



INSTRUCTIONS

-J02906

REV. 08-08-2003

Kit Number 59422-04

LED LIGHTED LICENSE PLATE BOLT KIT

General

This License Plate Bolt Kit fits all **1999 and later** XL (Sportster®), FXD (Dyna®), and Touring model motorcycles, and all **2000 and later** Softail® models except FLSTS.

When installing this kit on **Touring models**, a "Y"-Harness, Part Number 70327-04, will allow a simple connection without splicing. This harness is available separately from any Harley-Davidson Dealer.

FXSTD (Deuce®) models will also need a Tail/ Stop Lamp Jumper Harness, Part Number 70316-03, available separately from any Harley-Davidson Dealer.

When installing this kit on **FXST/B/S/D and FXDWG Models**, or any Model with a **Bobtail Fender**, Chrome License Plate Bracket Cover Kit 59720-01A must be installed to retain a DOT-required rear reflector.

See the Service Parts illustration for kit contents.

WARNING

This kit requires **24 milliamps** additional current from the electrical system. When installing any electrical accessory, be certain not to exceed the maximum amperage rating of the fuse or circuit breaker protecting the circuit being modified. Exceeding the maximum amperage could lead to electrical failures which could result in death or serious injury.

CAUTION

It is possible to overload your motorcycle's charging system by adding too many electrical accessories. If your combined electrical accessories operating at any one time consume more electrical current than your vehicle's charging system can produce, the electrical consumption can discharge the battery and cause vehicle electrical system damage. See a Harley-Davidson dealer for advice about the amount of current consumed by additional electrical accessories, or for necessary wiring changes. (00211b)

NOTE

This instruction sheet references Service Manual information. A Service Manual for your model motorcycle is required for this installation and is available from your Harley-Davidson Dealer.

Installation

WARNING

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

1. Refer to the Service Manual and follow the instructions given to remove the seat and disconnect the negative battery cable. Retain all seat mounting hardware.

For all XL Models, all Dynas except FXDWG, and all Softails except FLSTC, FLSTS or FXSTD

2. See the Service Parts illustration. Remove the hex nut with lockwasher retaining the license-plate clamp, and remove the clamp and license plate (if installed) from the vehicle. Set aside for re-installation.
3. Remove the three 1/4-20 x 1/2 in. Pozidriv® screws and hex nuts with lockwashers retaining the license-plate bracket and support to the rear fender, and set the bracket and hardware aside for re-installation.
4. Clean the mating area of the fender and license-plate support with a 50-50 mixture of isopropyl alcohol and water, and let it dry.

Peel the paper backing from one side of the adhesive pad (13) from the kit. Hold the pad, adhesive-side down, over the rear fender. Line up the holes in the pad with the three license-plate support mounting holes in the fender, and press the pad into place.

Peel the paper backing from the front side of the pad. Position the license-plate support onto the pad, and re-attach with the original hardware in the upper and right-side lower holes only (see Figure 1). Tighten securely.

5. Cut one 5 inch (127 mm) long piece and two 2-1/2 inch (64 mm) long pieces off the small diameter conduit (10) from the kit. Insert the long section of conduit that remains, from the back side, through the hole in the grommet (12) from the kit. Allow about one inch (25 mm) of conduit to exit the grommet from the front.
6. See Figure 1. Insert the long end of the conduit and the grommet into the lower left-side hole in the license-plate bracket, through the support and into the fender.

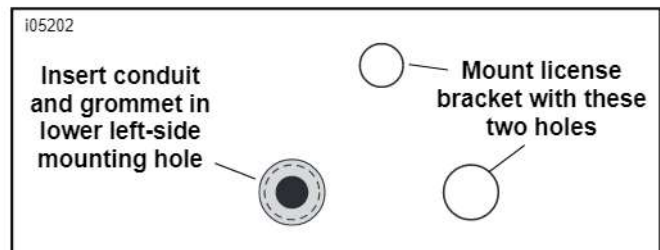


Figure 1. Grommet Location in License Plate Bracket

7. Insert the license-plate clamp bolt, removed earlier, into the upper hole in the license-plate bracket. Position the license plate onto the bracket.

NOTE

Position the backing plate (5) behind the license-plate bracket with the narrow tabs down, and both ends against the bracket.

Place a flat washer (2) onto the threads of a lighted screw assembly (1) from the kit. Carefully feed the wires and the screw threads into one of the lower mounting holes in the license plate, through the original license plate bracket, the backing plate (5), another flat washer and a hex nut (3) from the kit.

Repeat for the other lower license-plate mounting hole. Tighten both screws securely.

CAUTION

Both lighted screw assemblies must be tightened to their final setting before the wires are connected. Tightening the lighted screws after the wires are connected could result in damage to the wires and possible short circuits.

8. Place a flat washer onto one of the hex head screws (4) from the kit. Insert the screw into one of the upper mounting holes in the license plate. Place another flat washer and hex nut from the kit onto the screw threads, and tighten securely.

Repeat for the other upper license-plate mounting hole.

9. Obtain the two short pieces of conduit cut in Step 5, and insert the two wires from one screw all the way through one conduit segment.

Repeat with the other set of wires and conduit segment.

10. Obtain the 5 inch (127 mm) long conduit piece cut in Step 5. Apply a light coat of liquid soap, window cleaner, or all-purpose lubricant such as WD-40® to all four lighted screw assembly wires, and insert the four wires all the way through the conduit.

11. Insert the four wire ends through the conduit in the fender grommet (12). Pull the wires and 5 inch conduit through the grommet to the underside of the fender. The long piece of conduit will come out of the grommet, and can be discarded.

Route the conduit with the red and black wires down the underside of the fender to the tail lamp base.

12. Use a tie strap (14) from the kit to bundle the wires from the left and right screws where they come together.

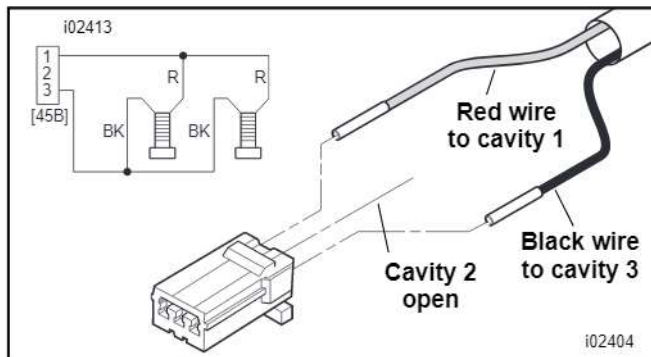


Figure 2. Wiring the Socket Housing

13. Obtain the socket housing (11), and the black wire (7) and red wire (8) assemblies from the kit.
14. Insert the terminals on the ends of the red and black wires into the socket housing (11) from the kit as shown in Figure 2. Refer to AMP MULTILOCK ELECTRICAL CONNECTORS in the Service Manual.

