

1. Radiator Main Fan

A: OPERATION (WITHOUT A/C MODEL)

DETECTING CONDITION:

- Engine coolant temperature is above 95°C (203°F).

TROUBLE SYMPTOM:

- Radiator main fan does not operate under the above condition.

1A1 : CHECK POWER SUPPLY TO MAIN FAN MOTOR.

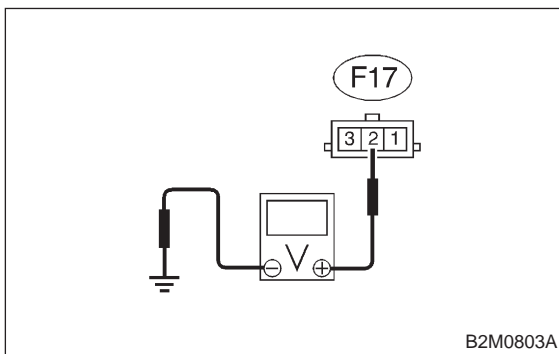
CAUTION:

Be careful not to overheat engine during repair.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connector from main fan motor.
- 3) Start the engine, and warm-up it until engine coolant temperature increases over 95°C (203°F).
- 4) Stop the engine and turn ignition switch to ON.
- 5) Measure voltage between main fan motor connector and chassis ground.

Connector & terminal

(F17) No. 2 (+) — Chassis ground (-):



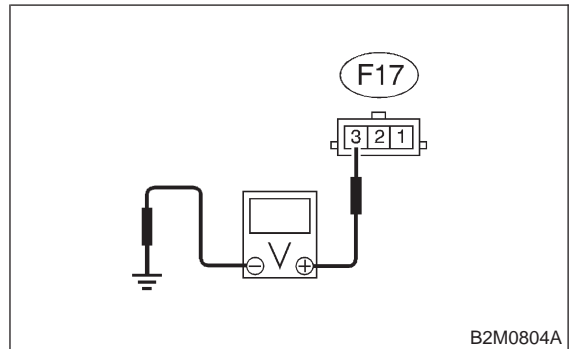
- CHECK** : *Is voltage more than 10 V?*
- YES** : Go to step 1A2.
- NO** : Go to step 1A6.

1A2 : CHECK POWER SUPPLY TO MAIN FAN MOTOR.

Measure voltage between main fan motor connector and chassis ground.

Connector & terminal

(F17) No. 3 (+) — Chassis ground (-):



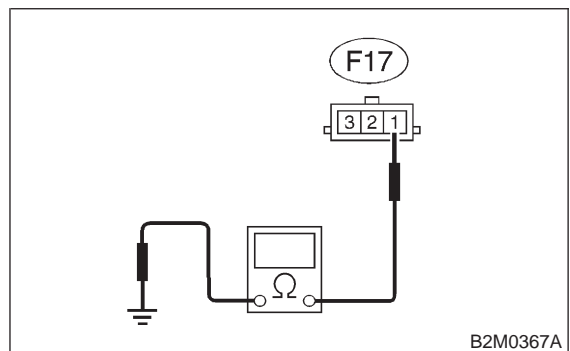
- CHECK** : *Is voltage more than 10 V?*
- YES** : Go to step 1A3.
- NO** : Go to step 1A6.

1A3 : CHECK GROUND CIRCUIT OF MAIN FAN MOTOR.

- 1) Turn ignition switch to OFF.
- 2) Measure resistance between main fan motor connector and chassis ground.

Connector & terminal

(F17) No. 1 — Chassis ground:



- CHECK** : *Is resistance less than 5 Ω?*
- YES** : Go to step 1A4.
- NO** : Repair open circuit in harness between main fan motor connector and chassis ground.

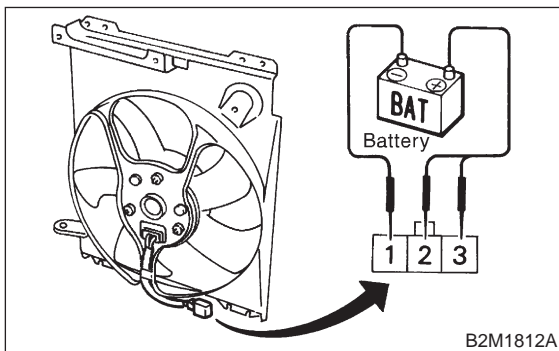
1A4 : CHECK POOR CONTACT.

Check poor contact in main fan motor connector.
<Ref. to FOREWORD [T3C1].>

- CHECK** : *Is there poor contact in main fan motor connector?*
- YES** : Repair poor contact in main fan motor connector.
- NO** : Go to step 1A5.

1A5 : CHECK MAIN FAN MOTOR.

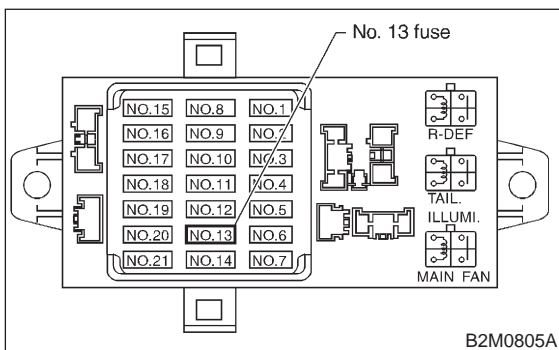
Connect battery positive (+) terminal to terminals No. 2 and No. 3, and negative (-) terminal to terminal No. 1 of main fan motor connector.



- CHECK** : *Does the main fan rotate?*
- YES** : Repair poor contact in main fan motor connector.
- NO** : Replace main fan motor with a new one.

1A6 : CHECK FUSE.

- 1) Turn ignition switch to OFF.
- 2) Remove fuse No. 13 from fuse and relay box.
- 3) Check condition of fuse.

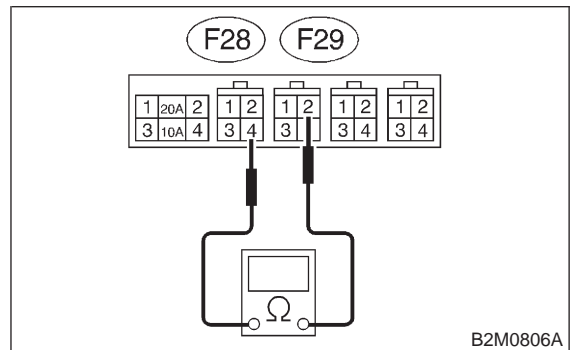


- CHECK** : *Is the fuse blown-out?*
- YES** : Replace fuse.
- NO** : Go to step 1A7.

