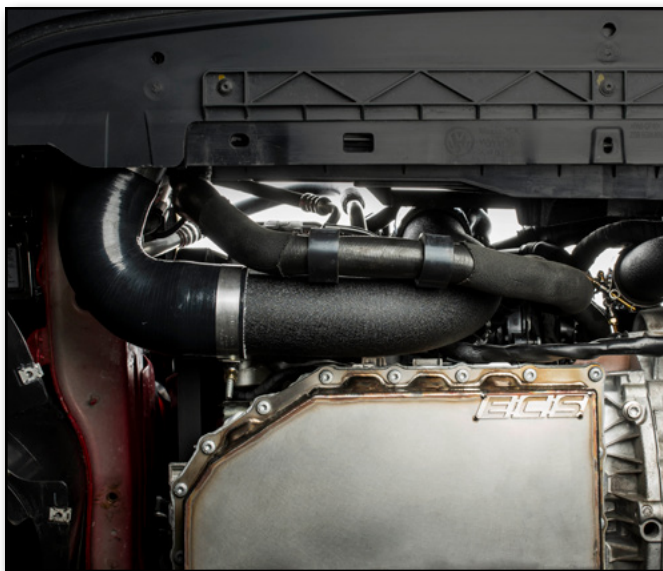




VW/Audi 1.8T/2.0T Gen3 TSI High Flow Charge Pipe Kit Installation Instructions - [Click HERE to Shop](#)



Skill Level
2 - Moderate
Some Experience
Recommended



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

Today we are going to install our ECS Tuning High Flow Charge Pipe Kit into our MK7 GTI, but the installation procedure also applies to MK7.5 vehicles without the DQ381 7-Speed DSG transmission. We do offer a turbo outlet pipe which has been designed to fit DQ381-equipped MK7.5 Golf GTI and Golf R models, we'll outline the installation of that pipe later on in the instructions.

Our high flow charge pipe kits are available in **RED** or **BLACK**, and they can be purchased separately or together, depending on your budget and preference. All of the pipe kits feature:

- Mandrel bent, bead rolled, powdercoated aluminum pipes
- Smooth flowing silicone couplers
- MAP sensor hardware
- Stainless steel T-bolt clamps

Take your time and enjoy the project, it should take you a couple of hours or less. Read all of these instructions first and you should be able to breeze right through the install, and there's even a DIY video which can be found by clicking [HERE](#). Be sure to reference the required tool list on Page 6 before you begin to make sure you have everything that you need to finish the job. Thank you for looking to ECS Tuning for all your performance and repair needs, we appreciate your business!

TABLE OF CONTENTS

Kit Contents	pg.3
Required Tools and Equipment	pg.6
Installation and Safety Information	pg.7
Project Overview	pg.8
Removing the Stock Turbo Outlet Pipe	pg.9
Removing the Stock Throttle Body Pipe	pg.16
DQ381 (7-Speed DSG) Specific Notes	pg.20
Installing the New ECS Turbo Outlet Pipe	pg.22
Installing the New ECS Throttle Body Pipe	pg.28
Using the VAG Connector Removal Tool	pg.33

TURBO OUTLET PIPE KIT CONTENTS - MK7/MK7.5 (NON-DQ381)



Turbo Outlet Pipe (available in **RED** or **BLACK**)



90° Elbow Pipe (available in **RED** or **BLACK**)



Intercooler Inlet Coupler



Straight Coupler



Turbo Outlet Pipe Mounting
Bracket



Turbo Outlet Pipe Installation
Pack

TURBO OUTLET PIPE KIT CONTENTS - MK7.5 (WITH DQ381)



Turbo Outlet Coupler (available in **RED** or **BLACK**)



90° Elbow Pipe (available in **RED** or **BLACK**)



Intercooler Inlet Coupler



Turbo Outlet Pipe Installation
Pack

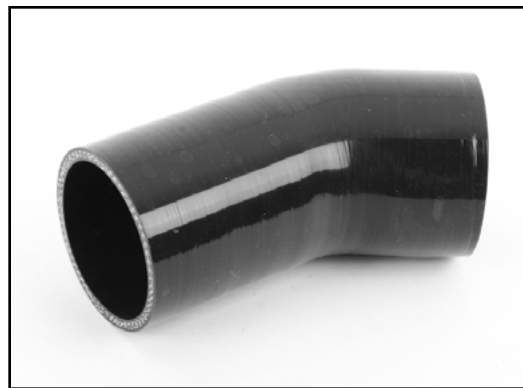
THROTTLE BODY PIPE KIT CONTENTS - ALL APPLICATIONS



Throttle Body Pipe (available in **RED** or **BLACK**)



Throttle Body Pipe Install Pack



Throttle Body Coupler



Intercooler Outlet Coupler

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#2834951](#)
- **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

- **VAG Connector Removal 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.



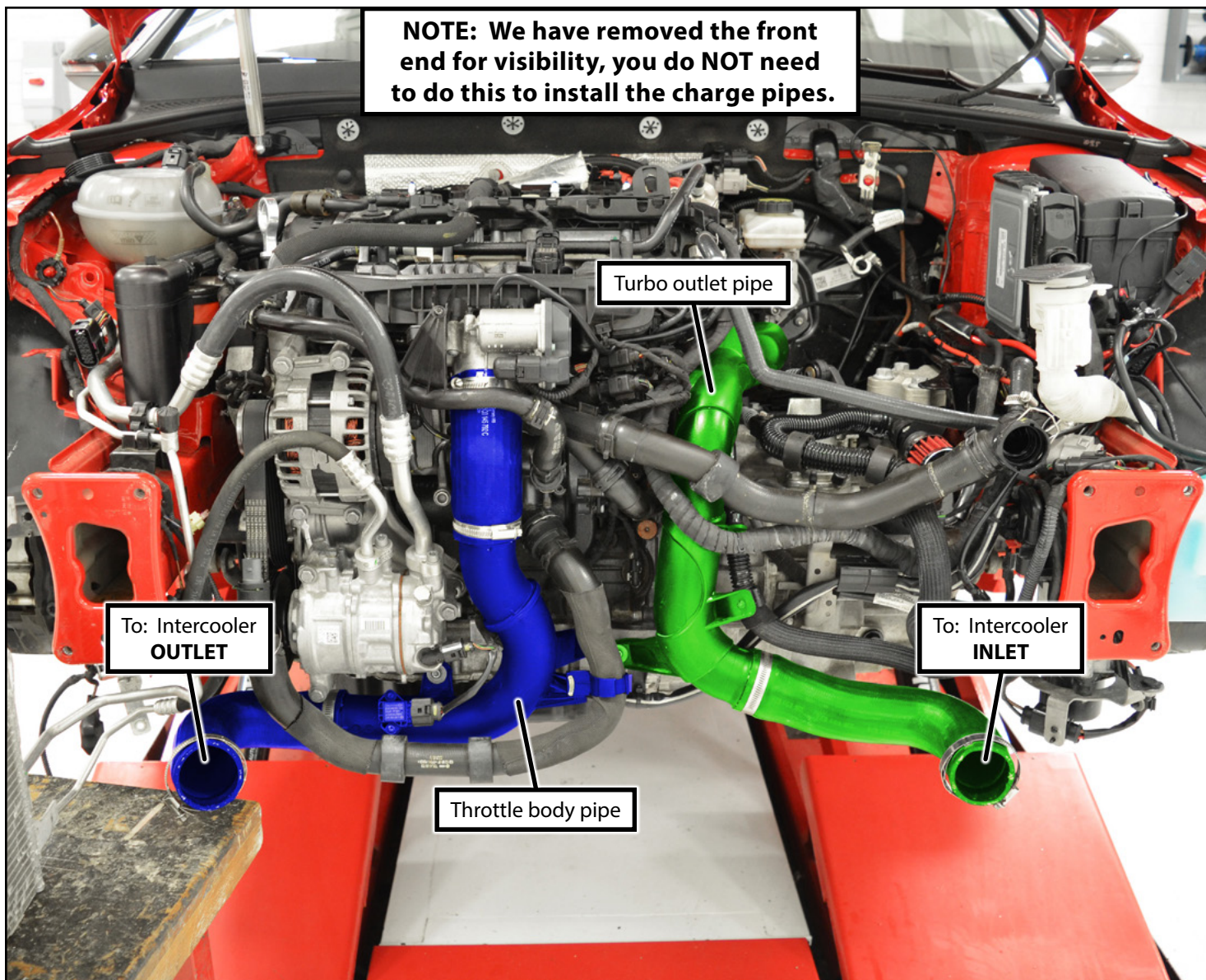
NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

PROJECT OVERVIEW

Let's look at the charge pipe system layout and what we will be replacing today. Charge air exits the turbocharger and travels through the turbo outlet pipe (highlighted in **GREEN**) and into the intercooler inlet. The charge air then exits the intercooler through the intercooler outlet and travels through the throttle body pipe (highlighted in **BLUE**) to the engine.

It's worth noting the locations where the wiring harnesses and coolant lines attach to the stock charge pipes, as well as where the charge pipes mount to the engine. We just happened to be installing a new intercooler while we were shooting these photos, so you get the benefit of 100% visibility!

Now let's look at a few related upgrades before we get started.



