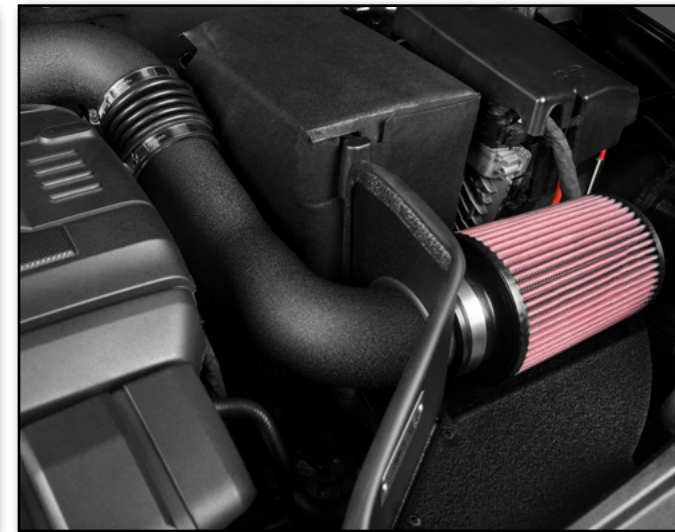




VW Non-MQB Gen3 Luft-Technik Intake System Installation Instructions



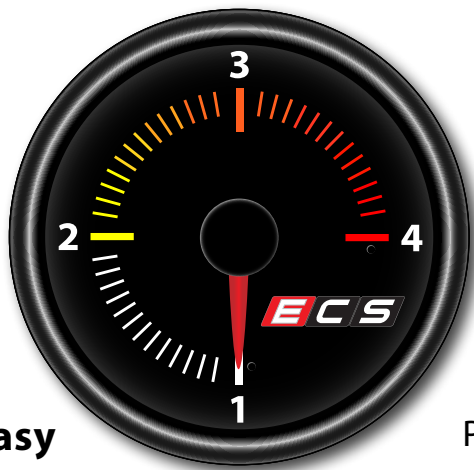
Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

INTRODUCTION

The Project:

Our ECS Tuning Luft-Technik Intake Systems are a drastic improvement over the restrictive stock intake system. With these systems you can expect to see intake temperature drops and a reduction in restriction that can be felt throughout the RPM range. Get ready for quicker throttle response and more intake noises! Each system features durable CNC bent aluminum pipes and are available in sleek polished or wrinkle black powder coat finishes. All of our kits have been meticulously designed in-house to provide superior fitment and performance. The kit comes with a sleek and durable heat shield and a high flow cotton air filter. Each kit comes with all the clamps, silicone couplers, and hardware needed to make installation quick and easy.

ECS Difficulty Gauge



1 - Easy

2 - Moderate

Advanced - 3

Pro - 4

Take your time and enjoy the project, it'll only take you a couple of hours or less. Read these instructions completely first, 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!

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AVAILABLE FINISHES



Polished Aluminum



Wrinkle Black

KIT CONTENTS

Rubber Spacer
(QTY 1)



Intake Pipe Washer
(QTY 1)



Turbo Inlet Silicone Coupler
(QTY 1)



60-80mm Hose Clamp
(QTY 1)



70-70mm Hose Clamp
(QTY 3)



Heat Shield
(QTY 1)



High Flow Air Filter
(QTY 1)



Grommet
(QTY 1)



Heat Shield Screw
(QTY 2)



Upper Intake Pipe Bolt
(QTY 1)



Rubber Accordion Coupler
(QTY 1)



Lower Intake Pipe Bolt
(QTY 1)

REQUIRED TOOLS

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

Standard Automotive Tools

- Protecta-Sockets (for lug nuts)..... [ES#2221243](#)
- **3/8" Drive Ratchet**..... [ES#2765902](#)
- 3/8" Drive Torque Wrench..... [ES#2221245](#)
- **3/8" Drive Deep and Shallow Sockets** [ES#2763772](#)
- **3/8" Drive Extensions** [ES#2804822](#)
- Hydraulic Floor Jack [ES#240941](#)
- **Torx Drivers and Sockets** [ES#11417/8](#)
- 1/2" Drive Deep and Shallow Sockets..... [ES#2839106](#)
- 1/2" Drive Ratchet
- 1/2" Drive Extensions
- 1/2" Drive Torque Wrench..... [ES#2221244](#)
- 1/2" Drive Breaker Bar [ES#2776653](#)
- Bench Mounted Vise
- Crows Foot Wrenches
- **Hook and Pick Tool Set**..... [ES#2778980](#)

Required For This Install

- **1/4" Drive Ratchet**..... [ES#2823235](#)
- **1/4" Drive Deep and Shallow Sockets**..... [ES#2823235](#)
- **1/4" Drive Extensions**..... [ES#2823235](#)
- Plier and Cutter Set..... [ES#2804496](#)
- **Flat and Phillips Screwdrivers** [ES#2225921](#)
- Jack Stands..... [ES#2763355](#)
- Ball Pein Hammers
- Pry Bar Set..... [ES#1899378](#)
- Electric/Cordless Drill
- Wire Strippers/Crimpers
- Drill Bits
- Punch and Chisel Set
- **Hex Bit (Allen) Wrenches and Sockets** [ES#11420](#)
- Thread Repair Tools [ES#1306824](#)
- Open/Boxed End Wrench Set [ES#2765907](#)

Available On Our Website

Specialty Tools

- **Spring Clamp Pliers**..... [ES#2702616](#)

SHOP SUPPLIES AND MATERIALS

Standard Shop Supply Recommendations: We recommend that you have a standard inventory of automotive shop supplies before beginning this or any automotive repair procedure. The following list outlines the basic shop supplies that we like to keep on hand. Shop supplies with a hyperlink are available on our website.

