

B8/8.5 S4 3.0T HEAT EXCHANGER

The 034Motorsport Supercharger Heat Exchanger Upgrade Kit for the Audi B8/B8.5 is an excellent stock-location intercooler for the 2010-2017 Audi B8/B8.5 S4. Testing has proven that this heat exchanger upgrade is capable of significantly reducing intake air temperatures.

Installation Spiciness Rating: MILD

Installation of your 034 Heat Exchanger Kit is a straightforward process that will take approximately 4-6 hours to complete.

*Vehicles equipped with a factory dynamic steering cooler must relocate this loop cooler. The factory dynamic steering cooler is visible through the grill.

Tools Needed:

- 13mm Socket
- 8mm Socket
- T30 Torx Bit
- T25 Torx Bit
- 5mm Allen wrench
- 4mm Allen wrench
- 3/16" Allen wrench
- 1/8" drill bit
- 3/16" drill bit
- Electric drill
- Adjustable wrench
- Pliers or Spring Clamp Pliers

Supplied Parts:

- Heat exchanger assembly
- (2x) cap plate
- (2x) 25x3 o-ring
- Diverter plate
- (8x) M6x10 hex head drive flat head screw
- Mounting brackets (L + R)
- (8x) self-tapping screw
- (4x) M8x14 button head cap screw
- (4x) M8 lock washer
- 90deg -10AN o-ring barb fitting
- Straight -10AN o-ring barb fitting
- (2x) -10AN o-ring plug
- 90deg silicone hose
- Straight silicone hose
- (4x) 16x25 worm drive hose clamp
- Air block off plates (L+R)
- (3x) 1-1/4" grommet
- 1-1/4" panel plug
- (2x) hose connector
- (2x) 1/8" NPT plug
- Zip-tie anchor
- Zip-tie
- Kitchen sink not included

About This Guide

This Install Guide documents the installation process on a B8 Audi S4. There may be minor differences depending on specific vehicle, market, options, etc.

*When referring to the left-hand side, we mean the driver's side of a Left-Hand Drive vehicle

Getting Started

Confirm you have received all the parts included with your purchase by reading the complete guide, if there are missing components, please contact:

customerservice@034motorsport.com

Install Steps**Step 1**

Remove front bumper cover.



Step 2

Remove secondary radiator air duct.

**Step 3**

Placing a suitable catch pan underneath, remove lower heat exchanger hose using pliers, or spring clamp pliers.

**Step 4**

Placing a suitable catch pan underneath, remove upper heat exchanger hose using pliers, or spring clamp pliers.

**Step 5**

Using the T30 Torx bit, unbolt the factory heat exchanger. Screw is on the left-hand side only.

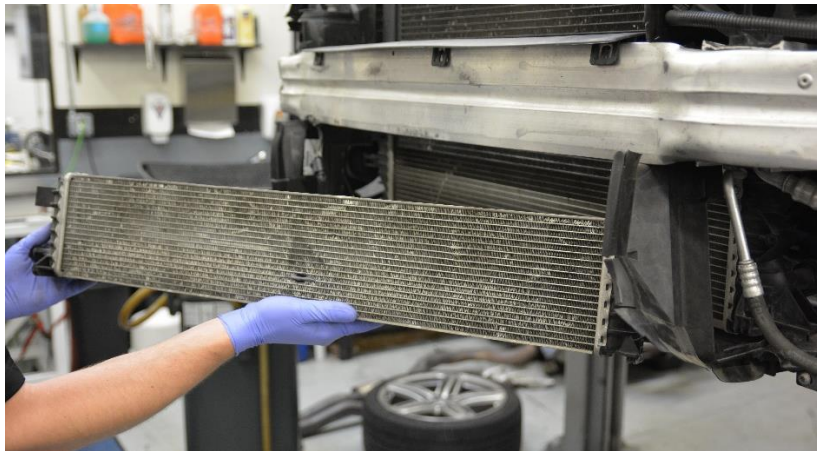


Step 6

Using a flat screw driver, disengage clip on right-hand end of factory heat exchanger.

**Step 7**

Remove factory heat exchanger, careful not to damage factory plastic air ducts.

**Step 8**

Disconnect left side horn.

**Step 9**

Disconnect right side horn, and wire retaining clip.



Step 10

Disconnect outside air temp sensor from plastic bracket. Be careful, bracket can be brittle.

**Step 11**

Using 13mm socket, remove (4x) M8 bolts securing bumper bar.



