



VW MK6 Luft-Technik Induction System Installation



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

VW MK6 Luft-Technik Induction Systems ES#2966359, ES#2863345, & ES#2863346

Our ECS Tuning Luft-Technik Induction Systems offer the following features:

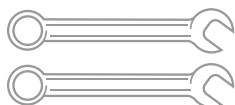
- CNC bent aluminum pipes available in either polished or wrinkle black powder coat finishes
- Intake pipes are also available in hand-laid carbon fiber
- CNC bent aluminum heat shield
- In-house designed by ECS Tuning Engineers
- 4 Ply silicone couplers
- High flow cotton gauze air filter
- All mounting hardware included
- Easy installation

EASY



**BASIC SKILLS
REQUIRED**

MODERATE



**SOME EXPERIENCE
RECOMMENDED**

ADVANCED



**ADVANCED SKILLS &
EXPERIENCE REQUIRED**

PROFESSIONAL



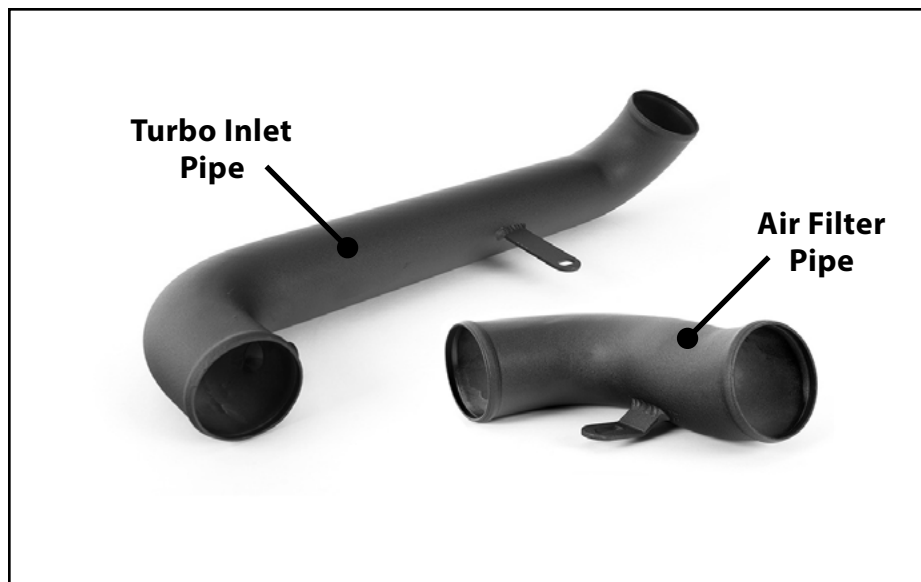
**PROFESSIONAL SKILLS &
SPECIALTY TOOLS REQUIRED**

Installing an ECS Tuning Luft-Technik Induction System on your MK6 Volkswagen is an enjoyable project that you can complete in just a short couple of hours. There is no easier way to give your engine a boost and to make you eager to pop your hood and show off the looks of your new induction system. Before you begin, read and familiarize yourself with these instructions and make sure you have all the required tools on hand. Thank you for making ECS Tuning your choice for performance parts and accessories, we appreciate your business!

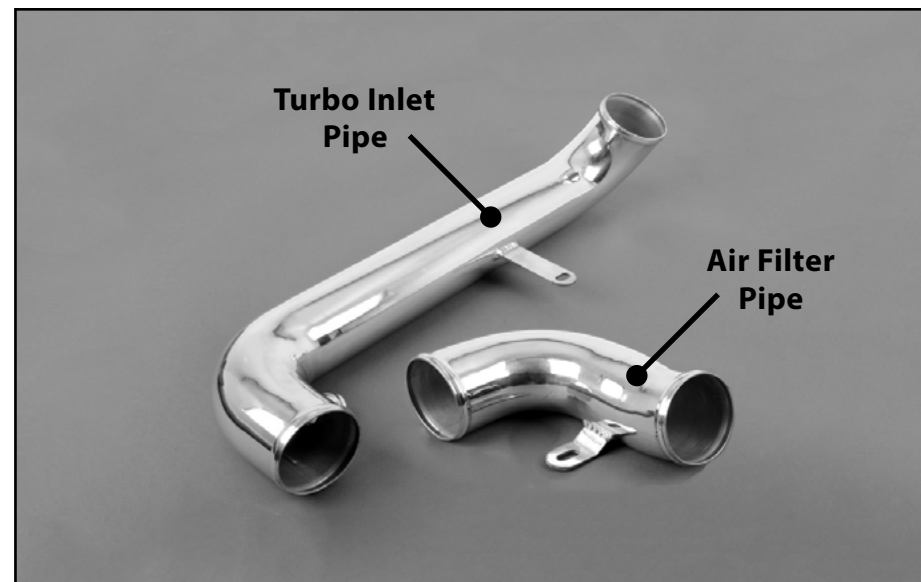
TABLE OF CONTENTS

Kit Contents - With Aluminum Pipes	pg.4
Kit Contents - With Carbon Fiber Pipes	pg.5
Kit Contents - All Systems.....	pg.6
Required Tools	pg.7
Shop Supplies And Materials	pg.8
Installation Notes	pg.9
Preparation And Safety	pg.9
Removing The Original Air Box and Turbo Inlet Pipe	pg.10
Installing The New Induction System - Aluminum Pipes.....	pg.18
Installing The New Induction System - Carbon Fiber Pipes	pg.21
Secondary Air Injection Kit Contents.....	pg.31
Secondary Air Injection Intake Filter Installation.....	pg.32
Schwaben Tools	pg.34

KIT CONTENTS - WITH ALUMINUM PIPES



Black Aluminum Pipes - **Included With ES#2863346**



Polished Aluminum Pipes - **Included With ES#2863345**



3" Silicone Straight Coupler



3" Rubber Accordion Coupler

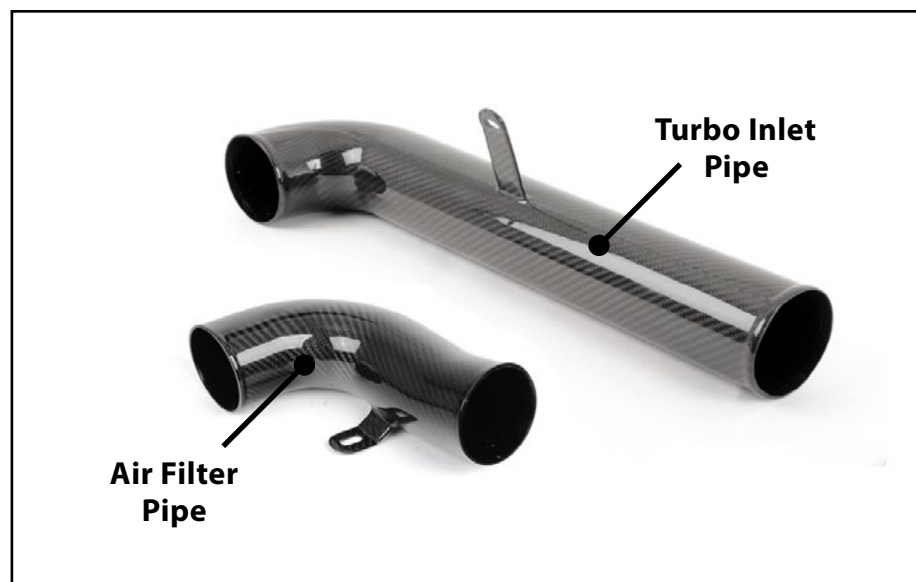


Silicone Reducing Coupler



Hose Clamps: 70-90mm (5),
60-80mm (1)