- Hand Cleaner/Degreaser - [Click Here](#)
- Pig Mats - for protecting your garage floor and work area from spills and stains - [Click Here](#)
- Spray detailer - for rapid cleaning of anything that comes into contact with your paint such as brake fluid - [Click Here](#)
- Micro Fiber Towels - for cleaning the paint on your car - [Click Here](#)
- Latex Gloves - for the extra oily and dirty jobs - [Click Here](#)
- Medium and High Strength Loctite Thread lock compound - to prevent bolts from backing out - [Click Here](#)
- Anti-Seize Compound - to prevent seizing, galling, and corrosion of fasteners - [Click Here](#)
- Aerosol Brake/Parts Cleaner - for cleaning and degreasing parts
- Shop Rags - used for wiping hands, tools, and parts
- Penetrating oil - for helping to free rusted or stuck bolts and nuts
- Mechanics wire - for securing components out of the way
- Silicone spray lube - for rubber components such as exhaust hangers
- Paint Marker - for marking installation positions or bolts during a torquing sequence
- Plastic Wire Ties/Zip Ties - for routing and securing wiring harnesses or vacuum hoses
- Electrical tape - for wrapping wiring harnesses or temporary securing of small components

INSTALLATION NOTES

- **RH** refers to the *passenger side* of the vehicle.
- **LH** refers to the *driver side* of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process **BEFORE** you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

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

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

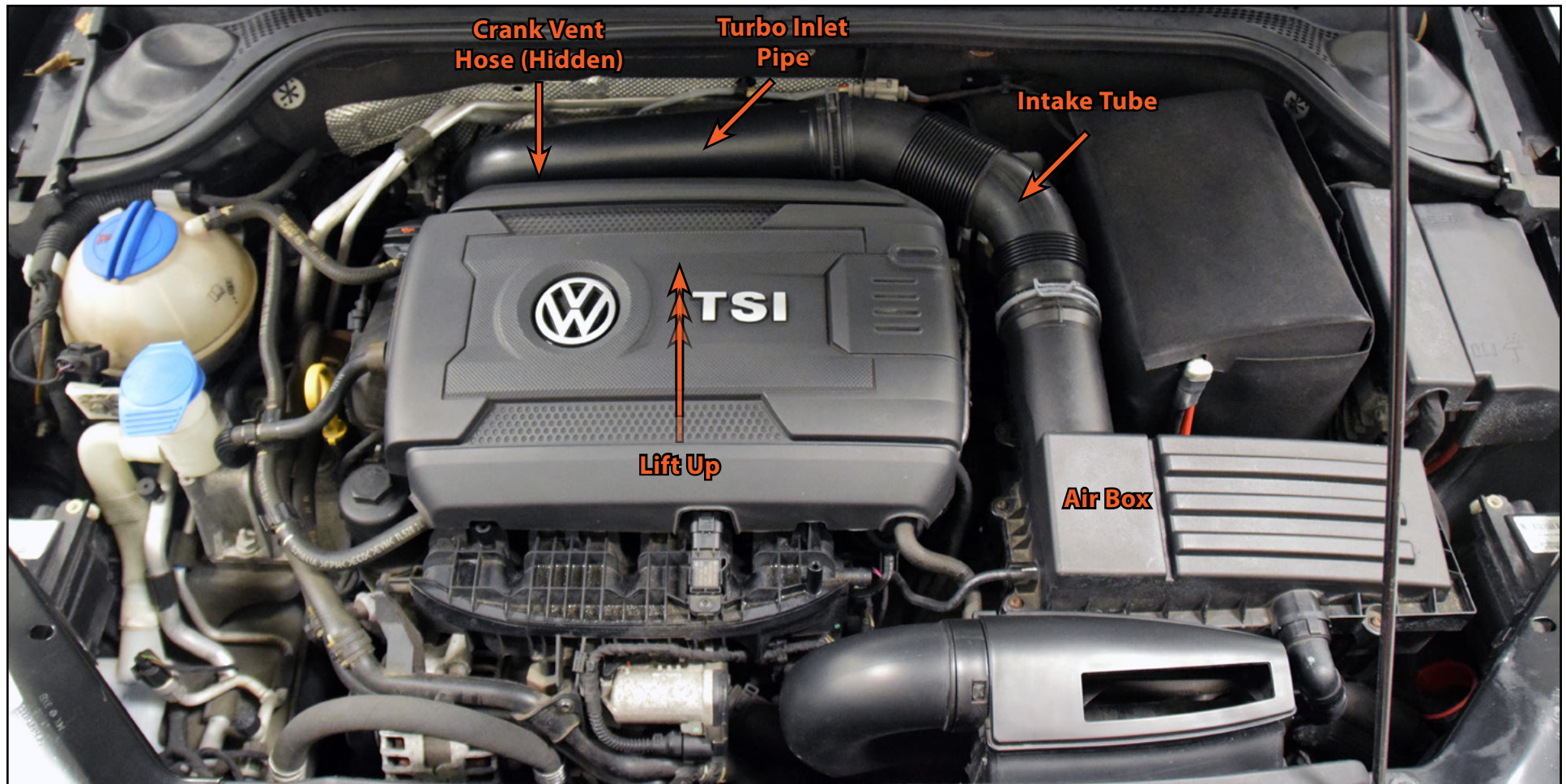


NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

PROJECT OVERVIEW

Before we begin we must remove the engine cover by pulling up on the four corners of the cover to release the grommets and remove it from the car. In the following pages, we will be removing the original air box, intake tube and turbo inlet pipe. Before we start, take some time to familiarize yourself with these components and their locations.

Now let's get to it!



REMOVING THE ORIGINAL COMPONENTS

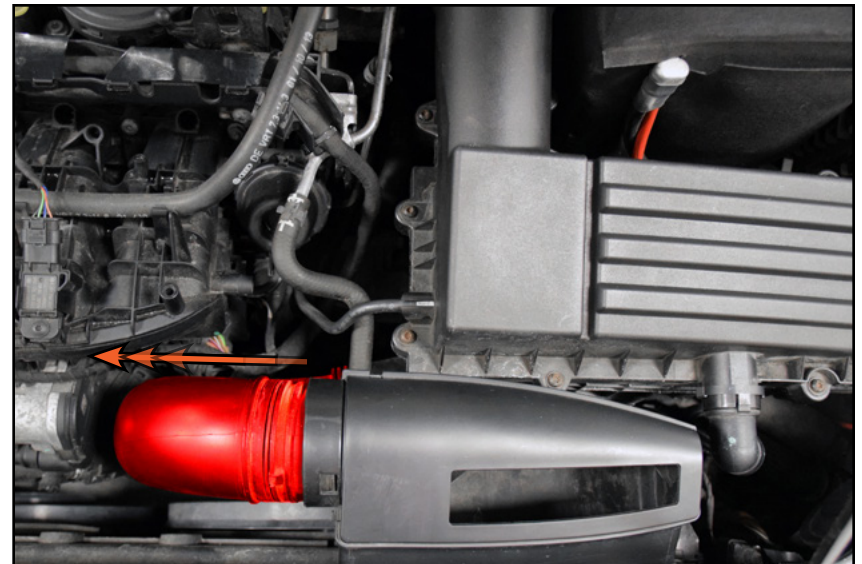
Step 1: Spring Clamp Pliers

Release the tension on the spring clamp that secures the flexible intake tube to the air box, then pull the tube off of the air box.