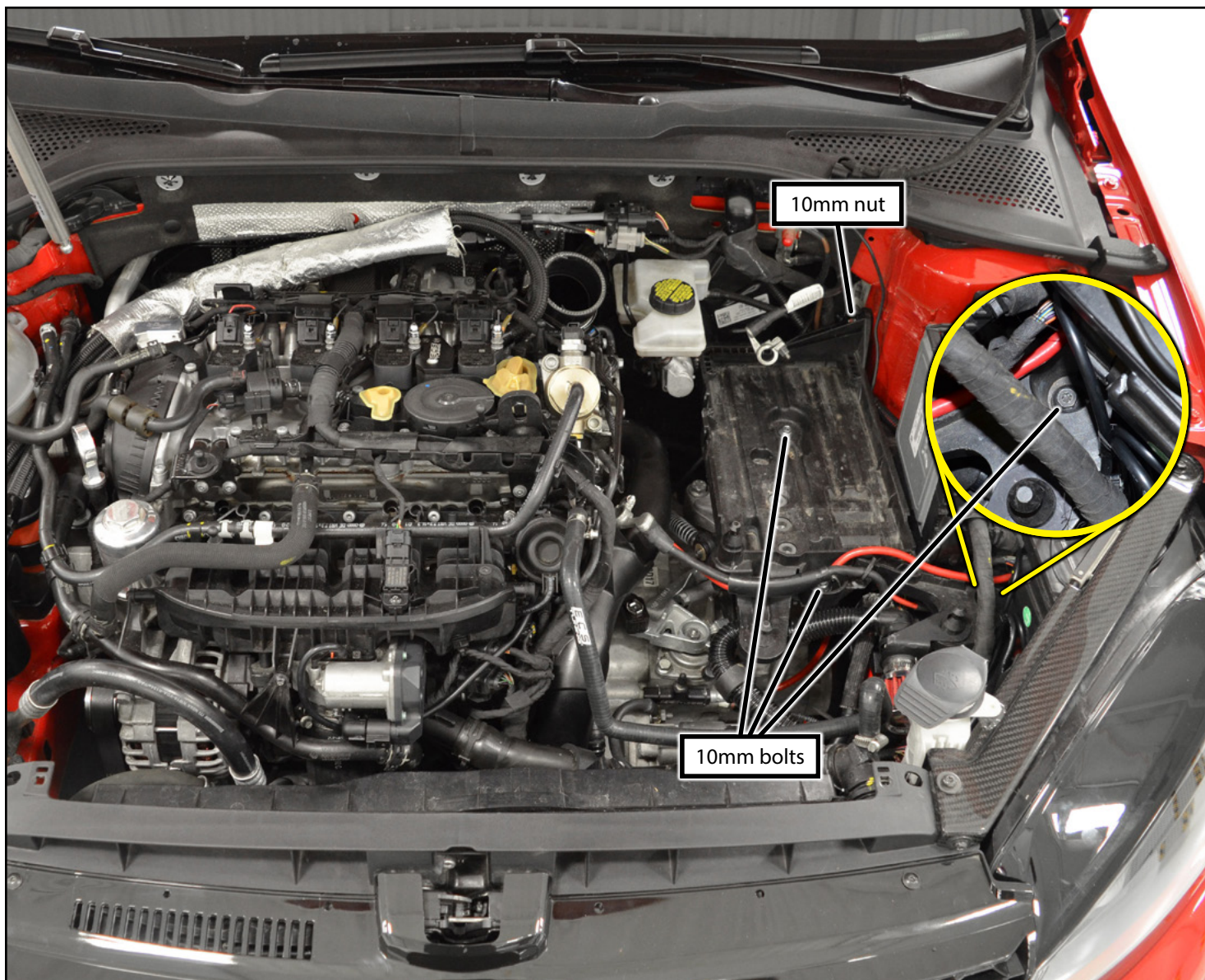
REMOVING THE STOCK TURBO OUTLET PIPE

Step 1:

If you purchased the throttle body charge pipe kit, please skip to [Page 18](#).

To begin this install we need to disconnect the negative battery terminal, then remove the intake system and the engine cover.

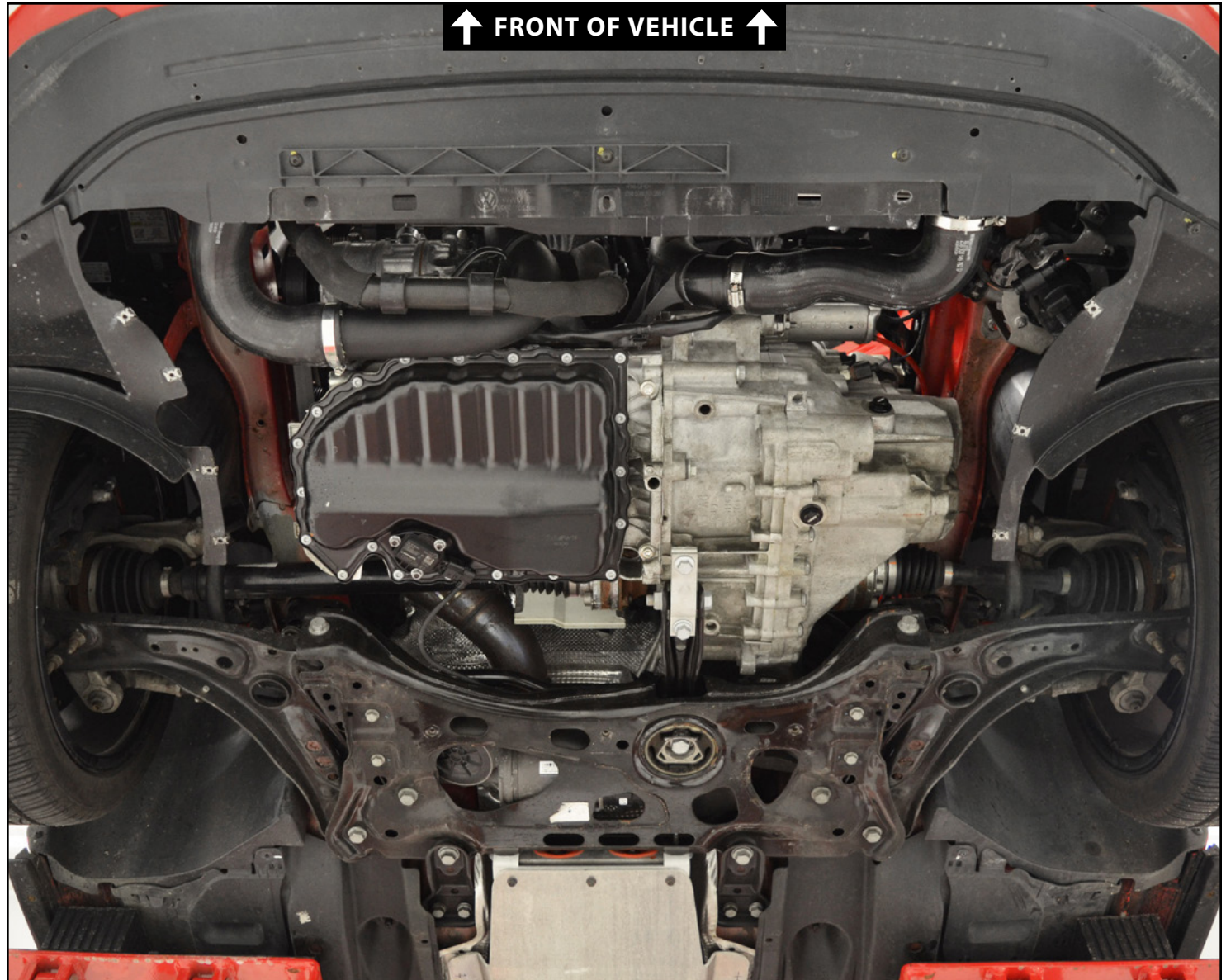
We opted to remove the battery entirely, and we also removed the battery tray. These two steps are completely optional, but it only takes a few minutes and it is **WELL** worth it to gain all of the extra working space. To remove the battery tray there are three 10mm bolts, and one 10mm nut, look for the text boxes in the photo on the right.



REMOVING THE STOCK TURBO OUTLET PIPE

Step 2:

Safely lift and support the vehicle, then remove the lower insulation panel or belly pan.

