



# INSTRUCTIONS

94100034

2019-12-11



## LED PROJECTOR, HEADLAMP KIT

### GENERAL

#### Kit Number

67700430A, 67700433A

#### Models

For model fitment information, see the P&A retail catalog or the Parts and Accessories section of [www.harley-davidson.com](http://www.harley-davidson.com) (English only).

#### Installation Requirements

##### ⚠ WARNING

Rider and passenger safety depend upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333b)

##### ⚠ WARNING

Be sure to use the specified wiring harness. Failure to use the specified wiring harness can cause unintended loss of power to the front or rear lights, reducing rider visibility, which could result in death or serious injury. (06709a)

Separate purchase and installation of additional parts or accessories could be required for proper installation of this kit.

- All FLD and FLRT (except 2020-later FLRT), 2017 and earlier Softail, 2009-2013 Touring and Tri Glide Models require wire harness 69201070, Models listed above (except FLD, all FLRT, and 2011-2017 Softail) with position lamp spade connections accessible at the headlamp may optionally use 69201470 instead
- 2009-2013 Touring and Tri Glide, All Freight Train Nacelle equipped Softails, and All FLD Models require headlamp mounting ring kit 67700439
- 2018 and later Softail models do not require jumpers.
- 2020-later FLRT and 2014-later Road King (except 2014 FLHRSE) require wire harness 69202452.

##### NOTE

Harness 69201070 and 69202452 have no connector for position lamp circuit, while 69201470 does. Use of harness 69201470 will allow the position lamp ON in accessory mode. Use of harness 69201070 or 69202452 will force the position lamp OFF in accessory mode. Position lamp function is identical in all other modes for either of these harnesses. See Figure 8 item 3.

##### NOTE

See Figure 4. Harness 69201775 provides an optional connection to vehicle accessory connector (2) that forces position lamp ON in accessory mode. Not connecting 69201775 to vehicle accessory will force position lamp OFF in accessory mode. The 4-way connectors (4 and 5) on 69201775 must be used where 69201775 is required. Headlamp functions in conjunction with low and high beams regardless of connection to vehicle accessory.

##### NOTE

Softail and FLRT do not use the black retaining ring included in this kit. Use stock stainless or black retaining ring 67700487 available for separate purchase.

##### NOTE

This instruction sheet refers to service and electrical diagnostic manual information. These manuals for this year/model motorcycle are required for this installation. They are available from a Harley-Davidson dealer.

##### NOTE

**2014-Later Touring:** See Figure 4. If other accessories are connected to the vehicle accessory connector (2), adapter 69200921 may be required to perform optional installation steps.

##### NOTE

Where stated in this instruction sheet, some vehicles require a harness that intentionally disconnects position lamp pin on headlamp. This prevents vehicle's position circuit from supplying headlamp power. Do not bypass this harness even if headlamp initially operates correctly without it. See warning 06709a.

#### Standard Current Draw

##### ⚠ WARNING

When installing any electrical accessory, be certain not to exceed the maximum amperage rating of the fuse or circuit breaker protecting the affected circuit being modified. Exceeding the maximum amperage can lead to electrical failures, which could result in death or serious injury. (00310a)

##### ⚠ WARNING

For BCM (Body Control Module) equipped motorcycles, be sure to use the specified BCM headlamp setting. Failure to set the BCM correctly can cause unintended loss of power to the headlamp, reducing rider visibility, which could result in death or serious injury. (06708a)

## NOTICE

It is possible to overload the vehicle's charging system by adding too many electrical accessories. If the combined electrical accessories operating at any one time consume more electrical current than the vehicle's charging system can produce, the electrical consumption can discharge the battery and cause damage to the vehicle's electrical system. (00211d)

The headlamp installed with this kit requires a total of up to 5 amps of current from the electrical system.

## Kit Contents

See Figure 13 and Table 1.

## REMOVAL

### ⚠ WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect battery cables (negative (-) cable first) before proceeding. (00307a)

### ⚠ WARNING

Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00049a)

### ⚠ WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, remove main fuse before proceeding. (00251b)

1. Remove headlamp. See service manual.
2. See Figure 1. For all installations with mounting rings, set initial clearance behind headlamp by rotating the three adjustment screws (1) until about 3/8 inch of the springs (3) are exposed above assembly's screw flange (4). Ensure full weld nut (2) thread engagement with adjustment screws (1) before and after headlamp installation and aiming.
3. See Figure 3. If equipped, remove headlamp's dual halogen jumper.

