



ES803
VW MKIV
Rear **Big Brake Kit**
with Exact-Fit Brake Lines
Installation Instructions

best viewed in Acrobat® Reader®

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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Stage 1 Rear Big Brake Kit

VW MKIV Jetta/Golf ES803



Application Chart

This kit fits the following:

Audi	TT MKI	FWD	180HP
Volkswagen	Golf IV	All	1.8T
Volkswagen	Golf IV	All	2.0
Volkswagen	Golf IV	All	TDI
Volkswagen	Golf IV	All	VR6 12v
Volkswagen	Golf IV	All	VR6 24v
Volkswagen	Jetta IV	All	1.8T
Volkswagen	Jetta IV	All	2.0
Volkswagen	Jetta IV	All	TDI
Volkswagen	Jetta IV	All	VR6 12v
Volkswagen	Jetta IV	All	VR6 24v
Volkswagen	Jetta IV GLI	All	All
Volkswagen	New Beetle	All	1.8T
Volkswagen	New Beetle	All	2.0
Volkswagen	New Beetle	All	2.5L
Volkswagen	New Beetle	All	TDI

Kit Contents

- caliper carrier bracket - 2
- bracket mounting bolts - 4
- ECS Tuning Exact-Fit brake lines - 2
- brake line support brackets with plastic nuts - 4
- MKIV Stage 1 drilled and slotted two-piece rotors - 2
- stainless steel rotor set screws - 2



ES803

Step 1

Raise and safely support the vehicle. Remove the rear wheels.

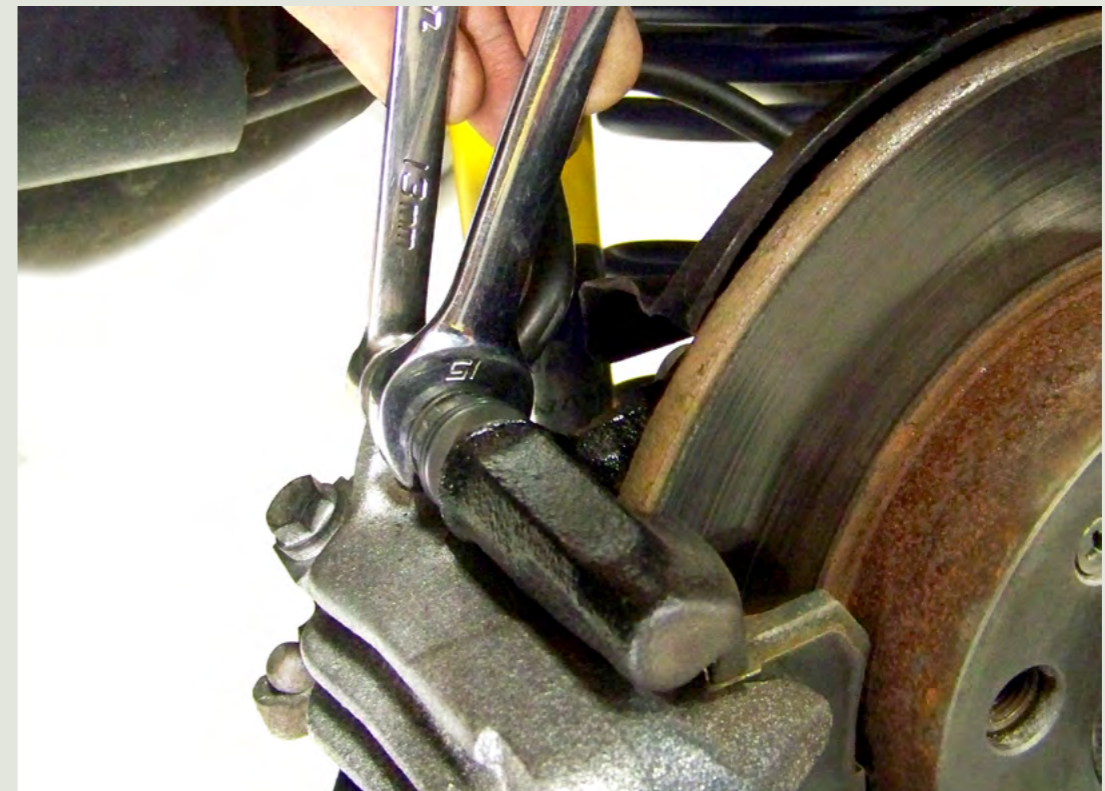


Step 2

Hold the hex on the caliper slide pin with a 15mm open end as you loosen the caliper bolts with a 13mm box wrench or socket.

Service Tip: The hex head on the caliper pin is narrow, and some standard thickness wrenches will not fit between the boss on the caliper and the caliper frame. Try to select a thin wrench that will fit into the opening. (Cyclists with a 15mm cone wrench will find a new use for an old tool here.)

Remove both upper and lower caliper bolts.



Step 3

Slide the caliper straight off the pads.

Service Tip: Calipers can stick against the pads due to accumulations of dirt and rust. Removing the caliper may require a bit of wiggling and prying with large common screwdriver or pry bar.

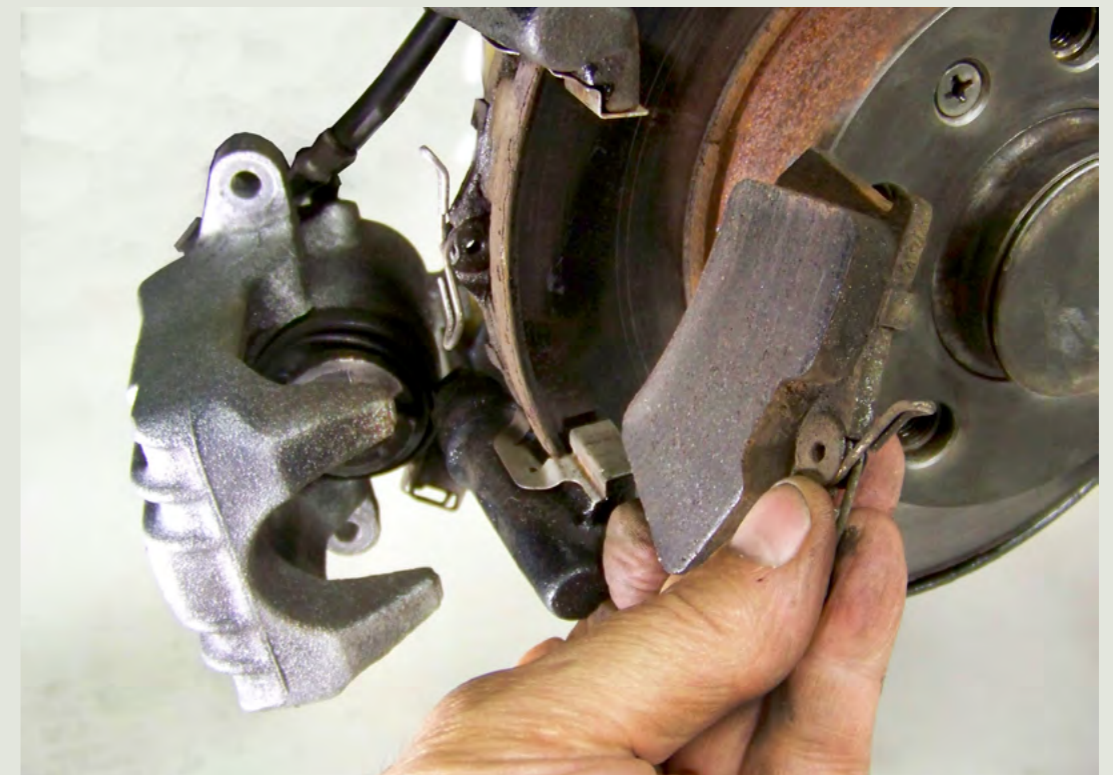


Step 4

Remove the brake pads from the caliper carrier.

