



INSTRUCTIONS

-J02069

REV 1-10-03

Kit Number 68603-01

DIRECTIONAL RELOCATION KIT FOR MODELS WITH PASSING LAMPS

General

This kit is designed for installation on the following motorcycles when equipped with a Passing Lamp Kit.

- 1987 and later FXLR, FXRS-SP Models.
- 1988 and later XLH Models.
- 1988 and later FXR, (except FXRT) Models.
- 1991 and later FXD Dyna Glide (except FXDWG) Models.
- 1984 and later FXST, FXSTC, FXSTB

This kit consists of components needed to relocate Standard or Bullet Style directional lights from upper fork bracket or handlebars (mirror) to the bottom side of passing lamp brackets.

See *Service Parts Illustration* for kit contents.

⚠ WARNING

The riders safety depends on the correct installation of this kit. If any of the procedures are not within your capabilities, or you do not have the correct tools, have your Harley-Davidson Dealer perform the installation. Improper installation of this kit could result in death or serious injury.

Installation

NOTE

A *Service Manual* for your motorcycle is available at your Harley-Davidson Dealer.

⚠ WARNING

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

⚠ 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)

1. Disconnect the negative battery cable.
2. On models in which the directional lights are mounted on the upper fork brackets, see Figure 1 and perform the following:
 - a. Remove the fork tube pinch screw securing the right directional light assembly to the upper fork. Discard screw.
 - b. Obtain a new pinch screw (part number 4351) from kit and install to upper fork bracket replacing screw removed in Step a. Tighten screw to 25-30 ft-lbs (33.9-40.7 Nm).
 - c. Remove screw and lockwasher securing directional light to bracket. Discard screw, lockwasher and bracket.
- d. Perform Steps a through c for the left side.

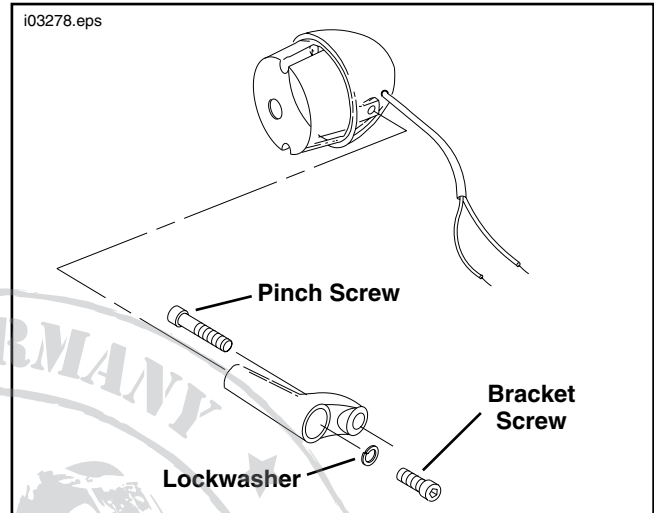


Figure 1. Directional Light Upper Fork Mounting

On models in which the directional light is mounted to the mirror, perform the following:

- a. Remove right directional light and discard all mounting hardware except internal toothed lockwasher.
- b. See Figure 2. Install acorn nut from kit to retain right mirror. If acorn nut "bottoms" without tightening, add the second spacer from kit in the location shown.
- c. Remove left directional light and discard hardware. Leave bracket which joined mirror and directional mount in place. Tighten mirror acorn nut, if necessary.

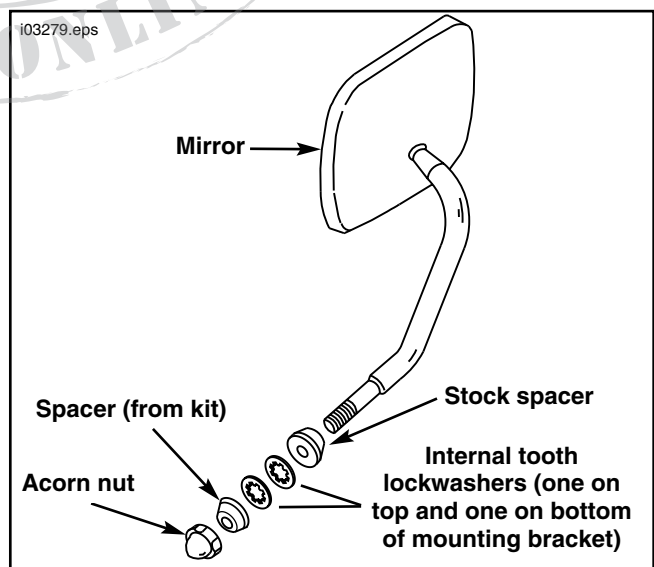


Figure 2. Re-installing Right Mirror

NOTE

On motorcycles with directional lights consisting of three wires, the third black wire is a ground wire. Check the style (either Standard or Bullet Style) of the directional lights and note how many wires are connected, then perform the Steps under one of the following applicable procedures.

