

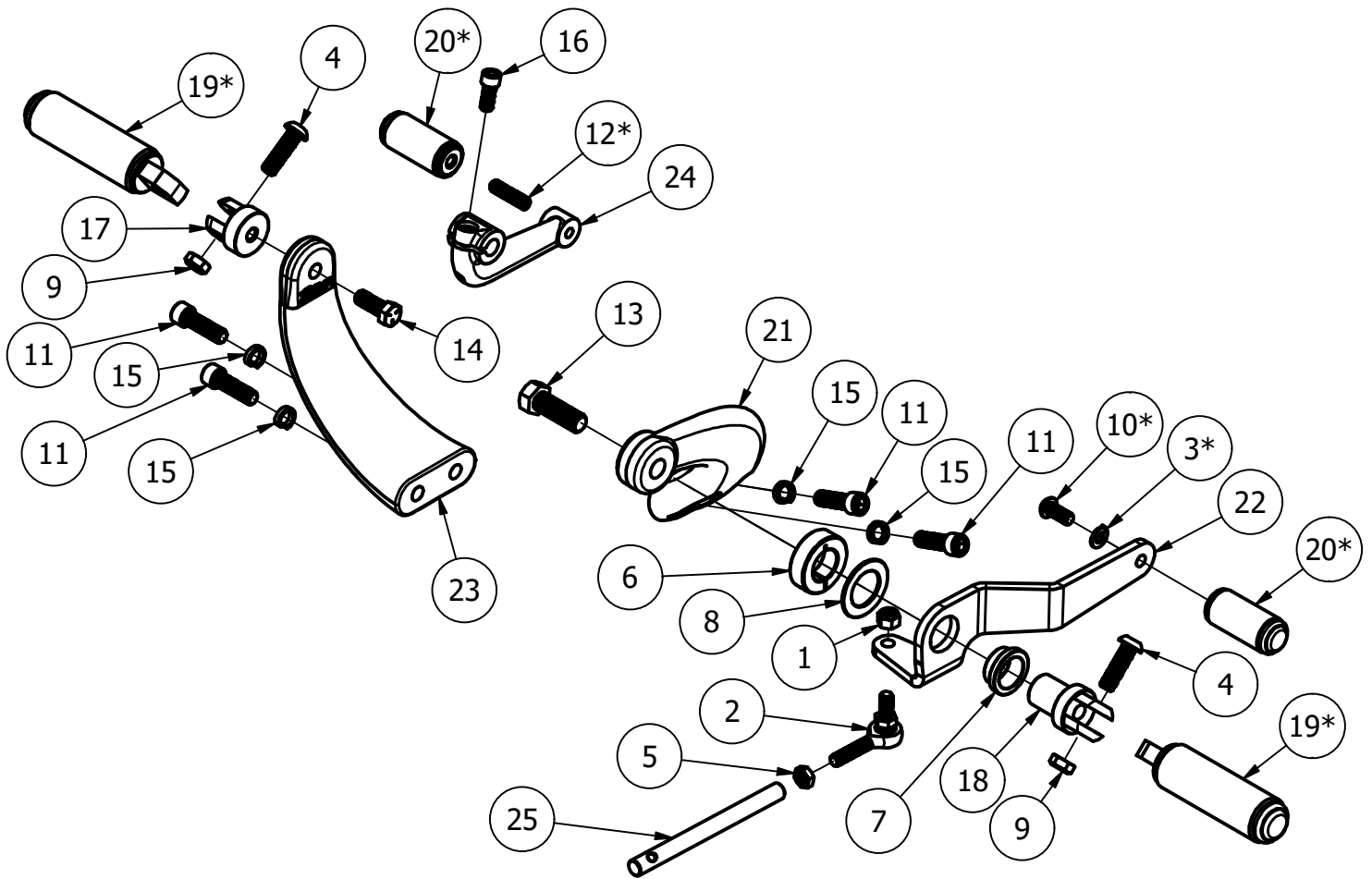
TC BROS.®

PART #102-0143 MID CONTROLS (WITH PEGS)

PART #102-0142 MID CONTROLS (NO PEGS)

2014-2022 HD SPORTSTER® MODELS

SHIFTER SIDE



BRAKE SIDE

*** These components are not included in Part #102-0142 (No Pegs)**

WARNING: APPLY MEDIUM STRENGTH THREADLOCKER (BLUE LOCTITE® 243 OR EQUIVALENT) TO ALL THREADED FASTENERS. BE SURE TO THOROUGHLY CLEAN THREADS OF ALL DIRT OR GREASE TO PERMIT PROPER ADHESION. ALLOW THREADLOCKER TO FULLY CURE ACCORDING TO MANUFACTURERS SPECIFICATIONS BEFORE RIDING. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY OR DEATH.

