DESCRIPTION AND OPERATION (Continued)

Cooling Fan

The fan control system consists of a two-speed fan on all 3.0L, 3.2L SHO and 3.8L engines with ATX or a one-speed fan on 3.0L SHO engines with an MTX, attached to a fan shroud located behind the radiator. The cooling fan is wired to operate only when the ignition switch is in the RUN position, thereby preventing cooling fan operation after the ignition switch is turned to the OFF position.

WARNING: DISCONNECT THE COOLING FAN PRIOR TO PERFORMING ANY UNDERHOOD SERVICE SINCE THE FAN COULD CYCLE IF THE IGNITION SWITCH IS LEFT IN THE ON POSITION EVEN THOUGH THE ENGINE IS NOT RUNNING.

The cooling fan is controlled during vehicle operation by the Constant Control Relay Module (CCRM) 12B577 and Powertrain Control Module (PCM) 12A650 which will energize the cooling fan under the following conditions:

- Cooling fan is turned on for the 3.0L SHO and on at low speed for 3.0L, 3.2L SHO and 3.8L if:

a. Engine temperature is higher than normal. (Fan starts running at 102°C (215°F) and stops running at 99°C (210°F).

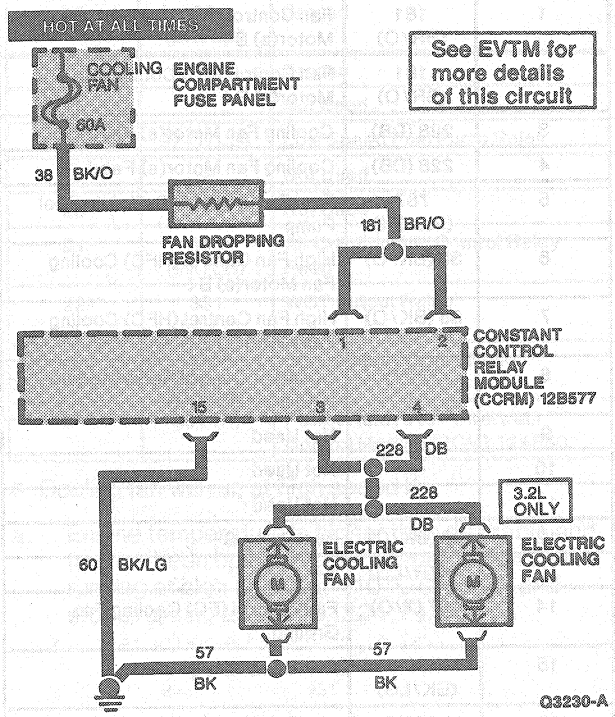
b. A/C is on and vehicle speed does not provide enough natural airflow. (Fan starts running at speeds at or below 69 km/h (43 mph) and stops running at 77 km/h (48 mph).

On 3.0L and 3.2L SHO engines with ATX, low speed cooling fan motor operation is achieved by using a dropping resistor in series with the motor/motors.

The 3.8L uses a dual winding fan motor in which low speed motor operation is achieved through the low speed motor winding circuit (no dropping resistor).

Normal operation and cycling of the engine cooling fan will cause the temperature gauge indicator to read between the mid-point and upper portion of the temperature gauge scale. The slightly higher indicator reading will return to mid-point when fan operation begins.

Cooling Fan Motor Circuit Diagram — 3.0L with ATX and 3.2L SHO



Constant Control Relay Module (CCRM) Connector End View