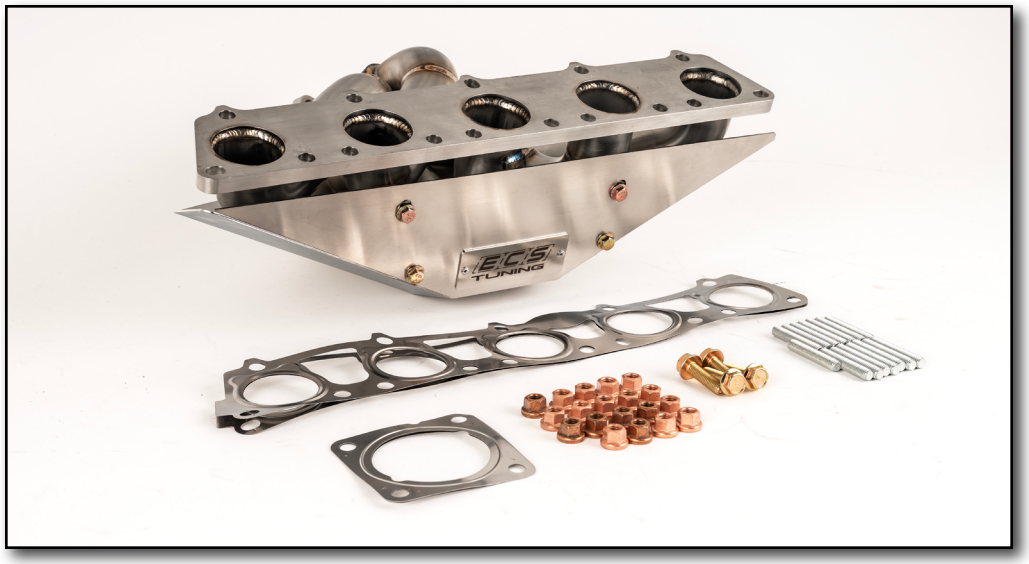
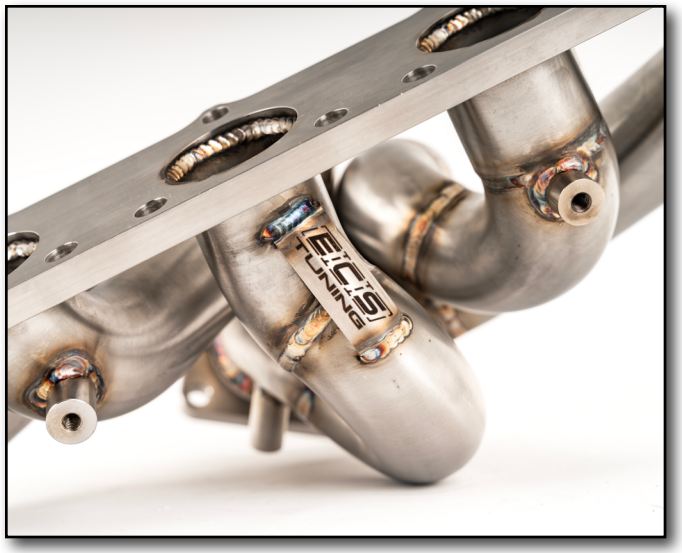
VW 2.5L Tubular Exhaust Header
Installation Instructions - Click HERE to Shop

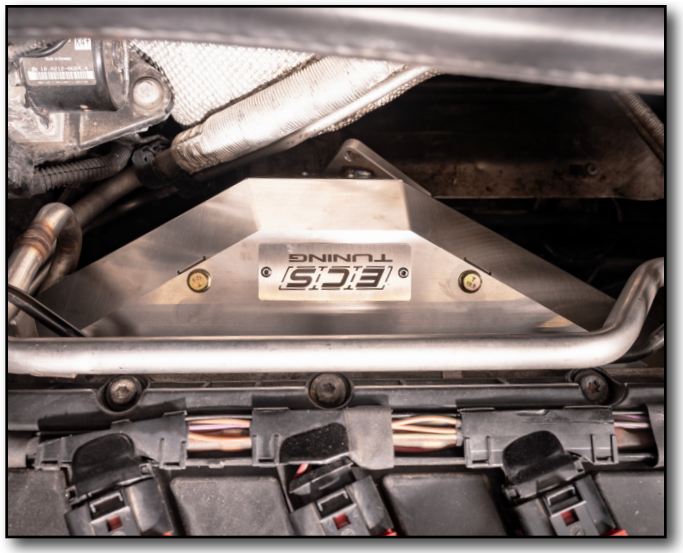
Skill Level
2 - Moderate

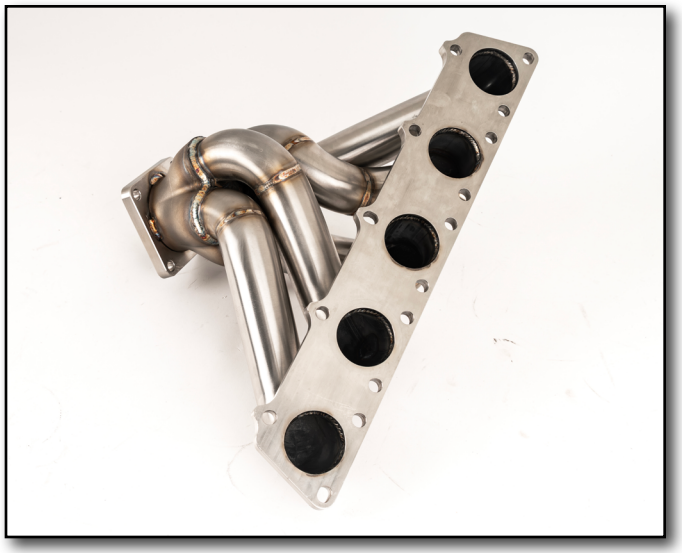
Some Experience Recommended











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.

