

Audi B8 2.0T Kohlefaser Luft-Technik Intake System Installation Instructions











## **INTRODUCTION**

### Audi B8 2.0T Kohlefaser Luft-Technik Intake System ES#2785229

The Audi B8 2.0T Kohlefaser Luft-Technik Intake System offers the following features:

- Hand-laid carbon fiber upper lid
- Powder coated twin layer aluminum heat shield
- 3" conical high flow, reusable air filter
- 4-ply silicone couplers with stainless steel hardware
- In-house designed by ECS Tuning Engineers
- Installs using all stock mounting locations no modifications required

## **ECS Difficulty Gauge**



Installing an ECS Tuning Kohlefaser Luft-Technik Intake system on your Audi B8 2.0T is an easy afternoon project that will reward you with the performance gains and unmatched beauty of one of our hand-laid laminated carbon fiber intake systems. Requiring only a few basic tools, you'll have this installed in a couple of hours or less, and you'll be back on the road. Thank you for looking to ECS Tuning for all your performance and repair needs. We appreciate your business!



## TABLE OF CONTENTS

Kit Contents	pg.4
Required Tools and Equipment	pg.7
Shop Supplies and Materials	pg.8
Installation and Safety Notes	pg.9
Removing the Original Air Box	pg.10
Installing the New Intake System	pg.17
Carbon Fiber Cleaning and Care	pg.28
Schwaben Tools	ng 29

### **CARBON FIBER CAUTION**

Be careful not to nick, scratch, or over tighten the fasteners in your carbon fiber air box. This can lead to water intrusion which would damage the integrity and finish of the carbon fiber.

## **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.



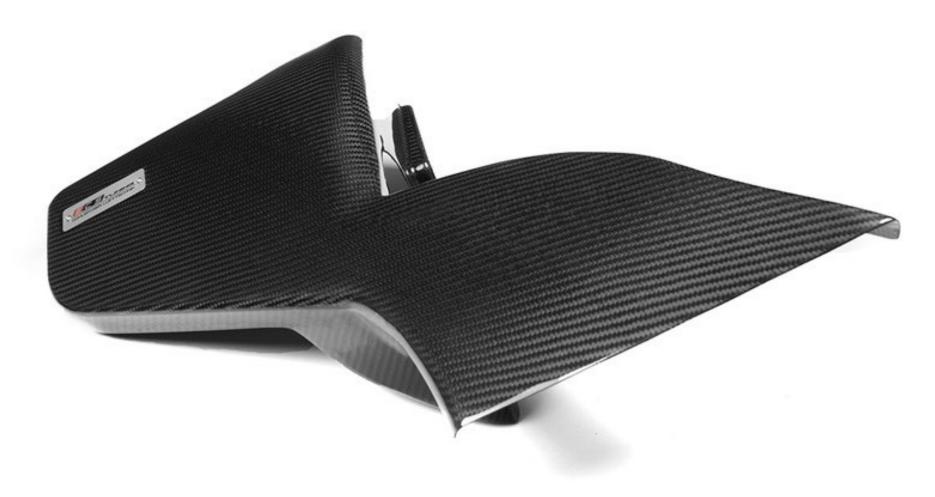
**CAUTION:** Pay close attention to these warnings and instructions. Difficult installation, personal injury or component damage may occur if ignored.



**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.



# KIT CONTENTS



**Carbon Fiber Air Box Lid** 



# KIT CONTENTS



**Main Heat Shield Assembly** 



**Auxiliary Heat Shield** 



Silicone Turbo Inlet Hose



Air Filter w/clamp



# KIT CONTENTS



3/8" Bulb Seal



Adhesive Backed Foam Strip





Lid Mount Stud and Spacer



Heat Shield "S" Clips (3)



**Hose Clamps** 60-80mm (1) 79-90mm (1)



M6 x 16mm Bolt (2)





M6 x 12mm Bolt (2)









M6 Lock Washer (4)

EC#202222E



## **REQUIRED TOOLS**

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

1/4" Drive Datchet

## **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	
Hydraulic Floor Jack	ES#240941
Torx Drivers and Sockets	
• 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
Crows Foot Wrenches	
Hook and Pick Tool Set	ES#2778980