Service Tip: Inspect the pads for uneven or excessive wear, or deep grooving commonly caused by a scored rotor surface or rust deposits.

The pads on our car have plenty of life left; the friction material surfaces are flat and parallel with the steel backers. If yours need to be replaced, ECS Tuning stocks a large inventory of stock and performance brake pads.



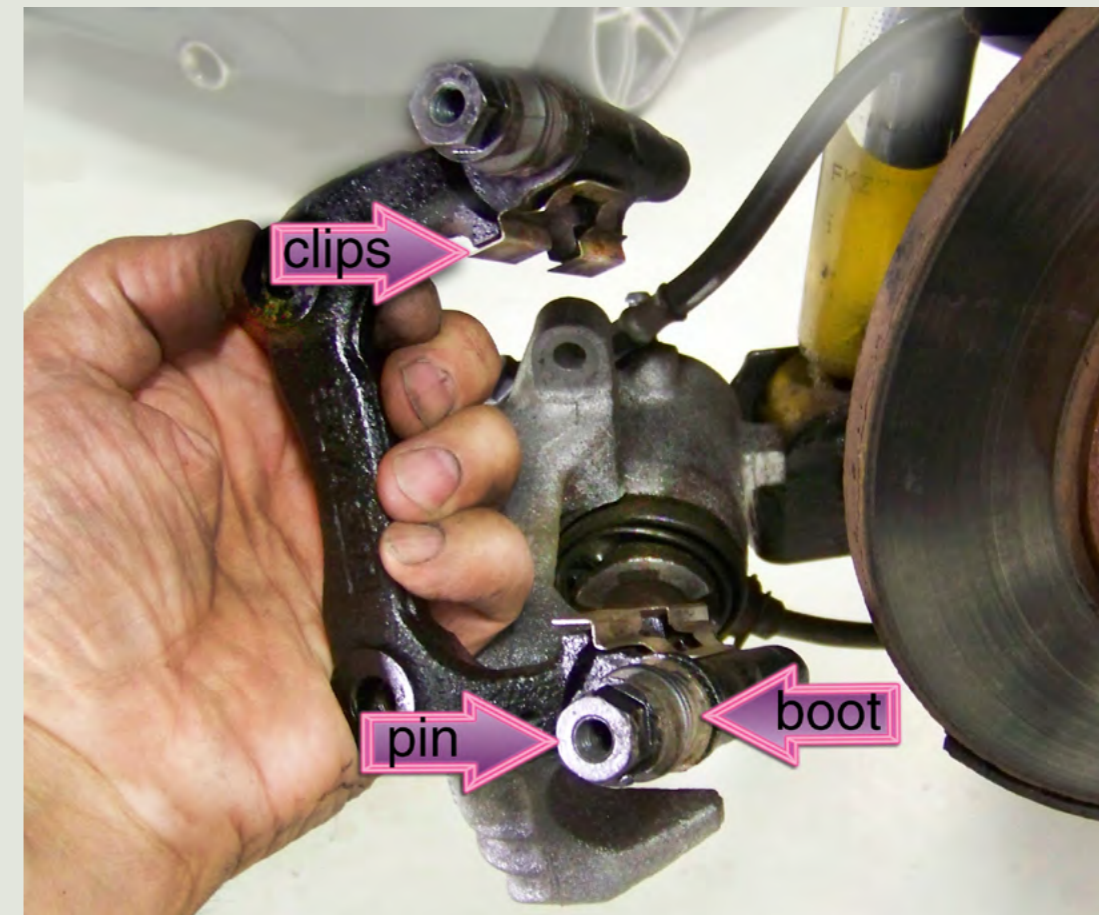
Step 5

Using an M8 hex driver and long-handled wrench or breaker bar for added leverage, loosen and remove the two bolts holding the caliper carrier to the trailing arm.



Step 6

- Pull both caliper pins out of the carrier. Check them for wear or rust.
- Clean the pins and lube them with fresh, hi-temp caliper grease. Check the rubber boots on the pins for cracks, tearing, or heat-hardening. Replace the boots, if needed. ECS Tuning hardware kits include boots, bolts, and grease **ES2586573**.
- Remove the stainless steel brake pad damper clips, and clean them with steel wool. Replace severely worn or damaged clips **ES11276**.



Step 7

Remove the rotor set screw and pull off the rotor.

Service Tip: While a common Phillips head screwdriver will remove the set screw in many cases, an impact driver comes in handy for breaking loose severely rusted screws.

The **Schwaben Impact Driver (ES11416)** comes with four screwdriver bits, and accepts any 1/2-inch socket. Our free [online video](#) shows you how to use it to remove stubborn fasteners.



Step 8

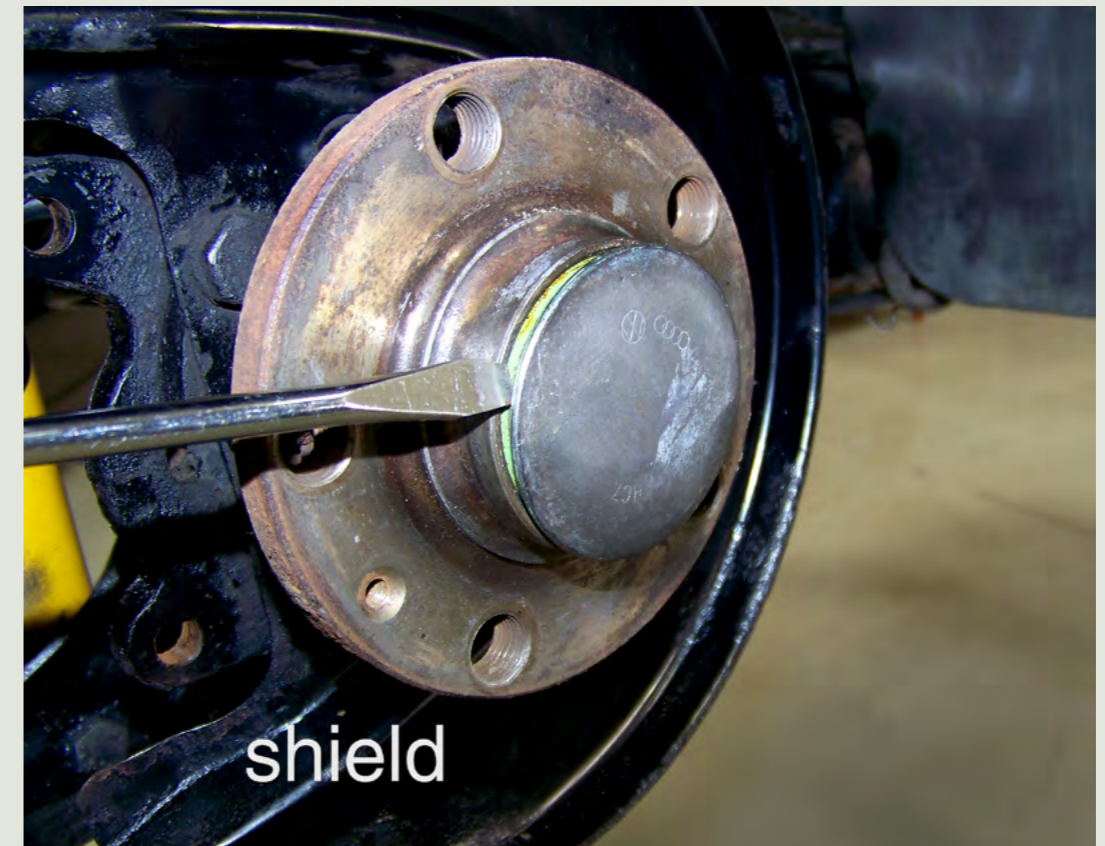
The stamped steel brake rotor shield is too small for your new, larger diameter rotors.

