

# 1982 Exhaust Emission Systems

## CHRYSLER CORP. IMPORTS THERMOSTATIC AIR CLEANER

**Arrow Pickup, Challenger, Champ, Colt, Ram-50 Pickup, Sapporo**

### DESCRIPTION

All models are equipped with a Thermostatic Air Cleaner. Air cleaner is equipped with an air control valve (inside snorkel) which allows either heated exhaust shroud air or cooler ambient air into carburetor, depending on valve position. Valve position is controlled by a bimetal sensor, located at hinge of control valve on all models except Arrow and Ram-50 pickups. On Arrow and Ram-50 pickups, a vacuum motor, which responds to a bimetal sensor (located inside air cleaner housing), sets valve position.

### OPERATION

When incoming air temperature, as sensed by bimetal, is below predetermined temperature, air control valve will be up, in hot air only position. When temperature has reached a higher predetermined temperature, control valve will be down, in cold air only position. At tempera-

tures between these, control valve will be positioned to blend both hot and cold air to moderate temperatures reaching carburetor. Through this method, air temperature being used by carburetor is kept nearly constant.

### AIR CONTROL VALVE TEMPERATURE SETTINGS

| Application       | Valve Up<br>°F(°C) | Valve Down<br>°F(°C) |
|-------------------|--------------------|----------------------|
| Exc. Champ & Colt | 84 (29)            | 113 (45)             |
| Champ & Colt      | 41 (5)             | 108 (42)             |

### TESTING

1) After engine has cooled down, start engine. Check position of air control valve and watch it as engine warms up. It should function as described under "Operation". If not, replace air cleaner snorkel and/or casing.

2) If equipped with vacuum motor, apply 15 in. Hg to motor (hose disconnected) while engine is cold. Air valve should be up (heat on). If not, or if valve goes down immediately, a vacuum leak or defective motor is indicated. Replace assembly.

**Fig. 1: Chrysler Corp. Imports Thermostatic Air Cleaner System**