1A7 : CHECK A/C RELAY HOLDER.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connectors from A/C relay holder.
- 3) Measure resistance between A/C relay holder connectors.

Connector & terminal
(F28) No. 4 — (F29) No. 2:

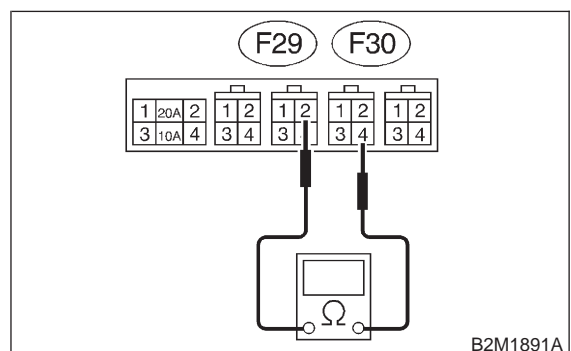


- CHECK** : *Is the resistance less than 1 Ω?*
- YES** : Go to step 1A8.
- NO** : Repair open circuit in A/C relay holder short harness.

1A8 : CHECK A/C RELAY HOLDER.

Measure resistance between A/C relay holder connectors.

Connector & terminal
(F30) No. 4 — (F29) No. 2:



- CHECK** : *Is the resistance less than 1 Ω?*
- YES** : Go to step 1A9.
- NO** : Repair open circuit in A/C relay holder short harness.

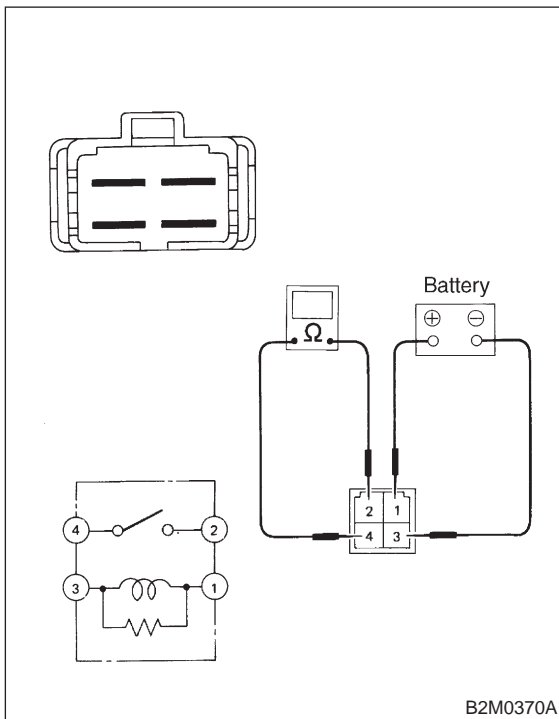
2-5 [T1A9]

1. Radiator Main Fan

ENGINE COOLING SYSTEM

1A9 : CHECK MAIN FAN RELAY.

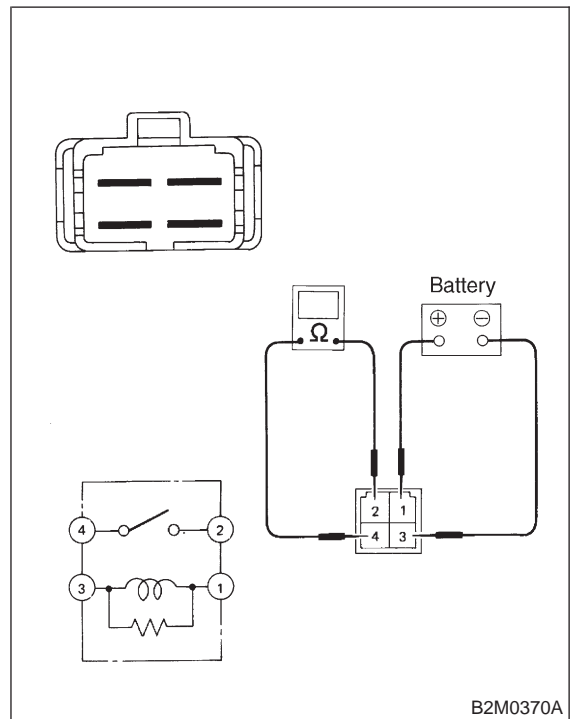
- 1) Turn ignition switch to OFF.
- 2) Remove main fan relay from fuse and relay box.
- 3) Check continuity between main fan relay terminals.



- CHECK** : Does no continuity exist between terminals No. 2 and No. 4?
- YES** : Go to step 1A10.
- NO** : Replace main fan relay.

1A10 : CHECK MAIN FAN RELAY.

- 1) Connect battery positive (+) terminal to terminal No. 1 of main fan relay, and negative (-) terminal to terminal No. 3.
- 2) Check continuity between main fan relay terminals.



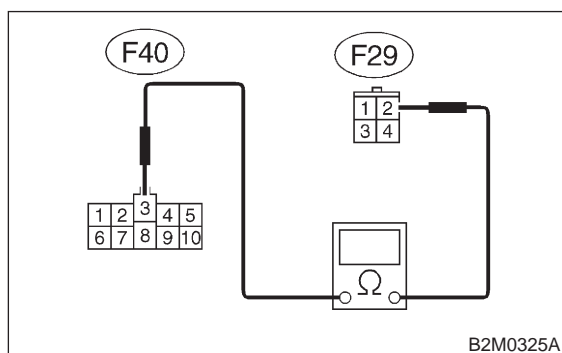
- CHECK** : Does continuity exist between terminals No. 2 and No. 4?
- YES** : Go to step 1A11.
- NO** : Replace main fan relay.

1A11 : CHECK HARNESS CONNECTOR BETWEEN FUSE AND RELAY BOX AND A/C RELAY HOLDER.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connector from fuse and relay box.
- 3) Measure resistance of harness connector between fuse and relay box and A/C relay holder.

Connector & terminal

(F40) No. 3 — (F29) No. 2:



- CHECK** : **Is resistance less than 1 Ω?**
- YES** : Go to step **1A12**.
- NO** : Repair open circuit in harness between fuse and relay box and A/C relay holder connector.

1A12 : CHECK POOR CONTACT.

Check poor contact in fuse and relay box connector. <Ref. to FOREWORD [T3C1].>

- CHECK** : **Is there poor contact in fuse and relay box connector?**
- YES** : Repair poor contact in fuse and relay box connector.
- NO** : Go to step **1A13**.

