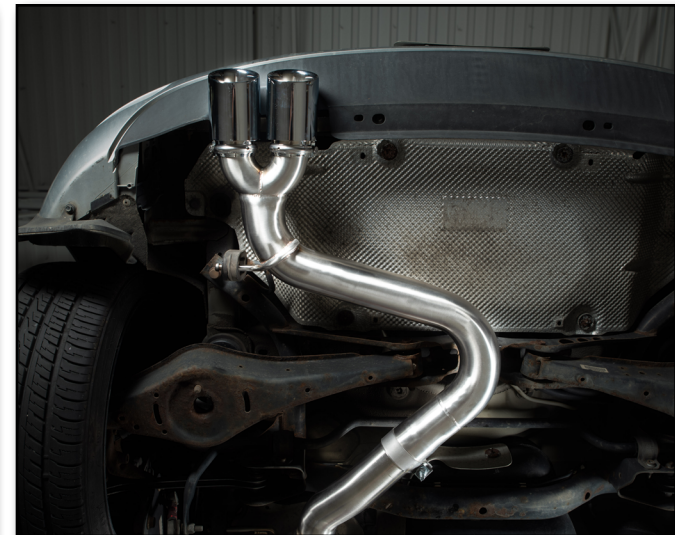
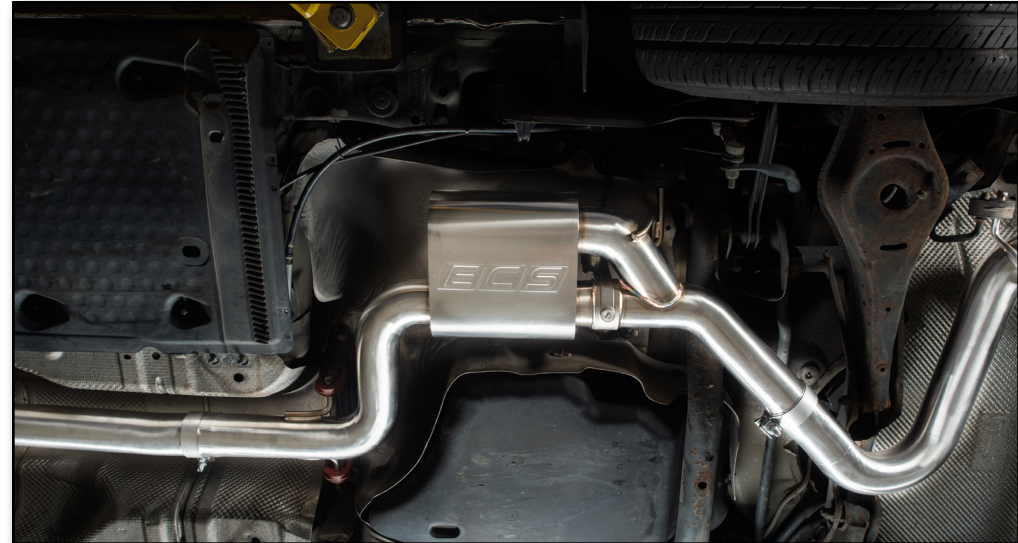




VW MK5/MK6 Golf 2.5L Cat-Back Exhaust System Installation Instructions - [Click HERE to Shop](#)



Skill Level
1 - Easy
Basic Skills
Required

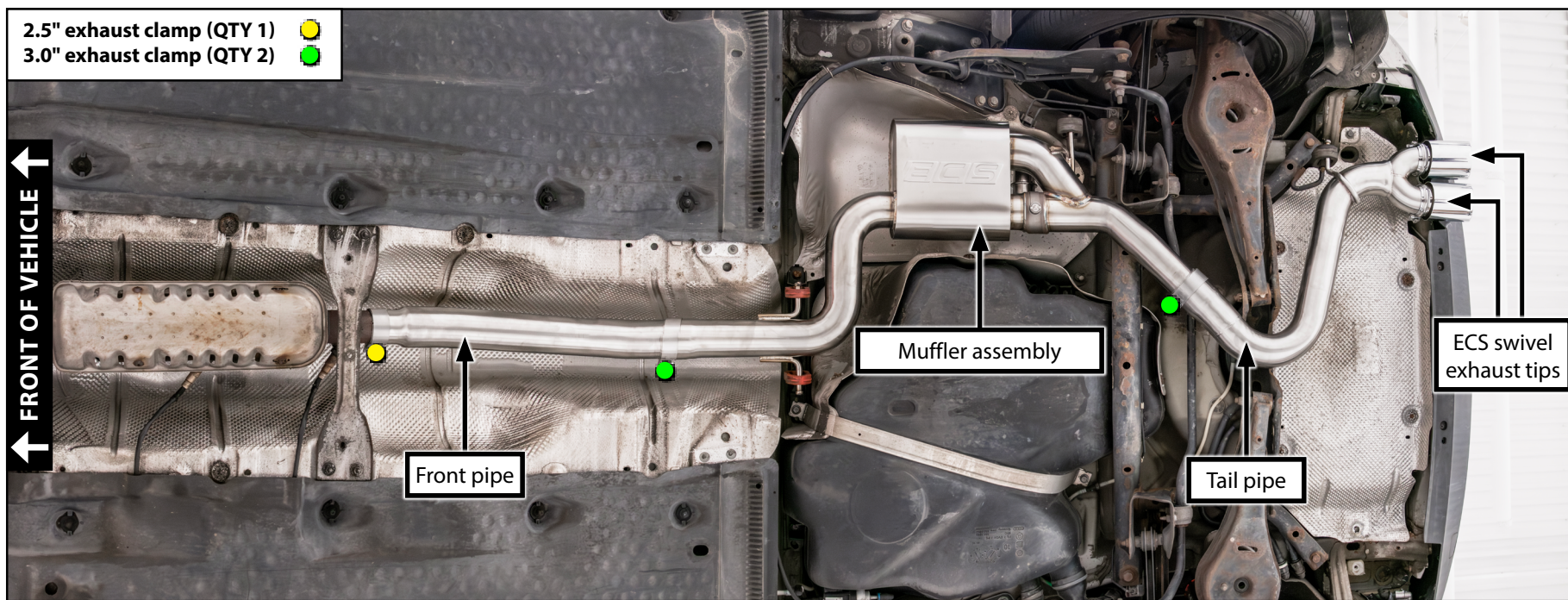


Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times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

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KIT CONTENTS



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

- 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

- **Exhaust Hanger Removal Pliers** [ES#2784927](#)
- **Locking Hose Clamp Pliers** [ES#2702616](#)

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.