15. Remove the two screws holding the tail lamp to the base, and unplug the tail lamp connector. Remove the tail lamp and set it aside.

See Figure 3. Plug the socket housing (11) into the Accessory connector at the upper left of the tail lamp circuit board. Route the red and black wires through the left-side opening in the tail lamp base.

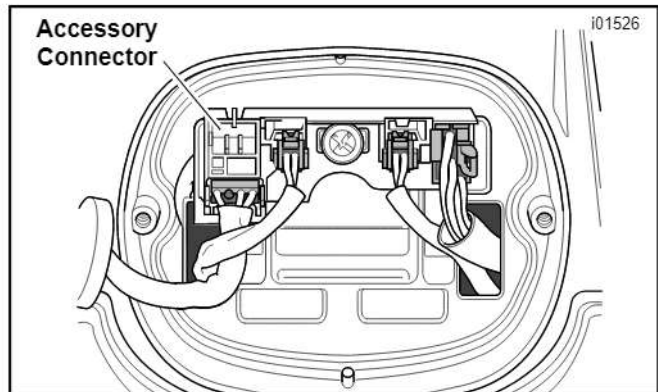


Figure 3. Connecting the License Plate Screws

16. Cut the red and black wires to easily reach the four wires coming from the lighted screws.

17. See Figure 4, and the BUTT SPLICE CONNECTORS section of the Service Manual. Insert the red wire from each lighted screw into one end of a butt-splice electrical connector (15) from the kit, and secure with a Crimp Tool, Part No. H-D 38125-8.

18. Slide a piece of heat-shrink tubing (16) from the kit over the end of the red wire from the Accessory connector. Remove approximately 3/8 in. (10 mm) of insulation from the end of the wire, and insert it into the other end of the butt-splice connector. Secure with the Crimp Tool.

19. Repeat Steps 17 and 18 with the black wires from each lighted screw and the black wire from the connector.

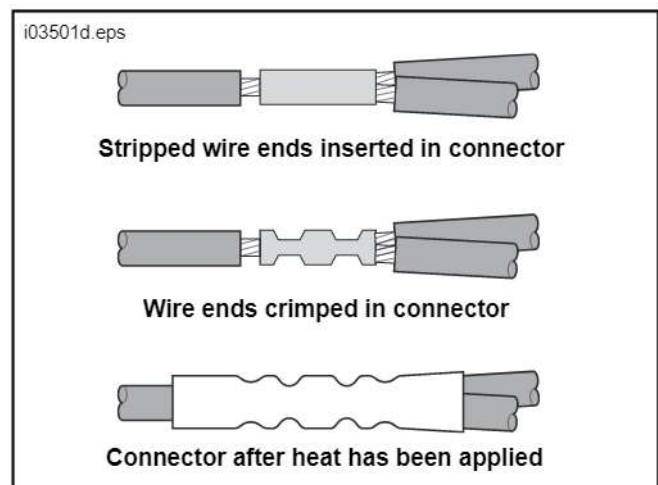


Figure 4. Installing Butt Connectors

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.
20. Slide the heat-shrink tubing over each splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or other suitable radiant heating device, heat the shrink tubing to encapsulate the butt splice connection. Apply heat from the center of the tubing out to each end until it shrinks tightly over the connector. Let the connector cool.
Repeat for the second splice.
 21. Position the conduit to cover the wire splices.
 22. Use tie straps (14) from the kit as needed to secure the wiring under the fender.
 23. Re-attach the tail lamp connector, and re-assemble the tail lamp to the base with the screws removed earlier.

NOTE

Position the cover (6) behind the license-plate bracket with the two slots down, and the open side against the bracket.

24. With a screwdriver or similar tool, carefully wedge the license-plate bracket and support apart to slip the cover (6) from the kit over the backing plate and wire conduit.
25. Install the license-plate clamp onto the bolt with the nut and washer removed earlier. Slide the hook of the clamp down over the edge of the license plate. Tighten the clamp nut securely.

Proceed to Step 32, on Page 11.

For all FXST/B/S or FXDWG Models, and other Models with an Accessory Bobtail Fender installed

2. Remove the license plate (if installed) from the vehicle. Set aside for re-installation.
Install Chrome License Plate Bracket Cover 59720-01A per the instructions in that kit, but do not install the license plate.
3. Position the license plate onto the bracket cover.

NOTE

Position the backing plate (5) behind the license-plate bracket with the narrow tabs up, and both ends against the bracket.

Place a flat washer (2) onto the threads of a lighted screw assembly (1) from the kit. Carefully feed the wires and the screw threads into one of the lower mounting holes in the license plate, through the chrome cover, the original license plate bracket, the backing plate (5), another flat washer and a hex nut (3) from the kit.

Repeat for the other lower license-plate mounting hole. Center the license plate on the cover, and tighten both screws securely.

CAUTION

Both lighted screw assemblies must be tightened to their final setting before the wires are connected. Tightening the lighted screws after the wires are connected could result in damage to the wires and possible short circuits.

4. Cut one 5 inch (127 mm) long piece and two 2-1/2 inch (64 mm) long pieces off the small diameter conduit (10) from the kit, and insert the two wires from one screw all the way through one of the 2-1/2 inch (64 mm) long conduit segments.

Repeat with the other set of wires and short conduit.

5. Obtain the 5 inch (127 mm) long conduit piece cut earlier. Apply a light coat of liquid soap, window cleaner, or all-purpose lubricant such as WD-40® to all four lighted screw assembly wires, and insert the four wires all the way through the conduit.
6. Use a tie strap (14) from the kit to bundle the wires from the left and right screws where they come together.
Route the conduit with the four wires up to the tail lamp base.
7. Obtain the socket housing (11), and the black wire (7) and red wire (8) assemblies from the kit.
8. Insert the terminals on the ends of the red and black wires into the socket housing (11) from the kit as shown in Figure 5. Refer to AMP MULTILOCK ELECTRICAL CONNECTORS in the Service Manual.

