# 1955-1959 CHEVY TRUCK FRAME MOUNT BOOSTER KIT



# **UNBOXING YOUR KIT:**

- 1. Remove new booster, bracket assembly and master cylinder from their boxes and inspect the parts.
- 2. New boosters come with a protective plastic or rubber boot over the front pin area for shipping purposes. Remove this before the installation.
- 3. This kit features a universal booster that has the short pin in the front of the booster. The new cylinder may have a **piston adapter** to convert it from deep to shallow hole. Install the piston adapter. Use a shallow pocket master cylinder on a power brake booster with the short pin.





Piston Adapter

# **REMOVING AN OLD MASTER CYLINDER:**

- 4. Perform brake work on a level surface. Chock the wheels, set the emergency brake and put the transmission in Park.
- 5. Protect painted surfaces from brake fluid and place absorbent materials such as rags under the master cylinder. Since brake fluid is caustic to paint, use a fender cover mat
- 6. Spray the master cylinder nuts and fittings with penetrating spray.
- 7. Mark which lines connect to which port on the master cylinder and which supplies fluid to the front and rear wheels respectively. (If you have the ability to take a digital picture for reference before disassembling the lines from the valve this would be a good time to do so.)
- 8. Make a note of the brake pedal ride height inside the cab of the vehicle. Use a wooden block to rest the pedal on so you will have a reference when you set it back up. (If you have the ability to take a digital picture for reference before disassembling the lines from the valve this would be a good time to do so)
- 9. Use flare nut wrenches to loosen the master cylinder nuts. On stubborn fittings, sometimes attempting to tighten them before loosening them helps break them free. Be careful with the tube nut hex heads and tubes themselves if you are re-using them.
- 10. Again, to protect important painted surfaces you might cover the master cylinder with a plas-tic trash bag and or wrap it with shop rags or towels. Consider removing all of the old brake fluid from master cylinder first.
- 11. Inside the car, disconnect the master cylinder rod's clevis from the brake pedal swing arm and note which hole it was connected to.

## **PREP & INSTALL**

- 1. Working on a level surface, chock brakes and support the vehicle.
- 2. Remove the brake pedal arm from the original master cylinder
- 3. Remove the lines from master cylinder and drain it.
- 4. Unbolt the original master cylinder from the frame.
- 5. Remove the brace plate that supported the master cylinder.

(The support bracket may be tack welded on to the frame channel)

# Parking Brake Cable Modifications: pulley, lever and cable routing mods:

- 6. Locate the parking brake pulley on the frame.
- 7. Unbolt it. Save it for later. Note the locations of the two holes. Both need to be relocated.
- 8. Use a piece of cardboard to make a rigid template that fits inside the frame channel.
- 9. Cut the two holes into the template.
- 10. The two holes need to be relocated 14 inches rearward.
- 11. Measure 14 inches from each hole and mark the location.
- 12. Check the position of the two proposed holes with the cardboard template you made.
- 13. The marks for the new site for the two holes should line up.
- 14. Drill the two holes through the frame using a 3/8" drill bit.
- 15. Mount the parking brake pulley on the frame in the new location.

## Lever and cable routing:

- 16. Locate the parking brake cable end. It is connected on a lever near the cross member.
- 17. Drill out the pin that secures the cable end to the arm.
- 18. Next feed the cable back so that you can re-route it through the frame section to avoid the new booster once it is installed.
- 19. You may need to drill a new attachment hole for the cable to attach to the lever. Use a bolt, washers and lock nut to reconnect it.
- 20. With the cable system tasks complete, test the parking brake.
- 21. Now that the cable system is tucked neatly inside the frame channel, proceed to installing the bracket unit.

#### Bracket installation: Booster and brace sections

- 22. Bolt the new bracket assembly to the frame channel in the location of the original master cylinder.
- 23. Verify that the cable is positioned in the open area between the frame and the bracket.
- 24. Note that the thick arm section of the new pedal bracket should be resting up against a closed channel section of the frame.

- 25. Locate the two holes in the thick arm section and mark them for drilling.
- 26. Drill the two new holes and mount the bolts and nuts.
- 27. Mount the brake booster to the bracket assembly.
- 28. Position the support brace on to the bottom and away stud of the booster.
- 29. The brace goes from the booster to the underside of the frame.
- 30. Mark and drill the hole in the underside of the frame.
- 31. Secure the brace to the frame with the bolts and nuts provided.
- 32. Finish tightening all bolts connecting the booster and brace to the chassis.

### Brake pedal arm installation:

You should now be ready to install the brake pedal swing arm.

- 33. The inner or middle bolt connects to your original pedal assembly.
- 34. The one on the end is to connect the booster extension rod provided in the kit.
- 35. Connect your swing arm to the lever and tighten the bolts.
- 36. Using a bolt connect the swivel and spacer to the lever arm & secure the nut.
- 37. Next attach the extension rod to the rear of the brake booster and adjust the swivel as needed to connect it to the swing arm.
- 38. Tighten the bolts. Grease this location since it moves with the swinging action of the pedal arm.
- 39. You should now have your brake pedal swing arm attached.
- 40. Test the swing action and pedal ride height in the cab. It should travel smoothly. Adjust the pedal height as preferred.

