

BMW E46 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 backing plate with M6 nuts!

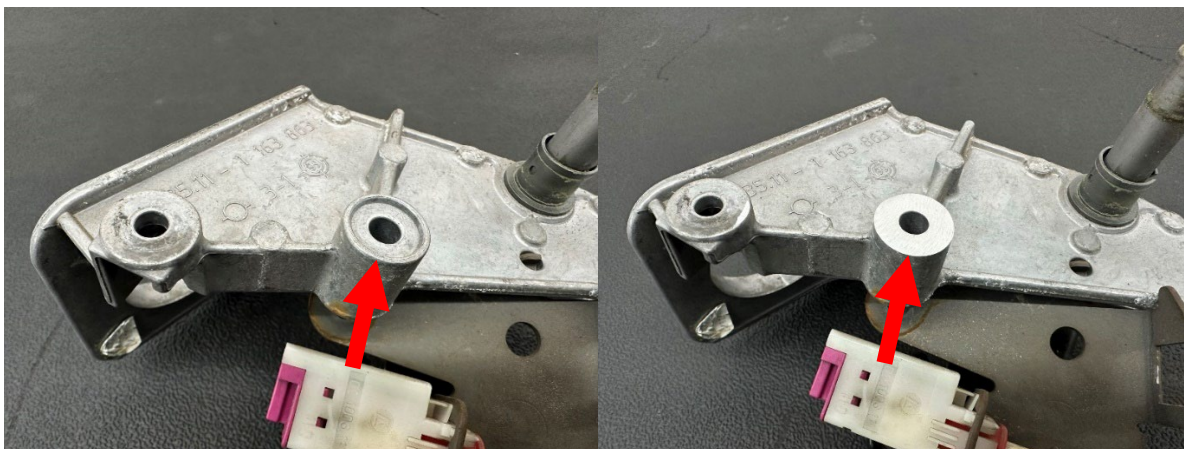


Step 3:

The Wilwood MC has an internal return spring in the assembly, the OEM BMW MC does not. The BMW clutch pedal return springs (mounted to the pedal) can be removed. Some dual clutch manufactures recommend removing the return spring for a more linear feel. If your clutch manufacture recommends this, you can disassemble the Wilwood MC and remove the internal return spring. Alternatively, you can ask us to do this before shipping.

Step 4:

Inspect the mounting surface and sand down any casting imperfections 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.

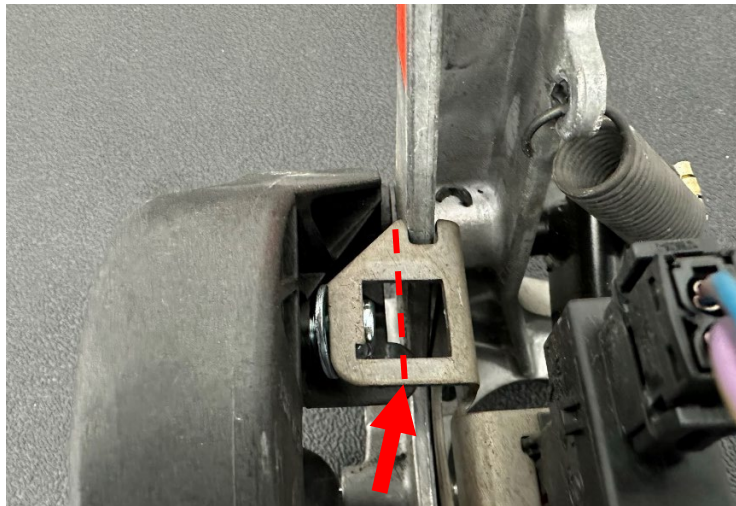


Step 5:

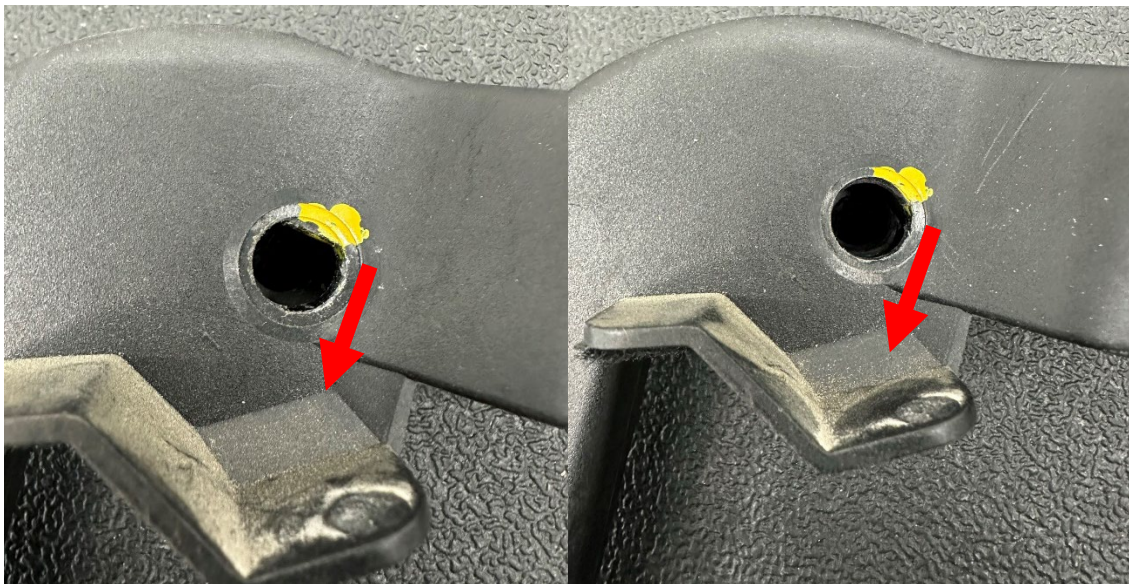
There are two different types of rod ends we sell, a plastic OEM style and all metal version. Both styles come adjusted to match the OEM BMW MC extended length. The rod end lock nut needs to be snug, do not overtighten. You can skip steps 6-9 if you have a plastic rod end.

Step 6 – (Metal Rod End Only):

The brake light switch bracket needs to be modified to clear the nut on the back side of the bracket. The bracket will be loose after the clutch master cylinder is removed. Cut or bend the bracket so there is room for the nut.

**Step 7 – (Metal Rod End Only):**

Remove the clutch pedal. Use a 31/64" or 12mm drill to remove the flat pin detent. A die grinder or Dremel can also be used.



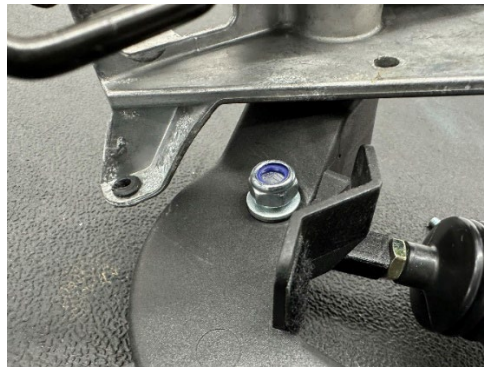
Step 8 – (Metal Rod End Only):

Install the clutch pedal bushings on both sides of the pedal as shown below.



Step 9 – (Metal Rod End Only):

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



Step 10:

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, reuse the factory M6 locknuts, 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 11:

Use the provided rubber clutch line 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, bleed the system, and check for leaks. Warning: Do not use DOT 5 silicone brake fluid for racing or performance driving, use only DOT 3, DOT 4 or DOT 5.1

