



## VW MK6 Kohlefaser Luft-Technik Intake System Installation Instructions - [Click HERE to Shop](#)



**Skill Level**  
**1 - Easy**  
**Basic Skills**  
**Required**



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

### Our Kohlefaser Luft-Technik intake systems offer the following features:

- CNC bent aluminum pipes available in a wrinkle black powder coat finish
- Open-element design
- Dyno proven results
- In-house designed by ECS Tuning Engineers
- 4-Ply silicone couplers
- High flow cotton gauze air filter
- All mounting hardware included
- Easy installation

Our ECS Tuning Kohlefaser Luft-Technik Intake Systems have been meticulously designed in-house to provide superior fitment and performance. Each kit comes with all of the components you'll need for a quick and easy installation.

Take your time and enjoy the project, it'll only take you a couple of hours or less. 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 5 before you begin. Thank you for looking to ECS Tuning for all your performance and repair needs, we appreciate your business!

## TABLE OF CONTENTS

Kit Contents .....	<a href="#">pg.3</a>
Required Tools and Equipment .....	<a href="#">pg.5</a>
Installation and Safety Information .....	<a href="#">pg.6</a>
Removing the Stock Intake System .....	<a href="#">pg.7</a>
Installing the New Intake System .....	<a href="#">pg.14</a>
Secondary Air Filter Kit Contents .....	<a href="#">pg.21</a>
Installing the Secondary Air Filter Kit .....	<a href="#">pg.22</a>
Carbon Fiber Cleaning and Care .....	<a href="#">pg.24</a>

## KIT CONTENTS



Carbon Fiber Air Box Assembly  
(QTY 1)



Turbo Inlet Pipe & Air Filter Pipe (available in polished aluminum, wrinkle black aluminum, or carbon fiber - **QTY 1 each**)



Turbo Inlet Silicone Coupler  
(QTY 1)



High Flow Air Filter  
(QTY 1)



Silicone Straight Coupler  
(QTY 1)



Rubber Accordion Coupler  
(QTY 1)

## KIT CONTENTS (CONTINUED)



M6x10 Screw  
(QTY 5)



M6 Nylon Washer  
(QTY 5)



M6x16 screw  
(QTY 1)



M6 Steel Washer  
(QTY 1)



Grommet  
(QTY 2)



Heat Shield Screw  
(QTY 2)



Turbo Inlet Pipe Bolt  
(QTY 1)



60-80mm Hose Clamp  
(QTY 1)



70-90mm Hose Clamp  
(QTY 5)

## 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

- **Spring Clamp Pliers** .....[ES#2702616](#)
- **VAG Connector Release Tool** .....[ES#2628676](#)

## 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.



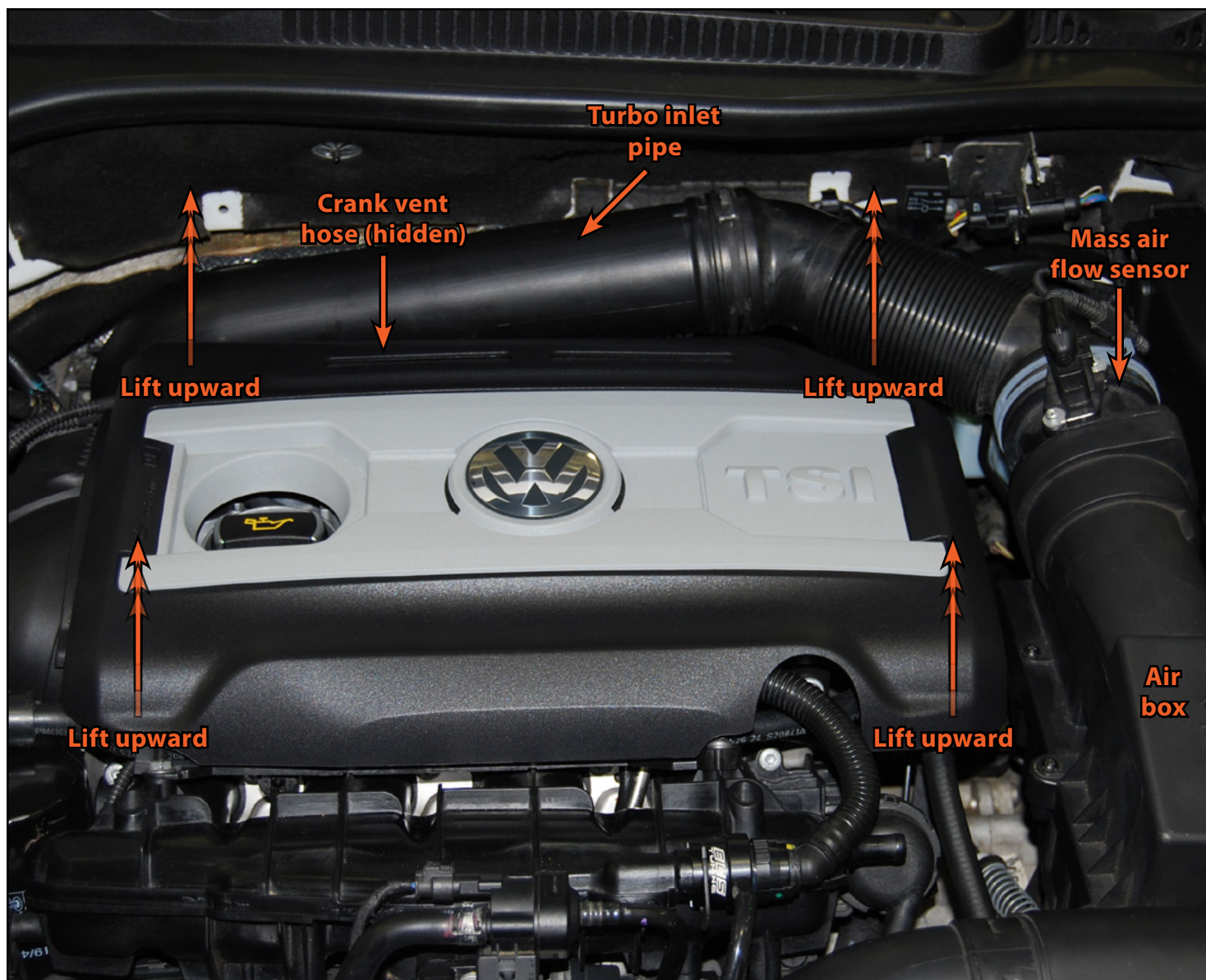
**NEVER** get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

## REMOVING THE STOCK INTAKE SYSTEM

### Step 1:

Pull upward on all four corners of the engine cover to release the grommets, then remove it from the vehicle.

