

VW MK7 Front Mount Intercooler Kit Installation Instructions - Click HERE to Shop

Skill Level

1 - Easy **Basic Skills** Required



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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AVAILABLE KITS



For Existing ECS Charge Pipes



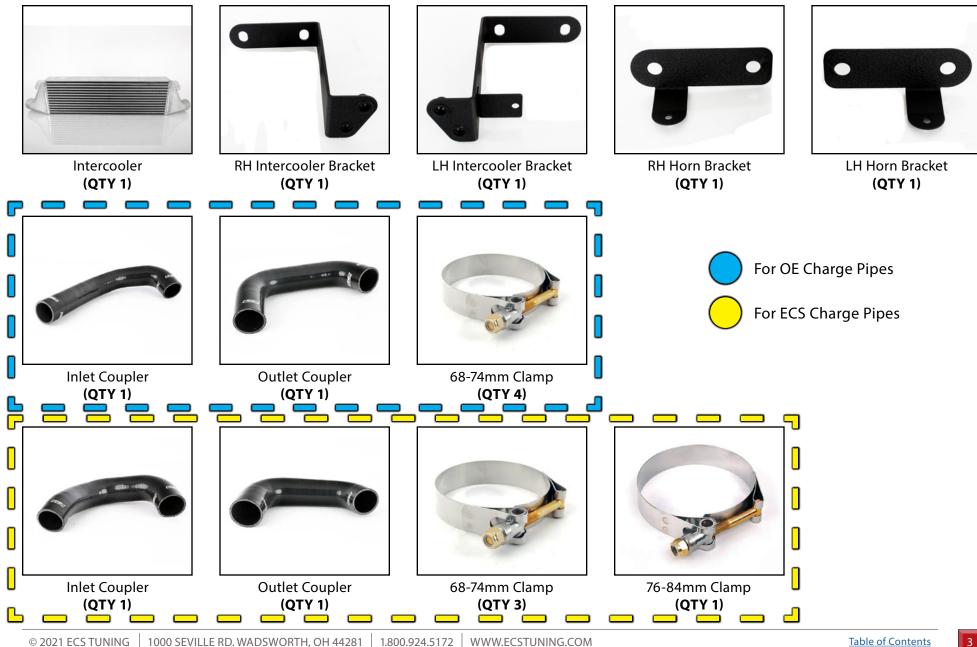
For OEM Charge Pipes



With Red or Black ECS Charge Pipes



KIT CONTENTS





REQUIRED TOOLS

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

Standard Automotive Tools

Required For This Install

Available On Our Website

Protecta-Sockets (for lug nuts)	<u>ES#2221243</u>
• ³ / ₈ " Drive Ratchet	
• ³ / ₈ " Drive Torque Wrench	<u>ES#2221245</u>
• ³ / ₈ " Drive Deep and Shallow Sockets	<u>ES#2763772</u>
• ³ / ₈ " Drive Extensions	<u>ES#2804822</u>
Hydraulic Floor Jack	
Torx Drivers and Sockets	
• ¹ / ₂ " Drive Deep and Shallow Sockets	<u>ES#2839106</u>
• $\frac{1}{2}$ Drive Ratchet	
• ¹ / ₂ " Drive Extensions	
• ½" Drive Torque Wrench	<u>ES#2221244</u>
• $\frac{1}{2}$ " Drive Breaker Bar	
Bench Mounted Vise	
Crows Foot Wrenches	
Hook and Pick Tool Set	<u>ES#2778980</u>

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

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.



PROJECT OVERVIEW

Installation of this intercooler kit will require removal of the belly pan, lower fender liners, and the front bumper cover. Once the bumper cover is removed, installation is just a matter of installing the provided brackets, bolting the intercooler into place, and installing the provided silicone hoses and clamps. Our front mount intercooler kit is available with optional powder-coated aluminum charge pipes (pictured below) for maximum performance gains.



Now let's get to it!

Step 1:

<u>MK7 & MK7.5</u>:

Remove the two screws which secure the front grille to the core support (arrows in **Photo #1**).

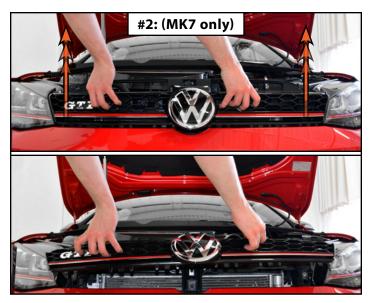
MK7 only:

First lift the grille upward to release the clips along the bottom from the bumper cover, then gently pull it forward and out of the core support (**Photo #2**).