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 MANIFOLD

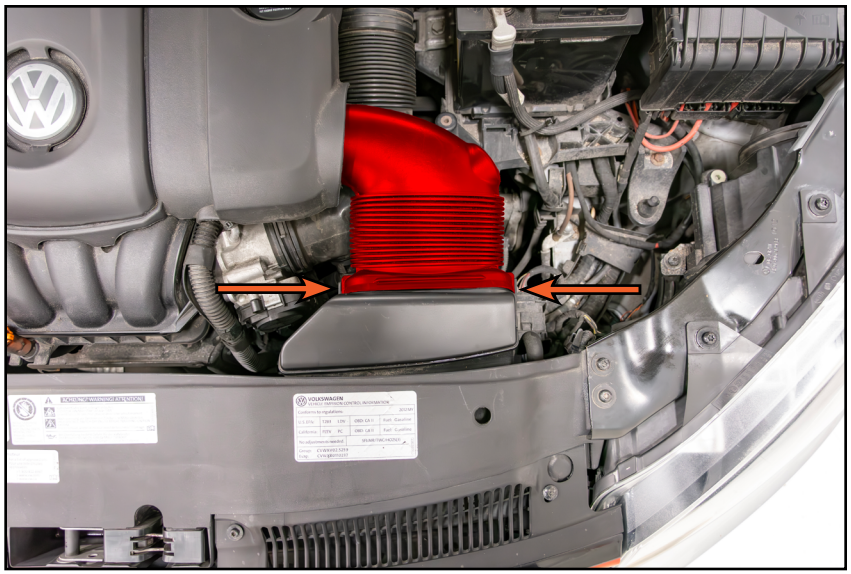
Step 1:

If equipped, disconnect the MAF sensor connector (highlighted in **RED**).



Step 2: T20 Torx Socket & Ratchet

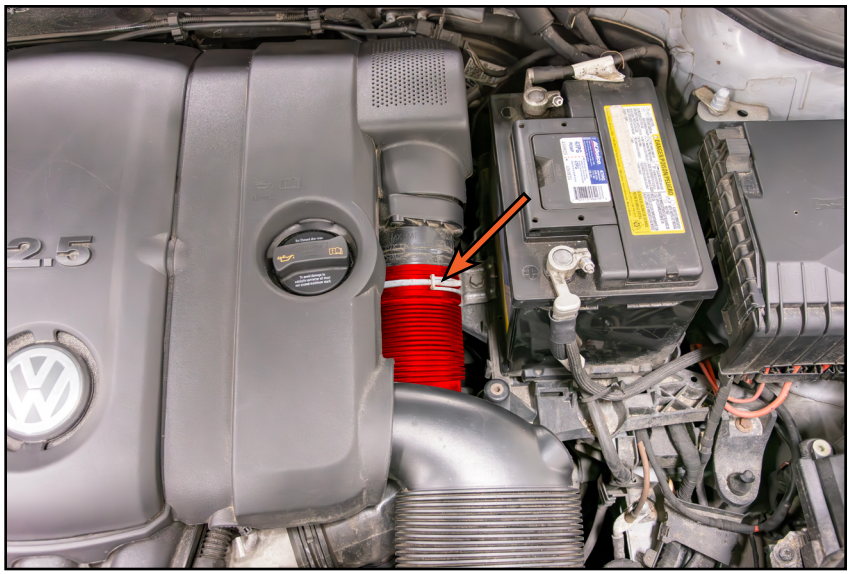
Remove the screws (arrows) and pull the inlet tube (highlighted in **RED**) free from the inlet duct.



REMOVING THE STOCK EXHAUST MANIFOLD

Step 3: Hose Clamp Pliers

Compress the clamp (arrow) and pull the intake tube (highlighted in **RED**) off of the airbox.



Step 4:

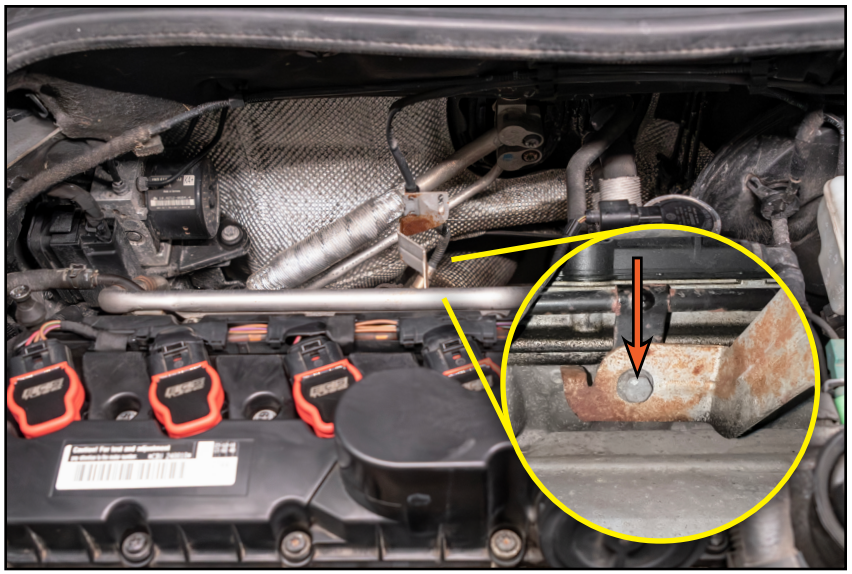
Pull upward on the airbox to pop it free from the mounting grommets, then remove it from the engine.