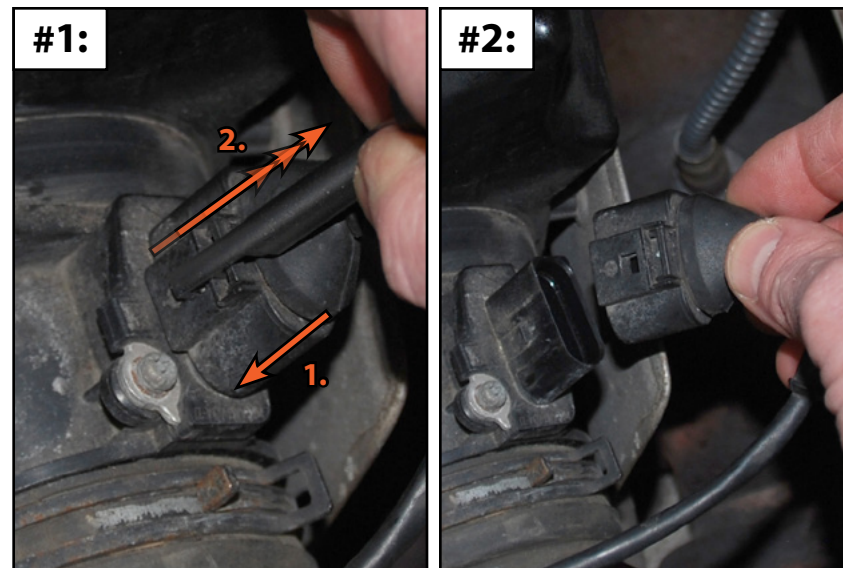
In the next few pages we will be removing the stock air box, mass air flow sensor, and turbo inlet pipe. Before we begin, take a moment to familiarize yourself with these components and their locations.



## REMOVING THE STOCK INTAKE SYSTEM

### Step 2: VAG Connector Release Tool

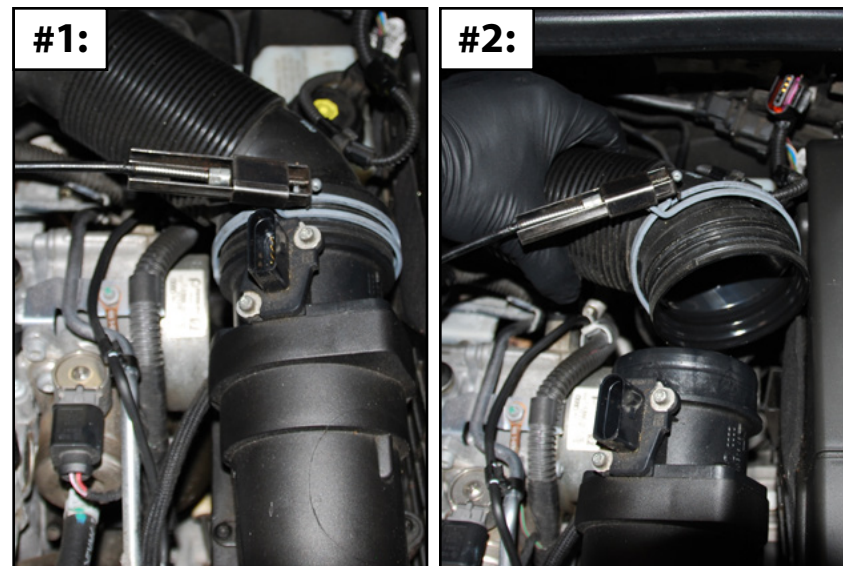
Disconnect the Mass Air Flow sensor electrical connector using our Schwaben Connector Release or other suitable tool. The trick to removing these “push and pull” style of connectors is to first push and hold the connector down, which will release the tension between the locking tab and the catch on the sensor, then insert the 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 ease (see **photo #1** and **photo #2** on the right).



### Step 3: Spring Clamp Pliers

Release the tension on the spring clamp that secures the flexible intake tube to the Mass Air Flow sensor (**photo #1**).

Pull the flexible intake tube off of the Mass Air Flow sensor, then remove the spring clamp (**photo #2**).



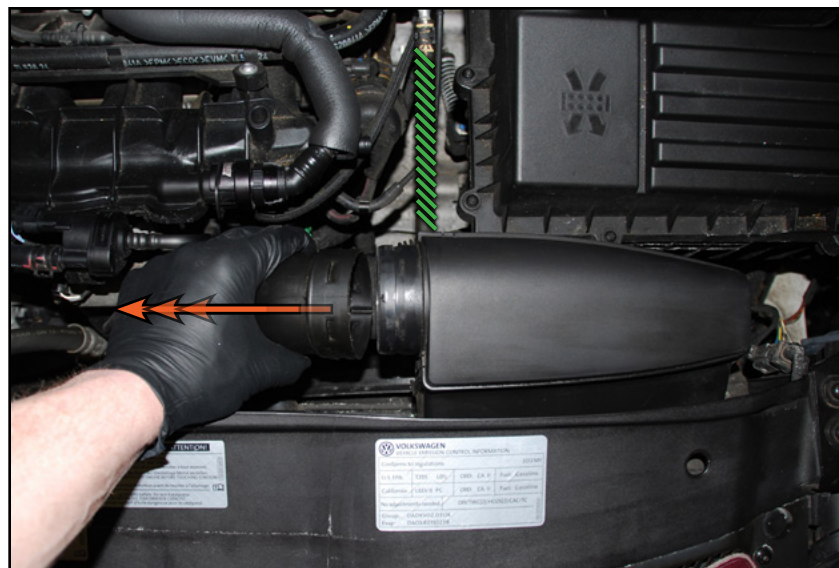
## REMOVING THE STOCK INTAKE SYSTEM

### Step 4:

Pull the air box inlet tube off of the front air scoop.



