1994-2004 Mustang Pedal Assembly Main Structure & Brake Pedal Instructions

FFP Customs prides itself on not only manufacturing quality parts, but also offering real world, race car solutions. Our Patented Pedal Assembly is another product aimed at improving your experience behind the wheel of your race car. These instructions are designed to make installing your new FFP Customs Pedal Assembly that much easier, so follow along as we guide you through the installation process.

Depending on the pedal assembly you have ordered, each individual pedal will be pre-assembled, as will the pedal assembly's main structure, off which everything is built. So, along with the subassemblies, and Wilwood master cylinder box, we also have hardware bags that go with the appropriate subassembly. With the main structure and brake pedal assembly we include hardware bags for the pedal pad, cowl panel mount, reservoir mount, and brake master cylinder mount.

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First things first, we have shipped you our pedal assembly with some of the components already installed together. This has been done to lessen the intimidation one may feel when receiving a pedal assembly. With many subassemblies pre-built, we hope this makes final installation much more understandable and easier to follow.

Pedal Assembly Contents

Billet Components of the Kit	**Main Structure Hardware Bags and Contents**

• Pedal Assembly main structure, preassembled.
• Brake Pedal pre-assembled.
• Throttle Pedal, if applicable. Refer to those instructions for the full list of associated hardware
• Clutch Pedal, if applicable, pre-assembled. Refer to those instructions for the full list of associated hardware
• Pedal Pads for each included pedal.
• Wilwood Master Cylinder
	• Cowl Panel Mount 94-04
	  ○ 8mm x 1.25mm 30mm Long Grade 10.9 Bolt
	  ○ 5/16-24 x 1” Long Grade 8 Bolt
	  ○ ¼-28 x ¾” Grade 8 Bolt
	  ○ 8mm Silver washer
	  ○ 5/16 Grade 8 Washer
	  ○ ¼ Grade 8 washer
	  ○ 5/16-24 Grade 8 Locknut
	  ○ ¼-28 Grade 8 Locknut
	• Brake Master Cylinder Mount
	  ○ 3/8-24 x 2” Studs x 2
	  ○ 3/8 Grade 8 Washer x 2
	  ○ 3/8 Spring Washer x 2
	  ○ 3/8” Heim Joint
	  ○ 3/8 Shoulder Bolt
	  ○ 3/8-24 Finish Nut x 2
	  ○ 5/16-18 Lock Nut
	  ○ ¼-20 x 1” Locking Thread Bolt x 4
	  ○ ¼” washer x 4
	  ○ ¼” spring washer x 4
	• Pedal Pad
	  ○ ¼-28 x 1-1/2” x qty 2
	  ○ ¼” washer x 4
	  ○ ¼-28 Lock Nut x 2

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The Pedal Assembly's main structure installs using the outside firewall mount and the inside firewall mount. Before you do anything, drill out the brake booster/outside firewall mount holes with a 7/16" drill bit for our hardware. Then take your outside firewall mount, feed it through the 4 holes you just drilled out, and fit the inside firewall mount and main structure to the 4 studs on the outside firewall mount. The next part to install on the car will be the body to cowl panel mount, which can be seen in the pictures above. The 8mm x 1.25 silver bolt and washer will be used for the bottom slot of the body to cowl panel mount which will thread into the threaded hole on the bottom of the cowl of the car circled in red on the first picture. The ¾" long ¼" bolts with single washers will be used to fasten the body to cowl panel mount to the body of the car. ALL of the mounting bolts should be fed from the front of the car so that the nuts are easy to start. With the silver bolt and the driver's side mounting bolt tight (First pic), you can now drill the passenger's side mounting hole with a 1/4" drill, (second pic) and then clean the drill chips before tightening down the body to cowl mount. Using the 3rd picture (center bottom) as a reference, use the large fender washer and remaining normal washers to secure the aluminum cowl panel to the body-to-cowl panel mount. The finished product should match the following picture.

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The main structure is the key to our pedal assembly. Once you have the main structure installed, the rest of the installation is a matter of adding the brake pedal and master cylinder, the throttle pedal, and if applicable, the clutch pedal.

The master cylinder bolts to the brake pedal, and then the subassembly is fitted into the main structure. Once a comfortable seating position has been attained, mark the main structure where you want to mount the brake pedal and master cylinder. The brake pedal and master cylinder will need to be removed and bench bled prior to final assembly. It should be noted that the bolts used to mount the brake sub assembly to the main structure have a locking thread, so you will feel some tension once you get the bolt started. We've included spring lock washers for these bolts also as a secondary lock.

