



Audi B8 S4 3.0T Heat Exchanger Installation



Supplied Parts:

- Heat exchanger assembly
- (2) cap plate
- (2) 25x3 o-ring
- Diverter plate
- (8) M6x10 hex head drive flat head screw
- Mounting bracket (LH)
- Mounting bracket (RH)
- (8) self-tapping screw
- (4) M8x14 button head cap screw
- (4) M8 lock washer
- 90deg -10AN o-ring barb fitting
- Straight -10AN o-ring barb fitting
- (2) -10AN o-ring plug
- 90deg silicone hose
- Straight silicone hose
- (4) 16x25 worm drive hose clamp
- Air block off plate (LH)
- Air block off plate (RH)
- (3) 1-1/4" grommet
- 1-1/4" panel plug
- (2) hose connector
- (2) 1/8" NPT plug
- Zip-tie anchor
- Zip-tie

Tools Needed:

- Hands (2) (*Opposable thumbs are required!*)
- 13mm socket
- 8mm Socket
- T25 Torx
- T30 Torx
- Adjustable wrench
- Electric drill
- 1/8" drill bit
- 5mm Allen wrench
- 4mm Allen wrench
- 3/16" Allen wrench
- Pliers or Spring Clamp Pliers

034Motorsport's heat exchanger upgrade for the B8/B8.5 S4 is engineered to provide better and more efficient cooling of the charge air.

Installation of this upgrade is a more involved process that will take approximately 4-8 hours to complete, dependent upon the installer's experience.

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.



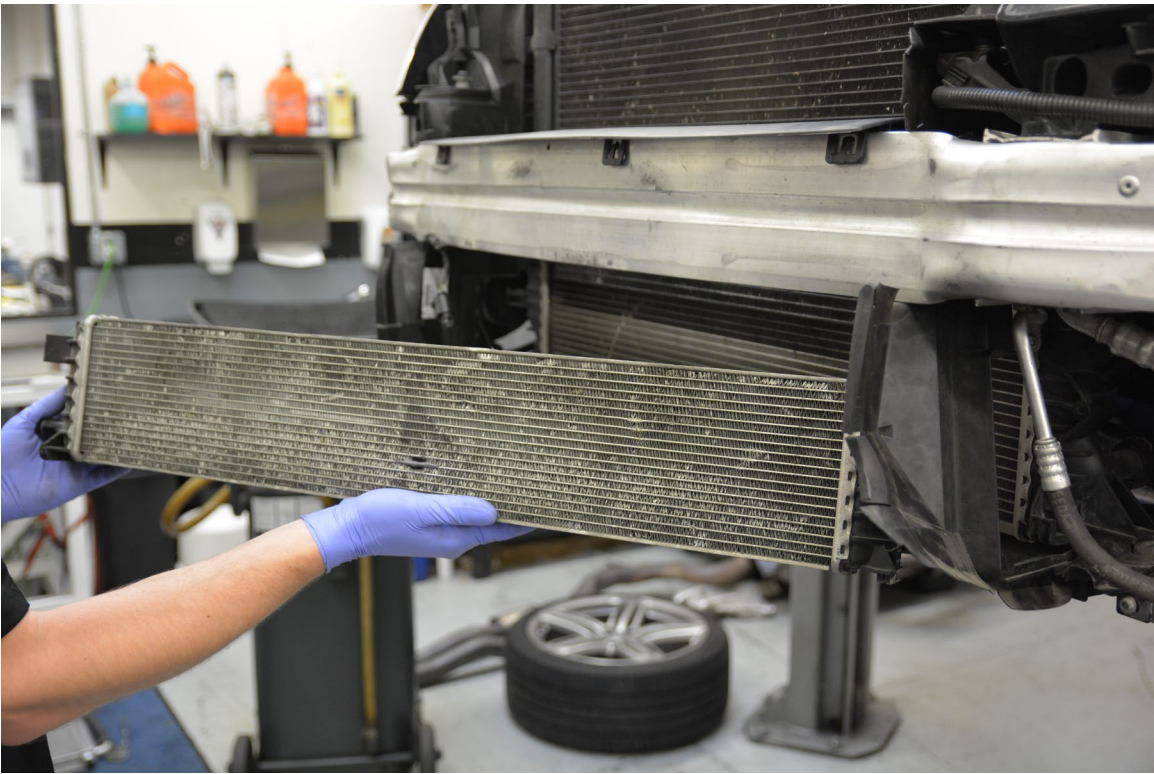
Step 5 –Using the T30 Torx bit, unbolt the factory heat exchanger. Screw is on left hand end only.



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.



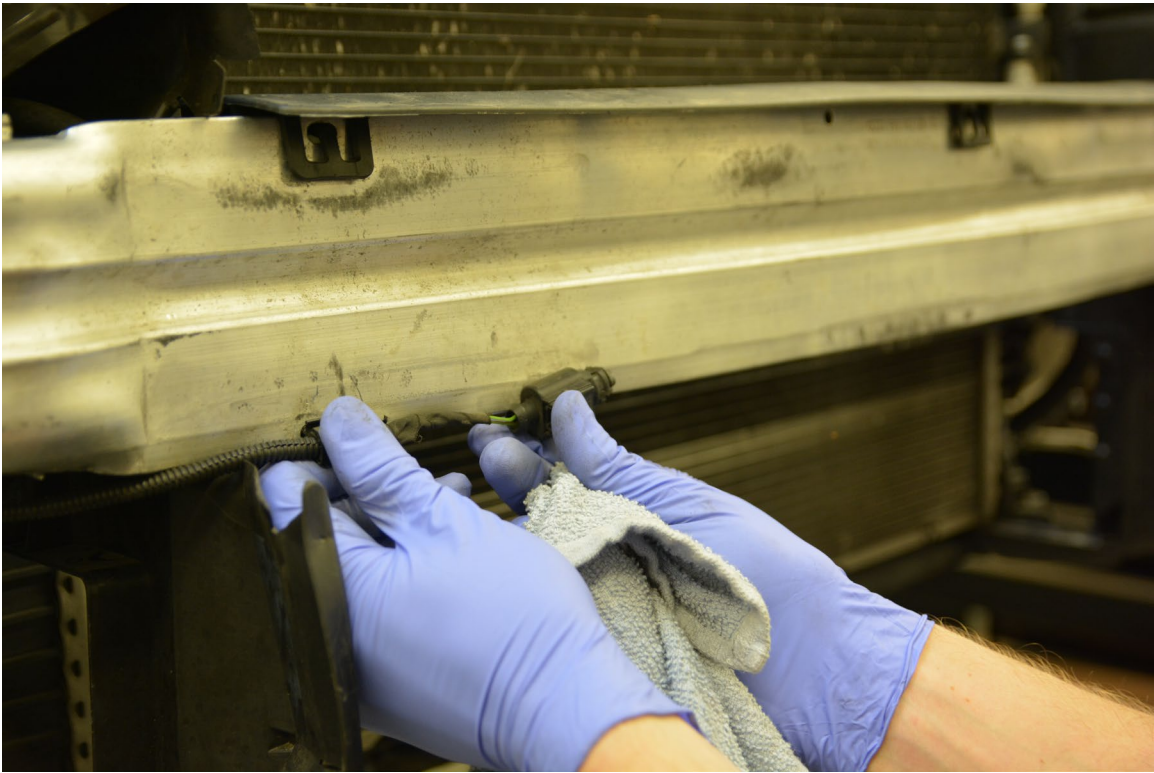
Step 8 – Disconnect left side horn



Step 9 – Disconnect right side horn, and wire retaining clip.



