



# INSTRUCTIONS

-J05944

2014-08-18

## FREIGHT TRAIN HEADLAMP NACELLE KITS

### GENERAL

#### Kit Numbers

61300420, 61300421

#### 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

**2007-later FLSTF models** require separate purchase and installation of a Handlebar Riser Kit (Part No. 56789-05).

**2009-later FLSTC models** require separate purchase and installation of a Handlebar Riser Kit (Part No. 46809-09).

**Models with windshield and/or passing lamps** require separate purchase and installation of a Hardware Kit (Part No. 67897-96B).

#### ⚠ WARNING

The rider's safety depends 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. (00333a)

#### NOTE

This instruction sheet refers to service manual information. A service manual for this year/model motorcycle is required for this installation. One is available from a Harley-Davidson dealer.

#### Kit Contents

See Figure 10 and Table 1.

#### PREPARATION

#### ⚠ WARNING

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

#### ⚠ WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect negative (-) battery cable before proceeding. (00048a)

#### NOTE

- **2007- later vehicles WITH security siren:** With security fob present, turn ignition switch ON. See the service manual. After system is disarmed, turn ignition switch OFF. **IMMEDIATELY** remove main fuse.

- **2006- earlier vehicles WITH security siren:** Disarm siren with key fob or security code. See the service manual. Remove main fuse or disconnect negative battery cable.
- **Vehicles WITHOUT security siren:** See the service manual. Remove main fuse or disconnect negative battery cable.

### INSTALLATION

#### NOTE

Protect painted surfaces.

1. See Figure 1. Remove trim ring screw and trim ring (1).

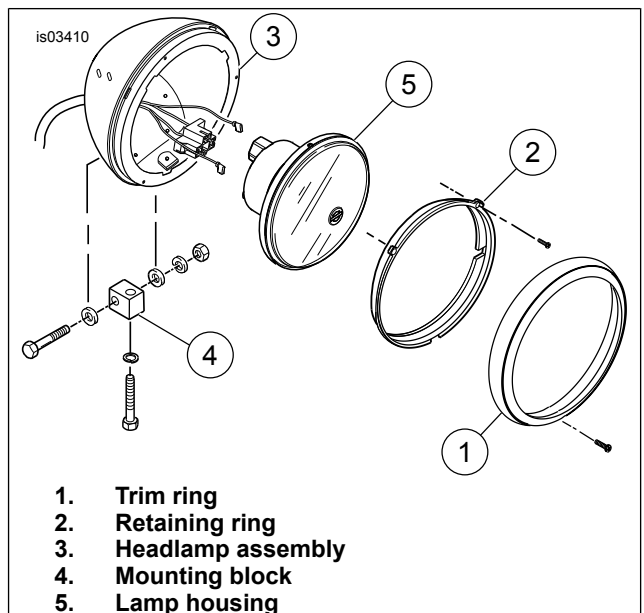


Figure 1. Headlamp Assembly

#### NOTE

Do not damage the headlamp assembly during removal.

2. Remove three retaining ring screws and retaining ring (2) from headlamp assembly (3). Pull lamp bulb out of connector.
3. Disconnect headlamp harness from headlamp housing assembly. Also, if the headlamp assembly has a position bulb, disconnect the two spade connectors from it. Remove headlamp assembly.
4. Cut the headlamp wires directly behind the headlamp connector.
5. Remove screw, washers, lockwasher, hex nut and headlamp housing from mounting block.

6. See Figure 2. Remove screws that hold trim strips (4), side back panels (2, 3), and front panel (1) in place. Remove panels. When removing panels, carefully remove the brake line-routing clamps from the right side back panel. **Do not** open the brake line.
7. See Figure 1. Remove the mounting block (4) and mounting block hardware.

