ENGINE COOLING FAN
Article Text
1994 Suzuki Swift
For Xeon

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ARTICLE BEGINNING

1994 ENGINE COOLING
Suzuki Specifications & Electric Cooling Fans

Swift

SPECIFICATIONS

BELT ADJUSTMENT

BELT ADJUSTMENT SPECIFICATIONS TABLE (NEW BELT)

Application	(1) Deflection In. (mm)
Swift	
A/C Belt	.31-.39 (8.0-10.0)
Power Steering Belt	.31-.39 (8.0-10.0)
Water Pump Belt	.24-.32 (6.1-8.1)

(1) - Deflection is checked with 22 lbs. (10 kg) pressure applied midway on longest belt run.

COOLING SYSTEM

COOLING SYSTEM SPECIFICATIONS TABLE

Application	Specification
Cooling System Capacity (1)	
Swift	4.9 Qts. (4.7L)
Pressure Cap	
Swift	12.5 psi (.88 kg/cm²)
Thermostat	
Swift DOHC	
Thermostat Starts To Open	175-185°F (79.2-84.8°C)
Thermostat Fully Opens	198-208°F (92.2-97.8)
Swift SOHC	
Thermostat Starts To Open	185-195°F (85.2-90.8°C)
Thermostat Fully Opens	207-217°F (97.2-102.8)

(1) - Includes engine, radiator, reservoir tank and heater core.

ELECTRIC COOLING FAN

SYSTEM TESTING

NOTE: For testing procedures not covered in this article, see GENERAL COOLING SYSTEM SERVICING article in GENERAL INFORMATION.

Radiator Fan

1) Check cooling system fluid level. Start and run engine. Ensure coolant temperature is less than 199°F (93°C). If cooling fan operates, go to next step. If cooling fan does not operate, go to step 3).

2) Disconnect cooling fan thermoswitch, located near distributor. See Fig. 1. If cooling fan stops running, replace cooling fan thermoswitch. If cooling fan continues to operate after cooling fan thermoswitch is disconnected, check for short to voltage in Blue wire between cooling fan thermoswitch and cooling fan motor relay. If cooling fan still runs, check Blue/Red wire between cooling fan relay and cooling fan for short to voltage.

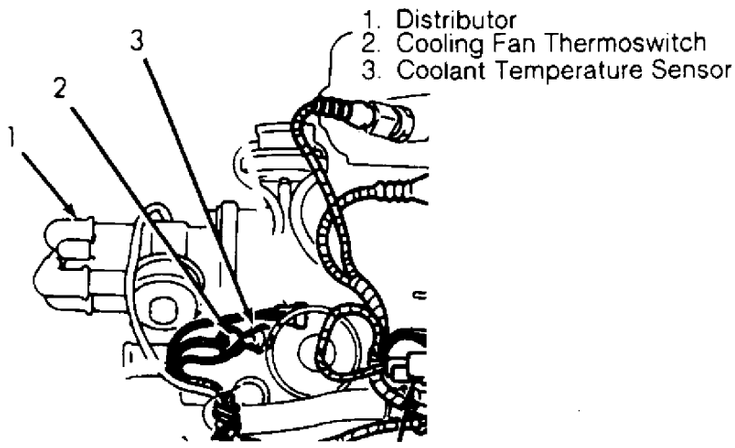

Fig. 1: Locating Cooling Fan Thermoswitch
Courtesy of Suzuki of America Corp.

3) If cooling fan does not operate with coolant temperature less than 199°F (93°C), run engine until coolant temperature is more than 208°F (98°C). Feel radiator hoses for proper thermostat operation. If cooling fan operates, system is okay. If cooling fan does not operate, check fuse link "B" and IGN fuse in fuse block. If fuses are okay and cooling fan does not operate, go to next step.

