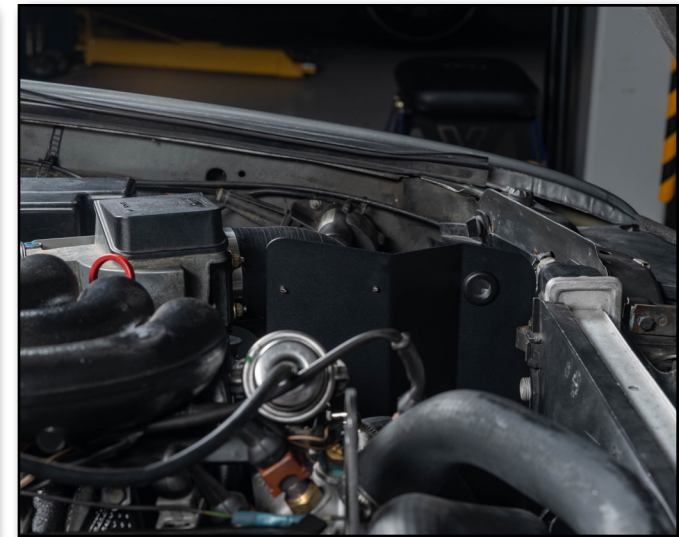
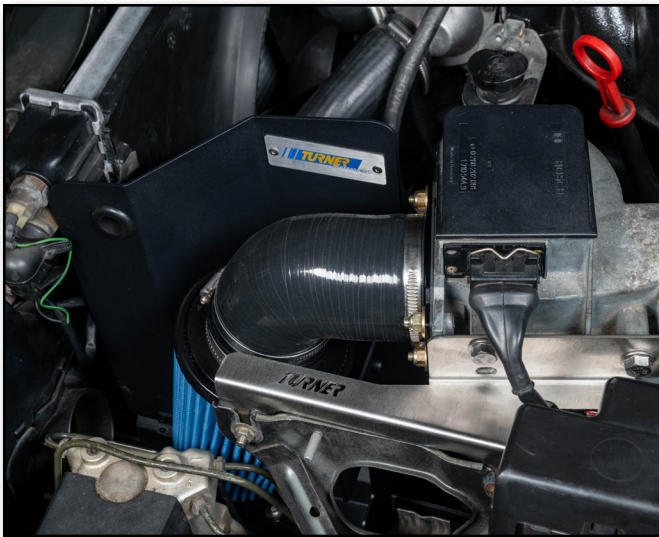
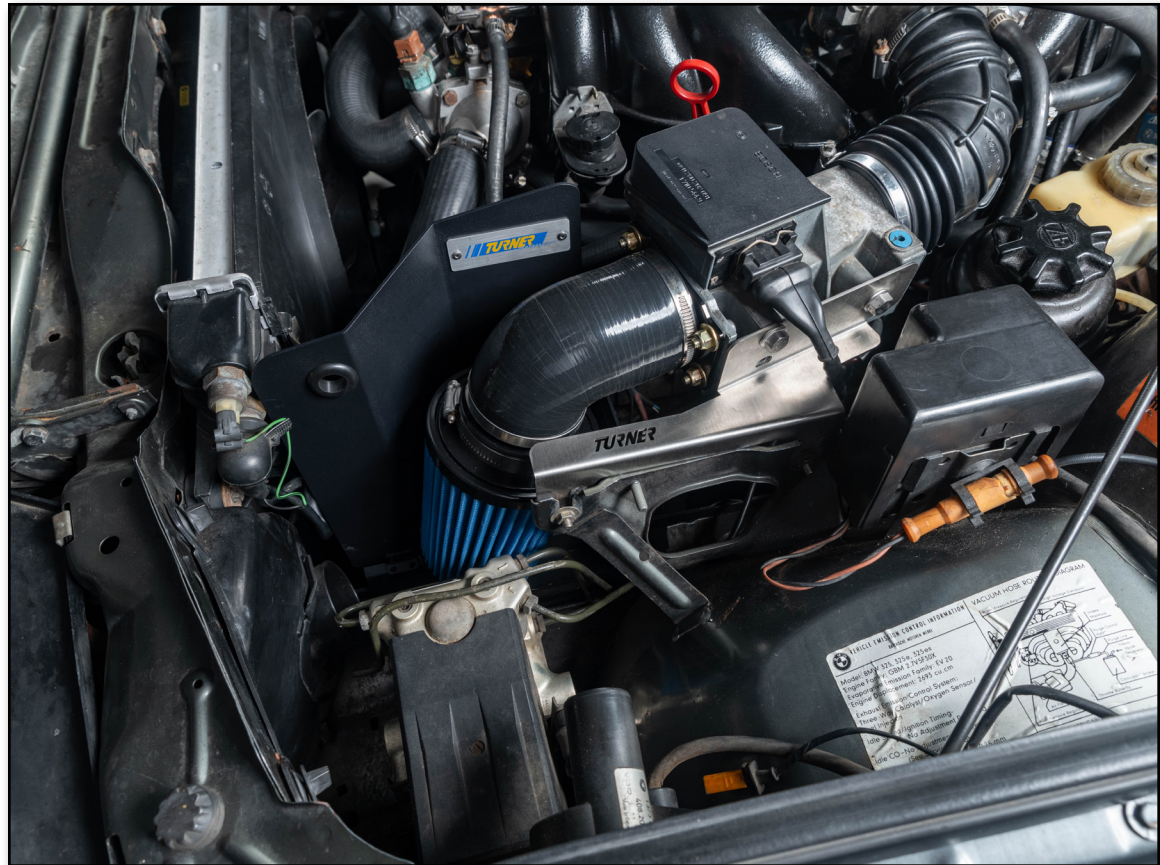


