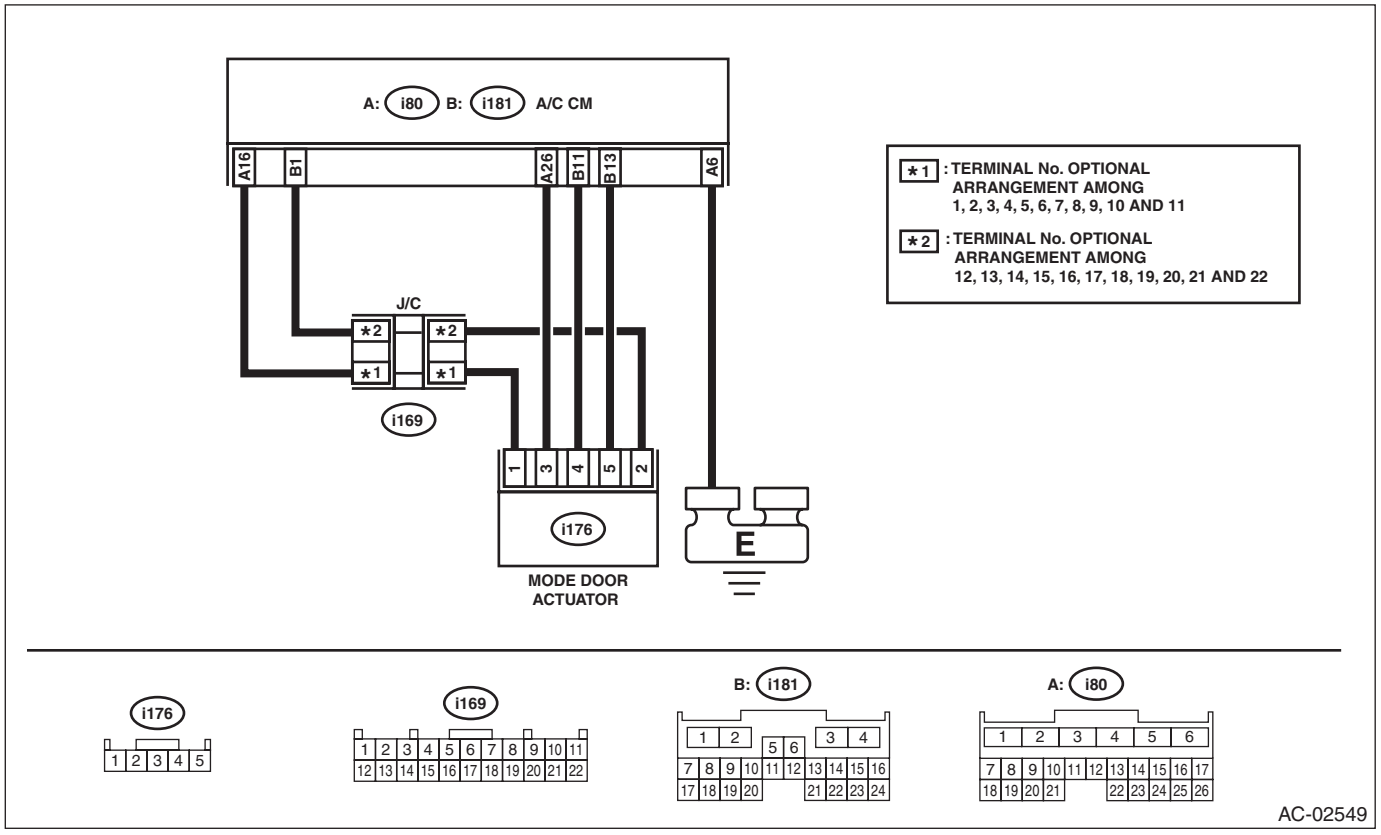
	Step	Check	Yes	No
4	**CHECK HARNESS.** Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i176) No. 1 — (i80) No. 16:*** ***(i176) No. 2 — (i181) No. 1:*** ***(i176) No. 3 — (i80) No. 26:***	Is there continuity?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Repair or replace the open circuit of harness.

P: DTC B1621 MODE DOOR ACTUATOR POTENTIOMETER CIRCUIT SHORT

DTC DETECTING CONDITION:
Mode door actuator potentiometer circuit is shorted.

TROUBLE SYMPTOM:
- Vent does not change.
- DTC “B1621” Short circuit in mode door actuator potentiometer was detected.
- DTC “29” Short circuit in mode door actuator potentiometer was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



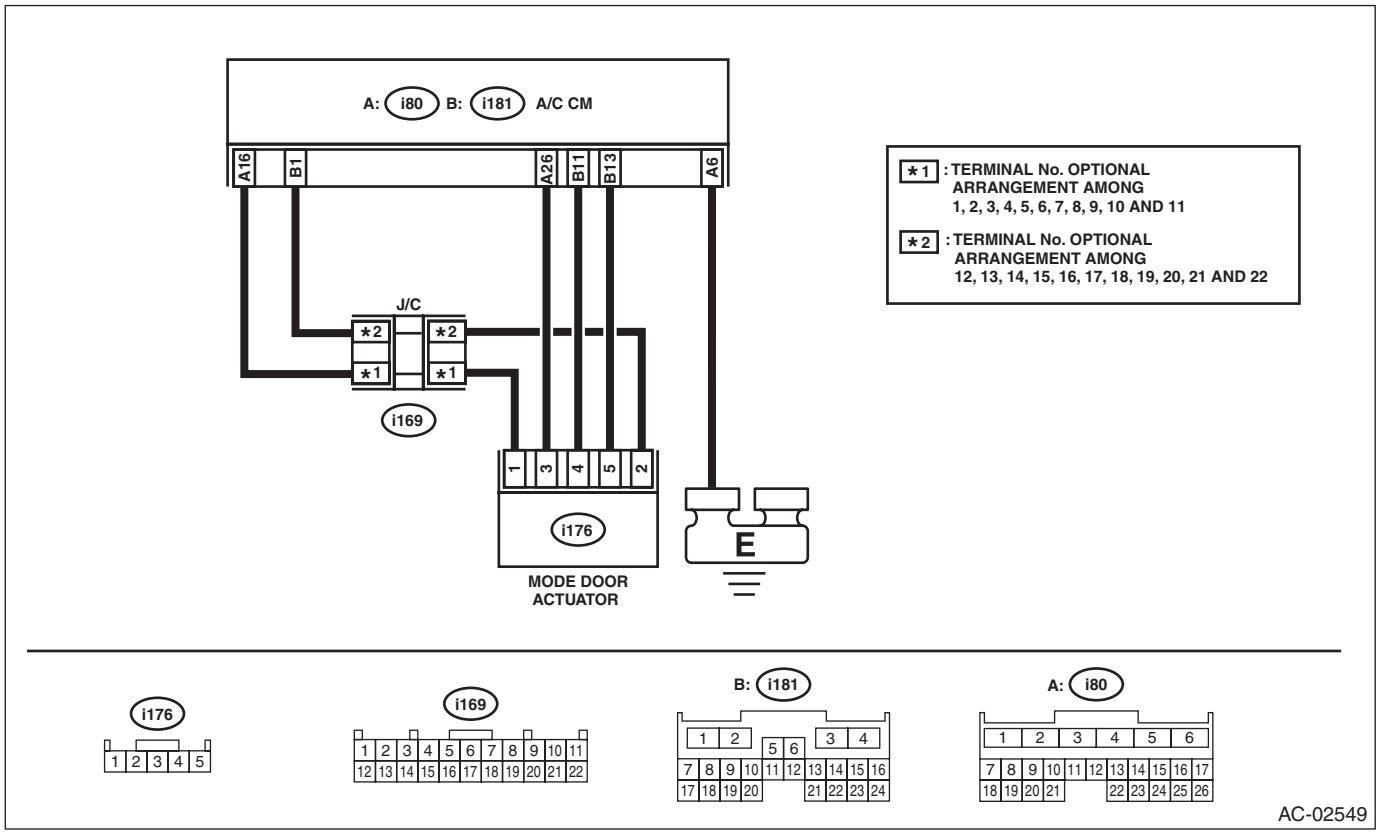
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1621 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Disconnect the mode door actuator. 2) Read the DTC using Subaru Select Monitor.	Is B1620 displayed?	Replace the mode door actuator. <Ref. to AC-92, REMOVAL, Mode Door Actuator.>	Go to step **3**.
3	**CHECK HARNESS.** Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i176) No. 2 — No. 3:*** ***(i176) No. 3 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

Q: DTC B1622 MODE DOOR ACTUATOR LOCK

DTC DETECTING CONDITION:
Mode door actuator locked.