4) With cooling fan thermoswitch connector disconnected, connect a fused jumper wire between thermoswitch harness connector terminals (Black/White and Blue wires). If cooling fan operates with ignition on, replace cooling fan thermoswitch. If cooling fan does not operate, go to next step.

5) Turn ignition off. Using a Digital Volt Ohmmeter (DVOM), check for continuity between Black (ground) wire of fan motor connector and ground. If continuity is present, go to next step. If continuity is not present, repair open or bad ground connection at Black (ground) wire. Ground connection is located on left front inner fender. See Fig. 2.

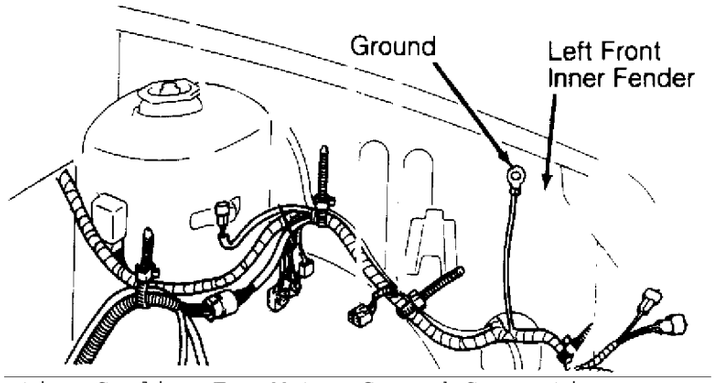

Fig. 2: Locating Cooling Fan Motor Ground Connection
Courtesy of Suzuki of America Corp.

6) With engine running and fan thermoswitch terminals jumped, use a test light to backprobe cooling fan motor connector Blue wire. If test light glows, replace cooling fan motor. If test light does not glow, go to next step.

7) Using test light, probe cooling fan thermoswitch connector Black/White wire. If test light does not glow, repair open in Black/White wire between cooling fan thermoswitch and junction block connector. Junction block is located behind left side of instrument panel. See Fig. 3. If test light glows, check for voltage at fan relay connector terminal No. 1 (Blue wire). Go to COOLING FAN RELAY.

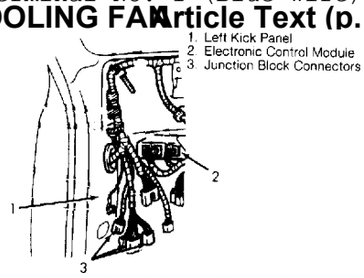

Fig. 3: Locating Cooling Fan Junction Block
Courtesy of Suzuki of America Corp.

Cooling Fan Relay

1) If voltage is not present at fan relay Blue wire, repair

Blue wire between cooling fan thermoswitch and cooling fan relay. If voltage is present at fan relay terminal Blue wire, check relay terminal No. 3 (Black wire) to ensure ground is present. If ground is not present at Black wire, repair Black wire. If ground is present, go to next step.

2) Check for voltage at fan relay connector terminal No. 2 (White/Blue), if voltage is not present, check fuse link "B" and in-line fuse under dash (next to junction box). If voltage is present at fan relay terminal No. 2, check for continuity between fan relay terminal No. 4 (Blue/Red wire) and fan motor connector. If continuity does not exist, repair Blue/Red wire. If continuity does exist, replace fan relay.

Cooling Fan Thermoswitch

Remove thermoswitch from vehicle. Using ohmmeter, ensure continuity is correct between wire connector and thermoswitch body at indicated temperatures. Thermoswitch may be gradually heated in water for testing. See COOLING FAN THERMOSWITCH table.