### NOTE

Accessory trim ring may limit range of mounting ring adjustment screws. Adjustment screws can be tightened further during aiming procedure to ensure trim ring has clearance to the headlamp.

4. See service manual. Reconnect battery cables and main fuse to perform this step. If equipped with Body Control Module (BCM), verify and set BCM headlamp configuration. All BCM equipped vehicles require this step regardless if headlamp initially operates in vehicle's current configuration. See BCM Setting Instructions. Remove battery cables and main fuse before continuing.
5. **Optional: 2014 and later Touring and Tri Glide:** For vehicles with fairings, remove outer fairing and windshield if position lamp is desired ON in accessory mode.

## NOTE

If a high or low beam open code was set, clear this following installation of headlamp. See electrical diagnostic manual.

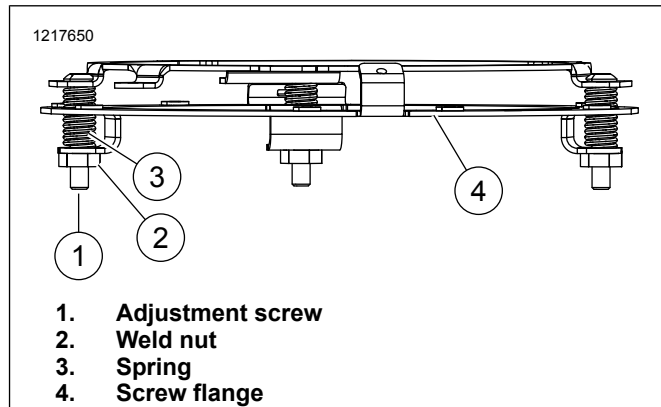


Figure 1. Installations with Mounting Ring (Typical)

## INSTALLATION

### ⚠ WARNING

Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00068a)

### NOTE

If headlamp remains loose following proper installation, see Headlamp Spacer Installation.

### NOTE

Headlamp rear cover is pre-installed to headlamp housing and is required for all non-bucket installations. Screws have been torqued to the correcting setting of 6.1-7.5 Nm (54-66 in-lbs). Due to the depth of the lamp, contact of cables behind the lamp on the rear cover may occur.

### 2014 and Later Touring (except Road King), 2014 FLHRSE and Tri Glide Models:

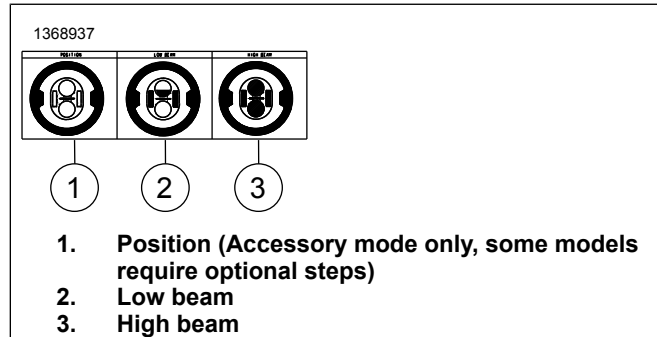
1. See Figure 4. If outer fairing was removed, perform step 1a and 1b. Otherwise, skip to step 2. Locate vehicle accessory connector (2).
  - a. Connect 2-way accessory connector (1) of 69201775 to vehicle accessory connector (2).
  - b. Secure leg of harness by routing down the right side of fairing following vehicle wire harness. Secure harnessing using cable straps from kit.
2. If optional removal step was not performed, cut off, electrical tape and secure accessory connector (1) wire of harness 69201775. Ensure dynamic movement of harnessing and other parts behind the lamp will not be restricted by moving handlebars from fork lock left to fork lock right.
3. Connect headlamp connectors (4 and 5) on harness 69201775 between fairing headlamp connector (3) and headlamp connection (6).
4. Install headlamp and retaining ring. See service manual.
5. Install headlamp door (trim ring). See service manual.
6. Install battery cables and main fuse. See service manual.

- Remove warning labels from headlamp lens.

