





**Attention: Before modifying, painting, or powder coating any part of this kit, please trial fit all components and check rim clearance. We recommend you run 15” or larger wheels with this kit. We do not support the use of 14” wheels on this kit.**

**Modified, Painted, and Powder Coated parts are not returnable!**

## **Disclaimer:**

Camaro Central values your safety above all things. For this reason, we recommend all brake systems and components be installed by professionals. The installer of the brake parts is responsible for ensuring fitment and suitability of the parts for the vehicle it is being installed on. Brakes should be tested in a controlled open area with success before driving on the road. If you are unsure or uncomfortable with any part of your kit, please call for further instructions from our tech staff before driving.

# Kit Contents:

- \_\_\_ Pair of Rotors (BR02C for plain rotors, BR02ZDC rotors for drilled and slotted rotors)
  
- \_\_\_ Pair of calipers (BC14N/BC15N (A Body) BC03N/BC03N (F / X Body), if powder coated calipers were selected there will be a letter pertaining to the color of the caliper within the part number as well)
  
- \_\_\_ Set of spindles (DBSP02 62-67 Nova Only, DBSP01 for all other cars)
  
- \_\_\_ Set of caliper brackets (CMB01)
  
- \_\_\_ Pair of Dust Shields (DBBP01)
  
- \_\_\_ Steering Arm Hardware Kit (In carton with caliper brackets, dust shields and spindles.)
  
- \_\_\_ Pair of Flex Hoses (FHK03 for regular, FHK03S for braided stainless)
  
- \_\_\_ Wheel Bearing Kit (WBK01C)
  
- \_\_\_ Proportioning Valve (PVK71/72 for a combo valve or PVK68 for a factory style valve. Chrome will have a letter C after the part number.)
  
- \_\_\_ Master Cylinder (DBMC09/01/16/11/18 for Power Front Disc, DBMC05 for Power Four Wheel Disc or Manual Front and Manual Four Wheel Disc. Chrome upgrade will have a letter C after the part number.)
  
- \_\_\_ Power Booster (RPB7537/8531/9002/9016/9021/9022/1001/1003, for power kits only. Chrome will have a letter C after the part number.)
  
- \_\_\_ Instruction Packet

\* See the back page of the instruction booklet to review the “Pick Ticket” used to pull your order.

# **Installation Instructions:**

## **Lower Assembly**

### **1. Prepare the car**

Begin by securely supporting the car on jack stands. Chock the rear wheels and set the parking brake to be sure vehicle does not roll. Always work on a flat, even surface. Remove the wheels to gain access to the brake system.

### **2. Disconnect tie rod ends**

Remove the cotter pin and castle nut that secures the tie rod to the steering arm. You will reuse the castle nuts later. Use a heavy hammer to remove the tie rod end from the steering arm. A ball joint fork or “pickle fork” may be needed to break things loose.

### **3. Disconnect front flex hoses**

Unscrew the hard line from the flex hose, being careful not to get brake fluid on painted surfaces. Remove the flex hose-retaining clip and pull the hose out of the frame-mounted bracket.

## 4. Remove drum brake assemblies

To remove the old drum brake assemblies you need to compress the coil springs. We highly recommend the use of a spring compression tool. Failure to handle the spring properly can result in serious injury to you and damage to the vehicle!

Preferred method:

- a. Remove the shock absorber
- b. Install the spring compressor following the directions supplied with the tool
- c. Compress the spring until all pressure is released from the control arm
- d. Remove the cotter pin and castle nut from the upper ball joint
- e. Keep the castle nut for reuse later
- f. Use a ball joint fork to release the upper ball joint from the spindle
- g. Raise the upper control arm up out of the way
- h. Repeat steps “d” and “f” to release the lower ball joint and remove the spindle assembly

**Note:** You may want to remove the sway bar link to allow for easier access to the ball joints and free movement of the lower control arm.

