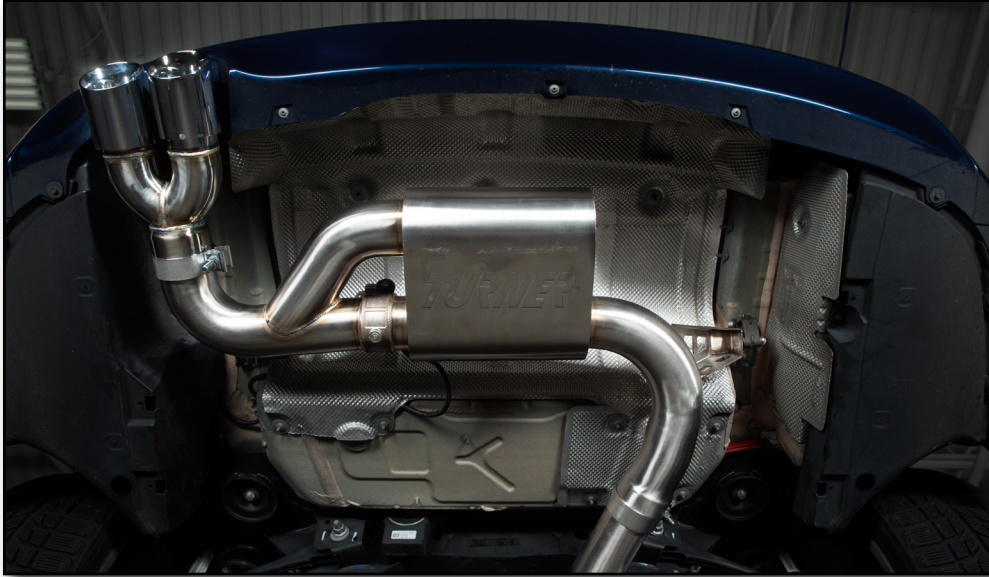




BMW F3X B48 Valved Cat-Back Exhaust System Installation Instructions

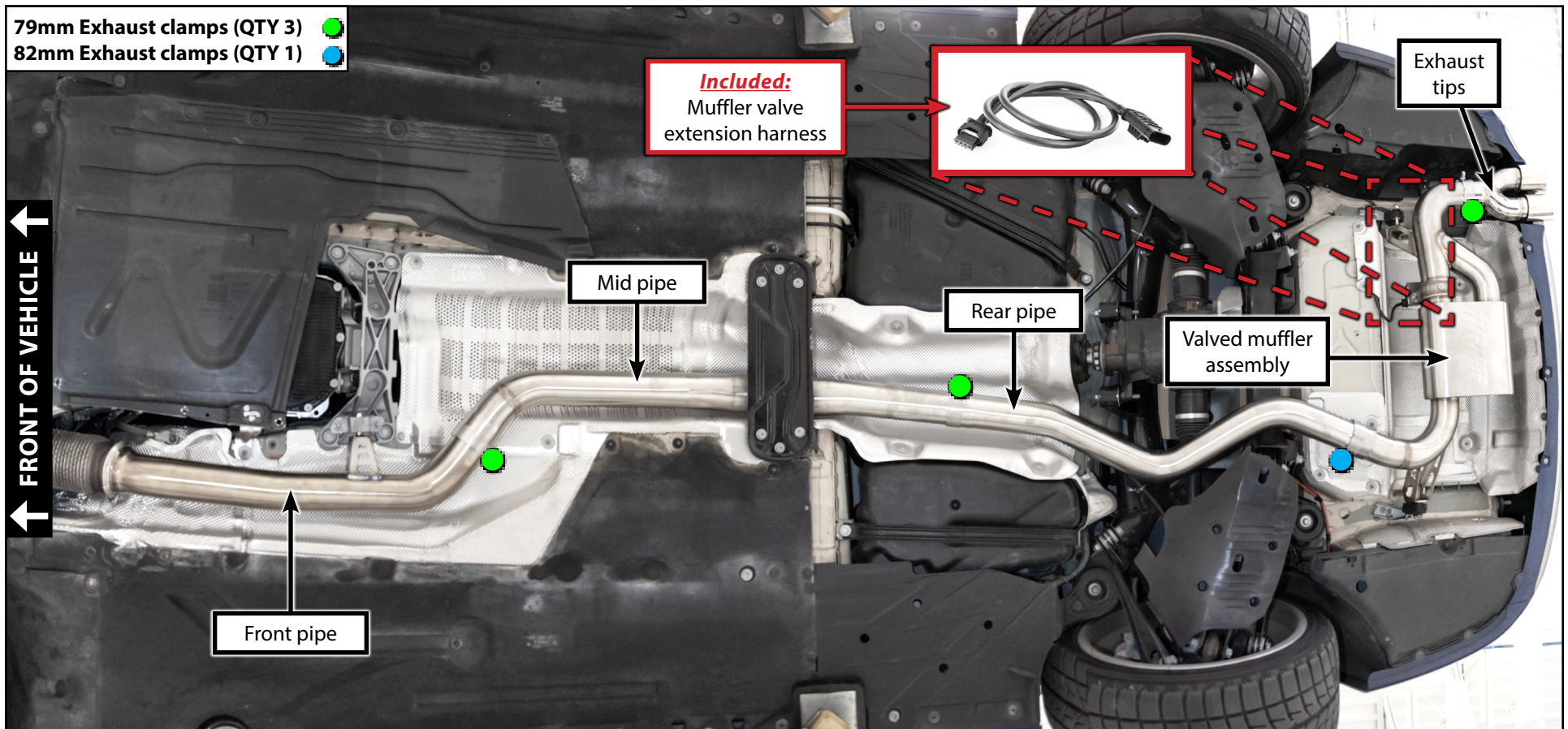


Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times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

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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

Turner Motorsport 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.

