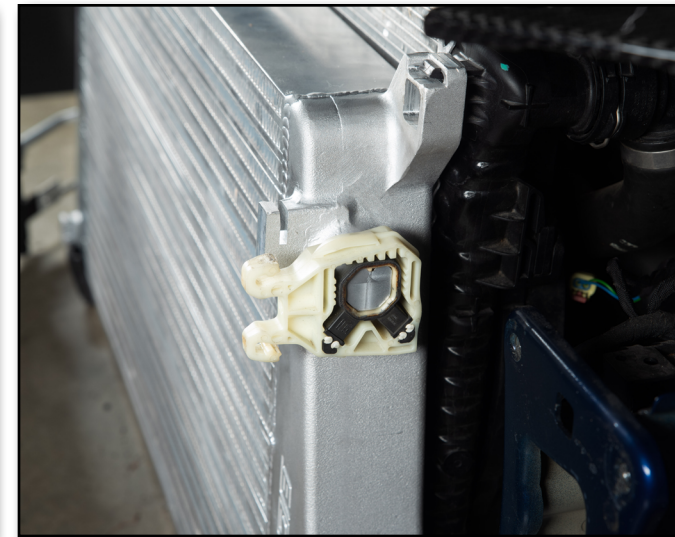
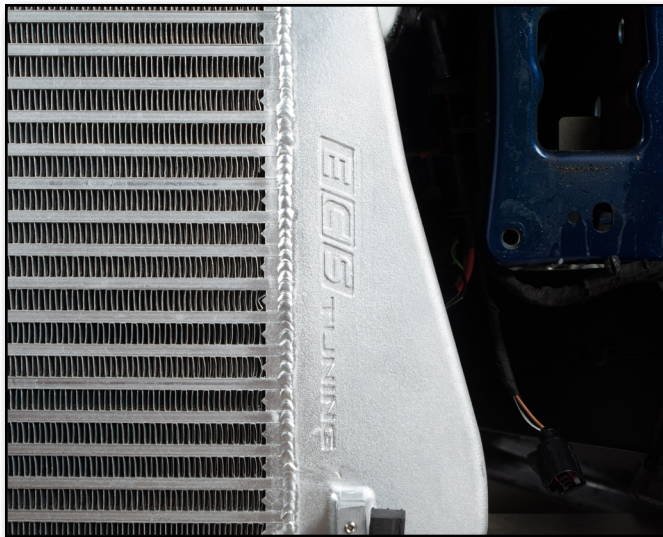




VW MK8 GTI/Golf R Evo4 Cast Intercooler
Installation Instructions - [Click HERE to Shop](#)



Skill Level
2 - Moderate
Some Experience
Recommended



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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Required Tools and Equipment.....	pg.3
Installation and Safety Information.....	pg.4
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Installing the New Intercooler.....	pg.21

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](#)
- 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](#)
- **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
- 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

Specialty Tools

- **Trim Removal Tool Set** [ES#517779](#)
- **Triple Square Socket Set** [ES#1910125](#)
- **Protecta-Sockets (for lug nuts)** [ES#2221243](#)

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.

REMOVING THE STOCK INTERCOOLER

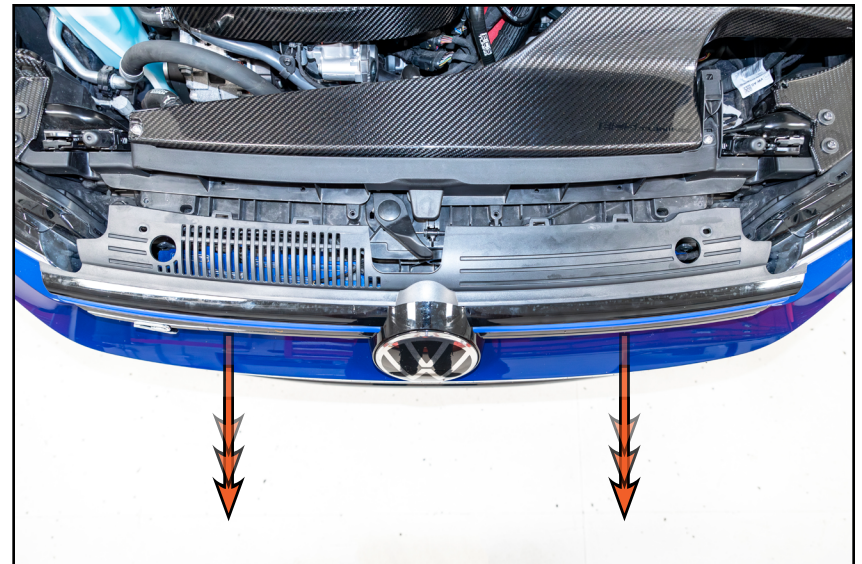
Step 1: T25 Torx Socket & Ratchet

Disconnect the battery, then remove the two screws (arrows) that secure the grille to the core support.



Step 2:

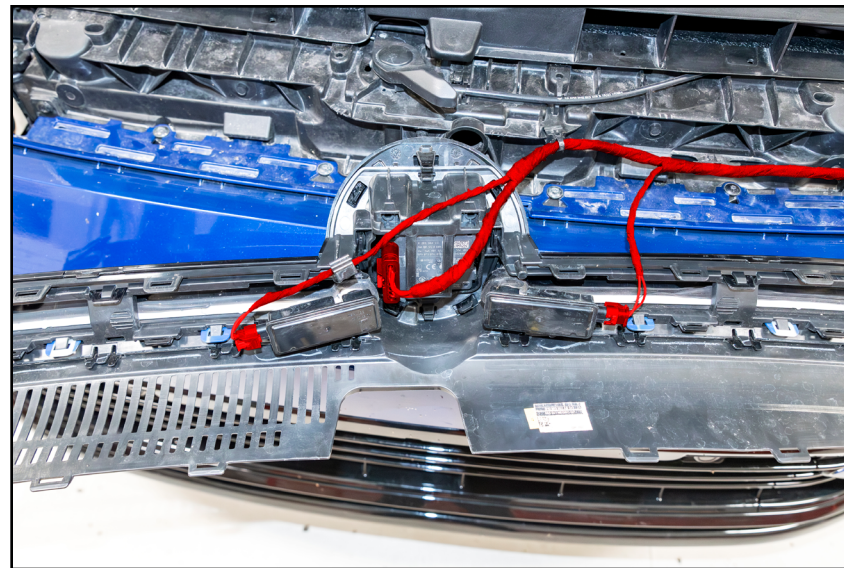
Pull the grille forward to pop it free from the bumper and core support.



REMOVING THE STOCK INTERCOOLER

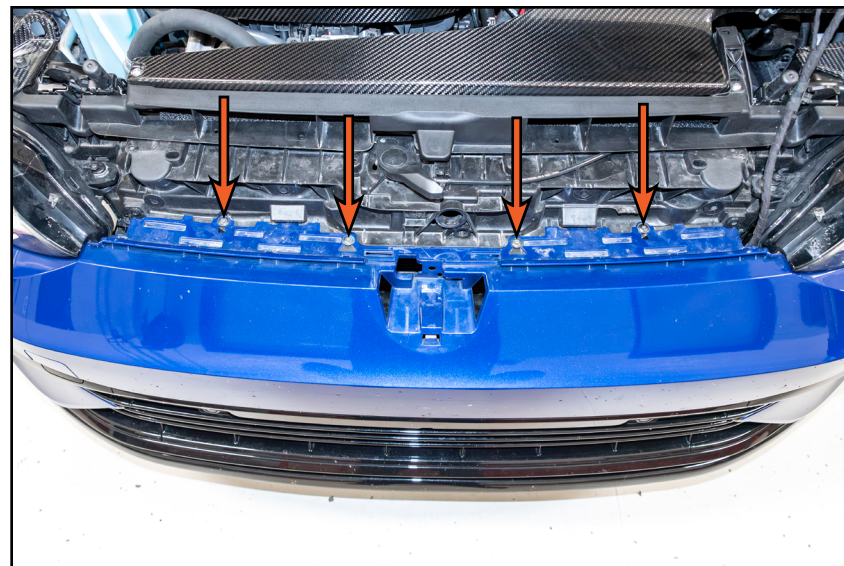
Step 3:

Disconnect the connectors (highlighted in **RED**) from behind the emblem on the grille.



Step 4: T25 Torx Socket & Ratchet

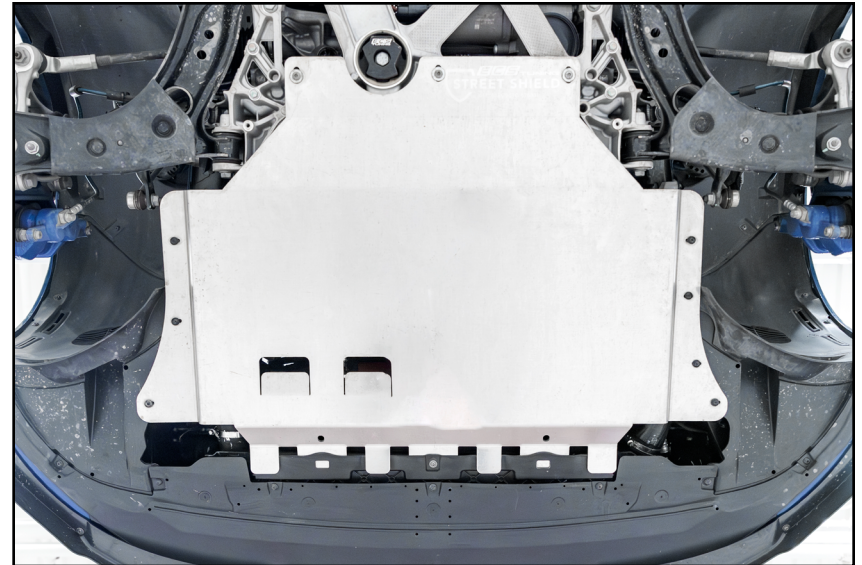
Remove the screws (arrows) that secure the top of the bumper to the core support.