REMOVING THE STOCK EXHAUST MANIFOLD

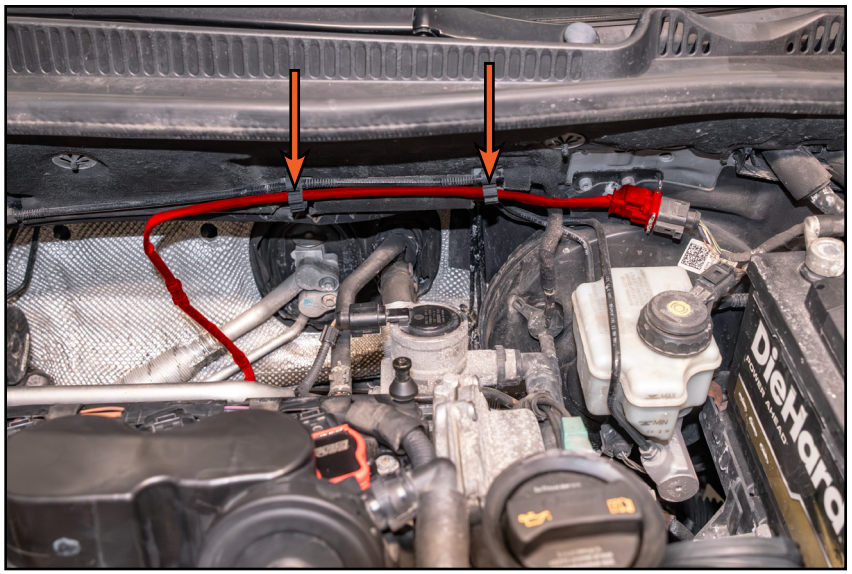
Step 5: 10mm Socket & Ratchet

Free the oxygen sensor harness from the bracket on the back of the engine, then remove the screw (arrow in inset photo) and remove the bracket.



Step 6:

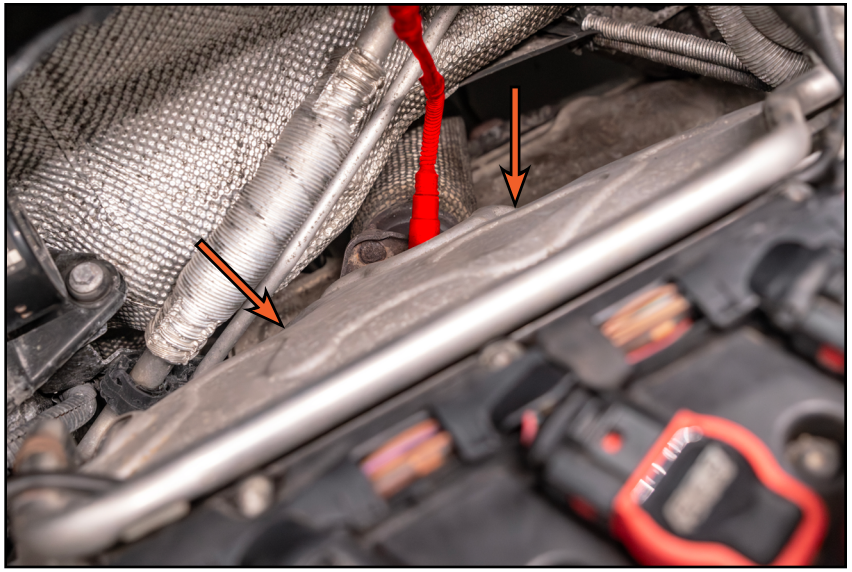
Disconnect the oxygen sensor harness (highlighted in **RED**) and release it from the clips on the firewall (arrows).



REMOVING THE STOCK EXHAUST MANIFOLD

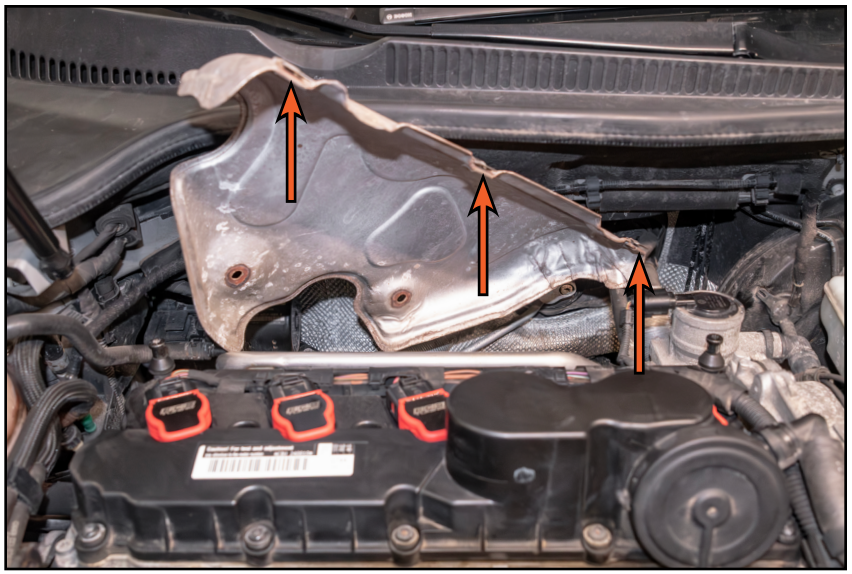
Step 7: 10mm, Oxygen Sensor Socket & Ratchet

