

circuit breaker is cycling. Possible causes are circuit breaker is bad, binding linkage, bind or short in motor, or short in panel switch.

On R-W-X-S-P-D-C models, circuit breaker should be able to carry an average current of 9 amps.

### PANEL SWITCH TEST (Fig. 8)

The three speed switches control the current flow through the motor shunt field to effect motor speed. The switch is designed to provide a circuit to the motor to reverse the current to the field windings which reverse the direction of the armature. A circuit breaker, built into the switch, protects the circuitry.

To test the switch, disconnect the wiring to the switch and remove the switch from the instrument panel. For removal and installation of the wiper switch, see "Instrument Panels".

Using a continuity tester or an ohmmeter, test for continuity (no resistance) between the contact terminals of the switch as shown in the following chart. For test purposes the "Park" position is the switch "Off" position. The "Low" speed is the position immediately past the "Off" detent and the "High" position is at the extreme position of the switch travel. In the test chart the reference "Ground" means to attach one lead of the continuity tester or ohmmeter to the switch case.

### SWITCH CONTINUITY CHART

Off	Low	Medium	High
B to P	B to A	B to A	B to A
A to F2	A to F1	A through	A through the
F1 to Ground	F2 to Ground	the resistor	resistor to F1
	P-open	to F1	F2 to Ground
		F2 to Ground	P-open
		P-open	

### MOTOR TEST

#### Motor Run Test

Disconnect motor leads at bulkhead disconnect. Connect a jumper from the green lead to ground. Connect a second jumper wire from the battery positive terminal to the brown and red leads in bulkhead disconnect. (The ground circuit is completed through the car body, be certain of a good connection at the motor ground strap). The motor should run continuously. If the motor runs disconnect leads as the blades sweep downwards.

If motor does not run and a good motor ground has been made, disconnect battery jumper wire. Remove nut that holds wiper motor drive crank arm to motor. Remove crank arm and reconnect battery jumper wire to brown and red leads. If motor now runs there is a bind in linkage.

If motor still does not run, disconnect battery

jumper wire. Remove switch cover plate and inspect gear and latch assembly for signs of binding. Pull gear and latch assembly out of gear housing. Reconnect briefly battery jumper wire. If motor now runs, gear and latch assembly was cause of binding. Replace with new gear and latch assembly. If motor still does not run, replace.

#### Park Switch Test

Disconnect all jumper wires used in previous test. Connect a jumper wire between green lead and brown lead. Connect a second jumper wire from red lead to ground. Connect third jumper wire between battery positive post and blue lead.

Wiper motor should run to park position and stop. If wiper motor does not run but had run in Motor Run Test park switch is open. Clean park switch contacts or replace park switch assembly.

Also when motor drives wiper arms to park position voltage at brown lead should be 0. If there is voltage at brown lead, remove wiper arms and blades to see if voltage drops to zero. If it does arms and blades were improperly installed. If voltage still does not drop to zero, switch contacts or gear and latch assembly are defective.

#### Motor Resistance Test

With a suitable ohm meter measure resistance values across following terminals of motor wiring harness connector.

Terminal In Connector	All Models
Red and Green ..	4.5 to 5.5 ohms
Brown and Motor Ground Strap	0.4 to 0.8 ohms
Red and Motor .. Ground Strap	No Continuity
Green and Motor Ground Strap	No Continuity

If resistance values are high or lower than specified motor must be replaced.

If continuity exists where there shouldn't, motor must be replaced.

### GEAR AND PARK SWITCH REPLACEMENT

(1) Position wiper blades by turning wiper switch on and then turning ignition switch off as blades start downward so that they stop in approximately midglass position. This will position internal motor parts for service.

(2) Remove switch plate mounting screws and note position of plate locator tab.

(3) Carefully remove switch plate and gasket. The parking mechanism hook should be closed as shown in Figure 9. If hook is not closed, motor was not assem-