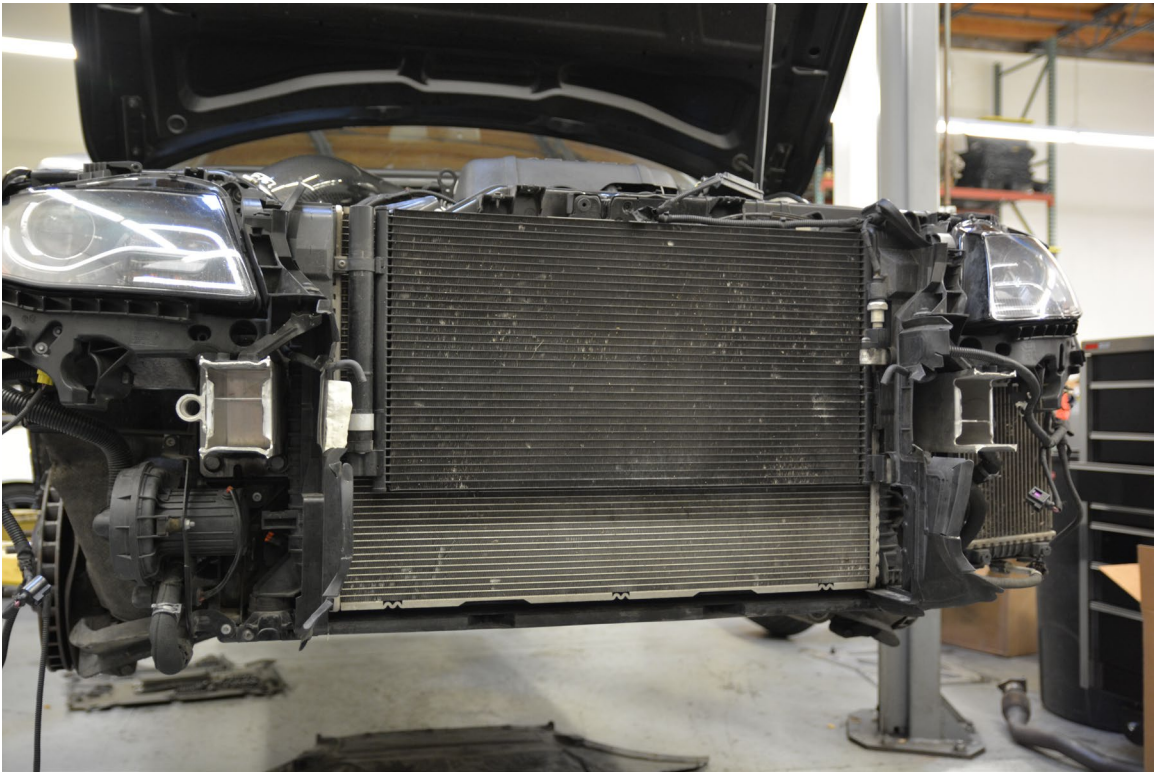
Step 10 – Disconnect outside air temp sensor from plastic bracket. Be careful, bracket can be brittle.



Step 11 – Using 13mm socket, remove (4) M8 bolts securing bumper bar. **Note:** you may have to pry between the bumper bar and frame rails to loosen enough to slide out.



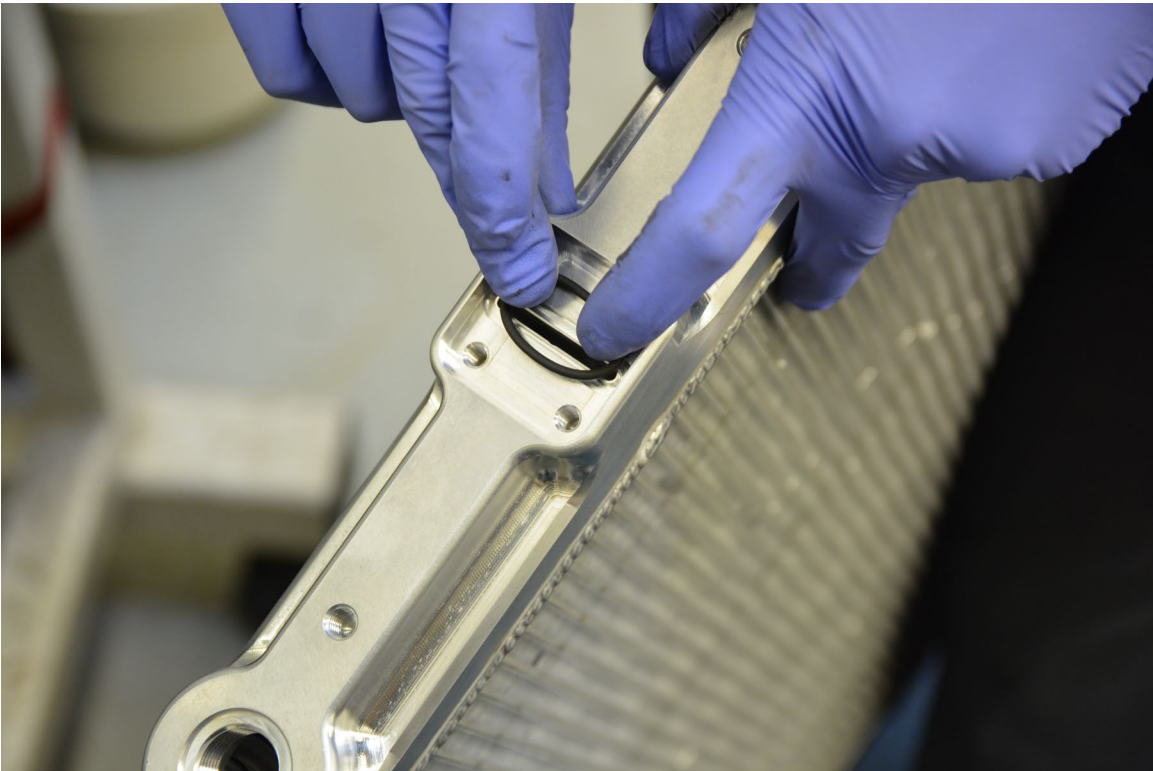
Step 12 - Remove bumper bar.



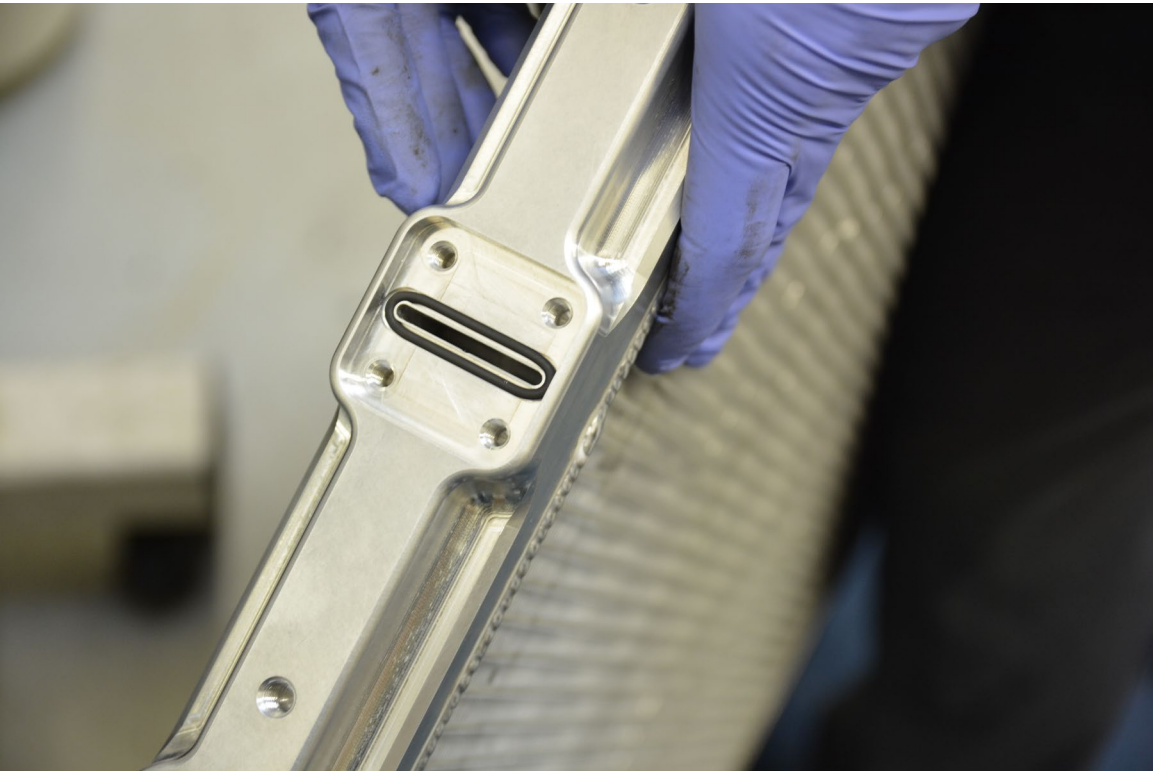
Step 13 - Remove plastic trim piece from top of bumper bar.