BMW E30 M20

Intake 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.

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.

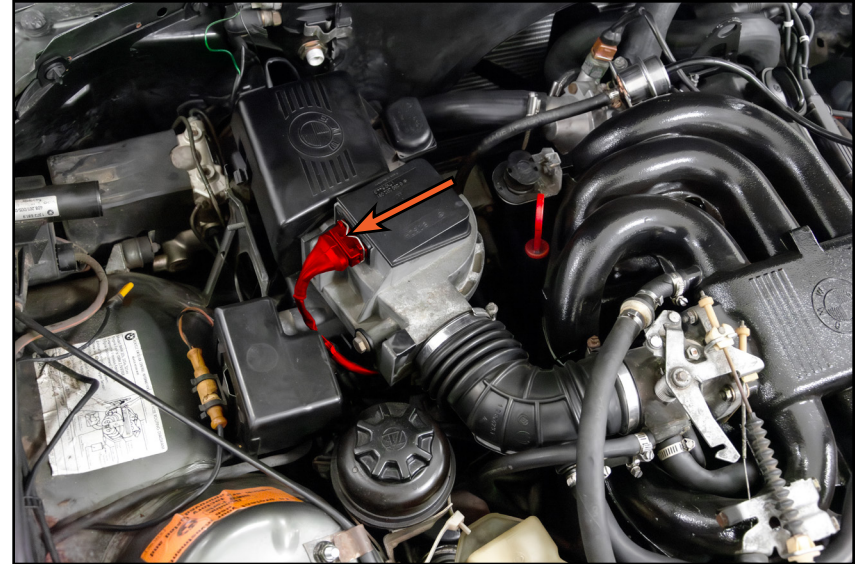


NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

REMOVING THE STOCK INTAKE

Step 1:

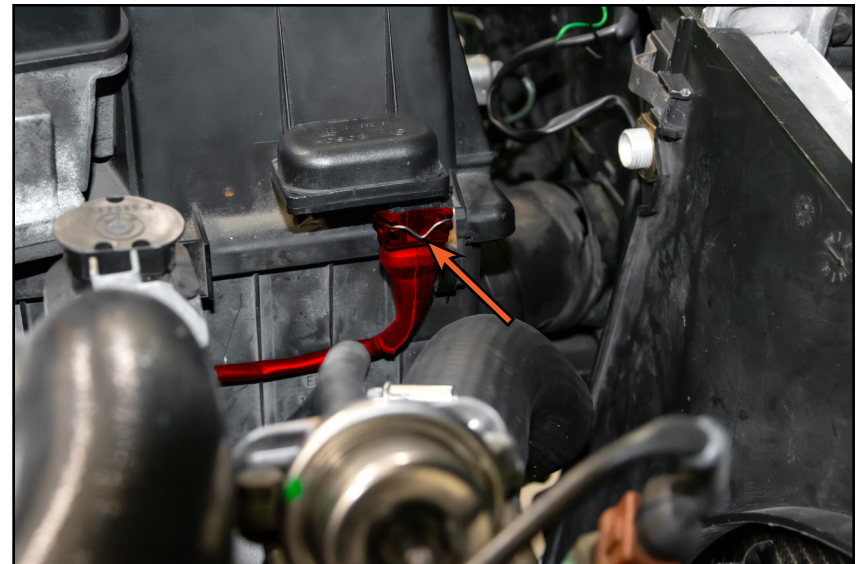
Depress the spring clip (arrow), then disconnect the connector (highlighted in **RED**) from the airflow meter.



