LAMPS

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HEADLAMP SERVICE

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DESCRIPTION AND OPERATION

HEADLAMPS

DESCRIPTION

Headlamps on the Grand Cherokee are modular in design. The turn/park lamp module is incorporated into the headlamp module. The module contains five bulbs; a dual filament headlamp low beam bulb, a single filament high beam bulb, two turnsignal/park bulbs, and a side marker bulb.

OPERATION

All headlamp, turnsignal, park lamp, and high beam operations are controlled by the multifunction switch located on the left side of the steering column. Exterior lamps and bulbs are serviceable separately.

DIAGNOSIS AND TESTING

DIAGNOSTIC PROCEDURES

WARNING: EYE PROTECTION SHOULD BE USED WHEN SERVICING GLASS COMPONENTS. PERSONAL INJURY CAN RESULT.

CAUTION: Do not touch the glass of halogen bulbs with fingers or other possibly oily surface, reduced bulb life will result.

Do not use bulbs with higher candle power than indicated in the Bulb Application table at the end of this group. Damage to lamp and/or Daytime Running Lamp Module can result.

Do not use fuses, circuit breakers or relays having greater amperage value than indicated on the fuse panel or in the Owners Manual.

When a vehicle experiences problems with the headlamp system, verify the condition of the battery connections, fuses, charging system, headlamp bulbs, wire connectors, relay, high beam switch, dimmer switch, and headlamp switch. Refer to Group 8W, Wiring Diagrams for component locations and circuit information.

Each vehicle is equipped with various lamp assemblies. A good ground is necessary for proper lighting operation. Grounding is provided by the lamp socket when it comes in contact with the metal body, or through a separate ground wire.

When changing lamp bulbs check the socket for corrosion. If corrosion is present, clean it with a wire brush and coat the inside of the socket lightly with Mopar Multi-Purpose Grease or equivalent.

When it is necessary to remove components to service another, it should not be necessary to apply excessive force or bend a component to remove it. Before damaging a trim component, verify hidden fasteners or captured edges are not holding the component in place.

DIAGNOSIS AND TESTING (Continued)

SYSTEM DIAGNOSIS

HEADLAMPS

CONDITION	POSSIBLE CAUSES	CORRECTION
HEADLAMPS ARE DIM WITH ENGINE IDLING OR IGNITION TURNED OFF	1. Loose or corroded battery cables.	1. Clean and secure battery cable clamps and posts.
	2. Loose or worn generator drive belt.	2. Adjust or replace generator drive belt.
	3. Charging system output too low.	3. Test and repair charging system, refer to Group 8A,
	4. Battery has insufficient charge.	4. Test battery state-of -charge, refer to Group 8A.
	5. Battery is sulfated or shorted.	5. Load test battery, refer to Group 8A.
	6. Poor lighting circuit Z1-ground.	6. Test for voltage drop across Z1-ground locations, refer to Group 8W.
	7. Both headlamp bulbs defective.	7. Replace both headlamp bulbs.
HEADLAMP BULBS BURN OUT FREQUENTLY	1. Charging system output too high.	1. Test and repair charging system, refer to Group 8A.
	2. Loose or corroded terminals or splices in circuit.	2. Inspect and repair all connectors and splices, refer to Group 8W.
HEADLAMPS ARE DIM WITH ENGINE RUNNING ABOVE IDLE*	1. Charging system output too low.	1. Test and repair charging system, refer to Group 8A.
	2. Poor lighting circuit Z1-ground.	2. Test for voltage drop across Z1-ground locations, refer to Group 8W.
	3. High resistance in headlamp circuit.	3. Test amperage draw of headlamp circuit.
	4. Both headlamp bulbs defective.	4. Replace both headlamp bulbs.
HEADLAMPS FLASH RANDOMLY	1. Poor lighting circuit Z1-ground.	1. Test for voltage drop across Z1-ground locations, refer to Group 8W.
	2. High resistance in headlamp circuit.	2. Test amperage draw of headlamp circuit. Should not exceed 30 amps.
	3. Loose or corroded terminals or splices in circuit.	3. Inspect and repair all connectors and splices, refer to Group 8W.
HEADLAMPS DO NOT ILLUMINATE	1. No voltage to headlamps.	1. Repair open headlamp circuit, refer to Group 8W.
	2. No Z1-ground at headlamps.	2. Repair circuit ground, refer to Group 8W.
	3. Faulty headlamp switch.	3. Refer to BCM diagnostics.
	4. Blown fuse for headlamps.	4. Replace fuse refer to Group 8W.
	5. Broken connector terminal or wire splice in headlamp circuit.	5. Repair connector terminal or wire splice.
	6. Both headlamp bulbs defective.	6. Replace both headlamp bulbs.
*Canada vehicles must have lamps ON.		

DIAGNOSIS AND TESTING (Continued)

FOG LAMP

CONDITION	POSSIBLE CAUSES	CORRECTION
FOG LAMPS ARE DIM WITH ENGINE IDLING OR IGNITION TURNED OFF.	1. Loose or corroded battery cables.	1. Clean and secure battery cable clamps and posts.
	2. Loose or worn generator drive belt.	2. Adjust or replace generator drive belt.
	3. Charging system output too low.	3. Test and repair charging system. Refer to Group 8A,
	4. Battery has insufficient charge.	4. Test battery state-of -charge. Refer to Group 8A.
	5. Battery is sulfated or shorted.	5. Load test battery. Refer to Group 8A.
	6. Poor lighting circuit Z1-ground.	6. Test for voltage drop across Z1-ground locations. Refer to Group 8W.
FOG LAMP BULBS BURN OUT FREQUENTLY	1. Charging system output too high.	1. Test and repair charging system. Refer to Group 8A.
	2. Loose or corroded terminals or splices in circuit.	2. Inspect and repair all connectors and splices. Refer to Group 8W.
FOG LAMPS ARE DIM WITH ENGINE RUNNING ABOVE IDLE	1. Charging system output too low.	1. Test and repair charging system. Refer to Group 8A.
	2. Poor lighting circuit Z1-ground.	2. Test for voltage drop across Z1-ground locations. Refer to Group 8W.
	3. High resistance in fog lamp circuit.	3. Test amperage draw of fog lamp circuit.
FOG LAMPS FLASH RANDOMLY	1. Poor lighting circuit Z1-ground.	1. Test for voltage drop across Z1-ground locations. Refer to Group 8W.
	2. High resistance in fog lamp circuit.	2. Test amperage draw of fog lamp circuit.
	3. Faulty multifunction switch.	3. Refer to Group 8W BCM diagnostics.
	4. Loose or corroded terminals or splices in circuit.	4. Inspect and repair all connectors and splices. Refer to Group 8W.
FOG LAMPS DO NOT ILLUMINATE	1. Blown fuse for fog lamp.	1. Replace fuse. Refer to Group 8W.
	2. No Z1-ground at fog lamps.	2. Repair circuit ground. Refer to Group 8W.
	3. Faulty multifunction switch.	3. Refer to Group 8W BCM diagnostics.
	4. Broken connector terminal or wire splice in fog lamp circuit.	4. Repair connector terminal or wire splice.
	5. Defective or burned out bulb.	5. Replace bulb.

DIAGNOSIS AND TESTING (Continued)

DAYTIME RUNNING LAMP

CONDITION	POSSIBLE CAUSES	CORRECTION
DAYTIME RUNNING LAMPS DO NOT WORK	1. Poor connection at DRL module. 2. Parking brake engaged. 3. Parking brake circuit shorted to ground. 4. Headlamp circuit shorted to ground. 5. Defective DRL relay. 6. Body controller not programed with Canadian country code. 7. DRL relay is missing. 8. Blown fuse for DRL.	1. Secure connector on DRL module. 2. Disengage parking brake. 3. Check cluster telltale, refer to Group 8W. 4. Refer to Group 8W. 5. Replace DRL relay. 6. Check country code. 7. Install DRL relay. 8. Replace fuse refer to Group 8W.
Clicking or chattering when DRL is on.	1. Mechanical relay is installed in the junction block.	1. Ensure that the DRL relay is installed in the proper socket in junction block, and that no mechanical relay exists in the low beam socket.