TROUBLE SYMPTOM:
- DTC “B1622” Mode door actuator lock was detected.
- DTC “49” Mode door actuator lock was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



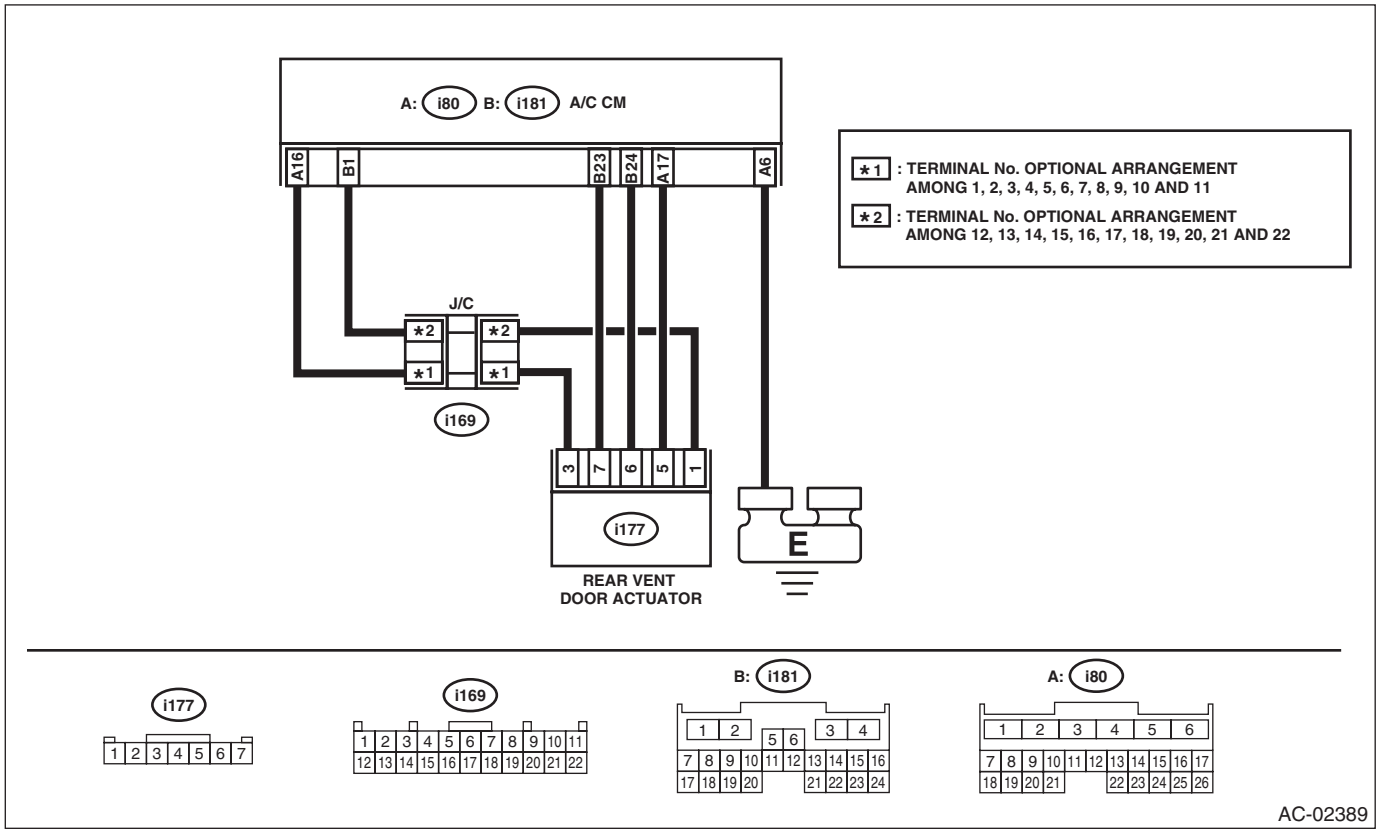
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1622 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, change the setting of “Mode Door Actuator Position Target” from the A/C diagnosis and perform the active test.	Did the actuator move to the specified target opening angle?	Mode door actuator circuit is normal.	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal (i176) No. 1 (+) — No. 2 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open, short circuit of the harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i176) No. 3 — (i80) No. 26:*** ***(i176) No. 1 — (i80) No. 16:*** ***(i176) No. 2 — (i181) No. 1:*** ***(i176) No. 4 — (i181) No. 11:*** ***(i176) No. 5 — (i181) No. 13:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK MODE DOOR ACTUATOR.** Check the mode door actuator parts. <Ref. to AC-93, INSPECTION, Mode Door Actuator.>	Is the mode door actuator OK?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Replace the mode door actuator. <Ref. to AC-92, REMOVAL, Mode Door Actuator.>

R: DTC B1630 REAR VENT DOOR ACTUATOR POTENTIOMETER CIRCUIT OPEN

DTC DETECTING CONDITION:
Rear vent door actuator potentiometer circuit is open.
TROUBLE SYMPTOM:
- Unable to control the rear vent temperature.
- DTC “B1630” Open circuit in rear vent door actuator potentiometer was detected.
- DTC “41” Open circuit in rear vent door actuator potentiometer was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



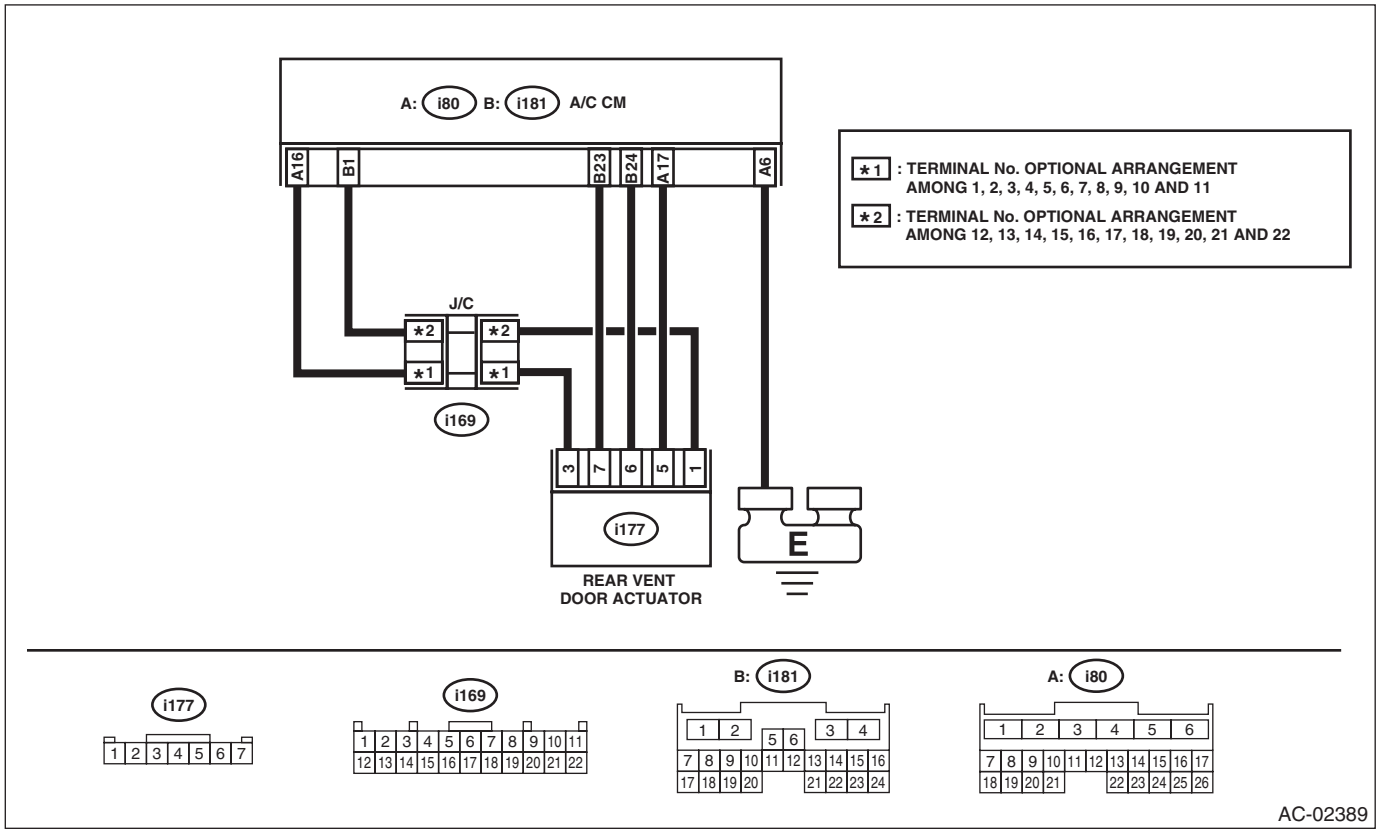
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1630 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Disconnect the rear vent door actuator. 2) Short No. 1 and No. 5 of (i177) connector. 3) Read the DTC using Subaru Select Monitor.	Is B1631 displayed?	Replace the rear vent door actuator. <Ref. to AC-100, REMOVAL, Rear Vent Door Actuator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i177) No. 3 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i177) No. 3 — (i80) No. 16:*** ***(i177) No. 1 — (i181) No. 1:*** ***(i177) No. 5 — (i80) No. 17:***	Is there continuity?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Repair or replace the open circuit of harness.

