# **FXS STOP/TAIL/TURN SIGNAL RELOCATION KIT**

# **GENERAL**

#### Kit Number

67800065

#### Models

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

#### **Additional Parts Required**

This kit is needed in order to complete the installation of a detachable saddlebag kit on specific model motorcycles. See the P&A retail catalog or the Parts and Accessories section of www.harley-davidson.com (English only) for available saddlebag kits, model fitment information and additional part requirements.

# **Tools and Supplies Required**

A Terminal Pick (Snap-On® TT600 or equivalent) will aid in the installation of this kit.

Electrical Contact Lube (Part No. 99861-02) or equivalent is required for the proper installation of this kit. This item is available from a Harley-Davidson dealer.

# **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 and is available from a Harley-Davidson dealer.

#### **Kit Contents**

See Figure 3 and Table 1.

# **PREPARATION**

#### NOTE

# For vehicles equipped with security siren:

- Verify that the Hands-Free Fob is present.
- Turn the ignition key switch to IGNITION.
- Remove the seat per service manual instructions. Retain all seat mounting hardware.

# **AWARNING**

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

Refer to the service manual and follow the instructions to remove the main fuse.

# INSTALLATION

# **Electrical Disconnection**

#### NOTE

- DO NOT unplug the electrical connector [78] from the electronic control module (ECM).
- Electrical connectors are identified in the service manual by the numbers and letters within brackets.
- Remove the nylon push fastener at the top of the ECM mounting bracket to separate the ECM and bracket from the rear fender.
- 2. Remove the cable strap and unplug the four-way stop/tail/turn signal (STT) connectors [18] and [19] and two-way license plate illuminator connector [93] in front of the rear fender.
- Loosen, but do not remove the two button head screws on each side of the fender.
- Protect the painted surfaces of the fender, oil tank and frame, and remove the four screws and washers holding the rear fender supports to the vehicle frame.
- Remove the rear fender, license plate module support and fender supports from the vehicle as an assembly, and place the protected fender, upside-down, on a smooth, clean work surface.

#### NOTE

Make note of the wire colors and cavity locations before removing the terminals from the socket housings on the lamp side of the harness connections.

- Remove the wires and socket terminals from the STT socket housings [18B] and [19B].
  - Set the socket housings aside for later installation.
- 7. Remove the two button head screws on the inside of the fender to free the front of the fender supports.
- Remove the two button head screws loosened in Step 5 on the outside of each fender support, and remove the fender mounting bracket and fender support on each side of the fender.

Remove and discard the four plastic wire routing clips from the bottom of the fender supports.

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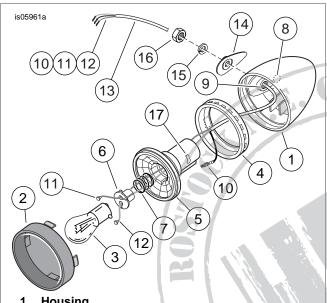
- Remove the screws and washers from the inside of each fender support, and remove the STT lamps and lamp supports from the fender supports.
- 10. With incandescent STT lamps: Proceed to Rear Lamp Wiring (Incandescent).

With LED STT lamps: Proceed to Rear Lamp (LED) Installation to Light Bar.

### Rear Lamp Wiring (Incandescent)

See Figure 1. Insert the blade of a small screwdriver into the slot at the bottom of the lens (2) of one STT lamp, and twist to unsnap the lens from the housing (1).

Push the bulb (3) in and rotate counterclockwise to remove. Set the lens and bulb aside for later installation.



- 1. Housing
- 2. Lens
- 3. Bulb
- Gasket 4.
- Reflector 5.
- 6. **Bulb socket**
- 7. **Spring**
- 8. **Unthreaded hole**
- 9. Threaded hole
- 10. Black wire
- 11. Violet wire
- 12. Blue wire
- 13. Protective tubing
- 14. Recess cover
- 15. Lockwasher
- 16. Jam nut
- 17. Hole in bulb socket cavity

Figure 1. Stop/Tail/Turn Signal Lamp (Right Side Shown)

Insert a right-angle pick or a 7/64 (3 mm) hex key into the bulb socket cavity, hooking into the hole (17). Pull the reflector free of the lamp housing.

Separate the rubber gasket (4) from the reflector or housing.