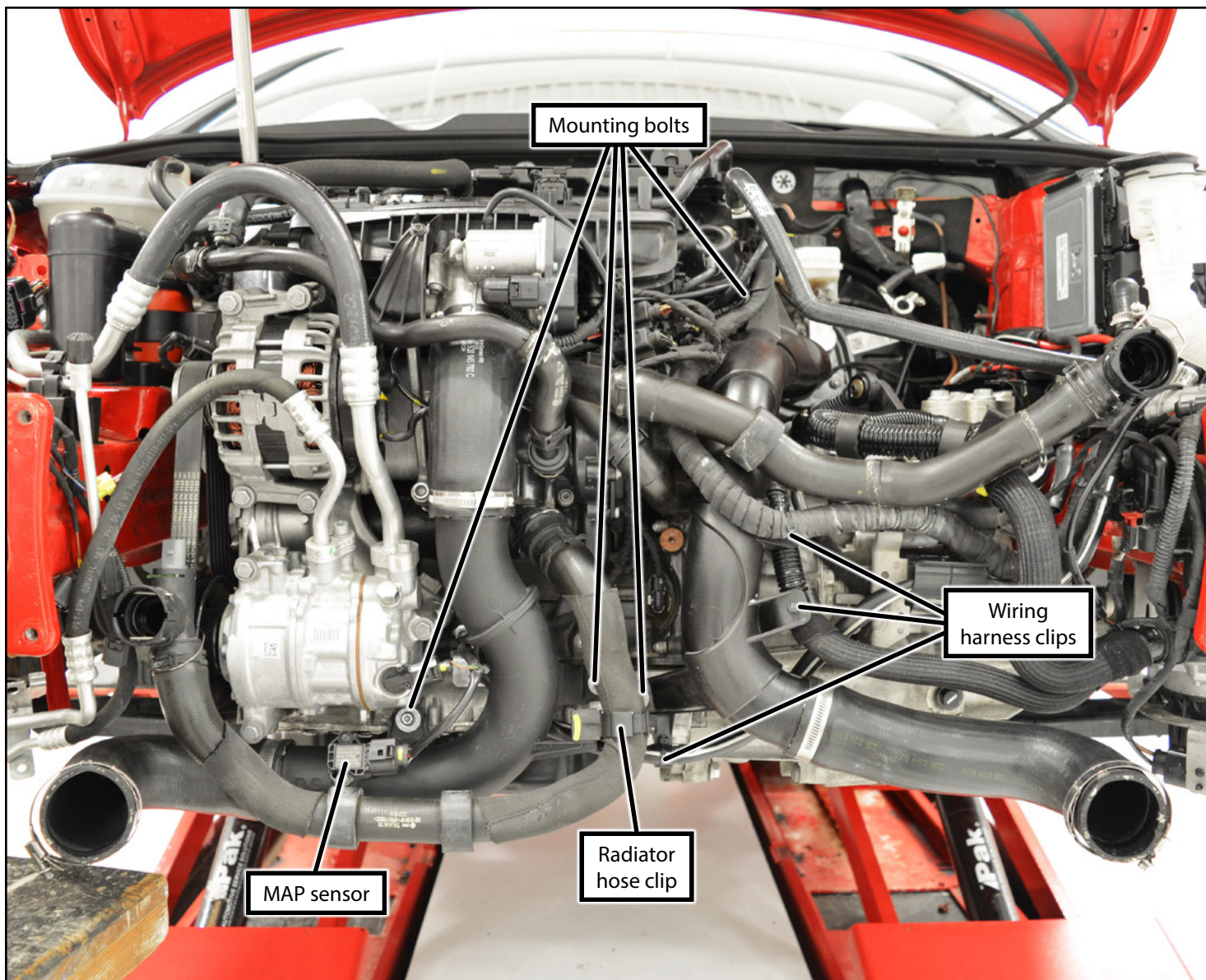


REMOVING THE STOCK TURBO OUTLET PIPE

Step 3:

At this point we've removed the front end from our MK7 for better visibility. As we stated earlier, you **DO NOT** need to do this in order to install the charge pipe kit. We were already removing the front end to test fit an intercooler, so we wanted to give you the added benefit of 100% visibility in these instructions!

Take note of the important component locations shown in the photo on the right.

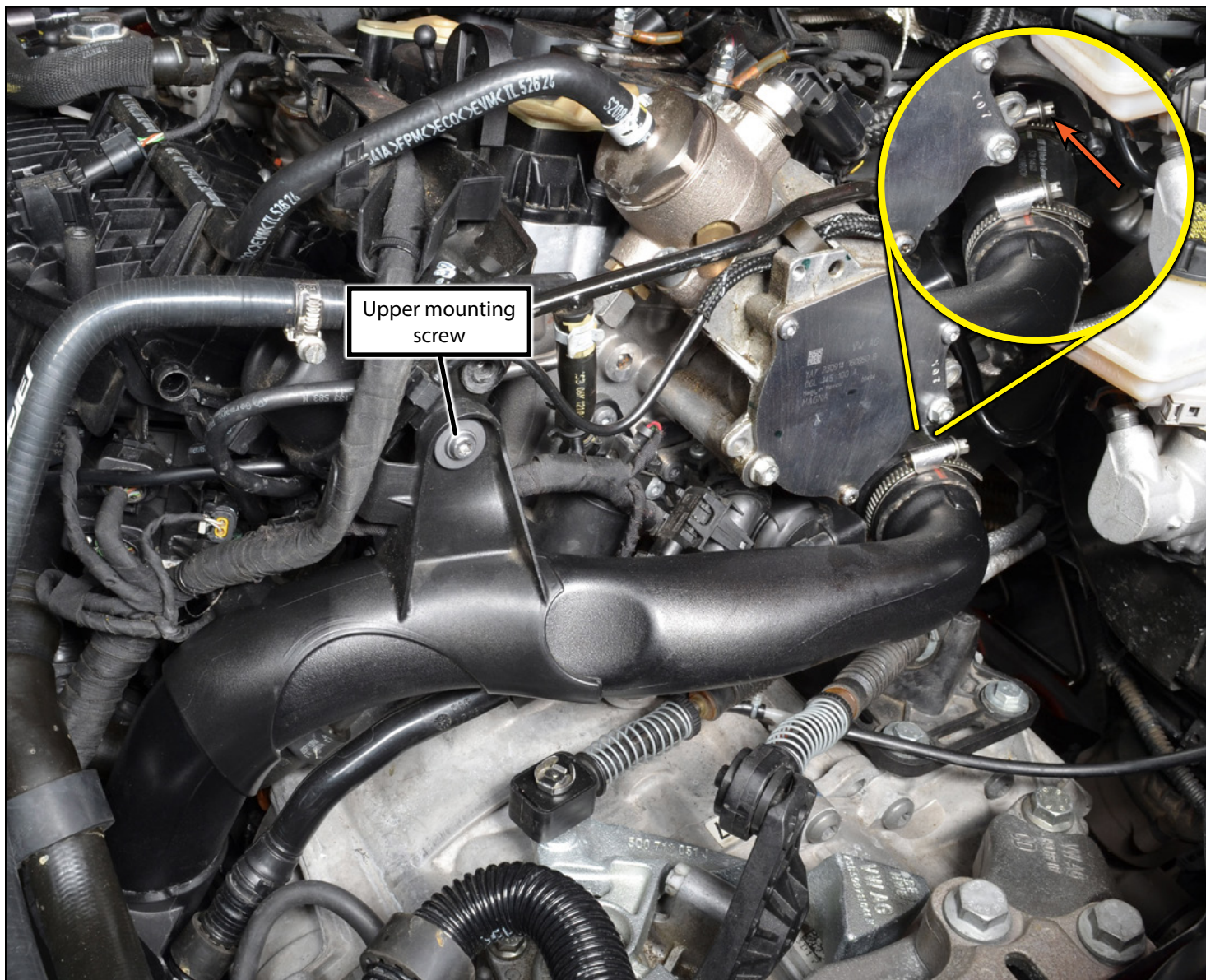


REMOVING THE STOCK TURBO OUTLET PIPE

Step 4:

Loosen the hose clamp which secures the turbo outlet coupler to the turbo muffler (**ORANGE** arrow in inset photo).

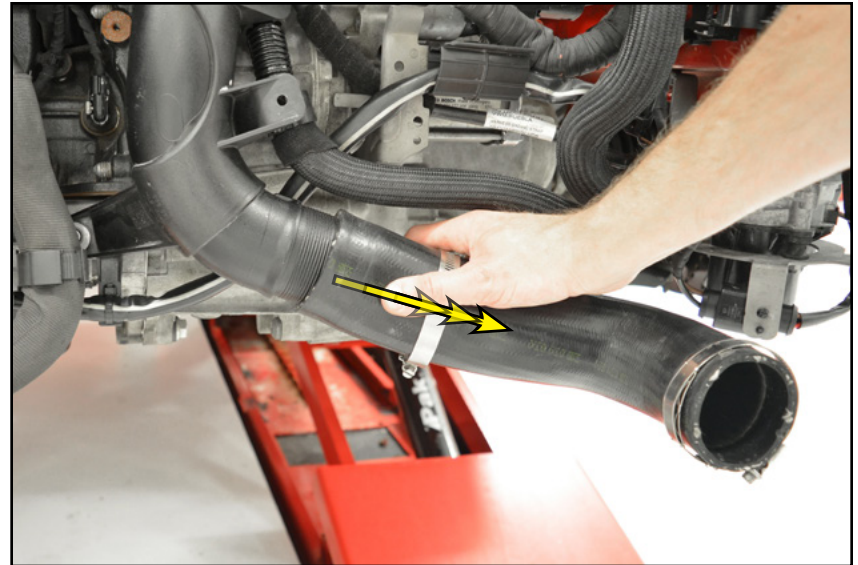
Loosen the turbo outlet pipe upper mounting screw (T30 Torx), but since this is a captured screw it will be retained inside the rubber bushing.



REMOVING THE STOCK TURBO OUTLET PIPE

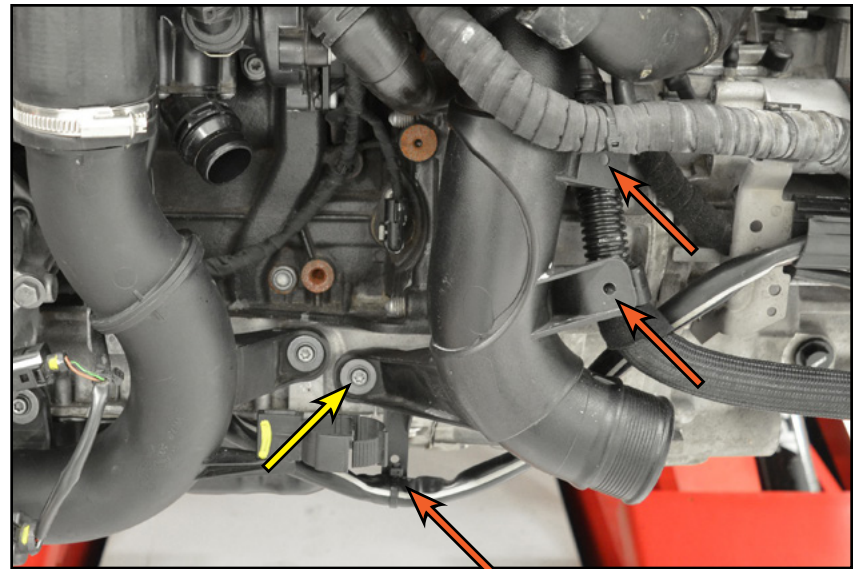
Step 5: Flat Blade Screwdriver

Loosen the hose clamps from the turbo outlet coupler, then remove it from the turbo outlet pipe and the intercooler.