# INSTALLING PROPORTIONING VALVE KIT (BOTTOM MOUNT AS SHOWN)

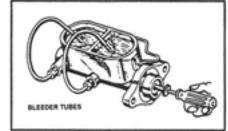
Verify that you have the following: 1 valve, 2 lines, 1 bracket, 1 harness connector, 1 bag that contains 2 bolts, 4 washers and 2 nuts (bottom mount only)

- 1. Place the valve on its' edge with the white switch facing you on your work bench and position the valve as shown with the large hex nut end towards your right.
- 2. Place the bracket and valve in the position shown.
- 3. Position the bracket on top of the valve and line up the bolt holes.
- 4. Next locate the small bag with the bolts and wash-ers, and empty the parts onto the work bench.
- 5. Pick up both bolts and place a lock washer andthen a flat washer onto each.
- 6. Be sure to have the bracket and valve in a position that allows you to insert the bolts through the valve and through the bracket.
- 7. Push each bolt through the valve and bracket and secure the hex nuts. Hand tighten.
- 8. Locate the brake lines.
- 9. Identify which line will connect to which port on your master cylinder.
- 10. If you have a dual bail wire master cylinder, the lines will mount side by side.
- 11. If you have a single bail wire master cylinder, they cross in an X pattern.
- 12. Next hand tighten the brake lines as shown onto the valve.
- 13. The next step can be done with the master cylinder either on or off of the brake booster or firewall.
- 14. As a unit position the valve and bracket assembly up to the ports of the master cylinder.
- 15. Hand tighten each line (Do Not Use Teflon tape) as you place the brackets on to their mounting studs which are in front of the master cylinder mounting ears.
- 16. Use a flare nut or box end wrench to tighten the tube nuts on the brake lines.
- 17. Once satisfied with the brake line positions, finish tightening the valve's brackets bolts and nuts.
- 18. Place the mounting nuts onto the studs which the proportioning valve bracket mounts. Tighten it down.
- 19. Connect the dash warning light connector to the factory harness.



#### **BLEEDING MASTER CYLINDER**

- 1. Use the plastic clip to secure the hoses that return into the reservoir so that the hose ends are below the fluid line.
  - \*\*The hose tips must be submerged under the fluid level.
- 2. Using a blunt tool or punch, push the pistons <sup>3</sup>/<sub>4</sub>"-1" in with a series of steady strokes to expel air bubbles. This may take several cycles to expel all of the bubbles. Do this until it cannot be compressed more than 1/8", & no air bubbles are visible.



- 3. Remove the bleeder kit. Install the lid. Wipe off any excess brake fluid.
- 4. Position & place clean shop rags or towels in the engine compartment of the car to protect painted surfaces.
- 5. If mounting the master on a power brake unit with a short pin, install the piston adapter to make the shallow hole. If using a long pin, no adapter.
- 6. If you have yet to do so, remove the protective cover from the front of the booster to expose the front pin.
- 7. Mount the master cylinder on to the booster. Don't drop the adapter.
- 8. Torque the hex nuts to 20-25ft. lbs.

# INSTALL THE PROPORTIONING VALVE AND BRACKET (PROPORTIONING VALVE KITS SOLD SEPARATELY)

- 9. Be sure to install the correct brake valve for your application. Due to a wide range of applications, a brake proportioning valve is not included in the booster conversion kit.
- 10. If you already have the kit, attach brake line tube nuts to the master cylinder. Don't use Tef-lon tape.

# BLEEDING ON THE VEHICLE.... NEVER USE OLD BRAKE FLUID!

- 1. Use a brake screw bleeder wrench to open and close the bleeder screws.
- 2. Bleed the wheels in this order. Right rear, left rear, right front, left front. (Bleed from farthest from the master cylinder to the closest).
- 3. Have and assistant pump the pedal 3-5 times and hold the pedal.
- 4. As you open the bleeder screw, the assistant follows/pushes the brake pedal all the way to the floor. When they reach the floor, you tighten the bleeder screw and the cycle repeats.
- 5. Bleed each wheel until no air comes out and there is only fluid. Wipe fluid.
- 6. Be sure to check the fluid level in the master cylinder frequently. Keep the reservoir full of fluid and the lid installed in the process. Remember to protect painted surfaces with rags.
- 7. You should notice the pedal requiring more effort to depress it as you progress towards the front left wheel.
- 8. Repeat the bleeding process until the brake pedal is firm and holds.
- 9. When done, remove the wheel chocks and release the emergency brake.
- 10. Test brakes slowly in a safe area away from other cars or objects by making a series of stops. Try a 5 mph stop, a 15mph stop, a 30mph stop & a 50 mph stop. Drive safely and responsibly.
- 11. Stop the car & check brake fluid level.
- 12. Drive safely to get a "feel" for the braking action of your car.