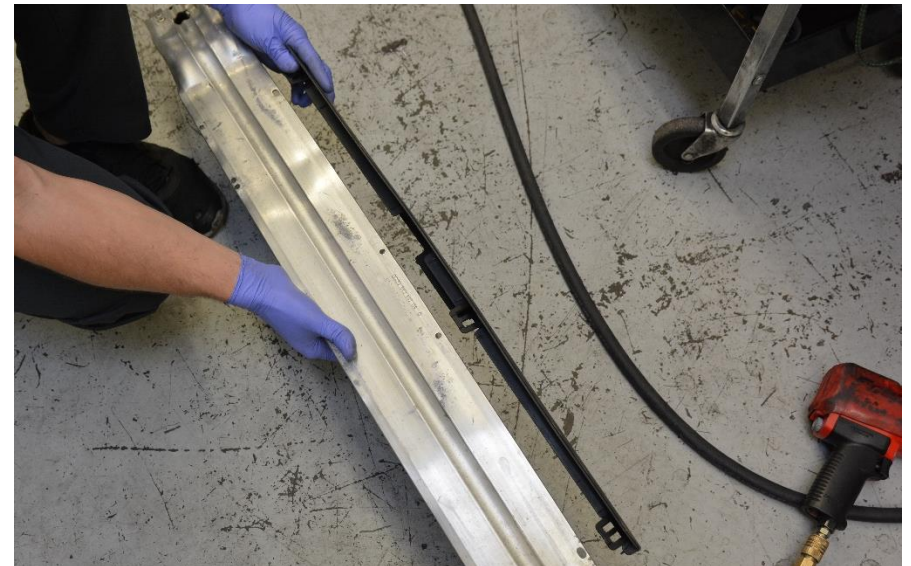
*You may have to pry between the bumper bar and frame rails to loosen enough to slide out.

Step 12

Remove bumper bar.

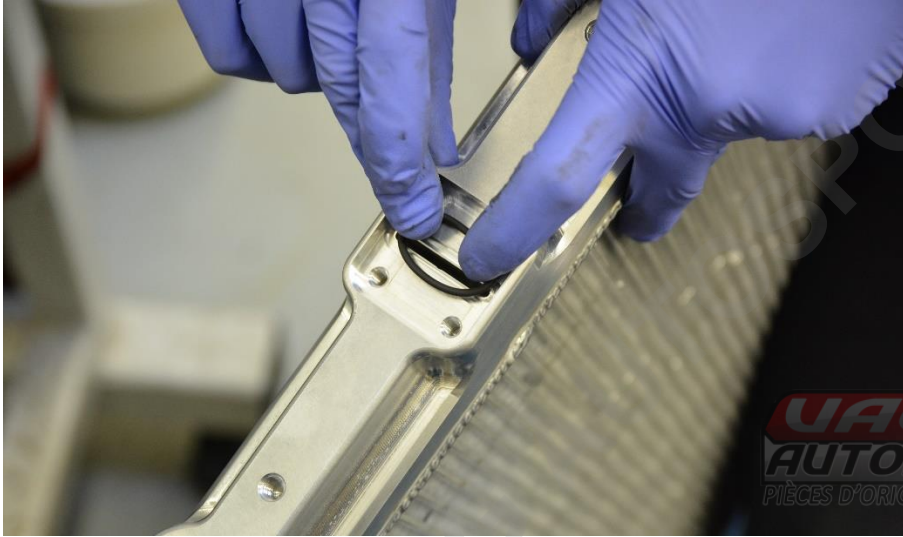
**Step 13**

Remove plastic trim piece from top of bumper bar.

