



VW MK5/6/7 Rear Big Brake Kit Installation Instructions



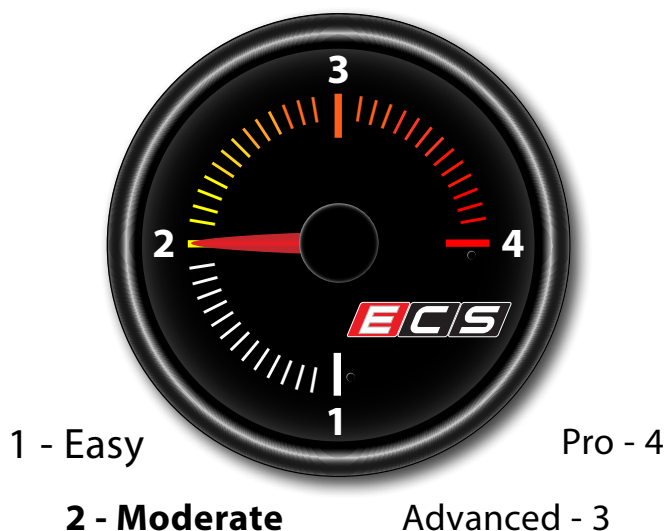
Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times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

INTRODUCTION

The Project:

Today we are going to be installing our ECS Tuning Big Brake Kit for the Volkswagen MK5, MK6 and MK7. This kit provides huge improvements in braking, giving you the peace of mind knowing that whether you're on the track or on your daily commute, you've got the stopping power to keep you safe. This kit contains everything you need to relocate the calipers, accommodating the new 320mm rotors, and also includes all necessary hardware making installation a breeze! Installation can be completed with the stock lines still connected, so no messy brake fluid draining onto the floor and no need to bleed the brake system when you're done! However, for the purpose of this installation we are going to show the whole process of replacing the stock lines with new ECS Tuning Exact-Fit Brake Lines while installing the new Big Brake Kit.

ECS Difficulty Gauge



This BBK increases brake diameter and may require wheels with a different offset, or the use of wheel spacers to clear the caliper bodies.

Please download and use the template from the BBK product page to ensure adequate caliper-to-wheel clearance.

Installing the ECS Tuning Big Brake Kit on your Volkswagen will take only a few hours, making it a perfect project for a weekend or an afternoon. Previous experience and special tools are helpful, but even if you have little to no experience, with patience and basic hand tools, this installation can be easily completed. Thank you for choosing ECS Tuning for your performance and repair needs, we appreciate your business!

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KIT CONTENTS



ECS Tuning Drilled and Slotted Two-Piece Rotors



Carrier Extension Brackets



Caliper Mounting Bolts

REQUIRED TOOLS

Note: The tools required for each step will be listed by the step number throughout these instructions.

Standard Automotive Tools

- **Protecta-Sockets (for lug nuts)** [ES#2221243](#)
- **3/8" Drive Ratchet** [ES#2765902](#)
- **3/8" Drive Torque Wrench** [ES#2221245](#)
- **3/8" Drive Deep and Shallow Sockets** [ES#2763772](#)
- **3/8" Drive Extensions** [ES#2804822](#)
- **Hydraulic Floor Jack** [ES#240941](#)
- Torx Drivers and Sockets [ES#11417/8](#)
- 1/2" Drive Deep and Shallow Sockets [ES#2839106](#)
- 1/2" Drive Ratchet
- 1/2" Drive Extensions
- **1/2" Drive Torque Wrench** [ES#2221244](#)
- **1/2" Drive Breaker Bar** [ES#2776653](#)
- Bench Mounted Vise
- Crows Foot Wrenches
- Hook and Pick Tool Set [ES#2778980](#)

Required For This Install

Available On Our Website

- 1/4" Drive Ratchet [ES#2823235](#)
- 1/4" Drive Deep and Shallow Sockets [ES#2823235](#)
- 1/4" Drive Extensions [ES#2823235](#)
- Plier and Cutter Set [ES#2804496](#)
- **Flat and Phillips Screwdrivers** [ES#2225921](#)
- **Jack Stands** [ES#2763355](#)
- Ball Pein Hammers
- Pry Bar Set [ES#1899378](#)
- Electric/Cordless Drill
- Wire Strippers/Crimpers
- Drill Bits
- Punch and Chisel Set
- **Hex Bit (Allen) Wrenches and Sockets** [ES#11420](#)
- Thread Repair Tools [ES#1306824](#)
- **Open/Boxed End Wrench Set** [ES#2765907](#)

