

## THERMOSTATICALLY CONTROLLED ELECTRIC FANS

**Chrysler Corp.**  
Horizon & Omni  
**Ford Motor Co. (Turbo Only)**  
**General Motors**  
Citation, Omega, Phoenix & Skylark

### DESCRIPTION

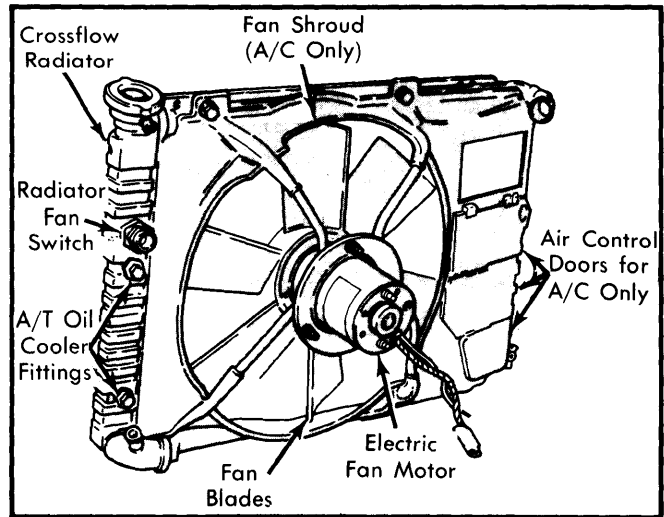
All electrically-driven fans are actuated by thermal relay switches. Thermal switches turn fan motor on when necessary and shut fan motor off when not needed. All air conditioned vehicles are equipped with over-ride switches. These switches turn fan motor on whenever air conditioning system is operating, and return fan motor control to thermal relay when system is turned off.

Although all electric fans operate on same principle, the following are special descriptions that apply to specific models:

**Chrysler Corp.** — Radiator fan switch activates fan motor only when coolant temperature reaches 193-207°F. Fan motor shuts off when ignition switch is turned off, regardless of coolant temperature. Fan motors, 5 ampere (Non A/C) or 10 ampere (A/C vehicles) drive the 14-inch, six-bladed fan.

**Ford Motor Co.** — Coolant temperature switch activates coolant relay to provide battery power to fan motor when engine temperature reaches 233°F; relay shuts fan off when temperature drops to 218°F. After vehicle operation or when carburetor temperature exceeds 155°F, carburetor temperature relay switch activates timer relay. Timer relay turns fan on for a period of 20 minutes or until temperature drops to 155°F or less.

**NOTE** — *Timer relay works only when ignition switch is turned off. Avoid working around fan with ignition off when temperature at carburetor may exceed 155°F.*



**Fig. 5 Thermostatically Controlled Electric Fan (Chrysler Corp.)**

**General Motors** — Coolant temperature switch turns fan motor on at specified temperatures. Fan motor shuts off when ignition switch is turned off, regardless of coolant temperature.

### TESTING

If fan is not operating properly, disconnect fan motor wire connector and connect it with 14 gauge wire to a good 12-volt battery. If fan runs, motor is all right, indicating car battery, radiator fan switch (Chrysler), coolant relay, timer relay (Ford), coolant temperature switch (GM) or A/C relay (all models) may be defective. If fan motor does not run when connected directly to a good battery, replace fan motor.

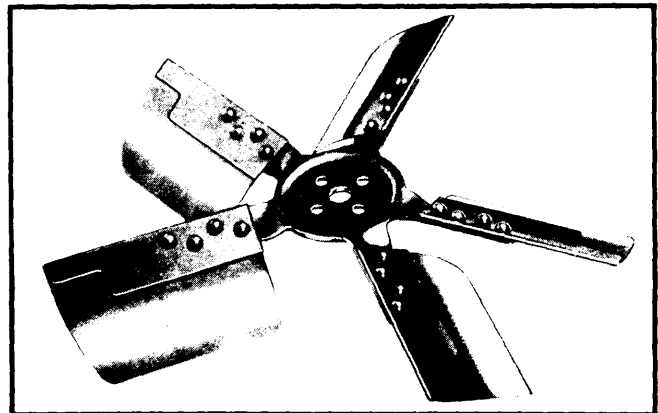
## VARIABLE SPEED COOLING FANS

### FLEX-BLADE FAN

**American Motors**  
Cadillac  
**Chrysler Corp.**  
**Ford Motor Co.**  
Pontiac

### DESCRIPTION

This unit is a fixed blade assembly designed to flex the blades as the engine RPM increases. As RPM increases blade pitch decreases, thereby saving power and decreasing noise level. No adjustment or test is required beyond keeping the fan belt adjusted to the proper tension.



**Fig. 6 Flex-Blade Fan**