- A. Relocating Standard Two-Wire Directionals.
- B. Relocating Standard Three-Wire Directionals.
- C. Relocating Bullet Style Three-Wire Directionals.

A. Relocating Standard Two-Wire Directionals:

NOTE

Before cutting wires at directional light, cut cable straps holding wires and determine if wires are long enough to reach bottom of passing lamp bracket. If wires are too short, perform Steps 1 through 10. If wire length is sufficient, proceed to Step 12.

1. Cut wires connected to right directional light about 2 inches away from directional light body.
2. Strip approximately 5/16 inch insulation from each of the wires.
3. Crimp butt-splice connectors from kit on two wires coming from motorcycle.
4. Split one end of the 2-conductor polarized wire from kit back about 2 inches and strip 5/16 inch of insulation from wire ends.
5. Slide a piece of shrink tubing from kit over each of the wire ends stripped in Step 4 and crimp the wires into the butt-splice connectors installed in Step 3. **Make sure you connect the silver and copper colored wires to like colored wires.**

NOTE

Polarized wire is used in this application to ensure correct wiring. One wire is silver, one is copper colored. Wire colors of spliced wire must match wire color of original directional wire leads.

6. Cut polarized wires to the length required for connection to the wires at the relocated directional light. **Make certain you leave enough slack in wires to allow routing the harness along the fork tube.**
7. Split remaining end of the 2-conductor polarized wire from kit back about 2 inch and strip 5/16 inch of insulation from wire ends.
8. Slide a piece of heat shrink tubing over each of the two wire ends.
9. Connect like colored wires from jumper (polarized wires) to directional light wires using butt splice connectors from kit.
10. Slide heat shrink tubing over butt-splice connectors installed in steps 5 and 9. Activate shrink tubing with UltraTorch UT-100, heat gun or hair dryer, noting the following:

WARNING

- Use extreme caution when operating the UltraTorch UT-100 or any other radiant heating device. Read the manufacturer's instructions carefully before using the tool. Improper tool handling can result in death or serious injury.
- Always keep hands away from tool tip area and heat shrink attachment.
- 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.
- Be sure to turn the "ON/OFF" switch to the "OFF" position after use.

11. Repeat steps 1 through 10 the opposite directional light.
12. If passing lamp kit is already installed and wired on the vehicle, cut the lead wire from the passing lamp kit at the handlebar clamp area as close to the joining butt splice as possible. Cut off the butt splice, as this will be replaced with a new splice from kit. Cut cable straps securing lead wire to fork tubes. See Figure 3. Remove retaining nut from passing lamp as shown and discard.



Figure 3. Remove Retaining Nut

13. See Figure 4. Install retaining nut (P/N 68323-01) from kit to directional housing and snug into place. Remove lens from directional housing.

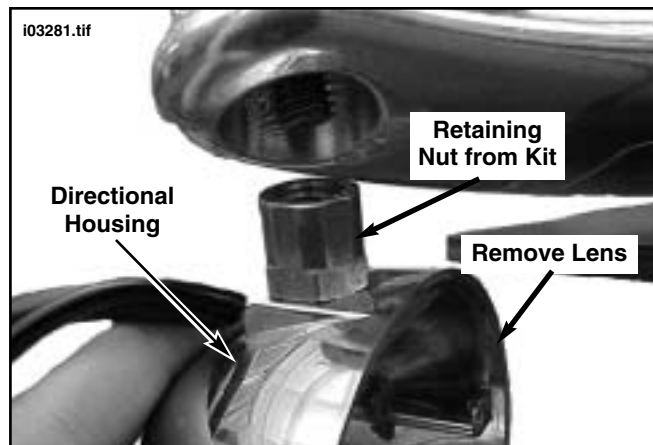


Figure 4. Install Retaining Nut from Kit

- See Figure 5. Route passing lamp lead wire through new retaining nut and into directional. Screw passing lamp onto directional. It may be necessary to loosen passing lamp bracket and pivot the lamp forward to allow clearance to rotate.

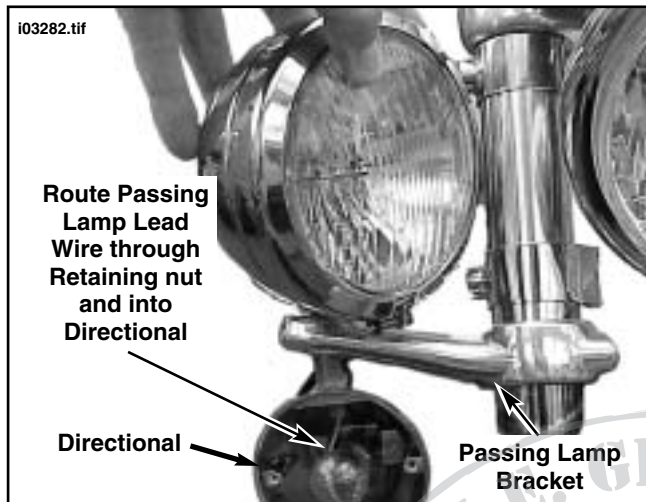


Figure 5. Install Passing Lamp To Directional

- See Figure 6. Once directional is snug, back it off slightly to align the entire assembly. Install passing lamp wire through jam nut (P/N 7912) and snug nut into place.

