



# INSTALLATION INSTRUCTIONS

## EXTENDED CABLE/LINE KIT

### 2016-2017 FXDLS DUAL DISC W/ABS

#### PARTS INCLUDED:



NOTE: Parts may vary slightly from picture

#### WARNINGS & ALERTS

- This kit is designed for controlling Harley-Davidson OEM components only, and is intended for models with anti-lock brake systems (ABS).
- The supplied clutch line must be installed per factory specifications. Torque not to exceed 60 in-lbs during installation.
- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiarized 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.

**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.**

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\*This instruction is appropriate for the models noted; However, you must confirm you have the correct kit part number for your specific bike by contacting Burly Brand.

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### DISASSEMBLY INSTRUCTIONS

1. Disconnect battery.
2. Remove your stock clutch cable -noting routing.
3. Drain your front brake reservoir & brake line and remove your stock main brake line / junction-block assembly - leaving the two lines to/from the Hydraulic Control Unit (HCU) in place.
4. Locate and gain access to where the main wiring harness connects to the handlebar controls (and handlebar mounted turn signals if so equipped). This is typically just under a cover under the fuel tank on the left behind the steering head (loosen tank and lift slightly). Remove any wire-ties and unplug the left & right control harnesses noting which plug goes to which side - there should be one for the left and two for the right (one smaller than the other).

NOTE: Some models have handlebar mounted turn signals that are not factory wired through the control harness - rather they have their own separate harness that plugs into the main wiring harness independent of the control harnesses. You will have to unplug this from the main harness as well and extend them separately using the included turn signal extension kit (as outlined later).

5. Remove the left hand grip, throttle, both handlebar switch housings along with the wiring coming out of them.
- NOTE: If your handlebar wiring is mounted outside of the bars, you need to remove all wire ties that hold the wiring in place. If the wiring is run through the bars, cut the AMP connector housings off the ends of the left and right control wiring harness and carefully pull the control wire harness out of the handlebars. Pull on the harness, not on the control housing itself.
6. Remove stock handlebars.

### WIRING HARNESS EXTENSION INSTRUCTIONS

1. Be sure you have completed the steps on the previous section, including DISCONNECTING THE BATTERY, before continuing!
2. 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 in.) 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.
3. Then cut the supplied smaller diameter (1/8 in.) heat-shrink tubing into 9 equal pieces and prepare each harness extension for soldering by first sliding one of the small diameter heat-shrink tube pieces over each of the wire ends and sliding them out of your way for now.
4. 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.
5. Match up the wire colors on each side with the extension wires in the kit and solder them to their mates (figure1). Be sure to match the twisted pair of wires (white-black/white-red) to the twisted pair in the extension harness.
6. Once you've soldered all the wires, essentially lengthening the left and right control harnesses,



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## EXTENDED CABLE/LINE KIT

### WIRING HARNESS EXTENSION INSTRUCTIONS-CONTINUED

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 (figure2).

7. 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 & female connectors on the ends (Figure 3) Simply plug this onto the end of the OE throttle-by-wire harness to extend the harness. This Plug in Extension can usually be connected after the throttle control has been installed into the new handlebars.