You have two choices:

- 1) use tin snips to trim the shields on the car until they no longer interfere with the new rotor, or
- 2) unbolt and remove the shield entirely.

We will show you how to remove the shield, since it is the more complicated of the two solutions.

Start by removing the grease/dust cover from the rear hub. Tap a large common screwdriver into the gap as we have done here, and twist to pry the cover loose. Don't bend or kink the cap or it may not seal properly when reinstalled.



Hardware Installation

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Step 9

Remove the spindle nut.

An impact gun and 30mm socket remove the nut quickly.



Step 10

Remove the wheel hub/bearing assembly. Expect to need a puller for this task.

We have a three jaw puller that fits perfectly. A similar generic puller will work too.



Step 11

Remove the four bolts holding the spindle to the trailing arm.

Remove and discard the splash shield.

Service Tip: Be careful not to damage the wheel speed sensor, located at 12 o'clock, between the top two bolts. It has a plastic body that cracks easily on impact.



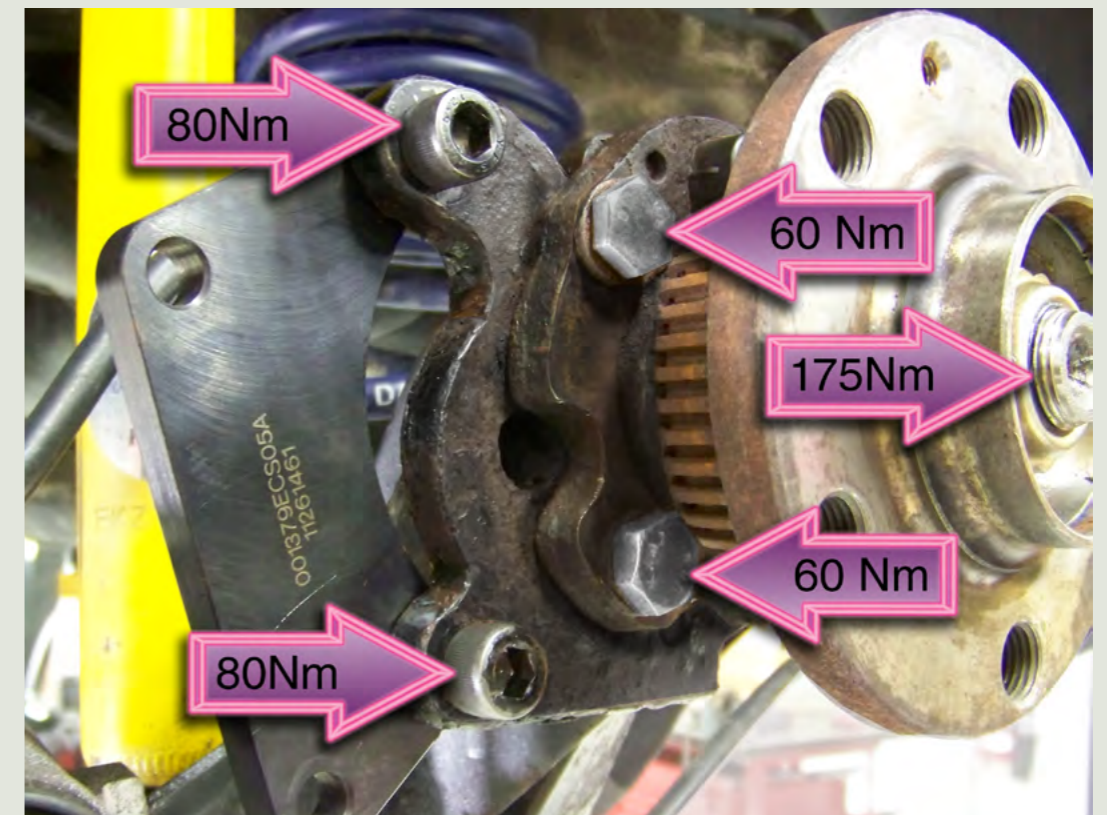
Step 12

After the shield is removed:

- Reinstall the spindle on the trailing arm. Use new bolts and torque them to 60Nm (44 ft-lb).
- Slide the bearing assembly back onto the spindle. Use a new self-locking nut, and torque it to 175Nm (130 ft-lb).
- Install the caliper carrier bracket using the bolts from the kit. Tighten them to 80Nm (65 ft-lb).

Service Tip: Note the orientation of the bracket. The top edge should tilt downward at the rear, as shown here.

Also note that the spacing between the top holes in the spacer is wider than that of the lower holes. .