Step 6: T30 Torx

Loosen the turbo outlet pipe lower mounting screw (**YELLOW** arrow in the photo on the right), but since this is a captured screw it will be retained inside the rubber bushing. Release the wiring harnesses from the turbo outlet pipe (**ORANGE** arrows in the photo).



REMOVING THE STOCK TURBO OUTLET PIPE

Step 7:

Pull the turbo outlet pipe off of the turbo muffler as shown in the photo.



Step 8: Flat Blade Screwdriver

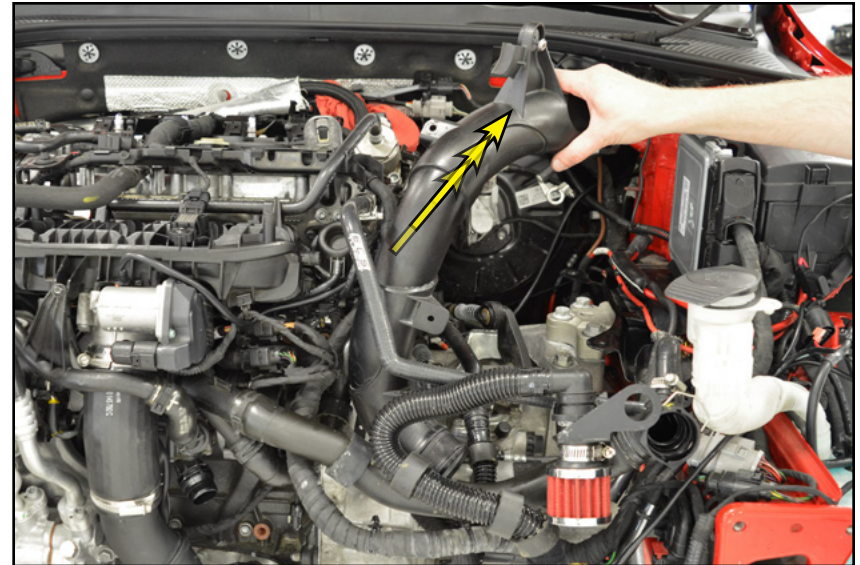
Loosen the other clamp on the turbo outlet coupler and remove the coupler from the pipe.



REMOVING THE STOCK TURBO OUTLET PIPE

Step 9:

Ensure that all of the wiring harnesses are out of the way as you guide the turbo outlet pipe upward and out of the engine bay.



Step 10:



If you purchased the turbo outlet pipe by itself, please skip ahead the installation steps on [Page 22](#).



If you purchased the throttle body charge pipe kit, please continue to the next page for removal instructions.



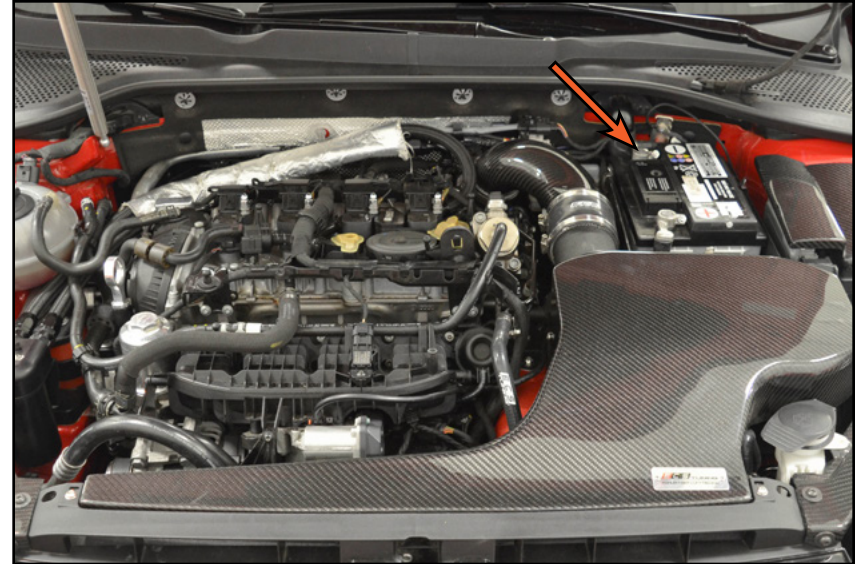
REMOVING THE STOCK THROTTLE BODY PIPE

Step 1: 10mm Socket & Ratchet



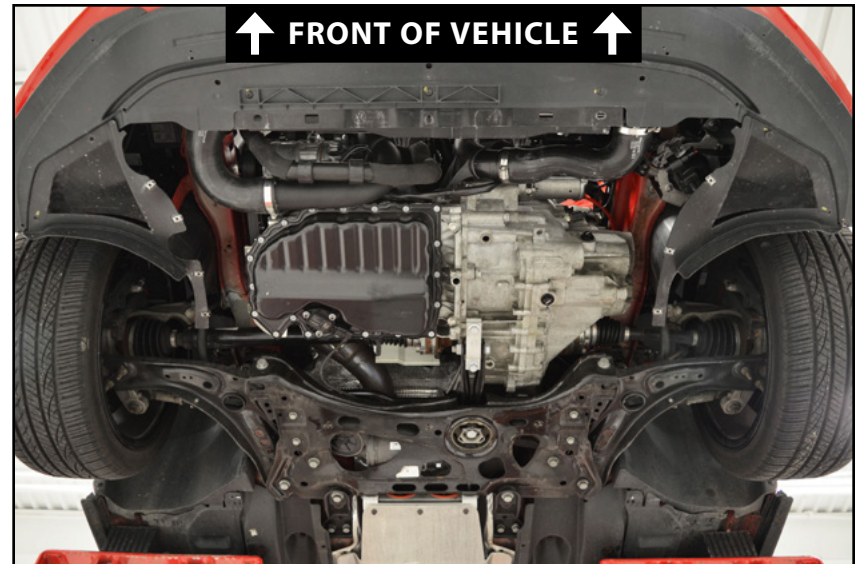
You can skip this page if you are installing the ECS Turbo Outlet Pipe and the ECS Throttle Body Pipe kits.

Disconnect the negative battery terminal (**ORANGE** arrow in the photo).



Step 2:

Safely lift and support the vehicle, then remove the lower insulation panel or belly pan.



REMOVING THE STOCK THROTTLE BODY PIPE

Step 3:

Loosen the hose clamps from the intercooler outlet coupler, then remove it from the throttle body pipe and the intercooler.

Release the clip which secures the lower radiator hose to the throttle body pipe (shown in the inset photo on the right).



REMOVING THE STOCK THROTTLE BODY PIPE

Step 4: Flat Blade Screwdriver, T30 Torx

Next we need to loosen the hose clamp which secures the throttle body coupler to the throttle body (**ORANGE** arrow in the photo).

We've found that it's very helpful to remove the two screws which hold the front coolant pipe (highlighted in **GREEN** in the photo), this way it can be moved aside and give you some extra clearance for when you remove the hose later on. We don't recommend disconnecting the hose from the engine because it will make a huge mess and then you'll have to bleed the cooling system. The goal here is just to allow the pipe to move around.

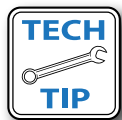


REMOVING THE STOCK THROTTLE BODY PIPE

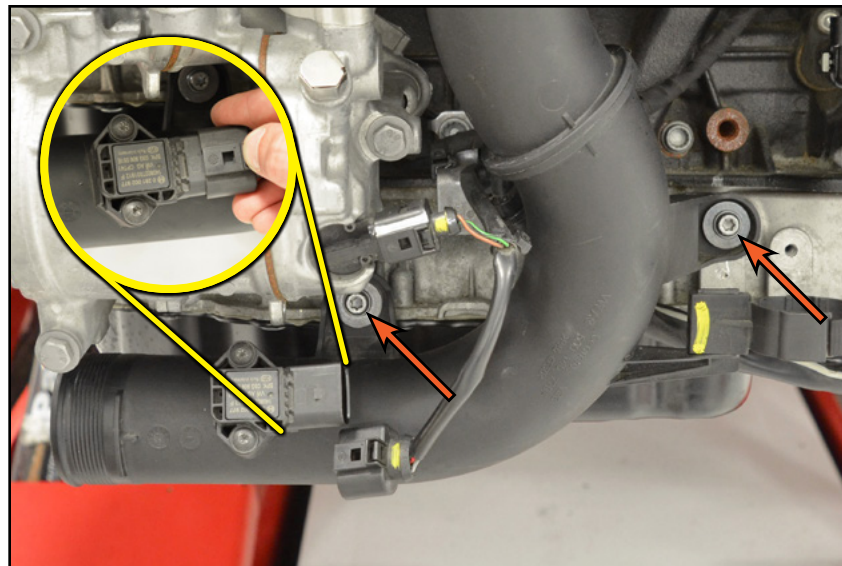
Step 5: VAG Connector Tool, T30 Torx

Release the MAP sensor electrical connector.

Loosen the throttle body pipe mounting screws, but since these are captured screws they will be retained inside the rubber bushings.



For detailed photos and tips on using the VAG Connector Removal Tool, please refer to [Page 33](#).

