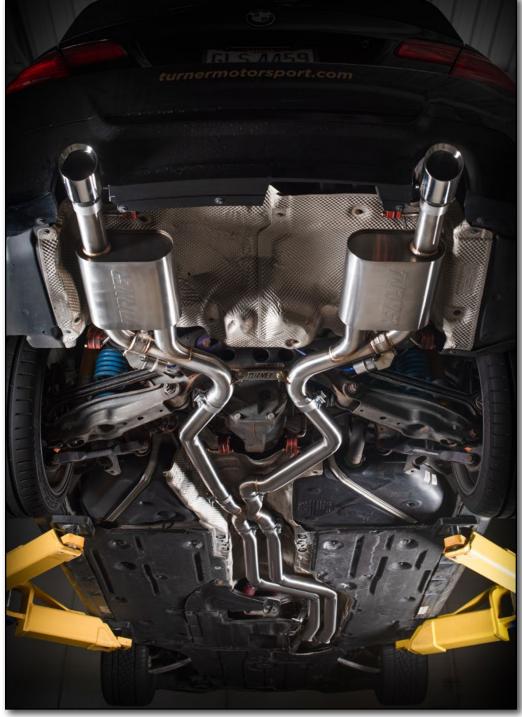


BMW E9x 335i Valved Exhaust System Installation Guide











INTRODUCTION

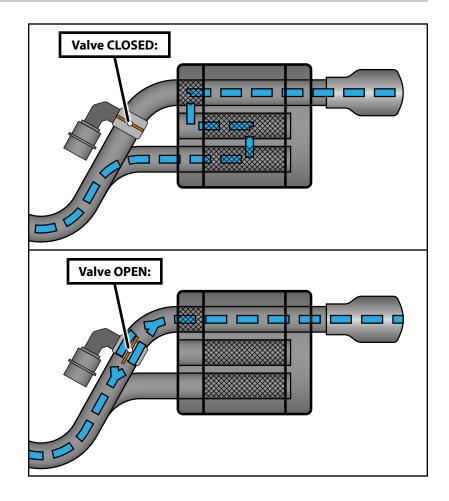
Upgrading the exhaust on your BMW E9x 335i is a very rewarding project that an experienced technician will be able to complete in a single day, plan accordingly based on your experience level.

The Turner valved cat-back exhaust system will fit like the stock system, but will completely change the character of your car. This system allows you to control the volume of the exhaust with a key fob remote which is included in the kit. This gives you the ability to start the car guietly in the morning (without angering your neighbors), then open the valves on the highway and let it RIP!

Before you begin, read and familiarize yourself with these instructions and make sure you have all the required tools on hand.

TABLE OF CONTENTS

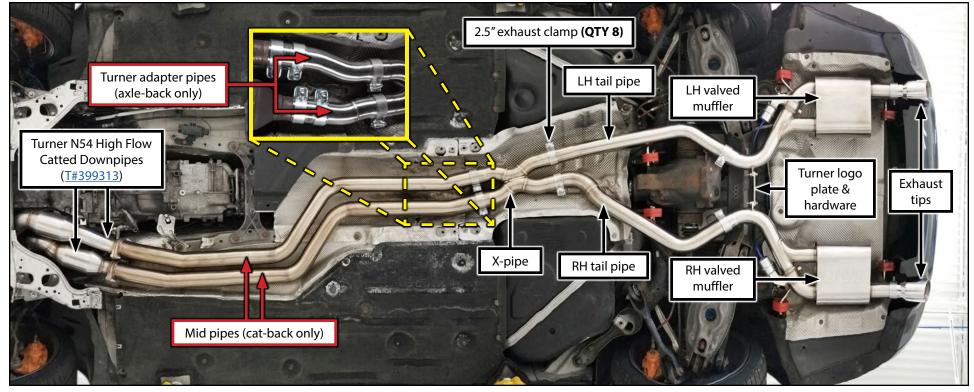
Kit Contents	<u>pg.3</u>
Installation and Safety Information	<u>pg.4</u>
Removing the Stock Exhaust System	<u>pg.5</u>
Remote Exhaust Valve Controller System Kit Contents	<u>pg.9</u>
Remote Exhaust Valve Controller System Diagram	<u>pg.10</u>
Installing the Remote Exhaust Valve Controller	<u>pg.12</u>
Installing the New Valved Exhaust System	<u>pg.13</u>
Programming the Homelink® Buttons	<u>pg.21</u>



