

# 1975-79 EXHAUST EMISSION SYSTEMS

## Chrysler Corp. Thermal Ignition Control (TIC) Valve

3-87

### DESCRIPTION

The Thermal Ignition Control (TIC) valve is used on some V8 engines which are equipped with the OSAC emission control system and "maximum cooling" and/or air conditioning. Its purpose is to reduce the possibility of engine overheating during high temperature operations.

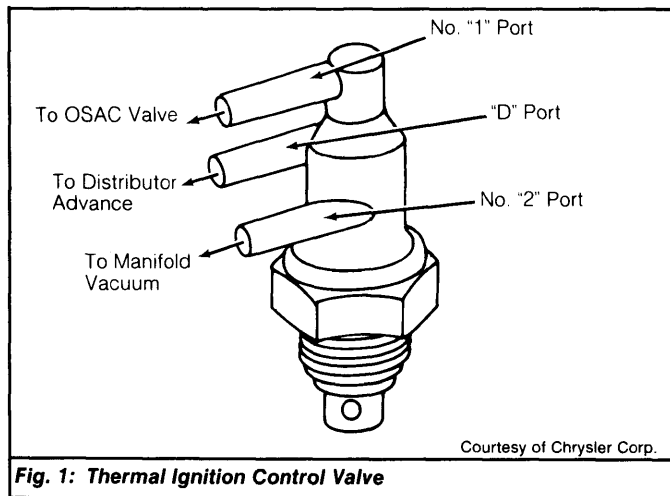


Fig. 1: Thermal Ignition Control Valve

### OPERATION

When engine coolant temperature at idle reaches 225°F, valve opens automatically and applies manifold vacuum directly to vacuum advance unit of distributor, by-passing OSAC valve. This increases engine idle RPM and provides additional engine cooling. When engine has cooled to normal operating temperature, OSAC valve is restored to normal operation.

### TESTING

- 1) Check vacuum hoses routing and coolant level. Attach a tachometer to engine.
- 2) Bring engine to normal operating temperature and adjust idle to 600 RPM (for test only). Disconnect hose from No. "2" port (manifold inlet) and plug hose.
- 3) Check engine idle RPM, no change indicates valve is holding and valve is acceptable up to this point. If idle speed drops 100 RPM or more, valve must be replaced.
- 4) Re-install vacuum hose to No. "2" port. Cover radiator to increase engine coolant temperature.

**CAUTION: Avoid engine overheating.**

- 5) Idle engine until temperature is approximately 225°F. If engine RPM is not increased 100 RPM by the time engine temperature reaches 235°F, valve is defective and must be replaced.
- 6) Uncover radiator and idle engine until it reaches normal temperature, re-adjust idle RPM to specifications.

**NOTE: For exact engine application and vacuum hose routings of the TIC valve, see CHRYSLER CORP. VACUUM DIAGRAMS at end of this section.**