



Audi Stage 4

Big Brake Kit Installation

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allroad[®]
(2001-2005)

B5S4

B6A4/S4

B7A4/S4

C5A6



This tutorial is provided as a courtesy by ECS Tuning.

Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

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Verify Kit Contents

Your Big Brake Kit is available in three colors: red, black, and blue. When your kit arrives, please inventory kit contents and compare them to the list below. Call us immediately if you think any part is missing.

Big Brake Kit Contents:

- Porsche six-piston 18Z calipers (2)
- Ate Super Blue Brake Fluid (1 liter)
- Two-piece TruFloat replica rotors (2)
- Exact-Fit Brake Lines, left and right (2)
- 14x1.5 case hardened nyloc nuts (4)
- Hawk Performance Pads (1 set)
- ECS caliper bolts (4)
- Brake pad wear sensors (2)
- Pad sensor adapter harnesses (2)

Included hardware:

- Exact-Fit Brake Lines come with banjo bolts and sealing washers.
- Calipers include pad guide pins and anti-rattle clips.



Prepare the Vehicle

You'll need to raise and support the vehicle, and remove the front wheels. We suggest raising both front wheels at once, if possible. If you do not have a lift, please back up your hydraulic jack with ANSI-approved jack stands.

Eye protection is a must, and gloves will protect your hands from exposure to brake fluid.

Step 1

This pdf assumes your familiarity with basic brake installation procedures. If not, please refer to the appropriate Bentley manual or other suitable repair reference.

With the stock rotor and caliper removed, remove the brake rotor splash shield. If you intend to reuse the shield, you'll need to trim the shield carefully to provide clearance between the shield and rotor. Test fit the rotor to identify rub points, then trim the shield as needed.

Step 2

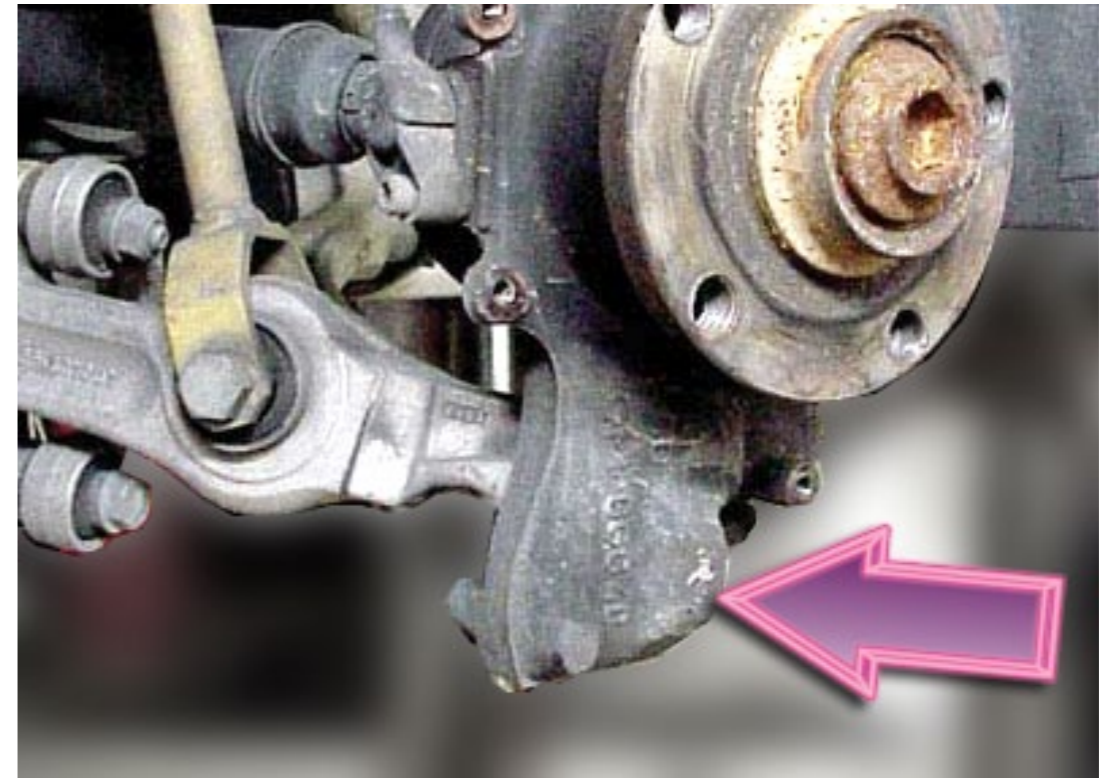
Important! Clean the hub face so your new rotor hat sits flat and true. A light application of rust preventive paint or corrosion resistant spray on the hub surface will keep it clean, and adds a professional touch.

