

LAMPS

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LAMP DIAGNOSIS

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GENERAL INFORMATION

HEADLAMP LEVELING MOTOR

This vehicle is may be equipped with a manual headlamp leveling system. This system allows the driver to adjust the headlamp beam height depending on passenger or cargo load. The headlamp beam

height is controlled by a motor attached to each headlamp and is adjusted by a switch located on the console.

DIAGNOSIS AND TESTING

HEADLAMP MOTOR DIAGNOSIS

CONDITION	POSSIBLE CAUSE	CORRECTION
ONE MOTOR DOES NOT OPERATE	1. Poor connection at motor. 2. No voltage at motor. 3. Defective motor.	1. Secure connector on motor. 2. Repair circuit. 3. Replace motor.
MOTORS DO NOT OPERATE	1. No voltage at switch. 2. No voltage at motors. 3. Poor connection at motors. 4. Both motors defective.	1. Repair circuit or replace fuse. Refer to Group 8W. 2. Repair circuit or replace switch. 3. Secure connector on motors. 4. Replace motors.

SERVICE PROCEDURES

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SERVICE PROCEDURES

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SERVICE PROCEDURES

HEADLAMP ALIGNMENT

VEHICLE PREPARATION

- (1) Verify headlamp dimmer switch and high beam indicator operation.
- (2) If equipped with a motorized headlamp leveling system, ensure the headlamp leveling switch is in the 0 position.
- (3) Correct defective components that could hinder proper headlamp alignment.
- (4) Verify proper tire inflation.
- (5) Clean headlamp lenses.
- (6) Verify that luggage area is not heavily loaded.
- (7) 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.

ALIGNMENT SCREEN PREPARATION

- (1) Position vehicle on a level surface perpendicular to a flat wall 10 meters away from front of headlamp lens (Fig. 1).
- (2) If necessary, tape a line on the floor 10 meters away from and parallel to the wall.
- (3) Measure from the floor up 1.27 meters (5 feet) 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.