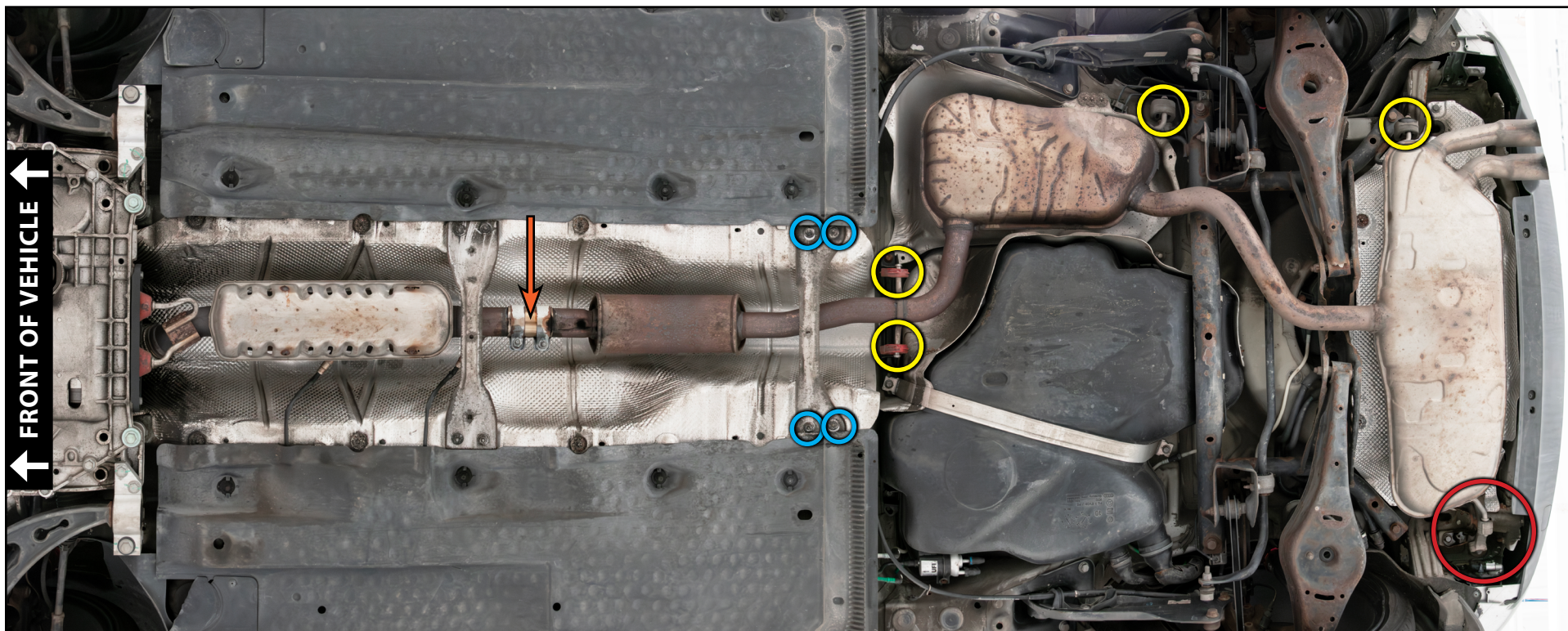


NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

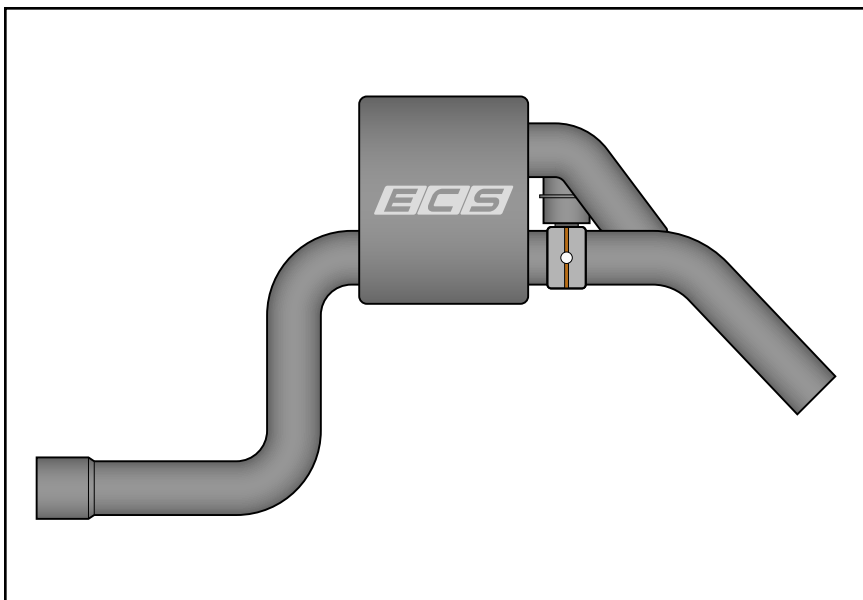
REMOVING THE STOCK EXHAUST SYSTEM

Step 1: 13mm Socket, 15mm Socket & Ratchet, Exhaust Hanger Removal Pliers

Safely lift and support the vehicle. Loosen the two nuts on the sleeve clamp (arrow), then slide it forward onto the downpipe. Remove the four bolts (circled in **BLUE**) and remove the chassis cross brace from the vehicle. Support the exhaust system from below, then unbolt the rear RH hanger (circled in **RED**) and disconnect the muffler hangers (circled in **YELLOW**), starting from the rear and working toward the front. Carefully guide the exhaust system free from the vehicle and set it aside.

