



**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

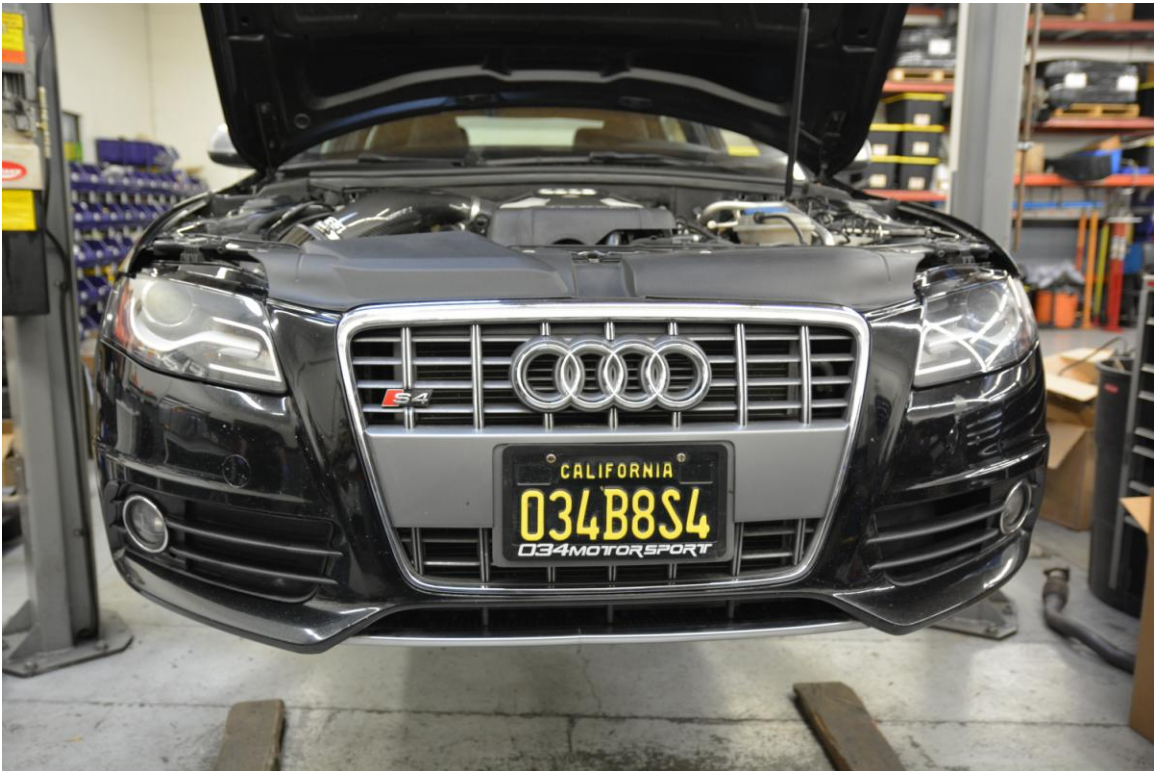
**Tools Needed:**

- 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.