## 5. Inspect suspension components

Now is the time to clean up and inspect your suspension components. Check the inner and outer tie rod ends and ball joints for wear and replace if needed. Inspect the rubber boots for cracks or tears. Universal replacements are available at most automotive parts stores. Also inspect sway bar links and bushings. Complete suspension rebuild kits are available to freshen up the entire front end. Call us for pricing and availability.

## 6. Remove original steering arms

Remove the dust cap, cotter pin, and washer from the old spindles. Pull off the hub and remove the brake shoes to allow access to the steering arm bolts. Unbolt the Steering arm and prep it for reuse. New bolts are provided in your conversion kit. If you do not have the original steering arms for your project, they are available for purchase. Early 4-Lug Nova owners will need to purchase 5-Lug steering arms for proper alignment.

**Note:** Some of the early steering arms did not use 1/2" bolts. You will need to drill out the original mounting holes in the steering arms. If you are not comfortable with drilling your arms you can purchase them from us.



A Body



F / X Body

## 7. Install the new disc brake spindles

Place the spindle on the lower ball joint and attach it with the original castle nut. Torque the nut to the specifications provided in the assembly manual. Fix it in place with the new cotter pin supplied with your kit.

**Note:** Both of your new spindles are identical. There is no left or right.

Pull the upper control arm down and insert the upper ball joint into place. Attach the upper ball joint with the original castle nut. Torque the nut to the specifications provided in the assembly manual (Most are 40-60 ft/lbs.). Fix it in place with the new cotter pin supplied with your kit.

## 8. Release the pressure on the coil spring

You are now ready to release the pressure on the coil spring. If you used a spring compressor, you can release it slowly and reinstall the shock absorber.

## 9. Install the caliper brackets, backing plates, and steering arms

Install the appropriate caliper bracket onto the spindle, slide the spindle gasket into place, then place the backing plate over the caliper bracket. Fasten everything in place with the special 5/8" bolt supplied with the kit. Then bend the tabs down to the bolt to lock it in place.

**Note:** The opening for the caliper should face towards the rear of the car. Left is driver's side, right is passenger's side.



Reinstall your old steering arm with the new bolts supplied with your kit. Place the tie rod end back into the steering arm and fasten it with the original castle nut. Torque the nut to the specifications provided in the assembly manual. Fix it in place with the new cotter pin supplied with your kit. Now is a good time to reattach the sway bar link if you removed it earlier.

## 10. Grease the bearings and install the rotors

You are now ready to install the bearings and rotor. Start by placing the rotor face down. Races come preinstalled in the rotors. If you received additional races with your bearings, they will not be used. Inspect the bearing area of the rotor for casting sand and other debris that may have fallen in that area before installing the bearings. Apply a little bearing grease to the bearing race already in the rotor and pack the larger of the two bearings (Inner) with grease. Install the bearing into the rotor and place the grease seal on the rotor. Tap the seal into place being careful not to damage the rubber portion of the seal. A small block of wood works well to protect the seal.



Inner Bearing Assembly



Outer Bearing Assembly

Turn the rotor face up and grease the bearing race. Pack the smaller bearing (Outer) and place it in the rotor. Slide the rotor onto the spindle being careful that the outer bearing does not fall out of place. Install the keyed washer and castle nut and torque to the specifications provided in the factory assembly manual. Fix it in place with the new cotter pin supplied with your kit. Install the dust cap with a mallet and a large socket placed over the dust cap. A screwdriver can also be used along the edges.

## 11. Mount the calipers and flex hose

Your new calipers come fully loaded with pads, bolts, and copper washers. Start by removing the caliper pins and position the caliper in the bracket with the bleeder screw at the 12 o'clock position. If the caliper won't install in the brackets with the bleeder pointed up, you probably have the opposite side caliper. Insert the caliper pins and torque to the specifications provided in the assembly manual (Most are around 50 ft/lbs.).