T#587326



KIT CONTENTS



Cat-back and axle-back exhaust systems are available. Cat-back systems feature new mid pipes which take the place of the secondary cats, axle-back systems include adapter pipes which connect the rest of the system to the secondary cats.

See Page 9 for the remote exhaust valve controller kit contents.



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.



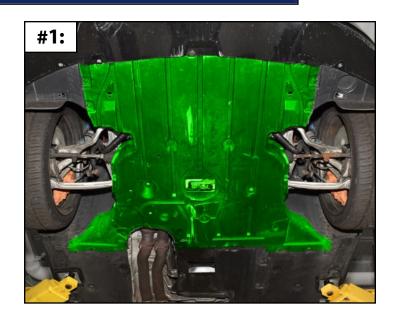
NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

Step 1:

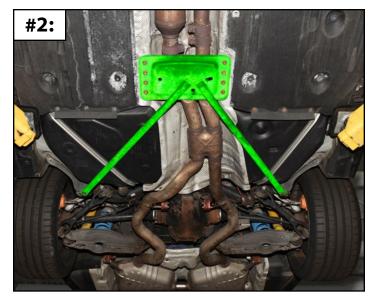
Safely lift and support the vehicle. Remove the belly pan from the vehicle (highlighted in **GREEN** in photo #1).

Remove the chassis cross brace from the vehicle (highlighted in **GREEN** in photo #2).

Support the exhaust system from below (photo #3).



BMW E9x 335i VALVED EXHAUST SYSTEM INSTALLATION GUIDE





If you purchased a cat-back exhaust system:

• Please continue to Page 6.

If you purchased an axle-back exhaust system:

• Loosen the sleeve clamps (arrows in **photo #3**), then skip ahead to Page 7.

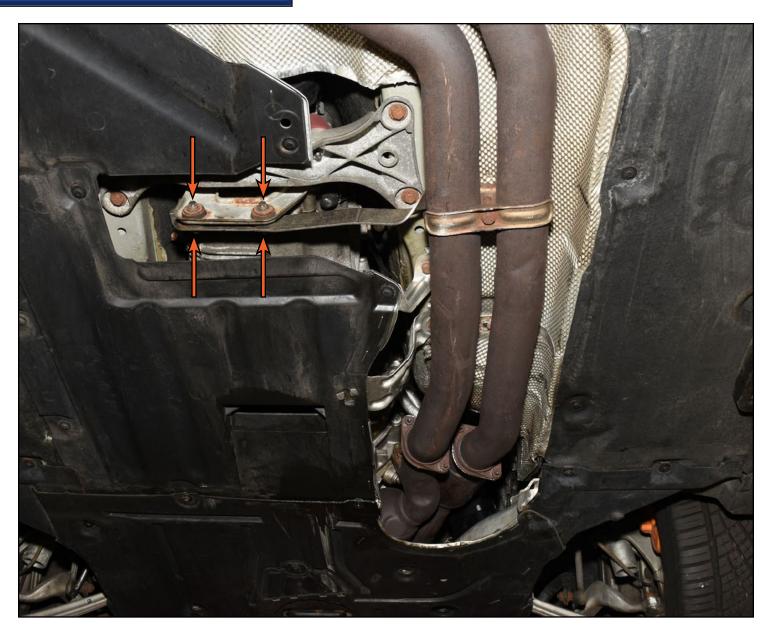




Step 2:

Soak all of the downpipe fasteners with penetrating oil. We highly recommend letting the oil soak in for at least one hour before attempting to remove them. This will further reduce the risk of breaking or rounding them off.