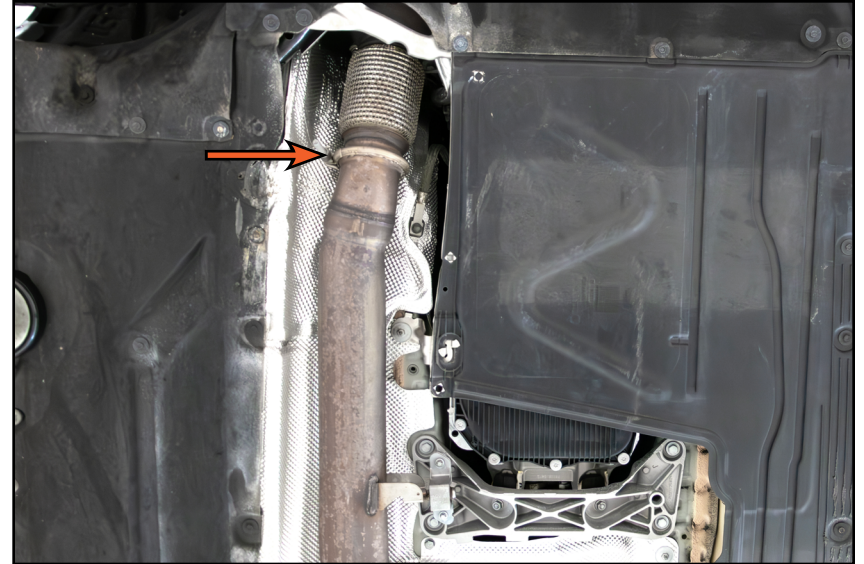


NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

REMOVING THE STOCK EXHAUST SYSTEM

Step 1: 13mm Socket & Ratchet

Safely lift and support the vehicle. Loosen the v-band clamp (arrow) that secures the stock exhaust system to the down pipe.



Step 2:

Disconnect the connector (highlighted in **RED**) from the valve on the LH side of the muffler.