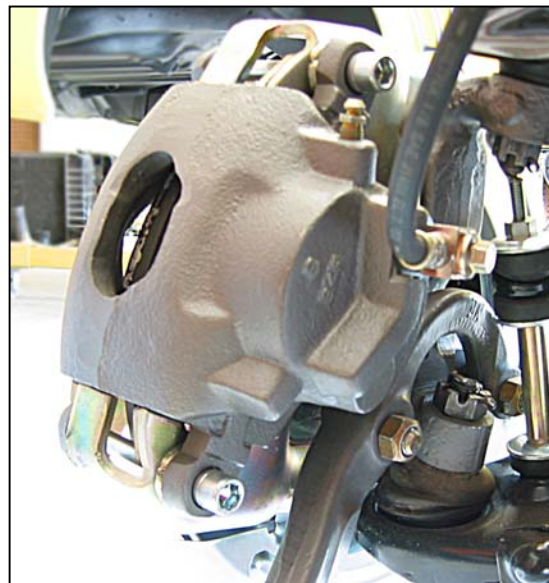
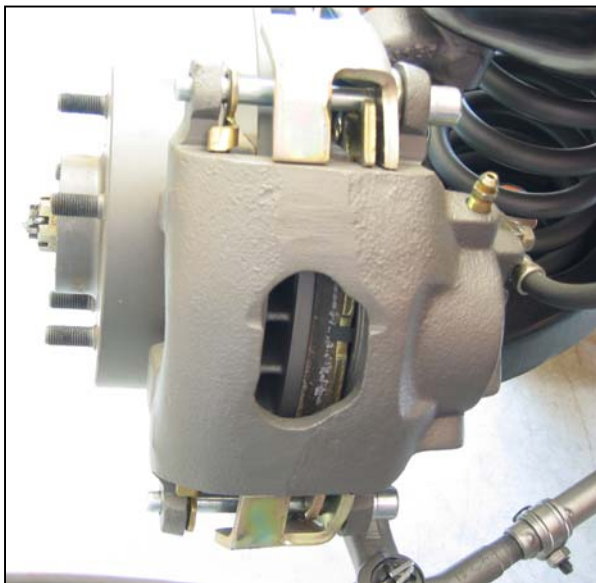
**Note:** The bleeder screws must be pointed up. If the bleeders are pointed down, the calipers will trap air and you will not get the system to bleed properly.



Remove the banjo bolt and copper washers from the caliper. Place a copper washer on top of the flex hose and insert the banjo bolt. Place the second copper washer over the banjo bolt on the bottom of the flex hose and bolt the hose onto the caliper with the specifications provided in the assembly manual (Most are 40-50 ft/lbs.).

Insert the other end of the flex hose into your original frame brackets. You may need to file the inside of your original brackets to accommodate the new flex hose. Push on the new flex hose clip supplied with your kit. At this point the hose might seem a little tight when you turn the wheels from lock to lock. This is normal. The suspension is flexed to the absolute limits of its travel. You would have to be airborne while making a sharp turn to recreate these conditions while driving.

A completed left front assembly from an F/X Body is pictured below. A Body owners will notice a difference where the hose bolts to the caliper.



# Upper Assembly

## 1. Remove the old master cylinder assembly

Remove the master cylinder brake lines being careful not to get fluid on any painted surfaces. Remove the clevis from the pedal rod under the dash. If your original system was power, you should be able to remove the booster mounting nuts from the firewall and remove the booster/master assembly. If your original system was not power, simply remove the master cylinder mounting nuts from the firewall and remove the master cylinder.

## 2. Mount the new master cylinder and booster assembly

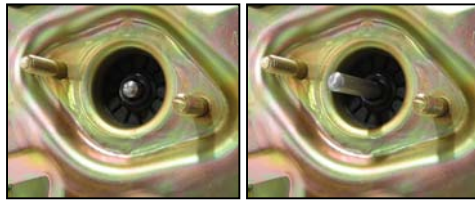
- a. Bolt the booster brackets to the booster (Riveted on 11" Boosters), bolt on as shown below in the photograph of the back of the booster.



