# 1982 Exhaust Emission Systems

## MAZDA PISTON ENGINE THERMOSTATIC AIR CLEANER

**B2000, GLC, 626**

### DESCRIPTION

The Thermostatic Air Cleaner, used on all models, controls the temperature of incoming air to carburetor so more accurate carburetion can be achieved, giving better combustion and emission control.

The thermostatic air cleaner consists of the air cleaner housing with an intake air snorkel and air flow control door. This door is operated by a thermostatic device with mechanical linkage (GLC Wagon) or by a bi-metal-type thermostatic device (all others).

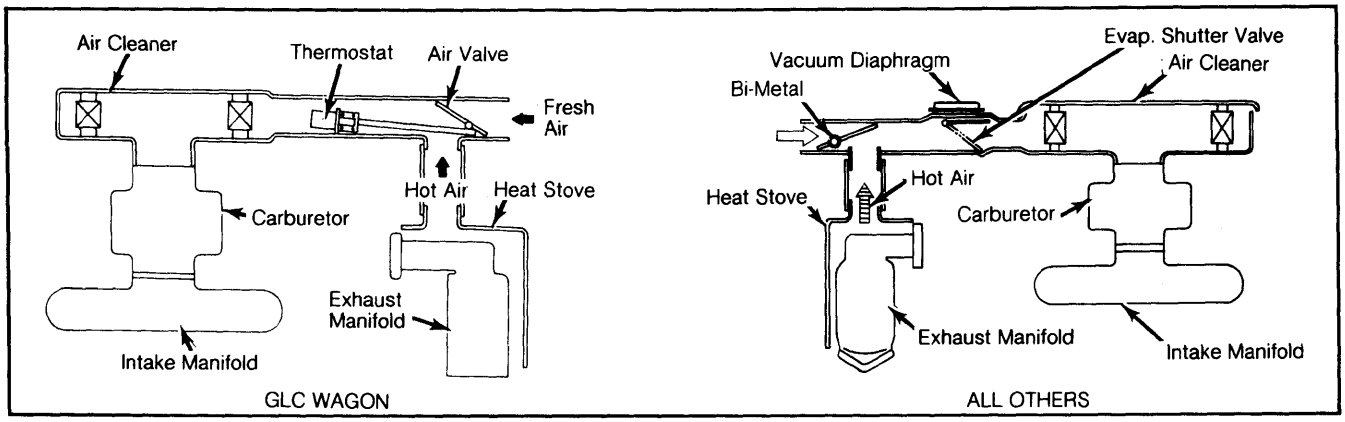
### OPERATION

When engine is cold, the thermostat in snorkel senses low air temperature and closes the air door to prevent entry of cold, outside air. At this point, only heated air from around the manifold shroud enters carburetor. As the thermostat senses warmer temperatures, it begins to close off the air door to heated air and allow outside air into the carburetor. In this manner, the temperature of incoming air can be controlled.

### TESTING

Check position of snorkel, condition of air filter and position of air cleaner housing. When engine is cold, air door should be closed. When engine is at normal operating temperature, air door should be open.

***Fig. 1: Sectional View of Thermostatic Air Cleaner***




## MAZDA PISTON ENGINE REED VALVE AIR INDUCTION

**B2000 (Exc. Calif.)**

**NOTE: All other models use air pump type air injection system. See appropriate article in this section.**

### DESCRIPTION

This pumpless air induction system injects atmospheric air into the exhaust system to reduce HC emissions. System components consist of a reed valve, catalytic converter and connecting hoses and pipes.

### OPERATION

When exhaust system pressure pulsations are less than atmospheric pressure, reed valve is opened to incoming air. When exhaust pressure exceeds atmospheric pressure, reed valve is closed to incoming air. This valve also acts as a check valve.

### TESTING

**REED VALVE**

**1)** With engine warmed to normal operating temperature, remove hose from inlet side (air cleaner side) of reed valve.

**2)** At idle, air should be felt being sucked into reed valve (check by placing finger over valve inlet). Increase speed to 1500 RPM and hold finger over valve inlet. Check that no exhaust leakage is coming through valve. If so, replace valve.

***Fig. 1: Mazda B2000 Air Induction System***