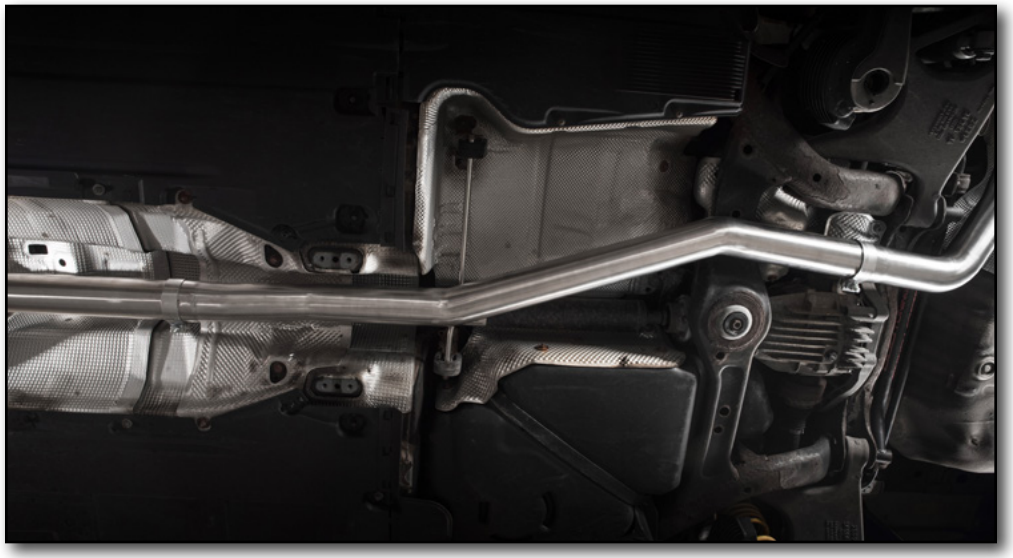
Audi B8 A4 2.0T ECS Valved Exhaust System - Single Exit
Installation Instructions - Click HERE to Shop

Skill Level
2 - Moderate

Some Experience Recommended



INTRODUCTION

Upgrading the exhaust system on your Audi B8 A4 2.0T is a very rewarding project that an experienced technician will be able to complete in a single day, plan accordingly based on your experience level. Our valved exhaust system is available in two layouts: Single exit w/dual exhaust tips, and dual exit w/single exhaust tips.

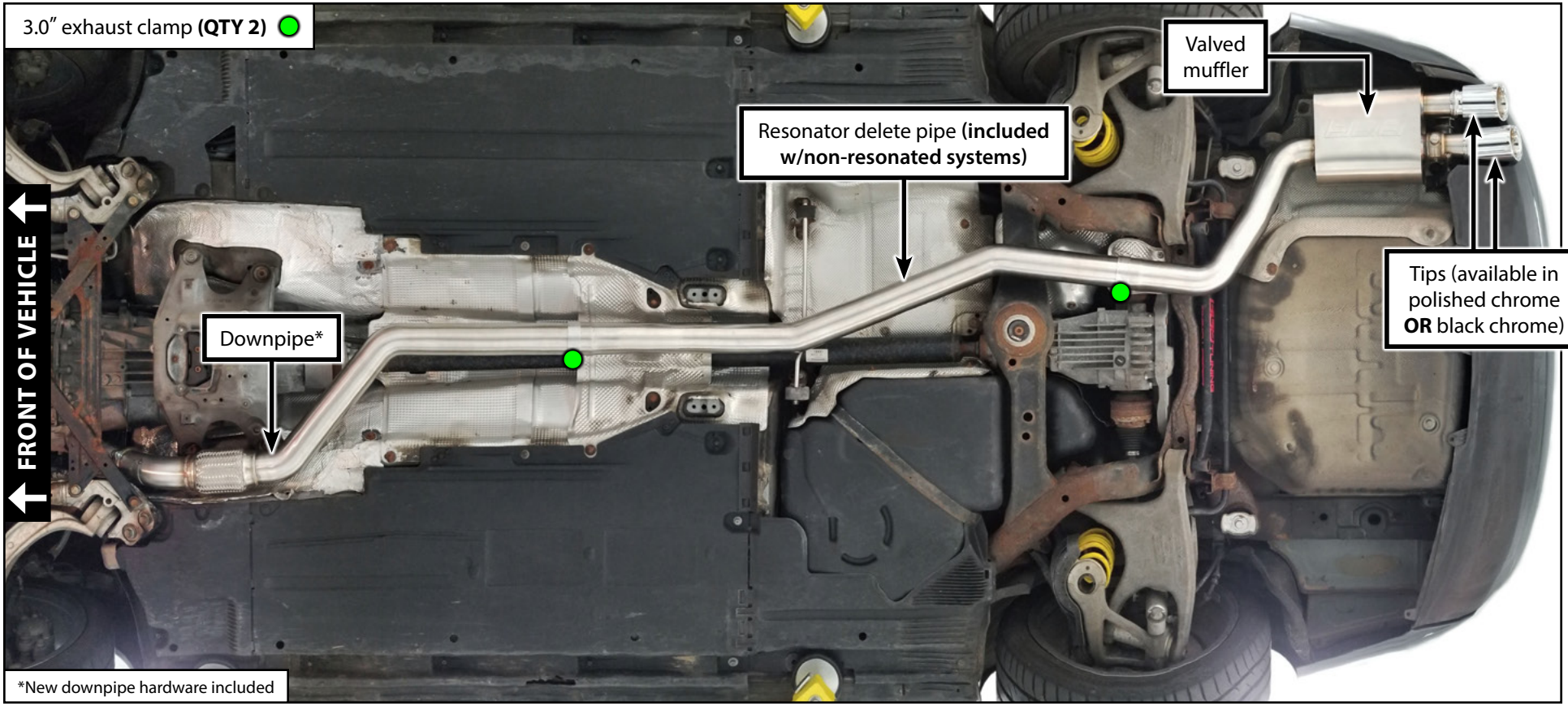
These instructions will outline the installation of single exit systems only, instructions for the dual exit systems can be found under the "Installation" tab of the kits which are linked HERE.

Before you begin, read and familiarize yourself with these instructions and make sure you have all the required tools on hand. Thank you for looking to ECS Tuning for all your performance and repair needs, we appreciate your business!

*Non-resonated SINGLE exit system shown here

TABLE OF CONTENTS

SINGLE EXIT VALVED EXHAUST SYSTEM KIT CONTENTS



Our single exit exhaust systems are non-resonated, with chrome or black tips. Non-resonated systems do not utilize a resonator to reduce resonant frequencies from entering the cabin (commonly referred to as “drone”). This means that you may notice more exhaust noise inside the vehicle, especially at highway speeds. Our ECS exhaust tips feature swivel adjustment to fine tune their fit.

See Page 10 for the remote exhaust valve controller 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
- **⅜" Drive Ratchet** ..... ES#2765902
- **⅜" Drive Torque Wrench** ..... ES#2221245
- **⅜" Drive Deep and Shallow Sockets** ..... ES#2763772
- **⅜" Drive Extensions** ..... ES#2804822
- **Hydraulic Floor Jack** ..... ES#2834951
- **Torx Drivers and Sockets** ..... ES#11417/8
- **½" Drive Deep and Shallow Sockets** ..... ES#2839106
- ½" Drive Ratchet
- ½" Drive Extensions
- ½" Drive Torque Wrench ..... ES#2221244
- **½" Drive Breaker Bar** ..... ES#2776653
- Bench Mounted Vise
- Crows Foot Wrenches
- Hook and Pick Tool Set ..... ES#2778980

Required For This Install

- **¼" Drive Ratchet** ..... ES#2823235
- **¼" Drive Deep and Shallow Sockets** ..... ES#2823235
- **¼" 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

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.