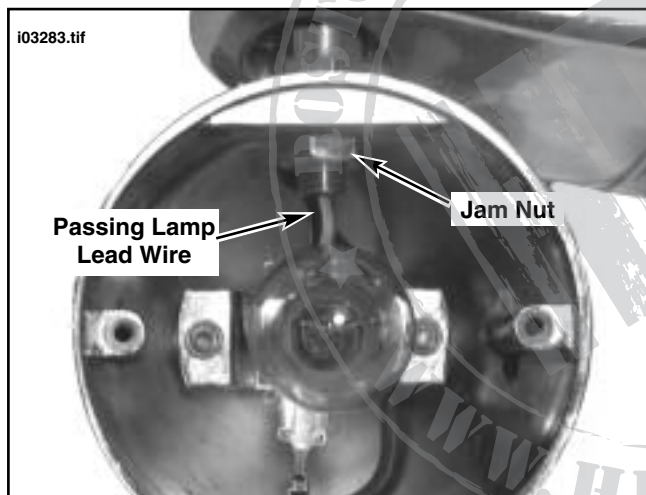


Figure 6. Install Jam Nut

- Continue to route passing lamp lead wire out through directional housing grommet (same path as directional wiring).
- See Figure 7. Bring both passing lamp wires to the connector. Trim the wires, allowing approximately 1 inch (25 mm) of wire to extend past the butt splice connector. Trim the conduit approximately 1-1/2 inches (38 mm) back from the end of the wire.
- Remove approximately 3/8 inch (10 mm) of insulation from the end of the passing lamp wires.
- Insert the ends of both passing lamp wires into the electrical connector and crimp the wires to the connector using a H-D 38125-8 Crimping Tool.

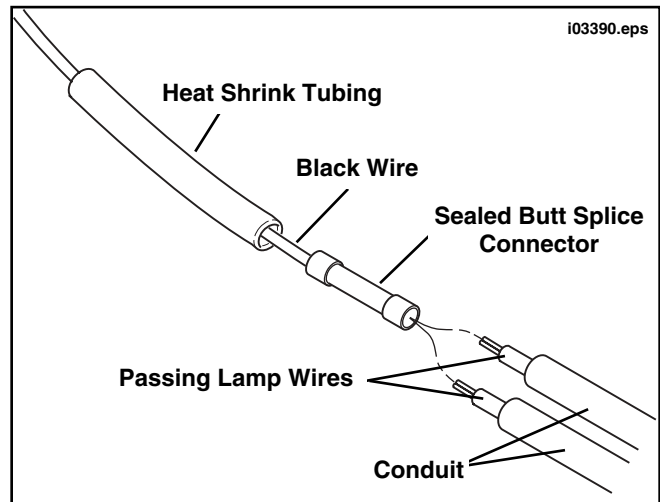


Figure 7. Connect Passing Lamp Wiring

WARNING

- Use extreme caution when operating the UltraTorch UT-100 or any other radiant heating device. Read the manufacturer's instructions carefully before using the tool. Improper tool handling can result in death or serious injury.
- Always keep hands away from tool tip area and heat shrink attachment.
- 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.
- Be sure to turn the "ON/OFF" switch to the "OFF" position after use.

NOTE

Protect the heat shrink tubing from the heat source while applying heat to the electrical connector.

- Slide the heat shrink tubing (1) away from the splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or radiant heating device, heat the crimped butt splice connector. Apply heat from the center of the crimp out to each end until the meltable sealant exudes out of both ends of the connector. Let the connector cool.
- Slide the heat shrink tubing over the splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or radiant heating device, heat the heat shrink tubing to encapsulate the butt splice connection. Apply heat from the center of the crimp out to each end.

CAUTION

When securing the wires to the fork tube, make sure the wires are clear of moving parts, to avoid pinching and possible short circuits.

- Position harness along fork tube and secure with cable straps.

23. Test operation of directional lights and running lights. If operation is not correct, verify that the wire splices were made properly.
24. Align entire assembly and tighten all mounting hardware. Replace lens onto directional housing using Loctite 243 (blue).

B. Relocating Standard Three-Wire Directionals:

NOTE

Before cutting wires at directional light, cut cable straps holding wires and determine if wires are long enough to reach bottom of passing lamp bracket. If wires are too short perform Steps 1 through 14. If wire length is sufficient, proceed to Step 16.