Step 2:

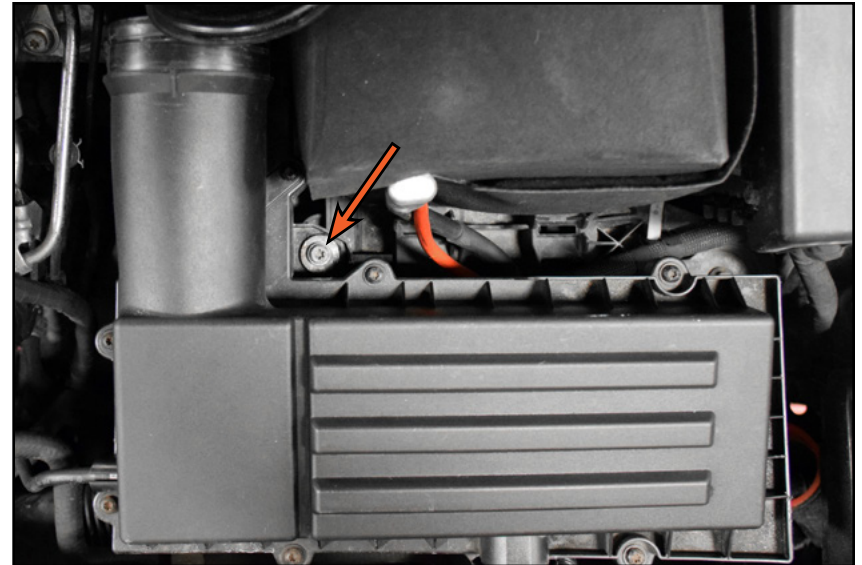
Pull the air box inlet tube (highlighted in **RED**) off of the front air scoop.



REMOVING THE ORIGINAL COMPONENTS

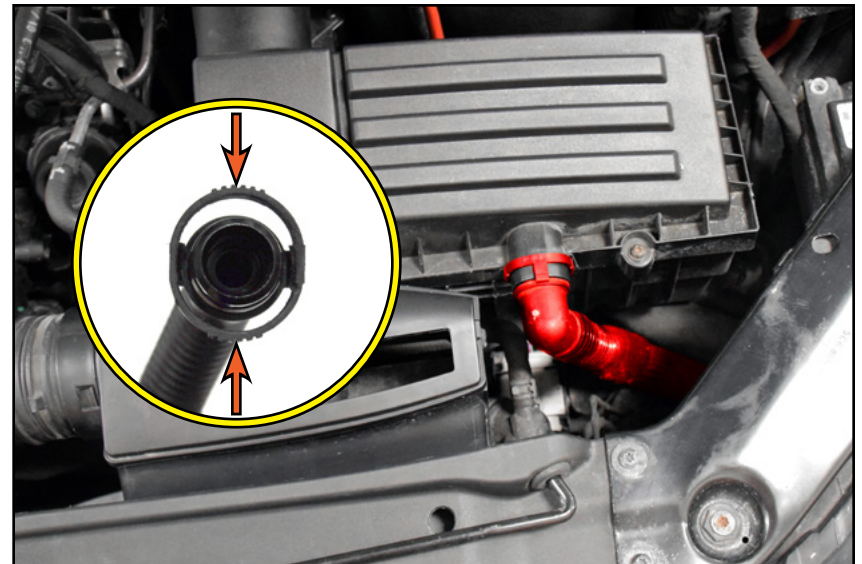
Step 3: T30 Torx

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



Step 4:

If present, disconnect the secondary air tube (highlighted in **RED**) from the air box by pressing the two tabs inward and pulling the hose off.



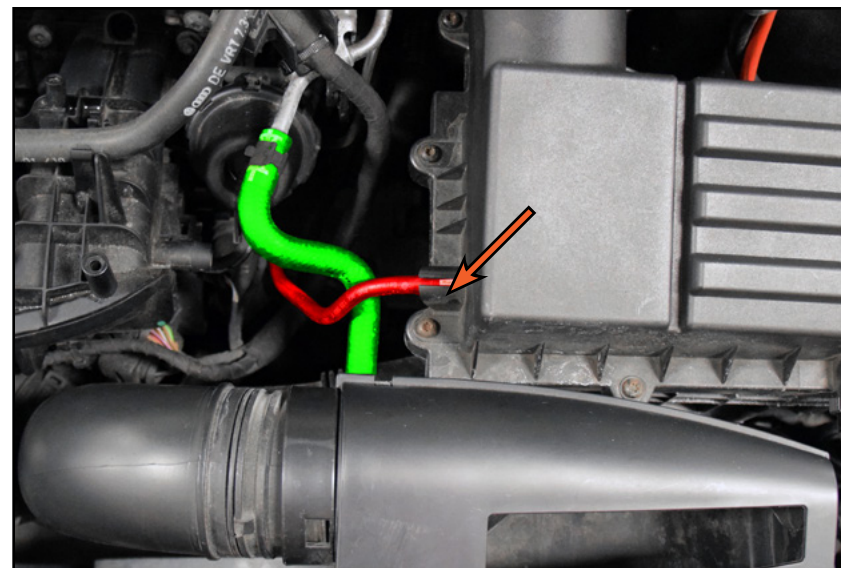
REMOVING THE ORIGINAL COMPONENTS

Step 5:

Disconnect the vacuum line (Highlighted in **RED**) from the air box by pulling it off the flange.



Note the location of the coolant air bleed hose (highlighted in **GREEN**), this will be important later.