Uneven rotor seating caused by heavy accumulations of rust or dirt will cause lateral runout, resulting in brake pulsation or uneven wear.



Step 3

This step applies only to early B5S4 models fitted with steel knuckles (bearing holders in Audi-speak). Omit this step if your car has aluminum knuckles.



Step 4

The raised nub on the steel knuckle must be ground down 1-2mm to provide a final 1-2mm of clearance between the knuckle and inner rotor face.

Work slowly: 1-2mm is not a lot of metal. Test fit repeatedly to provide the correct clearance without removing too much metal.



Step 5

The vented rotors are directional.

This image shows the caliper installed on the right front wheel, with the vehicle front and direction of rotation indicated for reference.

Very Important! Installing the rotors in this orientation properly orients the internal vanes between the rotor faces for proper cooling.



Step 6

Slide the empty calipers over the rotors.

Special Note! The bleeder screws must be at the top or you will not be able to properly bleed the brakes.

Use the caliper mounting bolts and nyloc nuts to mount the caliper on the knuckle.

Using 19 and 22mm wrenches, torque the bolts to 92 ft-lb (125Nm).



Step 7

Remove the old brake hoses and install the Exact-Fit brake lines. You'll lose brake fluid while the lines are disconnected so be careful not to get fluid on any exposed flesh or vehicle paint.

Connect each Exact-Fit to the rigid steel line mounted at the chassis. Be sure to snap the retainer clip in place at the brake line support bracket to properly secure the lines.

Use the banjo bolt and washers to attach the other end of the Exact-Fit line to the caliper.

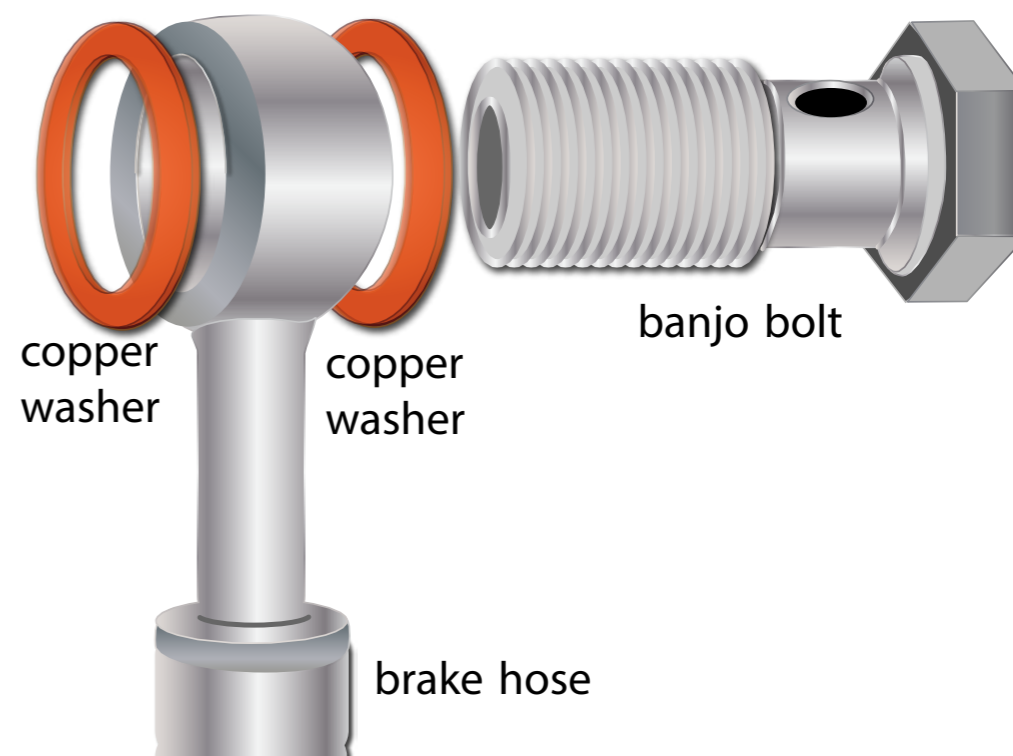


Step 8

Install the sealing washers as shown here.

Special Tip: After installing a brake hose, have an assistant turn the steering wheel back and forth from lock to lock in both directions. Watch the hose and suspension to ensure that there is no rubbing at a suspension component that will damage the hose.

Secure the hose as needed to provide a safe clearance between the hose and suspension at all steering angles.



Step 9

Slide the brake pads into the calipers.

Position the anti-rattle clip between the pads.

Lube the caliper pin lightly with a high quality, high temperature brake lubricating paste, and slide it into place through the pad holes, across the back of the rattle clip, as shown.