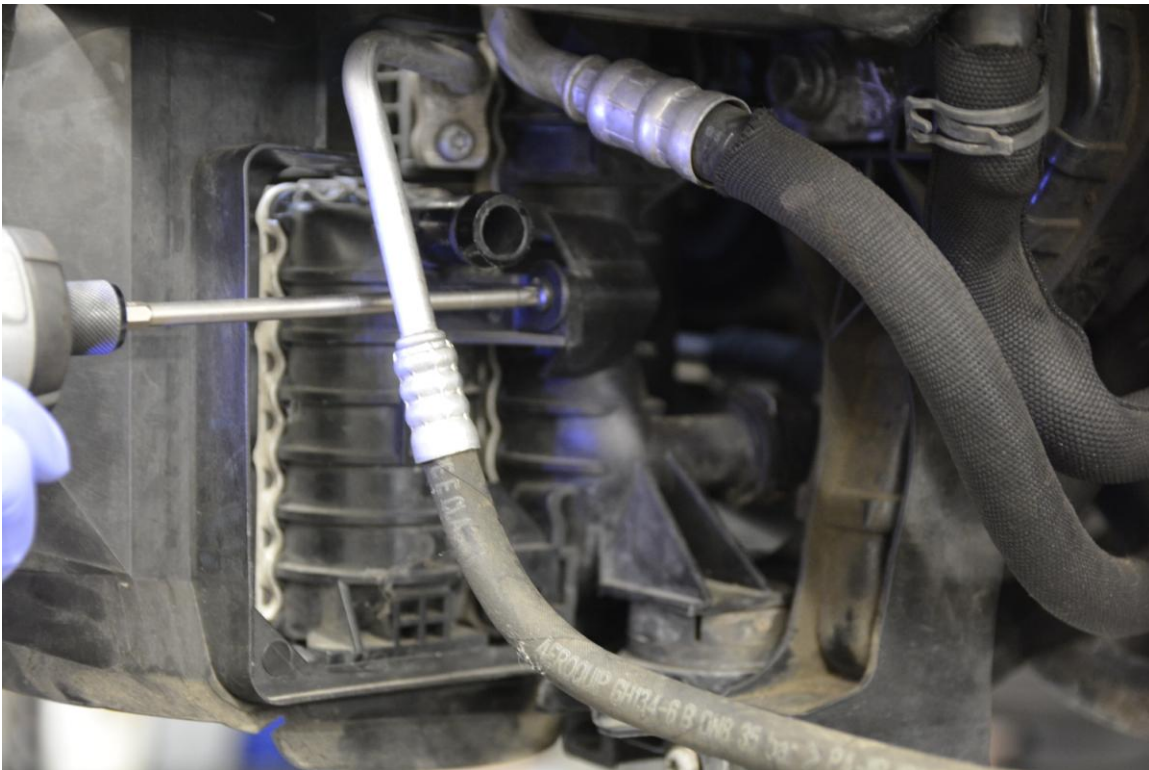
**Step 3** – Placing a suitable catch pan underneath, remove lower heat exchanger hose using pliers, or spring clamp pliers.