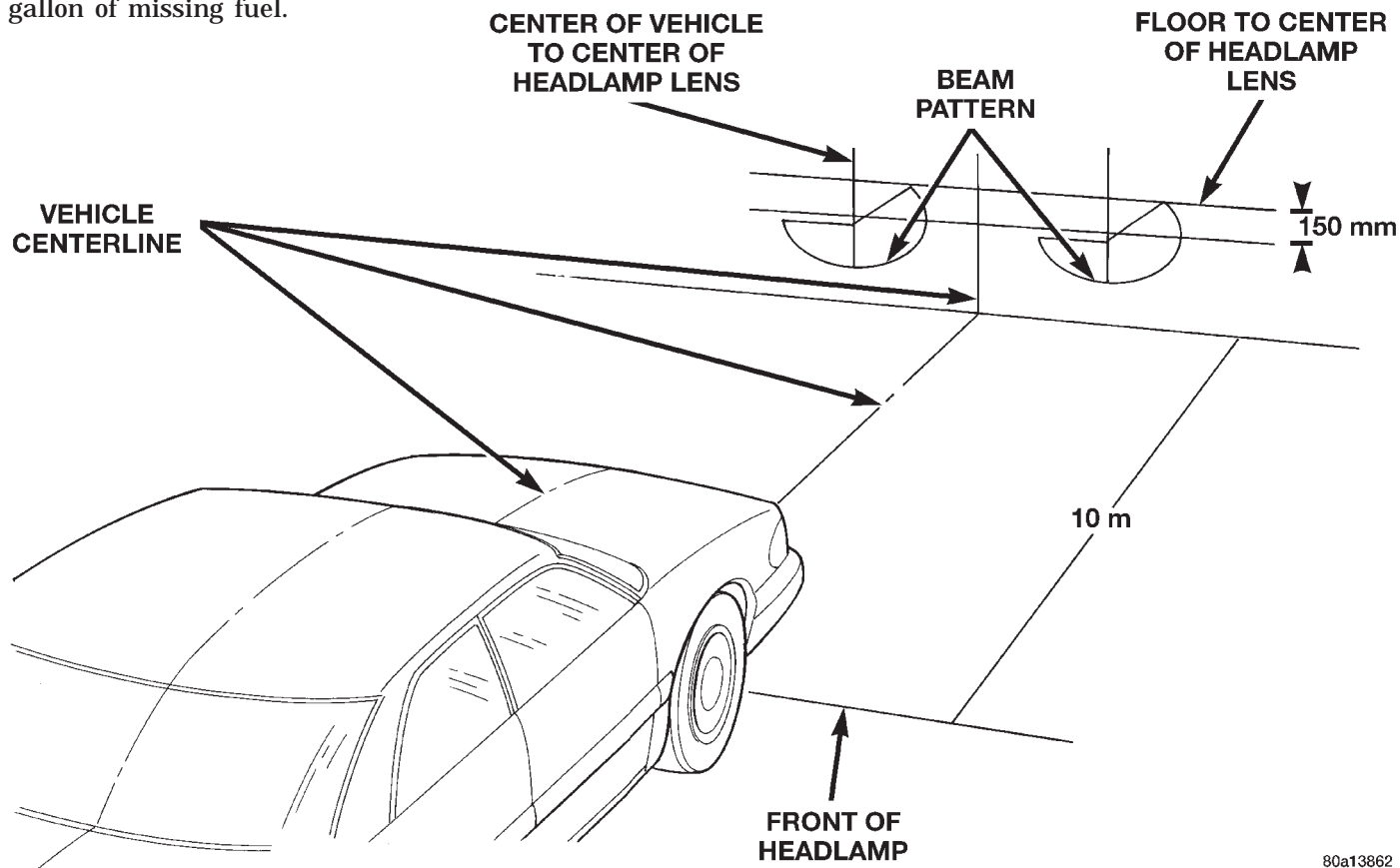


Fig. 1 Headlamp Alignment Screen—Left Hand Drive

SERVICE PROCEDURES (Continued)

(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).

(7) Place a tape line 150 mm below and parallel to the center of headlamp lens to the floor tape mark. Use this for up/down alignment reference.

(8) 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 .

HEADLAMP ADJUSTMENT

A properly aimed low beam headlamp will project the top edge of high intensity pattern on screen from 150 mm below headlamp centerline (Fig. 1). The angle between the horizontal and the inclined part of the light-dark boundary may not vary more than 10 cm to the right or left of the vertical through the center mark.

To adjust headlamp aim, rotate the headlamp alignment screws to achieve the pattern specified on the alignment screen.

LAMP BULB SERVICE

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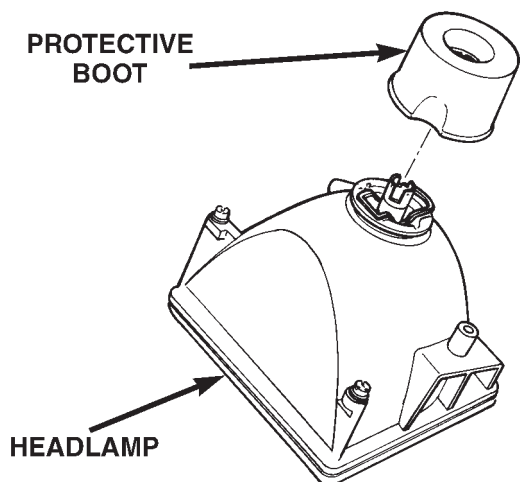
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REMOVAL AND INSTALLATION