Step 2:



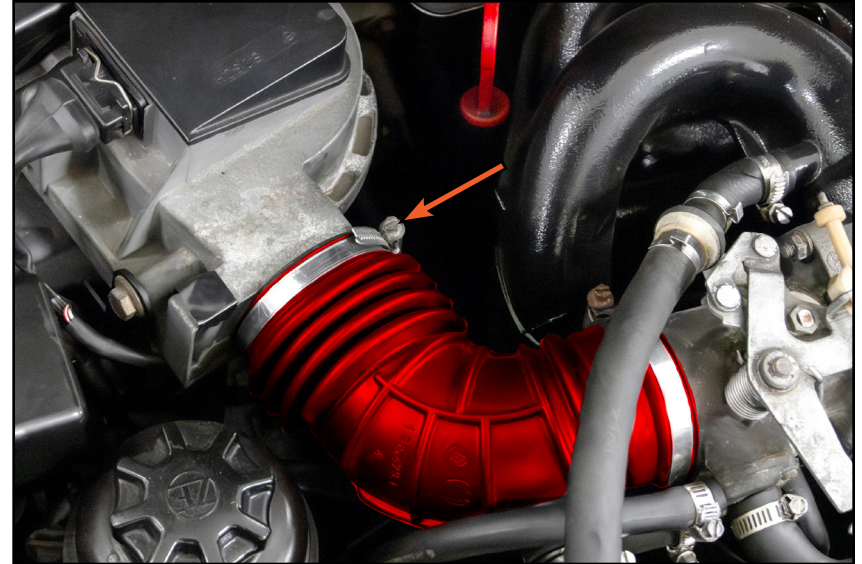
*If equipped with a barometric pressure sensor, depress the spring clip (arrow), then disconnect the connector (highlighted in **RED**) from the barometric pressure sensor.*



REMOVING THE STOCK INTAKE

Step 3: 6mm Socket & Ratchet - OR - Flat Head Screwdriver

Loosen the clamp (arrow), then disconnect the intake tube (highlighted in **RED**) from the airflow meter.



Step 4: 10mm Socket & Ratchet

Loosen the nuts (circled in **RED**) that secure the airbox lid to the mount on the LH fenderwell.



REMOVING THE STOCK INTAKE

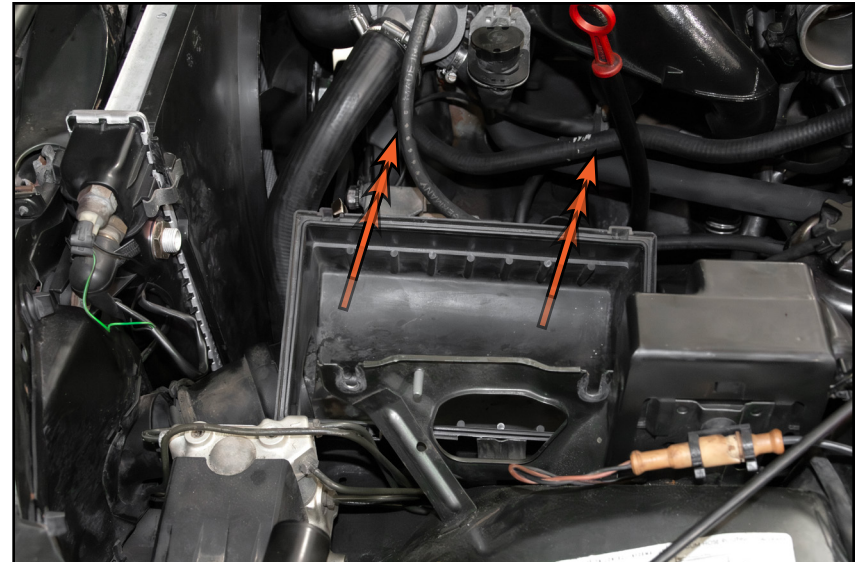
Step 5:

Release the clips (arrow) that secure the lid to the airbox and remove the airflow meter and lid assembly.



Step 6:

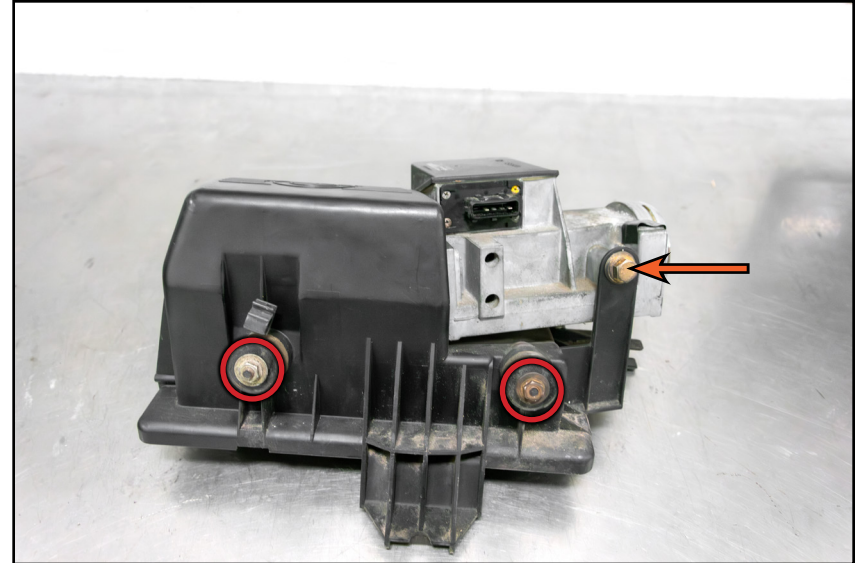
Lift up on the airbox to pop it free from its mounting grommets, then remove the airbox from the vehicle.



REMOVING THE STOCK INTAKE

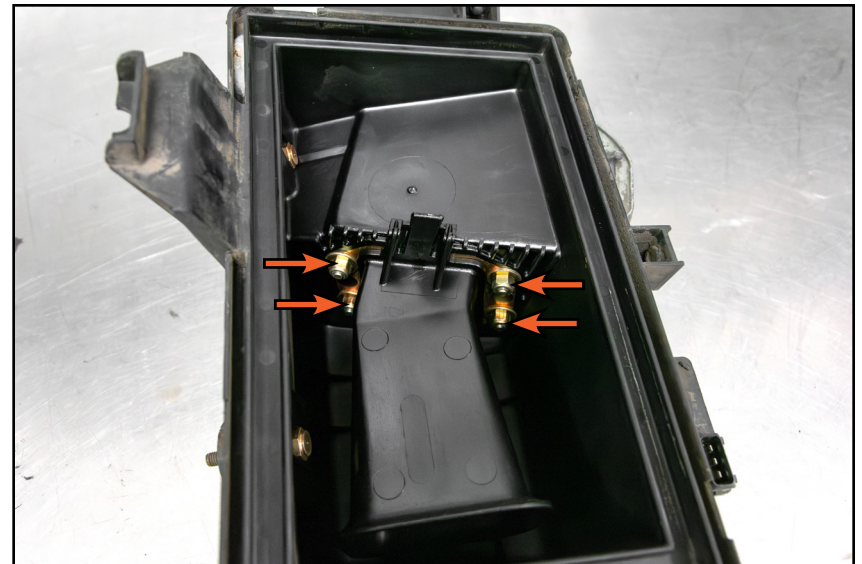
Step 7: 10mm Socket, 13mm Socket & Ratchet

Remove the two nuts (circled in **RED**) and set them aside, we will be reusing them later. Remove the bolt (arrow) that secures the airflow meter to the airbox bracket.



Step 8: 10mm Socket & Ratchet

Remove the nuts (arrows) that secure the airflow meter to the airbox lid and set them aside, we will be reusing them later.



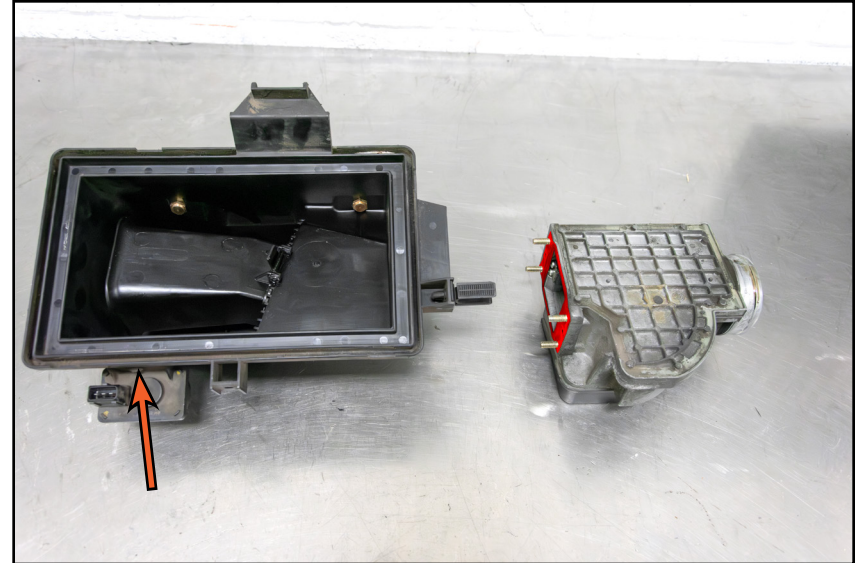
REMOVING THE STOCK INTAKE

Step 9: Phillips Head Screwdriver

Remove the airflow meter from the airbox lid and remove the gasket (highlighted in **RED**).



