



# INSTALLATION INSTRUCTIONS

4388 N. Carson St., Carson City, NV | Customer Support: 805.988.2900 | Fax: 805.988.2948 | www.gbrakes.com

YEAR: 2017	MAKE: Harley Davidson	MODEL: FXLRST Lowrider ST
PRODUCT #	FK003D1027-7	PRODUCT DESCRIPTION: ABS Brake Line Kit
LIFETIME WARRANTY		

## THIS KIT IS INTENDED FOR COMPETITION USE ONLY NOTE:

**With this kit Your ABS light will stay on. The optional Cruise Control kit will not work with an ABS delete but it will not cause any issues with the rest of your motorcycle. Parts List:**

**5 Lines 8: 10mm washers 2: 12mm Washers 1: ¼-20x1” Bolt 1: Zip tie**

**1 FK001D008GA (Bolt) 4: FK001D008BA (Bolt) 3: Clip-1 4: DRG1 (Grommets)**

We strongly suggest having a professional mechanic install your brake lines, all other installs may void your warranty.

*Be sure to read through the instructions before installing GBrakes lines.*

*NOTE: GBrakes stainless steel banjos and bolts are to be torqued between 15 – 17 ft. pounds*

*GBrakes stainless steel blocks and hard lines are to be torqued between 5 - 7 ft pounds*

*Golfer aluminum bolts are to be torqued between 12 - 15 ft pounds*

### Step 1:

To prevent paint damage from brake fluid, completely cover the front and rear end of the bike. Installing brake lines can be a messy process, and brake fluid *WILL* spill! Remove all brake fluid from the OEM brake system. Take note of how the stock system was routed (you may want to take pictures for reference). Be sure to reference your O.E.M. Harley Davidson manual. Do not torque any fastener until all lines are installed to make sure that fitment and orientation is correct. Once you have everything positioned correctly and there is no binding, then all fasteners can be torqued to GBrakes specs.

### Step 2:

Remove Fuel Tank, Seat, Front Fairing, & RH Side cover

### Step 3:

To ensure no paint damage from brake fluid, completely cover the bike. This process can be messy, and brake fluid *WILL* drip!

### Step 4:

Dry out (bleed) your OEM hoses, and take note of how the stock system is installed. You may want to take a couple pictures, in case you need to re-install.

### Step 5:

**NOTE:** After Removing rear line be sure to hold on to the three bolts used on the rear line clamps. As well as the bolt for side mounting plate (41600221) These will be reused. New clips/grommets will be supplied in the kit. You will also be reusing the speed sensor/ABS sensor clips attached to the speedo wire /brake lines. See Figure 1 & 2 Below for clip locations.



Figure 1.



Figure 2.

.upper frame to the OEM tubing the female fitting will thread onto the male fitting using an olive inversor. Install **Line D** to the *Clutch Master Cylinder* using a single banjo bolt and two (2) washers. Following the OEM routing; route the line down to the *Slave Cylinder* using the stock routing tabs, install this end of the to the *Slave Cylinder* using a single banjo bolt and two (2) washers.

**Torque all single and double banjo bolts to 15-17 ft. pounds and all female fittings to 5-7-ft pounds, and make sure there is a washer between every banjo.**

**Step 6:**

Start by installing the front master cylinder line labeled LINE A. You will route this line the same way as the OEM line.

**Step 7:**

The next step will be installing the lower line and junction block (**LINE B**). To install the lower line you will need to use the GBrakes supplied 1/4 -20 x 1” Bolt under the lower triple tree. Leave this loose to allow movement for the caliper lines while installing the banjo bolts on the calipers.

See **Figure 3, 4, and Figure 5** Below for Steps 4 & 5.



Figure3. LINE A



Figure 4. LINE B



Figure 5. LINE A



**Step 8:**

You can now lightly install the banjo fitting on the calipers.

**Step 9:**

Tighten to torque spec in the following order. Master Cylinder, Calipers, Junction Block. Note: See Service manual for torque value on junction block bolts

**Step 10:**

Before continuing, check clearance of your new lines with the suspension fully extended and compressed. Make sure to double check that the lines are traveling correctly and are clear from any obstructions. Using DOT-4 brake fluid (or equivalent); bleed your front brake system.

**Step 11:**

Re-attach front speedo wire / brake line clip shown in [Figure 1](#).

**Step 12:**

Rear line Installation (**LINE C**): Attach all 4 Grommets provided onto the rear line. You will use 3 of the 4 grommets where the existing clamps were located on the OEM lines.

