



Audi C7 4.0T Cat-Back Exhaust System Installation Instructions - [ES4660652/ES4660698](#)



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.

TABLE OF CONTENTS

Cat-Back Exhaust Kit Contents.....	pg.3
Required Tools and Equipment.....	pg.4
Installation and Safety Information	pg.5
Project Overview	pg.6
Removing the Stock Exhaust System.....	pg.7
Installing the New Exhaust System.....	pg.10

AVAILABLE EXHAUST TIP OPTIONS:



4.0" Carbon Fiber Tips

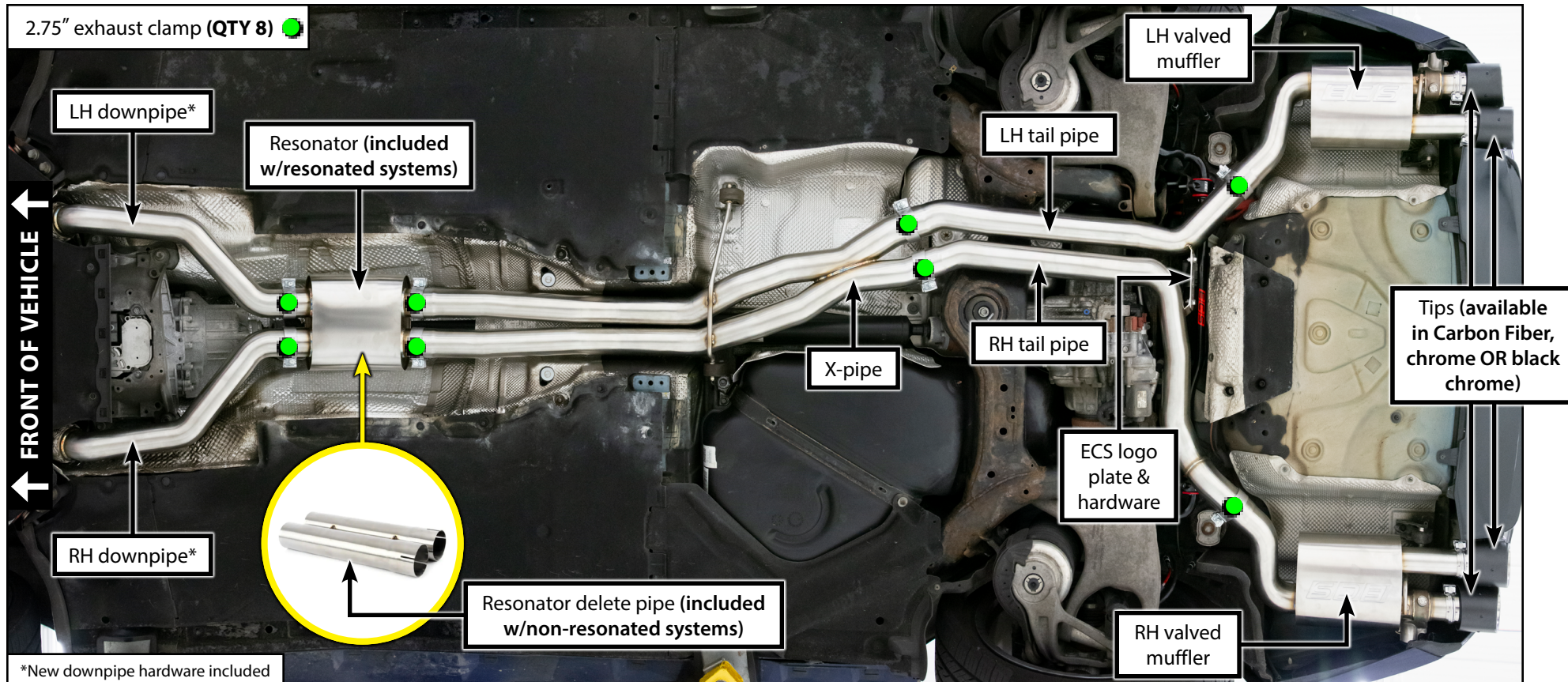


4.0" Chrome Tips



4.0" Black Chrome Tips

CAT-BACK EXHAUST SYSTEM KIT CONTENTS



Kits are available resonated or non-resonated, with carbon fiber, chrome or black chrome tips. Resonated systems utilize a resonator mounted in the center of the center of the system to reduce resonant frequencies from entering the cabin (commonly referred to as "drone"). Our ECS exhaust tips feature swivel adjustment to fine tune their fit.

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

- **Exhaust Hanger Removal Pliers**.....[ES#2221243](#)

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.