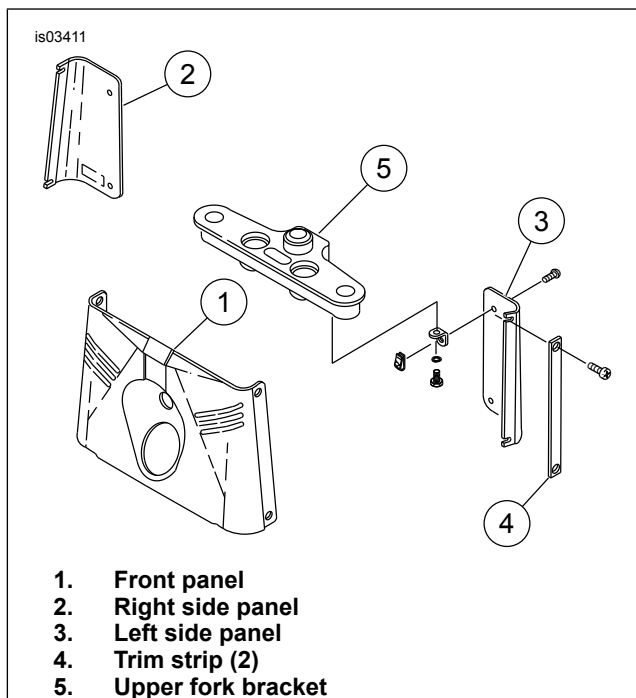


Figure 2. Front Fork Panels

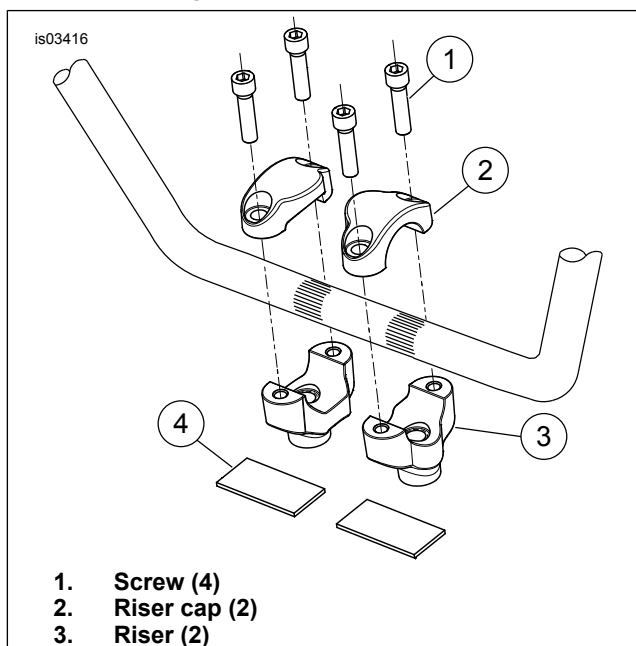


Figure 3. Riser Orientation - FLSTF

8. **2007 and later FLSTF only:** Replace handlebar risers with Handlebar Riser Kit (Part No. 56789-05):
  - a. Refer to the service manual. Remove the upper handlebar clamp. Move the assembled handlebar aside. Remove risers.

- b. See Figure 3. Loosely install new risers (Kit No. 56789-05), oriented as shown, to the upper fork bracket using the original equipment (OE) screws, lockwashers and washers. Install ground cable and internal tooth lockwasher onto the right side riser screw.
- c. Using knurled areas of handlebar as a guide, center handlebars between handlebar risers.
- d. Install two riser caps (2) onto the risers over the handlebar using four screws (1) from the kit.
- e. Verify the gaps between risers and caps at the front and rear of the handlebars appear even. Tighten the riser cap screws to 16.3–20.3 N·m (12–15 ft-lbs).
- f. Tighten the riser mounting screws to 40.7–54.3 N·m (30–40 ft-lbs).

