



BMW F90 M5 Carbon Fiber Intake System Installation



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.

INTRODUCTION

Turner Motorsport BMW F90 M5 Intake System

Installing our BMW F90 M5 carbon fiber intake system is an enjoyable project that an experienced technician could perform in a couple of hours or less, plan accordingly based on your own experience level. This system is more than just "eye candy", there is no easier way to boost engine performance than by removing the restrictive stock intake system.

Before you begin, read and familiarize yourself with these instructions and make sure you have all the required tools on hand. Thank you for purchasing our BMW F90 M5 intake system, we appreciate your business!



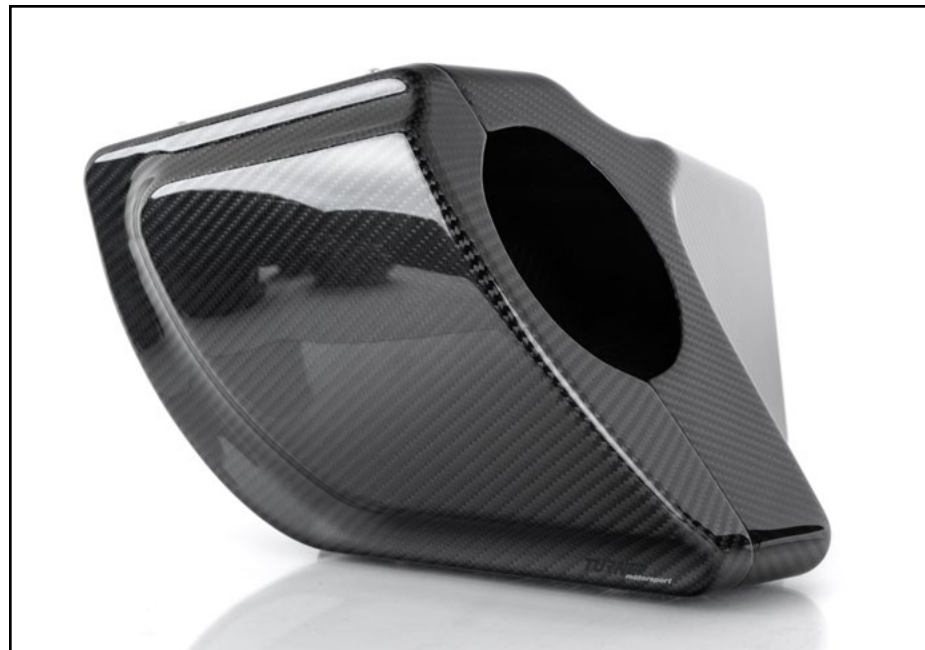
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KIT CONTENTS



LH Carbon Fiber Air Box w/Lid - **QTY 1**



RH Carbon Fiber Air Box w/Lid - **QTY 1**



Carbon Fiber Intake Tube - **QTY 2**



Silicone Hose Coupler - **QTY 2**



Air Filter w/Clamp - **QTY 2**



Heat Shield Standoff - **QTY 4**
Intake Tube Foam - **QTY 2**

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 SYSTEM

Step 1:

Remove the two side engine covers and the two core support side covers (highlighted in **GREEN** in **Photo #1**).

For the purpose of these instructions we will only show the procedure for one air box. Loosen the two hose clamps on the intake tube (arrows in **Photo #2**).

Remove the intake tube from the engine bay as shown (**Photo #3**).

