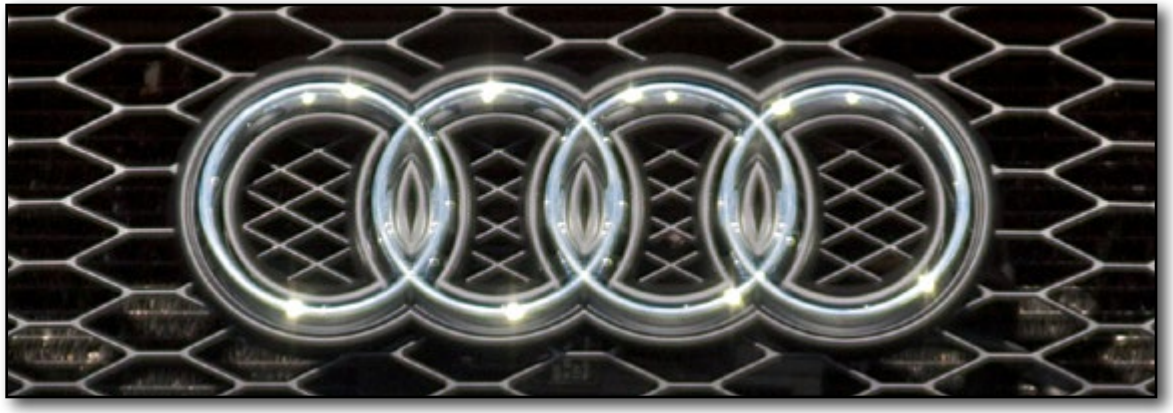
Audi B7 A4 2.0T
Kohlefaser Luft-Technik
Intake System Installation



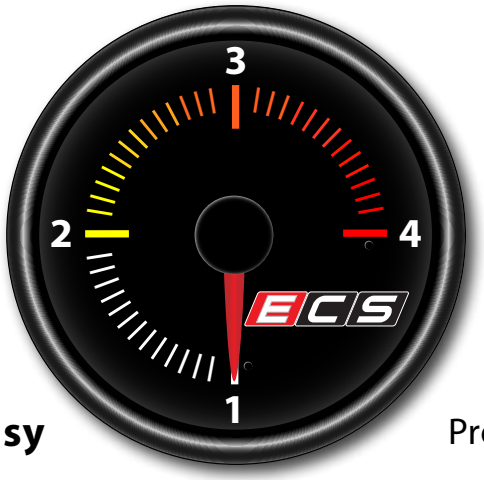
INTRODUCTION

The Project:

Today we are going to install our ECS Tuning Kohlefaser Luft-Technik Carbon Fiber Intake System into an Audi B7 A4 2.0T. Installing this high quality intake system is an easy, short afternoon project that will reward you with the beauty and performance of one of our hand-laid laminated carbon fiber intake systems. This system has been specifically crafted to fit the Audi B7 A4 2.0T, utilizes all of the factory mounting locations, and will provide a broader and smoother torque curve for an enhanced driving experience.

The **"ECS Difficulty Gauge"** below shows this installation is rated as a **"1 - Easy"**, this means that only basic tools and experience are required, so take your time and enjoy the project.

ECS Difficulty Gauge



1 - Easy

2 - Moderate

Advanced - 3

Pro - 4

Read these instructions completely first, and with the project overview under your belt, you'll breeze right through it. Just to make sure you have everything you need, reference the required tool list on Page 6 before you begin. You'll enjoy every minute of driving with the performance of this intake, and when you're not behind the wheel you'll find every opportunity to open the hood and show off your new intake system. Thank you for looking to ECS Tuning for all your performance and repair needs. We appreciate your business!

TABLE OF CONTENTS

Symbols:

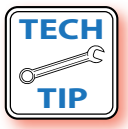
The following symbols may be used throughout these instructions indicating special attention:

FORK IN THE ROAD: When there are different options within any given kit, we will direct you to the proper page and step to continue.

YIELD: Pause for a moment to double check component installation before you continue. Ignoring this can cost you time later during the installation.

CAUTION: Pay close attention to these warnings and instructions. Difficult installation, personal injury or component damage may occur if ignored.

STOP: The upcoming steps require specific preparation and/or assistance in the interest of safety. Please read ahead in the instructions and prepare before continuing.

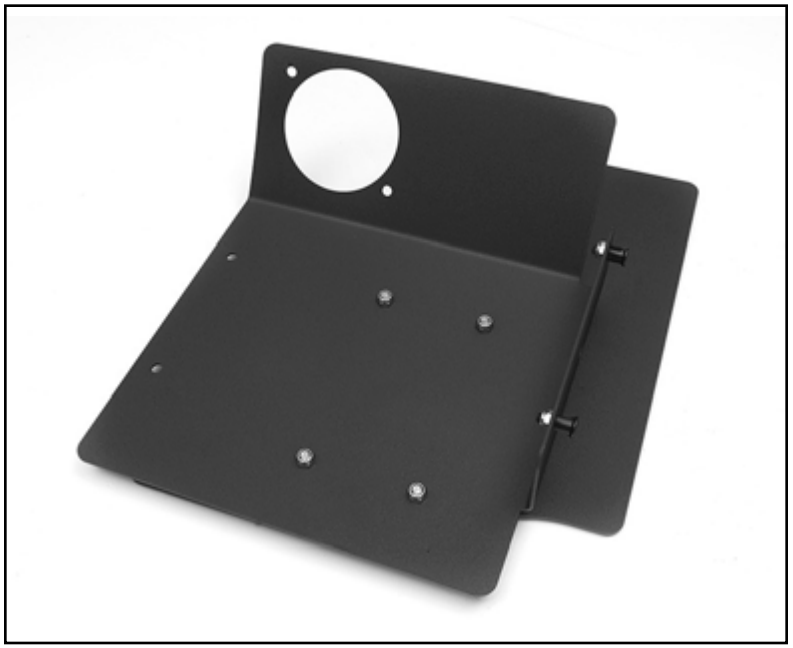


TECH TIP: Tips and tricks to make the job go much easier.