• 1/4" Drive Katchet	<u>ES#2823235</u>
• 1/4" Drive Deep and Shallow Sockets	<u>ES#2823235</u>
• 1/4" Drive Extensions	<u>ES#2823235</u>
Plier and Cutter Set	<u>ES#2804496</u>
Flat and Phillips Screwdrivers	<u>ES#2225921</u>
Jack Stands	<u>ES#2763355</u>
Ball Pein Hammers	
Pry Bar Set	<u>ES#1899378</u>
Bench Mounted Vise	
<ul> <li>Punch and Chisel Set</li> </ul>	
Hex Bit (Allen) Wrenches and Sockets	<u>ES#11420</u>
Thread Repair Tools	<u>ES#1306824</u>
Open/Boxed End Wrench Set	<u>ES#2765907</u>



## 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.

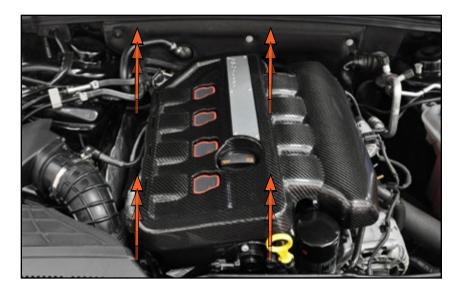


Never get underneath a vehicle that is supported only by a jack. Always make sure that the vehicle is securely supported on jack stands.



### Step 1:

We begin by removing the engine cover. Whether you have the factory cover or our carbon fiber engine cover as shown here, they are both removed by pulling them up at the four corners to release the rubber grommets from the grommet studs.



Step 2:

T30 Torx Socket, 3/8" Ratchet

Remove the four upper radiator shroud screws.





### Step 3:

Lift up on the rear edge of the radiator shroud, then pull it rearwards to unhook it from the grille, and remove it.



### Step 4:

T25 Torx Socket, Ratchet

Remove the two air scoop hold down screws.

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### Step 5:

Pull up on the air duct where it meets the air box and remove it along with the air scoop.



#### Flat Blade Screwdriver Step 6:

Remove the turbo inlet hose by loosening the two clamps and pulling it off at both ends.

### **CAUTION**

Be careful not to allow any objects, dirt, or debris to fall into the turbo inlet.





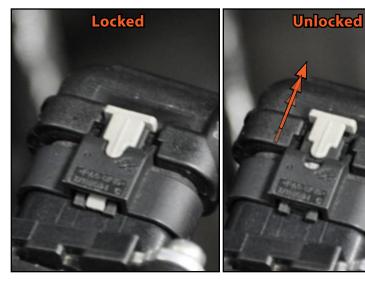
### Step 7:

Locate the Mass Air Flow (MAF) sensor connector.



### Step 8:

Unlock the connector on the MAF sensor by pulling the gray locking tab out.

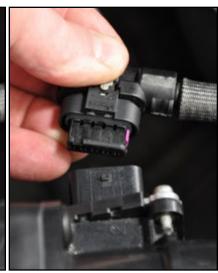




## Step 9:

Press down on the end of the gray locking tab, then pull the connector off of the MAF sensor.





## Step 10:

Pull upwards on both sides of the air box and remove it from the engine compartment.





T30 Torx Socket, Ratchet Step 11:

Remove the air box bracket screw.



## Step 12:

Rotate the bracket 90 degrees counter clockwise, then pull it out of the inner fender.





#### Flat Blade Screwdriver Step 13:

The intake duct and air scoop (removed in step 5 on Page 12) is made up of three pieces. Locate the tabs on the side of the air scoop and gently pry them out to separate the upper half of the scoop and remove the duct.



### Step 14:

The lower half of the air scoop as shown in the photo on the right will be used during the installation of your new intake system, but you can set it aside for now.

> You are now ready to install your new Kohlefaser Luft-Technik intake System!





### 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 top half of each clip is located above the heat shield.

### 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".



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

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## Step 3:

Pull the two lower mounting grommets off the bottom of the original air box.