KIT CONTENTS - WITH CARBON FIBER PIPES



Carbon Fiber Pipes



3" Silicone Straight Coupler



3" Rubber Accordion Coupler



Turbo Inlet Silicone Coupler



Hose Clamps: 70-90mm (5),
60-80mm (1)

KIT CONTENTS - ALL SYSTEMS



Aluminum Heat Shield Assembly



High Flow Air Filter w/Clamp



Air Filter Pipe Mount
Bushing & Nut



Heat Shield Mounting
Grommet (1)



Heat Shield To Core Support
Mounting Screws (2)



Turbo Inlet Pipe To Heat Shield
Bolt (1)

REQUIRED TOOLS

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

Below is a list of the tools we used to install our Luft-Technik Induction System. Additional tools may be required for any issues that arise during installation such as rust, corrosion, or broken and stripped fasteners. Tools with a part number listed are available on our website - click on their [ES# link](#) to view them.

- 1/4" Drive Ratchet [ES#2823235](#)
- 1/4" Drive Extensions [ES#2823235](#)
- 1/4" Drive Sockets: 7mm..... [ES#2823235](#)
- 3/8" Drive Ratchet [ES#2765902](#)
- 3/8" Drive Extensions..... [ES#2804822](#)
- Torx Screwdrivers: T25..... [ES#11417](#)
- Torx Sockets: T25, T30 [ES#11418](#)
- Hex Bit (Allen) Socket: 7mm..... [ES#11420](#)
- Flat Blade and Phillips Screwdriver(s)..... [ES#2225921](#)
- Spring Clamp Pliers [ES#2702616](#)
- Schwaben VAG Connector Release Tool [ES#2628676](#)

SHOP SUPPLIES AND MATERIALS

Below is a list of standard shop supplies which we like to keep on hand during all repairs and services. Additional supplies may be required for any issues that arise during installation. Shop supplies with a [“Click Here”](#) link are available on our website - click on their [link](#) to view them.

- Hand Cleaner/Degreaser [Click Here](#)
- Latex Gloves - For those especially dirty, oily jobs [Click Here](#)
- Mechanics Work Gloves [Click Here](#)
- Oil Drain Pan - For catching fluid as it is draining from the vehicle..... [Click Here](#)
- Pig Mats - For protecting your garage floor and work area from spills and stains..... [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](#)
- Micro Fiber Towels - For cleaning the paint on your car [Click Here](#)
- Spray detailer - For rapid cleaning of anything that comes into contact with your paint such as brake fluid [Click Here](#)
- Electrical Tape - For wrapping wiring harnesses or temporary securing of small components
- Aerosol Brake/Parts Cleaner - For cleaning and degreasing parts
- Shop Rags - 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
- Plastic Wire Ties/Zip Ties - For routing and securing wiring harnesses or vacuum hoses
- Paint Marker - For marking installation positions or bolts during a torquing sequence

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.

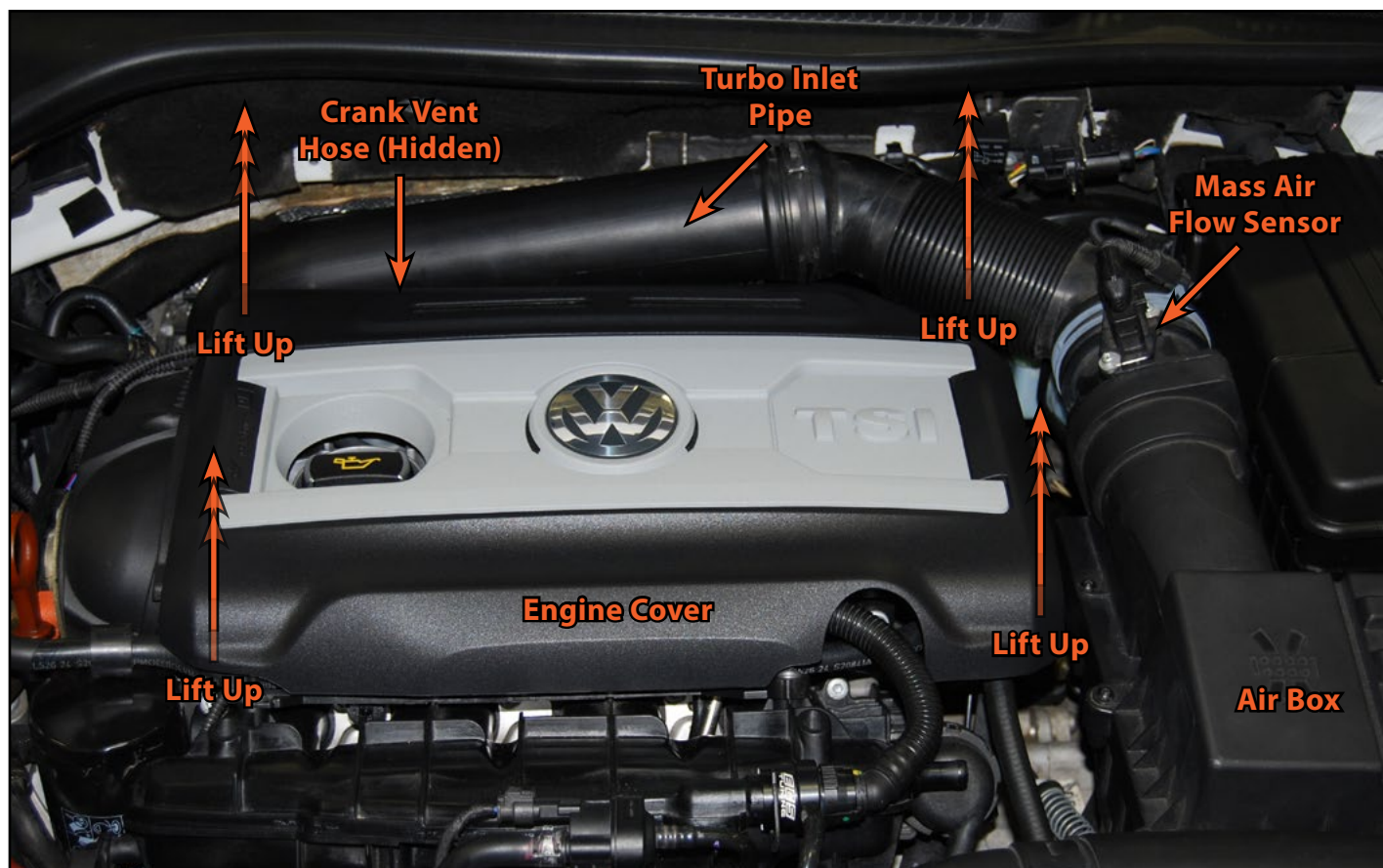
- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- **ALWAYS** wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- 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.