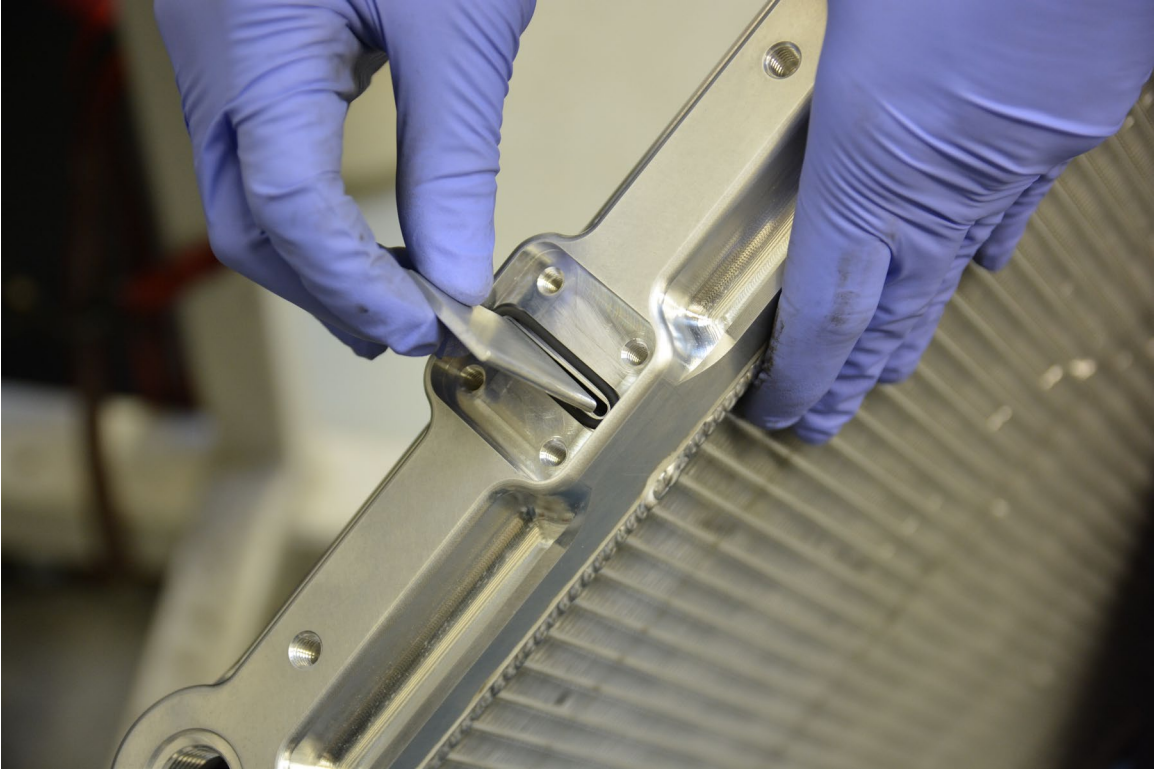
Step14a - Install 25x3 o-ring in groove in 034 heat exchanger end tanks.



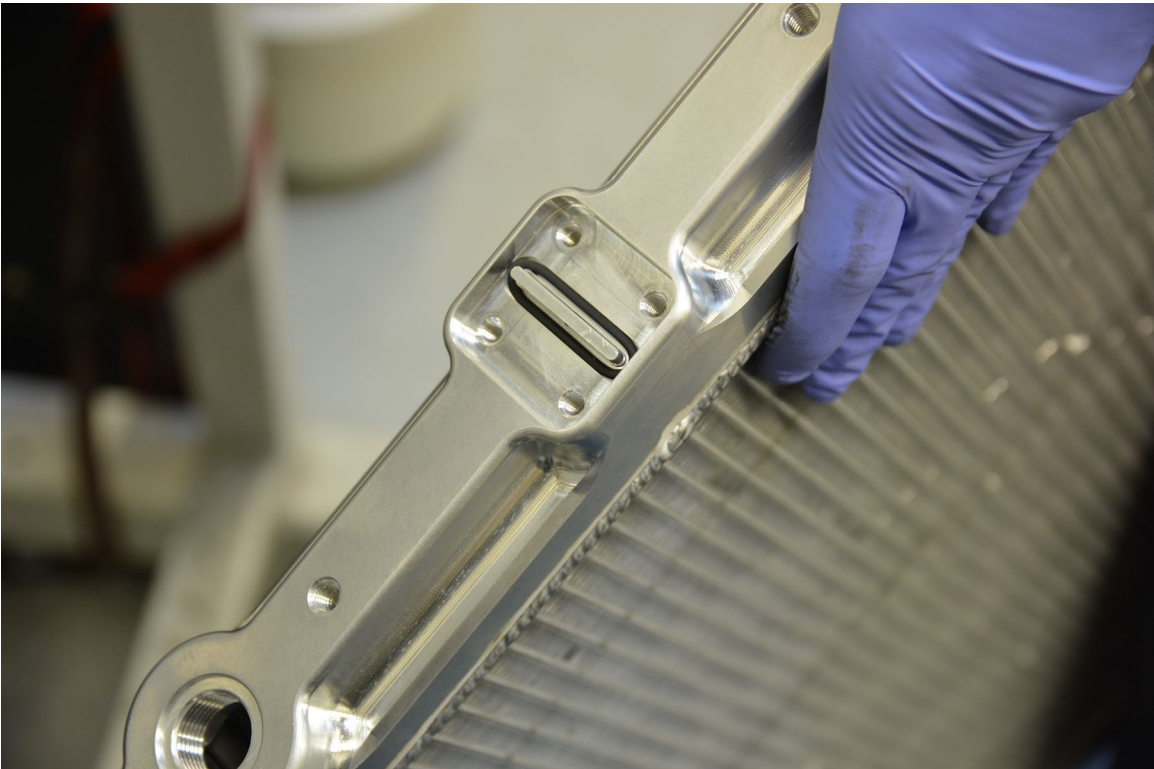
Step14b - O-ring installed.



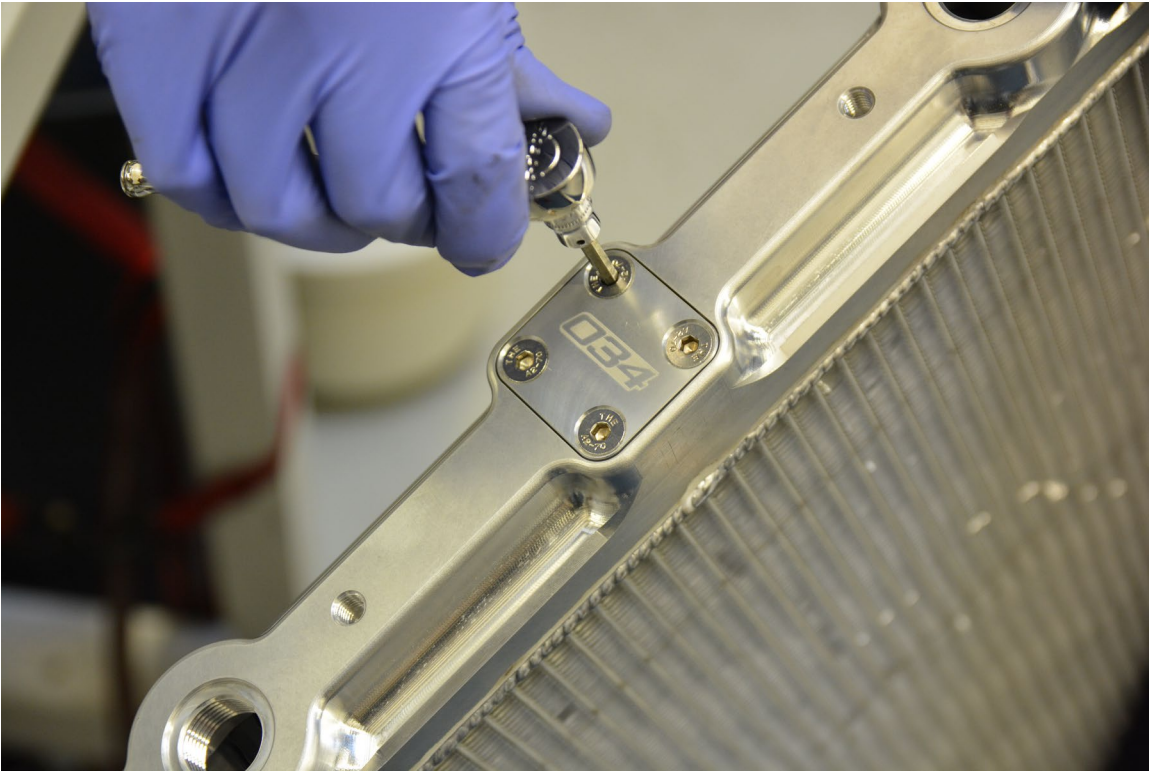
Step 15a (B8.5 only) – Insert diverter plate in driver side (RHD cars) end tank to create dual-pass unit.