Once you're ready, remove and discard the downpipe nuts. Remove the bolts which secure the downpipe to the hanger on the transmission crossmember (arrows).

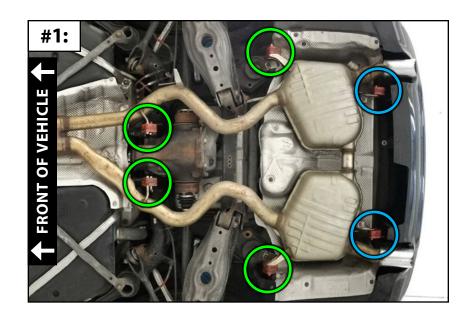


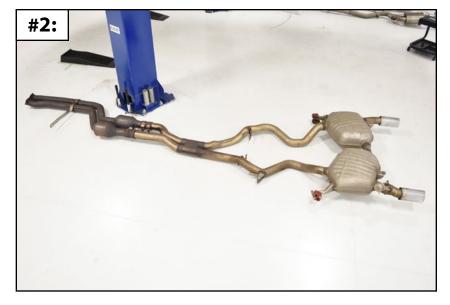
Step 3: **Exhaust Hanger Removal Pliers**

Release the two forward hangers from the exhaust system (circled in **GREEN** in **Photo #1**). Exhaust hanger removal pliers work very well here!

Space is tight around the two muffler hangers. You may find it easier to remove the 13mm bolts from the hangers and leave them on the mufflers while you pull the exhaust system out (see the BLUE highlights in Photo #1).

Carefully lower the entire system to the ground (**Photo #2**).





Step 4:



If you purchased a kit WITH new downpipes:

• Please reference the instructions on T#396027.

If you purchased a kit WITHOUT new downpipes:

• Please proceed to the next step.



Step 5:

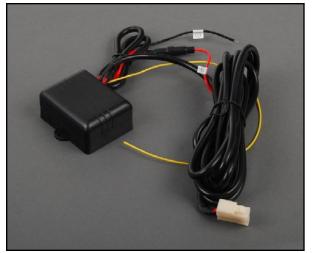


Proceed to the next page for the installation of the remote valve controller system. The best time to install this system is now with the exhaust system completely removed from the vehicle.



/// TURNER

REMOTE EXHAUST VALVE CONTROLLER KIT CONTENTS



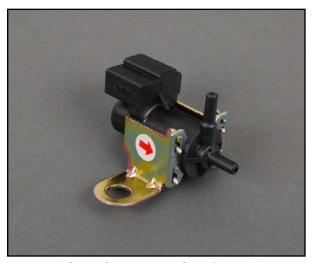
Control Module with Wiring Harness (QTY 1)



Vacuum Hose (1x long, 1x short)



Remote Controllers (QTY 2)



Solenoid Vacuum Valve (QTY 1)



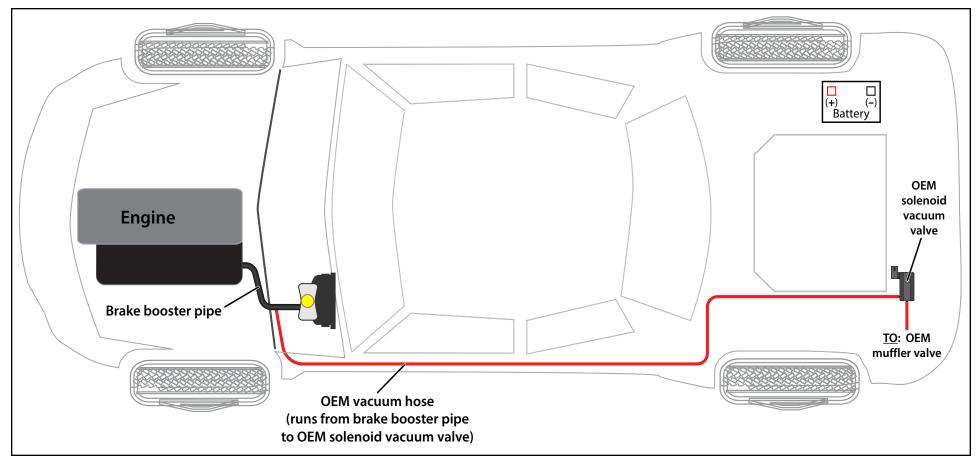
Check Valve (QTY 1)