Specialty Tools

- **3-Liter Premium European Brake Bleeder** [ES#3125779](#)
- **Impact Screwdriver** [ES#11416](#)
- **Fluid Line Stopper Kit** [ES#2748908](#)
- **Brake Caliper Piston Tool** [ES#2153340](#)
- **Stubby Socket Driver Set** [ES#3103367](#)

SHOP SUPPLIES AND MATERIALS

Standard Shop Supply Recommendations: We recommend that you have a standard inventory of automotive shop supplies before beginning this or any automotive repair procedure. The following list outlines the basic shop supplies that we like to keep on hand. Shop supplies with a hyperlink are available on our website.

- Hand Cleaner/Degreaser - [Click Here](#)
- Pig Mats - for protecting your garage floor and work area from spills and stains - [Click Here](#)
- Spray detailer - for rapid cleaning of anything that comes into contact with your paint such as brake fluid - [Click Here](#)
- Micro Fiber Towels - for cleaning the paint on your car - [Click Here](#)
- Latex Gloves - for the extra oily and dirty jobs - [Click Here](#)
- Medium and High Strength Loctite Thread lock compound - to prevent bolts from backing out - [Click Here](#)
- Anti-Seize Compound - to prevent seizing, galling, and corrosion of fasteners - [Click Here](#)
- Aerosol Brake/Parts Cleaner - for cleaning and degreasing parts
- Shop Rags - used for wiping hands, tools, and parts
- Penetrating oil - for helping to free rusted or stuck bolts and nuts
- Mechanics wire - for securing components out of the way
- Silicone spray lube - for rubber components such as exhaust hangers
- Paint Marker - for marking installation positions or bolts during a torquing sequence
- Plastic Wire Ties/Zip Ties - for routing and securing wiring harnesses or vacuum hoses
- Electrical tape - for wrapping wiring harnesses or temporary securing of small components

INSTALLATION NOTES

- **RH** refers to the *passenger side* of the vehicle.
- **LH** refers to the *driver side* of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process **BEFORE** you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

ECS Tuning cares about your health and safety, please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- **ALWAYS** wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- Whether lifting a vehicle using an automotive lift or a hydraulic jack, be sure and utilize the factory specified lift points.
- Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- **ALWAYS** support the vehicle with jack stands.
- **ALWAYS** read and follow all safety information and warnings for the equipment you are using.



NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

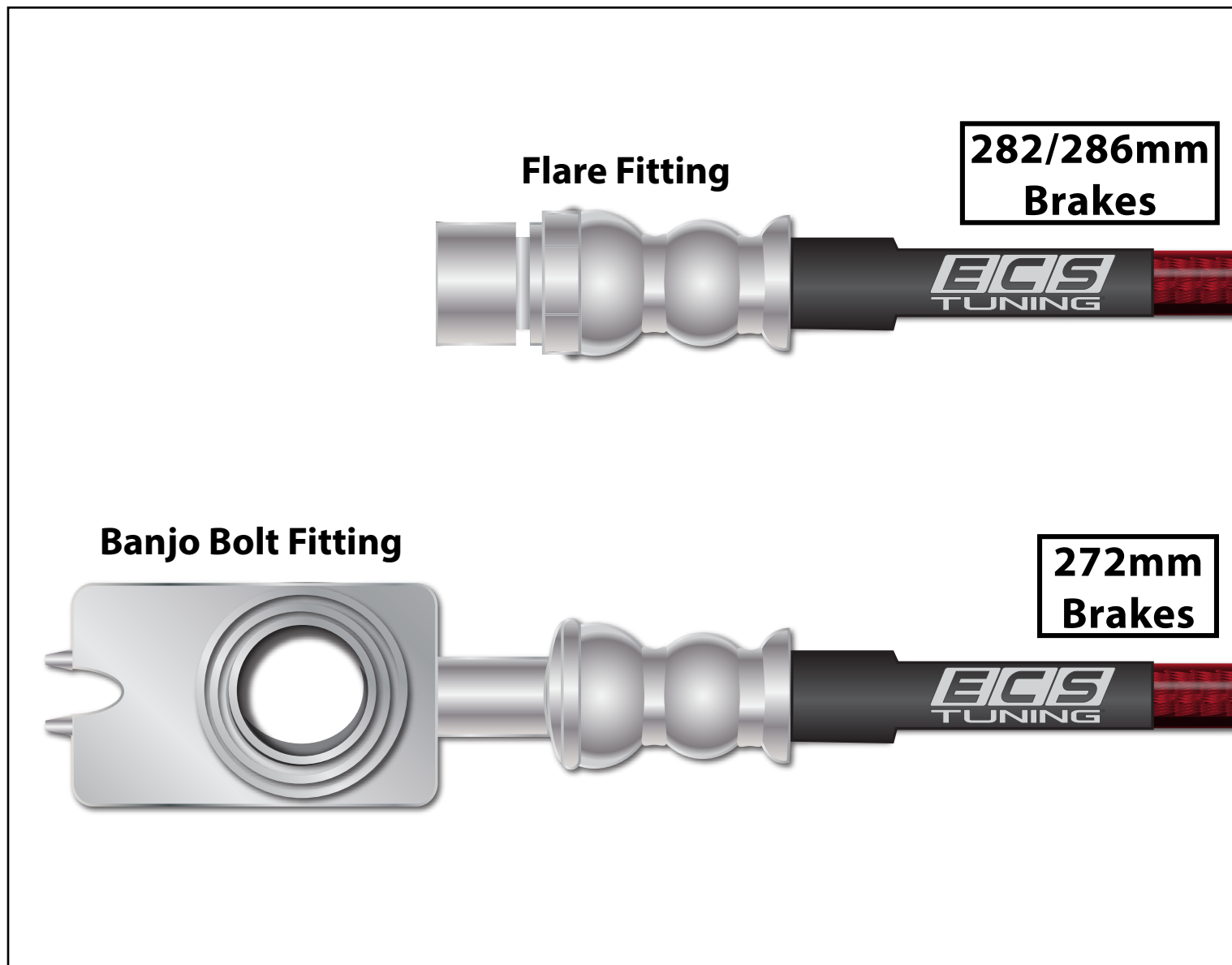
PROJECT OVERVIEW

Before getting started, it's important to note the differences in stock brake sizes for MK5-7:

The MK5 and early MK6 rear brakes feature a 282/286mm brake system and require the smaller carrier extension bracket. These use a flare fitting to complete the connection from the brake hose to the caliper.

The later MK6 and MK7 rear brakes feature a 272mm brake system and require the larger bracket. These use a banjo bolt fitting for the connection at the caliper.

For documentation purposes we will be showing installation of this BBK alongside our Exact-Fit brake lines on an early MK6 with 282/286mm brakes.



REMOVING THE ORIGINAL BRAKES

Step 1:

Safely raise and support the vehicle and remove the rear wheels.



If you choose to retain your stock brake lines, proceed to [pg.10](#), step 6 to continue with installation.

Step 2:

Flat Head Screwdriver

Using a flat head screwdriver, pry the u-shaped retainer clip (highlighted in **RED**) from the brake hose at both the chassis and caliper brackets.



REMOVING THE ORIGINAL BRAKES

Step 3: 17mm Wrench, 11mm Line Wrench

Follow the brake hose to the chassis and using two wrenches loosen and disconnect the solid brake line from the brake hose.

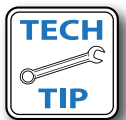


Brake fluid is extremely corrosive and can damage surrounding parts as well as skin and eyes. Before removing the stock brake line, put on gloves and goggles and shield surrounding parts from the fluid.



Step 4: Fluid Line Stopper clamp

Install a fluid stopper clamp (available on our website at [ES#2748908](#)) to keep the brake fluid from draining onto the floor, and it'll make bleeding the system easier when you're all done.



If you don't have a fluid stopper clamp, you can transfer the rubber cap from the caliper brake bleeder screw to the end of the disconnected solid brake line.