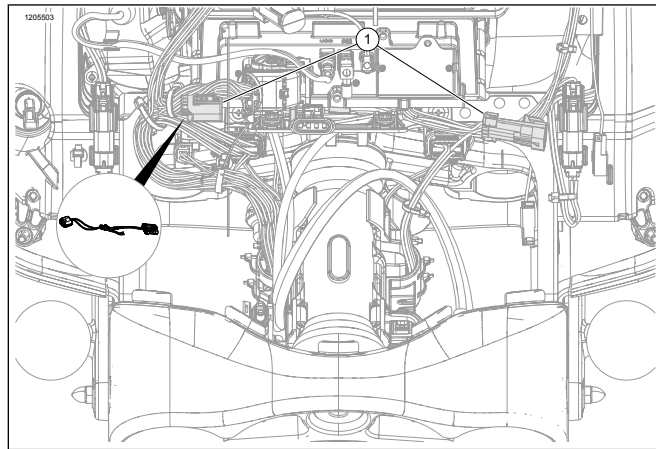
**NOTE**

Due to headlamp's optic design, viewing from above it may not look like headlamp's top center optic is ON in low beam. This can be verified by viewing the optic at an upward angle using eye protection. See Figure 2 for optic illumination diagram.

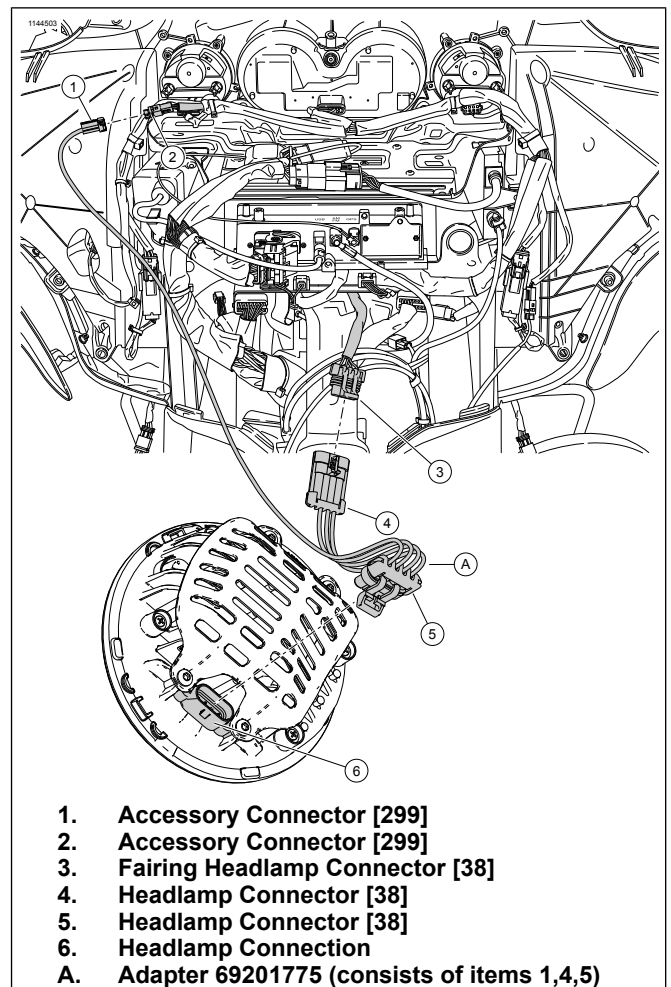
- Aim headlamp per Headlamp Alignment Procedure.



**Figure 2. Modes of Operation**



**Figure 3. Removal of Dual Halogen Harness Adapter**



**Figure 4. Accessory Connectors - Touring**

**2014-later Road King (except 2014 FLHRSE) and 2020-later FLRT models:**

- Install jumper 69202452.
- Ensure dynamic movement of harnessing and other parts behind lamp will not be restricted by moving handlebars from fork lock left to fork lock right.
- Complete headlamp installation. See service manual.
- Install battery cables and main fuse. See service manual.
- Remove warning labels from headlamp lens.

**NOTE**

Due to headlamp's optic design, viewing from above it may not look like headlamp's top center optic is ON in low beam. This can be verified by viewing the optic at an upward angle using eye protection. See Figure 2 for optic illumination diagram.

- Aim headlamp per Headlamp Alignment Procedure.

**2018-Later Softail FLFB, FLFBS**

Remove

**NOTE**

Headlamp rear cover remains installed for these fitments.

- See Figure 5. Remove Headlamp (7). See service manual.
- Remove ground strap (10). Discard.