REMOVING THE ORIGINAL AIRBOX AND TURBO INLET PIPE

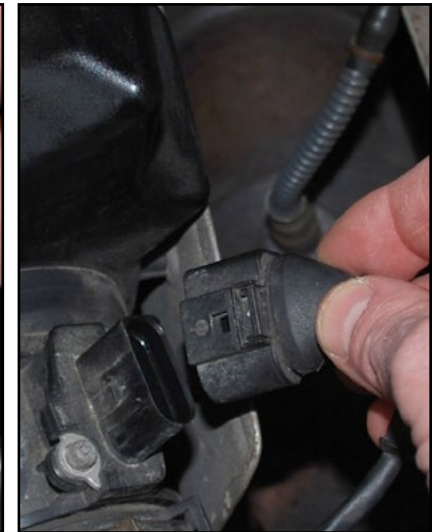
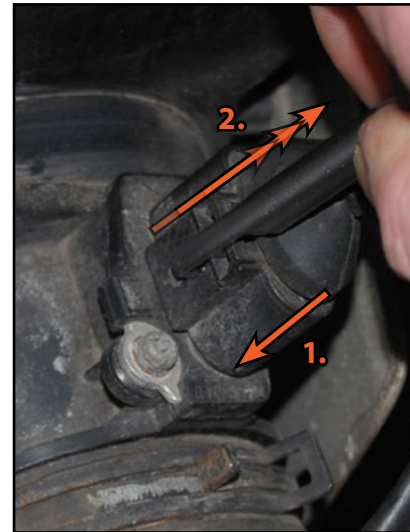
Begin by pulling up on the four corners of the engine cover to release the grommets and remove it from the car. In the following pages, we will be removing the original airbox, mass air flow sensor, and turbo inlet pipe. Familiarize yourself with these component locations, then proceed to the next page.



REMOVING THE ORIGINAL AIRBOX AND TURBO INLET PIPE

Step 1: Schwaben 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.



Step 2: Spring Clamp Pliers

Release the tension on the spring clamp that secures the flexible intake tube to the Mass Air Flow sensor.



REMOVING THE ORIGINAL AIRBOX AND TURBO INLET PIPE

Step 3: Spring Clamp Pliers

Pull the flexible intake tube off of the Mass Air Flow sensor, then remove the spring clamp.

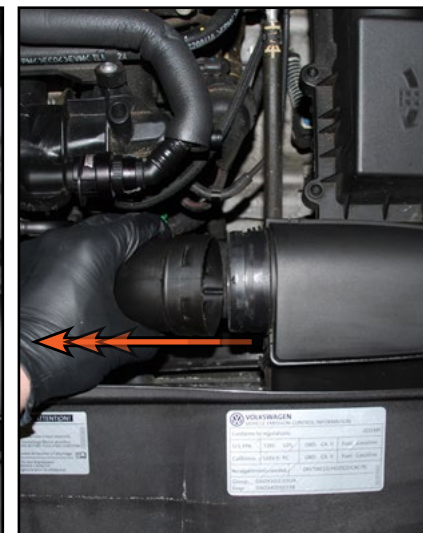
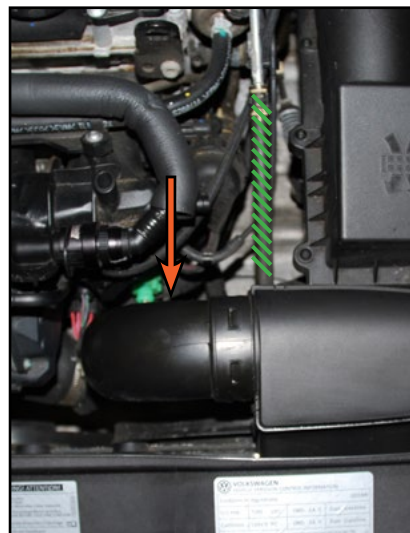


Step 4:

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

NOTE

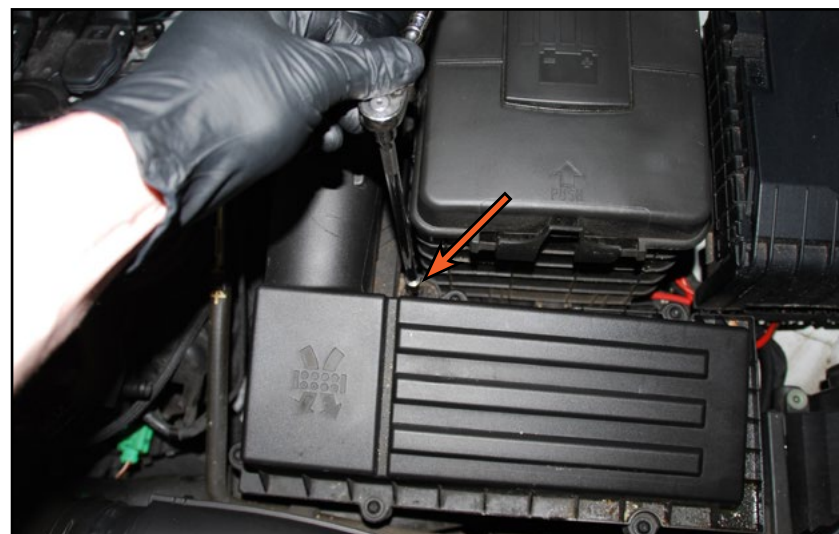
Note the location of the coolant air bleed hose (indicated by //). This will be relevant on [Page 15](#), step 9.



REMOVING THE ORIGINAL AIRBOX AND TURBO INLET PIPE

Step 5: 5mm Hex Bit Socket, 1/4" Ratchet, Extension

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.



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.

NOTE

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



REMOVING THE ORIGINAL AIRBOX AND TURBO INLET PIPE

Step 7:

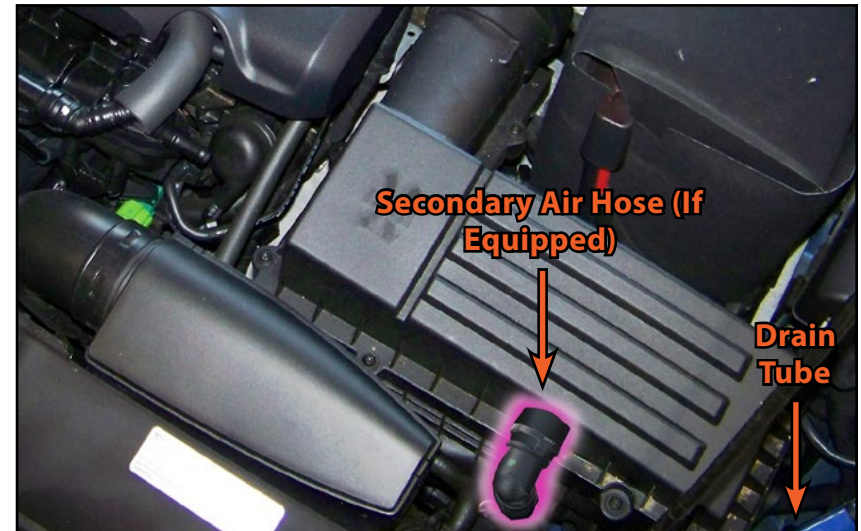
Look down between the air box and the fender and you will see where there is a drain tube attached to the bottom. It is very difficult to release the retaining clip, but by patiently following the next two steps, the air box can be removed without disconnecting this drain tube.

