



MK VII Front Mount Intercooler Install

Tools Needed:

13mm Socket (deep or shallow)

13mm wrench (thin style wrench works the best)

T25, T30

8mm or 7mm socket (test car's intercooler hose clamps were mismatched with these sizes)

A nice pick set will also help but isn't necessary

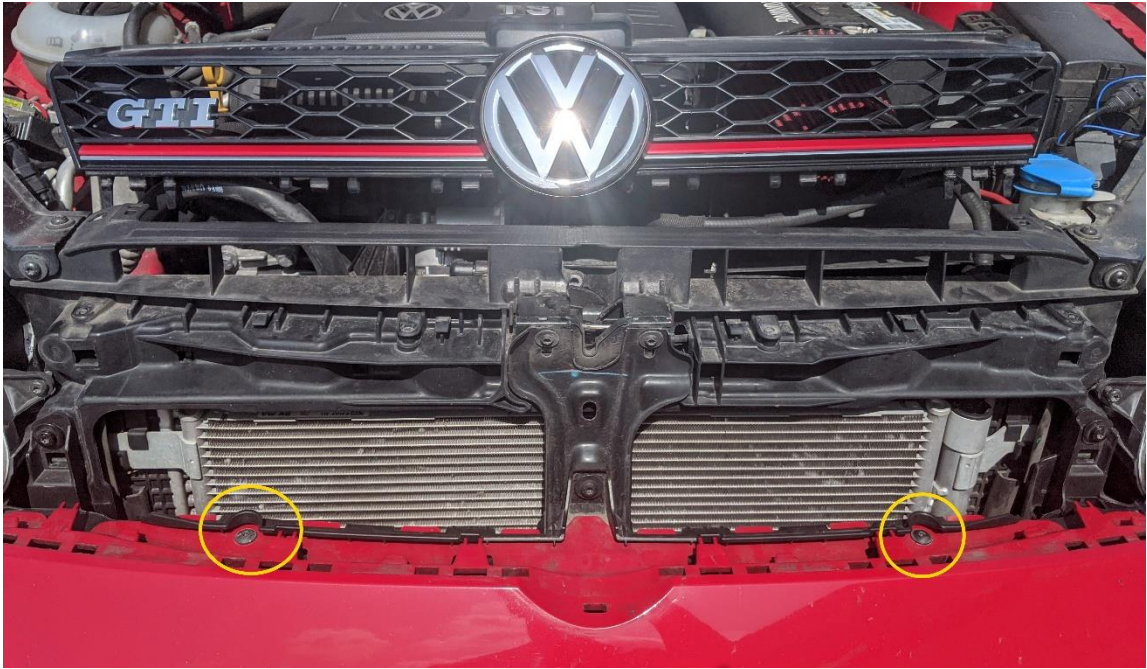
Removal (steps 1-11) and Install (steps 12-18)

1. Remove the 2x T25 torx screws from the front upper grill.

To remove, pry the top end slightly toward you, (front of car) and pull up. There are a total of 4 main clips holding this in. It is better if you can use a small VW bone tool to help push/pry the clips while you pull upwards.



2. While your still here, remove the two T25 torx screws that hold the bumper to the upper cross support.



Next, we will be removing the under panel and the 2 fender liners in the wheel wells. At this point you can either leave the wheels on, and turn the wheel left or right to help you get to the next set of screws. Or you can just take off the wheel for the time being.