REMOVING THE STOCK INTERCOOLER

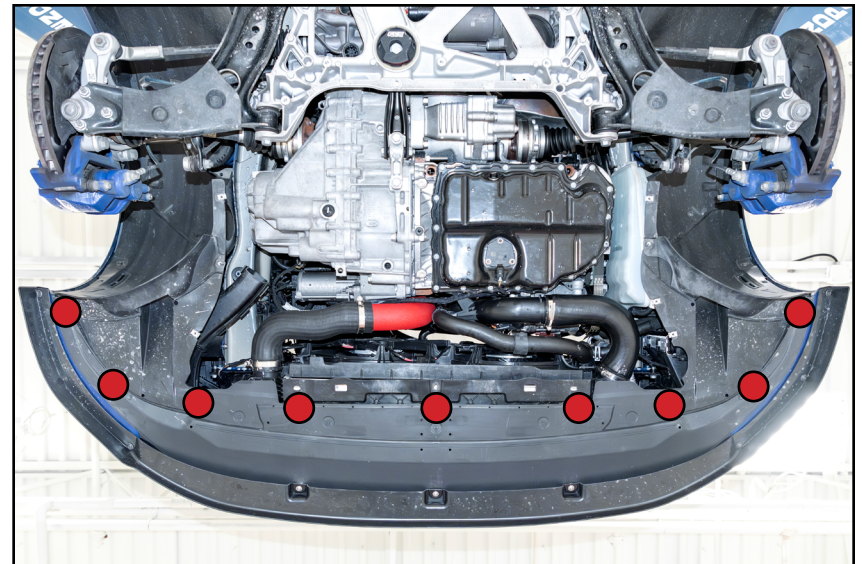
Step 5:

Remove the insulation panel (or skid plate) from the underside of the vehicle.



Step 6: T25 Torx Socket & Ratchet

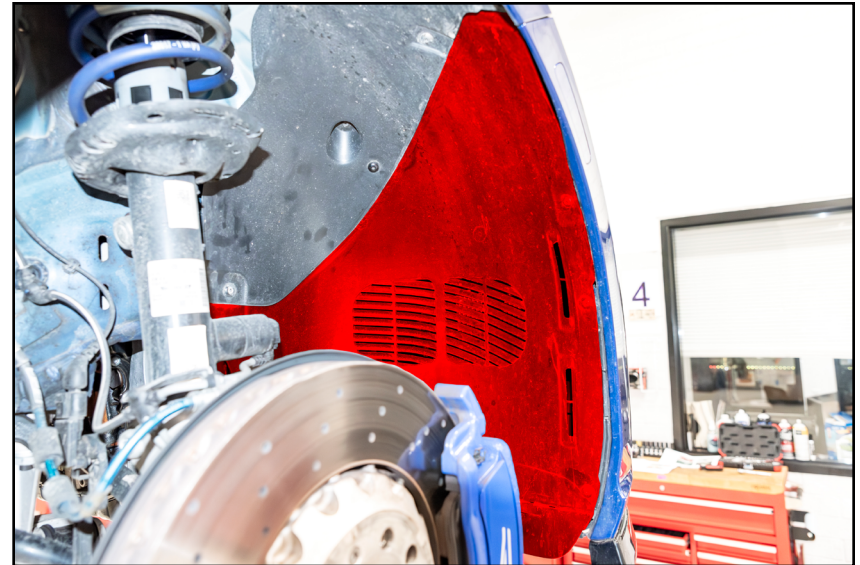
Remove the screws (RED circles) that secure the underside of the bumper to the vehicle.



REMOVING THE STOCK INTERCOOLER

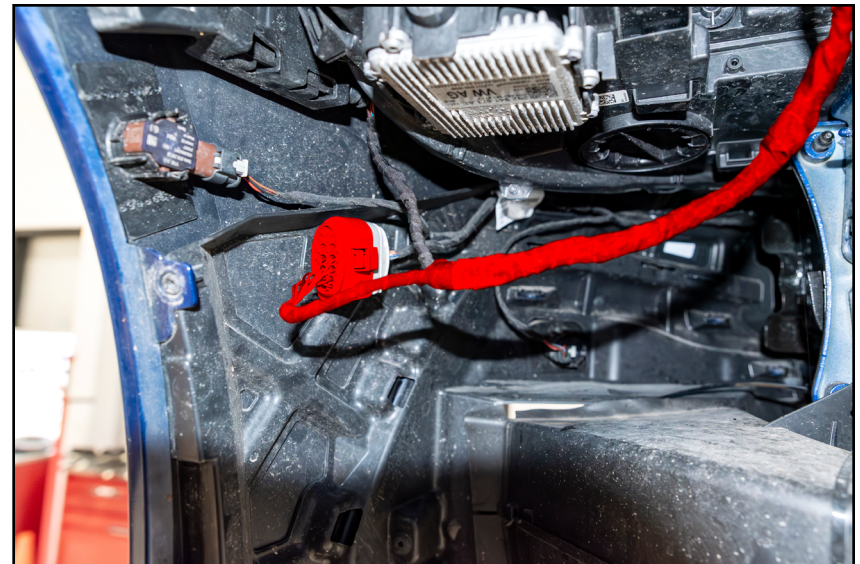
Step 7: T25 Torx Socket & Ratchet

Remove the screws and pull the lower fender liner (highlighted in **RED**) free from either side.



Step 8:

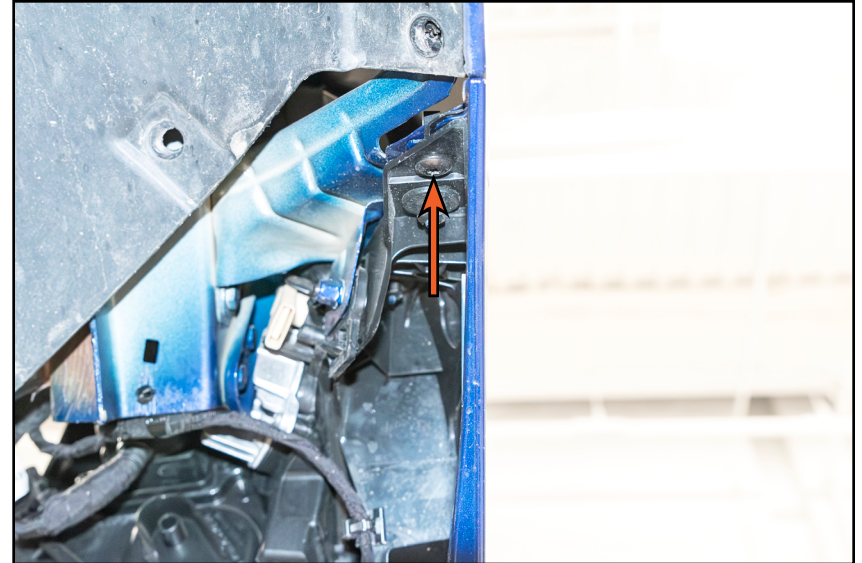
Disconnect the connector (highlighted in **RED**) from inside the bumper.



REMOVING THE STOCK INTERCOOLER

Step 9: T25 Torx Socket & Ratchet

Remove the screw (arrow) which secures each side of the bumper to the vehicle.



Step 10:

Carefully pull each corner of the bumper away from the vehicle slightly as shown, then carefully guide the bumper off of the vehicle and set it aside.



REMOVING THE STOCK INTERCOOLER

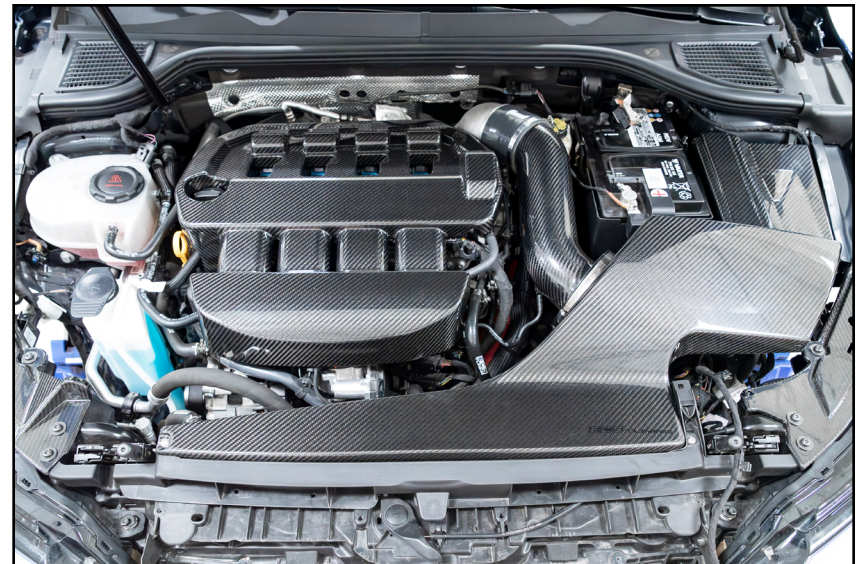
Step 11: 7mm Socket & Ratchet

Loosen the clamps and remove the intercooler inlet and outlet couplers (highlighted in **RED**).



Step 12:

Remove the intake system from the vehicle.



REMOVING THE STOCK INTERCOOLER

Step 13: T30 Torx Socket & Ratchet

Remove the three screws (circled in **RED**) which secure each headlight to the core support brace, then remove the two screws (arrows) which secure the brace to the core support.