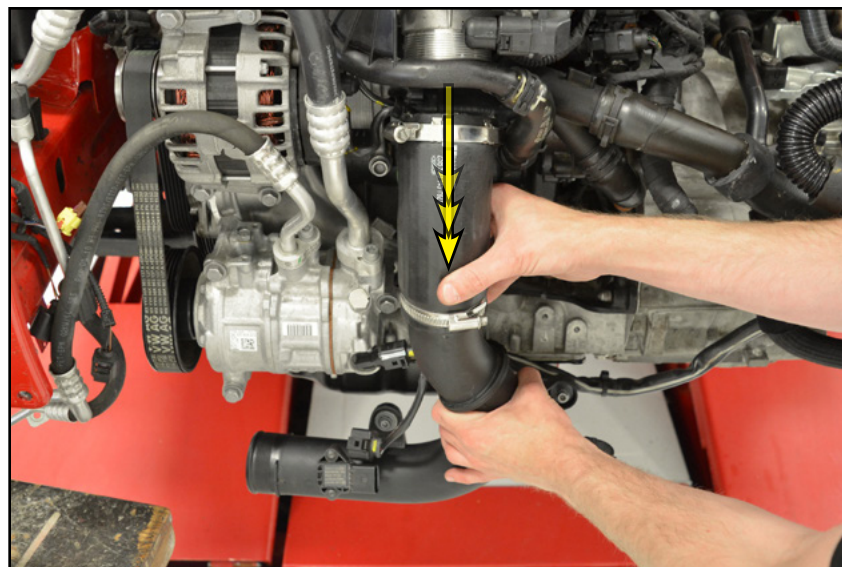


Step 6:

Ensure that all of the wiring harnesses are out of the way as you guide the throttle body pipe downward and out of the engine bay.



If you purchased the throttle body pipe by itself, please skip ahead the installation steps on [Page 28](#).



DQ381 (7-SPEED DSG) SPECIFIC NOTES

Step 1:



This section only applies to vehicles equipped with the DQ381 7-speed DSG transmission. Skip ahead to [Page 22](#) if your vehicle is not equipped with this transmission.

MK7.5 vehicles which are equipped with the DQ381 7-speed DSG transmission have a cooler which is mounted on top of the transmission case (**Photo #1**). We offer DQ381 specific charge pipe kits to avoid interference around this cooler.

Note the differences between the two turbo outlet pipes shown on the right. **Photo #2** shows the standard turbo outlet pipe kit, and **Photo #3** shows the DQ381 specific pipe kit. As you can see the DQ381 specific turbo outlet coupler is much longer and it runs from the turbo muffler all the way to the 90° elbow pipe. This silicone coupler is also a thicker ply so it requires slightly larger clamps than the standard kit.

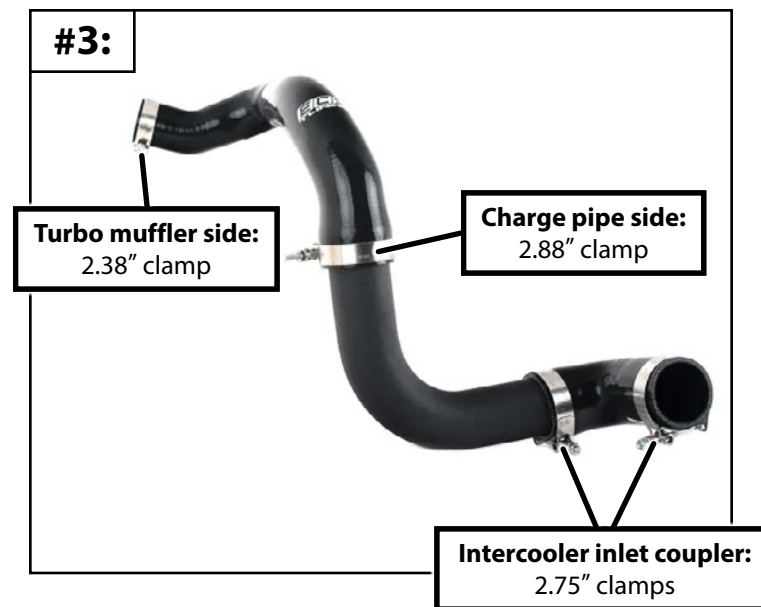
#1:



#2:



#3:



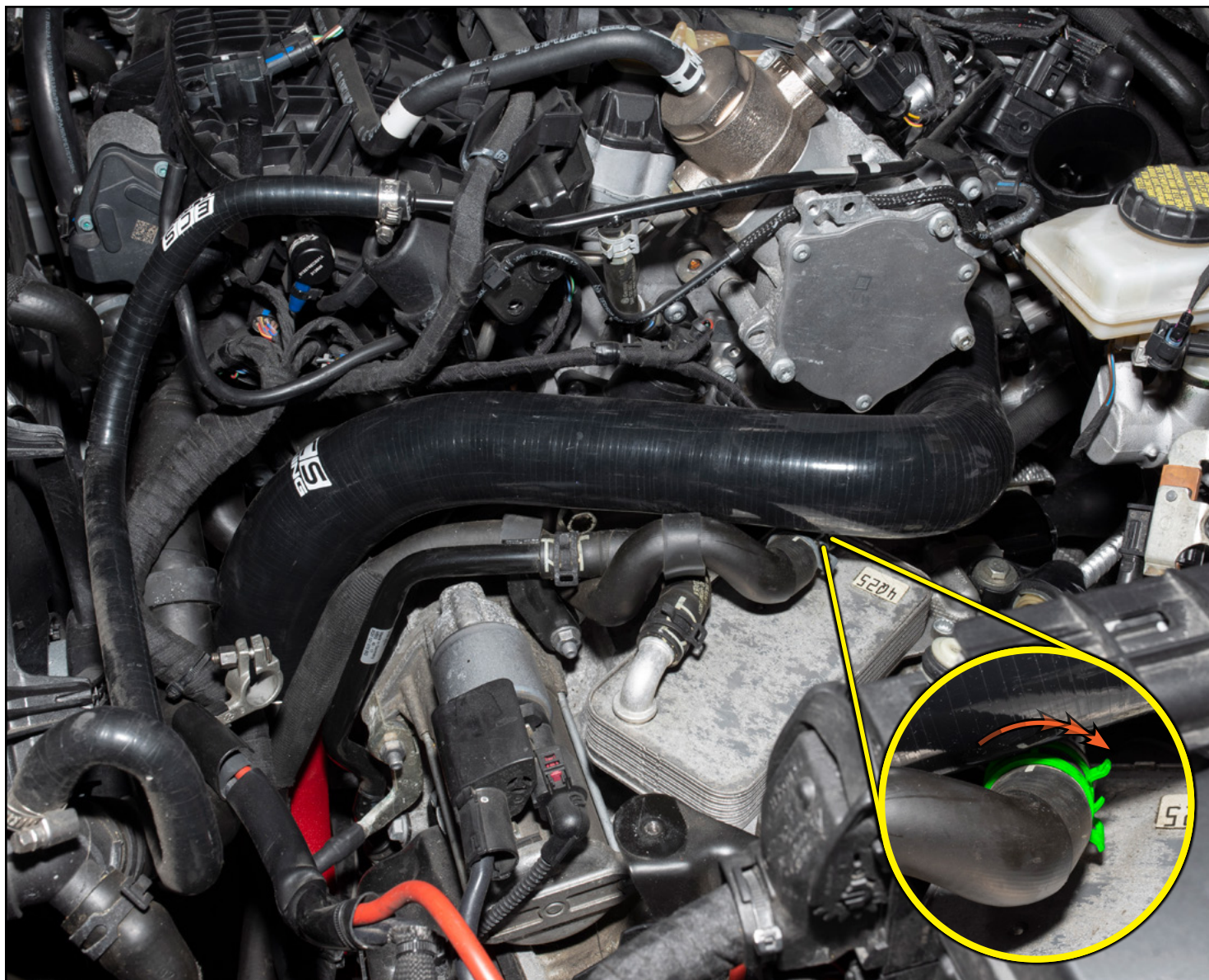
DQ381 (7-SPEED DSG) SPECIFIC NOTES

Step 2:

The photo on the right shows the finished product once the turbo outlet pipe has been installed.

It's important to note the orientation of the hose clamp on top of the cooler (highlighted in **GREEN** in the inset photo). We strongly suggest rotating the clamp so the tabs won't make contact with the bottom of the coupler.

You can follow along with the rest of the installation procedure, using it as a general guide. Keep in mind that the clamp sizes shown will not match the clamps in your DQ381 specific kit.



INSTALLING THE NEW ECS TURBO OUTLET PIPE

Step 1: 5mm Hex (Allen)

This is a great time to install an ECS Tuning turbo muffler delete kit. For more on this be sure to check out our DIY video by clicking [HERE](#).



INSTALLING THE NEW ECS TURBO OUTLET PIPE

Step 2:

Slide the 2.25" clamp onto the small end of the silicone turbo outlet coupler. Be mindful of where the head of the clamp will be oriented once the coupler is installed.



Step 3:

Slide the silicone turbo outlet coupler onto the turbo muffler until it bottoms out. Ensure that the hose clamp is oriented so that it doesn't contact any surrounding components, but is still readily accessible.

Leave this hose clamp loose for now, we will come back and tighten down all of the clamps later on.