Note the location of the coolant air bleed hose (//////), this will be relevant later on.



### Step 5:

5mm Hex (Allen)

Loosen the hold down screw for the original air box. This is a "trapped" screw and will remain in place in the air box after it is loosened.



## REMOVING THE STOCK INTAKE SYSTEM

### Step 6:

There are two rubber hold down grommets on the air box. First, pull up on the LH (driver's) side of the air box to release the grommet on the end, then using one hand on the front and one on the back, pull up on the center of the air box to release the grommet on the bottom side.



Pull up on the air box *just enough* to release the grommets but do not attempt to completely remove it at this time.

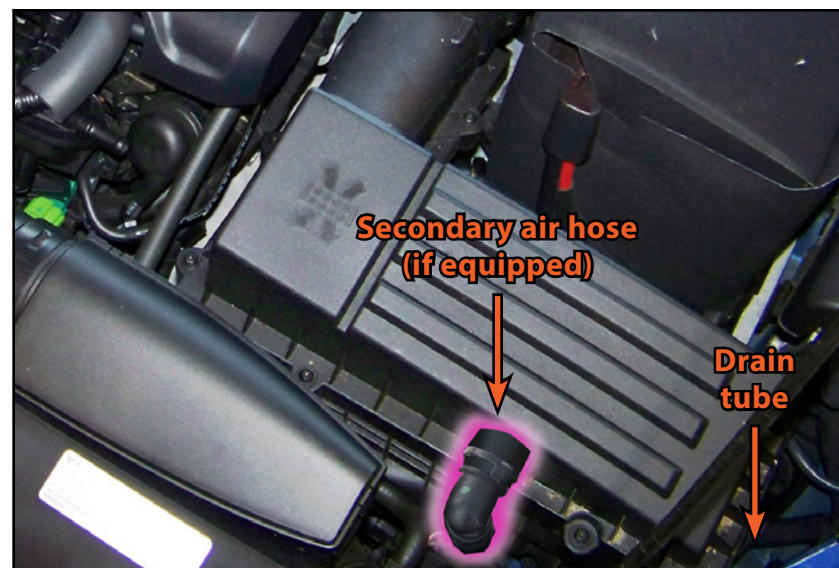


### Step 7:

Look down between the air box and the fender and you will see where there is a drain tube attached to the bottom. It is very difficult to release the retaining clip, but by patiently following the next two steps, the air box can be removed without disconnecting this drain tube.



Some vehicles may also have a secondary air tube connected to the front of the air box lid. If you are not sure, carefully inspect your air box and remove this tube if equipped.

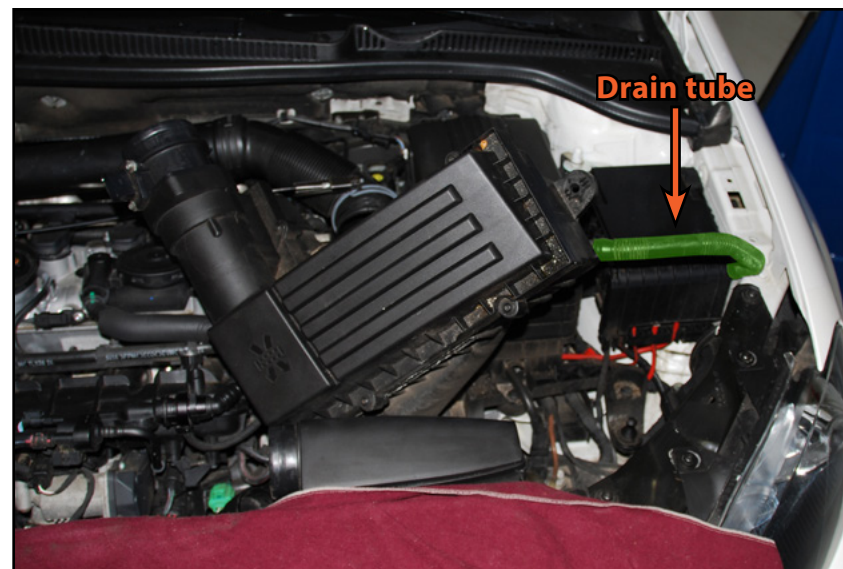


## REMOVING THE STOCK INTAKE SYSTEM

### Step 8:

Lift the air box up slowly on the LH side and carefully guide the drain tube out.

Rotate the air box upside down so the curved inlet tube can be pivoted around the small coolant air bleed tube we identified earlier. You will now be able to lift the entire air box assembly out of the vehicle.



### Step 9:

T25 Torx

Remove the front air scoop by removing the two securing screws (arrows) and pulling it rearwards off of the core support.



## REMOVING THE STOCK INTAKE SYSTEM

### Step 10: T30 Torx

Remove the bolt securing the turbo inlet pipe to the heat shield, behind the rear of the cylinder head (shown here with the flexible intake tube removed for clarity).

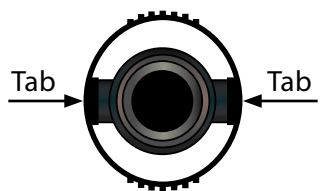


### Step 11:

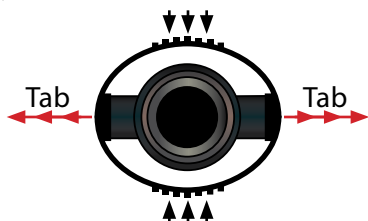
Remove the crank vent hose from the turbo inlet pipe by pinching the retaining tabs together, then pulling it back off the pipe (outlined in the illustrations below).

#### NORMAL INSTALLED STATE:

The tabs keep the hose "locked" onto the fitting.