Install

1. See Figure 5. Install Headlamp (7). See service manual.

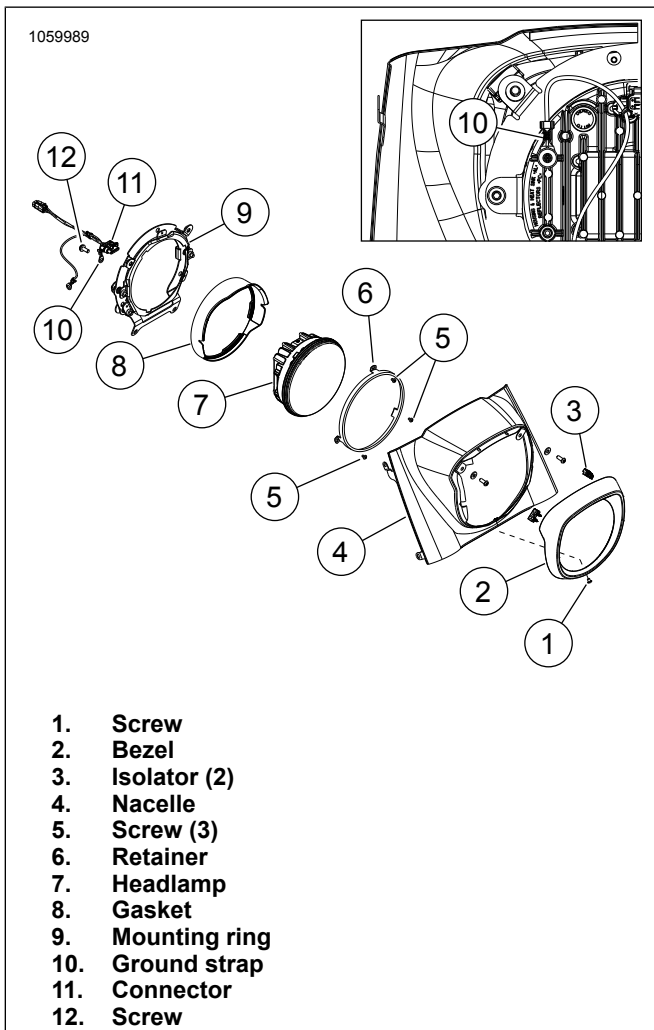


Figure 5. Nacelle Mounted Headlamp

**2018 and Later Softtail FLDE, FLSE, FLHC, FLCS, FLSE:**

Remove

1. See Figure 7. Remove and discard cover (2) and four screws (3) from back of headlamp.
2. See Figure 6. Remove headlamp (3). See service manual.

Install

**NOTE**

- See Figure 13. Use screws (8) from kit to install headlamp to bracket.
- See Figure 6. Torque screws (5) to 11.5-14.2 Nm (102-126 in-lbs).