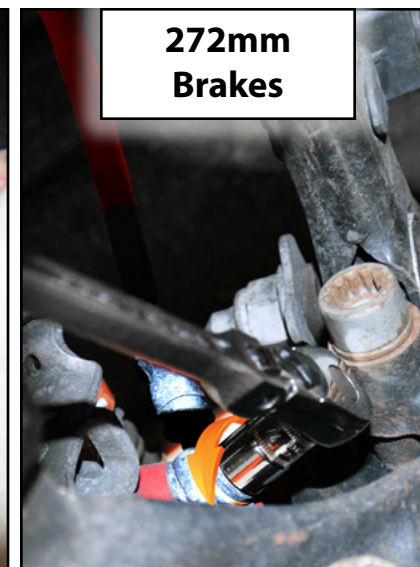
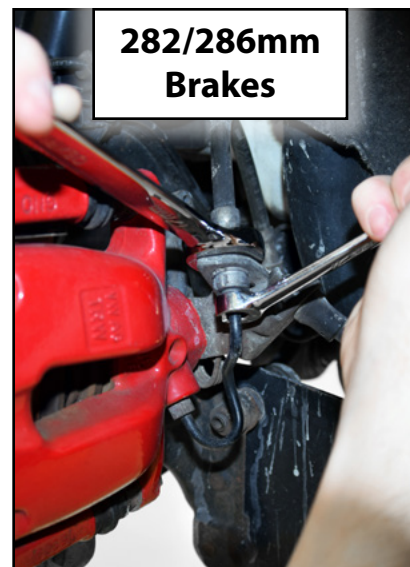
REMOVING THE ORIGINAL BRAKES

Step 5: 17mm Wrench, 11mm Line Wrench

Using the two wrenches, loosen and disconnect the brake hose from the solid brake line at the caliper.



If your vehicle features 272mm brakes, this fitting will be a banjo bolt connection. In order to remove the hose from the caliper, loosen and remove the banjo bolt.



Step 6:

Remove the parking brake cable from the caliper by pushing the cable end out of the lever hook of the caliper, then releasing the clip holding it into the bracket.



REMOVING THE ORIGINAL BRAKES

Step 7: 15mm Wrench, 13mm Socket & Ratchet

Counter hold the guide pins with a wrench and remove both bolts from the brake caliper.



Step 8:

Lift the caliper off of the brake pads and set aside.



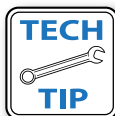
Often these calipers can become stuck and require a bit of prying to remove them from the brake pads, just be careful not to damage the painted caliper surfaces.



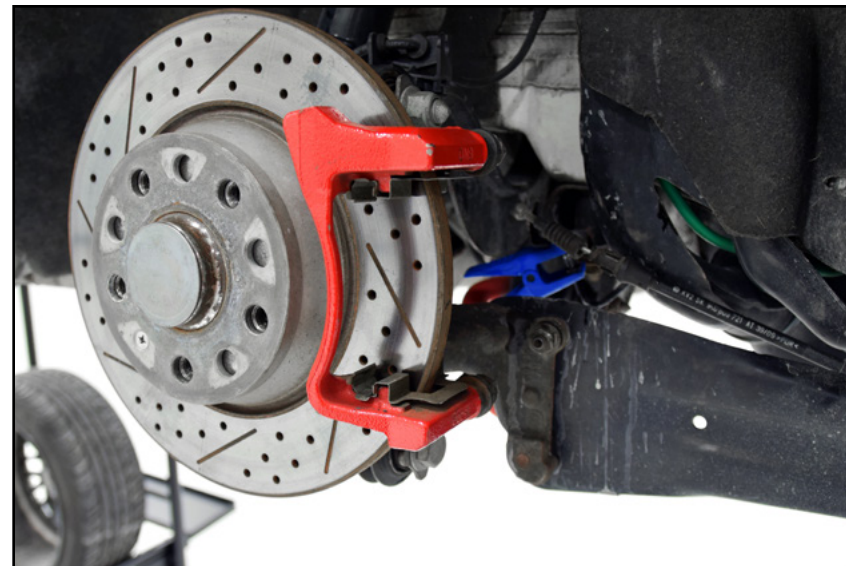
REMOVING THE ORIGINAL BRAKES

Step 9:

Remove the brake pads from brake carrier.

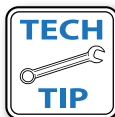


With the brake pads removed, this is the perfect time to inspect, clean and lubricate your caliper guide pins and brake pad clips.