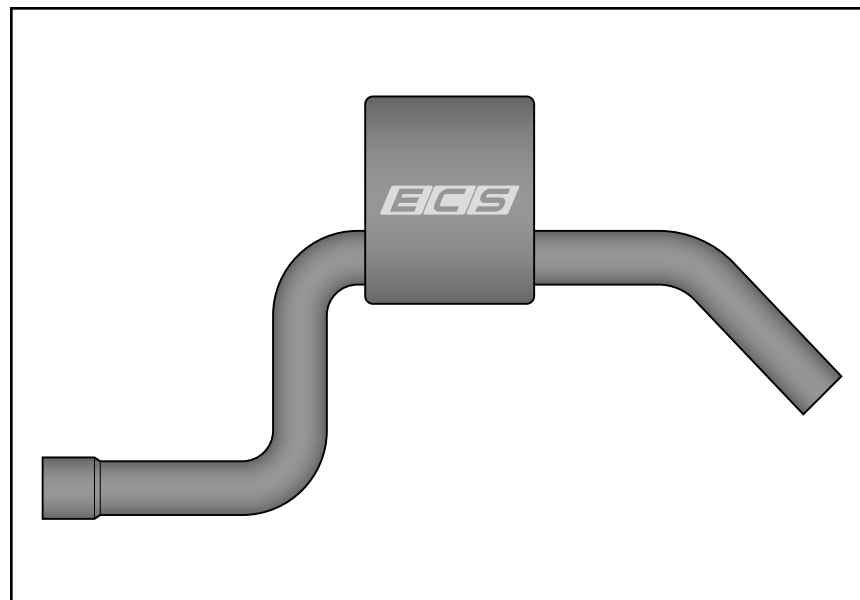


REMOVING THE STOCK EXHAUST SYSTEM



If you purchased a VALVED system:

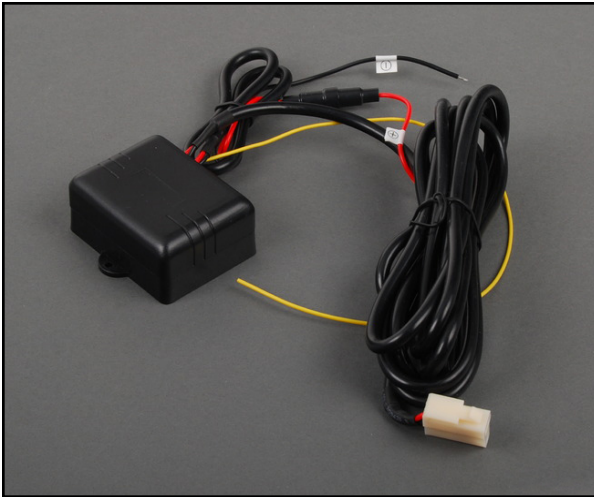
- Please proceed to the next page for the installation of the remote valve controller system.



If you purchased a NON-VALVED system:

- Please skip ahead to [page 12](#) for the installation of your new exhaust system.

REMOTE EXHAUST VALVE CONTROLLER KIT CONTENTS



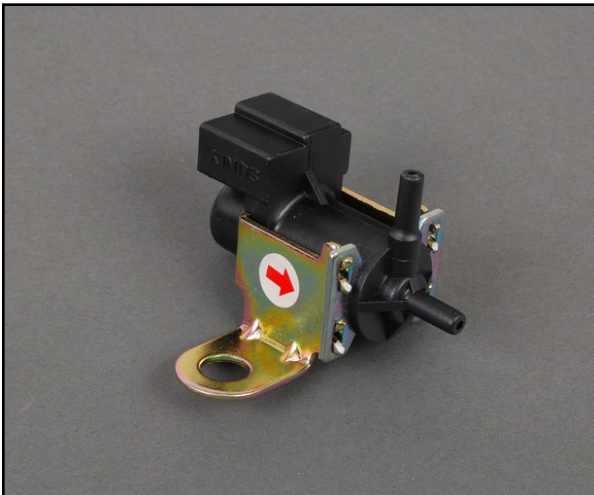
Control Module with Wiring Harness **(QTY 1)**



