



Installation Procedures

B5S4 Stage 4 Brake Kit Installation Guide

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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ECS Stage 4 Brake Kit Installation Guide

ATTENTION:

Safety first: When performing any work on your vehicle it is important that you make safety your main concern. When working on the rear brakes of your vehicle you will not be able to set the parking brake to prevent the vehicle from shifting while lifting. It is important that you place wheel chocks on both sides of the front wheels before beginning any work. Properly support the vehicle with jack stands on each side. Keep in mind that you will be using a large amount of force to remove some bolts in which you may push the vehicle off a jack.

1. Verify contents of the kit:

Before beginning any work on the brakes, verify that you have all the parts and tools necessary to complete the job. Contact ECS if you believe your kit is incomplete or require replacement parts.

| <u>Parts</u> | <u>Qty</u> |
|--|------------|
| 2 Piece ECS Rotors (assembled with hats) | 2 |
| Caliper Bolts | 4 |
| Locking Nuts | 4 |
| Banjobolts and seal washers | 2 |
| Calipers w/ pad hardware | 2 |
| Pads (set of 4) | 1 |

Please also note that if your car has steel spindles (as opposed to aluminium found on newer models) you will need to grind a small “nub” on the lower part of the spindle. Approx 1mm will be removed and has no impact on spindle strength.



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2. Prepare vehicle for install:

Break loose all wheel bolts on the rear wheels. Jack the car up and make sure it is properly supported with jack stands on both sides. It is highly recommended that you jack up the entire front of the vehicle at once.

With the car safely lifted, remove the wheel bolts and wheels.



3. Remove the stock brake components, cut/remove splash guard, clean hub

We will assume that you are familiar with your stock brake system and how to remove the stock rotor and caliper. If not please refer to your vehicles service manual (Robert Bentley).

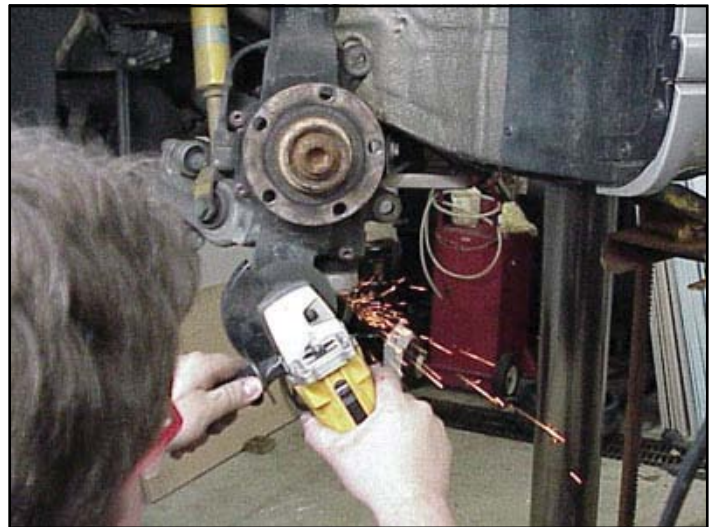
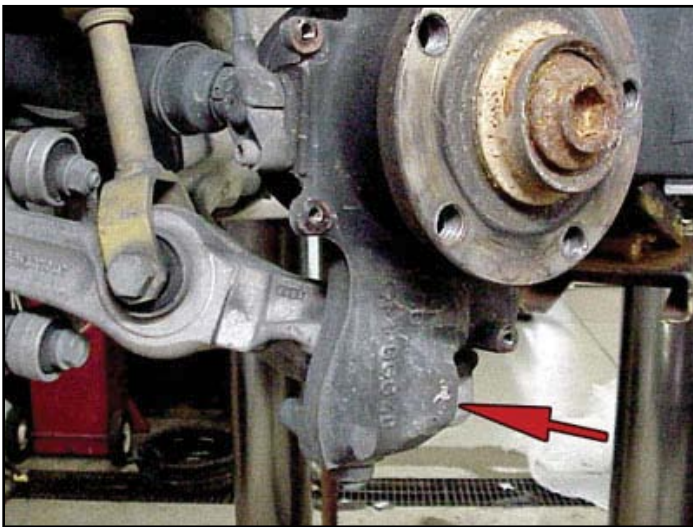
To install the larger rotor we first recommend removing the stock splash guard. Some customers have been able to keep their stock splash guard with some minor trimming, however if you choose to go this route we recommend that you be careful as the clearance tolerances are close.

Take time to remove any surface rust from the hub. A clean hub will guarantee that the new rotor is seated properly and simply future maintenance. After sanding away any corrosion we recommend applying grease to the hub surface where the rotor hat will sit.



4. Early model B5 S4 ONLY with steel spindles

Early model B5 S4's come with steel spindles as shown. If you have the late model aluminum spindles then you can omit the following step. The small nub shown with the red arrow will rub on the back side of the rotor if it is not ground down 1-2mm. Using a grinder or file remove 1-2mm of material from the surface. Take time to test fit the rotor and verify that it does not rub on the spindle. Create approx 1mm of clearance between the rotor and spindle nub.



5. Install rotor

Install the rotor onto the hub. Hold the rotor in place using a lug bolt and spacer (large nut). Note the correct directional rotation of the rotor. The slots/holes should sweep backwards at the 12 o'clock position.



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6. Install caliper and caliper mounting bolts (22mm box wrench, 19mm socket, torque wrench)

Install the caliper onto the spindle over the rotor. The bleeder screws should face upward and the bridge line should face downward. The photos on the left are taken from below. Note the bridge line is facing down. The caliper can be supported by installing each of the caliper bolts thru the caliper and into the spindle. Install the lock nuts. With a 22m box wrench and 19mm socket **torque to 92ft-lb (125Nm)**.



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7. Route stainless line

Attach the new stainless line to the hard line on the inside of the wheel well. Loop the line as shown creating an S shape towards the caliper. Zip-tie the brake line to the spindle preventing it from rubbing against the wheel. Turn the steering lock-to-lock and check for any binding or pinching of the brake line.

Install a copper seal washer on each side of the banjo fitting and secure the line to the caliper with the supplied banjo bolt.



8. Install pads, anti-rattle bridge clip

Finally slide the pads into the caliper holding them in place with the anti-rattle clip and bridge support. Note that before installing pads you may want to treat the back of the pad with an anti-squeal coating as well as lubricate the pad guide pins in the caliper with a high-temperature brake grease. With the bridge support installed use the supplied bolt to hold it in place, **torque to 10ft-lbs (13Nm)**.



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Bleed the brakes starting with:

- 1) Passenger Side:
 - Inner Bleeder Screw
 - Outer Bleeder Screw

- 2) Driver Side:
 - Inner Bleeder Screw
 - Outer Bleeder Screw

- 3) REPEAT!

You may need to repeat this process a few times. New calipers, lines and having had the brake system open for a period of time during the install will mean there is a good amount of air to remove from the system.)

9. CHECK YOUR WORK

Check over your work. Did you properly torque everything? CHECK! Brake systems are very easy to install, but must be properly tightened for safety. Check that the brake line properly clears the wheel when turned lock-to-lock. Tie the line to the spindle with zip-ties if necessary. Check for brake fluid leaks where the line meets the caliper and where the new flex line ties into the hard line.

NOW GO HAVE SOME FUN! Don't forget you just installed new rotors and pads. It is very important that you follow the bed in procedure.

