FORD MOTOR CO. NON-CONCEALED SYSTEM

Capri, Mustang
Escort, Lynx
Fairmont, Zephyr
Granada, Cougar
Thunderbird, XR7

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.

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 circuit breaker from fuse panel. Connect tester to circuit breaker, adjust to 6 amps, and leave on for 10 minutes. Replace circuit breaker if it opens.

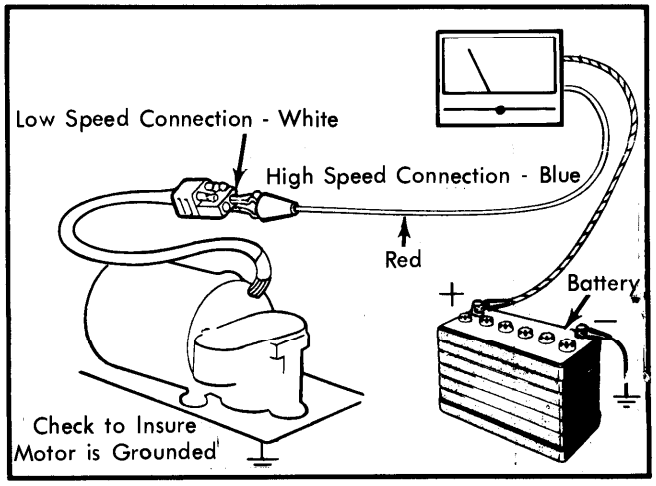

Fig. 1 Motor Current Draw Test

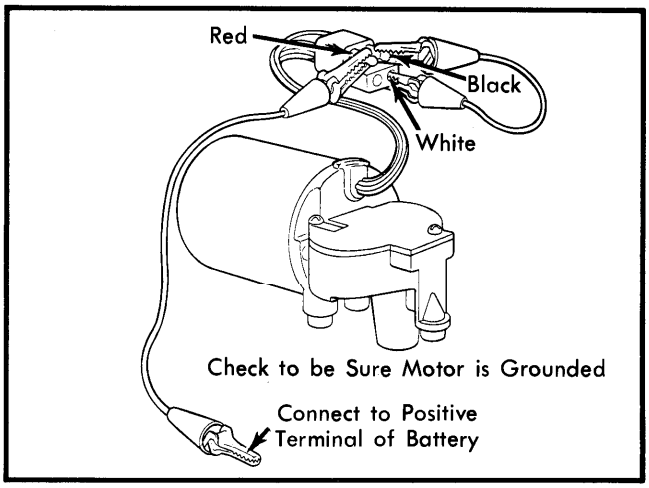

Fig. 2 Motor Park Test

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

WIPER SWITCH CONTINUITY TEST

Test Switch continuity with an ohmmeter connected between switch terminals as shown in *Fig. 3*. To detect marginal operation of the switch, move the switch lever as each reading is being taken. If switch does not show continuity or if poor continuity exists, replace switch.

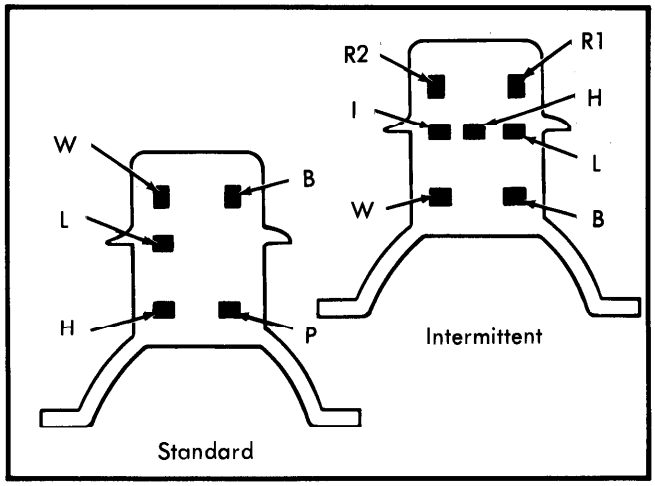

Fig. 3 Wiper Switch Continuity Test Terminal Locations

Wiper Continuity Test

Position	Standard Wiper	Intermittent Wiper
Off	P-L	.....
LOW	B-L	B-L
HIGH	B-H	B-H-L
WASH	B-W	B-W
INTER	.....	B-I
ANY	.....	①R1-R2

① — Variable resistance between R1 and R2 should be minimum of 420 and maximum of 13,000 ohms.

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

REMOVAL & INSTALLATION

WIPER MOTOR

Removal (Escort and Lynx) – Disconnect battery cables. Lift water shield cover from cowl on passenger side. Disconnect power lead from wiper motor. Remove linkage retaining clip from wiper arm and remove 3 attaching screws from motor and bracket assembly. Remove operating arm from motor, remove 3 bolts and separate motor from mounting bracket.