Remove the oxygen sensor (highlighted in **RED**) from the exhaust manifold and set it aside, then remove the two screws (arrows) that secure the heat shield to the manifold.



Step 8:

Pull back to release the three heat shield clips (arrows), then guide the heat shield free from the engine from above as shown.



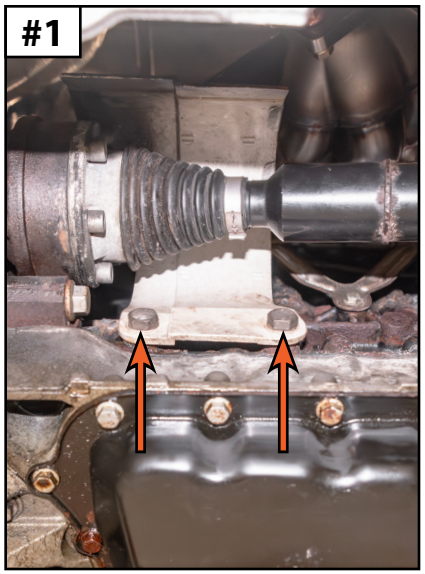
NOTE

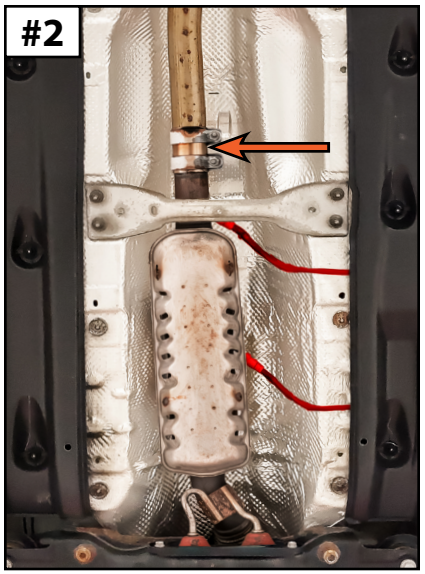
Depending on the vehicle model, it may be required to bend the corners of the heat shield slightly to remove it.

REMOVING THE STOCK EXHAUST MANIFOLD

Step 9: 10mm, 13mm, 16mm Socket & Ratchet

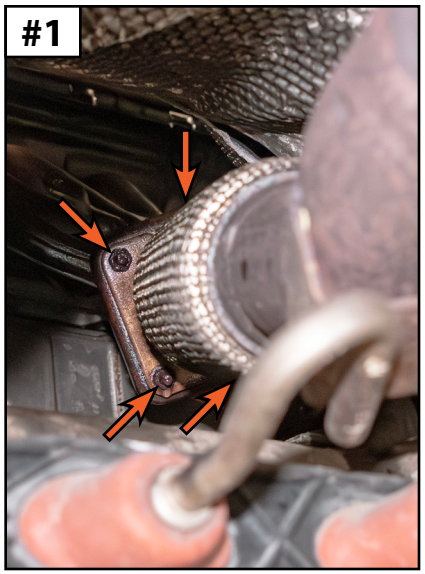
Safety lift and support the vehicle, then remove the two screws (arrows in **Photo #1**) and remove the RH axle heat shield. Disconnect the downstream oxygen sensors (highlighted in **RED** in **Photo #2**), then remove the clamp (arrow in **Photo #2**) that secures the downpipe to the exhaust system.

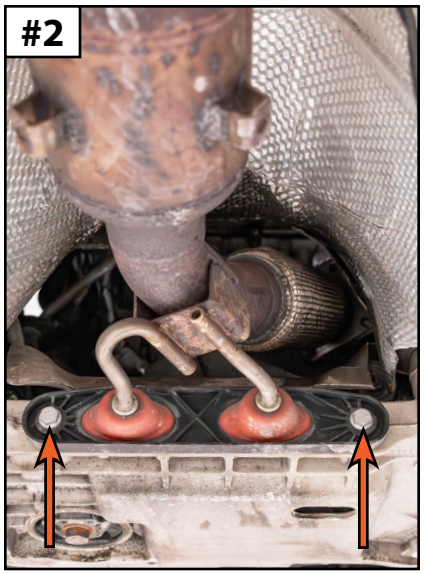




Step 10: 13mm Socket & Ratchet

Apply penetrating oil to the nuts (arrows in **Photo #1**) that secure the downpipe to the exhaust manifold and allow them to soak, then remove them. Remove the two screws (arrows in **Photo #2**) that secure the downpipe bracket to the subframe, then carefully guide the downpipe free from the vehicle and set it aside.