AUTO HEADLAMP SENSOR (AHL)

DESCRIPTION

The auto headlamp sensor is the key sensor for the auto headlamp system. The sensor needs real sunlight to properly register the light level. When auto headlamps are enabled indoors, the headlamps may be turned on. The sensor is located in the center of the defroster grille at the base of the windshield.

OPERATION

There are no faults set in the Body Control Module (BCM) for a bad or missing AHL Sensor. Symptom of a missing sensor or unconnected sensor would be that the Headlamps and Parklamps turn on when the vehicle is started and there is a high level of ambient light present (ie. daytime). Auto headlamps should not function in the presence of daylight.

ADJUSTMENTS

VEHICLE PREPARATION FOR LAMP ALIGNMENT

(1) Verify headlamp dimmer switch and high beam indicator operation.

(2) Correct defective components that could hinder proper lamp alignment.

(3) Verify proper tire inflation.

(4) Clean lamp lenses.

(5) Verify that luggage area is not heavily loaded.

(6) Fuel tank should be FULL. Add 2.94 kg (6.5 lbs.) of weight over the fuel tank for each estimated gallon of missing fuel.

ADJUSTMENTS (Continued)

LAMP ALIGNMENT SCREEN PREPARATION

(1) Position vehicle on a level surface perpendicular to a flat wall 7.62 meters (25 ft) away from front of headlamp lens (Fig. 1).

(2) If necessary, tape a line on the floor 7.62 meters (25 ft) away from and parallel to the wall.

(3) Measure from the floor up 1.27 meters (5 ft) and tape a line on the wall at the centerline of the vehicle. Sight along the centerline of the vehicle (from rear of vehicle forward) to verify accuracy of the line placement.

(4) Rock vehicle side-to-side three times to allow suspension to stabilize.

(5) Jounce front suspension three times by pushing downward on front bumper and releasing.

(6) Measure the distance from the center of headlamp lens to the floor. Transfer measurement to the alignment screen (with tape). Use this line for up/down adjustment reference.

(7) Measure distance from the centerline of the vehicle to the center of each headlamp being aligned. Transfer measurements to screen (with tape) to each side of vehicle centerline. Use these lines for left/right adjustment reference.

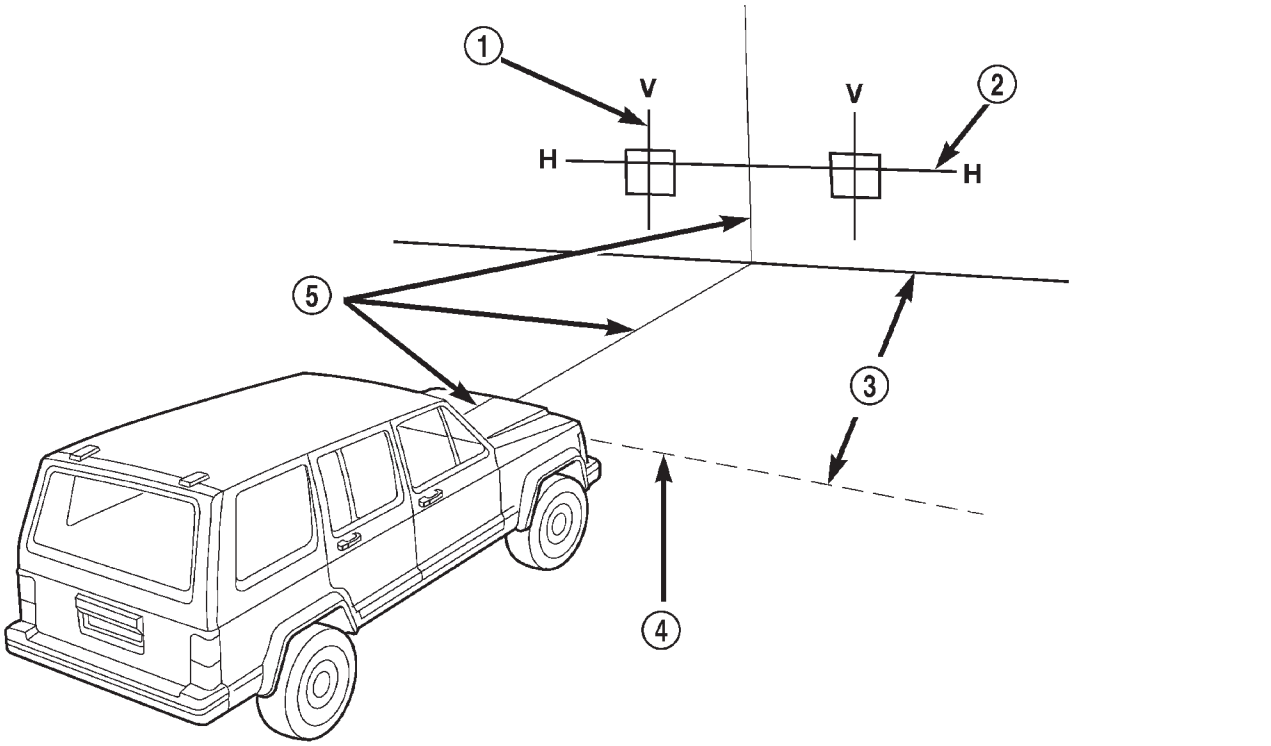


Fig. 1 Headlamp Alignment Screen—Typical

1 – CENTER OF VEHICLE TO CENTER OF HEADLAMP LENS
2 – FLOOR TO CENTER OF HEADLAMP LENS
3 – 7.62 METERS (25 FEET)
4 – FRONT OF HEADLAMP
5 – VEHICLE CENTERLINE

ADJUSTMENTS (Continued)

HEADLAMP ADJUSTMENT

A properly aimed low beam will project the top edge of the beam intensity pattern on the screen from 25 mm (1 in.) above to 75 mm (3 in.) below headlamp centerline. The side-to-side left edge of the beam intensity pattern should be from 50 mm (2 in.) left to 50 mm (2 in.) right of headlamp centerline (Fig. 2).

(1) Clean front of the headlamps.

(2) Place headlamps on LOW beam.

(3) Cover front of the headlamp that is not being adjusted.

(4) Turn adjustment screw (Fig. 3) and (Fig. 4) until the top edge of the beam intensity pattern is positioned within 25 mm (1 in.) above or 75 mm (3 in.) below the headlamp horizontal centerline.

(5) Cover front of the headlamp and adjust the other headlamp beam as instructed below.

(6) Rotate the adjustment screw until the top edge of the beam intensity pattern is positioned within 25 mm (1 in.) above or 75 mm (3 in.) below the headlamp horizontal centerline.