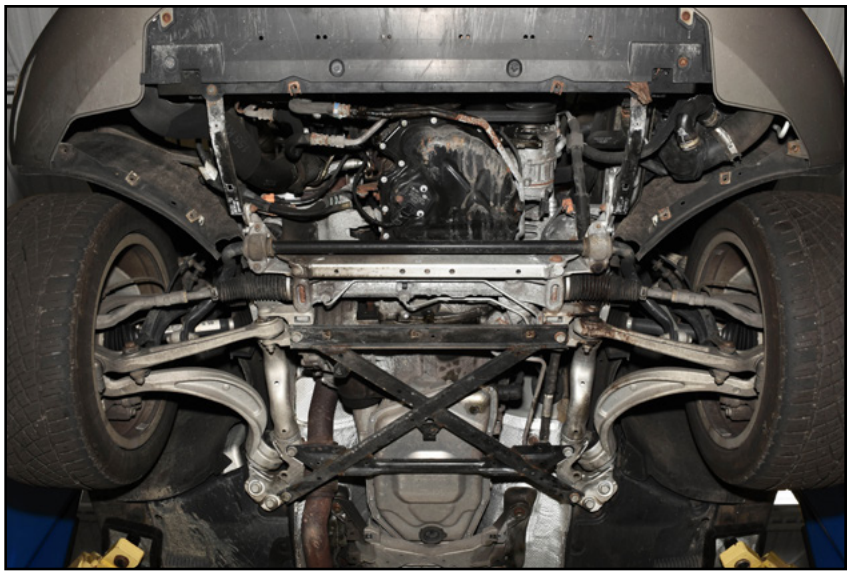
GENERAL PREPARATION AND SAFETY INFORMATION

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.

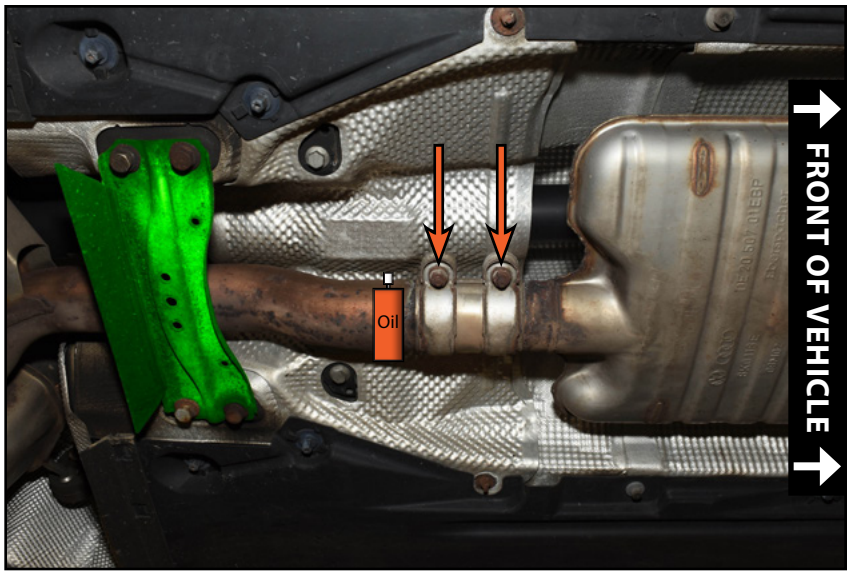
Safely lift and support the vehicle, then remove the belly pans.



13mm Socket & Ratchet

Loosen the sleeve clamp which connects the downpipe to the rest of the exhaust system.

Optional: You can remove the chassis cross brace (highlighted in **GREEN**) for extra room to work, but this install can be completed without removing it.

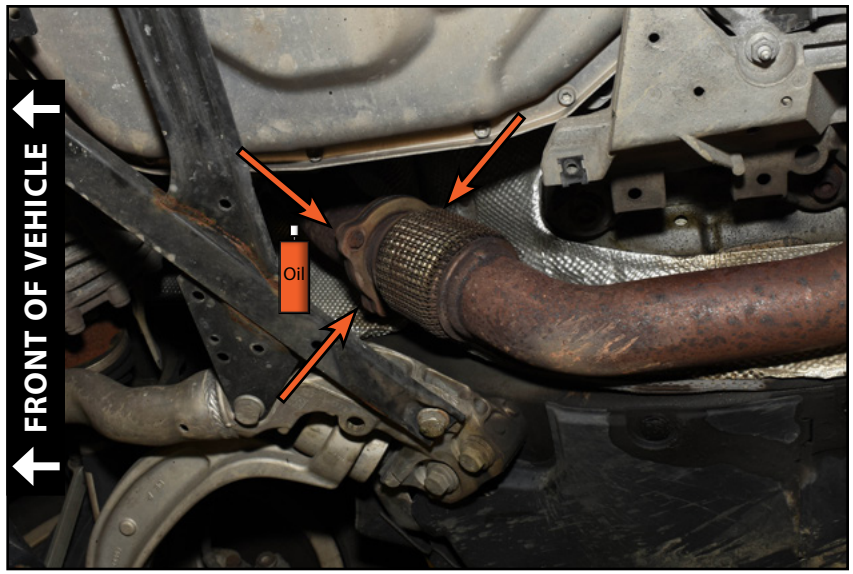


TECH TIP

Spray the nuts with penetrating oil and allow the oil to soak in before attempting to remove them.

12mm Wrench - OR - 12mm Socket & Ratchet

Locate and remove the three nuts (arrows) which secure the downpipe to the catalytic converter.



TECH TIP

Spray the nuts with penetrating oil and allow the oil to soak in before attempting to remove them.

Remove the downpipe from the vehicle.

NOTE

Don't forget to remove the sleeve clamp from the rear of the downpipe during this step.

REMOVING THE STOCK EXHAUST SYSTEM

Step 5:

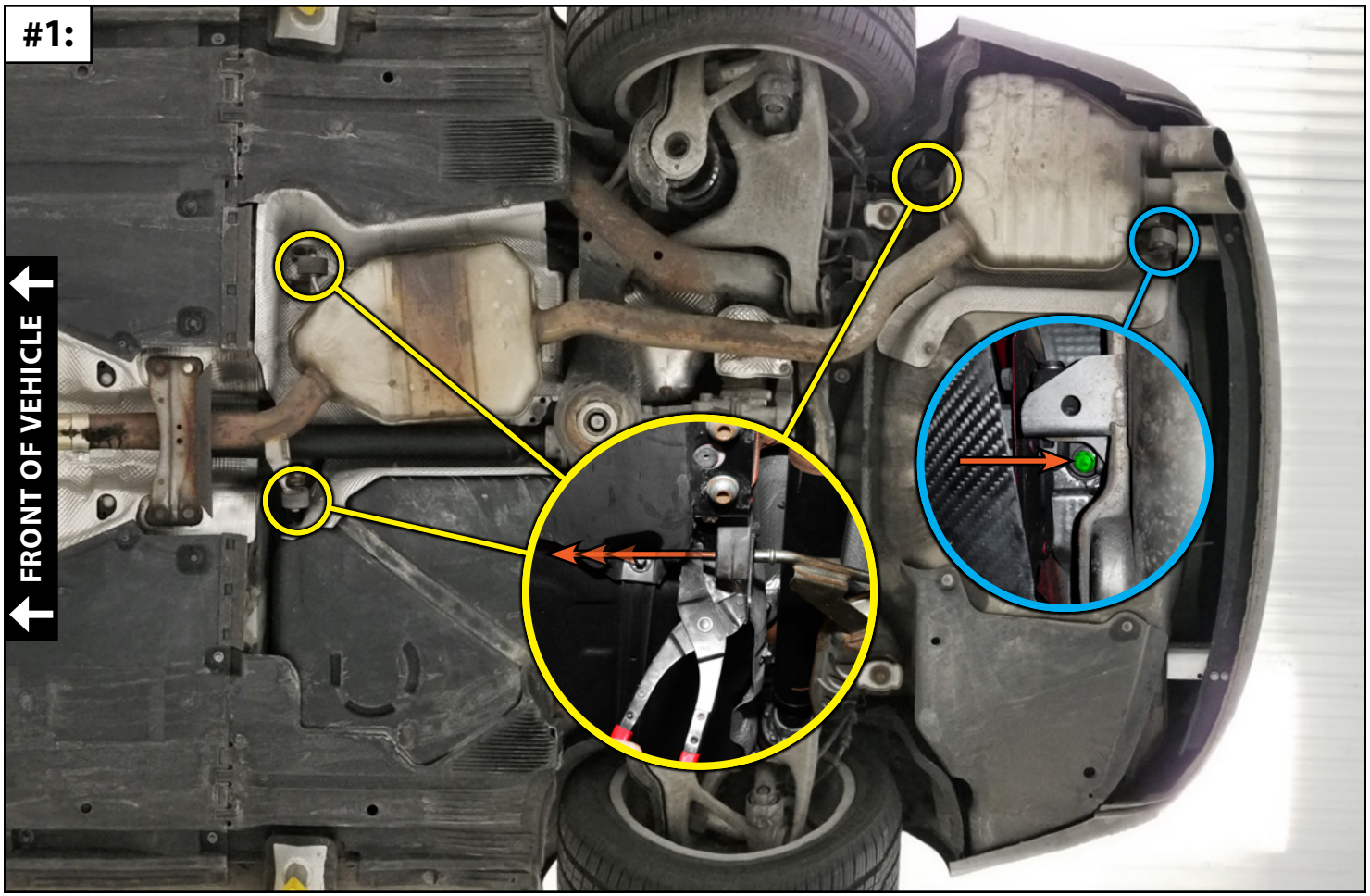
Support the rest of the exhaust system from below.

Release the three frontmost hangers from the exhaust system (see the **YELLOW** highlights in **Photo #1**). Exhaust hanger removal pliers work very well for this, click HERE to see them on our website!

Space is tight around the rearmost muffler hanger. You may find it easier to remove the 13mm bolt from the hanger and leave it on the muffler while you pull the exhaust system out (see the **BLUE** highlight in the photo).

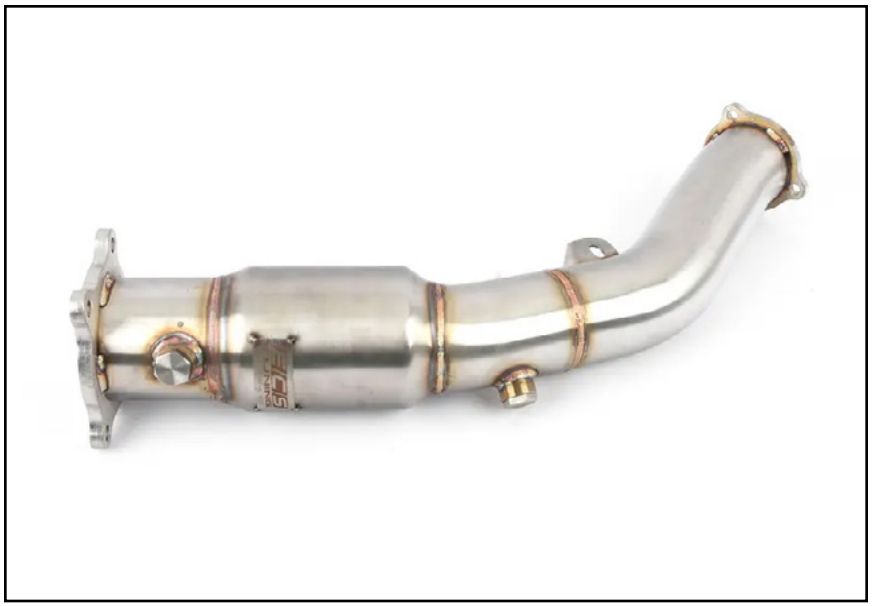
Carefully lower the entire system to the ground and set it aside.

#1:



CAUTION: The stock exhaust system is very heavy. We strongly recommend you enlist the help of a friend (or even two) to help you lower the system.

REMOVING THE STOCK EXHAUST SYSTEM



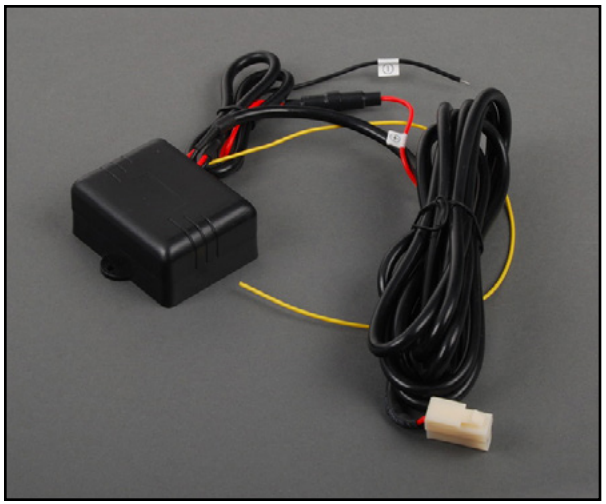
If you purchased a kit WITH a new high flow catalytic converter:

- Please reference the instructions on ES#3970647 under the "Installation" tab.

If you purchased a kit WITHOUT a new high flow catalytic converter:

- Proceed to the Page 10 for the installation of the remote valve controller system. The best time to install this system is now with the exhaust system completely removed from the vehicle.