Installation (Escort and Lynx) – To install, reverse removal procedure and test motor for proper operation.

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 (All Other Models) – To install, reverse removal procedure, making sure motor arm is in "Park" position.

WIPER SWITCH

Removal (Escort and Lynx) – Disconnect negative battery cable. Loosen steering column attaching nuts enough to remove upper trim shroud. Remove trim shroud. Disconnect electrical connector to switch. Peel back foam sight shield, remove 2 hex head screws holding switch, and remove switch.

Installation (Escort and Lynx) – To install, reverse removal procedure and check steering column operation.

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

Installation (All Other Models) – To install, reverse removal procedures.

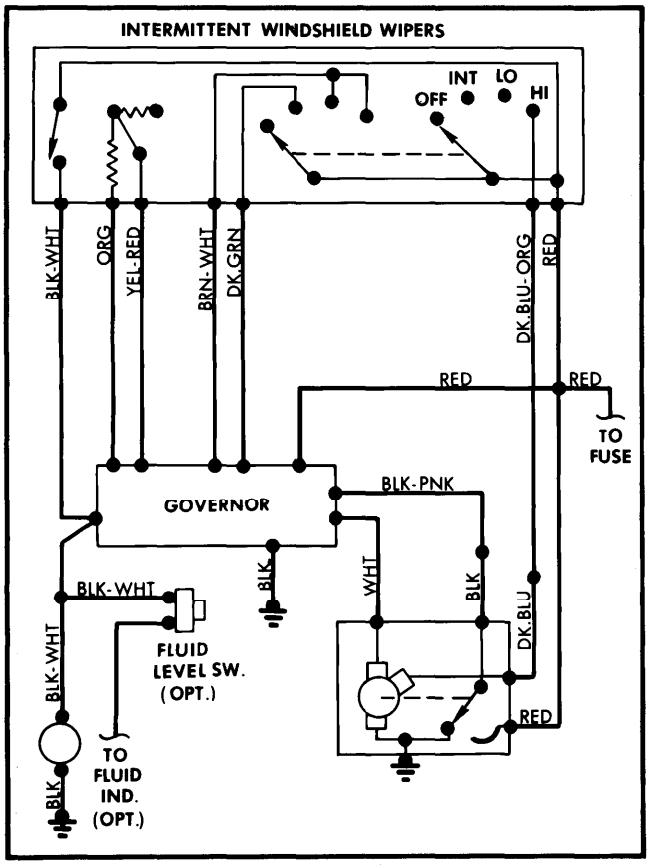

Fig. 4 Ford Non-Concealed Intermittent Wiper System Wiring Diagram (All Models)

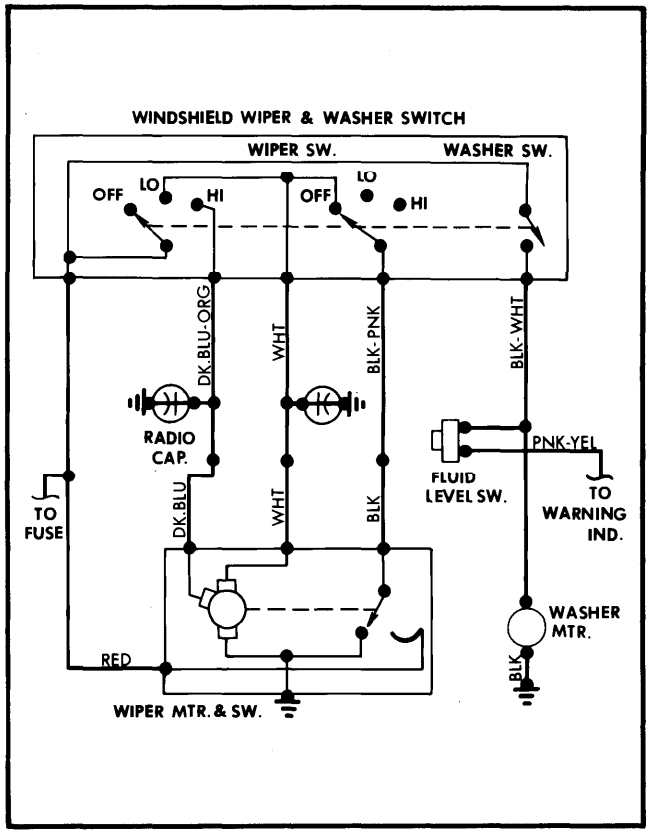

Fig. 5 Ford Non-Concealed Standard Wiper System Wiring Diagram (All Models)