



# ***STOP! READ THIS FIRST!!***

## **Installation Instructions for No Hassle Front Disc Brake Kits**

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.

**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 kits:**

#### **Standard Beetle**

498 492B: '66-'77 (No Pattern - Blank)  
498 492: '66-'77 (VW Pattern - 4x130mm)  
498 492P: '66-'77 (Porsche Pattern - 5x130mm)  
498 492CF: '66-'77 (Chevy- 5x4-3/4"/Ford- 5x4-1/2" Patterns)

#### **Super Beetle**

498 496B: '71-'79 (No Pattern - Blank)  
498 496: '71-'79 (VW Pattern - 4x130mm)  
498 496P: '71-'79 (Porsche Pattern - 5x130mm)  
498 496CF: '71-'79 (Chevy- 5x4-3/4"/Ford- 5x4-1/2" Patterns)

### **Your kit includes the following items:**

- Two (2) High Performance Disc Brake Rotors
- One (1) Pair of Disc Brake Caliper Brackets, Right & Left
- One (1) Pair of Disc Brake Calipers, Right & Left
- One (1) Set Premium Disc Brake Pads
- One (1) Caliper Mounting Kit

### **Some of the tools required for Installation:**

7mm Allen Wrench  
11mm Wrench  
17mm Wrench  
15mm Socket  
3/8" Drive Ratchet  
8" Adjustable (Crescent Style) Wrench  
Lug Nut Wrench  
Torque Wrench (ft./lbs.)

### **Additional items needed for Installation:**

Heavy Duty Wheel Bearing Grease (AC Ind. Part# 000 614)  
Brake Fluid (DOT 3 is preferred) (AC Ind. Part# 000 412)  
Wheel Bearing & Seal Kit:  
'66-'68 (AC Ind. Part# 498 490E)  
'69-'79 (AC Ind. Part# 498 490L)

**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 loose pressure and allow the car to drop.)

**STEP 3** - Remove both front wheels.

**STEP 4** - Remove the front brake drum on the Driver's (Left) side. (Set the grease cap, thrust washer, speedometer cable clip and nut(s) aside, you will be using these again) Be sure to remove the inner wheel bearing and grease seal.

**STEP 5** - (Standard Beetles) Loosen and remove the rubber brake hose from the metal line at the pan then remove from the wheel cylinder. (Super Beetles) Loosen and remove metal brake line from the rubber hose then remove from the wheel cylinder.

**STEP 6** - Remove the bolts that hold the drum brake backing plate to the spindle. (Set these aside you will reuse these bolts later) Remove the complete backing plate.

**STEP 7** - Clean and inspect your drum spindles, making sure that the spindle stub is in good condition. (Free of deep grooves or bluing from excessive bearing heat.) If any of these signs exist, you **MUST** replace the spindle before you continue.

**STEP 8 - IMPORTANT!** The mounting surface of the spindle that will accept the new disc caliper bracket must be clean. This surface must be free of anything that will cause the bracket to bind and not set flat against the spindle. Failure to perform this step may cause the caliper bracket to crack, bend or break.

**STEP 9** - Install the caliper bracket using the original backing plate bolts making sure the caliper is to the rear of the spindle and torque to 36 ft./lbs. The bracket should go on easily DO NOT use the caliper bracket bolts to "pull" the bracket in place. (Doing so could crack, bend or break the caliper bracket.)

**STEP 10** - Install the wheel bearing races in the new rotors. (Be careful not to damage the rotor or the races during this procedure.) Re-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 11** - Install new rotors with greased wheel bearings and grease seals onto the existing drum brake spindles using the original thrust washer and adjuster nut(s). 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.

**STEP 12** - Install the new brake calipers with brake pads installed using the supplied hardware and torque to 29 ft./lbs. **NOTE:** The caliper bleeder valve must be towards the top or in the up position to insure proper bleeding.

**STEP 13a** - (STANDARD BEETLE) 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 13b** - (SUPER BEETLE) Bend the metal brake line to fit, then install the metal brake line at the caliper first and tighten to 11-14 ft./lbs. Install the metal brake line to the rubber brake hose. Tighten the brake hose to the brake line and install the retainer clip securing the hose to the bracket.

**STEP 14** - Repeat steps 4 through 13 on the passenger (right) side of the car.

**STEP 15** - With both sides completely installed, its 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 16** - Bleed the passenger (right) side caliper first and then the driver (left) side remembering to keep the reservoir full of 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 17** - Do the final air bleed. 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.

**STEP 18** - Install the front wheels and remove vehicle from jack stands.

**STEP 19** - 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 20** - 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 21** - Enjoy your new found stopping power.