Vacuum Hose T-Fitting (QTY 2)



REMOTE EXHAUST VALVE CONTROLLER SYSTEM DIAGRAM

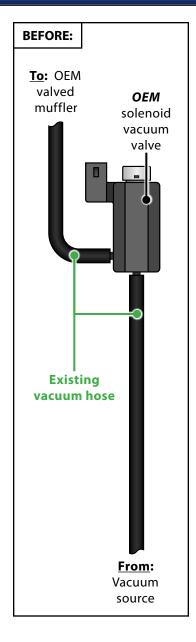


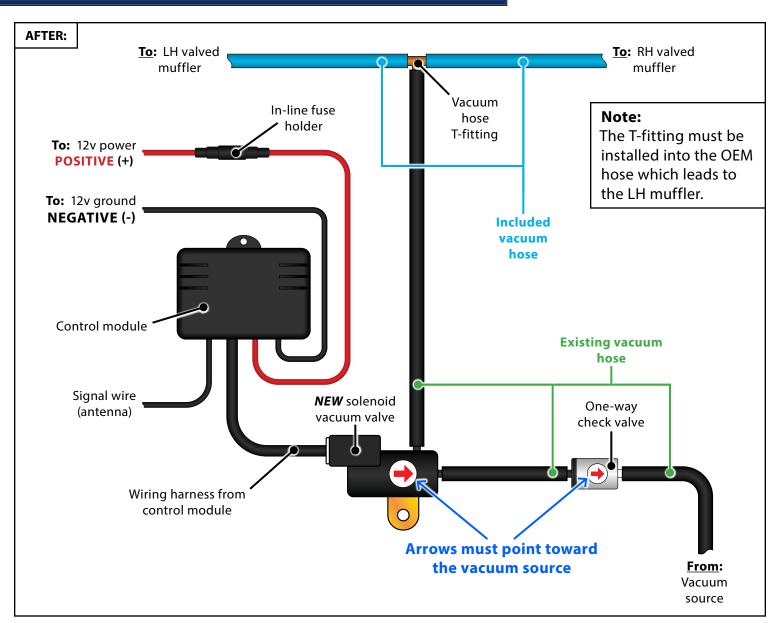
Installing the remote exhaust valve controller system on your E9x 335i is a breeze thanks to the vacuum control system which is already in place from the factory. There is a factory-installed vacuum hose (highlighted in RED above) which connects the brake booster pipe to the OEM solenoid vacuum valve (located inside the trunk behind the LH tail light). Our goal is to use that hose to supply vacuum to our **NEW** solenoid vacuum valve, that way we can open and close the muffler valves at will with the remote control.

We include extra hose in the kit just in case you want to run a new hose back to the solenoid, or if the OEM vacuum hose is damaged or missing. Please proceed to Page 11 for a detailed diagram of the entire valve controller system.



