



BMW N54 Kohlefaser Luft-Technik Twin Cone Intake 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

BMW N54 Carbon Fiber Twin Cone Intake System

The ECS Tuning N54 Carbon Fiber Twin Cone Intake System offers the following features and benefits:

- ECS Tuning engineered mounting bracket to support both air filters and intake tubes
- Large, reusable high flow air filters
- Stainless steel hardware with nylon washers to protect carbon fiber finish
- Broader and smoother torque curve
- Easy installation, integrates seamlessly with stock intake ductwork

ECS Difficulty Gauge



- 1 - Easy** Pro - 4
2 - Moderate Advanced - 3

Installing the ECS Tuning N54 Carbon Fiber Twin Cone Intake System is an enjoyable afternoon project than you can complete in a few hours. Before you begin, read and familiarize yourself with these instructions and make sure you have all of the required tools on hand. Thank you for purchasing our ECS Tuning Carbon Fiber Intake System, we appreciate your business!

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Symbols:

The following symbols may be used throughout these instructions indicating special attention:



FORK IN THE ROAD: When there are different options within any given kit, we will direct you to the proper page and step to continue.



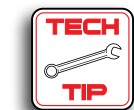
YIELD: Pause for a moment to double check component installation before you continue. Ignoring this can cost you time later during the installation.



CAUTION: Pay close attention to these warnings and instructions. Difficult installation, personal injury or component damage may occur if ignored.



STOP: The upcoming steps require specific preparation and/or assistance in the interest of safety. Please read ahead in the instructions and prepare before continuing.



TECH TIP: Tips and tricks to make the job go much easier.



NOTE: Additional information that may be useful to the installation depending on your application.

N54 TWIN CONE INTAKE KIT CONTENTS



ECS Tuning Air Filter Mounting Bracket



Two Air Filters w/Clamps



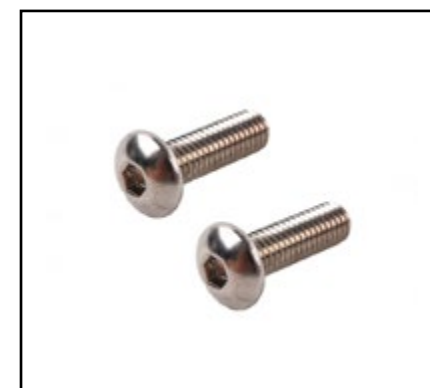
Carbon Fiber Rear Filter Pipe



Carbon Fiber Front Filter Pipe



Two M6 Nylon Washers



Two M6 Allen Screws

REQUIRED TOOLS

Note: The tools required for each step will be listed by the step number throughout these instructions.

Below is a list of the tools we used to install the N54 Twin Cone Intake System. Be sure you have all tools on hand before beginning.

- Flat Blade Screwdriver(s) Available at [ecstuning.com](#)..... [ES#2225921](#)
- Torx Driver: T20 Available at [ecstuning.com](#)..... [ES#11417](#)
- Safety Glasses
- Small Angled Pick or Hook Tool
- Nut Drivers: 6mm, 8mm
- Allen wrench: 4mm
- 1/4" Ratchet, Extensions

SHOP SUPPLIES AND MATERIALS

- Hand Cleaner/Degreaser..... Available at [ecstuning.com](#)..... [ES#2167336](#)
- Shop Rags Available at your local auto parts store

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.
- If using an automotive lift, be sure and utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- When lifting a vehicle using a jack, always 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. Always make sure that the vehicle is securely supported on jack stands.

REMOVING THE ORIGINAL AIRBOX

Step 1:

Remove the upper wiring harness channel cover by pulling out each of the four tabs (arrows) to release them, then lifting the cover upwards and unhooking it at the rear.



Step 2:

Pull the battery cable and corrugated wiring harness out of their retaining clips in the wiring harness channel.