S: DTC B1631 REAR VENT DOOR ACTUATOR POTENTIOMETER CIRCUIT SHORT

DTC DETECTING CONDITION:
Rear vent door actuator potentiometer circuit is shorted.
TROUBLE SYMPTOM:
- Unable to control the rear vent temperature.
- DTC “B1631” Short circuit in rear vent door actuator potentiometer was detected.
- DTC “-41” Short circuit in rear vent door actuator potentiometer was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



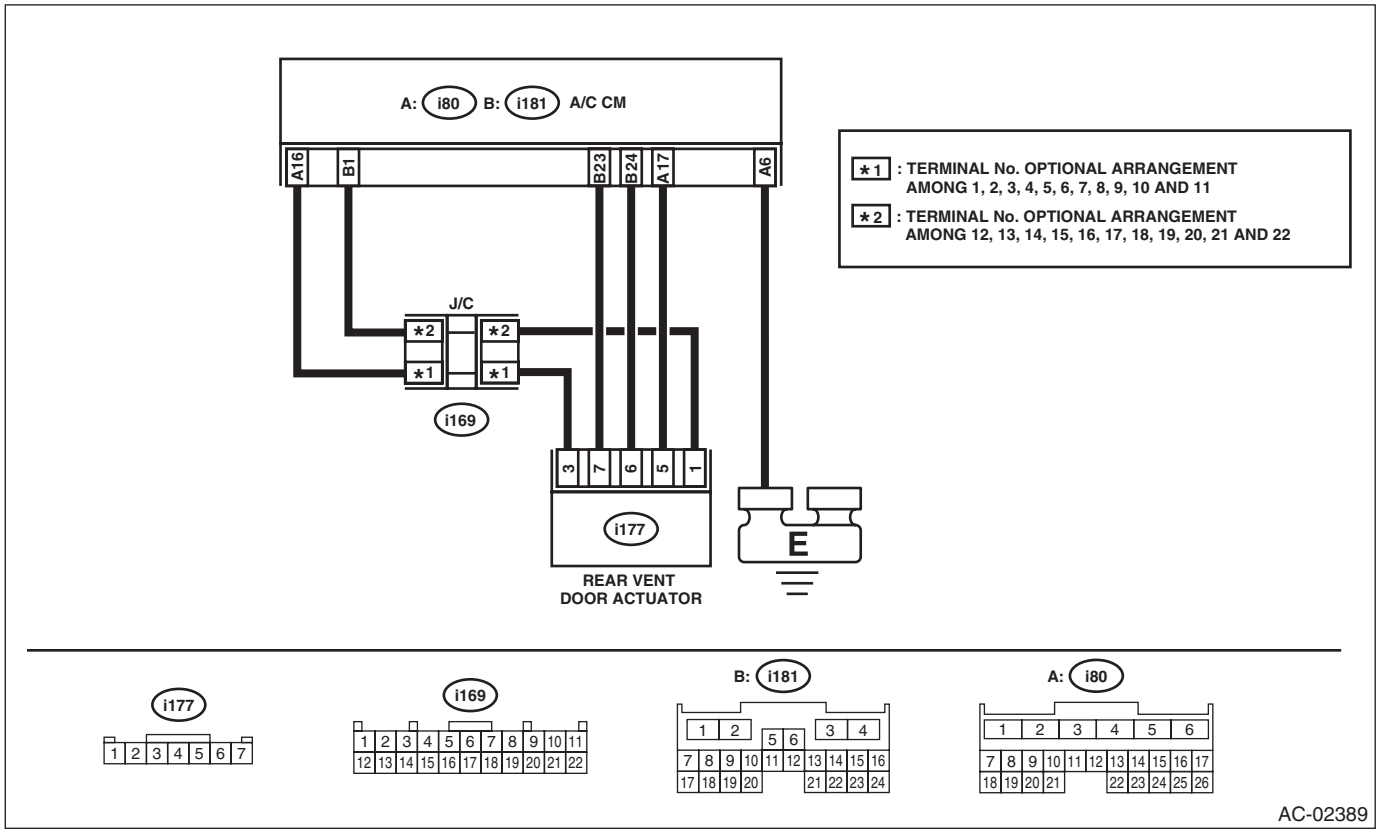
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1631 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Disconnect the rear vent door actuator. 2) Read the DTC using Subaru Select Monitor.	Is B1631 displayed?	Replace the rear vent door actuator. <Ref. to AC-100, REMOVAL, Rear Vent Door Actuator.>	Go to step **3**.
3	**CHECK HARNESS.** Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i177) No. 5 — (i177) No. 1:*** ***(i177) No. 5 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

T: DTC B1632 REAR VENT DOOR ACTUATOR LOCK

DTC DETECTING CONDITION:
Rear vent door actuator is locked.

TROUBLE SYMPTOM:
- Unable to control the rear vent temperature.
- DTC “B1632” Rear vent door actuator lock was detected.
- DTC “52” Rear vent door actuator lock was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1632 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, change and perform “Rear Vent Actuator Position Target” of the active test from the A/C diagnosis.	Did the actuator move to the specified target opening angle?	Rear vent door actuator circuit is normal.	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using a tester, check the voltage between terminals. ***Connector & terminal*** ***(i177) No. 3 (+) — (i80) No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open, short circuit of the harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from A/C CM. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i177) No. 5 — (i80) No. 17:*** ***(i177) No. 3 — (i80) No. 16:*** ***(i177) No. 1 — (i181) No. 1:*** ***(i177) No. 7 — (i181) No. 23:*** ***(i177) No. 6 — (i181) No. 24:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK REAR VENT DOOR ACTUATOR.** Check the rear vent door actuator parts. <Ref. to AC-101, INSPECTION, Rear Vent Door Actuator.>	Is the rear vent door actuator normal?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Replace the rear vent door actuator. <Ref. to AC-100, REMOVAL, Rear Vent Door Actuator.>

U: DTC B1635 OUT SIDE TEMPERATURE SENSOR CIRCUIT ABNORMALITY (AIR CONDITIONER)

DTC DETECTING CONDITION:

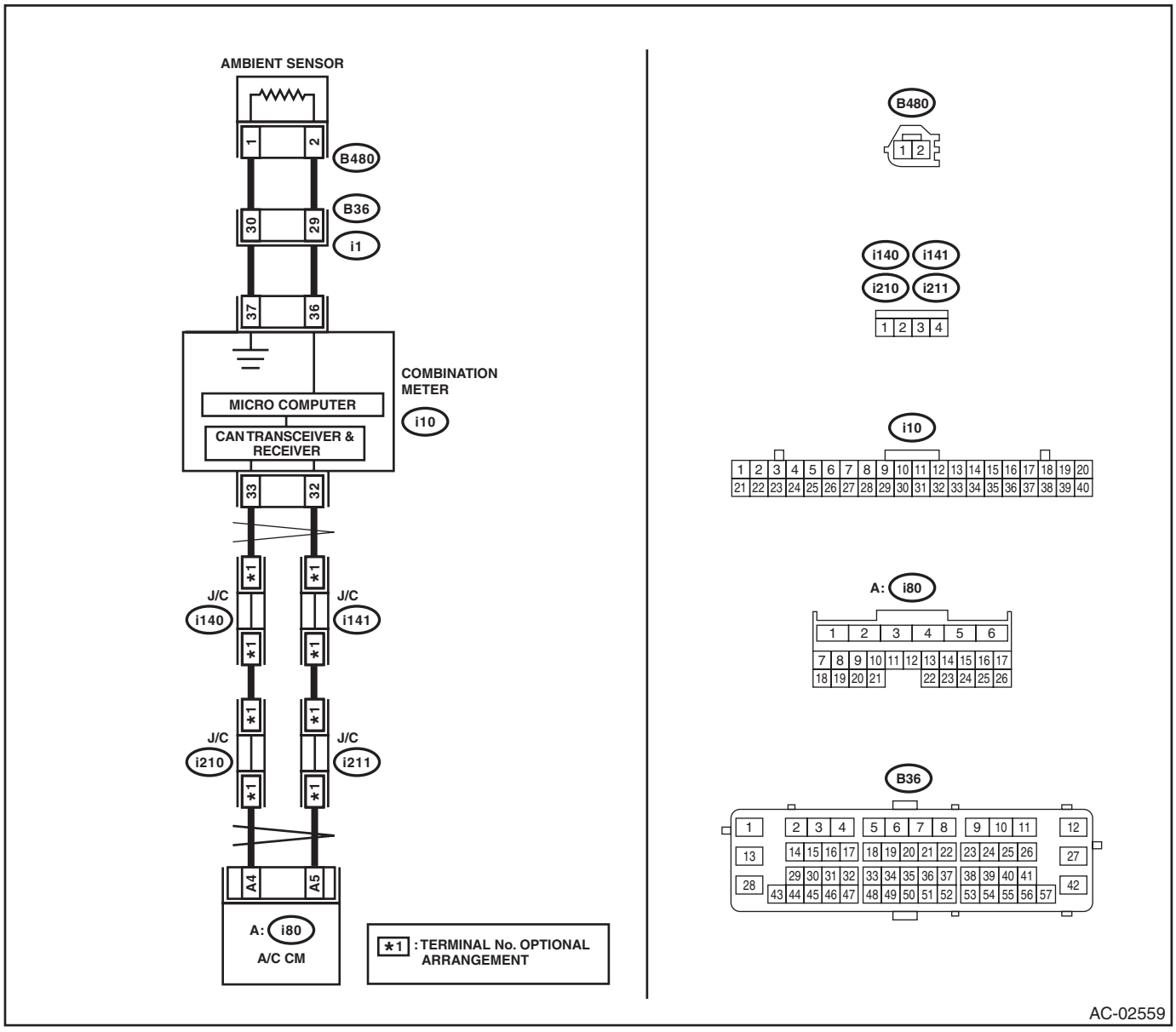
- Ambient sensor to combination meter circuit is shorted or open.
- Data to be received from the combination meter via CAN communication do not arrive.