Not only is the brake pedal assembly adjustable fore and aft, but you can also adjust pedal pad height, as well, thanks to the extra provisions at the bottom of the brake pedal. As mentioned, the brake pedal and master cylinder mount arrive to you in the box as a subassembly. Attach the included Wilwood master cylinder to the brake pedal subassembly and it is ready to be attached to the main structure using the supplied ¼-20 locking bolts, spring washers, and washers. It should be noted that the bolts used to mount the brake pedal subassembly to the main structure have a nylon locking patch on the thread and will be harder to thread all the way in once the nylon is engaged with the thread. Make sure the pedal has freedom of movement. Proper orientation of the included pedal clevis can be seen above. Make sure not to preload the master cylinder or you could cause brake drag.

With the main structure, brake pedal and master cylinder installed, do not tighten everything until you have adjusted it to your liking and bled the master cylinder. With the master cylinder bled and everything firmly attached, the brake pedal portion of the installation is done.

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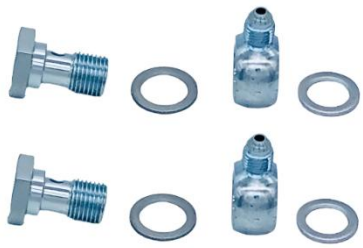
The fittings below will be included with the kit to allow easy line routing with -3AN lines.



- ½" Banjo bolt
- 9/16" Inner diameter sealing washer
- -3AN Banjo
- ½" Inner diameter sealing washer

This is the correct orientation for the pressure output fittings that will be screwed into the brake master cylinder.

If you have made it this far, you have completed the installation of the FFP Customs pedal assembly's main structure and brake pedal subassembly. If you have also ordered a throttle pedal and/or clutch pedal subassembly as part of your FFP Customs pedal assembly, we have included separate instruction sheets to also ease the installation of those subassemblies.

If you have any installation concerns or roadblocks, please call us. We would rather you call us for clarification instead of being frustrated with the installation.

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Patented Pedal Assembly 1994-2004 Mustang Throttle Pedal Instructions

If you are reading this, you have already installed the FFP Customs pedal assembly's main structure and brake pedal subassembly. With that, you can move on to the throttle pedal subassembly. As we have mentioned, everything is built off the pedal assembly's main structure. As such, the throttle pedal uses the main structure as its attaching point.

Make sure all components above are in your kit before moving on. This includes

- Billet Throttle Pedal and throttle pedal pad
- Throttle Pedal Hanger + Throttle pedal Stop with mount hardware installed as pictured on next page
- Pedal Pad Hardware which includes 2 ¼-28 x 1-1/2" Long Bolts, 4 washers, and 2 Locknuts
- Throttle Cable Firewall Bracket with 2 sheet metal mounting screws

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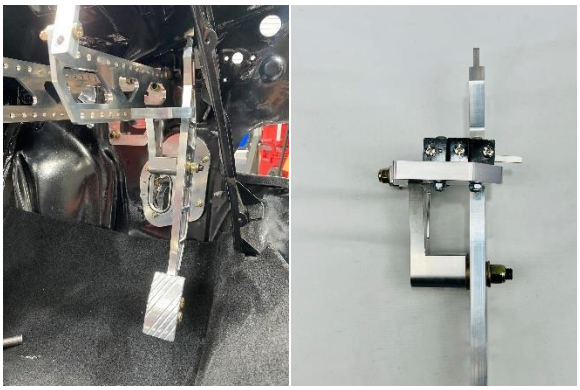
The throttle pedal is sectioned off by itself in the box when you receive the pedal assembly. It uses a throttle pedal stop and hanger that attach it to the main structure. This is the throttle pedal stop and hanger (Right). It attaches to the pedal, which attaches the pedal to the main structure.

Additional hardware for the throttle pedal is for the pedal pad installation and for the throttle cable firewall bracket.

At the top of the throttle pedal is where you attach the throttle cable. The pedal has 3 pivot holes to adjust it up or down. Of the three pivot holes in the center of the pedal, we use the lower hole to best line up to our throttle cable firewall bracket. At the bottom of the throttle pedal there are three adjustment holes for the pedal pad. The adjustment holes are designed to help you arrive at the throttle pedal's sweet spot.



