

CHRYSLER CORP.

Chrysler
Dodge

TESTING

DESCRIPTION

Headlamp doors are electrically operated by a single motor mounted behind the center grille. The motor is series wound with two field windings, and has a worm gear drive and internal limit switches. The relay circuit breaker assembly is mounted on the right side of the steering column support.

OPERATION

When headlight switch is turned on, relay is energized completing motor circuit, and doors are rotated to the open position. When doors reach the open position, a limit switch cuts off power to motor. When headlight switch is turned off, relay completes door closing circuit, and doors are rotated to the closed position. When doors reach the closed position, a second limit switch cuts off power to motor.

EMERGENCY OPERATION

If headlight doors do not open when headlight switch is turned on, doors can be opened manually as follows: Raise hood and disconnect motor leads, then rotate the hand wheel (located at lower end of motor) clockwise until headlight doors are fully opened.

CAUTION — Do not rotate wheel after doors reach end of travel as damage to motor may result.

MOTOR

1) Using jumper wires and car battery, apply current to motor terminals after limit switch and check motor operation in both directions.

CAUTION — This test bypasses limit switches and should be applied only momentarily to avoid damage.

2) If motor draws current but does not operate in either direction, it is shorted or locked and must be replaced. If motor draws no current, an open circuit exists and motor must be replaced.

3) If motor operates correctly, apply power before limit switches. If motor still operates correctly, trouble is in wiring. If motor does not operate with power applied before limit switches, check switches.

4) Test for power at connector. Voltage should be present with headlight switch both on and off. If no voltage is present, check for loose wire at headlight switch "H" terminal, at motor relay, or for a faulty circuit breaker.

LIMIT SWITCHES

1) Remove torsion bar and motor. Remove switch plate and examine gear for damage. Ensure switch blade contact surfaces are clean.

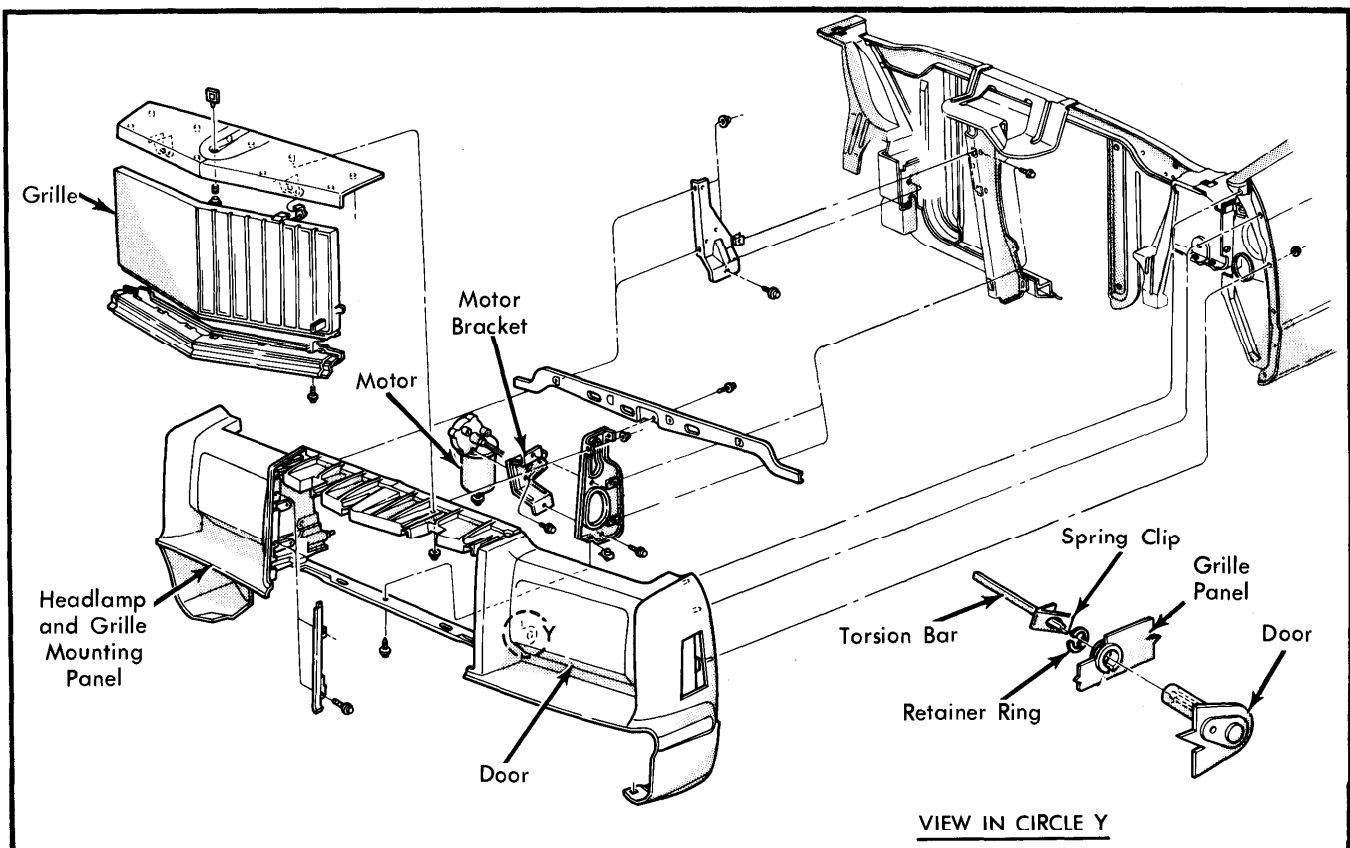


Fig. 1 Chrysler Headlight Door Assembly Shown
(Dodge Similar)

Headlight Doors — Automatic

CHRYSLER CORP. (Cont.)