TROUBLE SYMPTOM:

- Ambient temperature is falsely recognized as 15.2°C, and the compartment temperature is adjusted.
- DTC “22” Faulty ambient sensor, or communication failure was detected.
- DTC “B1635” OUT SIDE TEMPERATURE SENSOR CIRCUIT ABNORMALITY was detected. Or, DTC “U0002” CAN COMMUNICATION ERROR was detected along with DTC “B1635”.

WIRING DIAGRAM:

Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK FOR POOR CONTACT.** Check the A/C CM connector (i80) for poor contact.	Is there poor contact of connector?	Repair the connector.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK DTC.** 1) Connect the disconnected connectors. 2) Turn the ignition switch to ON. 3) Read the DTC of the CAN system using the Subaru Select Monitor.	Is DTC displayed?	Perform the diagnosis according to the DTC. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Go to step **3**.
3	**CHECK CAN COMMUNICATION CIRCUIT.** Check the CAN communication circuit. <Ref. to LAN(diag)-11, CAN Communication Circuit Check.>	Is the CAN communication circuit normal?	Go to step **4**.	Repair the CAN communication circuit. <Ref. to LAN(diag)-4, LAN SYSTEM, CAUTION, General Description.>
4	**CHECK INPUT SIGNAL FOR AMBIENT SENSOR.** 1) Turn the ignition switch to ON. 2) Measure the voltage between terminals of ambient sensor connector (F138). Disconnect the connector. ***Connector & terminal*** ***(B480) No. 2 (+) — No. 1 (–):***	Is the voltage approx. 5 V?	Go to step **5**.	Check the ambient sensor. <Ref. to AC-79, INSPECTION, Ambient Sensor.>
5	**CHECK COMBINATION METER OUTPUT SIGNAL.** 1) Turn the ignition switch to OFF. 2) Pull out the combination meter. 3) Disconnect the ambient sensor connector (F138). 4) Turn the ignition switch to ON. 5) Measure the voltage between terminals of combination meter connector (i10). ***Connector & terminal*** ***(i10) No. 36 (+) — No. 37 (–):***	Is the voltage approx. 5 V?	Go to step **6**.	Check the combination meter. <Ref. to IDI-7, Combination Meter System.>
6	**CHECK HARNESS CONNECTOR BETWEEN COMBINATION METER AND AMBIENT SENSOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the combination meter connector (i10). 3) Measure the resistance of harness between combination meter connector (i10) and ambient sensor connector (B480). ***Connector & terminal*** ***(B480) No. 2 — (i10) No. 36:*** ***(B480) No. 1 — (i10) No. 37:***	Is the resistance less than 1 Ω?	Ambient sensor circuit is normal.	Repair the open circuit of the harness between the combination meter and ambient sensor.

V: DTC B1641 REFRIGERANT FLOW SENSOR CIRCUIT SHORT

DTC DETECTING CONDITION:

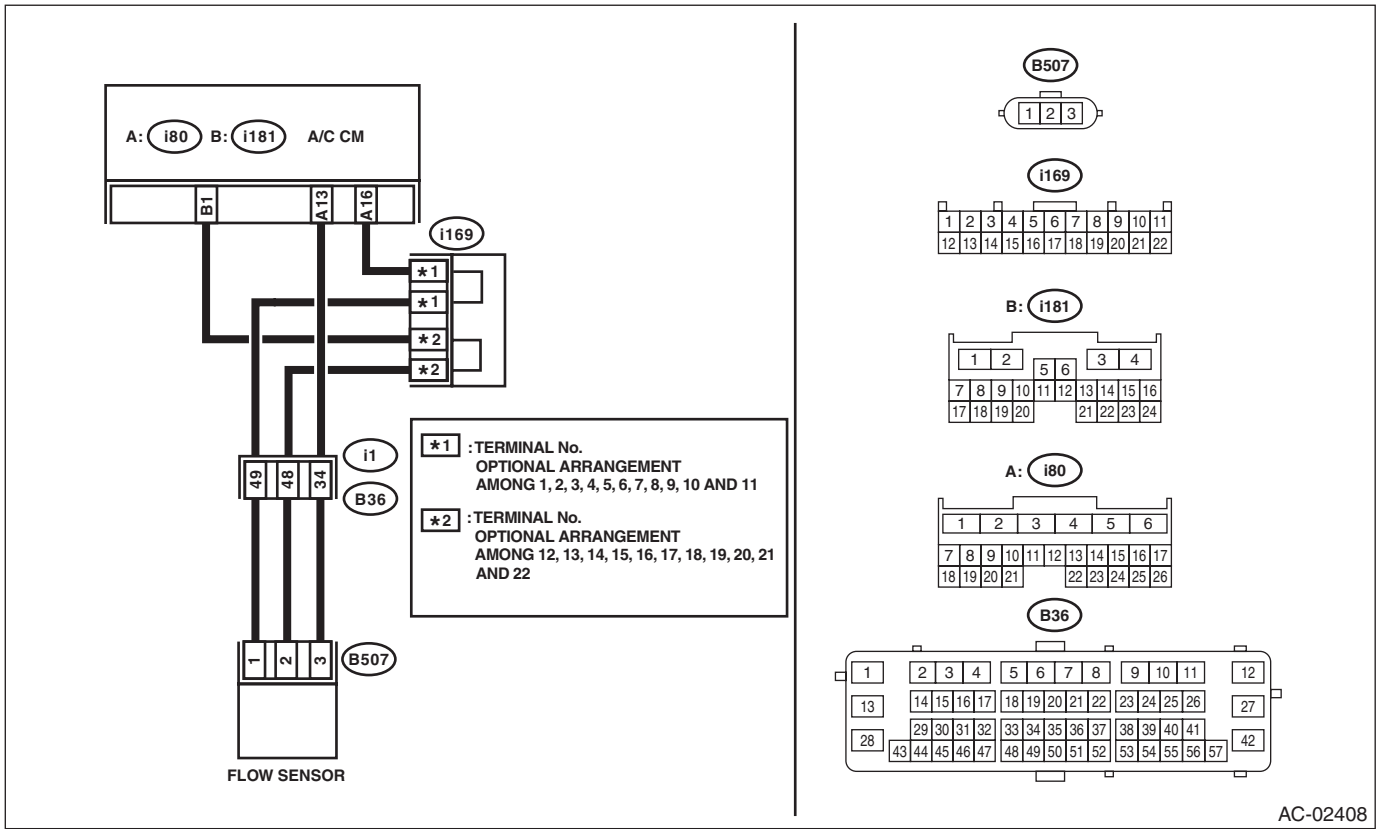
- The voltage of the sensor signal line decreased to 0.3 V or less.
- Short-circuit in flow sensor circuit

TROUBLE SYMPTOM:

- A/C does not function because refrigerant flow amount cannot be measured.
- DTC “B1641” Short-circuit in refrigerant flow sensor was detected.
- DTC “-43” Short-circuit in refrigerant flow sensor was detected.