Step 14:

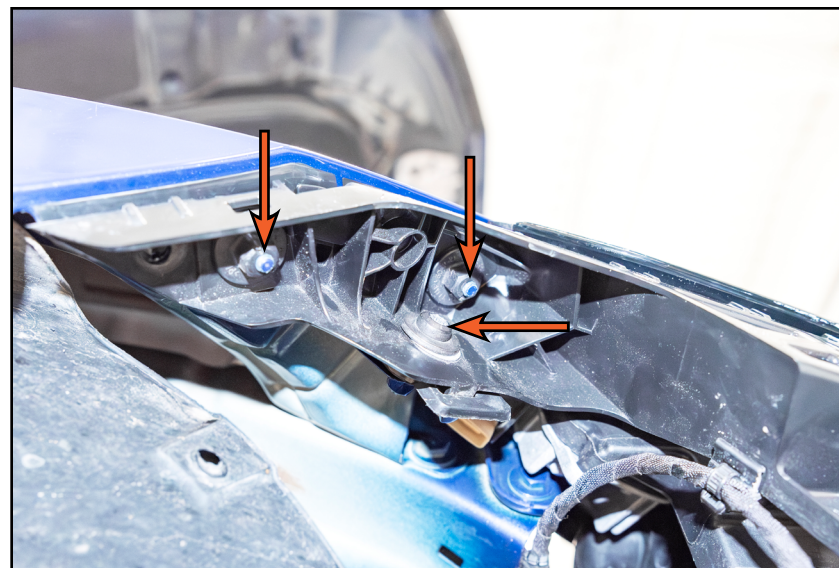
Disconnect the connector (highlighted in **RED**) for the keyless entry antenna.



REMOVING THE STOCK INTERCOOLER

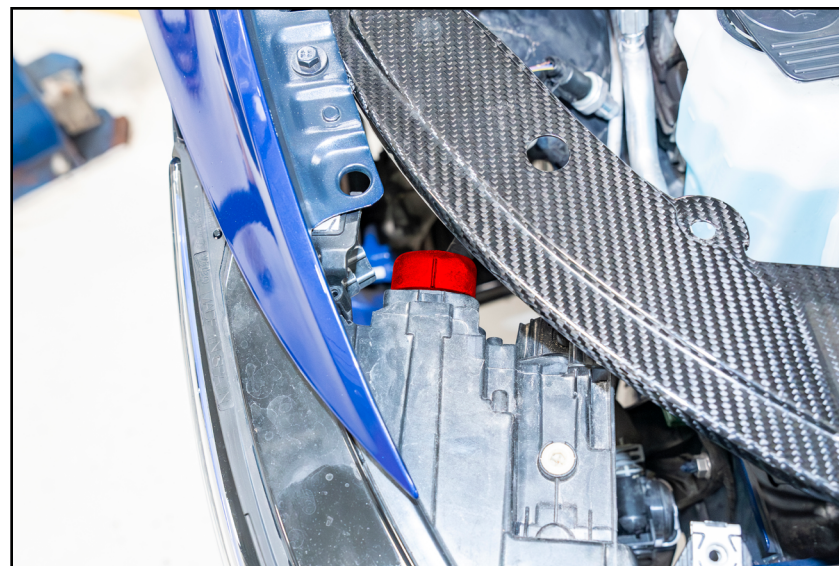
Step 15: T30 Torx, 10mm Socket & Ratchet

Support the headlight and remove the screw and two nuts (arrows) which secure the headlight and bracket to the fender.



Step 16:

Disconnect the headlight connector (highlighted in **RED**) and set the headlight aside.



REMOVING THE STOCK INTERCOOLER

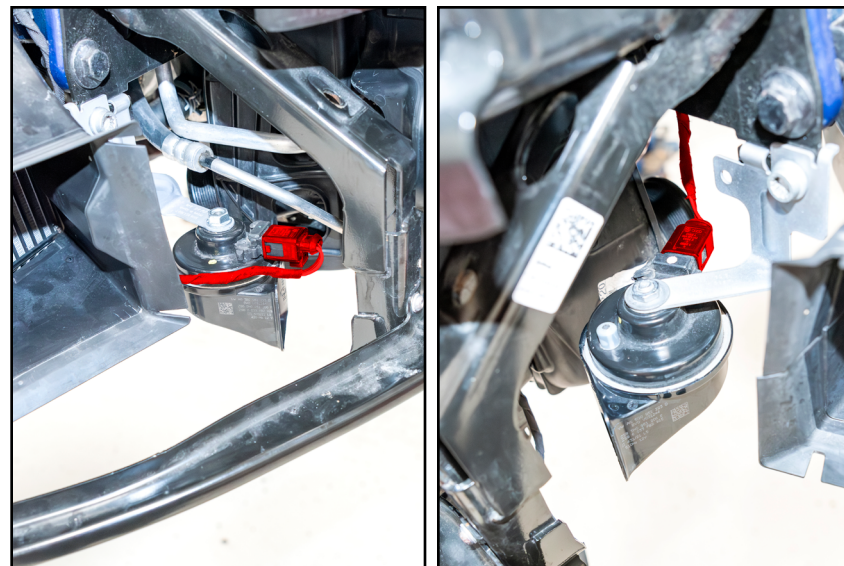
Step 17:

Disconnect the connector (highlighted in **RED**) for the ambient air temperature sensor.



Step 18:

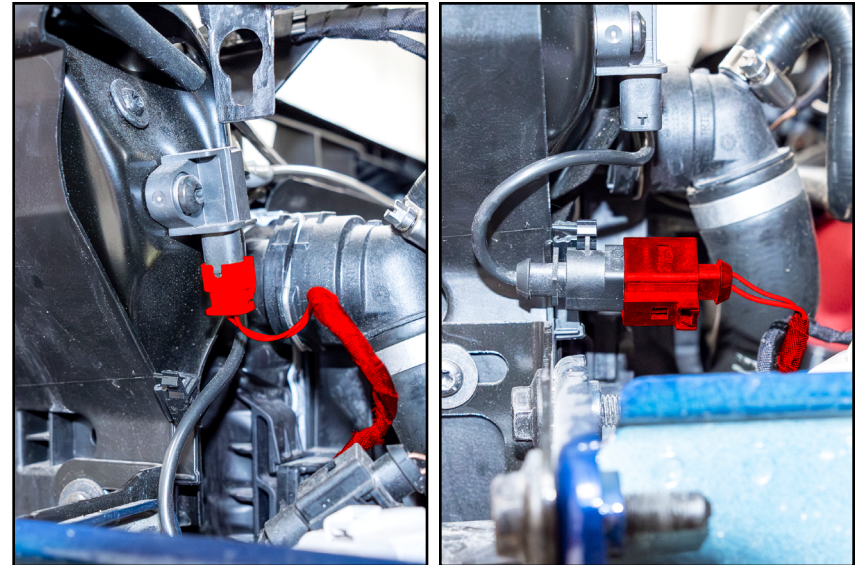
Disconnect the connectors (highlighted in **RED**) for both horns.



REMOVING THE STOCK INTERCOOLER

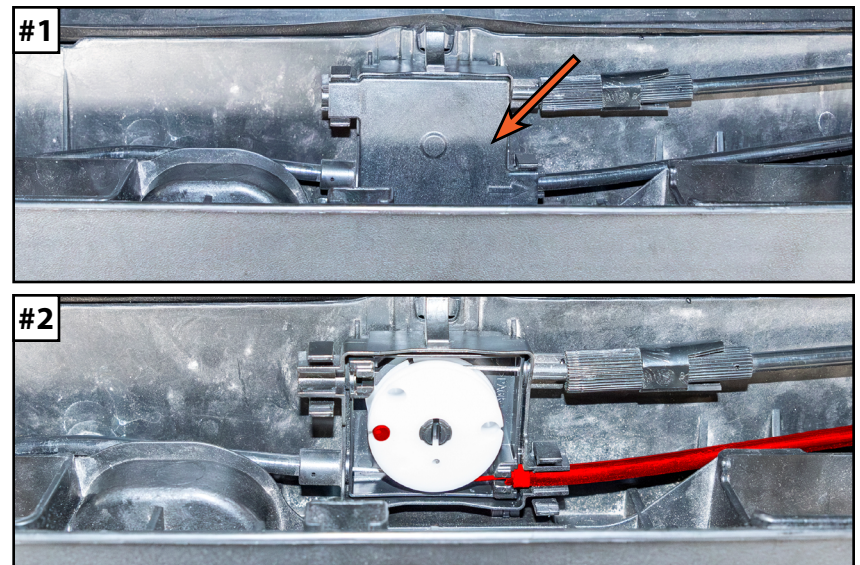
Step 19:

Disconnect the connectors (highlighted in **RED**) for the impact and hood latch sensors on either side of the core support.



Step 20: Angled Pick Tool

Carefully pry off the plastic cover (arrow in **photo #1**) and pull the hood release cable (highlighted in **RED** in **photo #2**) free from the latch assembly as shown.