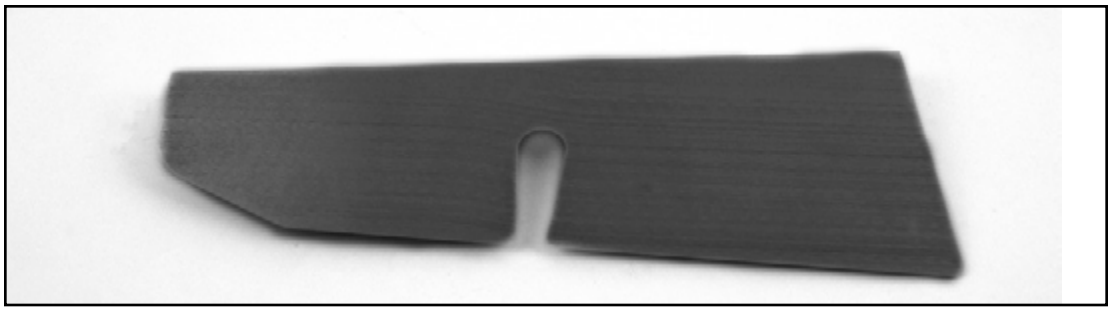
NOTE: Additional information that may be useful to the installation depending on your application.

KIT CONTENTS

Carbon Fiber Intake Lid



Assembled Heat Shield and Intake Base Plate



Auxiliary Heat Shield

KIT CONTENTS

Auxiliary Heat Shield Clips

High Flow Air Filter w/Clamp

MAF Seal

Silicone Turbo Inlet Hose

(2) M6 Washers and (2) M6 Nuts

(2) M6 x 10 Screws

(4) M6 x 14 Screws

(2) Turbo Inlet Hose Clamps

REQUIRED TOOLS

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

Standard Automotive Tools

Required For This Install

Available On Our Website

- 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
- Hook and Pick Tool Set ..... ES#2778980
- VAG Connector Removal Tool ..... ES#2628676
- Locking Hose Clamp Pliers ..... ES#2702616
- 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

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.

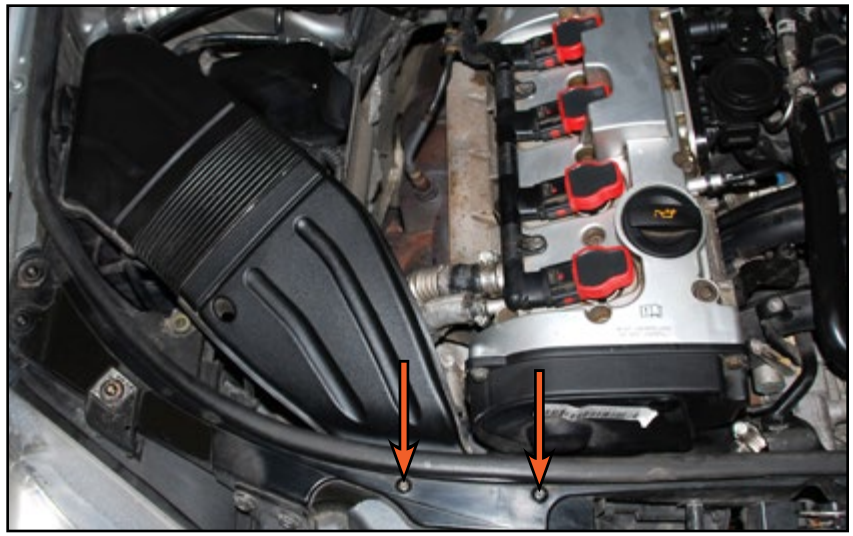
- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- **ALWAYS** wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.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

REMOVING THE ORIGINAL AIR BOX

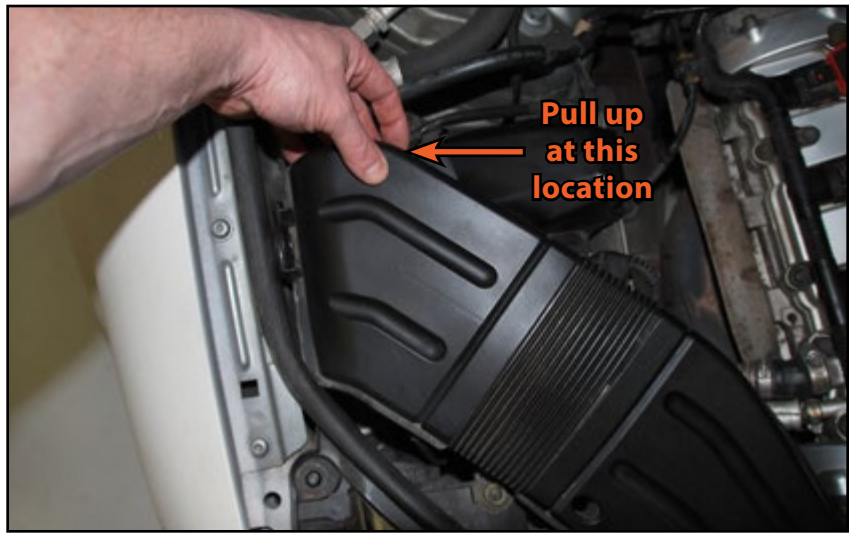
Step 1: T20 Torx Driver, Phillips Screwdriver

Locate the two air scoop mounting screws and remove them. Depending on production date will you find that you may have either torx or Phillips head fasteners.



