Gen 2 MINI Cooper S/JCW Kohlefaser Luft-Technik Intake 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.

INTRODUCTION

ECS Tuning Gen 2 MINI Cooper S/JCW Carbon Fiber Intake

The ECS Tuning Gen 2 MINI Cooper S/JCW Carbon Fiber Intake offers the following features and benefits:

- Hand-laid carbon fiber upper intake box
- Hand-laid carbon fiber lower intake box with integrated lower pipe
- Hand-laid carbon fiber upper intake pipe
- Performance air filter
- ECS Tuning silicone coupler
- All required mounting hardware and clamps
- Dyno proven performance

ECS Difficulty Gauge

1 - Easy Pro - 4

2 - Moderate Advanced - 3

Installing the ECS Tuning Gen 2 MINI Cooper S/JCW Carbon Fiber Intake is a very short afternoon project that will reward you with performance gains and the beauty of one of our hand-laid laminated carbon fiber intake systems. All required hardware is included with your new intake and it only requires a few simple tools. Thank you for purchasing one of our ECS Tuning Kohlefaser Luft-Technik Intake Systems. We appreciate your business!

TABLE OF CONTENTS

Symbols:

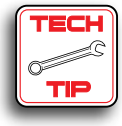
The following symbols may be used throughout these instructions indicating special attention:

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.

CARBON FIBER INTAKE APPLICATIONS

MINI Cooper N14 Engine
Identified by the visible
coil wiring harnesses.

MINI Cooper N18 Engine
Identified by the full cover.

This ECS Tuning Carbon Fiber Intake fits both the N14 Cooper S/JCW engine and the N18 Cooper S/JCW engine on the platforms listed below.

- R56 MINI Cooper S/JCW (2007+)
- R55 MINI Clubman S/JCW (2008+)
- R57 MINI Convertible S/JCW (2009+)
- R58 MINI Coupe S/JCW (2012+)
- R59 MINI Roadster S/JCW (2012+)
- R60 MINI Countryman S/SX/JCW (2011+)
- R61 MINI Paceman S/SX/JCW (2013+)

CARBON FIBER INTAKE KIT CONTENTS

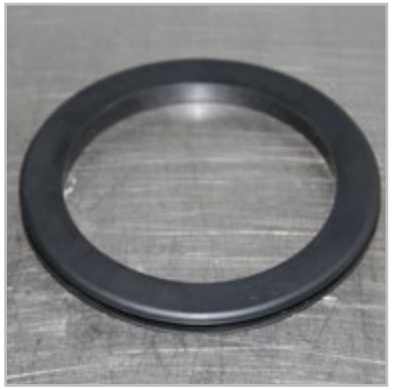

Upper Intake Box


Lower Intake Box with integrated lower pipe


Air Filter with clamp


Silicone Coupler with clamps


Upper Intake Pipe


Intake Box upper pipe seal


M6 Hex head stainless steel screws and nylon washers


Tubing clip (N18 only)

REQUIRED TOOLS

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

Standard Automotive Tools

- Protecta-Sockets (for lug nuts) ES#2221243
- 3/8" Drive Ratchet ES#2765902
- 3/8" Drive Torque Wrench ES#2221245
- 3/8" Drive Deep and Shallow Sockets ES#2763772
- 3/8" Drive Extensions ES#2804822
- Hydraulic Floor Jack ES#240941
- **Torx Drivers and Sockets** ES#11417/8
- 1/2" Drive Deep and Shallow Sockets ES#2839106
- 1/2" Drive Ratchet
- 1/2" Drive Extensions
- 1/2" Drive Torque Wrench ES#2221244
- 1/2" Drive Breaker Bar ES#2776653
- File Set
- Air Nozzle/Blow Gun
- Bench Mounted Vise
- Crows Foot Wrenches
- Hook and Pick Tool Set ES#2778980

Required For This Install

- **1/4" Drive Ratchet** ES#2823235
- 1/4" Drive Deep and Shallow Sockets ES#2823235
- **1/4" Drive Extensions** ES#2823235
- 1/4" Drive Torque Wrench
- **Plier and Cutter Set** ES#2804496
- **Flat and Phillips Screwdrivers** ES#2225921
- Jack Stands ES#2763355
- Ball Pein Hammers
- Pry Bar Set ES#1899378
- Electric/Cordless Drill
- Wire Strippers/Crimpers
- Adjustable (Crescent) Type Wrenches
- Drill Bits
- Punch and Chisel Set
- **Hex Bit (Allen) Wrenches and Sockets** ES#11420
- Thread Repair Tools ES#1306824
- Open/Boxed End Wrench Set ES#2765907

Available On Our Website

SHOP SUPPLIES AND MATERIALS

Standard Shop Supply Recommendations: We recommend that you have a standard inventory of automotive shop supplies before beginning this or any automotive repair procedure. The following list outlines the basic shop supplies that we like to keep on hand. Shop supplies with a hyperlink are available on our website.