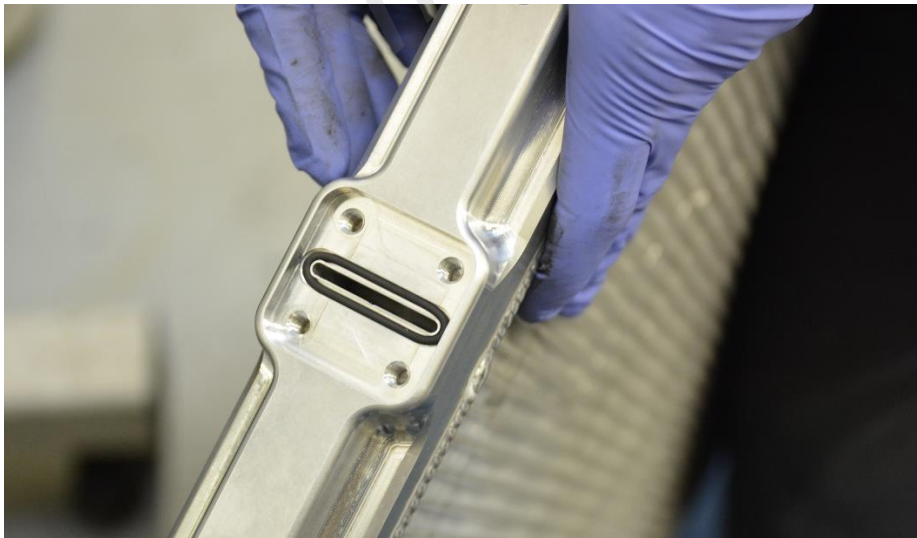


Step 14

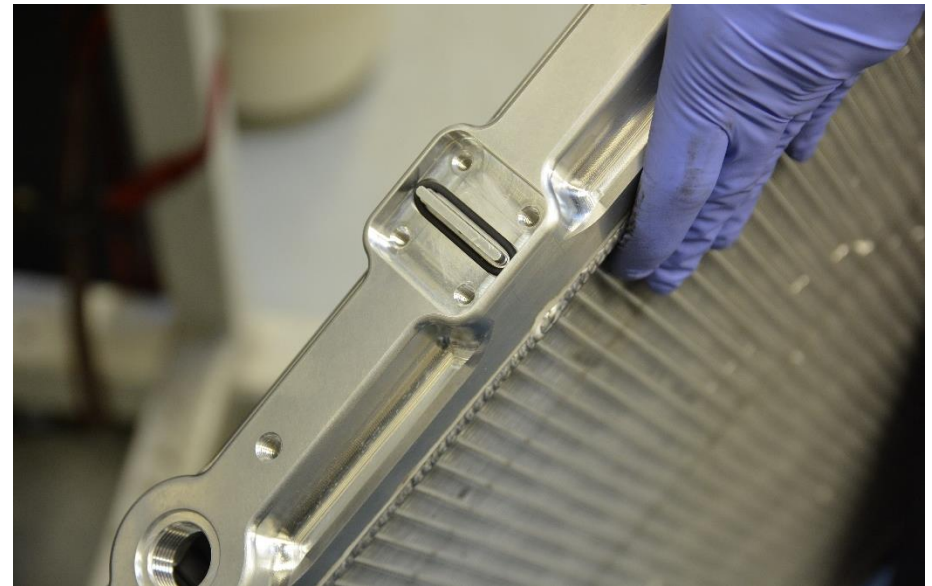
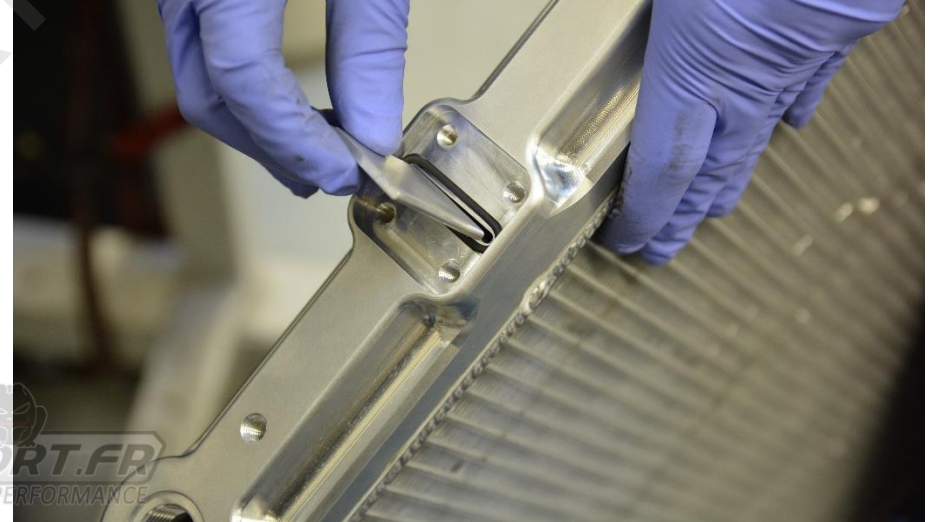
Install 25x3 o-ring in groove on 034 heat exchanger end tanks.



O-ring installed.

**Step 15**

Insert diverter plate in driver side (LHD cars) end tank to create dual-pass unit.

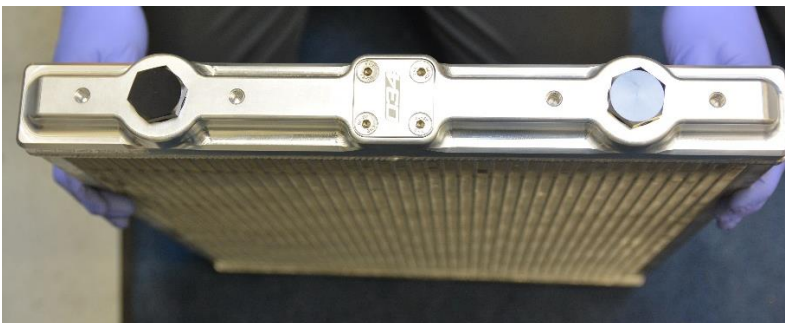


Step 16

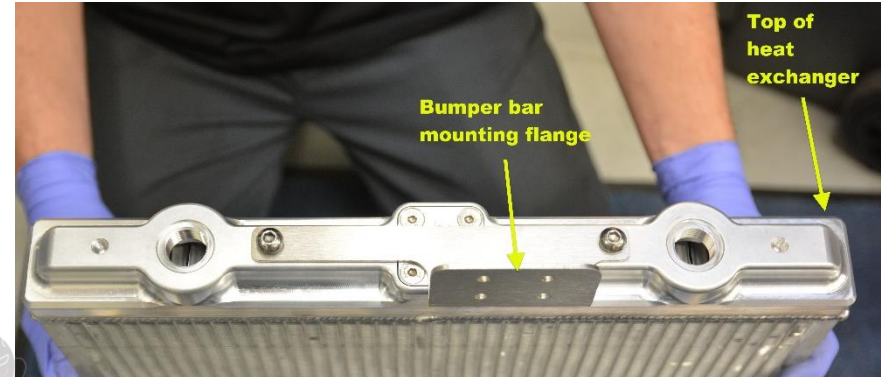
Install cover plates. Use blue Loctite on M6x10 flat head screws. Hint: the top of the 034 heat exchanger is the side with threaded holes in the end of the end tanks for 1/8" NPT air bleed plugs.