Step 2:

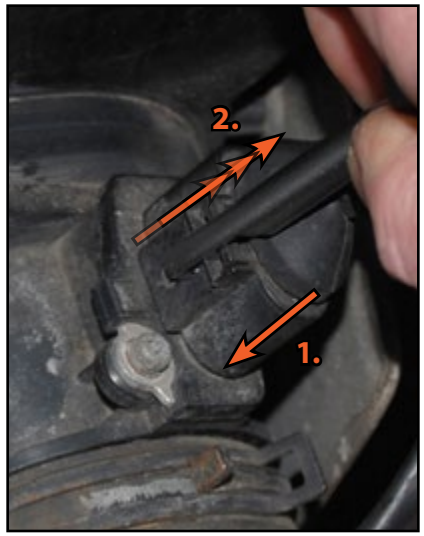
Pull up on the intake duct at the location shown to separate it from the airbox. Then pull it rearward to pull the air scoop out of the front core support and remove it from the car.

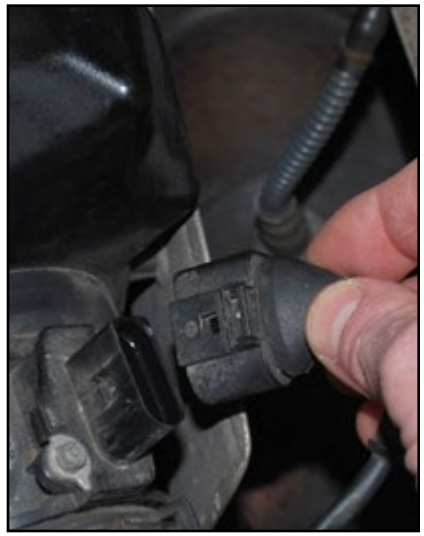


REMOVING THE ORIGINAL AIR BOX

Step 3: Schwaben Connector Release Tool

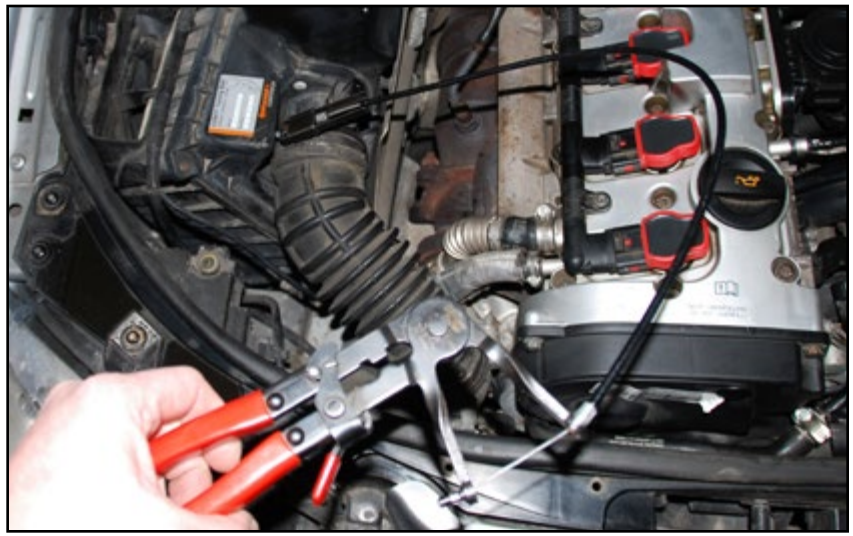
Disconnect the Mass Air Flow Sensor. We are using our Schwaben Connector Release Tool to make this easier. The trick to releasing these "push and pull" style of connectors is to first push the connector down, which will release the tension between the locking tab and the catch on the sensor, then insert the release tool and pull up. This will raise the locking tab in the connector just far enough to clear the catch on the sensor and it will slide off with incredible ease.





Step 4: Locking Hose Clamp Pliers

Loosen the spring clamps where the original turbo inlet tube attaches to the Mass Air Flow sensor and the turbo inlet. Pull the hose off both ends and remove it.



NOTE

NOTE: There is a large lip on the inlet of the turbo and you will have to pull hard on the base of the turbo inlet tube in order to remove it.

TECH TIP

TECH TIP: If you don't have locking hose clamp pliers, channel lock pliers can be used, but ***BE CAREFUL!*** The clamps can easily spring off and cause personal injury or damage to the vehicle. ***Wear Safety Glasses!***