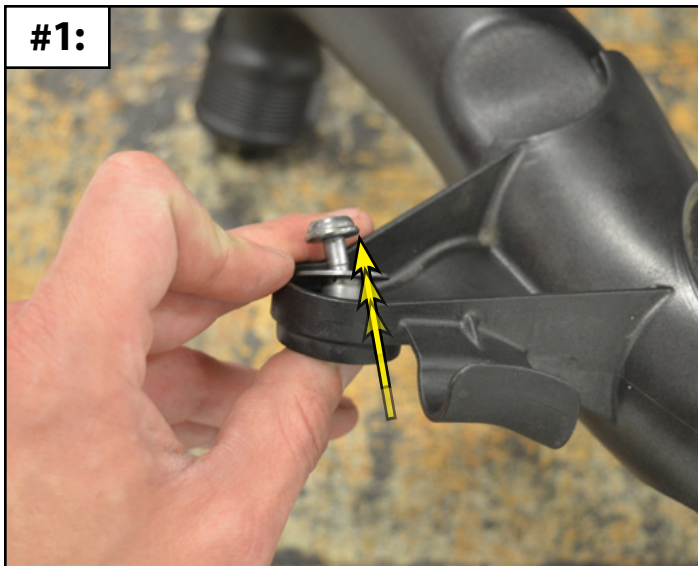
INSTALLING THE NEW ECS TURBO OUTLET PIPE

Step 4:

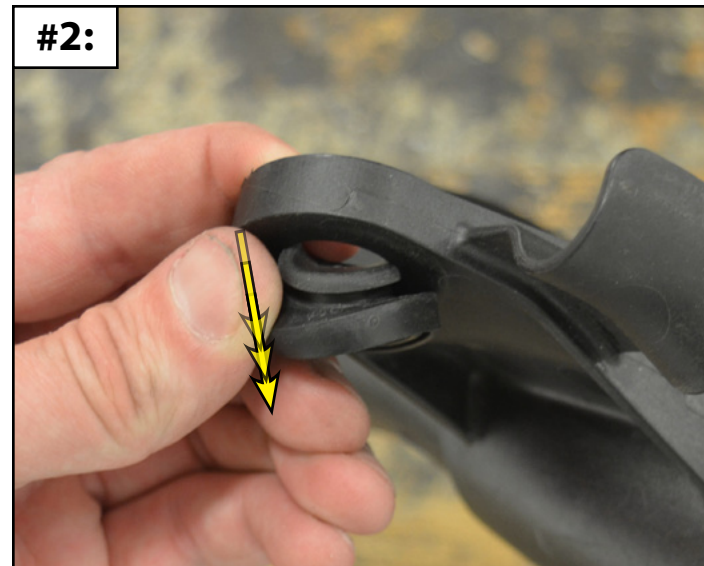
The new turbo outlet pipe utilizes the captured bolt and bushing from the OEM pipe, so we need to transfer this hardware to the new pipe.

Start by pulling the bolt out of the rubber bushing (shown in **Photo #1**), then pull the bushing out of the OEM pipe (**Photo #2**). Install the rubber bushing and bolt into the large hole in the ECS mounting bracket making sure that the bushing is inserted from the back side of the bracket (**Photo #3**). Thread the bolt into the turbo outlet pipe mounting screw location by hand (**Photo #4**), we will come back and tighten up this bolt later on.

#1:



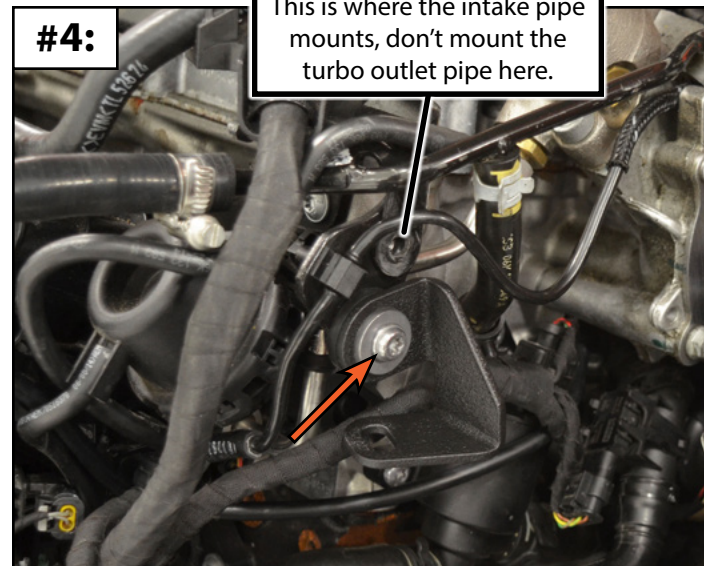
#2:



#3:



#4:

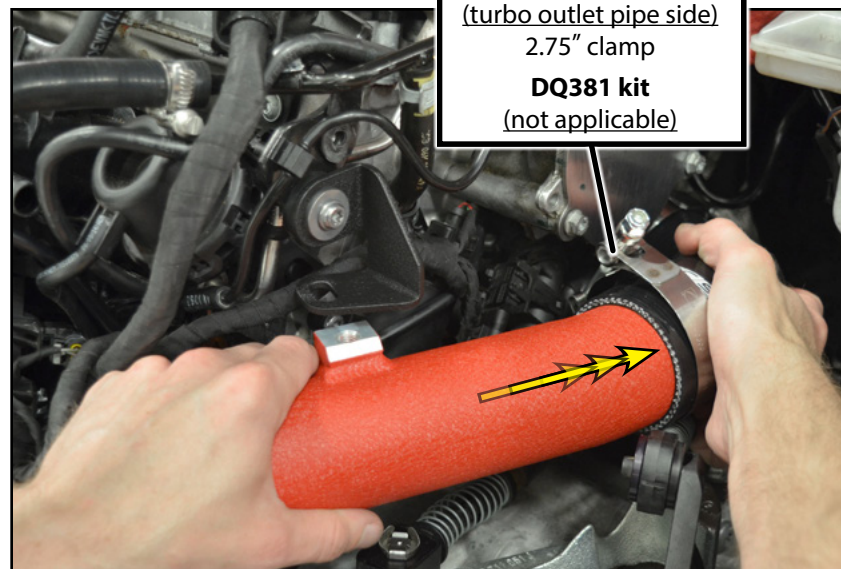


INSTALLING THE NEW ECS TURBO OUTLET PIPE

Step 5:

Slide the 2.75" clamp onto the large end of the silicone turbo outlet coupler. Be mindful of where the head of the clamp will be oriented once installed.

Next, slide the turbo outlet pipe into the coupler until the mounting hole lines up with the bracket we installed in step 6.

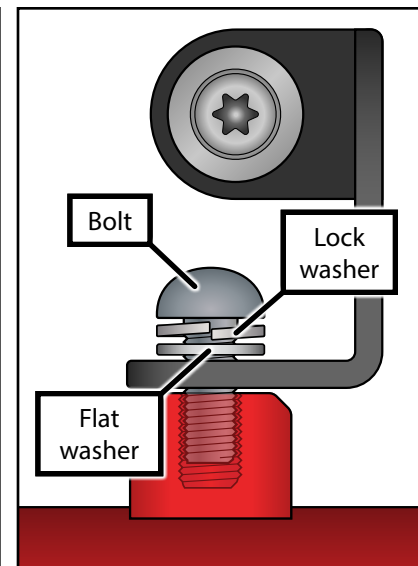


Step 6: 5mm Ball End Hex (Allen)

Thread the included bolt and washers through the mounting bracket and into the turbo outlet pipe. Leave the bolt loose at this time, we will go back and tighten everything up later.



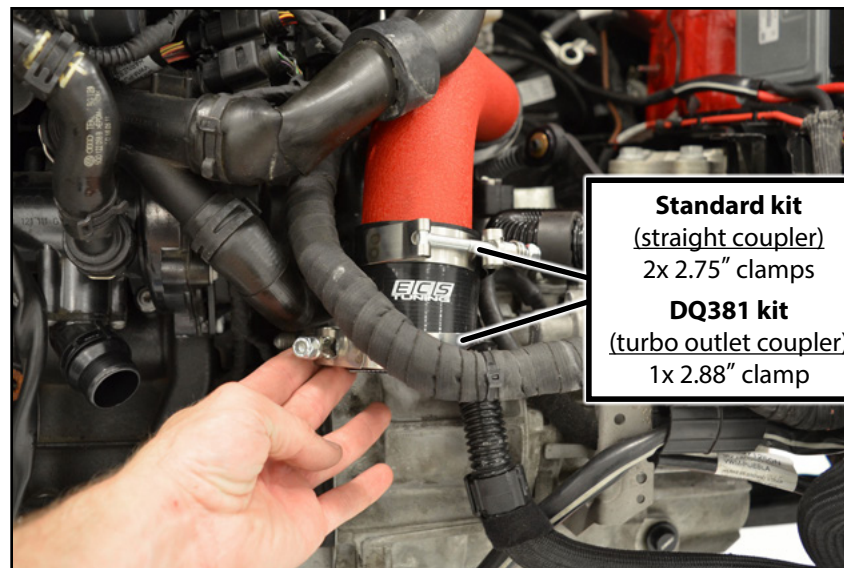
We specifically recommend a "ball end" Hex (Allen) key or socket due to the tight quarters around this bolt.



INSTALLING THE NEW ECS TURBO OUTLET PIPE

Step 7:

Slide the straight silicone coupler onto the turbo outlet pipe, then slide the 2.75" clamps onto the coupler as shown in the photo on the right. Be mindful of where the heads of the clamps will be oriented once installed.



Step 8:

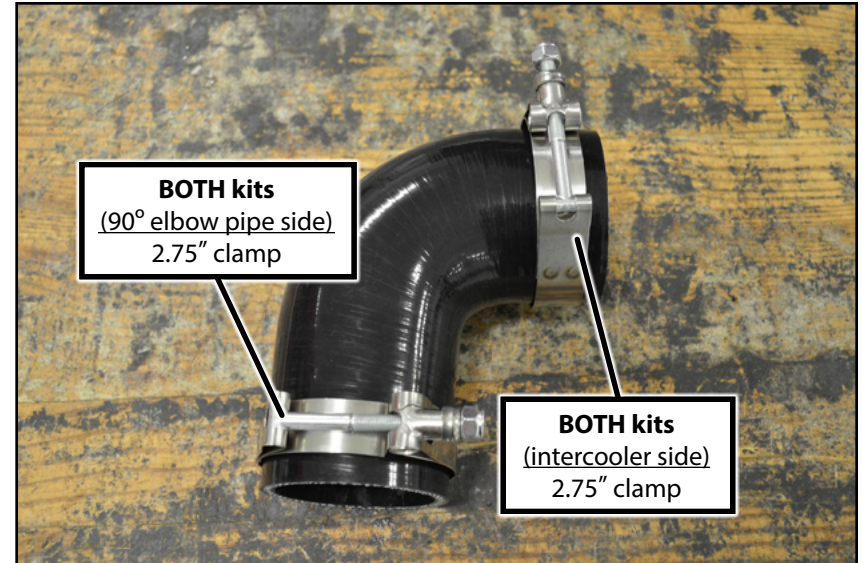
Slide the 90° elbow pipe into the straight coupler. Be sure to leave the clamps loose at this time, we will go back and tighten everything up later.