NOTE

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.

Step 8:

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



REMOVING THE ORIGINAL AIRBOX AND TURBO INLET PIPE

Step 9:

Rotate the air box upside down so the curved inlet tube can be pivoted around the small coolant air bleed tube (see [Page 12](#), step 4). You will now be able to lift the entire air box assembly out of the vehicle.



Step 10: T25 Torx Bit Socket, 1/4" Ratchet, Extension

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



REMOVING THE ORIGINAL AIRBOX AND TURBO INLET PIPE

Step 11: T30 Torx Socket, 3/8" Ratchet, Extension

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 12:

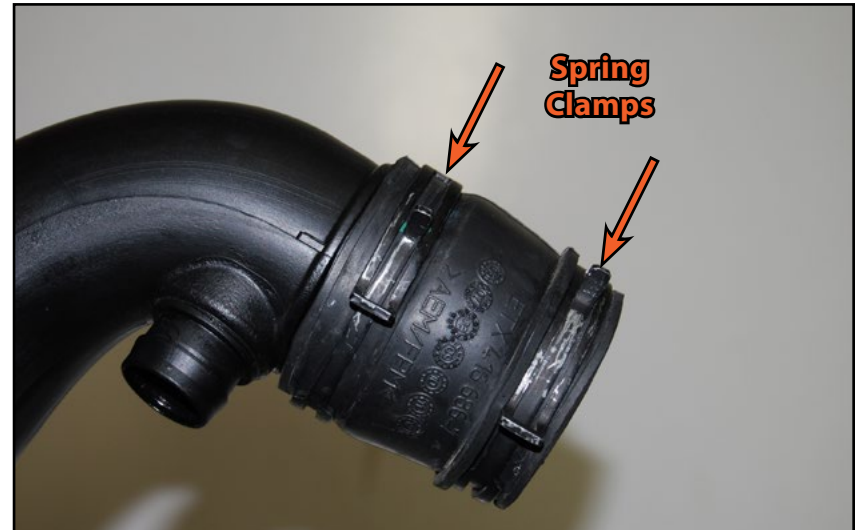
Remove the crank vent hose from the turbo inlet pipe by pinching the retaining tabs together, then pulling it back off the pipe.



REMOVING THE ORIGINAL AIRBOX AND TURBO INLET PIPE

Step 13:

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 14: 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.



If you purchased a system with **ALUMINUM** intake pipes, please continue to the [Page 18](#). If you purchased a system with **CARBON FIBER** intake pipes, please skip to [Page 21](#).



INSTALLING THE NEW INDUCTION SYSTEM - ALUMINUM PIPES

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

Push the reducing coupler onto the end of the new turbo inlet pipe as shown, then install one of the 70-90mm hose clamps onto the coupler and tighten it until it is snug. Make sure the head of the clamp screw is positioned as shown in the picture so it so that it does not interfere with the coolant pipes on the back of the cylinder head, and that it is accessible if we need to tighten or loosen the clamp later on.



Step 2:

Place the 60-80mm hose clamp (must be loosened for this step) over the turbo inlet as shown. Make sure the head of the clamp screw is positioned as shown in the picture so it so that it does not interfere with the coolant pipes on the back of the cylinder head, and that it is accessible when we tighten it in a later step.



INSTALLING THE NEW INDUCTION SYSTEM - ALUMINUM PIPES

Step 3:

Push the reducing coupler down onto the turbocharger inlet and position the turbo inlet pipe along the back of the engine.



Step 4:

T30 Torx Bit Socket, 3/8" 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 until it is snug.



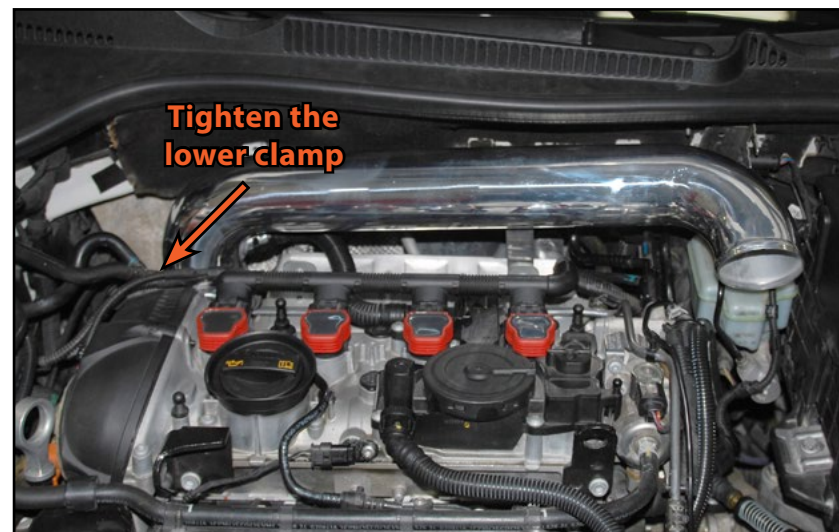
NOTE

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 the tab on the aluminum pipe due to the risk of damaging the pipe.

INSTALLING THE NEW INDUCTION SYSTEM - ALUMINUM PIPES

Step 5: Flat Blade Screwdriver - or - 7mm Socket, 1/4" Ratchet

Tighten the lower clamp on the reducing coupler until it is snug.



Step 6:

Connect the crank vent hose to the new turbo inlet pipe.



Once your **ALUMINUM** turbo inlet pipe has been installed, please skip to [Page 24](#) for further installation instructions.



INSTALLING THE NEW INDUCTION SYSTEM - CARBON FIBER PIPES

Step 1:

Our Luft-Technik induction systems with **CARBON FIBER** pipes include a silicone coupler (reference the photo on the right) to connect the upper pipe to the turbo inlet, and the crankcase breather hose. This is slightly different than the **ALUMINUM** pipes, which utilize a silicone reducer coupler and a longer upper turbo inlet pipe, let's proceed with our installation:



Step 2:

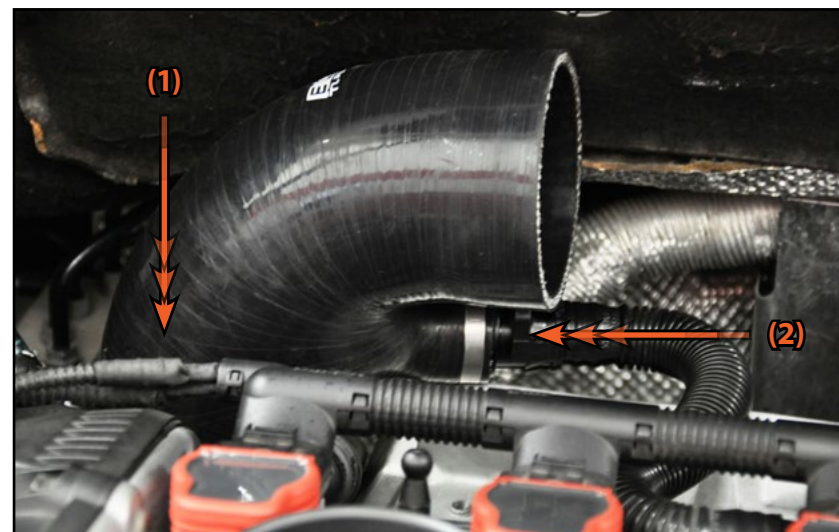
Place the 60-80mm hose clamp (must be loosened for this step) over the turbo inlet as shown. Make sure the head of the clamp screw is positioned as shown in the picture so it so that it does not interfere with the coolant pipes on the back of the cylinder head, and that it is accessible when we tighten it in a later step.