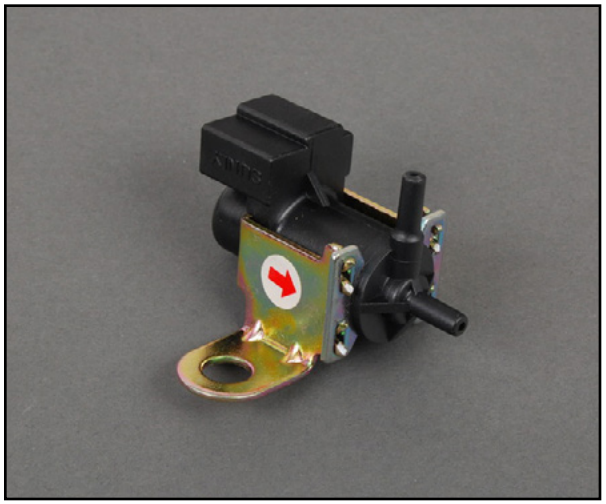
REMOTE EXHAUST VALVE CONTROLLER KIT CONTENTS



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 single exit systems

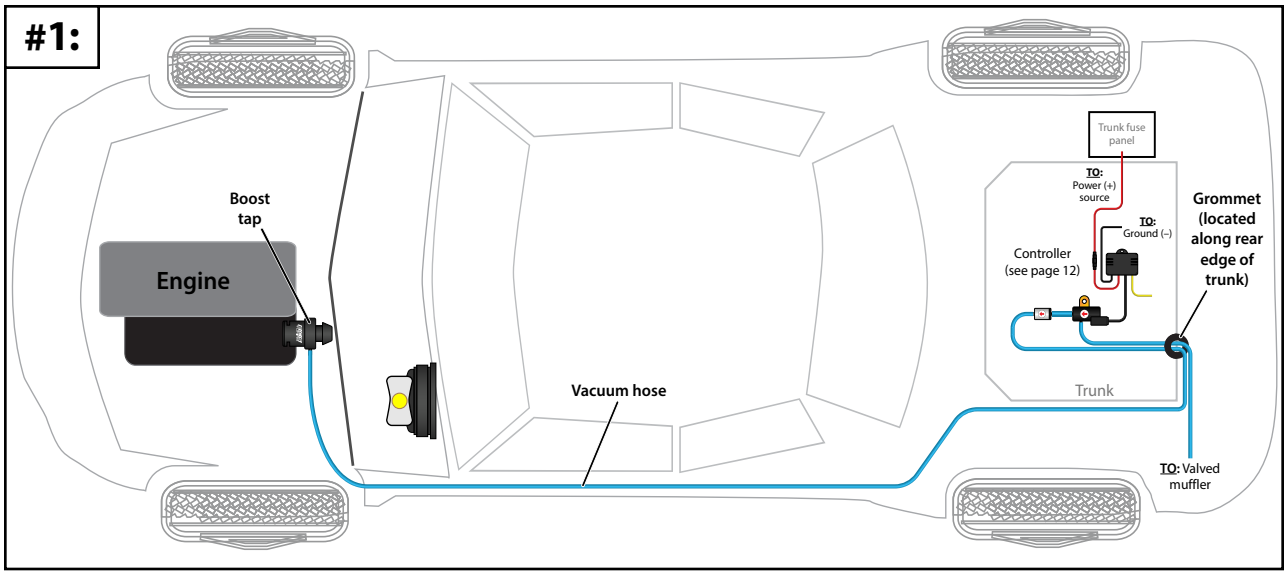
REMOTE EXHAUST VALVE CONTROLLER SYSTEM DIAGRAM

The control module and solenoid can be installed almost anywhere on the vehicle. You could install them in the trunk next to the battery (**Photo #1**), or under the hood (**Photo #2**). The grommet in the trunk floor is a good place to feed the hose inside (**Photo #1**). If you were to mount the control module under the hood you would need to find a suitable power source nearby (**Photo #2**).

We recommend using an Add-A-Circuit Fuse Holder to power the control module by tapping into an **IGNITION LIVE** fuse. This means that the control module will not be powered unless the key is turned **ON**. For more information on this please see the PDF which is located under the "Installation" tab on ES#1906431 or ES#3209653. Connect the ground wire to a nearby chassis ground.

Proceed to the next page for a detailed diagram of the entire valve controller system.

#1:



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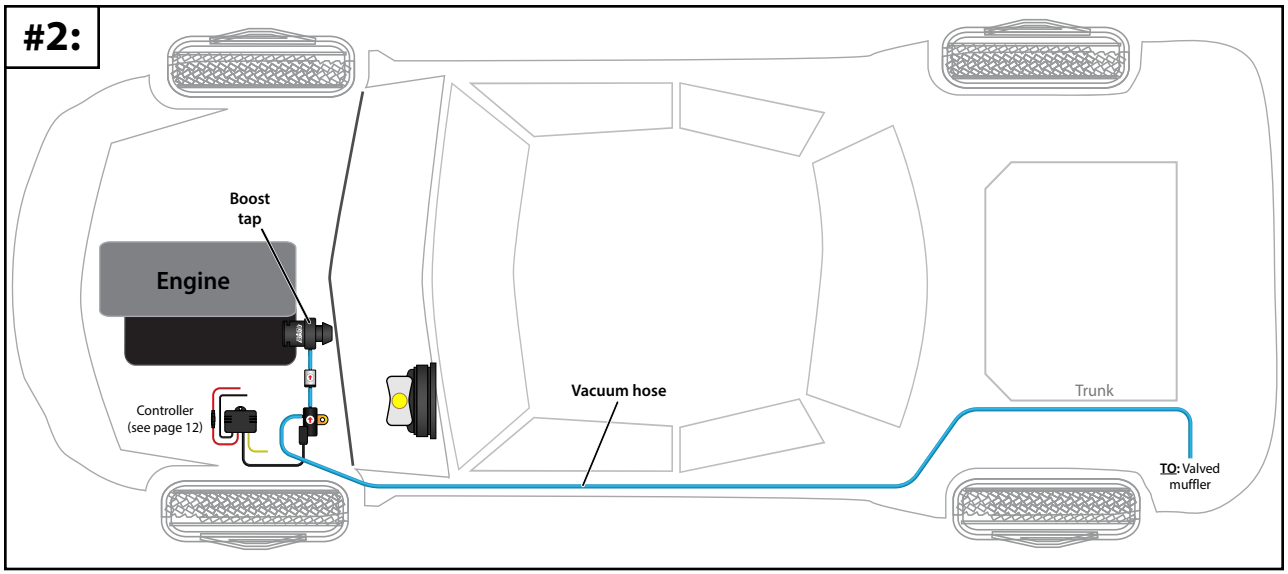
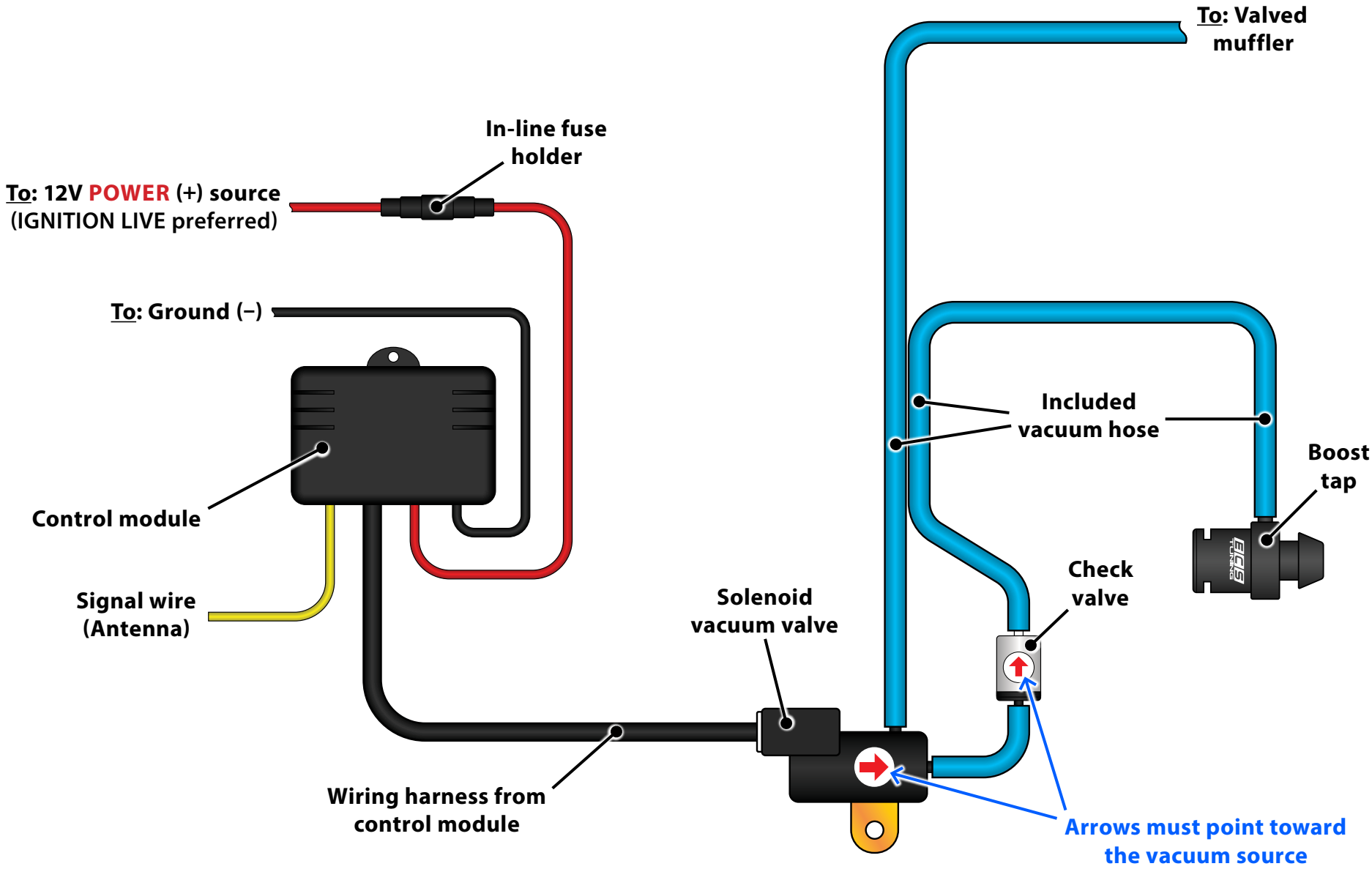