**Step 13:**

Starting at the master cylinder (Line C1) lightly screw in master cylinder bolt and run line between Frame of motorcycle and Rear Master Cylinder. See [Figure 6](#) Below. The brake switch block will need to be angled between the Cam cover and rear brake mounting bracket. See [Figure 7,8 & 9](#) If this block switch is not in the correct angle you will need to Clock the front Banjo to accommodate the angle at the block. See End of instruction sheet for Banjo Clocking instructions.



**Figure 6. LINE C1**



**Figure 7. LINE C1**



Figure 8.



Figure 9.

**Step 14:** Attach Frame clamp to brake hose. You will want this clamp to be at a slight offset to allow the angle of the line to not bind. See [Figure 10](#).



Figure 10. LINE C2

**Step 14:** Attach Zip tie, and second frame clamp to hose as show in [Figure 11](#).



Figure 11

**Step 15:**

Route line up along the frame and through side mounting bracket #41600221 (the rear ABS lines ran through this bracket. You would of needed to remove the top bolt of this bracket to pull the rear ABS lines off the motorcycle. The line will sit at the bottom of this bracket with a grommet to allow it to move freely. Bolt down the bracket after this line is in the correct location. **Note:** make sure the line is not being pinched by this bracket in anyway and you can move it from side to side when the bracket is bolted down (Do not over torque plate/bolt). See [Figures 13-17](#)



Figure 13. LINE C2



Figure 14. LINE C2



Figure 15. LINE C2



Figure 16. LINE C2

Step 17: Route line down the frame to clamp on swing arm. (Make sure to connect the cable/ brake line clamp). Both shown in [Figure 17](#).

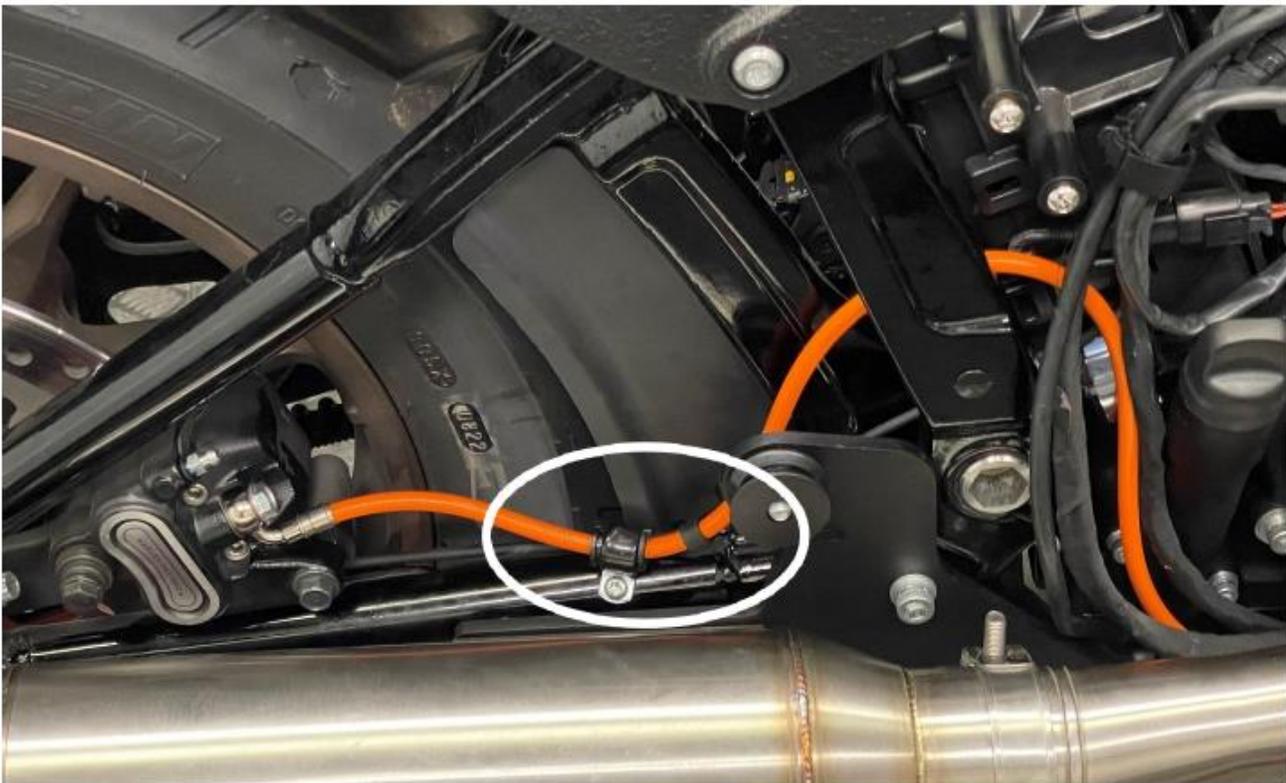


Figure 17. LINE C2



**Step 17:**

Attach Banjo fitting to caliper loosely to ensure there is no binding from front of line to rear.