If equipped with a barometric pressure sensor, remove the screw (arrow) that secures the barometric pressure sensor, and remove it from the air box lid.



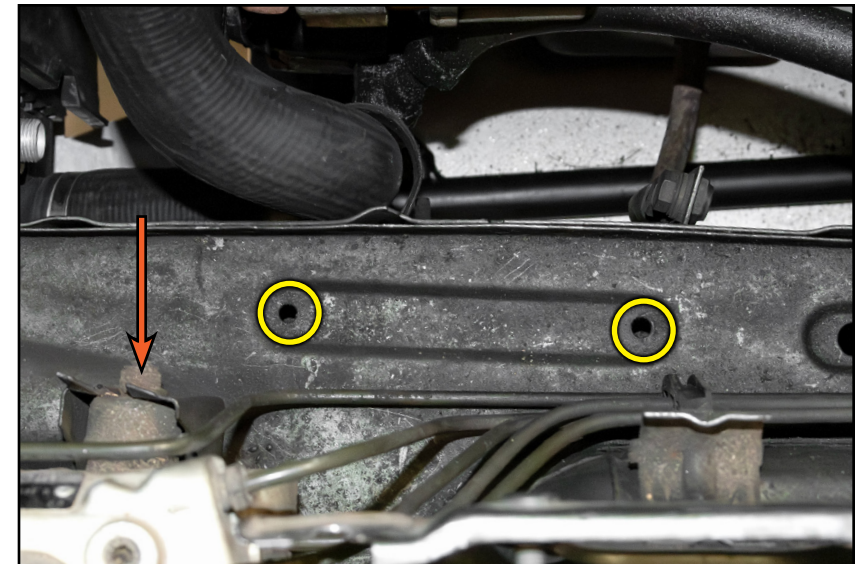
Step 10: 9mm Drill Bit, Drill, 13mm Socket & Ratchet

Using a 9mm drill bit, drill out the preexisting holes in the top of the LH frame rail (circled in **YELLOW**).

Remove the nut (arrow) that secures the ABS module to its mount and set it aside, we will be reusing it later.



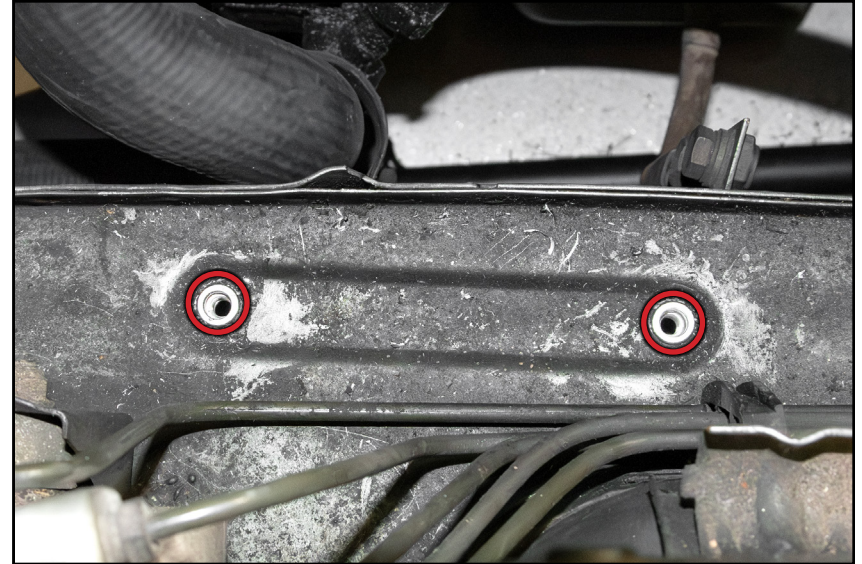
Apply self etching primer or use a paint pen to protect the exposed metal.



INSTALLING THE NEW INTAKE SYSTEM

Step 1: Riv Nut Installation Tool

Install the provided M6 riv-nuts (circled in **RED**) into the drilled holes.



Step 2: 4mm Hex (Allen) Socket & Ratchet

Install the grommet (highlighted in **GREEN**) into the heat shield.

