

## BMW E90, E91, E92, E93 Wilwood Clutch Master Cylinder Kit

### Step 1:

We recommend using a vacuum extractor to drain the clutch fluid at the transmission line. This will get most of the fluid out of the lines.

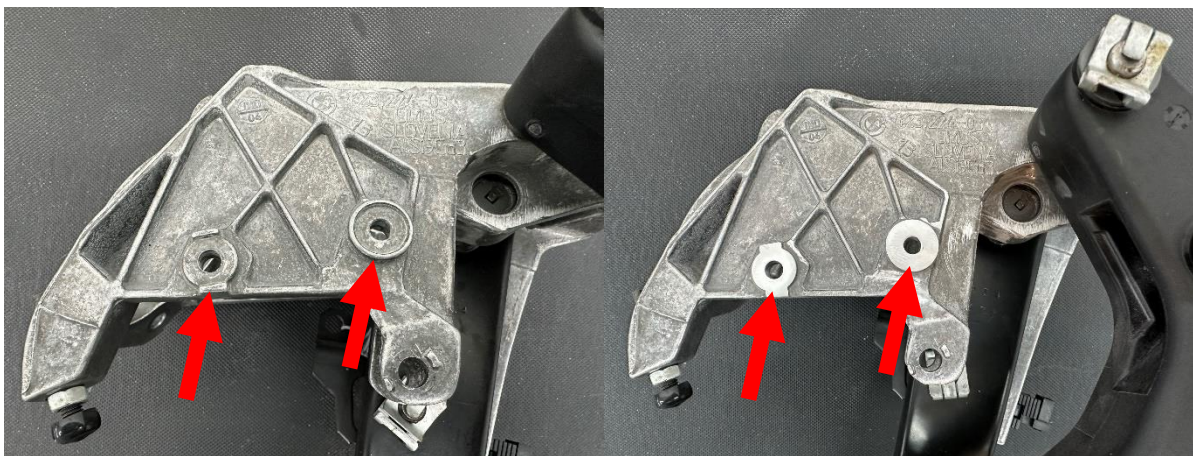
### Step 2:

Remove the stock BMW clutch MC (master cylinder) from the car by removing the clutch pin, brake fluid feed line, brake fluid pressure line, and two M6 bolts. Make sure you keep the M6 nuts!



### Step 3:

Sand down any raised castings that prevent flush installation. You just need to remove any raised imperfections from the casting process. Don't overdo it and remove too much material.



### Step 4:

Some BMW variations will require minor firewall massaging to fit. In some cases, this making a small hole in the carpet or sound deadening near the rear Wilwood mounting boss. Due to the amount of variations in BMW designs, we recommend you check fitment prior to final install and make adjustments as needed. This is a blanket statement we include with all of our kits but we have not seen issues with E90s.

**Step 5:**

There are two different types of rod ends we sell, a plastic OEM style and all metal version. Both styles come adjusted to match the OEM BMW MC extended length. The rod end lock nut needs to be snug, do not overtighten. You can skip steps 6-7 if you have a plastic rod end.

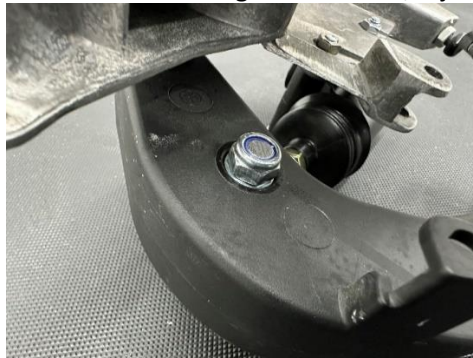
**Step 6:**

Install the M8 bolt with 4 washers on one side and 4 on the other side of the clutch pedal.



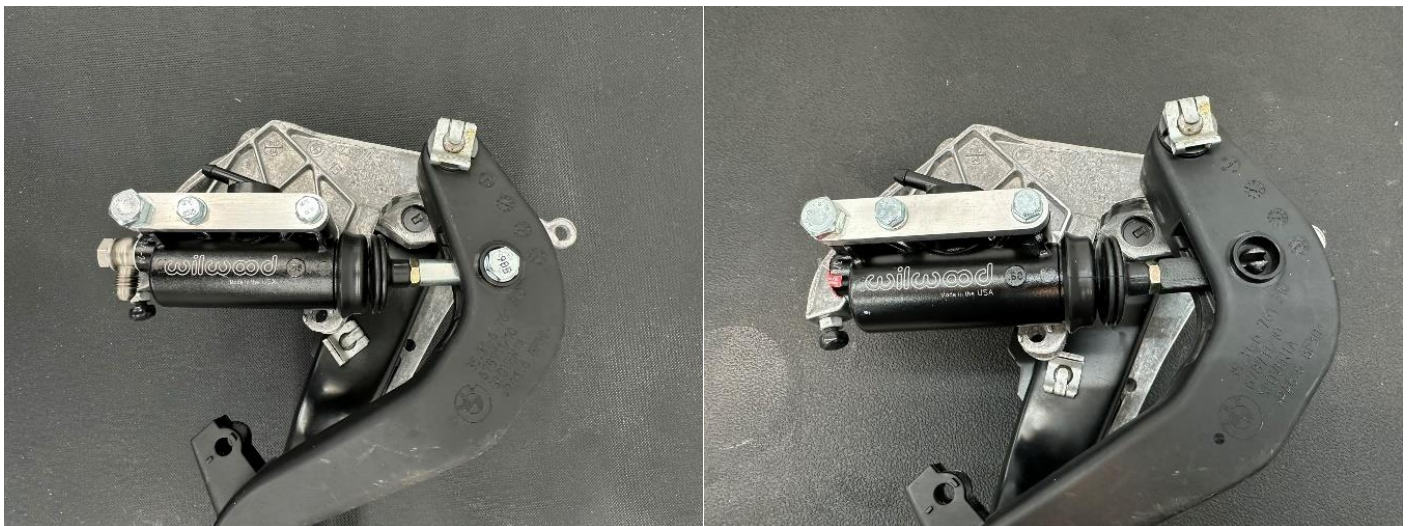
**Step 7:**

Install the M8 mounting bolt and M8 locknut. Do not over tighten the bolt, it just needs to be snug to the pedal.



**Step 8:**

The adapter bracket comes pre-installed. Do not remove the rear bolt, it is installed with Loctite. Install the assembly in the stock location with the provided M6 mounting bolts, M6 washers, and reuse the stock clutch pedal pin (plastic rod end only). **Do not overtighten the M6 bolts or you will crush the aluminum tube, they have a locknut on the back so they just need to be snugged down (approximately 8 ft-lb or 11 nm).**



**Step 9:**

Use the provided rubber hose to connect the top port of the Wilwood Clutch Master Cylinder to the BMW clutch fluid reservoir or optional Wilwood reservoir using hose clamps as needed. Reconnect all lines and bleed the system with a pressure bleeder. While bleeding the system, slowly actuate the clutch pedal intermittently several times. Check the system for leaks after bleeding. Warning: Do not use DOT 5 silicone brake fluid for racing or performance driving, use only DOT 3, DOT 4 or DOT 5.1