WIRING DIAGRAM:

Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the connecting condition of connector. 2) Read the DTC using Subaru Select Monitor.	Is B1641 displayed?	Go to step **2**.	Repair the poor connection of the connector.
2	**CHECK FLOW SENSOR.** 1) Disconnect the refrigerant flow sensor connector. 2) Read the DTC using Subaru Select Monitor.	Is B1642 displayed?	Replace the compressor. <Ref. to AC-55, REMOVAL, Compressor.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Disconnect the A/C CM connector. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(B507) No. 2 — (B507) No. 3:*** ***(B507) No. 3 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

W: DTC B1642 REFRIGERANT FLOW SENSOR CIRCUIT OPEN

DTC DETECTING CONDITION:

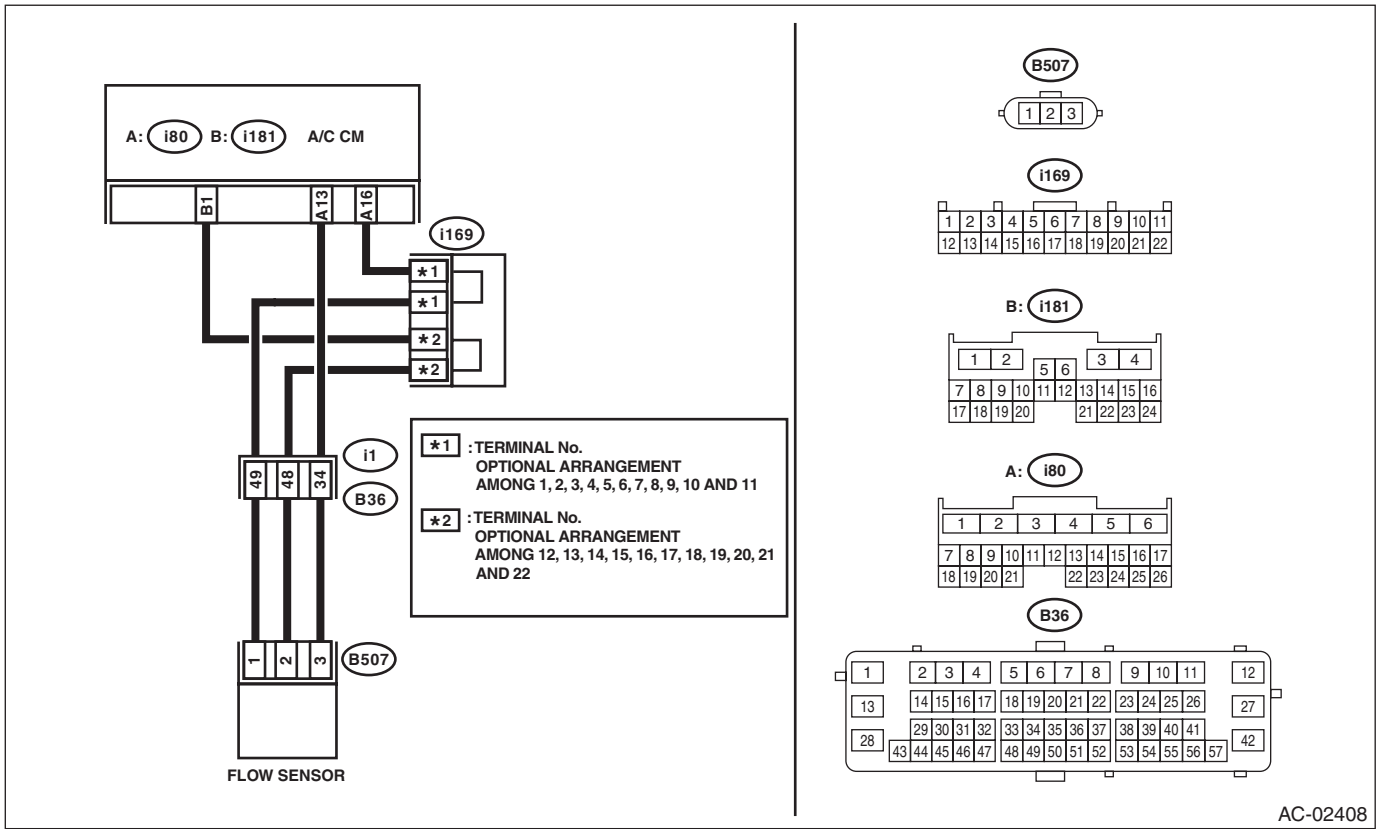
- The voltage of the sensor signal line increased to 4.7 V or more.
- Short-circuit in flow sensor circuit

TROUBLE SYMPTOM:

- A/C does not function because refrigerant flow amount cannot be measured.
- DTC “B1642” Open circuit in refrigerant flow sensor was detected.
- DTC “43” Open circuit in refrigerant flow sensor was detected.

WIRING DIAGRAM:

Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



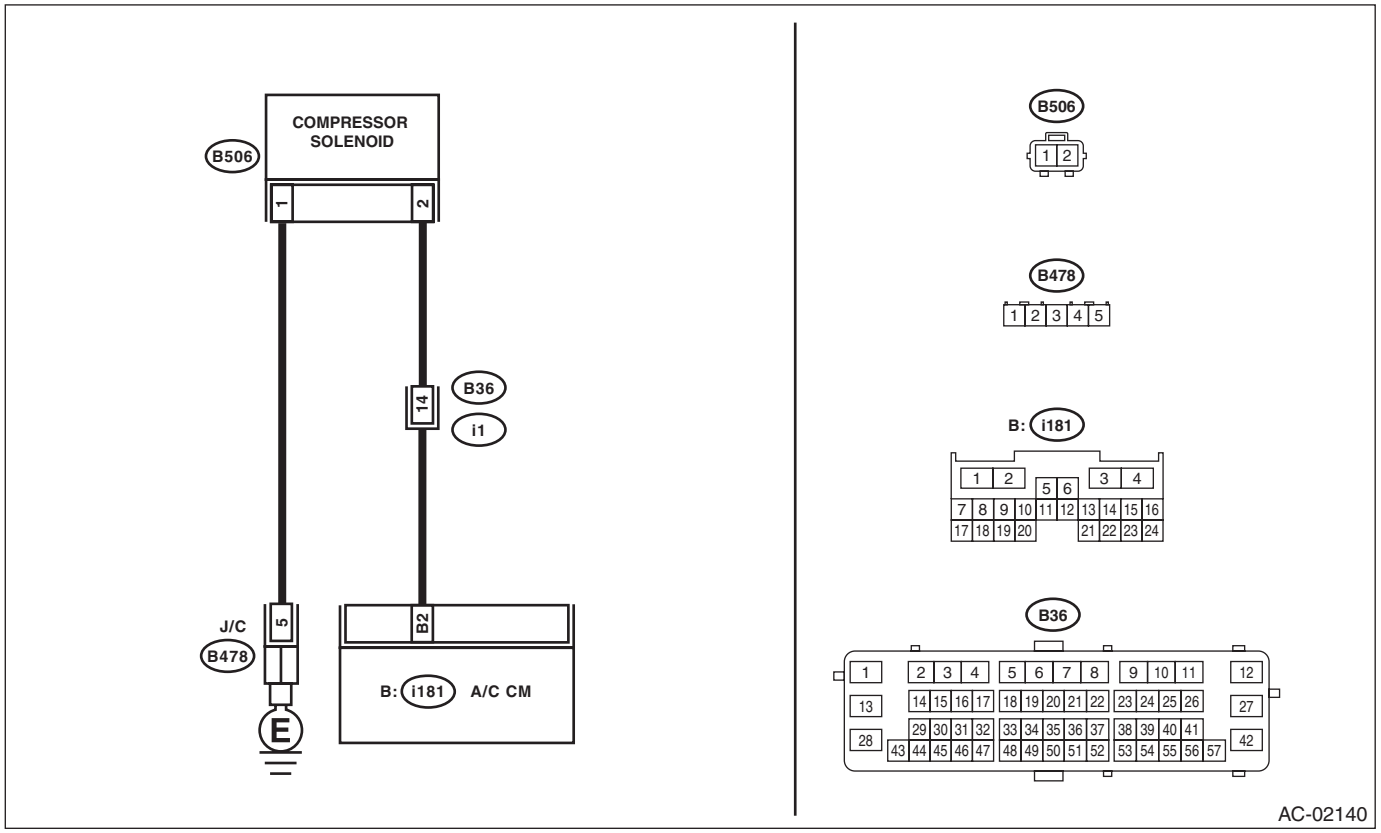
Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the connecting condition of connector. 2) Read the DTC using Subaru Select Monitor.	Is B1642 displayed?	Go to step **2**.	Repair the poor connection of the connector.
2	**CHECK FLOW SENSOR.** 1) Disconnect the flow sensor connector. 2) Short No. 2 and No. 3 of the flow sensor connector (B507). 3) Read the DTC using Subaru Select Monitor.	Is B1641 displayed?	Replace the compressor. <Ref. to AC-55, REMOVAL, Compressor.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal (B507) No. 1 (+) — No. 2 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the A/C CM connector. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(B507) No. 3 — (i80) No. 13:*** ***(B507) No. 2 — (i181) No. 1:*** ***(B507) No. 1 — (i80) No. 16:***	Is there continuity?	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>	Repair or replace the open circuit of harness.