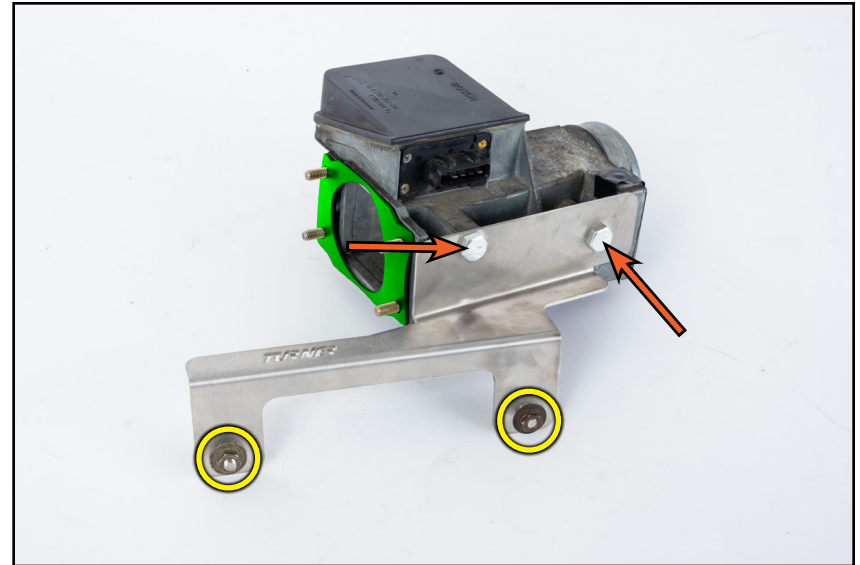
Install the mounting bracket using the provided M6 x 12mm screws (arrows).



INSTALLING THE NEW INTAKE SYSTEM

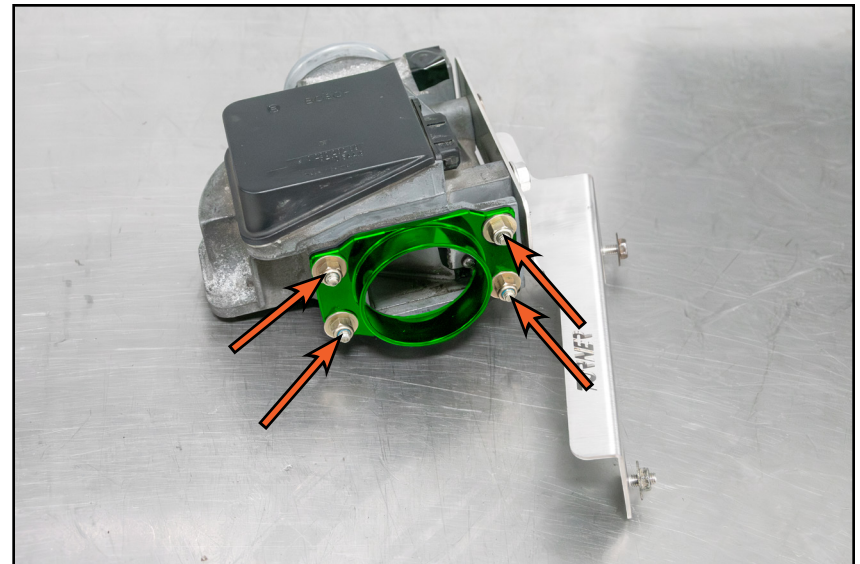
Step 3: 10mm, 13mm Socket & Ratchet

Install the provided gasket (highlighted in **GREEN**) onto the airflow meter. Install the support bracket onto the airflow meter and secure it in place with the M8 screws (arrows). Loosely thread the airbox lid nuts (circled in **YELLOW**) onto the threads on the support bracket.



Step 4: 10mm Socket & Ratchet

Slide the intake adapter (highlighted in **GREEN**) onto the studs on the airflow meter and secure it in place with the four airflow meter nuts (arrows) we removed earlier.