The throttle pedal is mounted to the main structure through the throttle stop and hanger mounting arm. Either way you choose to mount the throttle pedal, whichever is easier would be what we recommend. The orientation of the throttle pedal assembly hardware is on the right. You have the stud that is threaded into the mount, a large oil-impregnated bronze bushing, the pedal itself, a small oil-impregnated bronze bushing, flat washer, and lock nut. Do not overtighten the throttle pedal nut because that will keep it from being able to move. Finding the optimum torque setting is up to your individual combination because that setting will vary depending on your return spring setup.

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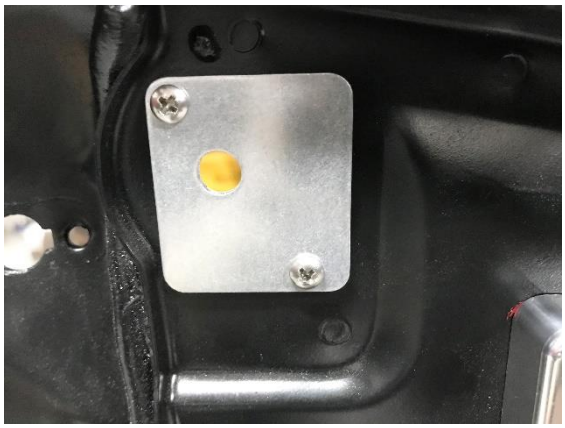
When it comes to the throttle pedal, we do have an optional throttle switch that can be attached to the throttle pedal stop. You can set this up as a wide-open throttle switch to control a nitrous system, or any other system that works off wide open throttle. The switch provision is in the mount, regardless of if you order the switch at the time of purchase or not. Therefore, if at the time of purchase, you do not need it, but later you add nitrous or another system needing to see WOT, the switch can still be added to the throttle pedal mount.

The installation of the throttle pedal is straightforward. The most important aspect of the throttle pedal assembly is the tightening of the pedal nut to the mount. You will have to find the happy medium between too tight and too loose to arrive at the proper torque setting. Aside from that, the throttle pedal is a simple, Bolt On & Go installation.

The completed throttle pedal assembly will look as shown here.



The throttle cable firewall bracket uses the factory clutch cable opening in the firewall. There is already one hole that is used to secure the factory clutch cable, so you must make another hole for the throttle cable firewall bracket. This picture was taken while facing the firewall.

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With all the different throttle cable lengths and applications, we do not include one with our pedal assembly. However, this Lokar cable is an example of what we recommend. The Lokar TC-1000U36 is a 36" cable, which may work for some of you, while others may need a longer or shorter throttle cable. The throttle cable attaches to the top of the throttle pedal using the supplied clevis, goes through the firewall, and then attaches to your car's throttle linkage.

If you have made it this far, you have now installed the main structure, brake pedal assembly and throttle pedal assembly. If you are installing a clutch, brake, and throttle pedal assembly, you still have a little work to do. However, if you are installing a brake and throttle-only pedal assembly, you are ready for a blast down the track.

Remember, if you have any questions, feel free to contact us via phone or social media. We would rather you contact us for clarification instead of being frustrated with the installation.