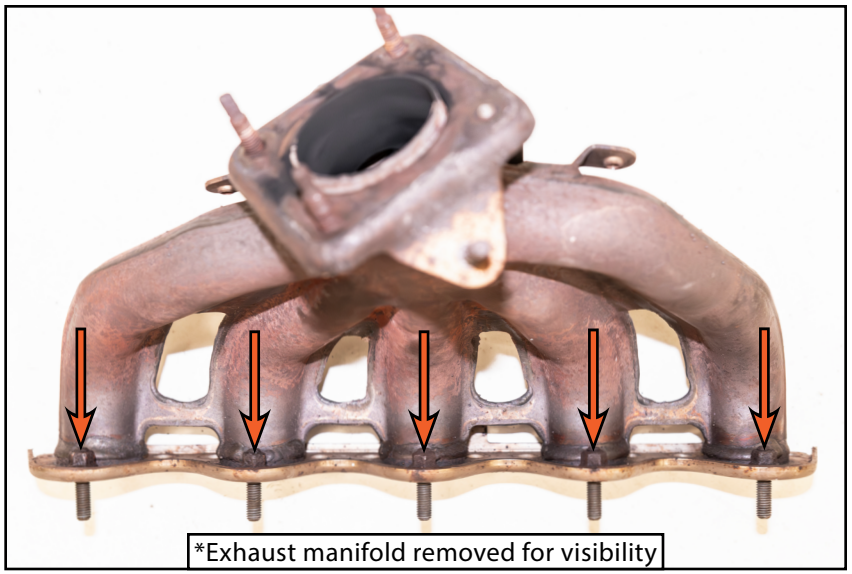




REMOVING THE STOCK EXHAUST MANIFOLD

Step 11: 13mm Socket & Ratchet

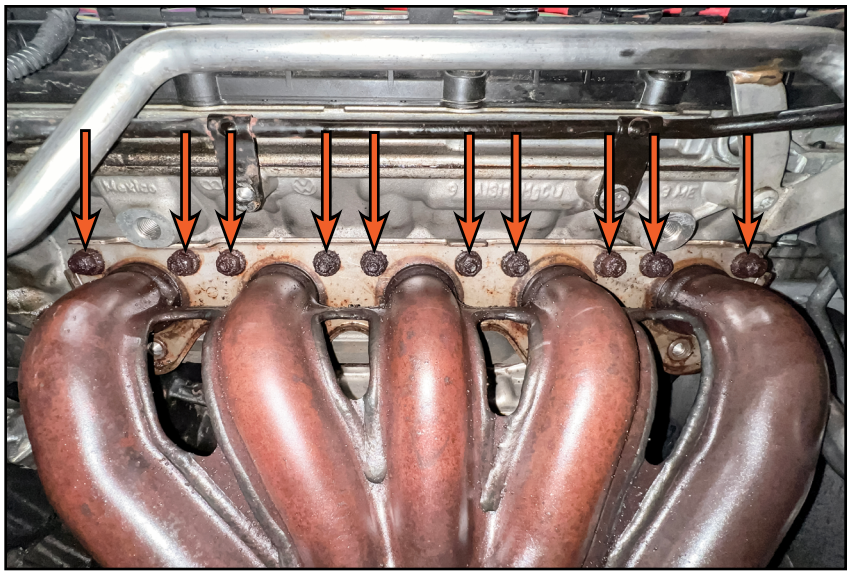
Apply penetrating oil to the nuts (arrows) that secure the exhaust manifold to the engine from below and allow them to soak, then remove them.



*Exhaust manifold removed for visibility

Step 12: 13mm Socket & Ratchet

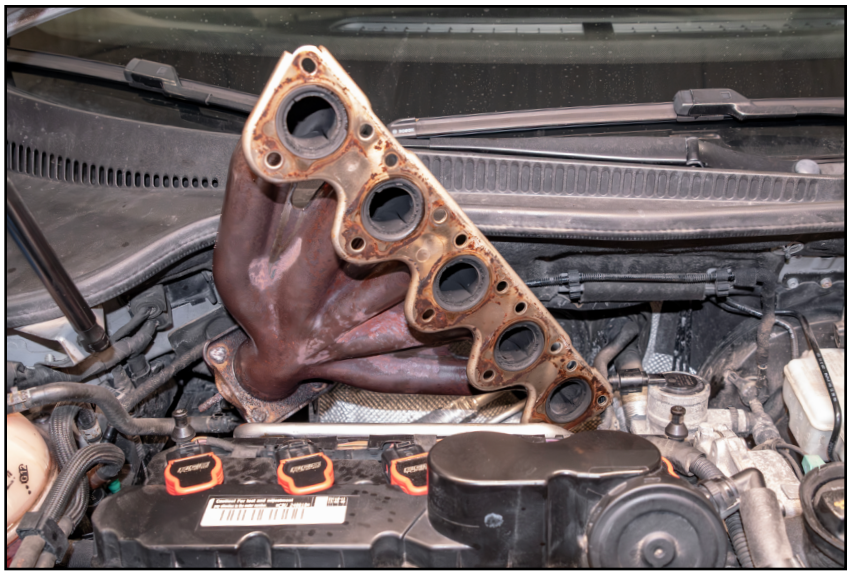
Apply penetrating oil to the nuts (arrows) that secure the exhaust manifold to the engine from above and allow them to soak, then remove them.