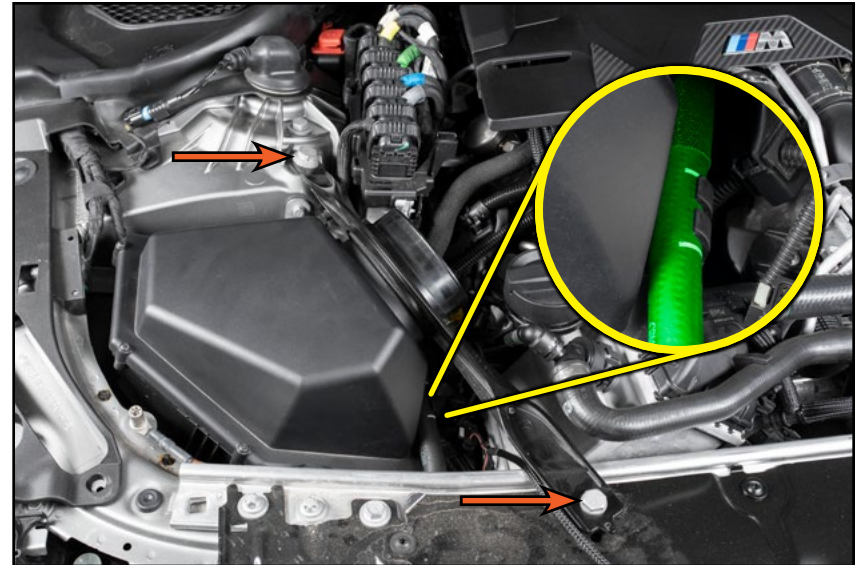


REMOVING THE STOCK INTAKE SYSTEM

Step 2: 16mm Socket, 18mm Socket & Ratchet

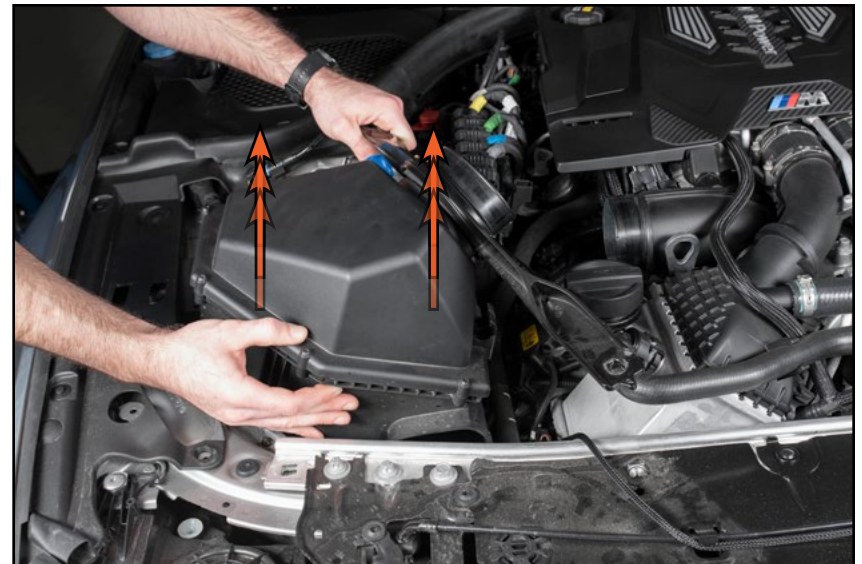
Remove the two bolts which secure the brace to the core support and strut tower (arrows in the photo).

Each air box has a clip along the inside front edge which secures a hose in place. The LH air box holds a vacuum hose (not shown), the RH air box holds a coolant hose (highlighted in **GREEN** in the inset photo). Be sure to release the hose from this clip before you move onto the next step.



Step 3:

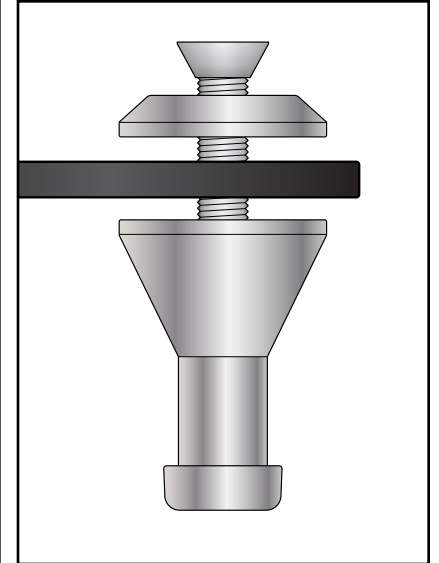
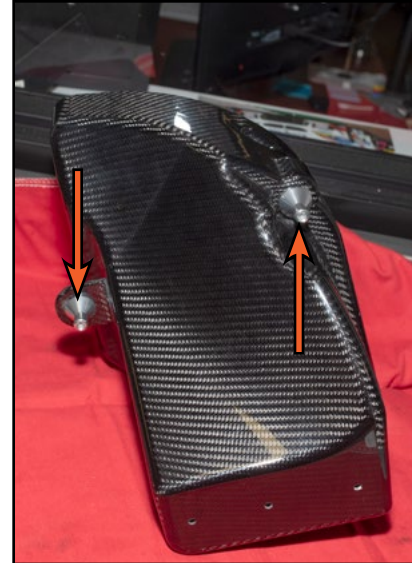
Lift up on the air box to pop it free from its mounting grommets, then lift the air box and the brace out of the engine bay.



INSTALLING THE NEW INTAKE SYSTEM

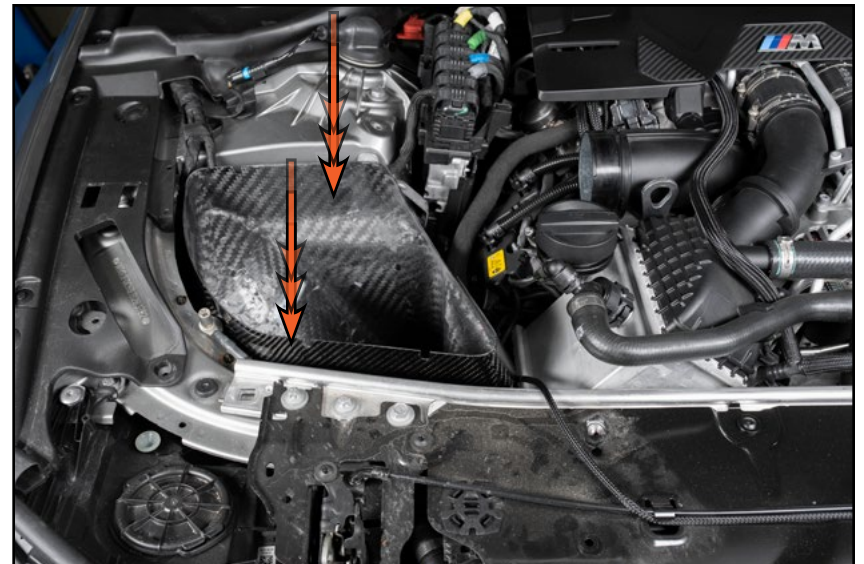
Step 1: 4mm & 6mm Hex (Allen)

Using the photo and illustration on the right for reference, install the two standoff studs (arrows) into the air box with the provided hardware.



Step 2: 3mm Hex (Allen)

Remove the lid from the air box (not shown). Install the new carbon fiber air box by lining it up with the mounting grommets and pushing it downward to pop it into place.