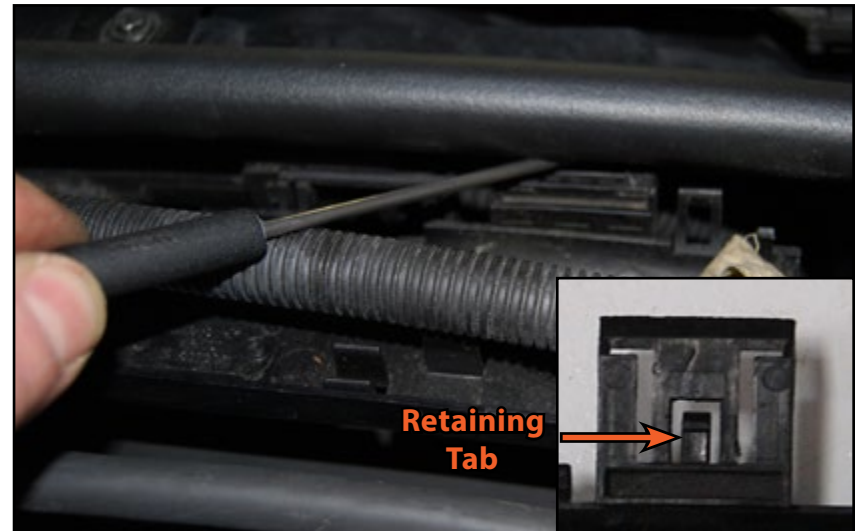
REMOVING THE ORIGINAL AIRBOX

Step 3: Small Pick

Carefully release the three retainers for the wiring harness channel by pushing down on each retaining tab. As you release each one, pull out slightly on the channel to prevent the tabs from locking back in place. The inset picture shows a close up view of a retaining tab.



These tabs and the cowl panel mounts are very fragile and can be easily broken, use caution during removal.



Step 4:

Pull the wiring harness channel forward and remove it from the cowl panel.



REMOVING THE ORIGINAL AIRBOX

Step 5:

Disconnect the brake booster vacuum line by squeezing the two retaining tabs together and pulling up on the line. Pull the line out of the retaining clip on the side of the original air box.



Step 6: 6mm Nut Driver or Flat Blade Screwdriver

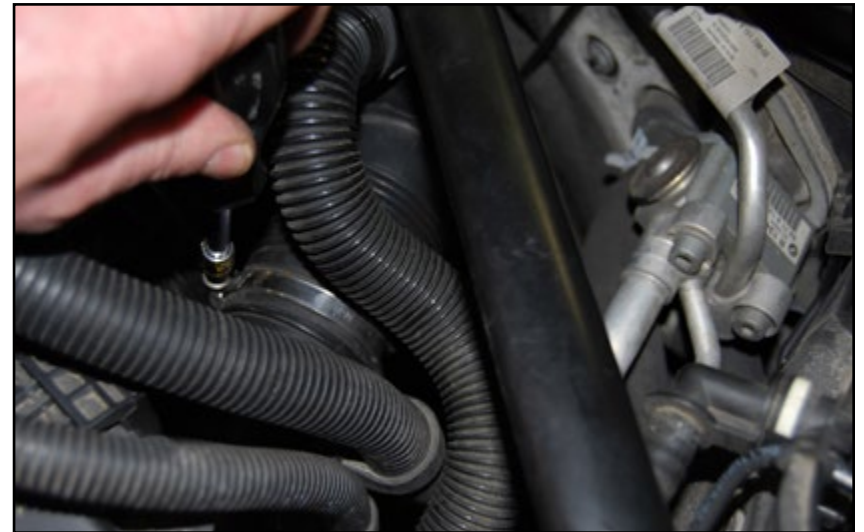
Loosen the clamp holding the front turbo inlet tube to the air original box.



REMOVING THE ORIGINAL AIRBOX

Step 7: 6mm Nut Driver or Flat Blade Screwdriver

Loosen the clamp holding the rear turbo inlet tube to the air original box.



Step 8: T20 Torx Driver

Remove the 2 screws holding the intake air duct to the radiator core support.