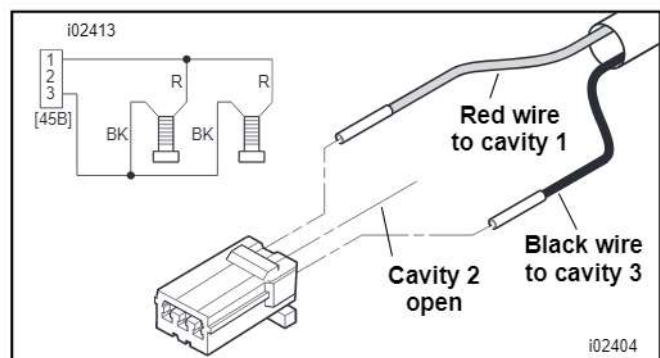


Figure 5. Wiring the Socket Housing

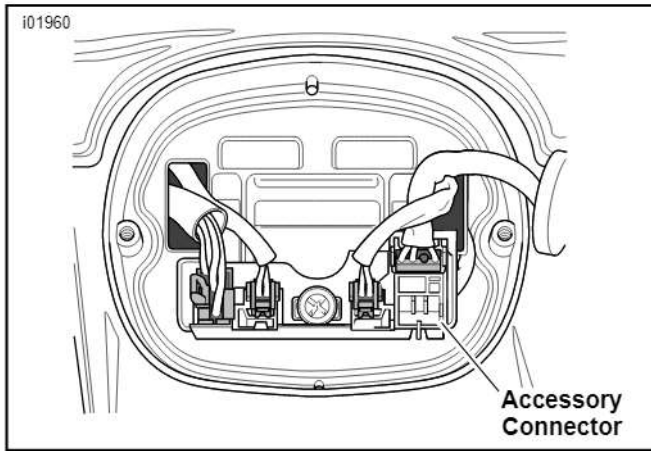


Figure 6. Connecting the License Plate Screws

9. Remove the two screws holding the tail lamp to the base, and unplug the tail lamp connector. Remove the lamp and set it aside.
See Figure 6. Plug the socket housing into the Accessory connector at the lower right of the tail lamp circuit board. Route the red and black wires through the right-side opening in the tail lamp base.
10. Cut the red and black wires to easily reach the four wires coming from the lighted screws.
11. See Figure 7, and the BUTT SPLICE CONNECTORS section of the Service Manual. Insert the red wire from each lighted screw into one end of a butt-splice electrical connector (15) from the kit, and secure with a Crimp Tool, Part No. H-D 38125-8.
12. Slide a piece of heat-shrink tubing (16) from the kit over the end of the red wire from the Accessory connector. Remove approximately 3/8 in. (10 mm) of insulation from the end of the wire, and insert it into the other end of the butt-splice connector. Secure with the Crimp Tool.
13. Repeat Steps 11 and 12 with the black wires from each lighted screw and the black wire from the connector.

⚠ 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.

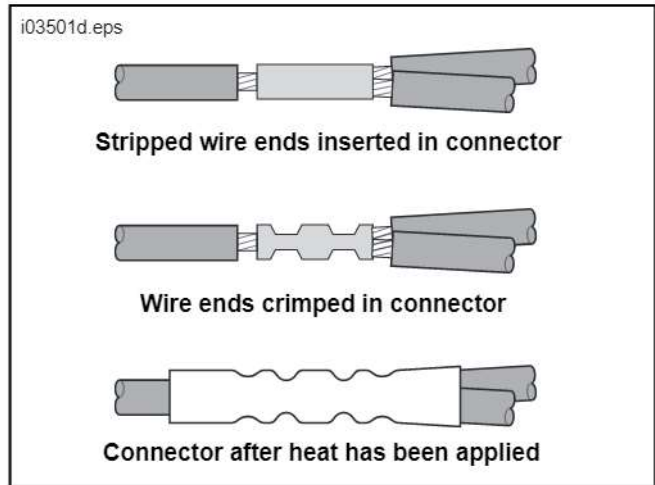


Figure 7. Installing Butt Connectors

14. Slide the heat-shrink tubing over each splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or other suitable radiant heating device, heat the shrink tubing to encapsulate the butt splice connection. Apply heat from the center of the tubing out to each end until it shrinks tightly over the connector. Let the connector cool.
Repeat for the second splice.
15. Position the conduit to cover the wire splices.
16. Use tie straps (14) from the kit as needed to secure the wiring under the fender.
17. Re-attach the tail lamp connector, and re-assemble the tail lamp to the base with the screws removed earlier.
18. Position the cover (6) behind the license-plate bracket with the two slots up, and the open side against the backing plate (5) to contain the lighted screw wiring.
Proceed to Step 32, on Page 11.

For FXSTD Models

2. Remove the license plate (if installed) from the vehicle. Set aside for re-installation.
Install Chrome License Plate Bracket Cover 59720-01A per the instructions in that kit, but do not install the license plate.
3. Position the license plate onto the bracket cover.

NOTE

Position the backing plate (5) behind the license-plate bracket with the narrow tabs up, and both ends against the bracket.

Place a flat washer (2) onto the threads of a lighted screw assembly (1) from the kit. Carefully feed the wires and the screw threads into one of the lower mounting holes in the license plate, through the chrome cover, the original license plate bracket, the backing plate (5), another flat washer and a hex nut (3) from the kit.

Repeat for the other lower license-plate mounting hole. Center the license plate on the cover, and tighten both screws securely.

CAUTION

Both lighted screw assemblies must be tightened to their final setting before the wires are connected. Tightening the lighted screws after the wires are connected could result in damage to the wires and possible short circuits.

5. Place a flat washer onto one of the hex head screws (4) from the kit. Insert the screw through one of the upper mounting holes in the license plate and bracket. Place another flat washer and hex nut from the kit onto the screw threads, and tighten securely.

Repeat for the other upper license-plate mounting hole.

6. Cut one 5 inch (127 mm) long piece and two 2-1/2 inch (64 mm) long pieces off the small diameter conduit (10) from the kit, and insert the two wires from one screw all the way through one of the 2-1/2 inch (64 mm) long conduit segments.

Repeat with the other set of wires and short conduit.

7. Obtain the 5 inch (127 mm) long conduit piece cut earlier. Apply a light coat of liquid soap, window cleaner, or all-purpose lubricant such as WD-40® to all four lighted screw assembly wires, and insert the four wires all the way through the conduit.

8. Use a tie strap (14) from the kit to bundle the wires from the left and right screws where they come together.

Route the conduit with the four wires up toward the tail lamp base.

9. See Figure 8. Insert a Phillips-head screwdriver into the middle hole of the license plate illuminator assembly. Push the screwdriver in to disengage the clip while gently pulling the tail/ stop lamp assembly out of the fender.

See Figure 9. Disconnect the tail/ stop lamp wiring at the 4-place Multilock connector [93].