X: DTC B1643 VARIABLE FLOW CHANGE SOLENOID DUTY CIRCUIT ABNORMAL

DTC DETECTING CONDITION:
Open or short circuit in variable solenoid valve
TROUBLE SYMPTOM:
- Refrigerant pressure cannot be changed.
- DTC “B1643” Variable flow change solenoid duty circuit failure was detected.
- DTC “46” Variable flow change solenoid duty circuit failure was detected.

WIRING DIAGRAM:
Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** Check the connecting condition of connectors (B506), (B36), (i181) and (B479).	Is there poor contact?	Repair the poor contact of connector.	Go to step **2**.
2	**ACTIVE TEST.** 1) Attach the manifold gauge. 2) Using the Subaru Select Monitor, change the setting of “Variable Flow Change Sol Duty Setting” from the A/C diagnosis and perform the active test.	Did the actuator operate to the specified target, and the pressure change?	Variable flow change solenoid circuit is normal.	Go to step **3**.
3	**CHECK VARIABLE FLOW CHANGE SOLENOID.** 1) Disconnect the variable flow change solenoid connector. 2) Using a tester, measure the resistance between terminals of the solenoid. ***Connector & terminal*** ***(B506) No. 1 — No. 2:***	Is the resistance 10 — 12 Ω?	Go to step **4**.	Replace the compressor. <Ref. to AC-55, REMOVAL, Compressor.>

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the A/C CM connector. 2) Using a tester, check for continuity between the harness terminals. ***Connector & terminal*** ***(B506) No. 2 — (i181) No. 2:*** ***(B506) No. 1 — Chassis ground:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** Using a tester, check for continuity between the harness terminals. ***Connector & terminal*** ***(B506) No. 2 — Chassis ground:*** ***(B506) No. 1 — (B506) No. 2:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>

Y: DTC B1644 REFRIGERANT NOT SEALED DRIVE ERROR

DTC DETECTING CONDITION:

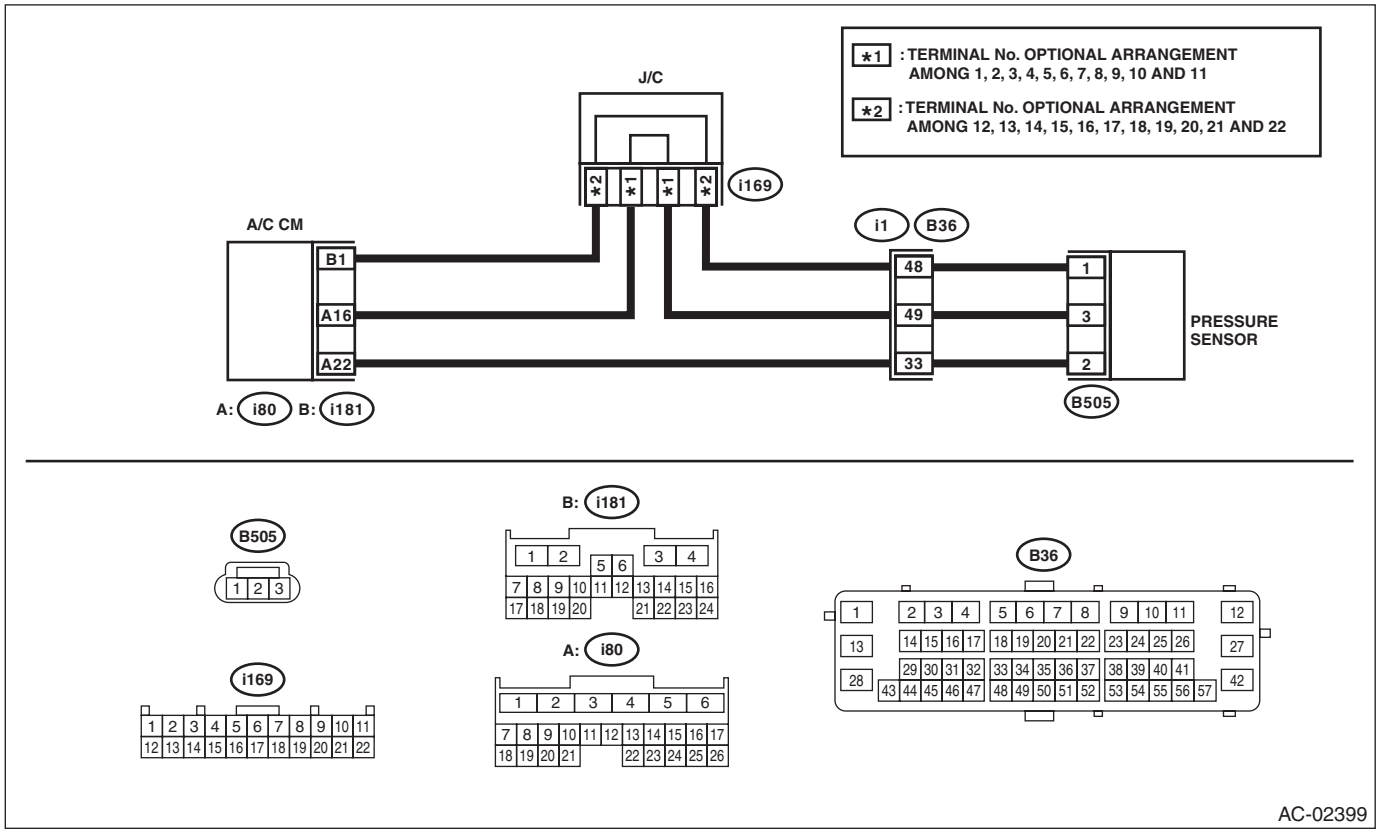
- Compressor was operated while refrigerant was low.
- Compressor was operated while refrigerant pressure was extremely low.
- Judgment is made only when the delivery mode fuse is installed.

TROUBLE SYMPTOM:

A/C does not operate.

WIRING DIAGRAM:

Air Conditioning System <Ref. to WI-51, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK AMOUNT OF REFRIGERANT.** Check the refrigerant pressure and filling amount. <Ref. to AC-22, PROCEDURE, Refrigerant Pressure with Manifold Gauge Set.>	Is the filling amount a standard value?	Check the refrigerant pressure sensor or refrigerant flow sensor for defect.	Replace the compressor. <Ref. to AC-55, REMOVAL, Compressor.>

Z: DTC U0001 CAN COMMUNICATION BUS OFF

DTC DETECTING CONDITION:

- Data to be received via CAN communication do not arrive.
- A/C cooperation control does not operate.

TROUBLE SYMPTOM:

A/C does not operate fully automatically.

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC of the CAN system using the Subaru Select Monitor.	Is a DTC of the CAN system detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK A/C CM.** 1) Replace with a normally operating A/C CM. 2) Read the DTC using Subaru Select Monitor.	Is U0001 detected?	Go to step **3**.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>
3	**CHECK CAN COMMUNICATION CIRCUIT.** Check the CAN communication circuit. <Ref. to LAN(diag)-16, LIST, CAN Communication Circuit Check.>	Is the CAN communication circuit normal?	It is possible that temporary poor communication occurs. Clear the memory.	Repair or replace the CAN communication circuit.

AA:DTC U0002 CAN COMMUNICATION ERROR

DTC DETECTING CONDITION:

- Data to be received via CAN communication do not arrive.
- A/C cooperation control does not operate.

TROUBLE SYMPTOM:

A/C does not operate fully automatically.

	Step	Check	Yes	No
1	**CHECK CURRENT DATA.** Read the DTC of the CAN system using the Subaru Select Monitor.	Is a DTC of the CAN system detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK A/C CM.** 1) Replace with a normally operating A/C CM. 2) Read the DTC using Subaru Select Monitor.	Is U0002 detected?	Go to step **3**.	Replace the A/C CM. <Ref. to AC-54, REMOVAL, Control Unit.>
3	**CHECK CAN COMMUNICATION CIRCUIT.** Check the CAN communication circuit. <Ref. to LAN(diag)-16, LIST, CAN Communication Circuit Check.>	Is the CAN communication circuit normal?	It is possible that temporary poor communication occurs. Clear the memory.	Repair or replace the CAN communication circuit.