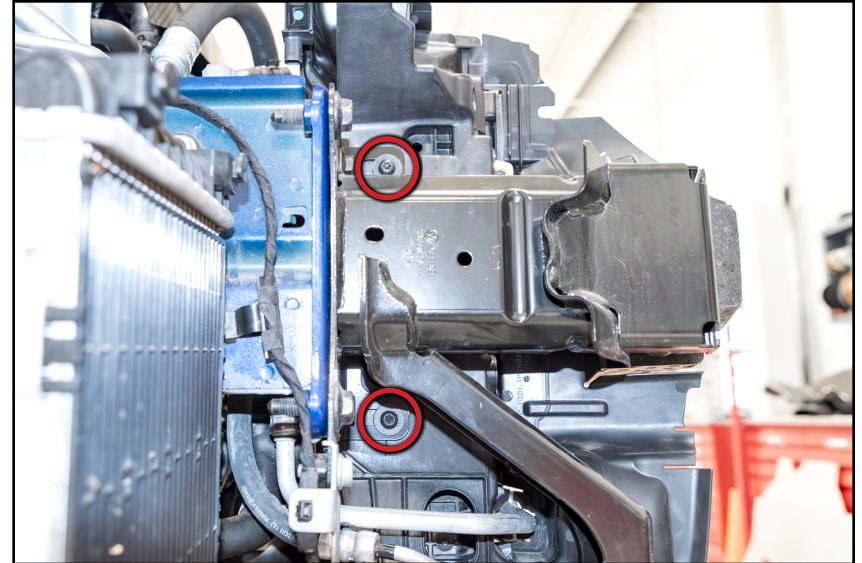
REMOVING THE STOCK INTERCOOLER

Step 21: T30 Torx Socket & Ratchet

Safely support the core support from below, then remove the bolts (circled in **RED**) which secure the core support to the crash beam.

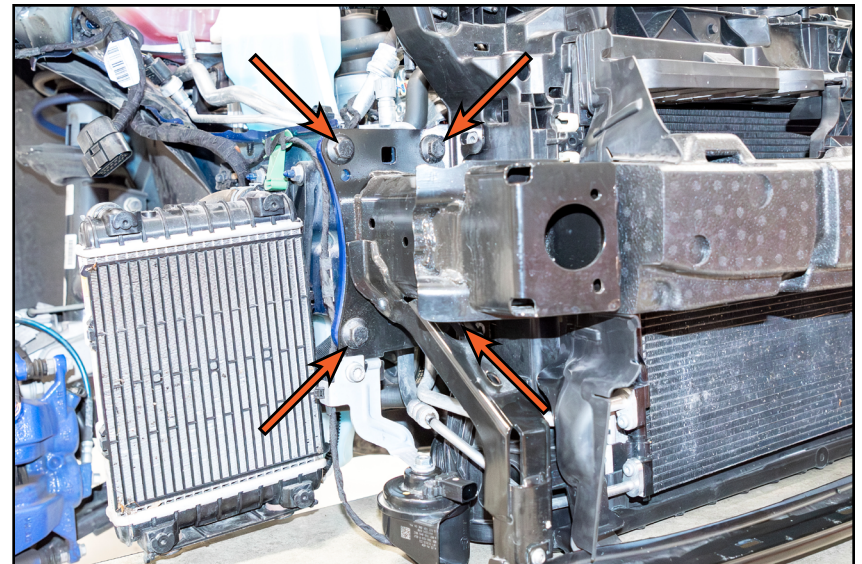


CAUTION: Failure to properly support the core support from below could damage to radiator hoses or A/C lines.



Step 22: 16mm Socket & Ratchet

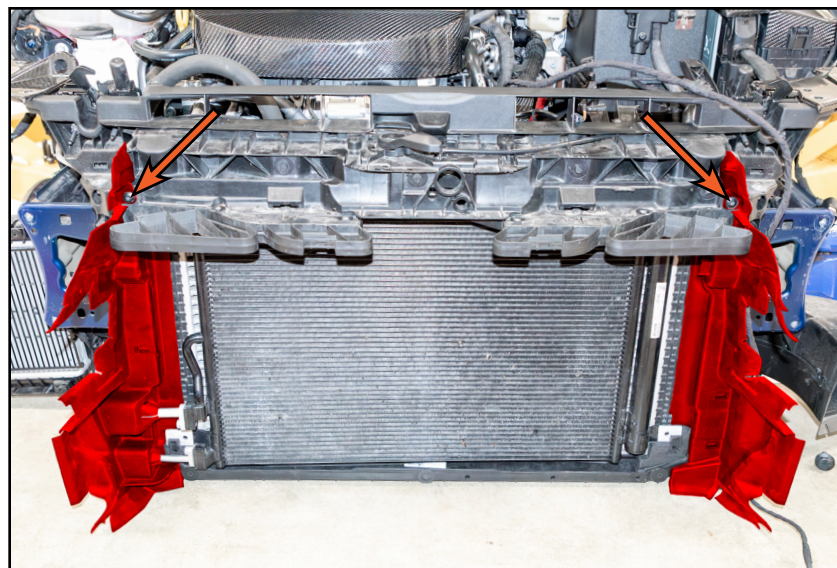
Remove the four bolts (arrows) that secure the crash beam to the frame rail on either side, then remove the crash beam.



REMOVING THE STOCK INTERCOOLER

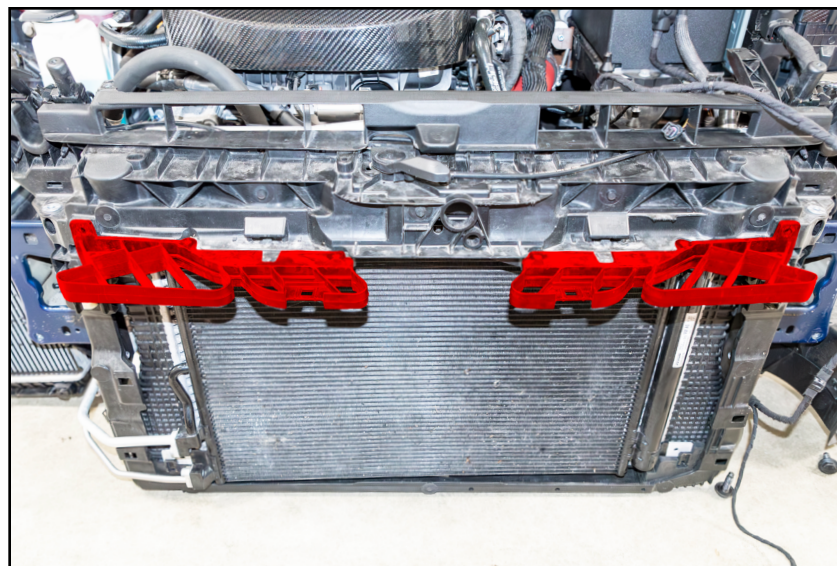
Step 23: T25 Torx Socket & Ratchet

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



Step 24:

Pull the plastic bumper supports (highlighted in **RED**) free from the core support.



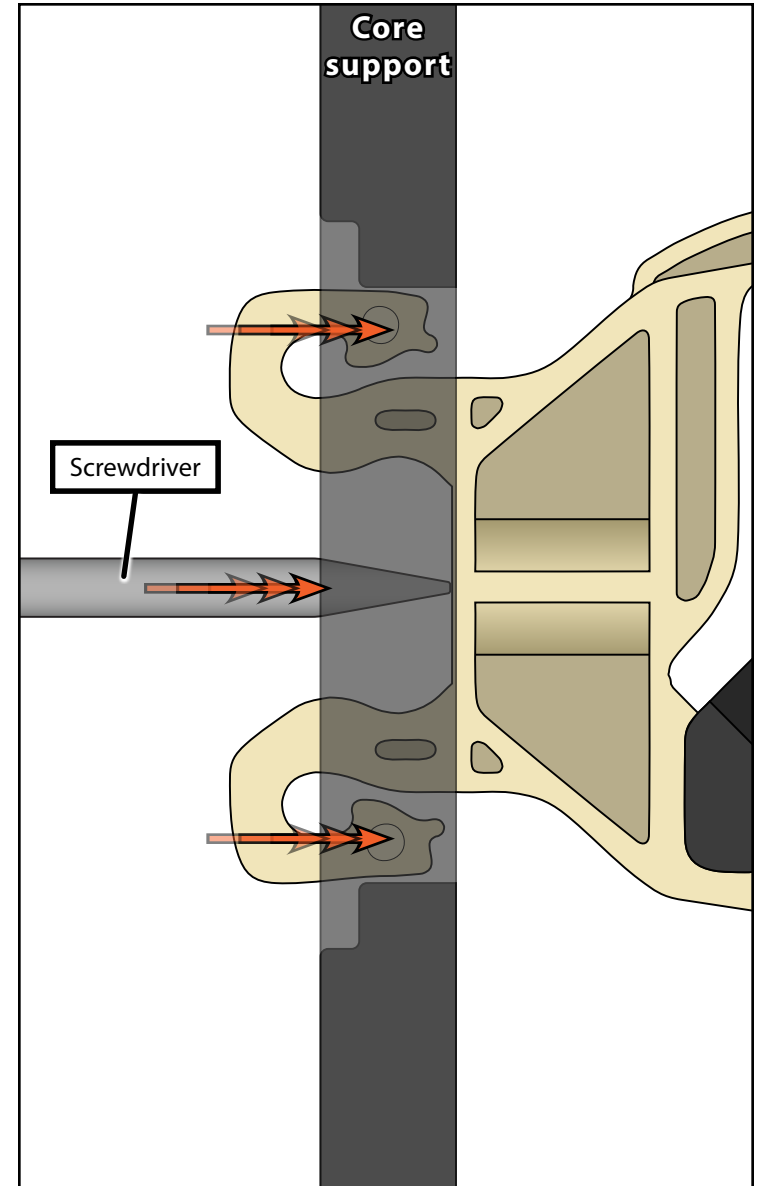
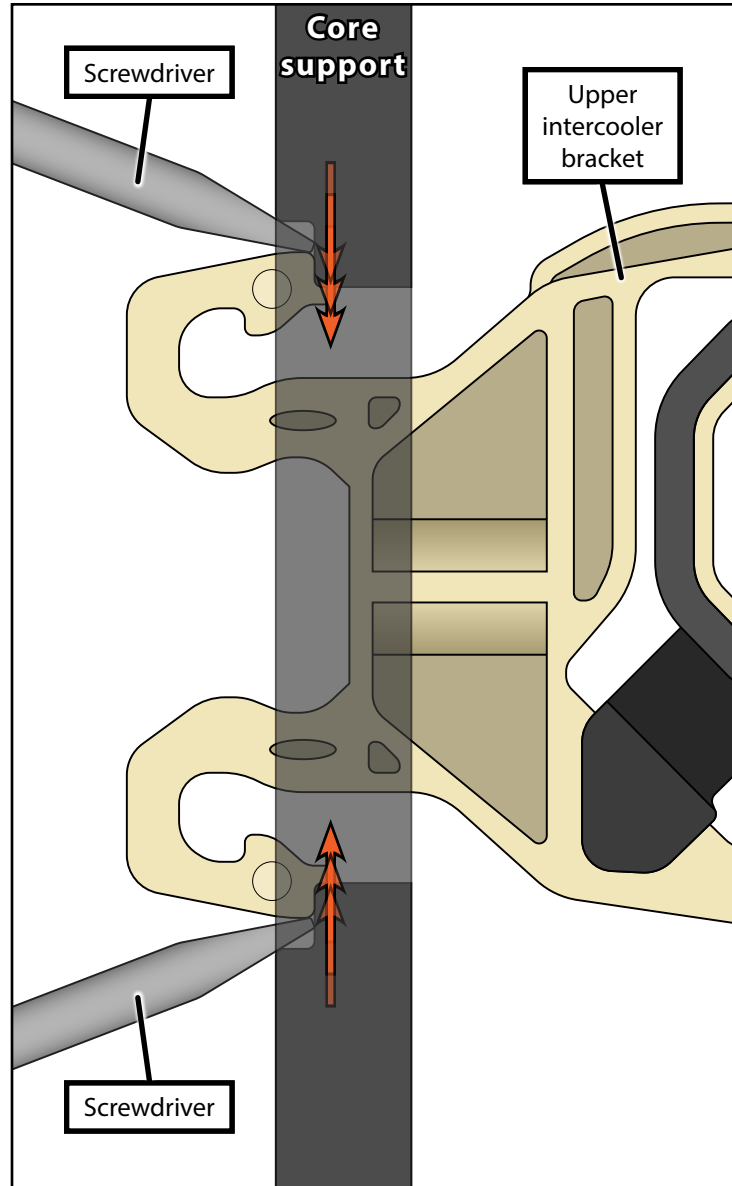
REMOVING THE STOCK INTERCOOLER