1. Carefully cut 4 inches from conduit covering the wires connected to right directional light.
2. Cut the directional light wires at the following lengths from the directional light:
 - Blue wire- 1-1/4 inches from directional light
 - Violet wire- 2-1/4 inches from directional light
 - Black wire- 3-1/4 inches from directional light

NOTE

The wires are cut at different lengths to stagger the butt connectors and prevent a large bulge in the harness.

3. Strip 5/16 inches of insulation from the cut ends of the three wires cut in Step 2.
4. Crimp butt-splice connectors from kit on three wires coming from motorcycle.
5. Cut a 6 inch length of wire from the black, blue and violet wires in the kit.
6. Strip 5/16 inch of insulation from one end on each of the jumper wires then connect like colored wires and crimp into butt-splice connectors (from motorcycle) installed in step 4.
7. Slide shrink tubing from kit over crimped terminals. Activate shrink tubing with heat gun or hair dryer.
8. Cut an appropriate length of 5/16 inch ID vinyl tubing supplied with kit.
9. Slide appropriate length section of tubing onto three wires connected in Step 6 and over existing conduit.
10. Cut the three spliced-on wires to lengths required for connection to wires coming from the directional light. Make certain to leave enough slack to allow routing harness along fork tube.
11. Slide heat shrink tubes over the three wire ends.
12. Strip 5/16 inches of insulation from remaining wire ends and connect like colored wires at directional light with butt-splice connectors from kit.
13. Activate shrink tubing with UltraTorch UT-100, heat gun or hair dryer noting the following:

WARNING

- Use extreme caution when operating the UltraTorch UT-100 or any other radiant heating device. Read the manufacturer's instructions carefully before using the tool. Improper tool handling can result in death or serious injury.
 - Always keep hands away from tool tip area and heat shrink attachment.
 - 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.
 - Be sure to turn the "ON/OFF" switch to the "OFF" position after use.
14. Slide the 5/16 inch vinyl tubing, installed in Step 9, over all new connections.
 15. Repeat Steps 1 through 14 for opposite directional light.
 16. If passing lamp kit is already installed and wired on the vehicle, cut the lead wire from the passing lamp kit at the handlebar clamp area as close to the joining butt splice as possible. Cut off the butt splice, as this will be replaced with a new splice from kit. Cut tie straps securing lead wire to fork tubes. See Figure 3. Remove retaining nut from passing lamp as shown and discard.
 17. See Figure 4. Install retaining nut (P/N 68323-01) from kit to directional housing and snug into place. Remove lens from directional housing.
 18. See Figure 5. Route passing lamp lead wire through new retaining nut and into directional. Screw passing lamp onto directional. It may be necessary to loosen passing lamp bracket and pivot the lamp forward to allow clearance to rotate.
 19. See Figure 6. Once directional is snug, back it off slightly to align the entire assembly. Install passing lamp wire through jam nut (P/N 7912) and snug nut into place.
 20. Continue to route passing lamp lead wire out through directional housing grommet (same path as directional wiring).
 21. Install a cable strap to secure passing lamp lead wire to 5/16 inch directional wire conduit.
 22. Refer to Figure 7. Bring both passing lamp wires to the connector. Trim the wires, allowing approximately 1 inch (25 mm) of wire to extend past the sealed butt connector. Trim the conduit approximately 1-1/2 inches (38 mm) back from the end of the wire.
 23. Remove approximately 3/8 inch (10 mm) of insulation from the end of the passing lamp wires.
 24. Insert the ends of both passing lamp wires into the electrical connector and crimp the wires to the connector using a H-D 38125-8 Crimping Tool.

WARNING

- Use extreme caution when operating the UltraTorch UT-100 or any other radiant heating device. Read the manufacturer's instructions carefully before using the tool. Improper tool handling can result in death or serious injury.
- Always keep hands away from tool tip area and heat shrink attachment.
- 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.
- Be sure to turn the "ON/OFF" switch to the "OFF" position after use.

NOTE

Protect the heat shrink tubing from the heat source while applying heat to the electrical connector.

25. Slide the heat shrink tubing (1) away from the splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or radiant heating device, heat the crimped butt splice connector. Apply heat from the center of the crimp out to each end until the meltable sealant exudes out of both ends of the connector. Let the connector cool.
26. Slide the heat shrink tubing over the splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or radiant heating device, heat the heat shrink tubing to encapsulate the butt splice connection. Apply heat from the center of the crimp out to each end.

CAUTION

When securing the wires to the fork tube, make sure the wires are clear of moving parts, to avoid pinching and possible short circuits.

27. Position harness along fork tube and secure with cable straps.
28. Test operation of directional lights and running lights. If operation is not correct, verify that the wire splices were made properly.
29. Align entire assembly and tighten all mounting hardware. Replace lens on directional housing using Loctite 243 (Blue).