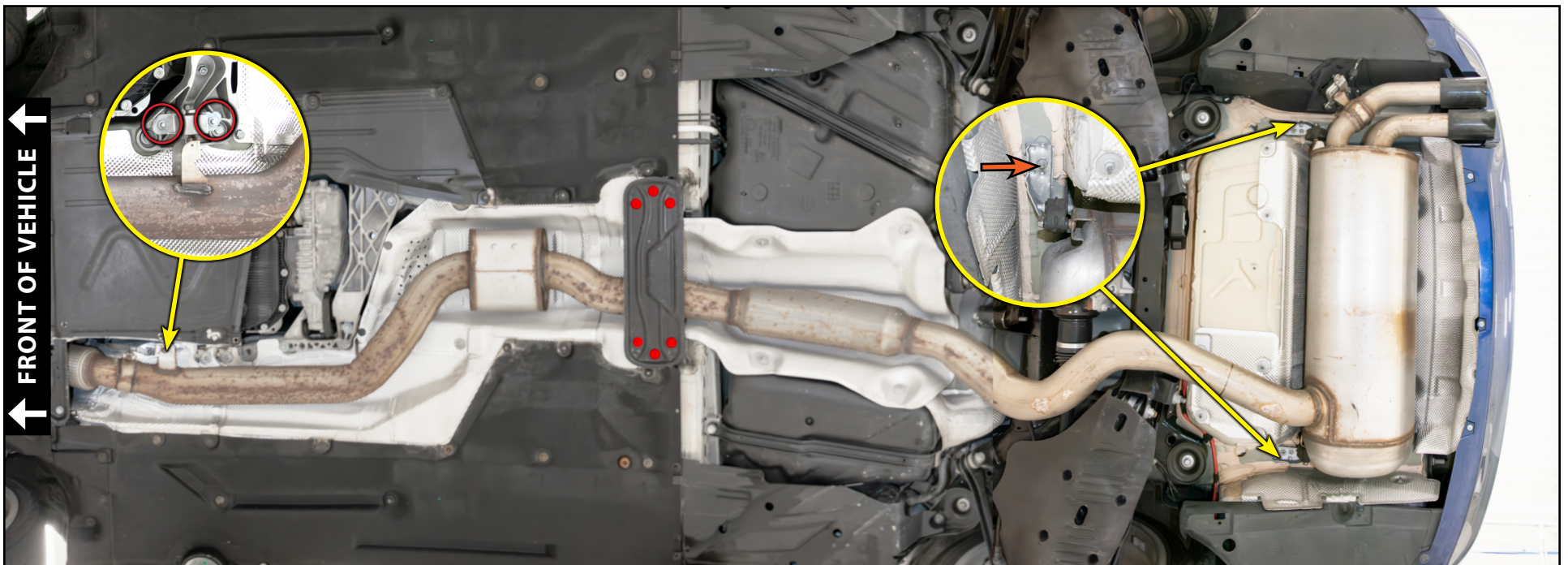
REMOVING THE STOCK EXHAUST SYSTEM

Step 3: Exhaust Hanger Pliers, E10 Torx socket, T50 Torx socket, & Ratchet

Remove the bolts (highlighted in **RED**) that secure the cross brace and remove the brace from the vehicle.

Safely support the exhaust system from below. Remove the screws (circled in **RED**) that secure the front exhaust hanger to the transmission crossmember, then remove the nuts (arrow in the **YELLOW** inset photo) that secure the rear muffler hangers into place.

Carefully lower the entire system to the ground, then remove the hangers (not shown) from the stock exhaust system.