1A13 : CHECK POOR CONTACT.

Check poor contact in A/C relay holder connector. <Ref. to FOREWORD [T3C1].>

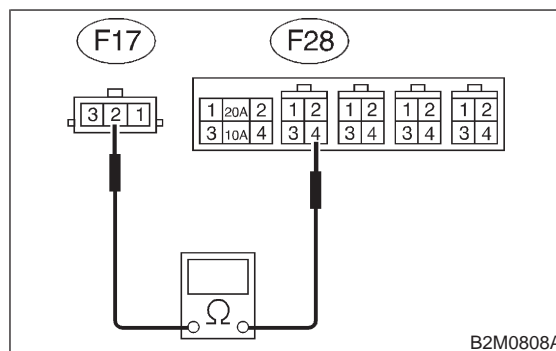
- CHECK** : **Is there poor contact in A/C relay holder connector?**
- YES** : Repair poor contact in A/C relay holder connector.
- NO** : Go to step **1A14**.

1A14 : CHECK HARNESS CONNECTOR BETWEEN A/C RELAY HOLDER AND MAIN FAN MOTOR.

Measure resistance of harness connector between A/C relay holder and main fan motor.

Connector & terminal

(F28) No. 4 — (F17) No. 2:



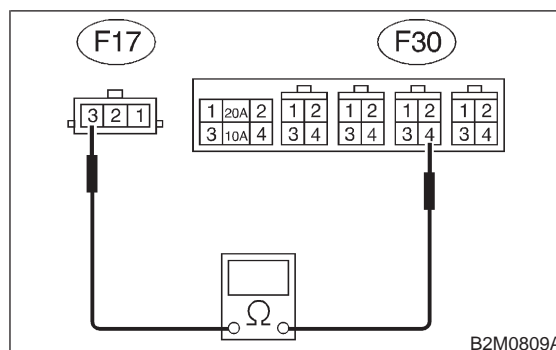
- CHECK** : **Is resistance less than 1 Ω?**
- YES** : Go to step **1A15**.
- NO** : Repair open circuit in harness between A/C relay holder and main fan motor connector.

1A15 : CHECK HARNESS CONNECTOR BETWEEN A/C RELAY HOLDER AND MAIN FAN MOTOR.

Measure resistance of harness connector between A/C relay holder and main fan motor.

Connector & terminal

(F30) No. 4 — (F17) No. 3:



- CHECK** : **Is resistance less than 1 Ω?**
- YES** : Go to step **1A16**.
- NO** : Repair open circuit in harness between A/C relay holder and main fan motor connector.

1A16 : CHECK POOR CONTACT.

Check poor contact in A/C relay holder connector.
<Ref. to FOREWORD [T3C1].>

- CHECK** : *Is there poor contact in A/C relay holder connector?*
- YES** : Repair poor contact in A/C relay holder connector.
- NO** : Go to step **1A17**.

1A17 : CHECK POOR CONTACT.

Check poor contact in main fan motor connector.
<Ref. to FOREWORD [T3C1].>

- CHECK** : *Is there poor contact in main fan motor connector?*
- YES** : Repair poor contact in main fan motor connector.
- NO** : Refer to 2-7 "On-Board Diagnostics II System" diagnostics procedure.

B: LO MODE OPERATION (WITH A/C MODEL)

DETECTING CONDITION:

Condition (1):

- Engine coolant temperature is below 89°C (192°F).
- A/C switch is turned ON.
- Vehicle speed is below 10 km/h (6 MPH).

Condition (2):

- Engine coolant temperature is above 95°C (203°F).
- A/C switch is turned OFF.
- Vehicle speed is below 10 km/h (6 MPH).

TROUBLE SYMPTOM:

- Radiator main fan does not rotate at LO speed under conditions (1) and (2) above.

1B1 : CHECK POWER SUPPLY TO MAIN FAN MOTOR.

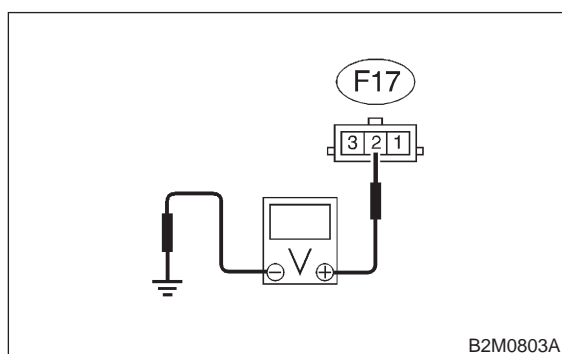
CAUTION:

Be careful not to overheat engine during repair.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connector from main fan motor.
- 3) Start the engine, and warm-up it until engine coolant temperature increases over 95°C (203°F).
- 4) Stop the engine and turn ignition switch to ON.
- 5) Turn A/C switch to OFF.
- 6) Measure voltage between main fan motor connector and chassis ground.

Connector & terminal

(F17) No. 2 (+) — Chassis ground (-):



CHECK : Is voltage more than 10 V?

YES : Go to step 1B2.

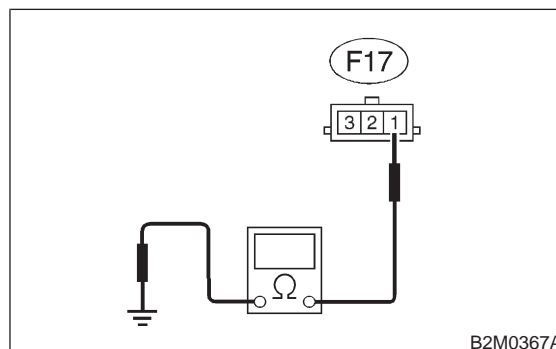
NO : Go to step 1B5.

1B2 : CHECK GROUND CIRCUIT OF MAIN FAN MOTOR.

- 1) Turn ignition switch to OFF.
- 2) Measure resistance between main fan motor connector and chassis ground.

Connector & terminal

(F17) No. 1 — Chassis ground:



CHECK : Is resistance less than 5 Ω?

YES : Go to step 1B3.

NO : Repair open circuit in harness between main fan motor connector and chassis ground.

1B3 : CHECK POOR CONTACT.

Check poor contact in main fan motor connector.
<Ref. to FOREWORD [T3C1].>

CHECK : Is there poor contact in main fan motor connector?

YES : Repair poor contact in main fan motor connector.

