1974-79 EXHAUST EMISSION SYSTEMS
Ford Motor Co. Cold Start Spark Advance System

1975-78 Capri, Capri II

DESCRIPTION

Cold Start Spark Advance (CSSA) system is added to the distributor spark advance system on 2800 cc Federal engines. System consists of a 128°F (53°C) cold start spark advance Ported Vacuum Switch (PVS), a 235°F (113°C) coolant PVS, a Distributor Retard Control Valve (DRCV), a Spark Delay Valve (SDV), an intake manifold vacuum tap and a carburetor spark port vacuum tap.

OPERATION

System provides manifold vacuum to distributor advance, through the DRVC and CSSA PVS, when engine coolant is below 128°F (53°C). When coolant temperature is between 128-235°F (53-113°C), vacuum reaches distributor from carburetor spark port through the cooling PVS, SDV, and CSSA PVS. When engine coolant is above 235°F (113°C), manifold vacuum is applied to distributor advance through SDV and CSSA PVS.

TESTING

1) Remove SDV from vacuum hose and reconnect hose. Connect a "T" and vacuum gauge at distributor vacuum hose. Remove vacuum hose from bottom port of CSSA PVS.

2) With engine at normal operating temperature and idle, vacuum reading should be zero. Reconnect vacuum hose to CSSA PVS. Remove vacuum hose to top port on CSSA PVS and plug.

3) Check vacuum reading at distributor. If vacuum reading is 2 in. Hg or less, the cooling PVS is good. If vacuum reading is more than 2 in. Hg, remove the top vacuum hose (hose going to carburetor) from cooling PVS. If vacuum reading is still greater than 2 in. Hg, cooling PVS is defective and should be replaced.

4) With engine running at idle and transmission in Neutral, momentarily open throttle half-way. Observe vacuum gauge for a quick rise and fall as the throttle is opened and closed. If vacuum is noted, CSSA system is good. If no vacuum is observed, check vacuum hoses, PVS's, SDV's, and carburetor port for plugging and correct as necessary.

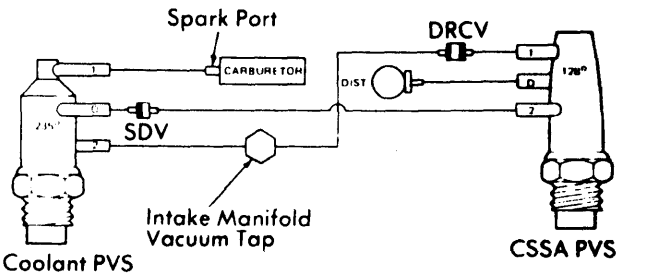

Fig. 1: Cold Start Advance System (CSSA)