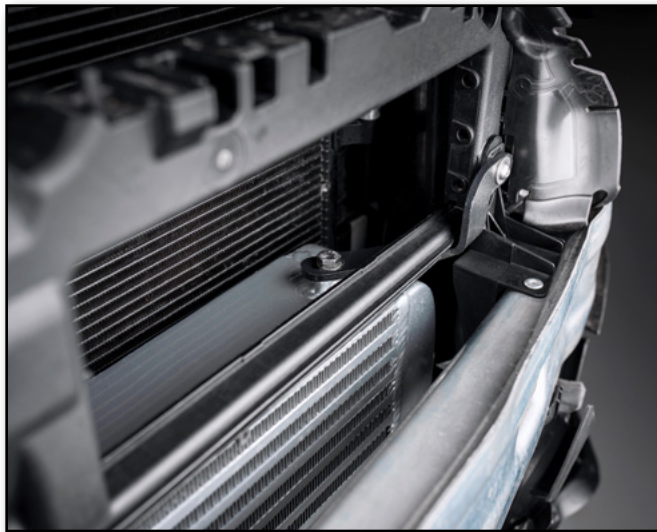
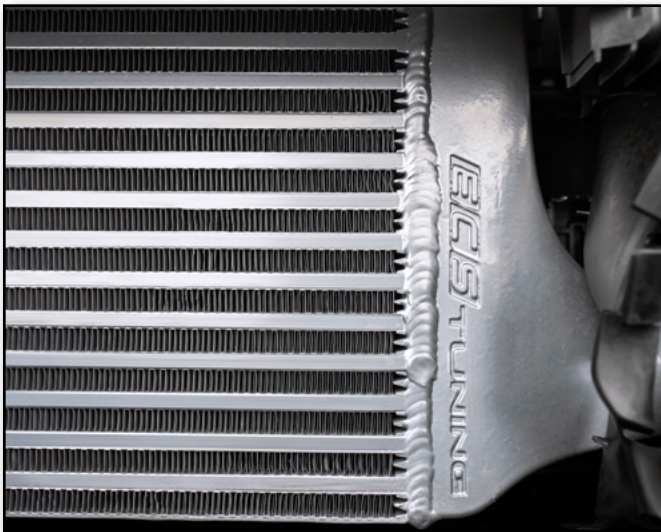
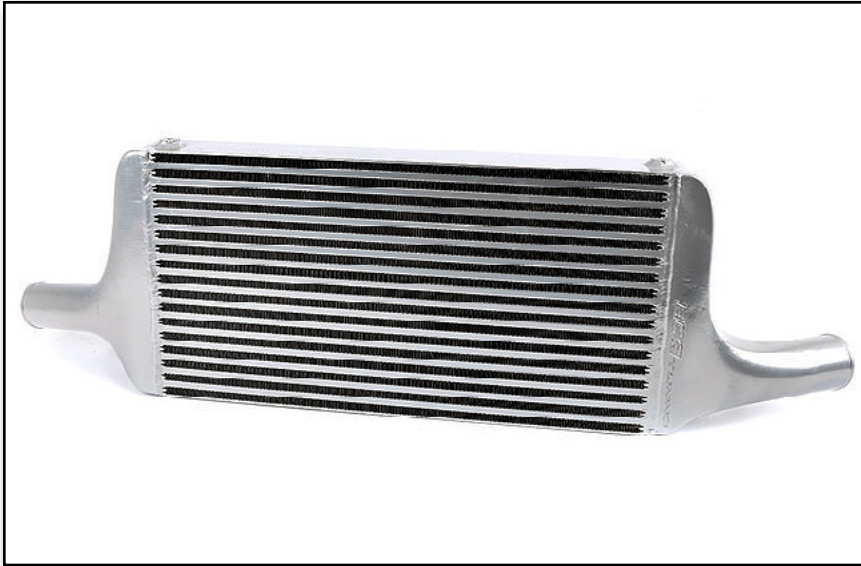




## Audi B9 A4/S4 Front Mount Intercooler Installation Instructions



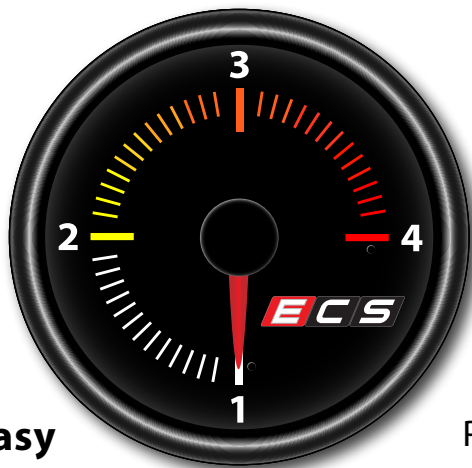
Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

## INTRODUCTION

### The Project:

Today we are going to install our ECS Tuning Front Mount Intercooler for the Audi B9 A4/S4. This intercooler has been completely designed by our engineers at ECS Tuning to provide superior fitment and performance. Our Intercooler features sturdy cast aluminum and a sleek silver powder coat finish. You can expect to see some respectable power gains, reduced air turbulence, improved efficiency and intake temperature drops. Our intercooler utilizes the factory mounting locations with absolutely no modification to the vehicle, making installation completely reversible.