Step 15b (B8.5 only) – Diverter plate installed (driver side for RHD cars).



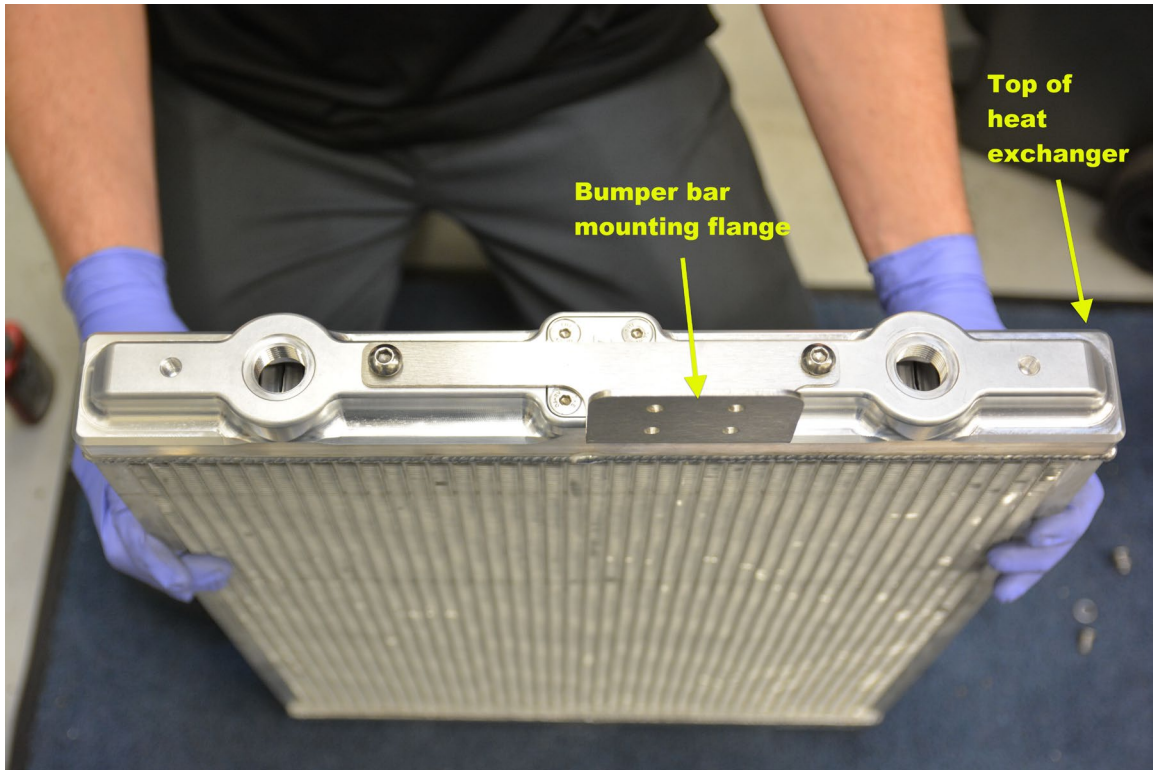
Step 16 – Install cover plates. Use blue Loctite on M6x10 flat head screws. Hint: the top of the 034 heat exchanger is the side with threaded holes in the end of the end tanks for 1/8" NPT air bleed plugs.



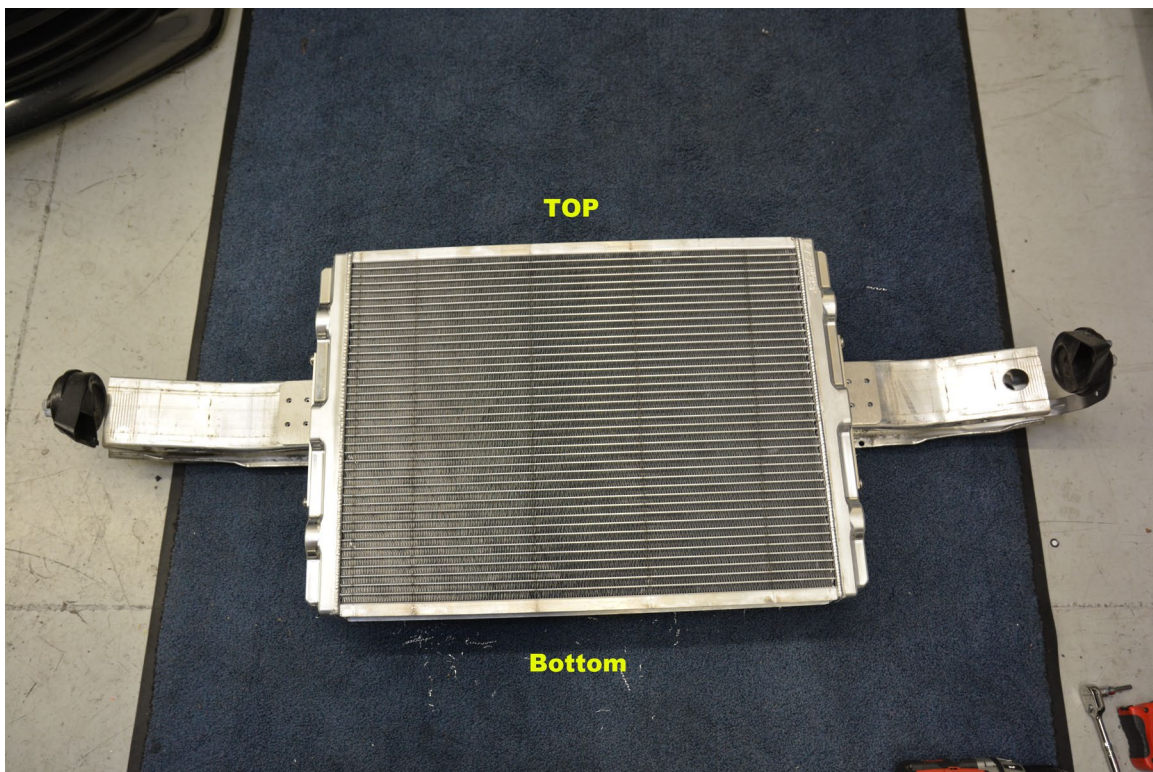
Step 17 – Install -10AN plugs. **NOTE:** B8 will have a plug on each end; top on passenger side, bottom on driver side (RHD cars). B8.5 will have both plugs on passenger side, like in photo.



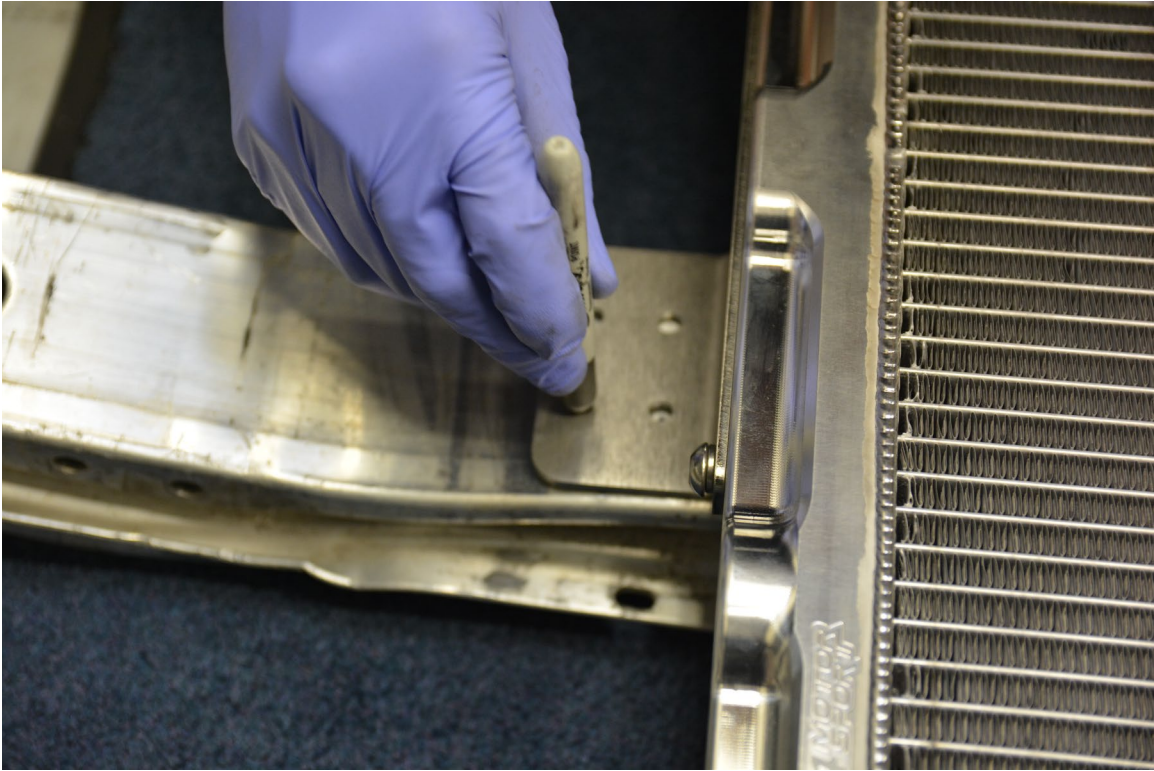
Step 18 - Install mounting brackets using M8x14 button head cap screws and M8 lock washer. Blue Loctite can also be added to screws. **Note:** bracket to bumper bar mounting flange points outward from heat exchanger.