REMOVING THE STOCK EXHAUST MANIFOLD

Step 13:

Carefully guide the exhaust manifold free from the engine from above as shown.

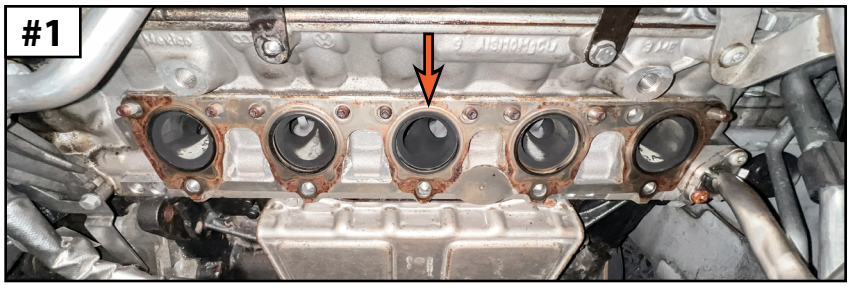


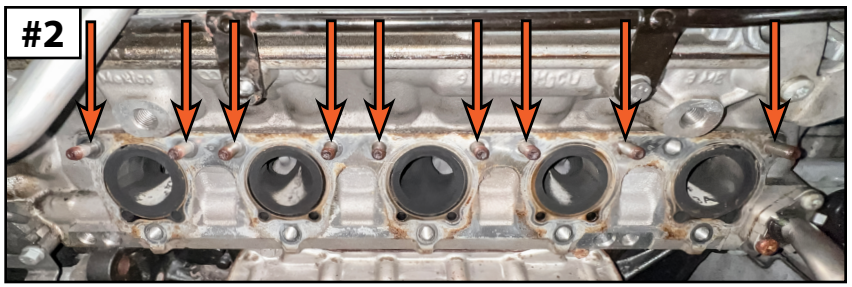
Step 14:

Remove the exhaust manifold gasket (arrow in **Photo #1**), then remove any OE studs (arrows in **Photo #2**) that remain in the engine.

TECH TIP

The easiest way to remove these studs is by using the "double nut" method. Install two spare nuts onto the stud, tighten them against each other using two wrenches, rotate the inner nut to remove the stud, then remove the nuts from the stud.

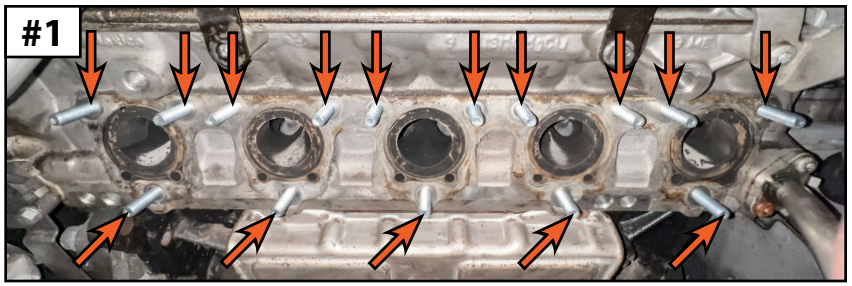


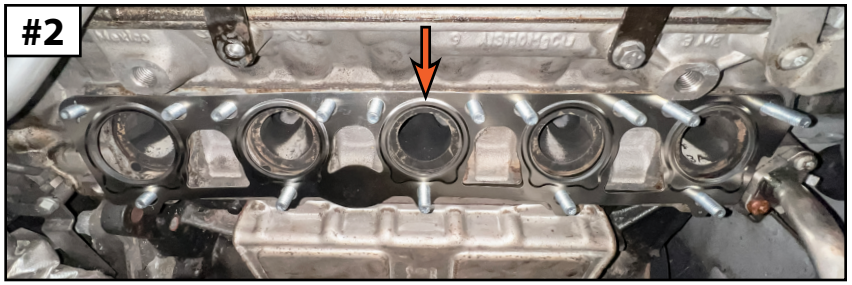


INSTALLING THE NEW EXHAUST HEADER

Step 1:

Install the provided studs (arrows in **Photo #1**) into the engine, tightening until snug, then install the provided replacement exhaust manifold gasket (arrow in **Photo #2**).



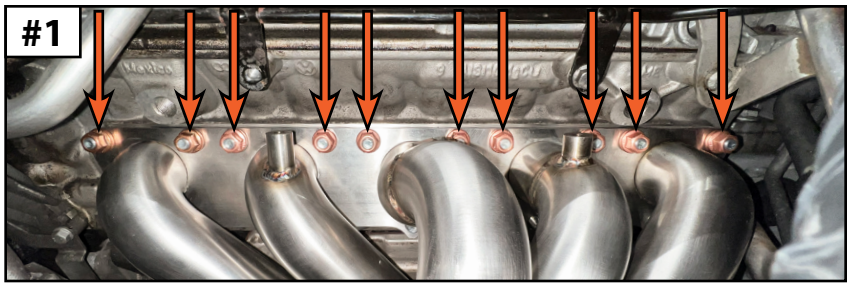


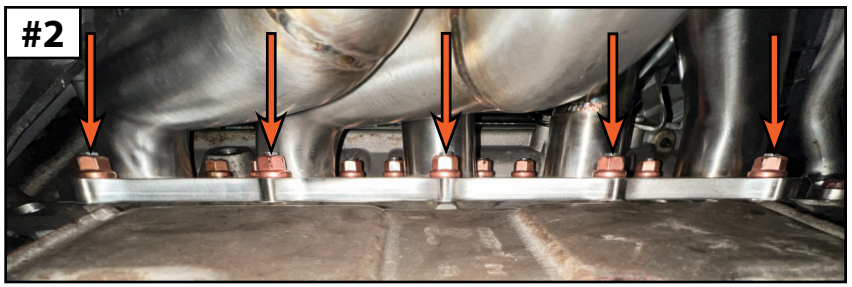
TECH TIP

The easiest way to install these studs is by using the "double nut" method. Install two spare nuts onto the stud, tighten them against each other using two wrenches, rotate the outer nut to install the stud, then remove the nuts from the stud.