HEADLAMP BULB

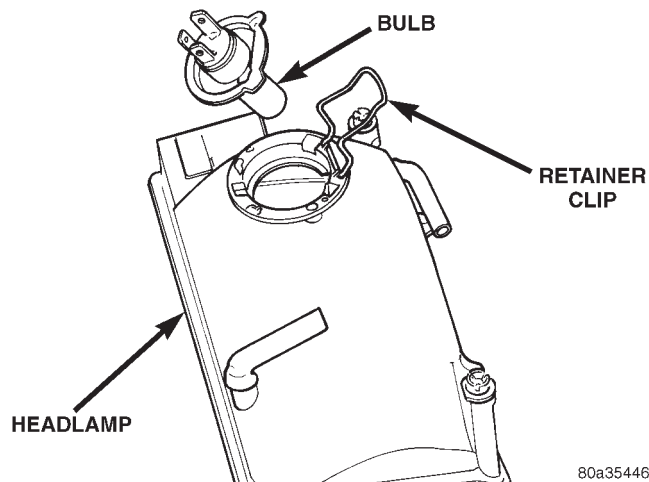
REMOVAL

- (1) Remove headlamp.
- (2) Disengage electrical connector.
- (3) Remove protective boot from rear of headlamp (Fig. 1).
- (4) Disengage bulb retaining clip (Fig. 2).
- (5) Pull the bulb straight out from the housing .



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Fig. 1 Protective Boot



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Fig. 2 Retaining Clip

INSTALLATION

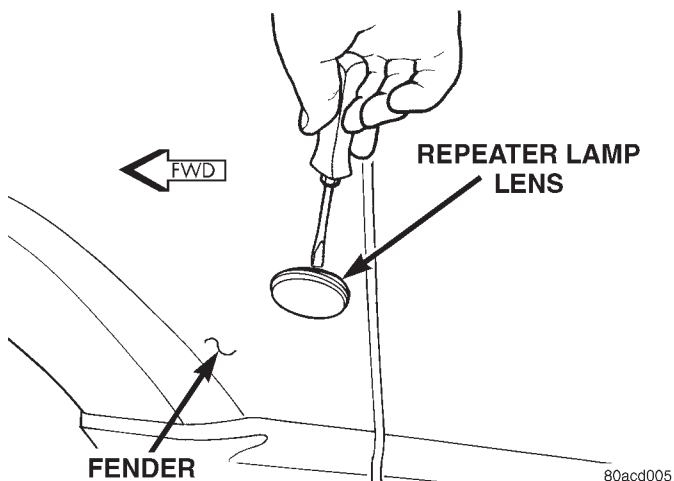
CAUTION: Do not touch the bulb glass with fingers or other oily surfaces. Reduced bulb life will result.

- (1) Position bulb assembly in the lamp housing.
- (2) Engage bulb retaining clip.
- (3) Install protective boot on rear of headlamp.
- (4) Engage electrical connector.
- (5) Install headlamp.

SIDE REPEATER LAMP BULB

REMOVAL

- (1) Insert a flat blade or similar tool between lamp and fender opening and pry the lamp away from the fender (Fig. 3). The retaining tabs are located at the top and bottom of the lamp.
- (2) Twist lamp 1/4 turn clockwise and pull lamp from socket (Fig. 3).
- (3) Twist bulb 1/4 turn and pull bulb from socket .



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Fig. 3 Repeater Lamp Lens

INSTALLATION

- (1) Position bulb in lamp socket and twist bulb 1/4 turn.
- (2) Push lamp on socket and turn 1/4 turn counter-clockwise.
- (3) Push lamp into fender opening.

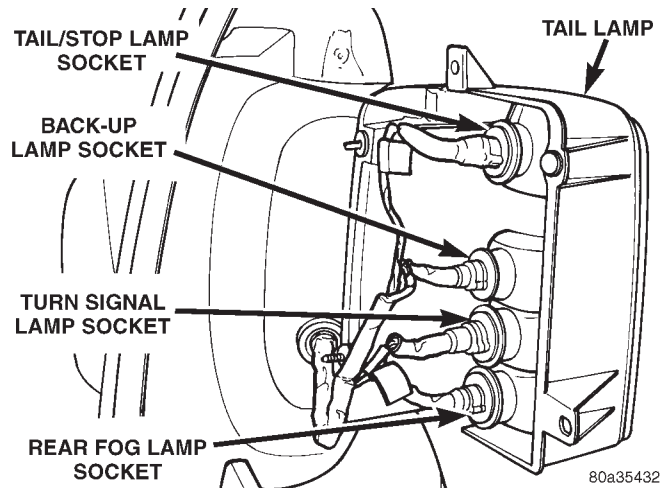
REMOVAL AND INSTALLATION (Continued)

REAR FOG LAMP BULB*REMOVAL*

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

INSTALLATION

- (1) Push the bulb into the socket.
- (2) Position the bulb socket in the lamp and rotate clockwise.
- (3) Install the tail lamp.

