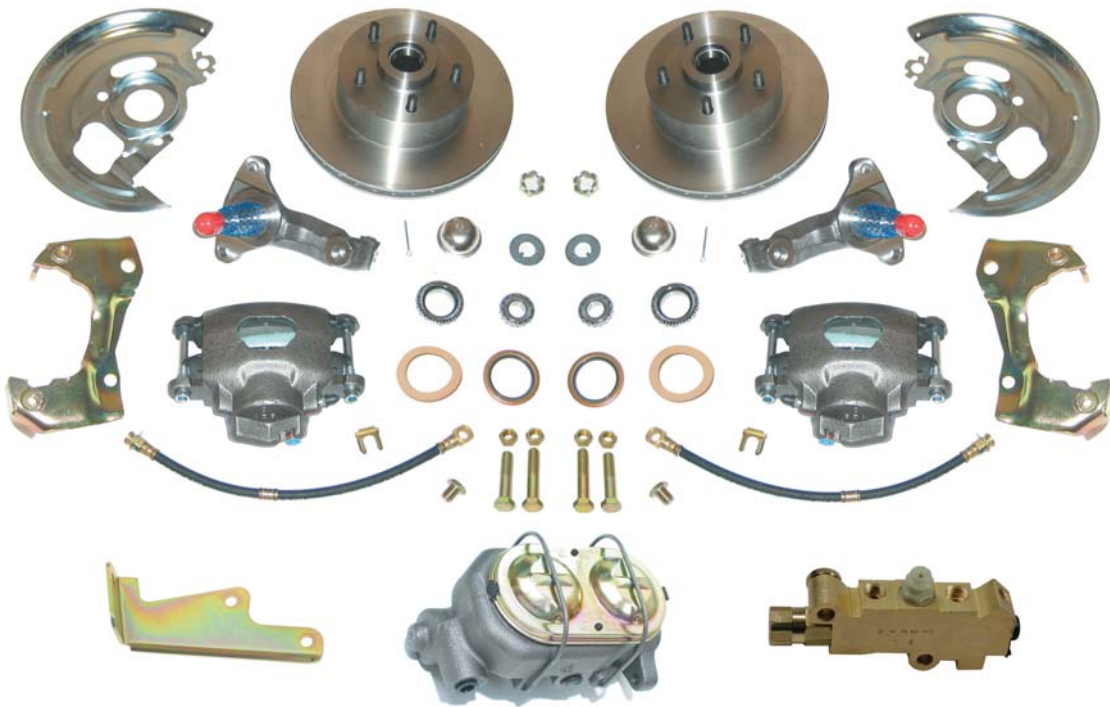




# A/F/X Body GM

## Installation Instructions Manual Disc Conversion

64 - 72 A Body / 67 - 69 F Body /  
62 - 74 X Body



DBMC09 & PVK71 pictured above (Booster, master & valve setups may vary by upgrades selected)

Your new disc brake conversion kit can be bolted up with standard hand tools. The only tools you may not find in your toolbox are listed below.

1. Ball joint fork or “pickle fork”
2. Spring compressor (highly recommended)
3. Drum brake tool (optional)

**Note: If you are interested in Power Coated Calipers or Drilled and Slotted Rotors for your car please give us a call. We have these upgrades available for exchange of non-installed components. We cannot exchange components that have been previously installed. Shipping charges will apply. Upgrades pictured.**



**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!**

# 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 brackets and dust shields)
  
- \_\_\_ 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 (DBMC05 for Manual Front and Manual Four Wheel Disc. Chrome upgrade will be DBMC05C or DBMC56C.)
  
- \_\_\_ Pedal Rod (R03)
  
- \_\_\_ Instruction Packet

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

# **Disclaimer:**

The Right Stuff 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.

# **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 The Right Stuff 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. The A-Body arms are part number DBSA01 and the part number for the F/X-Body arms is DBSA02.



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 for casting sand and other debris 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.).

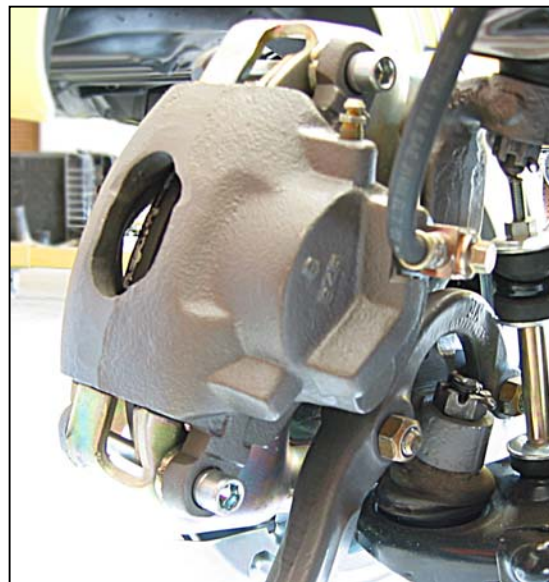
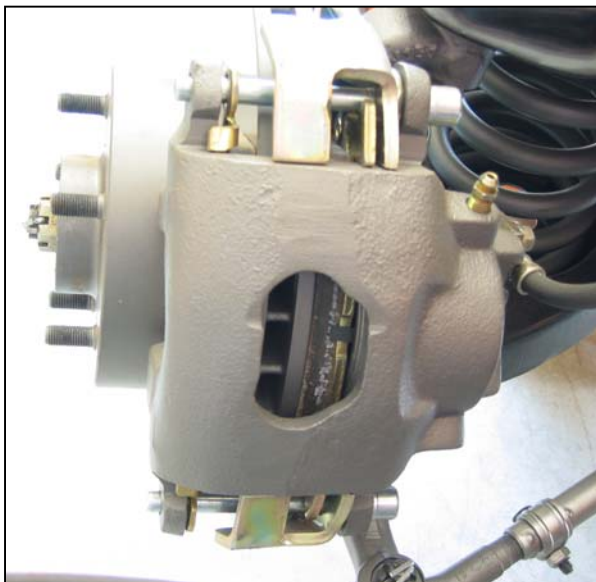
**Note:** The bleeder screws must be pointed up. If the bleeders are pointed down, the calipers will trap air and you will not get the system to bleed properly.



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

**Note:** Make certain that you have a deep pocket master cylinder. Make absolutely certain there is no plug in the back of the master cylinder and that you have a hole approximately 1" to 1 1/4" deep in the back of the master. See picture below.



Deep Pocket Illustration

- a. Place the master cylinder over the top two studs on the firewall and hold it in place with nut on the passenger's side.
- b. Slide the valve bracket over the driver's side stud 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.

- c. 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.
- d. 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.
- e. Tighten the nuts up on the firewall.

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

If your car was originally a manual car you can use either your original pedal rod or the pedal rod that was included with your kit. If your car was originally a power car then you will need to use the pedal rod that was included in your kit. 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. 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.

## **Bleeding the system**

If you are concerned with the damaging effects of DOT 3 brake fluid, The Right Stuff suggests synthetic DOT 5. The Right Stuff 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.