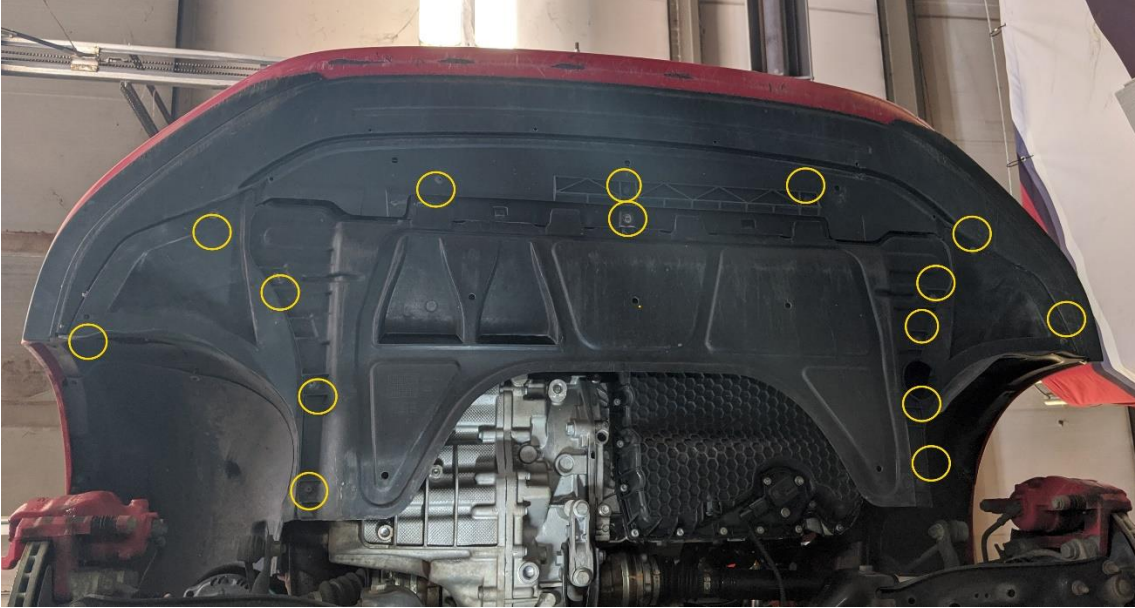
3. In each wheel well there will be 5x T25 screws to remove. On top of that, there will be 1x screw (T25) at the top of this fender liner that holds the bumper to the fender above it. Pull back on the liner you are removing to help expose this screw. We used the T25 plus a 2" or 4" extension to help remove it.

The following picture shows the torx screw holding the bumper ends



Next, Lift the car in the air safely to slide under and remove the under panel

4. Under the car, remove the last 2x (per side) T25 torx screws of the fender liner. Also remove the under panel which will have up to 15x T25 torx screws (depending on how many were lost previously).



Remove the skid plate by pressing the front tabs to release it. Then the fender liners should just fall out with it.



NOTE: before removing the front bumper, remember to unplug the fog lights

5. To remove front bumper, start on each side of car and pull out the corner of the bumper (where the upside down T25 is that holds bumper to fender).

NOTE: if this is the first time removing the front bumper, this will be a very tough step because how tight these clips are. On the red ARM car, we only broke 1 of these clips (which I still call a win). It definitely helps to be extra cautious, but either way this will take some force.

