



INSTALLATION INSTRUCTIONS

EXTENDED CABLE/LINE KIT

2017-LATER* FLHTCU/FLHTK/FLHTKL/ FLHX/FLHXS® (Non-ABS)

PARTS INCLUDED



NOTE: clutch & brake line housings may vary depending on kit.

WARNINGS & ALERTS

- This kit is designed for controlling Harley-Davidson™ OEM components only, and is intended for models without anti-lock brake systems (ABS).
- The supplied clutch line must be installed per factory specifications.
- Operators must use extreme caution when operating a modified motorcycle, particularly while familiarizing themselves with its altered characteristics.
- Once installation is complete, be certain ALL controls are properly adjusted to the specifications outlined in your factory authorized service manual before attempting to operate your motorcycle.

LIMITED WARRANTY

We continually inspect and try to improve our products. All parts have been inspected prior to packaging, and our guarantee is limited to replacement of defective parts. This guarantee is in lieu of all guarantees or warranties implied or expressed. Because we cannot control the application of our products, buyer assumes risks for any and all damage caused by himself or third party, by virtue of failure of these parts. We make no warranty as to products distributed by us, expressed or implied, including without limitation any warranties or merchant ability and fitness for a particular purpose. We will however, pass on all warranties made by the manufacturer, who has sole responsibility for performing such warranties. The manufacturer shall solely be responsible for any damage to person or property arising from design, manufacturing and testing of all products, and we accept no liability for such damages. We shall not be liable for indirect or consequential damages.

Read all the instructions carefully before installing this kit on your motorcycle. Use your authorized Harley-Davidson™ service manual as a reference while installing this kit.

DISASSEMBLY INSTRUCTIONS

In preparation to install your new handlebars and control extension kit, the following must be performed per your factory authorized service manual:

- Disconnect battery.
- Remove fairing to access control connector housings.
- Remove the clutch reservoir & lever assembly from the handlebars, but do not loosen clutch line or open the system.
- Remove the stock Throttle Control, complete with twist grip and wiring.
- Remove front brake reservoir & lever assembly from the handlebars, but do not loosen brake-line or open the system.
- Remove the left hand grip, both handlebar switch housings and the wiring attached to them.

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DISASSEMBLY INSTRUCTIONS (CONTINUED)

NOTE: If your handlebar wiring is mounted outside of the bars, you need to remove all the wire-ties that hold the wiring in place. If the wiring is run through the bars, carefully remove it by pulling on the wire, not on the housing (this may be easier by first removing the connector housings noted on page 2 in "WIRING HARNESS EXTENSION INSTRUCTIONS").

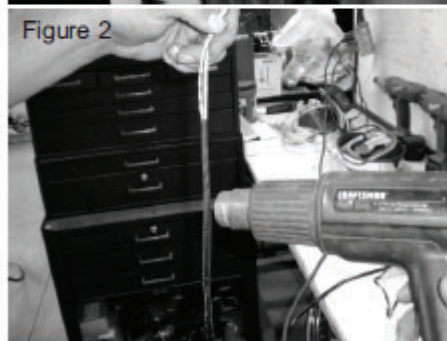
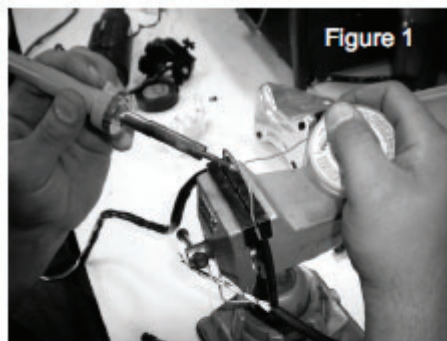
- Remove stock handlebars.

After completing these tasks, proceed with the three installation procedures (wiring, clutch line & brake line).

Read all the instructions carefully before installing this kit on your motorcycle. Use your authorized Harley-Davidson™ service manual as a reference while installing this kit.