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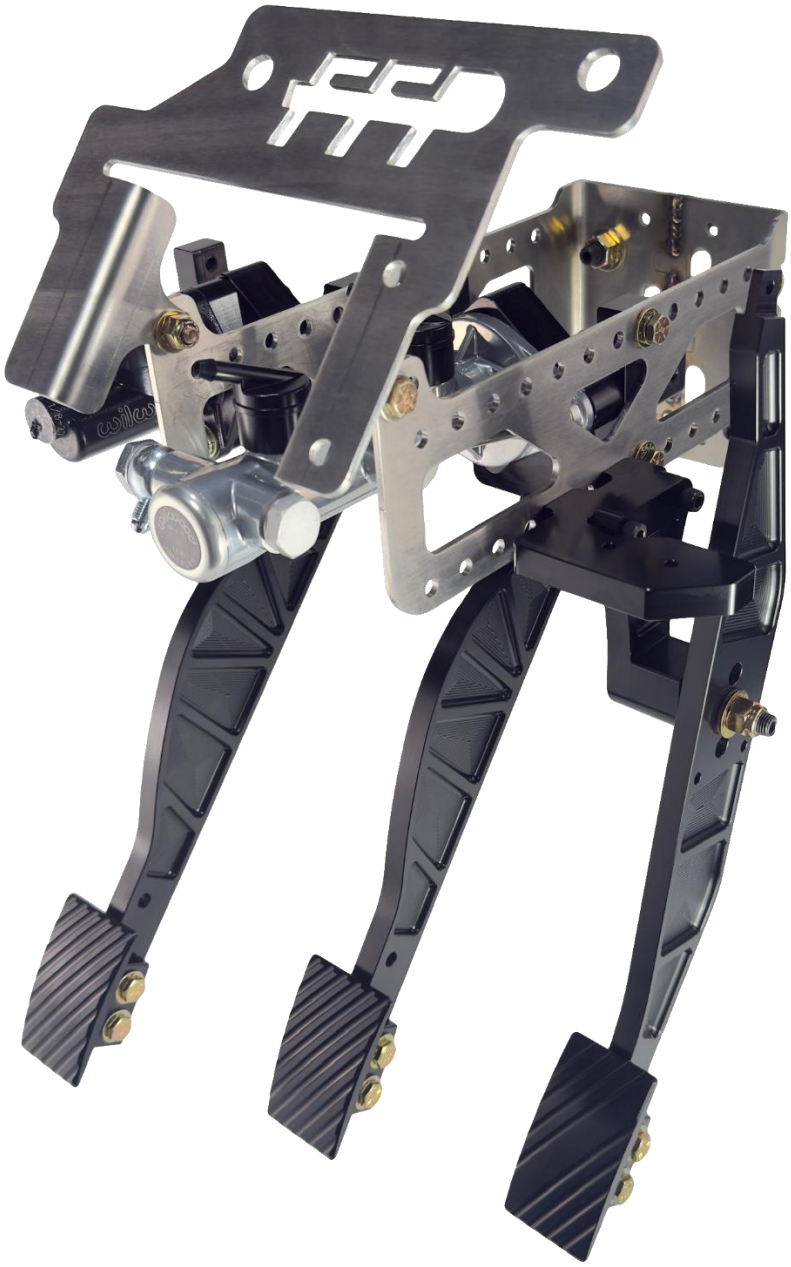
Patented Pedal Assembly 1979-2004 Mustang Clutch Pedal Instructions



If you are reading this, you have already installed the FFP Customs pedal assembly's main structure, brake pedal subassembly, and most likely, the throttle pedal subassembly. The last piece of the FFP Customs patented pedal assembly is the clutch pedal subassembly. As we have mentioned, everything is built off the pedal assembly's main structure. As such, the clutch pedal uses the main structure as its attaching point.

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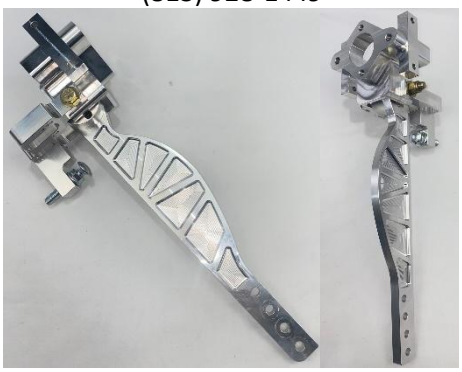

The clutch pedal is sectioned off by itself in the box when you receive the pedal assembly. It uses a mount like that of the brake pedal to attach it to the main structure. We include labeled hardware bags for the pedal pad, reservoir mount, and clutch master cylinder mount.

Make sure all contents of the kit are there before beginning the installation. Components and hardware lists are in the table below.

Billet Components of the Kit	**Clutch Hardware Bags and Contents**

• Clutch Pedal, pre-assembled.
• Pedal Pad
• Wilwood Master Cylinder
	• Clutch Master Cylinder
	  ○ 5/16-24 x 2” Stud x 2
	  ○ 5/16-24 finish Nut x 2
	  ○ 5/16 Spring Washer x 2
	  ○ 5/16 washer x 2
	  ○ 1/4 washer x 4
	  ○ ¼-20 1.75” Stud
	  ○ ¼” Lock washer
	  ○ ¼-20 finish nut
	  ○ ¼-20 lock nut x 2
	  ○ Heim Joint
	  ○ 5/16 Shoulder bolt
	• Neutral Safety Switch
	  ○ Microswitch
	  ○ 8-32 x 1” Long Screw
	• Pedal Pad
	  ○ ¼-28 x 1-1/2” x qty 2
	  ○ ¼” washer x 4
	  ○ ¼-28 Lock Nut x 2

The clutch pedal subassembly consists of the clutch pedal, master cylinder mount, clutch pedal stop, and a neutral safety switch mount and switch. A Wilwood master cylinder is included with the kit, but it must be assembled, bled, and then installed onto the pedal assembly’s main structure.