**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.

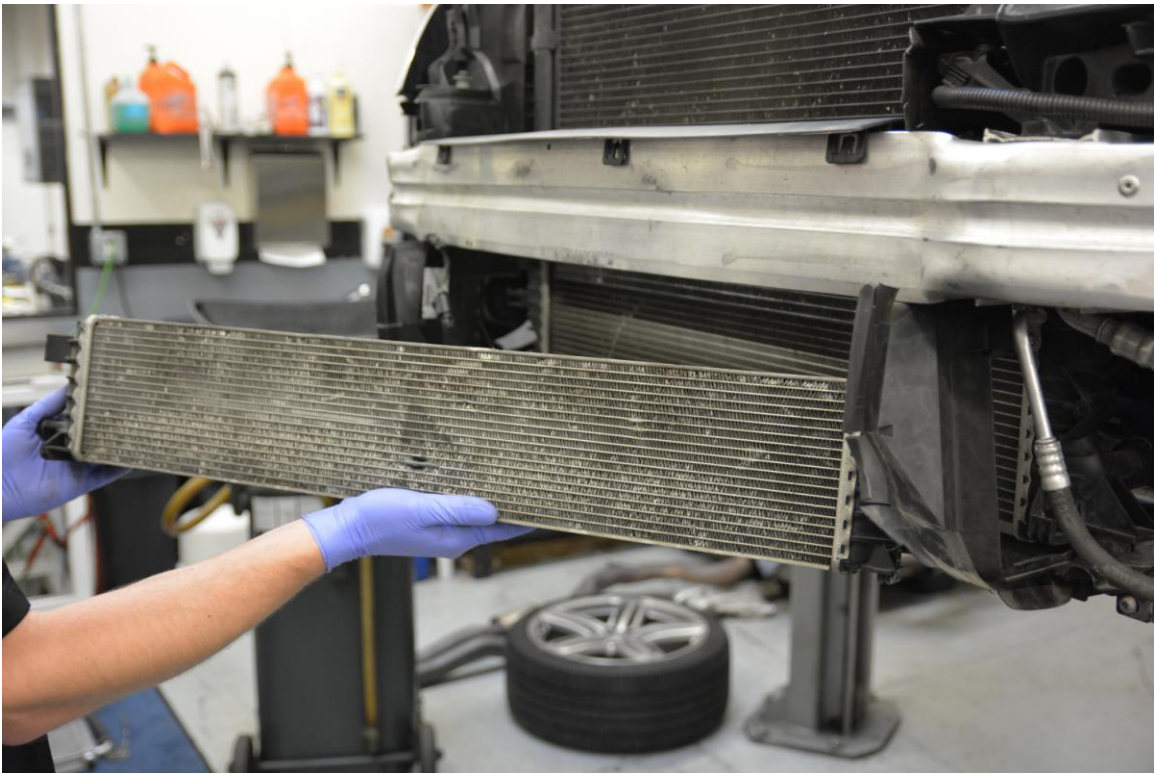




**Step 6** – Using a flat screw driver, disengage clip on right-hand end of factory heat exchanger.



**Step 7** – Remove factory heat exchanger, careful not to damage factory plastic air ducts.



**Step 8** – Disconnect left side horn

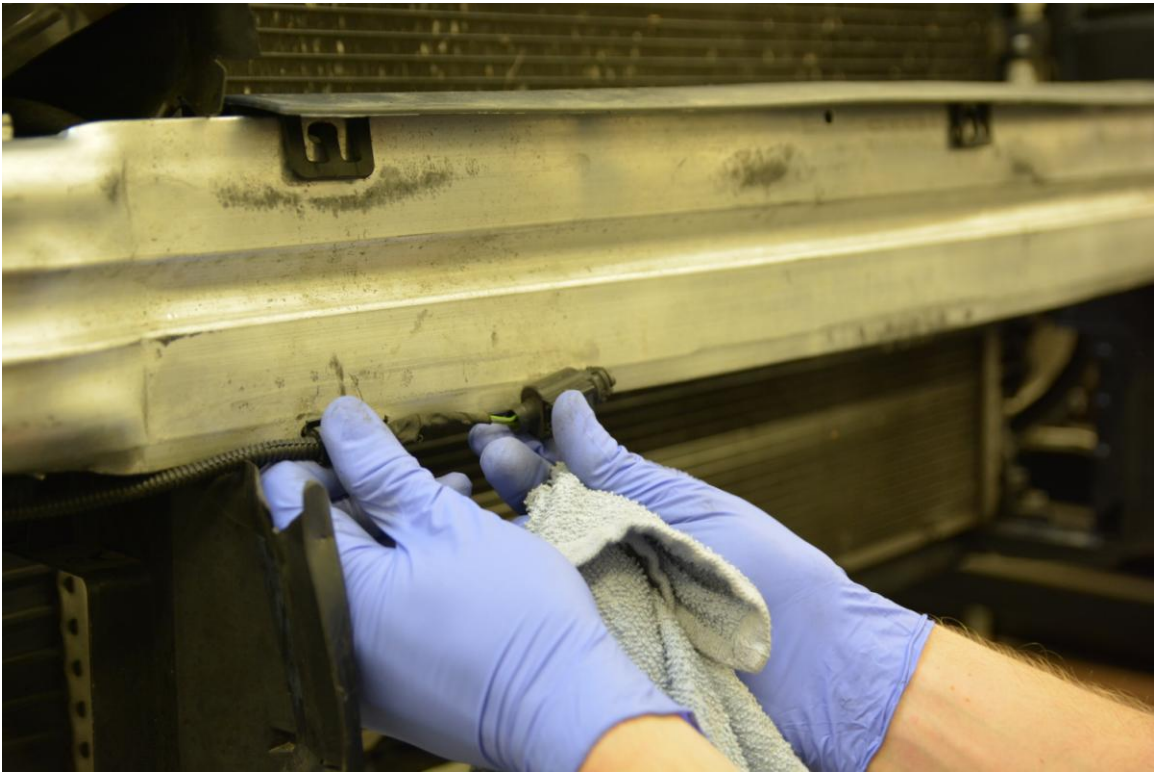