NO : Go to step 1B4.

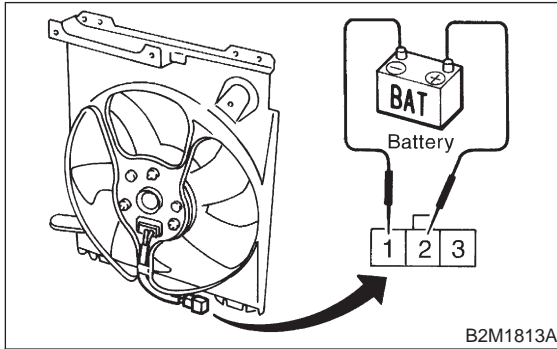
2-5 [T1B4]

1. Radiator Main Fan

ENGINE COOLING SYSTEM

1B4 : CHECK MAIN FAN MOTOR.

Connect battery positive (+) terminal to terminals No. 2 of main fan motor connector, and negative (-) terminal to terminal No. 1.



CHECK : Does the main fan rotate at LO speed?

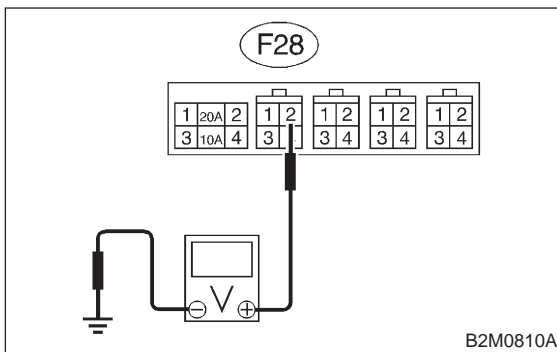
YES : Repair poor contact in main fan motor connector.

NO : Replace main fan motor with a new one.

1B5 : CHECK POWER SUPPLY TO MAIN FAN RELAY-1.

- 1) Turn ignition switch to OFF.
- 2) Remove main fan relay-1 from A/C relay holder.
- 3) Measure voltage between main fan relay-1 terminal and chassis ground.

Connector & terminal
(F28) No. 2 (+) — Chassis ground (-):



CHECK : Is voltage more than 10 V?

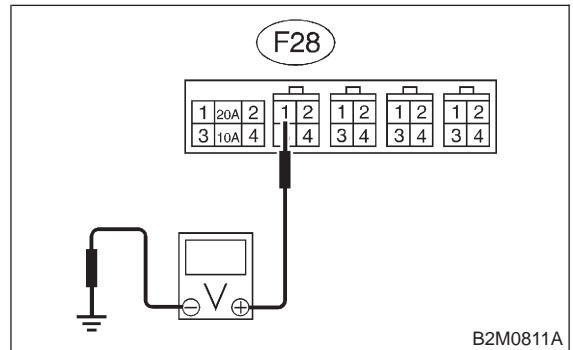
YES : Go to step 1B6.

NO : Go to step 1B7.

1B6 : CHECK POWER SUPPLY TO MAIN FAN RELAY-1.

- 1) Turn ignition switch to ON.
- 2) Measure voltage between main fan relay-1 terminal and chassis ground.

Connector & terminal
(F28) No. 1 (+) — Chassis ground (-):



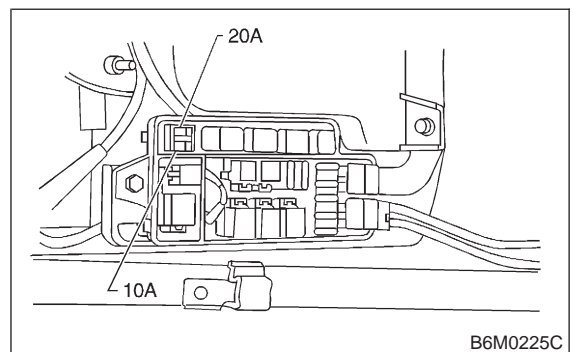
CHECK : Is voltage more than 10 V?

YES : Go to step 1B17.

NO : Go to step 1B12.

1B7 : CHECK 20 A FUSE.

- 1) Turn ignition switch to OFF.
- 2) Remove 20 A fuse from A/C relay holder.
- 3) Check condition of fuse.



CHECK : Is the fuse blown-out?

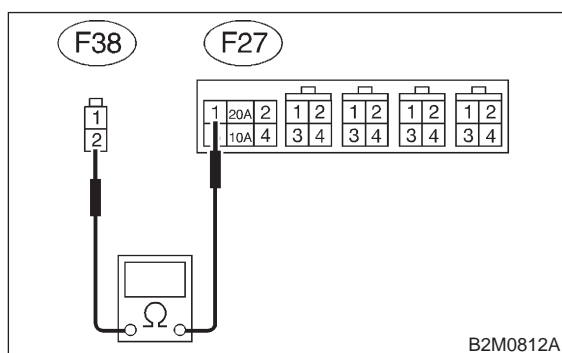
YES : Replace fuse.

NO : Go to step 1B8.

1B8 : CHECK HARNESS CONNECTOR BETWEEN MAIN FUSE BOX AND A/C RELAY HOLDER 20 A FUSE.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connector from main fuse box.
- 3) Disconnect connectors (F25) and (F26) from generator.
- 4) On LHD model, disconnect connector (F34) from SBF holder.
- 5) Measure resistance of harness between main fuse box connector and A/C relay holder 20 A fuse terminal.

Connector & terminal
(F38) No. 2 — (F27) No. 1:



- CHECK** : **Is resistance less than 1 Ω?**
YES : Go to step **1B9**.
NO : Repair open circuit in harness between main fuse box connector and 20 A fuse terminal.

1B9 : CHECK POOR CONTACT.

Check poor contact in main fuse box connector. <Ref. to FOREWORD [T3C1].>

- CHECK** : **Is there poor contact in main fuse box connector?**
YES : Repair poor contact in main fuse box connector.
NO : Go to step **1B10**.

1B10 : CHECK POOR CONTACT.

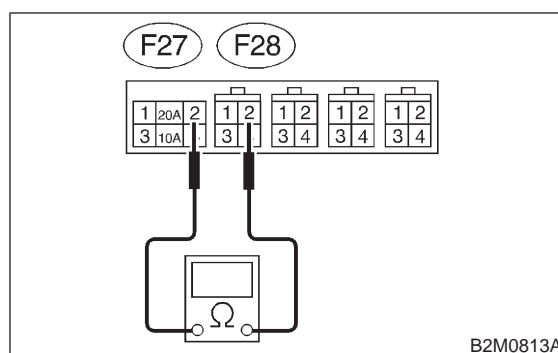
Check poor contact in A/C relay holder 20A fuse connector. <Ref. to FOREWORD [T3C1].>

- CHECK** : **Is there poor contact in A/C relay holder 20 A fuse connector?**
YES : Repair poor contact in 20 A fuse connector.
NO : Go to step **1B11**.

