

1971-73 FORD MOTOR CO. DISTRIBUTOR VACUUM DECELERATION VALVE

DESCRIPTION

The Vacuum Advance Control Valve (Deceleration Valve) is used to control distributor vacuum advance unit during periods of deceleration. It is connected in vacuum line to distributor vacuum unit and has two vacuum input lines (one line from carburetor vacuum port fitting and a second line from intake manifold) so that vacuum source can be switched from carburetor to manifold as required.

OPERATION

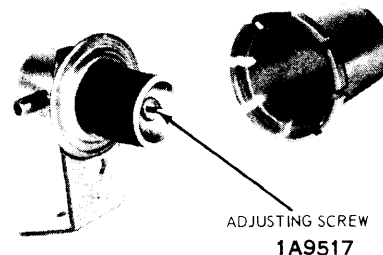
In normal operation, the outer (advance) diaphragm is connected to carburetor vacuum source for conventional vacuum advance. During deceleration, with throttle valves closed (which would cause vacuum unit to retard ignition timing), valve connects distributor vacuum unit to manifold vacuum source. This permits maximum ignition timing advance to prevent afterburning or popping in exhaust system. When vehicle slows down and engine is operating at idle, deceleration valve shuts off intake manifold vacuum and opens carburetor vacuum to distributor.

TESTING

Using a tachometer, test system as follows:

1) Start engine and check idle speed with headlights on High Beam (see *individual model tune-up specifications on Tune-Up pages for specified idle RPM*). Turn off headlights and note engine 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.



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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 initial setting (step 3), valve should be replaced.