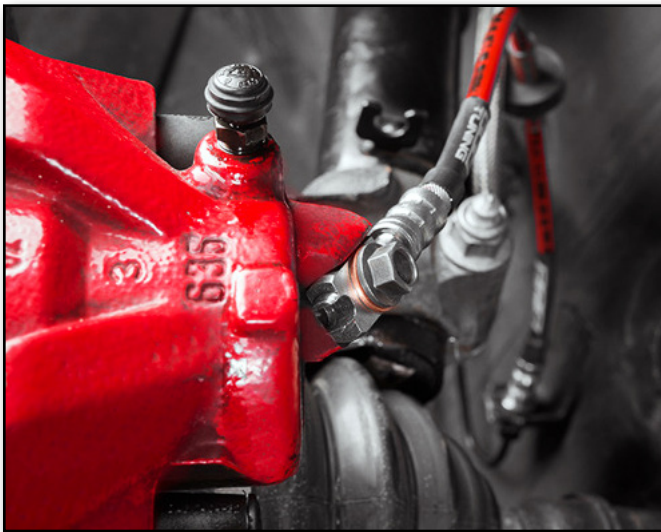




Audi TT MKI/VW MKIV Exact-Fit Rear Brake Line Installation Instructions



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 install our ECS Tuning Exact-Fit Stainless Steel Rear Brake Lines. These lines are constructed with a PTFE core, surrounded by a durable stainless steel mesh and coated with a seamless and glossy polymer coating. Our lines feature precision cut stainless steel fittings and include new banjo bolts, washers, and all necessary support brackets to mount them securely to your vehicle. Our lines exceed DOT standards and provide superior expansion resistance and durability, providing you with increased braking ability and reliability.

ECS Difficulty Gauge



1 - Easy

2 - Moderate

Advanced - 3

Pro - 4

Take your time and enjoy the project, it'll only take you a couple of hours or less. Read these instructions completely first, take a moment to familiarize yourself with the provided diagrams before starting, and then let's get right into it. Thank you for looking to ECS Tuning for all your performance and repair needs, we appreciate your business!

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AVAILABLE KITS



Exact-Fit Brake Lines - Front
ES#3521866



Exact-Fit Brake Lines - Mid
ES#3522143

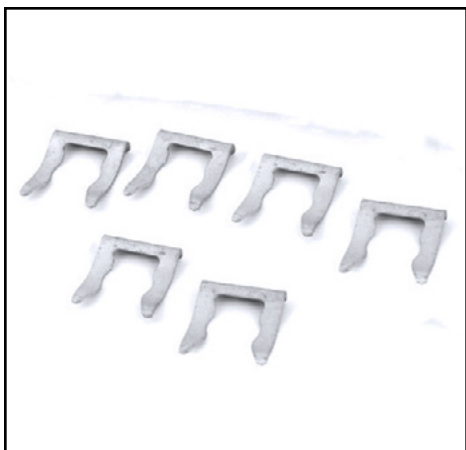


Exact-Fit Brake Lines - Rear
ES#2817101



Exact-Fit Brake Lines - Kit
ES#2681193 / ES#823

KIT CONTENTS



Brake Line Clips



Brake Line Mounting Bracket - Upright



Brake Line Mounting Bracket - Low Profile



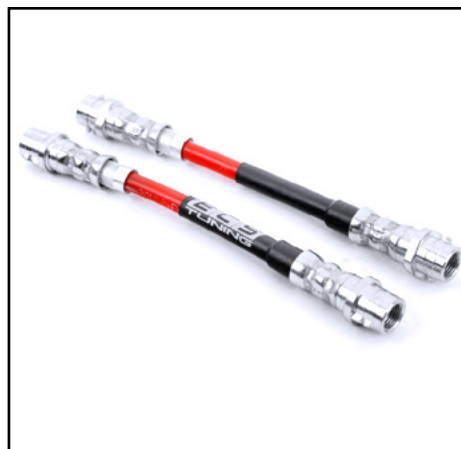
Plastic Nut



Exact Fit Stainless Steel Brake Line - Left Rear



Exact Fit Stainless Steel Brake Line - Right Rear



Exact Fit Stainless Steel Brake Lines - Mid



Exact Fit Stainless Steel Brake Lines - Front

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

- 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](#)