C. Relocating Bullet Style Three-Wire Directionals:

NOTE

On 2001 FXDX and all other models equipped with Bullet Style Directionals, it will be necessary to disassemble directional light and install grommets included in kit.

1. Follow instructions in applicable Service Manual and remove fuel tank.

NOTE

Before removing directional wires, carefully note wire routing. In particular, pay close attention to cable straps, which must be replaced. Also, when performing the next Step, before removing pin terminals from connector, carefully note terminal locations.

2. Locate front directional connector (pull from inside frame backbone) and separate connector halves. Cut cable straps around directional harness conduit. Refer to Appendix covering Amp Multilock Electrical Connectors in Service Manual and remove pin terminals from connector (from directionals) to free wiring harness. Leave conduit in place.
3. Unplug existing molded grommet from directional housing and carefully cut and remove grommet from wire harness.
4. See Figure 8. Thread new grommet (P/N 11443) from kit onto directional wire harness and move into position shown. Install grommet into directional housing. It may be helpful to apply water to ease installation.

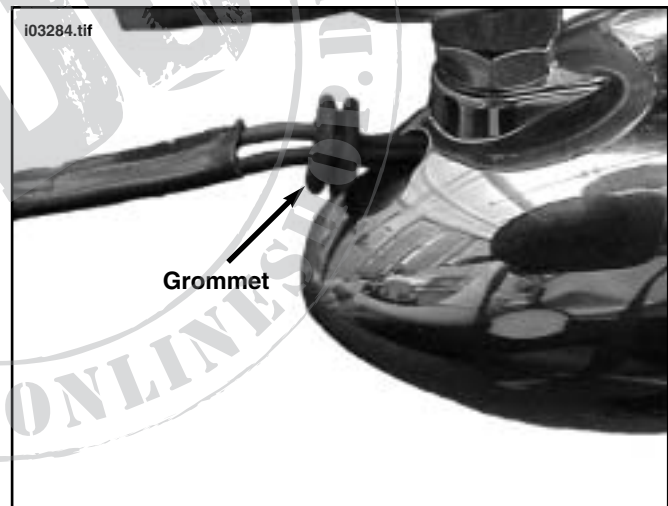


Figure 8. Install Grommet From Kit

5. If passing lamp kit is already installed and wired to vehicle, cut the lead wire from the passing lamp kit at the handlebar clamp as close to the joining butt splice as possible. Cut off the butt splice as this will be replaced with new splice from kit. See Figure 3. Remove retaining nut from passing lamp and discard.
6. Remove directional lens from housing.

- See Figure 9. Route passing lamp lead wire through new retaining nut and install new retaining nut (P/N 68323-01) to passing lamp threads. Snug retaining nut into place.
- Install jam nut to threads on retaining nut as shown.

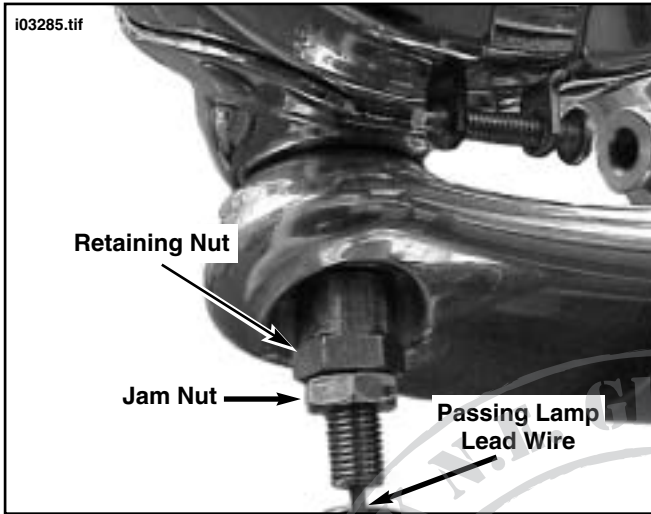


Figure 9. Install Retaining Nut and Jam Nut

- Loosen directional inner housing with a small screwdriver and disassemble to allow access for wire routing.

NOTE

When performing the next Step, it will be necessary to use an open-end wrench to gain complete access to jam nut.

- See Figure 10. Thread directional onto retaining nut until snug, then back off the minimum amount to allow forward alignment of lamp housings. Snug jam nut against directional housing to lock in place.

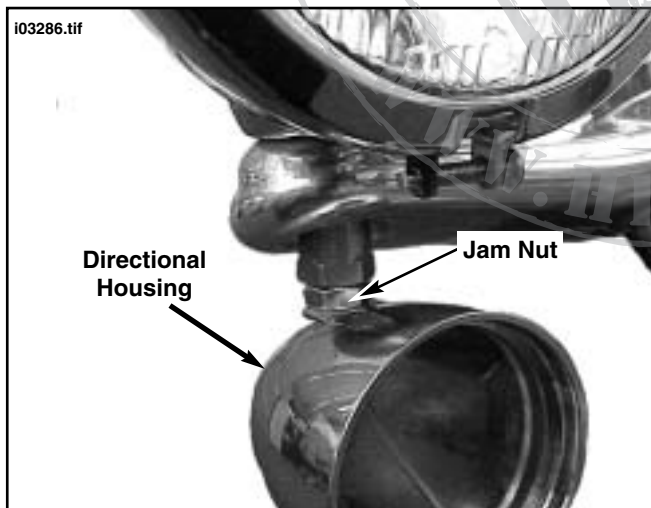


Figure 10. Install Directional

- See Figure 11. Route passing lamp lead wire through directional housing grommet.

