

Wiper/Washer Systems

FORD MOTOR CO. NON-CONCEALED SYSTEM

**Bobcat, Pinto
Capri, Mustang
Fairmont, Zephyr
Cougar XR-7, Thunderbird
Granada, Monarch, Versailles**

DESCRIPTION & OPERATION

STANDARD WIPERS

Wipers are actuated by a 2-speed permanent magnet motor. Wiper arms and blades are mounted on pivot shafts, connected to the motor by linkage arms and retaining clips. Power is supplied to the wiper system by a 6 amp circuit breaker mounted in the fuse panel on all models except Bobcat and Pinto. Bobcat and Pinto use a fuse and a switch mounted circuit breaker.

INTERMITTENT WIPERS

Intermittent operation is controlled by a variable resistor in the wiper switch and an electronic governor. Varying the resistance by turning the switch varies the delay between wiper cycles. The intermittent system uses the same motor as the standard system.

TESTING

WIPER MOTOR CURRENT DRAW

Disconnect battery. Disconnect motor linkage and electrical connector. Connect ammeter as shown. Current draw in both low and high should not exceed 3 amps.

WIPER MOTOR PARK TEST

Stop wiper system with key so blades are not in the park position. Connect jumper wires as shown. The wipers should run no more than one cycle, then park. If motor will not park or run to park, replace motor. If motor stops, check wiring and switch.

CIRCUIT BREAKER TEST

1) Remove switch on Bobcat and Pinto; circuit breaker on all other models. Connect tester to breaker or switch pins (Blk-Lt. Grn and Red), adjust to 6 amps, and leave on for 10 minutes. Replace switch or breaker if it opens.

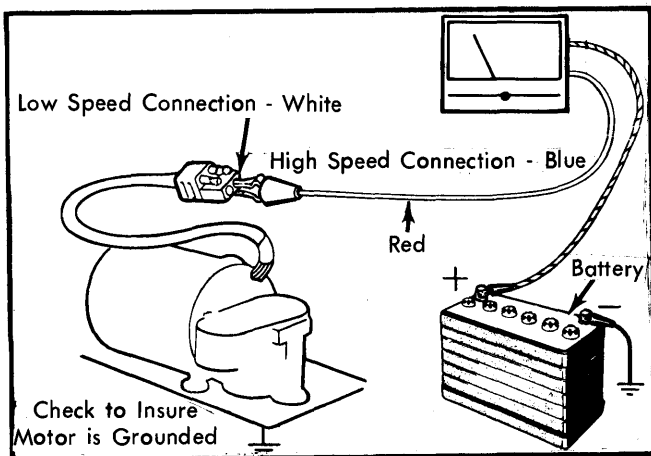


Fig. 1 Motor Current Draw Test

2) Adjust tester so current flow is twice breaker rating. Breaker should open within 30 seconds. If not, replace breaker or switch.

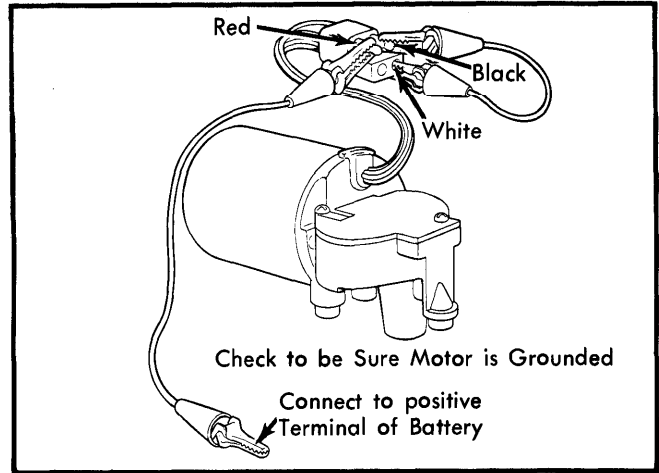


Fig. 2 Motor Park Test

REMOVAL & INSTALLATION

WIPER MOTOR

Removal (Granada, Monarch, Versailles) – Disconnect battery. Remove instrument panel pad, speaker mounting bracket, and speaker. Remove defroster nozzle and air duct. Remove drive arm clip, wiring, and mounting bolts from motor bracket. Remove motor.

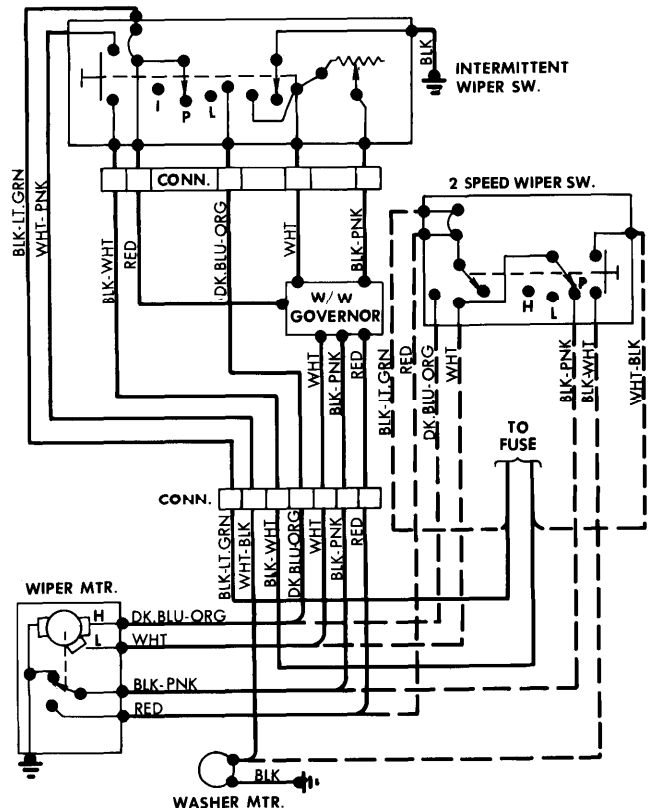


Fig. 3 Ford Wiper System Wiring Diagram (Bobcat, Pinto)

FORD MOTOR CO. NON-CONCEALED SYSTEM (Cont.)