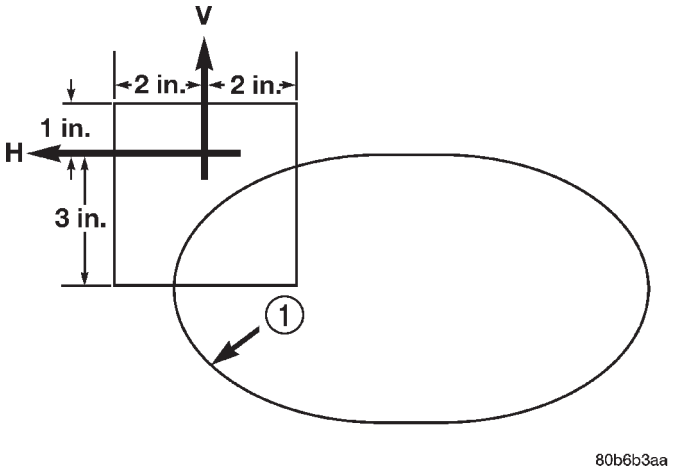


Fig. 2 Low Beam Pattern

1 – LOW BEAM INTENSITY PATTERN (ISO-CANDELA CURVE)

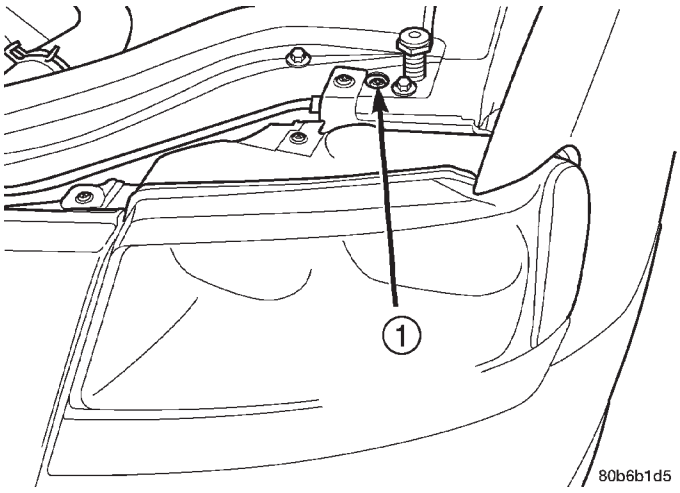


Fig. 3 Headlamp Beam Adjustment Screw

1 – ADJUSTMENT SCREW LOCATION

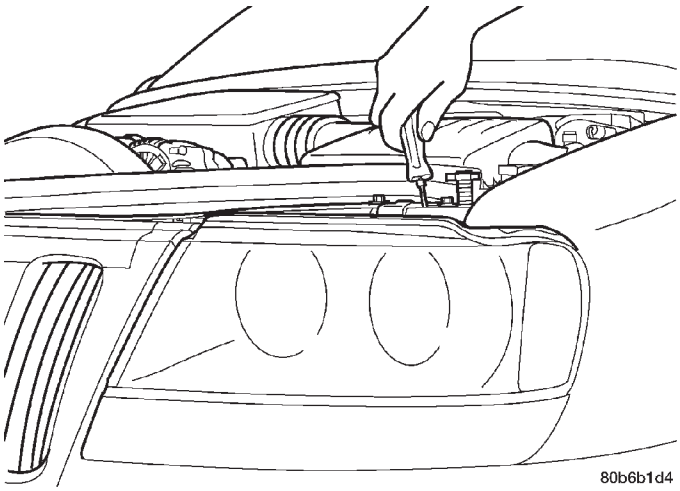


Fig. 4 Headlamp Beam Adjustment

FOG LAMP ADJUSTMENT

Prepare an alignment screen. A properly aligned fog lamp will project a pattern on the alignment screen 100 mm (4 in.) below the fog lamp centerline and straight ahead (Fig. 5).

Rotate the adjustment screw to adjust beam height (Fig. 6).

ADJUSTMENTS (Continued)

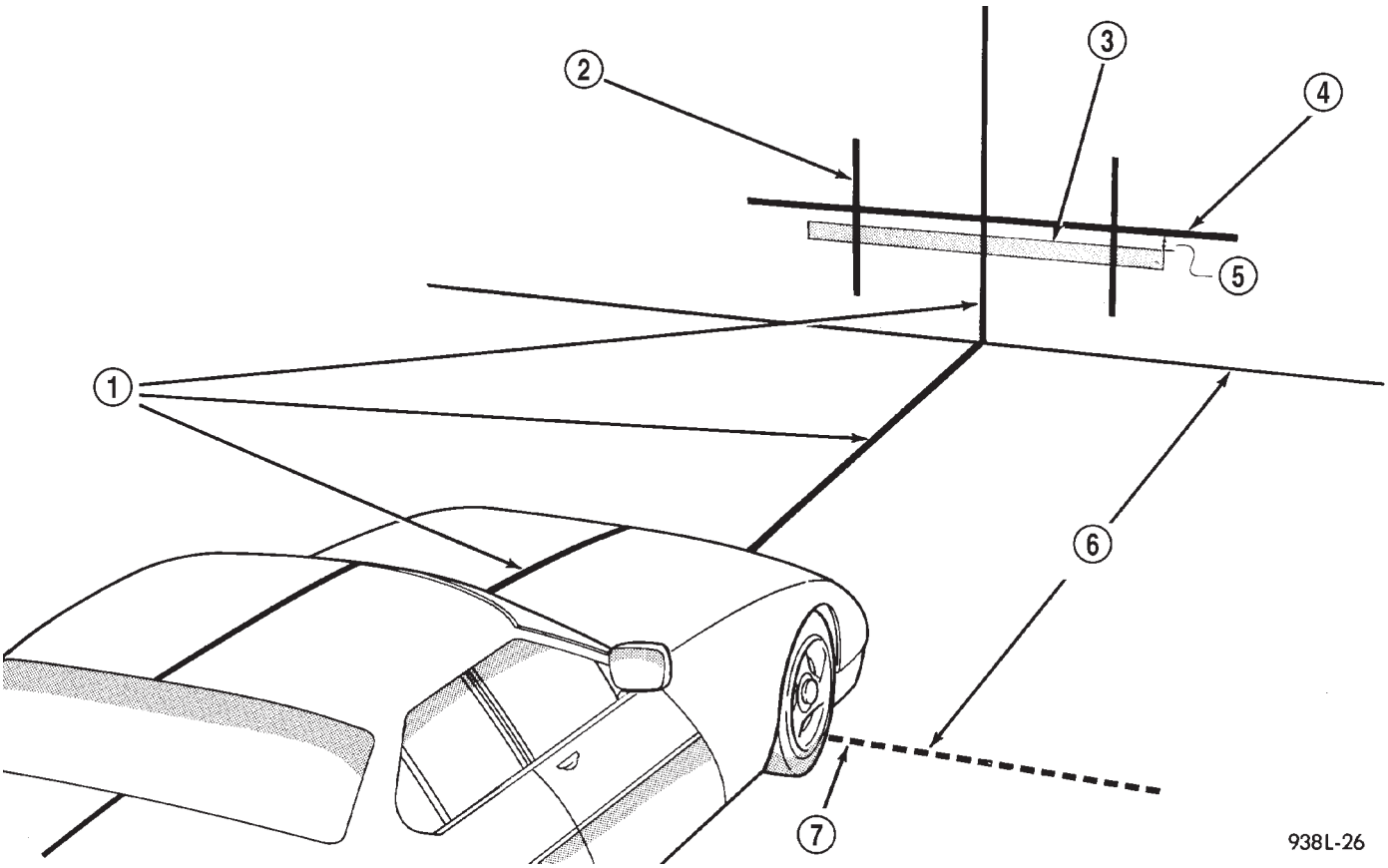


Fig. 5 Fog Lamp Alignment—Typical

1 – VEHICLE CENTERLINE
2 – CENTER OF VEHICLE TO CENTER OF FOG LAMP LENS
3 – HIGH-INTENSITY AREA
4 – FLOOR TO CENTER OF FOG LAMP LENS
5 – 100 mm (4 in.)
6 – 7.62 METERS (25 FEET)
7 – FRONT OF FOG LAMP

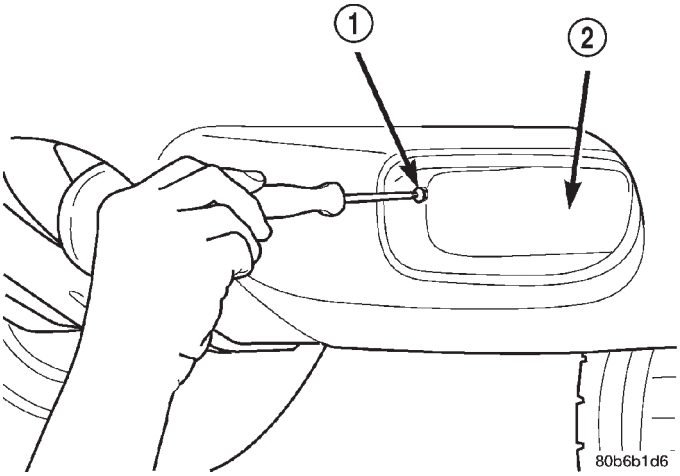


Fig. 6 Fog Lamp Adjustment

1 – ADJUSTMENT SCREW
2 – FOG LAMP

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REMOVAL AND INSTALLATION

HEADLAMP BULB

REMOVAL

(1) Remove headlamp.
(2) Turn bulb socket one quarter turn counter clockwise.
(3) Remove socket from lamp (Fig. 1).
(4) Pull bulb from socket.