INSTALLING THE NEW INDUCTION SYSTEM - CARBON FIBER PIPES

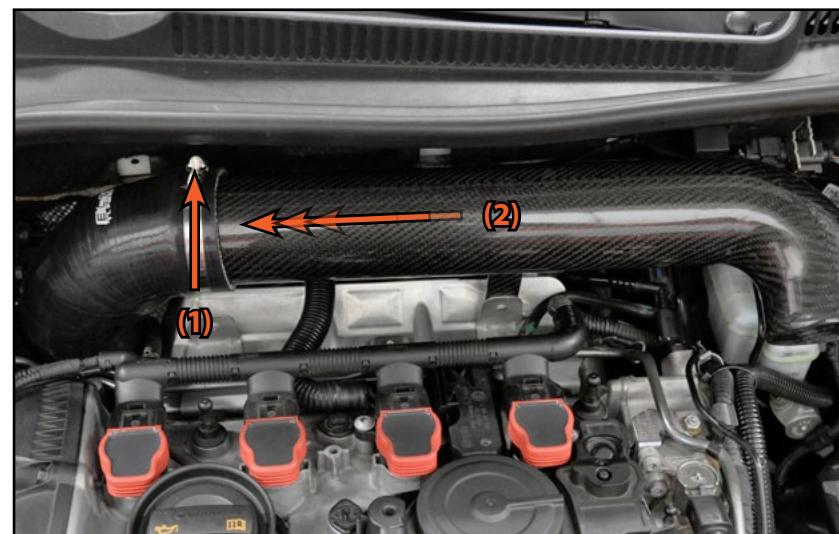
Step 3:

Push the turbo inlet coupler onto the turbo inlet (1), then attach the crankcase breather hose by pushing the connector onto the integrated receiver and snapping it into place (2).



Step 4:

Place one of the 70-90mm hose clamps (must be loosened for this step) over the turbo inlet coupler as shown (1), then insert the straight end of the turbo inlet pipe into the end of the coupler (2). Make sure that the head of the clamp screw is positioned as shown in the picture so it so that it is accessible when we tighten it in a later step.



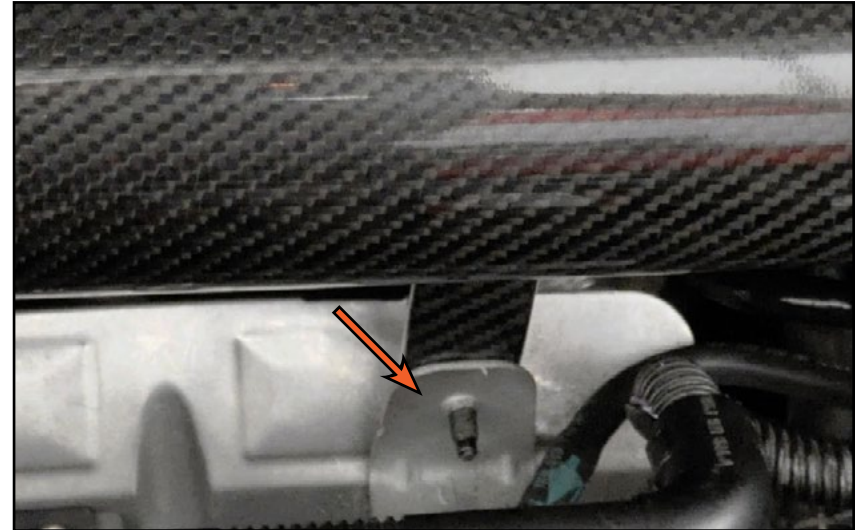
INSTALLING THE NEW INDUCTION SYSTEM - CARBON FIBER PIPES

Step 5: T30 Torx Bit Socket, 3/8" 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.

NOTE

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.



Step 6: Flat Blade Screwdriver - or - 7mm Socket, 1/4" Ratchet

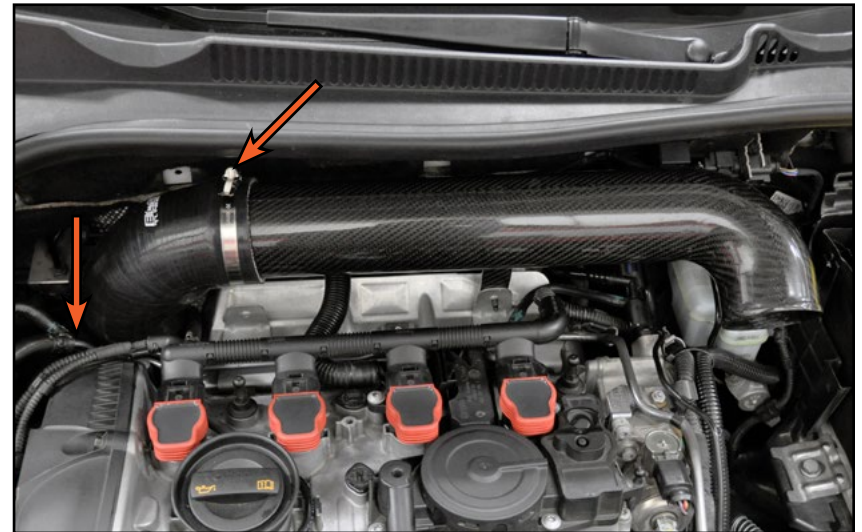
Tighten the clamps until they are snug.

CARBON FIBER CAUTION

Be careful not to over tighten the clamps. Over tightening can crack the carbon fiber.



Once your **CARBON FIBER** turbo inlet pipe has been installed, please continue to [Page 24](#) for further installation instructions.



INSTALLING THE NEW INDUCTION SYSTEM

Step 7:

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.