1B11 : CHECK HARNESS CONNECTOR BETWEEN 20 A FUSE AND MAIN FAN RELAY-1 IN A/C RELAY HOLDER.

Measure resistance of harness between 20 A fuse and main fan relay-1 terminal.

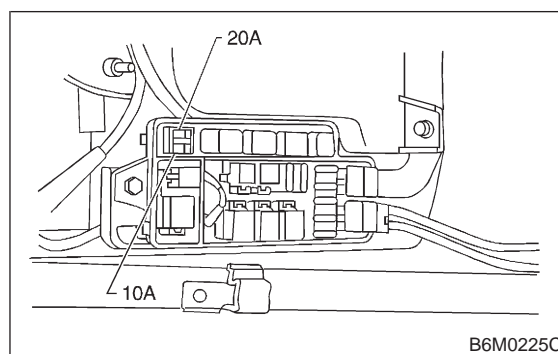
Connector & terminal
(F27) No. 2 — (F28) No. 2:



- CHECK** : **Is resistance less than 1 Ω?**
YES : Repair poor contact in main fan relay-1 connector.
NO : Repair open circuit in harness between 20 A fuse and main fan relay-1 connector.

1B12 : CHECK 10 A FUSE.

- 1) Turn ignition switch to OFF.
- 2) Remove 10 A fuse from A/C relay holder.
- 3) Check condition of fuse.



- CHECK** : **Is the fuse blown-out?**
YES : Replace fuse.
NO : Go to step **1B13**.

2-5 [T1B13]

1. Radiator Main Fan

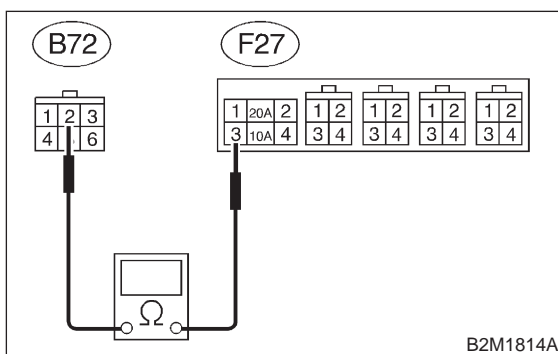
ENGINE COOLING SYSTEM

1B13 : CHECK HARNESS CONNECTOR BETWEEN IGNITION SWITCH AND A/C RELAY HOLDER 10 A FUSE.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connector from ignition switch.
- 3) Disconnect connector (i5) from fuse and relay box.
- 4) Measure resistance of harness between ignition switch connector and A/C relay holder 10 A fuse terminal.

Connector & terminal

(B72) No. 2 — (F27) No. 3:



- CHECK** : Is resistance less than 1 Ω?
- YES** : Go to step 1B14.
- NO** : Repair harness and connector.

NOTE:

In this case, repair the following:

- Open circuit in harness between ignition switch connector and 10 A fuse terminal.
- Poor contact in coupling connector (B61).

1B14 : CHECK POOR CONTACT.

Check poor contact in ignition switch connector. <Ref. to FOREWORD [T3C1].>

- CHECK** : Is there poor contact in ignition switch connector?
- YES** : Repair poor contact in ignition switch connector.
- NO** : Go to step 1B15.

1B15 : CHECK POOR CONTACT.

Check poor contact in A/C relay holder 10A fuse connector. <Ref. to FOREWORD [T3C1].>

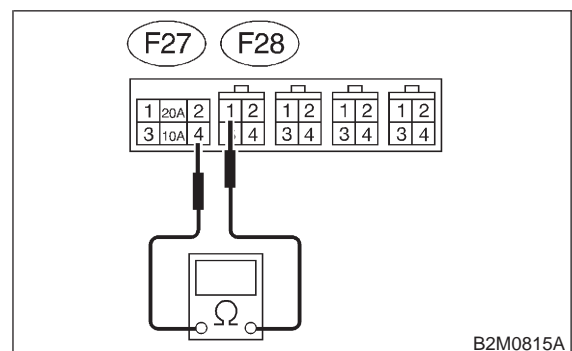
- CHECK** : Is there poor contact in A/C relay holder 10 A fuse connector?
- YES** : Repair poor contact in 10 A fuse connector.
- NO** : Go to step 1B16.

1B16 : CHECK HARNESS CONNECTOR BETWEEN 10 A FUSE AND MAIN FAN RELAY-1 IN A/C RELAY HOLDER.

Measure resistance of harness between 10 A fuse and main fan relay-1 terminal.

Connector & terminal

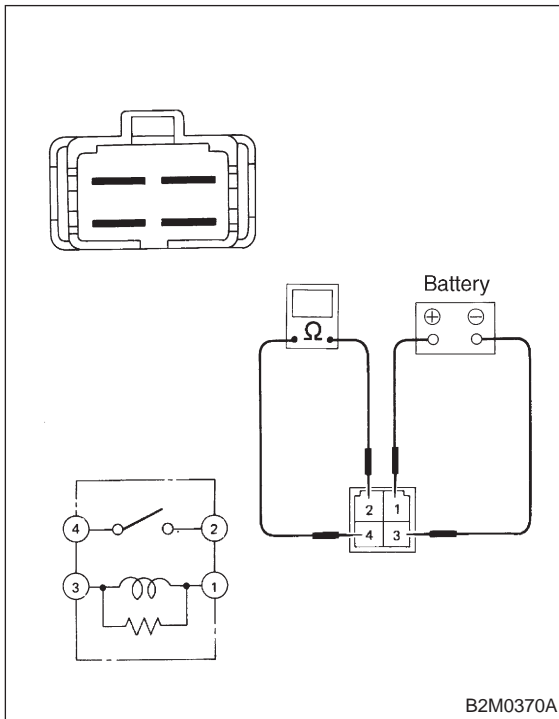
(F27) No. 4 — (F28) No. 1:



- CHECK** : Is resistance less than 1 Ω?
- YES** : Repair poor contact in main fan relay-1 connector.
- NO** : Repair open circuit in harness between 10 A fuse and main fan relay-1 connector.