Available On Our Website

Specialty Tools

- **Protecta-Sockets (for lug nuts)**..... [ES#2221243](#)

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

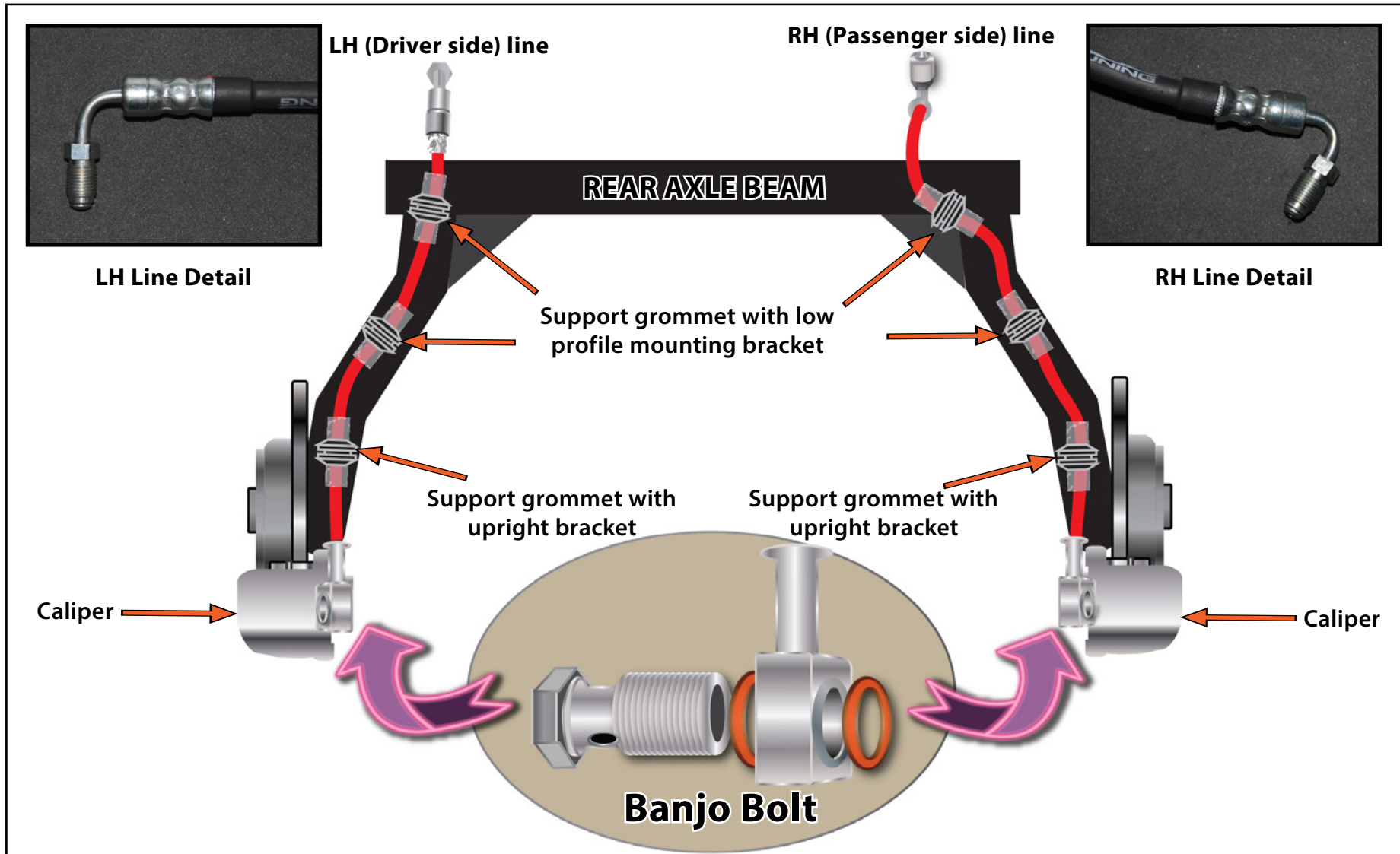
ECS Tuning cares about your health and safety, please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

- 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.