REMOVING THE STOCK EXHAUST SYSTEM

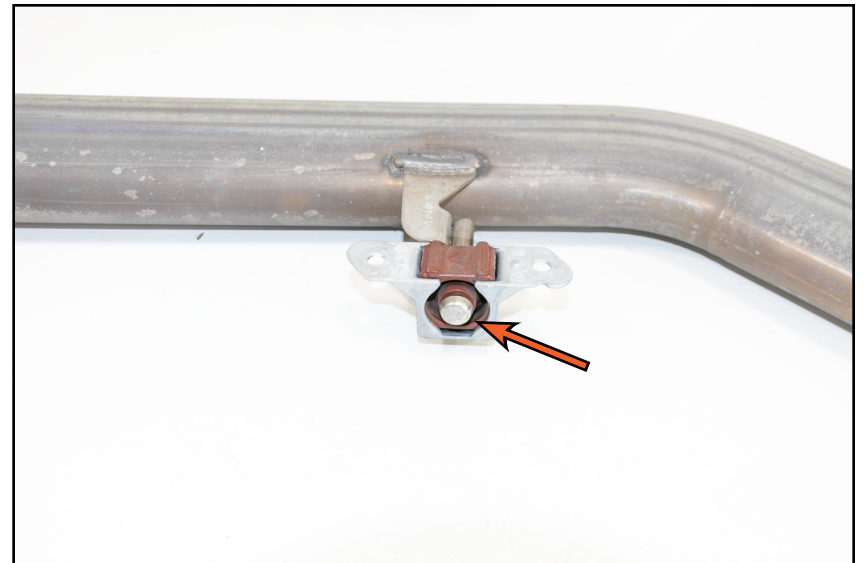
Step 5: 10mm Socket & Ratchet

Remove the bolts (highlighted in **RED**) that secure the valve controller to the stock muffler.



Step 6: Exhaust Hanger Pliers

Remove the exhaust hanger (arrow) from the stock exhaust.