**Step 17**

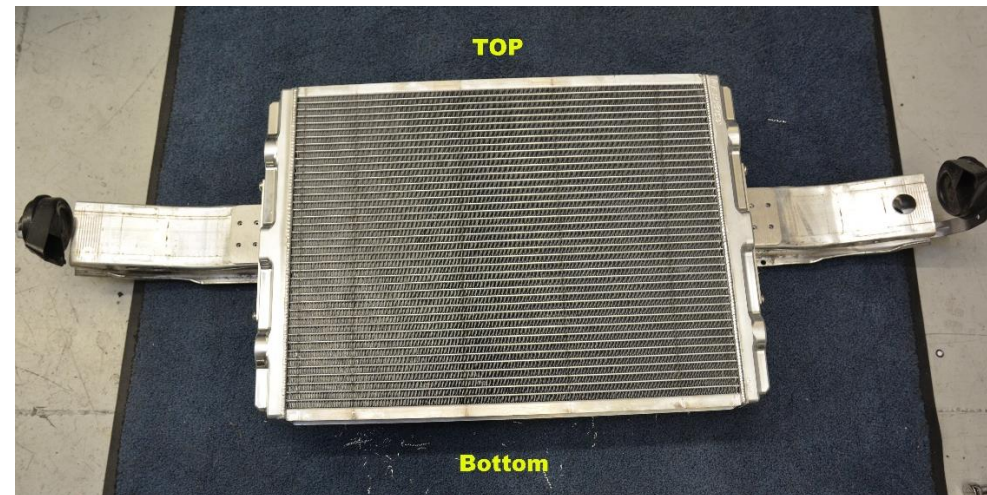
Install -10AN plugs. NOTE: B8 will have a plug on each end; top on passenger side, bottom on driver side (LHD cars). B8.5 will have both plugs on passenger side, like in photo.

**Step 18**

Install mounting brackets using M8x14 button head cap screws and M8 lock washer. Bracket to bumper bar mounting flange points outward from heat exchanger.

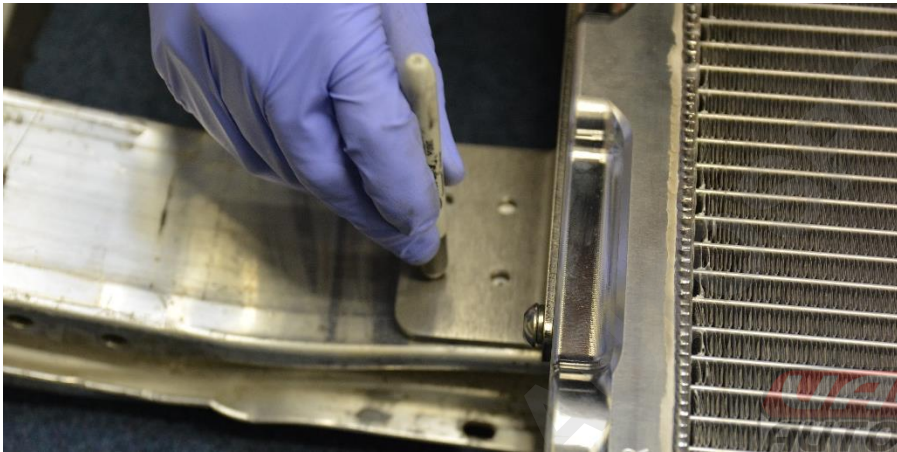
**Step 19**

With bumper bar facing downward, place heat exchanger assembly on it, centered.

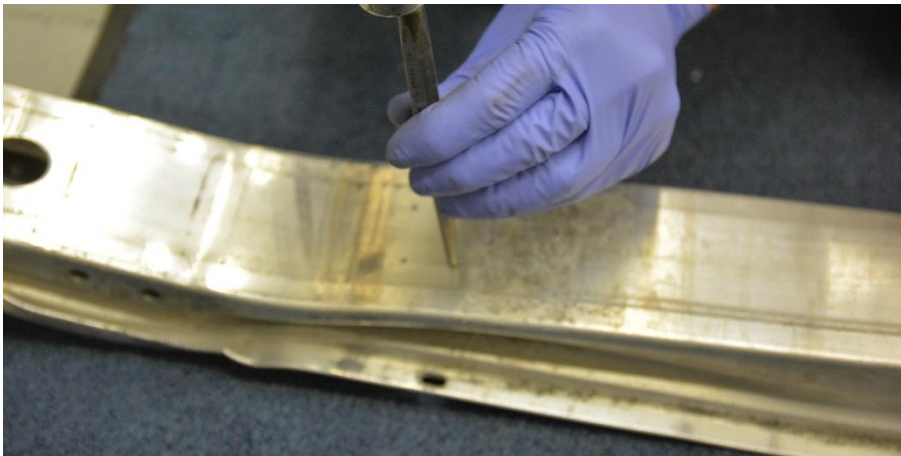


Step 20

Using a marker, transfer locations of all (8) holes in mounting bracket flange to bumper bar.