<u>MK7.5 only</u>:

First pull the top of the grille forward to release the clips along the top, then pull the bottom of the grille forward to release the clips along the bumper cover (**Photo #3**). Don't forget to disconnect the wiring harness behind the VW emblem (not shown).







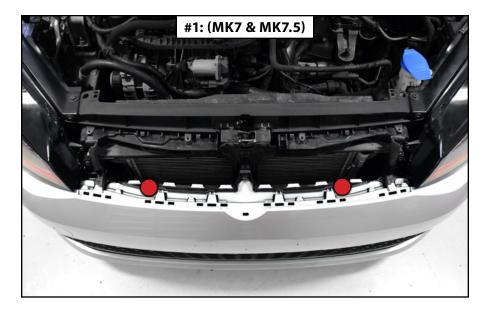
Step 2:

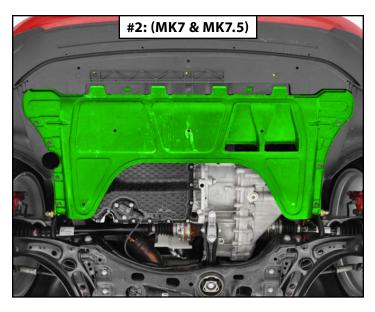
<u>MK7 & MK7.5</u>:

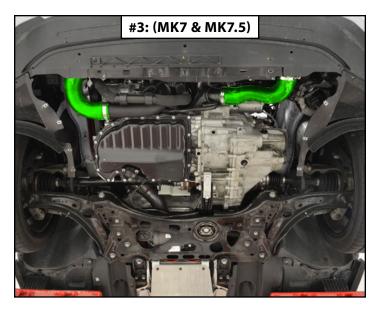
Certain vehicles have two additional screws which secure the bumper to the core support. If equipped, remove these screws (highlighted in **RED** in **Photo #1**) before moving forward.

Safely lift and support the vehicle, then remove the belly pan (highlighted in **GREEN** in **Photo #2**).

Disconnect the intercooler hoses (highlighted in **GREEN** in **Photo #3**) from the intercooler.









Step 3:

17mm Protecta Socket & Breaker Bar

Remove the front wheels to gain access to the fender liners.



Step 4: T25 Torx

Remove the five screws (highlighted in **RED**) and remove the lower fender liners from the vehicle.

Remove the vertical screw (arrow) which secures the corner of the bumper to the vehicle.



Step 5:

Disconnect the fog light connectors (arrows) if equipped.



Step 6:

Carefully (but firmly) pull the bumper free from the fenders as shown.



Step 7:

Carefully remove the bumper cover and set it aside.



If you purchased our intercooler charge pipe kit, reference the PDF under the "installation" tab <u>HERE</u> to install them before moving forward.

Otherwise, continue to the next step to proceed with your installation.



Step 8:

Locate and remove the two plastic air shrouds (highlighted in **RED**) which are clipped into the front of the core support.





Step 9: M10 Tr

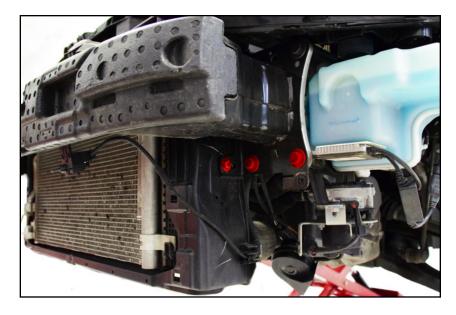
M10 Triple Square, 10mm Socket & Ratchet

First, remove the nut which secures each horn to the factory bracket, then remove the bolt which secures the bracket to the vehicle.