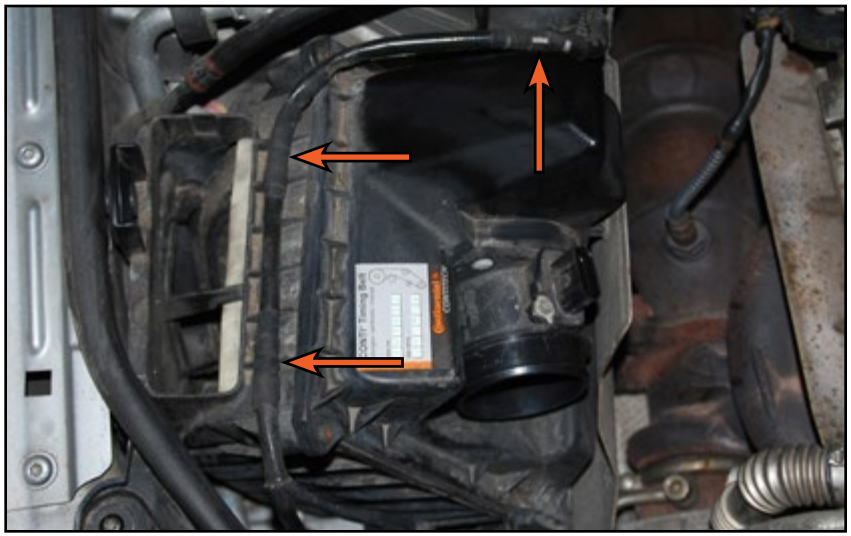
REMOVING THE ORIGINAL AIR BOX

Step 5:

Place a clean rag into the turbocharger inlet to prevent anything from falling into it.

Step 6:

Pull the wiring harness off the airbox at the three locations indicated in the picture and position it to the side.



REMOVING THE ORIGINAL AIR BOX

Step 7: Flat Blade Screwdriver

Remove the center pin from the air box mounting rivet by sliding it out.

Step 8:

Pull up on the air box assembly to pull the lower mounting grommets out of the frame rails and remove it from the car.

NOTE: You may need to grab the air box near the base and pull firmly upwards in order to unseat the lower mounting grommets

REMOVING THE ORIGINAL AIR BOX

Step 9:

Reinstall the center pin for the original airbox mounting rivet.

NOTE: This is a mounting point for the Carbon Fiber Intake Lid. The center pin must be reinstalled to keep the rivet from coming out.

Step 10:

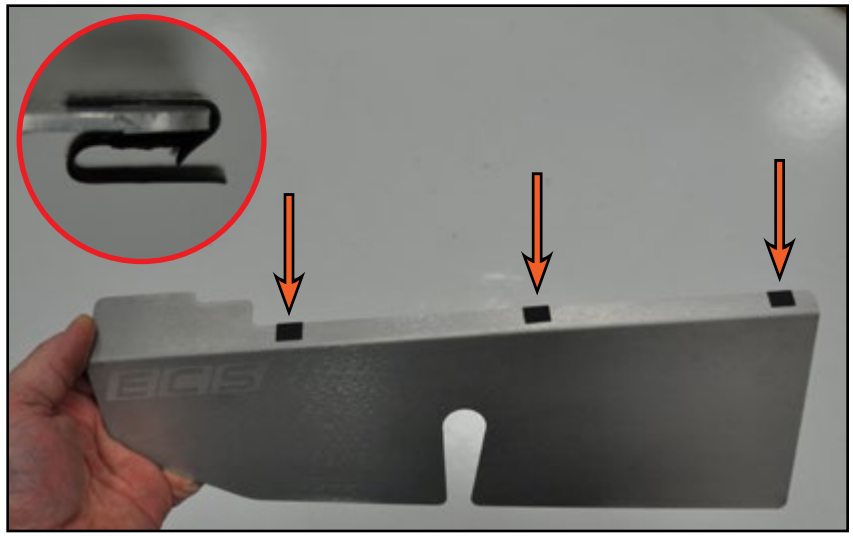
It is common for the airbox mounting grommets to stick in the subframe. Check underneath the airbox and remove the grommet(s) if they have stuck in their holes.

You are now ready to install your new intake system!

INSTALLING THE NEW CARBON FIBER INTAKE

Step 1:

Push the three heat shield "S" clips onto the auxiliary heat shield in the locations shown. Make sure they are fully seated and that the bottom half of each clip is located below the heat shield, as shown in the inset photo.



NOTE

NOTE: Both sides of these clips are the same. There is no actual "top" or "bottom" of the clip until they are installed and we are able to then reference a physical location as "top" or "bottom".

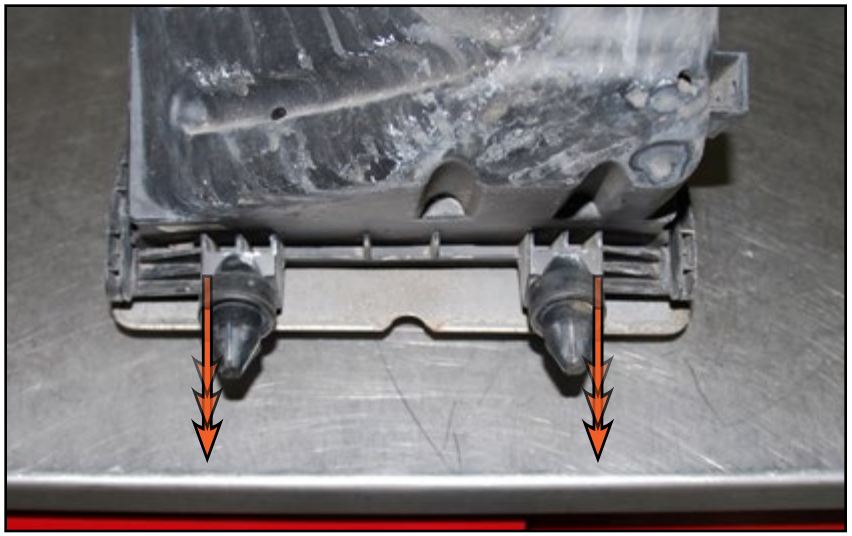
Step 2:

Push the auxiliary heat shield into place on the edge of the exhaust manifold shield as shown.