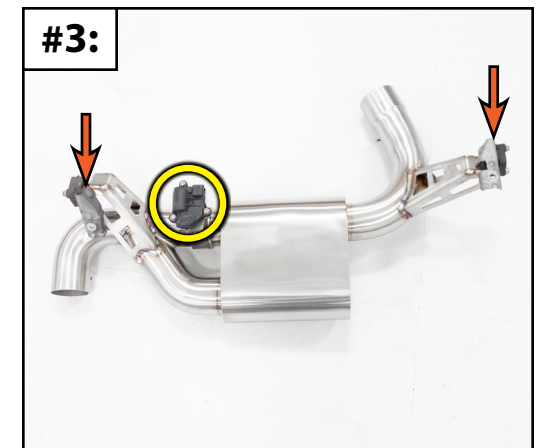
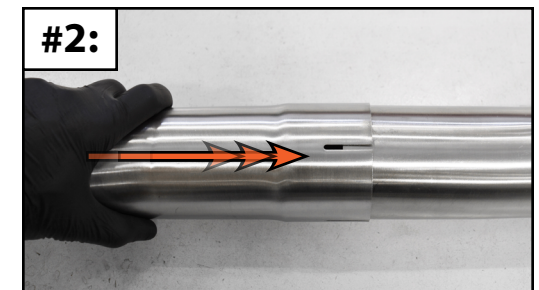
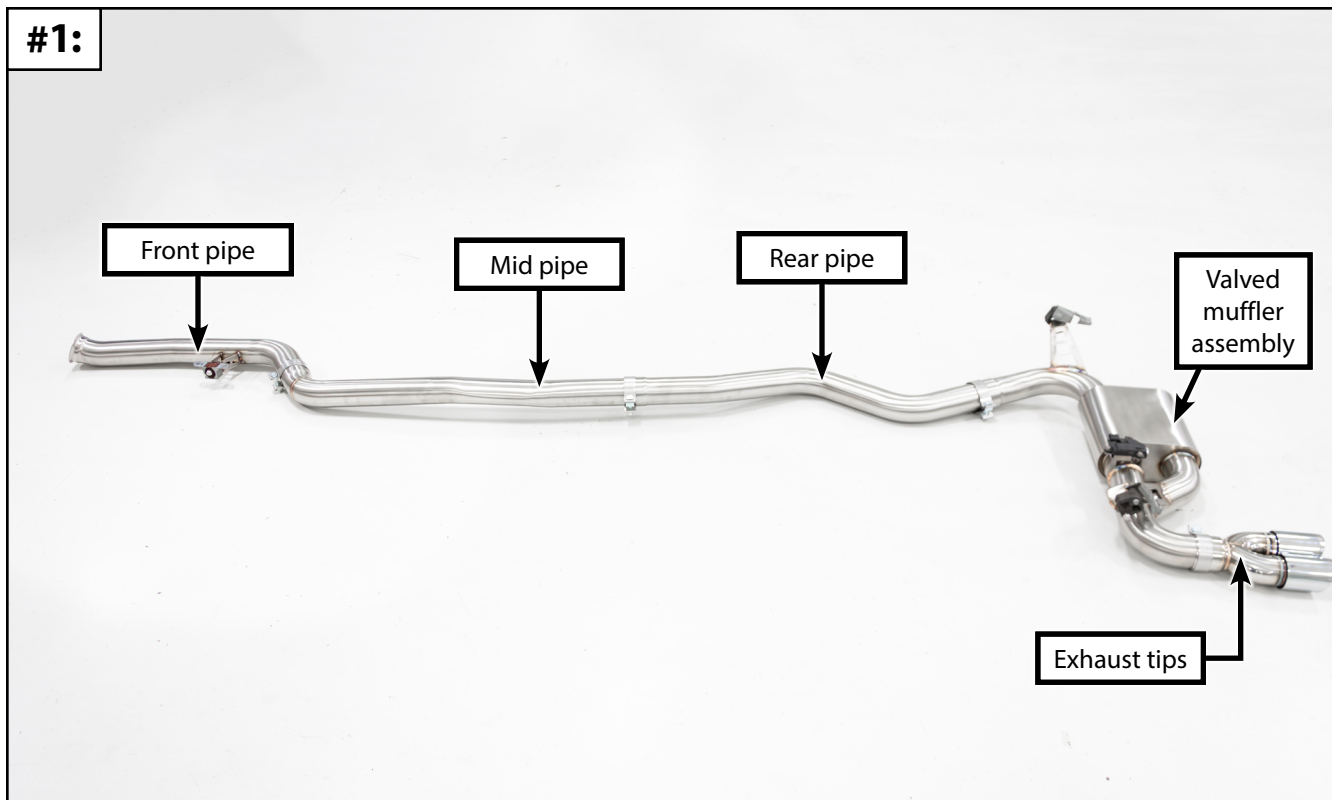
INSTALLING THE NEW VALVED EXHAUST SYSTEM

Step 1: Pipe Expander, Ball Pein Hammer, 10mm Socket & Ratchet

Before installing the new exhaust system, 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 at every joint to ensure 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.

Transfer the valve controller (circled in **YELLOW** in **photo #3**), and the exhaust hangers (arrows in **photo #3**) to the new muffler.

Please note: That 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 how to adjust the system properly. Proceed to the next page once all of the slip joints slide together easily.