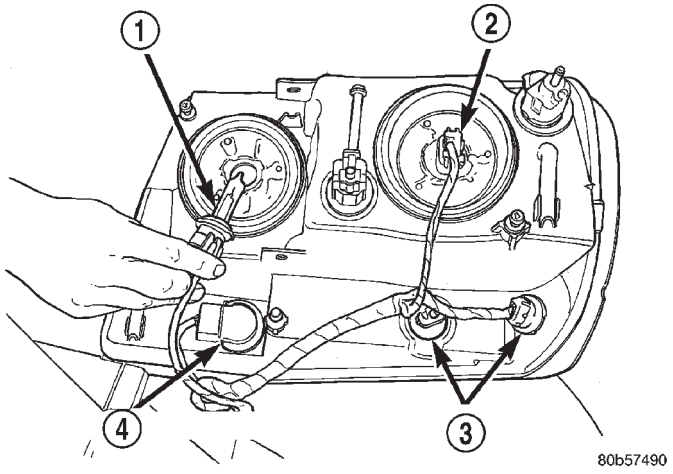


Fig. 1 Headlamp Bulb

1 – HIGH BEAM BULB
2 – LOW BEAM BULB
3 – MARKER BULB
4 – PARK/TURN SIGNAL BULB

INSTALLATION

CAUTION: Do not touch the bulb glass with fingers or other oily surfaces. Reduced bulb life will result.

(1) Position bulb into socket and push into place.
(2) Position bulb socket in headlamp and turn bulb socket one quarter turn clockwise.
(3) Install headlamp.

FOG LAMP BULB

REMOVAL

(1) Disconnect fog lamp harness connector.
(2) Rotate bulb socket 1/4 turn counter clockwise.
(3) Remove bulb socket from lamp (Fig. 2).

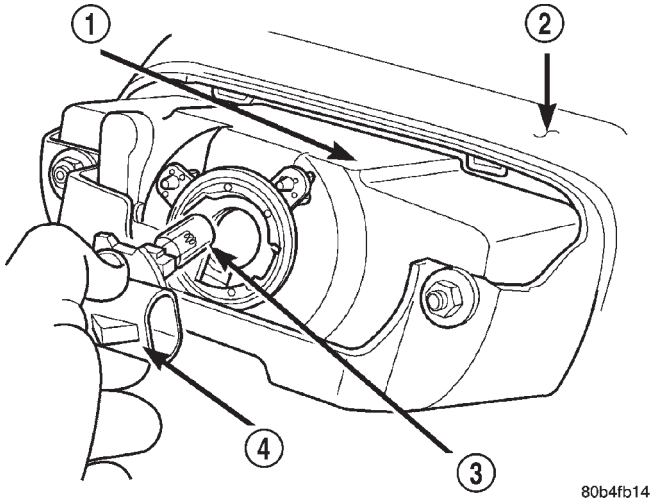


Fig. 2 Fog Lamp Bulb

1 – FOG LAMP
2 – FASCIA
3 – BULB
4 – BULB SOCKET

INSTALLATION

CAUTION: Do not touch the bulb glass with fingers or other oily surfaces. Reduced bulb life will result.

(1) Position bulb socket in fog lamp.
(2) Rotate bulb socket 1/4 turn clockwise.
(3) Connect fog lamp harness connector.

REMOVAL AND INSTALLATION (Continued)

FRONT TURN SIGNAL BULB

REMOVAL

(1) Remove headlamp module.
(2) Rotate turn signal bulb socket 1/4 turn counter clockwise (Fig. 1).
(3) Remove bulb socket from module.
(4) Pull bulb from socket.

INSTALLATION

(1) Press bulb into socket.
(2) Position bulb socket in module.
(3) Rotate turn signal bulb socket 1/4 turn clockwise.
(4) Install headlamp module.

PARK LAMP BULB

REMOVAL

(1) Remove the headlamp module. Refer to Headlamp Removal/Installation procedure.
(2) Rotate the headlamp module to access the bulb sockets (Fig. 1).
(3) Remove the park lamp socket.
(4) Grasp the bulb and remove from socket.

INSTALLATION

(1) Engage the bulb in the lamp socket.
(2) Install the lamp socket into the headlamp module.
(3) Install the headlamp module on the vehicle.

FRONT SIDE MARKER LAMP BULB

REMOVAL

(1) Remove headlamp module.
(2) Rotate side marker bulb socket 1/4 turn counter clockwise (Fig. 1).
(3) Remove bulb socket from module.
(4) Pull bulb from socket.

INSTALLATION

(1) Press bulb into socket.
(2) Position bulb socket in module.
(3) Rotate side marker bulb socket 1/4 turn clockwise.
(4) Install headlamp module.

TAIL, BRAKE, TURN SIGNAL AND BACK-UP LAMP BULBS

The brake, turn signal, back-up, and side marker lamp bulbs are incorporated into the tail lamp.

REMOVAL

(1) Remove tail lamp.
(2) Grasp bulb socket and rotate counterclockwise.
(3) Separate socket from lamp
(4) Pull bulb from socket (Fig. 3).

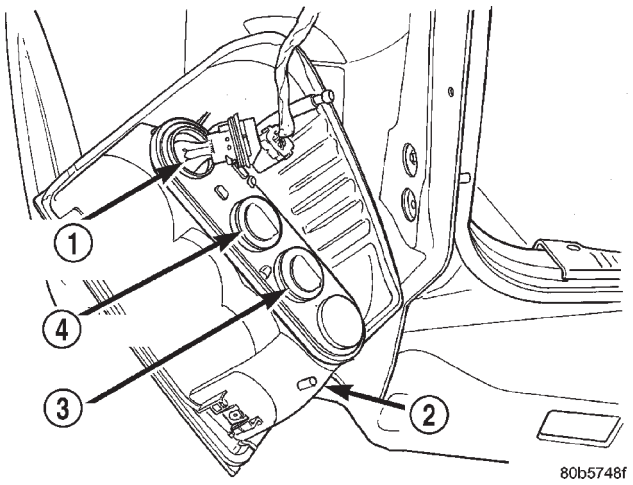


Fig. 3 Tail Lamp Bulbs

1 – TAIL/STOP BULB
2 – TAIL LAMP
3 – BACK-UP BULB
4 – TURN SIGNAL BULB

INSTALLATION

(1) Position bulb in socket and push into place.
(2) Position bulb socket in lamp and rotate clockwise.
(3) Install lamp.

BACK-UP LAMP BULB

REMOVAL

(1) Remove tail lamp.
(2) Grasp bulb socket and rotate counterclockwise.
(3) Separate socket from lamp
(4) Pull bulb from socket (Fig. 3).

INSTALLATION

(1) Position bulb in socket and push into place.
(2) Position bulb socket in lamp and rotate clockwise.
(3) Install lamp.

REAR SIDE MARKER LAMP BULB

REMOVAL

(1) Remove the tail lamp assembly.
(2) Remove the bulb socket from the lamp (Fig. 3).
(3) Grasp the bulb and remove.

INSTALLATION

(1) Install the bulb in the socket.
(2) Install the bulb socket in the lamp.
(3) Position the tail lamp assembly on the vehicle. Install the screws.

REMOVAL AND INSTALLATION (Continued)

LICENSE PLATE LAMP BULB

REMOVAL

(1) Remove lamp assembly from liftgate lamp module.
(2) Rotate bulb socket counterclockwise to disconnect bulb socket from lamp.
(3) Remove bulb from socket.