INSTALLING THE NEW CARBON FIBER INTAKE

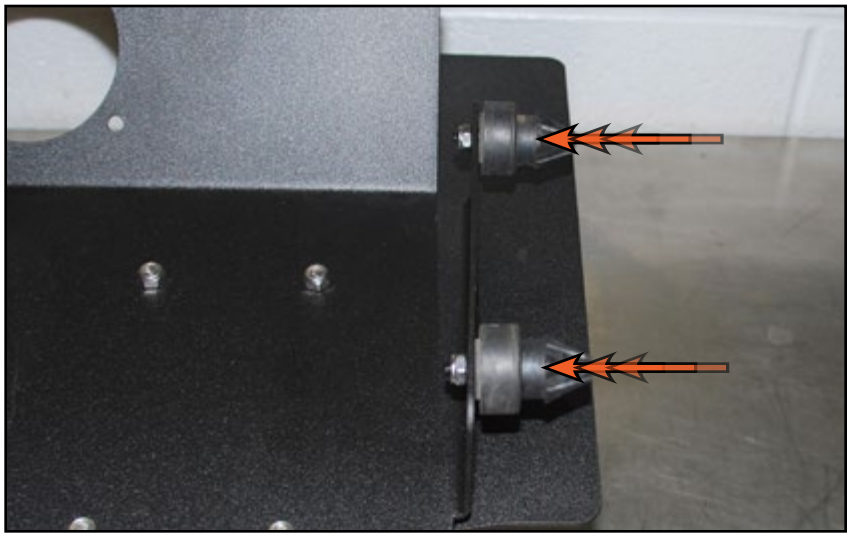
Step 3:

Pull both of the original mounting grommets off of the airbox or pull them out of the subframe if they stuck there during removal.



Step 4:

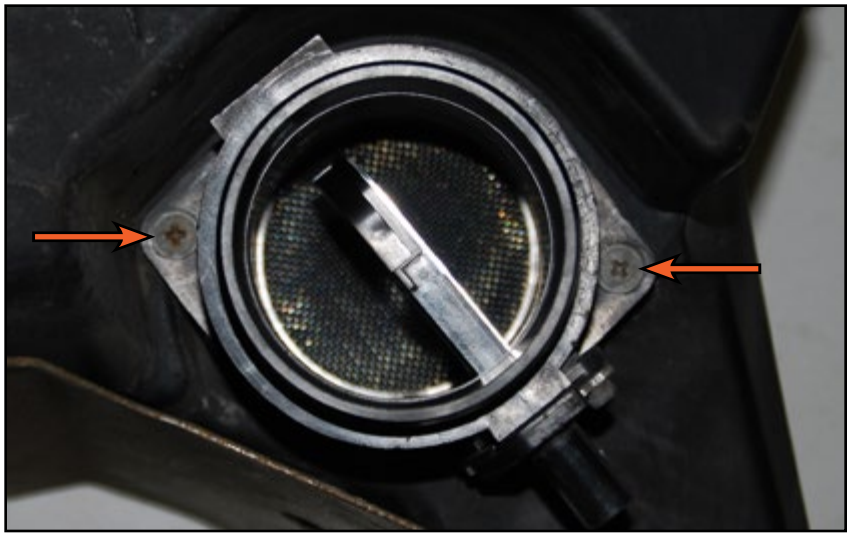
Push them onto the pre-installed grommet studs on the bottom of the new intake base plate.



INSTALLING THE NEW CARBON FIBER INTAKE

Step 5: Phillips Screwdriver

Remove the two mounting screws and pull the Mass Air Flow Sensor off of the original air box.



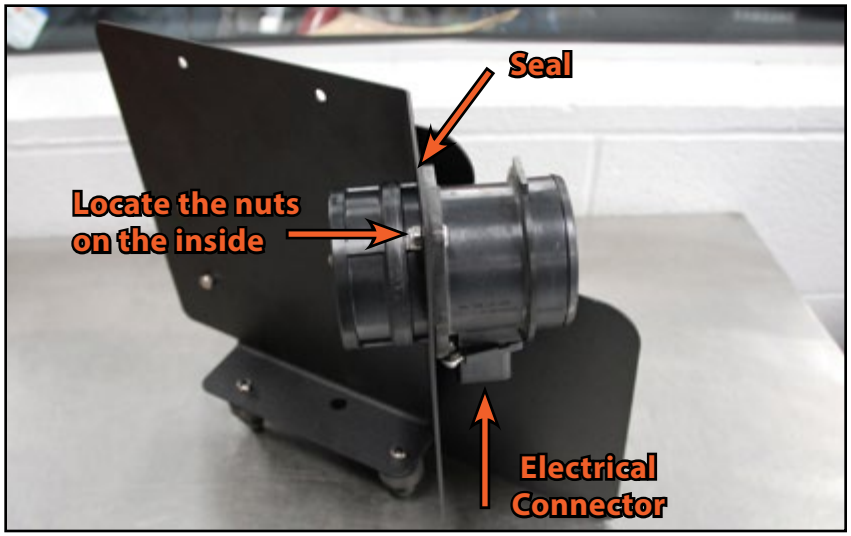
Step 6:

Insert one of the new M6 x 14 Mass Air Flow sensor mounting screws into one of the ears on the sensor flange, hold it in place with your finger, then place the new Mass Air Flow Sensor seal around the sensor flange and over the screw.