WIRING HARNESS EXTENSION INSTRUCTIONS

- Be sure you have completed the steps in the previous section, including **disconnecting the battery**, before continuing!
- Starting with the control harness extension kit (9 wire kit - 4 into 1 plug, 5 into 2 plugs) there should be a large diameter (3/8") heat-shrink tube over each of the two harnesses - if not, slide one of the supplied larger diameter heat-shrink tubes on to each of the harness, and up towards the connectors to give room to solder.
- Then cut the supplied smaller diameter (1/8") heat-shrink tubing into 9 equal pieces and prepare each harness extension for soldering by first sliding one of the small diameter heat shrink pieces over each of the wire ends and sliding them out of your way for now.
- Strip and prepare the ends of each wire coming out of the left and right control harnesses. Note that there will be four on the left and four plus one more on the right, a white wire with a thin black stripe (that is NOT twisted together with the white-red wire). While preparing the wires for soldering try to stagger the lengths slightly. This makes it easier to slide the large heat-shrink tubing back over the soldered connections and ultimately easier to install into the handlebars.
- Match up the wire colors on each side with the extension wires in the kit and solder them to their mates (**Figure 1**). Be sure to match the twisted pair of wires (white-black/white-red) to the twisted pair in the extension harness.
- Once you've soldered all the wires, essentially lengthening the left and right control harnesses, one at a time slide the heat-shrink tubing down over the solder point and use a heat gun to apply heat until the tubing has shrunk snugly around both wires and their soldered joint. Repeat for all the extended wires. Then slide the larger diameter heat-shrink tubing over all the now covered connections and using a heat gun shrink that tubing snugly over them (**Figure 2**).



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WIRING HARNESS EXTENSIONS INSTALLATION (CONT.)

- Use the supplied "Plug in Extension" to extend the wiring for the electronic throttle control (Throttle-by-Wire) harness. This Plug in Extension can be identified by the 6-wire male and female connectors on the ends (Figure 3). Simply plug this onto the end of the OE Throttle-by-Wire harness. This Plug in Extension can usually be connected after the throttle control has been installed into the new handlebars.

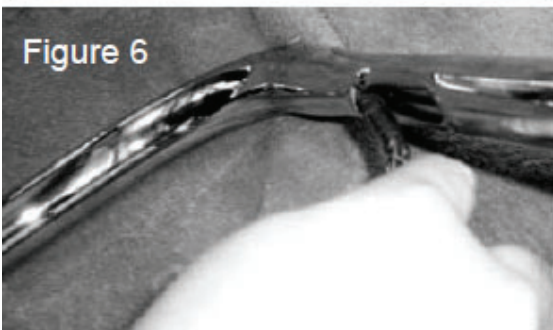
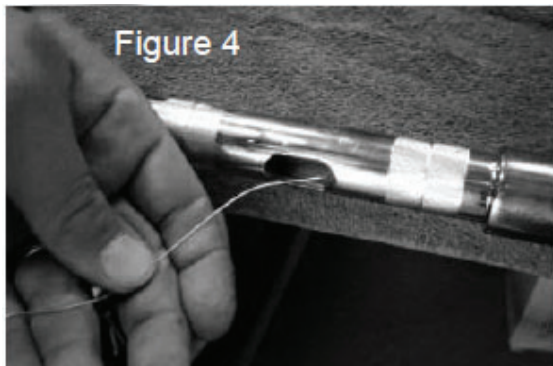
NOTE: 13" Handlebars do not use TBW extensions



INSTALLATION INSTRUCTIONS

- Using a wire "fish tape" tool or similar (thin wire coat-hanger, or safety wire), fish all the wires through your new handlebars from the bar-ends down to the middle and out to where the main harness connectors will be located. It is best to fish the wire tool up through the bars in the middle (**Figure 4**) and out by the control area first, then secure the newly extended wire harness to that wire tool (**Figure 5**) and carefully "pull" the wire harness back down through the handlebars to the center and out, while feeding the harness into the bar at the control area (**Figure 6**). Repeat on other side (**Figure 7**).