102-0143 & 102-0142 (NO PEGS) PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	Torque Value
1	1	119-0007	5/16 -24 NYLOCK NUT	
2	1	119-0010	5/16-24 MALE HEIM JOINT W/ STUD	
3*	1	119-0018	5/16 SS LOCK WASHER	
4	2	119-0040	3/8-16x1-1/4 SS BUTTON HEAD BOLT	
5	1	119-0103	5/16-24 SS JAM NUT	
6	1	119-0152	7/8 IDx1-5/8 OD ALUMINUM SHAFT COLLAR	
7	1	119-0153	7/8"IDx1"ODx1/2"LG BRONZE FLANGE BUSHING	
8	1	119-0154	1"ID x1-5/8"OD x1/16"TH BRONZE THRUST WASHER	
9	2	119-0155	3/8-16 THIN HEX LOCKNUT SS	
10*	1	119-0157	5/16-24x3/4 SS BUTTON HEAD BOLT	
11	4	119-0187	3/8-16 x1-1/4 SOCKET HEAD CAP SCREW	30 ft-lbs (40.7 N-m)
12*	1	119-0198	5/16-24x1.25 SET SCREW	
13	1	119-0219	1/2-13x1-1/2 HEX BOLT	30 ft-lbs (40.7 N-m)
14	1	119-0285	3/8-16x1 HEX BOLT	30 ft-lbs (40.7 N-m)
15	4	119-0286	3/8 SOCKET HEAD CAP SCREW LOCK WASHER	
16	1	119-0301	5/16-18 x 3/4 SOCKET HEAD CAP SCREW	18 ft-lbs (24.4 N-m)
17	1	FC219XL	FC CLEVIS	
18	1	FC888XL	FC CLEVIS	
19*	2	FP883XL	HD FOOTPEG	
20*	2	FP884XL	HD TOE PEG	
21	1	MC160XL	RH SUPPORT	
22	1	MC165XL	BRAKE PIVOT	
23	1	MC167XL	LH MOUNT	
24	1	MC173XL	SHIFT LEVER	
25	1	MC176XL	BRAKE ROD	