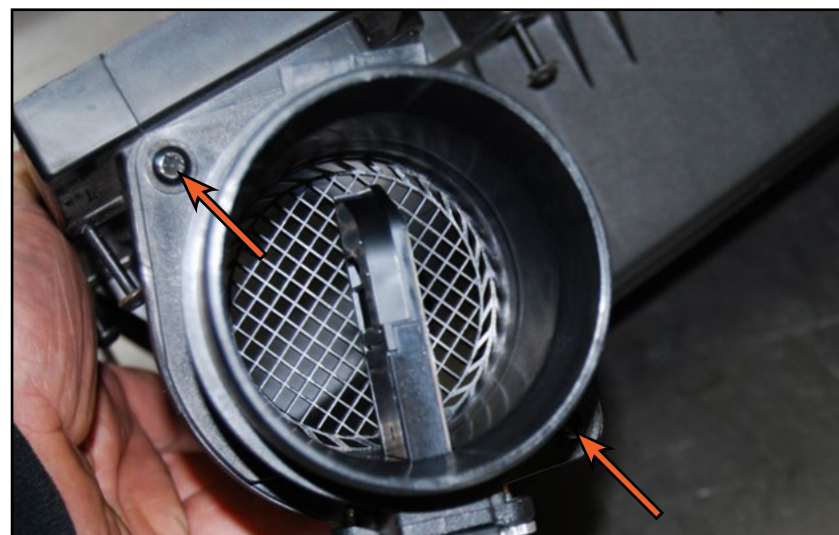
ALL installation instructions from this point on are the same for systems with **ALUMINUM** or **CARBON FIBER** intake pipes.



Step 8:

T25 Torx Bit Socket, 1/4" Ratchet

Remove the two screws and separate the MAF sensor from the original airbox.



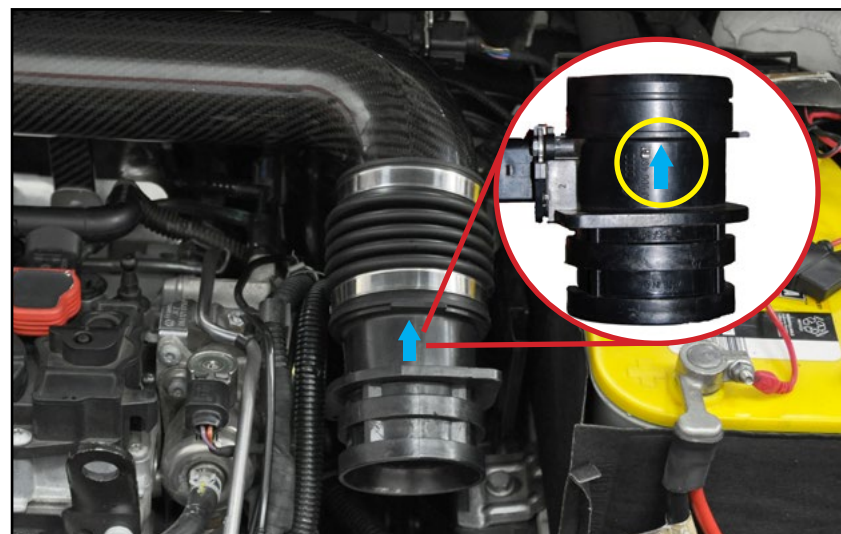
INSTALLING THE NEW INDUCTION SYSTEM

Step 9: Flat Blade Screwdriver - or - 7mm Socket, 1/4" Ratchet

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

NOTE

The MAF sensor has an arrow on the side (circled, as shown in the inset) to indicate direction of air flow. The MAF Sensor has also been installed with the connector facing down for a cleaner look.



Step 10:

Slide the straight coupler onto the other end of the mass air flow sensor as shown.



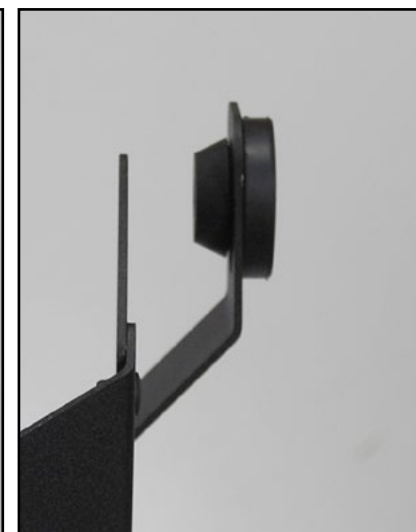
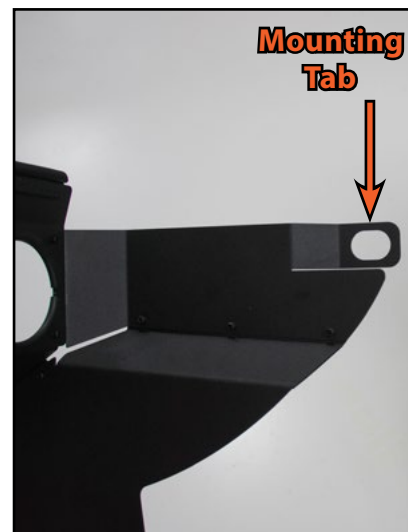
INSTALLING THE NEW INDUCTION SYSTEM

Step 11:

Locate the mounting tab on the heat shield and install the heat shield mounting grommet into place with the larger end on the bottom as shown.

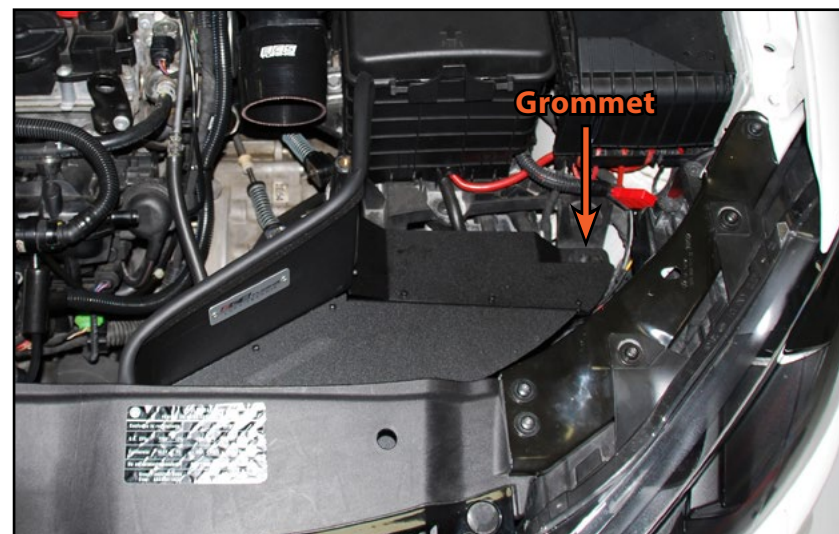


If your car is equipped with Secondary Air Injection, you **MUST** follow the instructions beginning on [Page 31](#) to install the Secondary Air Intake Filter before you proceed.



Step 12:

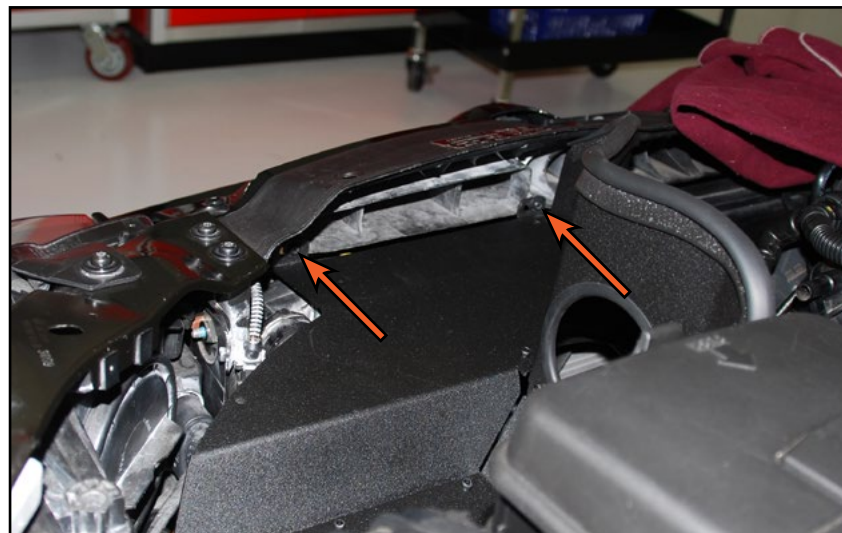
Install the heat shield into place, locating the front underneath the edge of the radiator core support and pushing the grommet onto the mounting stud.