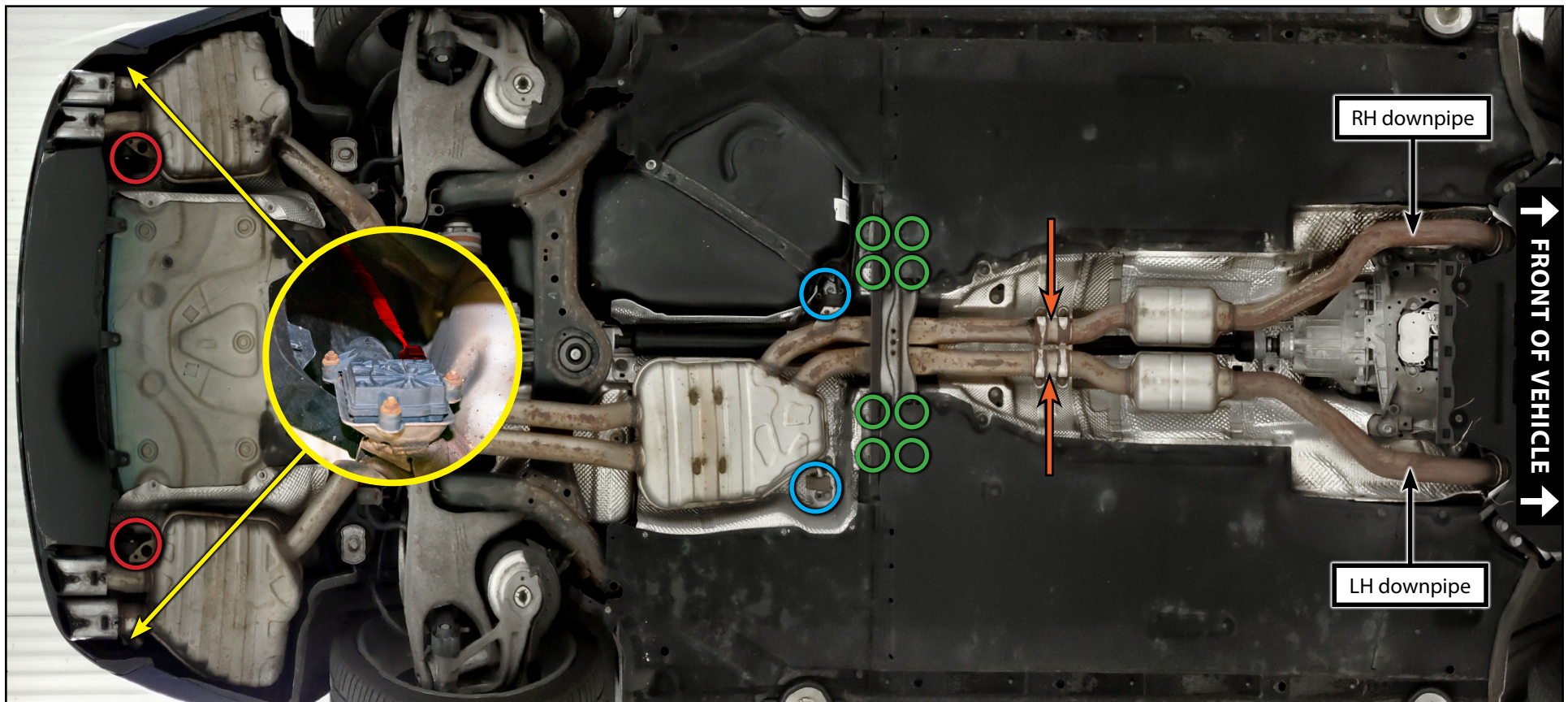
NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

PROJECT OVERVIEW

The first step is to remove the eight bolts (circled in **GREEN**) which secure the chassis cross brace. Support the exhaust from below while you remove the frontmost hangers (circled in **BLUE**), and the rearmost hangers (circled in **RED**). Disconnect the connectors for the exhaust valves (highlighted in **RED** in the inset photo), then loosen the two clamps (arrows) and carefully lower the stock exhaust from the vehicle. Finally, remove the six bolts (not shown) which secure the stock downpipes to the catalytic converters and remove them as well.

Installation of our cat-back is pretty straight-forward. Starting with the new downpipes, the exhaust is installed from the front to the rear.

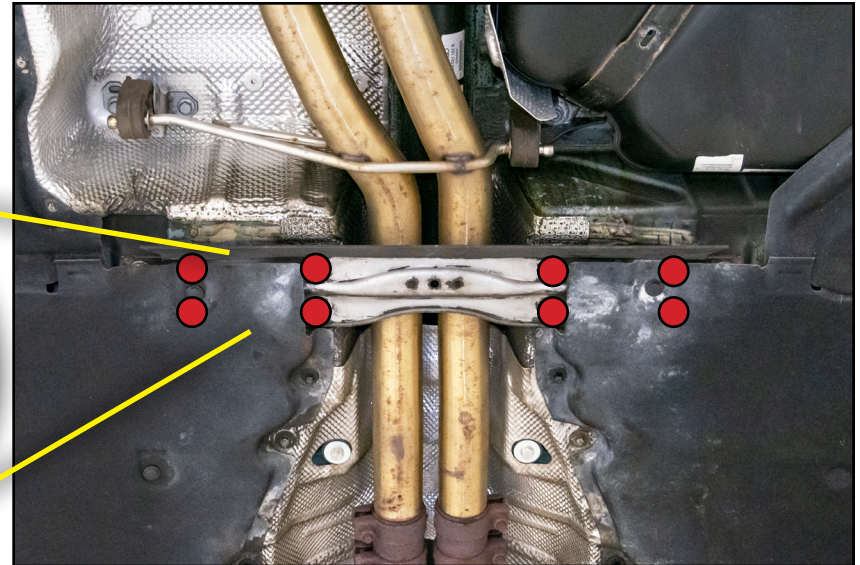
Now let's get to it!



REMOVING THE STOCK EXHAUST SYSTEM

Step 1: M12 Triple-Square Socket & Ratchet

Loosen any fasteners then pull down on the side panels (as shown in inset photo) to gain access to the chassis brace bolts (**RED** circles). Remove the bolts and set the chassis brace aside.

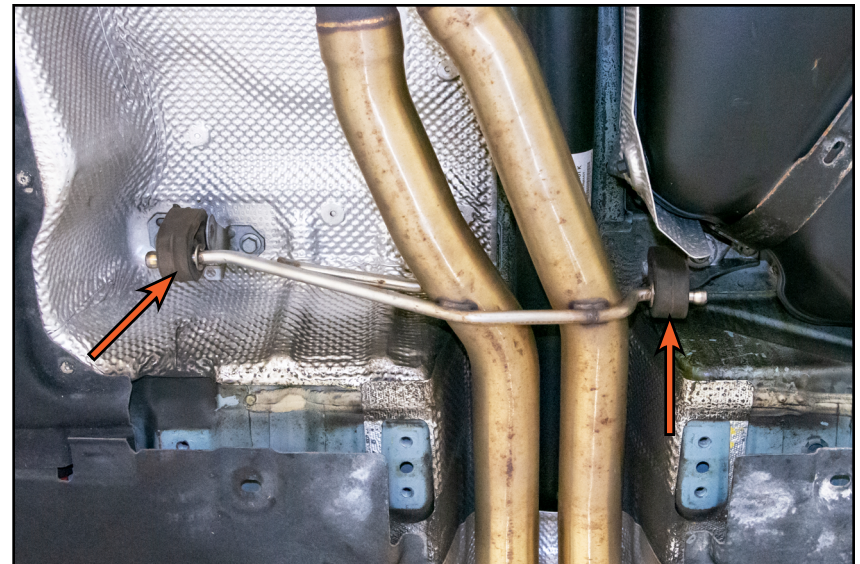


Step 2: Exhaust Hanger Removal Pliers

Pull the two frontmost hangers on the exhaust system (arrows) free from the rubber hangers.



