

checks it is likely the control unit or coil is faulty. It is unlikely that both units would fail simultaneously. However, before replacing the control unit make sure no foreign matter is lodged in or blocking the female

terminal cavities in the harness connector. If clear, try replacing control unit or coil to see which one restores secondary ignition voltage.

## SERVICE PROCEDURES

**NOTE: ALL PROCEDURES APPLY TO BOTH 6 and 8 CYLINDER ENGINES, EXCEPT WHERE NOTED**

### SECONDARY CIRCUIT INSPECTION

#### Distributor Cap

Remove distributor cap and inspect the inside for flashover, cracking of carbon button, cracking of cap, and burned, worn or grooved terminals. If any of these conditions are present the distributor cap should be replaced.

Light scaling of the terminals, caused by the arching of the spark from the rotor can be cleaned with a sharp knife. If heavy scaling of the terminals is present, the distributor cap should be replaced.

A cap that is greasy or dirty or has a powdered like substance on the inside should be cleaned with a solution of warm water and a mild detergent. Scrub with a soft brush, thoroughly rinse, and dry with a clean soft cloth.

#### Rotor

Inspect the rotor for cracks, excessive burning of the tip, and proper tension of the spring terminal. If any of these conditions are present the rotor should be replaced.

Light scaling of the tip can be cleaned with a sharp knife, however, if heavy scaling is present the rotor should be replaced.

#### Spark Plug Wires

Check the high tension cable connections for good

contact at the coil and distributor cap towers and at the spark plugs. Terminals should be fully seated. The nipples and spark plug covers should be in good condition. Nipples should fit tightly on the coil cap towers and spark plug cover should fit tight around spark plug insulators. Cable connections that are loose will corrode and increase the resistance and permit water to enter the towers causing ignition malfunction. **To maintain proper sealing between the towers and nipples, cable and nipple assemblies should not be removed from the distributor or coil towers unless nipples are damaged or cable testing indicates high resistance or broken insulation.**

Clean high tension cables with a cloth moistened with a non-flammable solvent and wipe dry. Check for brittle or cracked insulation.

When testing secondary cables for punctures and cracks with an oscilloscope follow the instructions of the equipment manufacturers.

If an oscilloscope is not available, secondary cables can be tested as follows:

**CAUTION: DO NOT LEAVE ANY ONE SPARK PLUG WIRE DISCONNECTED ANY LONGER THAN NECESSARY DURING TEST OR POSSIBLE HEAT DAMAGE TO CATALYTIC CONVERTER WILL OCCUR. TOTAL TEST TIME MUST NOT EXCEED TEN MINUTES.**

(a) Engine not running, connect one end of a test probe to a good ground, other end free for probing.

(b) Disconnect cable at spark plug end. Insulate cable end from grounding.

(c) With engine running, move test probe along entire length of wire. If punctures or cracks are present there will be a noticeable spark jump from the faulty area to the probe. Secondary coil wire may be checked in the same manner, be sure one spark plug cable is disconnected from spark plug while running probe along coil wire secondary cable. Cracked, leaking or faulty cables should be replaced.

When installing new cable assemblies, install new high tension cable and nipple assembly over cap or coil tower, entering the terminal into the tower, push lightly, then pinch the large diameter of nipple (Fig. 17) to release trapped air between the nipple and tower. Continue pushing on the cable and nipple until cables are properly seated in the cap towers. Use the same procedure to install cable in coil tower (Fig. 18). Wipe the spark plug insulator clean before reinstalling cable and cover.

Use the following procedure when removing the

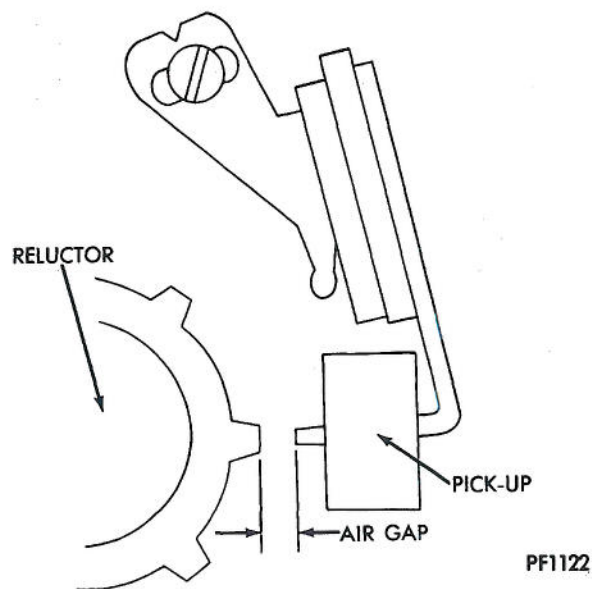


Fig. 16—Air Gap Adjustment