

1975-1979 EXHAUST EMISSION SYSTEMS

Ford Motor Co. Spark Delay Valves

DESCRIPTION & OPERATION

Spark Delay Valves (SDV) are installed on many engines to permit closer control of vacuum operated emission related equipment. All spark delay valves have an internal sintered orifice to slow air flow in one direction, a check valve to allow free air flow in the opposite direction, and a filter pack.

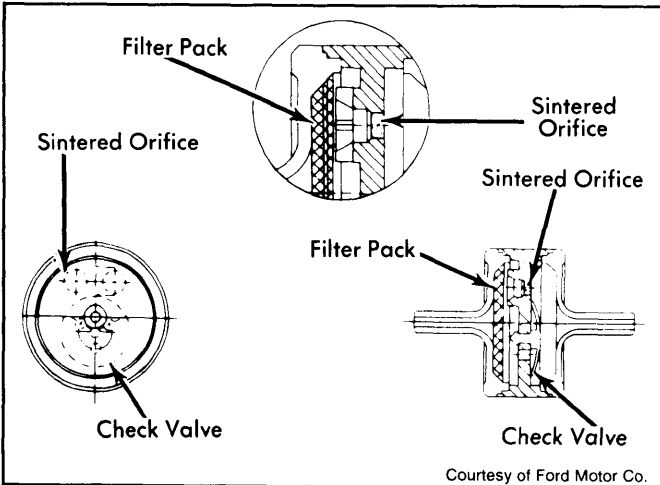


Fig. 1: Cutaway View of Spark Delay Valve

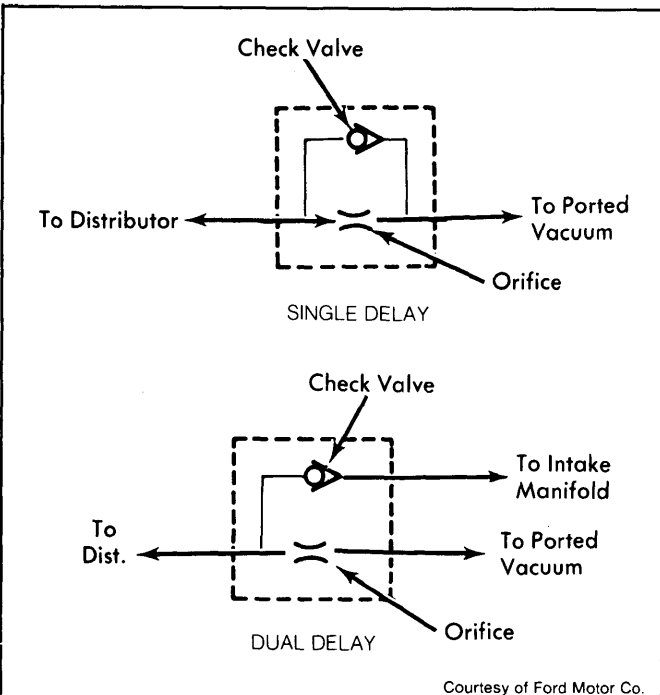


Fig. 2: Spark Delay Valve Schematic

TESTING

Check Valve - Connect a vacuum supply to Black side of check valve. Connect a vacuum gauge to opposite side. Vacuum gauge should read instantly. Reverse connections. Vacuum gauge should not read vacuum. Replace valve if it fails either test.

Spark Delay Valve - 1) Set an external vacuum source to 10 in. Hg. Connect vacuum source to Black side of SDV (Mono Delay and 1975-76 Dual-Delay Valves) or colored side (all other delay valves).

2) Connect a vacuum gauge to the colored side of SDV (Mono Delay and 1975-76 Dual-Fitting Valves) or the White side (all other delay valves).

3) Apply vacuum to SDV. On 1975-76 dual-fitting valves, clamp off each fitting and test separately. Check the time it takes for gauge to read from 0 to 8 in. Hg while applying a constant 10 in. Hg vacuum supply.

4) The minimum and maximum time for valve to reach 8 in. Hg vacuum should be as shown in following table:

SPARK DELAY VALVE SPECIFICATIONS

Application Color Code	Time In Seconds Minimum	Time In Seconds Maximum
Mono Delay Valve		
1975-76		
Black/Gray	1.0	4.0
Black/Brown	2.0	5.0
Black/White	4.0	12.0
Black/Yellow	6.0	14.0
Black/Blue	7.0	16.0
Black/Green	9.0	20.0
Black/Orange	13.0	24.0
Black/Red	15.0	28.0
1977-79		
Black/Gray6	1.6
Black/Brown	1.0	3.0
Black/White	3.0	9.0
Black/Yellow	4.5	13.0
Black/Blue	7.0	19.0
Black/Green	8.0	26.0
Black/Orange	11.5	38.0
Black/Red	14.0	47.0
Retard Delay Valve		
White/Pink	2.7	9.3
White/Brown	¹ 1.0	3.0
White/Green	² 8.0	26.0
White/Yellow	4.5	13.2
White/Orange	0.4	1.6
Air Cleaner Delay Valve		
White/Red	14.0	47.2
White/Blue	8.0	26.0
Dual Delay Valve		
Brown	1.0	3.0
White	2.7	9.3
Yellow	4.5	13.2
Green	8.0	26.0
Red	14.0	47.2

¹ - Between 2 and 5 seconds on 1975-76 models.

² - Between 9 and 20 seconds on 1975-76 models.