

## WINDSHIELD WIPER AND WASHER SYSTEMS

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## GENERAL INFORMATION

The windshield wipers can be operated with the windshield wiper switch only when the ignition switch is in the **Accessory** or **Ignition** position. A circuit breaker, integral with the wiper switch protects the circuitry of the wiper system and the vehicle.

The two speed wiper system is standard equipment on most models. A three speed system is offered as optional equipment.

Two speed wiper motors have permanent magnet fields. The speeds are determined by current flow to the brushes. For low speed operation current flow is only to the low speed brush and for high speed operations current flow is only to the high speed brush. A torque limiting resistor is used in the low speed circuit of the high torque motor used on vehicles with concealed windshield wipers.

The two speed motor used on concealed wiper systems depress park when the wiper switch is turned "Off". The motor direction is reversed to rotate the parking cam 180 degrees, changing the length of the drive link/crank to park the blades in a depressed position. Motor operation in the wipe direction returns the cam to "run" position to restore the normal link and wipe pattern.

The three speed wiper motor speeds are controlled by resistance in the shunt field circuit. The high and medium speed resistor are mounted on the instrument panel switch. For low speed operation, voltage is applied directly (no resistor) to the shunt field.

All three speed wiper systems have the depressed parking feature. It is accomplished by reversing the rotation of the motor and the use of an eccentric motor shaft. When the wiper switch is turned "Off" the motor rotation is reversed, the motor inner shaft stops and the outer shaft rotates 180 degrees. This changes the length of the drive link/crank to park the

blades in the depressed position. The linkage changes to its original length when the motor is turned "On" and reverses the action.

## WINDSHIELD WIPER BLADES (All Models)

Wiper blades exposed to the weather for a long period of time tend to lose their wiping effectiveness. Periodic cleaning of the wiper blade is suggested to remove the accumulation of salt and road film. The wiper blades, arms and windshield should be cleaned with a sponge or cloth and a mild detergent or non-abrasive cleaner. If the blades continue to streak or smear, they should be replaced.

## Wiping Element Change (All Models)

(1) Turn wiper switch "On", position blades to a convenient place by turning the ignition switch "On" and "Off".

(2) Lift wiper arm to raise blade off of glass.

(3) Depress release lever on center bridge and remove blade from arm (Fig. 1).

(4) Depress release button on end bridge to release from center bridge.

(5) Withdraw rubber wiping element from the end bridges.

(6) When replacing rubber wiping element use care to insure that all four of the bridge claws are engaged and properly positioned on filler assembly.

(7) Check each release point for positive locking when installing blade and blade assembly.

## WIPER ARM

## Removal

(1) Lift the arm to permit the latch (Fig. 2 and 3) to