COOLING FAN THERMOSWITCH TABLE

Application	Continuity (ON) °F (°C)	No Continuity (OFF) °F (°C)
DOHC	Above 190-208 (87-98)	Below 181-199 (83-93)
SOHC	Above 199-217 (93-103)	Below 190-208 (88-98)

WIRING DIAGRAM

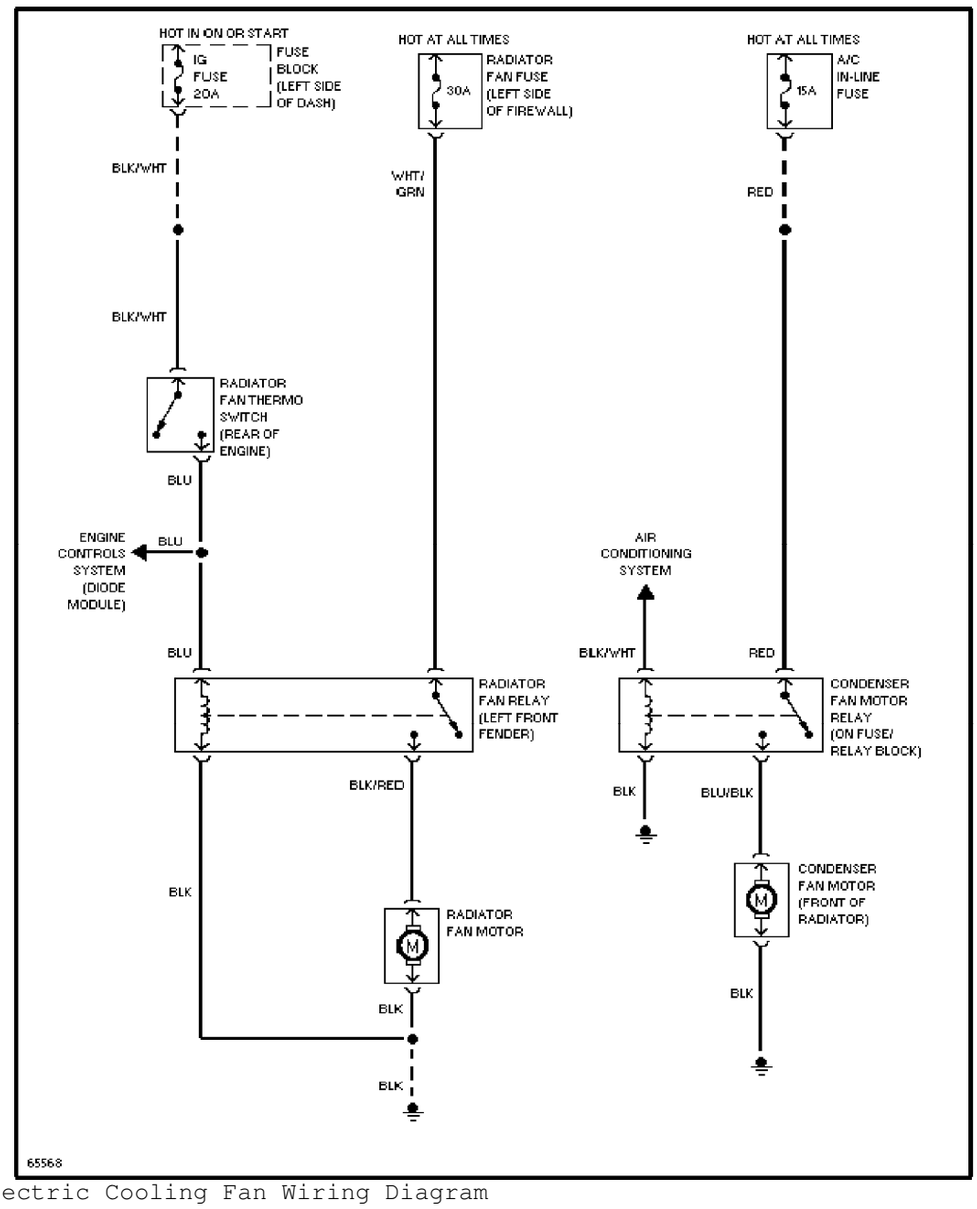

Fig. 4: Electric Cooling Fan Wiring Diagram

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