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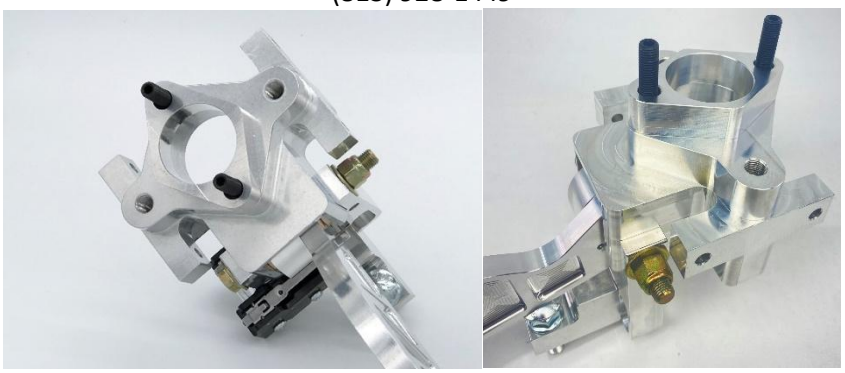

The clutch master cylinder uses this spacer and studs to attach it to the clutch pedal.

With the master cylinder spacer and studs installed into the master cylinder mount, install the Wilwood master cylinder. Make sure the pedal has freedom of movement. We include a threaded clevis joint to connect the master cylinder to the clutch pedal at the top. This is looking down at it from overhead. Make sure not to preload the master cylinder. The 90-degree 1/8" male NPT fitting in the master cylinder is included. Now you are ready to attach it into the main structure. Take the hardware provided from the clutch master cylinder mount bag and attach it to the main structure.

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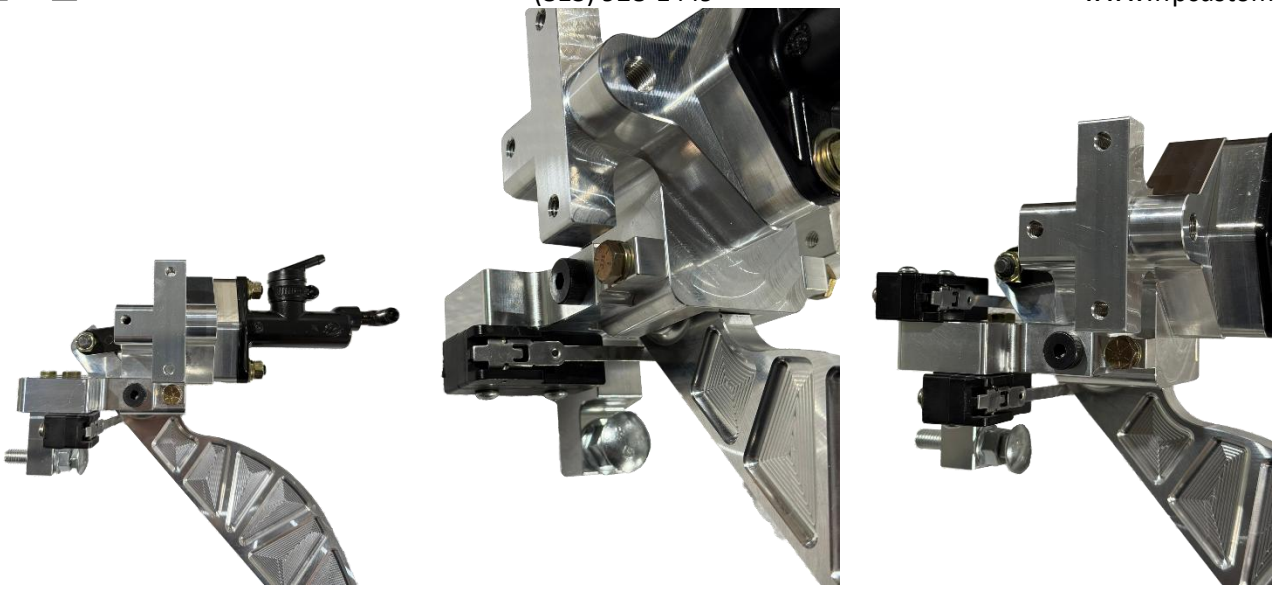
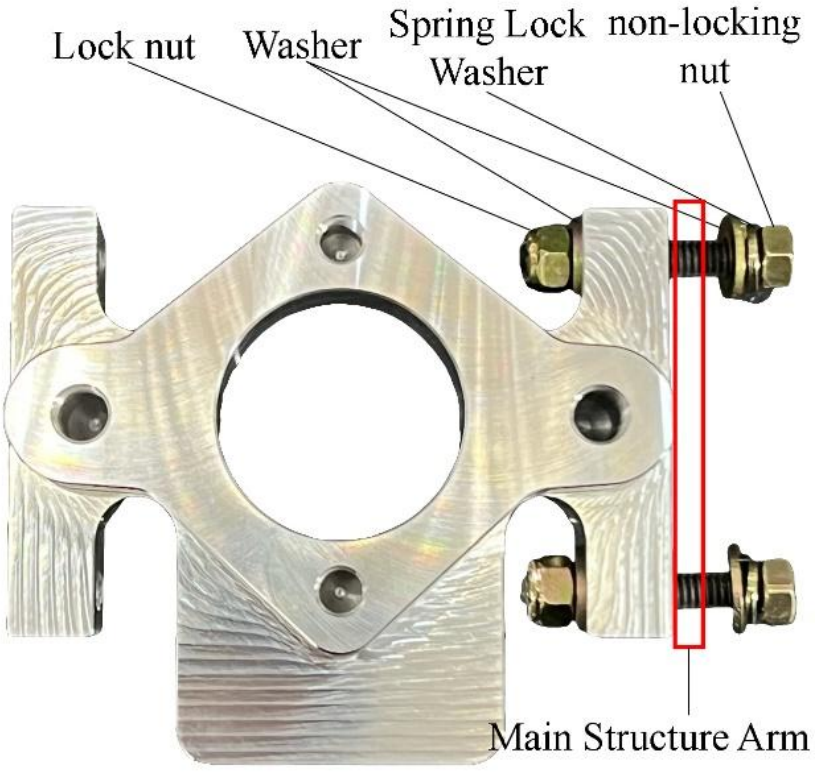