1B17 : CHECK MAIN FAN RELAY-1.

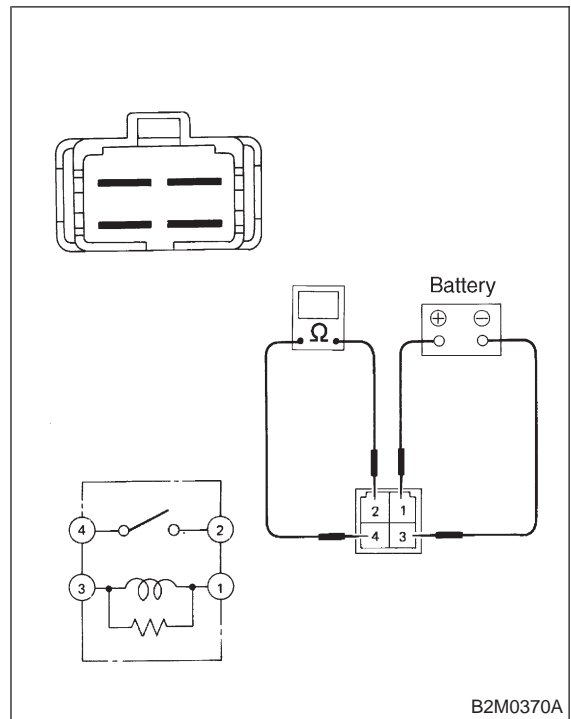
- 1) Turn ignition switch to OFF.
- 2) Check continuity between main fan relay-1 terminals.



- CHECK** : Does continuity exist between terminals No. 2 and No. 4?
- YES** : Replace main fan relay-1.
- NO** : Go to step 1B18.

1B18 : CHECK MAIN FAN RELAY-1.

- 1) Connect battery to terminals No. 1 and No. 3 of main fan relay-1.
- 2) Check continuity between main fan relay-1 terminals.



- CHECK** : Does continuity exist between terminals No. 2 and No. 4?
- YES** : Go to step 1B19.
- NO** : Replace main fan relay-1.

2-5 [T1B19]

1. Radiator Main Fan

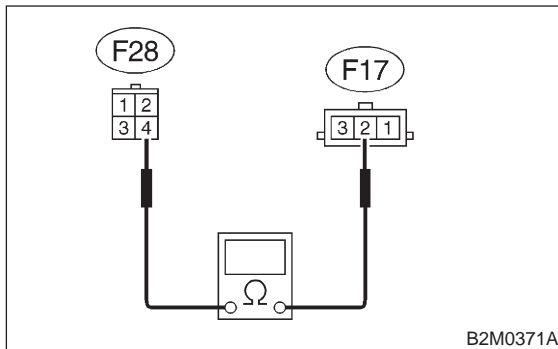
ENGINE COOLING SYSTEM

1B19 : CHECK HARNESS CONNECTOR BETWEEN MAIN FAN RELAY-1 AND MAIN FAN MOTOR.

Measure resistance of harness between main fan motor connector and main fan relay-1 terminal.

Connector & terminal

(F17) No. 2 — (F28) No. 4:



CHECK : *Is resistance less than 1 Ω?*

YES : Go to step 1B20.

NO : Repair open circuit in harness between main fan motor and main fan relay-1 connector.

1B20 : CHECK POOR CONTACT.

Check poor contact in main fan relay-1 connector. <Ref. to FOREWORD [T3C1].>

CHECK : *Is there poor contact in main fan relay-1 connector?*

YES : Repair poor contact in main fan relay-1 connector.

NO : Go to step 1B21.

1B21 : CHECK POOR CONTACT.

Check poor contact in main fan motor connector. <Ref. to FOREWORD [T3C1].>

CHECK : *Is there poor contact in main fan motor connector?*

YES : Repair poor contact in main fan motor connector.

NO : Refer to 2-7 "On-Board Diagnostics II System" diagnostics procedure.

C: HI MODE OPERATION (WITH A/C MODEL)

DETECTING CONDITION:

Condition (1):

- Engine coolant temperature is below 89°C (192°F).
- A/C switch is turned ON.
- Vehicle speed is over 20 km/h (12 MPH).

Condition (2):

- Engine coolant temperature is above 95°C (203°F).
- A/C switch is turned OFF.
- Vehicle speed is over 20 km/h (12 MPH).

Condition (3):

- Engine coolant temperature is above 95°C (203°F).
- A/C switch is turned ON.

TROUBLE SYMPTOM:

- Radiator main fan does not rotate at HI speed under conditions (1), (2) and (3) above.

1C1 : CHECK OPERATION OF MAIN FAN MOTOR LO MODE.

CAUTION:

Be careful not to overheat engine during repair.

- 1) Start the engine, and warm-up it until engine coolant temperature increases over 95°C (203°F).
- 2) Stop the engine and turn ignition switch to ON.
- 3) Turn A/C switch to OFF.

CHECK : *Does the main fan operate at LO MODE?*

YES : Go to step 1C2.

NO : Go to LO MODE OPERATION diagnostics chart. <Ref. to 2-5 [T1B0].>

1C2 : CHECK POWER SUPPLY TO MAIN FAN MOTOR.

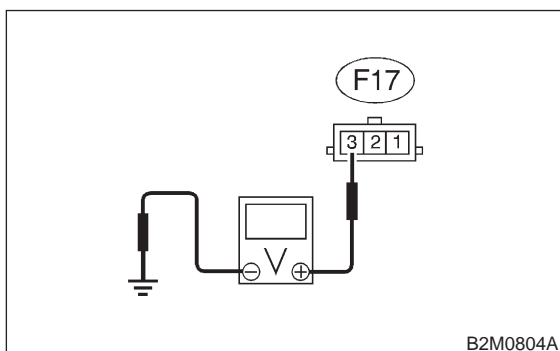
CAUTION:

Be careful not to overheat engine during repair.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connector from main fan motor.
- 3) Warm-up the engine until engine coolant temperature increases over 95°C (203°F).
- 4) Stop the engine and turn ignition switch to ON.
- 5) Turn A/C switch to ON.
- 6) Measure voltage between main fan motor connector and chassis ground.