REMOTE EXHAUST VALVE CONTROLLER SYSTEM DIAGRAM







INSTALLING THE REMOTE EXHAUST VALVE CONTROLLER

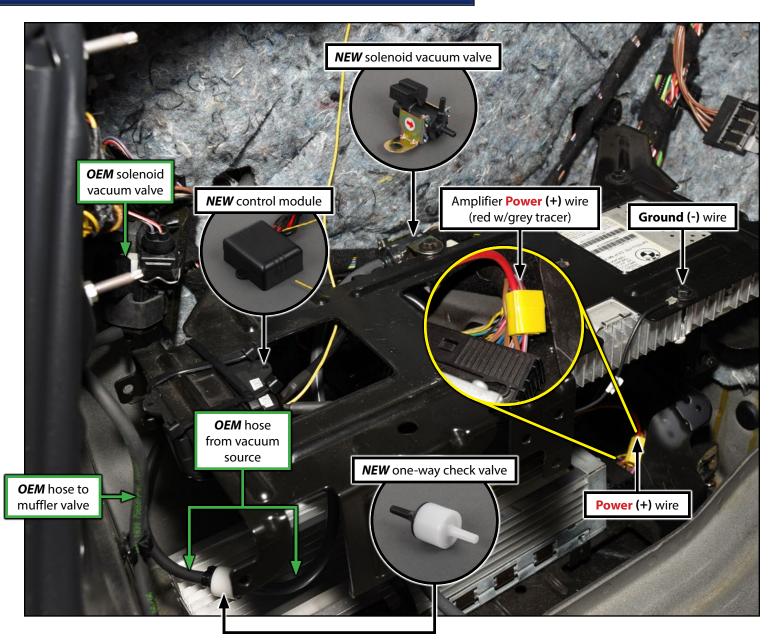
BMW E9x 335i VALVED EXHAUST SYSTEM INSTALLATION GUIDE

Step 1:

Remove the vacuum hoses from the OEM solenoid vacuum valve (located inside the trunk behind the LH tail light) and connect them to the new solenoid vacuum valve. Be sure to install the new oneway check valve into the supply hose. Reference the diagrams on Page 11.

Mount the new solenoid and control module. Connect the power and ground wires to any applicable sources nearby. We chose use the bracket for our ground, then we tapped into the power wire for the amplifier (see YELLOW inset photo).

Working beneath the vehicle, find the hose which lead to the OEM muffler valve and install the T-fitting. This will split the hose between the two mufflers.

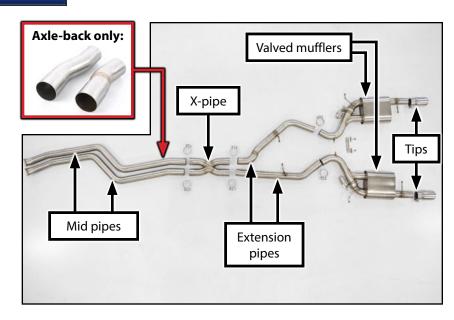




Step 1:

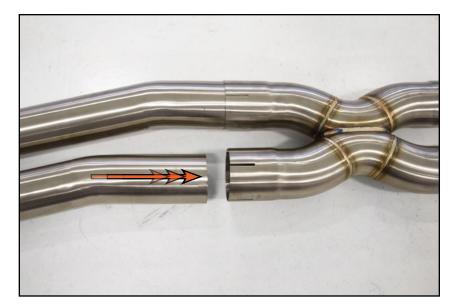
Before we begin it's a good idea to unpack your new exhaust system and carefully lay it out on the floor. Inspect all of the slip joints for any signs of damage during shipping.

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.



Step 2: **Ball Pein Hammer**

Test fit the pipes together at every slip joint to make sure they slide together easily. 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.



Step 3:

Clean the ends of the catalytic converter flanges with a suitable degreaser or brake cleaner. It's a good idea to place the new gaskets onto the downpipes now.



Exhaust Hanger Removal Pliers Step 4:

Remove the exhaust hangers from each of the stock mufflers, then reinstall them back into the vehicle. Be sure to orient them exactly as they were before.