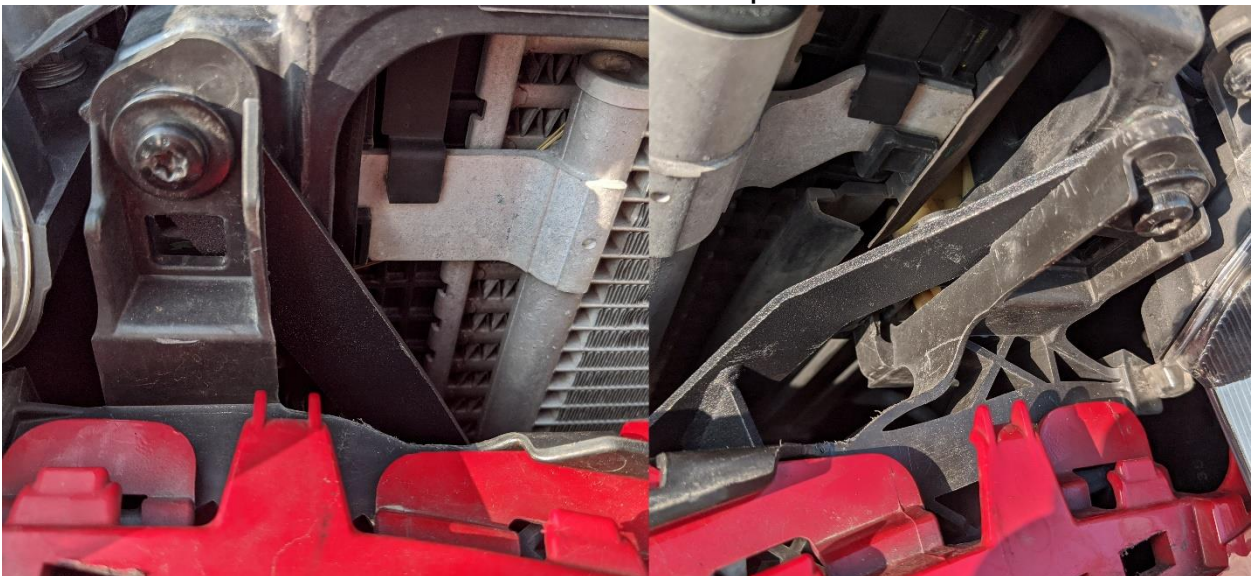
6. The front bumper is now just held in by numerous clips at the top (right under where the top grill sits) work from each side holding light pressure against clip while you lift them up to release it. We used a 90-degree pick to help pull up on these clips.
7. Once all the clips have been popped, the bumper will pretty much just want to fall over and down so it helps to have a second set of hands just to help support the bumper.

Scout the bumper out of the way

8. There are now 3x T30 torx screws that hold the upper cross support. Remove the 2 side ones and just crack the middle, don't fully remove it. (just helps later)



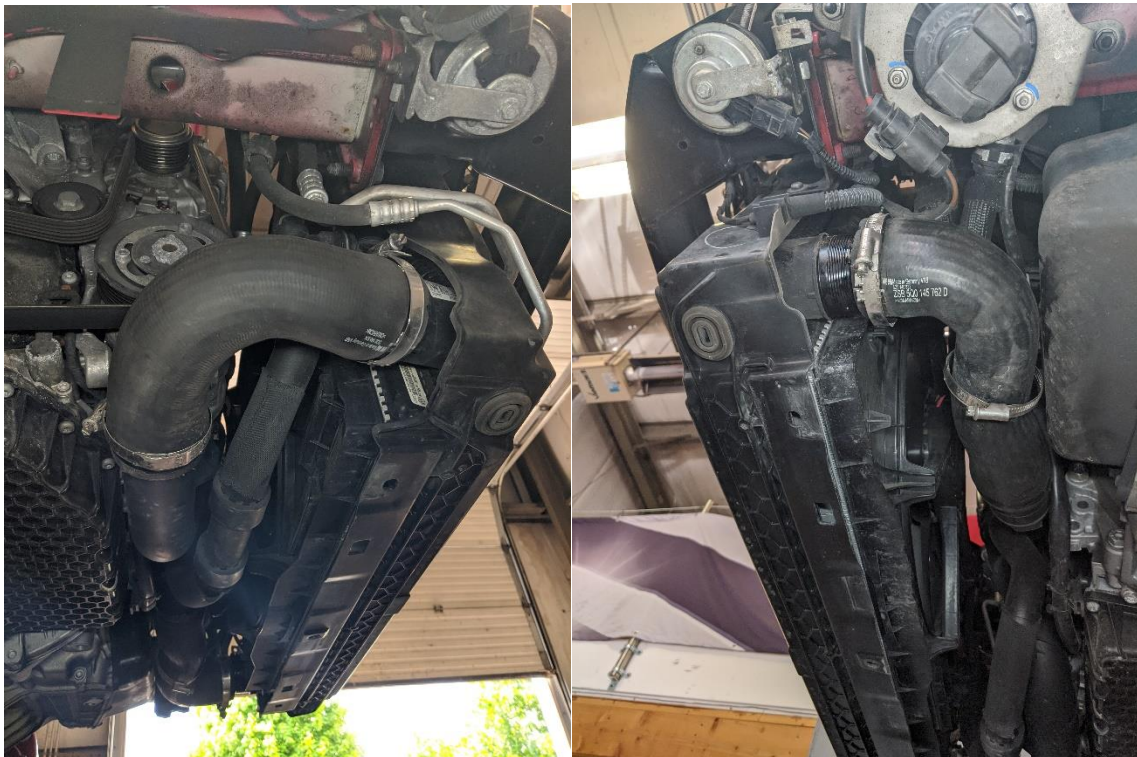
The intercooler brackets will be mounted in between these two plastic bolts holes.