### ECS Difficulty Gauge

**1 - Easy**

2 - Moderate

Advanced - 3

Pro - 4

Installation of this intercooler is an absolute breeze! Installation will take a few hours at most and requires no specialty tools or modification. Make sure to read through these instructions completely before you get started and refer back to them as needed throughout your install. Thank you for purchasing your new Intercooler from ECS Tuning, we appreciate your business!

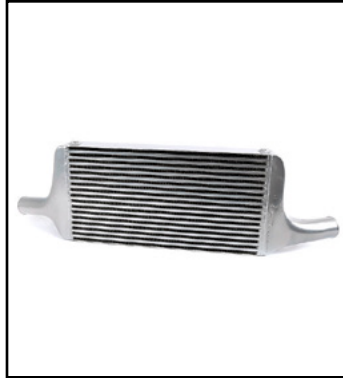
## TABLE OF CONTENTS

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## KIT CONTENTS



Hose Clamp  
(QTY 2)



Intercooler  
(QTY 1)



LH Intercooler Bracket  
(QTY 1)



M6x30mm Screw  
(QTY 2)



M6 Washer  
(QTY 2)



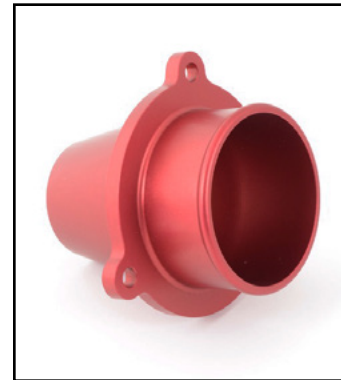
M8x12mm Bolt  
(QTY 2)



M8 Washer  
(QTY 2)



RH Intercooler Bracket  
(QTY 1)



Aluminum Turbo Adapter  
(QTY 1)



Enlarged Turbo Outlet  
Hose (QTY 1)

**B9 A4 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](#)
- Bench Mounted Vise
- Crows Foot Wrenches
- **Hook and Pick Tool Set** ..... [ES#2778980](#)

### Required For This Install

### Available On Our Website

- **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](#)
- **Trim Removal Tool Kit** ..... [ES#517779](#)
- 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](#)



## 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.
- 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

Before we get started, let's take a look at how the installation process is laid out. Installation can be easily split up into several simple sections: removal of the front bumper, removal of the stock intercooler, installation of the new intercooler and finally reinstallation of the front bumper. Our upgraded front mount intercooler is a direct-fit replacement for the stock unit, and it utilizes the stock lower mounting hooks along with custom mounting brackets for the upper mounting points. The only part that can be a little tricky is carefully sliding the intercooler up behind the crash beam. That's really all there is to it!

***Now let's get to it!***





## REMOVING THE ORIGINAL INTERCOOLER

### Step 1:

Locate the release button along the back edge of the hood release lever. Push in on the button with your finger, then pull the hood release lever off.



### Step 2:

Remove the radiator shroud by first pulling up on the front edge to unclip it from the grille, then pulling it forward to slide it out.



## REMOVING THE ORIGINAL INTERCOOLER

### Step 3: Protecta-Sockets

Safely lift and support the vehicle, then remove the front wheels.



### Step 4: T25 Torx

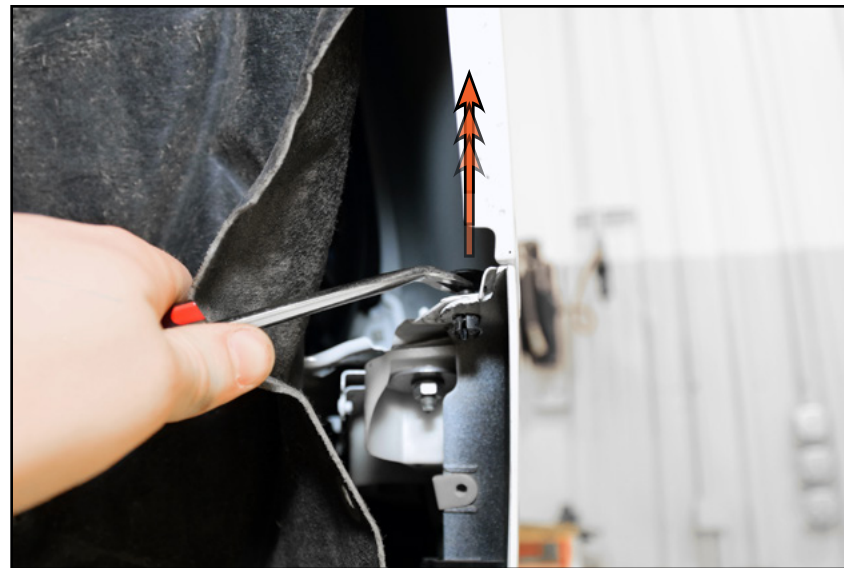
Remove the three outermost fasteners in each wheel well.