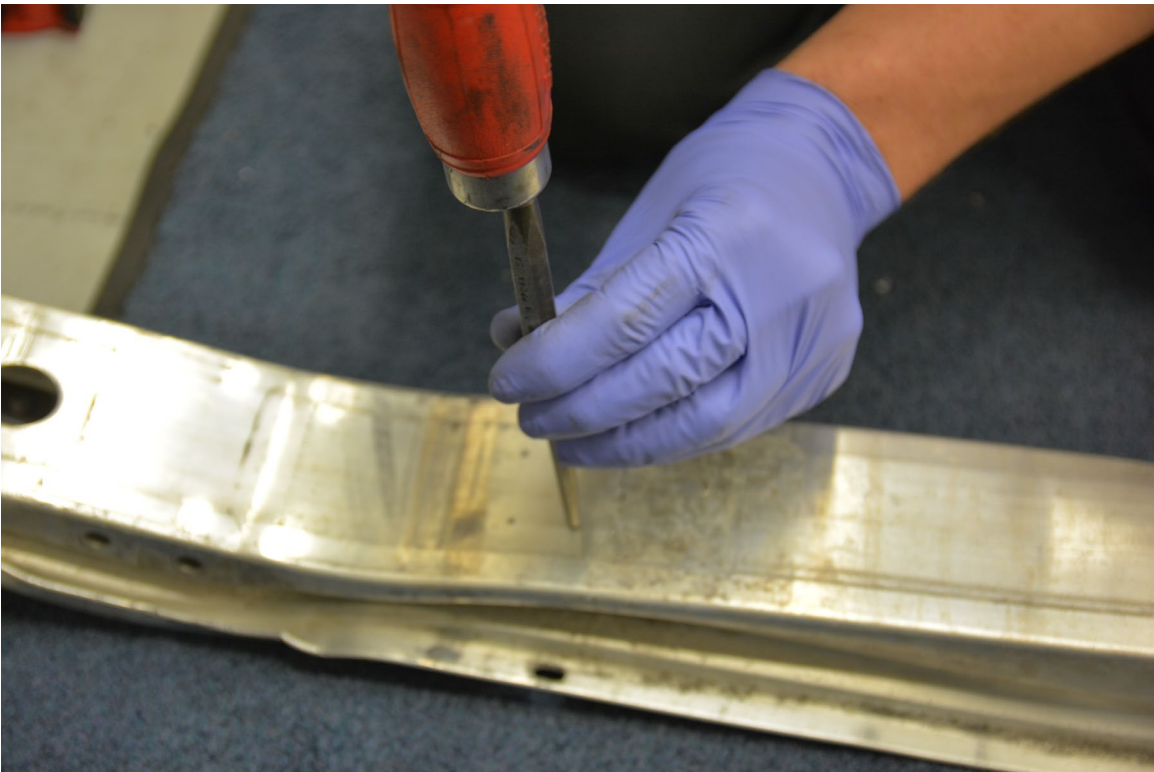
Step 19 -With bumper bar facing downward, place heat exchanger assembly on it, centered.



Step 20 - Using a marker, transfer locations of all (8) holes in mounting bracket flange to bumper bar.

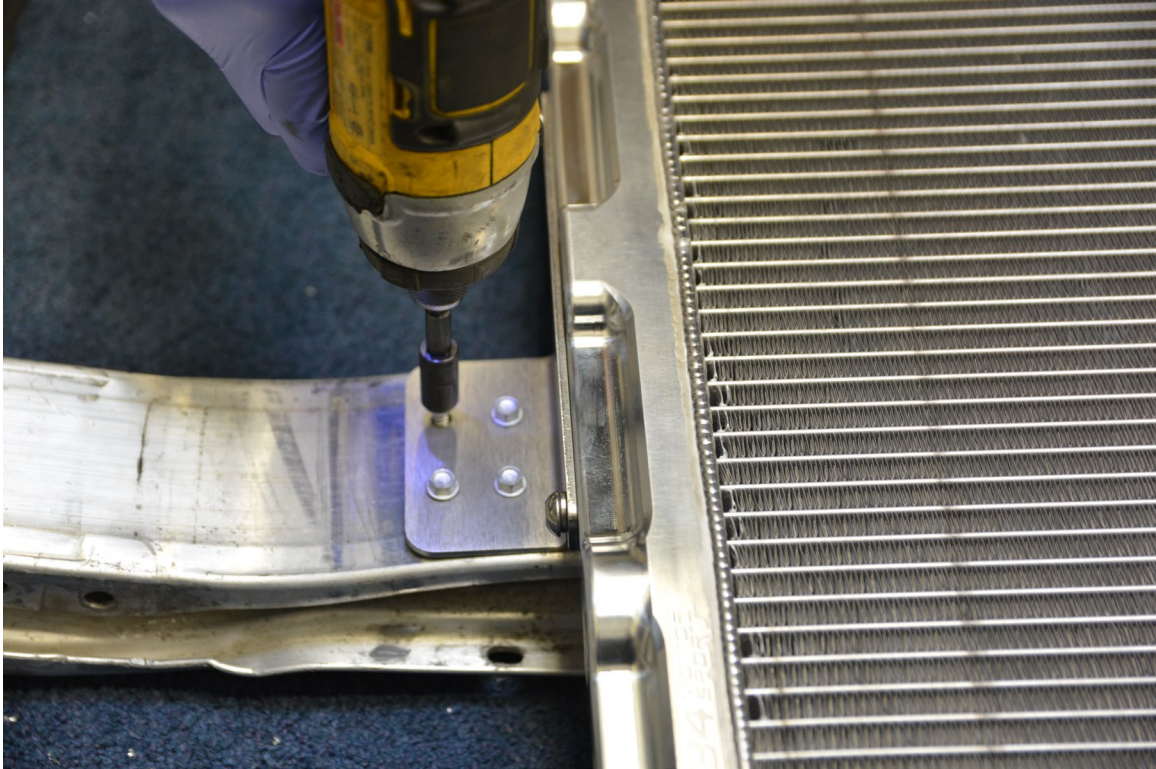


Step 21 - Using a center punch, mark center of each mark from step 20. This will make drilling much easier.



Step 22 - Drill holes using 1/8" drill bit.

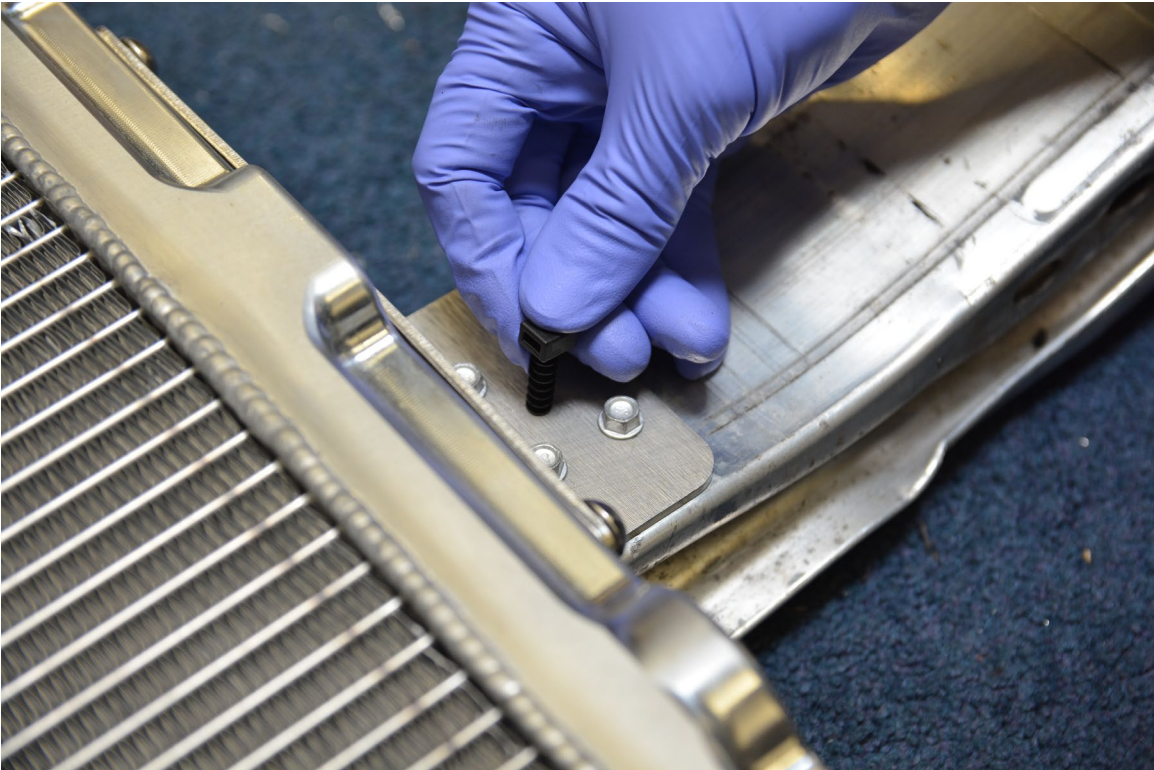
Step 23 - Re-align heat exchanger assembly and attach to bumper bar using the supplied self-tapping screws.