REMOTE EXHAUST VALVE CONTROLLER SYSTEM DIAGRAM



INSTALLING THE REMOTE EXHAUST VALVE CONTROLLER

Step 1:

The Remote Exhaust Valve Controller allows the user to open and close the valve inside the muffler with the push of a button.

Please familiarize yourself with the Kit Contents on Page 10, and the System Diagrams on Page 11 & 12 before proceeding to the next step.

Step 2:

In order to install this remote exhaust valve controller you **MUST** already have a boost tap installed on the vehicle (or some other appropriate vacuum source). If you do not currently have a boost tap installed on your engine, the ECS Tuning 2.0T boost tap can be found by clicking on one of the links below:

- For vehicles w/plastic intake manifold: ES#2718328
- For vehicles w/metal intake manifold: ES#2992381

If you already have a boost tap installed, connect the vacuum hose to one of the vacuum ports. This hose needs to route all the way back to the trunk, so **DO NOT** cut it to length yet!

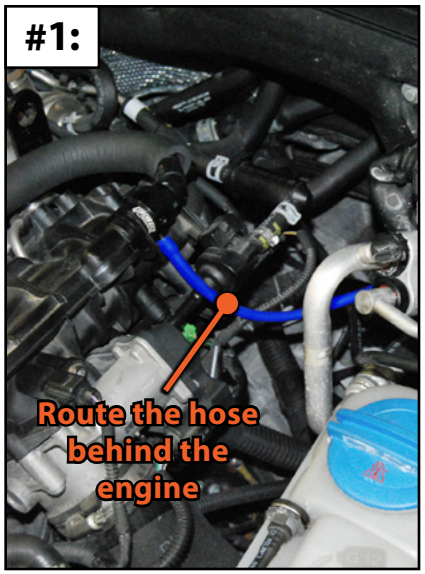
INSTALLING THE REMOTE EXHAUST VALVE CONTROLLER

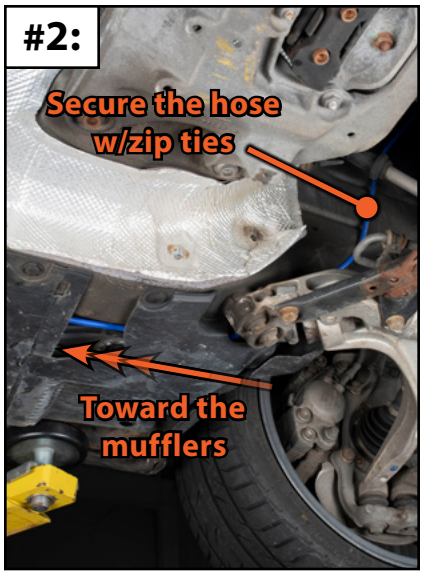
Step 3:

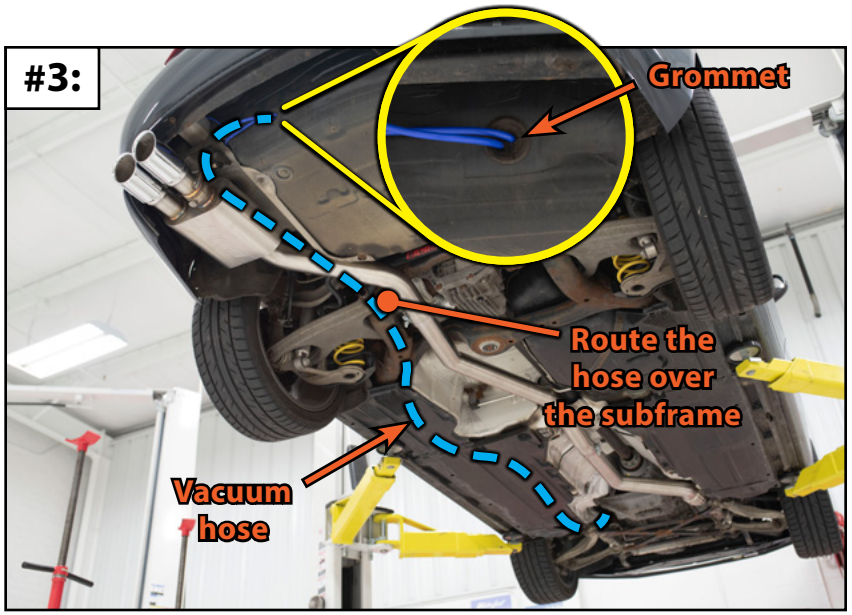
Route the **LONG** vacuum hose down away from any moving or hot components and out through the bottom of the vehicle (**Photo #1**).

Pull the vacuum hose down past the subframe as shown in the photo, ensuring that the hose is clear of any moving or hot parts, including suspension, engine and exhaust components (**Photo #2**).

Remove the fasteners on the left underbody panels and swing them downward to gain access. Route the vacuum hose over the panels (shown with the **BLUE** dotted line in **Photo #3**) securing it with zip ties as required. Reinstall the panels after the hose has been routed.







INSTALLING THE REMOTE EXHAUST VALVE CONTROLLER

Step 4:

Now it's time to mount the solenoid vacuum valve and the electronic control module. We opted to mount them self-tapping screws in the trunk next to the battery. Ensure that they are protected from the elements, as well as any nearby moving/hot components if you install them somewhere else.

Connect the control module wiring to suitable power (+) and ground (–) sources, then route the vacuum hose using the diagrams on Page 11 and Page 12 for reference. Secure any extra wiring with zip ties as needed (**Photo #1**).