## REMOVING THE ORIGINAL INTERCOOLER

### Step 5: Trim Removal Tool

Pry up to remove the vertical push-clip located behind each fender liner.



### Step 6: T30 Torx, Extension

Remove the screw located deeper behind the fender liner.





## REMOVING THE ORIGINAL INTERCOOLER

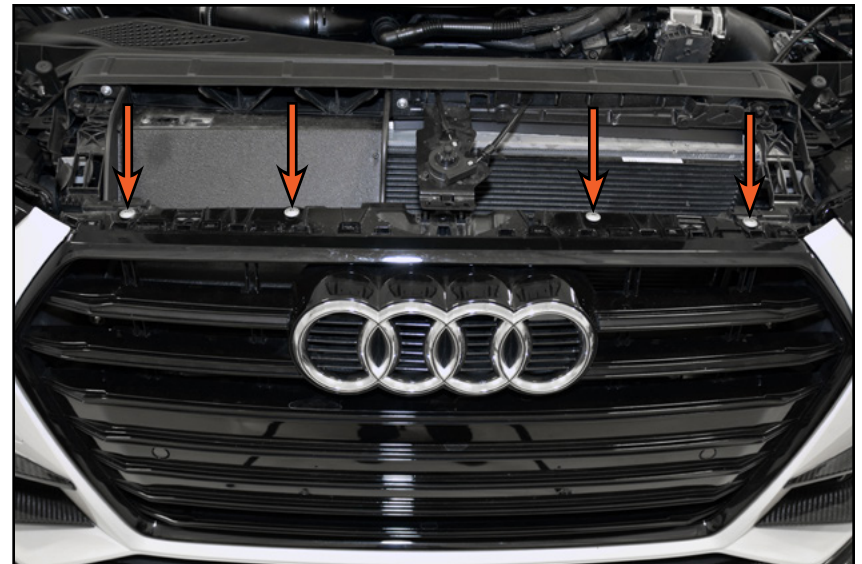
### Step 7: T25 & T30 Torx

Remove the seven fasteners securing the bumper to the belly pan.



### Step 8: T30 Torx

Above the front grille, locate and remove the last four screws securing the bumper to the vehicle.



## REMOVING THE ORIGINAL INTERCOOLER

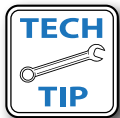
### Step 9:

From inside each wheel well, gently pull the bumper outward, away from the fender, to pop it free from its mounting clips.



### Step 10:

In order to remove the bumper from the vehicle we must remove the parking sensor harness. In order to access this connector pull the bumper forward until it is completely free from the vehicle .



The bumper is not very heavy, but it's slightly awkward to hold by yourself. Removal can be made much easier if you have a friend lend you a helping hand.





## REMOVING THE ORIGINAL INTERCOOLER

### Step 11:

If your vehicle is equipped with parking sensors, you will need to disconnect the harness located on the LH side of the bumper before you can fully remove the bumper from the vehicle.



### Step 12:

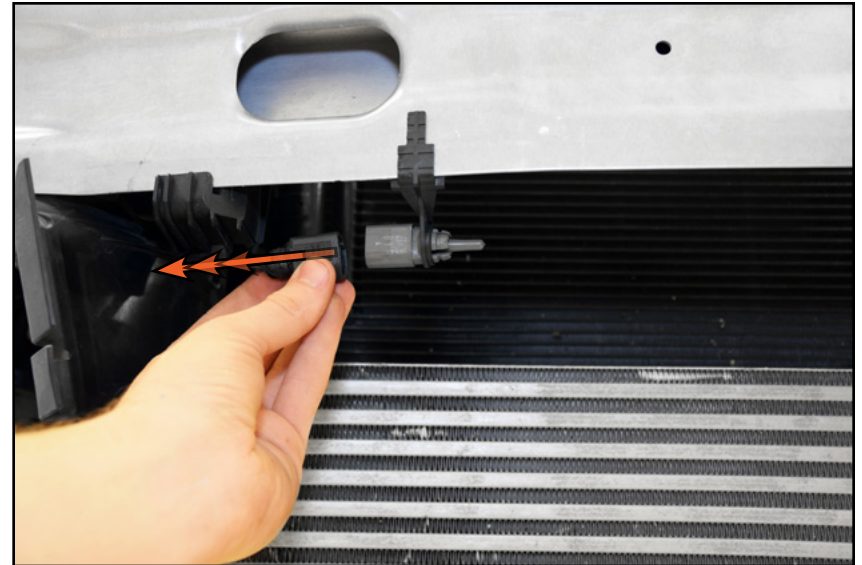
Set the bumper aside on fender covers or another suitable surface to prevent scratches or damage.