BRAKE LINE ROUTING DIAGRAM



SUPPORT BRACKET DIAGRAM



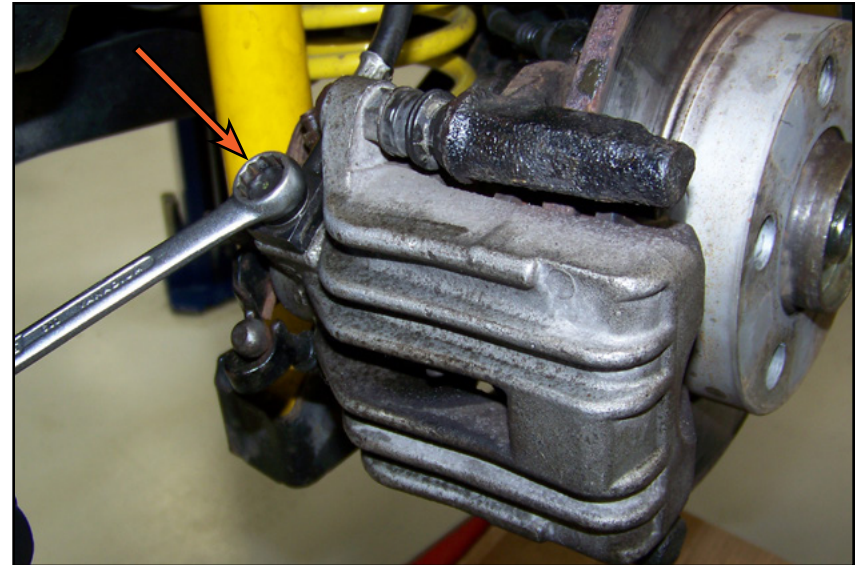
INSTALLING THE NEW EXACT-FIT BRAKE LINES

Step 1:

Safely raise and support the vehicle and remove both rear wheels. Then, using a 13mm wrench, remove the banjo bolt securing the original brake hoses to each rear caliper.



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 2:

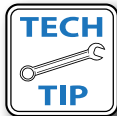
Follow the original hose/line assemblies along the axle beam to where they connect to the brake hose between the body and the axle beam. Using an 11mm line wrench, loosen and remove the brake line fittings.



INSTALLING THE NEW EXACT-FIT BRAKE LINES

Step 3: 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.

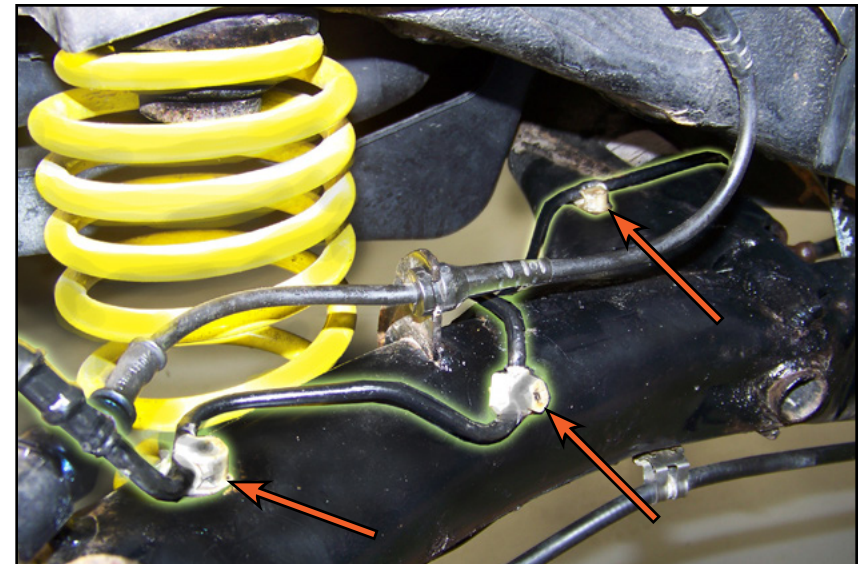


If you don't have a fluid stopper clamp, you can transfer the rubber cap from the caliper brake bleeder screw to the end of the disconnected solid brake line.