NOTE

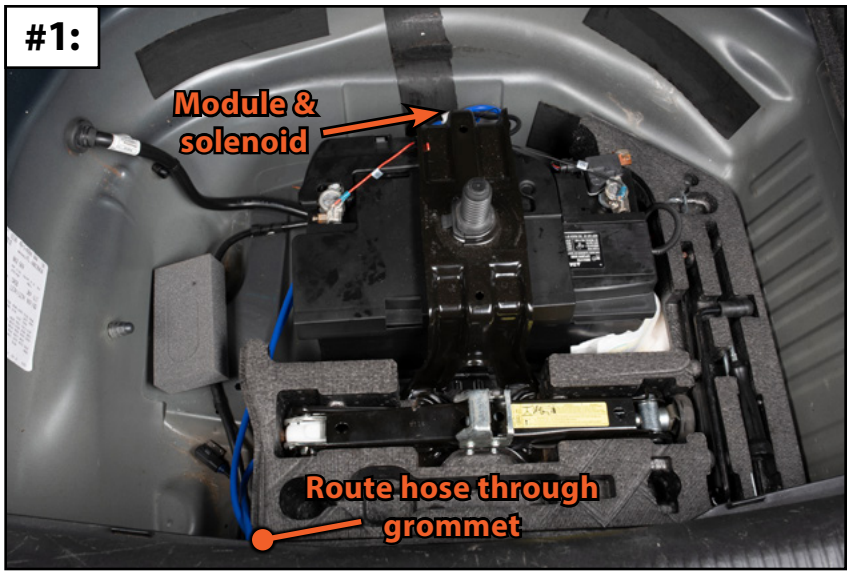
The loose wire acts as the antenna for the remote controller, do not cut or modify it.

Connect the vacuum hose to the vacuum port on the solenoid, then route it back through the grommet in the trunk floor. This hose needs to go to where the muffler will be located (**Photo #2**).

NOTE

This photo was taken with the heat shields removed for better visibility of hose routing.

#1:



#2:

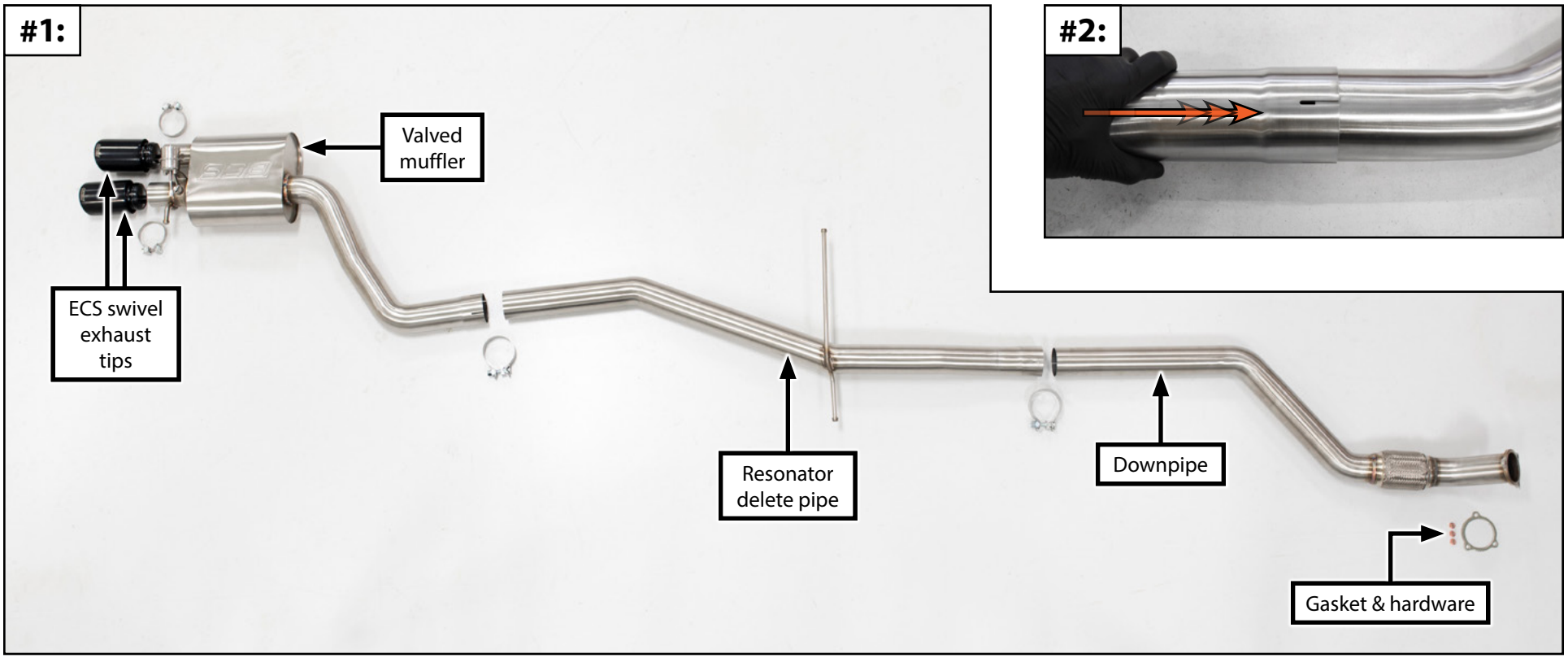
INSTALLING THE NEW VALVED EXHAUST SYSTEM

Step 1: Ball Pein Hammer

Before we begin it's a good idea to unpack your new exhaust system and carefully lay it out on the floor (**Photo #1**). Inspect all of the slip joints for any signs of damage during shipping. 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, gently tap on the ends of the pipes with a ball pein hammer to straighten them, then recheck fitment. Confirm that the jam nut is tight on the muffler valve (not shown).

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.

#1:



#2:

INSTALLING THE NEW VALVED EXHAUST SYSTEM

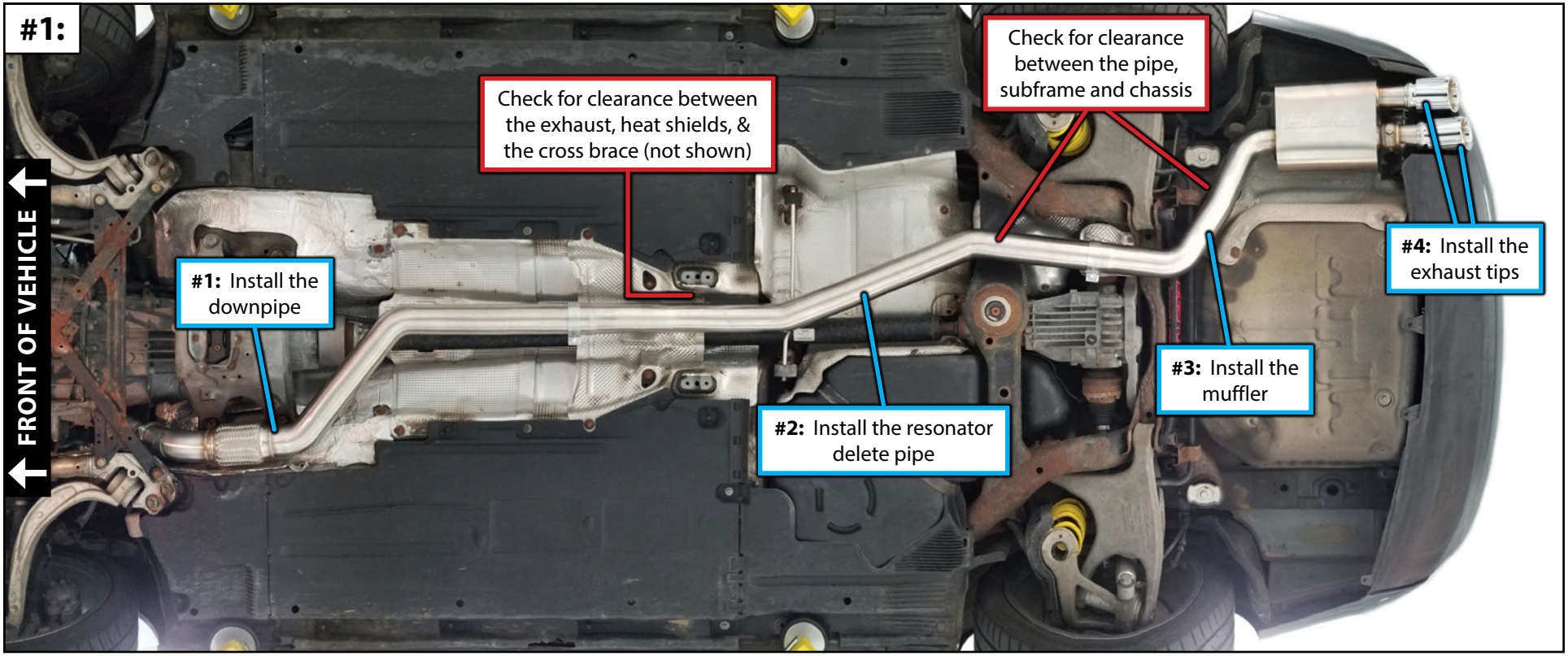
Step 2: 12mm Wrench, 13mm Socket & 15mm Sockets, Ratchet

