

A-Body Front Disc Brake Conversion Kit
Installation Instructions

64-72 A-Body	Chevelle Malibu El Camino	Tempest GTO LeMans	Cutlass	Special
67-69 F-Body	Camaro	Firebird		
68-72 X-Body	Nova			

The following document provides instructions and troubleshooting information for A-Body front disc brake conversion kits supplied by Auto City Classic. Please note that though always referred to as the A-Body kit, these instructions are used on 64-72 A-Body, 68-72 X-Body and 67-69 F-Body vehicles. There are no significant installation differences between these applications. These instructions are intended only for stock height kits.

Kit Contents:

Quantity	Item
2	Rotors (5514)
2	Calipers (Loaded)
2	Caliper Brackets
2	Spindles
1	Master Cylinder / Vacuum Booster Assembly
1	Firewall Bracket
1	Combination Valve (Valve w/ Bracket and Pig Tails/Lines)
1	Hard Brake Line Kit (Bagged, multiple pieces)
1	Hardware Kit
2	Backing Plates / Dust Shields

Hardware Kit Contents:

Quantity	Item	Part Number
2	Dust Caps	No #
2	Cotter Pin	No #
2	Castle Nut	No #
2	Keyed Washers	No #
2	Outer Wheel Bearing	LM11949
2	Inner Wheel Bearing	LM67048
2	Grease Seal	11002A
4	Caliper Bracket Bolts (1/2"x3")	No #
4	Caliper Bracket Nuts (1/2" CRUSHED)	No #
2	Caliper Bracket Bolts (5/8"x1")	No #
2	Brake Hoses	4039B

Before you begin..

- If your vehicle is a 64-67 model, your steering arms may have 3/8" bolt holes. If so, these must be drilled/reamed out to 1/2".
- You will need a coil spring compressor to safely compress and contain the coil springs during installation. These are available for rental at most auto parts stores.
- The brake line kit does not include a front to rear brake line. You must fabricate this line.

1. Remove the existing upper end hydraulics (master cylinder/booster assembly), and hard lines leading down to front brakes.

2. Upper End

2.1. Install the vacuum booster/master cylinder assembly.

- a) Attach the firewall mounting brackets to the booster, leaving the nuts loose to allow adjustment.
- b) Attach the clevis to the booster push rod.
- c) Attach the entire assembly to the firewall, leaving the nuts loose to allow adjustment.
- d) Under the dash, attach the clevis to your brake pedal.
- e) Tighten all nuts.
- f) Attach the vacuum hose connection from the booster to a non-ported vacuum source on the engine.

3. Install the combination valve. See master cylinder/purple sheet for photos.

- 3.1. Attach the valve/bracket assembly to the master cylinder. Do not tighten down the nuts.
- 3.2. Install the pigtails (short curled lines) between the master cylinder and the valve. Do not tighten down the fittings until all four have been hand threaded.
- 3.3. Tighten the line fittings, and then the mounting nuts.
- 3.4. If your dash is equipped with a brake warning light, attach the lead to the terminal on top of the valve.

4. Remove the existing lower end parts. Remove all drum brake components, backing plates, hoses, and spindles. Be careful when disconnecting the outer tie rod ends to prevent damage to the threads. **DANGER: You must use a coil spring compressor (available for rent at most auto parts stores) to safely compress and contain the coil springs when removing the ball joints.**

5. Install the hard brake lines. Instructions are included in the line kits. Note that you must fabricate a front to rear brake line.

6. Lower End

6.1. Install the spindles and rotors.

- a) Install the new spindles onto your control arms. It is recommended that you replace your ball joints at this time. Torque the ball joints as specified in your service manual.
- b) Install the caliper brackets, backing plates and steering arms.
 - See the last page for an image of the completed assembly.
 - The caliper brackets are stamped with the correct side (EL 151 BR = Right Hand/EL 151 BL = Left Hand).
 - The order when installed is:
STEERING ARM / SPINDLE / CALIPER BRACKET / BACKING PLATE
 - Torque the bolts to 40ft/lbs. On the top bolt (7/8"x1" black oxide bolt), fold up the retaining ears from the backing plate.
 - Reattach your outer tie rod ends.
- c) Test fit the inner bearings onto the spindles. The tolerances here are very tight. If you are unable to slide the bearings on all the way,

you need to deburr the spindle with emery cloth. If this is done, make sure to clean all metal debris off the spindle with brake parts cleaner.

d) Pack the bearings and install in the rotor. **IMPORTANT NOTE: Your rotors come with pre-installed bearing races. Throw away the races that came with the bearings. DO NOT DOUBLE STACK THE RACES.** Install the grease seals.

6.2. Place the rotor assembly on the spindle and attach the keyed washer and castle nut. As you tighten the castle nut, spin the rotor to allow the bearings to settle. Tighten the castle nut until you can not turn the rotor, then back it off $\frac{1}{4}$ turn. Pin the castle nut with the included cotter pin. Install the dust caps.

6.3. Install the calipers.

a) Install the calipers on the brackets. Grease the contact areas of the caliper mounting bolts with synthetic brake lube (available at any auto parts store) before installation. The bleeder screws **MUST** at the top of the caliper. If they are not, the calipers are installed on the wrong sides.

b) Attach the brake hoses to the calipers, using 2 crush washers per caliper, one between the caliper and the hose, and the second between the hose and the bolt head. Torque these down hard. **NOTE: If the banjo bolts are ever loosened, new crush washers must be installed!** Attach the other end of the hose to the hard lines.

7. Bleed the system.

7.1. Fill the master cylinder reservoir with brake fluid (do not overfill) and bleed ALL 4 WHEELS. Check for leaks and test vehicle per service manual. **DO NOT DRIVE THE VEHICLE UNLESS YOU HAVE A CONSISTENT, FIRM PEDAL.**

Common issues:

Unable to bleed rear brakes (often accompanied by a hard pedal)
The combination/proportioning valve is equipped with a safety mechanism designed to shut off the rear brakes if it believes a major leak has occurred. This is often triggered during initial bleeding if the rear lines were emptied of fluid. To correct this, remove the black rubber/plastic plug from the front of the valve. Inside you will see a small pin. Press this pin back using a pick or other small implement. While holding the pin in, have someone slowly press down the brake pedal. This may have to be done several times until the rear brakes are bled.

Spindle assembly with caliper bracket and backing plate.