NOTE

The grommet included in this kit does not form a watertight seal. A path must be provided to allow any water to exit from the directional housing. To provide for water drainage, carefully follow Steps a and b.

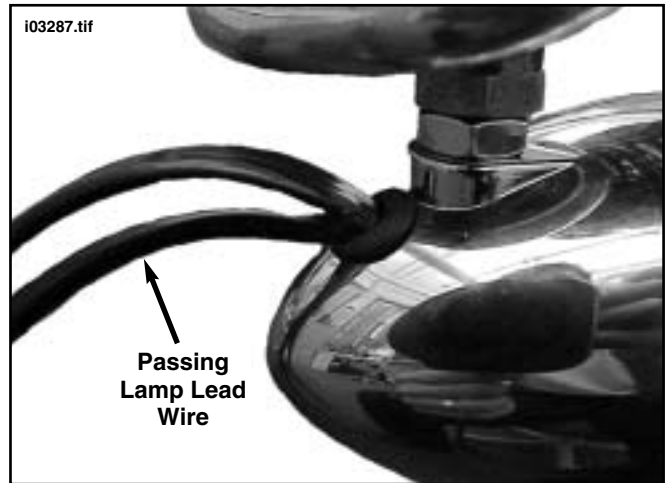


Figure 11. Route Passing Lamp Lead Wire

- Refer to Figure 12. Locate the 3 slots that align the O-ring gasket to the directional housing. Cut a 3/8 inch (approximate) section out of the O-ring at the bottom, center slot, position.

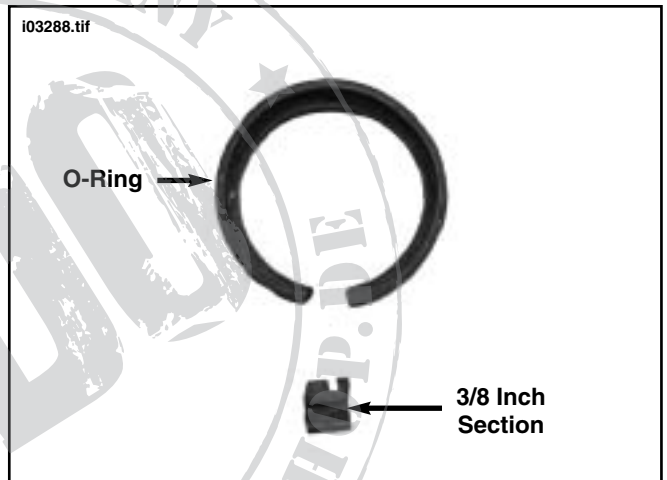


Figure 12. Modify O-ring

- See Figure 13. Install the O-ring and inner housing into the directional housing with the cutout oriented at the bottom as shown.

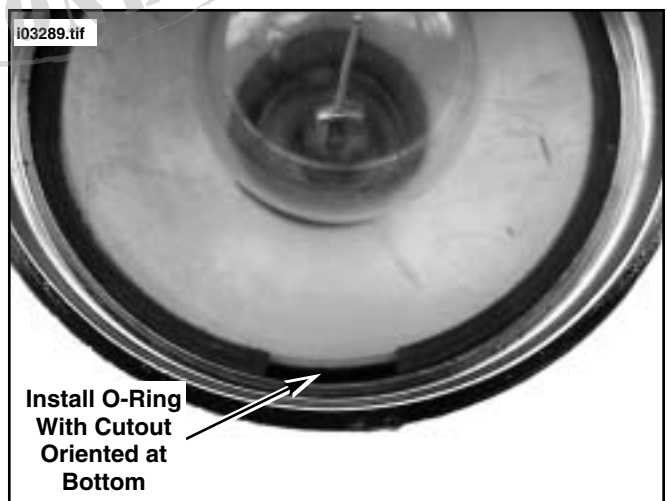


Figure 13. Install O-ring

- c. See Figure 14. Install the directional lens with slots oriented down and in line with the O-ring slot as shown.