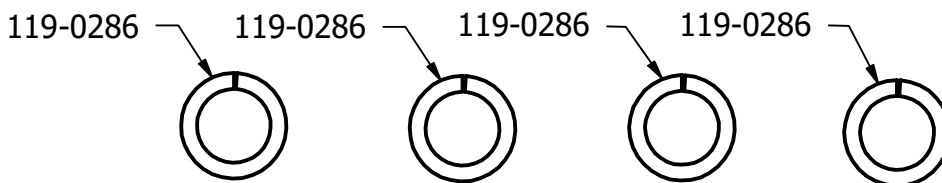
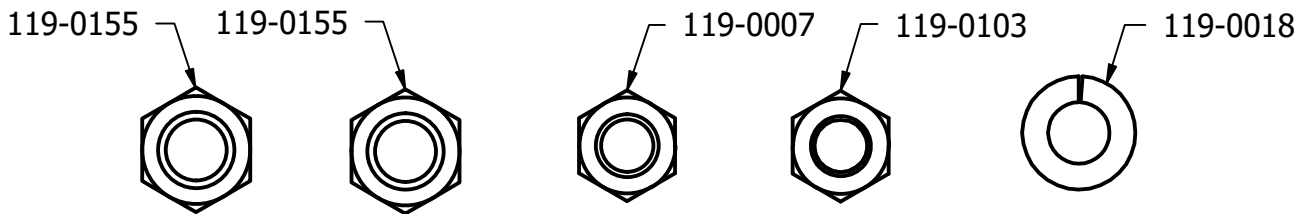
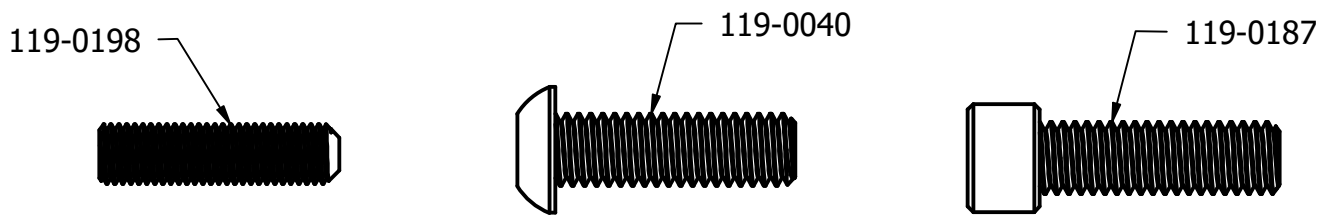
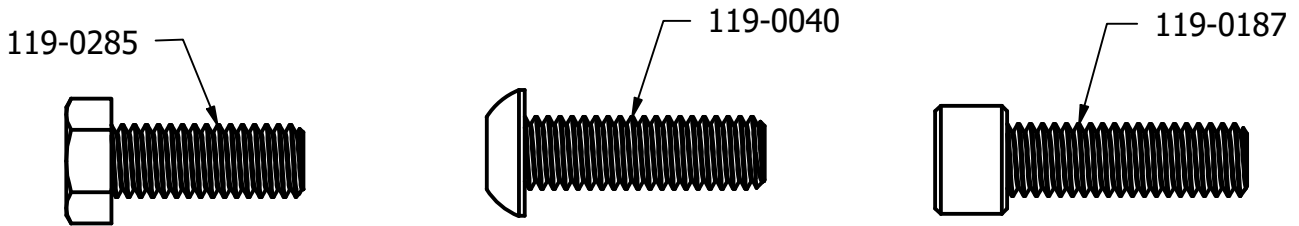
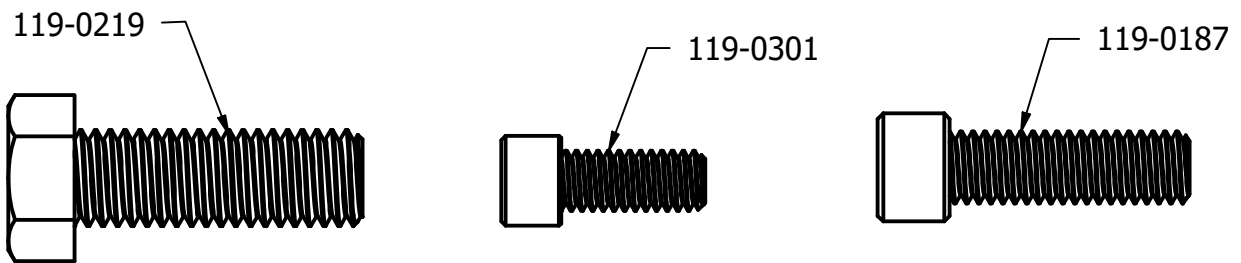
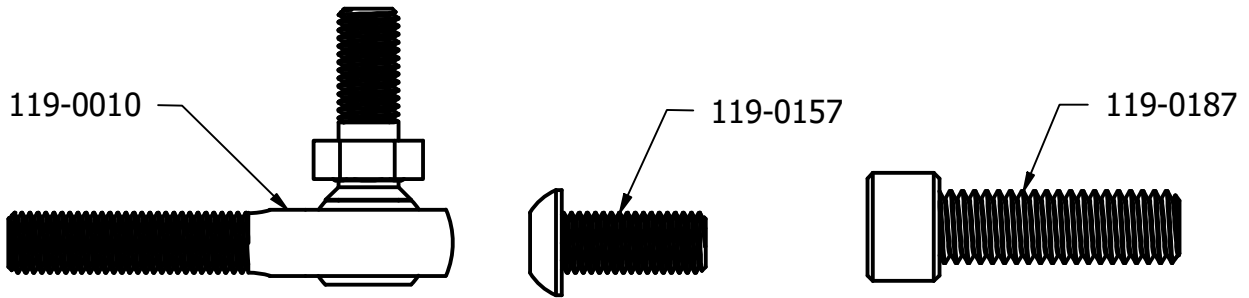
*** These components are not included in Part #102-0142 (No Pegs)**

TC BROS.®

PART #102-0143 & #102-0142

2014-2022 HD SPORTSTER® MID CONTROLS

HARDWARE DIAGRAM (FULL SIZE)



INSTALLATION INSTRUCTIONS

TC BROS.® PART #102-0143 & #102-0142 (No Pegs)

MID CONTROLS KIT FOR ALL 2014-2022 HARLEY DAVIDSON® SPORTSTER® MODELS

Note: Please be aware that this procedure may exceed your technical abilities. Please read instructions completely and carefully before attempting installation. If you are unsure of your abilities, please consult a service professional.