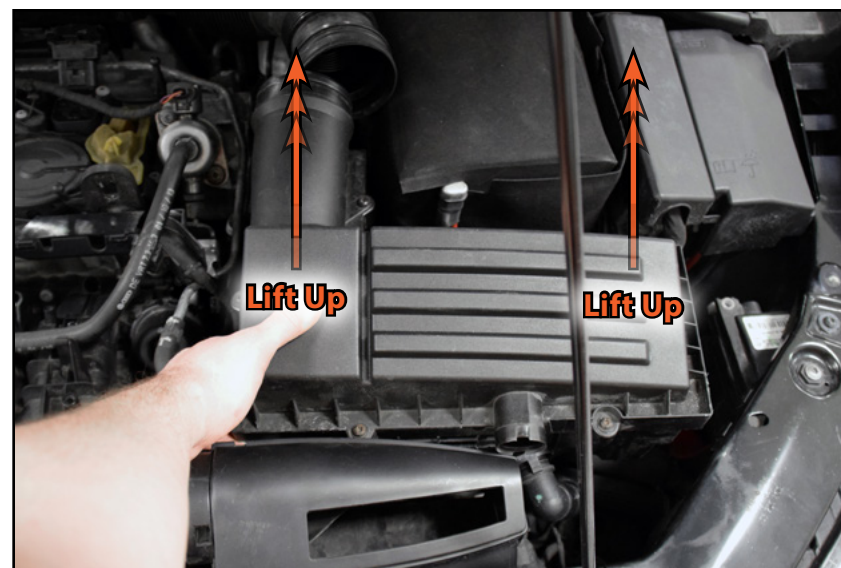


Step 6:

There are two rubber grommets which secure the air box to the vehicle. 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.



REMOVING THE ORIGINAL COMPONENTS

Step 7:

Slowly lift the air box up and out, rotating it as you go to ensure the curved intake tube clears the coolant air bleed hose (highlighted in **GREEN**)

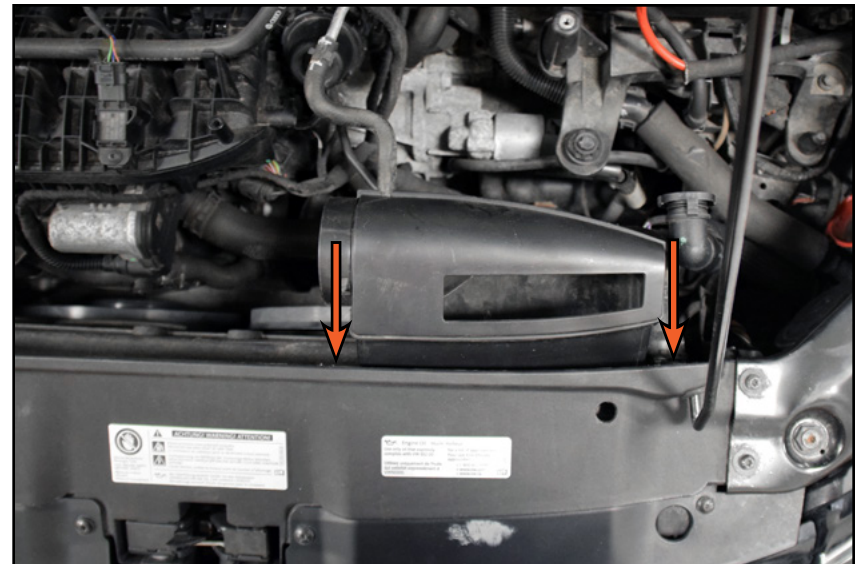


There is a drain tube connected to the underside of the air box (not shown) that can be removed without disconnecting it from the air box. As you're lifting the air box ensure the tube comes free as well.



Step 8: T25 Torx

Remove the front air scoop by removing the two mounting screws (arrows).



REMOVING THE ORIGINAL COMPONENTS

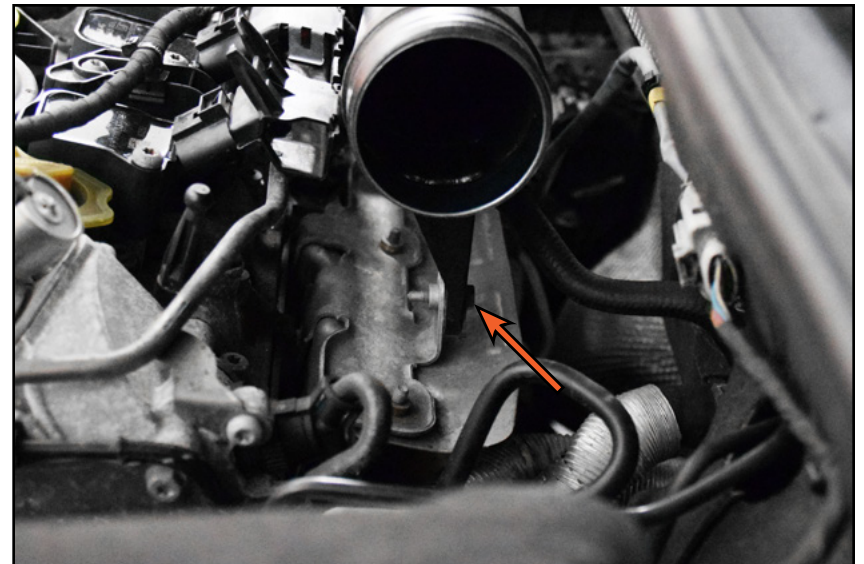
Step 11: Spring Clamp Pliers

Release the tension on the spring clamp that secures the flexible intake tube (highlighted in **RED**) to the turbo inlet pipe, then pull the tube off of the inlet pipe.



Step 12: 10mm Socket & Ratchet

Remove the bolt securing the turbo inlet pipe to the heat shield, behind the rear of the cylinder head.