Hardware Installation

Stage 1 Rear Big Brake Kit

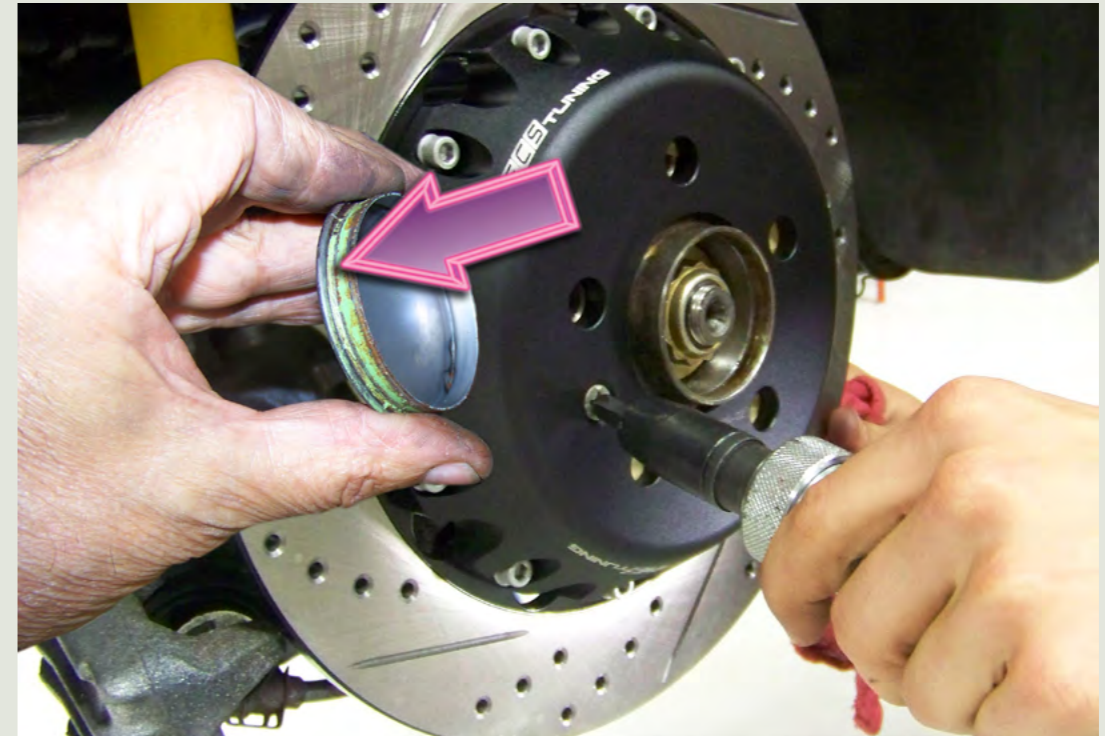
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Step 13

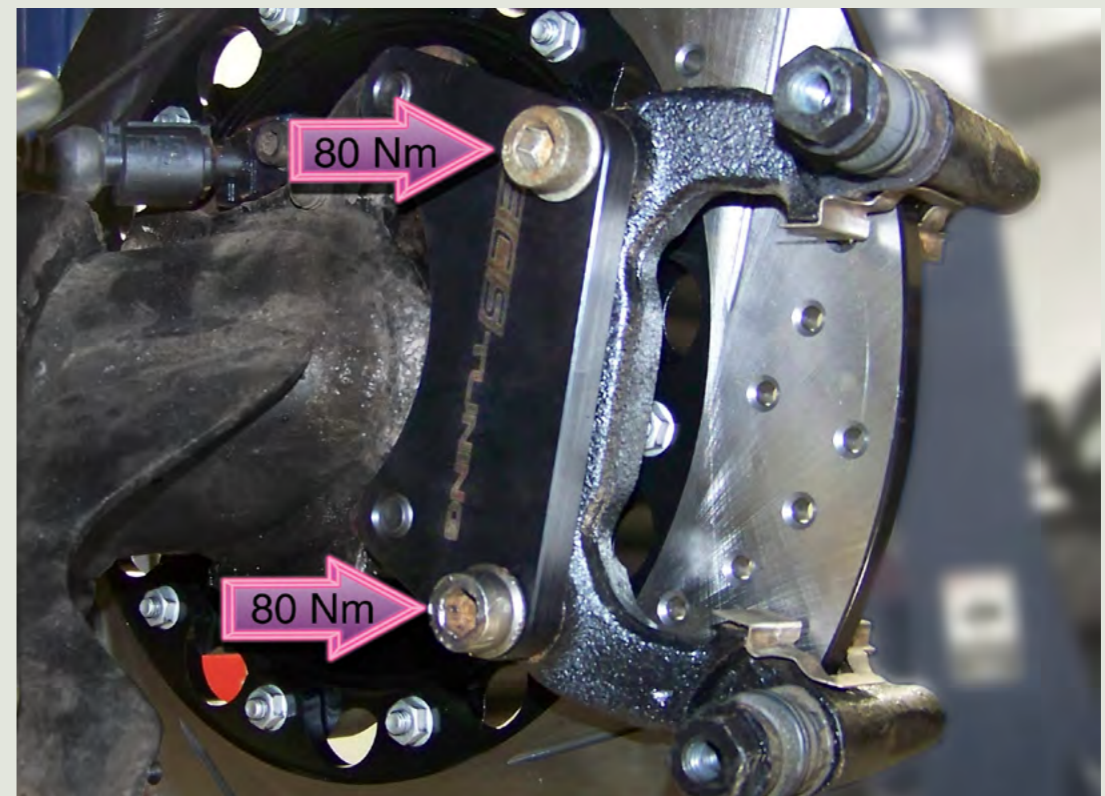
- Install the new brake rotor onto the hub
- Install and tighten the new stainless steel rotor set screw.
- Replace the grease cap on the hub.

Service Tip: Apply a thin film of sealer around the lip of the cap (arrow) to keep out dirt and water. Then tap it in place with a soft mallet that does not distort the metal.



Step 14

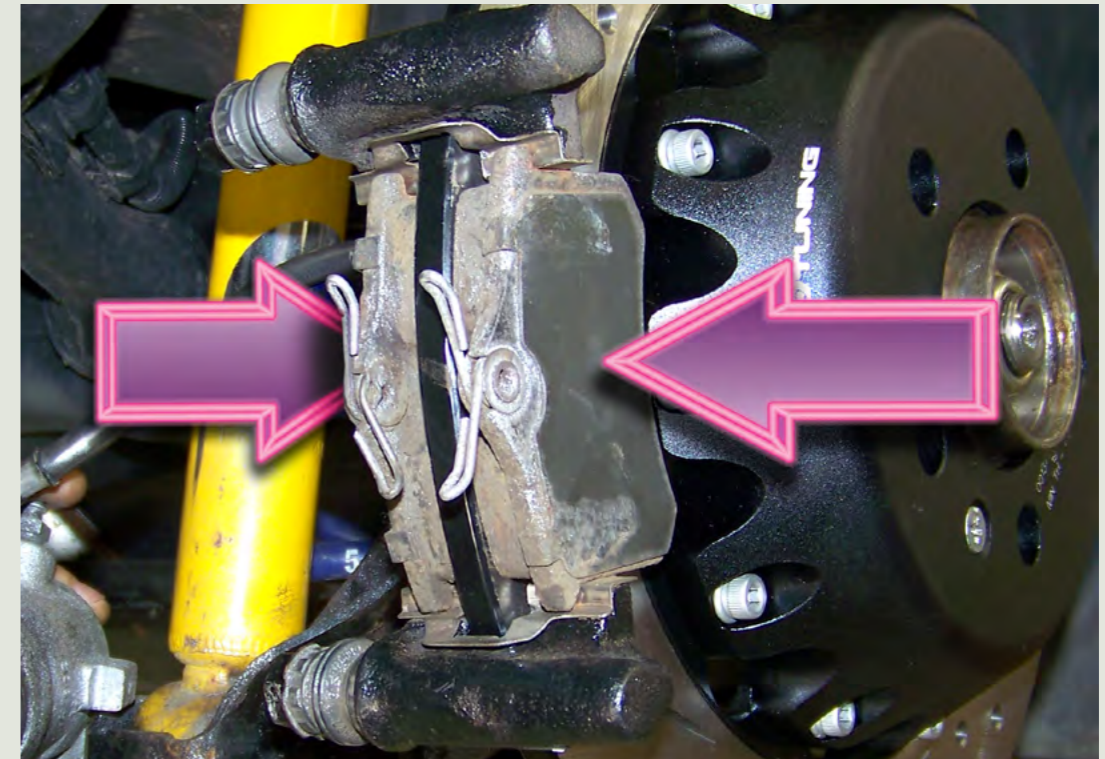
- Slide the caliper carrier over the edge of the rotor.
- Bolt the caliper carrier to the bracket.
- Tighten the bolts to 80Nm (65 ft-lb).