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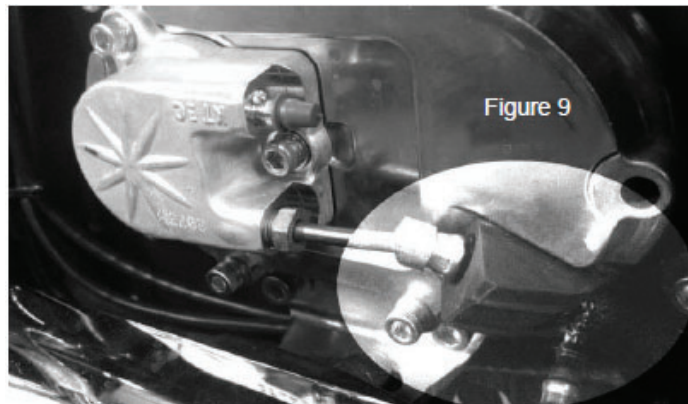
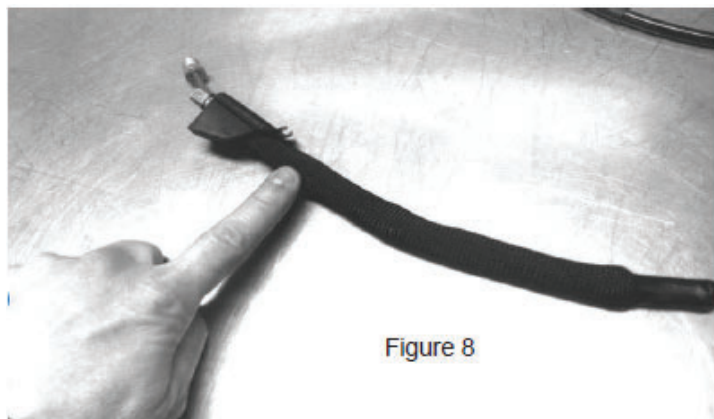
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INSTALLATION INSTRUCTIONS (CONT.)

- Install new handlebars and reinstall left and right handlebar control switches & turn signals (if removed) per your factory authorized service manual.
- At this point you are ready to plug your left and right handlebar control harnesses back into the main harness - be sure to plug the left plug into the left socket and the right plugs (both of them) into the right sockets. Also don't forget to plug the turn signal harness back in too (if separate from the control harnesses) as well as connecting the Throttle-By-Wire harness extension.
- Now hook the battery back up and make sure everything functions properly. After doing that, re-secure the wire harness at the same points it was secured and proceed to CLUTCH and BRAKE LINE INSTALLATION.

CLUTCH LINE INSTALLATION

- Refer to your factory authorized service manual for proper clutch line removal. Once the line is free from the bike, carefully remove the stock rubber grommet and protective sheathing from the stock line (**Figure 8**). Be sure to note orientation of rubber grommet as this will be used on the new extended line. Install rubber grommet and sheathing on the Burly extended clutch line making sure grommet is oriented properly on the line (**Figure 9**).



- Install the Burly extended clutch line as you would a stock line per your factory authorized service manual, noting to route the new longer line in such a manner that no kinking or binding occurs through entire range of steering. Check this by turning the handlebars all the way to the left and right while operating the controls.
- Refill the system with the recommended fluid and bleed any air out of it per the procedure described in your factory authorized service manual. Check for leaks and repair as needed.



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BRAKE LINE INSTALLATION

- Assemble the brake line by threading the swivel fitting on the long upper line to the hard line junction, but do not tighten the fitting. It is recommended that you keep all fittings loose until the line is installed on the bike, this will insure proper orientation of the fittings before tightening. Attach both lower lines to the hard line junction, again leaving both fittings loose.
- Install the Burly extended brake line as you would a stock brake line per your factory authorized service manual. Be sure to use the supplied banjo bolt and 2 **THIN** copper washers (**Figure 10**) when connecting the upper line to the master cylinder. You will reuse your stock bleeder valve assemblies and the supplied **THICK** copper washers (2 per bleeder) when attaching the new lower brake lines to the calipers. Be sure to route the new longer brake line in such a manner that no kinking or binding occurs through entire range of steering. Check this by turning the handlebars all the way to the left and right while carefully observing the brake line. Also make sure there is no binding or stretching of the line when the fork is completely extended or compressed. With the extended brake line now on the bike, tighten the fitting at the hard line junction on each individual line and secure with 6 to 9 ft.-lbs of torque. **NOTE: this torque value is for the hard line connections only. Refer to your factory authorized service manual for torque specifications for the banjo fittings.**
- Refill the brake system with the recommended fluid and bleed any air out of it per the procedure described in your factory authorized service manual. Check for leaks and repair as needed.



After Installing these components it is vital that ALL controls be adjusted to the recommended specifications noted in your factory authorized service manual. DO NOT attempt to operate the vehicle before making such adjustments or damage, injury or death may result.