Step 25:

Now we need to release the upper intercooler brackets from the core support.

The illustrations on the right show how the two tabs lock into notches in the support. The goal here is to **GENTLY** pry these tabs inward while pushing the brackets back through the slot. Over time these plastic brackets can become very brittle, so take your time and work slowly.

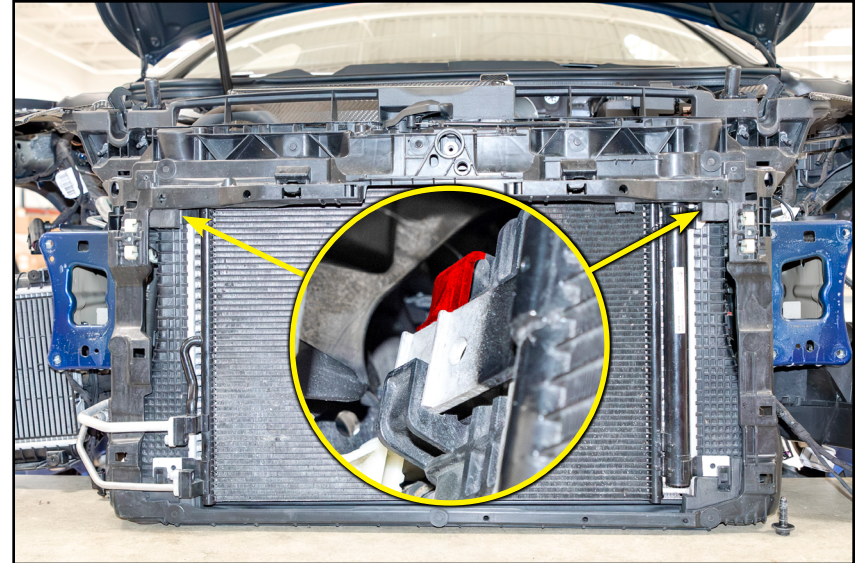
Use this procedure to release both upper intercooler brackets, then continue to the next page.



INSTALLING

Step 26: Flat Head Screwdriver

Lean the intercooler assembly rearward, then depress the retaining tabs (highlighted in **RED** in inset photo) and slide the A/C condenser upward to free it from the intercooler.



Step 27:

Swing the A/C condenser out of the way, being careful not to stress or damage the A/C lines. Lift the intercooler assembly out of the lower intercooler mounts in the core support and remove the core support.



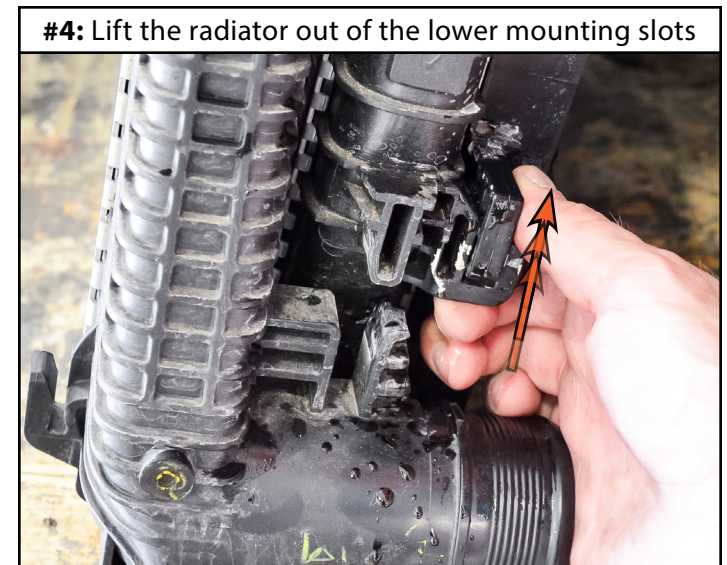
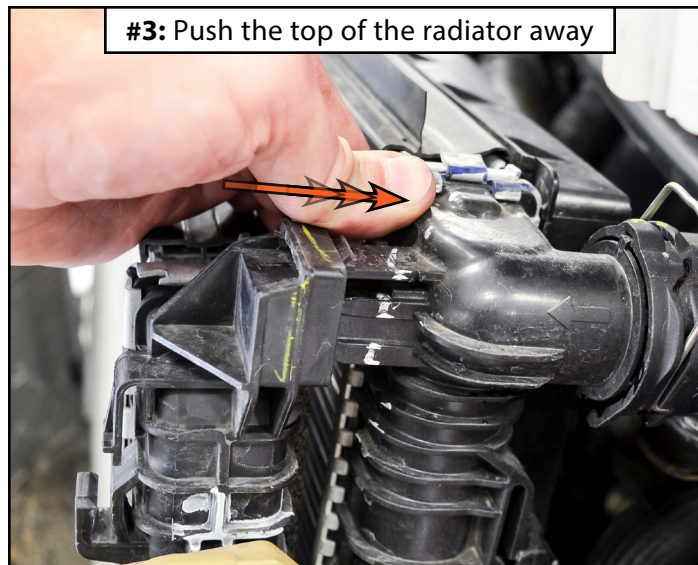
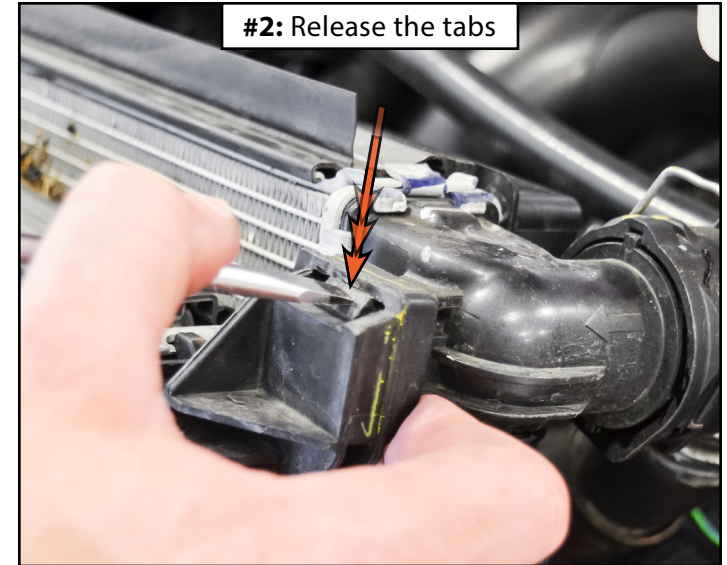
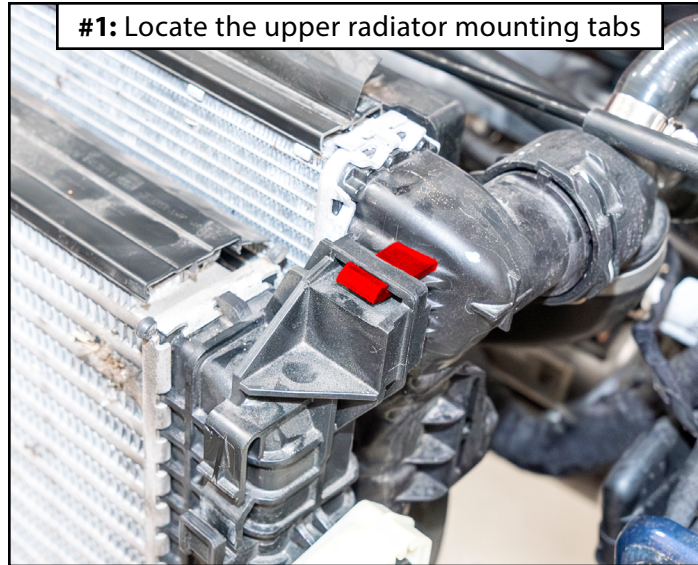
REMOVING THE STOCK INTERCOOLER

Step 28:

The radiator is secured to the intercooler by two mounting tabs which are located near the top of each end tank (highlighted in **RED** in **Photo #1**).