1. See Figure 6. Install headlamp (3). See service manual.

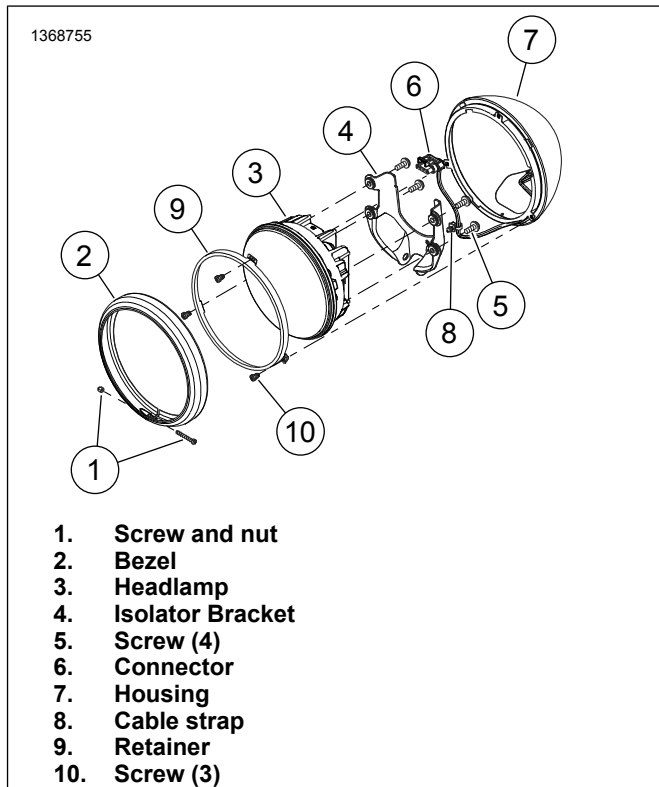


Figure 6. Round Headlamp

**2013-Earlier Touring, All FLD, All FLRT, and 2017-Earlier Softtail Models:**

1. Complete installation of mounting ring. See service manual.
2. For bucket (FLD, FLRT, and Softtail without freight train nacelle) installations only: See Figure 7. Remove and discard cover (2) and four screws (3) from back of headlamp.
3. Connect required harness (4) between vehicle harness connector (1) and headlamp.

**NOTE**

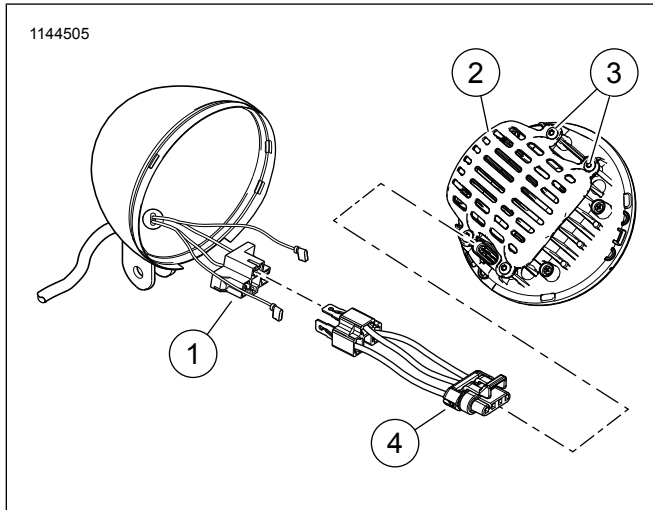
*Position lamp will not illuminate in accessory mode if unconnected. Where harness 69201470 is allowed, connect spade to vehicle side positive spade.*

4. Electrical tape and secure any additional connectors within bucket.
5. Ensure dynamic movement of harnessing and other parts behind lamp will not be restricted by moving handlebars from fork lock left to fork lock right. Secure harnessing using cable straps from kit.
6. Complete headlamp installation. See service manual.
7. Install battery cables and main fuse. See service manual.
8. Remove warning labels from headlamp lens.

**NOTE**

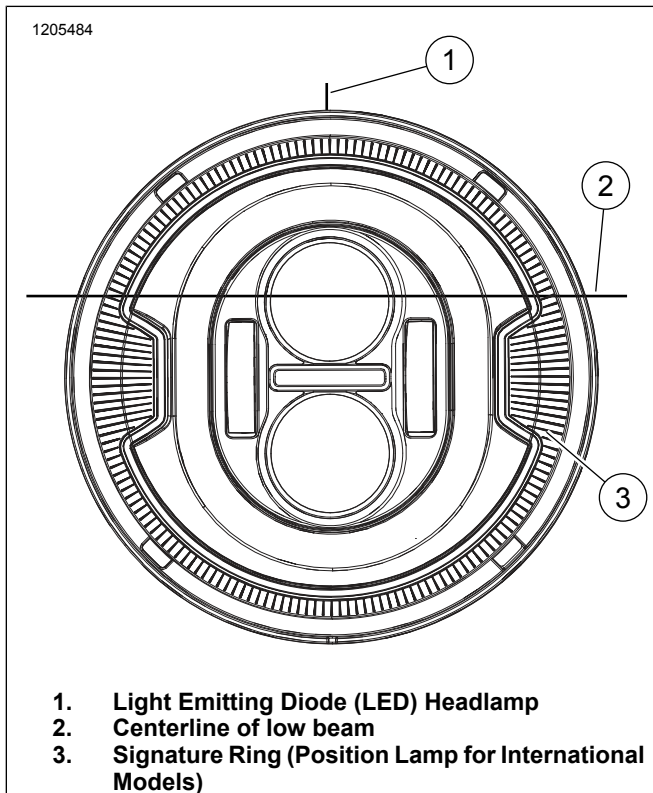
*Due to headlamp's optic design, viewing from above it may not look like headlamp's top center optic is ON in low beam. This can be verified by viewing the optic at an upward angle using eye protection. See Figure 2 for optic illumination diagram.*