#### NOTE

Make note of the cavity location and color of each wire in the reflector bulb socket (6) before removing. The violet wire (11) should be closest to the locating tab on the bulb socket. New wires from the kit must be installed in the same cavities.

- Note the location and color of the two wires in the reflector bulb socket (6). Slide the bulb socket and spring (7) from the reflector (5). Remove the wires with button terminals from the bulb socket.
- Remove the ground terminal and black wire (10) from the back of the reflector.
  - Guide the protective tubing (13) with all three wires out of the unthreaded hole (8) in the lamp housing, and discard.
- Get three **new** terminated wires, one black (10), one violet (11) and one blue (12) from the kit.
- Insert the unterminated ends of the wires, from the inside, through the **threaded** hole (9) in the lamp housing (1).
- Slip the rubber gasket (4) over the terminated ends of the 7.
- Insert the terminal of the **new** black wire (10) into the cavity in the rear of the reflector (5) until it clicks into place.

Thread the blue wire (12) and violet wire (11) through the center of the reflector (5), and the spring (7), and insert the button terminals into the correct slots and cavities in the reflector bulb socket (6).

- Assemble the lamp as follows:
  - Insert the spring and bulb socket back into the reflector, aligning the tab on the socket with the slot in the reflector opposite the ground terminal.
  - Seat the reflector assembly in the rubber gasket, aligning the tab on the reflector with the slot in the gasket.
  - Install the reflector assembly, aligning the tab on the reflector with the slot inside the lamp and leaving about 1-2 inches (50-100 mm) of wire inside the lamp housing.
  - Using the thumbs of both hands, apply even pressure around the outer edge of the reflector assembly until fully seated.
  - Liberally apply electrical contact lubricant (H-D Part No. 99861-02) or equivalent to the contacts in the reflector socket and at the base of the bulb. Push in the bulb and rotate clockwise to install.
  - Install the lens to the lamp housing and gently apply thumb pressure until it snaps into place. Rotate the lens to position the slot at the bottom of the lamp.
- 10. Repeat steps 1 through 9 for the remaining STT lamp.
- 11. Proceed to Rear Lamp (Incandescent) Installation to Light Bar.

#### Rear Lamp (Incandescent) Installation to Light Bar

#### **NOTES**

- Be sure the recess cover, lockwasher and jam nut have been installed in the exact orientation and sequence shown before feeding the wiring through the light bar weldment.
- If using a metal tool to install the black nuts, protect the finish with cloth or paper to prevent damage.

-J05253 2 of 6 See Figure 3. Loosely install a black painted jam nut (17) onto one of the threaded studs on the light bar weldment.
Place a lockwasher (16) onto the stud, against the jam nut. Place a black recess cover (15), in the orientation shown, onto the stud.

#### NOTE

If necessary, apply a light coat of liquid soap, window cleaner or all-purpose lubricant to the wire ends. Use a fish tape or mechanics' wire if needed to guide the wires through the tube.

- Feed the unterminated end of one wire into the left-side threaded stud. Guide the wire into the tube, and push the wire toward the hole closest to the center of the tube.
   Pull the end of the wire out of the hole.
- 3. Repeat Step 2 for the remaining two wires.
- Continue pulling and pushing the wires until all three wires are fully exposed.
- Repeat steps 1 through 4 for the remaining STT lamp.
- 6. Screw the lamp housing onto the stud.
  - Be careful that the wires are not twisted or damaged as the light bar and lamp are assembled.
  - b. Align the recess cover over the holes and recess in the lamp housing. The lockwasher will fit inside the hole in the recess cover.
  - c. Align the lamp housing so that the lens will be aimed approximately rearward and parallel to the ground when the light bar is installed on the vehicle.
  - While holding the housing in position, hand tighten the jam nut against the lockwasher.
- Carefully pull the individual wires at the front opening of the light bar weldment to remove excess wire from inside the tube.
- Get the protective tubing (14) from the kit, and cut into two equal-length pieces.

#### NOTE

If necessary, apply a light coat of liquid soap, window cleaner or all-purpose lubricant to the inside and outside of the protective tubing.

- Slide a piece of the protective tubing over one set of three STT lamp wires and into the opening in the light bar weldment. Continue sliding the tubing over the wires until it reaches the threaded stud.
- 10. Repeat steps 7 through 9 for the remaining STT lamp.
- Proceed to Light Bar Installation to License Plate Module Support.

