SUBARU ANTI-AFTERBURN SYSTEM

All Models

DESCRIPTION

The purpose of the Anti-Afterburn System is to prevent afterburning which occurs at cold start, thereby lowering emissions. System consists of an anti-afterburn valve, temperature switch and the various connecting hoses.

OPERATION

With coolant temperature below 167°F (75°C), the temperature switch is open, allowing vacuum to reach the anti-afterburn valve. With vacuum applied to valve, the anti-afterburn system is activated. With coolant temperature above this value, the temperature switch closes, shutting off vacuum to the anti-afterburn valve and overriding the system.

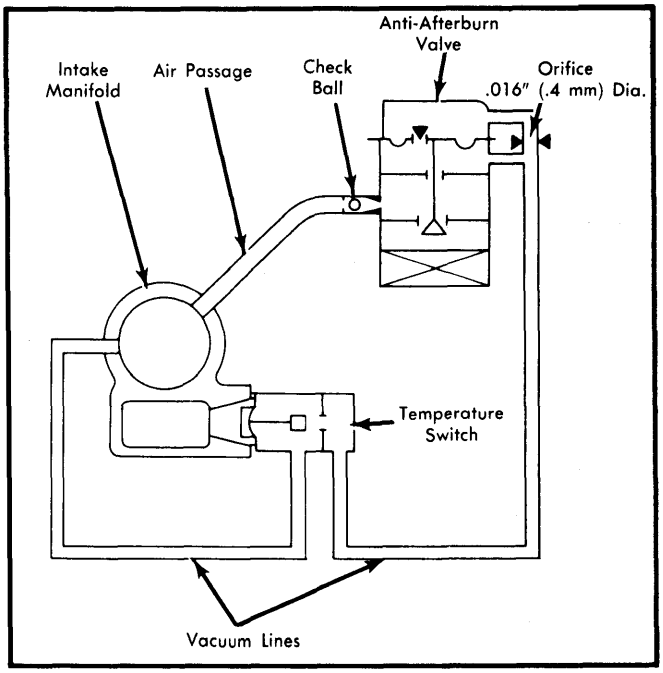

Fig. 1 Subaru Anti-Afterburn System

TESTING

TEMPERATURE SWITCH

1) Remove temperature switch from engine. Connect a piece of vacuum hose to each port of temperature switch, then submerge switch in a container of water with open end of hoses outside container.

CAUTION — *Do not allow water to enter temperature switch.*

2) With water temperature below 149°F (65°C), blow air into switch. Switch should be open and air should pass through switch freely. If not, replace temperature switch.

3) Heat water to above 174°F (79°C) and again blow air into switch. Switch should now be closed and air should not pass through switch. If air passes through switch, switch is defective and should be replaced.

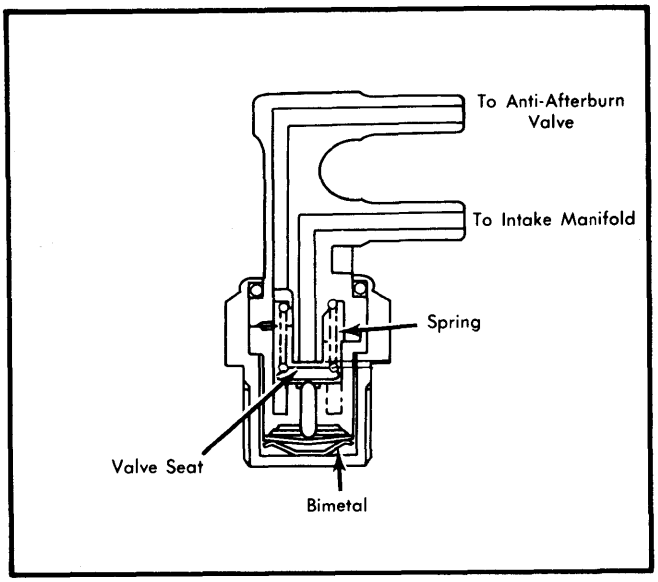

Fig. 2 Cross-Section of Anti-Afterburn Temperature Switch

ANTI-AFTERBURN VALVE

With engine coolant temperature below 149°F (65°C), hold a piece of paper under anti-afterburn valve. Raise engine speed to 3000 RPM, then close throttle quickly. Suction should hold paper to bottom of valve. If not, anti-afterburn valve is defective and should be replaced.

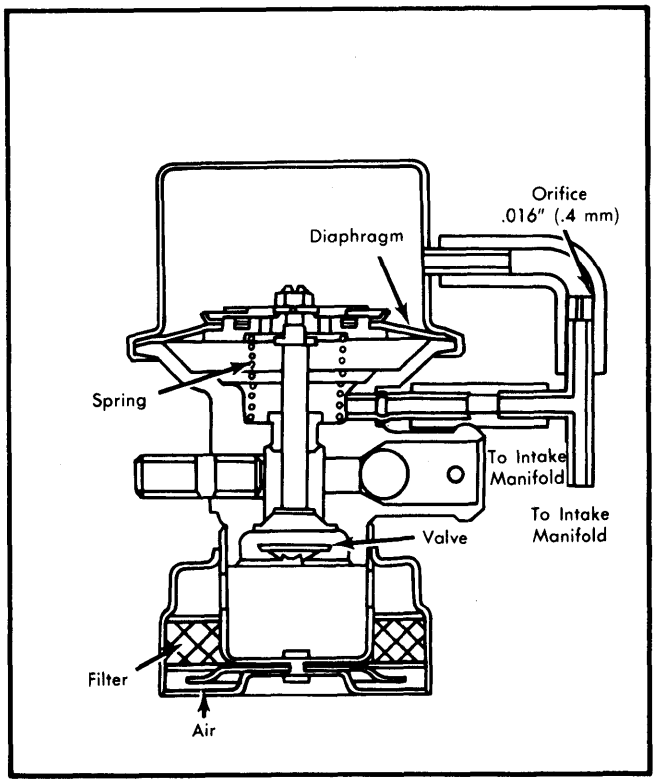

Fig. 3 Cross-Section of Anti-Afterburn Valve