**Step 21**

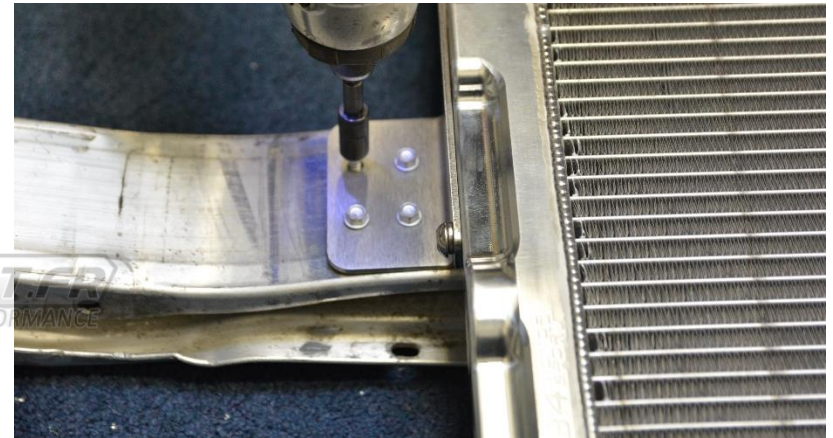
Using a center punch, mark center of each mark from step 20. This will make drilling much easier.

**Step 22**

Drill pilot holes using 1/8" drill bit.

Step 23

Re-align heat exchanger assembly and attach to bumper bar using the supplied self-tapping screws.

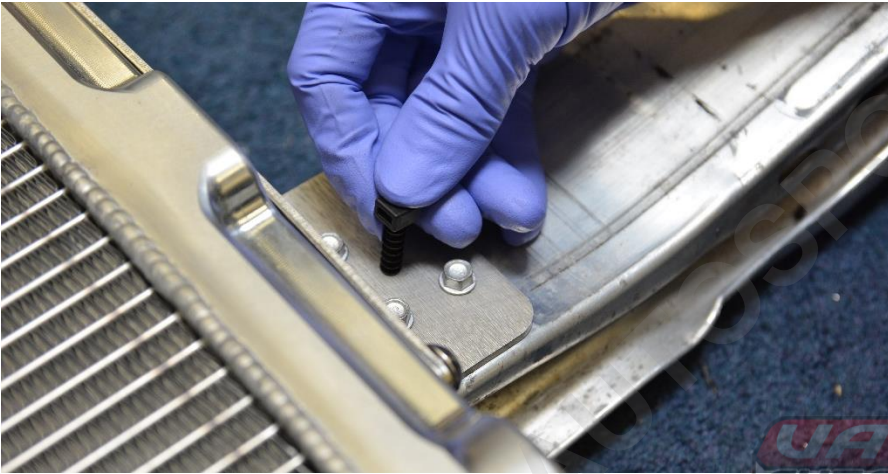
**Step 24**

Drill 3/16" hole through bumper bar for zip-tie anchor.



Step 25

Install zip-tie anchor.