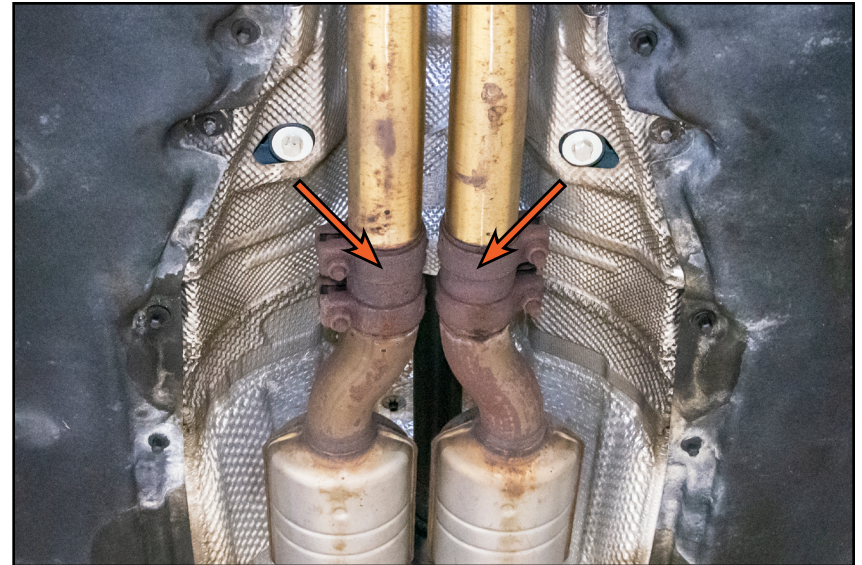
Our exhaust hanger removal pliers come in handy here, click [HERE](#) to view them on our website.



REMOVING THE STOCK EXHAUST SYSTEM

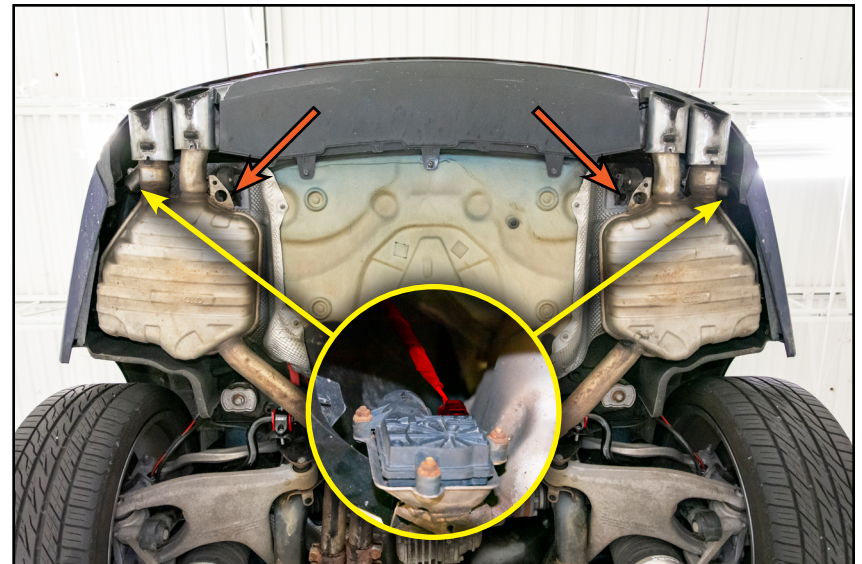
Step 3: 13mm Socket & Ratchet

Support the exhaust system from below then remove the two sleeve clamps (arrows) which secure the exhaust system to the downpipes.



Step 4: 13mm Socket & Ratchet

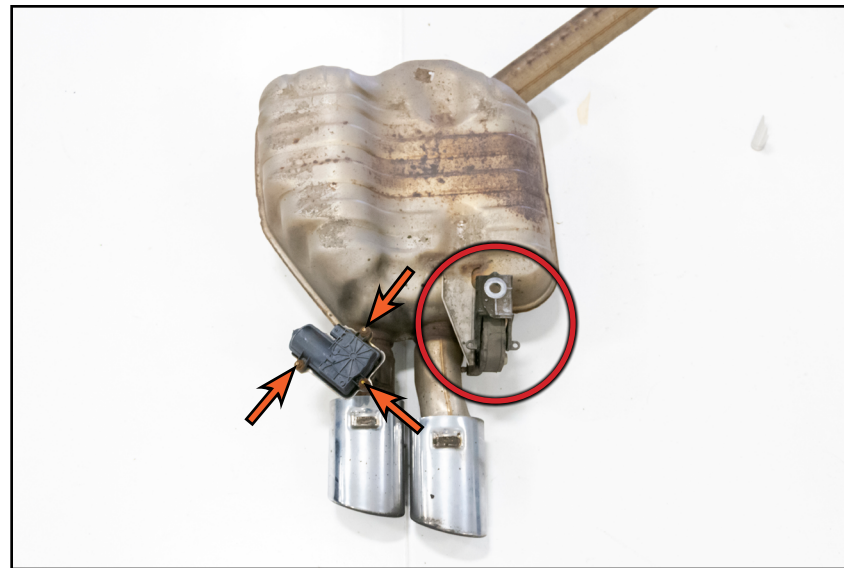
Disconnect the connector (highlighted in **RED** in inset photo) for each exhaust valve controller, then remove the nuts (arrows) which secure the hangers to the vehicle and carefully remove the exhaust system.



