

## INSTRUCTIONS FOR REMOVING THE ORIGINAL WIPER MOTOR

**IMPORTANT NOTE:** You are urged to refer to a suitable service manual before attempting to make repairs. If you do not have such a manual, or lack the experience, you should seek the services of a qualified technician.

1. Disconnect the ground cable from the battery.
2. Remove cowl top grille or screen, if necessary.
3. Remove wiper motor cover, if so equipped.
4. CAREFULLY disconnect motor electrical connector. Avoid damage to plastic cover.
5. Remove wiper motor attaching bolts. If motor is mounted on studs, remove retaining nuts.
6. Separate the motor crank arm from the transmission drive link by prying the drive link retainer bushing from the crank arm stud (if applicable).

**NOTE:** On some vehicles, it may be easier to remove the complete motor and wiper linkage assembly.

7. Lift motor out while guiding crank arm through body hole.

**NOTE:** On some vehicles the crank arm may have to be removed from the motor on the linkage side of the cowl before the motor can be removed from the vehicle. In this case, hold the crank arm with a second wrench and loosen the crank arm retaining nut. Remove the retaining nut and crank arm from the wiper motor. Save the retaining nut. The crank arm is left attached to the drive link bushing.

## TRANSFERRING THE MOUNTING PLATE AND THE MOTOR CRANK ARM

**NOTE:** If the wiper motor was removed from the vehicle with the crank arm attached, follow instructions 1 through 7 below. If the crank arm was removed from the motor in the vehicle, follow steps 3 through 5 only and go to “Wiper Motor Installation” section.

1. Secure crank arm in a vise before loosening retraining nut to avoid gear damage.
2. Loosen crank arm retaining nut. Remove retaining nut and crank arm. Save.
3. Remove three mounting plate to motor attaching bolts. Separate mounting plate from motor (if applicable).
4. Position wiper motor over mounting plate and install three attaching bolts (If applicable).
5. Install crank arm and retaining nut on shaft of wiper motor.
6. With crank arm in vise, tighten the retaining nut to 7-8 ft/lb.

## INSTRUCTIONS FOR INSTALLING THE WIPER MOTOR

1. Position wiper motor in vehicle and install the mounting bolts. If mounting assembly includes a mounting bracket to body seal, position the seal before installing the wiper motor.
2. Tighten the mounting bolts to 5-6 ft/lb.

**NOTE:** If the crank arm was removed from the original wiper motor in the vehicle, position the crank arm on the wiper motor shaft and start the retaining nut. Hold the crank arm with a second wrench and tighten the retaining nut to 7-8 ft/lb. Since the crank arm is already attached to the drive link, go to step 4.

3. Install the crank arm stud in the drive link retainer bushing by snapping together with slip-joint pliers (except as noted above).

**NOTE:** Wiper arms should not be in the park position.

4. Connect electrical lead to wiper motor.
  5. Install wiper motor cover, if so equipped.
  6. Install cowl top grille or screen, if necessary.
  7. Reconnect the ground cable to the battery.
  8. Check wiper operation.
- If wipers do not work, refer to the trouble-shooting chart.

## Troubleshooting Chart

Symptom

Possible Problem

	Defective switch, Defective wiper motor.	Open in circuit between switch and motor, Defective switch, Defective wiper motor.	Wiper linkage damaged or binding, Defective wiper motor.	Open in circuit between switch and motor, Defective wiper motor.	Open in circuit between switch and motor, Defective governor.	Open in circuit between switch and motor, Poor ground at wiper motor, Loose or damaged connector at governor.	Open in circuit between switch and motor, Defective switch, Poor ground at wiper motor, Defective wiper motor.
Motor doesn't stop when switch is turned off	X						
Blades stop anywhere when switch is turned off		X					
Motor runs slowly in all speeds			X				
Motor runs in high but not low or low but not high.				X			
Wipers won't come on in delay mode.					X		
Wipers won't stop running in delay mode.						X	
Motor will not run.							X