Vacuum Hose **(QTY 1)**



Remote Controllers **(QTY 2)**



Solenoid Vacuum Valve **(QTY 1)**



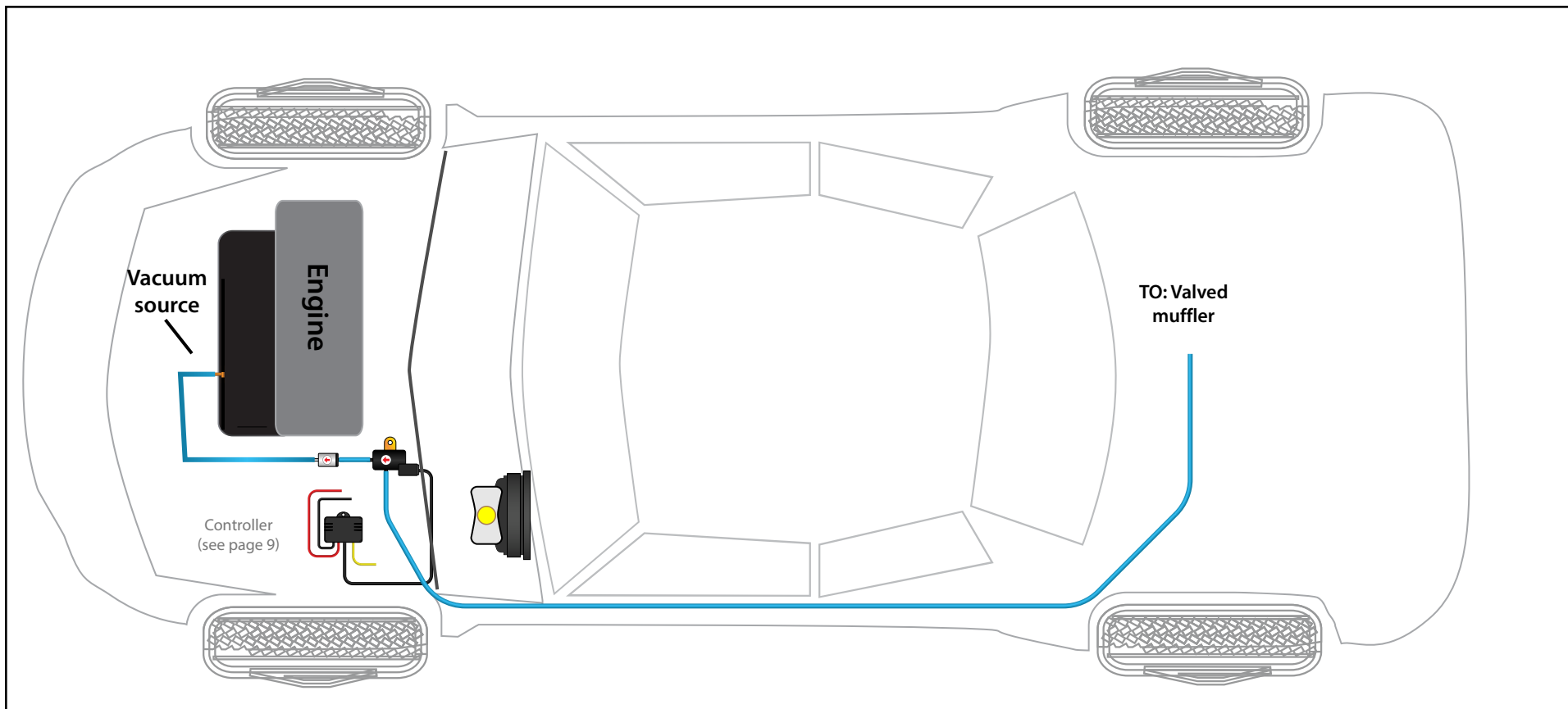
Check Valve **(QTY 1)**



Vacuum Hose T-Fitting* **(QTY 1)**

*This is included but may not be required for this installation

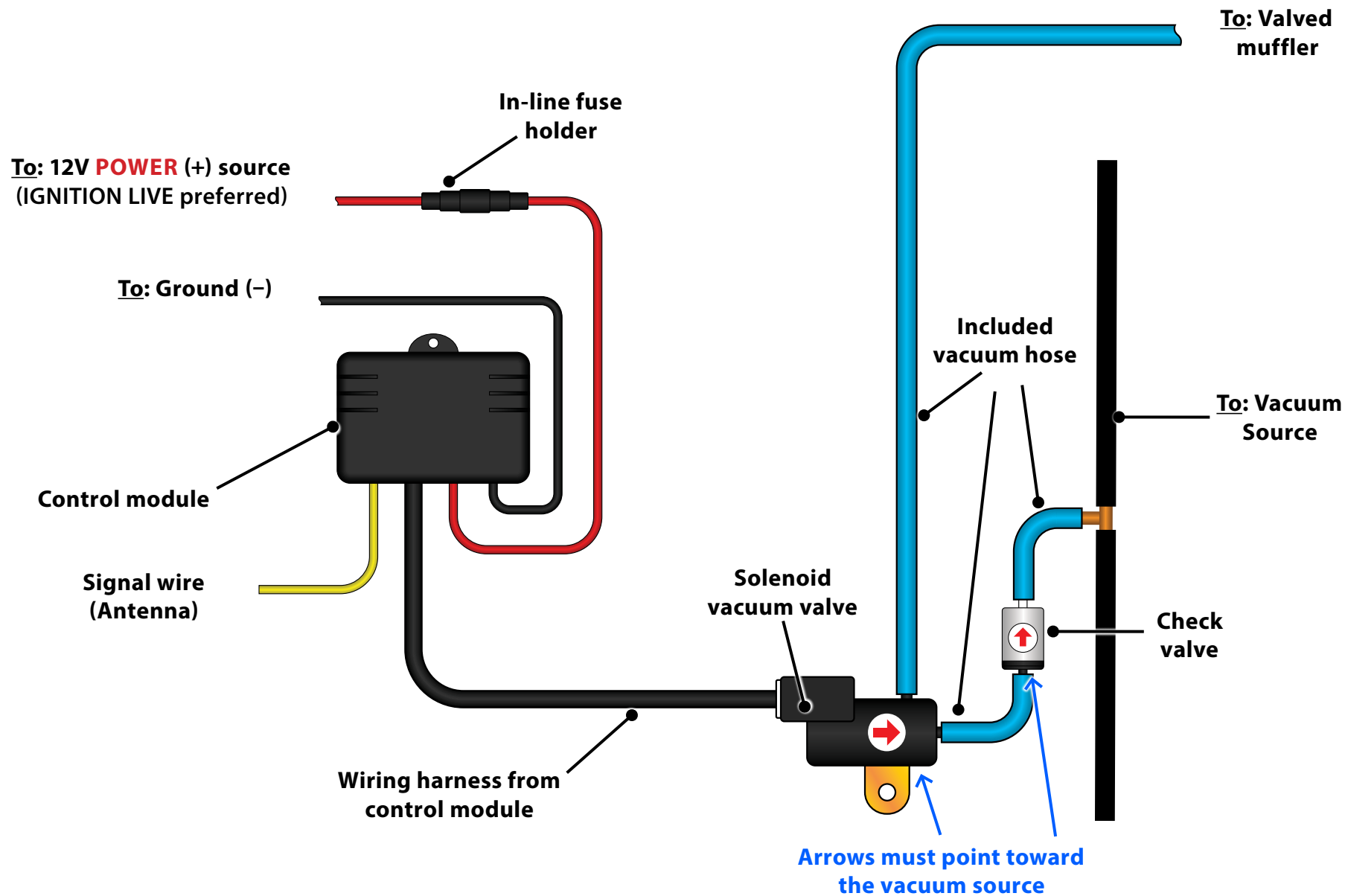
REMOTE EXHAUST VALVE CONTROLLER SYSTEM DIAGRAM



We powered the control module with an [Add-A-Circuit Fuse Holder](#), tapping into an **IGNITION LIVE** fuse under the hood. This means that the control module will not be powered unless the key is turned **ON**. For more information on this please review the PDF which is located under the "Installation" tab on [ES#1906431](#) or [ES#3209653](#).

We then routed the vacuum hose from the vacuum source, down along the underbelly and over to where the valved muffler will be located. Please proceed to the next page for a detailed diagram of the entire valve controller system.

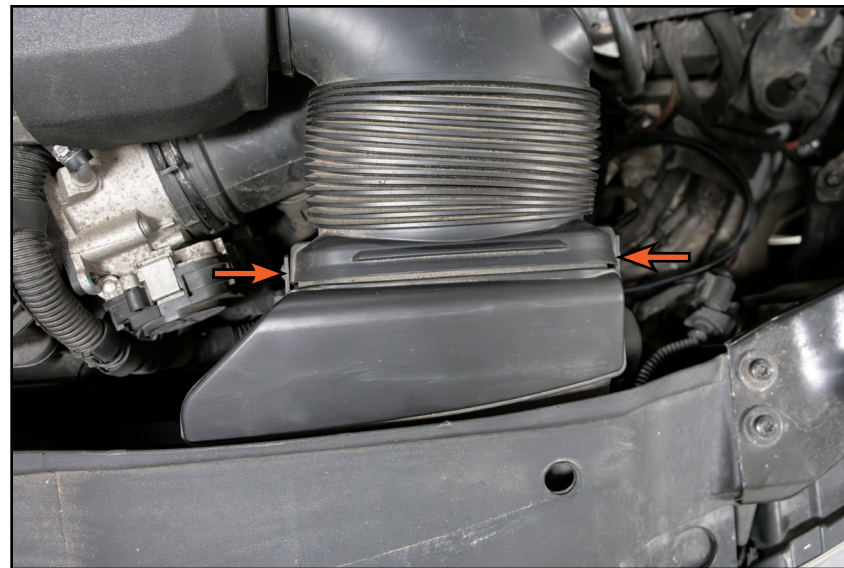
REMOTE EXHAUST VALVE CONTROLLER SYSTEM DIAGRAM



INSTALLING THE REMOTE EXHAUST VALVE CONTROLLER

Step 1: T25 Torx Socket & Ratchet

Remove the two screws (arrows), then disconnect the air duct.



