FORD MOTOR CO. CONCEALED SYSTEM

Ford, Mercury
Continental, Mark VI

DESCRIPTION & OPERATION

STANDARD WIPERS

Wiper motor is a 2-speed permanent magnet type with a brush end plate on one end and a gear housing on the other. The park switch is located in the gear cover and park mechanism is located in the output arm. The wiper switch is located on the steering column, with the power feed from a circuit breaker in the fuse panel.

INTERMITTENT WIPERS

Intermittent operation is controlled by a variable resistor in the switch and an electronic governor. This allows for a pause between wipe cycles; the duration of pause is determined by resistance selected by rotating wiper lever. The governor is located below the steering column. The intermittent system uses the same motor as the standard wiper system.

TESTING

WIPER MOTOR CURRENT DRAW

Motor can be tested on bench, or on car with linkage disconnected. Connect ammeter as shown. Connect a jumper wire from battery negative terminal post to low speed terminal on motor end plate and read current draw. Connect jumper to high speed terminal and read current draw. In both cases, draw should not exceed 3.5 amps.

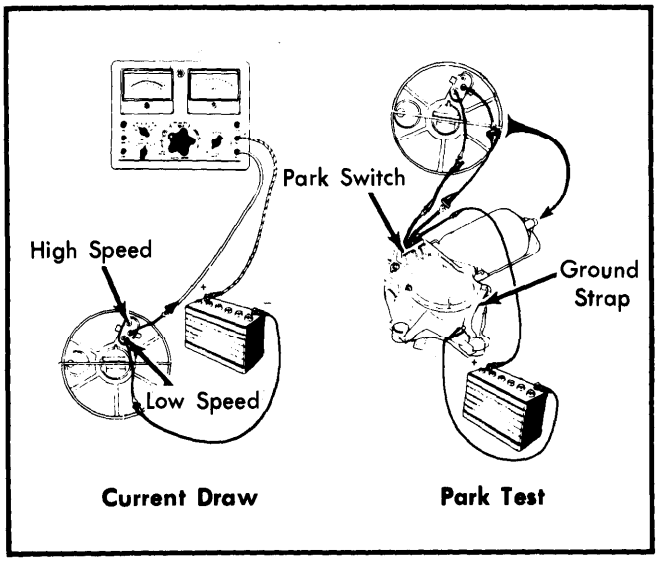

Fig. 1 Current Draw and Park Test Motor Connections

MOTOR PARK TEST

1) Stop output arm about 90° past park position for this test. Make electrical connections as shown. Motor output arm should: Rotate in normal direction, reverse rotation for 10-15°, stop rotating while crank pin moves outward, then stop in park position while current draw drops to zero.

2) If motor reverses more than 15° or if motor stalls or jams while rotating in the opposite direction, replace arm and gear assembly. If motor does not run or park, check wiring before replacing motor. For any other problem, check gear cover and switch assembly.

3) To test motor switch, first check for good ground at motor. Check park switch cover screws and ground strap for tight connection. Remove 3-wire connector at top of motor and connect a ground jumper to green wire terminal. Test the other two wires for continuity. If not present, replace or repair park switch.

WIPER SWITCH CONTINUITY TEST

Check wiper switch for continuity using the following chart. Disconnect the connector under the steering column and test using an ohmmeter or self-powered test lamp.

NOTE – *See Wiper switch connector terminal identification in Fig. 2.*

Wiper Continuity Test

Position	Standard Wiper	Intermittent Wiper
OFF	2-3, 4-5	2-3, 1-4-5
INTER	.....	①1-3-5
LOW	1-2, 5-7	1-3-5
HIGH	1-2, 6-7	1-5-6
WASH	1-8	7-8

① – Resistance between 1-3 and 1-5 should vary between 420 and 13,000 ohms.

REMOVAL & INSTALLATION

WIPER MOTOR

Removal – Disconnect battery, then remove wiper linkage cover. Disconnect linkage arm by removing retaining clip. Disconnect wiring, remove 3 mounting bolts, and remove motor.

Installation – Be sure motor arm is in "PARK" position, then reverse removal procedure.

WIPER SWITCH & INTERMITTENT GOVERNOR

Removal – Disconnect battery, then remove steering column cover. Remove 2 wiper switch screws, disconnect wiring, and remove switch. Disconnect wiring from governor, remove 2 screws and governor.