When it comes to the clutch pedal, we do have a couple clutch pedal switches that can be attached to the clutch pedal mount. One is a neutral safety switch, which is included with the pedal assembly, and an optional ignition cutoff switch that can be ordered (Part Number Z-15GW-B), as well. The neutral safety switch is adjustable via 5 different mounting holes to accommodate different clutch pedal stroke lengths. This is dependent on your clutch pedal stop's final adjustment. It might be necessary to adjust the neutral safety switch to work with your clutch pedal's stop bolt. There are several mounting options for the neutral safety switch, and the neutral safety switch arm can be manipulated to offer even more adjustment. The middle image shows just the neutral safety switch installed, whereas the far-right image shows both switches installed.



The clutch sub-assembly attaches to the main structure arm in the orientation pictured above. We recommend installing the set screw, washer, and locknut while the sub-assembly is outside the car. Make sure some of the set screw protrudes through the locknut to ensure the nylon lock is engaged. Once that is built, slide the set screws through the main structure arm and use the washer, spring lock washer, and non-locking nut to fasten it to the main structure.

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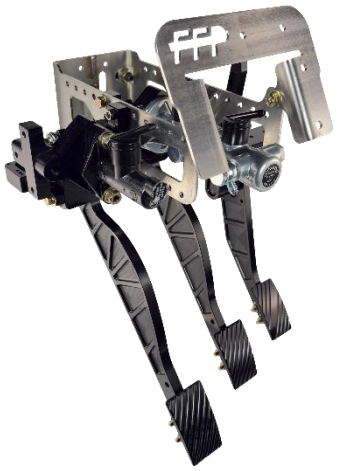
As for bleeding the system, Wilwood does a great job of explaining the bleeding process for the clutch master cylinder so source their instruction sheet within the provided clutch master cylinder box for that information.



Use the hardware marked Pedal Pads to attach the pedal pad to the clutch pedal, and you are done. The completed clutch pedal assembly is probably the last subassembly installed onto the pedal assembly. As you can see, all lines are connected and routed to the bulkhead at the firewall.

If you have made it this far, we trust you have installed a complete FFP Customs Patented Pedal Assembly. Remember, if you have any questions, feel free to contact us via phone or social media. We would rather you contact us for clarification instead of being frustrated with the installation.

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