Step 2: Locking Hose Clamp Pliers

Compress the clamp (arrow) to disconnect the intake tube (highlighted in **RED**) from the airbox. Gently pull upward on the airbox, starting at the back and moving to the front, then remove the airbox.



INSTALLING THE REMOTE EXHAUST VALVE CONTROLLER

Step 3:

Our valved exhaust system requires a suitable vacuum source to operate the valved muffler.

Mount the solenoid vacuum valve and the electronic control module to the firewall (arrow in **photo #1**) utilizing a preexisting stud.

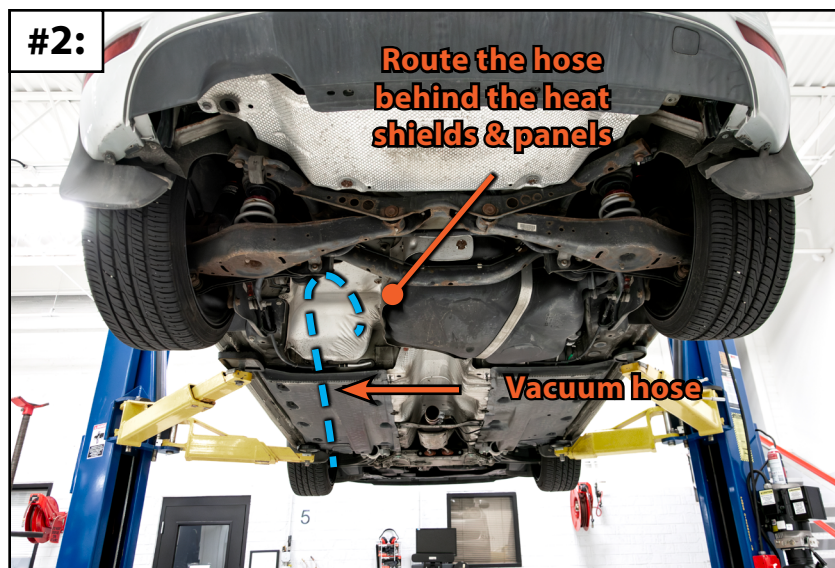
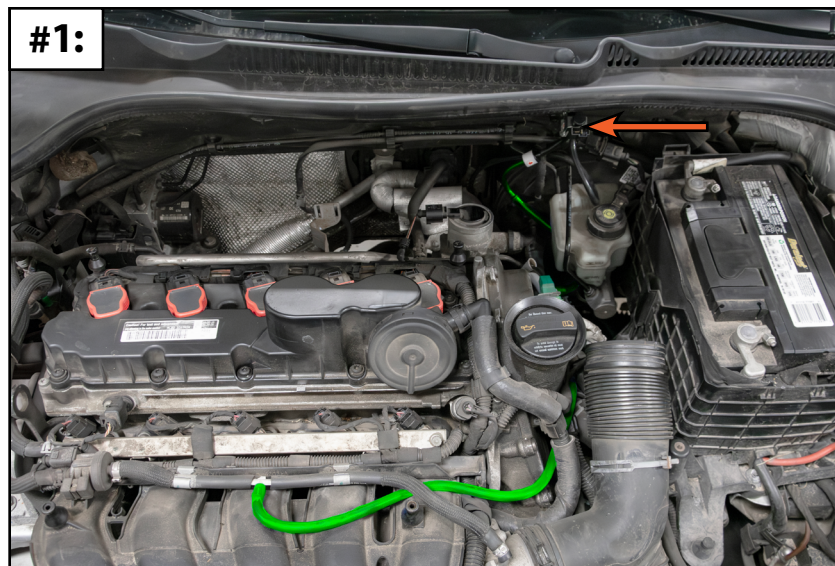
Connect the control module wiring to suitable ignition live (key-on) power (+) and ground (-) sources (**not shown**).

Route the vacuum hose (highlighted in **GREEN** in **photo #1**) between the solenoid vacuum valve and the intake manifold vacuum hose using a T-fitting connector. Use the diagrams on [page 8](#) and [page 9](#) for reference.



The check valve can be installed anywhere between the solenoid vacuum valve and the vacuum source. Take into consideration the amount of hose needed between these components before cutting the hose to prevent excess waste.

Route the hose down away from any moving or hot components and out through the bottom of the vehicle. Pull the vacuum hose down past the front subframe and toward the rear of the vehicle (**photo #2**). Route the hose to where the muffler will be located, securing it in place with zip ties if necessary.