Push downward on these clips one at a time (**Photo #2**) while pushing the radiator away from the intercooler (**Photo #3**).

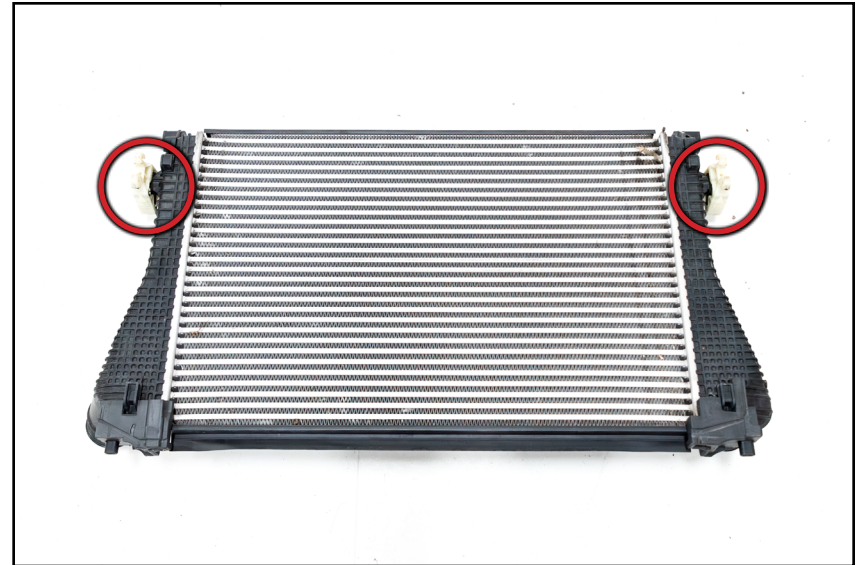
Once the top of the radiator has been released from the intercooler it can be lifted out of the lower mounts (**Photo #4**).



INSTALLING

Step 29:

Pull the upper intercooler mounts (circled in **RED**) free from the intercooler.



Step 30:

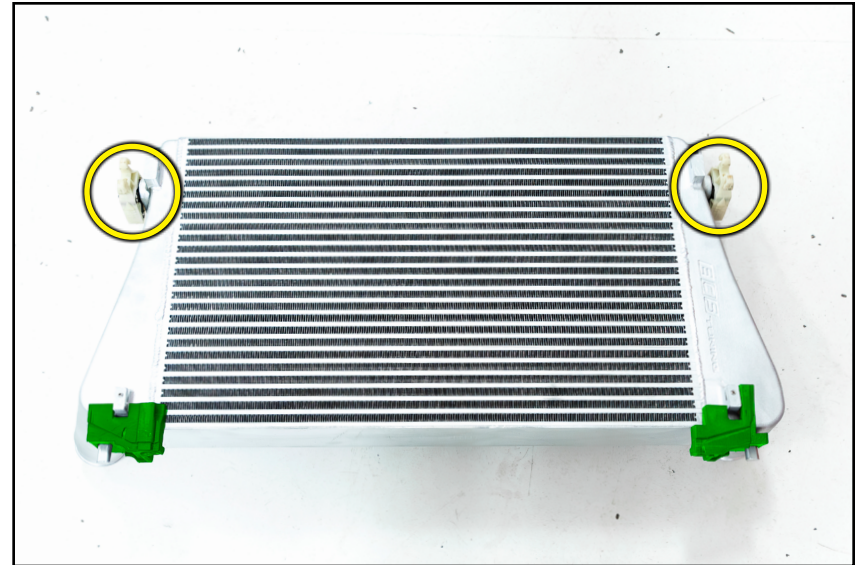
Pull the foam pieces (highlighted in **RED**) free from the lower intercooler mounting posts.



INSTALLING THE NEW INTERCOOLER

Step 1:

Transfer the upper intercooler mounts (circled in **YELLOW**) and lower foam pieces (highlighted in **GREEN**) to the new intercooler assembly as shown.



Step 2:

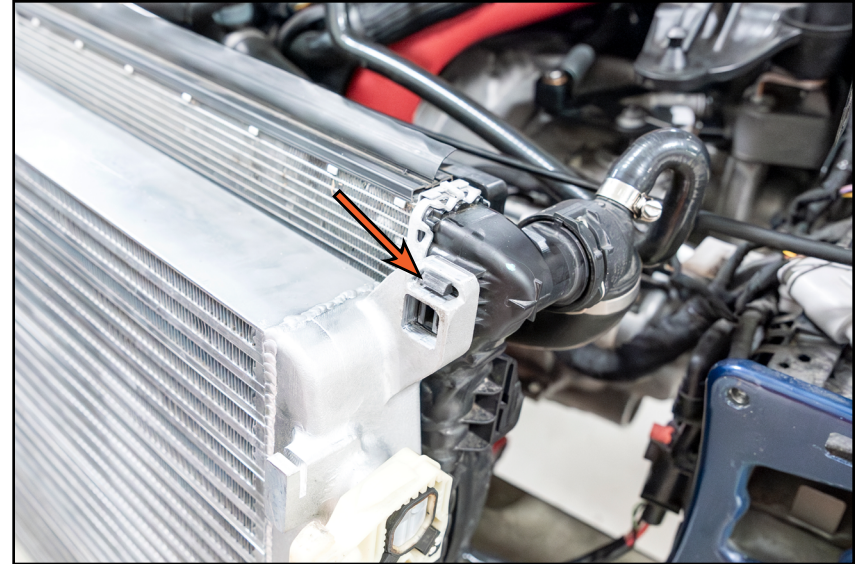
Slide the intercooler into place, then slide the radiator into the lower mounting slots in the new intercooler as shown.



INSTALLING THE NEW INTERCOOLER

Step 3:

Pivot the top of the radiator forward until the upper mounting tabs (arrow) snap into place in the intercooler.



Step 4:

Slide the core support back into place, then slide the intercooler mounting posts into the rubber lower intercooler mounts in the core support.



INSTALLING THE NEW INTERCOOLER

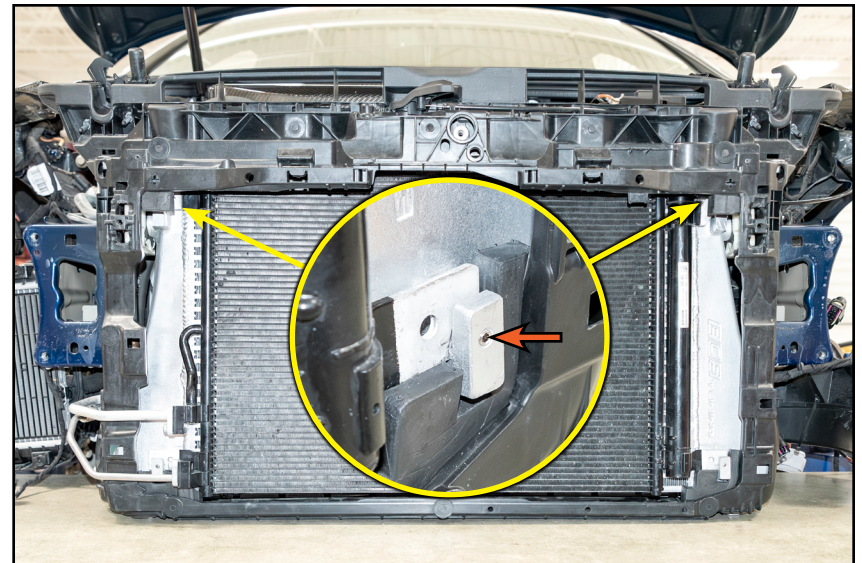
Step 5:

Swing the A/C condenser back into place, then slide it down into the mounting slots on the front of the intercooler.



Step 6: 2.5mm Hex (Allen) Wrench

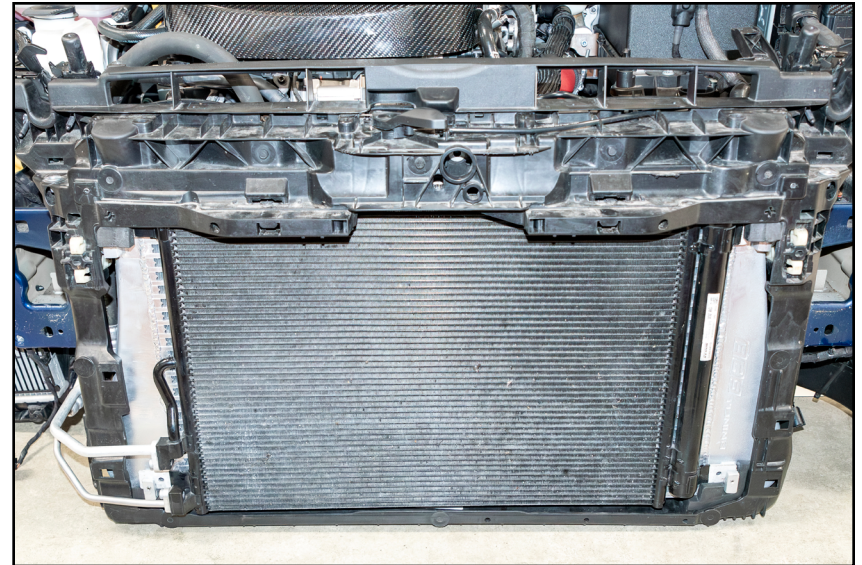
Thread in the supplied set screws (arrow in inset photo) and tighten them until snug to secure the A/C condenser in place.