Step 10

Screw the retainer bolt in the kit into the guide pin and torque it to 10 ft-lb (13Nm).

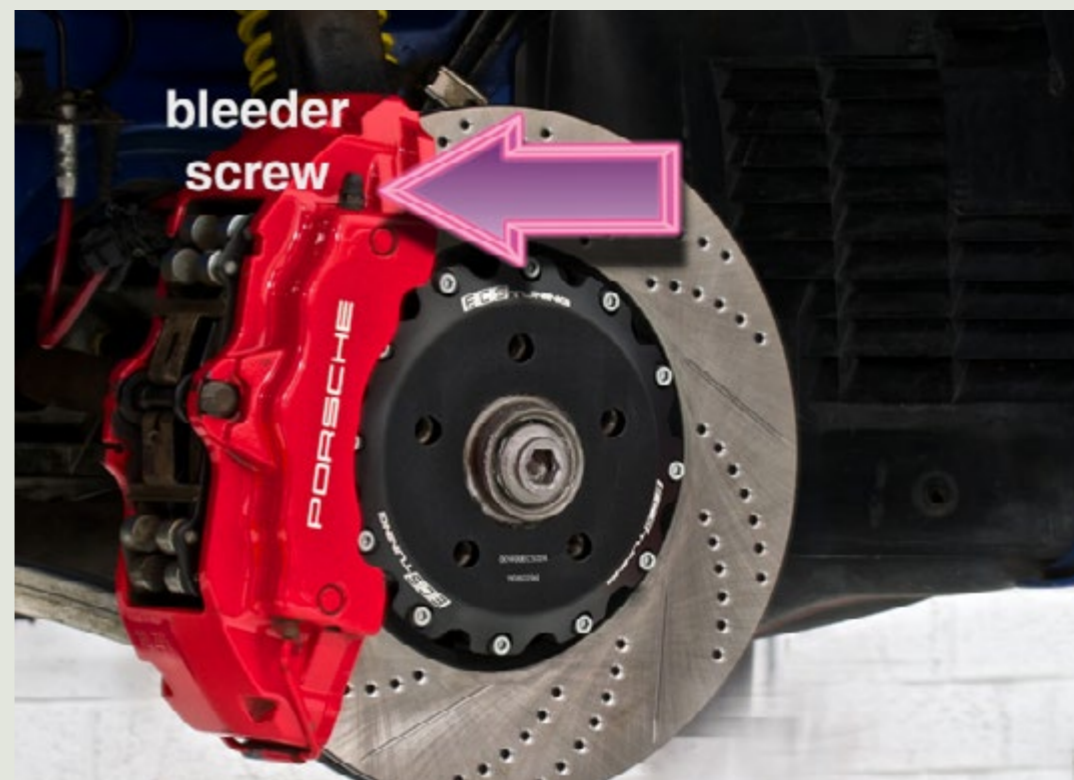


Step 12

Bleed the brakes. If you are pedal bleeding, fill the brake fluid reservoir with the Ate Super Blue in the kit and open all the front bleeders at once. Place a catch pan under each caliper to collect fluid as it drains.

Let gravity fill the calipers until fluid runs from all bleeders at once, making sure the fluid reservoir never runs dry. Then complete the process with pedal bleeding to remove any small amount of air that may remain.

Replace the rubber protective caps at the bleeder screws.



Step 13

If you prefer, you can use the ECS Tuning Motive Brake Bleeder and our accessory brake fluid capture bottles with hoses to bleed the calipers. Just add fluid to the bleeder, attach it to the master cylinder fill neck, pressurize the bottle, and open the bleeders.

The bleeder bottles connect to the bleeders with a clear flexible hose and catch fluid as it leaves the calipers. Since you're using Ate Super Blue, "when it runs blue, you know you're through."

Hand tighten the bleeder screws and reinstall the protective caps.

Service Tip: While you're at it, this is a good time to flush the rear brakes using the same procedure. Our [online video](#) shows you how.



Finishing Up:

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Lug Bolts

Reinstall the road wheels and torque the lug bolts to spec, tightening in a star pattern. Do not overtighten the wheels, and do not start at one lug bolt and work your way around the wheel, tightening in a circle. Always tighten in a criss-cross star pattern in steps to seat the rotor hat on the hub evenly, and distribute stress created by the bolts as they are tightened.

NEVER tighten the lug bolts with an impact gun. Over-tightening can quickly warp brake rotors, resulting in brake pulsation.



Bedding

Please use the [bedding instruction pdf](#) on the product page. This simple procedure takes little time, improves braking performance, and extends pad and rotor life.

Thanks for purchasing your Stage 4 Big Brake Kit from ECS Tuning.

We appreciate your business, and hope this tutorial has been helpful.

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