9. There are also some side air ducts that are attached to each side right below and with the cross support. To remove them there are 3 plastic anchor points, simply push down the upper part and pull out.
10. Remove the ambient air temp sensor and bring it to the side. For the metal bracket attached to the crash bar, you can just bend it back towards the car, or remove it all together with an angle grinder.

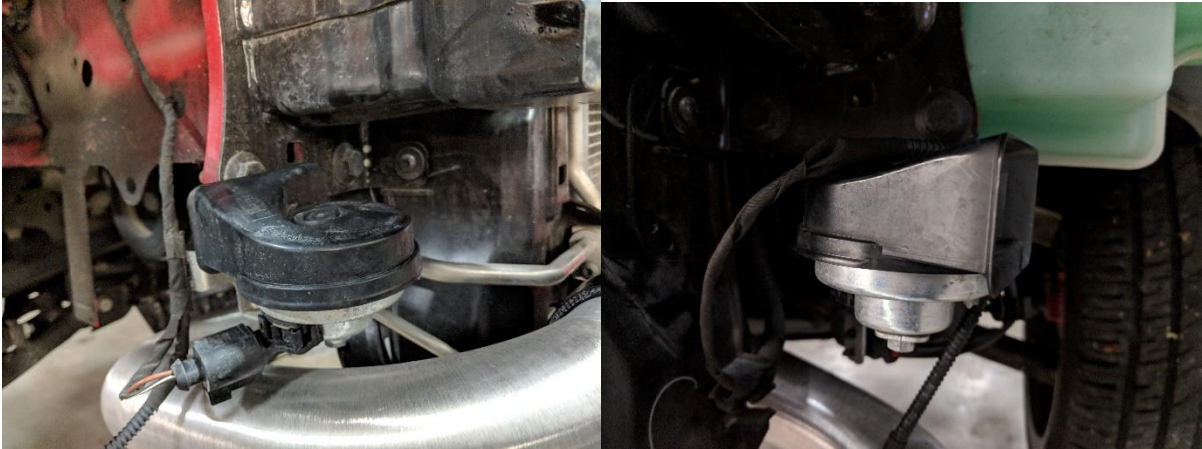


11. Lastly, remove the stock intercooler piping using either 8mm or 7mm socket on the worm clamps.



Final note: It is highly recommended to keep all stock parts in the event of needing them.

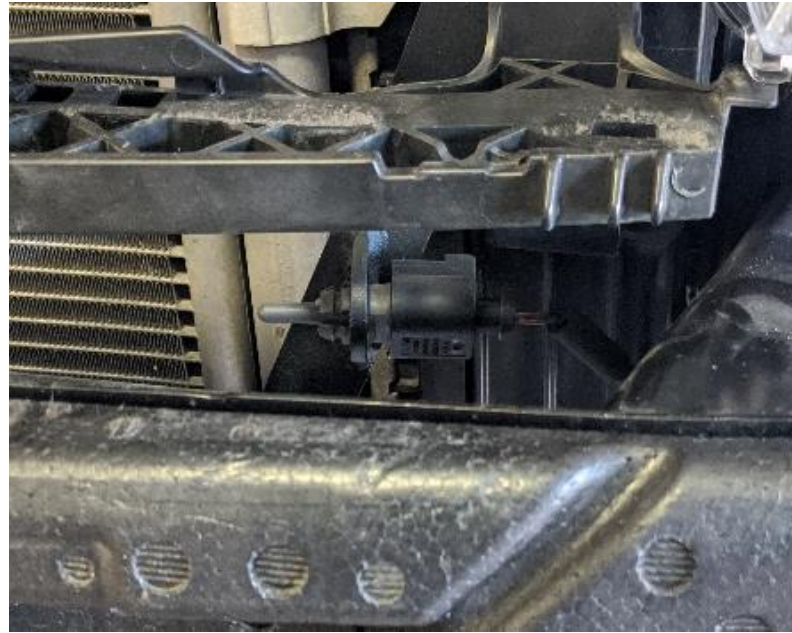
Before starting with the intercooler, make sure you unbolt and flip both horns to be on top of the bracket. The nut holding it in place is a 13mm