# Rear Lamp (LED) Installation to Light Bar

#### **NOTES**

- Be sure the recess cover, lockwasher and jam nut have been installed in the exact orientation and sequence shown before feeding the wiring through the light bar weldment.
- If using a metal tool to install the black nuts, protect the finish with cloth or paper to prevent damage.
- 1. Cut the terminals off the ends of the STT lamp wires.

- Insert the STT lamp wires through the small hole in the black rubber recess cover (18) in the direction shown (D).
- See Figure 3. Loosely install a black painted jam nut (17) onto one of the threaded studs on the light bar weldment. Place a lockwasher (16) onto the stud, against the jam nut.
- Screw the lamp housing fully onto the stud.
  - Align the recess cover over the holes and recess in the lamp housing. The lockwasher will fit inside the hole in the recess cover.
  - b. Align the lamp housing so that the lens will be aimed approximately rearward and parallel to the ground when the light bar is installed on the vehicle.
  - c. While holding the housing in position, hand tighten the jam nut against the lockwasher.

#### NOTE

If necessary, apply a light coat of liquid soap, window cleaner or all-purpose lubricant to the wire ends. Use a fish tape or mechanics' wire if needed to guide the wires through the tube.

- 5. Insert the STT wiring through the hole in the relocation bar closest to the end.
- 6. Feed the wires through the relocation bar and out the hole closest to the center.
- 7. Repeat Steps 1 through 6 with the remaining STT lamp on the opposite end of the relocation bar.

#### NOTE

When staggering the cut ends of the STT lamp wires, make sure all the extended wires will reach the connectors at the front of the fender.

- 8. Cut and strip the ends of each STT lamp wire per the instructions in the service manual appendix, staggering the ends a bit to avoid all four splices of one lamp being together.
- Get the four 24 inch (0.61 M) long wires (8, 9, 10 and 11) from the kit, and cut each wire into two equal-length pieces. Cut and strip both ends of each wire
- 10. Using the sealed splice connectors (13) from the kit, follow the instructions in the service manual appendix to splice a 12 inch (0.30 M) long wire to the corresponding color wire from one of the STT lamps.
- 11. Get the protective tubing (14) from the kit, and cut into two equal-length pieces.

#### NOTE

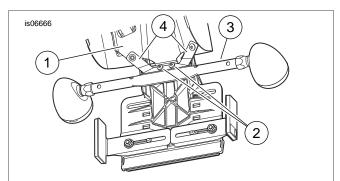
If necessary, apply a light coat of liquid soap, window cleaner or all-purpose lubricant to the inside and outside of the protective tubing.

- 12. Slide a piece of the protective tubing over one set of four STT lamp wires and into the opening in the light bar weldment. Continue sliding the tubing over the wires until it reaches the STT lamp housing.
- 13. Proceed to Light Bar Installation to License Plate Module Support.

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# **Light Bar Installation to License Plate Module Support**

1. See Figure 2. **Loosen** the two TORX button head self-tapping screws (2) attaching the license plate illuminator to the license plate module support assembly (1).



- 1. License plate module support assembly
- 2. License plate illuminator screw (2)
- 3. STT lamp relocation bracket
- 4. Relocation bracket wing (2)

Figure 2. FXS Stop/Tail/Turn Lamp Relocation Bracket Installation

- Slide the two slots in the STT relocation bracket (3) underneath the screw heads.
- Fasten the "wings" (4) on the STT relocation bracket to the license plate module support assembly with two hex socket button head screws and nuts with washers from the kit. Tighten the hex socket screws to 55-75 in-lbs (6.2-8.5 Nm). Tighten the TORX screws securely.

# **Rear Lamp Wiring Connection to Vehicle**

 See Figure 3. Feed the right side STT lamp wiring following the path of the license plate illuminator wiring through the channel and behind the four clips (C) on the license plate module support assembly (A), toward the front of the fender and out through the wire pass-through hole in the fender.

Repeat for the left side STT wiring.