INSTALLING THE NEW INTAKE SYSTEM

Step 5: 6mm Socket & Ratchet

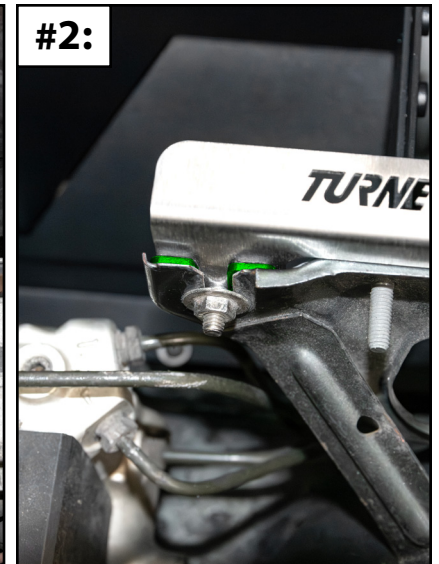
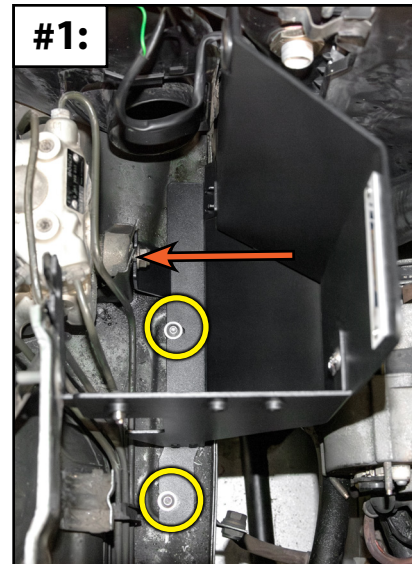
Reinstall the airflow meter to into the factory intake tube (highlighted in **GREEN**), and tighten the clamp (arrow) until snug. Loosely install the airflow meter support bracket onto the OE airbox bracket on the fenderwell.



Step 6: 4mm Hex (Allen), 10mm Socket & Ratchet

Install the heat shield onto the LH frame rail and install the two M6 x 20mm screws (circled in **YELLOW** in **photo #1**) to secure it to the rivnuts. Reinstall the nut (arrow in **photo #1**) to secure the heat shield to the ABS module.

Lift up on the airflow meter and slide the heat shield mounting bracket (highlighted in **GREEN** in **photo #2**) between the airflow support bracket and the OE airbox bracket on the fenderwell, sandwiching it between the two. Tighten the two airflow meter support bracket nuts until fully snug.



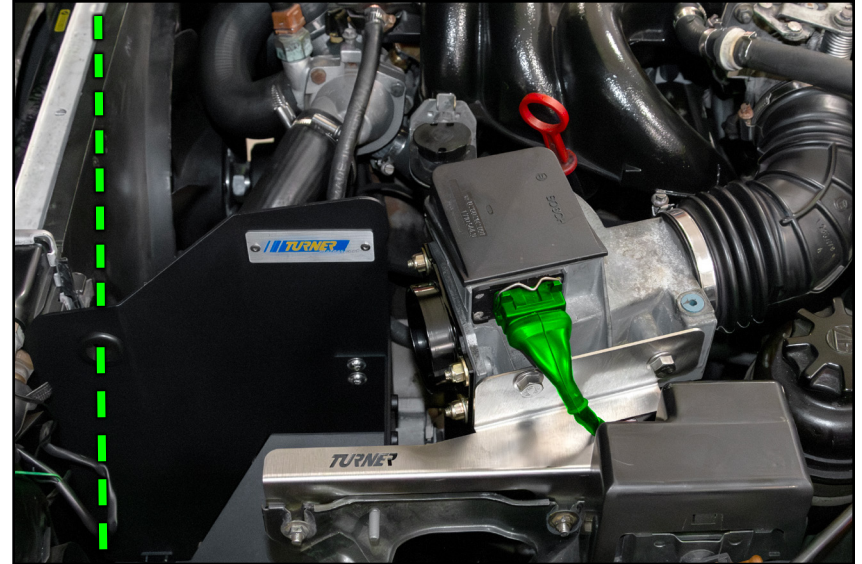
INSTALLING THE NEW INTAKE SYSTEM

Step 7:

Reconnect the airflow meter connector (highlighted in **GREEN**).



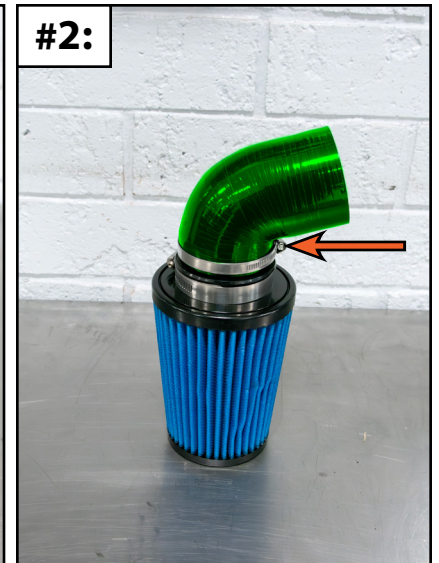
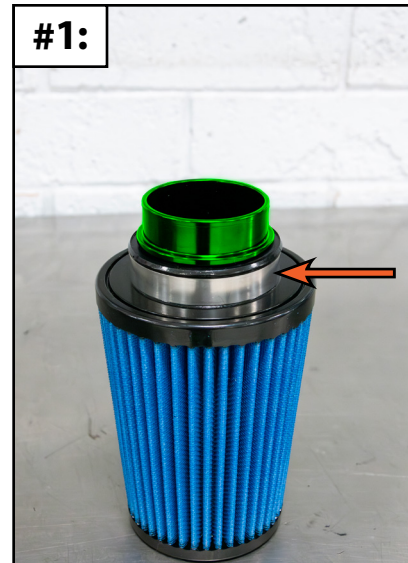
If equipped with a coolant reservoir that has been relocated to the LH (driver's) side: route the coolant reservoir hose (**GREEN** dashed lines) through the grommet in the heat shield, then reconnect the hose to the reservoir and tighten the clamp until snug.