REMOVING THE ORIGINAL AIRBOX

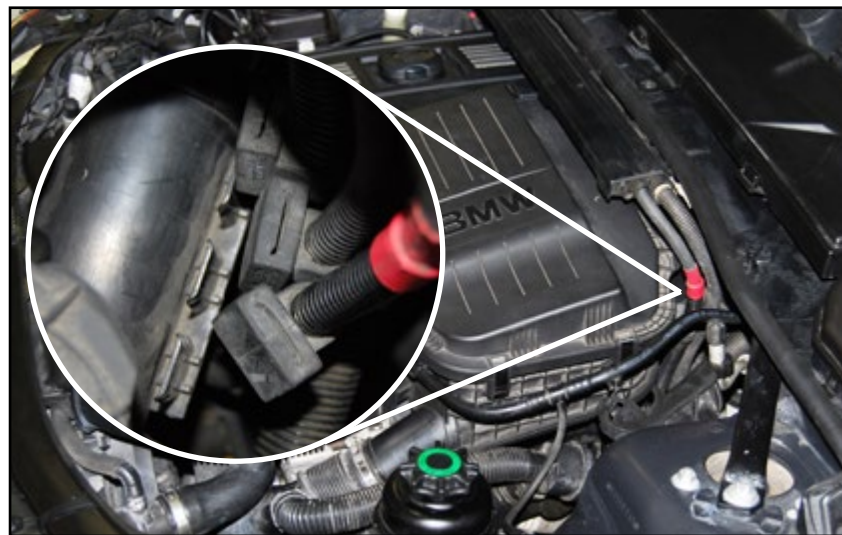
Step 9: Flat Blade Screwdriver

Release the intake air duct from the tabs on the original air box, pull the intake air duct off of the original air box and remove the duct from the vehicle.



Step 10:

Pull all 3 wiring harness retainers off of the retainer bracket on the side of the original air box.



REMOVING THE ORIGINAL AIRBOX

Step 11:

Remove the front and rear turbo inlet tubes from the original air box.



Step 12:

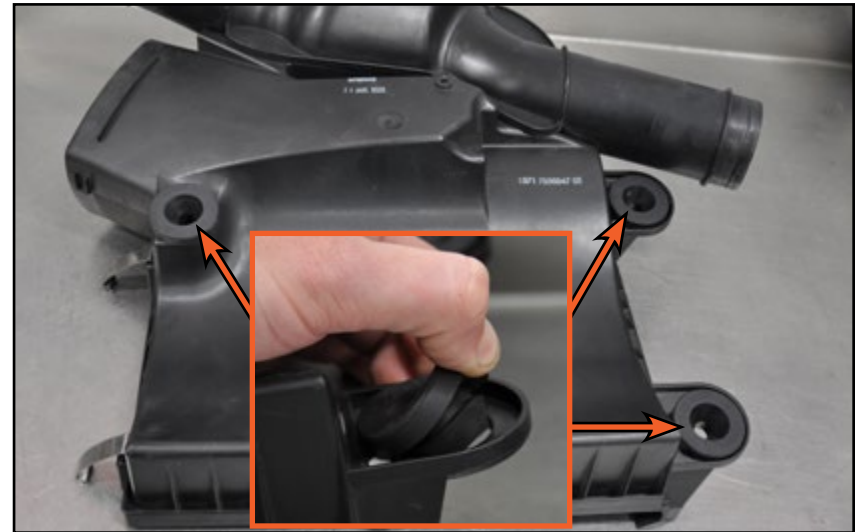
Lift up on the air box and remove it from the vehicle. Be careful to make sure all hoses and wires are clear while removing the air box.



INSTALLING THE TWIN CONE INTAKE SYSTEM

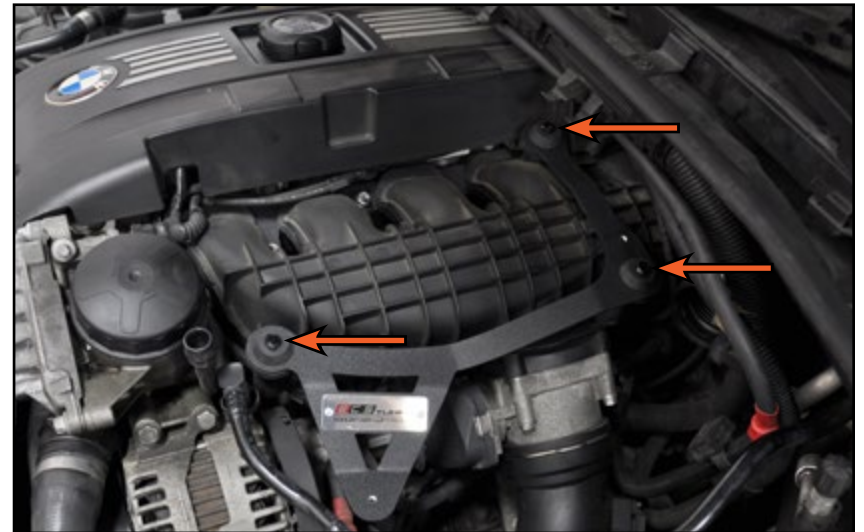
Step 1:

The original air box has three rubber mounting grommets in the bottom. Pull them out and install them into the new air filter mounting bracket by pushing them in until they are fully seated.