WARNING: INSTALL & USE AT YOUR OWN RISK! Always wear and use all proper safety gear at all times when installing this product. We have made every attempt to ensure that these instructions are concise and easy to follow, but if any mistakes are found, or you require additional information, we can be reached M-F from 8:00am-5:00pm EST by calling 419-265-9399 or via email at sales@tcbroschoppers.com. TC Bros Choppers LLC assumes no liability for any personal injury or property damage caused by the installation and/or use or misuse of this or any other product.

Recommended Tools for Installation:

- Combination Wrenches in 1/2", 9/16" and 3/4" sizes
- Adjustable Wrench with minimum 1" capacity (a.k.a. "Crescent Wrench")
- Torque Wrench that measures in ft-lbs or N-m (torque values given are for dry fasteners)
- Standard Hex Key Wrenches (a.k.a. "Allen Wrenches")
- Ratchet and Socket set
- Soft faced mallet (Rubber or plastic is preferred)
- Loctite® #243 Medium Strength Threadlocker (Blue) or equivalent

MID CONTROLS INSTALLATION INSTRUCTIONS:

- Some exhaust systems may require removal in order to install this product. Remove only if necessary.
- If your bike has factory mid controls, remove shifter, brake pedal, brake rod, footpegs and mounting brackets.
- If your bike has factory forward controls, first disconnect linkage rods, then remove all forward controls mounts and hardware.
- Please refer to supplied parts diagrams on following pages for part number references for remainder of installation instructions. **NOTE: Apply threadlocker to all threaded mounting hardware during installation.**
- Install the shift lever (part #MC173XL) to the splined shifter shaft protruding from your engine by tapping it into position with a soft faced mallet until it is fully seated onto the shaft. Apply threadlocker to 5/16-18x3/4" socket head bolt (part #119-0301) and loosely install into hole in shift lever. Using a torque wrench, torque part #119-0301 socket head bolt to recommended specification to securely clamp shift lever to shift shaft.
- Install LH mount (part# MC167XL) onto the bike. You must first insert hex bolt (part# 119-0285) through top hole on LH mount before you mount to bike. You need to do this before you bolt the mount to the bike otherwise it cannot be installed due to lack of clearance. **See figure 1.**

- Now install LH mount to bike using 2 3/8-16x1.25" socket head cap screws (part # 119-0187). Apply threadlocker to bolt threads and torque fasteners to recommended specifications.
- Next install the footpeg mounting clevis (part # FC219XL) to LH mount (part # MC167XL) using 3/8-16x1" hex bolt (part # 119-0285). This is the bolt inserted in LH mount prior to installation. Apply threadlocker to threads on 3/8-16x1" hex bolt before threading it into clevis. Tighten the footpeg mounting clevis (part # FC219XL) to recommended torque specifications being sure to orient it so that the milled slot of the clevis is approximately at a 45 degree angle to the ground. This angle will assist the peg in folding if it were ever to contact the ground while riding. **Reference figure 2.**
- If you purchased TC Bros. Choppers part # 102-0143 Mid Controls Kit including footpegs, it is time to begin installation of the toe peg (part # FP884XL) to the shift lever (part # MC173XL). First apply threadlocker to the inside of the hole in the FP884XL toe peg and thread the 5/16-24x1¼" set screw (part # 119-0198) into the toe peg until there is 5/8" (15.9mm) of thread (half the length of the set screw) protruding from the peg. It is helpful to use a 5/32" hex key wrench (a.k.a. "Allen Wrench") to thread the screw into the toe peg. After allowing the threadlocker to dry in the toe peg for at least 5 minutes, apply threadlocker to the remaining threads protruding from the toe peg and loosely install to shift lever (part # MC173XL). Finish installation by securely tightening toe peg to shift lever by hand. You may want to wear a leather glove to protect your hand from the knurled surface of the toe peg. If you purchased part # 102-0142 Mid Controls Kit with no footpegs, install your toe peg to the manufacturer's recommend specifications.
- Begin installation of the brake side mid control assembly by first inserting ½-13x1-1/2" hex bolt (part # 119-0219) through RH support (part # MC160XL). You need to do this before you bolt the mount to the bike due to interference once its mounted to the bike. **Reference figure 3.**
- Now loosely attach RH support (part # MC160XL) to the bike using 2 3/8-16x1.25" socket head cap screws (part #119-0187). Apply threadlocker to bolt threads and torque fasteners to recommended specifications.
- Connect the 5/16-24 heim joint stud (part # 119-0010) to the brake pivot assembly (part # MC165XL) using the 5/16-24 nylock nut (part # 119-0007). Torque to recommended specification. Next install supplied 5/16-24 hex jam nut (part # 19-0103) by fully theading onto the 5/16-24 heim joint (part # 119-0010). Thread brake linkage rod (part # MC176XL) fully onto heim joint (part # 119-0010) until it nearly contacts jam nut.
- Now install the brake pivot assembly by first inserting brake rod end with thru hole into the OEM brake pushrod collar located just in front of the rear brake master cylinder. **Reference figure 4.** Next align footpeg clevis (part # FC888XL) and begin installing the 1/2-13x1-1/2" bolt (part # 119-0219) you previously installed into RH support. Use threadlocker on the threads. Be sure to orient the footpeg mounting clevis (part # FC888XL) so that the milled slot of the clevis is approximately at a 45 degree angle to the ground. This angle will assist the peg in folding if it were ever to contact the ground while riding. **Reference figure 2.** Torque to recommended specifications. While you are tightening the 119-0219 bolt, it is helpful to hold the footpeg mounting clevis (part # FC888XL) from rotating with an adjustable wrench placed against the outer machined flat surfaces of the clevis. Next line up thru hole of brake rod (part # MC176XL) and rear master cylinder pushrod collar, install OEM pin and secure with retaining clip. With brake rod pinned in place you can now tighten the jam nut (part # 119-0103) against the brake rod to secure the assembly.