12. We started the installation by pre-attaching the brackets to the intercooler. The shorter half of the intercooler is on the bottom.
 - a. The bracket with the ambient air sensor hole on the right side and the L bracket on the left. L part will attach to BACK SIDE of intercooler. Once bracket is attached, it will be a backwards L that is also rotated about -30 degrees.



- b. The ambient air sensor bracket is also attached to BACK SIDE of intercooler with ambient air sensor bracket pointed at the crash bar.



- c. These brackets will also have either a round hole, or an elongated hole to help. Round holes are for attaching to intercooler. This bracket should be attached, but loose to help move around for fitting intercooler. When attaching brackets, the bolt head is on the front side of the intercooler while the nut will be on the back side.
13. Raise intercooler up making sure that the brackets don't get caught on anything, attach one side of the intercooler and then shimmy the intercooler side to side to get it centered and attached the second bracket. You will reuse the two stock T30 screws.

**Attach the passenger side first, then the driver's side. The passenger side bracket is made in a way to make final adjustments easier.
The cross support will pry away, and the intercooler brackets will fit in between the two plastic pieces.
14. Next we attached the two smaller hoses to the intercooler, make sure to not slide the hose too far over so you'll have room to push in the pipes. The clamps will be against the core support, so you'll either need a long extension and come in from the top for a cleaner look, or just have them down so its easier.
15. Next install the other hose onto the u-pipes, for driver's side; it will use the larger L looking pipe, install the hose onto the longer end for now. For the passenger side, longer end will get the hose as well. When putting on the hose make sure it's the larger of the two sides, because one side is to reduce down to the stock intercooler piping. (NOTE: If you're installing with the ARM upgraded intercooler piping, the hoses you get should be the same size on both sides).



16. Now, install the passenger side pipe, starting with it on the throttle body pipe (TBP) first, and then twist to line up with the intercooler. Because you start with it on the TBP, you can then manipulate the position of the intercooler to make sure you have correct fitment of the hoses.
17. And lastly, install the drivers side pipe, once again starting with the pipe on turbo outlet pipe (TOP). And then working it onto the intercooler.

For clamp sizes, the hoses connected to the intercooler, and the pipes should use the larger of the clamps. Use the smaller clamps for pipe to stock intercooler piping.

18. Now that everything is hooked up, make sure to tighten all clamps, and then come back and tighten down the bolt/nut (both 13mm) on the intercooler brackets and then the two T30's that hold the brackets.
19. Next will be the reinstallation. The bumper first (you can either leave on the attached air ducts or remove them) also remember to plug in your fog lights. Then attach bumper with all the screws, install the two wheel well covers, then the under tray. And finally attach the upper grill.

A quick final note that we noticed on our GTI, to show off the FMIC we removed the main honeycomb grille. The grille holds the major vertical gap from expanding, without the grille, excessive air force will pull the lower part of the bumper down into a V shape. This was tested with only the stock bumper; we are unsure if this will or could happen with the facelift or Golf R conversions. We are also unsure if a lower lip or other attachments will help prevent this from happening. In the end, we do not recommend removing the grille if you typically find yourself driving at highway speeds. If you just drive local, it is possible that this will not happen.

We hope you enjoy your new ARM MK7 FMIC Kit! If you have any questions at all please contact us at getarmed@armmotorsports.com.

ENJOY!

