

NC Chassis Co.

Machined Pedal (MP)

Installation Manual

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Racing is a hazardous sport, serious injury or even death can result. User assumes all risks associated with use.

Required Tools

- Cordless drill
- 7/32" drill bit
- 1/4" drill bit
- 1/4" Drive-ratchet wrench
- 1/2" socket
- 3/8" socket
- 7/16" socket

- 5/32" Allen wrench
- 1/8" Allen wrench
- 1/2" open-end wrench
- 7/16" open-end wrench
- Hack saw or chop saw
- File or table sander

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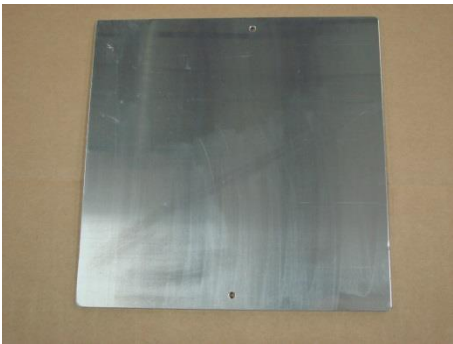
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MP Primary Support Plate



MP Brake Base



MP Throttle Base



MP Steel Bushing



MP Shoulder Bolt



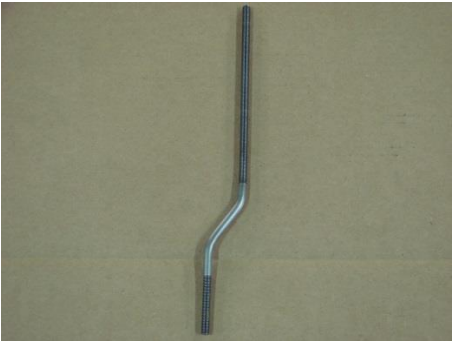
MP Upright



MP Std. Base Plate



MP Std. Throttle Rod



MP Std. Brake Rod



MP Rookie Brake / MP Rookie Throttle Plates



MP Rookie Brake Rod

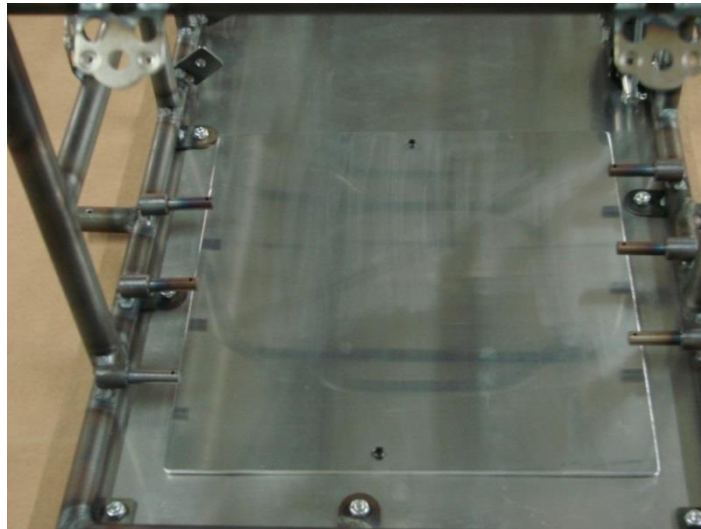


MP Rookie Throttle Rod

MP Standard Assembly Instructions

Step One: Locating the Pedal Assembly

1. Have the driver sit in the car. Make sure the driver is positioned comfortably in the car with their legs slightly bent (the driver's legs should not be completely straight).
2. Raising their feet place the 1/8" thick Primary Support plate in the car and position the plate so that from front to back their heels are half way on the plate.
3. Mark the 2 pre-drilled holes; and drill with 7/32" drill bit.
4. Using hardware provided tighten the base plate to the belly pan (refer to picture 1).



Picture 1

Step Two: Locating the MP Std. Base Plates

1. Bolt the MP Uprights to the MP Throttle base and Brake base; using the MP Shoulder bolt provided (refer to picture 2).
2. When the Shoulder bolts are tight the upright should move forward freely. If it does not; work it back and forth several times and it should loosen the tolerances.

These next steps are very important

-Positioning the Std. Base plates properly is very critical to making sure the pedals function without problems.

3. Place the Std. Base Plates on the Primary Support plate and then place each pedal assembly on the Std. Base plates using the provided hardware drop the bolts loosely into the pre-drilled holes (refer to picture 3).
-This will help keep the pedals in the proper position to use them as a reference to locate the Std. Base plates properly.

