



STOP! READ THIS FIRST!

Installation Instructions for the Basic Ball Joint Wide 5 Conversion Front Disc Brake Kit

NOTE: This kit will only work with wheels that are 15" or larger

This kit does NOT come with spindles or adapter brackets. It is designed for those cars that already have disc brakes and want to convert to the 5 x 205 wide 5 lug pattern

Thank you for purchasing an AC Industries Disc Brake Kit. All of our kits are designed with components that are easy to install and with regular maintenance should last the rest of your car's life. **BUT** if you lack the knowledge and/or the proper tools to do this installation... **DO NOT** attempt to install this kit yourself, have it installed by a qualified mechanic. These step-by-step instructions should be read **COMPLETELY** before you start to do any work, and you should be able to understand it completely before you start! Failure to install this kit correctly and completely can result in damage to your car, injury to yourself and others and even death.

BEFORE disassembling your vehicle, remove all parts from their boxes, inspect your kit completely, because over the years many parts on cars have been interchanged, make sure that you have the correct parts for **YOUR** car. It is the **INSTALLERS** responsibility to **VERIFY** that the kit is correct **BEFORE** starting to do the work! Once the kit has been installed, modified or painted, the parts **CANNOT** be returned.

The AC Industries kit that you have purchased is specifically made for the year car interchange shown on the label of the master box. There is **NEVER** a reason to machine or grind on these components. If you are experiencing a fitment or caliper to rotor alignment issue and you chose to modify the components of this kit in any way, you will void the warranty. AC Industries will not replace any modified components.

NOTE: Heavy Duty Wheel Bearing Grease and Brake Fluid are not supplied in the kit. You will need to purchase these items before installing this kit.

These instructions cover the following kit for Standard Beetle, Ghia and '63- '71 T-3:

498430 '63-'66 5 x 205mm

498440 '67-'77 5 x 205mm, when the car has existing standard or lowered disc spindles already installed on the car.

This kit includes the following components:

- 2 pcs Front rotors
- 2 pcs Front calipers with premium brake pads
- 4 pcs Bolts, caliper to spindle
- 4 pcs Serrated lock washers for above bolts

Some of the tools required for the installation:

- 7mm Allen wrench
- 11mm Line wrench
- 13, 15, 17 & 19mm wrench
- 15, 17 & 19mm socket
- 3/8" Drive ratchet
- Lug nut wrench
- Torque Wrench (ft./lbs.)
- Bearing race install tool

Additional items needed for the installation:

- Heavy duty wheel bearing grease (pt #000614)
- Brake fluid, DOT 3 is preferred (pt #000412)
- Master Cyl, T1 w/ front disc (pt #113 611 015BD)
- Master Cyl, T1 w/ 4 whl disc (pt #113 611 020BDD)
- Brake fluid reservoir (pt #251 611 301V)
- '66-'68 Wheel bearing & seal kit (pt #498490E)
- '69-'77 Wheel bearing & seal kit (pt #498490L)
- Brake hose, stainless steel (pt #113 611 701DSS)

STEP 1 - To start, place the car on a level, hard surface, block the rear wheels and set the emergency brake.

STEP 2 - Raise the complete Front Suspension off the ground and use suitable jack stands to support the weight of the car. (Do not use the jack alone to support the car. Jacks can lose pressure and allow the car to drop.)

STEP 3 - Remove both front wheels.

STEP 4 - Loosen and remove the rubber brake hose from the metal line at the pan. Remove retaining clip.

STEP 5 - Remove the front brake rotor (Set the grease cap, pinch nut, thrust washer and speedo clip aside, you will reuse these parts)

STEP 6 – AC Industries does not recommend reusing the old bearings, but if you are, you will need to remove the old wheel bearing races at this time out of the old rotor.

STEP 7 - Install the wheel bearing races in the new rotor with a bearing race install tool. Be careful not to damage the rotor when you install the bearing races during this procedure. The races **MUST** be installed straight or it can crack the rotor!! Pack the wheel bearings with a suitable SAE heavy duty wheel bearing grease (not supplied in kit). Install greased wheel bearings and inner grease seal into new rotors.

STEP 8 - Install new rotors with greased wheel bearings and grease seal onto the existing disc brake spindle using the original thrust washer and adjuster nut. Adjust the wheel bearing preload to factory specifications. (Be careful not to over tighten the adjuster nut. This will cause overheating of the bearings, resulting in damage to the spindle, bearings and rotor.) Tighten pinch bolt to 7-10 ft./lbs. Reinstall the grease cap and speedometer cable with clip. (**NOTE** You must clean the rotor faces with a suitable cleaner to remove any oil and/or rust inhibitor before installing the calipers)

STEP 9 - Install the brake caliper on to the spindle using the supplied hardware and torque to 29 ft./lbs.

STEP 10 Install the brake hose at the caliper first and tighten to 11-14 ft./lbs. Install the metal brake line to the opposite end of the brake hose remembering to feed the end of the brake hose thru the bracket mounted to the pan first. Tighten the brake hose to the brake line and install the retainer clip securing the hose to the bracket.

STEP 11- Repeat steps 4 through 10 on the passenger (right) side of the car.

STEP 12 - With both sides completely installed, it's time to bleed the air from the entire braking system. Fill the brake fluid reservoir with new DOT 3 brake fluid. (Never use brake fluid from a container that has been standing open after the use. Brake fluid is hygroscopic and contaminates within days of exposure to ambient air.)

STEP 13 - Bleed the complete system. Start with the passenger (right) side rear, then the driver (left) side rear, then the passenger (right) side front and finally the driver (left) side front. Finally top off the brake fluid reservoir with new DOT 3 brake fluid. **NOTE:** Allowing the reservoir to run empty at any time during the bleeding process will reintroduce air to the system and the process will have to start all over again.

STEP 14 - Install the front wheels and remove vehicle from jack stands.

STEP 15 - With the vehicle on the ground & brake fluid reservoir topped off, sit in the driver seat and depress the brake pedal. Pedal should be firm without sponginess. Sponginess indicates air is in the hydraulic system and the bleeding process must be redone.

STEP 16 - Confirm all previous steps are complete by rechecking your work. When satisfied take the car out for a test drive and make several test stops to seat the new brake pads with the new brake rotors. Once the disc brakes are seated, you will notice increased stopping performance.

STEP 17 - Enjoy your new found stopping power.