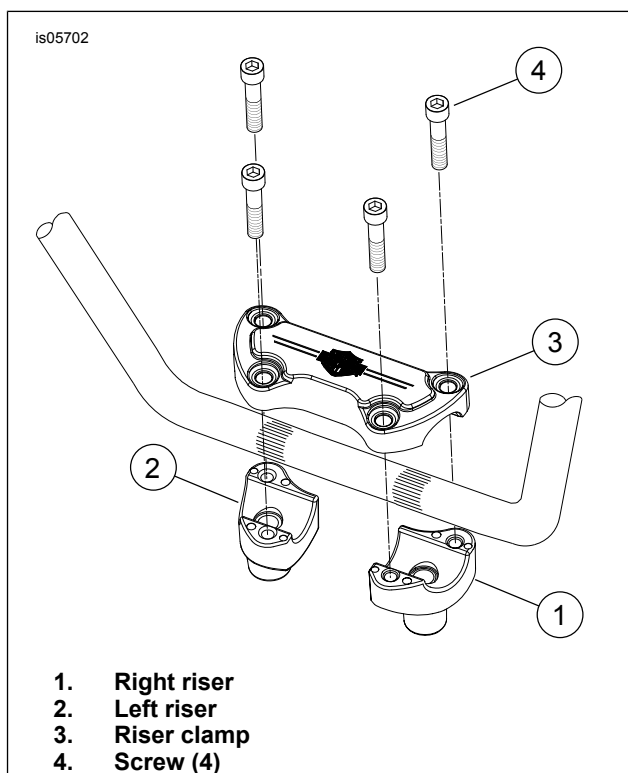


Figure 4. Riser Orientation - FLSTC

9. **2009 and later FLSTC only:** Replace handlebar risers with Handlebar Riser Kit (Part No. 46809-09):
  - a. See the service manual. Remove upper handlebar clamp. Move assembled handlebar aside. Remove risers.
  - b. See Figure 4. Install new risers (Kit No. 46809-09), oriented as shown, to the upper fork bracket with the original equipment (OE) screws, lockwashers and washers. Install ground cable and internal tooth lockwasher onto the right side riser screw. Leave fasteners loose.
  - c. Using knurled areas of handlebar as a guide, center handlebars between handlebar risers.
  - d. Install riser clamp (3) onto the risers (1, 2) over the handlebar with four screws (4) from the kit.

- e. Verify the gaps between risers and clamp at the front and rear of the handlebars appear even. Tighten riser clamp screws to 16.3–21.7 N·m (12–16 ft-lbs).
  - f. Tighten the riser mounting screws to 40.7–54.3 N·m (30–40 ft-lbs).
10. See Figure 10. Install well nuts (10) into holes in nacelle halves. Install right side of nacelle (7):
    - a. Attach the bottom of the nacelle to the fork bracket with a 16 mm (5/8 in) long screw (14), lockwasher (12), and two flat washers (2). Position a flat washer on both the inside and outside of the nacelle to align the nacelle flush with the fork slider covers. Leave fasteners loose.
    - b. Attach the top of the nacelle with a 22 mm (7/8 in) long screw (15), lockwasher (12), and flat washer (2). Position flat washer on the outside of nacelle. Screw must not bottom out in hole. Leave fasteners loose.
    - c. Repeat for left side nacelle.
  11. Splice headlamp harness (3) into wires cut in Step 6:
    - a. Strip 9.5 mm (3/8 in) of insulation off each wire end being spliced.
    - b. Insert each wire end being spliced into opposite ends of a sealed splice connector (17).

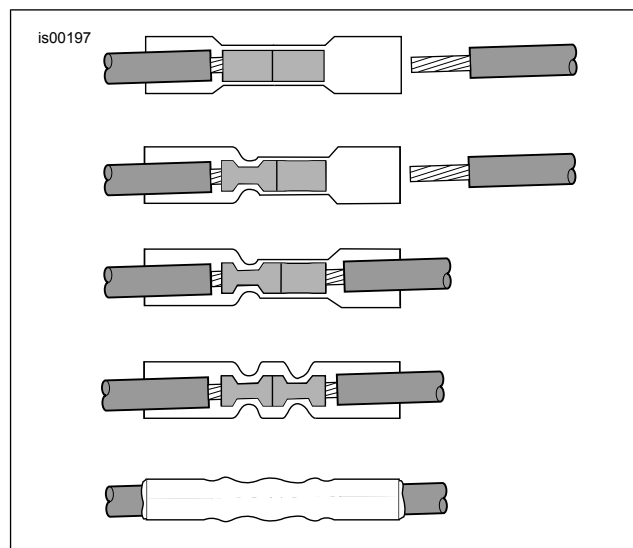
**▲ WARNING**

Be sure to follow manufacturer's instructions when using the UltraTorch UT-100 or any other radiant heating device. Failure to follow manufacturer's instructions can cause a fire, which could result in death or serious injury. (00335a)

- Avoid directing the heat toward any fuel system component. Extreme heat can cause fuel ignition/explosion resulting in death or serious injury.
- Avoid directing heat toward any electrical system component other than the connectors on which heat shrink work is being performed.
- Always keep hands away from tool tip area and heat shrink attachment.