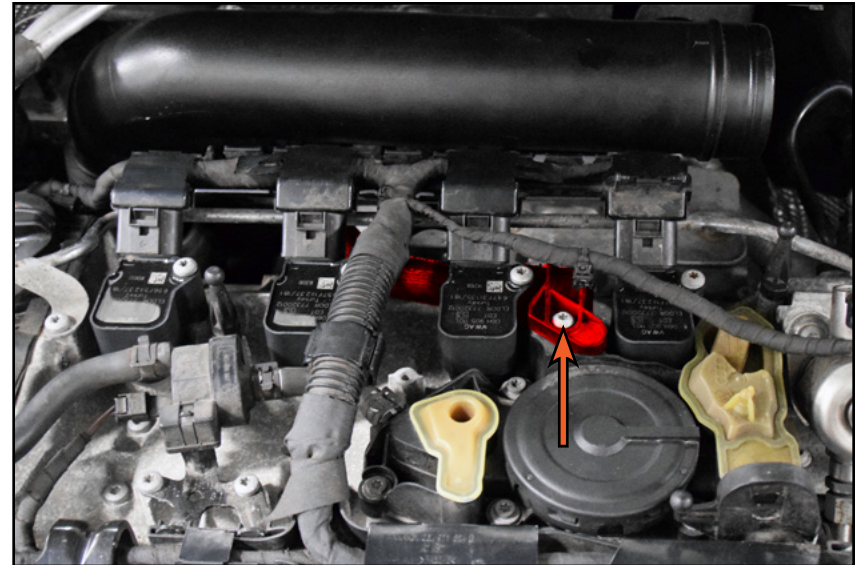
REMOVING THE ORIGINAL COMPONENTS

Step 13: T30 Torx

Loosen and remove the screw which secures the crankcase vent hose (highlighted in **RED**) to the valve cover, then carefully pull the hose out of the oil separator on the valve cover.

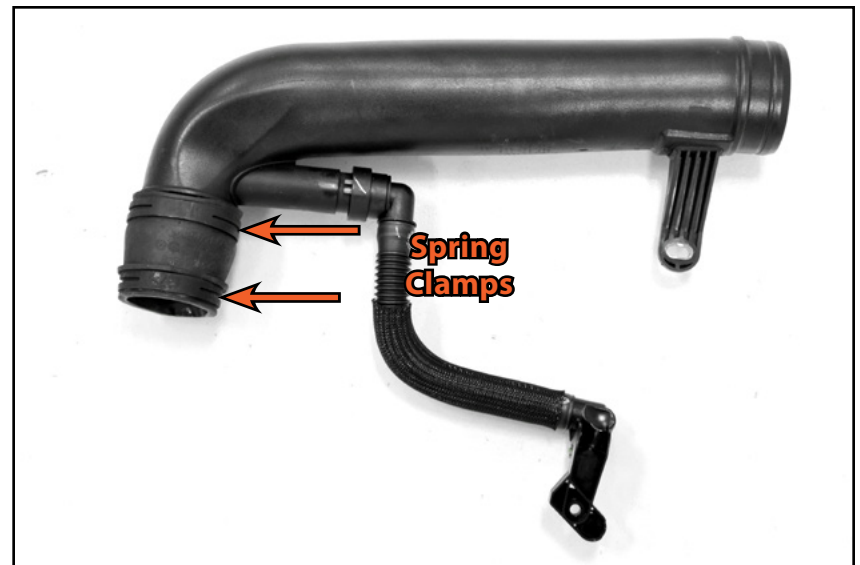


It is possible to remove the vent hose fitting from the turbo inlet pipe at this point, however we are going to document removal of the whole hose to help reduce the probability of breaking it.



Step 14: Spring Clamp Pliers

The photo on the right shows the turbo inlet pipe off the vehicle for clarity. In order to remove the turbo inlet pipe from the turbo, you must release the tension on the lower clamp and pull the pipe off of the turbo, then slowly and carefully guide the turbo inlet pipe and the crankcase vent hose out from the vehicle.



INSTALLING THE NEW INTAKE SYSTEM

Step 1: Angled Pick

The crankcase vent hose can often become brittle over time, to prevent the possibility of breaking the hose, use a pick to gently pry up on the fitting while pulling back to pop it off of the flange on the turbo inlet pipe.

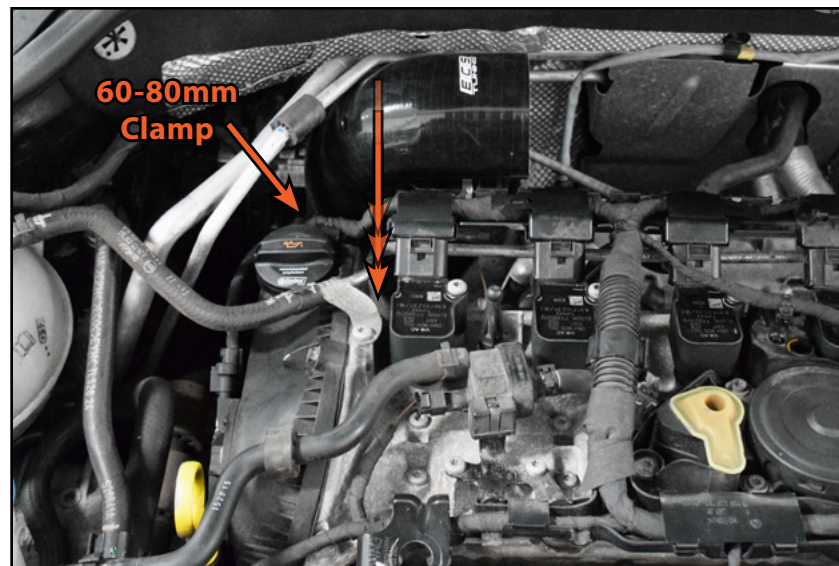


If your crankcase vent hose breaks at any point during the removal process, a replacement hose can be ordered [HERE](#).



Step 2: Flat Head Screwdriver -or- 7mm Socket & Ratchet

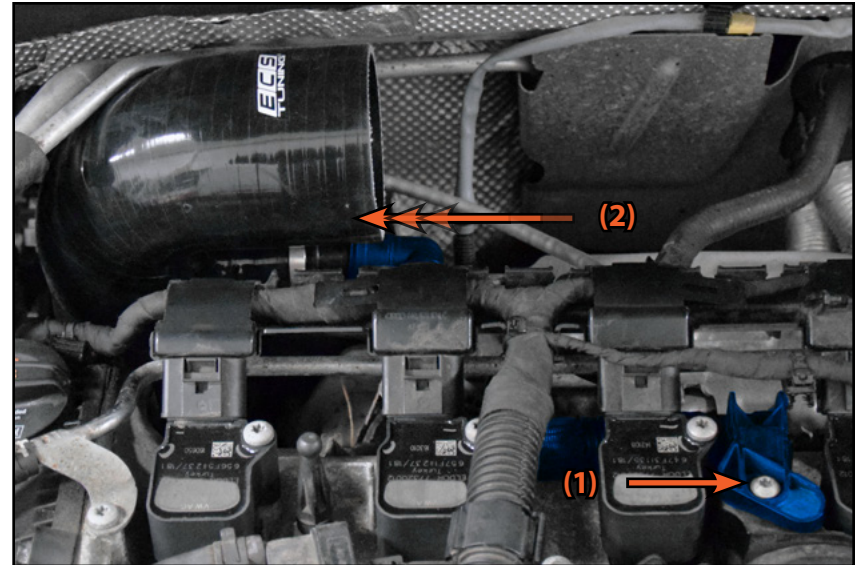
Place the 60-80mm hose clamp over the new turbo inlet coupler then slide the coupler over the inlet on the turbo. Tighten the clamp enough to hold it in place, but leave it loose enough to allow for adjustment.