- Hand Cleaner/Degreaser - Click Here
- Pig Mats - for protecting your garage floor and work area from spills and stains - Click Here
- Spray detailer - for rapid cleaning of anything that comes into contact with your paint such as brake fluid - Click Here
- Micro Fiber Towels - for cleaning the paint on your car - Click Here
- Latex Gloves - for the extra oily and dirty jobs - Click Here
- Medium and High Strength Loctite Thread lock compound - to prevent bolts from backing out - Click Here
- Anti-Seize Compound - to prevent seizing, galling, and corrosion of fasteners - Click Here
- Aerosol Brake/Parts Cleaner - for cleaning and degreasing parts
- Shop Rags - used for wiping hands, tools, and parts
- Penetrating oil - for helping to free rusted or stuck bolts and nuts
- Mechanics wire - for securing components out of the way
- Silicone spray lube - for rubber components such as exhaust hangers
- Paint Marker - for marking installation positions or bolts during a torquing sequence
- Plastic Wire Ties/Zip Ties - for routing and securing wiring harnesses or vacuum hoses
- Electrical tape - for wrapping wiring harnesses or temporary securing of small components

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.

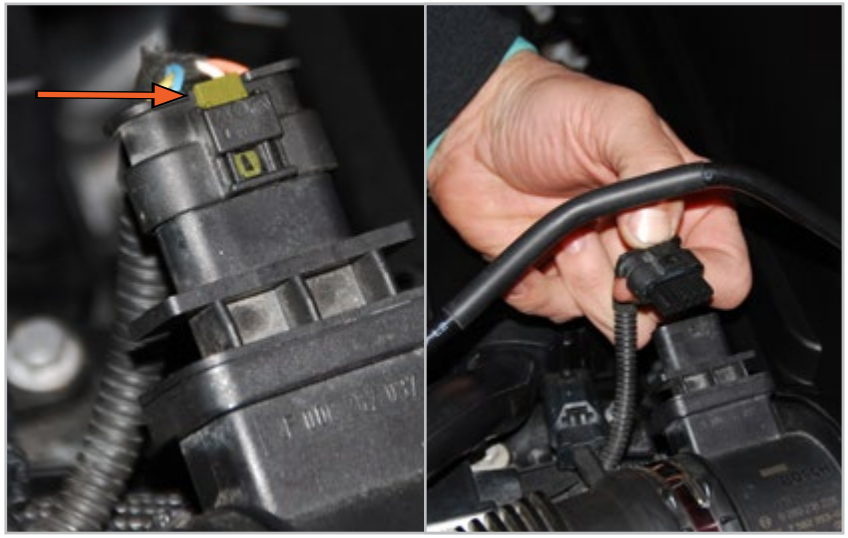
REMOVING THE ORIGINAL AIR BOX

Step 1:

Open the hood and locate the connector for the mass air flow sensor (arrow).

Step 2:

Grasp the connector, press down on the locking tab with your thumb (arrow), and pull the connector off the mass air flow sensor.



REMOVING THE ORIGINAL AIRBOX

Step 3:

Pull the evap line out of the clip on the lower intake pipe, located just below the mass air flow sensor slightly towards to drivers side of the vehicle.

NOTE

We are installing this intake on an N14 engine. If you have an N18 engine, there will be an additional clip on the rear of the air box.

Step 4: Flat Blade Screwdriver

Using a flat blade screwdriver, loosen the clamp holding the upper intake tube to the mass air flow sensor.