INSTALLING THE NEW INDUCTION SYSTEM

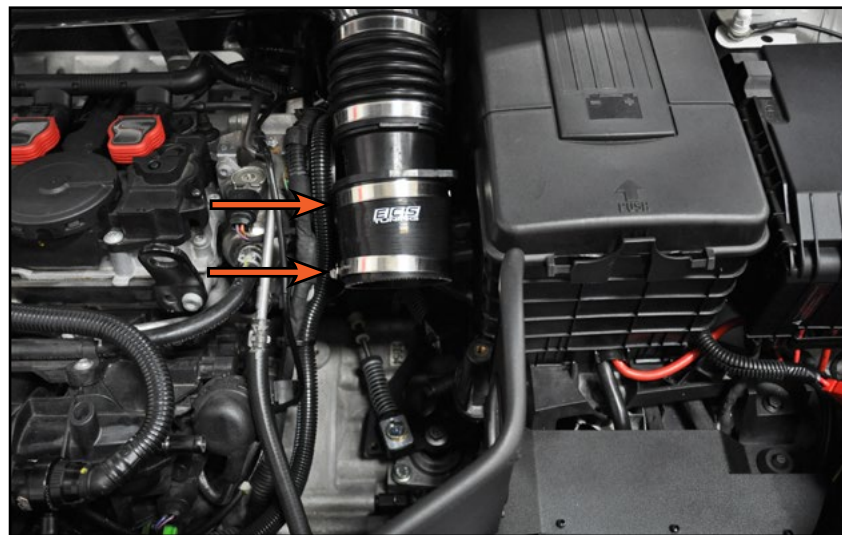
Step 13: T25 Torx Bit Socket, 1/4" Ratchet

Install and tighten the two heat shield mounting screws into the radiator core support until they are snug.



Step 14:

Loosely install the two remaining 70-90mm hose clamps over the straight coupler.



INSTALLING THE NEW INDUCTION SYSTEM

Step 15:

Thread the air filter pipe mount bushing into the original air box mounting post.



Step 16:

Push the air filter pipe through the opening in the heat shield, making sure the seal in the heat shield stays in place.



NOTE

A lubricant such as spray silicone, or even a spray detailer or water will make the filter pipe slide easily past the seal.

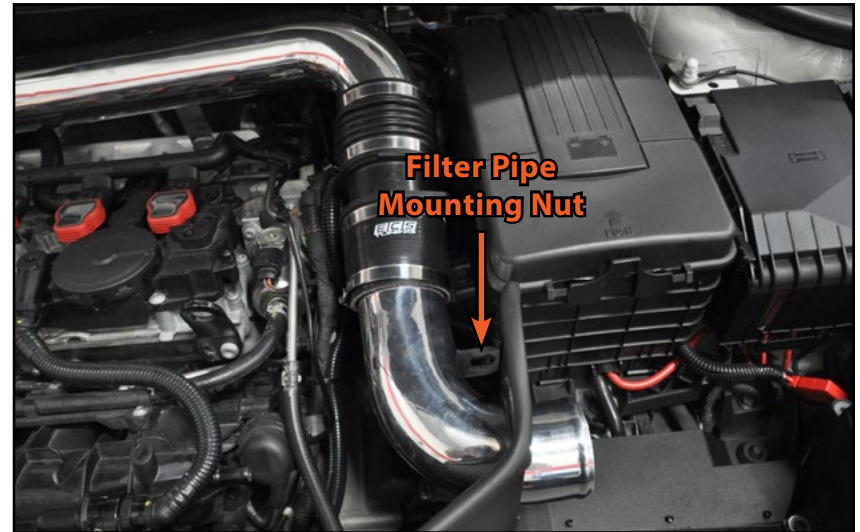
INSTALLING THE NEW INDUCTION SYSTEM

Step 17: 10mm Socket, 1/4" Ratchet, Extension

Rotate the air filter pipe down and insert it into the straight coupler, making sure the mounting tab is located on top of the stud of the mount bushing, then install and tighten the air filter pipe mounting nut until it is snug.

CARBON FIBER CAUTION

Be careful not to over tighten the nut.
Over tightening can crack the carbon fiber.



Step 18: Flat Blade Screwdriver - or - 7mm Socket, 1/4" Ratchet

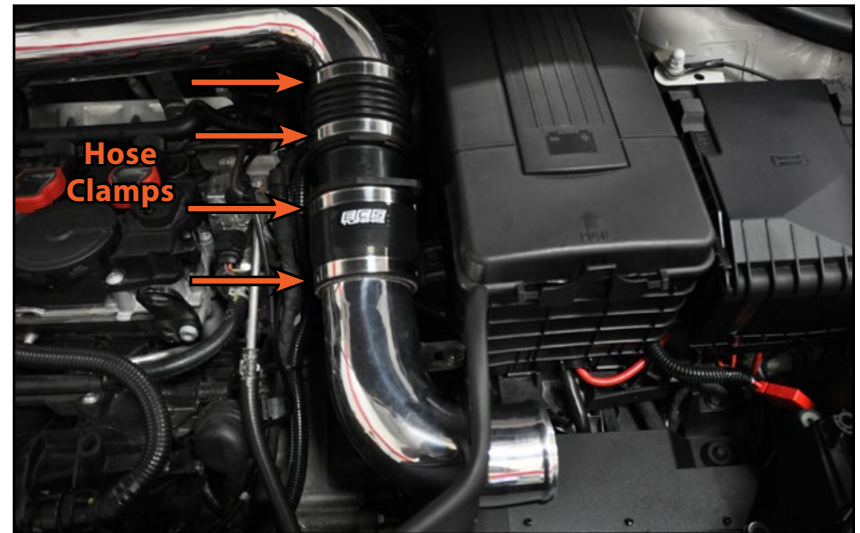
Adjust the straight coupler, mass air flow sensor, and accordian coupler as necessary for proper alignment, allowing the accordian coupler to flex as needed during engine operation. Tighten all four hose clamps until they are snug.

CARBON FIBER CAUTION

Be careful not to over tighten the clamps.
Over tightening can crack the carbon fiber.

NOTE

For a clean appearance, we have located the screw of each hose clamp at the bottom.



INSTALLING THE NEW INDUCTION SYSTEM

Step 19: Flat Blade Screwdriver - or - 7mm Socket, 1/4" Ratchet

Push the air filter over the end of the air filter pipe and tighten the clamp until it is snug.