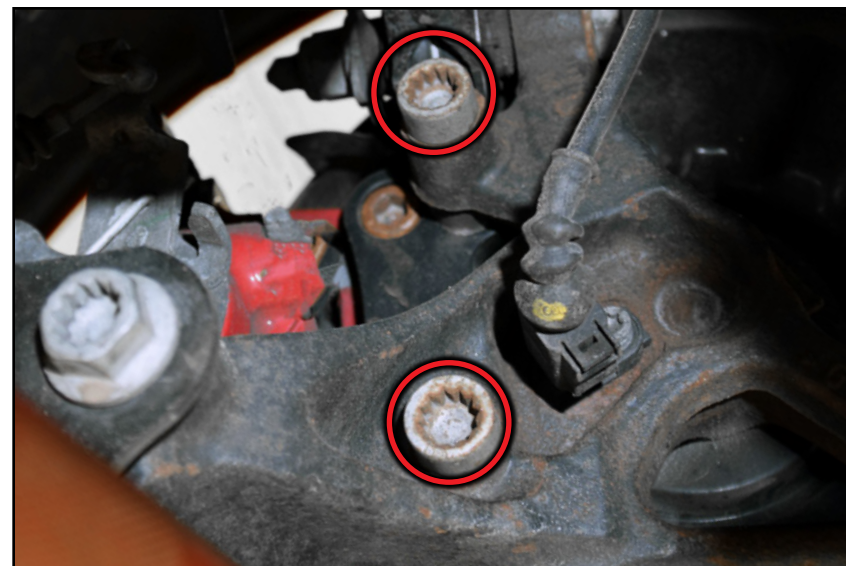


Step 10: M14 Triple Square Socket & Ratchet

Loosen and remove the two M14 Triple Square caliper carrier bolts from the back of the knuckle, then remove the carrier and set it aside.



Because of the limited space, these bolts may be tricky to access and remove, we found that our Schwaben Stubby Socket Set ([ES#3103367](#)) was the most effective way to remove these bolts.



REMOVING THE ORIGINAL BRAKES

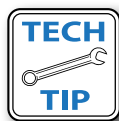
Step 11: Brake Caliper Piston Tool

Compress the brake caliper piston to help make reinstallation of caliper over the brake pads easier. (Brake Caliper Piston Tool Kit available on our website at [ES#2153340](#)).



Step 12: Screwdriver or Impact Screwdriver

Remove the rotor screw holding the rotor to the hub.



While a screwdriver will remove the rotor screw in most cases, an impact screwdriver comes in handy for breaking loose especially stubborn, rusted screws. ECS offers an impact screwdriver and it is available on our website at [ES#11416](#).



REMOVING THE ORIGINAL BRAKES

Step 13:

Remove the old rotor from the hub.



Step 14: Wire Brush, Brake Cleaner

Thoroughly clean the hub surface to create a smooth contact surface for the new rotor.

You are now ready to install the new big brake components. Proceed with the installation, beginning on the next page.



BIG BRAKE KIT INSTALLATION

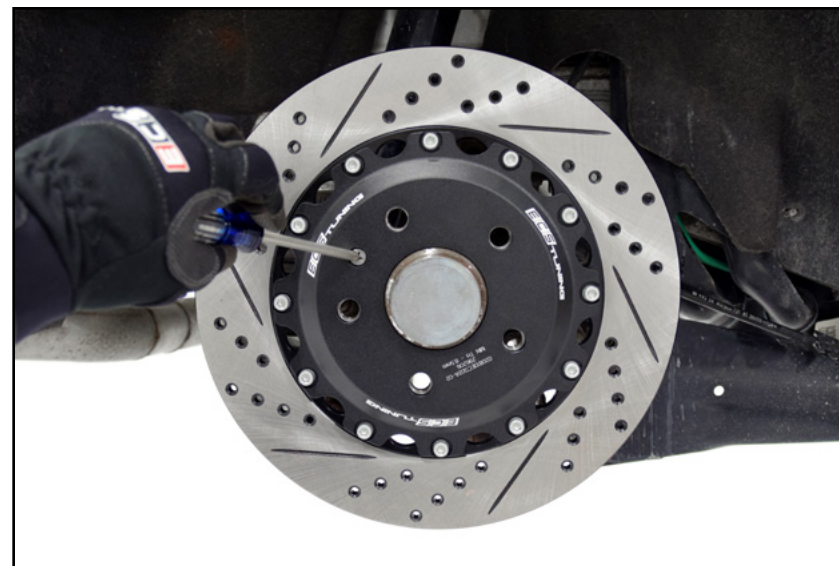
Step 1: Brake Cleaner & Cloth

Thoroughly clean the braking surfaces of the new rotor using brake cleaner and a clean, lint free cloth.



Step 2: Phillips Head Screwdriver

Install the new rotor onto the hub using the included stainless steel rotor screw.



BIG BRAKE KIT INSTALLATION

Step 3: 10mm Hex Socket & Torque Wrench

Install the new carrier extension bracket onto the brake carrier with the provided hex bolts. Torque the bolts to 90 Nm (66 ft-lbs).