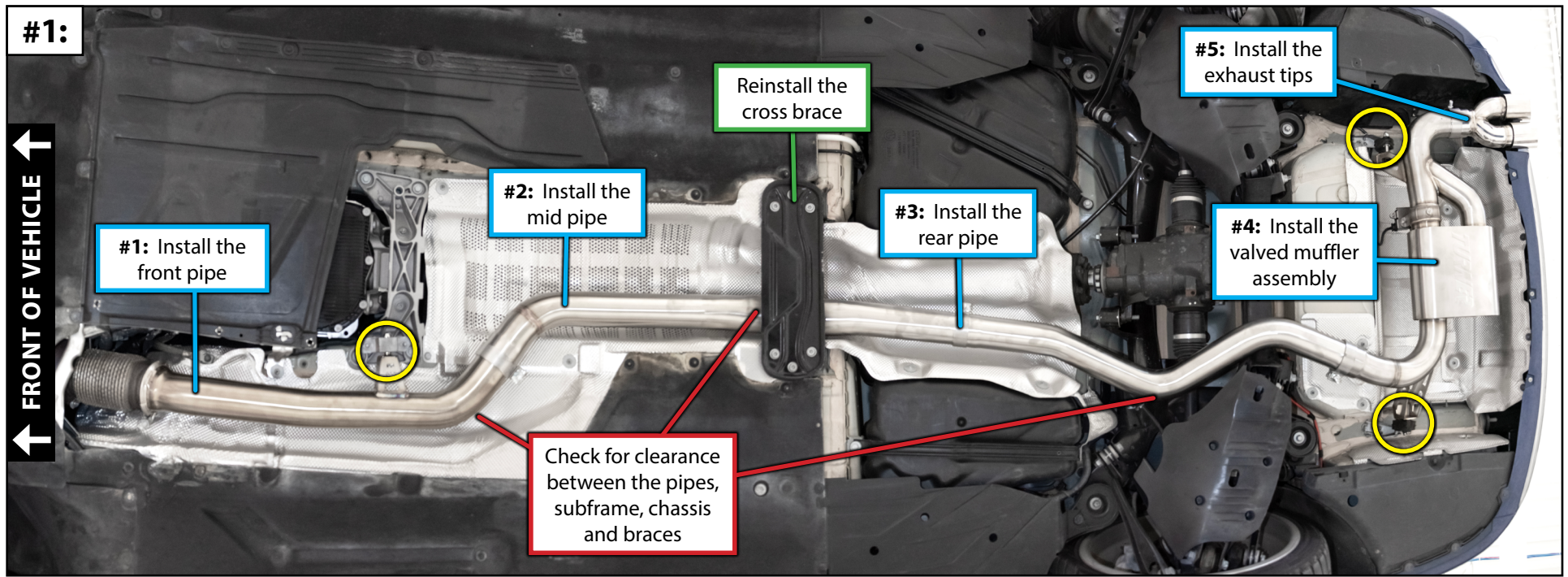
INSTALLING THE NEW VALVED EXHAUST SYSTEM

Step 2: E10 Torx, 13mm Socket, 15mm Socket & Ratchet

Install the exhaust system in the order shown in the **photo** 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 but **DO NOT** fully tighten any of the clamps until **AFTER** you've performed all of the steps up through page 11. Reinstall the cross brace (**GREEN**). Closely inspect the exhaust system from front to back, checking 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 VALVED EXHAUST SYSTEM

Step 3:

Install the extension harness (highlighted in **GREEN**) between the factory connector and the relocated valve on the new muffler.



Step 4: 10mm Socket & Ratchet

Remove the nuts (arrows in **photo #1**) that secure the heat shields, then drop the heat shield downward to route the extension harness (highlighted **GREEN** in **photo #1**) under the heatshield to the valve controller. Connect the harness (highlighted **GREEN** in **photo #2**) to the valve controller.



CAUTION: Make sure when routing the wiring harness extension that it does not get pinched between the heat shields or the trunk floor.