10. Install the Tail/ Stop Lamp Jumper Harness, Part Number 70316-03 (not included in the kit), between the two parts of the tail/ stop lamp connector.

11. Obtain the socket housing (11), and the black wire (7) and red wire (8) assemblies from the kit.

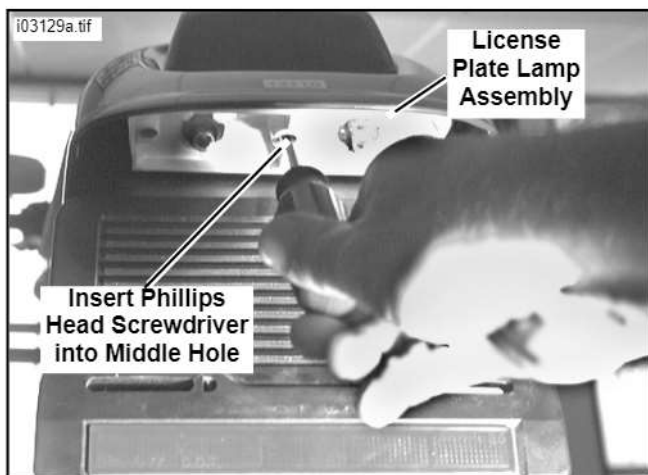


Figure 8. Removing the Tail/ Stop Lamp Assembly (FXSTD Models)

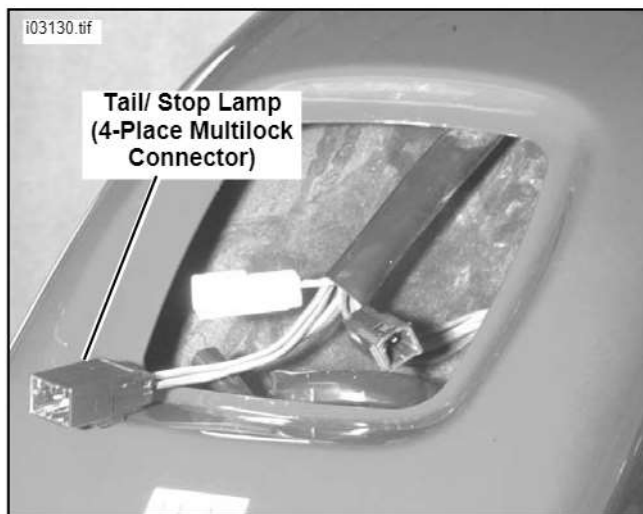


Figure 9. Disconnect Tail/ Stop Lamp Wires (FXSTD Models)

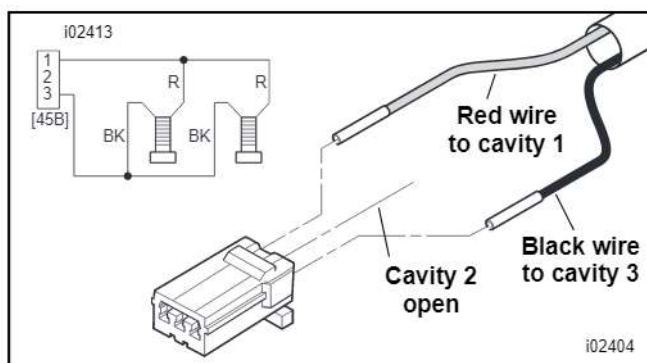


Figure 10. Wiring the Socket Housing

12. Insert the terminals on the ends of the red and black wires into the socket housing (11) from the kit as shown in Figure 10. Refer to AMP MULTILOCK ELECTRICAL CONNECTORS in the Service Manual.
13. Plug the socket housing into the open connector on the Tail/ Stop Lamp Jumper Harness. Route the red and black wires down through the tail/ stop lamp opening in the fender and between the license-plate mounting bracket and the license plate illuminator assembly.
14. Cut the red and black wires to easily reach the four wires coming from the lighted screws.
15. See Figure 11, and the BUTT SPLICE CONNECTORS section of the Service Manual. Insert the red wire from each lighted screw into one end of a butt-splice electrical connector (15) from the kit, and secure with a Crimp Tool, Part No. H-D 38125-8.
16. Slide a piece of heat-shrink tubing (16) from the kit over the end of the red wire from the Accessory connector. Remove approximately 3/8 in. (10 mm) of insulation from the end of the wire, and insert it into the other end of the butt-splice connector. Secure with the Crimp Tool.
17. Repeat Steps 15 and 16 with the black wires from each lighted screw and the black wire from the connector.

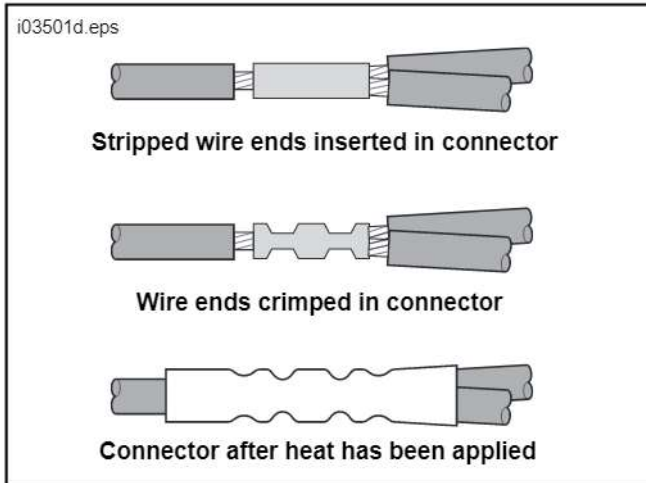


Figure 11. Installing Butt Connectors

⚠ 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.
18. Slide the heat-shrink tubing over each splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or other suitable radiant heating device, heat the shrink tubing to encapsulate the butt splice connection. Apply heat from the center of the tubing out to each end until it shrinks tightly over the connector. Let the connector cool. Repeat for the second splice.
 19. Position the conduit to cover the wire splices.
 - Use tie straps (14) from the kit as needed to secure the wiring under the fender and inside the tail lamp base.
 20. Position the cover (6) behind the license-plate bracket with the two slots up, and the open side against the bracket. Snap the cover onto the backing plate (5) to contain the lighted screw wiring.
 21. See Figure 12. Align the tail/ stop lamp assembly with the opening in the fender as shown. Insert the upper spring into place and push upward slightly on the lower spring while firmly pressing the lamp assembly toward the fender.

The assembly is securely in place when the upper and lower springs "click".

Proceed to Step 32, on Page 11.