It is helpful to clamp the carrier in a bench vise while torquing these bolts to ensure they are tightened to the proper specification.



Step 4: 18mm Socket and Torque Wrench

Install the carrier with new caliper bracket installed onto the rear knuckle using the included 18mm bolts. Torque the bolts to 90 Nm (66 ft-lbs) + 90°.



BIG BRAKE KIT INSTALLATION

Step 5:

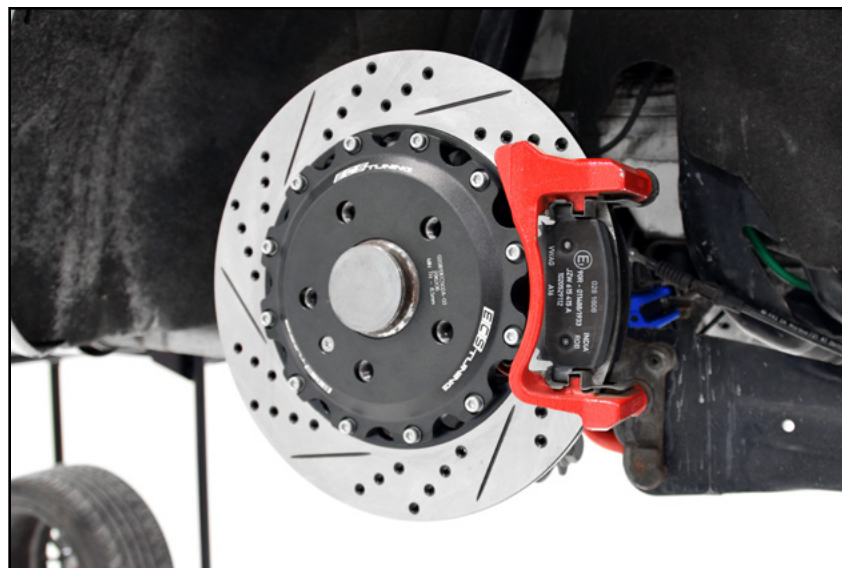
Install the brake pads into the brake carrier.



With the caliper still removed, this is perfect time to replace your vehicle's old brake pads with fresh new ones. We offer a full selection of replacement and performance brake pads on our website [HERE](#).

Step 6:

Slide the caliper over the brake pads.



BIG BRAKE KIT INSTALLATION

Step 7: 15mm Wrench, 13mm Socket & Torque Wrench

Counter hold the caliper guide pins while you reinstall the two caliper bolts and torque them to 35 Nm (26 Ft-lbs).

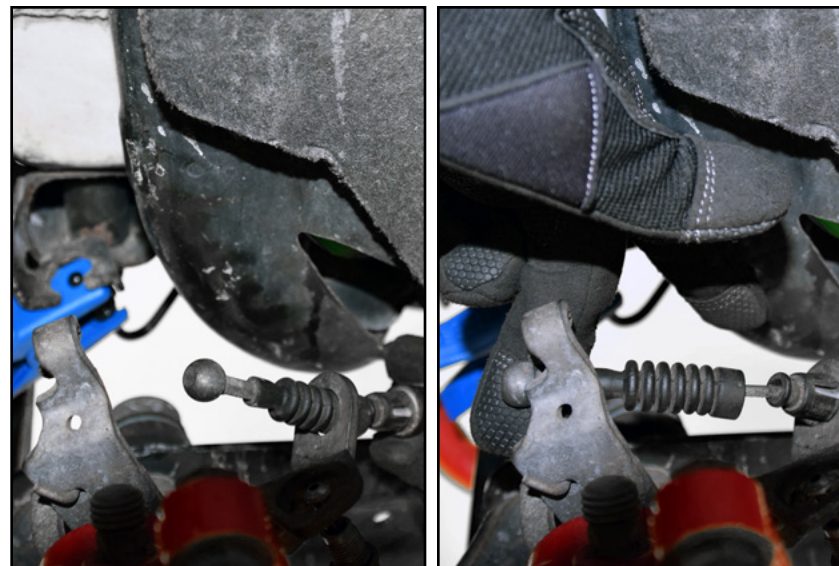


Step 8:

Reinstall the parking brake cable by sliding it back through the caliper bracket and notching it back into its mounted position.



If you chose to retain your stock brake lines, you may proceed to [pg.21](#) for final assembly instructions.