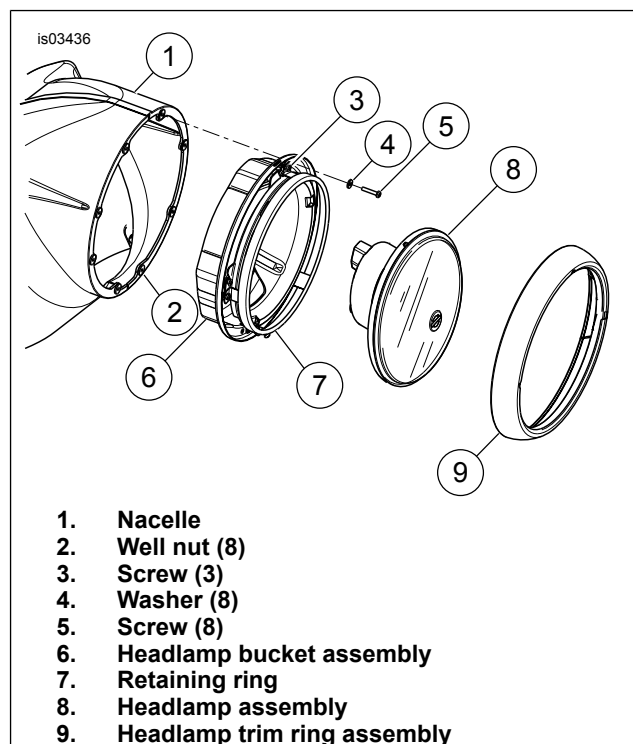
**NOTE**

See Figure 5. Gently hold the sealed splice connector from the kit in the "blue" jaws of the Packard Crimp Tool (38125-8). Feed the stripped lead or leads up to the wire stop inside the metal insert in one half of the connector. Squeeze tool to crimp metal insert. Tool automatically opens when finished. Repeat for the other end of the connector to capture one or two stripped leads including, if necessary, the fuse block adapter.



**Figure 5. Splice 1 into 1 Sequence**

12. Using an H-D 38125-8 crimping tool, crimp the wire ends into the connector.
13. Using the Ultratorch UT-100 (39969) or other suitable radiant heating device, heat the crimped splice from the center out to each end until sealant exudes out both ends of the connector and the tubing assumes a smooth cylindrical appearance.
14. See Figure 10. Fasten the brake line to the back of the right side nacelle piece with two brake line retaining clamps (16) from the kit. Attach the retaining clamps to the right side nacelle piece with the original 16 mm (5/8 in) long cap screws, 6.4 mm (1/4 in) ID flat washers (1) and locknuts (5) (washer installs under nut).
15. See Figure 6. Install the previously removed headlamp assembly (8) into the headlamp bucket (6) using the new retaining ring (7) and three screws (3).



**Figure 6. Install Headlamp**

16. Connect the headlamp harness to the headlamp and bucket assembly. If the headlamp assembly has a position bulb, connect the two spade connectors to it.
17. Install the headlamp and bucket assembly into the nacelle using eight washers (4) and screws (5) from the kit.
18. See Figure 10. Place handlebar cover (4) into position and secure with 16 mm (5/8 in) long screws (13) and lockwashers (11).
19. Tighten all 5/16 in screws to 25 N·m (19 ft-lbs). Tighten headlamp screws and handlebar cover screws snugly.

## COMPLETION

1. **With main FUSE:** See the service manual. Install main fuse. **With main CIRCUIT BREAKER:** Connect negative battery cable. Refer to BATTERY CABLES in the service manual.