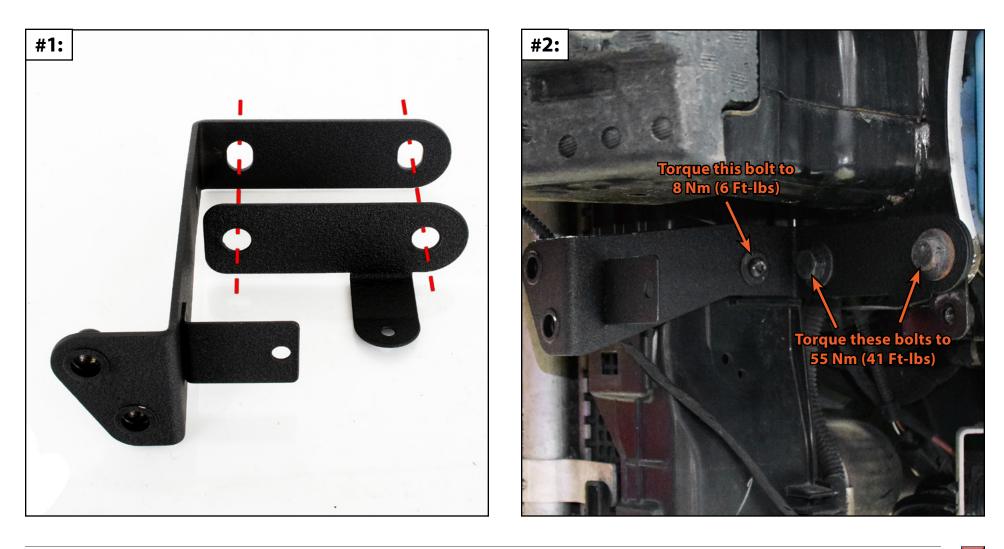
Step 10: T30 Torx, 19mm Socket & Ratchet

Remove the three bolts (highlighted in **RED**) on both sides of the core support and set them aside.



Step 11: T30 Torx, 19mm Socket & Ratchet

Install the LH intercooler bracket and horn bracket (shown in **Photo #1** below) using the two 19mm bolts, then torque them to 55 Nm (41 Ft-lbs). Install the T30 bolt (**Photo #2**) and torque it to 8 Nm (6 Ft-lbs). Repeat for the RH brackets.

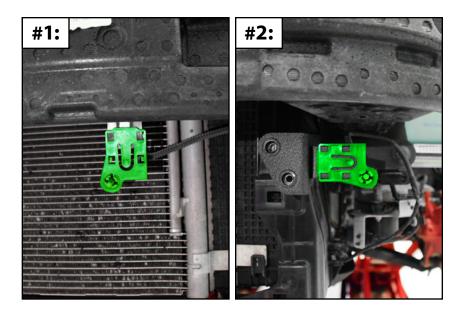


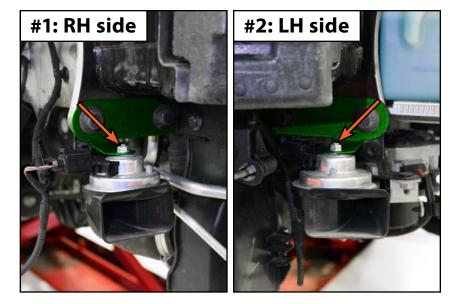
Step 12: Angled Pick

Remove the ambient air temperature sensor and bracket (highlighted in **GREEN** in **Photo #1**) from the mounting tab on the crash beam and transfer it to the mounting tab on the LH intercooler bracket (highlighted in **GREEN** in **Photo #2**).

Step 13: 10mm Socket & Ratchet

Install the horns into the horn bracket (highlighted in **GREEN**) and tighten the nuts (arrows) until snug.





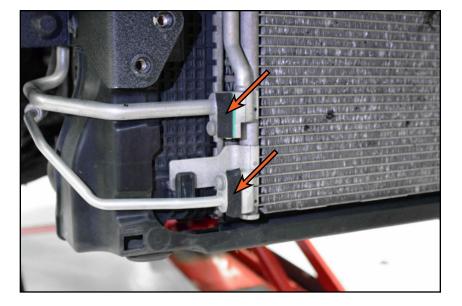
Step 14:

Bend the factory ambient air temperature sensor bracket (highlighted in **GREEN**) up against the crash beam as shown.



Step 15:

Cut the provided foam strip into two pieces and adhere it to the A/C lines as shown (arrows).



Step 16: 6mm Allen

Lift the intercooler into place and secure it to the mounting brackets using the four bolts, washers and split-lock washers (arrows) as shown in the inset illustration.



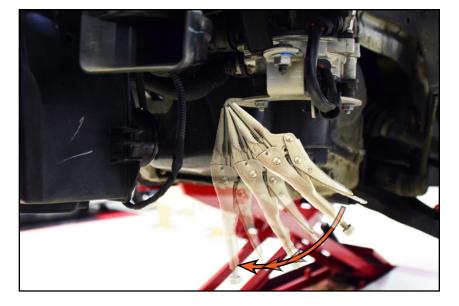
Step 17: Vise-Grips

If your vehicle is equipped with a secondary air injection pump on the LH side, it may be necessary to bend the harness bracket out of the way slightly (about 45°) using a pair of vise-grips.