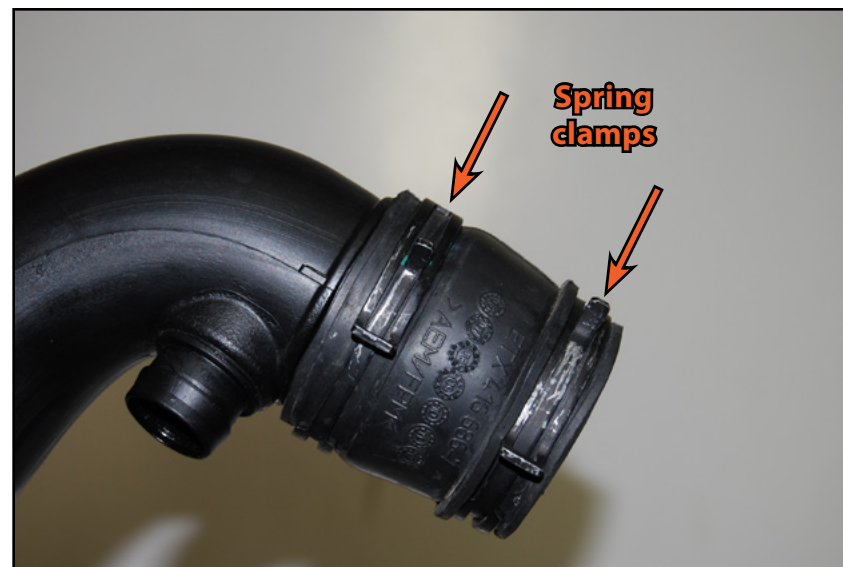
**TO REMOVE:** Squeeze the knurled sides of the locking ring together and the tabs will expand out and unlock, allowing you to pull the connector off of the air box.



## REMOVING THE STOCK INTAKE SYSTEM

### Step 12:

Inspect the picture on the right of the turbo inlet pipe removed and the pipe to turbo coupler on the end. There are two spring clamps on the coupler which are difficult to see. You will need to release the tension on the lower clamp in order to remove the turbo inlet pipe.



### Step 13: Spring Clamp Pliers

Release the tension on the lower clamp for the turbo inlet pipe coupler and then pull the turbo inlet pipe and coupler off and set them aside.



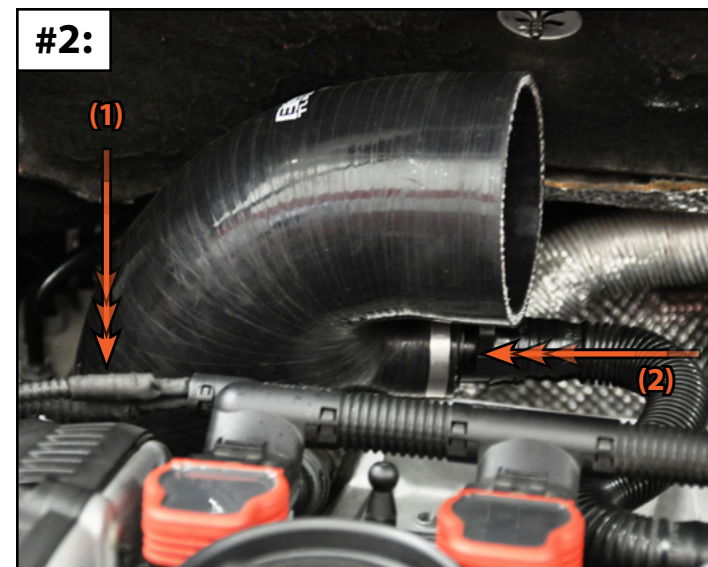
# INSTALLING THE NEW INTAKE SYSTEM

## Step 1:

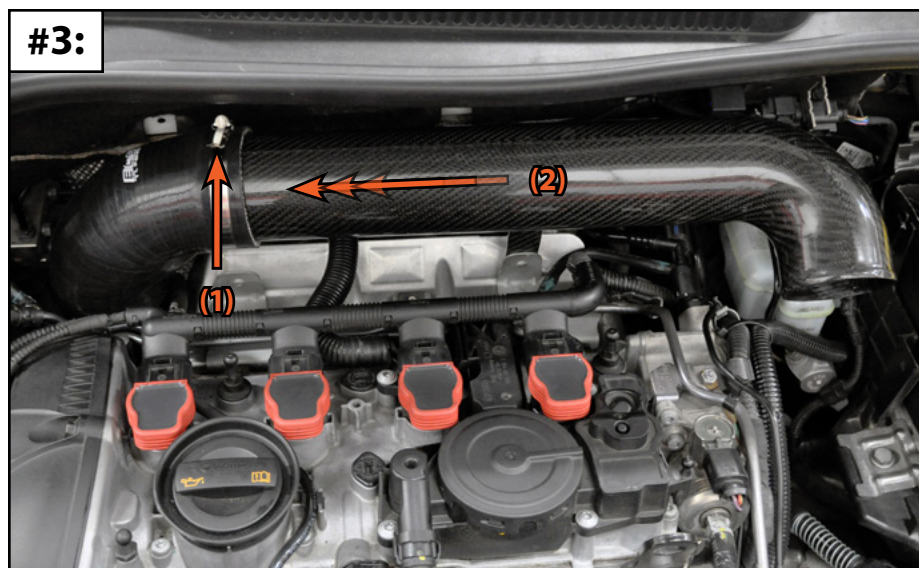
Place the 60-80mm hose clamp (must be loosened for this step) over the turbo inlet (**photo #1**). Orient the head of the clamp screw exactly as shown in the photo so that it won't interfere with the coolant pipes on the back of the cylinder head. It will also be easy to access when we need to tighten it later on.



Push the turbo inlet coupler onto the turbo inlet, then attach the crankcase breather hose by pushing the connector onto the integrated receiver and snapping it into place (**photo #2**).



Place one of the 70-90mm hose clamps over the turbo inlet coupler, then insert the straight end of the turbo inlet pipe into the end of the coupler (**photo #3**).