Step 15

Slide the brake pads into the caliper carrier from the sides.

Service Tip: The stainless steel pad damper clips should exert slight pressure on the pads to keep them from rattling in the carrier, while still allowing them to slide from side-to-side as they are applied and released.



Step 16

Slide the caliper over the brake pads. Press the caliper body toward the spindle centerline with one hand to compress the pad springs. Then thread the caliper bolts into the slide pins and tighten them to 35Nm (26 ft-lb).

Service Tip: You may need to retract the caliper piston before you can slide the caliper over the pads. Our [online video](#) (jump to 00:43) demonstrates how to use a piston retractor tool to compress the self-adjusting rear caliper pistons used on this car.

Service Note: VW recommends replacing the caliper bolts with new ones that have factory-applied encapsulated thread locking compound on their threads.

Repeat this process at the other rear wheel.



Exact-Fit Brake Line Installation

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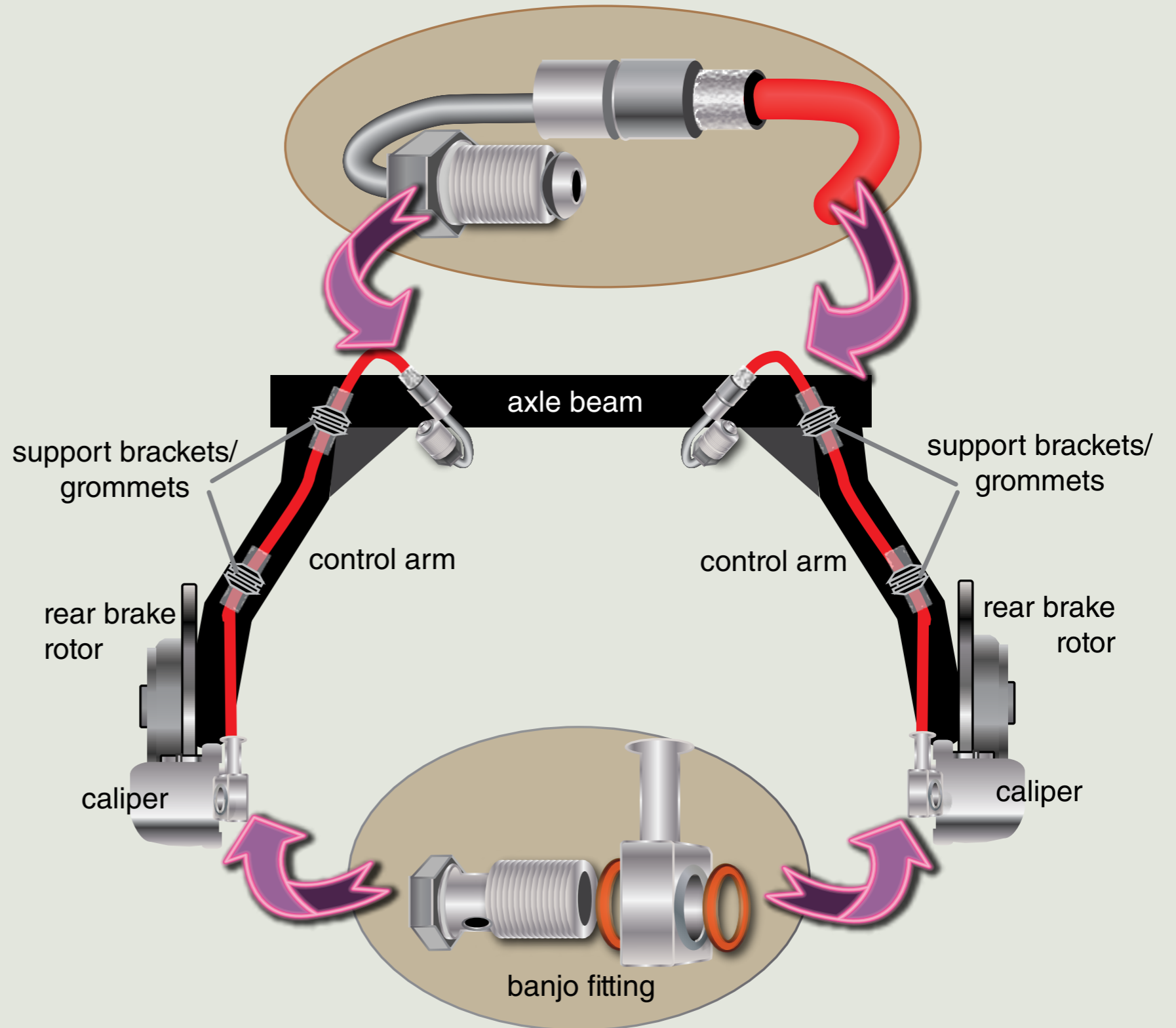
Now that the Big Brake Kit is bolted in place, it's time to install your new Exact-Fit Brake Lines.

This diagram shows how to route your new brake lines, from the vehicle brake lines to the caliper.

It also shows where to place the support brackets included in the kit.

Photos on the following pages document the process.

