# **REAR BRAKES**

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Before getting started, remove all stock braking components.

# Pre-assembly of parts:

Clean the bolts and the threads in the hat with acetone. Bolt the rotor to the hat using the 5/16 X 18 low head bolts. Use red loc-tite and torque to about 15-18 lbs.

## Attaching the bracket to the housing flange:

Use the stock hardware to mount the caliper bracket to the housing end. The caliper can mount on either side of the axle. The head of the steel insert needs to face towards the rotor.

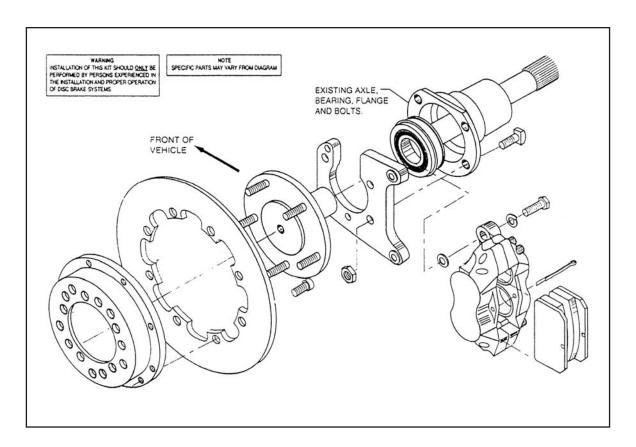
#### Attaching the rotor and hat:

Begin by sliding the hat/rotor assembly onto the studs and tighten using at least two lug nuts.

### Attaching the caliper:

Mount the caliper onto the bracket making sure that the center line of the caliper lines up with the center of the rotor. You may need to use shims to attain this alignment. Some kits come with a two-piece caliper bracket. These brackets already have shims so you may need to remove them to achieve alignment.

The caliper must be mounted with the bleed screw above the intake port.



#### For best results when installing your Aerospace Components brake kit use the following:

- At least two 12 oz. bottles of brake fluid with a minimum wet boiling point of 298 degrees and a minimum dry boiling point of 450 degrees. Do not use silicone based brake fluids.
- Teflon tape for brake line fittings.
- Red Loctite®

#### Please consider the following for safe operation of your Aerospace Components brakes:

- If the master cylinder is mounted level with or lower than the calipers, a 2lbs. residual valve is required.
- · Check all brake lines. Worn lines are not recommended.
- A 1 1/8" master cylinder diameter bore is recommended for your *Aerospace Components* brake kit. Check for proper wheel clearance by fitting the kit up inside the wheel.

#### Pre-assembly of parts:

- Make sure that all caliper brackets line up properly to the spindle or rear end housing.
- All bolts that will be used need to be cleaned with acetone to insure no grease will contaminate the Red Loctite<sup>®</sup>.
- Make sure the bearings fit the spindle snout and make sure the grease seal is the proper size.
   Do this before packing the bearings.
- This is a good time to install the wheel studs in the front hubs, making sure to Red Loctite® them in. Torque the wheel studs to 50ft/lbs.
- If the front kit is a veined rotor street kit, install the rotor adapter to the hub. Do this by placing the hub on a flat surface so the nose cap is facing downward. Take the rotor adapter and place it over the hub with the five counter sunk holes facing upward. Fasten the adapter with the flat head 3/8-16 bolts using the nylock nuts to the hub. Next place the rotor over the adapter so that the tabs on the rotor are facing upwards. Finally fasten the rotor to the adapter with the 5/16-18 low head bolts using Red Loctite®. Torque to 30ft/lbs.

#### **Brake Lines:**

The inlet port of the caliper is 1/8" x 27-pipe thread. If you choose to use the factory stock flex hose, an adapter for a 1/8" male pipe thread will be needed. Wrapping the threads with Teflon tape will allow a tighter seal at a lower torque.

#### Note:

On rear kits if using factory hard line, a 1/8 pipe to a 3/16 inverted flare adapter is needed. If you have A 3/16 hard line, a 1/8 pipe to 1/4 inverted flare adapter is needed if you have 1/4 hard line.

#### Bleeding the System:

An initial gravity bleeding is recommended to remove most of the air in the system. This is accomplished by filling the master cylinder with fresh fluid and opening the bleed ports. Leave the top off the master cylinder. Fluid will flow into and fill the calipers. Be sure to keep fluid in the reservoir to keep air out of the system. This process will take some time.

A final bleeding is accomplished by firmly pressing the brake pedal and having someone open the bleed port until the pedal goes to the floor, closing the bleed port before the pedal is lifted. Do not pump the pedal while bleeding. This only foams the fluid and prevents proper bleeding. Repeat this process for all brakes until pedal is high and firm. Be sure no air bubbles come from the calipers.

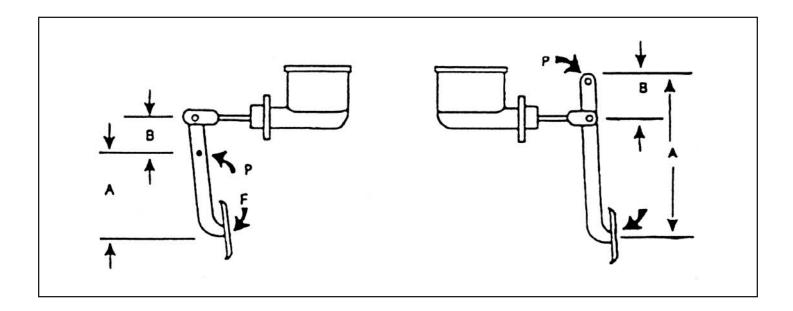
# Brake pad bedding:

New brake pads require a bedding process. This bedding procedure starts by pumping your brakes at a very low speed to ensure proper brake operation. Make a series of hard stops at progressively higher speeds. Continue this process until brake fade is felt. Park the car and give the pads a chance to cool completely. Improper pad bedding results in glazed pads diminishing stopping ability.

Brake pads should be check regularly. If pads are wearing evenly, they can be used almost down to the packing plate.

#### Getting the right ratio:

In order to get the correct ration for your Aerospace Components braking system, a few measurements must be taken. First, remove the old master cylinder. Measure from the center line of the pivot point "P" of the brake arm to the pivot point of the master cylinder rod to get length "B". Next, measure from the pivot point of the master cylinder rod to the center of the footpad to get length "A". Finally, divide length "A" by length "B". This will give you your pedal ratio. The recommended ration should be 7:1. For example, if length "A" was 14 " and length "B" was 2", then 14/2=7.



# **ATTENTION!**

After an initial run of your vehicle, check all nuts and bolts that hold the brackets, hats, hubs, etc. and re-torque as necessary.

Also, periodically check tightness of all nuts, bolts, and brackets.

This is critical.

Make sure Red Loctite® is used on all nuts, bolts, and fasteners.

# **WARNING:**

MOTORSPORTS ARE EXTREMELY DANGEROUS AND MAY RESULT IN SEVERE INJURY OR EVEN DEATH. RACE AT YOUR OWN RISK.