REMOVING THE STOCK EXHAUST SYSTEM

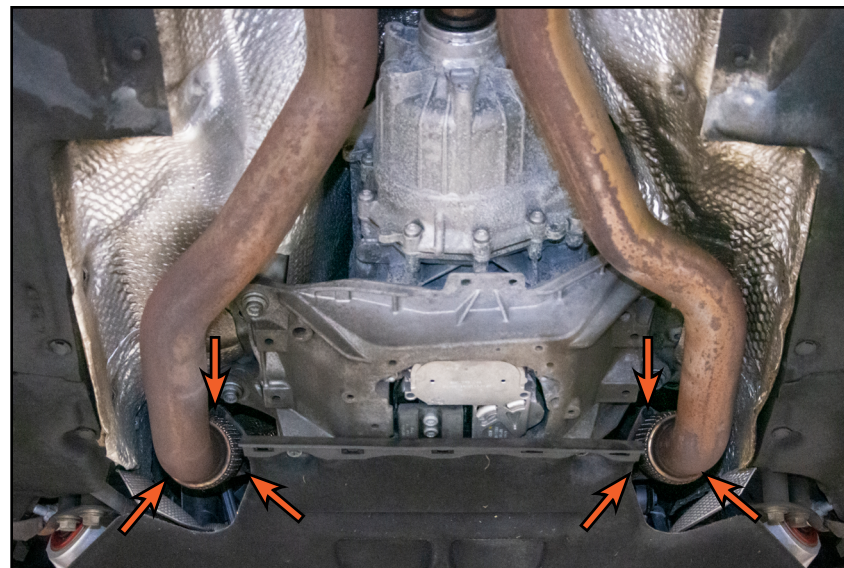
Step 5: Exhaust Hanger Removal Pliers, 8mm Socket & Ratchet

Remove the three nuts (arrows) and carefully pull the valve controller free from each muffler and set it aside. Remove the rubber hangers from each stock muffler and set it aside.



Step 6: 12mm Socket & Ratchet

Remove the six nuts (arrows) which secure the stock downpipes to the catalytic converters and carefully remove the downpipes.

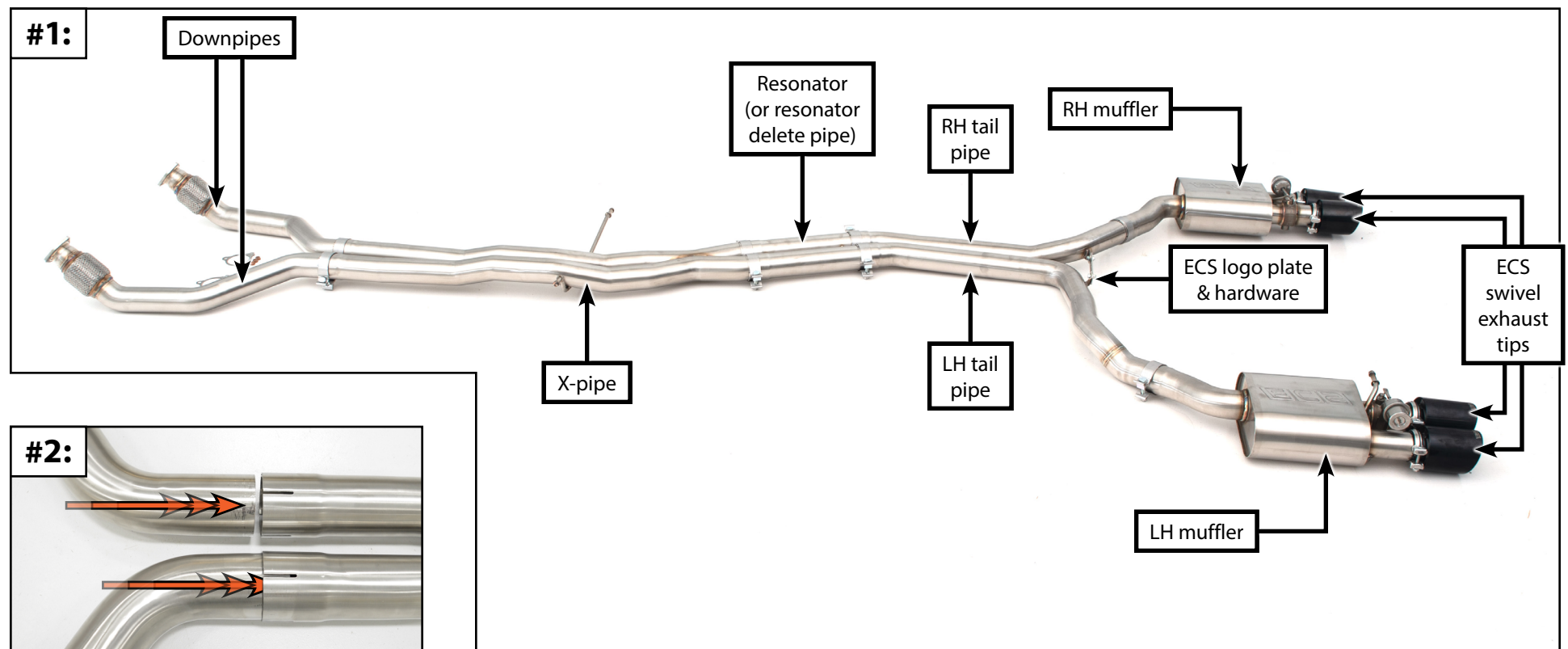


INSTALLING THE NEW EXHAUST SYSTEM

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.

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.