ISO bubble flares connect to vehicle brake hoses



Exact-Fit Brake Line Installation

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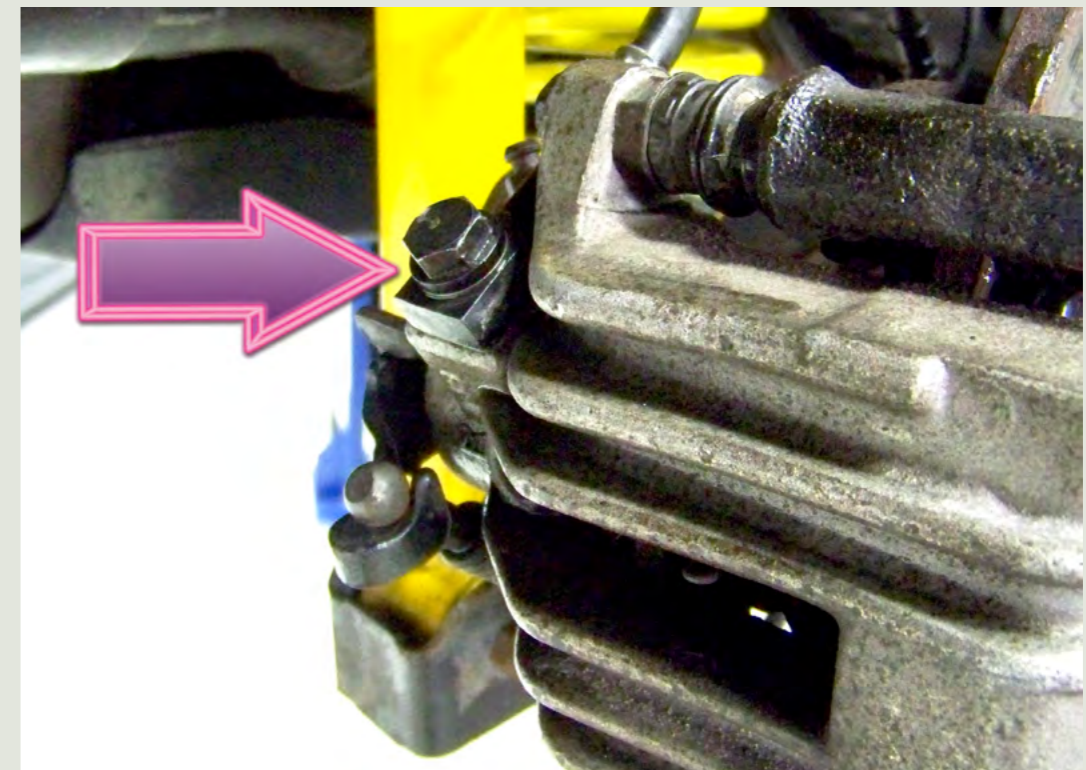
Brake fluid can damage skin and eye tissue.

Please protect your hands and eyes with gloves and goggles.



Step 1

Using a 13mm wrench, loosen the banjo bolt at the rear of the brake caliper and remove it.



Exact-Fit Brake Line Installation

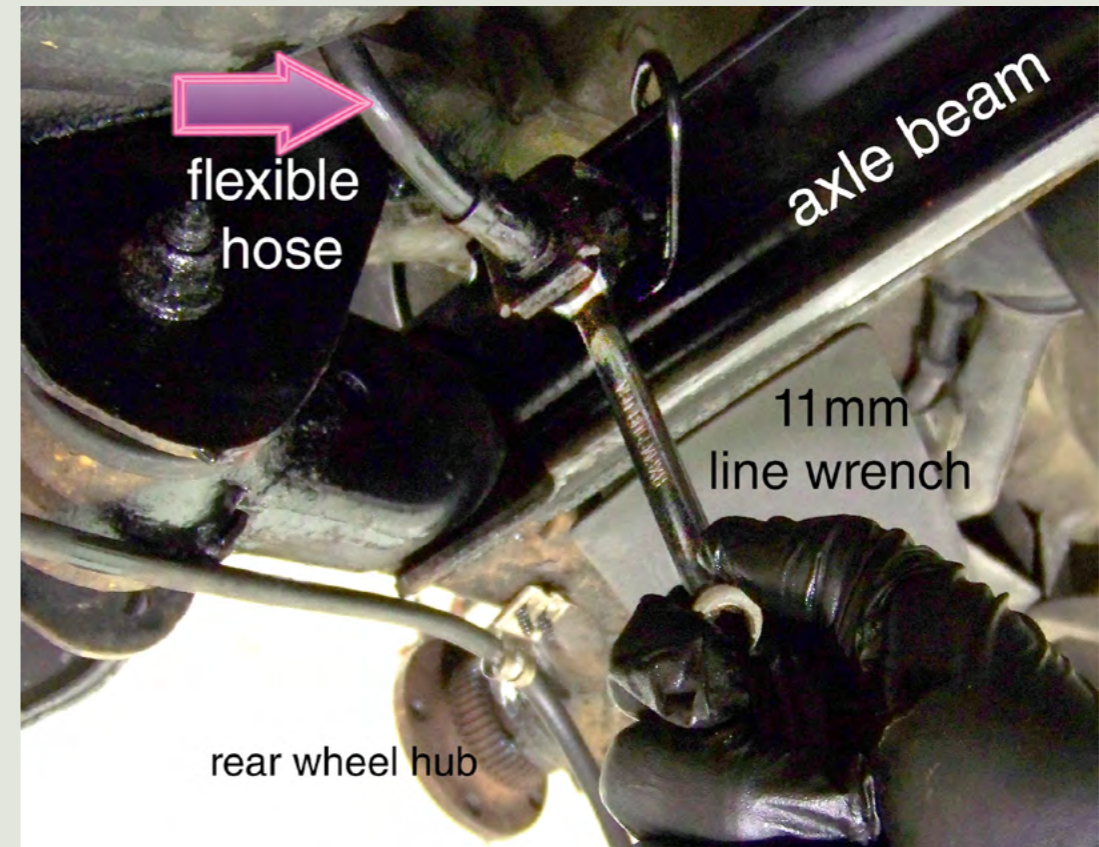
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Step 2

Follow the line to its connection at the flexible brake hose on the rear axle beam.

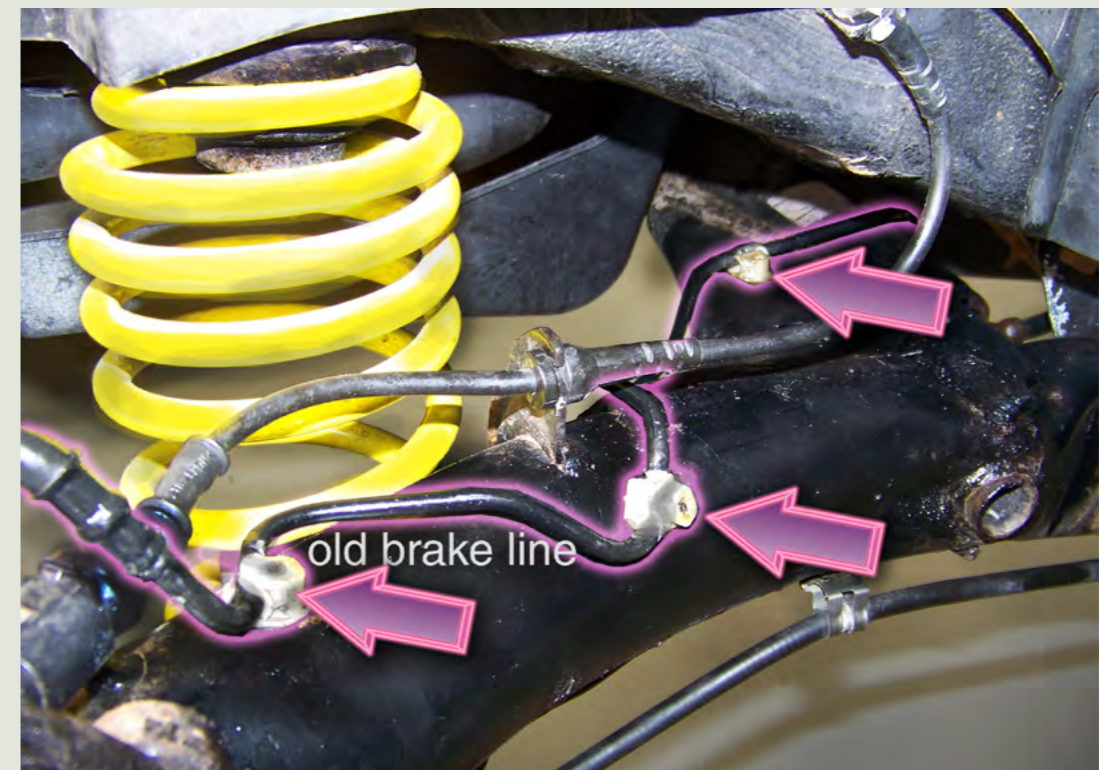
Using an 11mm line wrench, loosen and disconnect the fitting.