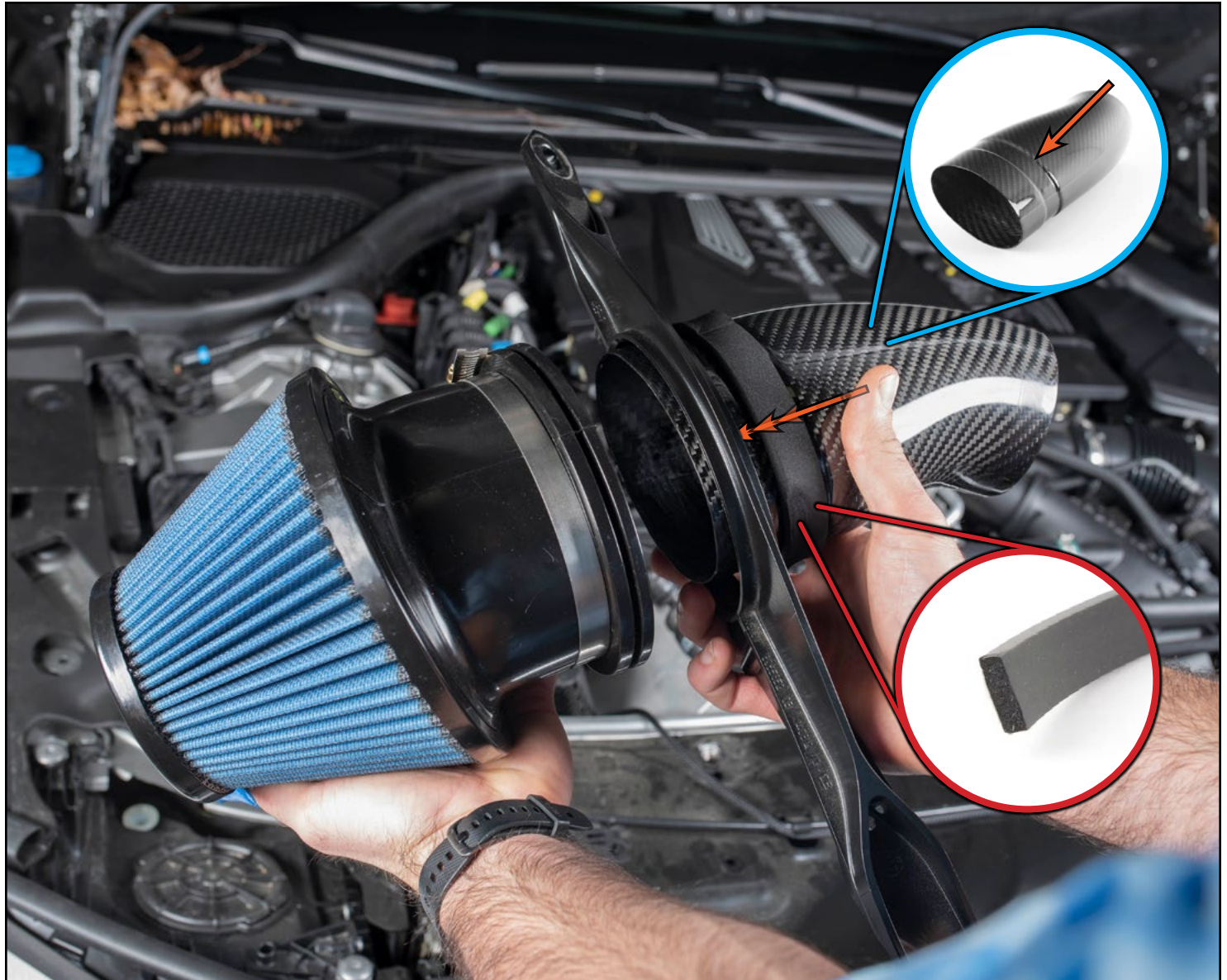
INSTALLING THE NEW INTAKE SYSTEM

Step 3:

Install the provided foam seal (**RED** inset photo) into the relief on the carbon fiber intake tube (arrow in **BLUE** inset photo).

Insert the intake tube through the brace, then slide the air filter onto the tube from the other side (shown in the photo on the right).

Leave the hose clamp loose on the air filter for now, we'll tighten it later on.



INSTALLING THE NEW INTAKE SYSTEM

Step 4:

Slide the silicone hose coupler onto the carbon fiber intake tube.