INSTALLATION

(1) Install bulb in socket.
(2) Install socket and bulb assembly in lamp housing.
(3) Install lamp assembly in liftgate lamp module.

CENTER HIGH MOUNTED STOP LAMP (CHMSL) BULB

REMOVAL

(1) Remove screws attaching lamp housing to liftgate.
(2) Rotate bulb socket 1/4 turn and pull from housing (Fig. 4).
(3) Grasp bulb and pull from socket.

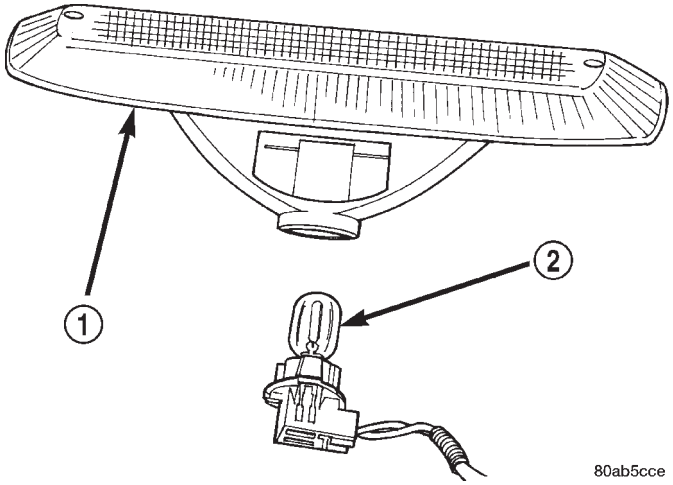


Fig. 4 CHMSL Bulb

1 – CHMSL
2 – CHMSL BULB

INSTALLATION

(1) Push bulb into socket.
(2) Position socket in lamp and rotate 1/4 turn.
(3) Install screws attaching the lamp housing to liftgate.

UNDERHOOD LAMP BULB

REMOVAL

(1) Insert a small flat blade in access slot between lamp base and lamp lens.
(2) Pry lamp lens upward and remove lamp lens (Fig. 5).
(3) Depress bulb terminal inward (Fig. 6) to release bulb.

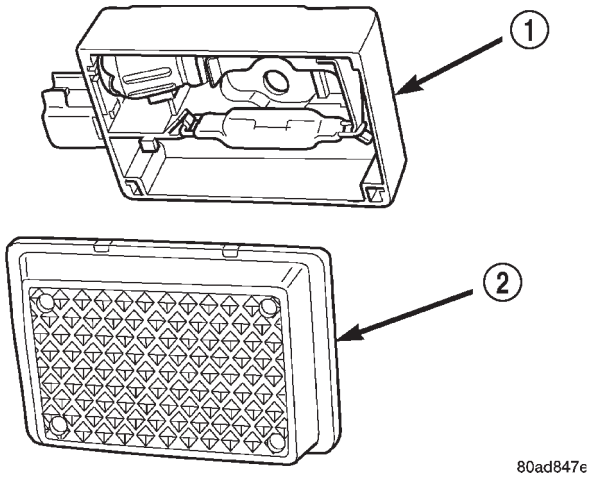


Fig. 5 Underhood Lamp Lens

1 – LAMP
2 – LAMP LENS

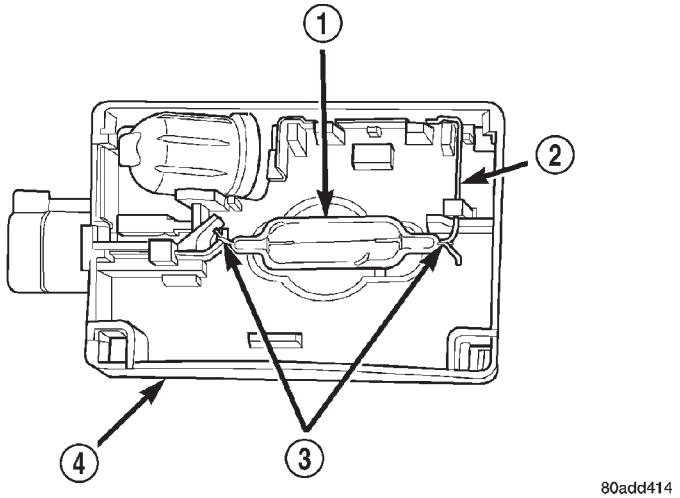


Fig. 6 Underhood Lamp Bulb

1 – BULB
2 – DEPRESS TERMINAL INWARD
3 – BULB WIRE LOOP
4 – LAMP BASE

INSTALLATION

(1) Engage replacement bulb wire loop to terminal closest to lamp base wire connector.
(2) Depress opposite terminal inward and engage remaining bulb wire loop.
(3) Position lamp lens on lamp base and press into place.

DOOR COURTESY LAMP BULB

REMOVAL

(1) Remove door trim panel. Refer to Group 23, Body Components for service procedures.

REMOVAL AND INSTALLATION (Continued)

(2) Remove bulb socket from lamp.
(3) Pull bulb from socket.

INSTALLATION

(1) Position bulb in socket and press into place.
(2) Install bulb socket in lamp.
(3) Install door trim panel.

VISOR VANITY LAMP BULB

REMOVAL

(1) Using a small flat blade, carefully pry each corner of the lens out of the lamp.
(2) Separate the lens from the lamp.
(3) Grasp the bulb and pull out.

INSTALLATION

(1) Position the bulb in the socket and push in place.
(2) Position the lens on the lamp and snap into place.

DOME/READING LAMP BULB

REMOVAL

(1) Rotate the grab handle down.
(2) Remove the screws retaining the grab handle/dome lens.
(3) Remove grab handle/lens from module.
(4) Remove bulb from lamp terminals.

INSTALLATION

(1) Insert bulb into lamp terminals.
(2) Position the grab handle/lens on lamp module.
(3) Install the screws retaining the grab handle/lens to the lamp module.

OVERHEAD CONSOLE READING LAMP BULB

REMOVAL

(1) Remove the overhead console.
(2) Rotate the console until the bulb is visible (Fig. 7).
(3) Grasp the bulb and remove from the socket.

INSTALLATION

(1) Push the bulb into the bulb socket.
(2) Install the console on the headliner and roof panel.
(3) Align the screw hole and install the screw.

CARGO LAMP BULB

REMOVAL

(1) Using a small flat blade, pry forward corners of lamp lens from lamp.

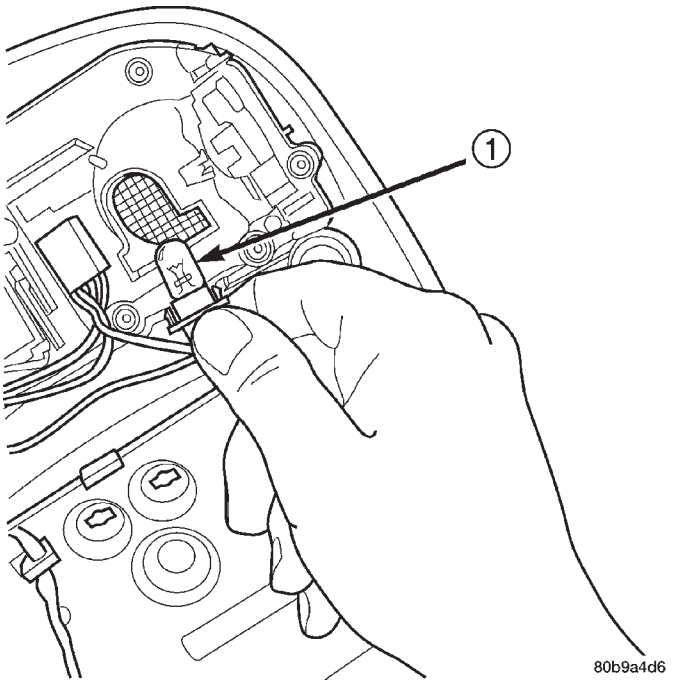


Fig. 7 Overhead Console Reading Lamp Bulb

1 – BULB

(2) Pull bulb from lamp (Fig. 8).

