## V-Twin Mfg. TURN SIGNAL RELOCATION KIT Fits 1972 & Later FX & XL & 1982-86 FXR models VT No. 31-9913

This is a custom application and rider safety depends on proper installation. This product should only be installed by a knowledgeable and trained motorcycle technician. V-Twin Mfg. accepts no responsibility for improper installation.

This Kit is designed to replace rear directional light for the addition of saddlebags. This kit will fit the following models: 1972 and Later FX and XL; and 1982 to 1986 FXR. Instructions for the FX and FXR and the XL are in separate sections. The shorter hex head screws in the kit are used on 1982 and 1990 and Later" XL's only.

Qty.	Description
2	Hex Screw, 5/16-24 x 3-3/4 in.
2	Hex Screw. 5/16-24 x 4-1/2 in.
2	Washer, Flat
2	Lockwasher
2	Spacer
2	Adapter Fitting
4	Cable Strap
2	Plug
1	Wire, 16 gauge 30 in.
2	Nut, Self-locking
4	Wire Connector
1	Conduit, 30 in.
2	Bolt, 3/8-24 x 1 in.
2	Cable Clip

## FX and FXR Installation:

- 1. Remove hex screw which attaches seat to fender. Slide strap forward move seat toward the rear to remove it.
- 2. Remove the rear two acorn nuts and hex screws from each side fender support. Slightly loosen the remaining hex screws which attach the seat strap. With these loose pivot the fender forward.
- 3. Cut the directional light wires inside the fender supports.
- 4. Remove hex screws inside each fender support attaching directional light. After removing the directional lights, reinstall these hex screws into their original holes with self-locking nuts (from the kit) fastened outside the fender support.
- 5. Insert plastic plugs (from kit) into the other holes where directional light wires were previously routed.
- 6. Disassemble directional light units, except for removing the bulb socket.
- 7. Cut two lengths of wire (from the kit) each long enough to extend from directional to the last bolt hole in fender support. Cut two pieces of conduit to the same length as the wires. Insert wires into conduit pieces.
- 8. Splice wire sections (with conduit) between existing wires. Insert stripped wires into connectors. With crimping tool, crimp connector at, both ends of small diameter section.
- 9. Return fender to normal position with wires hidden under the fender supports. Reinstall middle fender support hex screw on each side.
- 10. Position each cable clip (from kit) over rear fender support holes, with flat surface of clip (side with slotted hole) against inner fender wall. Insert directional light wires into each clip. Insert 4-1/2 in. hex screw with lockwasher (both from kit) through cable clip and into rear fender support hole on each side. If the fender hole is square (for a carriage bolt), use the flat washer between the cable clip and the fender wall.
- 11. Mount the spacer adapter fitting and directional light on each hex screw. Making sure the cable clip and directional light wire do not turn during the procedure. Tighten the hex screw on each side.
- 12. Reassemble directional lights. Secure wires "to spacers using cable straps. Reinstall seat under strap, and fasten screw at the back.

**WARNING:** Test directional signals after finishing relocation. Weak, intermittent, or non-operational lights indicate a poor connection or a short In the wires. The motorcycle must never be operated in this condition. Inspect the bulb and socket. Examine wiring for bare spots or loose crimps on the connectors. After reinstalling the wiring, test directional signals again for satisfactory operation.

## **XL Installation**

**Note:** On 1990 and later models the fender strut bolts and rear directional nuts have cupped washers. A ½ in. socket or combination wrench will work satisfactorily on the fender mounting nuts. Because of the wire which runs through the center a special Snap On flare socket (FXR 181) is the most effective means of removing the directional stalk nut.

1. Inside the fender, cut wire about four inches from the point of entry to each directional signal. On 1989 and later models, remove the hex locking nut and cupped washer. Remove the directional lamp and stalk assembly.

**Note:**On 1990 and Later models, if the directional lights are being relocated for the purpose of installing the saddlebag support kit the special bolt (furnished for installation in the bi-directional light mounting hole) is not required.

- 2. On 1989 and earlier models reinstall the directional signal hex screws into original holes and fasten with self locking nuts from kit. On 1990 and later models insert the 1 in. bolt from kit through fender support and fender. Place the original cupped washer over end of bolt and thread on flanged locknut form kit. On a ll models tighten nuts to 25 ft-lbs.
- 3. Disassemble directional light units except for bulb sockets.
- 4. Remove the rearmost fender support screw (socket counter-sunk type). Insert 4 ½ in. hex screw through lockwasher and cable clip (all from the kit), and into that fender support hole. The cable clip must be positioned with its flat surface (side with slotted hole) against inner fender wall. On 1982 models, and on 1990 and Later models, use 3-3/4 in. hex screw (from kit) instead of the 4-1/2 in. hex screw. On 1990 and Later models, install original cupped washer next to head of bolt.
- 5. Mount the flat washer, spacer, adapter fitting and directional light. Tighten lamp on end of bolt, making sure the cable clip (on inner fender wall) does not turn. Route loose end of direction light wire forward through cable clip.
- 6. Repeat Steps 4 & 5 for the other directional signal. Reinstall directional light bulbs and covers.
- 7. Cut two lengths of wire (from the kit), each long enough to extend between the ends of the severed wires. Cut two pieces of conduit to the same length as the wires. Insert wires into conduit. Splice wire sections between existing wires. Insert stripped ends of wires into connectors. With crimping tool, crimp connectors at both ends of small diameter section. Insert wires into remaining clips inside of fender.

Caution: Wire length must not be excessive permitting contact with rear tire, Be sure to insert wires into clips inside fender.

8. Secure wires to spacer with cable straps.

**Warning:** Test directional signals after finishing relocation. Weak, intermittent or non operational lights indicate a poor connection or a short in the wires. The motorcycle must never be operated in this condition. Inspect the bulb and socket. Examine wiring for bare spots or loose crimp on connectors. After reinstalling the wiring, test directional signals again for satisfactory operation.