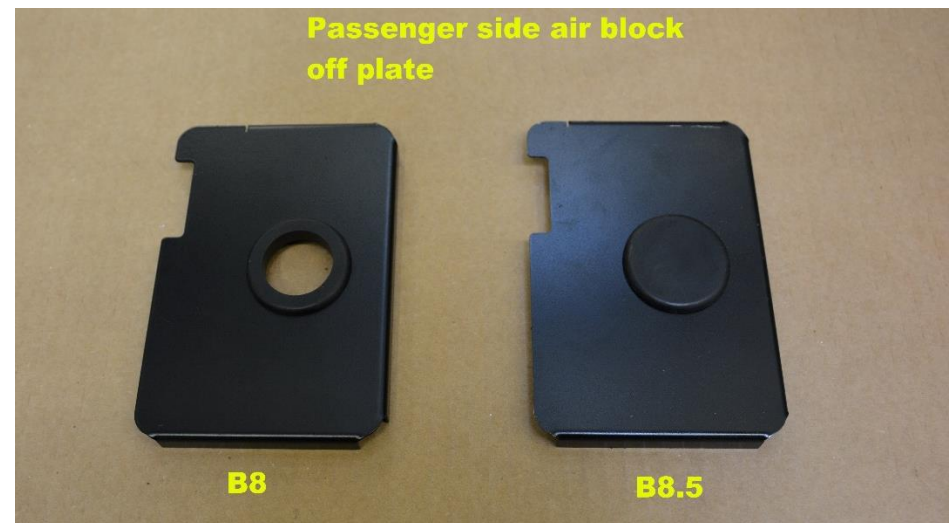
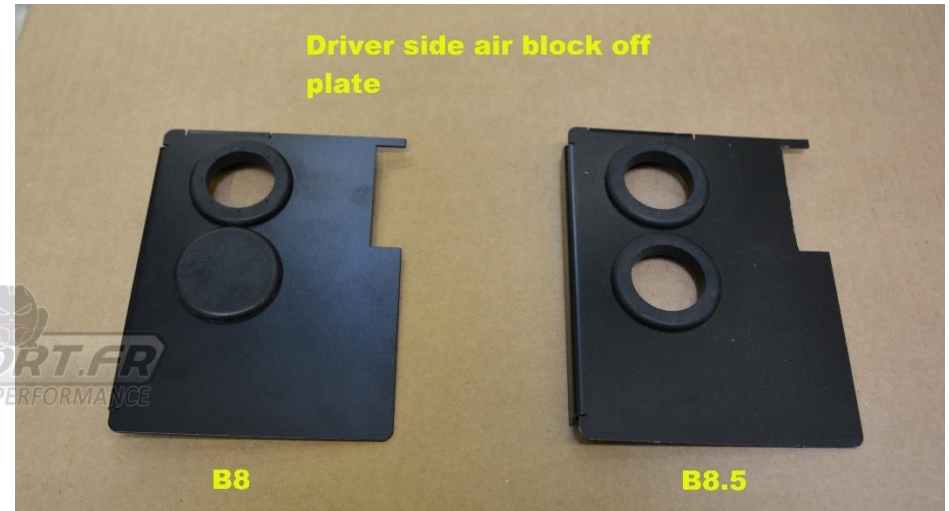
Step 26

Install zip-tie.



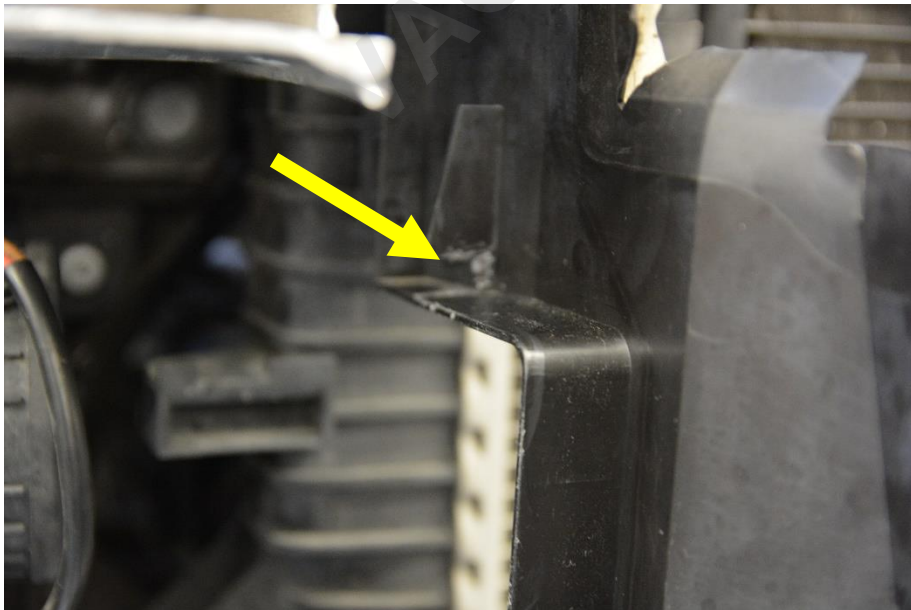
Step 27

Assemble air block-off plates. B8 and B8.5 will require different hardware



Step 28

B8 chassis will require a small notch in both sides of the stock air deflector.