**Step 9** – Disconnect right side horn, and wire retaining clip.





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

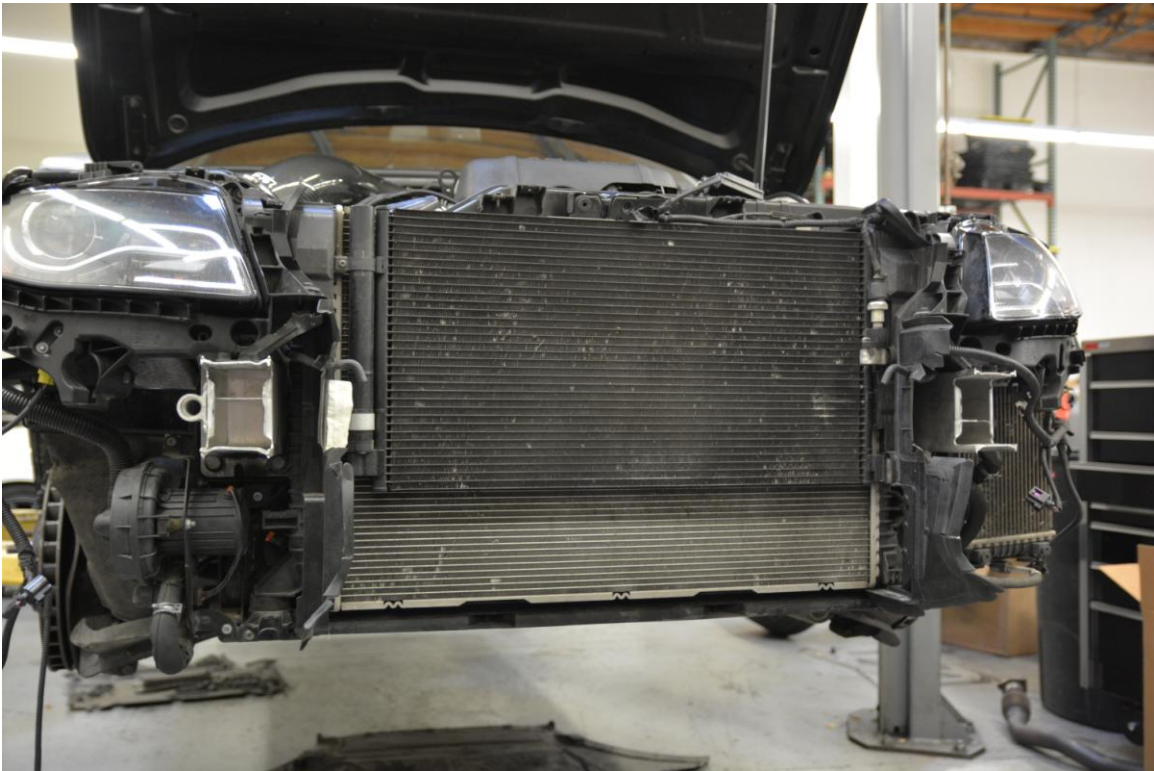


**Step 11** – Using 13mm socket, remove (4) M8 bolts securing bumper bar. **Note:** you may have to pry between the bumper bar and frame rails to loosen enough to slide out.