Step 24 - Drill 3/16" hole through bumper bar for zip-tie anchor.



Step 25 - Install zip-tie anchor.



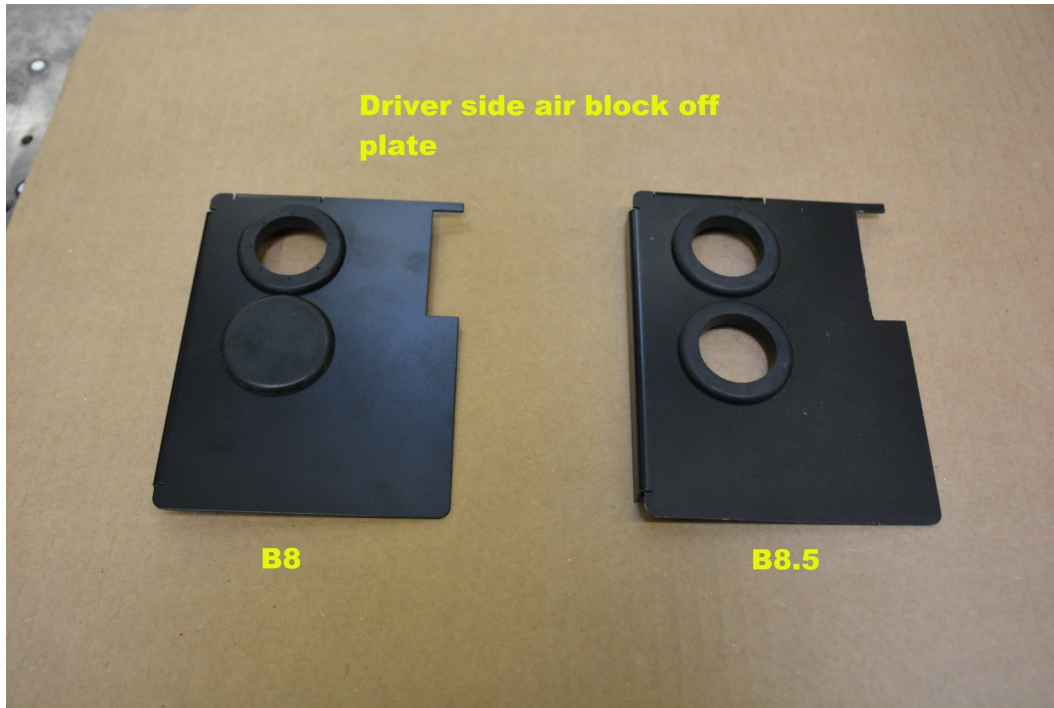
Step 26 - Install zip-tie.



Step 27 - Assemble air block-off plates.

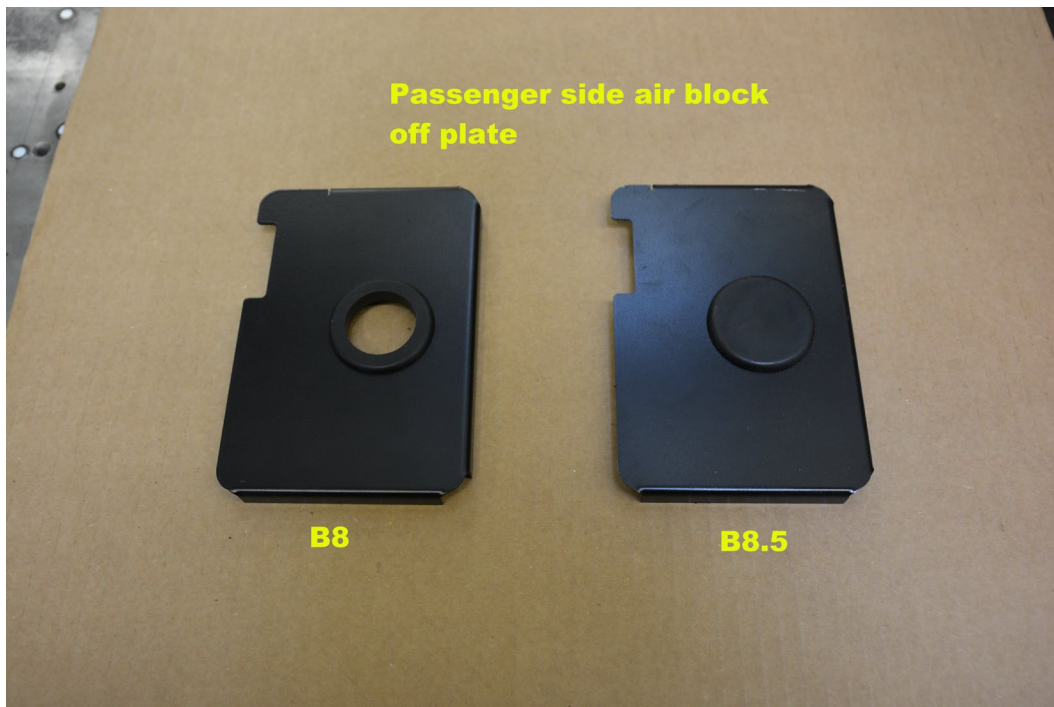
Driver Side

- **B8** - Install panel plug and one grommet
- **B8.5** - Install grommets in both holes



Passenger Side

- **B8** - install grommet
- **B8.5** - install panel plug



Step 28 - (B8 only) - Make a small notch in driver side stock air deflector.



Step 29 - Remove backing from double sided tape and install air deflector plate, pressing firmly to attach tape.



Step 30 - (B8 only) - Make a small notch in passenger side stock air deflector.