Install the downpipe onto the catalytic converter using the provided gasket and hardware, torque the bolts to 25 Nm (18 ft-lbs). Remove the rearmost exhaust hanger from the stock muffler and transfer it to the new muffler (being sure to orient it exactly as it was before). Install the rest of the exhaust system in the order shown in **Photo #1** below.

Next, we'll need to adjust the exhaust system for proper fitment. The key to proper adjustment is patience, take your time and **DO NOT** fully tighten any of the clamps until **AFTER** you've performed all of the steps up through Page 19.

Closely inspect the exhaust system from front to back, we need to check for clearance between the pipes and nearby chassis components.

#1:



INSTALLING THE NEW VALVED EXHAUST SYSTEM

Step 3: 13mm & 15mm Sockets, Ratchet

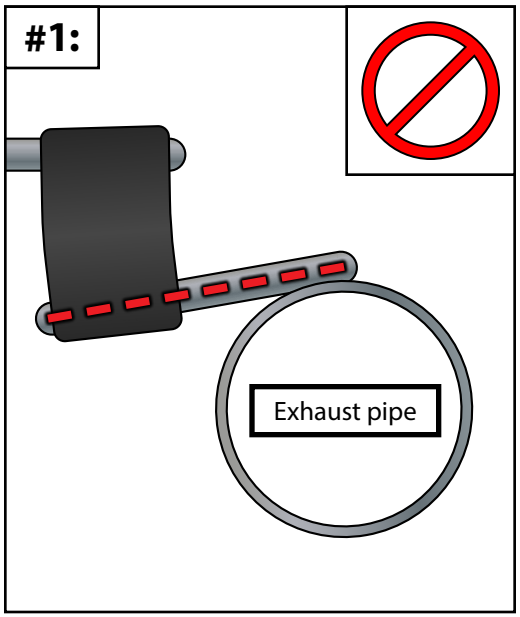
Check the hangers on the muffler and the resonator delete pipe to ensure that they are sitting level side-to-side (**Photos #1 & #2 below**).

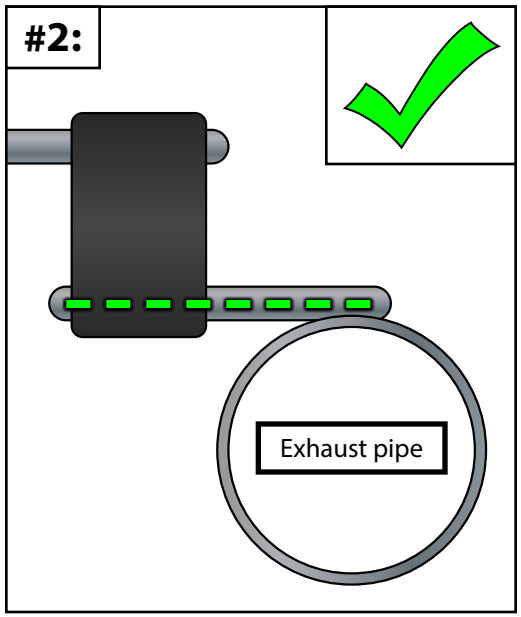
Finally, we want to ensure that the exhaust hangers are rotated at least slightly toward the front of the vehicle (**Photo #3 below**). The exhaust hangers should be inclined toward the front of the vehicle so that lower hole is approximately 10-15mm forward of the upper hole, this will allow the hangers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

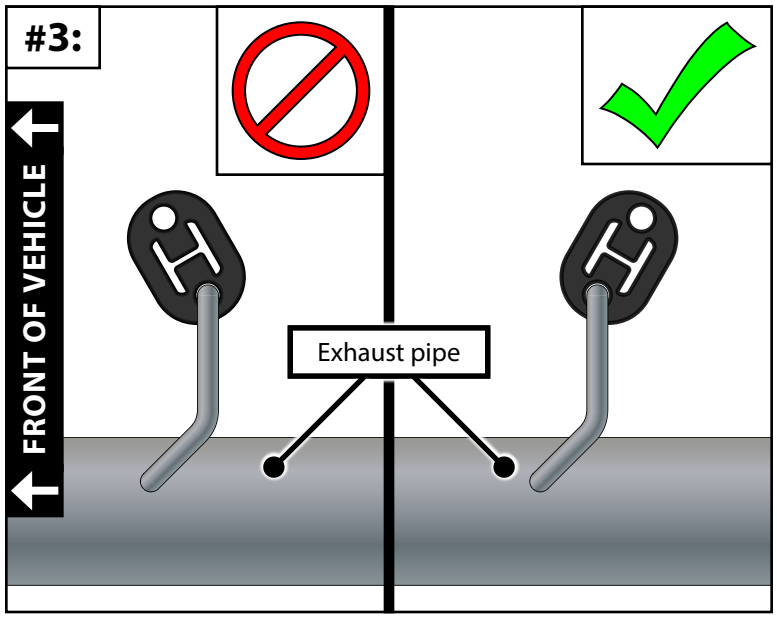
NOTE

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 VALVED EXHAUST SYSTEM

Step 4: 13mm & 15mm Sockets, Ratchet

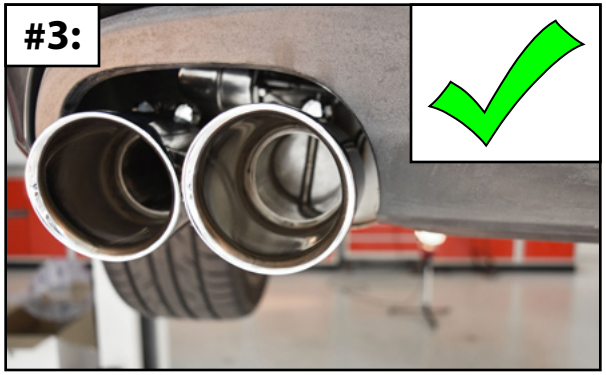
Level the muffler side-to-side (**Photo #1 below**). Center and level the muffler and exhaust tips inside the bumper cut out (**Photos #2 & #3 below**). Starting at the front and moving rearward, push upward on the exhaust system as you fully tighten all the clamps (**Photo #4 below**), then let go and allow the exhaust to settle. Check again for clearance around all pipes.

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!