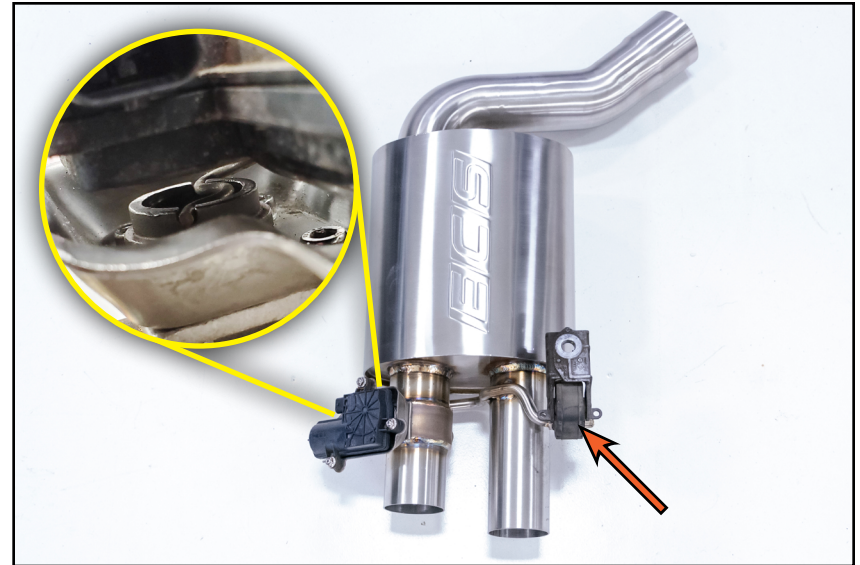
INSTALLING THE NEW EXHAUST SYSTEM

Step 2: 8mm Socket & Ratchet



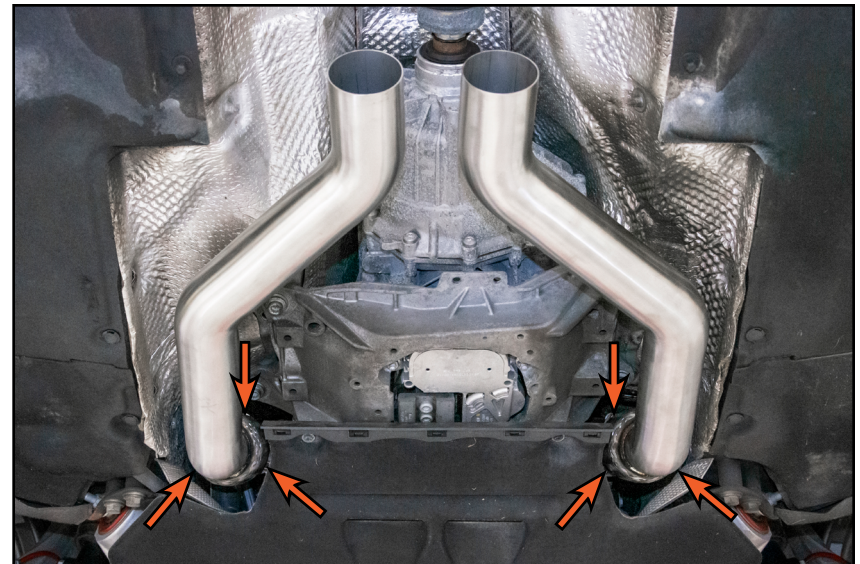
The spring underneath the valve controller must align with the notches in the top of the new muffler valve (as shown in the inset photo on the right). Failure to do so will result in non-operational exhaust valves.

Transfer the valve controller from the stock mufflers over to the new ones using the provided hardware. Tighten the nuts until they make contact + 1/8 turn.



Step 3: 13mm Socket & Ratchet

Install the new downpipes onto the catalytic converters using the provided gaskets and hardware, then torque the bolts (arrows) to 25 Nm (18 ft-lbs).