- If you purchased TC Bros. Choppers part # 102-0143 Mid Controls Kit including footpegs, it is time to begin installation of the toe peg (part # FP884XL) to the brake pivot (part # MC165XL). First insert 5/16-24x3/4" button head bolt (part # 119-0157) into 5/16" lock washer (part # 119-0018) and then apply threadlocker to bolt. Next insert bolt thru hole in brake pivot (part # MC165XL) and into toe peg (part # FP884XL). Torque to recommended specification. If you purchased part # 102-0142 Mid Controls Kit with no footpegs, install your toe peg to the manufacturer's recommended specifications.
- Now installation of the foot peg can begin by inserting foot peg (part # FP883XL) into clevis (part # FC888XL). Refer to Figure 2 for correct orientation to allow peg to fold at a 45 degree angle upward if it were to contact the ground while riding. Insert 3/8-16x1-1/4" button head bolt (part # 119-0040) thru clevis and install 3/8-16 nylock nut (part #119-0155). Torque to recommended specifications. If you purchased part # 102-0142 Mid Controls Kit with no footpegs, install your foot peg to the manufacturer's recommended specifications.
- While seated on the bike, check that the shift and brake levers are in a comfortable position and you can operate them easily with your feet. You can adjust the position of the shift lever by first removing part # 119-0301 socket head bolt from shift lever mounting. Once the bolt is removed, you can remove the lever from the splined shifter shaft, rotate it to the desired position, and reinstall as previously described. You can adjust the position of the brake pedal by first removing the OEM pin and clip installed thru the brake rod (part # MC176XL) in front of the rear master cylinder and then loosening jam nut (part # 119-0103). This will allow the brake rod to be rotated on the heim joint (part # 119-0010). The position of the pedal is determined by the length of this linkage rod. A longer linkage rod raises the brake pedal toe peg height, whereas a shorter linkage rod lowers it. **Warning: You must keep a safe amount of thread engagement on the heim joint of at least 1/2". Any less than this minimum thread engagement in the linkage rod could cause the threads to fail, resulting in loss of rear brake function.** Once you have the pedal in a comfortable position that allows you to easily actuate your rear brake while seated on the bike, it is time to secure the linkage rod length. This is done by first re-installing the pin and retaining clip through the pushrod collar and brake rod and then tightening jam nut (part # 119-0103) against brake rod (part # MC176XL). At this time, the mid control installation is complete.
- Now that both sides of the mid controls have been installed and adjusted properly, take a moment **BEFORE RIDING YOUR MOTORCYCLE** to double check that all fasteners were tightened securely and threadlocker was applied during installation.

