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.

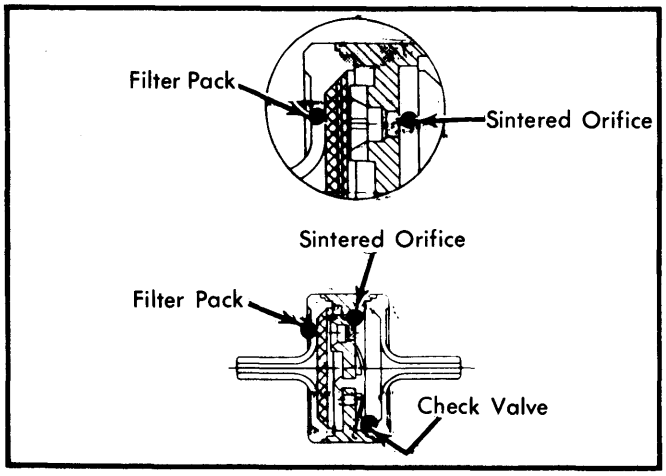

Fig. 1 Cutaway View of Spark Delay Valve

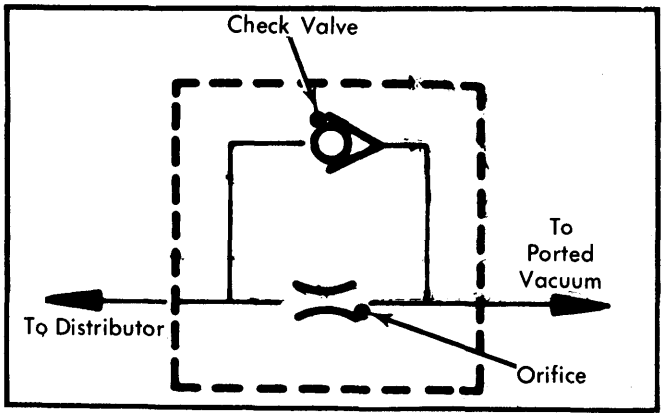

Fig. 2 Spark Delay Valve Schematic

TESTING

1) Set an external vacuum source to 10 in. Hg, then connect vacuum source to black side of SDV (Mono Delay Valve) or colored side (all other delay valves).

2) Connect a vacuum gauge to the colored side of SDV (Mono Delay Valve) or the white side (all other delay valves).

3) Apply vacuum to SDV and check the time it takes for gauge to read from 0 to 8 in. Hg while applying a constant 10 in. Hg.

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

Spark Delay Valve Specifications
(Time In Seconds)

Mono Delay Valve

Color Code	Minimum	Maximum
Black/Gray	.6	1.6
Black/Brown	1.0	3.0
Black/White	2.7	9.3
Black/Yellow	4.5	13.2
Black/Blue	6.8	18.8
Black/Green	8.0	26.0
Black/Orange	11.6	38.0
Black/Red	14.0	47.2

Retard Delay Valve

Color Code	Minimum	Maximum
White/Pink	2.7	9.3
White/Brown	1.0	3.0
White/Green	8.0	26.0
White/Yellow	4.5	13.2
White/Orange	0.04	1.6
White/Gray	0.6	1.6

Air Cleaner Delay Valve

Color Code	Minimum	Maximum
White/Red	14.0	47.2
White/Blue	8.0	26.0

Two-Way Delay Valve

Color Code	Minimum	Maximum
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