INSTALLING THE NEW INTERCOOLER

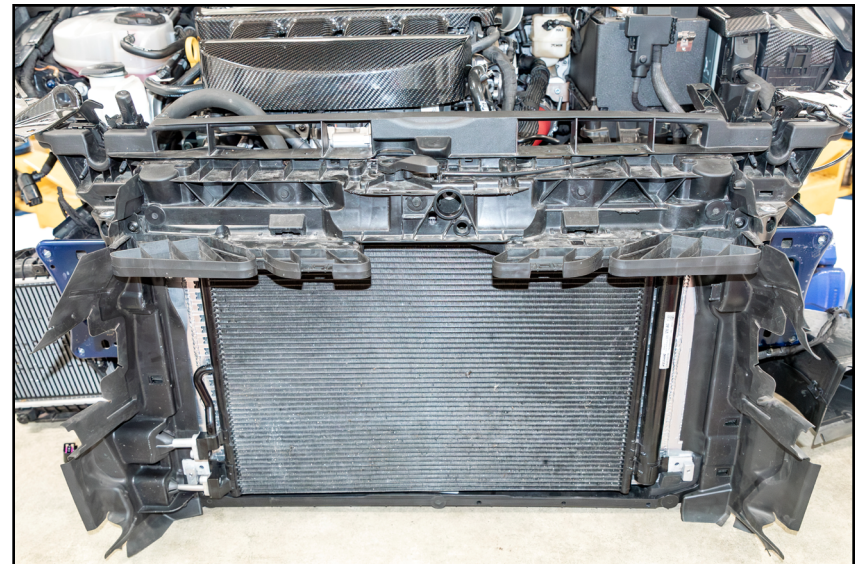
Step 7:

Pivot the intercooler assembly forward until the upper intercooler mounts snap back into place in the core support.



Step 8:

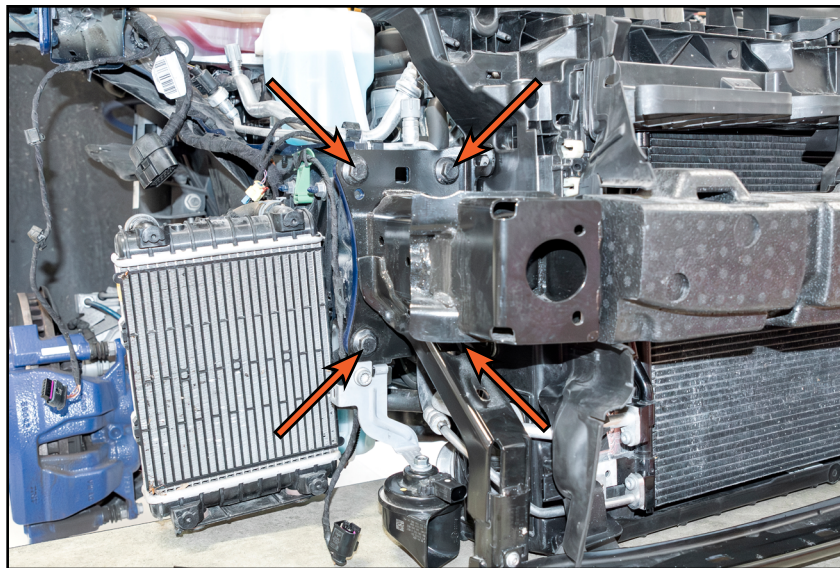
Reinstall the plastic bumper supports and air guides as shown.



INSTALLING THE NEW INTERCOOLER

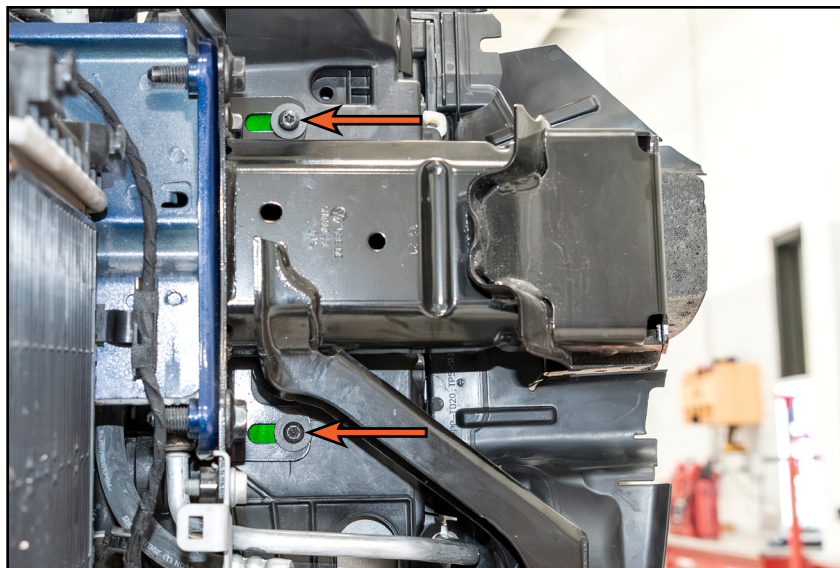
Step 9: 16mm Socket & Torque Wrench

Reinstall the crash beam and torque the bolts (arrows) to 55 Nm (41 Ft-lbs).



Step 10: T30 Torx Socket & Torque Wrench

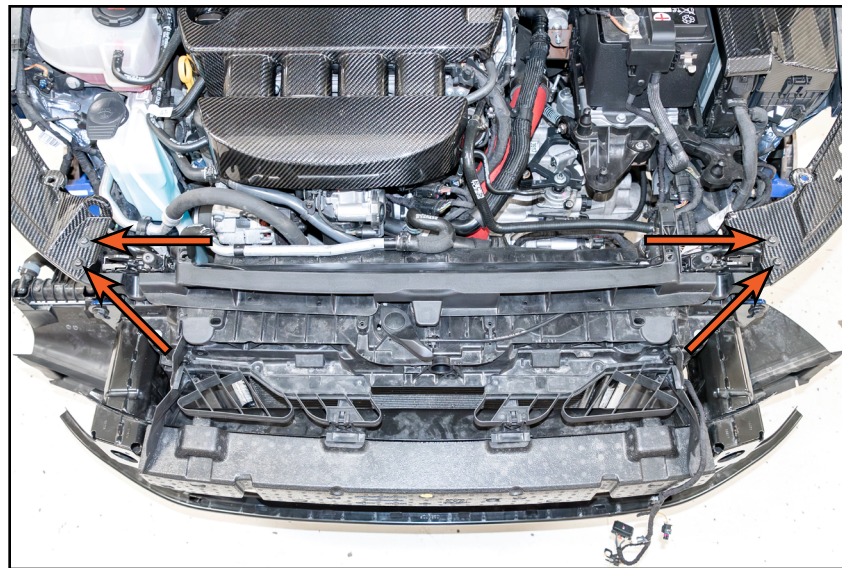
The mounting holes (highlighted in **GREEN**) for the core support are slotted to allow for adjustment. For maximum clearance, loosely install the screws (arrows), then slide the core support forward as far as it will go before tightening the screws to 8 Nm (6 Ft-lbs).



INSTALLING THE NEW INTERCOOLER

Step 11: T30 Torx Socket & Ratchet

Reinstall the screws (arrows) that secure the core support braces to the top of the core support.



Step 12:

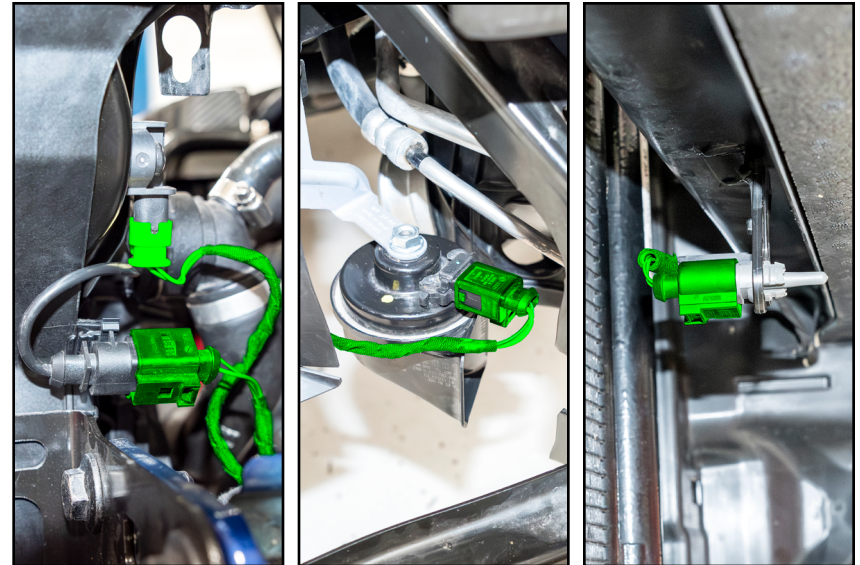
Reconnect the hood release cable, then reinstall the plastic cover.



INSTALLING THE NEW INTERCOOLER

Step 13:

Reconnect the connectors (highlighted in **GREEN**) for the impact sensors, hood latch sensors, horns, and ambient air temperature sensor.