## REMOVING THE ORIGINAL INTERCOOLER

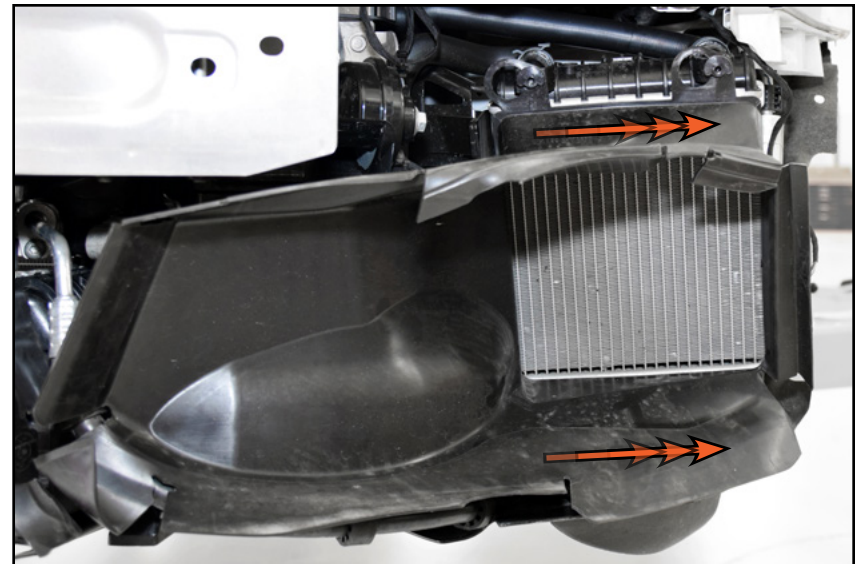
### Step 13:

Disconnect the ambient air temperature sensor connector on the RH side underneath the crash beam.



### Step 14:

Remove the plastic auxiliary radiator cowling by pulling it toward the outside of the vehicle to free it from the tabs.



## REMOVING THE ORIGINAL INTERCOOLER

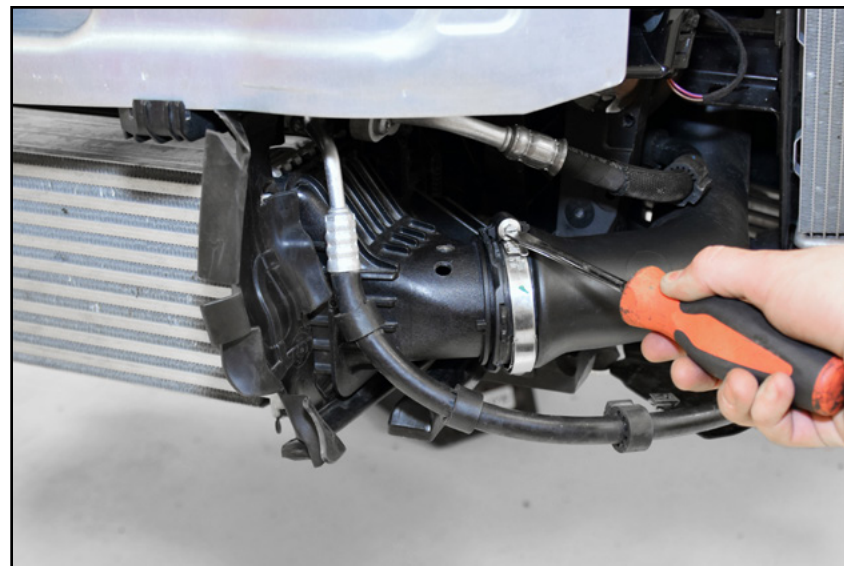
### Step 15:

Loosen the hose clamp on the stock turbo outlet hose (located on the RH side of the intercooler), then slide it off of the intercooler.



### Step 16:

Loosen the hose clamp on the throttle body charge pipe (located on the LH side of the intercooler), then slide it off of the intercooler.





## REMOVING THE ORIGINAL INTERCOOLER

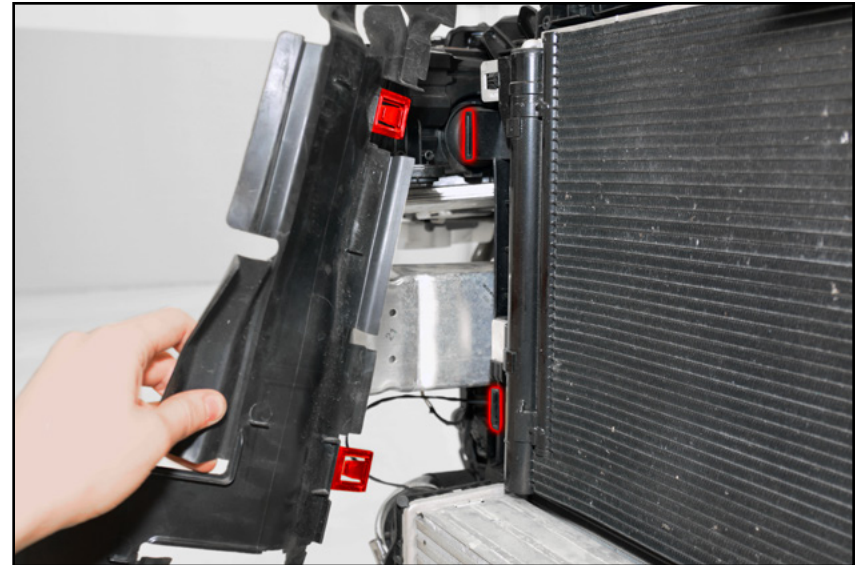
### Step 17:

Locate the two plastic air shrouds which are secured with clips to the front of the radiator. While it is possible to remove the intercooler with these shrouds in place, it's well worth the effort to remove them and gain some extra space.

The first clip is clearly visible below the crash beam, the second is located just above the lower clip but will be obstructed from view by the beam (highlighted in RED in the photo).

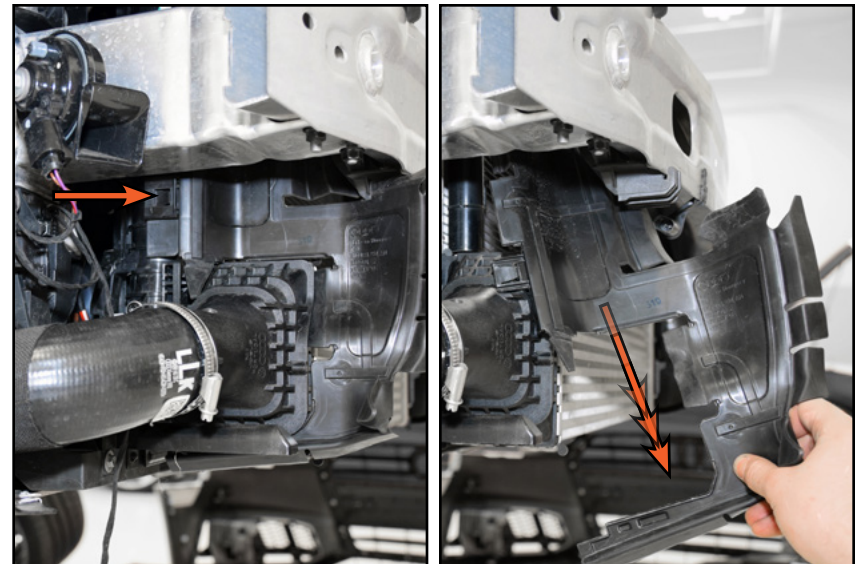


The crash beam has been removed in this photo for clarity, however it is important to note that removal of the crash beam is not necessary for the removal of the air shrouds.



### Step 18:

Working on the LH side of the vehicle, press inward on each tab, pull the shroud out of the radiator slightly, then pull it straight down to guide it out from behind the crash beam. Repeat this process on the RH side of the vehicle to remove the other shroud.



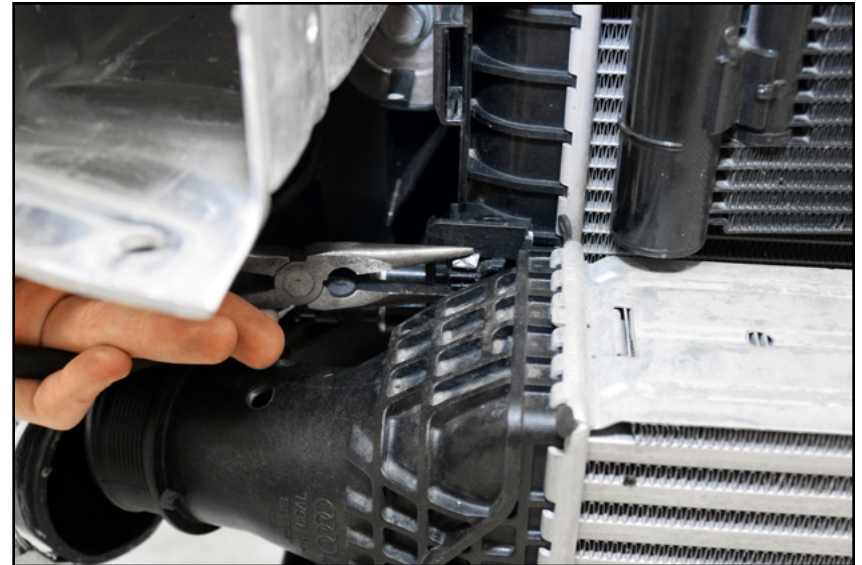
## REMOVING THE ORIGINAL INTERCOOLER

### Step 19: Needle Nose Pliers

The stock intercooler is secured by a pinch clip on either side, this clip can easily be released by gently squeezing it with a pair of pliers.



The crash beam has been removed in this photo for clarity, however it is important to note that removal of the crash beam is not necessary to access the pinch clips.



### Step 20:

Once the clips have been released, the intercooler can be easily removed by lifting it up and out from under the crash beam.