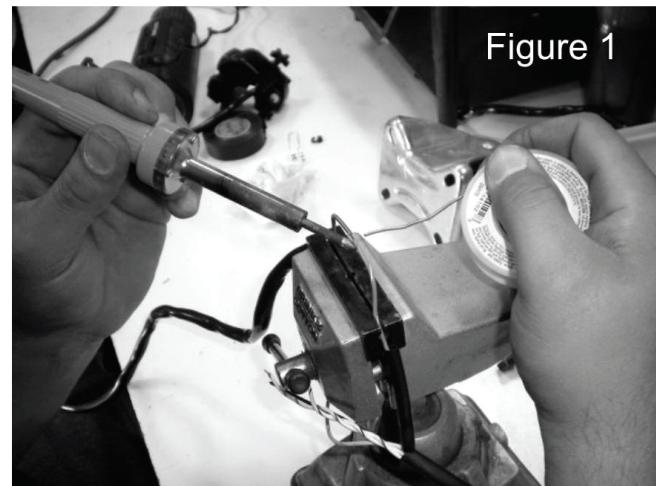


Figure 1

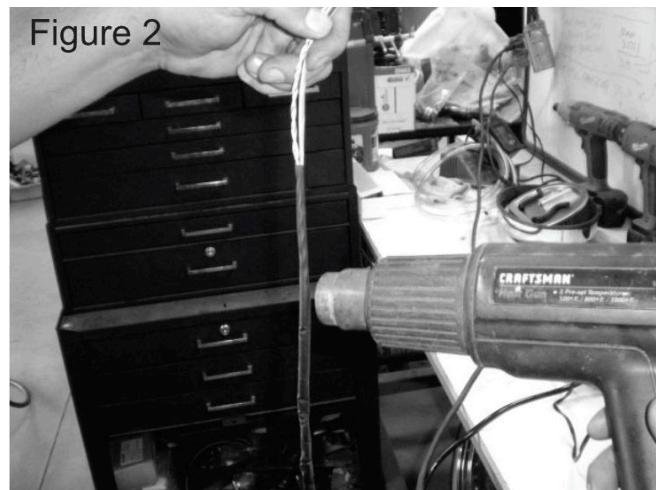


Figure 2

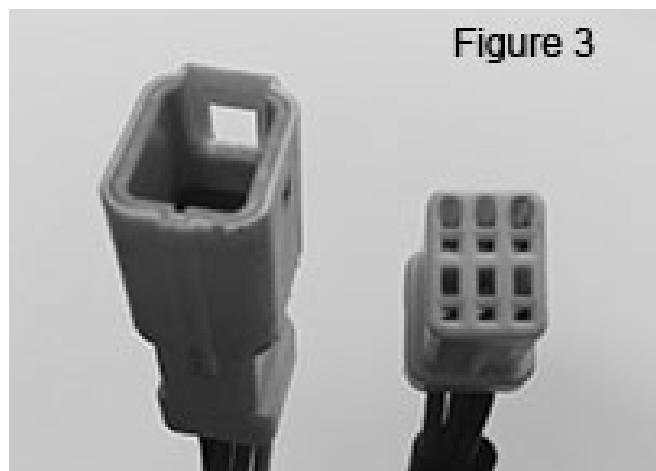


Figure 3

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## EXTENDED CABLE/LINE KIT

### WIRE INSTALLATION INSTRUCTIONS

1. 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).  
2. Install new handlebars and reinstall left and right handlebar control switches & turn signals (if removed) per your factory authorized service manual.  
3. 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.  
4. 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 brakeline installation.

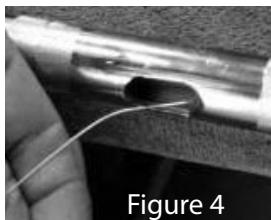


Figure 5



Figure 6

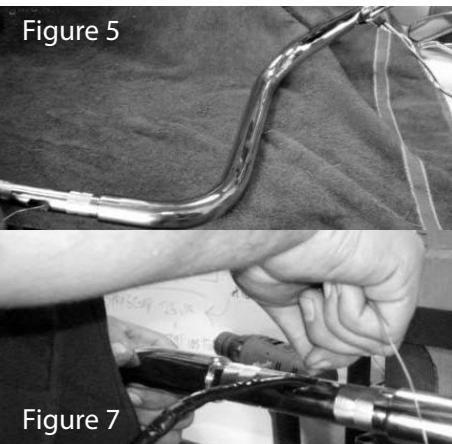


Figure 7

### CLUTCH CABLE INSTALLATION

1. Install the Burly extended clutch cables as you would stock cables per your factory authorized service manual - noting to route the new longer cable 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.  
Warning: The supplied clutch cable must be installed per the factory recommended torque specifications. Refer to your factory service manual for proper torque specification. Exceeding the recommended maximum torque value of 60 in-lbs could lead to clutch cable malfunction resulting in loss of control, injury or death.
2. Adjust the Clutch cable per the procedure described in your factory authorized service manual to ensure proper operation.

### BRAKE LINE INSTALLATION

1. Start by Installing the upper Burly Extended Brake Hose as you would stock brake hose per your factory authorized service manual - noting to route the new longer brake hose in such a manner that there will be no kinking or binding. Run the hose down to under the right side of the bottom triple tree clamp where the original brake line ABS block was located, securing the upper hose by reusing the stock clips. Torque the banjo bolt to the factory recommended 17-22 ft/lbs.  
Note: There are six supplied banjo bolts, three 3/8-24 Thread bolts (long) and three M10X1.0 Thread bolts (short). The three longer banjo bolts mount the extended hoses to the master cylinder and calipers. The three short banjo bolts mount the hoses to the HCU.
2. Thread the two hoses from the HCU into the

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# INSTALLATION INSTRUCTIONS

## EXTENDED CABLE/LINE KIT

### BRAKE HOSE INSTALLATION- CONTINUED

proper holes in the back of the supplied junction block, leaving them loose for right now. Mount the supplied junction block to the lower triple-clamp using the stock hardware, with the ports and fitting pointing rearward- use a thread locking agent on the fastener, and torque it to 36-60 in/lbs. The block should swivel.

3. Attach the extended hose from the Master Cylinder to the right side of the supplied junction block, leaving it loose for now. Attach the left and right lower hoses to the junction block leaving loose for now.
4. Attach the supplied lower hoses to each caliper and while maintaining the optimum banjo fitting alignment, torque the banjo bolts to the factory recommended 17-22 ft/lbs.
5. Now with the supplied upper hose attached to the Master Cylinder and the lower hoses attached to the Caliper, go back to the junction block and torque the lines from the HCU to the factory recommended torque and then torque the supplied brake line connections to 95-105 in/lbs - noting to maintain the "relaxed" orientation of each. There should be no twisting or kinking of any of the lines.
6. Once all the lines are tightened, be sure no kinking or binding occurs through entire

### BRAKE HOSE INSTALLATION- CONTINUED

range of steering. Check this by turning the handlebars all the way to the left and right while carefully observing the brake hose. Also make sure there is no binding or stretching of the hoses when fork is completely extended or compressed.

7. 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.

#### WARNING

Models equipped with ABS must have the brake system serviced by an authorized Harley Davidson service center after the installation of this kit and prior to riding the motorcycle. Failure to do so could lead to a brake system malfunction resulting in loss of control, injury or death.

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.

### LIMITED GUARANTEE

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 can not control the application of our products, the buyer assumes risks for any and all damage caused by themselves or any 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 merchantability and fitness for 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.