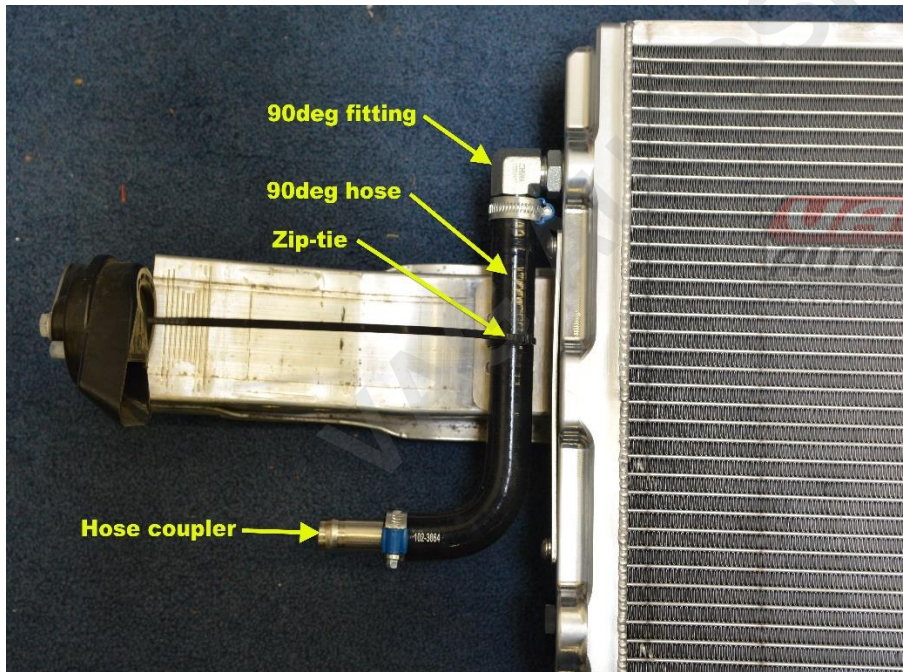
**Step 29**

Remove backing from double sided tape and install air deflector plate, pressing firmly to attach tape.

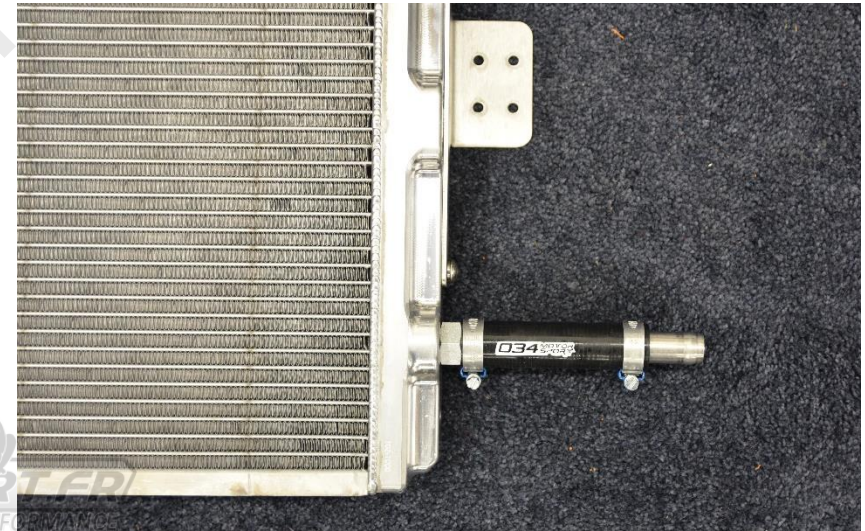


Step 30

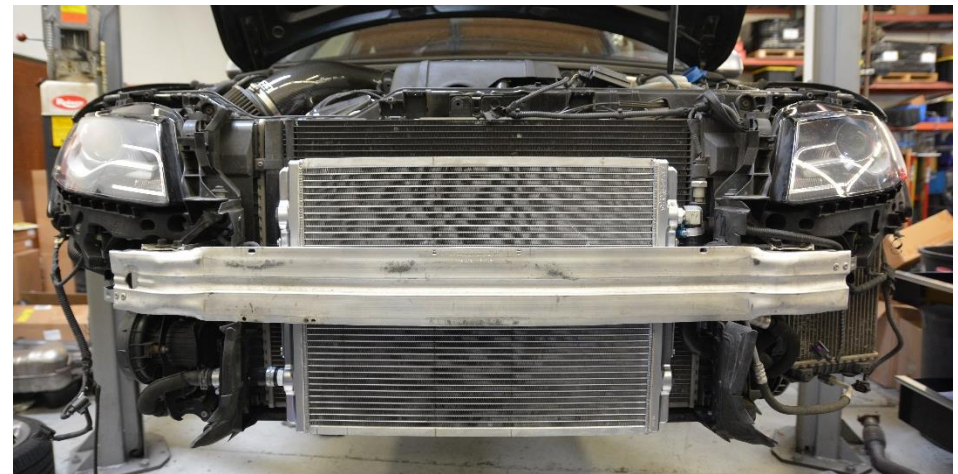
Install 90° AN fitting, hose and hose coupler. Note: Do not tighten worm clamp at 90° fitting until installed in car to insure proper alignment. Do not tighten zip-tie fully until heat exchanger is fully installed.

**Step 31**

Install straight AN fitting, hose, and hose coupler.

