

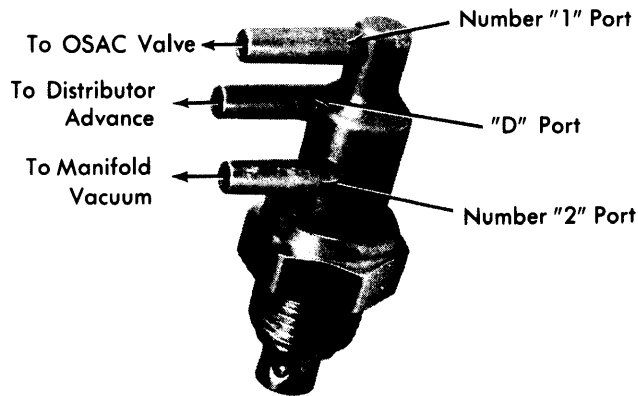
1971-74 CHRYSLER CORP. THERMAL IGNITION CONTROL (TIC) VALVE

DESCRIPTION

Thermal Ignition Control (TIC) is used on some engine applications to reduce possibility of engine overheating under extremely high temperature operating conditions.

OPERATION

TIC Valve is installed in thermostat housing in all Chrysler applications. Valve has three ports; "D" port to distributor vacuum diaphragm, number "1" port to carburetor vacuum above throttle valve, and number "2" port to manifold vacuum. When coolant temperature at idle reaches 225°F, TIC valve switches from carburetor vacuum to manifold vacuum, advancing ignition timing to full vacuum advance at idle. This change increases engine speed 100 RPM or more, and aids in reducing possibility of engine overheating. In 1973-74 applications, valve by-passes OSAC Valve until engine is returned to normal operating temperature, then OSAC Valve resumes regular function.

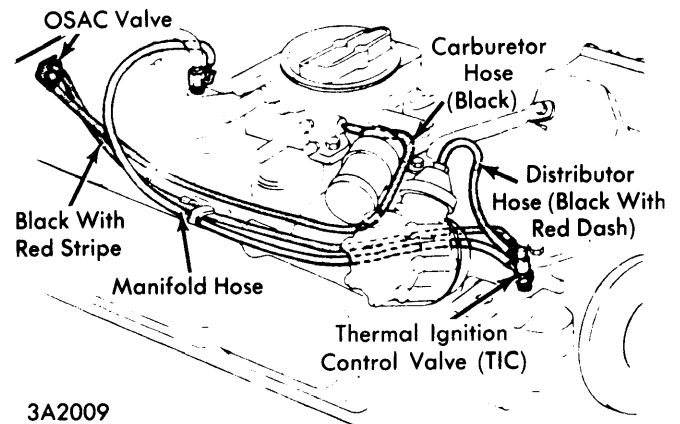


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THERMAL IGNITION CONTROL (TIC) VALVE

TESTING

- 1) Check vacuum hose routing and installation, check coolant level. Attach suitable tachometer to engine.
- 2) Bring engine to normal operating temperature, check to see that choke is fully open.
- 3) Disconnect distributor solenoid ground lead at carburetor and adjust idle speed to 600 RPM.
- 4) Disconnect hose from number "2" port (manifold inlet) and plug hose. Check engine idle speed. No change indicates valve is holding and acceptable to this point. If idle speed drops 100 RPM or more, valve should be replaced. Reinstall vacuum hose.
- 5) Cover radiator to increase engine coolant temperature. **CAUTION** - Do not overheat engine. Idle engine until temperature is approximately 225°F. If engine speed has not increased by 100 RPM or more, valve is defective and should be replaced.
- 6) Idle engine with radiator uncovered until temperature is again normal. Reconnect distributor solenoid wire at carburetor and re-adjust idle RPM to specifications.



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TIC VALVE HOSE ROUTING (TYPICAL)