Provided in the kit are two intercooler caps (shown in the picture on the right), which can be used to cover the inlet and outlet flanges of the OE intercooler to prevent water or other contaminants from entering the intercooler.



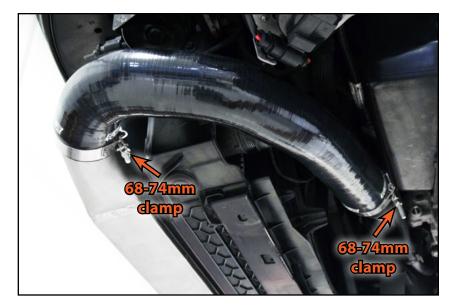


Step 18: 11mm Socket & Ratchet

Slide the intercooler inlet hose over the intercooler and charge pipe then slip the clamps around the hose and tighten them down.



It may be necessary to remove the nut from each clamp and slide it over the hose in order get them installed properly.



Step 19: 11mm Socket & Ratchet

Slide the intercooler outlet hose over the intercooler and charge pipe then slip the clamps around the hose and tighten them down.

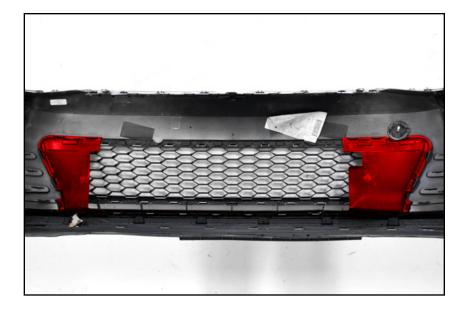


If you have ECS charge pipes: The charge pipe clamp will be a 76-84mm clamp.



Step 20: Flat Head Screwdriver

Remove the air guides (highlighted in **RED**) from the front bumper by releasing the five clips which secure each guide to the bumper.



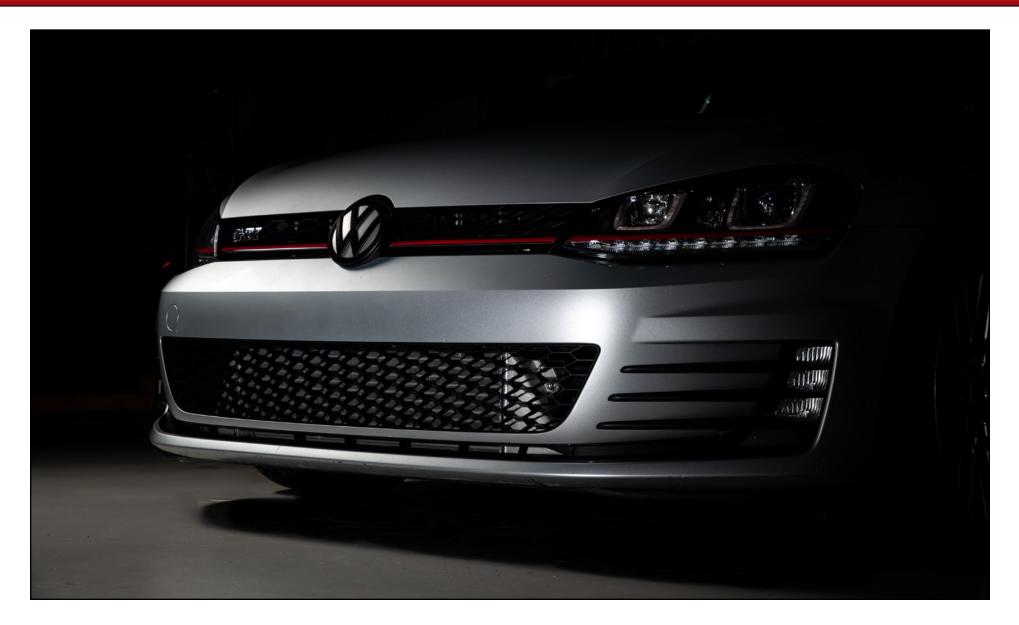
Step 21: T25 Torx, 17mm Protecta-Socket, Torque Wrench

Reinstall the bumper, fender liners, belly pan, wheels, and grille. Torque the wheel bolts to 120 Nm (89 Ft-lbs).

Congratulations, your installation is complete!



Your Front Mount Intercooler Kit 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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