



STOP! READ THIS FIRST!!

Installation Instructions for Type 1 Disc Brake Conversions with Spindles

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: Link Pin W/Lowered Spindles

498690: '49-'65 (VW Pattern - 4x130mm)
498690B: '49-'65 (No Pattern - Blank)
498690CF: '49-'65 (Chevy- 5x4-3/4"/Ford- 5x4-1/2")
498690PB: '49-'65 (Porsche- 5x130mm/Bus 5x112)

Ball Joint W/Stock Hight Spindles

498650: '66-'77 (VW Pattern - 4x130mm)
498650B: '66-'77 (No Pattern - Blank)
498650CF: '66-'77 (Chevy- 5x4-3/4"/Ford- 5x4-1/2")
498650PB: '66-'77 (Porsche- 5x130/Bus 5x112)

Ball Joint W/Lowered Spindles

498770: '66-'77 (VW Pattern - 4x130mm)
498770B: '66-'77 (No Pattern- Blank)
498770CF: '66-'77 (Chevy- 5x4-3/4"/Ford- 5x4-1/2")
498770PB: '66-'77 (Porsche- 5x130/Bus 5x112)

Your kit includes the following items:

Two (2) High Performance Disc Brake Rotors
One (1) Pair of Spindles, Right & Left
One (1) Pair of Disc Brake Calipers, Right & Left

One (1) Pair of Spindles, Right & Left
One (1) Pair of Disc Brake Calipers, Right & Left
One hardware kit for mounting the calipers

Some of the tools required for Installation:

7mm Allen Wrench
11mm Wrench
17mm Wrench
19mm Wrench
15mm Socket
3/8" Drive Ratchet
10" Adjustable (Crescent Style) Wrench
Tie Rod Separator (Pickle Fork)
Hammer
Lug Nut Wrench
Torque Wrench (ft./lbs.)

Additional items needed for Installation:

Heavy Duty Wheel Bearing Grease (Part# 000614)
Brake Fluid (DOT 3 is preferred) (Part# 000412)
Wheel Bearing & Seal Kit:
'49-'65 (AC Ind. Part# 498490LP)
'66-'79 (AC Ind. Part# 498490L)

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

STEP 5 - Loosen and remove the rubber brake hose from the metal line at the pan then remove from the wheel cylinder.

STEP 6 - Remove the bolts that hold the drum brake backing plate to the spindle. Remove the complete backing plate.

STEP 7 - Remove the tie rod nut and carefully press tie rod out. Unscrew the nut holding the lower ball joint and remove using the proper tools. Repeat the procedure for the upper ball joint paying close attention to the eccentric bushing location.

NOTE: King and Link Pin assemblies require special tools to assemble and adjust properly. If you do not have these skills/tools it is best to take the assembly to a qualified mechanic to have it shimmed and bushed correctly before installation.

STEP 9 - Installation of the new spindles is the opposite of removal starting with the bottom ball joint first and loosely tighten the nut. When installing the upper ball joint the notch in the eccentric bushing must be pointing towards the front of the car for proper alignment. Tighten both upper and lower ball joint nuts to 3651 ft./lbs. Followed by installing tie rod to the spindle and tightening to 18-22 ft./lbs.

STEP 10 - Install the inner and outer wheel bearing races in the new rotors. (Be careful not to damage the rotor or the races during this procedure.) 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 the new rotors.

STEP 11 - Install new rotors with greased wheel bearings and grease seals onto the new disc brake spindles 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.

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 13 - 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 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 to the alignment shop to have the front end aligned. 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.

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