INSTALLING THE NEW CARBON FIBER INTAKE

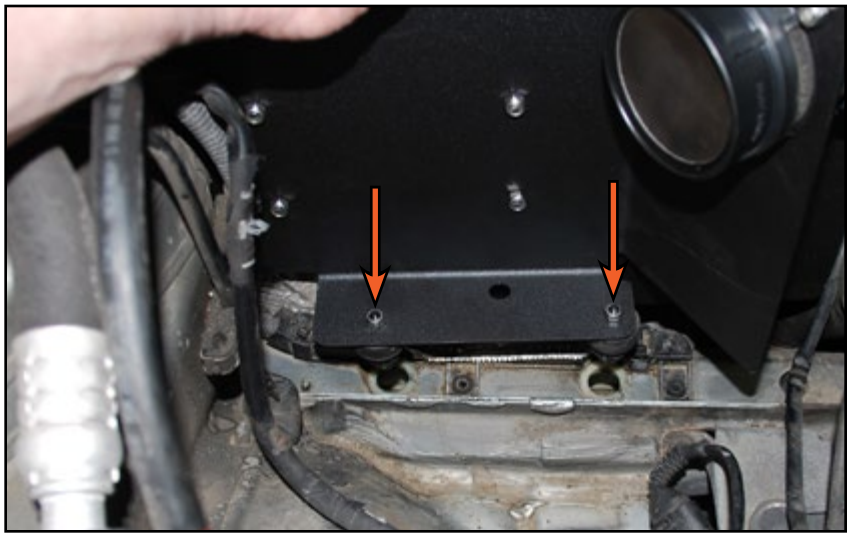
Step 7: 10mm Socket, 4mm Hex Bit (Allen)

Install the Mass Air Flow Sensor into the new intake base plate. Inspect the picture on the right and install the sensor so the electrical connector is located on the opposite side as the original installation position. Make sure the seal is located between the sensor and the intake base plate. Install both screws and nuts loosely at first, then tighten them both. The nuts should be located on the inside of the intake base plate.



Step 8:

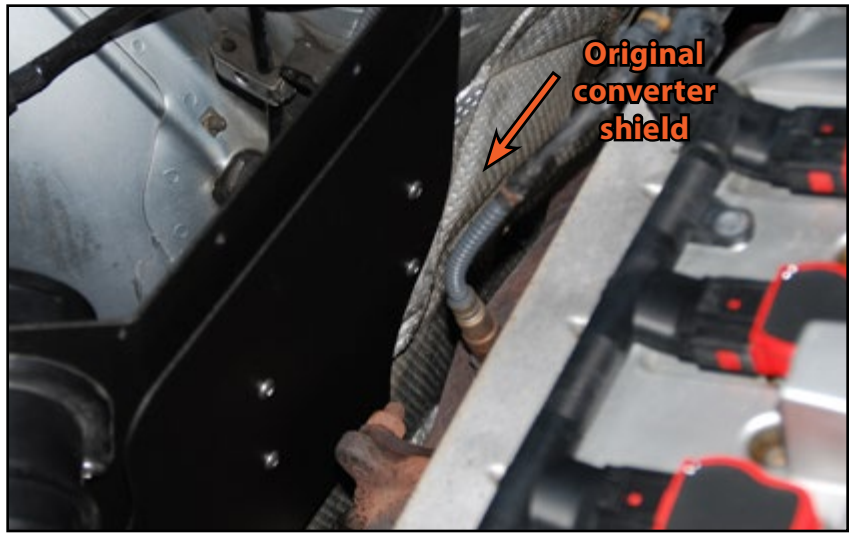
Install the intake base plate into the car by pushing it downward until the mounting grommets are fully seated in the subframe.



INSTALLING THE NEW CARBON FIBER INTAKE

Step 9:

For a cleaner appearance, locate the original converter shield between the outer heat shield and inner heat shield/intake base plate.



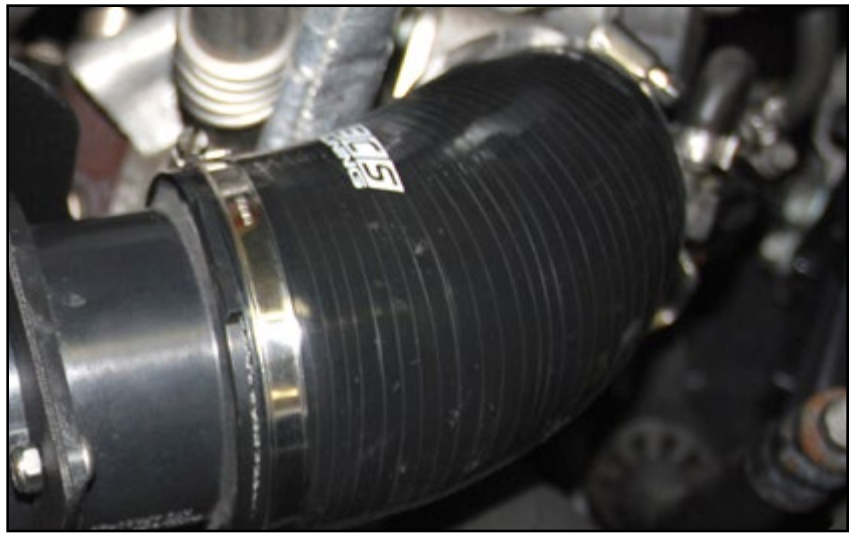
Step 10:

Place the turbo inlet hose clamps over the silicone turbo inlet hose, noting that the larger hose end and clamp will be located on the Mass Air Flow Sensor and the smaller end and clamp will be located on the turbo.