9. Aim headlamp per Headlamp Alignment Procedure.



**Figure 7. Wiring Harness Installation - Softail, FLRT and FLD**

### Headlamp Alignment Procedure



1. Light Emitting Diode (LED) Headlamp
2. Centerline of low beam
3. Signature Ring (Position Lamp for International Models)

**Figure 8. LED Headlamp Configuration**

#### NOTE

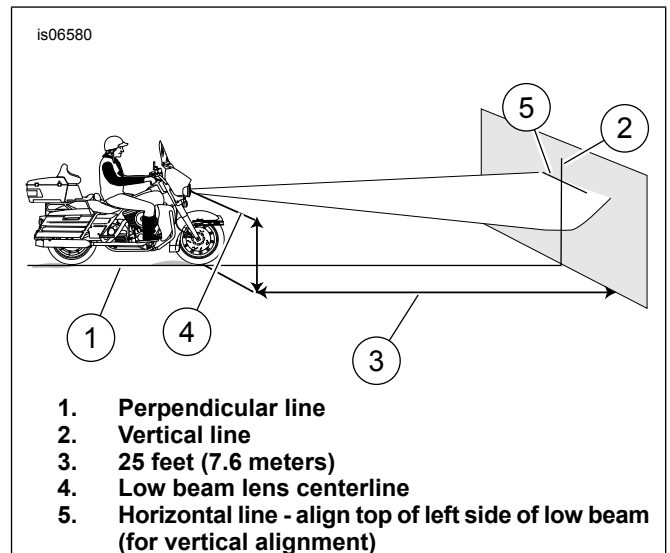
The alignment procedure for an LED headlamp is performed on both the **low beam** and the **high beam**. Read these instructions thoroughly to align the LED headlamp.

1. Install main fuse. See service manual.
2. Check tire pressure. See owner's manual.
3. Fill fuel tank or add an equal amount of ballast.
4. Position motorcycle so front axle is 7.6 m (25 ft) (3) from wall.

#### NOTE

The weight of the rider compresses the suspension slightly. Have a person whose weight is roughly the same as the principal rider sit on the motorcycle.

5. Refer to Figure 8 and Figure 9. With vehicle laden and upright, point the front wheel straight forward at wall. Measure the distance from the floor to the center of the **low beam** lens (4). Record this measurement.
6. See Figure 9. Draw a horizontal line on the wall at (5) on the wall that is the same measurement as recorded in Step 4.
7. Draw a vertical line (2) off the perpendicular line (1) so it crosses through the horizontal line drawn in the previous step.
8. Verify that all other lights are OFF during the alignment procedure.



1. Perpendicular line
2. Vertical line
3. 25 feet (7.6 meters)
4. Low beam lens centerline
5. Horizontal line - align top of left side of low beam (for vertical alignment)

**Figure 9. Checking Headlamp Alignment**

### Alignment of High Beam (Left-to-Right Alignment)

1. Verify that the headlamp lens is perpendicular to the front forks for proper left-to-right alignment.
2. See Figure 10. With vehicle laden and upright, point the front wheel straight forward at wall.
3. Turn on the **high beam**. Align the center of the **high beam** such that the beam pattern is symmetric on the left and right side of vertical line (3).