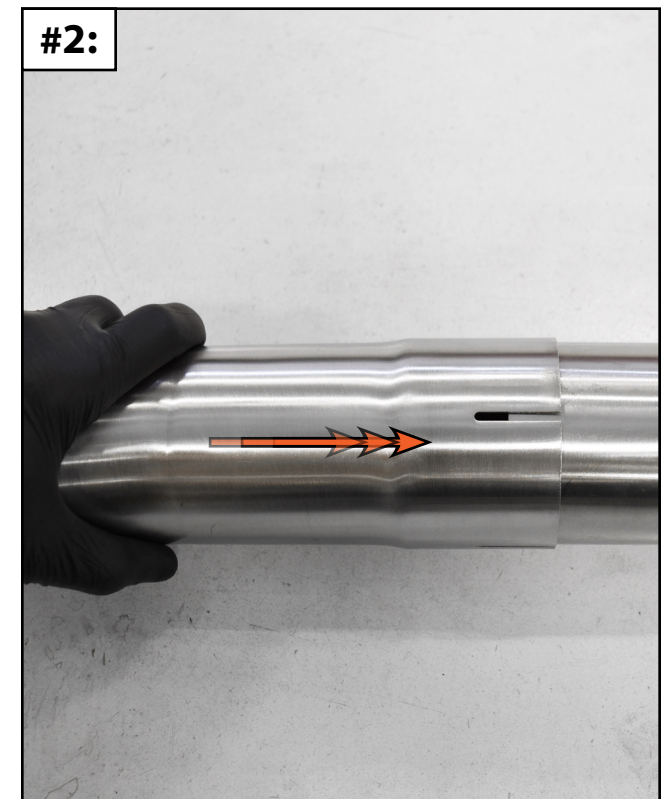
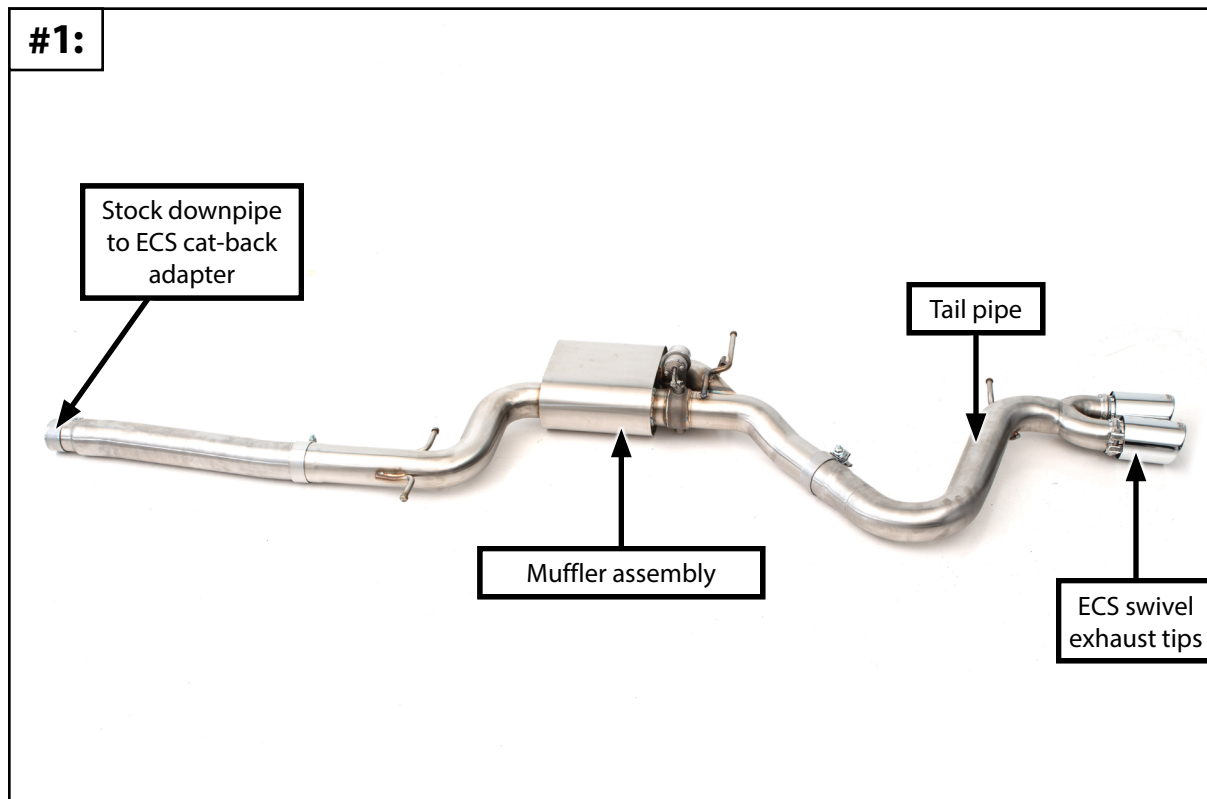


INSTALLING THE NEW EXHAUST SYSTEM

Step 1: Pipe Expander Tool & Ball Pein Hammer

Unpack your new exhaust system and carefully lay it out on the floor (**photo #1**). Test fit the pipes together at every slip joint to make sure they slide together easily (**photo #2**). If they do not slide together easily, use a pipe expander or gently tap on the ends of the pipes with a ball pein hammer to straighten them, then recheck fitment.

Please note that during this installation, you will be installing the exhaust from front-to-back **WITHOUT** tightening any of the clamps. Once the system is installed, we will then show you how to position the system properly and you will tighten the clamps **AFTER** that is complete. Proceed to the next page once all of the slip joints slide together easily.



