

1974-79 EXHAUST EMISSION SYSTEMS

Ford Motor Co. Thermostatic Air Cleaners

3-183

Courier

DESCRIPTION

The thermostatic air cleaner is used on all Courier models to control temperature of incoming air to the carburetor. Such control allows better air/fuel mixture settings for closer control of exhaust emissions. A thermo sensor is located in the air cleaner snorkel and positions an air control valve to allow either heated air from exhaust shroud or cooler air from outside to enter.

OPERATION

MANUAL AIR TEMPERATURE CONTROL VALVE

With outside air temperature below 50-60°F (10-15°C) the control valve selection lever should be set to the "W" (winter) position. In this position, the control valve is closed to outside air and preheated air is drawn into the air cleaner from the exhaust manifold heat stove.

With outside air temperature above 50-60°F (10-15°C), the control valve should be set to the "S" (summer) position. In this position, the air control valve is closed to pre-heated air and outside air is drawn into the air cleaner.

AUTOMATIC AIR TEMPERATURE CONTROL VALVE

When ambient temperature is below approximately 25-30°F (-4 to -1°C), thermo sensor will position air control valve in up (heat on) position. This allows only heated air, which is gathered from around the exhaust manifold, to enter the carburetor.

As ambient temperature increases, air control valve moves downward, to allow some cooler outside air in. This modulating operation keeps air temperature in air cleaner constant. Once ambient temperature is above 90-100°F (32-38°C), air control valve will be fully down; only cool, outside air will be allowed into the carburetor.

TESTING

THERMOSTATIC AIR CLEANER

Check valve shaft and linkage for sticking or wear. Close hood, start engine and allow engine to reach normal operating temperature. Open hood and remove hot air hose. Look into air cleaner and check that air valve is open to allow underhood air to enter air cleaner.

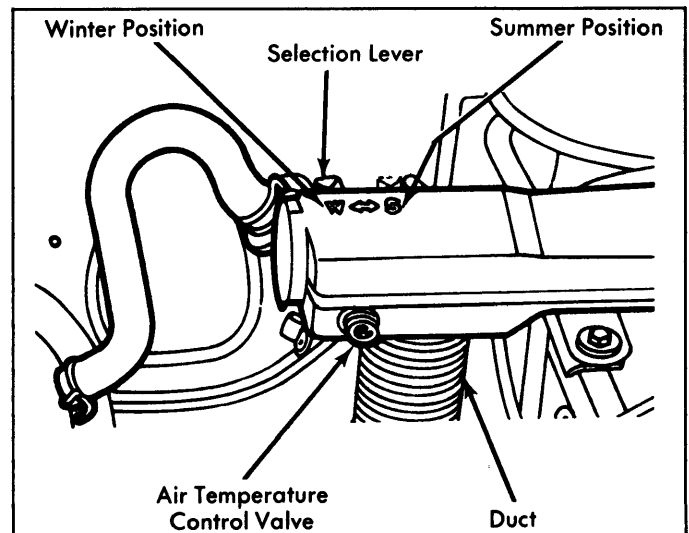


Fig. 1: Thermostatic Air Cleaner Assembly (Manual)

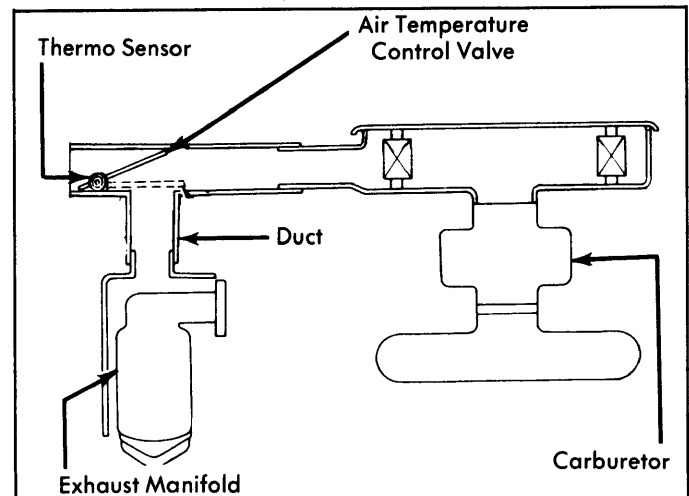


Fig. 2: Thermostatic Air Cleaner Assembly (Automatic)