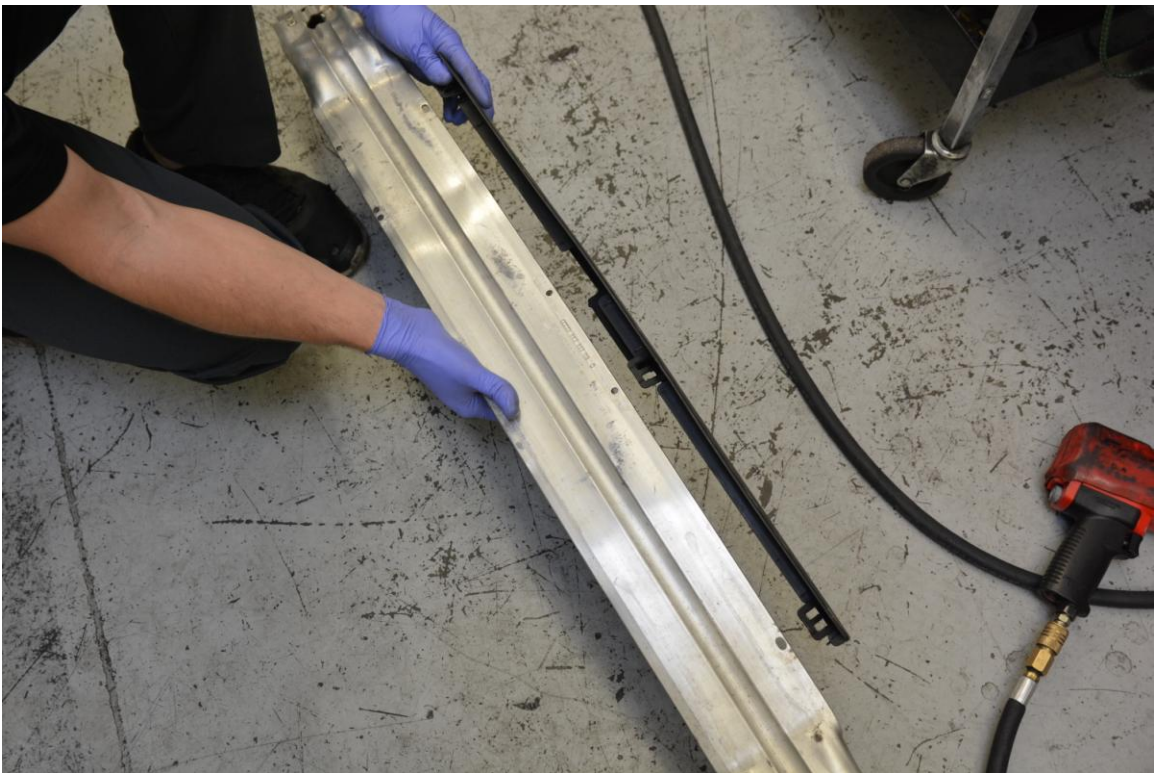




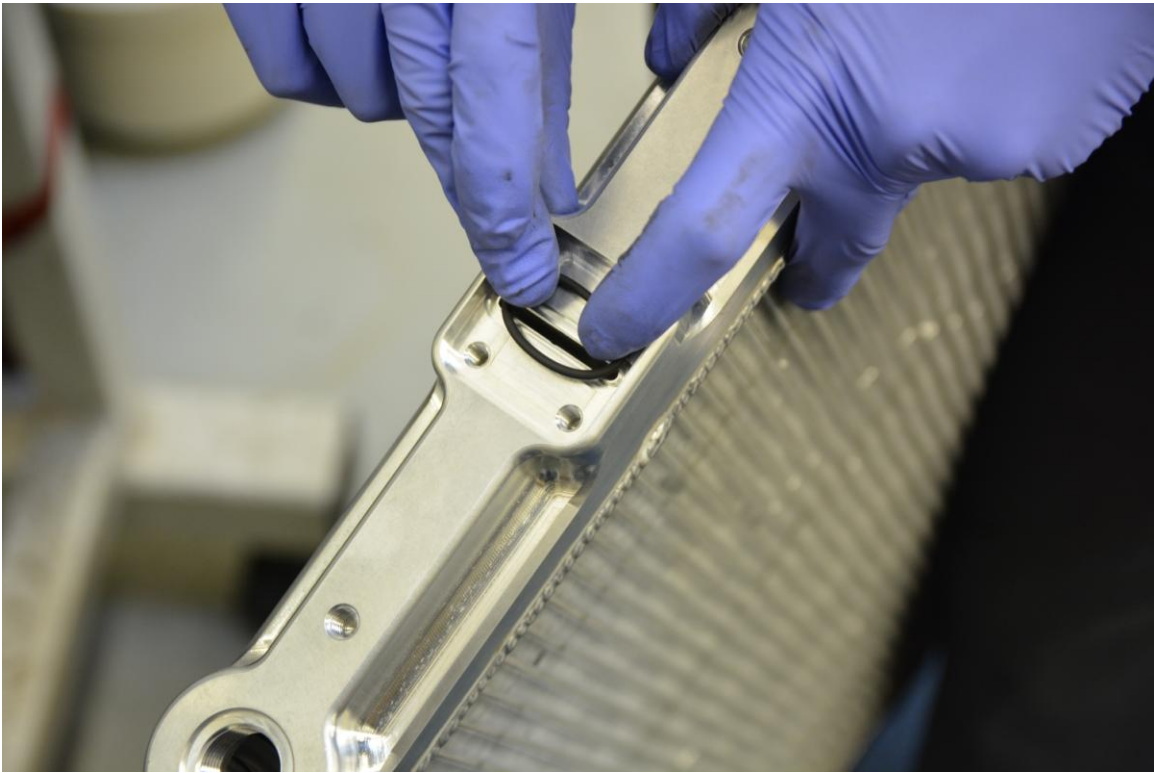
**Step 12** – Remove bumper bar.