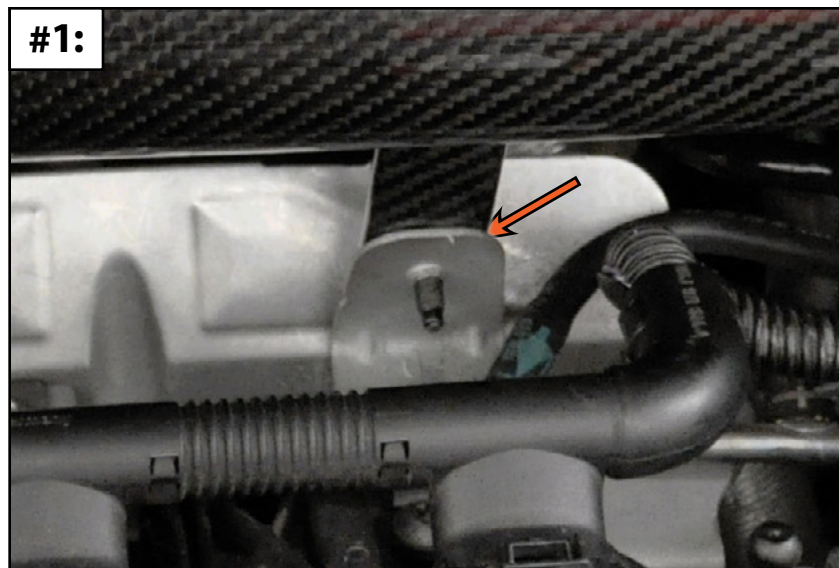
## INSTALLING THE NEW INTAKE SYSTEM

### Step 2: T30 Torx, Flat Blade Screwdriver or 7mm Socket & Ratchet

Position the bracket tab on the turbo inlet pipe *behind* the bracket tab on the exhaust heat shield, then insert the mounting bolt through the brackets as shown and tighten the bolt.



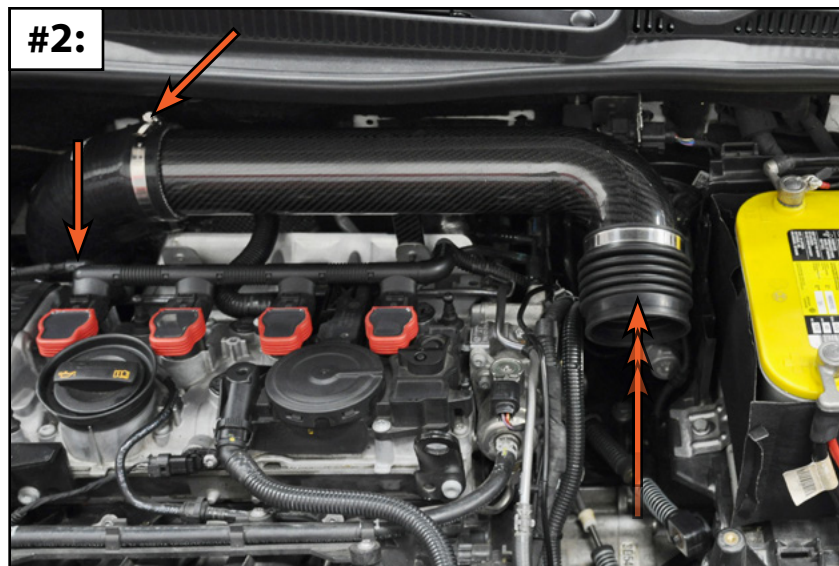
GLI customers may need to bend the steel tab which is attached to the engine (arrow) by approximately 20 degrees in order to achieve superior fitment. We do not recommend bending the tab on the aluminum pipe due to the risk of damaging the pipe.



Tighten the clamps until they are snug (arrows in **photo #2**). Remove the battery cover in order to gain better access to the surrounding area. Place a clamp onto the accordion coupler, then place the coupler over the end of the turbo inlet pipe, but do not tighten the clamp at this time.



Be careful not to over tighten any of the clamps as this could crack the carbon fiber.

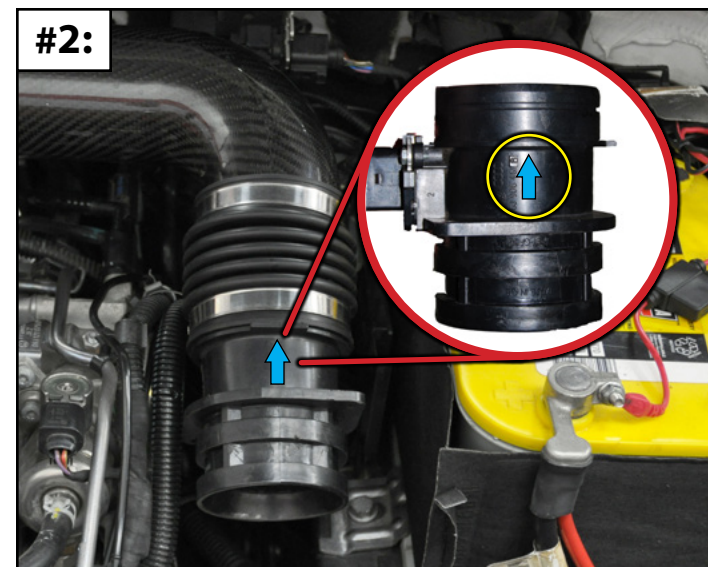
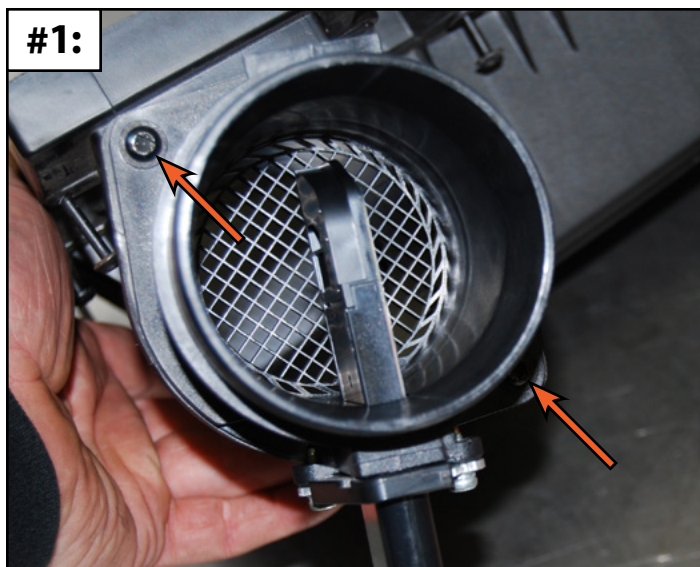


## INSTALLING THE NEW INTAKE SYSTEM

### Step 3:

Remove the two T25 screws which secure the MAF sensor to the stock air box (arrows in **photo #1**).

Place a clamp onto the accordion coupler, then insert the MAF sensor into the coupler, but do not tighten the clamp at this time (**photo #2**). Plug the electrical connector into the MAF sensor.