Step 8: 7mm Socket & Ratchet

Install the air filter adapter (highlighted **GREEN** in **photo #1**) into the air filter and tighten the clamp (arrow) until snug.

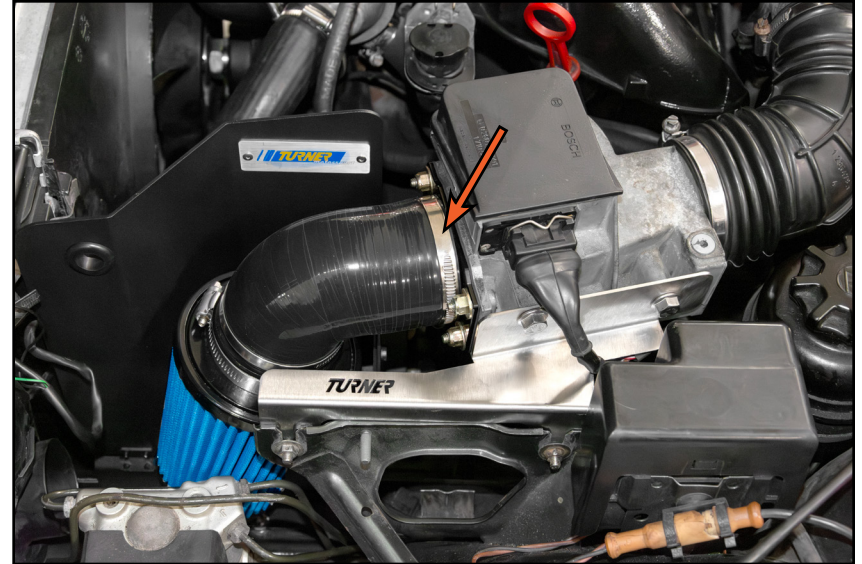
Install the silicone intake coupler (highlighted **GREEN** in **photo #2**) onto the adapter and tighten the clamp (arrow) until snug.



INSTALLING THE NEW INTAKE SYSTEM

Step 9: 7mm Socket & Ratchet

Slide the silicone coupler onto the airflow meter adapter and make adjustments until proper fitment is achieved, then tighten the clamp (arrow) until snug.

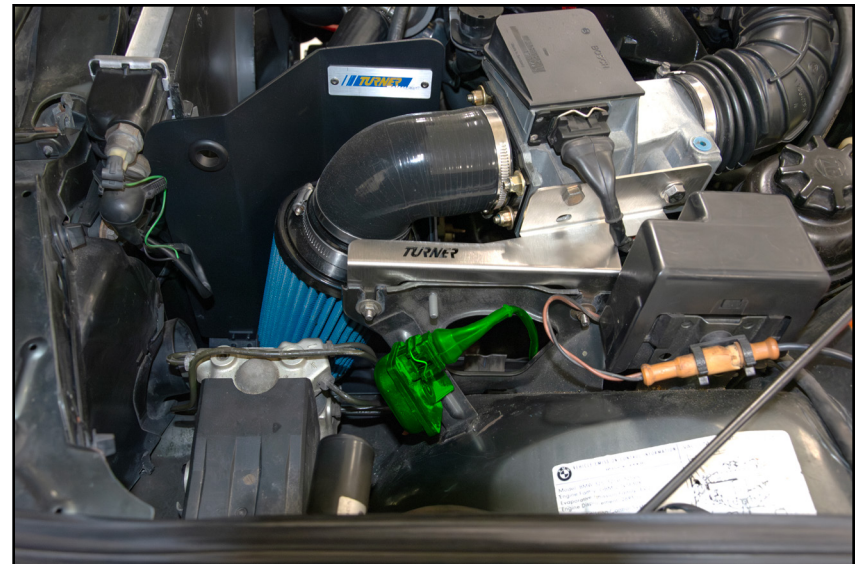


Step 10:



If equipped with a barometric pressure sensor, relocate and reconnect the barometric pressure sensor harness to the sensor (highlighted in **GREEN**) to a suitable location and secure it.

Congratulations, your installation is complete!



Your Intake 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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