Step 14: T30 Torx, 10mm Socket & Ratchet

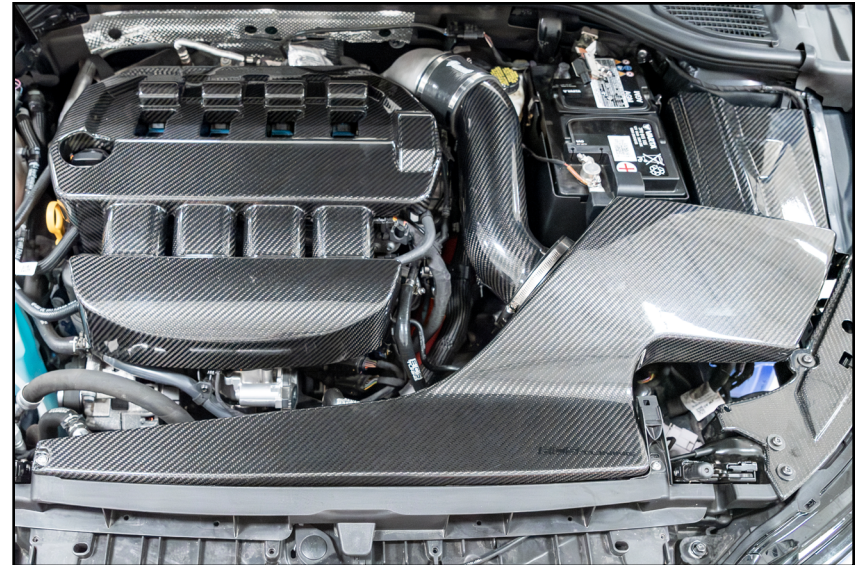
Reinstall the headlights and reconnect the connectors.



INSTALLING THE NEW INTERCOOLER

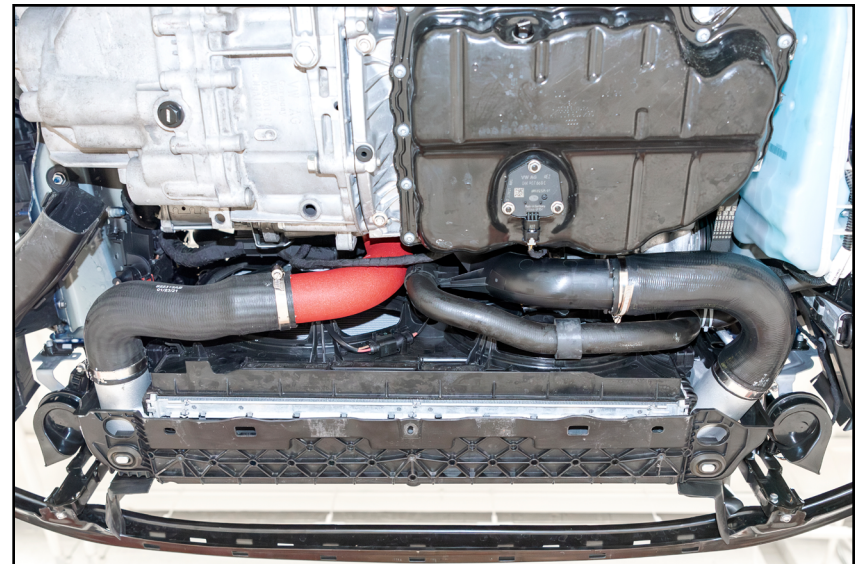
Step 15:

Reinstall the intake system.



Step 16: 7mm Socket & Ratchet

Reconnect the intercooler inlet and outlet couplers and tighten the clamps until snug.



INSTALLING THE NEW INTERCOOLER

Step 17: T25 Torx Socket & Ratchet

Reinstall the bumper and reconnect the connector.



Step 18: T25 Torx Socket & Ratchet

Reinstall the grille and reconnect the connectors.



INSTALLING THE NEW INTERCOOLER

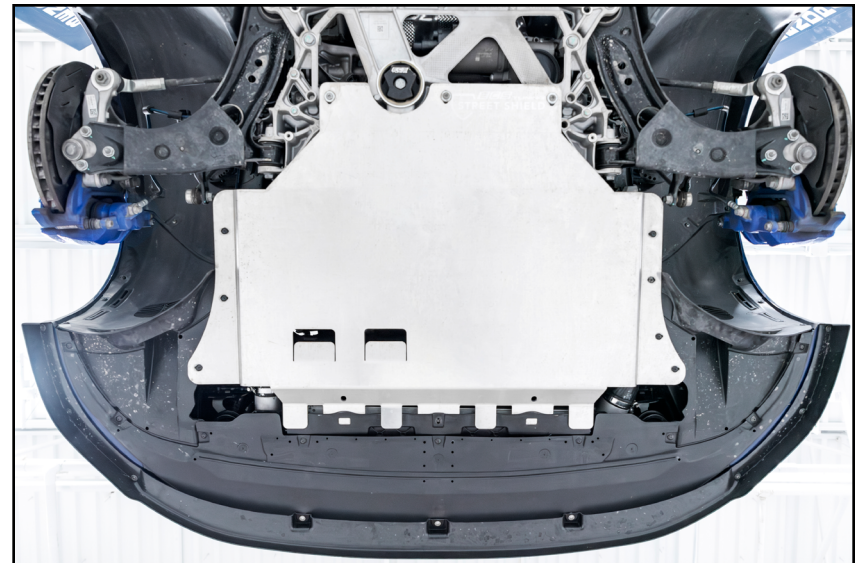
Step 19: T25 Torx Socket & Ratchet

Reinstall the lower fender liners.



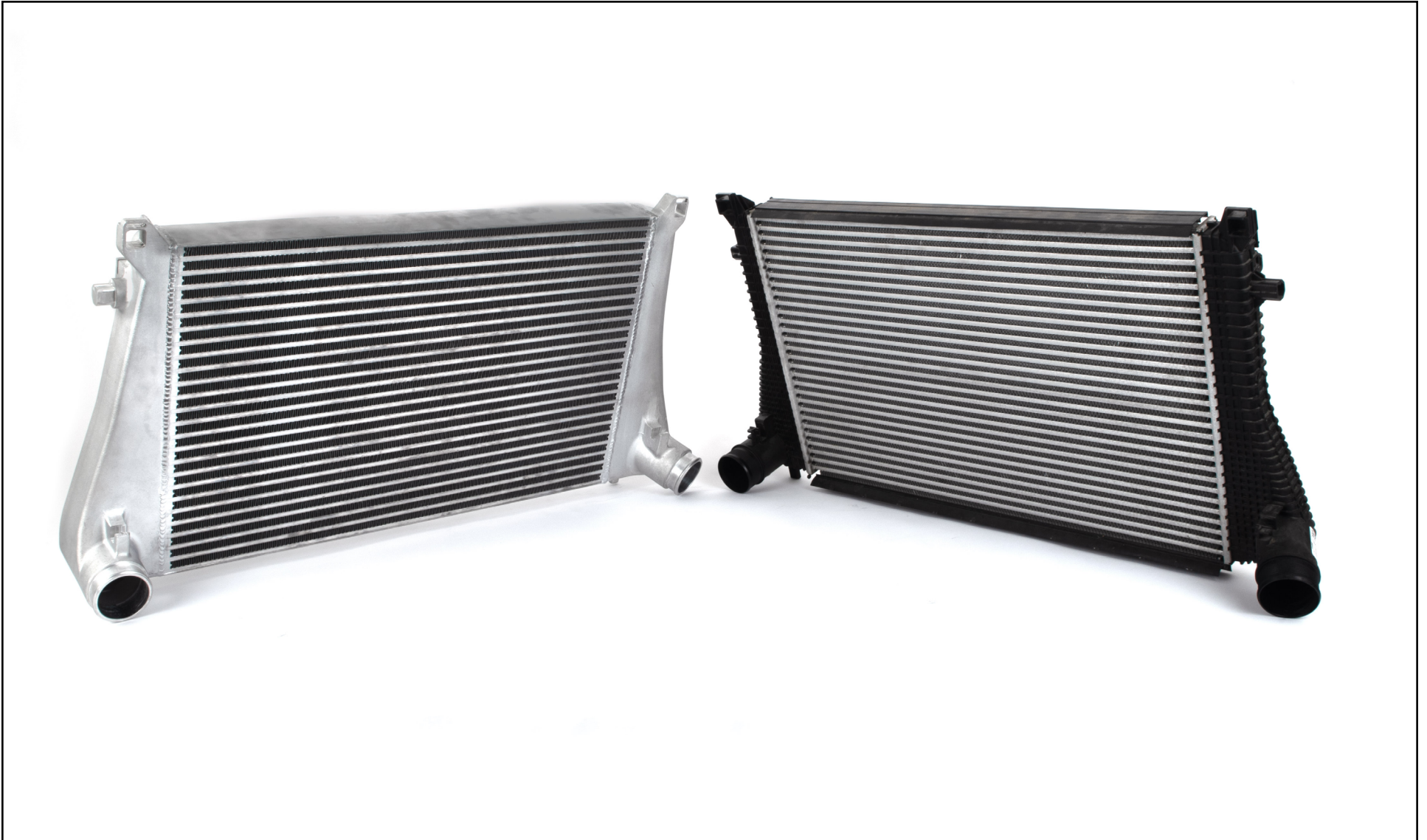
Step 20: 17mm Protecta-Socket & Torque Wrench

Reinstall the insulation panel (or skid plate). Reinstall the wheels and torque the bolts to 140 Nm (103 Ft-lbs). Reconnect the battery.



Congratulations, your installation is complete!

Your Intercooler 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.

Although this material has been prepared with the intent to provide reliable information, no warranty (express or implied) is made as to its accuracy or completeness. Neither is any liability assumed for loss or damage resulting from reliance on this material. SPECIFICALLY, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY IS MADE OR TO BE IMPLIED WITH RESPECT TO THIS MATERIAL. In no event will ECS Tuning, Incorporated or its affiliates be liable for any damages, direct or indirect, consequential or compensatory, arising out of the use of this material.