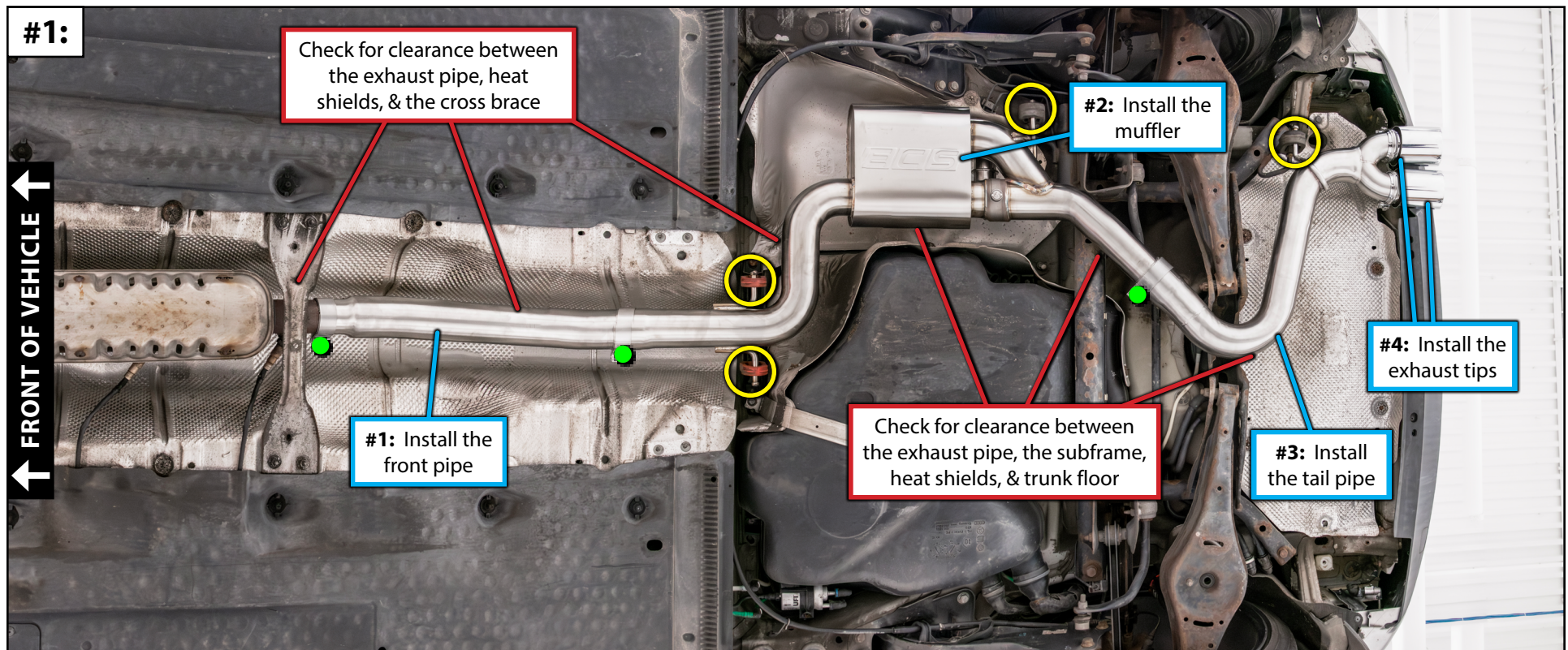
INSTALLING THE NEW EXHAUST SYSTEM

Step 2: 13mm & 15mm Sockets, Ratchet

Install the exhaust system in the order shown in **photo #1** below. Reinstall the exhaust hangers (circled in **YELLOW**), then it's time to adjust the exhaust system for proper fitment. The key to proper adjustment is patience, take your time and snug the clamps (**GREEN** circles) but **DO NOT** fully tighten any of the clamps until **AFTER** you've performed all of the steps up through page 15. Closely inspect the exhaust system from front to back, we need to check for clearance between the pipes and nearby chassis components.



CAUTION: You can tighten the exhaust clamps until they are “snug”, but **DO NOT USE AN IMPACT WRENCH** and do not fully tighten them yet!



INSTALLING THE NEW EXHAUST SYSTEM

Step 3: 13mm & 15mm Sockets, Ratchet

Check the hangers on the muffler and the tail pipes to ensure that they are sitting level side-to-side (**photo #1 & photo #2 below**).

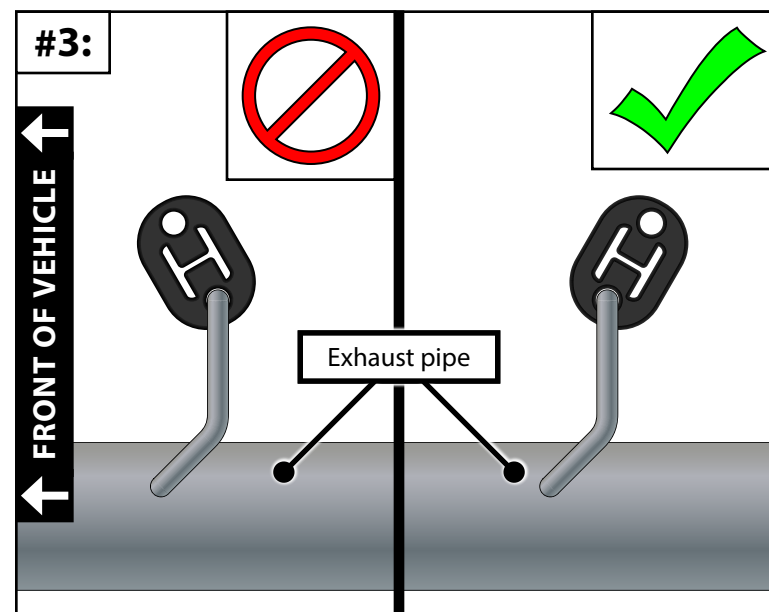
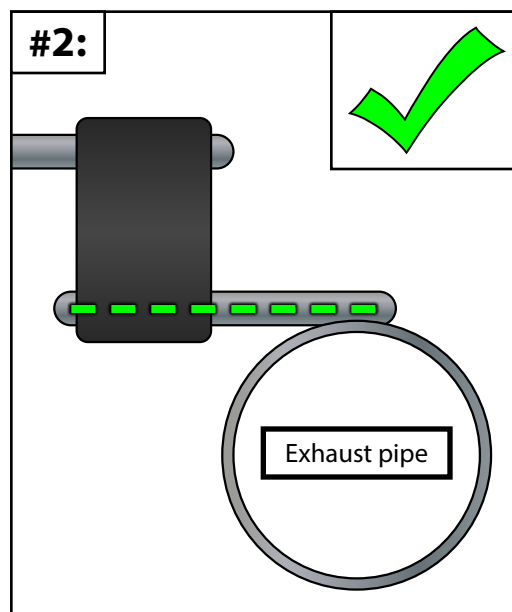
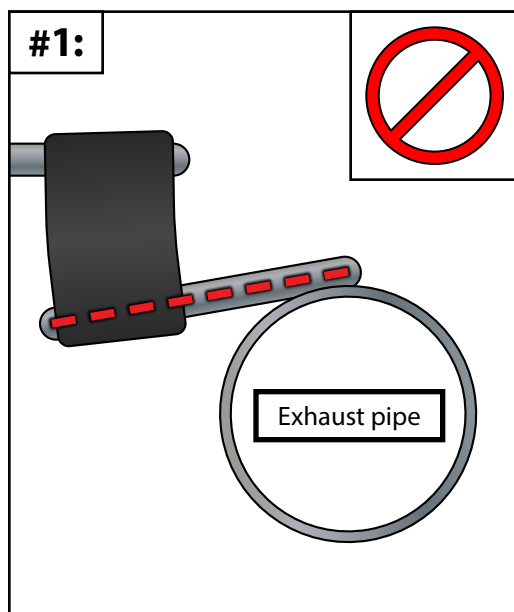
Finally, we want to ensure that the exhaust hangers are rotated at least slightly toward the front of the vehicle (**photo #3 below**). The exhaust hangers should be inclined toward the front of the vehicle so that lower hole is approximately 10-15mm forward of the upper hole, this will allow the hangers to pivot backwards as the system heats up and expands.



Due to differences in manufacturing, as well as variations from one car to another, you might not be able to get all of your hangers to pitch forward. This is acceptable as long as they are at least close to vertical.



CAUTION: You can tighten the exhaust clamps until they are “snug”, but **DO NOT USE AN IMPACT WRENCH** and do not fully tighten them yet!