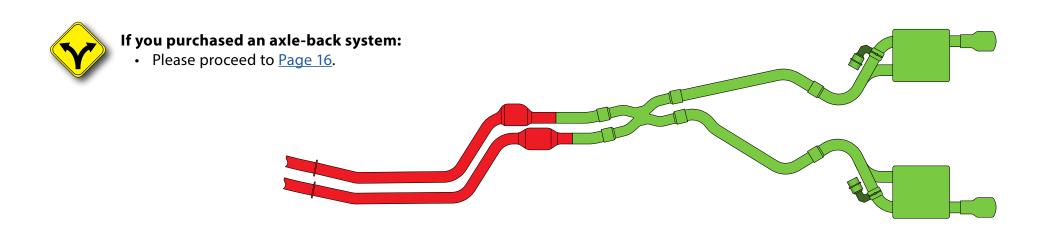


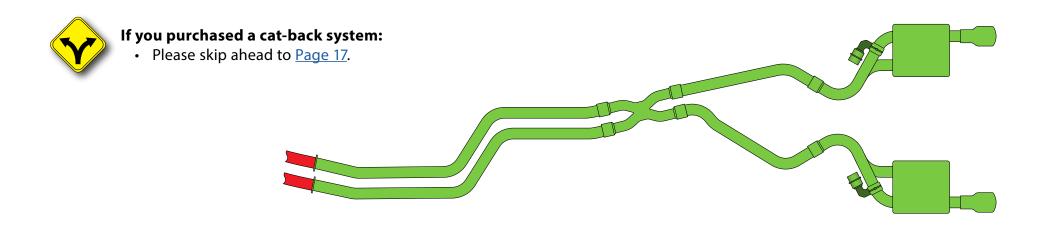


Please read this entire page before proceeding



INSTALLING THE NEW VALVED EXHAUST SYSTEM





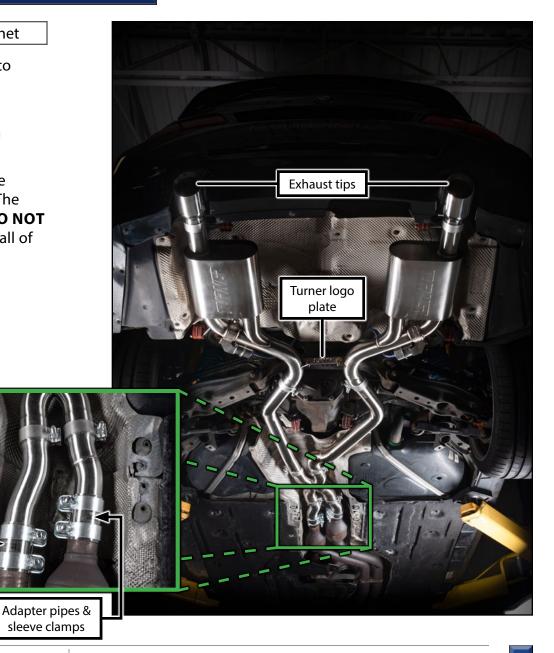


Step 5: Exhaust Hanger Removal Pliers, 13mm Socket & Ratchet

Loosely install the exhaust system from front to back. Be sure to connect the secondary cats to the rest of the system using the supplied adapter pipes (GREEN inset photo on the right).

Loosely install the Turner logo plate and the exhaust tips, then connect the vacuum hoses to the muffler valves.

Tighten all of the exhaust clamps to snug, but leave them loose enough to allow you to adjust the system for proper fitment. The key to proper adjustment is patience, so 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.



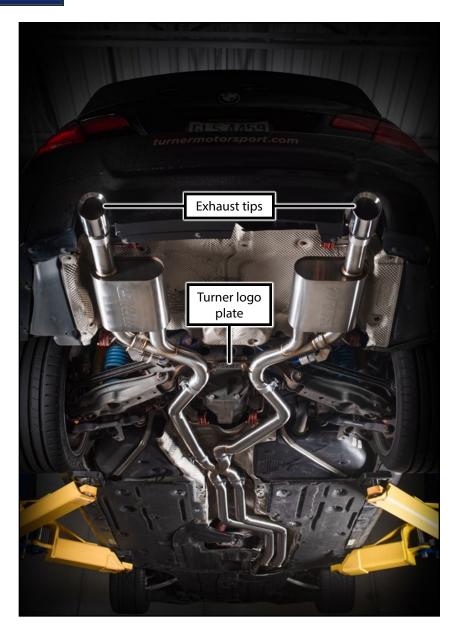


Step 5: Exhaust Hanger Removal Pliers, 13mm Socket & Ratchet

Loosely install the exhaust system from front to back.