Bolt On Booster Brackets

- b. Bolt your booster to the four studs on the firewall (**Note:** It is normal for the booster to be tilted up at the approximately 30 deg. angle that it is tilted up at)

- c. Inspect the booster rod length and master cylinder pocket depth. The booster rod should protrude from the booster face approximately the same length as the depth of the pocket in the master cylinder. Short systems use a ¼" rod and pocket. Long systems use a rod and pocket of approximately 1 ½".



Short Rod

Long Rod



Short Pocket

Long Pocket

**Note:** Delco style boosters come with a long and a short rod. Insert the short rod into the hole in the front of your booster if you have a short pocket master cylinder. Use the long rod if your master cylinder has a pocket over 1" deep.

- d. Place the master cylinder over the two studs of the booster and hold it in place with a nut on the passenger's side stud only.

**Note:** After you place the master onto the face of the booster it should sit flush up against the face without any resistance at all. If you have resistance sliding the master cylinder onto the face of the booster then either the rod in the center of the booster is too long or the plug needs to be removed from the back of the master. If you still have a ¼" or less resistance then the rod may not be seated all the way in the face of the booster (for removable rod Delco style booster) or on some fixed rod boosters there is a 1/8" knurled piece of brass that sits behind the cap nut on the tip of the booster rod. You can remove this by removing the cap nut remove the brass piece, then screw the cap nut back on so it sits flush on the tip of the rod. This will effectively shorten the booster rod an additional 1/8".

- e. Slide the valve bracket over the driver's side stud of the booster and loosely tighten it down with the nut.

**Note:** Leave the mounting nuts a little loose at this point. It makes the lines much easier to install if there is a little play in the bracket.

- f. Bolt the proportioning valve to the outside (driver's side) of the bracket with the hardware supplied in your kit. \*\*\* See the last page of the instruction packet for information on the valve's routing and port sizes.
- g. Now you're ready to install the master cylinder lines. If you purchased lines with your conversion kit, the two small lines are the master cylinder lines.
- h. Tighten up both of the mounting nuts
- i. Supply vacuum from the intake or carburetor to the booster check valve. We suggest a minimum of 14 in/mg (16 – 18 in/mg desired) of vacuum at idle for proper booster function. If you do not have this amount of vacuum your booster may not function properly.



11" Delco Style Booster (RPB1003), Dual Bail Style Master Cyl. (DBMC09), and Combination Valve (PVK71) Pictured Above

### **3. Install and adjust the pedal rod**

Hold the brake pedal approximately 1/8" down from the stop. Adjust the pedal rod so that when connected the pedal will be at this location 1/8" down from the stop. If needed we have included an extension rod to make up the distance to your pedal. After you have adjusted the pedal rod connect the clevis to the pedal. Be sure to tighten all jam nuts on the pedal rod to lock it in place after all your adjustments are made. If the extension rod is too long for your application it is ok to cut it down to the appropriate length.

**Note:** The pedal rod should not be put in a bind when attaching it to the pedal assembly. If there is only one hole in your pedal, you may need to drill a second hole about 1" lower than the original hole. Let the pedal rod and clevis "show" you where to locate the new hole.

## **Bleeding the system**

If you are concerned with the damaging effects of DOT 3 brake fluid, Camaro Central suggests synthetic DOT 5. Camaro Central is not liable for damage caused by system fluids.