INSTALLING THE NEW INTAKE SYSTEM

Step 3: T30 Torx

Route the crankcase vent hose back into place and secure it to the oil separator using the mounting screw (1), then push the crankcase breather hose onto the fitting on the turbo inlet pipe ensuring it snaps into place (2).



Step 4:

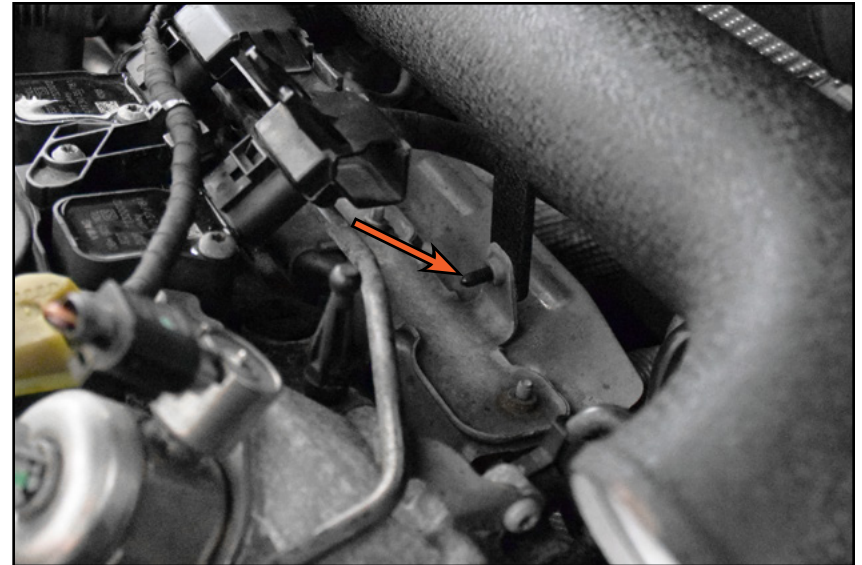
Place one of the 70-90mm hose clamps over the turbo inlet coupler as shown but leave it loose for now (1), then insert the straight end of the upper intake pipe into the end of the coupler (2).



INSTALLING THE NEW INTAKE SYSTEM

Step 5: T30 Torx

Position the mounting tab on the upper intake pipe *behind* the mounting tab on the exhaust heat shield, then insert the mounting bolt through the tabs as shown and tighten the bolt.



Step 6: Flat Head Screwdriver

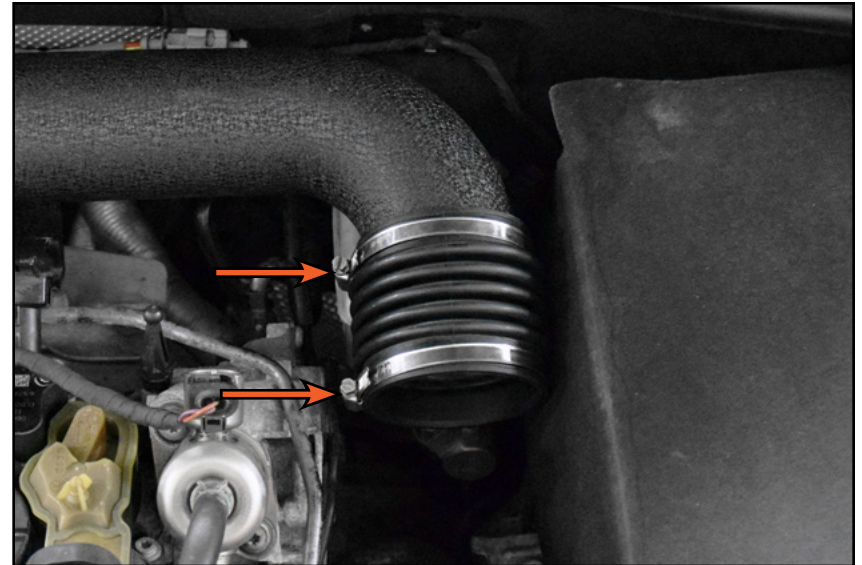
Go back and tighten the clamps until they are snug.



INSTALLING THE NEW INTAKE SYSTEM

Step 7:

Place the remaining two clamps onto the accordion coupler, then place the coupler over the end of the turbo inlet pipe but do not tighten the clamps at this time.

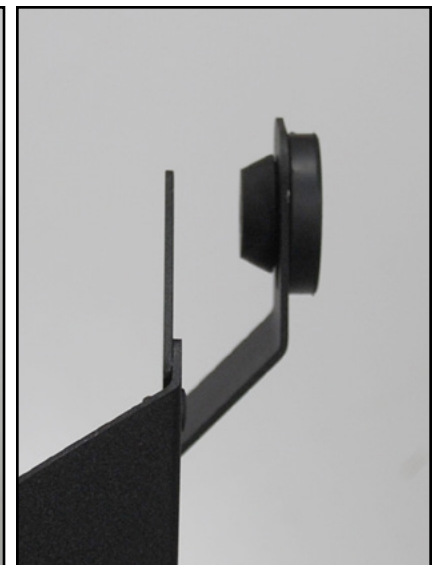
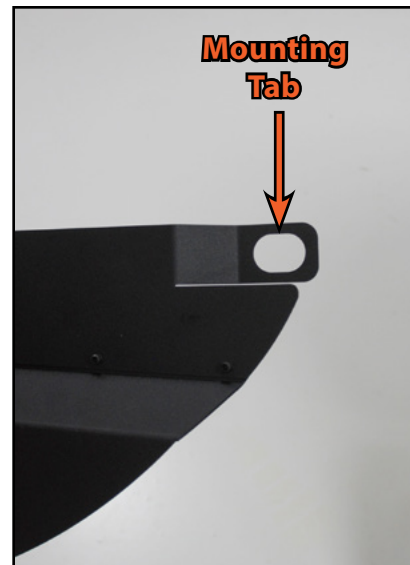


Step 8:

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.