Connector & terminal

(F17) No. 3 (+) — Chassis ground (-):



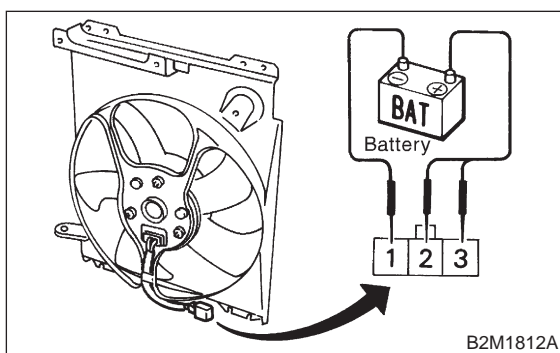
CHECK : Is voltage more than 10 V?

YES : Go to step 1C3.

NO : Go to step 1C4.

1C3 : CHECK MAIN FAN MOTOR.

- 1) Turn ignition switch and A/C switch to OFF.
- 2) Connect battery positive (+) terminal to terminals No. 2 and No. 3 of main fan motor connector, and negative (-) terminal to terminal No. 1.



CHECK : Does the main fan rotate at HI speed?

YES : Repair poor contact in main fan motor connector.

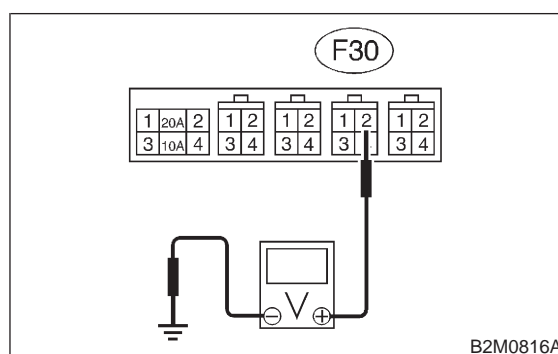
NO : Replace main fan motor with a new one.

1C4 : CHECK POWER SUPPLY TO MAIN FAN RELAY-2.

- 1) Turn ignition switch and A/C switch to OFF.
- 2) Remove main fan relay-2 from A/C relay holder.
- 3) Measure voltage between main fan relay-2 terminal and chassis ground.

Connector & terminal

(F30) No. 2 (+) — Chassis ground (-):



CHECK : Is voltage more than 10 V?

YES : Go to step 1C5.

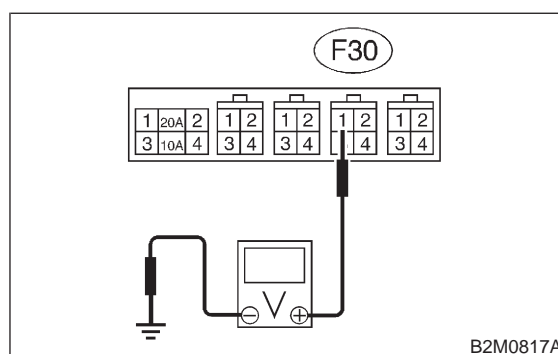
NO : Go to step 1C6.

1C5 : CHECK POWER SUPPLY TO MAIN FAN RELAY-2.

- 1) Turn ignition switch to ON.
- 2) Measure voltage between main fan relay-2 terminal and chassis ground.

Connector & terminal

(F30) No. 1 (+) — Chassis ground (-):



CHECK : Is voltage more than 10 V?

YES : Go to step 1C8.

NO : Go to step 1C7.

2-5 [T1C6]

1. Radiator Main Fan

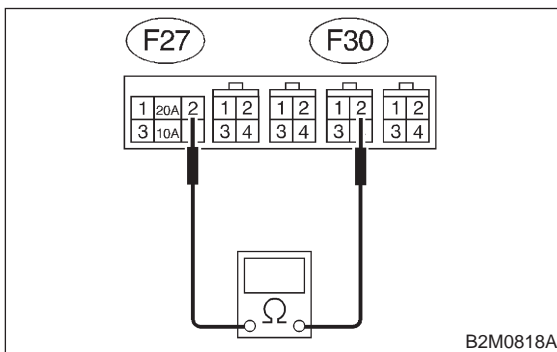
ENGINE COOLING SYSTEM

1C6 : CHECK HARNESS CONNECTOR BETWEEN 20 A FUSE AND MAIN FAN RELAY-2 IN A/C RELAY HOLDER.

- 1) Turn ignition switch to OFF.
- 2) Remove 20 A fuse from A/C relay holder.
- 3) Measure resistance of harness between 20 A fuse and main fan relay-2 terminal.

Connector & terminal

(F27) No. 2 — (F30) No. 2:



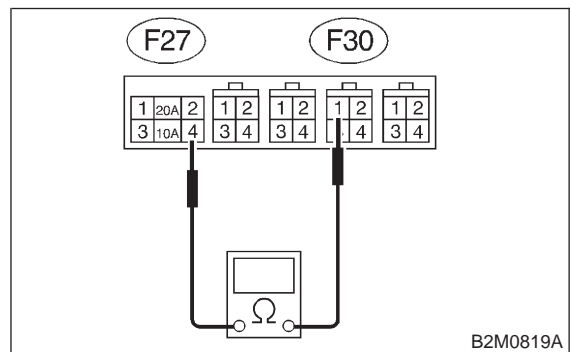
- CHECK** : **Is resistance less than 1 Ω?**
- YES** : Repair poor contact in main fan relay-2 connector.
- NO** : Repair open circuit in harness between 20 A fuse and main fan relay-2 connector.

1C7 : CHECK HARNESS CONNECTOR BETWEEN 10 A FUSE AND MAIN FAN RELAY-2 IN A/C RELAY HOLDER.

- 1) Turn ignition switch to OFF.
- 2) Remove 10 A fuse from A/C relay holder.
- 3) Measure resistance of harness between 10 A fuse and main fan relay-2 terminal.

Connector & terminal

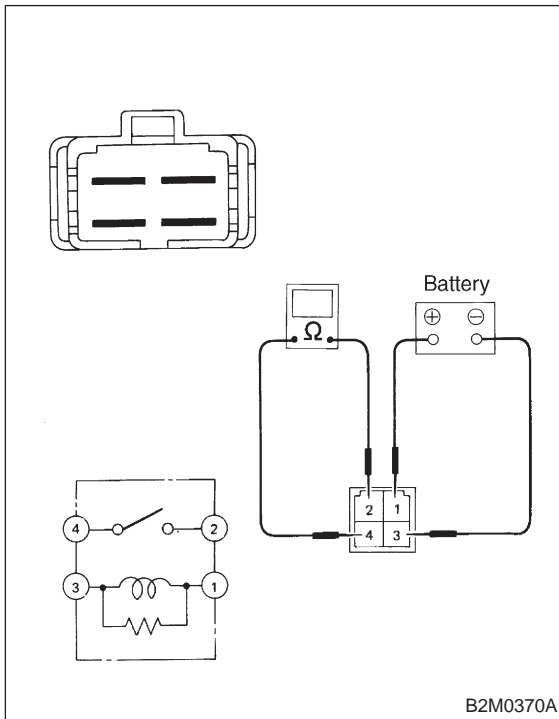
(F27) No. 4 — (F30) No. 1:



- CHECK** : **Is resistance less than 1 Ω?**
- YES** : Repair poor contact in main fan relay-2 connector.
- NO** : Repair open circuit in harness between 10 A fuse and main fan relay-2 connector.

