# WINDOW LIFT MOTOR AND REGULATOR REPLACEMENT PROCEDURE

## DOOR PANEL AND TRIM REMOVAL

Remove some of the attached trim (armrest, pull strap, etc.) before removing the door panel. For prying off the panel, special tools are available. The panel is held in place with approximately eight nylon or steel fasteners. Disconnect all connectors from door panel to door. Inside the door, there is a lining. It's intended to keep moisture out of the car. Remove it carefully so it can be replaced when completed.

#### WINDOW LIFT MOTOR REMOVAL

With the door's interior visible, you can now observe the internal workings. A window lift motor works in conjunction with a regulator. The two components are usually held together by three bolts, which you may be able to access with a wrench through an existing access hole. However, removing the motor and regulator together is usually easier and may be the only possible solution on your vehicle. After removing the complete assembly you can easily see, remove and replace the window lift motor.

### CAUTION

In some cases, if you remove the motor, the window may drop down into the door and shatter the glass. Before removing the motor, tape the window to the door frame using a cloth tape, or prop the window in place with two window holding tools.

### REMOVING MOTOR AND REGULATOR TOGETHER

- 1. Remove all screws or grind out all rivets holding the regulator to the door.
- 2. Lower the window enough to provide access to the bolts attaching the regulator to the window. The bolts may be accessible with the window in the full-up position on some models.
- 3. Secure the window in place, as cautioned above and remove the bolts.
- 4. Disconnect the motor's wire harness, disengage regulator from window and any fixed tracks.
- 5. Lift the motor and regulator out of the large access hole in the door.

#### CAUTION

If improperly held in place the regulator could shift suddenly and cause a serious injury. Before removing the window lift from the regulator – check your regulator. If equipped with a "lift assist" spring (coiled flat spring mounted to the regulator) you must lock the regulator arm or sector gear and mounting plate together with a heavy-duty clamp to prevent the spring from rebounding. Some regulators have a hole in the arm and mounting plate that will accept a bolt and nut to lock the two parts together.

- 6. <u>After checking for the assist spring and locking the arm in place</u>, remove the bolts attaching the motor to the regulator.
- 7. Apply a small amount of grease to the teeth of the drive gear and on the sector gear of the regulator.
- 8. Replace the motor, making sure the gears engage before you bolt the new motor in place
- 9. Remove the clamp or bolt/nut securing the regulator arm or sector gear to the mounting plate of the regulator.
- 10. Reinstall regulator assembly into door and attach window. If necessary use new 3/16" bolts with nuts and lock washers in place of the original equipment rivets
- 11. Reinstall the lining, reconnect all connectors to door panel and test window. If the window does not go in the direction indicated by the switches, reverse the wires in the harness connector.
- 12. Reinstall door panel.