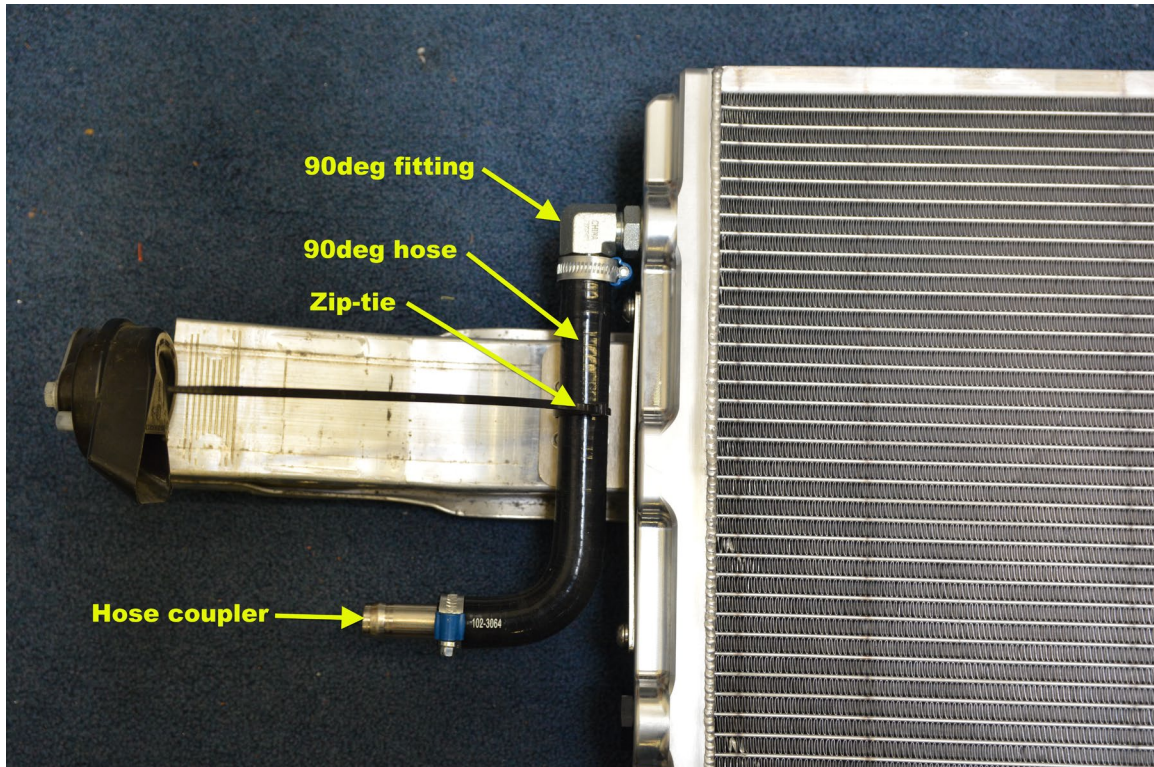


Step 31 - Remove backing from double sided tape and install air deflector plate, pressing firmly to attach tape.

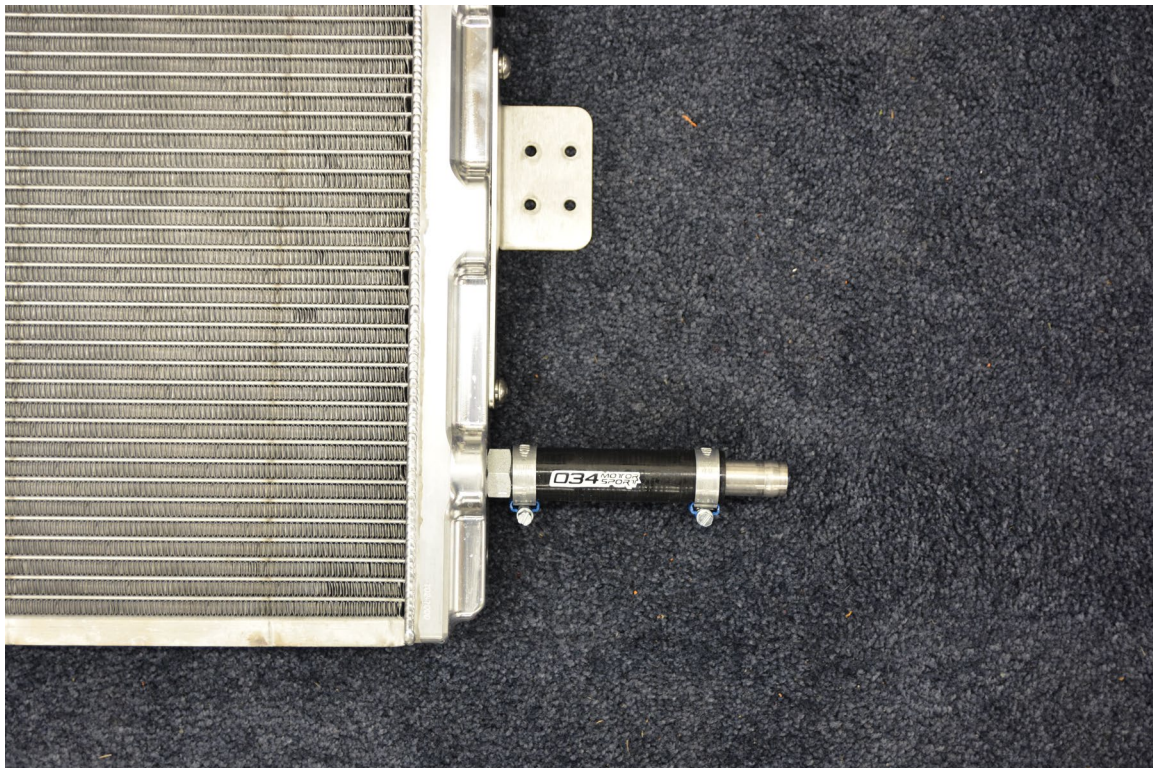


Step 32 - Install 90° fitting, hose and hose coupler.

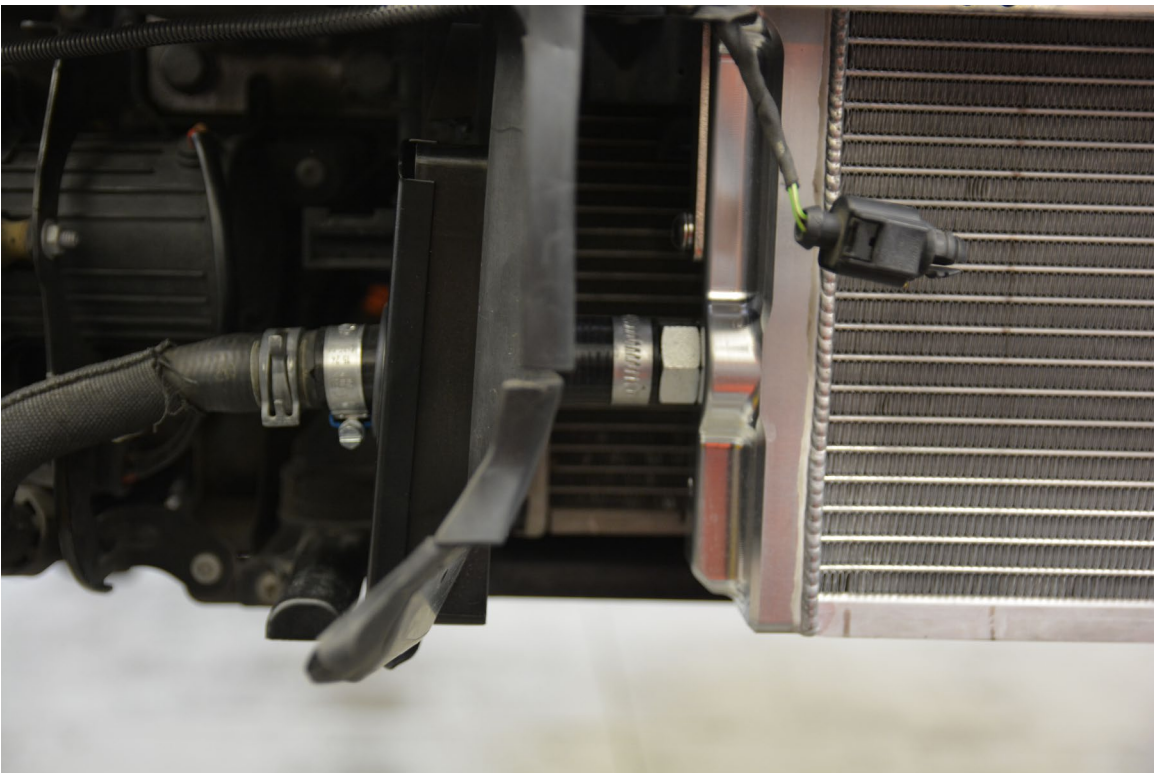
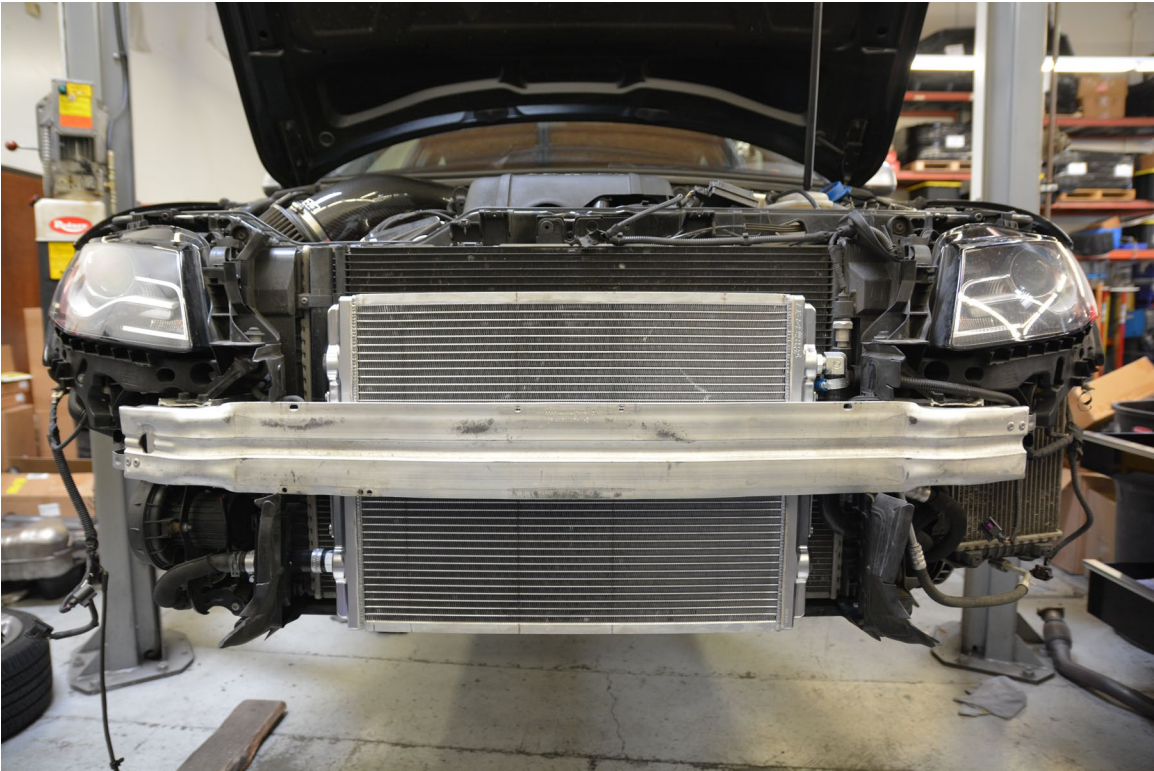
Note: Do not tighten worm clamp at 90° fitting until installed in car to insure proper alignment.
Do not tighten zip-tie fully until heat exchanger is fully installed.