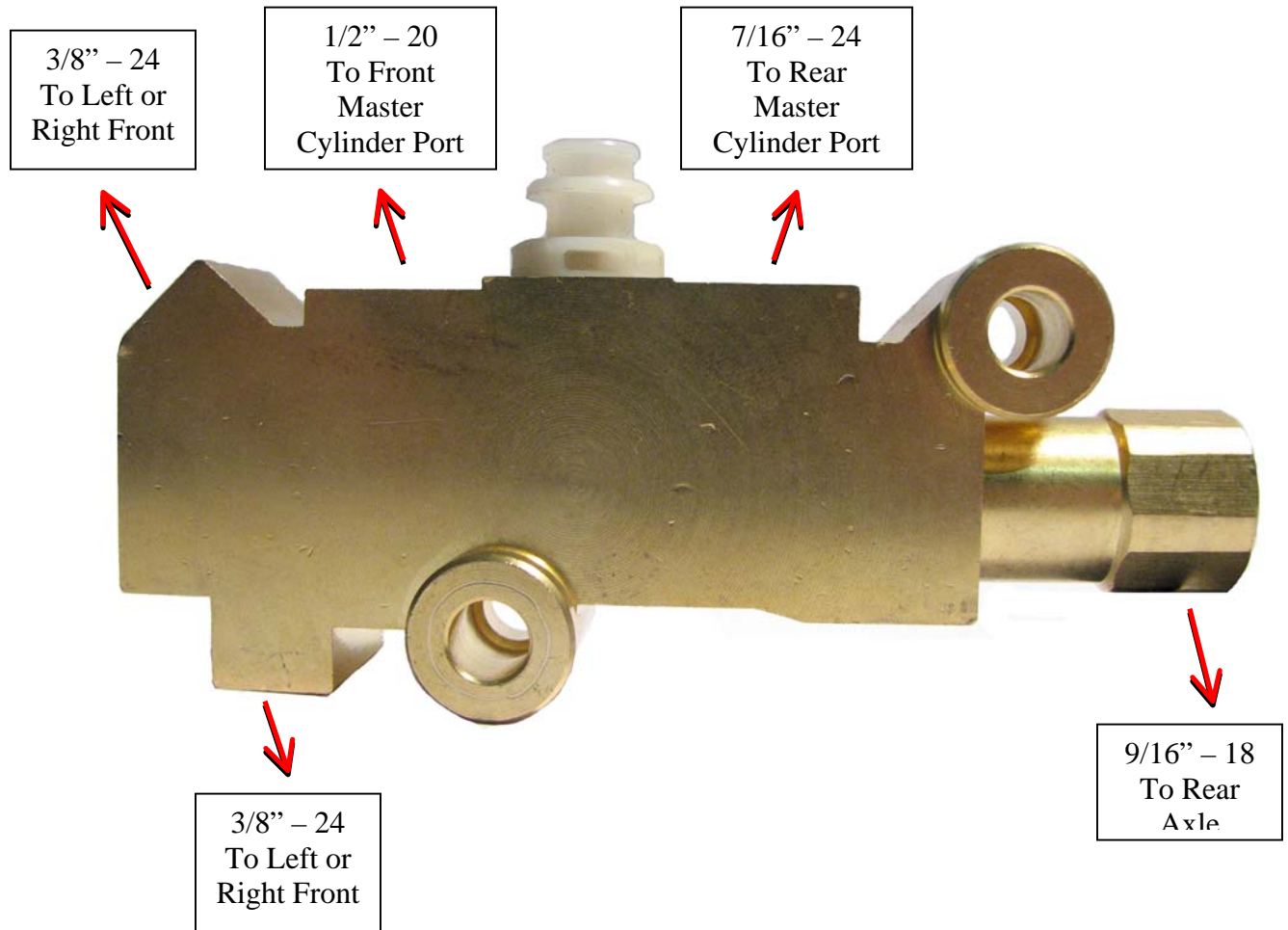
Working your way forward from the wheel farthest from the master cylinder will help insure a good bleed and a firm pedal. It is important to bleed the system in the following order:

- 1. Right Rear**
- 2. Left Rear**
- 3. Right Front**
- 4. Left Front**

If you have a spongy pedal, be sure the bleeder screws are pointed up and try re-bleeding the system.

## PV71 Fixed Combination Valve Supplement

This supplement is for customers who have chosen the “fixed” combination valve with the purchase of our disc brake conversion kits. This diagram shows where each port of the valve routes. If you have any further questions or concerns, please don't hesitate to call our toll free technical support line. Thank you again for your business.



## Technical Support

We want your conversion project to go smoothly. Double check that you have followed these instructions correctly and those included with any upgrade components you may have purchased. If you need additional help getting your new disc brakes to function properly, we're here for you. Please feel free to give us a call at (859) 408-2000.

**Thank You for Your Business!**