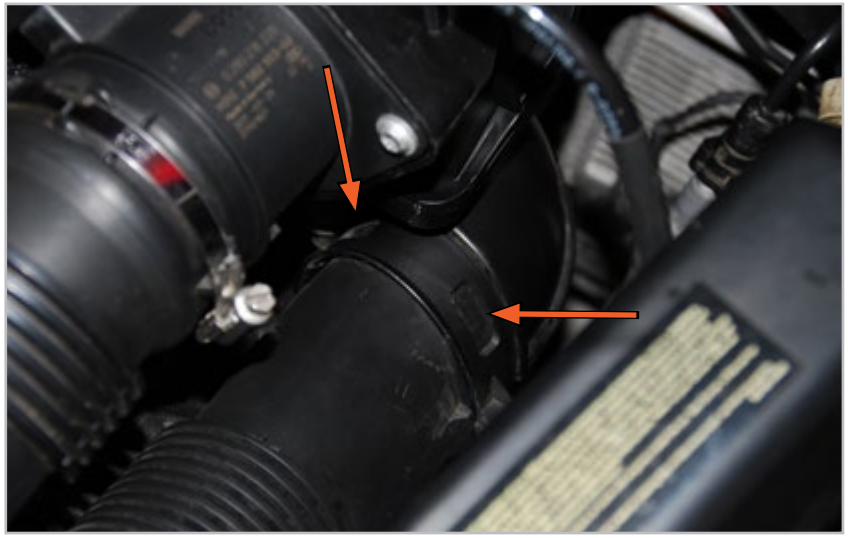
REMOVING THE ORIGINAL AIRBOX

Step 5:

Pull the upper intake tube back just until it is disconnected from the mass air flow sensor.

Step 6:

Squeeze the lower intake tube so the retaining tabs (arrows) are pulled inwards, away from the slots in the lower intake pipe, then pull the tube out of the lower pipe.



REMOVING THE ORIGINAL AIRBOX

Step 7: T25 Torx

Using a T25 torx driver, fully loosen the mounting screw on the end of the original air box. This will only require about three to four complete turns. Once you have loosened this screw, it will remain trapped in place in the ear on the lower air box.

Step 8:

Pull up on the RH (passenger) side of the original air box to release the grommet on the end.

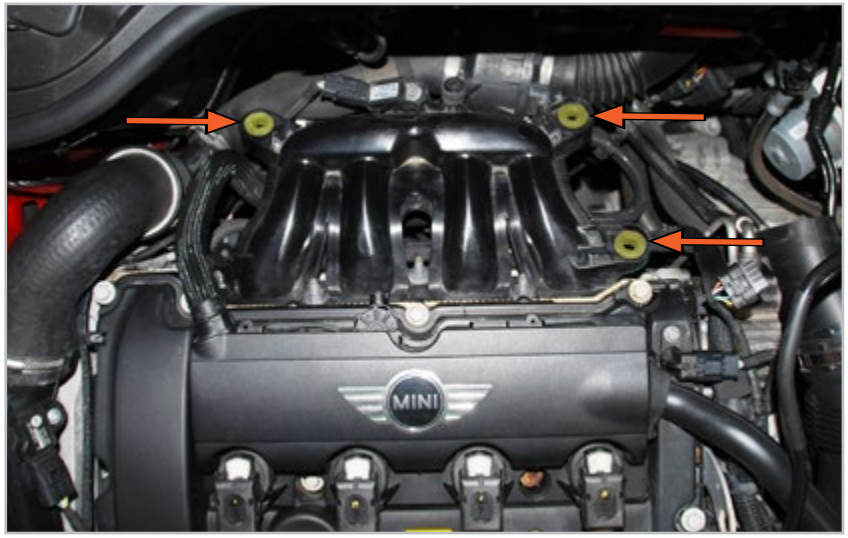
REMOVING THE ORIGINAL AIRBOX

Step 9:

Pull up on the LH side to release the remaining two grommets, pull the intake tube away from the mass air flow sensor, then lift the air box off the engine.

Step 10:

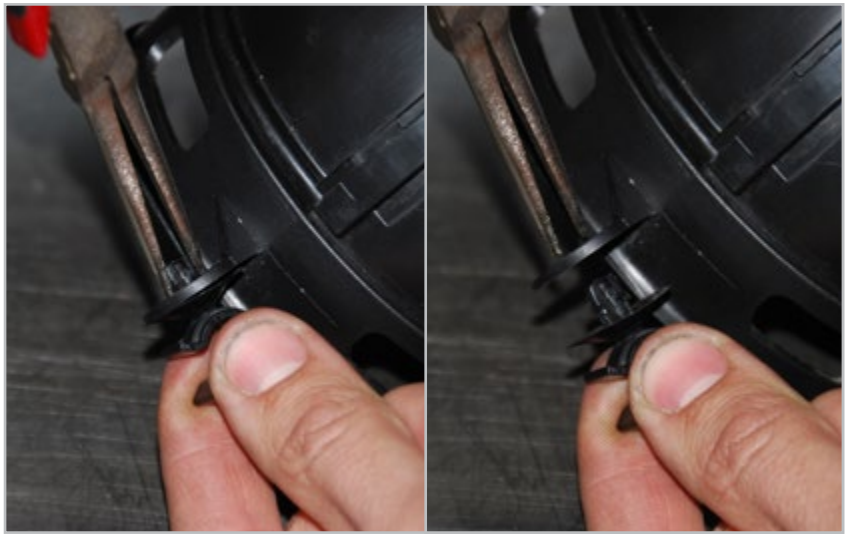
Make sure the three rubber mounting grommets have stayed in place in the intake manifold. If they have stuck to the original air box, pull them off and re-install them into the manifold.



REMOVING THE ORIGINAL AIRBOX

Step 11: Needle Nose Pliers

Remove the evap line clip from the end of the original lower intake pipe. Use a pair of needle nose pliers to squeeze the expanding tabs together, then pull the clip out of the intake pipe.



Step 12: T25 Torx

Hold the grommet on the end of the original air box to keep it from turning, then remove the screw using a T25 torx driver.

REMOVING THE ORIGINAL AIRBOX

Step 13:

Pull the center sleeve out of the grommet, then remove the rubber grommet itself from the original air box.

Step 14:

Using a T30 torx driver, remove the two screws holding the mass air flow sensor to the original air box.

REMOVING THE ORIGINAL AIRBOX

Step 15:

Pull the mass air flow sensor out of the original air box. You may have to twist it back and forth slightly to remove it.

Step 16:

Remove the o-ring from the mass air flow sensor.

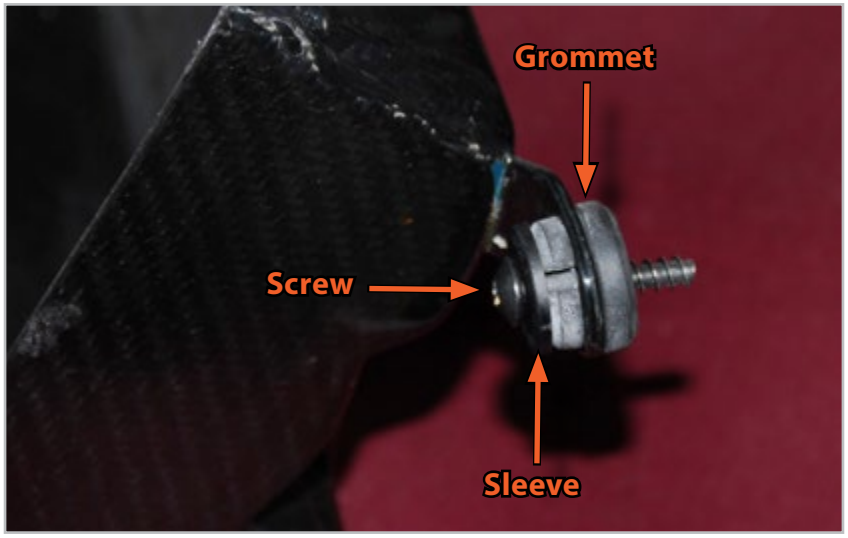
NOTE

You will not need the two mass air flow sensor screws or the o-ring for your new carbon fiber air box. Store them with the original airbox in the event you need them in the future.

INSTALLING THE CARBON FIBER INTAKE

Step 1:

Install the grommet, center sleeve, and screw in the ear on the end of the new carbon fiber lower intake box. Install them in the same way in which you removed them.



Be careful not to knick or cut the surface of the carbon fiber, this could allow water intrusion and damage the carbon fiber.