Figure 12. Installing the Tail/ Stop Lamp Assembly

For FLSTC Models

2. See the Service Parts illustration. Remove the hex nut with lockwasher retaining the license-plate clamp, and remove the clamp and license plate (if installed) from the vehicle. Set aside for re-installation.
3. Remove the three 1/4-20 x 1/2 in. Pozidriv® screws and hex nuts with lockwashers retaining the license-plate bracket and support to the rear fender, and set the bracket and hardware aside for re-installation.
4. Clean the mating area of the fender and license-plate support with a 50-50 mixture of isopropyl alcohol and water, and let it dry.

Peel the paper backing from one side of the adhesive pad (13) from the kit. Hold the pad, adhesive-side down, over the rear fender. Line up the holes in the pad with the three license-plate support mounting holes in the fender, and press the pad into place.

Peel the paper backing from the front side of the pad. Position the license-plate support onto the pad, and re-attach with the original hardware in the upper and right-side lower holes only (see Figure 8). Tighten securely.
5. Cut one 5 inch (127 mm) long piece and two 2-1/2 inch (64 mm) long pieces off the small diameter conduit (10) from the kit. Insert the long section of conduit that remains, from the back side, through the hole in the grommet (12) from the kit. Allow about one inch (25 mm) of conduit to exit the grommet from the front.
6. See Figure 13. Insert the long end of the conduit and the grommet into the lower left-side hole in the license-plate bracket, through the support and into the fender.
7. Insert the license-plate clamp bolt, removed earlier, into the upper hole in the license-plate bracket. Position the license plate onto the bracket.

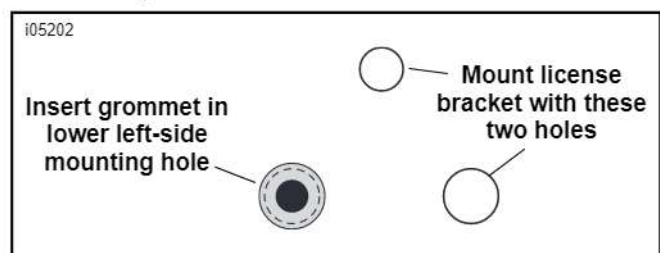


Figure 13. Grommet Location in License Plate Bracket

NOTE

Position the backing plate (5) behind the license-plate bracket with the narrow tabs down, and both ends against the bracket.

Place a flat washer (2) onto the threads of a lighted screw assembly (1) from the kit. Carefully feed the wires and the screw threads into one of the lower mounting holes in the license plate, through the original license plate bracket, the backing plate (5), another flat washer and a hex nut (3) from the kit.

Repeat for the other lower license-plate mounting hole. Tighten both screws securely.

CAUTION

Both lighted screw assemblies must be tightened to their final setting before the wires are connected. Tightening the lighted screws after the wires are connected could result in damage to the wires and possible short circuits.

- 8. Place a flat washer onto one of the hex head screws (4) from the kit. Insert the screw into one of the upper mounting holes in the license plate. Place another flat washer and hex nut from the kit onto the screw threads, and tighten securely.

Repeat for the other upper license-plate mounting hole.

- 9. Obtain the two short pieces of conduit cut in Step 5, and insert the two wires from one screw all the way through one conduit segment.

Repeat with the other set of wires and conduit segment.

- 10. Obtain the 5 inch (127 mm) long conduit piece cut in Step 5. Apply a light coat of liquid soap, window cleaner, or all-purpose lubricant such as WD-40® to all four lighted screw assembly wires, and insert the four wires all the way through the conduit.

- 11. Insert the four wire ends through the conduit in the fender grommet (12). Pull the wires and 5 inch conduit through the grommet to the underside of the fender. The long piece of conduit will come out of the grommet, and can be discarded.

Route the conduit with the red and black wires down the underside of the fender to the tail lamp base.

- 12. Use a tie strap (14) from the kit to bundle the wires from the left and right screws where they come together.
- 13. Remove the two screws holding the tail lamp to the base, and unplug the tail lamp connector. Remove the lamp and set it aside.

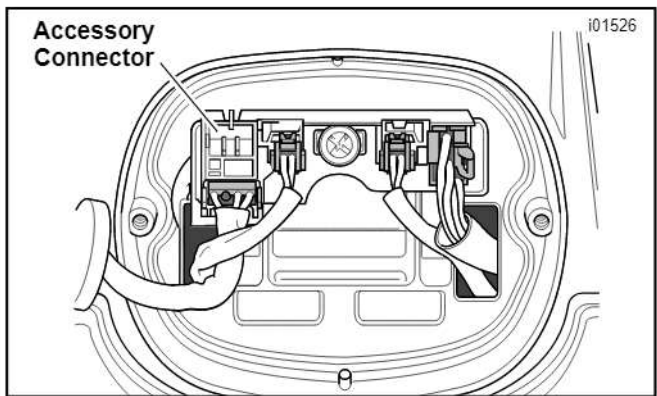


Figure 14. Connecting the License Plate Screws

- 14. See Figure 14. Unplug the fender tip lamp connector from the Accessory connector at the upper left of the tail lamp circuit board, and pull it back through the opening in the tail lamp base to the underside of the fender.

Cut the fender tip lamp wires as close as possible to the connector, and discard the connector.

- 15. Trim back the conduit if necessary, and remove approximately 3/8 in. (10 mm) of insulation from the ends of the fender tip lamp wires.