Step 4:

With both ends of the brake line disconnected, pry the old lines (RH highlighted in this picture) from their plastic attachment clips (arrows) and remove the original lines from the axle beam. Unscrew and remove the three plastic clips on each side.



INSTALLING THE NEW EXACT-FIT BRAKE LINES

Step 5:

Refer to page seven for proper location and position, then install the new brake line support brackets onto the studs where the plastic clips were previously located. Secure the brackets using the plastic nuts provided with the kit and a 10mm wrench or socket. Only lightly tighten these nuts by hand, once they are fully seated they are tight enough. They will strip easily if over tightened. (The actual torque specification for these nuts is only 2Nm (1.5 ft-lbs), a setting that most torque wrenches will not have).



Step 6:

Lay each brake hose in it's approximate location, then thread the brake line flared end fittings into the brake hoses at the front of the axle beam. Be sure to use the correct line on each side as the bend on the end of each line is different.



LH driver side fitting viewed from above



LH driver side fitting viewed from above

INSTALLING THE NEW EXACT-FIT BRAKE LINES

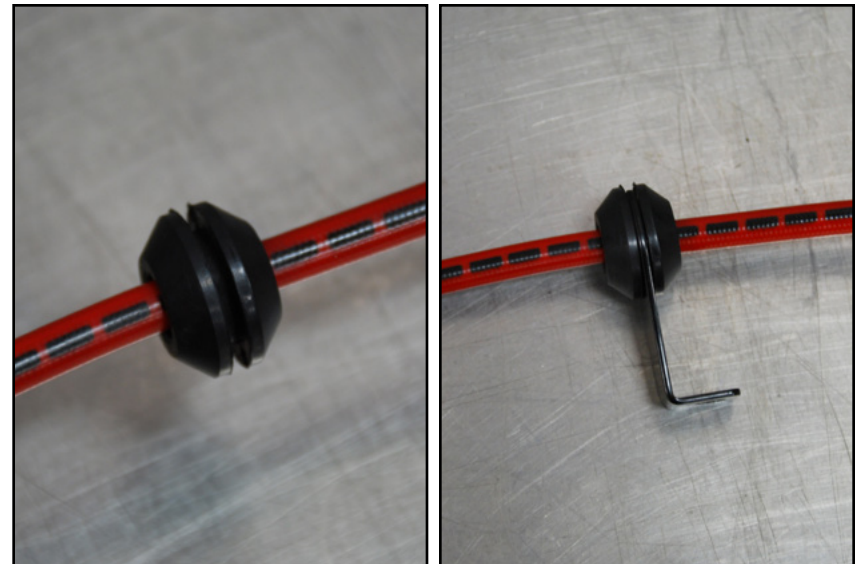
Step 7:

Secure each each line to the vehicle by inserting each rubber grommet into it's corresponding support bracket on the axle beam. Proceed to the next step for proper grommet installation procedure.



Step 8:

In order to install the grommets into the support brackets, you must first slide the grommets off of the the transparent polymer sleeve, then push the grommet into the support bracket until it pops into place.



INSTALLING THE NEW EXACT-FIT BRAKE LINES

Step 9:

Slide the grommet with the bracket now installed over the transparent polymer sleeve and the new line is now properly supported and securely engaged into the support bracket.



Step 10:

Once the brake lines are securely mounted into the support brackets, connect them to the calipers using the supplied banjo bolts with new sealing washers. Torque the banjo bolts to 38 Nm (28 Ft-lbs), then tighten the flare fittings at each axle beam hose.



INSTALLING THE NEW EXACT-FIT BRAKE LINES

Step 11:

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.



Step 12:

Ensure brake pedal is firm and that the brake fluid reservoir is full.