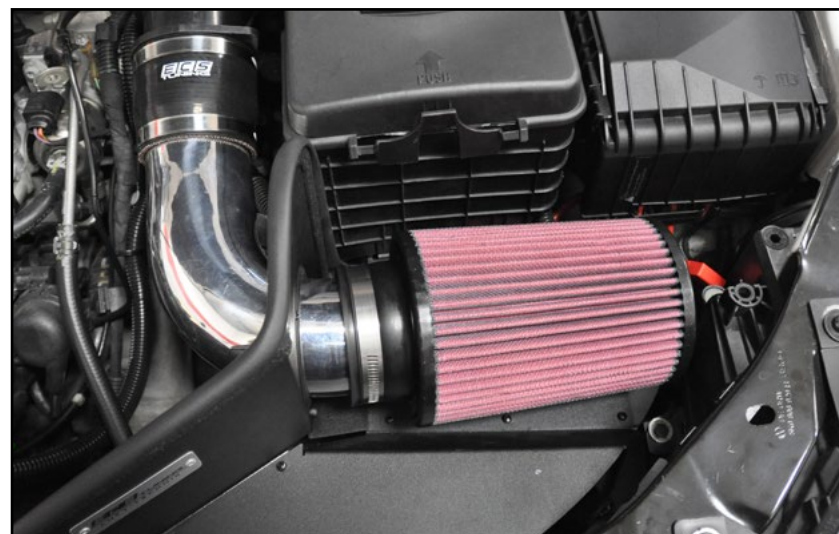
CARBON FIBER CAUTION

Be careful not to over tighten the clamp.
Over tightening can crack the carbon fiber.

Step 20:

Reinstall your battery cover and engine cover.

*Your Luft-Technik Induction System
installation is complete!*



SECONDARY AIR INJECTION KIT CONTENTS



Secondary Air Intake Filter
Mounting Bracket



Secondary Air Intake Filter and
Clamp



Secondary Air Intake Filter
Adapter



Mounting Grommet

NOTE

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

NOTE

The mounting grommet for the Secondary Air Injection Filter Bracket is the same as the heat shield mounting grommet.

SECONDARY AIR INJECTION INTAKE FILTER INSTALLATION

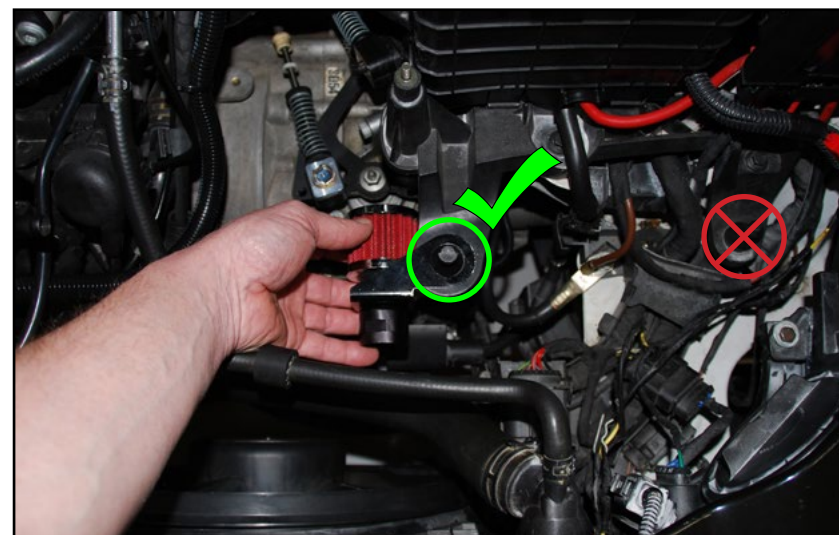
Step 1: Flat Blade Screwdriver - or - 7mm Socket, 1/4" Ratchet

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



Step 2:

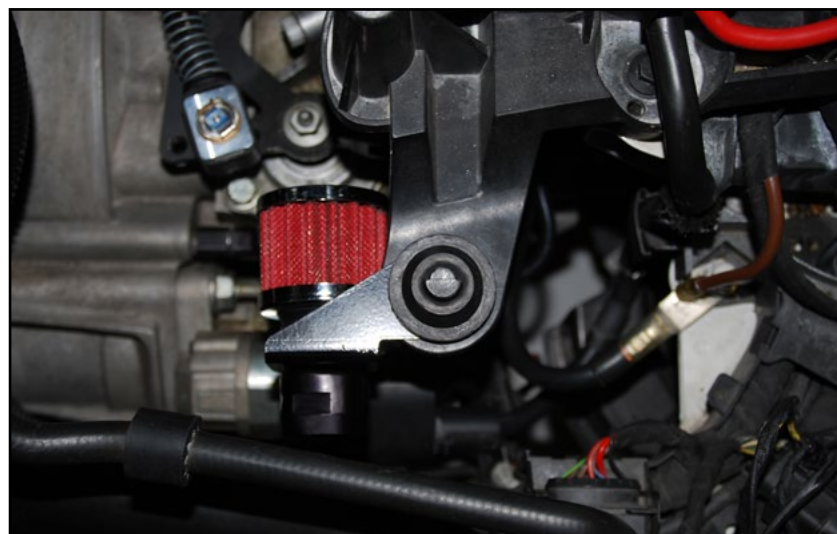
Place the secondary air intake assembly onto the innermost air box mounting stud (the stud which is nearest to the engine) so the filter and adapter hang down below the mounting stud.



SECONDARY AIR INJECTION INTAKE FILTER INSTALLATION

Step 3:

Push the mounting grommet, large side down, onto the original air box mounting stud. 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.



Step 4:






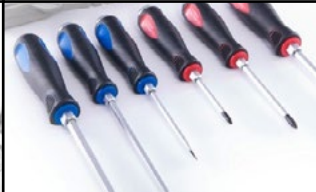








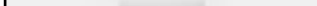


As shown here, when the intake system installation is complete, the secondary air filter will sit below the intake heat shield.



Return to [Page 26](#), step 12 and continue with the installation of your Luft-Technik Induction System.

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.

					
	Breaker Bar	Scraper, Hook, & Pick Set	Sockets		
	Creepers	Camshaft Tools	E-Drive Sockets		
	Gloves	Fan Clutch Wrenches	Car Ramps		
	Engine Bars	Tie Rod Tools	Torx Drivers		
	Screwdrivers	Brake Fluid Catch Bottle	Jack Stands		
	Pressure Bleeders	Tubing Cutter	Circuit Tester		
	Lighting	Booster Cables	Ratchets		
	Pry Bars	Oil Filter Tools	Exhaust Hanger Pliers		
	Coil Spring Compressors	Service Carts	Bubble Flaring Tool		
	Camber Gauge	Battery Charger	Thread Chaser		
	Hose Pinch Pliers	Stethoscope	Drain Pans		
	Wheel Bolt Pattern Gauge	Battery Terminal Brush	Wrenches		
	Ball Joint Separator	Wheel Chocks	Impact Sockets		
	Vanos Solenoid Socket	Torx Sockets	Torque Wrenches		
					

Your VW MK6 Luft-Technik Induction 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.