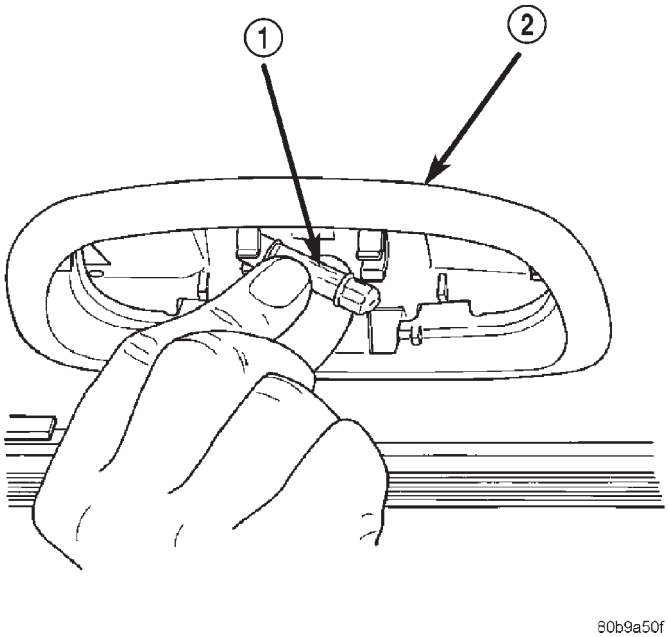


Fig. 8 Cargo Lamp Bulb

1 – CARGO LAMP BULB
2 – CARGO LAMP

INSTALLATION

(1) Position bulb in lamp and press into place.
(2) Position lamp lens on lamp and press into place.

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REMOVAL AND INSTALLATION

HEADLAMP

REMOVAL

(1) Remove jack screw attaching top of headlamp to headlamp mounting module (Fig. 1).

(2) Grasp upper inboard and lower outboard corners of headlamp (Fig. 2) and forcefully pull headlamp outward.

(3) Remove all bulb sockets from headlamp module.

(4) Separate headlamp from vehicle.

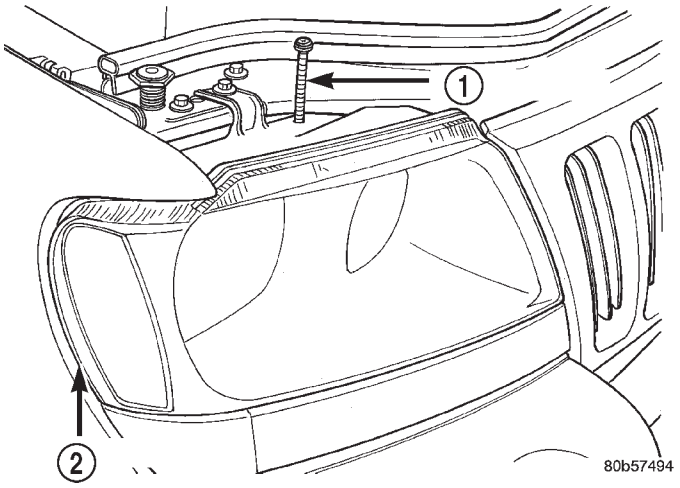


Fig. 1 Headlamp Jackscrew

1 – JACKSCREW
2 – HEADLAMP

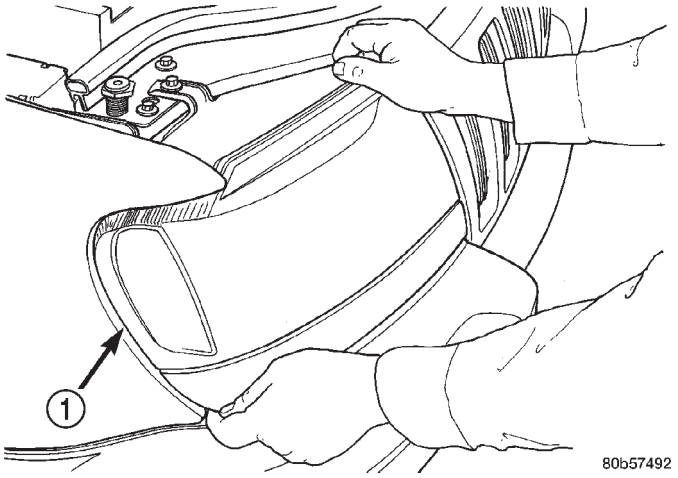


Fig. 2 Headlamp Removal

1 – HEADLAMP

INSTALLATION

CAUTION: Do not touch the bulb glass with fingers or other oily surfaces. Reduced bulb life will result.

(1) Install all bulb sockets in headlamp module.

(2) Position headlamp on vehicle and align ball studs with sockets.

(3) Forcefully push headlamp inward to secure ball studs with sockets.

(4) Install jack screw attaching top of headlamp to headlamp mounting module.

REMOVAL AND INSTALLATION (Continued)

FOG LAMP

REMOVAL

(1) Disengage fog lamp electrical connector.
(2) Remove nuts attaching fog lamp to fascia (Fig. 3).
(3) Separate fog lamp from vehicle.

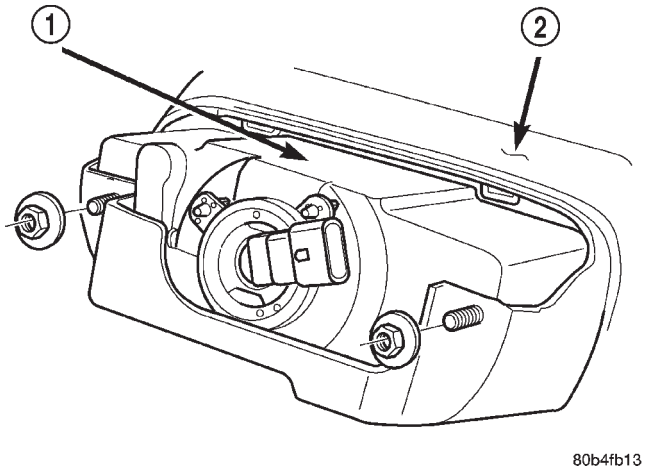


Fig. 3 Fog Lamp

1 – FOG LAMP
2 – FASCIA

INSTALLATION

(1) Position fog lamp in fascia.
(2) Install nuts attaching fog lamp to fascia.
(3) Engage fog lamp electrical connector.
(4) Align fog lamp, if necessary.

FRONT TURN SIGNAL LAMP

The front turn signal lamp is incorporated in the headlamp module. If the front turn signal lamp is damaged or is in need of service, replace the headlamp module.

PARK LAMP

The park lamp is integral with the headlamp module and not serviced as a separate unit.

FRONT SIDE MARKER LAMP

The front side marker lamp is incorporated in the headlamp module. If the front side marker lamp is damaged or is in need of service, replace the headlamp module.

BACK-UP LAMP

The back-up lamp is incorporated in the tail lamp assembly. Refer to Tail Lamp Removal and Installation for service procedures.

TAIL, BRAKE, TURN SIGNAL, BACK-UP, AND SIDE MARKER LAMP

The brake, turn signal, back-up, and side marker lamps are incorporated in the tail lamp.

REMOVAL

(1) Remove screws attaching lamp to body (Fig. 4).
(2) Grasp lamp and pull from body to disengage alignment pin.
(3) Disconnect lamp wire harness connector.
(4) Separate lamp from vehicle.

