

V-Twin Mfg.
Turn Signal relocation Kit
For Use on 1988 and up XL,FXD,FXR Models With 39 MM Forks
VT No. 31-9935

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.

NOTE: This instruction sheet references Service Manual information. This kit contains the components needed to relocate directional lights mounted on the upper fork bracket or handlebars to the bottom fork bracket. On motorcycles equipped with front directional lights with three wires, the third black wire is a ground wire.

RELOCATING THREE WIRE DIRECTIONAL LIGHTS:

1. Support motorcycle on a center stand such that front wheel is raised slightly off the ground.
2. Remove fork tube pinch screw from right side of lower bracket.

NOTE: Before cutting wires at directional light, remove the directional light, cut cable straps holding wires and check if wires are long enough to reach bottom fork bracket. If wires are too short perform Steps 3 and 4.

3. Carefully cut off 4 inches of conduit covering the wires connected to right directional light.
4. 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.

5. Strip 5/16 inch of insulation from the cut ends of the three wires cut in Step 4.
6. Remove fork tube pinch screw from right side of upper fork bracket. (This is the screw that secures the right directional light.)

NOTE: If directional light is mounted on upper fork bracket, perform Step 7. If directional light is mounted on mirror and install the directional light mount and then perform Step 7, but, use 3/8-16 x 2 inch screw from kit to attach directional light. Disregard reference to upper bracket pinch screw. 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.

7. Install right directional light on right side of lower fork bracket using pinch screw removed in Step 6. Install pinch screw removed in Step 2 into right side of upper bracket. Tighten both pinch screws to 30-35 ft-lbs (41-47 Nm).
8. Repeat Steps 1 through 7 to relocate left directional light.

NOTE: Fork tubes may slide downward within fork brackets. If this occurs, front fork tube extension above front fork upper bracket will have to be readjusted according to appropriate Service Manual procedures.

9. If wires were cut, connect right directional as follows: Crimp solderless connectors from kit on three wires coming from motorcycle.
10. Cut a 6 inch length of wire from the black, blue and violet wires in the kit.
11. Strip 5/16 inches of insulation from one end on each of the 6 inch wire lengths, connect like colored wires and crimp into connectors installed in Step 9.
12. Slide shrink tubing from kit over crimped terminals. Activate shrink tubing with heat gun or hair dryer.
13. Cut 8 inches of 5/16 inch ID conduit from conduit supplied with kit.
14. Slide 8 inch length of conduit onto three wires connected in Step 11 and over existing conduit.
15. Cut three spliced-on wires to the lengths required for connection to the wires connected to the directional light. Make certain to leave enough slack to allow routing harness along fork tube.
16. Slide heat shrink tubes over the three wire ends.
17. Strip 5/16 inches of insulation from remaining wire ends and connect like colored wires at directional light with connectors from kit.
18. Slide heat shrink tubing over connectors installed in Steps 10 and 14. Activate shrink tubing with heat gun or hair dryer.
19. Slide 5/16 inch conduit, installed in Step 14, over all new connections and as close to directional light as possible.
20. Install a cable strap on the 5/16 inch conduit, next to directional light, to secure conduit in position.
21. Position harness along fork tube and secure with cable straps.
22. Repeat Steps 9 through 21 to connect left directional light.

Test operation of directional lights and running lights. If operation is not correct, verify that the wire splices were made properly.

RELOCATING TWO WIRE DIRECTIONAL LIGHTS (HDI Models):

1. Support motorcycle on a center stand such that front wheel is raised slightly off the ground.
2. Remove fork tube pinch screw from right side of lower fork bracket.
3. If directional light is mounted on upper fork bracket, remove fork tube pinch screw from right side of upper fork bracket. (This is the screw that secures the right directional light.) If directional light is mounted on mirror, remove directional light and mounting hardware. Retain the internal toothed lockwashers and spacer.
4. Install acorn nut from kit to retain right mirror. If acorn nut "bottoms" without tightening add the second spacer from kit.
5. Cut wires connected to right directional light about 2 inches away from directional light body.

NOTE: The wires are cut at different lengths to stagger the butt connectors and prevent a large bulge in the harness. If directional light is mounted on upper fork bracket, perform Step 6. If directional light is mounted on mirror, install the directional light mount and then perform Step 6, but, use 3/8-16 x 2.0 inch screw from kit to attach directional light. Disregard reference to upper bracket pinch screw.

6. Install right directional light on right side of lower fork bracket using pinch screw removed in Step 3. Install pinch screw removed in Step 2 into right side of upper bracket. Tighten both pinch screws to 30-35 ft-lbs (41-47 Nm).
7. Repeat Steps 1 through 6 to relocate left directional light. Use stock acorn nut and internal toothed lockwasher to mount mirror.

NOTE: Fork tubes may slide downward within fork brackets. If this occurs, front fork tube extension above front fork upper bracket will have to be readjusted according to appropriate Service Manual procedures.

8. If wires were cut, connect the right directional light as follows: Strip approximately 5/16 in. insulation from the wires cut in step 5.
9. Crimp solderless connectors from kit on two wires coming from motorcycle.

10. 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.
11. Slide a piece of shrink tubing from kit over each of the wire ends stripped in Step 10 and crimp the wires into the terminals installed in Step 9.

NOTE: Wire spliced wire must match wire cut in step 5.

12. 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.
13. Split remaining end of the 2-conductor polarized wire from kit back about 2 inches and strip 5/16 inch of insulation from wire ends.
14. Slide heat shrink tubes over the two wire end.
15. Strip 5/16 inch of insulation from wires connected to directional light and connect like colored wires at directional light with connectors from kit.
16. Slide heat shrink tubing over connectors installed in Steps 11 and 15. Activate shrink tubing with a heat gun or hair dryer
17. Position harness along fork tube and secure with cable straps.
18. Repeat Steps 8 through 17 for left directional light.
19. Test operation of directional lights and running lights. If operation is not correct, verify that the wire splices were made properly.

Parts List

Qty	Item	Description	Qty	Item	Description
2	1	Allen head bolt 5/16-24 x 1/2"	1	11	36" 3 wire
2	2	Allen head bolt 3/8-16 x 2"	1	11	36" 2 wire
2	3	Directional light Mount	1	-	Instructions
2	4	High Collar Lock Washer			
1	5	Acorn nut, 5/16-24			
6	6	Heat Shrink tubing			
6	7	Cable straps			
1	8	Lock washer internal tooth			
1	9	Mirror spacer			
6	10	solderless connectors			

