

## INSTALLATION PROCESS:

### FK003D802-8 Complete Brake Line Kit

2013 Kawasaki VN1700 Voyager Custom ABS

2013 Kawasaki VN1700 Vaquero ABS

Torque specifications  
Stainless steel 15-17 ft. lbs  
Aluminum 12-15 ft. lbs



#### Step 1:

Identify the key components that complete our brake line kit:

You should have eight (8) lines, two (2) double banjo bolt, seven (7) single banjo bolts and four (4) conic olive inversors, one (1) C-Clip 2, and two (2) C-Clip 3, as well as ten (10) zip ties. We have also included a total of twenty-four (24) washers; eighteen (18) will be used, and six (6) will be spares. We strongly suggest having a professional mechanic install your brake lines, all other installs may void your warranty.

#### Step 2:

To ensure there is no paint damage from the 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!

#### Step 3:

After bleeding and drying out the OEM brake system, uninstall your stock hoses. Take note of how the stock system was routed in case you need to re-install the hoses.

#### Step 4:

Familiarize yourself with the new Galfer brake lines; notice that each line is labeled for application. **Lines A, B, and C** will be installed on the front end of the bike, **Lines H** will install from the Clutch master cylinder to the slave cylinder and **Lines D, E, F, and G** will be used for the rear application.

#### NOTES:

- We refer to “left” and “right” as if you are sitting on the motorcycle
- Torque all stainless steel bolts to 15-17 ft pounds
- Torque all aluminum bolts to 12-15 ft pounds
- Torque all male and female fittings to 5 ft pounds
- Single Banjo Bolt Sequence: banjo bolt, washer, banjo fitting, washer
- Double Banjo Bolt: double banjo bolt, washer, banjo fitting, washer, banjo fitting, washer

#### Step 5:

Starting with **Line A**: To be installed at the front master cylinder routing down, in front of the upper triple, alongside the frame rail (see **picture 1**), using the Galfer provided c-clip 3 (see **picture 5**), re-using OEM routing down to ABS unit (see **picture 7**). Continuing with the front lines, locate **Lines B and C** are to be installed at the right caliper (see **picture 2**) and left caliper (see **picture 3**), routing lines up and in front of the lower triple, using the provided c-clip 2 (see **picture 4**). Continuing alongside the frame, also using provided c-clip 3 (see **picture 5**), you will follow **Line A** to the ABS unit. Once all three lines are installed to their proper points on the ABS unit, you will need to use the provided c-clip 3 (see **pictures 6 and 7 for positioning and routing**). Now, we move onto the clutch by locating **Line H**. This line will be installed at the clutch master cylinder (see **picture 8**) using OEM routing down alongside the handlebar in front of the upper triple tree and down the front frame rail (see **picture 9**) following down to the clutch slave (see **picture 10**). To continue to the rear, locate **Line D** (see **picture 11**) This will be installed at the rear master cylinder following the OEM routing lower frame rail joining the OEM tubing, using an **olive inversor** to insure a proper seal (see **pictures 12 and 13**). Locate **Line G**. (see **picture 14**) Banjo end will be installed at the rear caliper following the OEM routing alongside the rear swingarm joining **Line D** using an **olive inversor** to insure a proper seal to the OEM tubing (see **pictures 12 and 13**). Locate **Line E**. (see picture 8) Banjo end fitting will be installed using a double banjo bolt joining OEM banjo tubing from **Line D**. Female end of **Line E** will require use of a **olive inversor**. Locate **Line F** (see **picture 7**) Banjo end fitting will be installed using a double banjo bolt joining OEM banjo tubing from **Line G**. Female end of **Line F** will require use of a **olive inversor**.

### Step 6:

Before you begin the next step, you will find there are ten (10) zip ties included to help secure the routing of these lines. Please check the clearance of your new lines. When the front end is fully extended or compressed, make sure the lines do not bind with anything. Be sure to triple check that the lines are traveling correctly and are clear from any obstructions.

### Step 7:

Bleed your brake system according to the owner's manual. Add Galfer DOT-4 brake fluid to the system and build appropriate pressure.

### Step 8:

Once you have bled the system, please check the brake fluid level in your master cylinder. Top off your brake fluid according to your manual and close the brake fluid reservoir. To ensure there are no leaks or other issues, zip-tie the brake lever to the throttle for at least 2 hours. For the rear; use a jug or something similar to apply pressure to your brake pedal for at least 2 hours. For the clutch; zip-tie the clutch lever to the handle bar for at least 2 hours. If the lines are not leaking and all else looks good, (bolts are tight and torqued down to specification, washers are in place, and lines are clear from obstruction) you are now ready to ride with the new brake system.

Please be aware that the overall braking feel has been changed dramatically. We suggest taking it easy while you get used to the new brake lever pressure and feel. We recommend checking your brake system periodically; be sure to check that your bolts are tight and *VERY* carefully check your lines for any leaks or damage. If there are any signs of damage or stress to the lines, the complete brake line kit will need to be replaced. Remember, our brake lines have a LIFETIME WARRANTY! If you have any problems or questions, do not hesitate to call our tech department - **(800) 685-6633**.