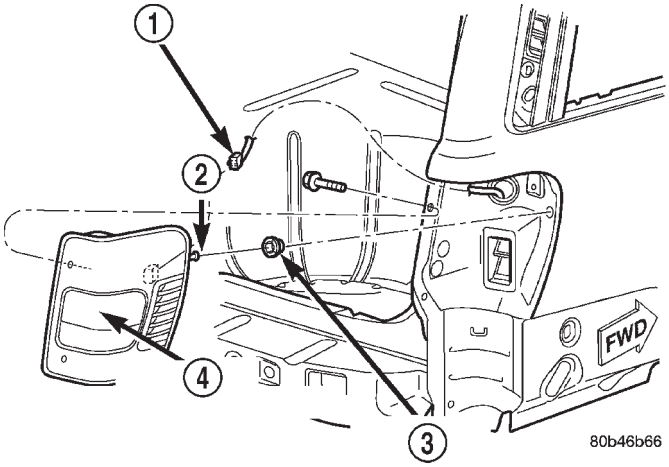


Fig. 4 Tail Lamp

1 – CONNECTOR
2 – PIN
3 – RETAINER
4 – TAILLAMP (STOP, TURN, BACK-UP SIDE MARKER)

INSTALLATION

(1) Position lamp at vehicle.
(2) Connect lamp wire harness connector.
(3) Align pin with retainer and press lamp inward to engage.
(4) Install screws attaching lamp to body.

REAR SIDE MARKER LAMP

NOTE: The rear side marker lamp is incorporated into the tail lamp assembly. Refer to tail lamp removal for proper service procedures.

LICENSE PLATE LAMP

REMOVAL

(1) Remove the screws attaching lamp assembly to liftgate. (Fig. 5).
(2) Pull the lamp assembly away from the sheetmetal at extreme outboard edges to disengage the push pins.

REMOVAL AND INSTALLATION (Continued)

(3) Separate lamp assembly harness wiring connector.

(4) Remove lamp.

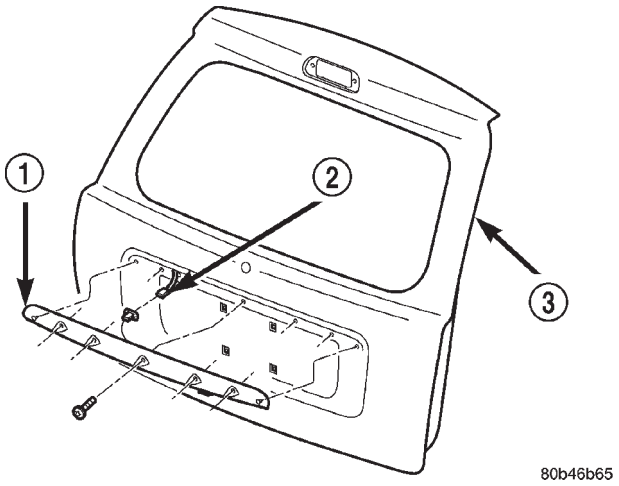


Fig. 5 License Plate Lamp Housing

1 – LICENSE PLATE LAMP
2 – CONNECTOR
3 – LIFTGATE

INSTALLATION

(1) Connect bulb harness to lamp assembly.

(2) Position lamp assembly on liftgate and press outboard fasteners in place.

(3) Install screws in lamp assembly.

CENTER HIGH MOUNTED STOP LAMP (CHMSL)

REMOVAL

(1) Remove screws attaching CHMSL to liftgate (Fig. 6).

(2) Disconnect wire harness connector.

(3) Separate CHMSL from vehicle.

INSTALLATION

(1) Connect wire harness connector.

(2) Position CHMSL on liftgate.

(3) Install screws attaching CHMSL to liftgate.

UNDERHOOD LAMP

REMOVAL

(1) Disconnect wire harness connector from lamp.

(2) Remove screw attaching underhood lamp to inner hood panel (Fig. 7).

(3) Separate underhood lamp from vehicle.

INSTALLATION

(1) Position underhood lamp on hood inner panel.

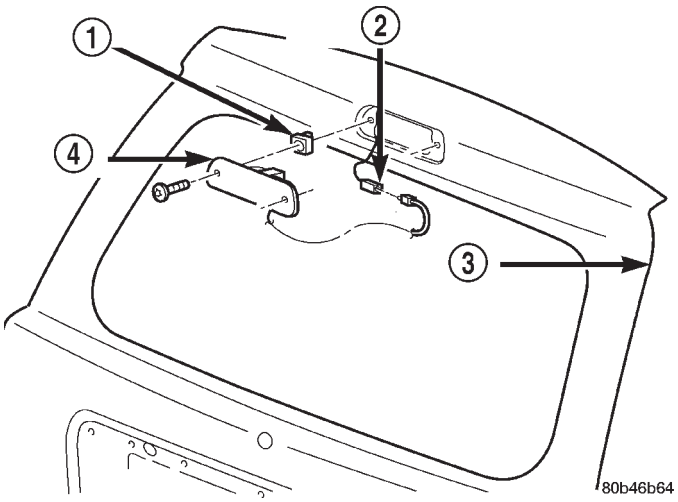


Fig. 6 Center High Mounted Stop lamp

1 – PUSH-IN NUT
2 – CONNECTOR
3 – LIFTGATE
4 – CHSML

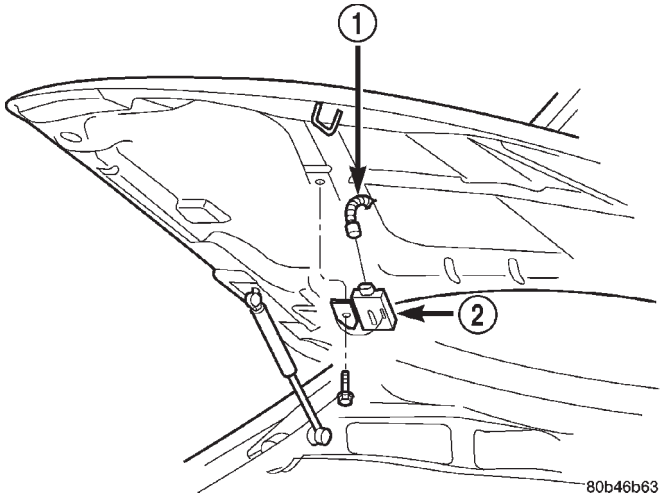


Fig. 7 Underhood Lamp

1 – CONNECTOR
2 – UNDERHOOD LAMP

(2) Install screw attaching lamp base to inner hood panel.

(3) Fold lamp housing over and firmly press onto base to snap into place.

(4) Connect wire harness connector to lamp.

DOOR COURTESY LAMP

REMOVAL

(1) Remove door trim panel. See Group 23 Body Systems for proper service procedures

(2) Disengage electrical connectors.

(3) Depress locking tabs and remove lamp module.

(4) Remove bulb socket.

REMOVAL AND INSTALLATION (Continued)

INSTALLATION

(1) Install bulb socket in lamp module.
(2) Align lamp module with door trim panel opening.
(3) Snap lamp module into place.
(4) Install door panel.

VISOR VANITY LAMP

REMOVAL

(1) Fold down visor.
(2) Using a small flat blade, and staring at the base of the lamp assembly, carefully pry the base of the lamp from the visor.
(3) Disconnect the vanity lamp visor and remove the lamp from the vehicle.

INSTALLATION

(1) Position the lamp at the visor and connect the wire connector.
(2) Press the lamp in place.

READING LAMP

The reading lamp is serviced in the Dome/Reading Lamp section, or the Overhead Console Reading Lamp section.

DOME /READING LAMP

REMOVAL

It will be necessary to partially remove the headliner to remove the bulb socket.
(1) Remove the screws holding the grab handle/lens assembly to the headliner and roof panel.
(2) Lower the headliner as needed. Refer to Group 23, Body Components for service procedure.
(3) Seperate the lamp socket from the headliner and roof panel.
(4) Disconnect the wire connector.

INSTALLATION

(1) Position the lamp socket on the headliner and roof panel.
(2) Connect the wire harness.
(3) Install the headliner.
(4) Position the grab handle/lens on the lamp module.
(5) Install the screws retaining the grab handle/lens into the lamp socket.

CARGO LAMP

REMOVAL

(1) Using a small flat blade, pry forward corners of lamp lens from lamp (Fig. 8).
(2) Separate lens from lamp.
(3) Using a trim stick, pry front and rear edges of lamp from headliner.
(4) Disconnect lamp connector from lamp.
(5) Separate lamp from headliner.