Step 3

With both ends of the old brake line disconnected, pry the old line (highlighted) from its plastic attachment clips (arrows) on the rear axle trailing arm.

Unscrew the plastic clips from the threaded studs on the arms.



Exact-Fit Brake Line Installation

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Step 4

Install a brake hose support bracket from the kit over the threaded stud on the arm.

Secure the bracket with a cap nut from the kit.



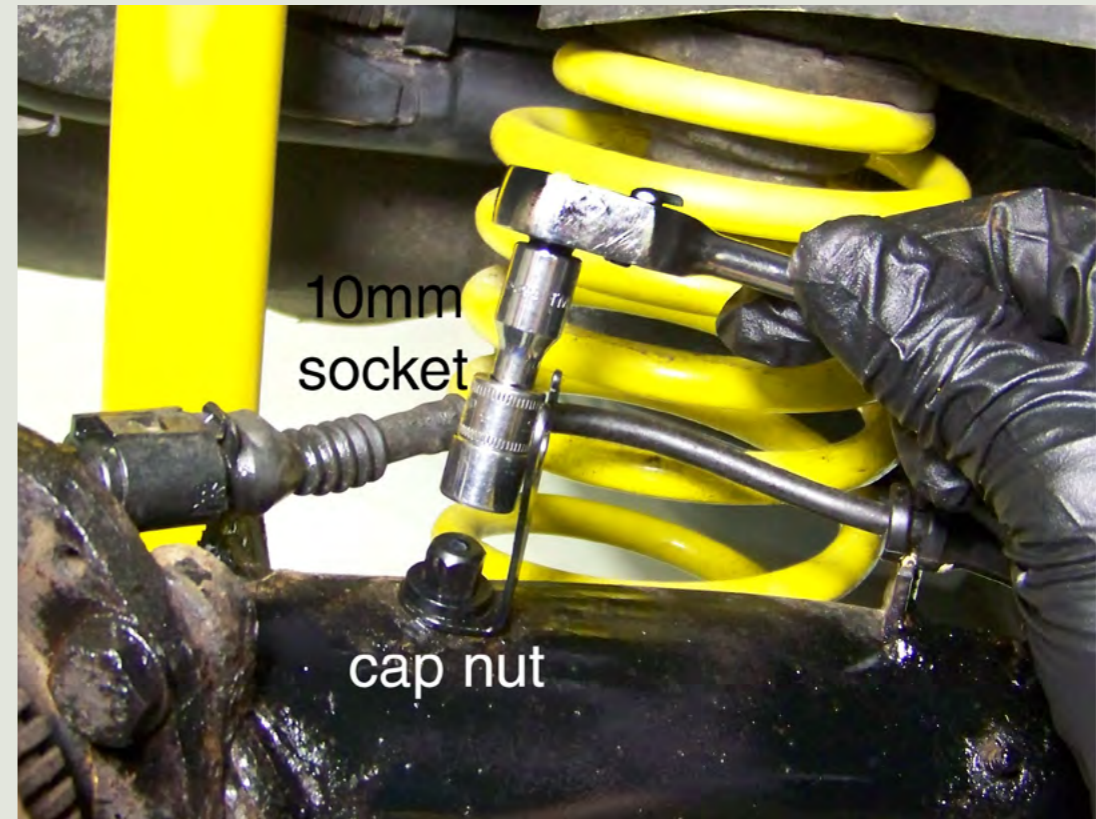
Step 5

Install a second brake hose support bracket from the kit over the threaded stud on the axle beam support plate.



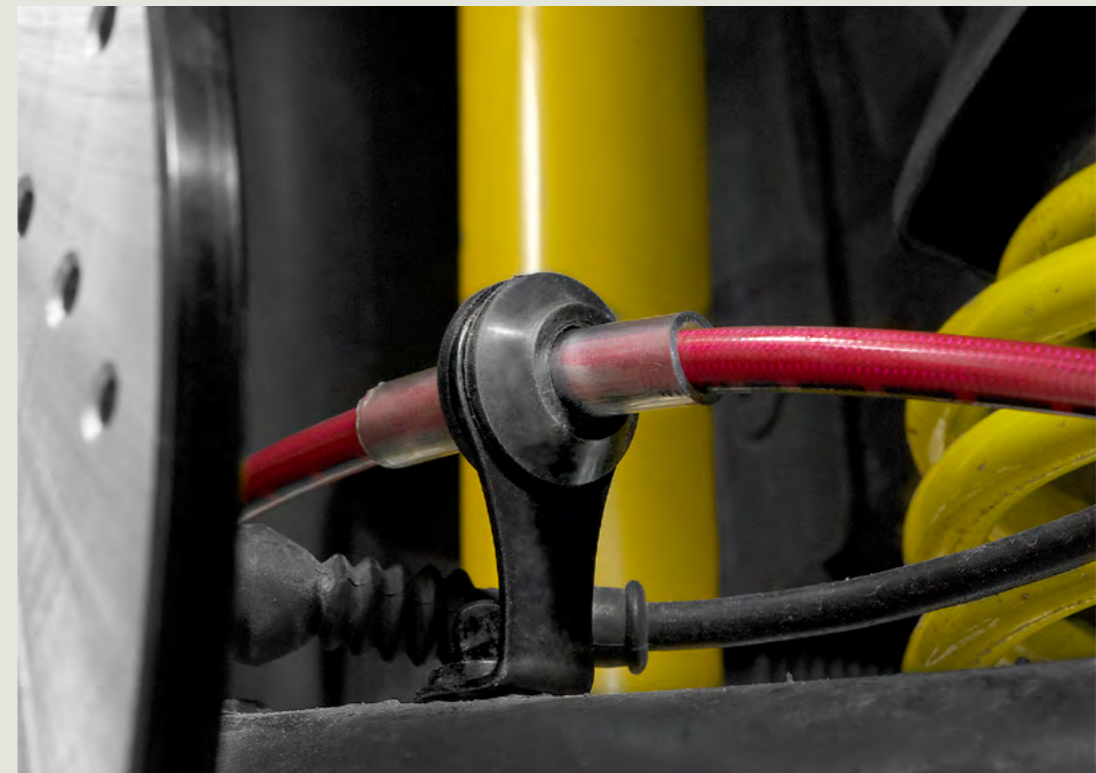
Step 6

Hand tighten both support bracket cap nuts with a 10mm socket.



Step 7

Push the rubber hose grommets into the openings in the support brackets.