Installation — To install, reverse removal procedure and test motor for proper operation.

Removal (Bobcat, Pinto) — Loosen 2 nuts and remove linkage from motor drive arm. Remove 3 motor screws and lower motor from under left side of instrument panel. Disconnect wiring and remove motor.

Installation — To install, reverse removal procedure.

Removal (All Other Models) — Disconnect battery. On Fairmont and Zephyr, remove left wiper arm. On all models, remove right wiper arm assembly. Remove cowl screws and grille. Remove retaining clip and disconnect motor drive arm. Remove mounting screws, disconnect wiring, and remove motor.

Installation — To install, reverse removal procedure, making sure motor arm is in "Park" position.

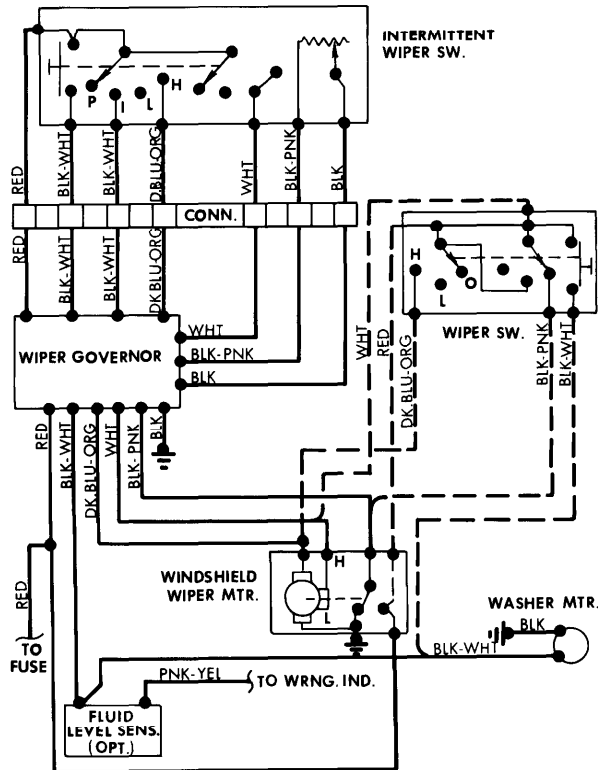


Fig. 4 Ford Wiper System Wiring Diagram
(Capri, Mustang, Fairmont, Zephyr,
Cougar, Thunderbird)

WIPER SWITCH

Removal (Granada, Monarch, Versailles) — Disconnect wiring connector below steering column. Remove lower instrument panel shield and steering column cover. Remove wiring cover, then carefully pry off wire shield below switch lever. Remove retaining screw and switch.

Installation — To install, reverse removal procedure.

Removal (Bobcat, Pinto) — Remove instrument cluster. Insert sharp tool in wiper knob slot and pull knob off. Remove bezel nut, pull switch out, and disconnect wiring.

Installation — To install, reverse removal procedure.

Removal (All Other Models) — Remove 4 steering column cover screws and disconnect wiper switch wiring. Remove 2 mounting screws and switch.

Installation — To install, reverse removal procedure.

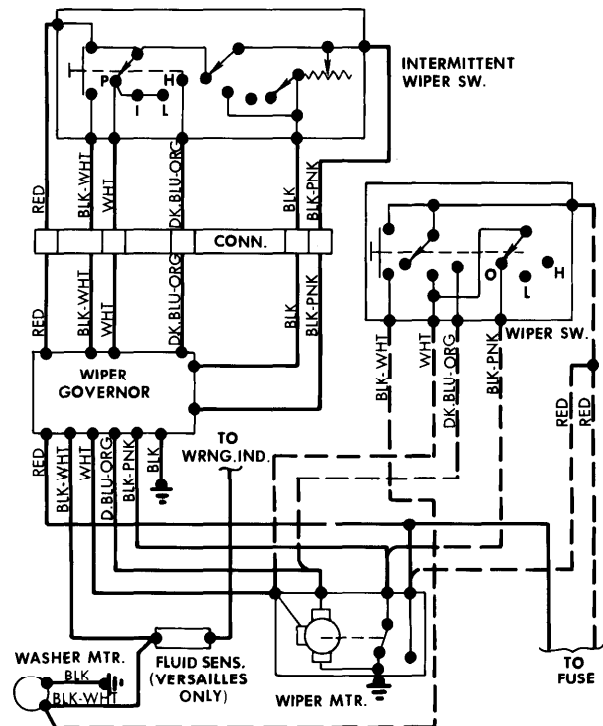


Fig. 5 Ford Wiper System Wiring Diagram
(Granada, Monarch, Versailles)