**NOTE**

The MAF sensor has an arrow on the side (highlighted and circled in **photo #2**) to indicate direction of air flow. The MAF Sensor has also been installed with the connector facing down for a cleaner look.

Slide the straight coupler onto the other end of the mass air flow sensor as shown (**photo #3**).



## INSTALLING THE NEW INTAKE SYSTEM

### Step 4:

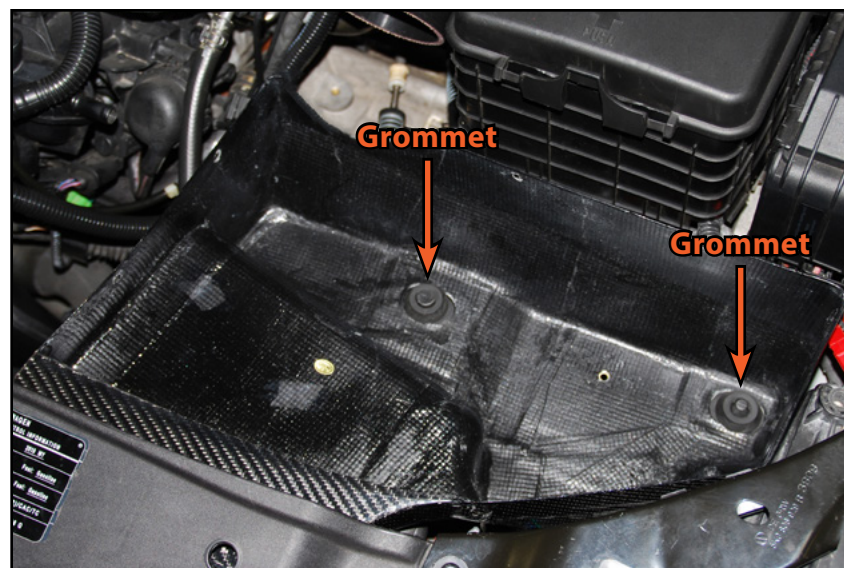
Push the two air box mounting grommets into the carbon fiber air box base with the larger end on the bottom as shown.



If your car is equipped with secondary air injection, you **MUST** follow the instructions beginning on Page 21 to install the SAI filter before you proceed.

### Step 5:

Install the carbon fiber air box base into position by locating the air inlet underneath the radiator core support, then pushing the grommets into place on the air box mounting studs.



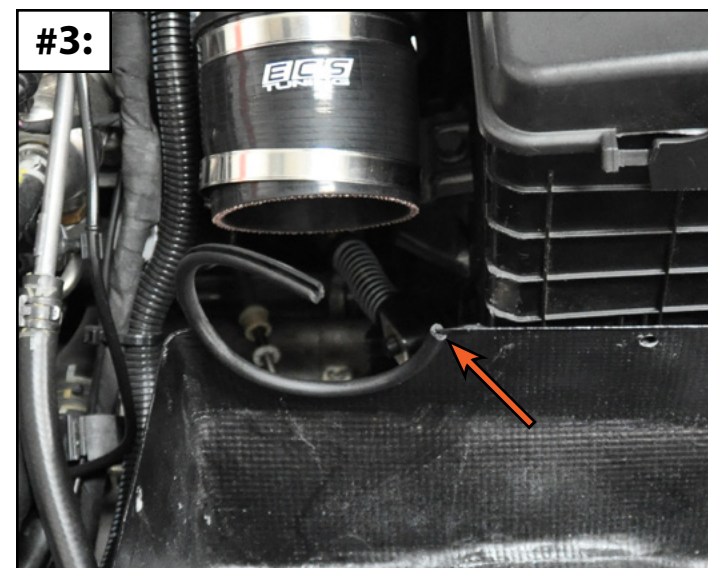
## INSTALLING THE NEW INTAKE SYSTEM

### Step 6:

Install and tighten the two air box inlet mount screws into the radiator core support (**photo #1**).

Loosely install the two remaining 70-90mm hose clamps over the straight coupler (**photo #2**).

Install the air box seal into the lower half of the air box as shown (**photo #3**). Make sure that one end of the seal is flush with the edge of the lower air box (arrow) and leave the upper half extended out, it will be installed in a later step when we install the upper air box.