1C8 : CHECK MAIN FAN RELAY-2.

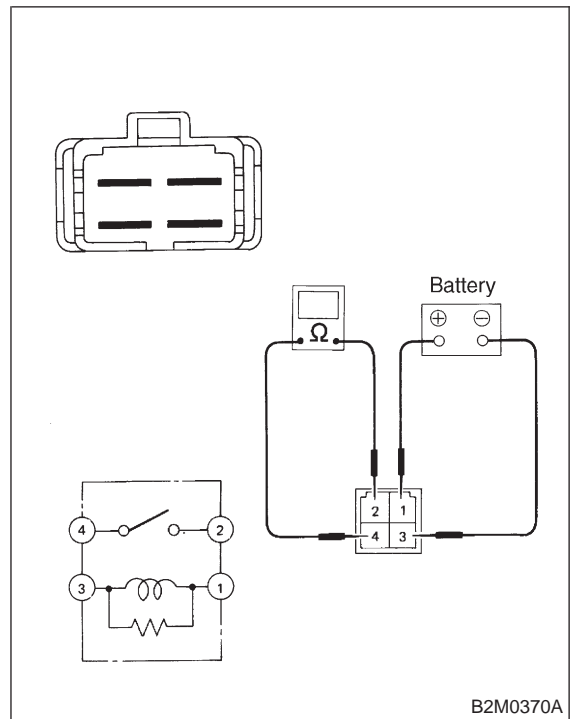
- 1) Turn ignition switch to OFF.
- 2) Check continuity between main fan relay-2 terminals.



- CHECK** : **Does continuity exist between terminals No. 2 and No. 4?**
- YES** : Replace main fan relay-2.
- NO** : Go to step 1C9.

1C9 : CHECK MAIN FAN RELAY-2.

- 1) Connect battery to terminals No. 1 and No. 3 of main fan relay-2.
- 2) Check continuity between main fan relay-2 terminals.



- CHECK** : **Does continuity exist between terminals No. 2 and No. 4?**
- YES** : Go to step 1C10.
- NO** : Replace main fan relay-2.

2-5 [T1C10]

ENGINE COOLING SYSTEM

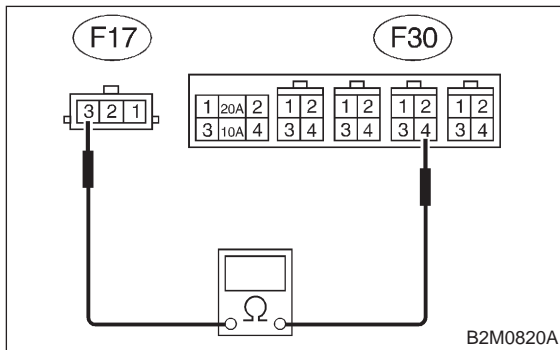
2. Radiator Sub Fan (With A/C model only)

1C10 : CHECK HARNESS CONNECTOR BETWEEN MAIN FAN RELAY-2 AND MAIN FAN MOTOR.

Measure resistance of harness between main fan motor connector and main fan relay-2 terminal.

Connector & terminal

(F17) No. 3 — (F30) No. 4:



CHECK : Is resistance less than 1 Ω?

YES : Go to step 1C11.

NO : Repair open circuit in harness between main fan motor and main fan relay-2 connector.

1C11 : CHECK POOR CONTACT.

Check poor contact in main fan relay-2 connector.
<Ref. to FOREWORD [T3C1].>

CHECK : Is there poor contact in main fan relay-2 connector?

YES : Repair poor contact in main fan relay-2 connector.

NO : Go to step 1C12.

1C12 : CHECK POOR CONTACT.

Check poor contact in main fan motor connector.
<Ref. to FOREWORD [T3C1].>

CHECK : Is there poor contact in main fan motor connector?

YES : Repair poor contact in main fan motor connector.

NO : Refer to 2-7 "On-Board Diagnostics II System" diagnostics procedure.

2. Radiator Sub Fan (With A/C model only)

A: LO MODE OPERATION

DETECTING CONDITION:

Condition (1):

- Engine coolant temperature is below 89°C (192°F).
- A/C switch is turned ON.
- Vehicle speed is below 10 km/h (6 MPH).

Condition (2):

- Engine coolant temperature is above 95°C (203°F).
- A/C switch is turned OFF.
- Vehicle speed is below 10 km/h (6 MPH).

TROUBLE SYMPTOM:

- Radiator sub fan does not rotate at LO speed under conditions (1) and (2) above.

2A1 : CHECK POWER SUPPLY TO SUB FAN MOTOR.

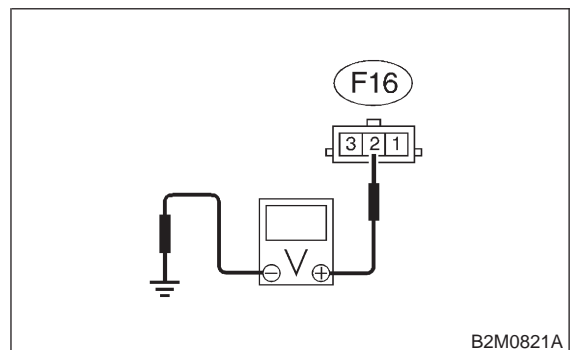
CAUTION:

Be careful not to overheat engine during repair.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connector from sub fan motor.
- 3) Start the engine, and warm-up it until engine coolant temperature increases over 95°C (203°F).
- 4) Stop the engine and turn ignition switch to ON.
- 5) Turn A/C switch to OFF.
- 6) Measure voltage between sub fan motor connector and chassis ground.

Connector & terminal

(F16) No. 2 (+) — Chassis ground (-):



CHECK : Is voltage more than 10 V?

YES : Go to step 2A2.

NO : Go to step 2A5.