**Step 18:**

Tighten Master Cylinder Banjo Fitting to torque spec.

**Step 19:**

Tighten Caliper Banjo Fitting to torque spec. Check all clamps are tightened down

**Step 20:**

Route ABS Block off lines as Shown in **Figures 18-23** Note: The Rear ABS block off line (**LINE E**) will route around the bracket that was used to hold the ABS lines in place and will loop around from the side as shown in **Figures 18 & 19**. The front ABS Block off line (**LINE D**) will loop up by the bracket that previously held the front ABS line in place along the top of the frame as shown in **Figures 20 & 21**.



**Figure 18 LINE E**



**Figure 19. LINE E**



**Figure 20. LINE D**



**Figure 21. LINE D**



**Figure 22.**



**Figure 23.**



**Step 21:**

Before continuing, check clearance of your new lines with the suspension fully extended and compressed. Make sure to double check that the lines are traveling correctly and are clear from any obstructions. Using DOT-4 brake fluid (or equivalent); Bleed Brake system.

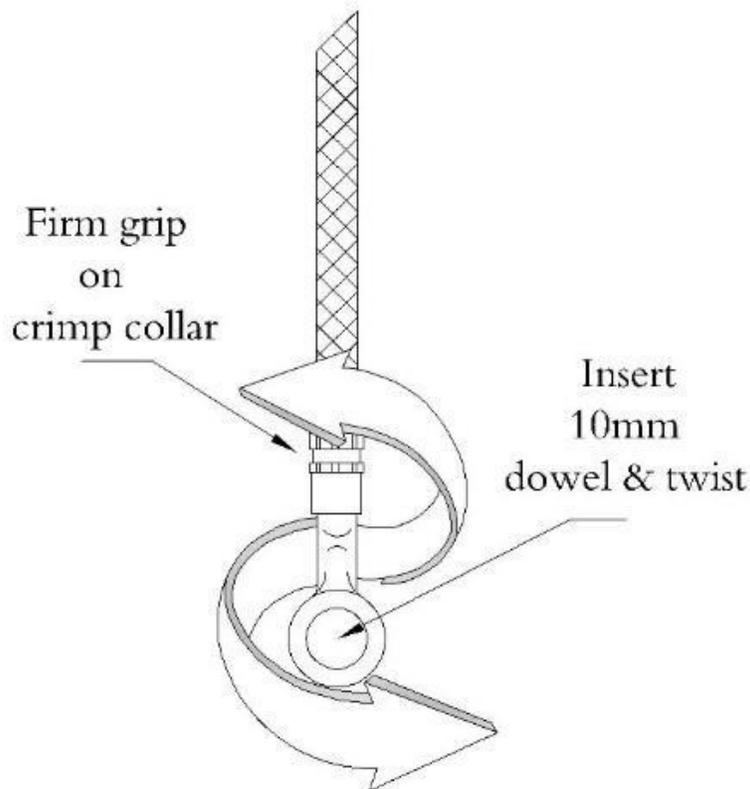
**Step 22:**

Re-install, electrical caddy, Fuel tank, Side Cover, all brackets and any other items necessary for Line Removal.

*Installation, differences in bike setup, bar position, control angle, etc. may require the banjos To be rotated slightly .*

All GBrakes fittings are what we refer to as Turn-to-Fit and can be rotated 360 degrees if required. To prevent unnecessary movement at the connection point, determine how far the banjo will need to be rotated ahead of time. Next, identify the silver crimp collar on your line. It is the portion just below the banjo that holds the flex line in place. You will need to LIGHTLY hold this collar while rotating the banjo to prevent the line from twisting. Use a pair of vice grips on the LOWEST possible setting that will hold the collar. With the vice grips in place, insert a wood dowel, brass punch, or even a pen into the banjo and rotate it to the desired position.

If the line is already installed on the bike and you need to relieve tension or re-position it, you can simply hold the collar and rotate it slightly. Just be careful to rotate and NOT pry on the fitting. See Picture below.



**GBrakes**

**4388 N. Carson Street**

**Carson City, NV 89706**

**805-988-2900**