## INSTALLING THE NEW INTAKE SYSTEM

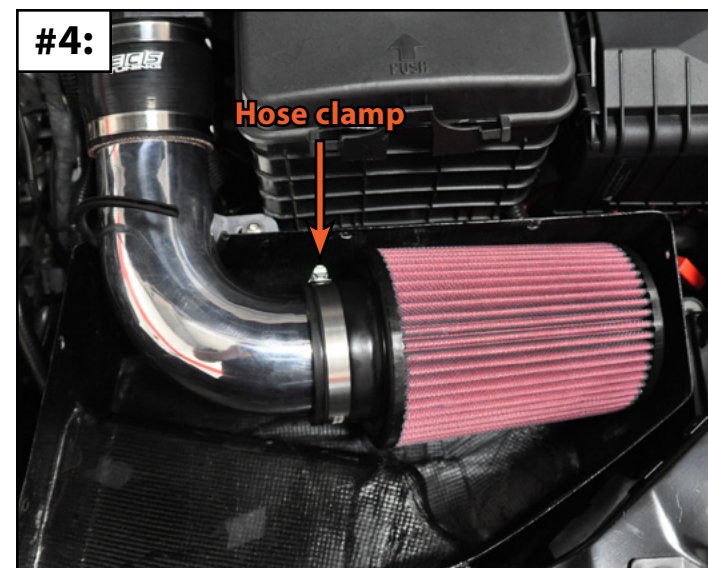
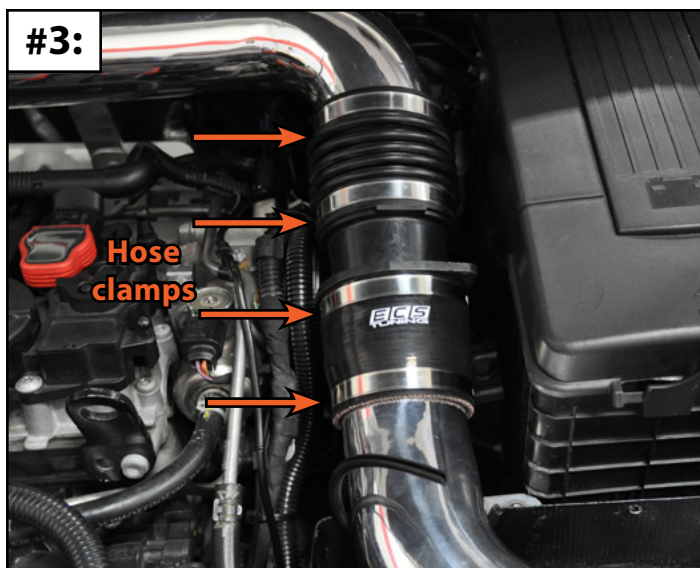
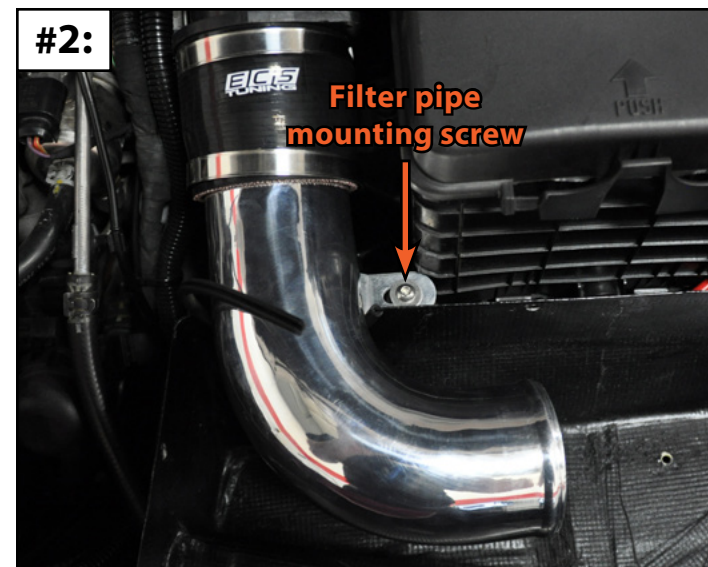
### Step 7:

Slide the air filter pipe into the straight coupler, then line it up with the mounting hole on the battery tray (arrow in **photo #1**). Make sure the seal stays in place inside the air box.

Install and tighten the air filter pipe mounting screw and washer until snug (**photo #2**).

Adjust the straight coupler, mass air flow sensor, and accordion coupler as necessary for proper alignment, allowing the accordion coupler to flex as needed during engine operation. Tighten all four hose clamps until they are snug (**photo #3**).

Push the air filter over the end of the air filter pipe and tighten the clamp until it is snug (**photo #4**).



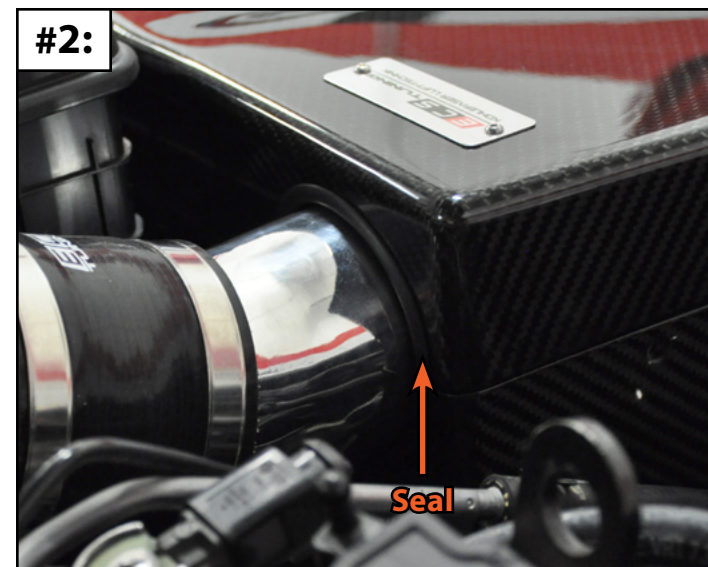
## INSTALLING THE NEW INTAKE SYSTEM

### Step 8:

Install the air box lid into place, making sure to guide the groove of the filter pipe seal onto the lid of the air box (**photo #1**).

Look at the rear of the air box where the filter pipe passes through and make sure the seal is properly installed. If necessary, lift up the air box lid and adjust the position of the seal until it is properly seated (**photo #2**).

Install all five mounting screws and washers around the perimeter of the air box lid by threading them by hand. Tighten the screws by hand until they are snug, DO NOT use excessive force to tighten these screws. Reinstall your battery cover and engine cover (**photo #3**).



***Congratulations, your intake system installation is complete!***

## SECONDARY AIR FILTER KIT CONTENTS

These components are available for purchase separately if your vehicle is equipped with Secondary Air Injection.  
The kit can be found on our website as [ES#2864860](#).



SAI Filter and Clamp



SAI Filter Mounting Bracket



SAI Filter Adapter



Mounting Grommet

## INSTALLING THE SECONDARY AIR FILTER KIT

**Step 1:** Flat Blade Screwdriver - or - 7mm Socket, 1/4" Ratchet

Remove the secondary air injection kit from its packaging, and tighten the hose clamp which secures the filter until it is snug.



Vehicles equipped with a DSG transmission must install the mounting bracket so that it faces the opposite direction as shown in the photo on the right.