**Fig. 4 Fog Lamp Bulb**

LAMP SERVICE

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REMOVAL AND INSTALLATION

HEADLAMP

REMOVAL

- (1) Remove the park lamp.
- (2) Remove the metal clip retaining the upper pivot of the headlamp to the headlamp leveling motor.
- (3) Pull the headlamp from the grille opening reinforcement (GOR).
- (4) Disengage the electrical connector from the rear of the headlamp

INSTALLATION

- (1) Engage the electrical connector on the rear of the headlamp
- (2) Position the headlamp in the (GOR) and press into place.
- (3) Install the metal clip retaining the upper pivot of the headlamp to the headlamp leveling motor.
- (4) Install the park lamp.

SIDE REPEATER LAMP

REMOVAL

- (1) Insert a small flat blade between lamp and body panel. Disengage lamp retaining tabs (Fig. 1).
- (2) Twist bulb socket 1/4 turn and separate bulb socket from lamp (Fig. 2) .

INSTALLATION

- (1) Position socket in lamp and twist socket 1/4 turn.
- (2) Position lamp into body opening and push into place.

REAR FOG LAMP

The rear fog lamp is integrated into the rear tail lamp. Refer to the Rear Tail Lamp Removal/Installation procedure.

REAR BUMPER REFLECTOR

REMOVAL

- (1) From the underside of the vehicle, remove the nut attaching the reflector to the backside of the rear bumper.