2) Rotate gear assembly while pressing it against switch plate. Replace switch plate if switches do not operate properly in both open and closed positions.

CAUTION — Do not over-rotate since cam can damage limit switch.

REMOVAL & INSTALLATION

TORSION BAR & MOTOR

Removal — Torsion bar and motor are removed as an assembly. Disconnect battery ground strap and motor leads (including ground wire) from harness. Rotate handwheel on motor until doors are at halfway open position. Compress and remove clips from crank assemblies and remove torsion bar from slotted areas in cranks. Remove motor mounting bracket from vertical lock support and remove torsion bar and motor as an assembly.

Installation — 1) Position motor on mounting bracket and install mounting screws. Verify motor is in half-open position and tighten attaching screws to 60 INCH lbs. Insert torsion bar in motor and position clips on bar.

2) Position motor mounting brackets on vertical lock support and tighten attaching bolts to 220 INCH lbs. Position and fully seat torsion bar in slotted areas of cranks. Compress clips and position over cranks and torsion bar. Connect motor harness and battery ground strap. Test operation of doors.

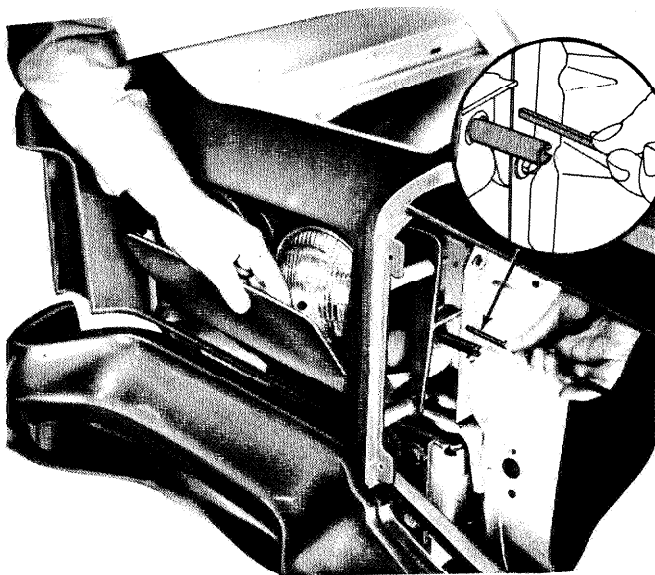


Fig. 2 Removing Torsion Bar

HEADLIGHT DOORS

Removal — 1) Disconnect motor leads at harness connector. Rotate motor with hand wheel until doors are in half-open position. Remove clip from headlight door crank and torsion bar.

2) Remove torsion bar by pulling with one hand and moving headlight door with the other. Disconnect headlight wiring and remove inner sealed beam unit. Remove retainer ring from crank. See Fig. 1.

3) On New Yorker only, rotate door until door crank screw can be removed through hole in grill reinforcement. Remove idler pin from housing and rotate inboard side of door up and out.

4) On St. Regis only, remove park and turn signal by removing 2 screws on inboard side of lamp. Slide door out of opening.

Installation — Reverse removal procedure and note the following: Before installing torsion bar in slotted area of crank, make sure motor is in half-open position. To check installation, operate doors several times and check for interference between doors and front panel. If interference exists, loosen headlight housing mounting nuts and readjust assembly until interference is eliminated. With all components properly installed, re-aim headlamps.

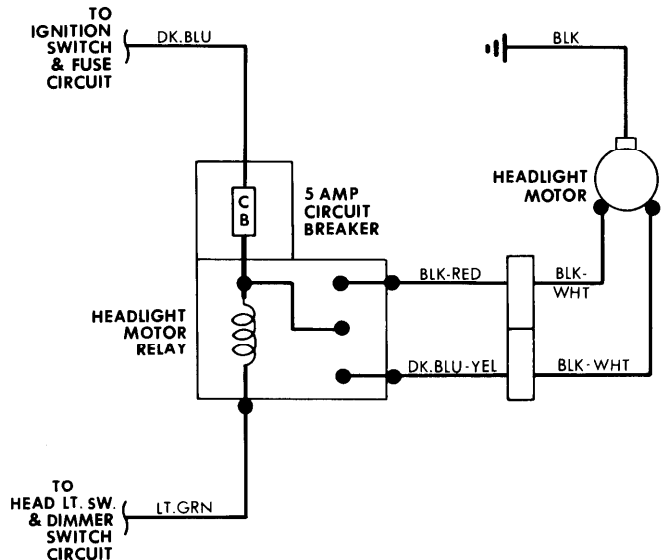


Fig. 3 Wiring Diagram of Chrysler Headlight Door Circuit