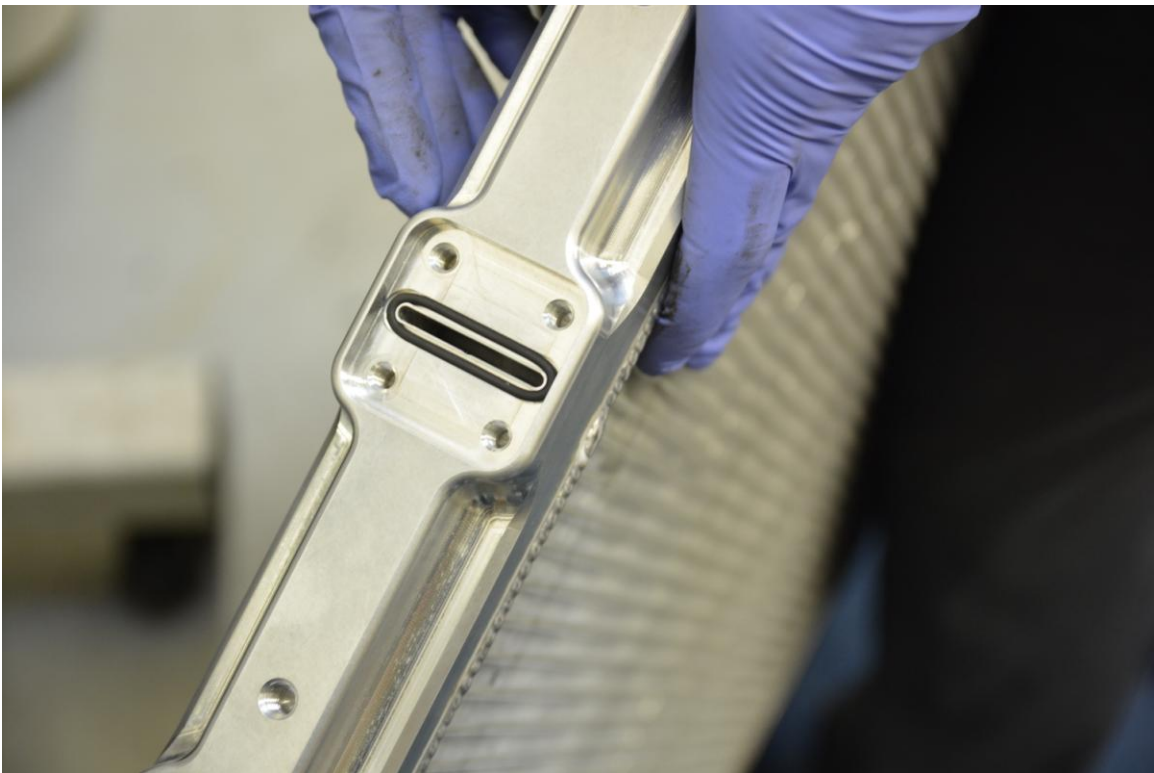
**Step 13** – Remove plastic trim piece from top of bumper bar.