AB:DTC U0028 HEATER CONTROL PANEL COMMUNICATION ERROR

DTC DETECTING CONDITION:

UART communication failure

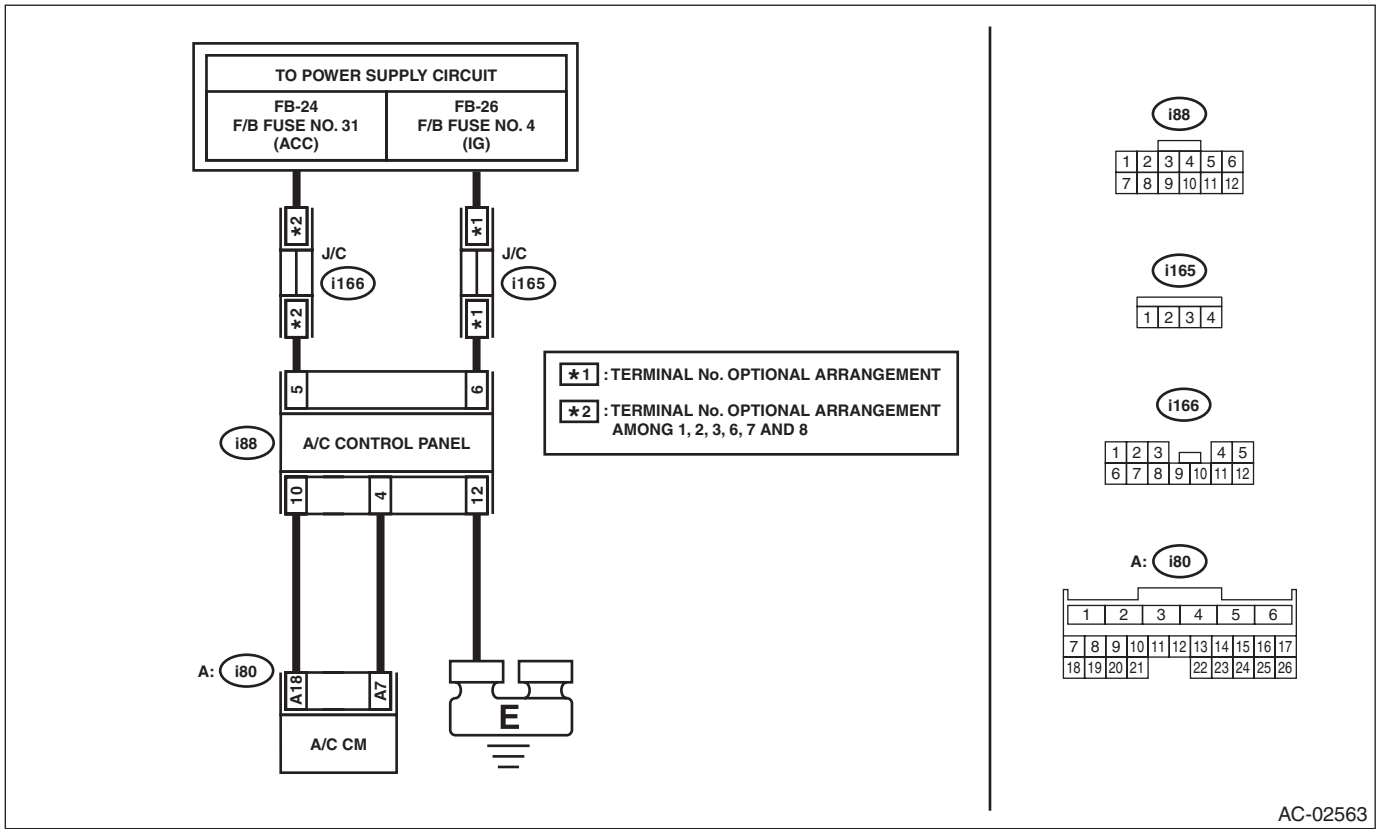
TROUBLE SYMPTOM:

- Unable to operate A/C.
- DTC “U0028” Heater control panel communication failure was detected.
- DTC “53” Heater control panel communication failure was detected.

WIRING DIAGRAM:

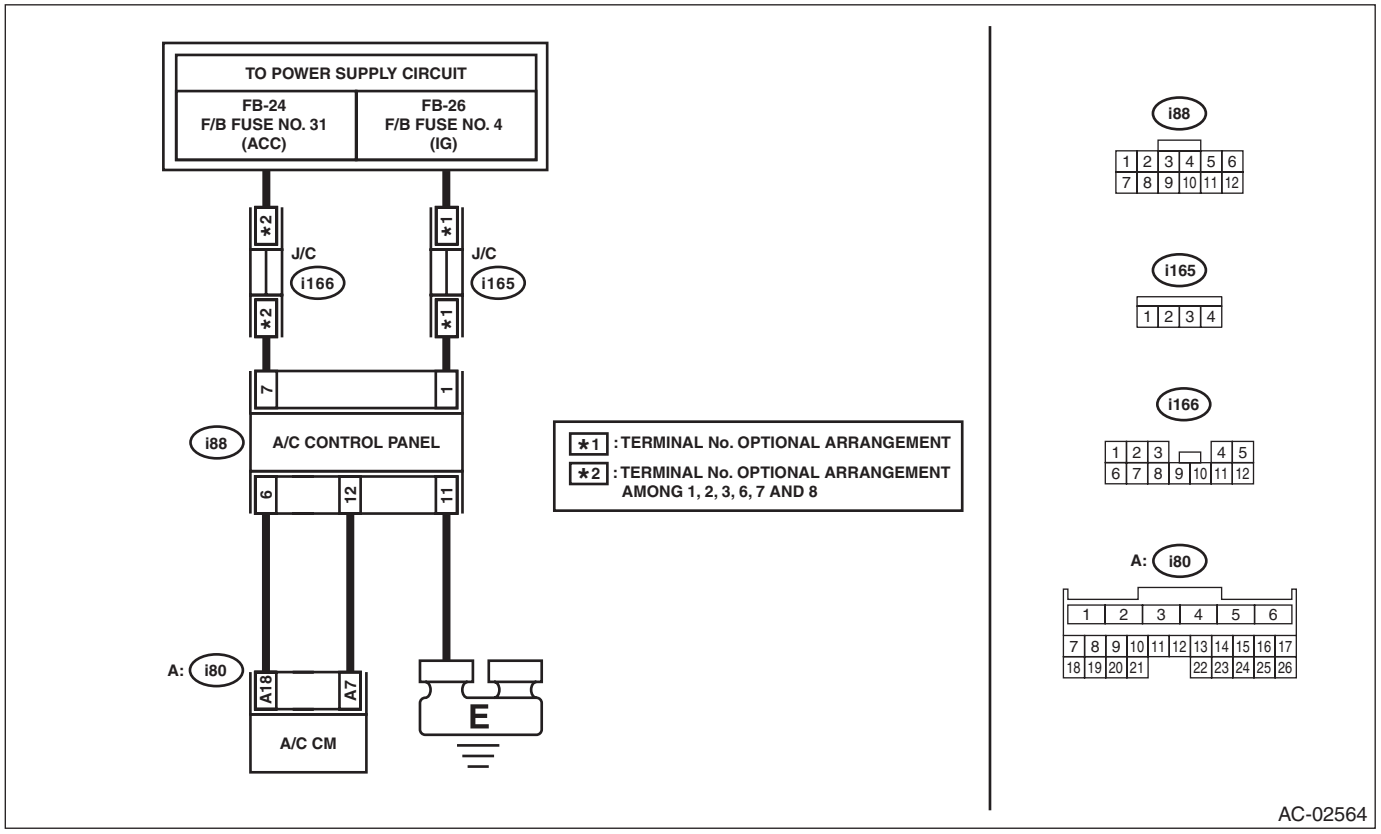
- Auto A/C

Air Conditioning System <Ref. to WI-55, AUTO A/C, WIRING DIAGRAM, Air Conditioning System.>



• Manual A/C

Air Conditioning System <Ref. to WI-51, MANUAL A/C, WIRING DIAGRAM, Air Conditioning System.>



	Step	Check	Yes	No
1	**CHECK CONNECTOR.** Check the power supply circuit connectors for poor contact.	Is there poor contact?	Repair the connector.	Go to step **2**.
2	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Remove the fuse No. 4 and No. 31 from the main fuse box or fuse & relay box. 3) Check the condition of fuse.	Is the fuse blown out?	Replace the fuse.	Go to step **3**.
3	**CHECK A/C CONTROL PANEL POWER CIRCUIT.** 1) Remove the A/C control panel. 2) Disconnect the A/C control panel connector. 3) Measure the voltage between A/C control panel connector terminal and chassis ground after turning the ignition switch to ON. ***Connector & terminal*** ***Auto A/C*** ***(i88) No. 5 (+) — Chassis ground (–):*** ***(i88) No. 6 (+) — Chassis ground (–):*** ***Manual A/C*** ***(i88) No. 1 (+) — Chassis ground (–):*** ***(i88) No. 7 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **4**.	Check for open or short circuit in the harness between A/C control panel and fuse.