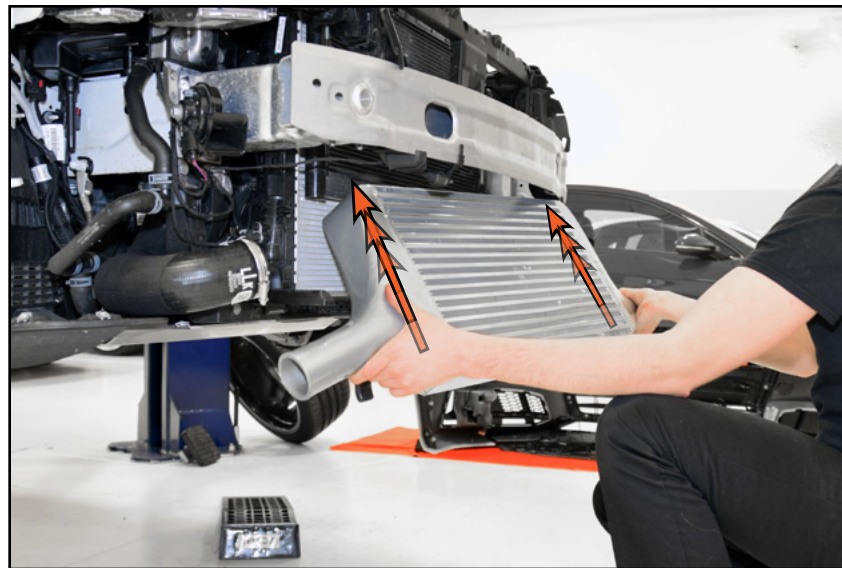




## INSTALLING THE NEW INTERCOOLER

### Step 1:

Gently lift the new ECS intercooler up behind the crash beam, being careful to not damage the intercooler. Center the intercooler to the front of the vehicle, then proceed to the next step.

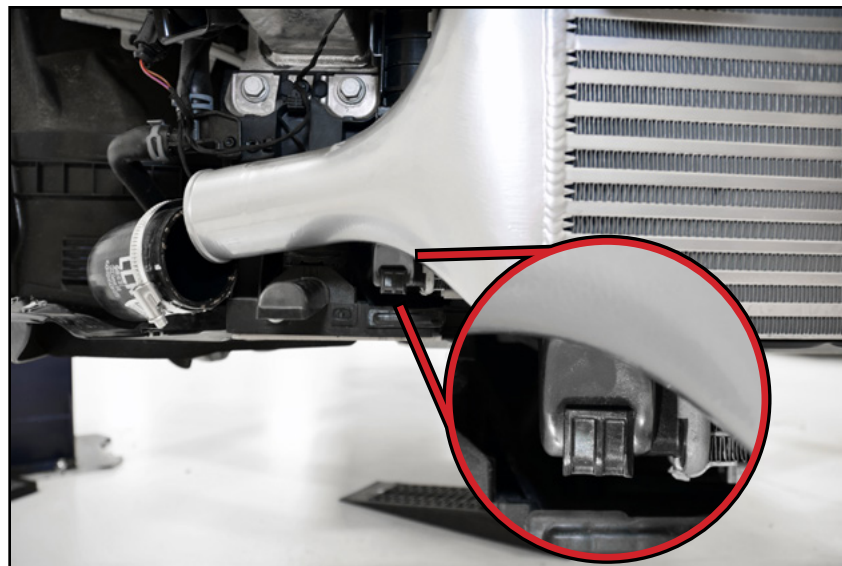


### Step 2:

Lower the two rubber feet on the new intercooler into the plastic mounting hooks on the front of the radiator.



If you are installing this kit onto an A4, please continue to the next page. If you are installing this kit onto an S4, please skip to [Page 22](#).



## INSTALLING THE NEW INTERCOOLER

### Step 3: Flat Head Screwdriver

Loosen the clamp on the stock turbo outlet hose and remove the entire hose from the vehicle.



### Step 4: 5mm Hex (Allen) Socket & Ratchet

Loosen the three bolts securing the turbo muffler to the vehicle and remove it.



There is an o-ring that sits in a groove above the turbo muffler, make sure to reinstall it before installing the new aluminum turbo adapter.



## INSTALLING THE NEW INTERCOOLER

### Step 5: 5mm Hex (Allen) Socket & Ratchet

Install the new aluminum turbo adapter and secure it in place with the three bolts.



### Step 6: 10mm Socket & Ratchet

Install the new enlarged turbo outlet hose onto the turbo adapter and install the clamp to secure it in place.





## INSTALLING THE NEW INTERCOOLER

### Step 7: Flat Head Screwdriver

Install the turbo outlet hose onto the RH side of the intercooler and tighten the clamp.