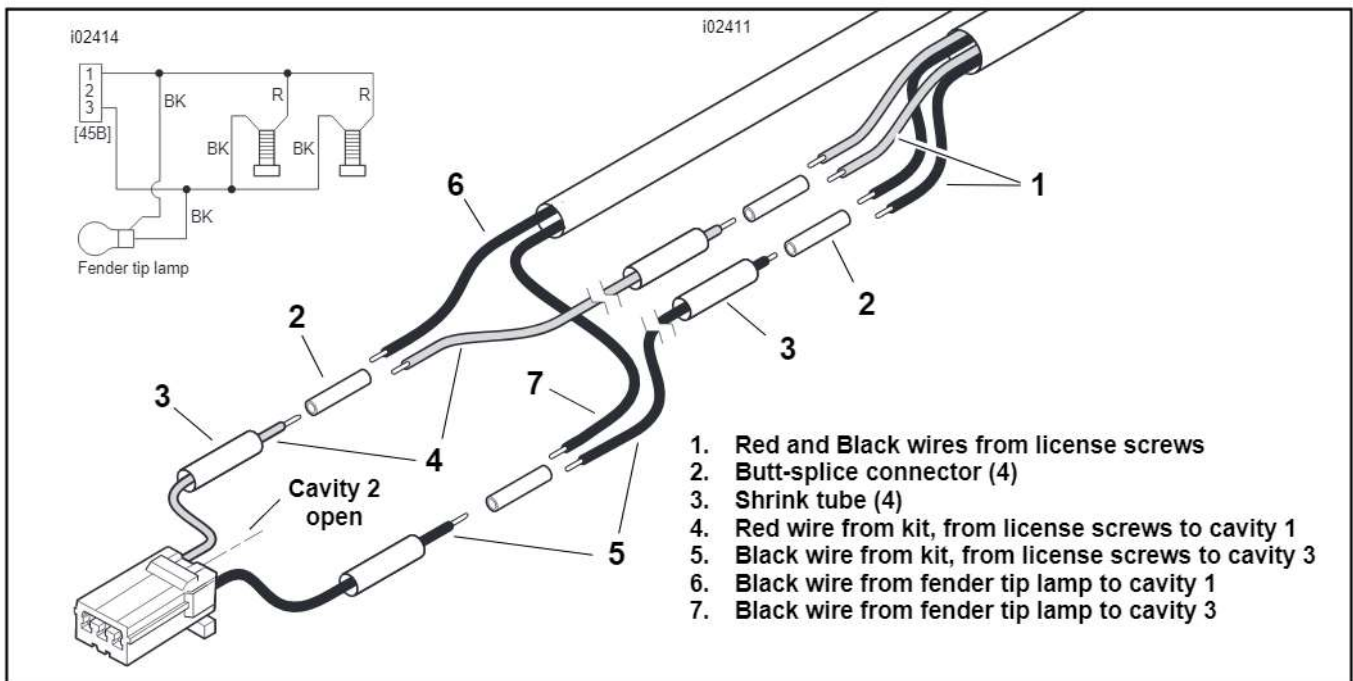


Figure 15. Wiring the Socket Housing (FLSTC Models)

16. Obtain the black wire (7) and red wire (8) assemblies from the kit.

Insert the terminal on the end of the red wire into the empty cavity (marked "1") in the socket housing (11) from the kit as shown in Figure 15. Refer to AMP MULTILOCK ELECTRICAL CONNECTORS in the Service Manual.

Insert the terminal on the end of the black wire into cavity "3" in the socket housing.

17. Cut the black wire and red wire about 2 inches (51 mm) from the socket housing. Remove about 3/8 in. (10 mm) of insulation from the four cut ends. Slide a piece of heat-shrink tubing (16) from the kit over the ends of the wires coming from the socket housing.
18. See Figure 16, and the BUTT SPLICE CONNECTORS section of the Service Manual. Bring the black wire from the socket housing to one end of a butt-splice electrical connector (15) from the kit, and crimp with a Crimp Tool, Part No. H-D 38125-8.
19. Insert the black wire cut in Step 17 and the cut end of one black fender tip lamp wire into the other end of the butt-splice connector from Step 18, and crimp the wire to the connector with the Crimp Tool.
20. Repeat Steps 18 and 19 with the red wires from the socket housing and the remaining black wire from the fender tip lamp.

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.
21. Slide the heat-shrink tubing over the splices, and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or other suitable radiant heating device, heat the shrink tubing to encapsulate the butt splice connections. Apply heat from the center of the tubing out to each end until they shrink tightly over the connectors. Let the connectors cool.
22. See Figure 14. Route the socket housing and wires back through the left-side opening in the tail lamp base. Plug the socket housing into the Accessory connector at the upper left of the tail lamp circuit board. Use tie straps (14) from the kit as needed to secure the wiring inside the tail lamp base.

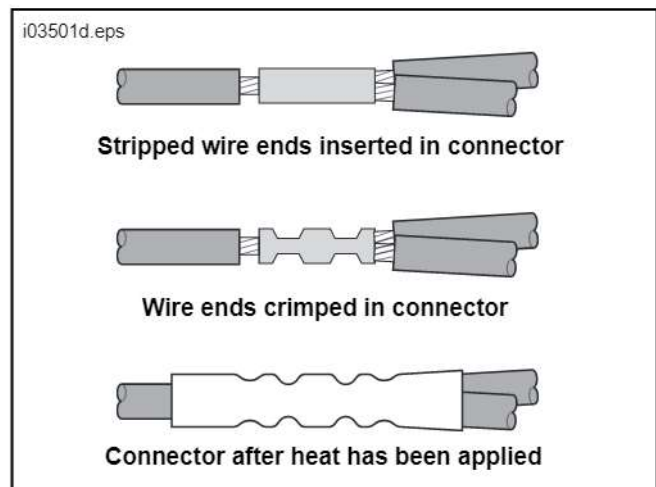


Figure 16. Installing Butt Connectors

23. Cut the red and black wires to easily reach the four wires coming from the lighted screws. Cut the wires from the screws, if needed, and push back the conduit. Remove approximately 3/8 in. (10 mm) of insulation from the ends of all six wires.
24. See Figure 16, and BUTT SPLICE CONNECTORS in the Service Manual. Insert the red wire from each lighted screw into one end of a butt-splice electrical connector (15) from the kit, and crimp with the Crimp Tool.
25. Slide a piece of heat-shrink tubing over the end of the red wire from the Accessory connector. Insert the wire into the other end of the butt-splice connector and crimp.
26. Repeat Steps 24 and 25 with the black wires from each lighted screw and the black wire from the connector.
27. Slide the heat-shrink tubing over each splice and using the radiant heating device, heat the shrink tubing to encapsulate the butt splice connection. Apply heat from the center of the tubing out to each end until it shrinks tightly over the connector. Let the connector cool. Repeat for the second splice.
28. Use tie straps (14) from the kit as needed to secure the wiring under the fender.
29. Re-attach the tail lamp connector, and re-assemble the tail lamp to the base with the screws removed earlier.

NOTE

Position the cover (6) behind the license-plate bracket with the two slots down, and the open side against the bracket.

30. With a screwdriver or similar tool, carefully wedge the license-plate bracket and support apart to slip the cover (6) from the kit over the backing plate and wire conduit.
31. Install the license-plate clamp onto the bolt with the nut and washer removed earlier. Slide the hook of the clamp down over the edge of the license plate. Tighten the clamp nut securely.

Proceed to Step 32, on Page 11.

For Touring Models

2. Remove the license plate (if installed) from the vehicle. Set aside for re-installation.
3. Cut one 6 inch (152 mm) long piece and one 2 inch (51 mm) long pieces off the large diameter conduit (9) from the kit.
4. Position the license plate onto the bracket.