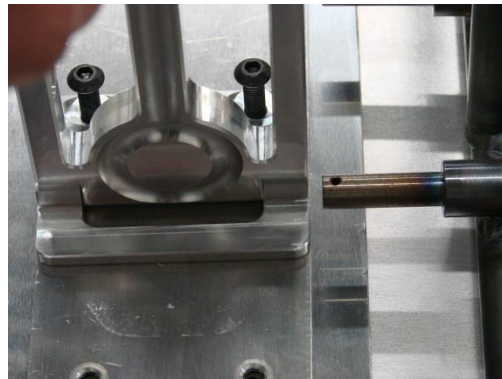
4. Locating the pedals make sure the pedal upright will not interfere with any component within the car as it travels forward, such as an existing pedal pin (refer to picture 3). Also, make sure the Std. Base plate and pedal are square within the car and fairly equal distance from front to back on the Primary Support plate. This will end up being the permanent location of the pedal.

5. Once you are happy with the location of the pedal assembly mark the 8 pre-drilled holes in the Std. Base plates (refer to picture 4).

6. Drill these 8 holes using a 7/32" drill bit and bolt thru both the Primary Support plate and belly pan (refer to picture 5).



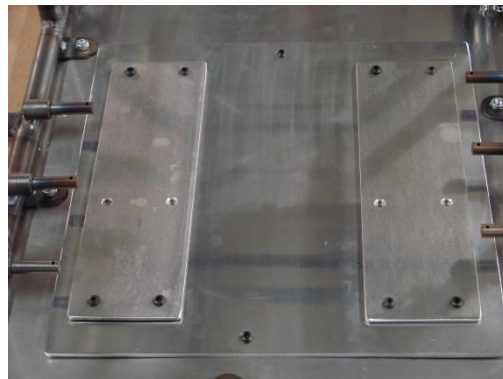
Picture 2



Picture 3



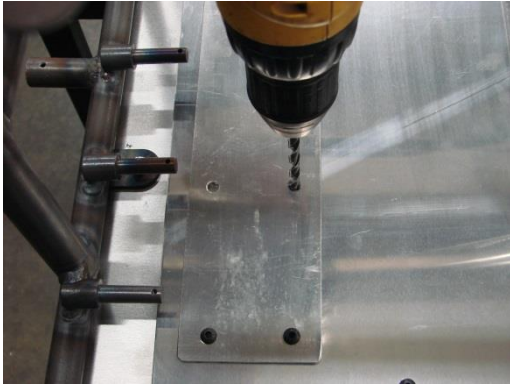
Picture 4



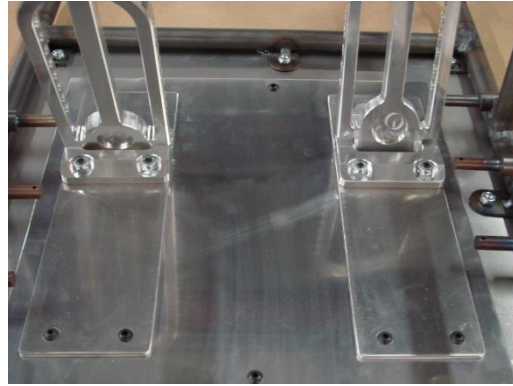
Picture 5

Step Three: Drill 1/4" holes for pedal base

1. Using the pre-drilled 1/4" hole as a guide; drill the 1/4" hole for each MP Pedal base (refer to picture 6).
2. Then using the provided hardware; mount the pedals firmly thru all the plates (refer to picture 7).



Picture 6



Picture 7

Step Four: Cut pedal rod length

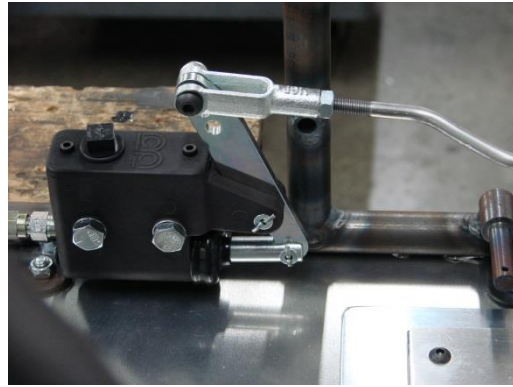
-Now that the pedal assembly is located and mounted; the pedal rods can be fit.

-The rods are pre-bent, but may need tweaking do to the custom location of the pedals. If this is the case simply use a radius rod and a vice to slightly add or reduce bend in the rod (refer to picture 8).