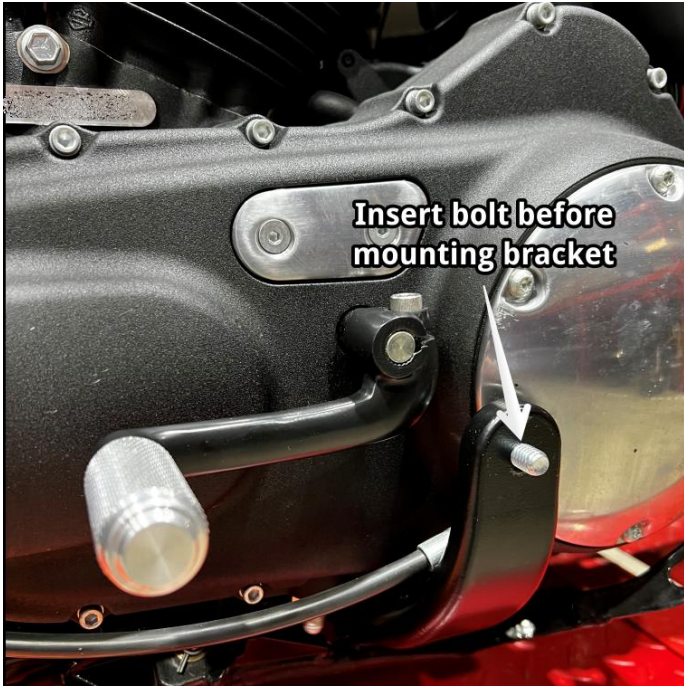


Figure 1



Figure 2

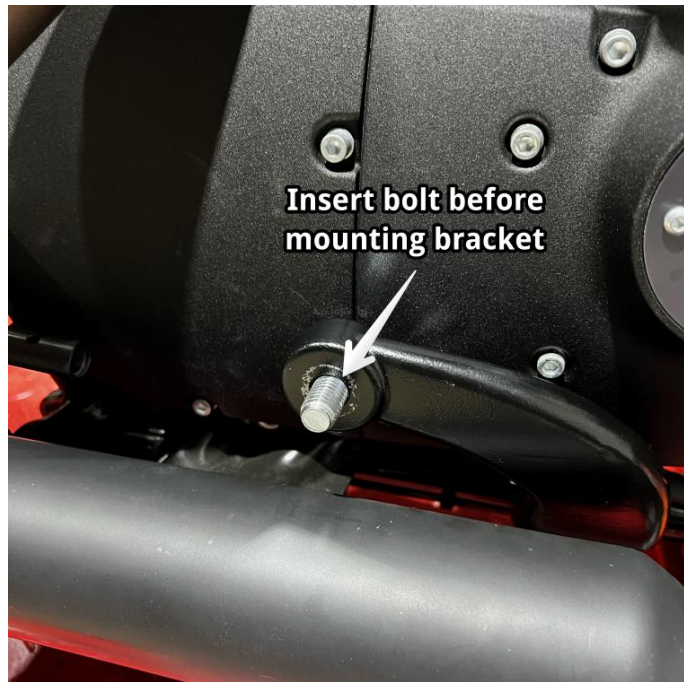


Figure 3

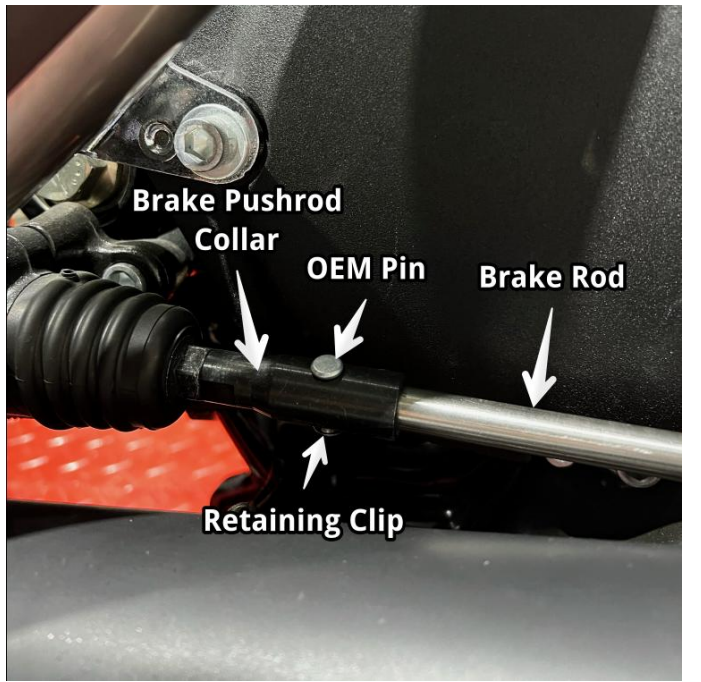


Figure 4