**#1:**

**NON-DSG**



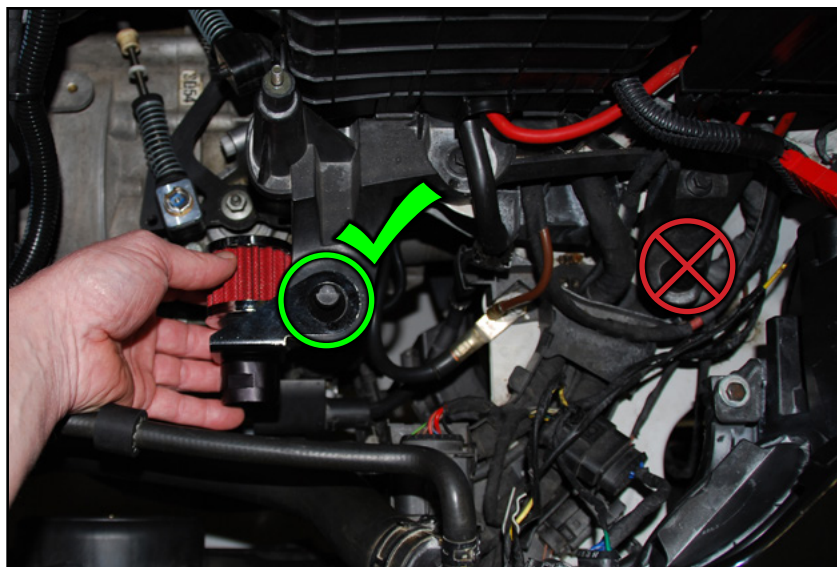
**#2:**

**DSG ONLY**



**Step 2:**

Place the secondary air intake assembly onto the innermost air box mounting stud (the stud which is nearest to the engine) so the filter and adapter hang down below the mounting stud.



## INSTALLING THE SECONDARY AIR FILTER KIT

### Step 3:

Route the original secondary air intake tube over to the adapter and connect the two together. Rotate the filter assembly as necessary so the secondary air intake tube does not kink or bind.



Vehicles equipped with a DSG transmission must install the filter assembly so that it faces upward as shown in the **photo #2** on the right.

### Step 4:

Allow the assembly to hang in place for now, when you install the carbon fiber air box the innermost air box mounting grommet will hold the secondary air intake securely in place. As you can see in the photo, the secondary air intake is almost completely hidden underneath the carbon fiber air box.



Return to Page 17 to continue with the installation of your Kohlefaser Luft-Technik Intake System.



## 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.

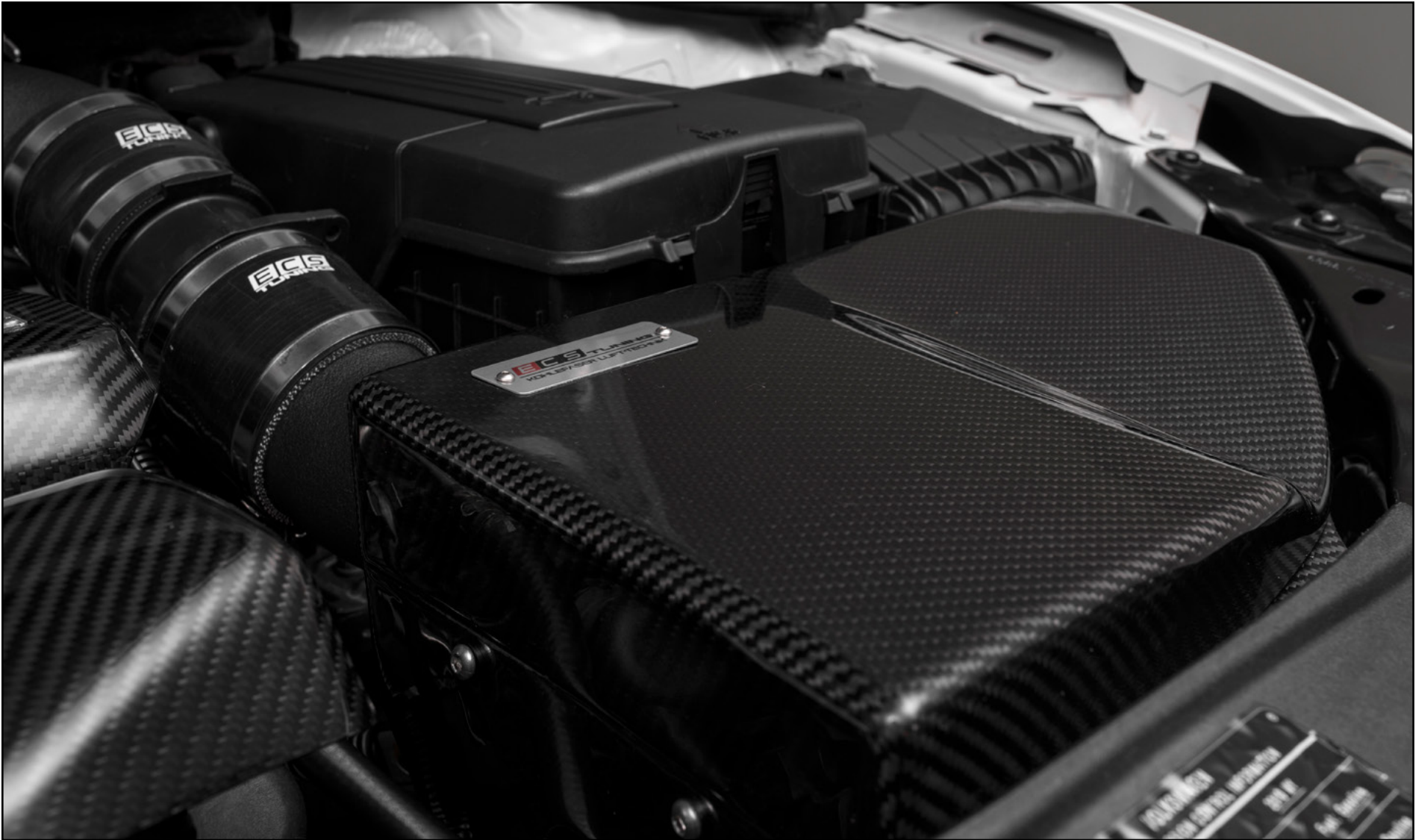
Small surface scratches and light oxidation can be buffed out using the same methods and cautions you would use on the vehicle paint.

**Carbon Fiber Cleaning and Care Kit, available at [ecstuning.com](http://ecstuning.com).**

[ES#2914954](#)



## 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.

Although this material has been prepared with the intent to provide reliable information, no warranty (express or implied) is made as to its accuracy or completeness. Neither is any liability assumed for loss or damage resulting from reliance on this material. SPECIFICALLY, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY IS MADE OR TO BE IMPLIED WITH RESPECT TO THIS MATERIAL. In no event will ECS Tuning, Incorporated or its affiliates be liable for any damages, direct or indirect, consequential or compensatory, arising out of the use of this material.