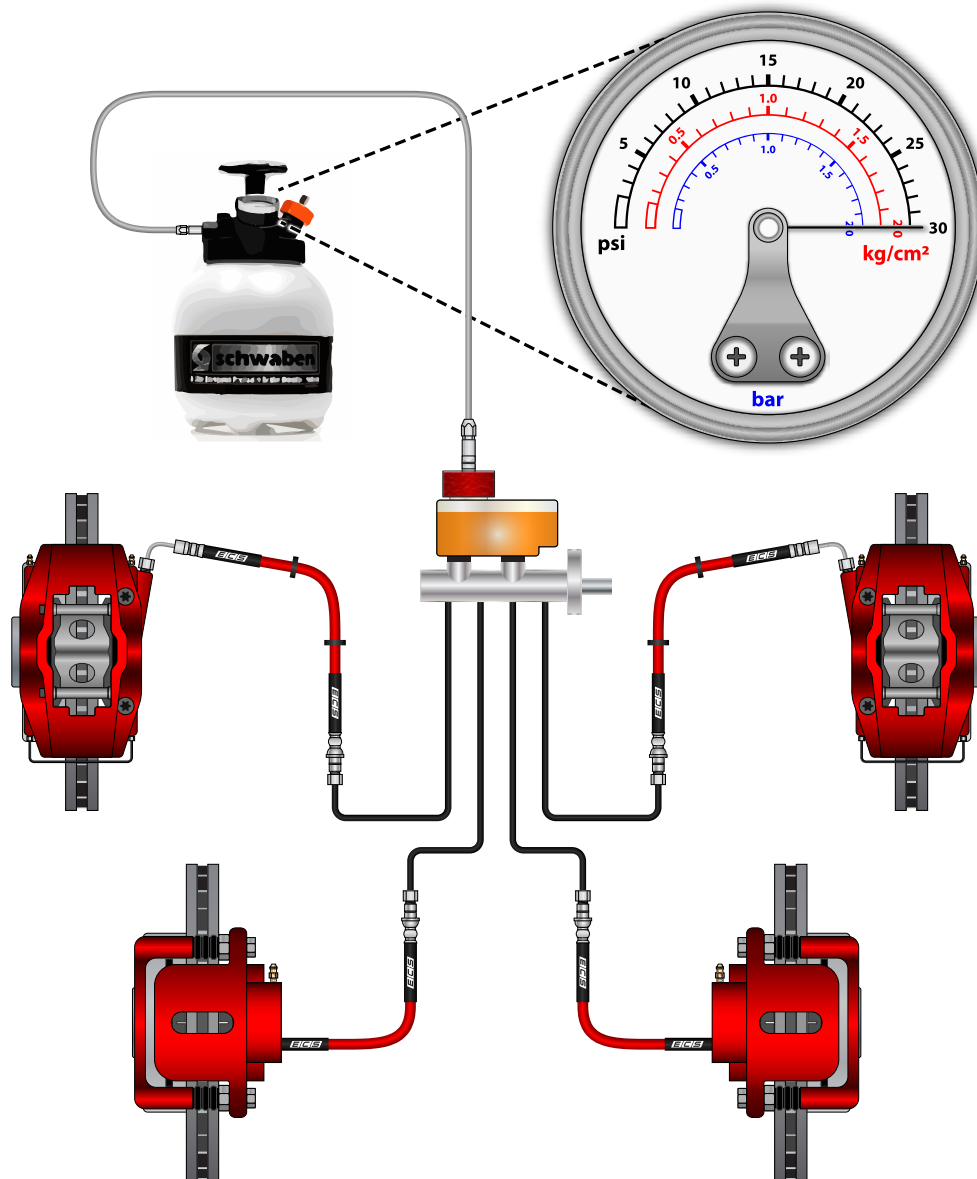
Proceed to next page for master cylinder bleeding procedure.

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

Brake Caliper Banjo Bolts.....	38 Nm (28 Ft-lbs)	(Page 14)
Wheels.....	120Nm (89 Ft-lbs)	(Page 16)

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 Exact-Fit Rear Brake Line 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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