### ▲ WARNING

Be sure headlamp, tail and stop lamp and turn signals are operating properly before riding. Poor visibility of rider to other motorists can result in death or serious injury. (00478b)

### ▲ WARNING

After installing seat, pull upward on seat to be sure it is locked in position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury. (00070b)

2. See the service manual. Install seat.
3. **ALL models:** Align headlamp. See the **Headlamp Adjustment** section.
4. See Figure 10. Install the headlamp trim ring assembly (23-26) with screw (27).
5. Trim the detachable windshield (if present). See the **Trimming a Detachable Windshield** section.

## Headlamp Adjustment

1. See the owner's manual. Check tire pressure.

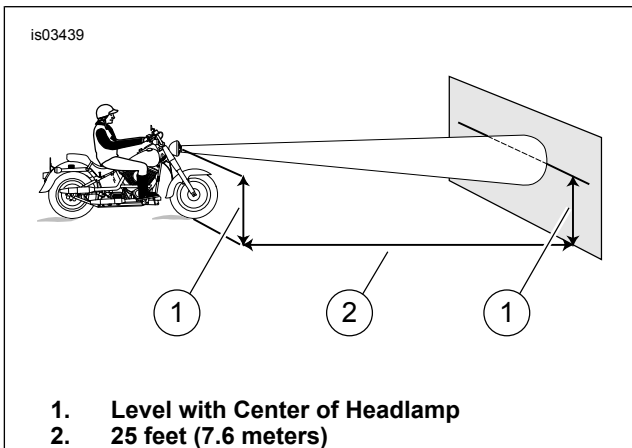


Figure 7. Headlamp Adjustment

2. Park the motorcycle on a level floor (or pavement) in an area with minimal light.
3. See Figure 7. Position the motorcycle 7.6 m (25 ft) away from a screen or wall. Measure the distance from directly below the front axle to the base of the wall or screen.
4. Mark a horizontal line on the screen or wall, 0.9 m (35 in) above the floor or pavement.
5. Load the vehicle with rider, passenger (if normally present) and any cargo normally carried. Weight compresses the vehicle suspension to riding height.
6. Stand motorcycle upright with both tires resting on floor. Hold front wheel in straight alignment (directly forward).
7. Turn ignition switch ON. Set handlebar headlamp switch to HIGH beam position.
8. Check the light beam for proper adjustment. With the beam properly adjusted:
  - a. The main beam of light (broad, flat pattern of light) is centered equally above and below the horizontal line on the screen or wall.
  - b. The main beam of the light is directed straight ahead. Properly adjusted headlamps project an equal area of light to the left and right of center.
9. If necessary, adjust the headlamp beam:
  - a. See Figure 8. Raise or lower the headlamp beam, as necessary, by turning the vertical adjusting screw (1). Turn the screw clockwise to raise the beam or counterclockwise to lower the beam.
  - b. Adjust the headlamp beam left or right, as necessary, by turning the horizontal adjusting screw (2). Turn the screw clockwise to adjust the beam right, or counterclockwise to adjust the beam left.
10. Turn ignition switch OFF.

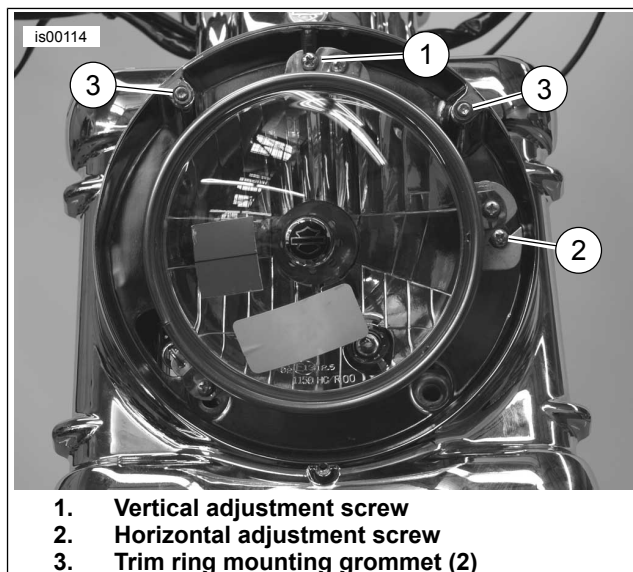


Figure 8. Headlamp Adjustment

## Trimming a Detachable Windshield

To trim a Harley-Davidson detachable windshield to fit the Freight Train Nacelle:

1. See Figure 9. Cover the bottom 50 mm (2 in) of windshield closest to the headlamp contour, on both sides of the windshield, with two layers of masking tape. This tape provides a surface on which to mark the new cut, as well as keep the cut edge neat.
2. Mark the new cut location alongside, and approximately 31.8 mm (1¼ in) from the existing headlamp contour as shown in Figure 9 as a dashed line (1).

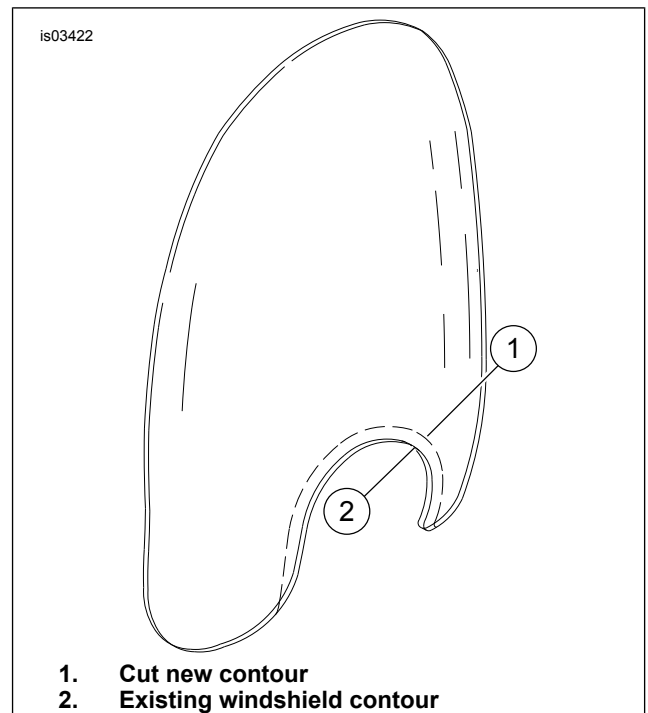


Figure 9. Trimming Detachable Windshield

3. Using a sabre saw with a fine-tooth blade, carefully cut the new contour on the windshield.
4. Clean the edges of the cut with a fine-grit grinding wheel.