INSTALLING THE NEW EXHAUST SYSTEM

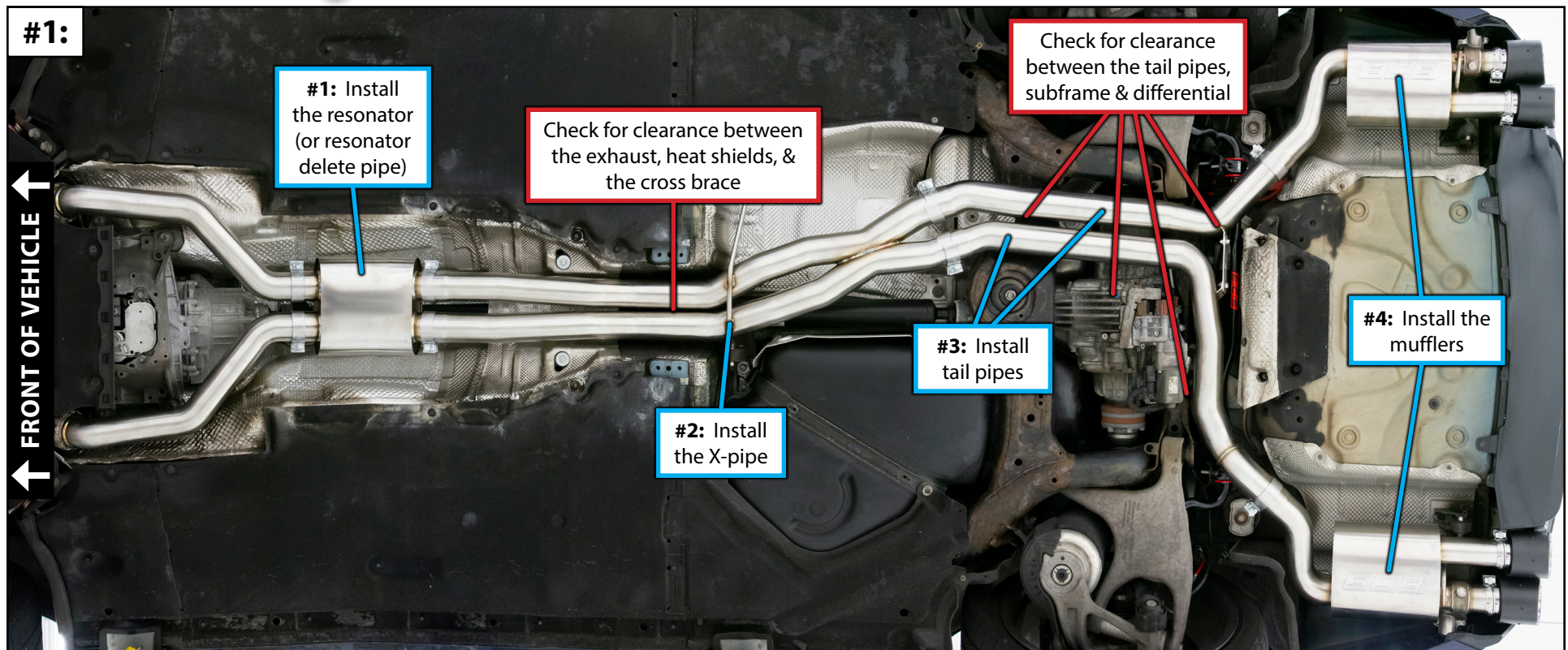
Step 4: 15mm Sockets, Ratchet

Loosely install 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 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 5: 15mm Sockets, Ratchet

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

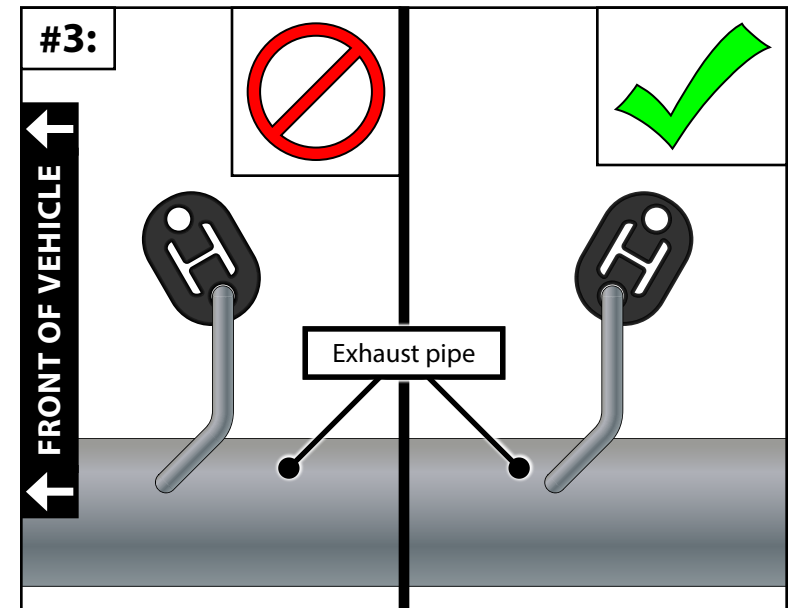
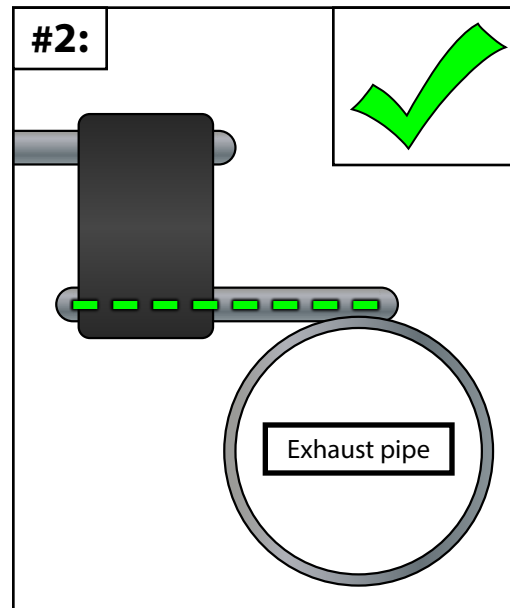
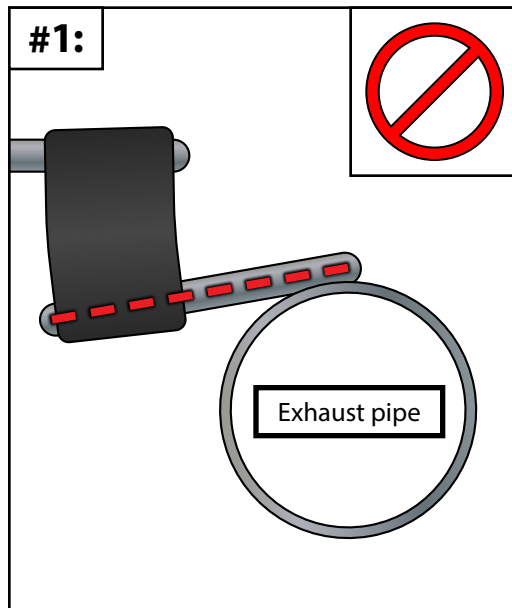
Finally, we want to ensure that the exhaust hangers are rotated at least slightly toward the front of the vehicle (**Photo #3 below**). The exhaust hangers should be inclined toward the front of the vehicle so that lower hole is approximately 10-15mm forward of the upper hole, this will allow the hangers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



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!