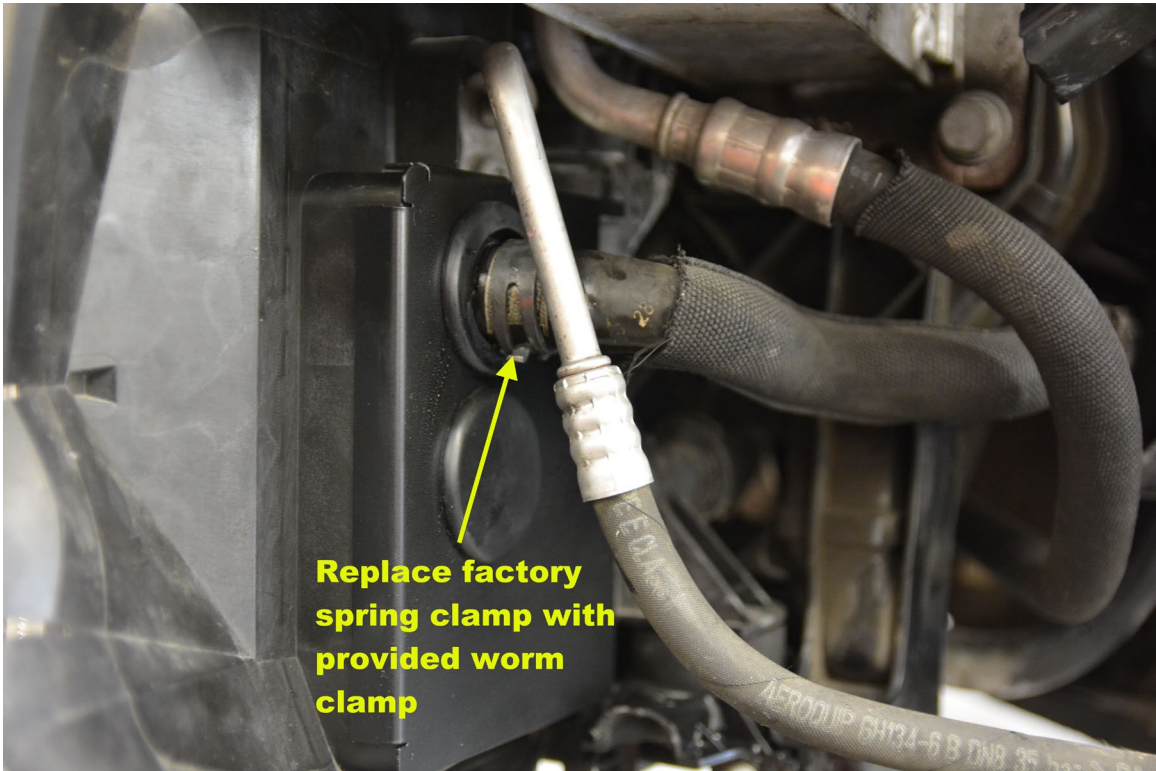


Step 33 - Install straight fitting, hose and hose coupler.

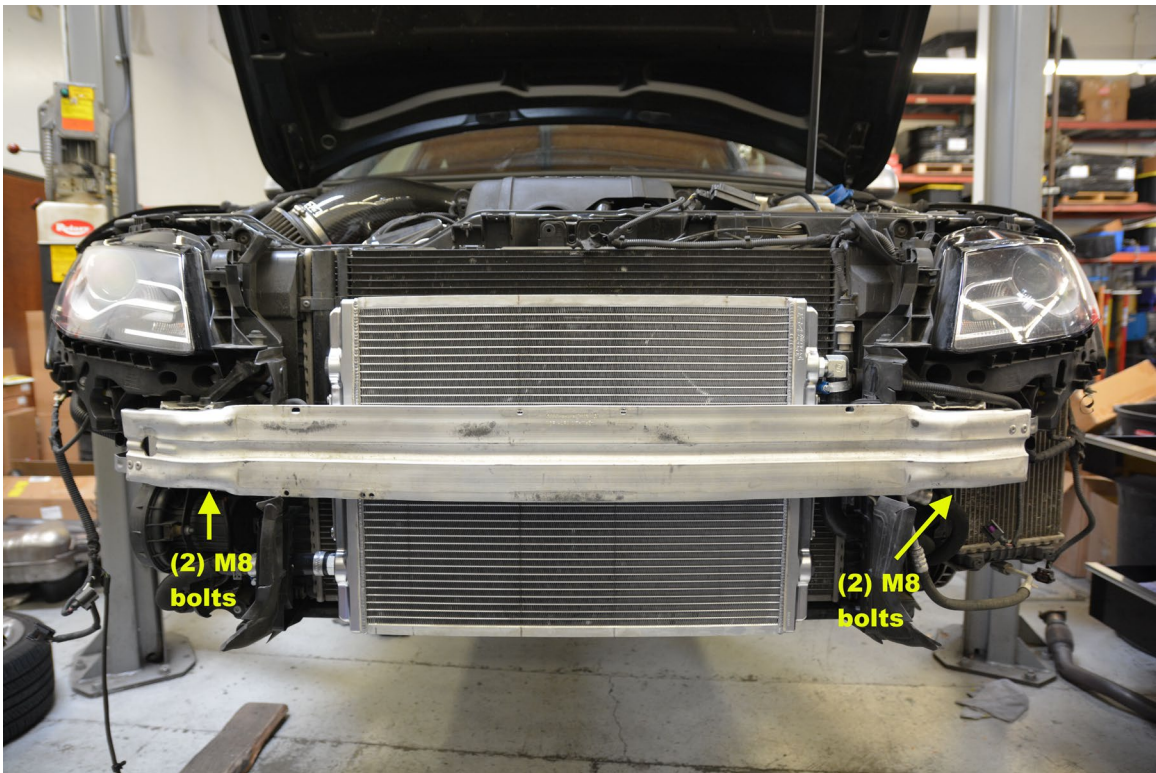


Step 34 – Install heat exchanger assembly. Run silicone hoses through grommets in air deflector plates, and connect to stock lines.





Step 35 - Install (4) bolts to secure bumper bar.



Step 36 – Reinstall plastic trim piece on top of bumper bar (removed in Step 13).

Step 37 – Reconnect wiring for horns (Disconnected in Steps 8 &9).

Step 38 –Reconnect outside air temp sensor (disconnected in Step 10).

Step 39 –Reinstall secondary radiator air duct (removed in Step 2).

Step 40 – Fill and bleed coolant.

Note:

- 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 41 – Check for leaks and address if necessary.

Step 42 – Reinstall front bumper cover. Do not forget to reconnect foglights.

Step 43 – Enjoy increased charge air cooling!