Loosely install the Turner logo plate and the exhaust tips, then connect the vacuum hoses to the muffler valves.

Tighten all of the exhaust clamps to snug, but leave them loose enough to allow you to adjust the system for proper fitment. The key to proper adjustment is patience, so 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.



Step 6:

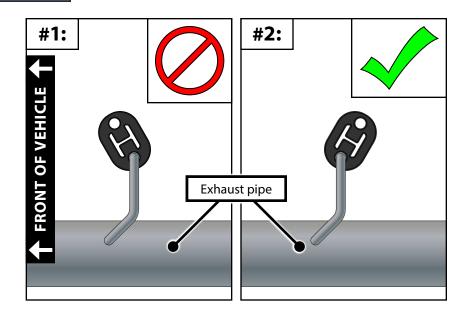
Finally, we want to ensure that the exhaust hangers are rotated forward as shown in the illustrations on the right (photo #1 & photo #2 on the right). The exhaust hangers should be inclined toward the front of the vehicle so that lower hole is approximately 10-15mm forward of the upper hole, this will allow the hangers to pivot backwards as the system heats up and expands.

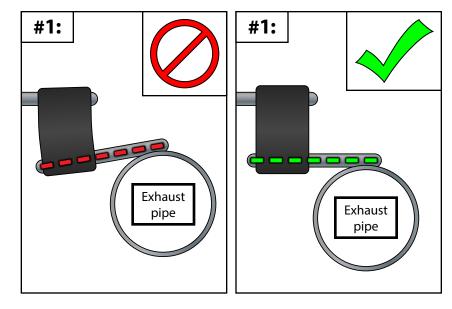


Due to differences in manufacturing, as well as variations from one car to another, you might not be able to get all of your hangers to pitch forward. This is acceptable as long as they are at least close to vertical. We definitely don't want the hangers to be pitched rearward and stretching **BEFORE** the system heats up and expands.

Step 7:

Check all of the hangers to ensure they are sitting level side-to-side (reference **photo #1** & **photo #2** on the right).







Step 8:

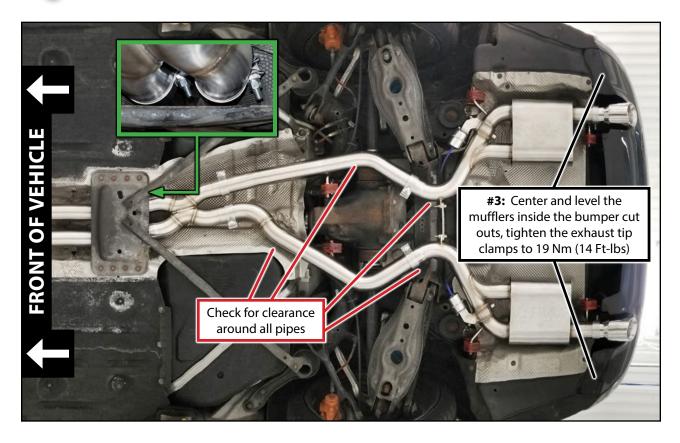
15mm Socket & Ratchet

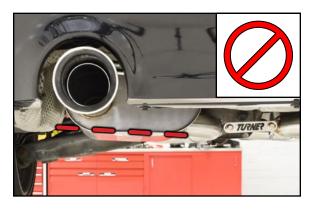
Closely inspect the entire exhaust system, we need to check for clearance between the pipes and nearby chassis and drivetrain components. Inspect both mufflers and ensure that they are sitting level side-to-side (see photo #1 & photo #2 below). Center and level the mufflers and exhaust tips inside the bumper cut outs. Proceed to the next page once you are satisfied with the system fitment.

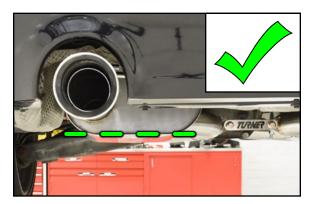
BMW E9x 335i VALVED EXHAUST SYSTEM INSTALLATION GUIDE



CAUTION: When you tighten the exhaust clamps be sure to do it by hand until they are "snug", DO NOT USE AN IMPACT WRENCH and do not fully tighten them at this time.