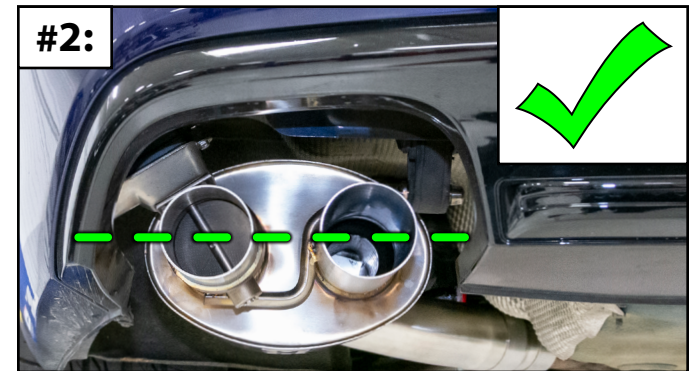
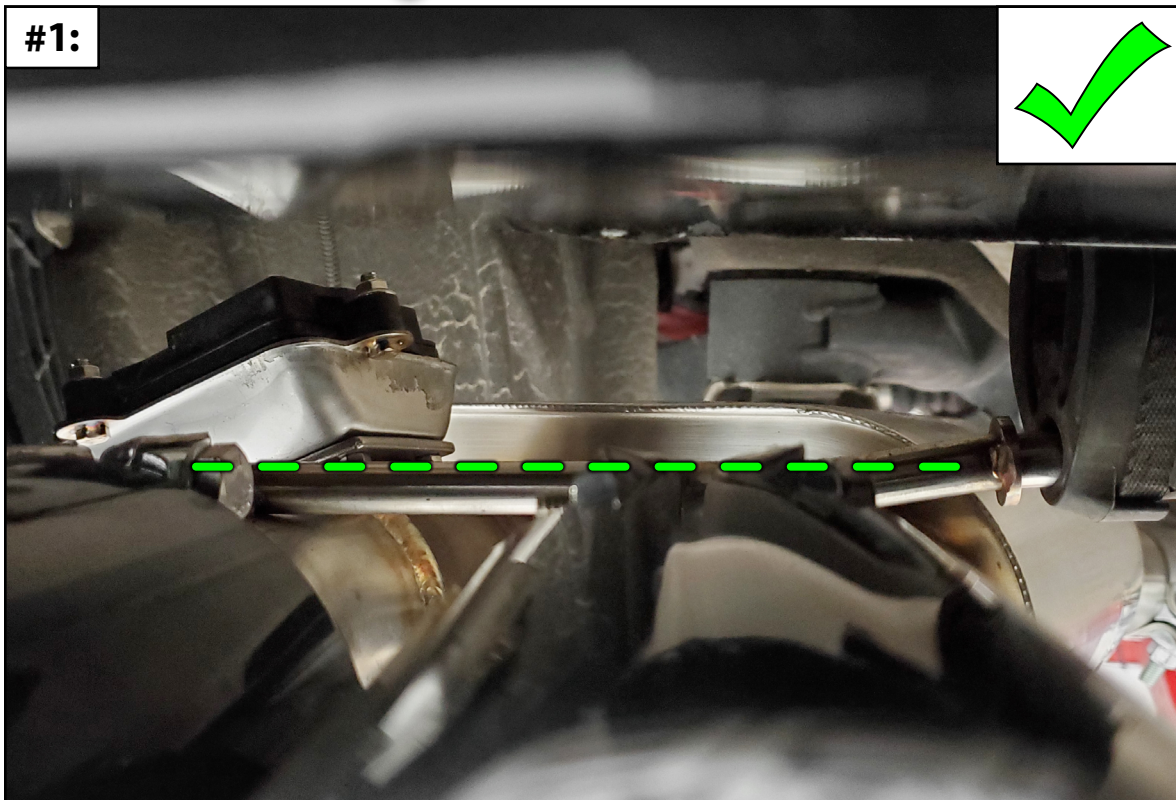
INSTALLING THE NEW EXHAUST SYSTEM

Step 6: 13mm & 15mm Sockets, Ratchet

Inspect the mufflers and ensure that they are sitting level side-to-side as much as possible. It may be helpful to look at the hanger rod to determine whether the muffler is sitting level or not (**Photo #1 below**). Center and level the mufflers inside the bumper cut outs (**Photo #2 below**). Install and center the logo plate using the provided hardware (**Photo #3 below**), then torque the bolts to 25 Nm (18 ft-lbs).