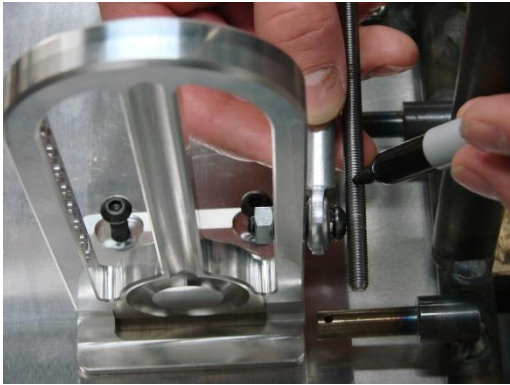
1. Starting with the brake rod; use the provided hardware to mount the short thread end of the brake rod to the master cylinder (refer to picture 9).
2. Using the provided bolt and MP Steel Bushing mount the heim to the pedal; preferably in the second hole from the **bottom**.
3. With the heim located on the pedal clock the pedal slightly forward from 90 degrees and mark the rod just before the ball of the female heim (refer to picture 10). This marking will be your cut-off point of the rod using either a hack saw or cut-off wheel. Then debur the cut with a file or preferably a sanding wheel; so the rod will thread well into the heim. When this assembly is complete it should look like picture 11 below.
4. Next is the throttle rod; put the short thread side of this rod thru the throttle bracket welded to the frame.
5. With the heim located on the pedal; preferably the second hole from the **top**; clock the pedal slightly forward keeping in mind to not go too far forward and limit the pedal travel to the throttle stop bolt. However this stop bolt can be made shorter if necessary.
6. Hold the throttle rod so that the rod is level and straight within the throttle brackets on the frame (refer to picture 12). At this point you may notice that the throttle rod angle up to the pedal heim needs to be adjusted. Using a radius rod make this adjustment now.
7. After the desired angle in the throttle rod is achieved; make sure you are holding the throttle rod so that the rear end of the rod is making contact with the throttle bracket welded to the frame. Then mark the rod at the other end just before the ball of the heim, same as you did for the brake rod.
8. Cut and debur the rod. When mounted it should look like picture 13 below.



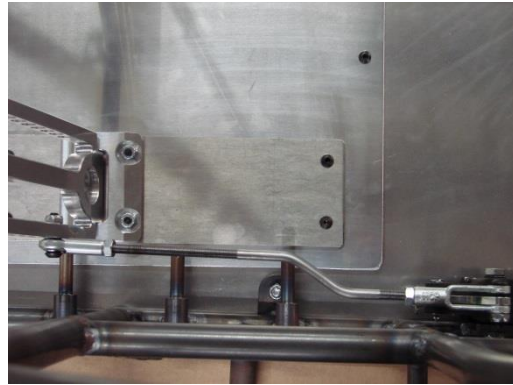
Picture 8



Picture 9



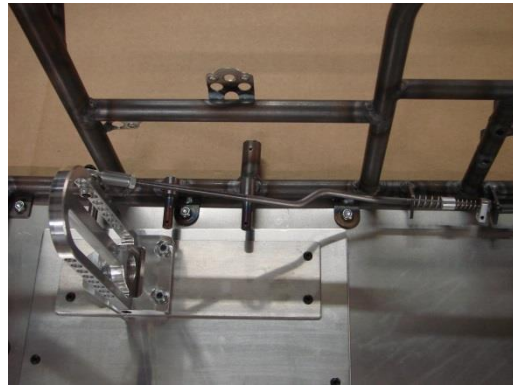
Picture 10



Picture 11

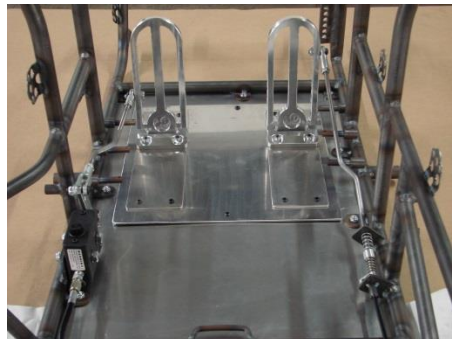


Picture 12



Picture 13

-The pedal assembly and installation should be complete and mounted firmly to the belly pan of the racecar.



MP Rookie Pedal Assembly Instruction

-This assembly is specifically designed for small drivers that are not tall enough to reach the pedals in the stock position of the racecar. This system may not work if used too far forward in the racecar; due to lack of clearance around welded-in pedal bracketry.