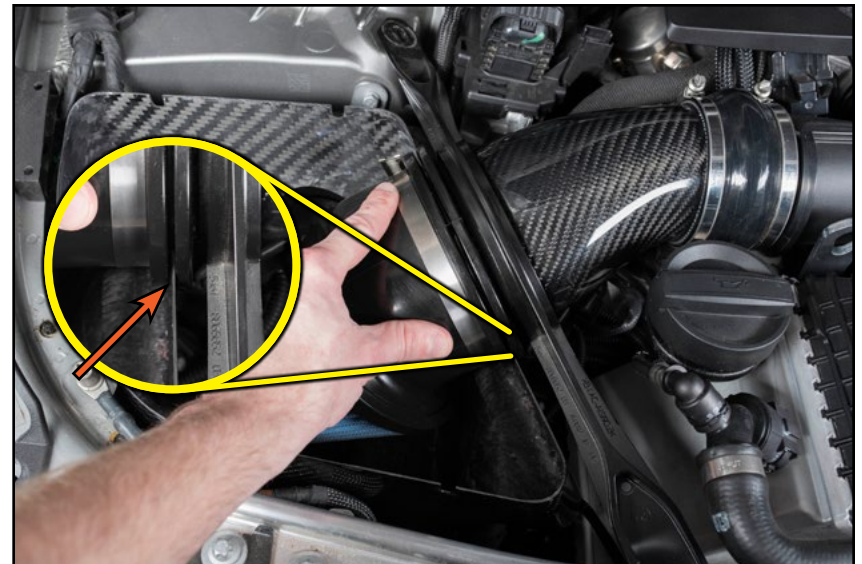


Step 5: Flat Head Screwdriver

Install the entire intake tube/air filter assembly into place. Slide the silicone hose coupler onto the engine, then align the bolt holes in the brace with the holes in the strut tower and core support.

Our air filter features a recessed channel which allows it to seal itself between the air box and the lid. Please be sure to align the recessed channel with the air box while installing the air filter into place (arrow in the **YELLOW** inset photo).

Tighten down all of the hose clamps until snug.



INSTALLING THE NEW INTAKE SYSTEM

Step 6: 3mm Hex (Allen)

Installing the air box lid requires a few steps:

Back the four lid screws out a few turns.

Slide the inside edge of the air box lid into the recessed channel in the air filter (**Photo #1**).

Swing the lid downward and so that the three screws slide into the slots in the air box (**Photo #2**).

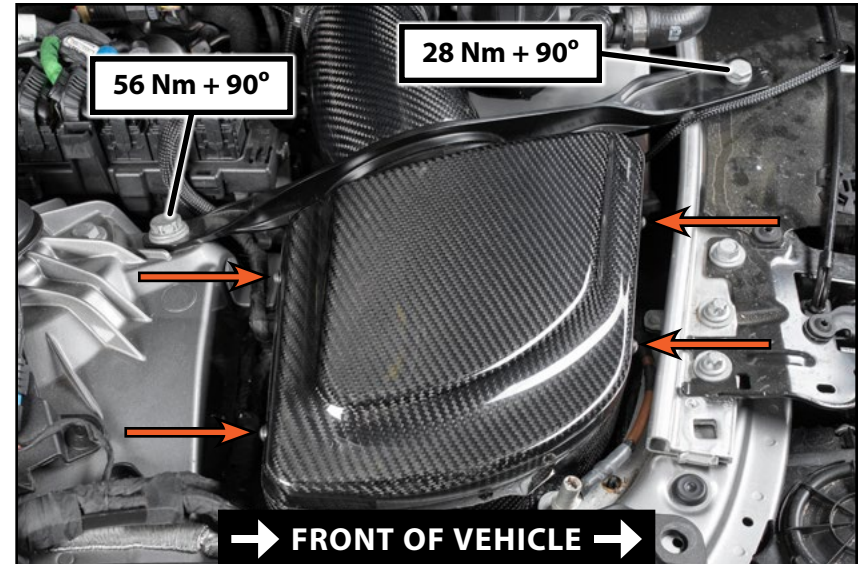
Make sure that the washers are between the screw head and the air box (**YELLOW** inset photo).



INSTALLING THE NEW INTAKE SYSTEM

Step 7: 3mm Hex (Allen), 16mm & 18mm Sockets, Torque Wrench

Tighten down the lid screws (arrows) until they make contact + $\frac{1}{8}$ turn. Replace the brace bolts, then tighten the front bolt to 28 Nm + 90°, tighten the rear bolt to 56 Nm + 90°.