BIG BRAKE KIT INSTALLATION

Step 9: 17mm Wrench, 11mm Line Wrench

If you choose to replace your brake lines, at this point you can proceed to install the new Exact-Fit brake hose into the brake fitting at the caliper using two wrenches.

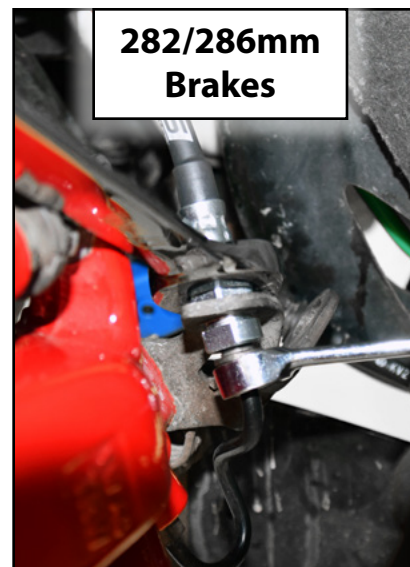


NOTE

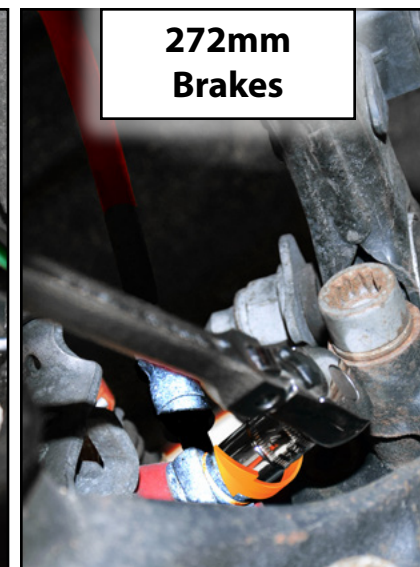
If your vehicle features 272mm brakes, this fitting will be a banjo bolt connection. In order to install this fitting, place a copper washer on either side of the fitting, then slide the banjo bolt through the fitting and torque to 35 Nm (25 ft-lbs).

Step 10: 17mm Wrench, 11mm Line Wrench

Make the final brake hose connection by screwing the new Exact-Fit brake hose into the hard line at the chassis then hand-tightening the fitting.



**282/286mm
Brakes**



**272mm
Brakes**



BIG BRAKE KIT INSTALLATION

Step 11:

Install the new u-shaped retainer clips through the groove in the hose collar and push the clip inward until it clicks into place, holding the hose in the mounting brackets.



Step 12:

Using the brake bleeder screw located at the top of the caliper, bleed the air out of the brake system in this order: RH rear then LH rear.

Proceed to next page for master cylinder bleeding procedure.



