

# INSTALLATION INSTRUCTIONS

## Floor-Mounted Pedal Assemblies

### A. Description

The Tilton Floor-mount pedal assembly has been designed to give the driver the greatest control from a floor-mounted pedal. The pedal profile has been carefully engineered to deliver the optimum pedal ratio. The welded steel and cast aluminum pedals provide the strength and durability to handle the most severe braking conditions. All pedal assemblies with dual brake master cylinders include the balance bar assembly in the brake pedal.

The balance bar allows the crew to adjust the force distribution to the dual master cylinders. This system can be used to compensate for fuel load changes and tire wear during an event. The Remote Cable Adjuster (P/N 72-501 or P/N 72-401) is also available as an option. This connects to the balance bar and allows the driver or a crew member to make balance bar adjustments with a flick of the wrist.

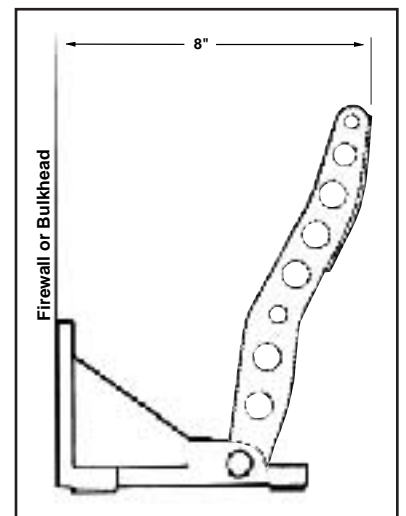


### Installation Notes

- Secure the pedal frame to both the floor and the firewall, if at all possible.
- The mounting location should suit the particular driver and also provide a stable platform.
- A cross member support under the pedal frame will greatly enhance the stability of the pedal assembly.
- Determine if the master cylinder reservoirs are to be remotely-mounted or attached directly to the master cylinder.
- If you have decided to remotely-mount the reservoirs, select the locations for the reservoirs before starting installation.
- This is a gravity fed system so the reservoirs must be located above the calipers.
- If the Remote Cable Adjuster is part of your kit, select a mounting location and trial fit it into the vehicle before installation.
- Attention must be paid to the routing and location of the hydraulic lines. Avoid any heat sources such as exhaust pipes.
- It is very important to allow adequate clearance for ease of balance bar adjustment.
- The balance bar mechanism must clear all obstructions when the balance bar is adjusted to the extreme right or left-of-center.
- Be sure that there is no binding during the full stroke of the master cylinders.
- Accurate clutch pedal setup is critically important. Improper clutch pedal installation and/or adjustment can result in expensive clutch damage and DNFs at the track!
- If the master cylinders are mounted in such a way that they are exposed in an open wheel well, a sheet metal guard should be installed to protect the hydraulic system from damage.

### B. Installation

1. Trial fit the pedal assembly into the vehicle and note any adjustments that are needed. *It is important to mount the frame rigidly so it does not move when heavy pedal force is applied.*
2. Refer to **Diagram 3** and mark the mounting hole locations on the floor of the vehicle.
3. If your application allows for firewall or bulkhead mounting in addition to floor mounting, mark the hole locations for the firewall mounting holes at this time.
4. When satisfied with the mounting locations, drill the mounting holes into the floor and the firewall if applicable. Install the pedal assembly into the vehicle using the hardware provided in the kit.
5. Install the master cylinders onto the pedal frame and secure them using the serrated flange nuts provided in the kit.
6. Install the Remote Cable Adjuster, if applicable, referring to the remote cable adjuster instructions provided in the kit. Do not connect the cable to the balance bar at this time.
7. Install the remote-mounted reservoirs into the vehicle if this is the configuration chosen.
8. Install the brake and clutch hydraulic lines using 3/16" hard line or AN3 steel braided lines.
9. Refer to the master cylinder instructions for the reservoir mounting and bleeding procedures.