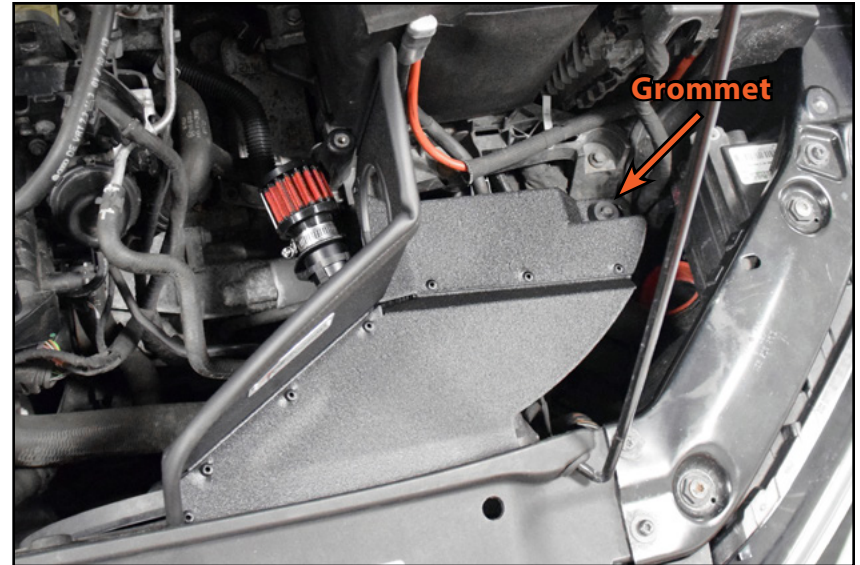
If your car is equipped with Secondary Air Injection, you **MUST** follow the instructions beginning on [Page 22](#) to install the Secondary Air Intake Filter before you proceed.



INSTALLING THE NEW INTAKE SYSTEM

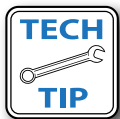
Step 9:

Install the heat shield by sliding the front underneath the edge of the radiator core support and pushing the grommet onto the mounting stud.

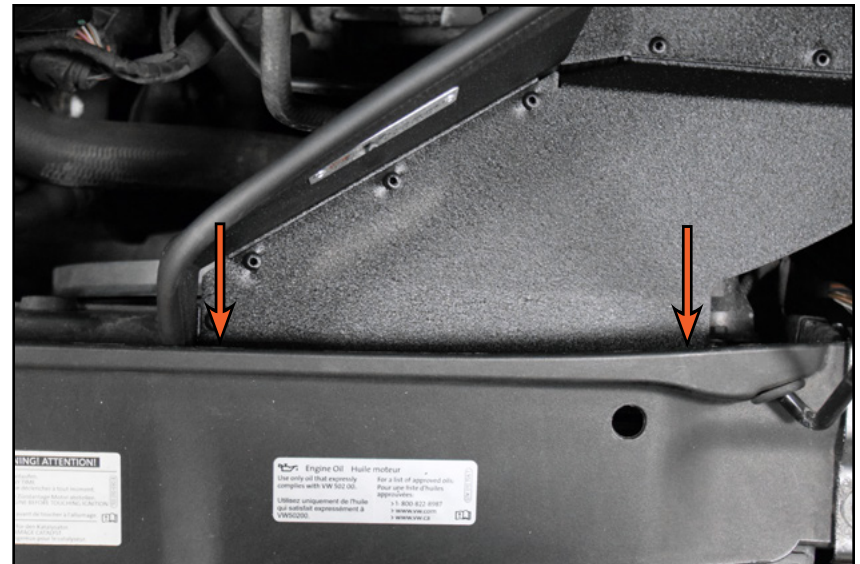


Step 10: T25 Torx

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



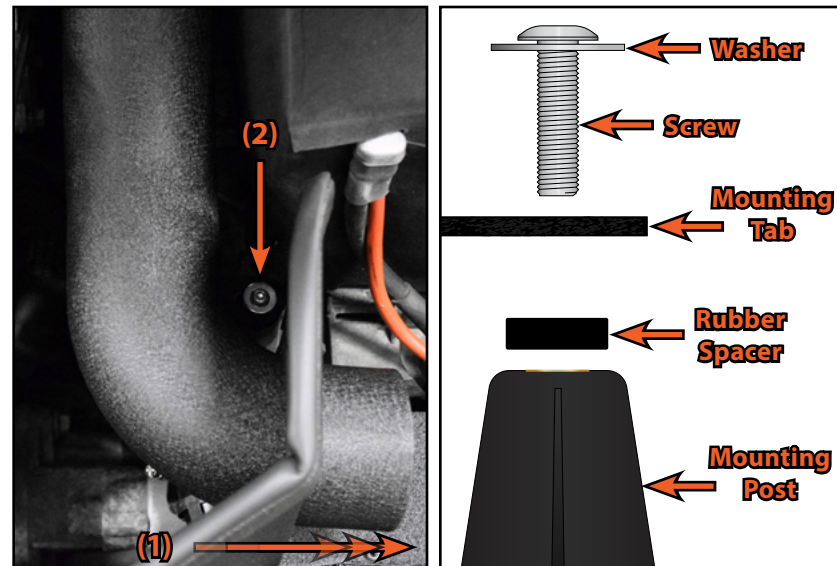
These screws can be a little tricky to get into place, a 1/4" Ratchet and T25 torx socket come in handy here.



INSTALLING THE NEW INTAKE SYSTEM

Step 11: 4mm Hex (Allen) Socket & Ratchet.