#### T25 Torx Socket, Ratchet Step 4:

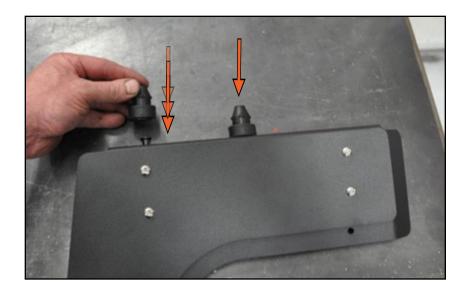
Remove the two MAF sensor screws and pull the MAF sensor out of the original air box.





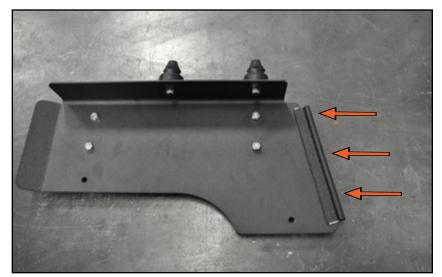
## Step 5:

Push the two lower mounting grommets onto the studs on the bottom of the new main heat shield assembly.



### Step 6:

Push the 3/8" bulb seal onto the rear edge of the main heat shield assembly as shown.





## Step 7:

Install the spacer onto the end of the lid mount stud.



#### Flat Blade Screwdriver Step 8:

Thread the lid mount stud into the fender in place of the air box bracket bolt (removed in step 11 on Page 15), and tighten it.





### Step 9:

Insert the MAF sensor into the new carbon fiber air box lid.

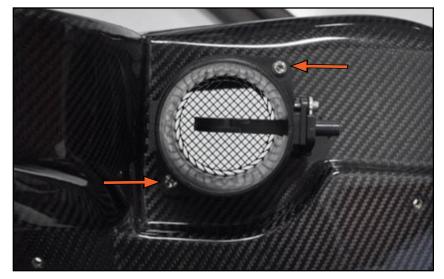


#### 4mm Hex Bit (Allen) Wrench Step 10:

Place an M6 lock washer onto each, then Install and tighten the two new M6 x 16 screws included with the kit.

### **CAUTION**

Do not over tighten these screws. Over tightening can crack the carbon fiber which could lead to water intrusion.





#### Flat Blade Screwdriver Step 11:

Place the air box lid upside down on a soft protective surface, then slide the air filter onto the end of the MAF sensor and tighten the clamp.

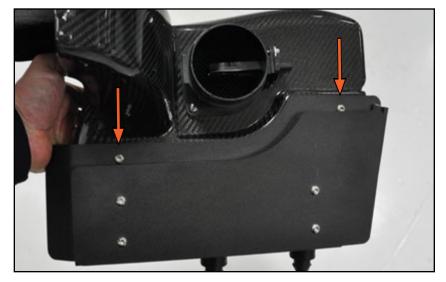
### NOTE

Be sure to only hold the air filter and push it on by the ends. If you hold it by the pleats, they will bend easily. (This will not affect the performance, only the appearance.)



#### 4mm Hex Bit (Allen) Wrench Step 12:

Place an M6 lock washer onto each, then Install the two M6 x 12mm screws through the main heat shield into the carbon fiber air box lid, loosely at first until they are both threaded in, then tighten them until they are snug.





## Step 13:

Let's take a moment here to look at how the air box mounts into the vehicle. Inspect the photo on the right, included for descriptive purposes only. Note how the rubber mounting grommets on the base of the heat shield line up with the holes in the frame channel, then proceed with the next step for the installation process.



The air box lid has been removed in this photo for clarity and descriptive purposes.



Lower the air box assembly into the car, then push the rubber grommet in the side of the lid onto the lid mount stud.







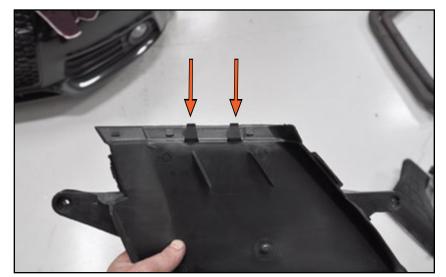
## Step 15:

Line up the mounting grommets and push the air box assembly downward until the grommets on the bottom of the heat shield are fully seated in place in the frame rail.