Step 2: 13mm Wrench, 13mm Socket & Ratchet

Remove the heat shields from the new exhaust header and slide it onto the studs. Install the upper nuts (arrows in **Photo #1**) from above, and the lower nuts (arrows in **Photo #2**) from below, tightening until lightly snug. Torque the nuts in a diagonal pattern to 25 Nm (18 Ft-lbs).



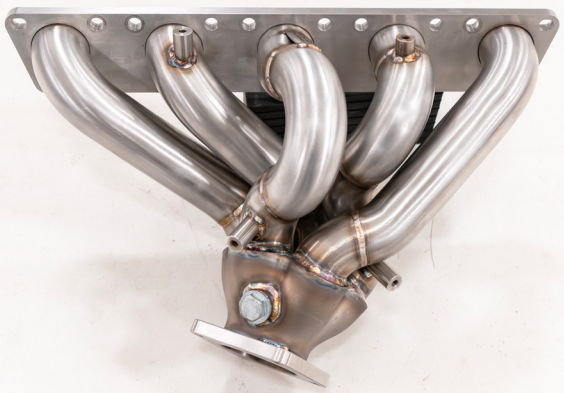


INSTALLING THE NEW EXHAUST HEADER

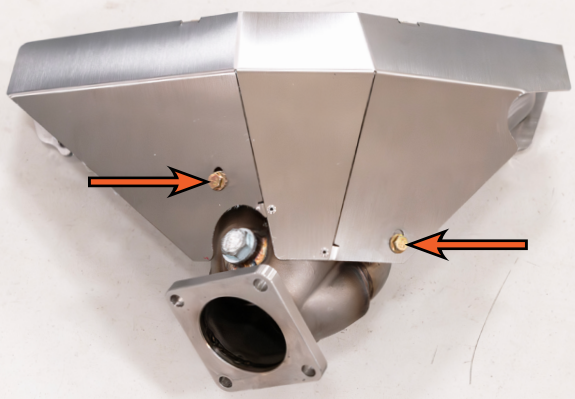
Step 3:

The heat shields on the header are designed to be modular, allowing for a range of possible setups. Before proceeding with reassembly of the vehicle, install the lower heat shield (if desired) first, securing in place with two of the provided screws (arrows), before installing the upper heat shield (if desired) securing in place with the provided screws (arrows).