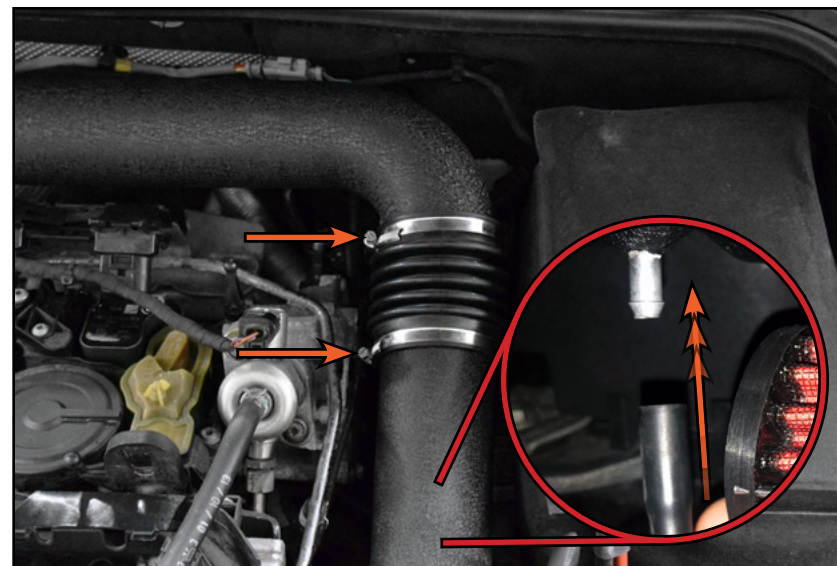
Insert the lower intake tube through the opening in the heat shield (1), then rotate it down and use the provided rubber spacer, washer and mounting screw to mount the pipe to the top of the factory air box mounting post (2).



Step 12:

Adjust the accordion coupler as necessary for proper alignment, allowing the accordion coupler to flex as needed during engine operation. Tighten both hose clamps until they are snug.

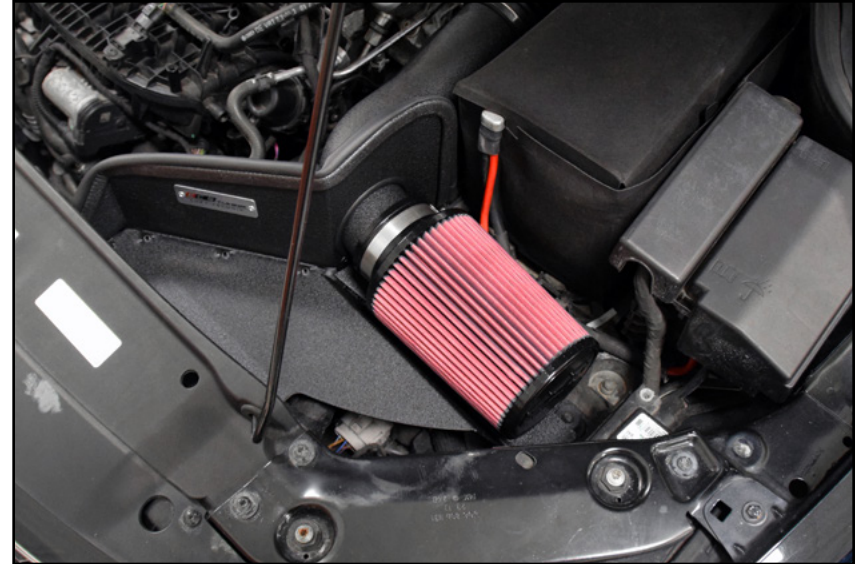
Push the vacuum line we previously removed from the stock air box onto the fitting on the underside of the lower intake pipe as shown in the inset photo on the right.



INSTALLING THE NEW INTAKE SYSTEM

Step 13: Flat Blade Screwdriver -or- 8mm Socket & Ratchet

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



Step 14:

Reinstall your engine cover.



Congratulations your installation is complete!

SECONDARY AIR FILTER KIT CONTENTS

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](#).



Secondary Air Intake Filter
Mounting Bracket



Secondary Air Intake Filter and
Clamp



Secondary Air Intake 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.

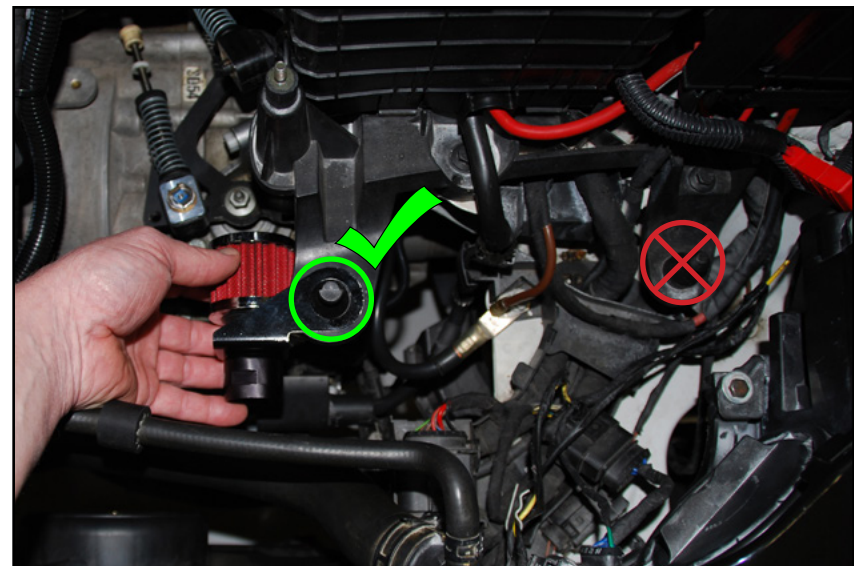


Vehicles equipped with a DSG transmission must install the mounting bracket so that it faces the opposite direction as shown in the photo on the top right.



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.



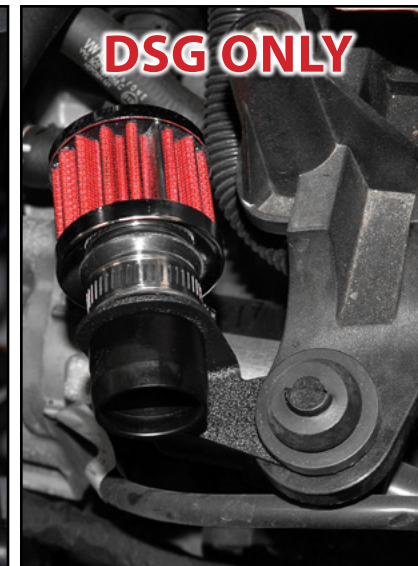
INSTALLING THE SECONDARY AIR FILTER KIT

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 on the right.



Step 4:

Allow the assembly to hang in place for now, when you install the heat shield the innermost 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 heat shield.



Return to [Page 19](#) to continue with the installation of your Luft-Technik Intake 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.

Your 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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