**Diagram 1**  
Brake Pedal Setup

## C. Brake Pedal Setup

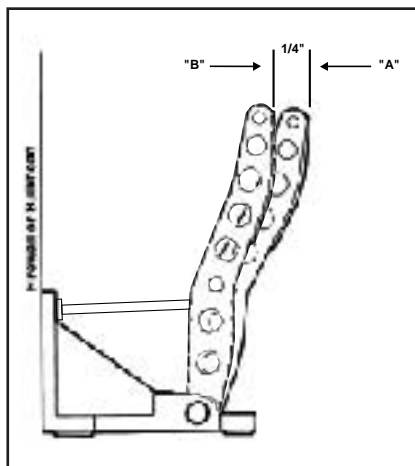
1. Thread the jam nuts all the way onto the master cylinder pushrods.
2. Thread the pushrods into the clevises on the balance bar assembly.
3. Adjust the pushrods evenly until the brake pedal is set-up according to **Diagram 1**. This is a good starting point that may need adjustment to fit the driver. In general, the pedal, in the relaxed position, should lean towards the driver.
4. To perform the balance bar setup refer to the balance bar installation instructions.
5. The clevis-to-clevis center distance must be maintained at 2.50".

## D. Clutch Pedal Setup

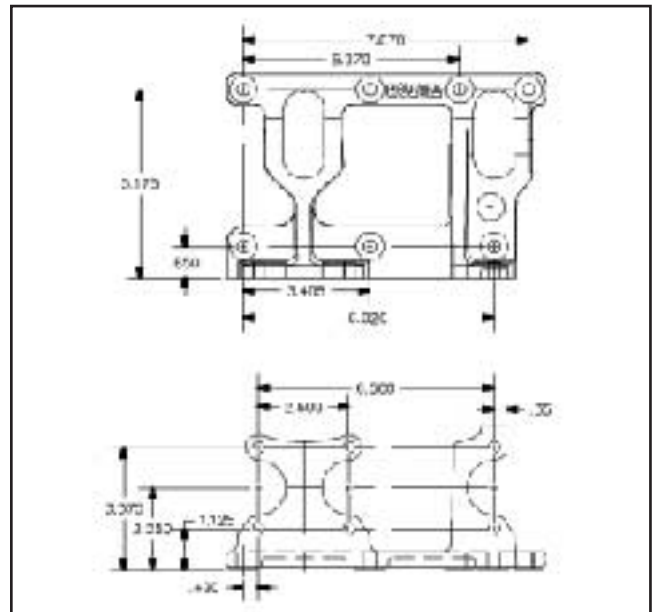
1. Thread the jam nut that is included in the kit all the way onto the master cylinder pushrod.
2. Determine where you want the clutch pedal to be in relation to the brake pedal when the clutch pedal is in the relaxed position. This will vary based on the driver's requirements.
3. Thread the pushrod into the rodend on the clutch pedal until the pedal is in the desired position.
4. You may need to shorten the pushrod for certain positions. Like the brake pedal, when in the relaxed position the best geometry is provided when the pedal leans toward the driver.
5. Connect the hydraulic line to the master cylinder.
6. Prime the clutch master cylinder by filling the master cylinder reservoir with brake fluid.
7. Open the bleed fitting at the master cylinder.
8. Gently depress and release the clutch pedal until fluid emerges. Do not stroke the master cylinder past 1" during this process.
9. Tighten the bleed fitting.
10. Set the pedal stop at 3/8" master cylinder travel. This will limit the release bearing travel and prevent overstroking the clutch.
11. Bleed the clutch hydraulic system from the release bearing end until the clutch pedal firms up.
12. Allow a few seconds between pedal strokes to prevent "Pumping Up" the system and overstroking the clutch.

## E. Clutch Pedal Stop Setup (For use with Tilton hydraulic release bearings)

1. Raise the vehicle onto jack stands or a hydraulic lift.
2. With the engine off, put the transmission into 1st gear and have someone attempt to rotate one of the drive wheels.
3. Depress the clutch pedal slowly until the clutch disengages and the drive wheel can be rotated.
4. Note the clutch pedal position at this point. This is labeled "A" in **Diagram 2**.
5. Adjust the pedal stop bolt to allow an additional 1/4" of pedal travel past point "A" in **Diagram 2**. This is labeled as point "B" in **Diagram 2**.



**Diagram 2**  
Pedal Stop Setup



**Diagram 3**  
Mounting Hole Locations

Note: Drill 11/32" clearance holes for mounting bolts

## F. Maintenance

Periodic inspections of the brake and clutch pedal assemblies should be conducted routinely. Rebuild kits for master cylinders are available from Tilton Engineering.