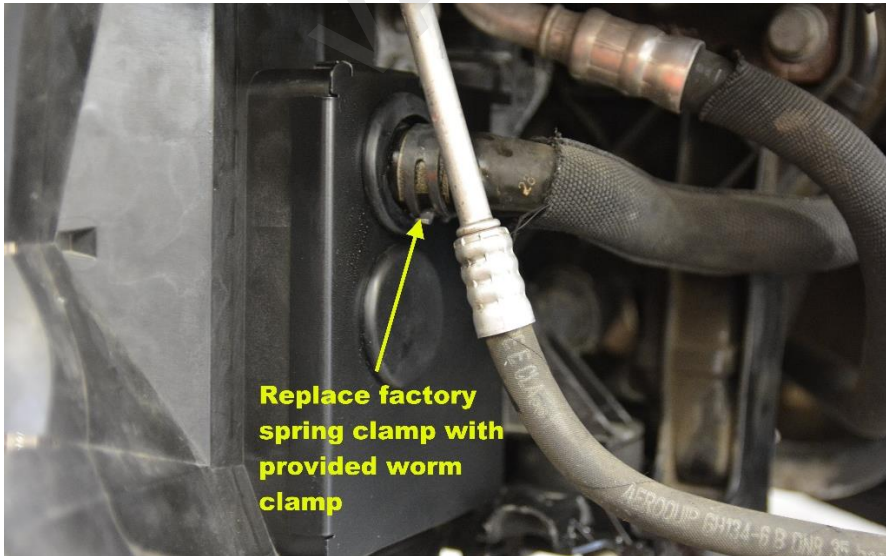
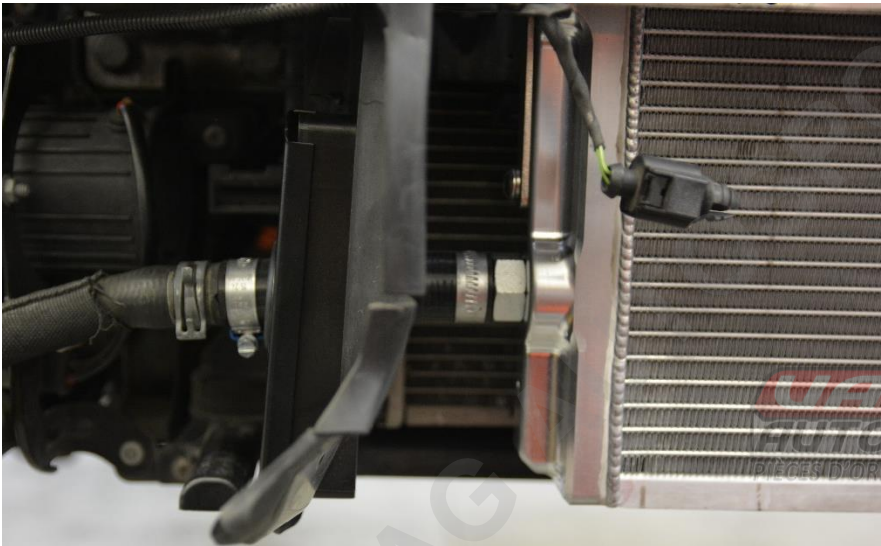
**Step 32**

Mount heat exchanger assembly.

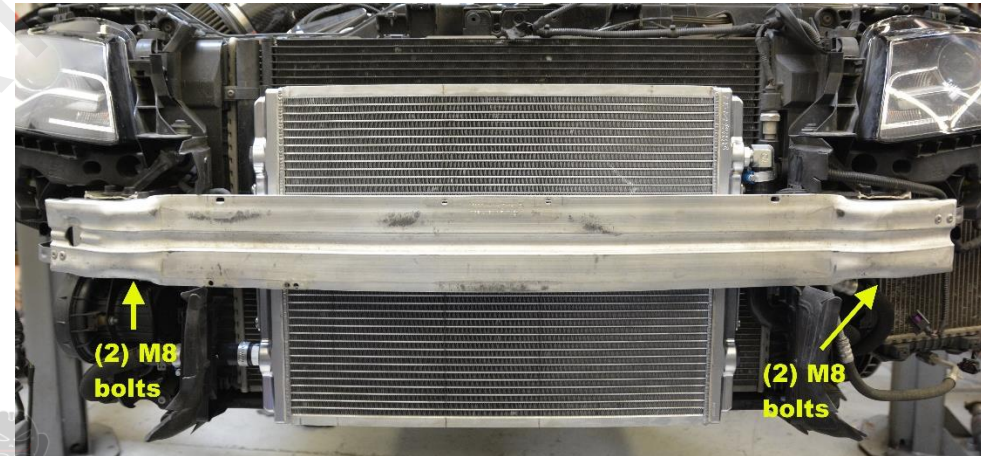


Step 33

Run silicone hoses through grommets in air deflector plates and connect to stock coolant lines.

**Step 34**

Install (4) bolts to secure bumper bar.

**Step 35** (Removed in Step 13)

Reinstall plastic trim piece on top of bumper bar.

Step 36 (Disconnected in Steps 8 & 9)

Reconnect wiring for horns.

Step 37 (Disconnected in Step 10)

Reconnect outside air temp sensor.

Step 38 (Removed in Step 2)

Reinstall secondary radiator air duct.

Step 39

Fill and bleed coolant

* For heat exchanger, leave 1/8" NPT plugs out until coolant freely flows out of them, then tighten.

Be careful when bleeding the supercharger, the bleed screws are more than likely very brittle.

Part number for supercharger bleed screws: 06E 127 535 B

Step 40

Check for leaks and address if necessary.

Step 41

Reinstall front bumper cover. Do not forget to reconnect fog lights.

Step 42

Enjoy increased charge air cooling!

