FORD MOTOR CO. VACUUM DECELERATION VALVE

DESCRIPTION

The distributor vacuum advance control valve (deceleration valve) is incorporated in the distributor vacuum system to provide additional control of ignition timing. It is used in conjunction with the dual diaphragm distributor. It is connected in the vacuum line to the distributor vacuum unit and has two vacuum input lines, one from the carburetor, and the other from the intake manifold. Vacuum sources can be switched as engine conditions require.

OPERATION

Normally the primary, advance diaphragm of the distributor is connected to a vacuum port on the carburetor. During deceleration, when intake manifold rises above a preset value, the deceleration valve closes off carburetor vacuum and provides direct intake manifold vacuum to the advance diaphragm. This permits maximum ignition timing advance to prevent popping in the exhaust system. At idle, the deceleration valve shuts off intake manifold vacuum and opens carburetor vacuum to the distributor.

TESTING

1) Connect a tachometer to engine. Start engine and check idle speed. If adjustment is required, adjust to specification with headlights on high beam. Now turn off headlights and note engine idle speed.

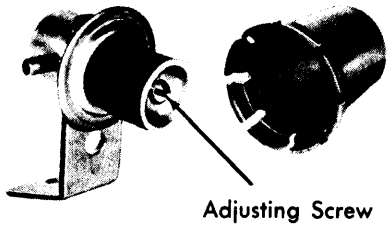
2) Remove plastic cover from vacuum advance control valve to expose adjusting screw. Slowly turn adjusting screw counterclockwise. *CAUTION — Do not exert excessive pressure.* After approximately 5 turns (6 maximum), idle speed should suddenly increase to approximately 1000 RPM. *NOTE — Further movement of screw will release compressed spring and washer.* If idle speed does not increase, press inward on end of spring retainer and release. Idle speed should increase and remain at 1000 RPM.

3) With engine idling at this higher figure, slowly turn adjusting screw clockwise until engine speed drops and remains at speed noted in step 1) (headlights off). Turn adjusting screw one additional turn clockwise.

4) Increase engine speed to 2000 RPM, hold speed for approximately 5 seconds then release throttle. Engine should return to idle speed noted in step 3) within 4 seconds. If speed does not return within 4 seconds, check return time with dashpot backed-off so that it does not contact throttle lever at idle speed and repeat rundown check from 2000 RPM.

5) If engine does not return to specified lower idle speed within 3 seconds when making deceleration test with dashpot backed-off, turn adjustment screw an additional ¼ turn in a clockwise direction and repeat rundown check from 2000 RPM.

6) Repeat step 5), if necessary, turning adjusting screw ¼ turn clockwise and repeating deceleration test each time, until engine returns to lower speed within specified time. *NOTE — If it is necessary to turn adjusting screw more than one complete turn from inial setting (step 3), valve should be replaced.*



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DISTRIBUTOR VACUUM DECELERATION VALVE