

1974-79 EXHAUST EMISSION SYSTEMS

Pantera Thermostatic Air Cleaners

3-355

1974 Pantera

DESCRIPTION

A thermostatically controlled air cleaner is used to maintain the air temperature entering the carburetor at a constant temperature. A valve, located within the air duct assembly, controls temperature of air entering carburetor by allowing either heated or cool air to enter carburetor. Valve plate is controlled by a thermostatic bulb (in air duct) or a vacuum operated motor. An auxiliary air inlet valve is incorporated on some air cleaners.

VACUUM OPERATED DUCT & VALVE ASSEMBLY

Vacuum is controlled by a bimetallic switch located in air cleaner assembly. When underhood temperatures are below approximately 80°F (27°), the bimetallic switch is closed and allows vacuum to close vacuum motor air door to underhood air. Warm air is then drawn from exhaust manifold shroud and into carburetor. When temperature inside air cleaner reaches 80°F (27°C), the bimetallic switch opens and bleeds off vacuum. Without vacuum, vacuum motor air door is shut and carburetor receives air directly from engine compartment.

AUXILIARY AIR INLET VALVE

Additional carburetor air, during acceleration and full throttle periods, is provided by the auxiliary air inlet valve on side of air cleaner. The decrease in intake manifold vacuum during acceleration and full throttle periods causes vacuum motor to open auxiliary air inlet valve. This provides carburetor with additional engine compartment air.

TESTING

VACUUM OPERATED DUCT & VALVE ASSEMBLY

- 1) Duct valve should be open when engine is off. Start engine. Valve should close during engine idle, unless engine has reached normal operating temperature.
- 2) If engine is cold and valve does not close during idle, check for disconnected vacuum lines to vacuum motor and bimetallic switch. Check bimetallic switch by immersing switch in water heated to 80°F (27°C). Bimetallic strip should unseat bleed valve.
- 3) Open and close throttle rapidly. Valve should open during throttle opening. If valve does not function properly, check vacuum motor air door for binding. See Fig. 1.

AUXILIARY AIR INLET VALVE

- 1) Start engine and observe vacuum motor air door. Air door should be fully closed. Disconnect vacuum hose at vacuum motor. Air door should be in full open position.
- 2) If vacuum motor air door position is not as specified, check door interference and alignment of plate and motor rod, and for at least 15 in. Hg of vacuum at vacuum motor hose.
- 3) If vacuum is not available at vacuum motor, check hose and connections for leaks. If vacuum motor air door still remains in one position, remove vacuum motor from air cleaner. Connect vacuum motor to another vacuum source. If motor rod does not move when vacuum is applied to vacuum motor, it must be replaced.

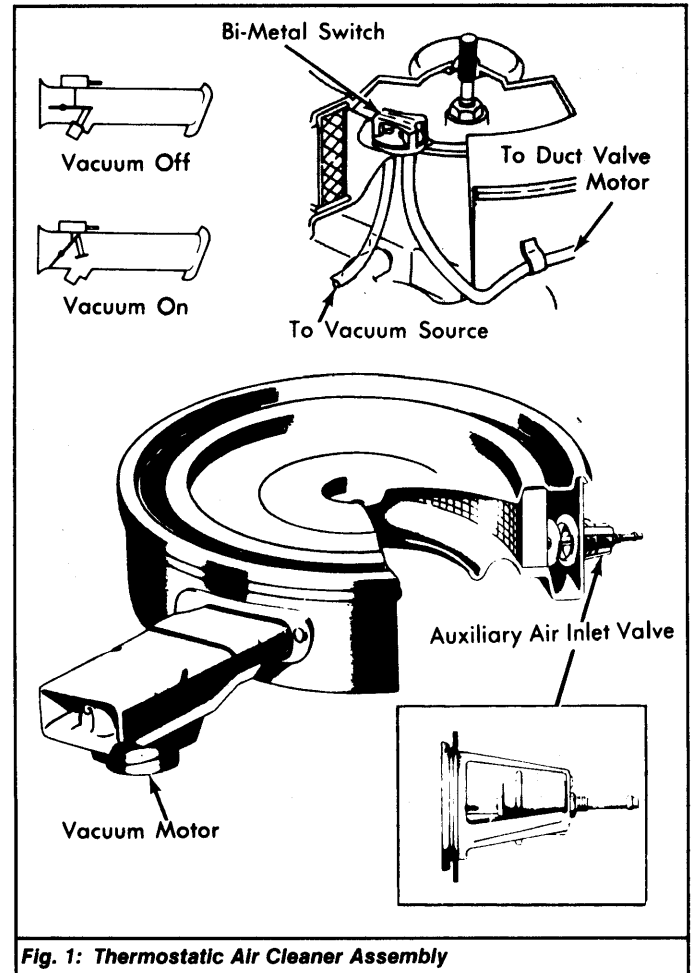


Fig. 1: Thermostatic Air Cleaner Assembly