Step One: Locating the Pedal Assembly

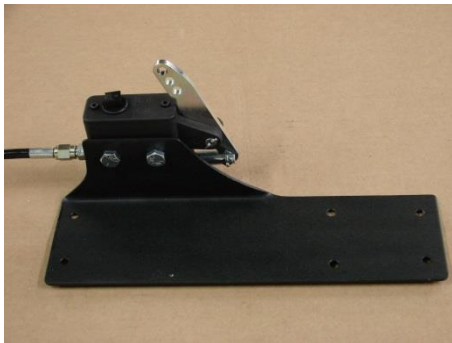
-Use the step one instructions on page 4.

Step Two: Locate the MP Rookie Base Plates

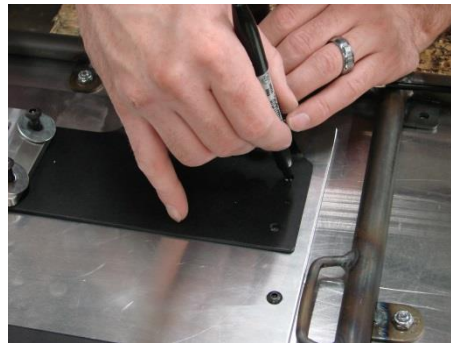
1. Bolt the MP Uprights to the MP Throttle base and Brake base; using the provided hardware (refer to picture 2, page 5).

-When bolts are tight the upright should move forward freely. If it does not; work it back and forth several times and it should loosen the tolerances.

2. Bolt your brake master cylinder to the Rookie brake base plate (refer to picture 14). This will assure you give the brake master cylinder proper clearance from other components in the car when mounting the plate.



Picture 14



Picture 15

-Positioning the Rookie Base plates properly is very critical to making sure the pedals function without problems.

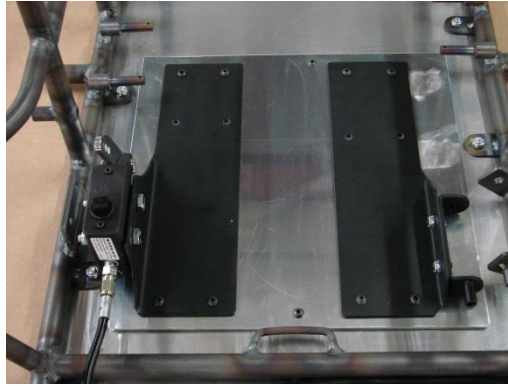
3. Place the Rookie Base Plates on the Primary Support plate and then place each pedal assembly on the Rookie Base plates. Using the provided hardware; drop the bolts loosely into pre-drilled holes as seen in picture 15.

-This will help keep the pedals in the proper position to use as a reference to locate the Rookie Base plates properly.

4. **This next step is important:** Locating the pedals make sure the pedal upright will not interfere with any component within the car as it travels forward, such as an existing pedal pin (refer to picture 3, page 5). Also, make sure the Rookie Base plate and pedal are square within the car and fairly equal distance from front to back on the Primary Support plate. This will end up being the permanent location of the pedal.

5. Once you are happy with the location of the pedal assembly mark the 8 pre-drilled holes in the Rookie Base plate (refer to picture 15).

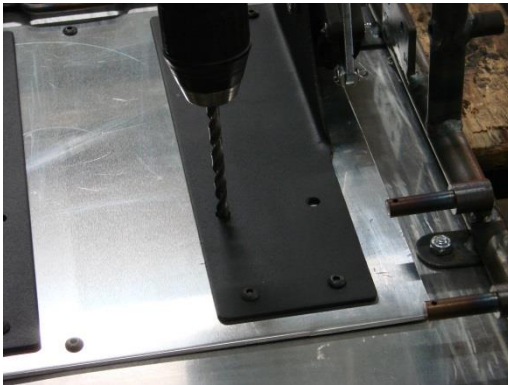
6. Drill these 8 holes using a 7/32" drill bit and bolt thru both the Primary Support plate and belly pan (refer to picture 16).



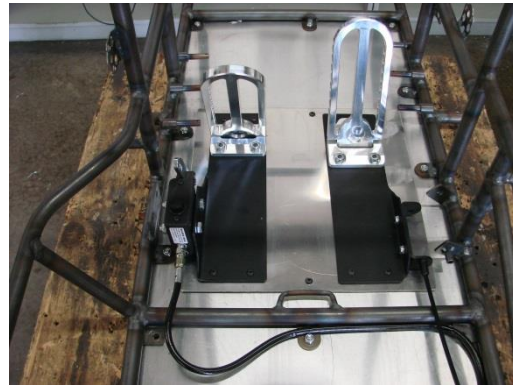
Picture 16

Step Three: Drill 1/4" holes for pedal base

1. Using the pre-drilled 1/4" hole as a guide; drill the 1/4" hole for each MP Pedal base (refer to picture 17).
2. Then using provided hardware; mount firmly thru all plates (refer to picture 18).



