

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

B2M0376

# A: LO MODE OPERATION

# CONDITION:

Condition (1) :

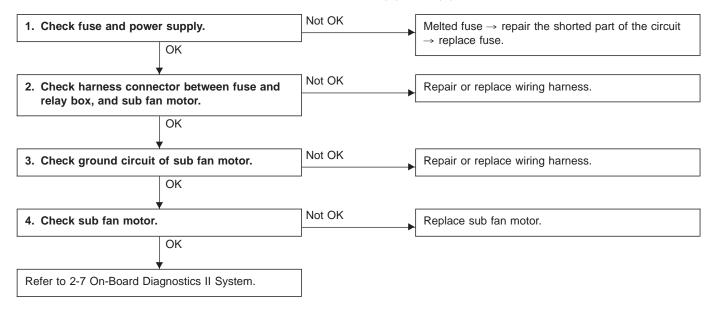
- Engine coolant temperature is below 89°C (192°F).
- A/C switch is turned ON.
- Vehicle speed is below 10 km/h (6 MPH).

Condition (2) :

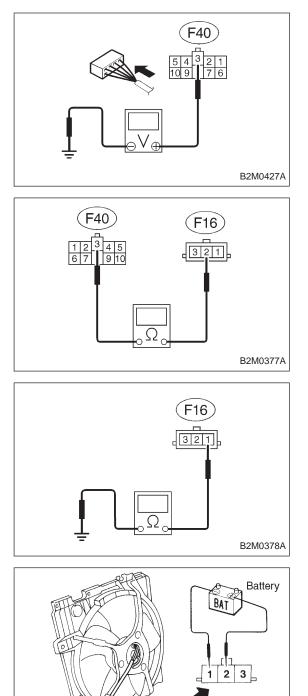
- Engine coolant temperature is above 95°C (203°F).
- A/C switch is turned OFF.
- Vehicle speed is below 10 km/h (6 MPH).

#### TROUBLE SYMPTOM:

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



# DIAGNOSTICS



# 1. CHECK FUSE AND POWER SUPPLY.

- 1) Check fuse No. 13.
- 2) Turn ignition switch to ACC.

3) Measure voltage between fuse and relay box, and body.

Connector & terminal / Specified voltage: (F40) No. 3 — Body / 10 V, or more

#### 2. CHECK HARNESS CONNECTOR BETWEEN FUSE AND RELAY BOX, AND SUB FAN MOTOR.

1) Turn ignition switch to OFF.

2) Disconnect connectors from fuse and relay box, and sub fan motor.

3) Measure resistance of harness connector between fuse and relay box, and sub fan motor.

Connector & terminal / Specified resistance: (F40) No. 3 — (F16) No. 2 / 10  $\Omega$ , max.

# 3. CHECK GROUND CIRCUIT OF SUB FAN MOTOR.

Measure resistance between sub fan motor connector and body.

Connector & terminal / Specified resistance: (F16) No. 1 — Body / 10 Ω, max.

# 4. CHECK SUB FAN MOTOR.

1) Disconnect connector from sub fan motor.

2) Connect battery positive (+) terminal to terminal No. 2 and connect terminal No. 1 to ground. Ensure that fan rotates at LO speed.

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# **B: HI MODE OPERATION**

### CONDITION:

Condition (1) :

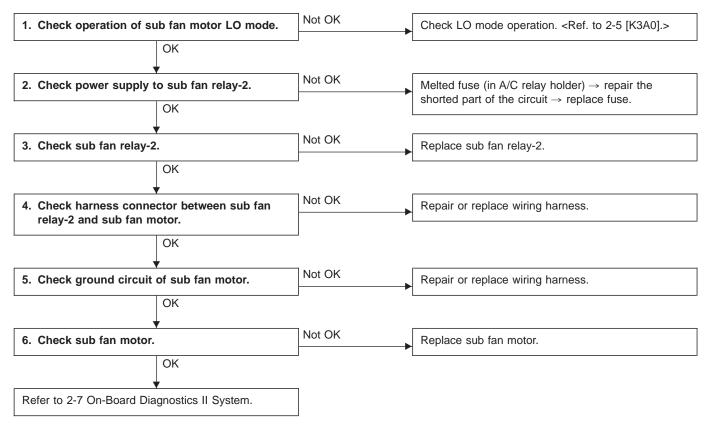
- Engine coolant temperature is below 89°C (192°F).
- A/C switch is turned ON.
- Vehicle speed is over 20 km/h (12 MPH).

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.

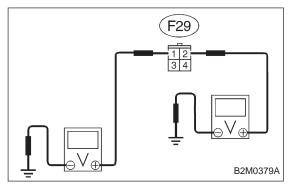
#### TROUBLE SYMPTOM:

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



# 1. CHECK OPERATION OF SUB FAN MOTOR LO MODE.

Check that radiator sub fan rotates at LO speed under each condition described under LO mode operation. <Ref. to 2-5 [K3A0].>



# 2. CHECK POWER SUPPLY TO SUB FAN RELAY-2.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connector from A/C relay holder.

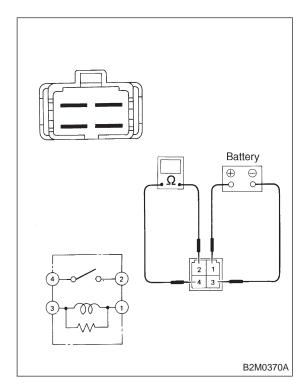
3) Measure voltage between A/C relay holder connector and body.

Connector & terminal / Specified voltage: (F29) No. 1 — Body / 1 V, max. (F29) No. 2 — Body / 1 V, max.

4) Turn ignition switch to ON.

5) Measure voltage between A/C relay holder connector and body.

Connector & terminal / Specified voltage: (F29) No. 1 — Body / 10 V, or more (F29) No. 2 — Body / 10 V, or more



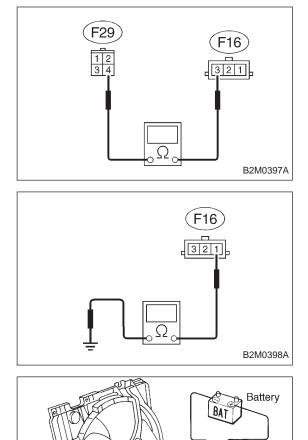
# 3. CHECK SUB FAN RELAY-2.

1) Turn ignition switch to OFF.

2) Remove sub fan relay-2 from A/C relay holder.

3) Check continuity between terminals (indicated in table below) when terminal (1) is connected to battery and terminal (3) is grounded.

When current flows.	Between terminals (2) and (4)	Continuity exists.
When current does not flow.	Between terminals (2) and (4)	Continuity does not exist.
	Between terminals (1) and (3)	Continuity exists.



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# 4. CHECK HARNESS CONNECTOR BETWEEN SUB FAN RELAY-2 AND SUB FAN MOTOR.

1) Disconnect connectors from sub fan relay-2 and sub fan motor.

2) Measure resistance of harness connector between sub fan relay-2 and sub fan motor.

Connector & terminal / Specified resistance: (F29) No. 4 — (F16) No. 3 / 10  $\Omega$ , max.

### 5. CHECK GROUND CIRCUIT OF SUB FAN MOTOR.

Measure resistance between sub fan motor connector and body.

Connector & terminal / Specified resistance: (F16) No. 1 — Body / 10  $\Omega$ , max.

# 6. CHECK SUB FAN MOTOR.

1) Disconnect connector from sub fan motor.

2) Connect battery positive (+) terminal to terminals No. 2 and No.3, and connect terminal No. 1 to ground. Ensure that fan rotates at HI speed.