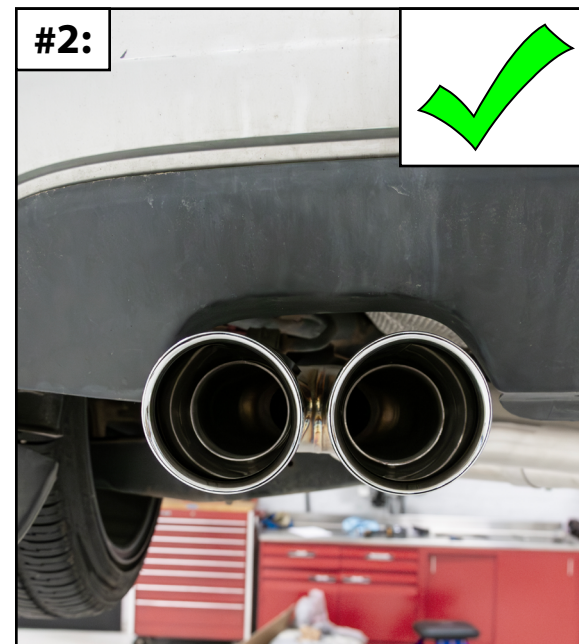
INSTALLING THE NEW EXHAUST SYSTEM

Step 4: 13mm & 15mm Sockets, Ratchet

Inspect the muffler and tail pipe, ensure that they are sitting level side-to-side (**photo #1**). Center and level the exhaust tip inside the rear valance (**photo #2**).



CAUTION: You can tighten the exhaust clamps until they are “snug”, but **DO NOT USE AN IMPACT WRENCH** and do not fully tighten them yet!



13mm & 15mm Sockets, Ratchet & Torque Wrench

Once the system is sufficiently adjusted, it's time to fully tighten the clamps. Starting at the front and moving rearward, push upward on the exhaust system as you tighten each clamp (**photo #1**), then let go and allow the exhaust to settle. Tighten the clamps on the exhaust tips to 19 Nm (14 Ft-lbs). Check again for clearance around all pipes.

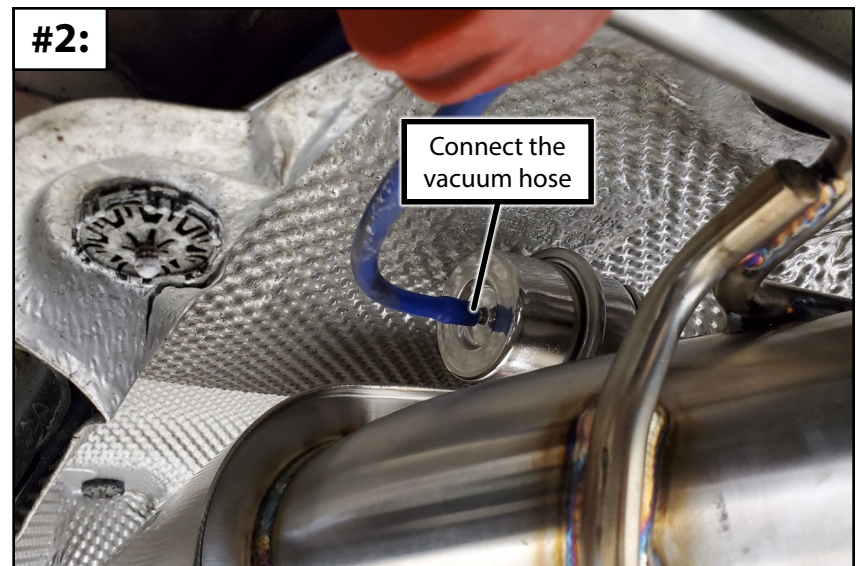
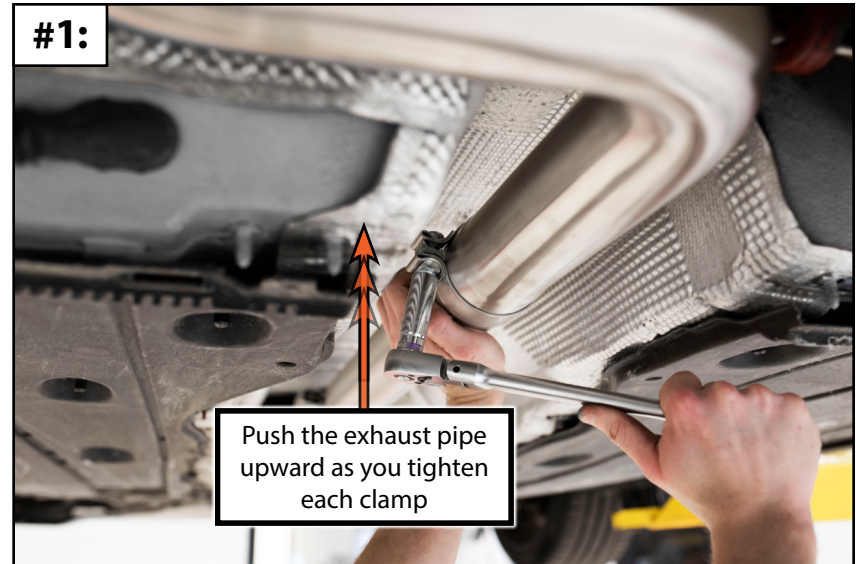
- ☐ Reinstall the airbox/engine cover and reconnect the air duct and intake tube (not shown).
- ☐ Wipe any oil, grease, or fingerprints from the exhaust system.
 - Any fingerprints or visible dirt on the surface will contaminate the finish surface once heat cycled.
 - Brake cleaner works well for removing dirt and oils. After cleaning, apply WD-40 to a microfiber towel and wipe the system down to bring out the color and make it pop.

- ☐ Recheck all fasteners after the vehicle has been driven 500 miles.

FOR VALVED SYSTEMS ONLY:

- ☐ Connect the vacuum hose to the muffler valve (**photo #2**).
- ☐ Perform a system check by completing the following steps:
 - Start the engine.
 - Press the "unlock" button on the remote to open the valves.
 - Press the "lock" button to close the valves.
 - You should be able to hear a difference in both exhaust tone and volume when the valves are opened or closed.
 - Looking under the vehicle you should be able to see the valve cycle back and forth (not shown).

Congratulations, your installation is complete!



Your Cat-Back Exhaust System installation is complete!



These instructions are provided as a courtesy by ECS Tuning

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