BRAKE LINE BLEEDING PROCEDURE

Step 13: Brake Bleeder

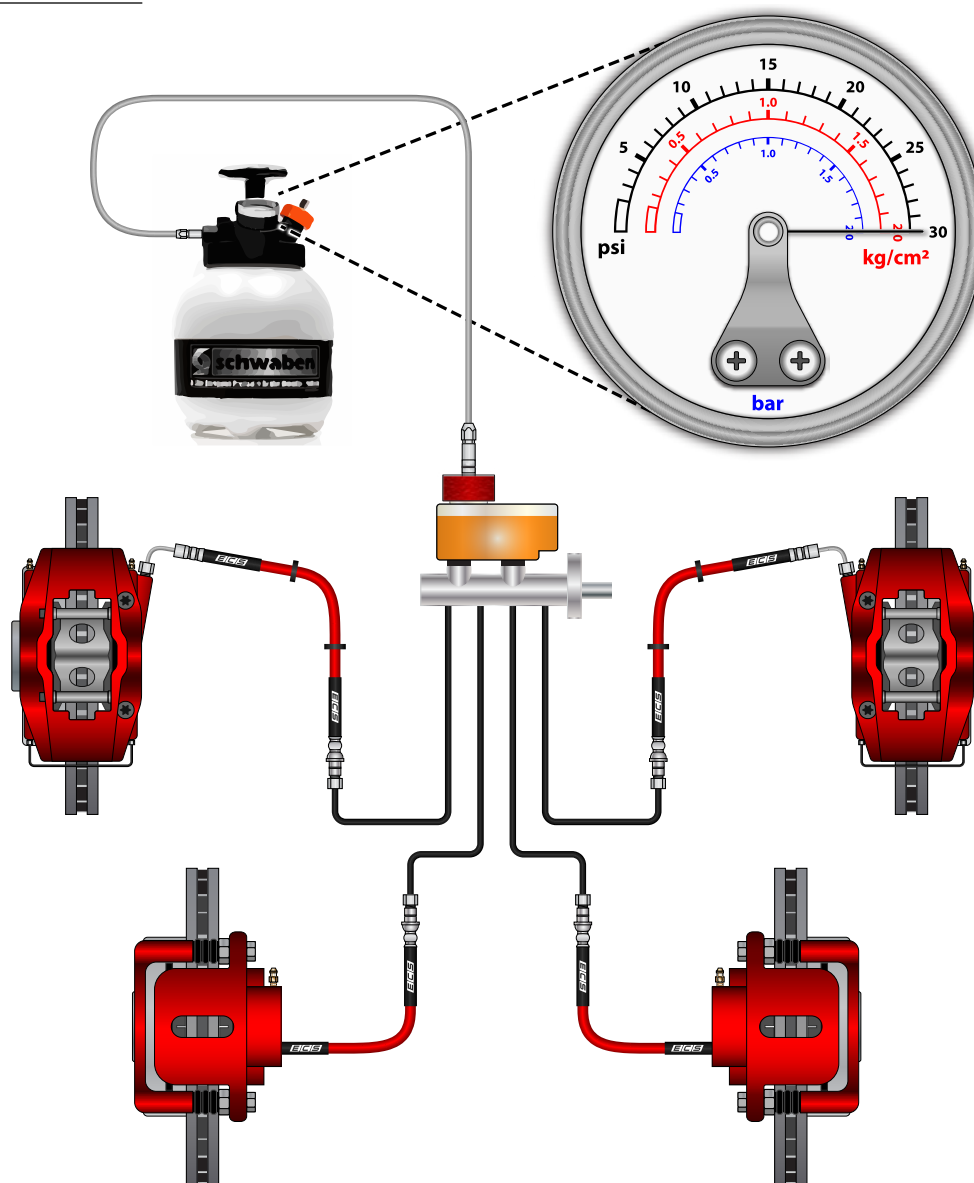
Whenever the brake lines are serviced you will need to bleed the air from the system, consult your service manual for model specific instructions.

We suggest the use of our 3-Liter Premium European Brake Bleeder ([ES3125779](#)) for this job. This bleeder features a professional grade aluminum master cylinder cap adapter which can handle high pressure systems with ease.

FINAL ASSEMBLY

Perform the following steps for final assembly:

- Install the wheels on the car and torque the wheel bolts to 120 Nm (89 Ft-lbs).
- Lower the car to the ground
- Check hose/line connections and clearance then top off brake fluid in the reservoir.



TORQUE SPECIFICATIONS

Rotor Set Screw.....	4 Nm (3 Ft-lbs).....	(Page 15)
Carrier Extension Bracket bolts.....	90 Nm (66 Ft-lbs).....	(Page 16)
Caliper Mounting Bolts	90 Nm (66 Ft-lbs) + 90°.....	(Page 16)
Caliper to Brake Carrier Bolts.....	35 Nm (26 Ft-lbs)	(Page 18)
Brake Hose to Brake Line Fitting.....	14 Nm (10 Ft-lbs).....	(Page 19)
Wheels.....	120 Nm (89 Ft-lbs)	(Page 21)

- A note about torque to yield or “stretch” bolts: Many bolts will have a torque specification listed in the format - xx Nm (xx Ft-lbs) + xx°. These bolts are torque to yield bolts, commonly referred to as “stretch” bolts. The correct procedure for torquing these bolts is: **Stage One** - torque them to the Nm or Ft-lb specification. **Stage Two** - tighten each one the additional specified number of degrees. To prevent over torquing it is important to mark each fastener with paint **immediately** after performing the second stage or “stretching” of the bolts.

SCHWABEN - BUILD THE ULTIMATE TOOL COLLECTION

At ECS Tuning, we carry a line of high quality Schwaben Tools and Equipment to help you build your ultimate tool collection. Never before has affordability and quality been so closely related. Our entire Schwaben line is subjected to strict in house testing for strength and durability. See what we have to offer and equip your garage without breaking the bank.



Your VW MK5/6/7 Rear Big Brake Kit installation is complete!



These instructions are 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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