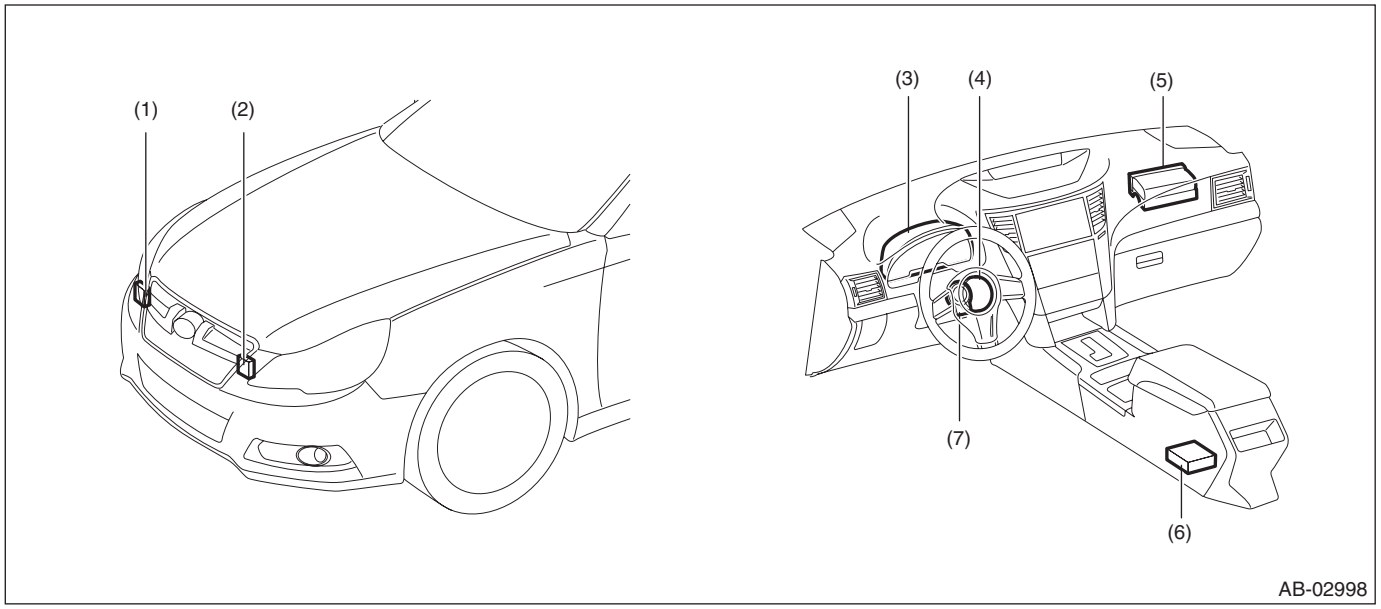
	Step	Check	Yes	No
4	**CHECK A/C CONTROL PANEL GROUND CIRCUIT.** Measure the resistance of harness between A/C control panel and chassis ground after turning the ignition switch to OFF. ***Connector & terminal*** ***Auto A/C*** ***(i88) No. 12 — Chassis ground:*** ***Manual A/C*** ***(i88) No. 11 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair the harness for ground line.
5	**CHECK COMMUNICATION CIRCUIT HARNESS.** 1) Disconnect the connector from A/C control panel and A/C CM. 2) Using a tester, check for continuity between the harness terminals. ***Connector & terminal*** ***Auto A/C*** ***(i80) No. 18 — (i88) No. 10:*** ***(i80) No. 7 — (i88) No. 4:*** ***Manual A/C*** ***(i80) No. 18 — (i88) No. 6:*** ***(i80) No. 7 — (i88) No. 12:***	Is there continuity?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i80) No. 18 — No. 7:*** ***(i80) No. 18 — Chassis ground:*** ***(i80) No. 7 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C control panel. <Ref. to AC-46, REMOVAL, Control Panel.>

AIRBAG SYSTEM

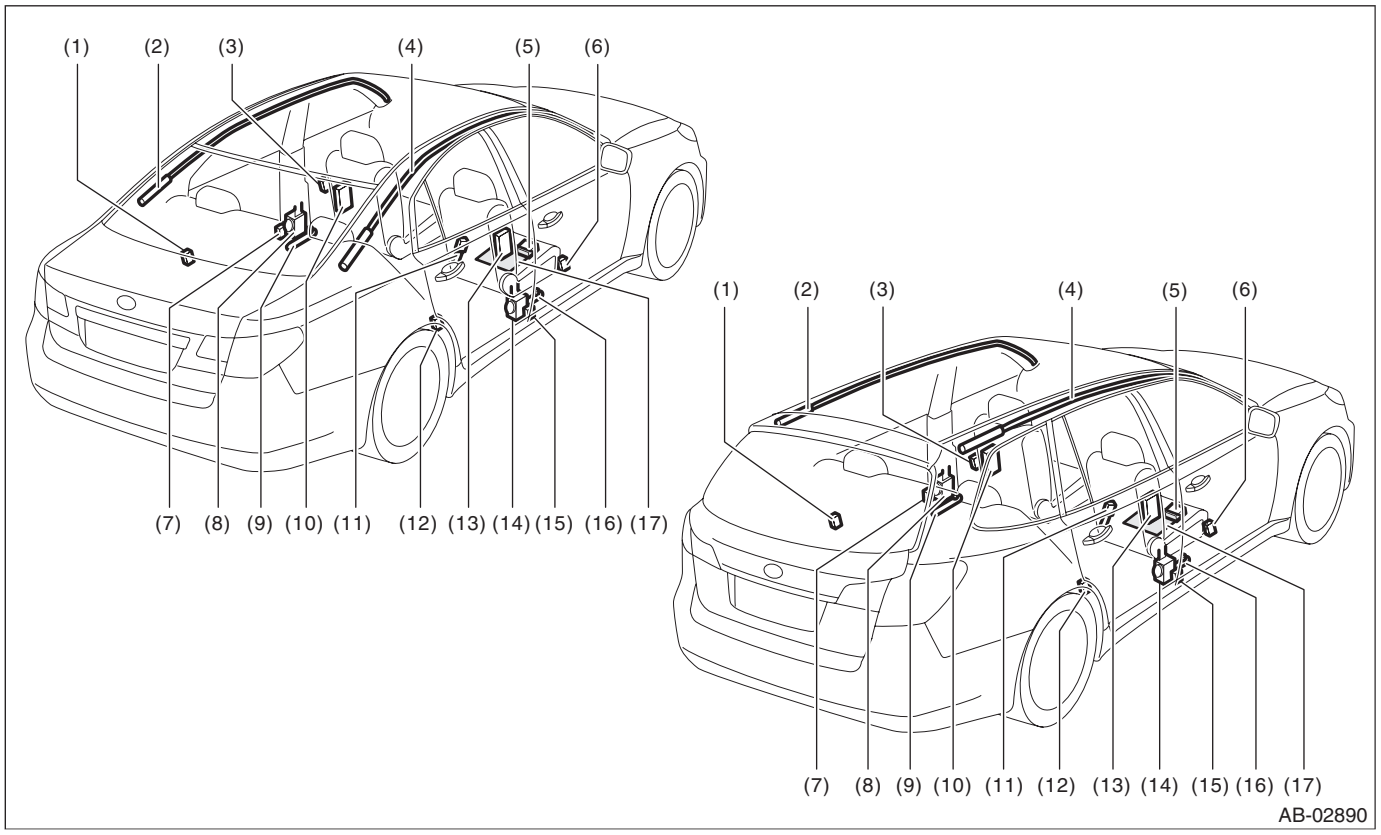
AB

1. General Description

A: COMPONENT



(1) Front sub sensor RH
(2) Front sub sensor LH
(3) Airbag warning light (in combination meter)
(4) Airbag module ASSY (driver)
(5) Airbag module ASSY (passenger)
(6) Airbag control module
(7) Steering roll connector



(1) Curtain airbag sensor LH
(2) Curtain airbag module LH
(3) Front door impact sensor LH
(4) Curtain airbag module RH
(5) Occupant detection control module
(6) Front door impact sensor RH
(7) Side airbag sensor LH
(8) Seat belt pretensioner LH
(9) Lap seat belt pretensioner LH
(10) Side airbag module LH
(11) Buckle switch RH
(12) Curtain airbag sensor RH
(13) Side airbag module RH
(14) Seat belt pretensioner RH
(15) Side airbag sensor RH
(16) Lap seat belt pretensioner RH
(17) Occupant detection sensor