### Step 8: Flat Head Screwdriver

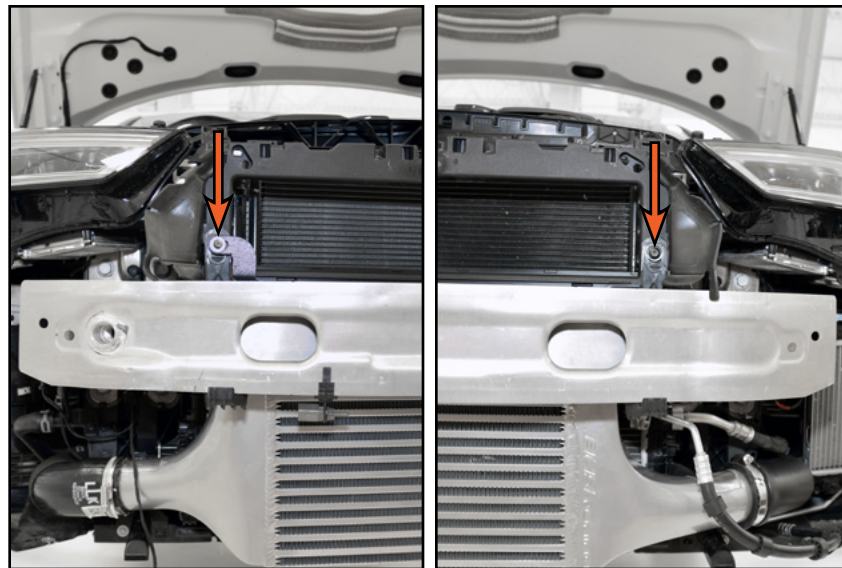
Install the throttle body charge pipe onto the LH side of the intercooler and tighten the clamp.



## INSTALLING THE NEW INTERCOOLER

### Step 9: T30 Torx

Loosen and remove the two screws attaching the plastic support bracket to the crash beam on either side.



### Step 10: 4mm Hex (Allen) Socket, 13mm Socket & Ratchet

Install the each intercooler bracket using the new M6 screw and washer which are included in the kit. Then, install the M8 bolt and washer through the intercooler bracket and into the the mounting holes on the top of the new intercooler on either side.

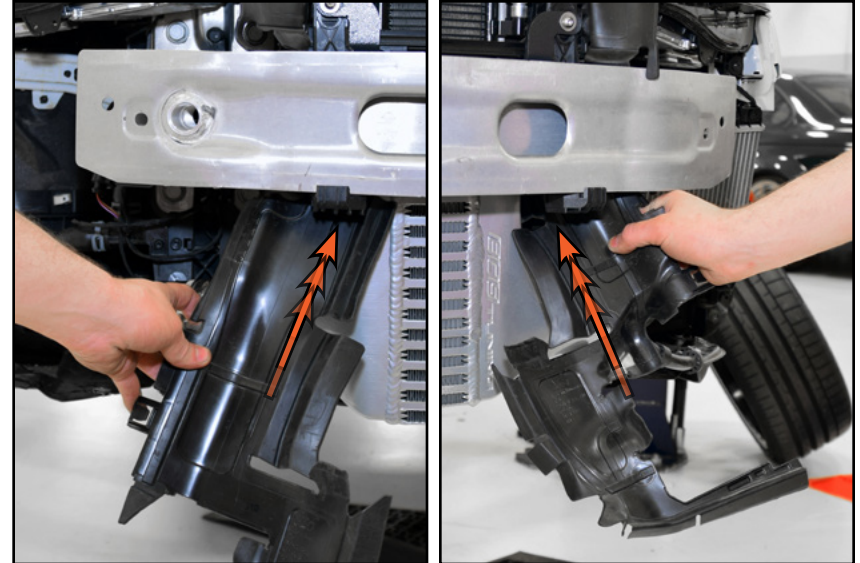




## INSTALLING THE NEW INTERCOOLER

### Step 11:

Slide the air shrouds up behind the crash beam and clip them back into place.



### Step 12:

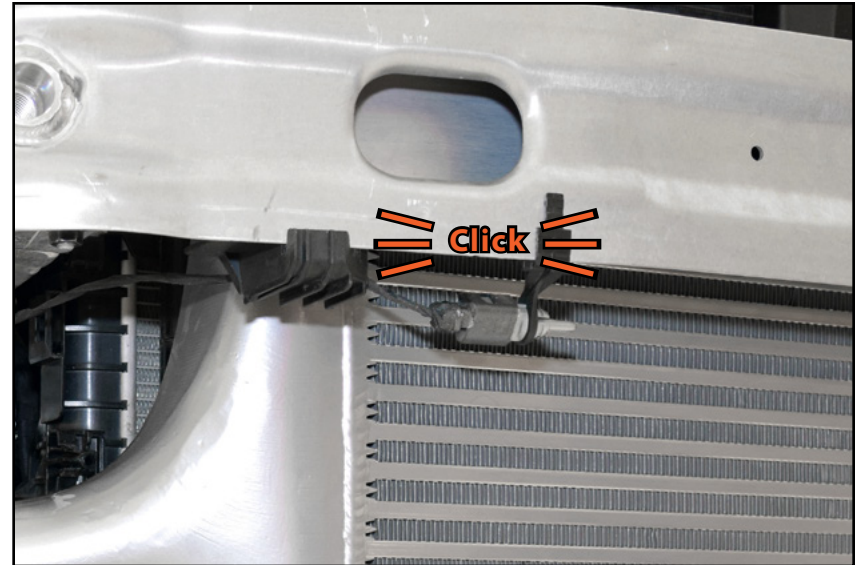
Slide the plastic auxiliary radiator cowling back into place.