Step 9:

Tighten the clamps on the exhaust tips to 19 Nm (14 Ft-lbs).

Fully tighten down all remaining the exhaust clamps.

Tighten the bolts in the Turner logo plate until snug.

Connect the vacuum hoses to the muffler valves (photo #1).

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

Reinstall the belly pans (photo #2).

Perform a system check by performing the following steps:

- Start the engine
- Press the "unlock" button on the remote to open the valve
- Press the "lock" button to close the valve
 - You should be able to hear a difference in both exhaust tone and volume when the valve is opened or closed.
 - You should also be able to look beneath the vehicle and see the valve cycle back and forth (not shown).

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



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 valves. This system will operate best when you are off throttle.





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.

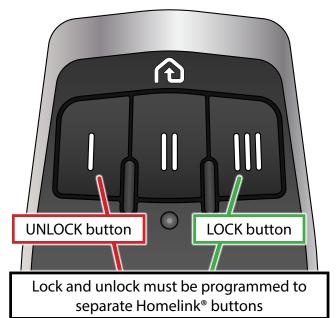
We recommend you check your owner's manual programming information, or you can visit the Homelink® website for their vehicle specific instructions:

https://homelink.com/program/watchvideo

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

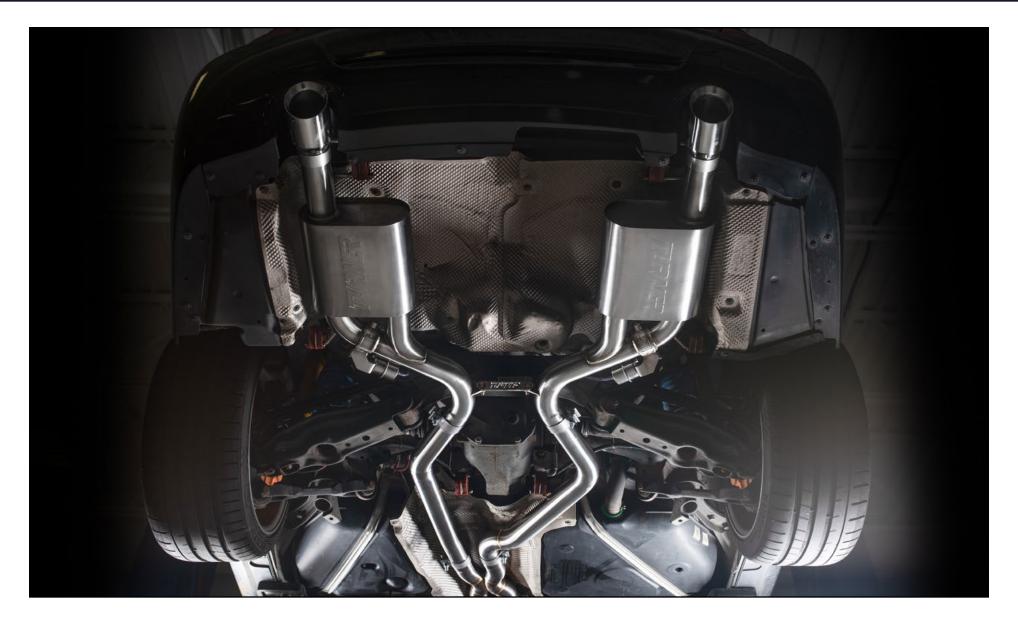
- 1. You will need to program **ANY TWO** of your Homelink® buttons to control the exhaust system valves: one button will be used to open the valve, the second button will close it.
- 2. Pay close attention to where the manufacturer suggests pointing the remote during pairing. Some systems are very sensitive 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 Valved Exhaust System installation is complete!





Your Valved 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.

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 Turner Motorsport, Incorporated or its affiliates be liable for any damages, direct or indirect, consequential or compensatory, arising out of the use of this material.