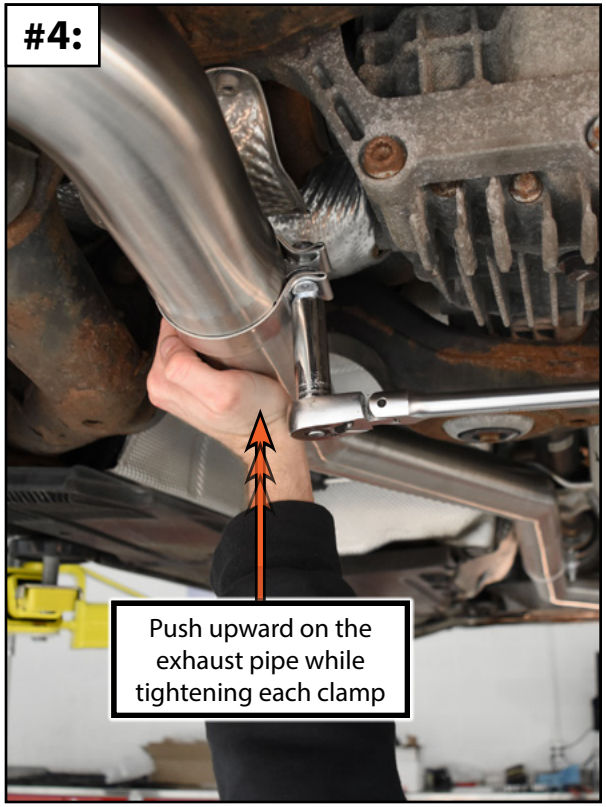
#1:

#2:

#3:



#4:

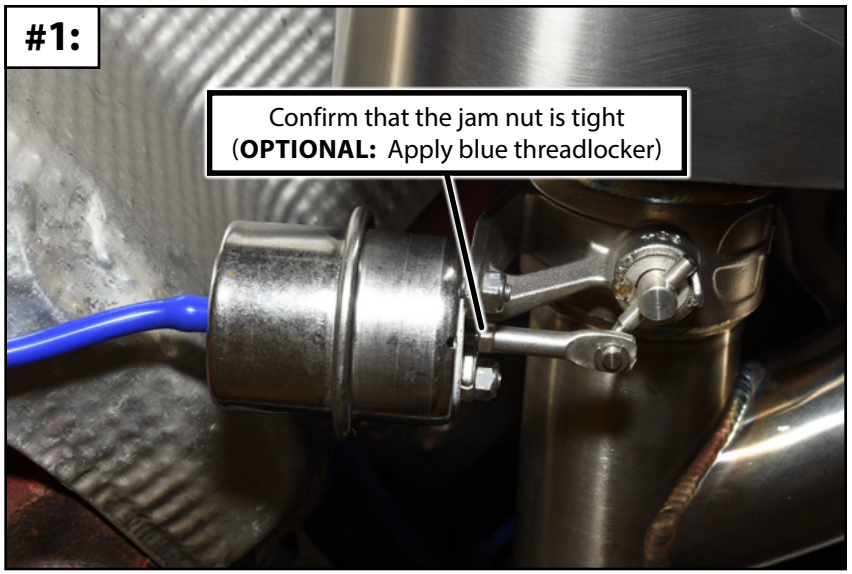


- ☐ Tighten the clamps on the exhaust tips to 19 Nm (14 Ft-lbs).
- ☐ Fully tighten down all remaining the exhaust clamps.
- ☐ Connect the vacuum hose to the muffler valve (**Photo #1**).
- ☐ Wipe any oil, grease, or fingerprints from the exhaust system.
- ☐ Reinstall the belly pans.
- ☐ Perform a system check by performing the following steps (**Photos #2 & #3**):
  - 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.
- ☐ Recheck all fasteners after the vehicle has been driven 500 miles.

NOTE

We have found that in some cases while the engine is making boost there won't be enough vacuum present in the system to operate the exhaust valve. This system will operate best when you are off throttle.

#1:



#2:

#3:

PROGRAMMING THE HOMELINK® BUTTONS

Step 1:

It is possible to program the Homelink® buttons inside your vehicle and use them to open and close the exhaust system valves. Since the valve in the muffler is ***normally closed***, the **UNLOCK** button will **OPEN** the valve, and the **LOCK** button will **CLOSE** the valve.

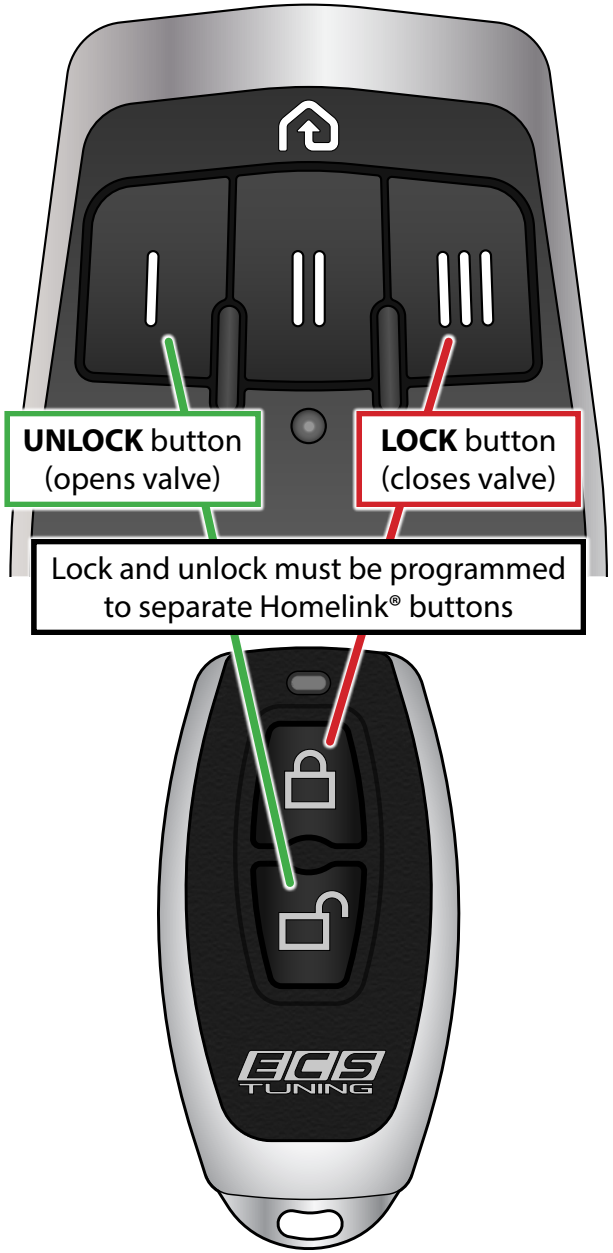
We recommend you check your owner's manual programming information, or you can visit the Homelink® website for their vehicle specific instructions:

- https://homelink.com/program/watchvideo

Here are a few notes to help you along the way:

1. You will need to program **ANY TWO** of your Homelink® buttons to control the exhaust system valves: one button will be used to open the valve, the second button will close it.
2. Pay close attention to where the manufacturer suggests pointing the remote during pairing. Some systems are very sensitive to location.
3. Depending on the method used to program the Homelink® system, it is possible that any previously programmed remotes will be deleted and will need to be reprogrammed.
4. If you have difficulty programming your Homelink® buttons, it might help to try the following:
    - Start the programming procedure over again.
    - Check your remote batteries.
    - Review the troubleshooting tips in your owner's manual.

Your ECS Exhaust System installation is complete!



Your ECS Valved Exhaust 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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