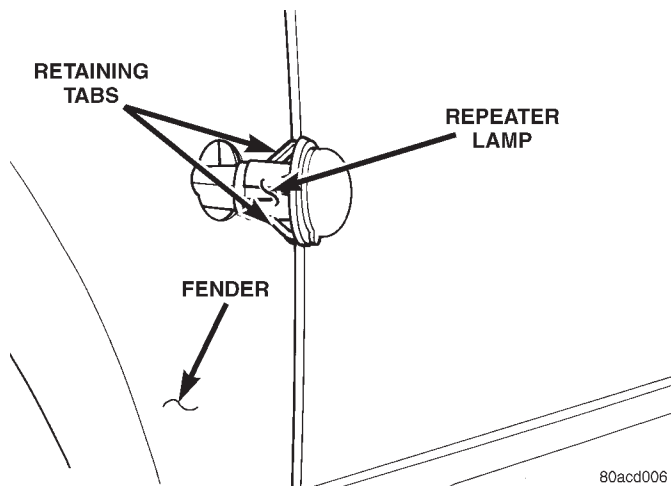


Fig. 1 Repeater Lamp Retaining Tabs

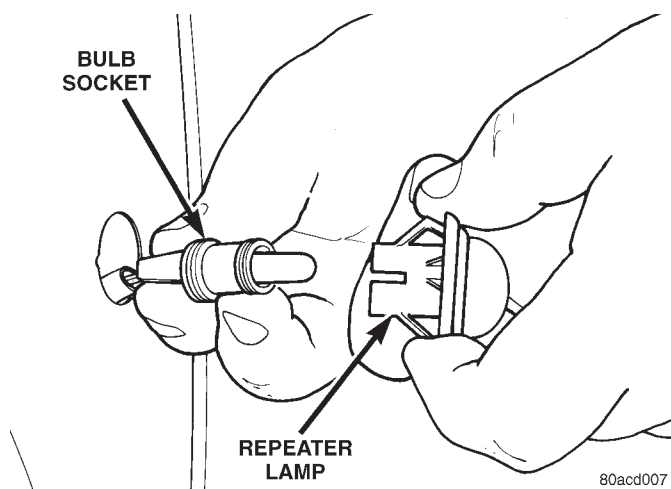


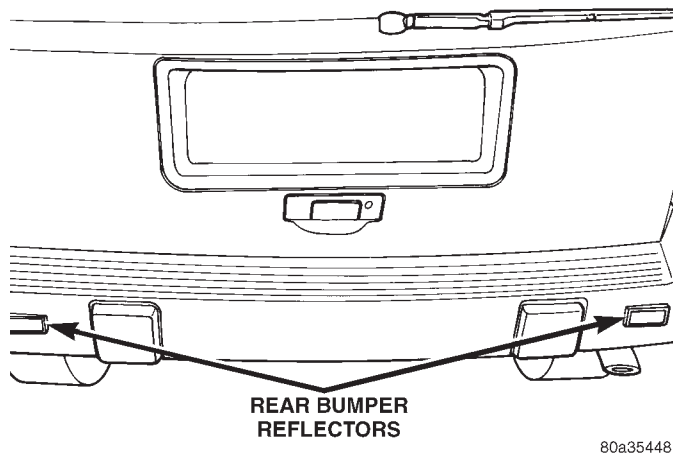
Fig. 2 Repeater Lamp

- (2) Separate the reflector from the rear bumper.

REMOVAL AND INSTALLATION (Continued)

INSTALLATION

- (1) Position the reflector on the rear bumper (Fig. 3).
- (2) Install the nut attaching the reflector to the rear bumper .



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Fig. 3 Rear Bumper Reflector

LAMP SYSTEMS

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REMOVAL AND INSTALLATION

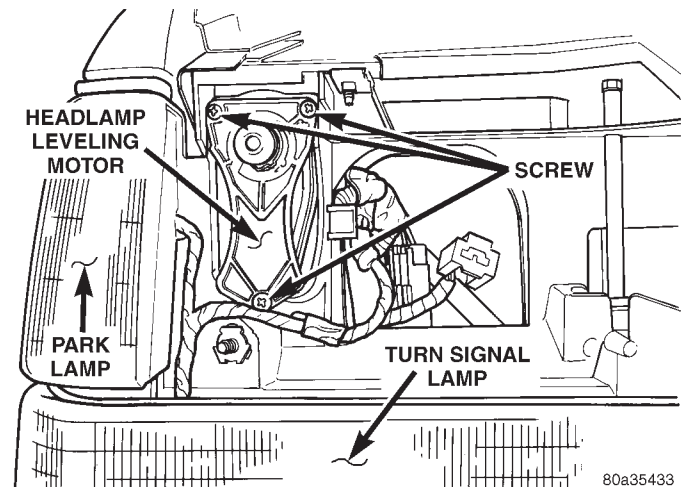
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REMOVAL AND INSTALLATION**HEADLAMP LEVELING MOTOR****REMOVAL**

- (1) Remove headlamp.
- (2) Remove screws attaching leveling motor to grille opening reinforcement (GOR) (Fig. 1).
- (3) Gently push leveling motor downward and pull from GOR.
- (4) Squeeze electrical connector tabs inward and pull connector from leveling motor.
- (5) Separate leveling motor from vehicle .

INSTALLATION

- (1) Engage electrical connector to leveling motor.
- (2) Position leveling motor in GOR and install screws.
- (3) Install headlamp.

**Fig. 1 Headlamp Leveling Motor**

BULB APPLICATION

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SPECIFICATIONS

EXTERIOR LAMPS

LAMP	BULB
Front Fog Lamp	H3
Front Turn Signal Lamp	P27/7W
Headlamp	H4
License Plate Lamp	W5W
Park Lamp	W3W
Park Lamp (Japan Only)	W3W
Rear Fog Lamp	P27/7W
Rear Turn Signal Lamp	P27/7W
Side Repeater Lamp	T4W
Stop Lamp	P27/7W
Tail Lamp	P27/7W
Reverse Lamp	P27/7W