- Fasten the wiring to the fender with the wire clips (21) from the kit.
- Install the saddlebag upper docking hardware and rear fender per the instructions in the detachable saddlebag kit. See STT Relocation Kit Installation, Step 2.
- 4. After the rear fender has been installed, route the STT wires and protective tubing over to the four-way STT connectors [18A] and [19A] on the vehicle harness. Allow an extra 2-4 inches (50-100 mm) to easily make the connections, and cut the unterminated wires and tubing.
- Get six socket terminals (12) from the kit, and the four-way socket housings removed from the original wires.
- Follow the instructions in the service manual to crimp the terminals onto the STT wires.
  - Refer to the notes made during the removal steps, and insert the STT socket terminals into the correct cavities of the socket housings.
- Route the license plate illuminator wiring and protective tubing over to the two-way license plate illuminator connector [93] on the vehicle harness.
- 8. Connect the socket housing to the pin housing [93A] on the vehicle harness. Tuck the connectors and wiring into the area under the seat, in front of the rear fender.
- 9. Use a cable strap (22) from the kit to secure the wiring.
- Install the saddlebag support brackets and saddlebags per the instructions in the detachable saddlebag kit. See Saddlebag Support Hardware Assembly and Installation.
- 11. After installing the saddlebags, install cover plates (19) in the locations where the stock STT lamps were removed. Orient the cover plate with the curved side towards the docking point. Insert a push pin (20) through the cover plate to secure it to the vehicle.
- Go to the Final Assembly section of the Saddlebag Kit instructions.

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# **SERVICE PARTS**

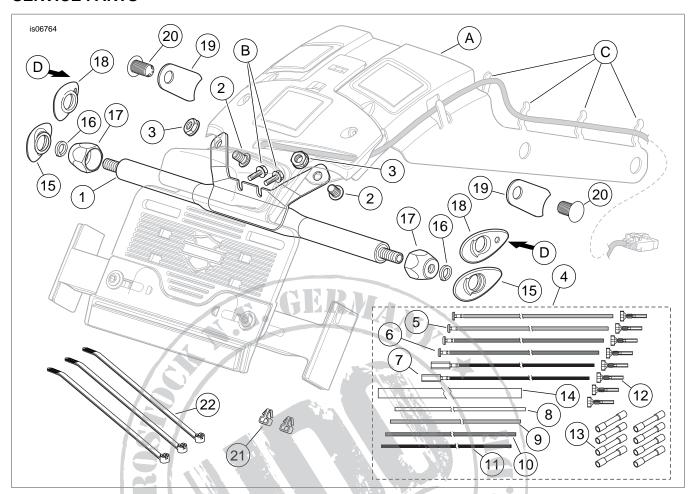


Figure 3. Service Parts, FXS Tail/Stop/Turn Signal Relocation Kit

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# **SERVICE PARTS**

**Table 1. Service Parts** 

Item	Description (Quantity)	Part Number
1	Stop/tail/turn signal (STT) relocation weldment	Not sold separatel
2	Screw, hex socket button head, 1/4-20 x 3/8 inch (9.5 mm) long (2)	3652
3	Nut, 1/4-20, with flat washer (2)	7770
4	Wire harness components, rear lighting (includes items 5 through 14)	Not sold separate
5	• Wire, blue, 42 inches (1.06 M) long (2)	Not sold separate
6	• Wire, violet, 42 inches (1.06 M) long (2)	Not sold separate
7	• Wire, black, 42 inches (1.06 M) long (2)	Not sold separate
8	Wire, red, 24 inches (0.6 M) long	Not sold separate
9	Wire, white, 24 inches (0.6 M) long	Not sold separate
10	Wire, black, 24 inches (0.6 M) long	Not sold separate
11	Wire, green, 24 inches (0.6 M) long	Not sold separate
12	Socket terminal, Deutsch (8)	74191-98
13	Sealed splice connector, red (8)	70585-93
14	Protective tubing, PVC, 60 inches (1.5 M) long	Not sold separate
15	Recess cover, STT lamp housing, black plastic (2, used with incandescent lamps)	Not sold separate
16	Lockwasher, helical spring, 5/16 inch (8 mm) nominal ID (2)	7042
17	Hex jam nut, black, 5/16-18 (2)	7344
18	Recess cover, STT lamp housing, black rubber (2, used with LED lamps)	Not sold separate
19	Cover plate (2)	Not sold separate
20	Clip, push-in (2)	Not sold separate
21	Wire clip, fender (2)	73422-11
22	Cable strap (3)	10181
s mentio	ned in text, but not included in kit:	
Α	License plate module support assembly	, /
В	License plate illuminator attaching screw (2)	/
С	Clip on license plate module support assembly (10)	/
	Insert LED lamp wires through rubber recess cover from this direction	

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