Step 8:

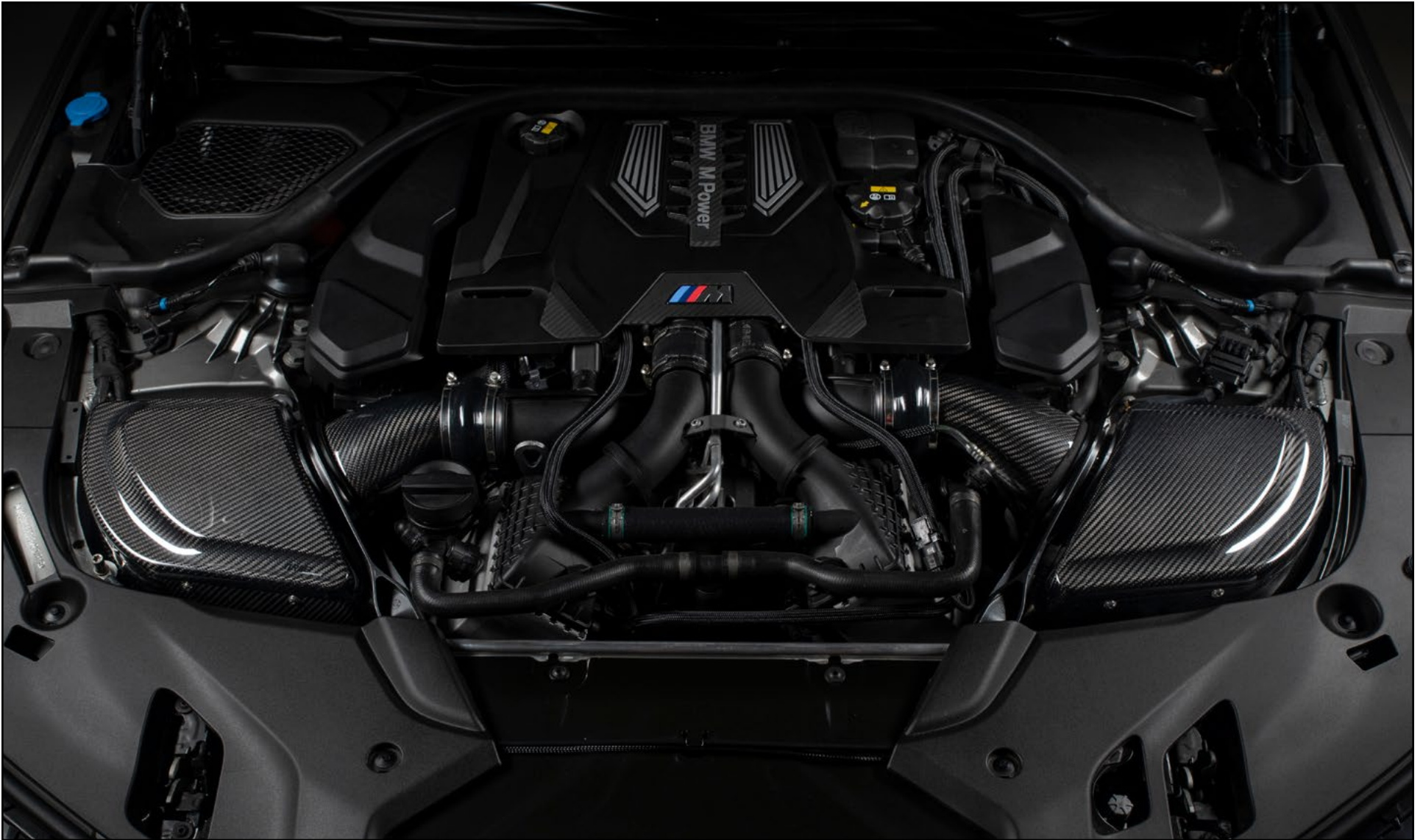
Repeat these steps to install the other air box.

Reinstall the engine side covers and the core support side covers.

Your intake system installation is complete!



Your Intake System installation is complete!



These instructions are provided as a courtesy by Turner Motorsport

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