## INSTALLING THE NEW INTERCOOLER

### Step 13:

Reinstall the ambient air temperature sensor connector underneath the crash beam.



### Step 14:

If equipped, reinstall the parking sensor harness on the LH side of the bumper.



## INSTALLING THE NEW INTERCOOLER

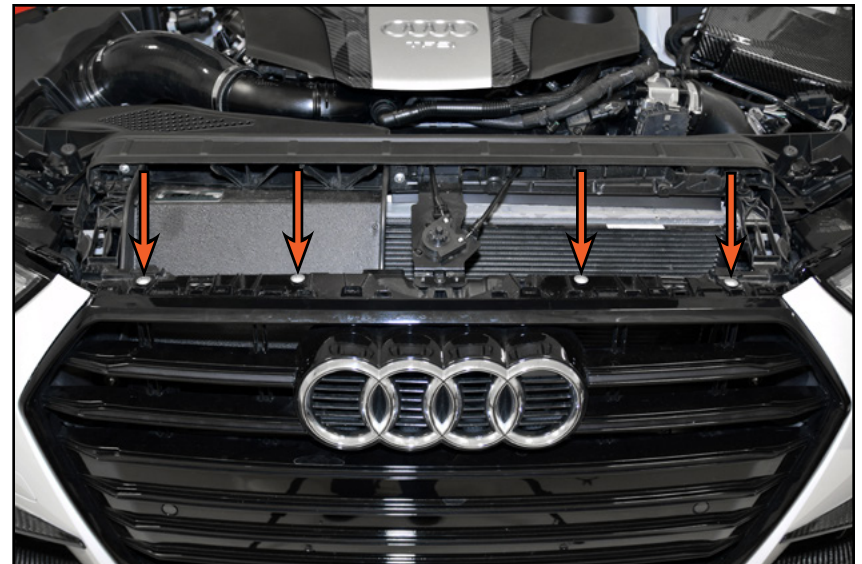
### Step 15:

Lift the bumper back into place.



### Step 16: T30 Torx

Reinstall the four upper screws securing the bumper to the plastic support bracket.

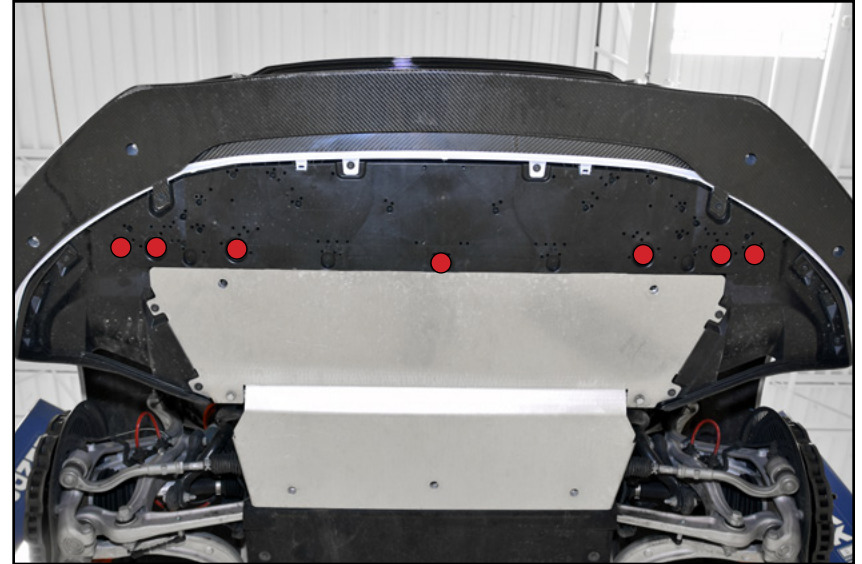




## INSTALLING THE NEW INTERCOOLER

### Step 17: T25 Torx, T30 Torx

Reinstall the seven fasteners securing the bumper to the belly pan.



### Step 18: T30 Torx

Reinstall the screw located deep behind each fender liner.



## INSTALLING THE NEW INTERCOOLER

### Step 19:

Reinstall the vertical push-clip on either side.



### Step 20: T25 Torx

Reinstall the three fasteners in either fender liner.





## INSTALLING THE NEW INTERCOOLER

### Step 21:

Slide the front shroud back into place and push it down to snap it back into the top of the grille.



### Step 22:

Reinstall the hood release lever.

***Congratulations, your installation is complete!***



## 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 Front Mount 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.

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