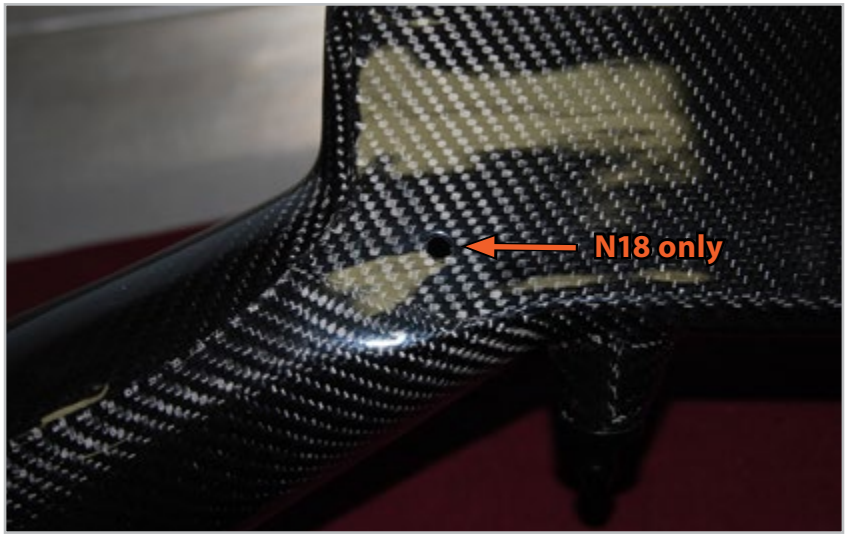
Step 2:

Install the evap line clip (removed on page 14, step 11) into the end of the new carbon fiber integrated lower intake pipe.

INSTALLING THE CARBON FIBER INTAKE

Step 3:

If you have an N18 engine, install the clip (included with the intake kit) into the back of the new lower carbon fiber intake box in the location shown here. If you have an N14 engine, disregard this and continue with step 4.



Step 4:

Position the new carbon fiber lower intake box over the intake manifold and push it into place so it is seated in all three grommets.

INSTALLING THE CARBON FIBER INTAKE

Step 5:

Tighten the T25 torx screw on the end of the lower intake box.

Step 6:

Push the lower intake tube into the integrated lower pipe until the tabs are fully engaged.

INSTALLING THE CARBON FIBER INTAKE

Step 7:

Install the silicone coupler over the end of the mass air flow sensor. Loosely install both hose clamps over the coupler. Note the direction of the arrow on the mass air flow sensor.

Step 8:

Push the mass air flow sensor back into the upper intake tube. Do not tighten the clamp on the mass air flow sensor at this time.

INSTALLING THE CARBON FIBER INTAKE

Step 9:

Install the new carbon fiber upper intake pipe into the air filter. Push the pipe in all the way until it stops against the lip inside the filter. Do not tighten the clamp on the filter at this time.

Step 10:

Install the upper pipe seal over the pipe, and slide it on until it is positioned approximately in the middle.

INSTALLING THE CARBON FIBER INTAKE

Step 11:

Insert the end of the upper intake pipe into the silicone coupler.

Step 12:

Swivel the filter and pipe down into the lower intake box, making sure the edge of the intake box is in the groove of the pipe seal.

INSTALLING THE CARBON FIBER INTAKE

Step 13: Flat Blade Screwdriver

Verify the alignment of the silicone coupler, mass air flow sensor, upper pipe seal, and air filter, then tighten all four hose clamps.

NOTE

Make sure the upper intake tube is in a relaxed position and not under tension before tightening any hose clamps.

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

Step 14:

Carefully hook the upper intake box into the rear of the lower intake box, then hinge it forward, making sure the groove of the pipe seal is properly aligned, and close the intake box.

INSTALLING THE CARBON FIBER INTAKE

Step 15: 3mm Allen (Hex Bit)

Install a nylon washer onto each M6 hex head screw, then using a 3mm hex bit, install the three upper intake box screws. Tighten all three screws by hand until they are fully seated, then "snug" them just a few extra degrees.

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

Step 16:

Connect the mass air flow sensor connector and push the evap line into the clip on the lower intake pipe. If you have an N18 engine, secure the pipe in the rear of the intake box.

Congratulations! Your new MINI Carbon Fiber intake installation is complete and ready for you to enjoy!

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

SCHWABEN - BUILD THE ULTIMATE TOOL COLLECTION

At ECS Tuning, we carry a line of high quality Schwaben tools and equipment to help you build your ultimate tool collection. Never before has affordability and quality been so closely related. Our entire Schwaben line is subjected to strict in house testing for strength and durability. See what we have to offer and equip your garage without breaking the bank.

Your Gen 2 MINI Cooper S/JCW Kohlefaser Luft-Technik installation is complete!

These instructions are provided as a courtesy by ECS Tuning.

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