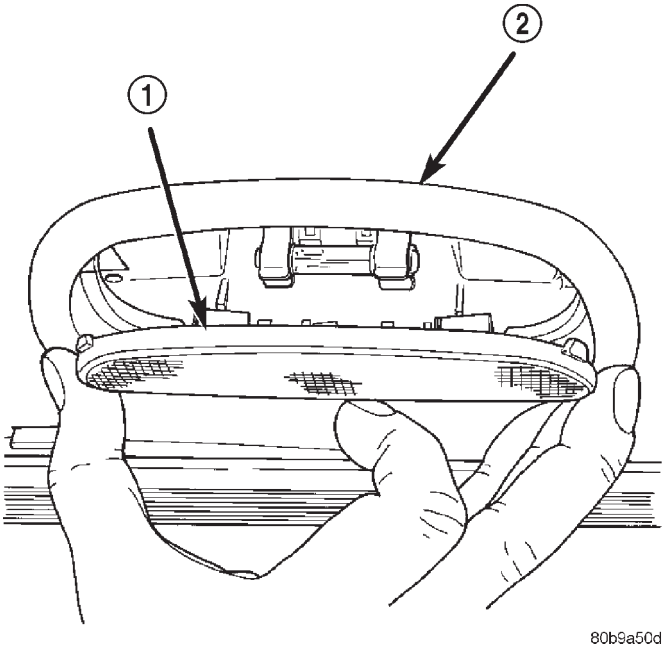


Fig. 8 Cargo Lamp

1 – CARGO LAMP LENS
2 – CARGO LAMP

INSTALLATION

(1) Position lamp at headliner.
(2) Connect lamp connector to lamp.
(3) Position lamp in headliner.
(4) Position lens on lamp and press into place.

TRANSMISSION SELECTOR LAMP

DESCRIPTION

The Transmission Range Indicator Lamp, mounted on the floor console, uses electroluminescent technology as the light source. This lamp requires a 120 volt AC signal that is provided by a power converter included as part of the assembly. The module is not serviceable separately. Because of a potential shock hazard, diagnostic testing of the lamp assembly should be avoided. Refer to TRANSMISSION, Range Selector Assembly Removal and Installation.

LAMP SYSTEMS SERVICE

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DESCRIPTION AND OPERATION

HEADLAMP SWITCH

DESCRIPTION

The headlamp switch is integral to the exterior lighting switch, which is part of the left (lighting) multi-function switch unit located on the left side of the steering column. A knob on the end of the left control stalk controls all of the exterior lighting functions. The exterior lighting switch is hard wired to the Body Control Module (BCM) through the instrument wire harness.

OPERATION

The exterior lighting switch uses a hard wired 5 volt reference circuit from the BCM, resistor multiplexing and a hard wired switch output circuit in the instrument panel harness to provide the BCM with a 0–5 volt signal that indicates the status of all the exterior lighting switch settings. The headlamp switch cannot be repaired. It must be replaced. Refer to Group 8E for removal and installation procedures, and Group 8W for wiring.

DRL MODULE

DESCRIPTION

The Daytime Running Lights (Headlamps) System is installed on vehicles manufactured for sale in Canada only. A separate module, mounted in the junction block under the dash, controls the DRL.

OPERATION

The headlamps are illuminated when the engine is running, headlamp switch off, and the parking brake released. The lamps are illuminated at a reduced intensity.

TAIL/STOP/TURN/BACK-UP LAMPS

DESCRIPTION

The taillamps on the Grand Cherokee are mounted at the rear of the vehicle, outboard of the rear hatch and integrated into the lines of the vehicle. The taillamp module contains a housing, lens, and three bulbs. A dual filament bulb is used for tail and stop functions. A single filament bulb is used for turn signal operations. A separate bulb is used for back-up illumination.

OPERATION

All exterior lighting function are controlled by the multifunction switch. Stop lamp functions are controlled by the stoplamp switch. The back-up lamps are controlled by the back-up lamp switch.

REMOVAL AND INSTALLATION

AUTO HEADLAMP SENSOR

REMOVAL

(1) Remove instrument panel top cover. Refer to Group 8E, Instrument Panel for service procedures.
(2) Remove screw attaching auto headlamp sensor to instrument panel (Fig. 1).
(3) Disengage harness connector from auto headlamp sensor.
(4) Separate auto headlamp sensor from instrument panel.

INSTALLATION

(1) Position auto headlamp sensor on instrument panel.
(2) Engage harness connector to auto headlamp sensor.
(3) Install screw attaching auto headlamp sensor to instrument panel.
(4) Install instrument panel top cover. Refer to Group 8E, Instrument Panel for service procedures.

REMOVAL AND INSTALLATION (Continued)

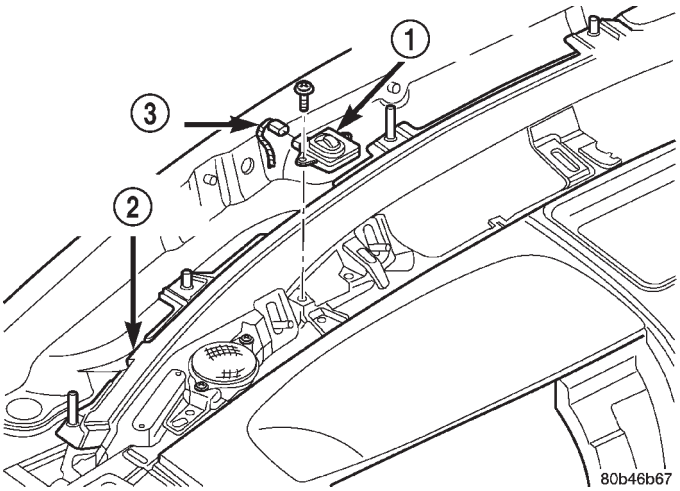


Fig. 1 Auto Headlamp Sensor

1 – AUTO HEADLAMP SENSOR
2 – I/P ASSEMBLY
3 – CONNECTOR

DAYTIME RUNNING LAMP MODULE

REMOVAL

(1) Lower the junction block to access the daytime running lamp module. Refer to Group 80, Power Distribution Center for service procedures.

(2) Pull the module from the junction block.

INSTALLATION

(1) Position the module in the junction block and press to secure.

(2) Install the junction block. Refer to Group 80, Power Distribution Center for service procedures.

BULB APPLICATION

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SPECIFICATIONS

EXTERIOR LAMPS

CAUTION: Do not use bulbs that have a higher candle power than the bulb listed in the Bulb Application Table. Damage to lamp can result. Do not touch halogen bulbs with fingers or other oily surfaces. Bulb life will be reduced.

The following Bulb Application Table lists the lamp title on the left side of the column and trade number or part number on the right.

LAMP	BULB
Back-up	3157
Center High Mounted Stop Lamp	921
Fog lamp	9005
Front Turn Signal	3157/3157NA
Front Side Marker	194/194NA
High Beam	9005XS
Low Beam	9006XS
License Plate	168
Tail/Brake	3157
Rear Turn Signal	3157
Underhood Lamp	561

INTERIOR LAMPS

CAUTION: Do not use bulbs that have a higher candle power than the bulb listed in the Bulb Application Table. Damage to lamp can result.

Service procedures for most of the lamps in the instrument panel, are located in Group 8E. Some components have lamps that can only be serviced by an Authorized Service Center (ASC) after the component is removed from the vehicle. Contact local dealer for location of nearest ASC.

LAMP	BULB
A/C Heater	not serviced
Ash Receiver	161
Climate Control	74
Passenger Assist Handle	214–2
Front Reading	192
Glove Compartment	194
Telltale/Hazard Lamp	74
Heater	not serviced
Overhead Console	192
Radio	ASC
Rear Cargo	214-2
Under Panel Courtesy	906
Cluster Illumination	103
Sunvisor Vanity	Chrysler p/n 6501966