INSTALLING THE NEW CARBON FIBER INTAKE

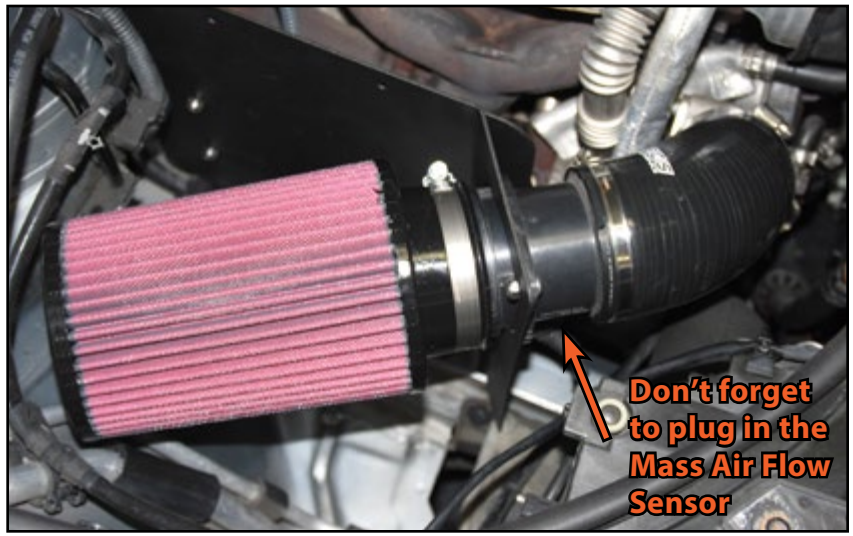
Step 11: Flat Blade Screwdriver

Remove the rag in the turbo inlet, then push the silicone turbo inlet tube over the Mass Air Flow Sensor and turbo Inlet. Make sure the tube is completely installed on both ends and tighten the clamps.



Step 12: Flat Blade Screwdriver

Push the air filter all the way onto the end of the Mass Air Flow Sensor and tighten the clamp, then plug the electrical connector back into the sensor.



TECH TIP

TECH TIP: The inside diameter of the air filter coupler is generally a little oily, wipe this oil clean using a rag and brake cleaner. This will prevent the filter from slipping off after the clamp has been tightened.

INSTALLING THE NEW CARBON FIBER INTAKE

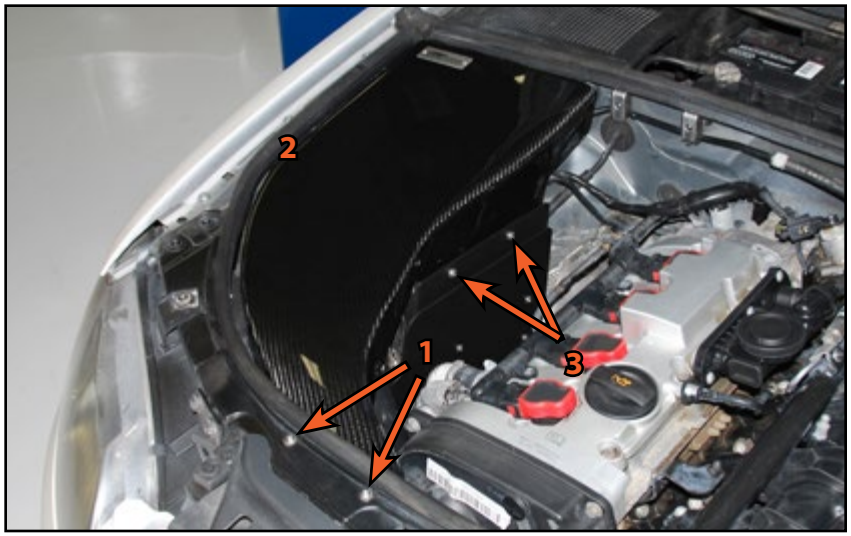
Step 13:

Now it's time to install the new carbon fiber intake lid.

CAUTION: Be sure to read steps 13 through 16 completely before attempting to install the intake lid.

The lid mounts in three locations:

1. Two screws secure it to the radiator core support.
2. The mounting tab on the RH side of the lid slips into the original air box mounting rivet on the RH inner fender.
3. Two screws secure it to the inner heat shield.

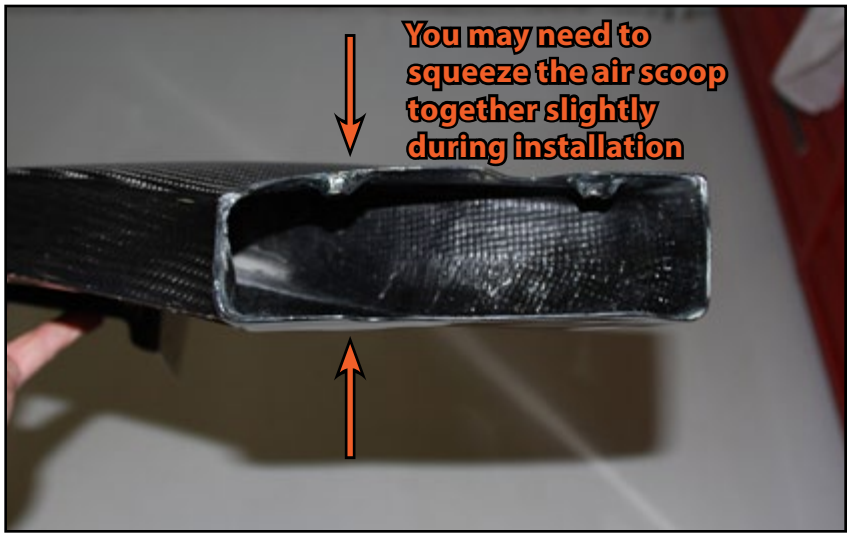


Step 14:

Begin by inserting the air scoop into the radiator core support (mounting location 1), then tilt it backwards and slip the mounting tab onto the airbox mounting rivet (location 2). Make sure the carbon fiber lid is positioned to the inside of the heat shield (location 3).