Step 8

Screw the threaded fitting on the Exact-Fit line into the flexible brake hose on the axle beam.

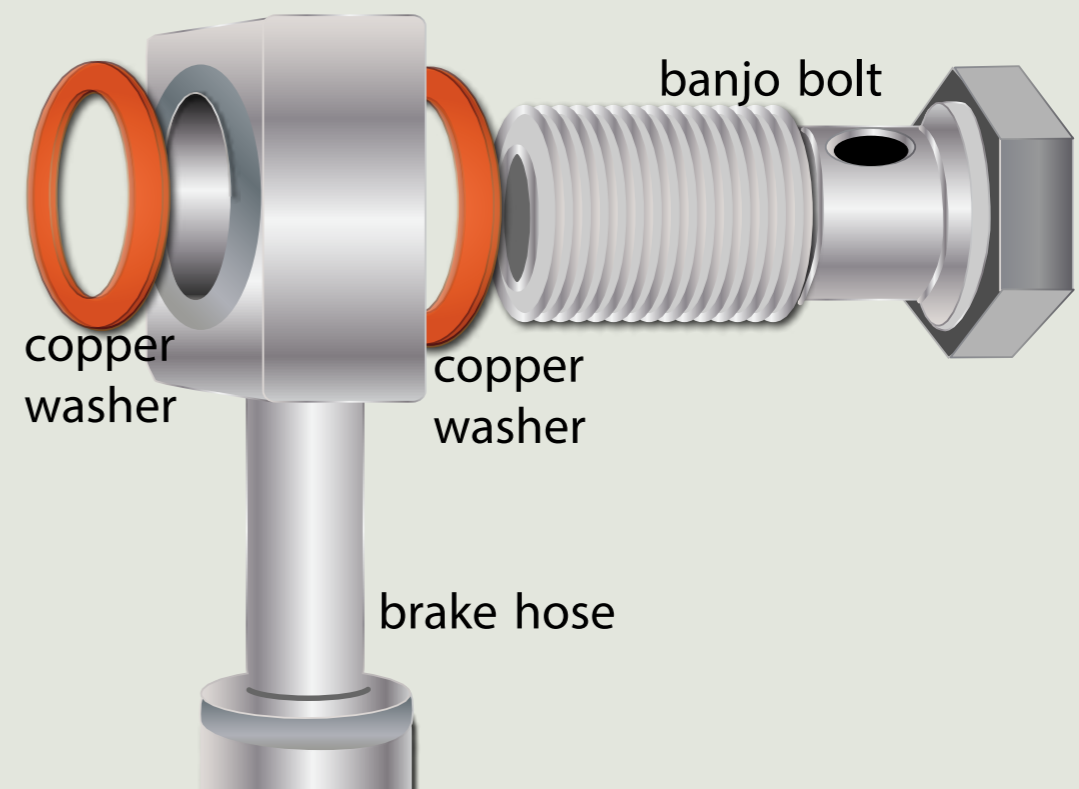
Use a 10mm line wrench to hand tighten it.

Note: This is a good time to inspect the rest of the car's hoses. If your car has high miles and the original flexible hoses are still in place, odds are good that they should all be replaced as a preventive measure. Rubber OE hose heat-harden and crack over time.



Step 9

Assemble the banjo bolt and brake line as shown here with one sealing washer at the head of the banjo bolt and the other between the brake line block connector and caliper.

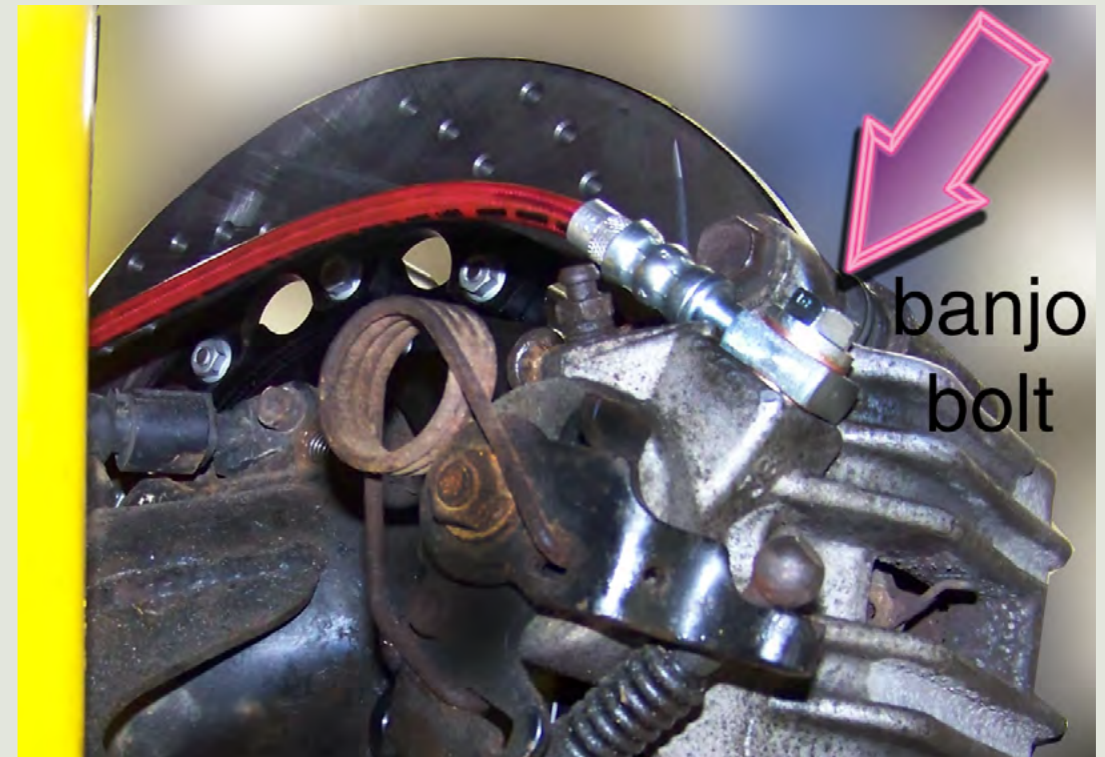


Step 10

Clean the area around the threaded hole in the caliper.

Then thread the banjo bolt into the caliper and hand tighten with a 13mm wrench.

Repeat this process at the other rear wheel, then bleed the brakes.



Step 11

Make brake bleeding and flushing a snap with Motive power bleeders, available from ECS Tuning.

Avoid tedious pedal bleeding. Our [online video](#) demonstrates how easy it is to use the Motive bleeder to bleed or completely flush a brake system.



Thanks !

Stage 1 Rear Big Brake Kit
VW MKIV Jetta/Golf **ES803**



Thank you for purchasing
an ECS Tuning
Big Brake Kit.

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



ES803

visit us at www.ecstuning.com

Exact-Fit Brake Lines start with a sturdy Teflon® core, wrapped with a stainless steel mesh for added strength, then covered in a bright red polymer for added protection.

Now that you have them on the rear brakes, why not visit ECS Tuning and order a set for the front? **ES251797**