## SERVICE PARTS

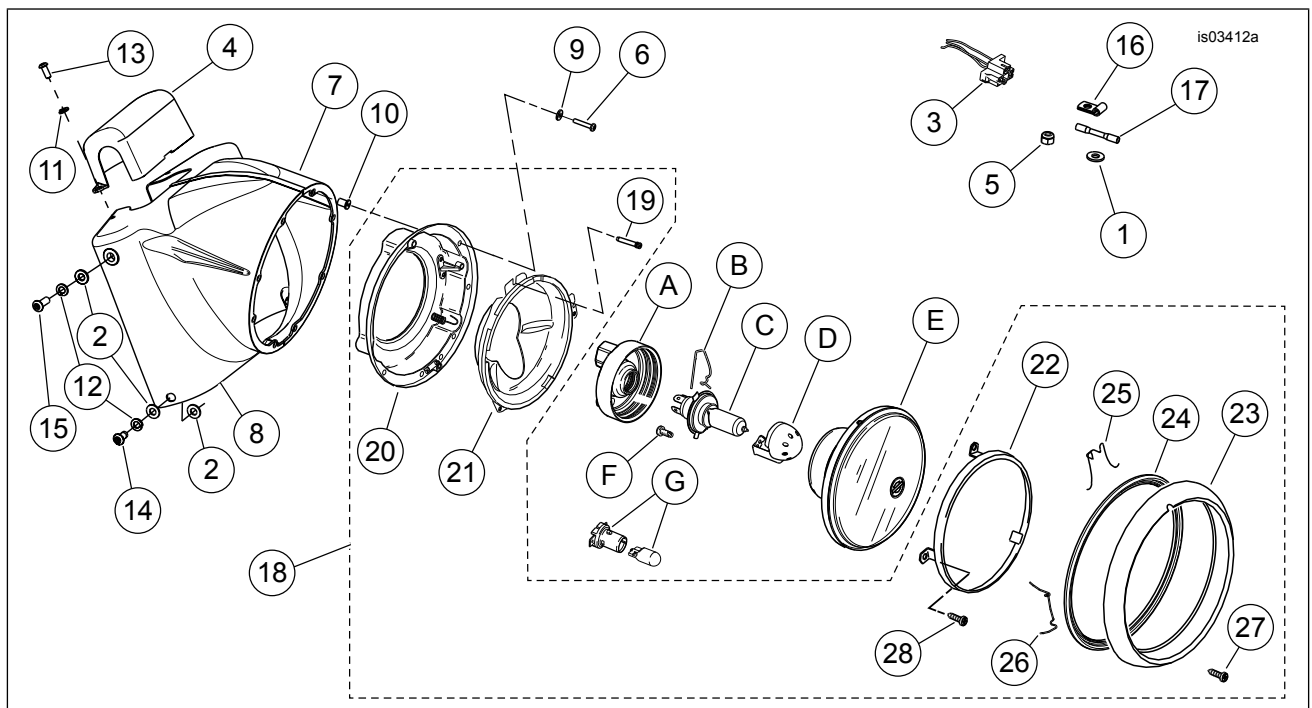


Figure 10. Service Parts, Freight Train Headlamp Nacelle Kits

## SERVICE PARTS

Table 1. Service Parts

Item	Description (Quantity)	Part Number	Item	Description (Quantity)	Part Number
1	Flat washer, chrome (2)	94065-90T	15	Screw, button head, hex socket (2) 5/16-24 x 22 mm (7/8 in) long	94467-94T
2	Flat washer, chrome (6)	94066-90T	16	Clamp (2)	41713-86
3	Connector, headlamp	68816-96	17	Sealed splice connector (3)	70586-93

Table 1. Service Parts

Item	Description (Quantity)	Part Number	Item	Description (Quantity)	Part Number
4	Handlebar clamp cover, chrome Handlebar clamp cover, black	67992-07 61300142	18	Headlamp mounting assembly (chrome) (consists of items 19-28) Headlamp mounting assembly (black) (consists of items 19-28)	Not sold separately . 67700182
5	Locknut (2)	7686	19	• Adjusting screw, headlamp	67724-71
6	Screw, pan head (8)	2806	20	• Headlamp bucket assembly	67728-02A
7	Nacelle, left side, chrome Nacelle, left side, black	61300422 61300423	21	• Mounting ring, headlamp (for chrome assembly) • Mounting ring, headlamp (for black assembly 67700182)	67732-71B . 67732-08
8	Nacelle, right side, chrome Nacelle, right side, black	61300424 61300425	22	• Ring assembly, retainer (for chrome assembly) • Ring assembly, retainer (for black assembly 67700182)	67726-71A . 67726-08
9	Washer (8)	6717	23	• Headlamp trim ring, chrome (for chrome assembly) • Headlamp trim ring, black (for black assembly 67700182)	67712-83B . 46555-03B
10	Well nut (8)	5210	24	• Gasket	67716-60C
11	Lockwasher (2)	94080-90T	25	• Spring, headlamp trim ring, top	67778-60A
12	Lockwasher (4)	94081-90T	26	• Spring, headlamp trim ring, bottom (2)	67780-60A
13	Screw, button head, hex socket (2) 1/4-20 x 16 mm (5/8 in) long	94385-92T	27	• Screw, headlamp trim ring	67718-60A
14	Screw, button head, hex socket 5/16-24 x 13 mm (1/2 in) long (2) 5/16-24 x 16 mm (5/8 in) long (2)	. 94396-92T 94468-94T	28	• Screw, retaining ring (3)	67721-48
<b>Items mentioned in text, but not included in kit</b>					
A	Boot, headlamp		E	Envelope, headlamp	
B	Wire retaining clip		F	Screw (2)	
C	Bulb, headlamp		G	Bulb, position	
D	Shield, bulb				