**PICTURE 1: FRONT MASTER CYLINDER**



**PICTURE 2: RIGHT CALIPER**





**PICTURE 3: LEFT CALIPER**



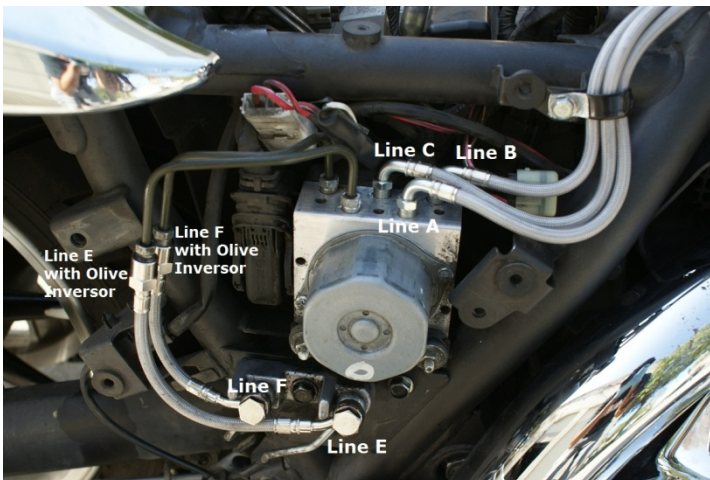
**PICTURE 4: C-CLIP 2**



**PICTURE 5: C-CLIP 3**



**PICTURE 6: C-CLIP 3**

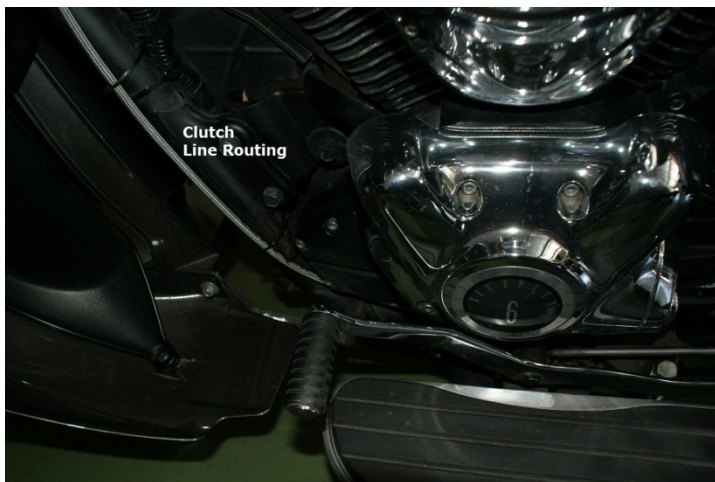


**PICTURE 7: ABS UNIT OVERALL**



**PICTURE 8: CLUTCH MASTER CYLINDER**





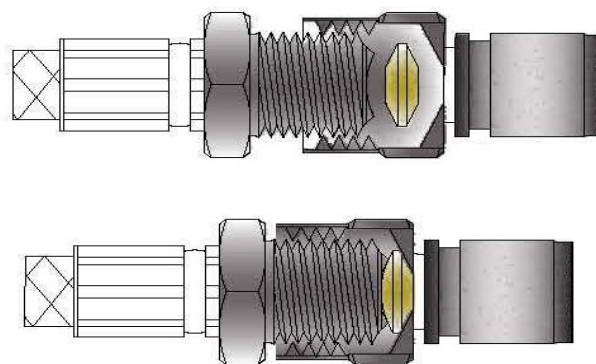
**PICTURE 9: CLUTCH ROUTING**



**PICTURE 10: CLUTCH SLAVE**



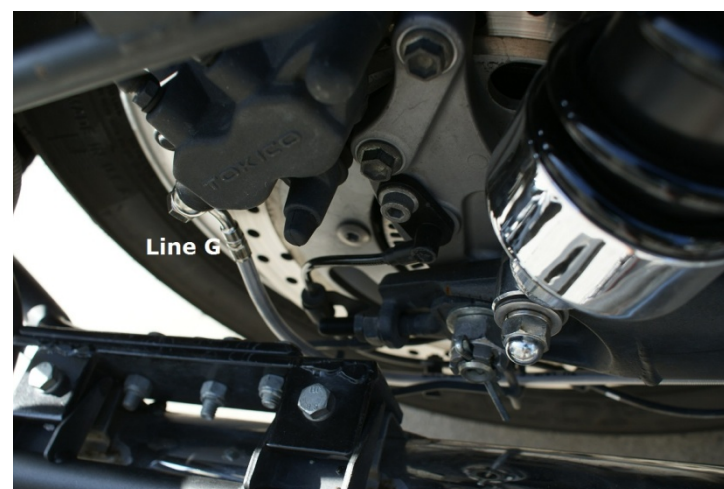
**PICTURE 11: REAR MASTER CYLINDER**



**PICTURE 12: OLIVE INVERSORS**



**PICTURE 13: LINE C WITH OLIVE INVERSORS**



**PICTURE 14: LINE G @ REAR**

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