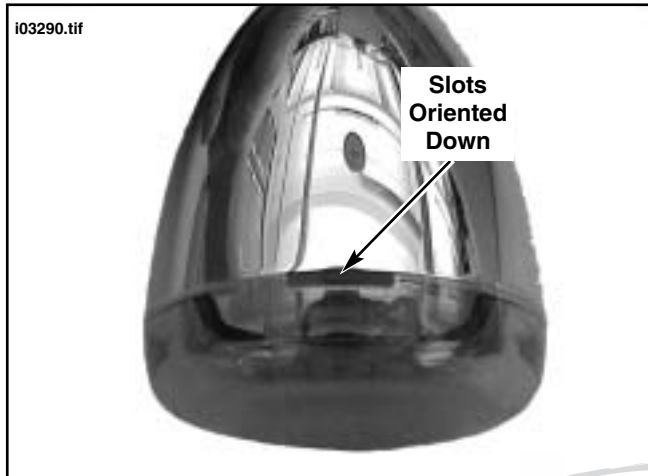


Figure 14. Install Directional Lens (Bottom View)

10. Route the directional wires back to connector (at frame backbone) and secure with tie straps as needed.

NOTE

In some cases, after routing, the wires may be too short to reach the connector. If this is the case, perform Steps 11 through 24. If wires are of adequate length, proceed to Step 24.

11. Cut the directional light wires (at the terminal ends) to the following lengths:
- Blue Wire-1-1/4 inch from terminal.
 - Violet Wire-2-1/4 inch from terminal.
 - Black Wire-3-1/4 inch from terminal.

NOTE

The wires are cut at different lengths to stagger the butt connectors preventing a large bulge in the harness.

12. Strip 5/16 inch of insulation from the cut ends of the three wires.
13. Crimp butt-splice connectors from kit on the three short terminal ends of the wires.
14. Measure and cut three 6 inch lengths of blue, violet and black wire from kit that will enable wires to reach connector.
15. Strip 5/16 inch of insulation from one end of each wire. Connect the like colored wires and crimp onto butt-splice connectors installed in Step 13.
16. Slide shrink tubing from kit over crimped terminals.
17. Cut an appropriate length of 5/16 inch. ID vinyl tubing supplied in kit.
18. Slide vinyl tubing onto three wires connected in step 15 and over existing conduit.
19. Cut the three spliced-on wires to lengths required for connection to the directional light. Make certain to leave enough slack to allow routing harness along fork tube.
20. Slide heat shrink tubes over the three wire ends.

21. Strip 5/16 inches of insulation from remaining wire ends and connect like colored wires at directional light with sealed butt connectors from kit.
22. Slide heat shrink tubing over connectors installed in Steps 15 and 21. Activate shrink tubing with UltraTorch UT-100, heat gun or hair dryer, noting the following:

WARNING

- Use extreme caution when operating the UltraTorch UT-100 or any other radiant heating device. Read the manufacturer's instructions carefully before using the tool. Improper tool handling can result in death or serious injury.
 - Always keep hands away from tool tip area and heat shrink attachment.
 - 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.
 - Be sure to turn the "ON/OFF" switch to the "OFF" position after use.
23. Slide the 5/16 inch vinyl tubing, installed in Step 18 over all new connections.
24. Following instructions in appendix covering Amp MultiLock Electrical Connectors in Service Manual, reconnect turn signal.
25. Install a cable strap to secure the wiring to the 5/16 inch tubing next to directional light.
26. Repeat Steps 1 through 25 to connect opposite directional light.
27. Refer to Figure 7. Bring both passing lamp wires to the connector. Trim the wires, allowing approximately 1 inch (25 mm) of wire to extend past the butt splice connector. Trim the conduit approximately 1-1/2 inch (38 mm) back from the end of the wire.
28. Remove approximately 3/8 inch (10 mm) of insulation from the end of the passing lamp wires.
29. Insert the ends of both passing lamp wires into the electrical connector and crimp the wires to the connector using a H-D 38125-8 Crimping Tool.

WARNING

- Use extreme caution when operating the UltraTorch UT-100 or any other radiant heating device. Read the manufacturer's instructions carefully before using the tool. Improper tool handling can result in death or serious injury.
- Always keep hands away from tool tip area and heat shrink attachment.
- 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.
- Be sure to turn the "ON/OFF" switch to the "OFF" position after use.

NOTE

Protect the heat shrink tubing from the heat source while applying heat to the electrical connector.

29. Slide the heat shrink tubing (1) away from the splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or radiant heating device, heat the crimped butt splice connector. Apply heat from the center of the crimp out to each end until the meltable sealant exudes out of both ends of the connector. Let the connector cool.
30. Slide the heat shrink tubing over the splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or radiant heating device, heat the heat shrink tubing to encapsulate the butt splice connection. Apply heat from the center of the crimp out to each end.

CAUTION

When securing the wires to the fork tube, make sure the wires are clear of moving parts, to avoid pinching and possible short circuits.

31. Position harness along fork tube and secure with cable straps.

⚠ 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)

32. Reconnect the battery cables (positive cable first). Test operation of directional lights and running lights. If operation is not correct, verify that wire splices are made correctly.
33. Align entire assembly and tighten all mounting hardware.
34. Following instructions in applicable Service Manual, install fuel tank.