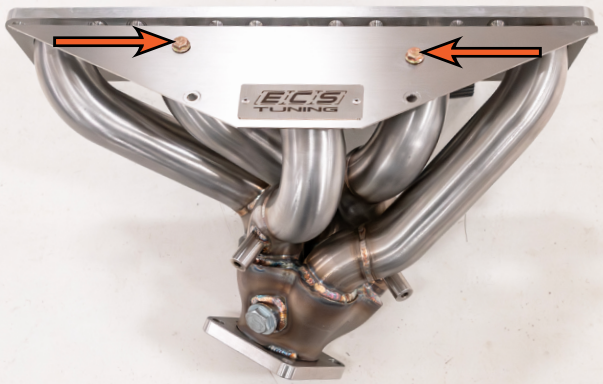
#1: No Heat Shield



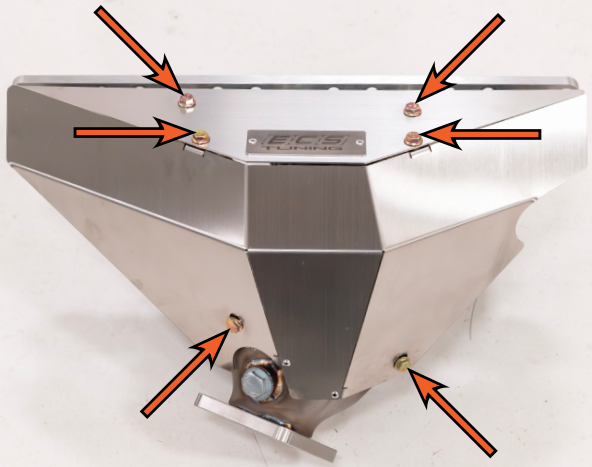
#2: Lower Heat Shield



#3: Upper Heat Shield



#4: Both Heat Shields

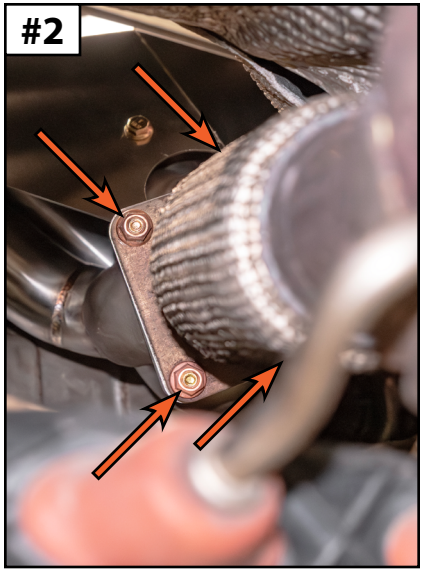


INSTALLING THE NEW EXHAUST HEADER

Step 4: 13mm Wrench, 13mm Socket & Torque Wrench

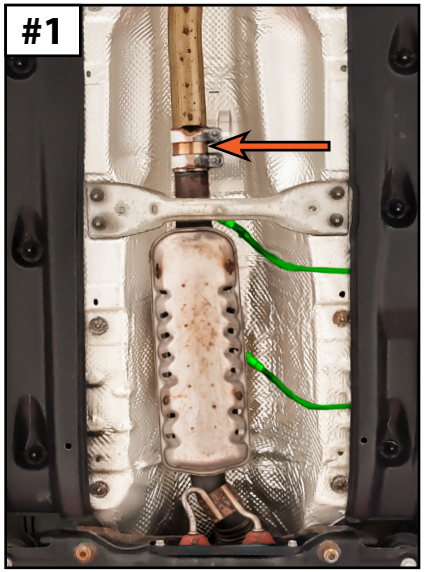
Slide the provided downpipe mounting bolts through the flange on the header, then install the provided replacement downpipe gasket (arrow in **Photo #1**). Reinstall the downpipe in reverse order of removal, then align the flanges and install the provided replacement nuts (arrows in **Photo #2**) and torque them to 25 Nm (18 Ft-lbs).

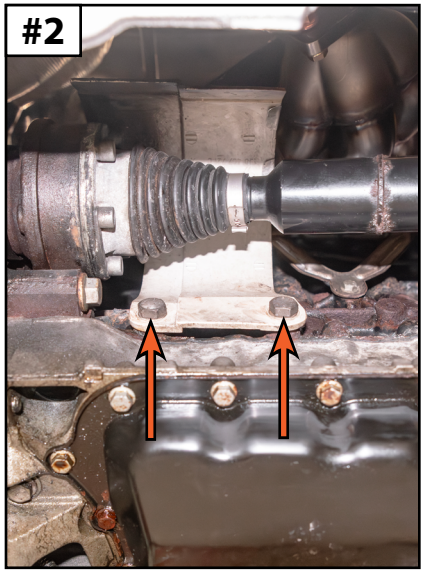




Step 5: 16mm Wrench, 13mm Socket & Ratchet

Reconnect the downstream oxygen sensor harnesses (highlighted in **GREEN** in **Photo #1**) and tighten the clamp (arrow in **Photo #1**) to secure the downpipe to the exhaust system. Reinstall the RH axle heat shield and tighten the screws (arrows in **Photo #2**) until snug.



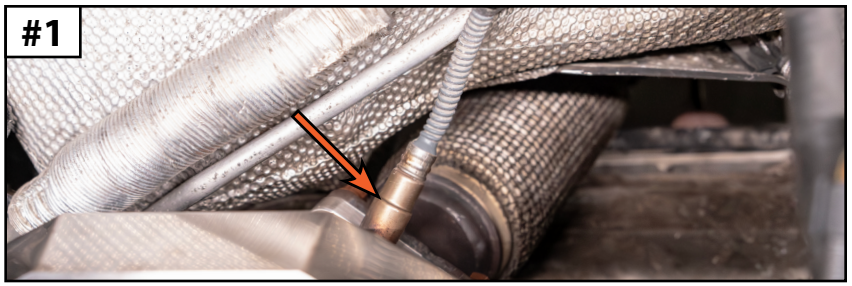


INSTALLING THE NEW EXHAUST HEADER

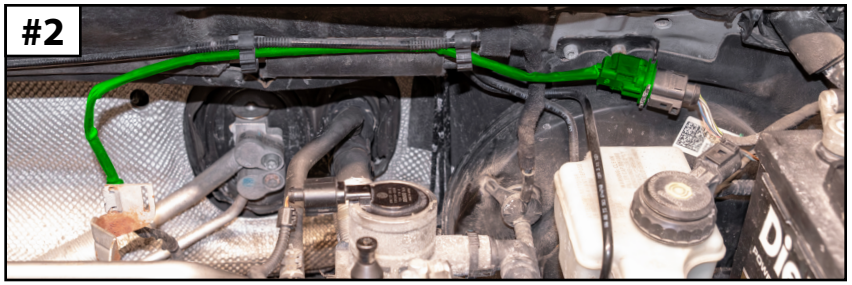
Step 6: Oxygen Sensor Socket & Torque Wrench

Install the oxygen sensor (arrow in **Photo #1**) into the header and torque it to 50 Nm (37 Ft-lbs). Reinstall the oxygen sensor bracket and reconnect the oxygen sensor harness (highlighted in **GREEN** in **Photo #2**) resecuring it to the clips.

#1



#2



Step 7: Hose Clamp Pliers, T20 Torx Socket & Ratchet

Reinstall the airbox and reconnect the inlet duct and intake tube. Reconnect the MAF sensor connector (highlighted in **GREEN**), if equipped.



Congratulations, Your installation is complete!

Your Exhaust Header 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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