### Step 16:

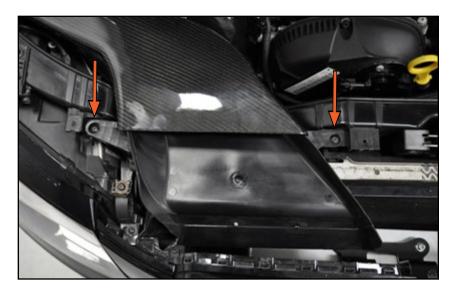
Inspect the lower air scoop and note the two tangs on the end.





#### T25 Torx Socket, Ratchet Step 17:

Install the lower air scoop into place on the radiator core support, making sure the bottom edge of the opening in the air box lid is located between the tangs and the lower lip of the air scoop. Install the two air scoop screws.



### Step 18:

Reconnect the MAF sensor.





## Step 19:

Place the hose clamps over the end of the silicone turbo inlet hose.



#### Flat Blade Screwdriver Step 20:

Install the hose in place between the MAF sensor and turbo inlet. Make sure the hose is fully seated on both ends, then tighten the clamps.

### **TECH TIP**

A socket and a 1/4" ratchet can be used for easier access to hose clamps in tight areas such as these.





## Step 21:

Place the radiator shroud upside down and affix the adhesive backed foam strip to the left and right of the underside, in the area highlighted in the picture, so the shroud will not rub against the carbon fiber air box lid when installed.

### NOTE

Be sure to clean the shroud thoroughly to remove any dirt, oil, or grease so the adhesive on the foam strip will stick.



#### T30 Torx Socket, 3/8" Ratchet Step 22:

Install the radiator shroud.

Your Kohlefaser Luft-Technik intake system 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



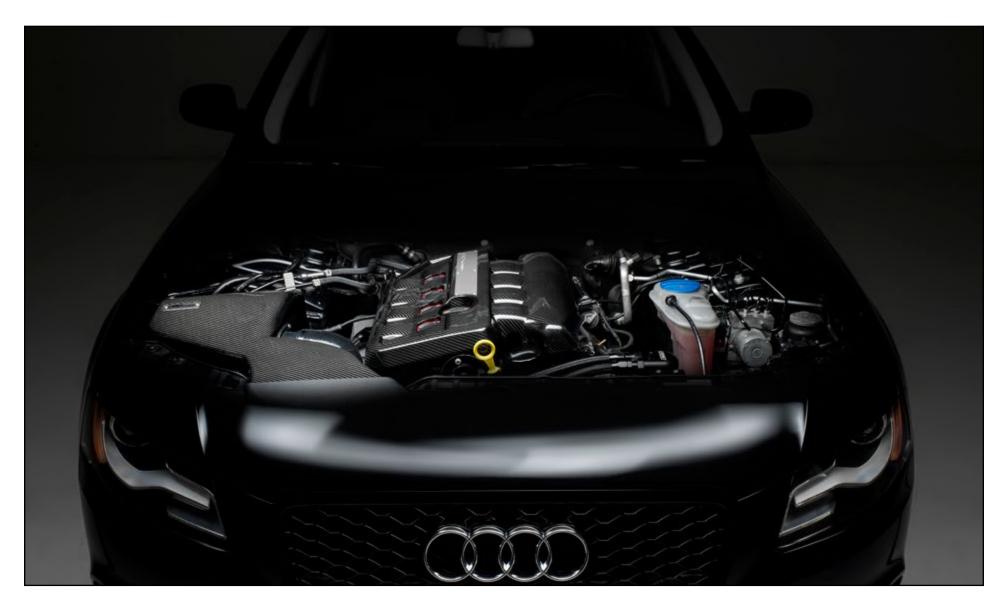


## **SCHWABEN - BUILD THE ULTIMATE TOOL COLLECTION**

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 Audi B8 Kohlefaser Luft-Technik 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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