There are two things in particular that you will need to pay attention to:

1. The air scoop is a tight fit into the radiator core support. You may need to squeeze it together slightly to get it to slip into place.
2. Due to manufacturing tolerances, you may have to slightly enlarge the holes in the radiator core support.



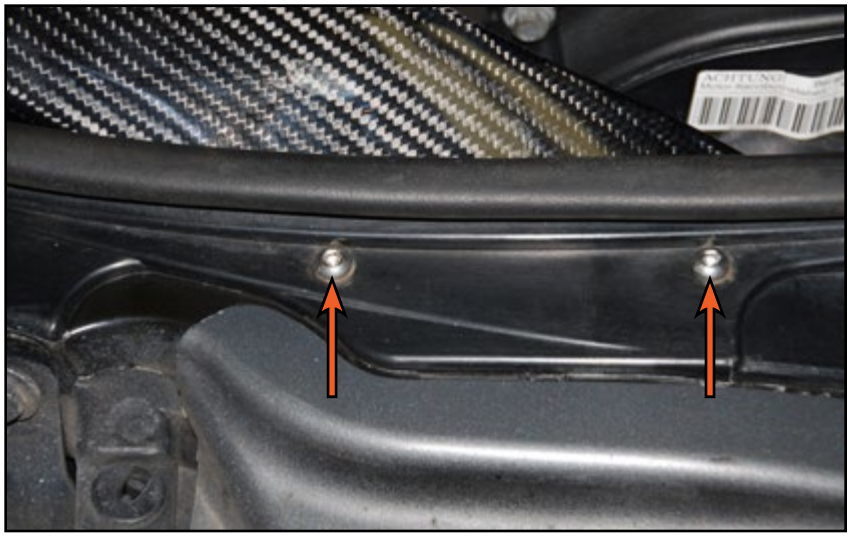
INSTALLING THE NEW CARBON FIBER INTAKE

Step 15:

If the air scoop mounting holes do not line up fore and aft, remove the intake lid and reinstall it, squeezing the air scoop together to allow it to slip into place.

If the air scoop mounting holes do not line up side to side, remove the intake lid and slightly enlarge the holes in the radiator core support using a drill bit.

Once you have confirmed that the holes line up, loosely install both air scoop mounting screws into the carbon fiber intake lid.

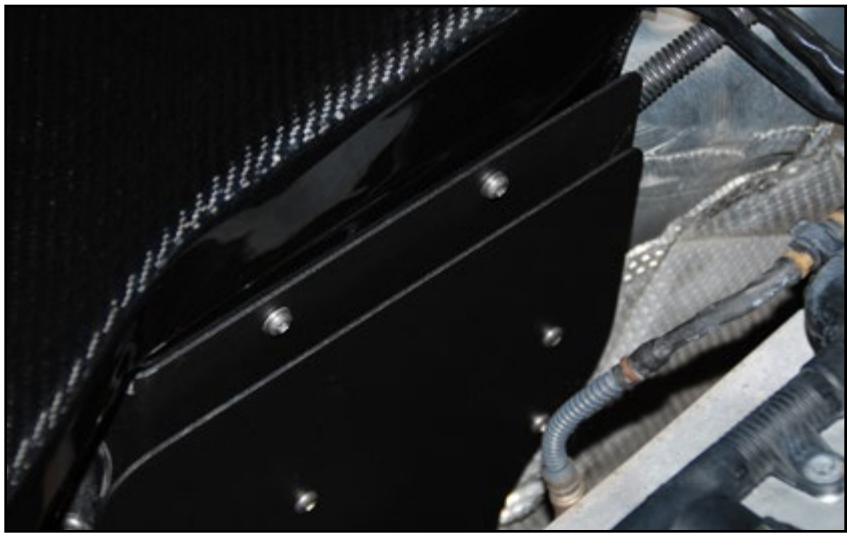


Step 16: 4mm Hex Bit (Allen Wrench)

Align the holes in the intake lid with the holes in the heat shield. Loosely install the two lid to heat shield mounting screws with washers.

Once you have installed all four mounting screws loosely and confirmed that everything lines up properly, hand tighten all four mounting screws.

Your Kohlefaser Luft-Technik installation is complete!



CARBON FIBER CLEANING AND CARE

ECS Tuning Carbon Fiber Intakes are clear coated for excellent finish durability and UV resistance right out of the box.

Carbon fiber can be washed with any gentle cleanser or soap. If it is safe for the paint on your car, it will be safe for the carbon fiber.

Be extra careful not to nick or deeply scratch the clear coat on the carbon fiber. This can lead to water intrusion into the carbon fiber which will damage the finish and the integrity of the intake.

If the clear coat does get nicked or deeply scratched to expose the carbon fiber, seal the damaged area thoroughly with a clear coat touch up or clear nail polish.

To retain UV resistance and protect the finish, we recommend regular waxing with a high quality caranuba wax.

Small surface scratches and light oxidation can be buffed out using the same methods and cautions you would use on the vehicle paint.

Carbon Fiber Cleaning and Care Kit, available at ecstuning.com.

ES#2914954

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 Kohlefaser Luft-Technik Intake System 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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