Picture 17



Picture 18

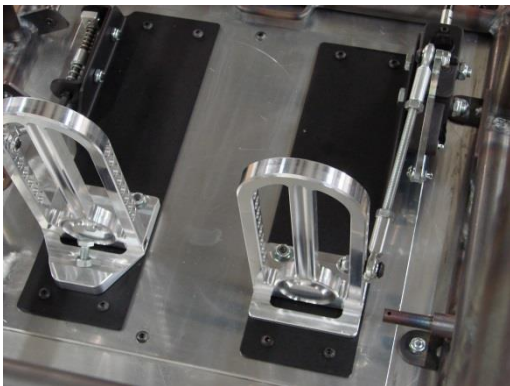
Step Four: If necessary cut the Rookie Pedal rod length

-This portion of the assembly should have currently been fit at the factory. If you wish to change the location of the pedal on the Rookie Base plate than the following directions will help you make that change and alter the pedal rods.

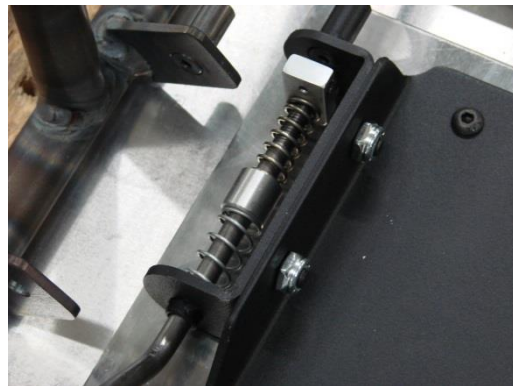
1. Now that the pedal assembly is located and mounted; the pedal rods can be fit. The rods are pre-bent and cut, but may need tweaking do to the custom location of the pedals. If this is the case simply use a radius rod and a vice to slightly add or reduce bend in the rod (refer to picture 8, page 7).
2. Starting with the brake rod, use the provided bolt and Steel Bushing to mount the hiem to the pedal; preferably in the second hole from the **bottom**. Use the provided hardware to mount the brake rod to the

master cylinder (refer to picture 19). The current length of this rod may be sufficient, if it is too long the pedal may be clocked forward more than desired. If so, correct it with the following process.

3. With the heim located on the pedal clock the pedal slightly forward from 90 degrees and mark the rod just before the ball of the female heim (refer to picture 10, page 7). This marking will be your cut-off point of the rod using either a hack saw or cut-off wheel. Then debur the cut with a file or preferably a sanding wheel; so the rod threads well into the heim. When this assembly is complete it should look like picture 19.
4. Next is the throttle rod. With the heim located on the pedal; preferably second hole from the **top** clock the pedal slightly forward keeping in mind to not go too far forward and limit the pedal travel to the throttle stop bolt. However this stop bolt can be made shorter if necessary.
5. Hold the throttle rod so that the rod is level and straight within the throttle bracket bolted on the frame (refer to picture 20). At this point you may notice that the throttle rod angle up to the pedal heim needs to be adjusted. If so, take the rod out of the bracket clamp the rod at the bend and using a radius rod make this adjustment now.
6. After the desired angle is achieved; make sure you are holding the throttle rod so that the rear end of the rod is making contact with the throttle bracket. Then mark the rod at the other end just before the ball of the heim (refer to picture 21).
7. Cut and debur the rod. When mounted the assembly is complete and should look like picture 22.



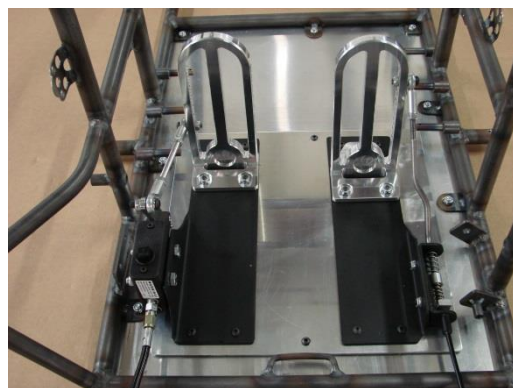
Picture 19



Picture 20



Picture 21



Picture 22