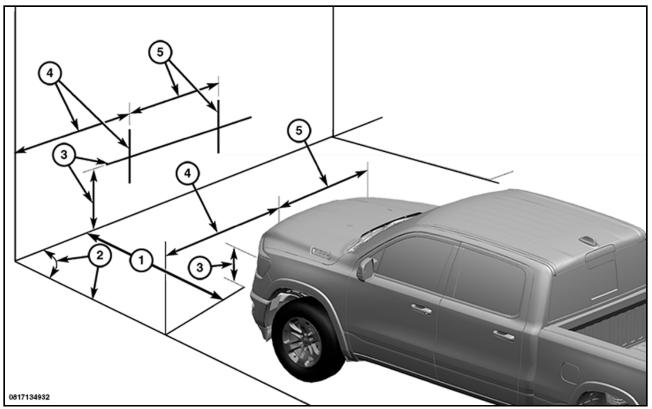
08 - Electrical / 8L - Lamps and Lighting / Lamps/Lighting - Exterior / Standard Procedure

STANDARD PROCEDURE - FRONT LAMP AIMING

VEHICLE PREPARATION FOR LAMP ALIGNMENT

- 1. Check for and correct any burnt out bulbs.
- 2. Repair or replace any ineffective, worn or damaged body or suspension components that could hinder proper lamp alignment.
- 3. Verify proper tire inflation pressures.
- 4. Remove any accumulations of mud, snow or ice from the vehicle underbody and clean the front lamp lenses.
- 5. Verify that there is no load in the vehicle (cargo or passengers), except for the driver.
- 6. The fuel tank should be FULL. Add 2.94 kilograms (6.5 pounds) of weight over the fuel tank for each estimated gallon of missing fuel.
- 7. Verify correct vehicle suspension height.

LAMP ALIGNMENT SCREEN PREPARATION

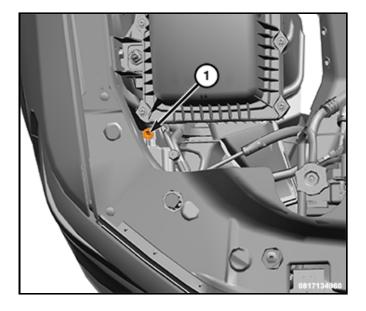


The procedure that follows will prepare a suitable front lamp alignment screen.

- 1. Tape a line on a level floor 7.62 meters (25 feet) away from and parallel to the flat wall that will be used as the lamp alignment screen. The level floor will be used as the horizontal zero reference.
- 2. An adjacent wall or floor member that is perpendicular to the alignment screen can be used as the vertical zero reference. If there is no adjacent wall or floor member that is perpendicular to the screen, tape a second line on the floor perpendicular to both the alignment screen and the first line, and outboard of either side of where the vehicle will be positioned. This will be used as the vertical zero reference.
- 3. Position the vehicle so that the side of the vehicle is parallel to the vertical zero reference, and so that the front of the lamp lenses are in the vertical plane of the parallel line taped on the floor 7.62 meters (25 feet) away from the screen.
- 4. Rock the vehicle side-to-side three times to allow the suspension to stabilize.
- 5. Jounce the front suspension three times by pushing downward on the front bumper and releasing.
- 6. Measure the distance between the optical center of one of the lamps being aimed (head or fog) and the floor (horizontal zero reference). Transfer this measurement to the alignment screen with a piece of tape placed horizontally to the floor. This line will be used as the lamp horizontal reference.
- 7. Measure the distance between the vertical zero reference and the optical center of the nearest lamp being aimed (head or fog). Transfer this measurement to the alignment screen with a piece of tape placed vertically across the appropriate (head or fog) lamp horizontal reference. This is the center line reference for the first lamp.
- 8. Measure the distance on center between the first and the second lamp being aimed. Transfer this measurement to the alignment screen with a second piece of tape placed vertically across the appropriate (head or fog) lamp horizontal reference. This is the centerline reference for the second lamp.

HEADLAMP ALIGNMENT

- NOTE: Due to the linear nature of the headlamp cutoff, a properly aimed low beam headlamp will project the top edge of the high intensity pattern 2.5 centimeters (1 inch) below the headlamp horizontal reference line on the alignment screen. No horizontal (right/left) adjustment is required for this headlamp beam pattern. The high beam pattern will be correct when the low beams are properly aimed.
 - The vertical adjustment screw for each headlamp is accessible through a hole located in a raised rectangular formation (2), with a raised arrow pointing to it. These features are stamped into the sheet metal of each front fender (1) ledge near the front of the vehicle.



- 2. Turn the headlamps ON and select the LOW beams.
- 3. Rotate the headlamp vertical adjustment screw on the back of each front lamp unit to adjust the beam height as required.

FOG LAMP ALIGNMENT

- NOTE: A properly aimed front fog lamp will project a pattern on the alignment screen 10 centimeters (4 inches) below the fog lamp centerline and straight ahead of the lamp.
 - 1. Turn the fog lamps ON.
 - 2. Rotate the thumbwheel screw (1) located behind the bumper on the back of each fog lamp unit to adjust the beam height as required.

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