INSTALLING THE NEW ECS TURBO OUTLET PIPE

Step 9:

Slide the 2.75" clamps onto the ends of the intercooler inlet coupler. Be mindful of where the heads of the clamps will be oriented once the coupler is installed.



Step 10:

Slide the silicone intercooler inlet coupler onto the intercooler until it bottoms out, then slide the other end onto the 90° elbow pipe. Ensure that the hose clamps are oriented so that they don't contact any surrounding components, but are still readily accessible.

Leave these hose clamps loose for now, we will go back and tighten everything up later.



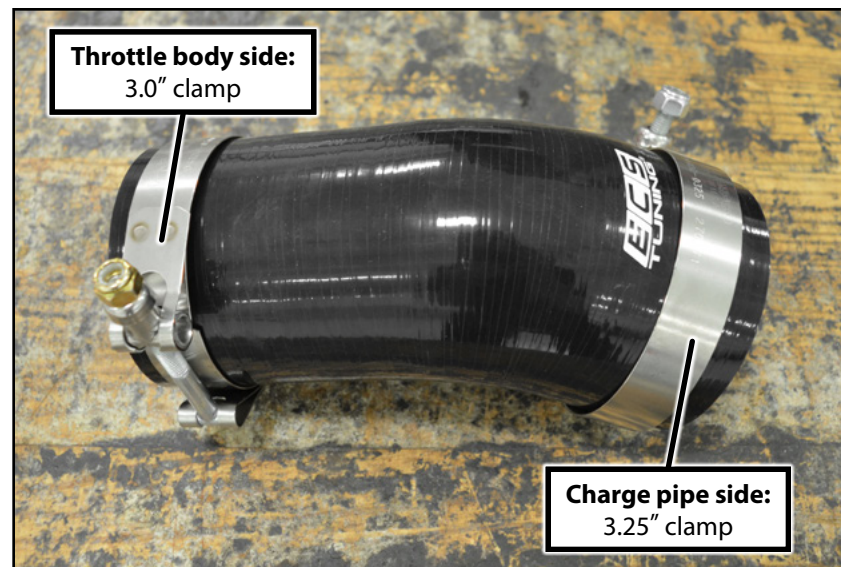
If you purchased the turbo outlet pipe by itself, please skip ahead the final installation steps on [Page 32](#).



INSTALLING THE NEW ECS THROTTLE BODY PIPE

Step 1:

Slide the 3.0" clamp onto the throttle body side of the new silicone throttle body coupler, then slide the 3.25" clamp onto the charge pipe side. Be mindful of where the heads of the clamps will be oriented once the coupler is installed.



Step 2:

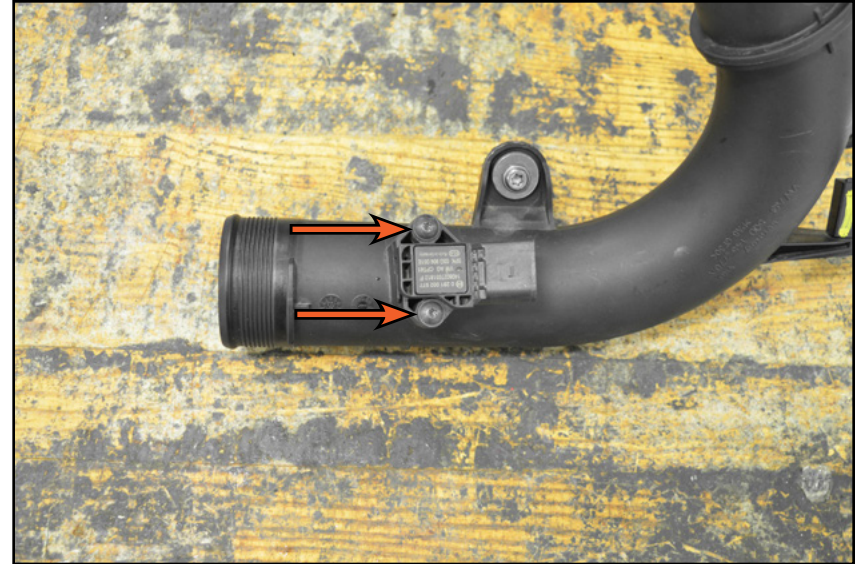
Slide the silicone throttle body coupler onto the throttle body until it bottoms out. Ensure that the hose clamps are oriented so that they don't contact any surrounding components, but are still readily accessible.



INSTALLING THE NEW ECS THROTTLE BODY PIPE

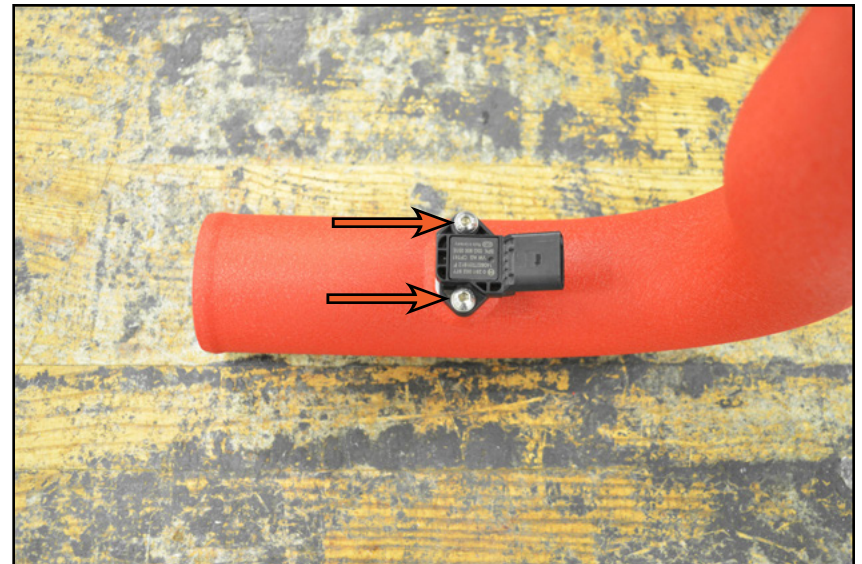
Step 3: T20 Torx

Remove the MAP sensor from the stock throttle body pipe.



Step 4: T30 Torx

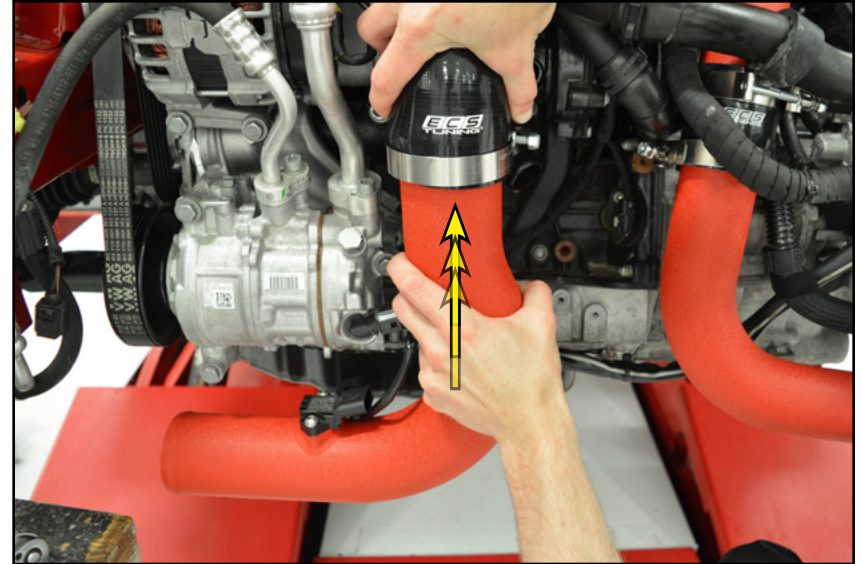
Install the MAP sensor into the new throttle body pipe, thread in the supplied bolts and lock washers, then tighten them until they make contact + 1/8 turn.



INSTALLING THE NEW ECS THROTTLE BODY PIPE

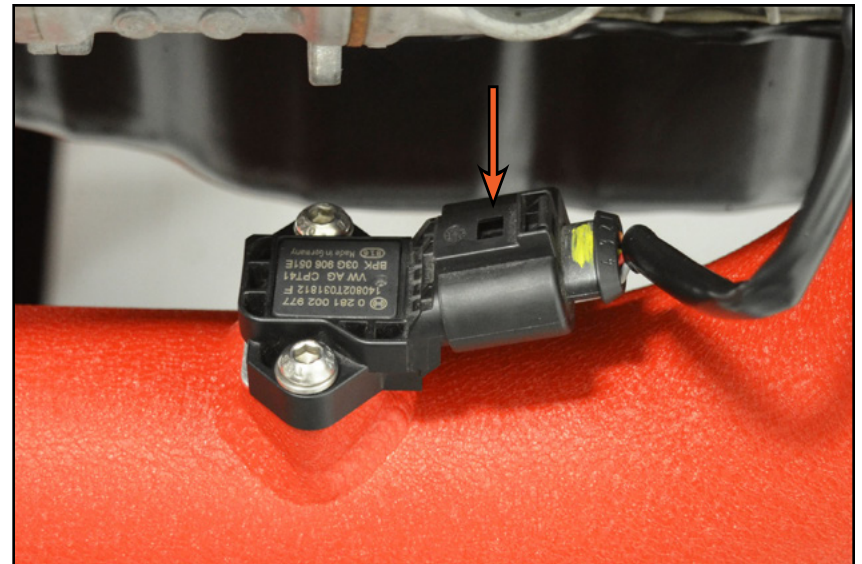
Step 5:

Slide the new throttle body pipe into the silicone throttle body coupler. Be sure to leave the clamps loose at this time, we will go back and tighten everything up later.