Place a flat washer (2) onto the threads of a lighted screw assembly (1) from the kit. Carefully feed the wires and the screw threads into one of the lower mounting holes in the license plate, through the original license plate bracket, another flat washer and a hex nut (3) from the kit.

Repeat for the other lower license-plate mounting hole. Tighten both screws securely.

CAUTION

Both lighted screw assemblies must be tightened to their final setting before the wires are connected. Tightening the lighted screws after the wires are connected could result in damage to the wires and possible short circuits.

5. Place a flat washer onto one of the hex head screws (4) from the kit. Insert the screw through one of the upper mounting holes in the license plate and bracket. Place another flat washer and hex nut from the kit onto the screw threads, and tighten securely.
Repeat for the other upper license-plate mounting hole.
6. Obtain the two pieces of conduit cut in Step 3, and insert the two wires from the left-side screw all the way through the longer conduit segment.
Repeat with the right-side wires and the shorter conduit segment.
7. Use a tie strap (14) from the kit to bundle the wires from the left and right screws where they come together.
8. Cut the two black wires coming from the lighted screws to be about 2 inches (51 mm) shorter than the two red wires from the screws.
9. See Figure 17, and the BUTT SPLICE CONNECTORS section of the Service Manual. Remove approximately 3/8 in. (10 mm) of insulation from the end of each wire. Insert the black wire from each lighted screw into one end of a butt-splice electrical connector (15) from the kit, and crimp with a Crimp Tool, Part No. H-D 38125-8.
10. Slide a piece of heat-shrink tubing (16) over the end of the black wire assembly (7) from the kit. Remove approximately 3/8 in. (10 mm) of insulation from the end of the wire without the terminal, and insert it into the other end of the butt-splice connector. Crimp with the Crimp Tool.
11. Repeat Steps 9 and 10 with the red wires from each lighted screw and the red wire assembly (8) from the kit.

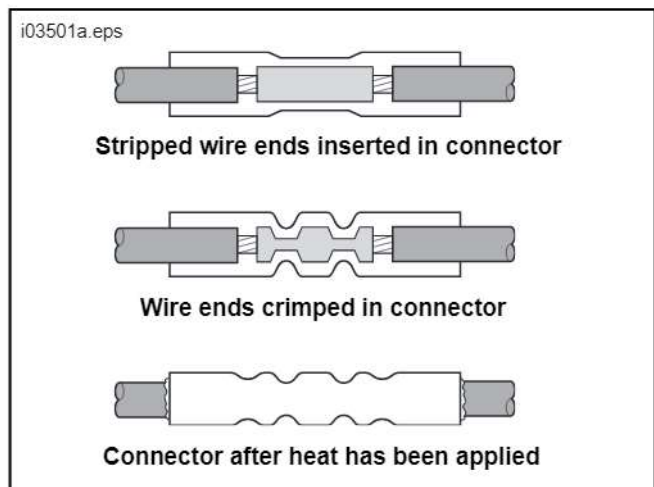


Figure 17. Installing Butt Connectors

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.
12. Slide the heat-shrink tubing over each splice and using the UltraTorch UT-100 (H-D 39969), Robinair Heat Gun (H-D 25070) with Heatshrink Attachment (H-D 41183), or other suitable radiant heating device, heat the shrink tubing to encapsulate the butt splice connection. Apply heat from the center of the tubing out to each end until it shrinks tightly over the connector. Let the connector cool.
Repeat for the second splice.
 13. Slide the larger diameter conduit (9) from the kit over the red and black wires, the two splices, and the four wires coming from the lighted screws up to the tie strap installed in Step 7.
 14. Route the conduit and wires forward, along the right side license-plate support tube, and into the area under the seat.
Secure with tie straps (14) from the kit.

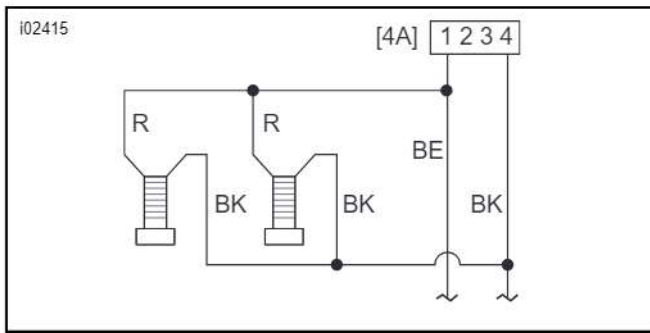


Figure 18. Splicing the Lighted License Screw Wires (Touring Models)

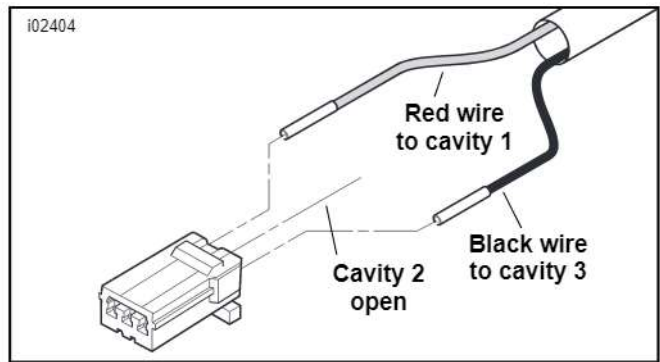


Figure 19. Wiring the Socket Housing

15. If you are not using “Y”-Harness 70327-04: Continue the conduit forward, under the seat, to the Accessory connector [4A] in front of the battery.

See Figure 18. Splice the red wire into the blue wire from connector [4A] using a butt-splice electrical connector (15) from the kit.

Use a second butt-splice electrical connector to splice the black wire into the black wire from connector [4A].

Proceed to Step 32, on Page 11.

15. If you are using “Y”-Harness 70327-04: Continue the conduit forward, into the area under the seat near the rear lighting connector [7].

Insert the terminals on the ends of the red and black wires into the socket housing (11) from the kit as shown in Figure 19. Refer to AMP MULTILOCK ELECTRICAL CONNECTORS in the Service Manual.

16. See Figure 20. Obtain “Y” Harness 70327-04 (purchased separately). Remove pin terminals 5 (black wire), 6 (red/ yellow wire) and 7 (blue wire) from the main harness connector [7A].

Insert the black wire terminal into the open cavity 3 of the pin housing attached to the “Y” Harness, matching the black wire in the mating connector. Insert the red/ yellow wire terminal into cavity 2, and the blue wire terminal into cavity 1.

17. Insert the black wire terminal from the “Y” Harness into cavity 5 of main harness connector [7A], matching the black wire in the mating connector [7B]. Insert the red/ yellow wire terminal into cavity 6, and the blue wire terminal into cavity 7.