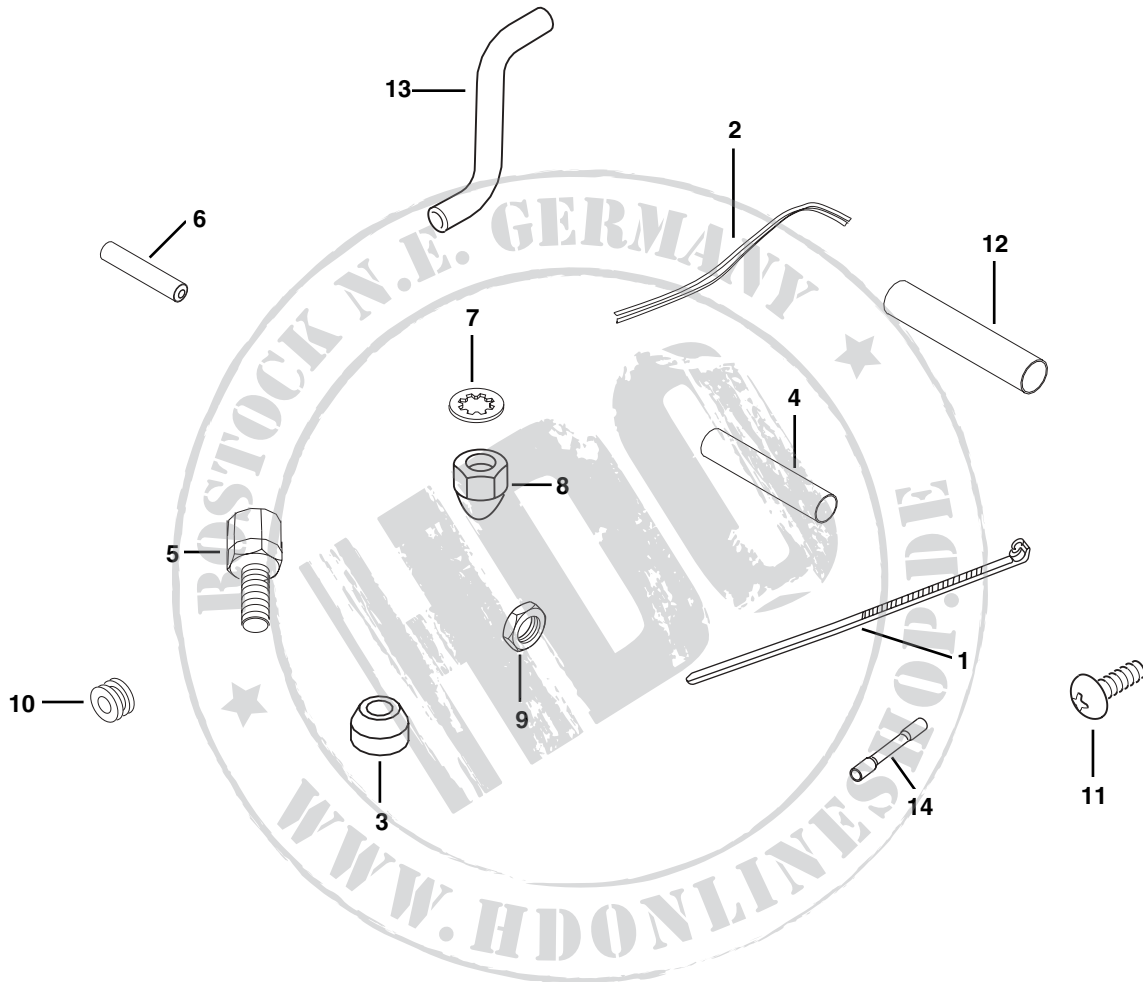
Service Parts

Part No. 68603-01

Date 11/00

Directional Relocation Kit

i03291a.eps



Item	Description/Qty	Part Number	Item	Description/Qty	Part Number
1	Strap, cable (6)	10006	11	Screw, button head (2)	4351
2	Wire, 2 conductor (polarized)	32695-87	12	Heat shrink conduit 5/16 inch	72266-94
3	Spacer, mirror mount	5774	13.	Tubing, vinyl 5/16 inch	70510-95
4	Heat shrink conduit (12)	67113-83	14.	Connector, sealed butt	70586-93
5	Retainer, passlamp/turn sig (2)	68323-01	15	Wire, 18 gauge (Black)	
6	Connector (12)	70581-73		not shown	not sold
7	Lockwasher, int tooth (3)	7127	16	Wire, 18 gauge (violet)	
8	Nut, acorn	7736		not shown	not sold
9	Nut, jam (2)	7912	17	Wire, 18 gauge (blue)	
10	Grommet (2)	11443		not shown	not sold