Step 2:

Position the air filter mounting bracket so the grommets line up with the mounting studs, then push it down into place until the grommets are fully seated on the studs (arrows).



INSTALLING THE TWIN CONE INTAKE SYSTEM

Step 3: Flat blade screwdriver

Install one of the air filters (both are the same) onto the front filter pipe. Make sure it is fully seated against the lip on the inside of the filter, then tighten the clamp. Use the picture for reference to make sure you install the filter on the correct end.



Be careful not to over tighten the hose clamps. Over tightening can crack the carbon fiber.

Step 4: Flat blade screwdriver

Install the remaining air filter onto the rear filter pipe. Make sure it is fully seated against the lip on the inside of the filter, then tighten the clamp. Use the picture for reference to make sure you install the filter on the correct end.



INSTALLING THE TWIN CONE INTAKE SYSTEM

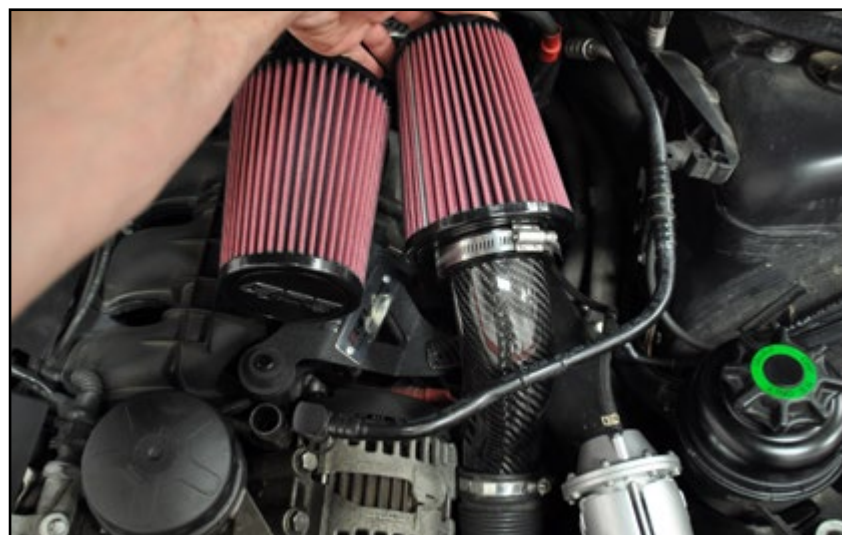
Step 5:

Insert the rear filter pipe into the rear turbo inlet tube. Lay the pipe and filter into place on the mounting bracket, but do not secure it at this time.



Step 6:

Insert the front filter pipe into the front turbo inlet tube. Lay the pipe and filter into place on the mounting bracket, but do not secure it at this time.



INSTALLING THE TWIN CONE INTAKE SYSTEM

Step 7: 4mm hex bit socket (allen wrench)

Install and tighten the two M6 x 20mm screws with the M6 Nylon Washer included with the kit into the front and rear filter pipe mounting ears. Tighten the hose clamps on the carbon fiber intake tubes.



Step 8: Flat blade screwdriver

Reinstall the brake booster vacuum line.

Install the front intake air duct.

Install the wiring harness channel.

Install the battery cable and upper harness in place in the harness channel.

Install the upper wiring harness channel cover.



CARBON FIBER CLEANING AND CARE

ECS Tuning Carbon Fiber Intakes are clear coated for excellent finish durability and UV resistance right out of the box.

Carbon fiber can be washed with any gentle cleanser or soap. If it is safe for the paint on your car, it will be safe for the carbon fiber.

Be extra careful not to nick or deeply scratch the clear coat on the carbon fiber. This can lead to water intrusion into the carbon fiber which will damage the finish and the integrity of the intake.

If the clear coat does get nicked or deeply scratched to expose the carbon fiber, seal the damaged area thoroughly with a clear coat touch up or clear nail polish.

To retain UV resistance and protect the finish, we recommend regular waxing with a high quality caranuba wax.

Small surface scratches and light oxidation can be buffed out using the same methods and cautions you would use on the vehicle paint.

Carbon Fiber Cleaning and Care Kit, available at ecstuning.com.

[ES#2914954](#)



Your BMW N54 Kohlefaser Luft-Technik Twin Cone Intake installation is complete!



These instructions are provided as a courtesy by ECS Tuning.

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