18. Connect the “Y” Harness pin housing to the socket housing installed in Step 15.

Proceed to Step 32, on Page 11.

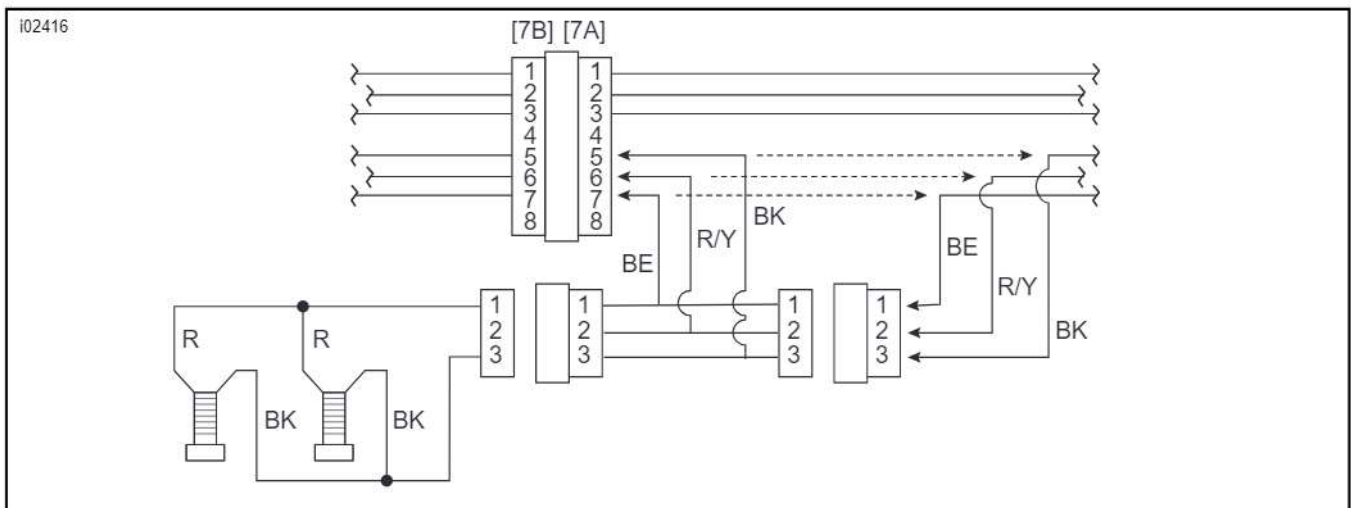


Figure 20. Connecting the Lighted License Screw Wires Using Harness 70327-04 (Touring Models)

For ALL Models

32. Refer to the Service Manual and follow the instructions given to re-attach the negative battery cable and install the seat.

⚠WARNING

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

⚠WARNING

Check for proper rear lamp operation before riding motorcycle. Visibility is a major concern for motorcyclists. Improper rear lamp operation may lead to an accident which could result in death or serious injury.

33. Turn the ignition on, and check the license plate bolt lights and the motorcycle lamps for proper operation:

- With the ignition switch "ON", both license plate bolts should be lit, along with the motorcycle's tail lamp.
- When either the brake hand lever or pedal are activated, the motorcycle's stop lamp(s) should noticeably brighten. Both license plate bolts should remain lit, but not brighten.
- Turn the ignition switch "OFF". Both license plate bolts should immediately turn off, along with the motorcycle's tail lamp.



Service Parts

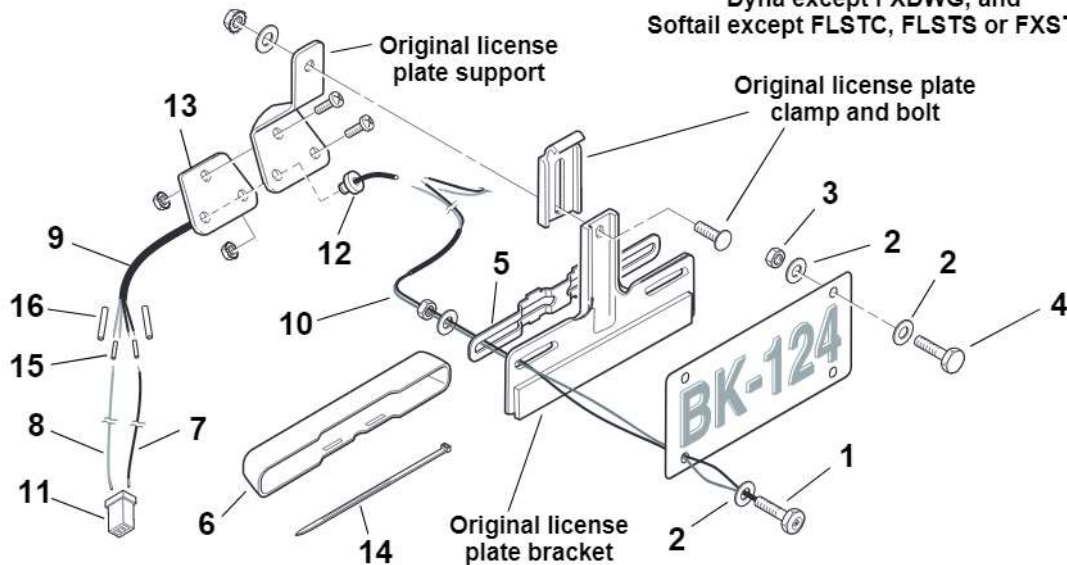
Part No. 59422-04

Date 08/03

LED Lighted License Plate Bolt Kit

102403

NOTE: Mounting configuration shown is for XL, Dyna except FXDWG, and Softail except FLSTC, FLSTS or FXSTD.



Item	Description	Part No.	Item	Description	Part No.
1	Screw assembly, lighted (2)	59433-04	10	Conduit, #8 (.133 in.) x 20 in (.5 M) long	70597-04
2	Washer, flat (8)	6434	11	Housing, socket (3-way)	73153-96BK
3	Hex nut, 1/4-28 (4)	94040-90T	12	Grommet	59344-03
4	Screw, hex head, 1/4-28 x 7/8 in (2)	3038	13	Pad	59345-03
5	Backing plate	59426-04	14	Tie strap, black, 7.82 in (20 cm) long (6)	10181
6	Cover	59425-04	15	Connector, butt splice (4)	70581-73
7	Wire assembly, Black, 30 in (.76 M)	72472-04	16	Conduit, heat shrink (4)	67113-83
8	Wire assembly, Red, 30 in (.76 M)	72471-04			
9	Conduit, #2 (.263 in) x 40 in (1 M) long	70548-96			