INSTALLING THE NEW VALVED EXHAUST SYSTEM

Step 5: 13mm & 15mm Sockets, Ratchet

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

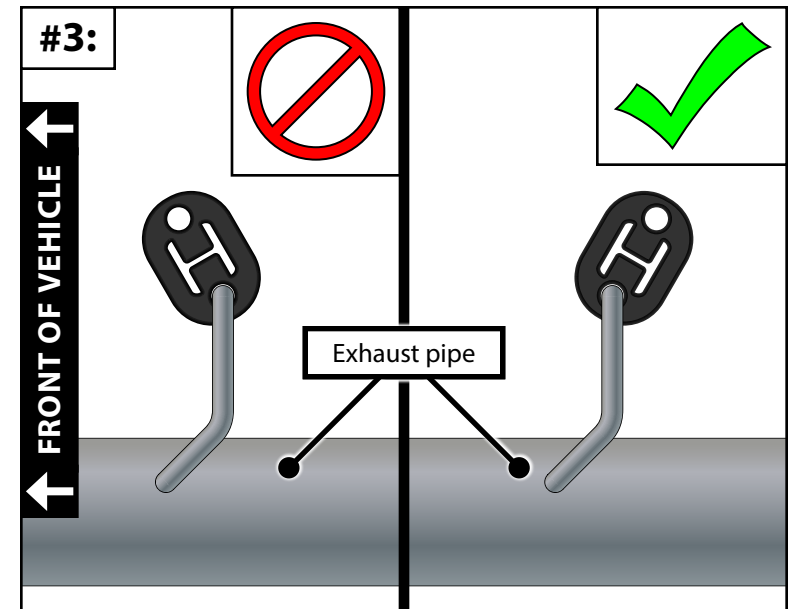
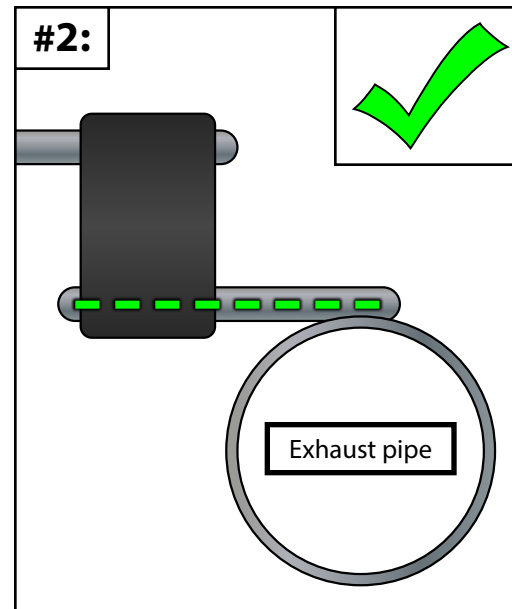
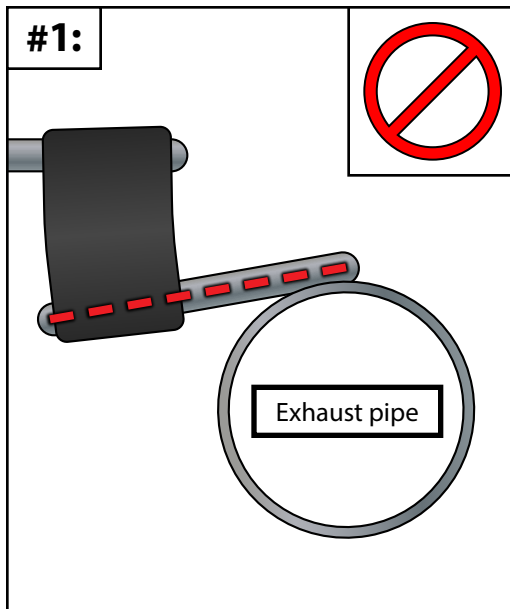
Next, we want to ensure that all of the exhaust hangers are rotated at least slightly toward the front of the vehicle (**photo #3 below**). The exhaust hangers should be inclined toward the front of the vehicle so that lower hole is approximately 10-15mm forward of the upper hole, this will allow the 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. We definitely don't want the hangers to be pitched rearward and stretching **BEFORE** the system heats up and expands.



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 6: 13mm Socket, 15mm Socket & Ratchet

Fully tighten each exhaust clamp, working from front to back & pushing upward on the pipes while you tighten them. Inspect the muffler section and ensure that it is sitting level side-to-side as much as possible (**photo #1**). Center and level the exhaust tips inside the valance (**photo #2**), then tighten the clamp until snug. Wipe any oil, grease, or fingerprints from the exhaust system, then start the engine and check the exhaust system for leaks.

Wipe any oil, grease, or fingerprints from the exhaust system.

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

Congratulations, your installation is complete!



Your Valved Cat-back Exhaust System installation is complete!



These instructions are provided as a courtesy by Turner Motorsport

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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