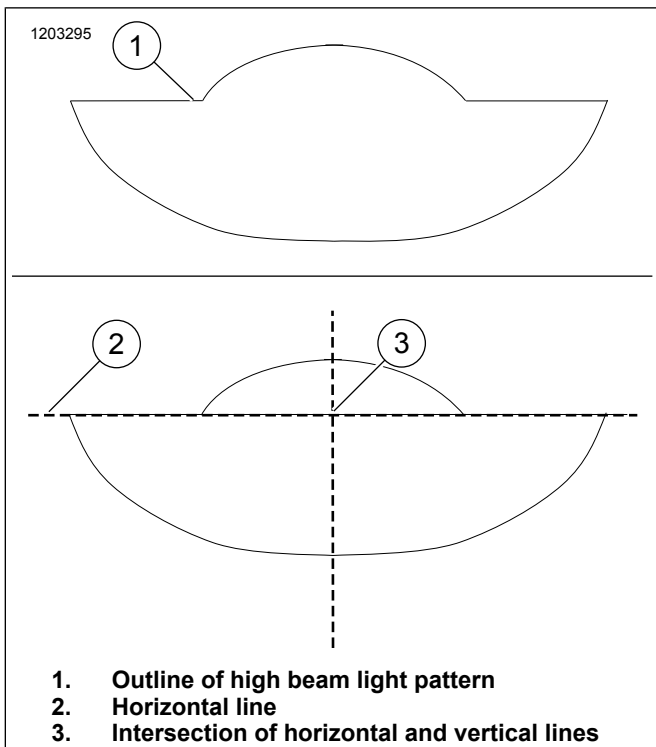


Figure 10. Alignment of Headlamp High Beam

### Alignment of Low Beam (Vertical Alignment)

1. See Figure 11. Align the horizontal cutline of **low beam** light pattern (3) with horizontal line (2) drawn on the wall.

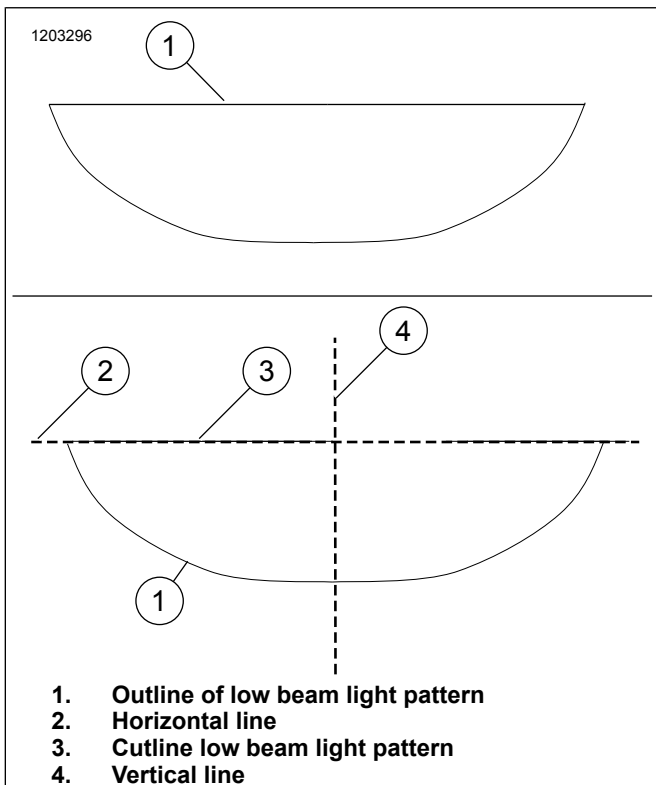


Figure 11. Alignment of Headlamp Low Beam

## HEADLAMP SPACER INSTALLATION

Spacers are only intended for headlamps that remain loose following installation of proper retaining ring. Spacers are not designed to make retaining rings interchangeable.

1. Clean mounting ring surface with standard 50/50 rubbing alcohol/water in the spacer application area.
2. Remove spacers from kit.
3. Remove backer from one of the spacers and install on mounting ring by aligning with clocking feature.
4. Repeat step 3 for the two remaining spacers.

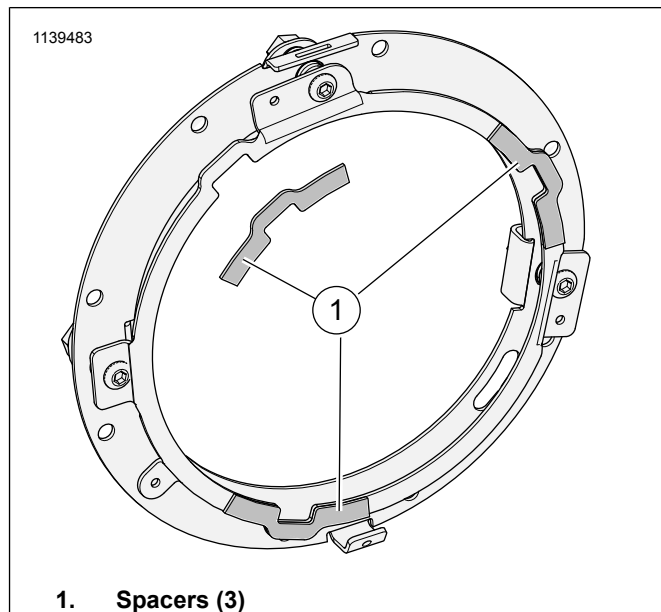


Figure 12. Adhesive Spacer Placement

## BCM SETTING INSTRUCTIONS

### NOTE

You may see no change in the operation of your headlamp when BCM setting changes. However, the correct BCM headlamp setting changes the current limit to prevent overcurrent when combined with other Original Equipment Manufacturer (OEM) and accessory parts. Several factors can increase the current draw of the headlamp up to stated maximum. The correct setting is required on all models.