Step 6:

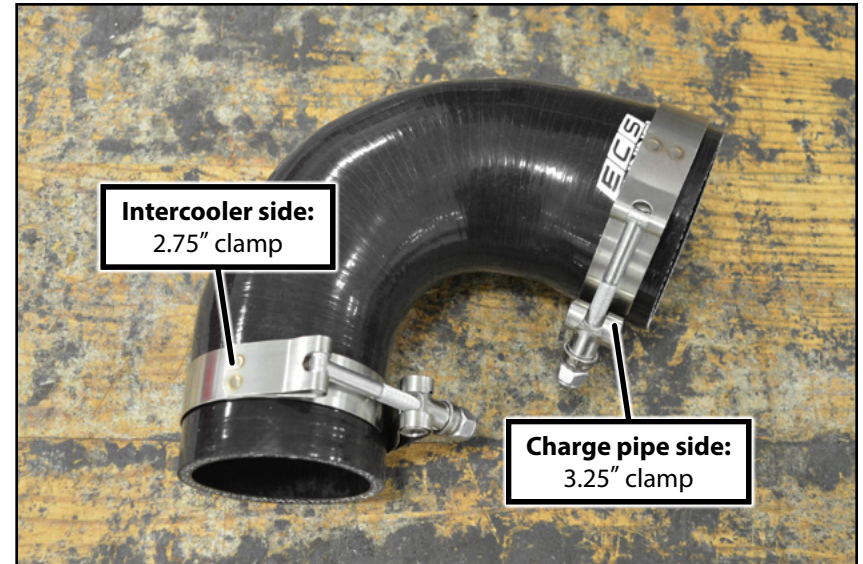
Reconnect the MAP sensor.



INSTALLING THE NEW ECS THROTTLE BODY PIPE

Step 7:

Slide the 2.75" clamp onto the intercooler side of the new silicone intercooler outlet coupler, then slide the 3.25" clamp onto the charge pipe side. Be mindful of where the heads of the clamps will be oriented once the coupler is installed.



Step 8:

Slide the silicone intercooler outlet coupler onto the intercooler until it bottoms out, then slide the other end onto the throttle body pipe. Ensure that the hose clamps are oriented so that they don't contact any surrounding components, but are still readily accessible.

Leave these hose clamps loose for now, we will go back and tighten everything up later.



Please continue to the next page for final installation steps.



FINAL INSTALLATION STEPS

Confirm that all of the clamps are oriented for maximum clearance and accessibility.

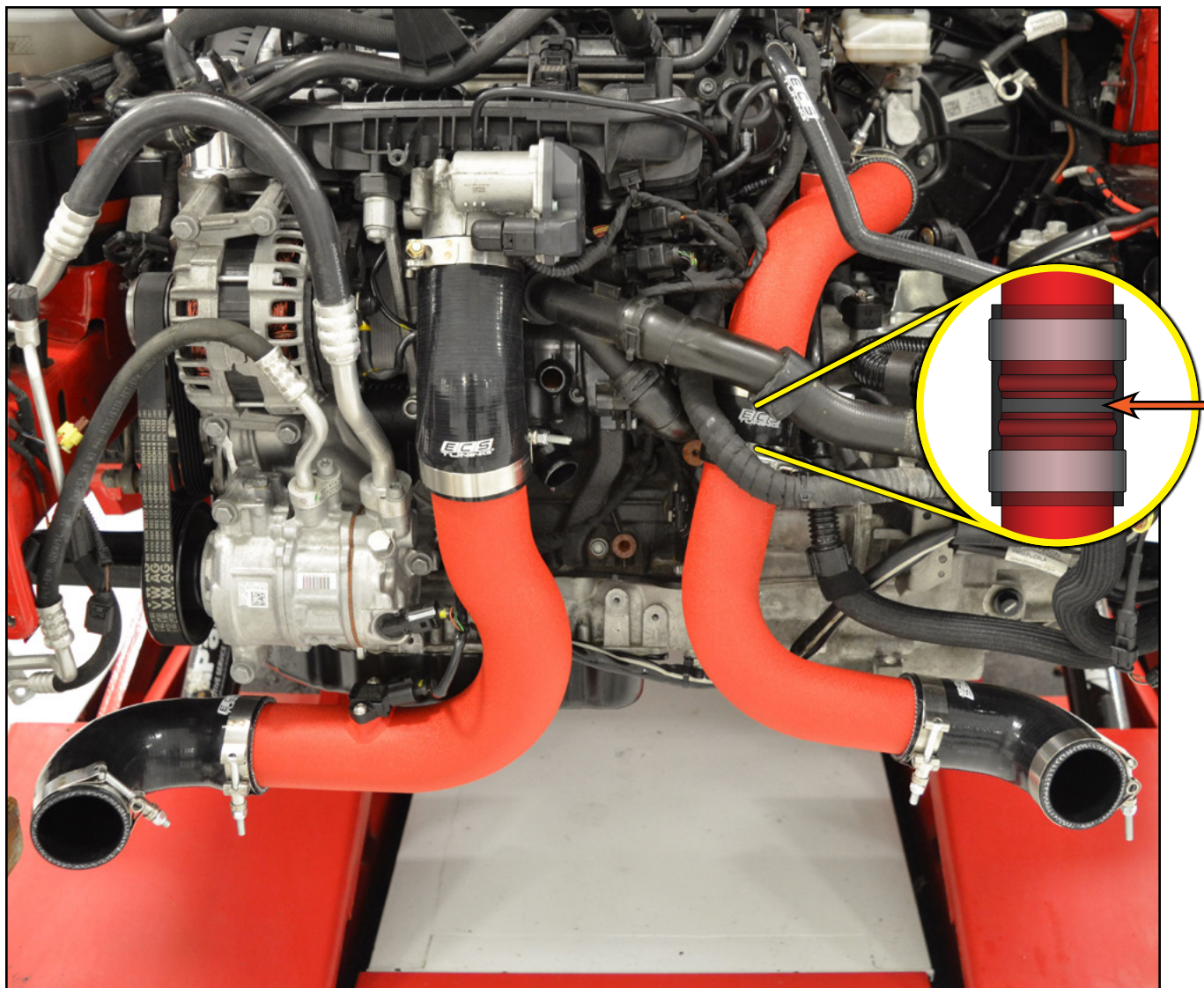
Confirm that there is a small gap between the turbo outlet pipe and the 90° elbow pipe (inset photo).

Snug up all of the clamps.

Snug up the mounting bolts on the turbo outlet pipe.

Reinstall all other parts in the reverse order of removal.

If you develop any boost leaks double check all clamps and connections.



Congratulations, your high flow charge pipe kit installation is now complete!

USING THE VAG CONNECTOR REMOVAL TOOL

Step 1:

These connectors are commonly referred to as “Push and Pull” connectors, in reference to the method used to disconnect them.



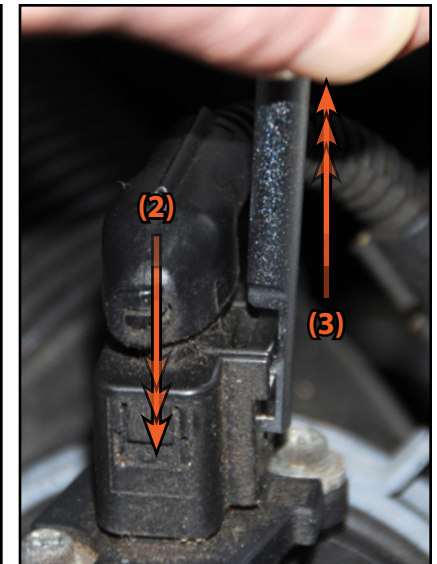
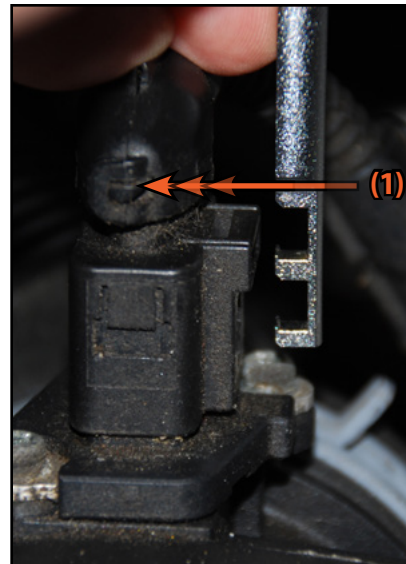
Step 2:

To disconnect one of these connectors, follow this procedure:

1. Engage the connector release tool into the connector housing.
2. Push inward gently on the connector.
3. While holding pressure inward on the connector, pull up on the handle of the release tool.
4. Pull the connector off of the component and move the harness out of the way.



To return to the charge pipe removal instructions, simply click [HERE](#).



Your Gen3 TSI High Flow Charge Pipe Kit 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.