Installation – To install, reverse removal procedure.

FORD MOTOR CO. CONCEALED SYSTEM (Cont.)

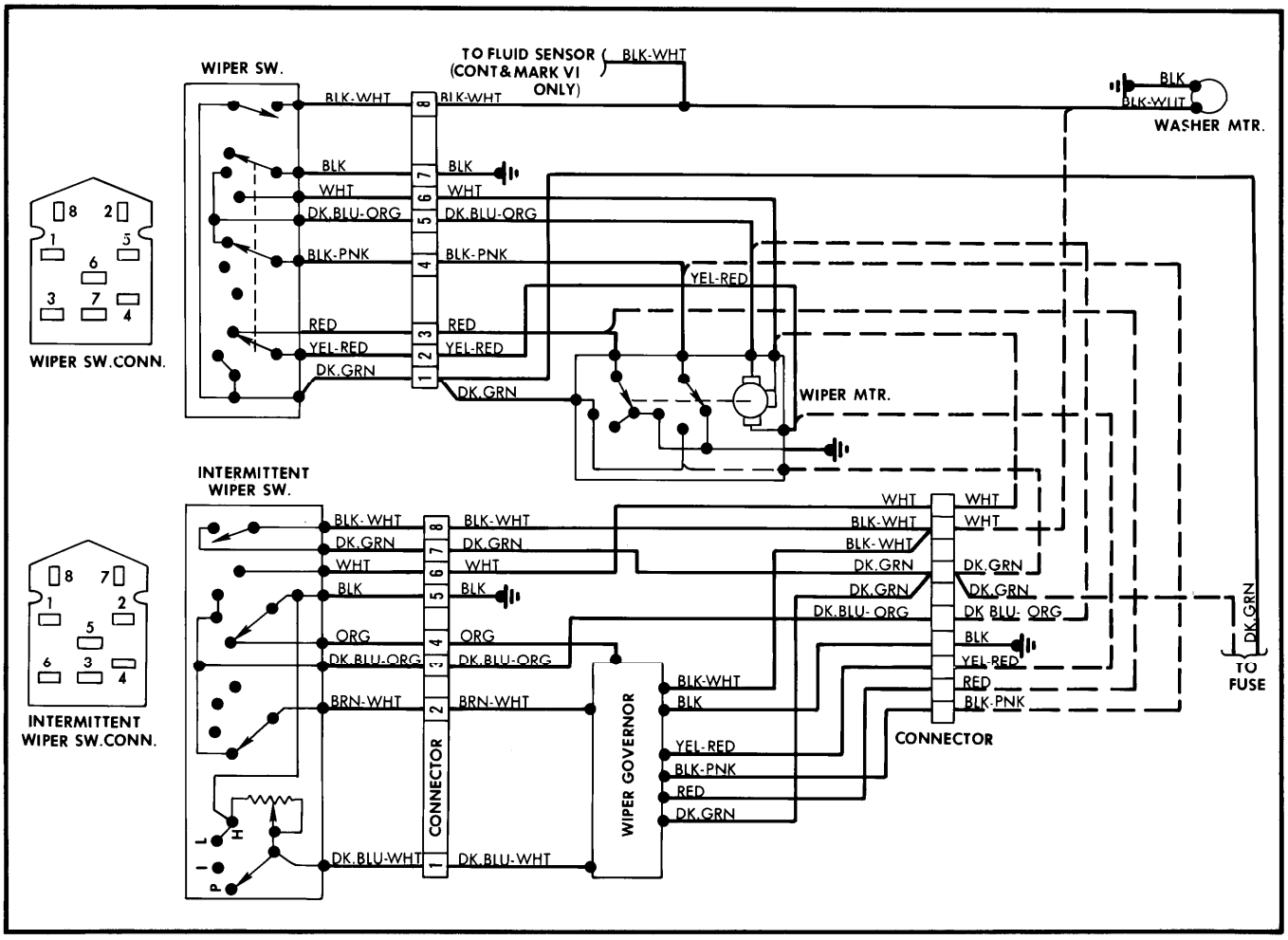

Fig. 2 Concealed Wiper System Wiring Diagram
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