### NOTE

Standard headlamp setting disables the low beam circuit when high beam switch is ON. Dual Halogen headlamp setting enables both the low and high beam circuits when the high beam switch is ON. If the vehicle currently uses Dual Halogen setting, any devices powered from the low beam circuit will no longer be powered when high beam is on and BCM is set to Standard.

1. **This kit requires BCM set to standard headlamp mode.** Your vehicle may already have the correct setting from the factory. Verify this using the "Verification of Headlamp Setting Procedure" section.

**NOTE**

Only Digital Technician can change the headlamp setting from Standard back to Dual Halogen.

- a. If the setting is not correct, your dealer can set the BCM directly using Digital Technician or BCM can be programmed using the "Headlamp Configuration Procedure" section below.
- b. Verify the setting took effect. See "Verification of Headlamp Setting Procedure" section.

- c. Press and hold left turn button.
- d. While pressing left turn button, press flash to pass button at least 5 times within 10 seconds.
- e. Headlamp should now be set to Standard mode.
- f. Alternatively, Digital Technician can be used to set BCM directly. See dealer.
- g. Continue to "Verification of Headlamp Setting Procedure".

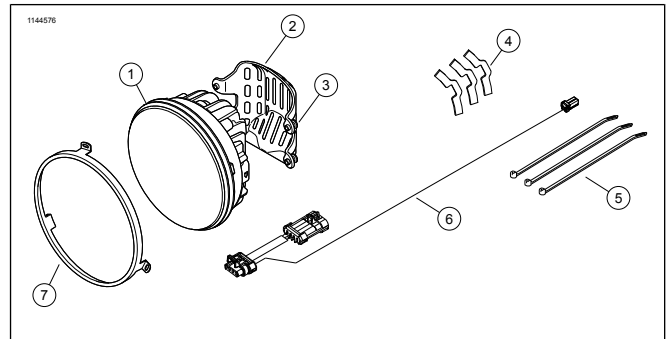
**Verification of Headlamp Setting Procedure**

**NOTE**

See service manual to determine headlamp connector high and low beam wire.

1. With headlamp disconnected, verify vehicle's headlamp plug does not have a jumper attached from a previous installation.
2. Obtain a volt meter and set to Volts of Direct Current (VDC).
3. Ensure meter leads are inserted into correct position on meter. See meter's user manual.
4. Turn vehicle to ignition (engine off) mode.
5. Measure battery voltage. A convenient location to do so is battery tender plug. Record this value.
6. Verify low beam switch is ON.
7. Insert positive probe into low beam socket on headlamp connector.
8. Insert negative probe into ground socket on headlamp connector.
9. Verify meter is reading within 2VDC of previously recorded battery voltage.
10. Turn high beam switch ON.
11. Measure low beam at headlamp connector again per step 7 and 8. If the meter reads less than 3VDC (reading close to zero voltage), vehicle BCM is set to Normal mode.
  - a. If meter reading does not change when high beam switch is turned ON, BCM is set to Dual Halogen mode. Repeat Headlamp Configuration Procedure to set BCM to Standard mode and reverify the setting took effect.

**SERVICE PARTS**



**Figure 13. Service Parts: LED Headlamp Kit**

**Table 1. Service Parts: LED Headlamp Kit**

Item	Description (Quantity)	Part Number
1	Headlamp, 7 in. LED (black)	Not sold separately
	Headlamp, 7 in. LED (chrome)	Not sold separately
2	Cover, rear	67700459A
3	Screw, Torx button head with lock-patch	926
4	Adhesive spacer (3)	12400175
5	Cable straps	10006
6	Wire harness adapter	69201775
7	Retaining ring for Kit 67700430A	67700068
8	Screw (4) (not shown)	10200673

**Headlamp Configuration Procedure**

1. Follow procedure to set BCM to Standard mode:
  - a. Turn vehicle to ignition mode.
  - b. Verify engine is OFF.