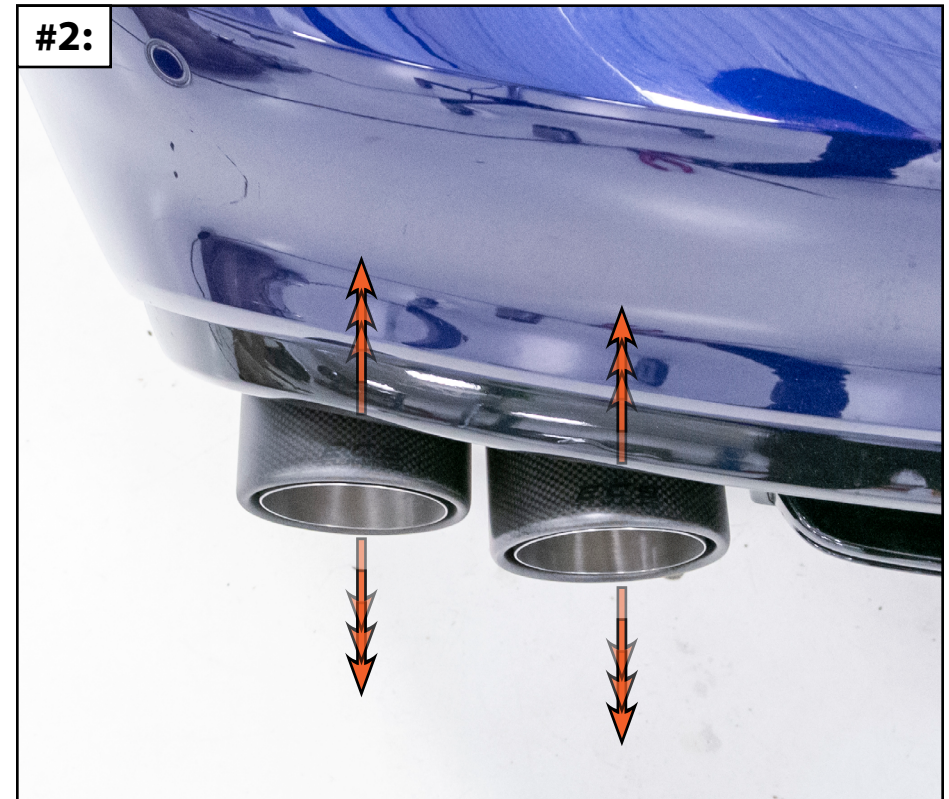
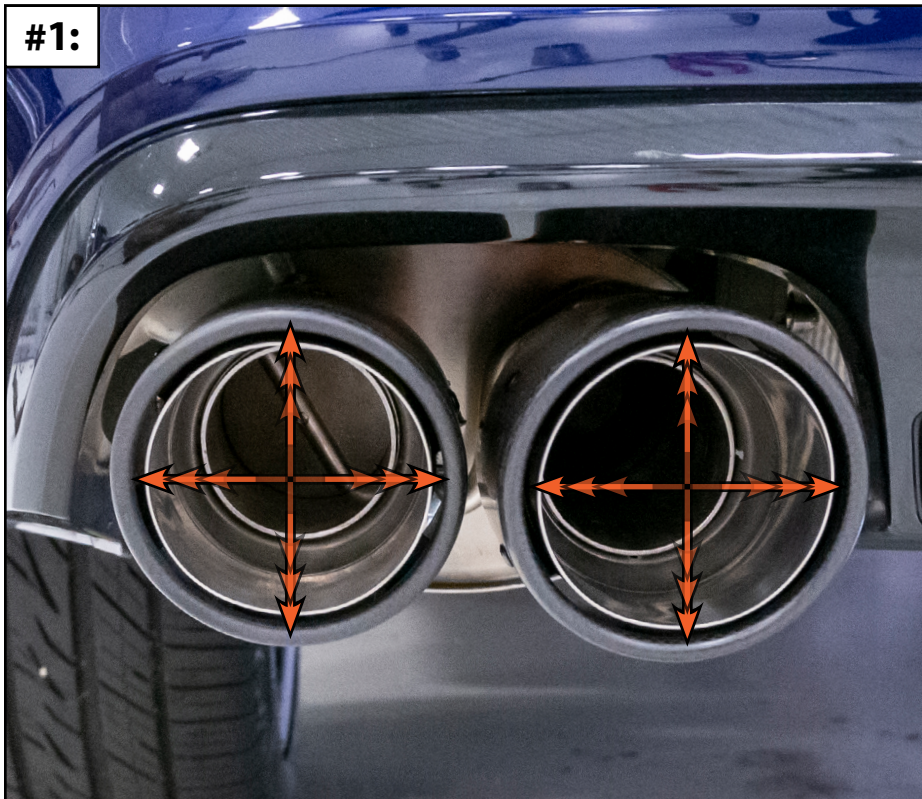
CAUTION: Tighten the exhaust clamps until they are “snug”, but **DO NOT USE AN IMPACT WRENCH** and do not fully tighten them yet!



INSTALLING THE NEW EXHAUST SYSTEM

Step 7: 13mm Socket & Torque Wrench

Install the exhaust tips onto the ends of the mufflers. Center and level each of the exhaust tips inside the valance (**Photo #1**), then set their depth (**Photo #2**) before tightening the clamps to 19 Nm (14 Ft-lbs).



15mm Socket & Ratchet

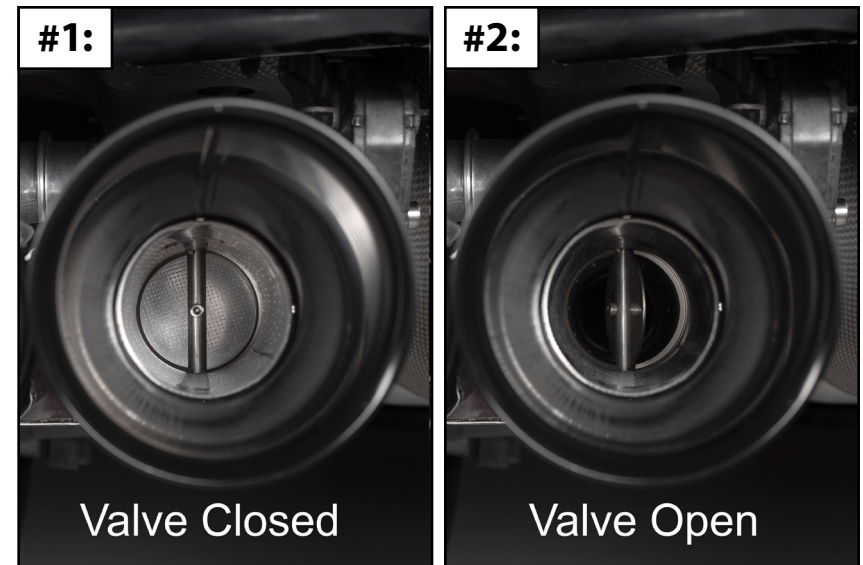
Fully tighten each exhaust clamp, working from front to back & pushing upward on the pipes while you tighten them.



Perform a system check by performing the following steps:

- Start the engine, select "Comfort" mode from Drive Select.
 - The valves should be **CLOSED** in this mode (**Photo #1**).
- Select "Dynamic" mode from Drive Select.
 - The valves should be **OPEN** in this mode (**Photo #2**).
- You should be able to hear a difference in both exhaust tone and volume when the valves are opened or closed.

- ☐ Wipe any oil, grease, or fingerprints from the exhaust system.
- ☐ Reinstall the belly pans and chassis cross brace (not shown).
- ☐ Recheck all fasteners after the vehicle has been driven 500 miles.



Your Cat-Back 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.

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.