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

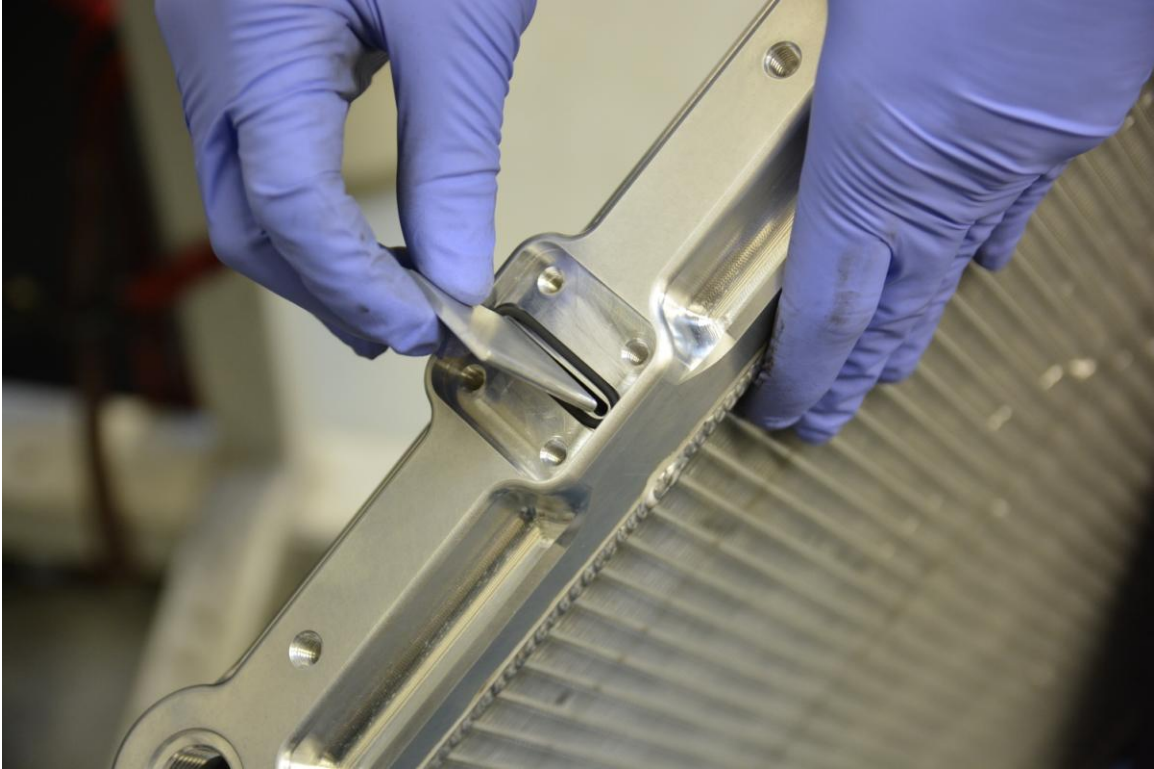


**Step14b** - O-ring installed.

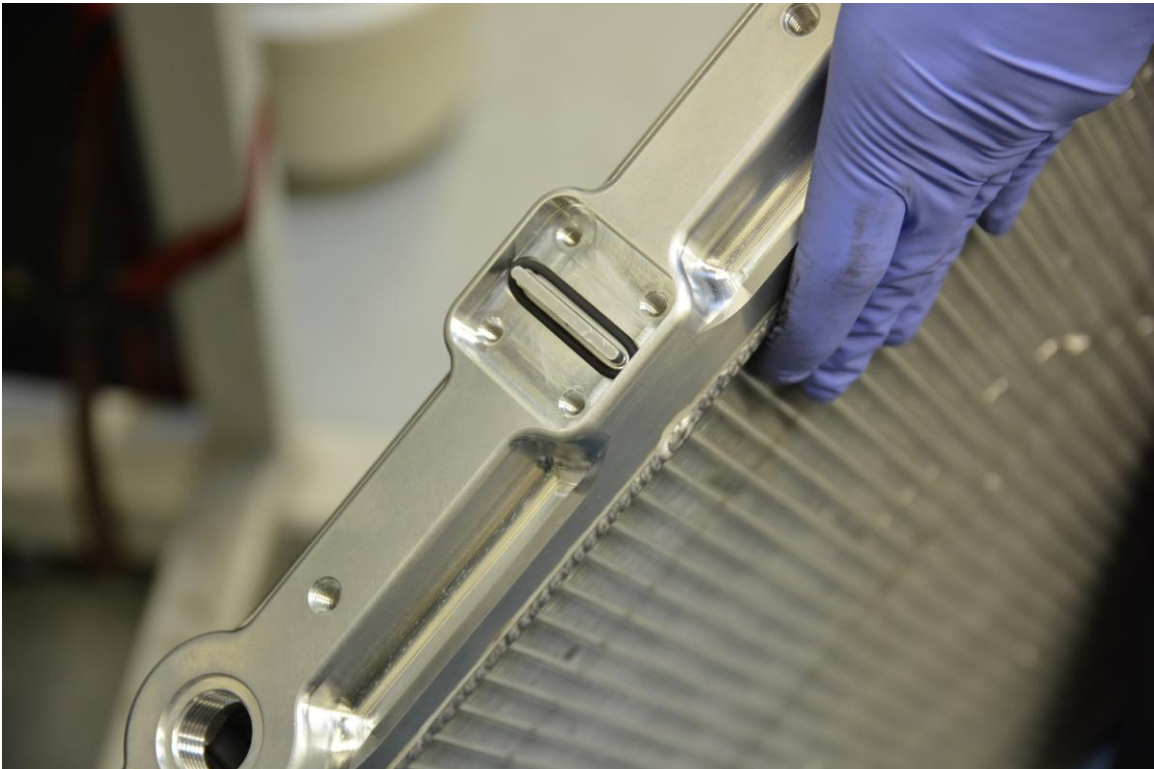




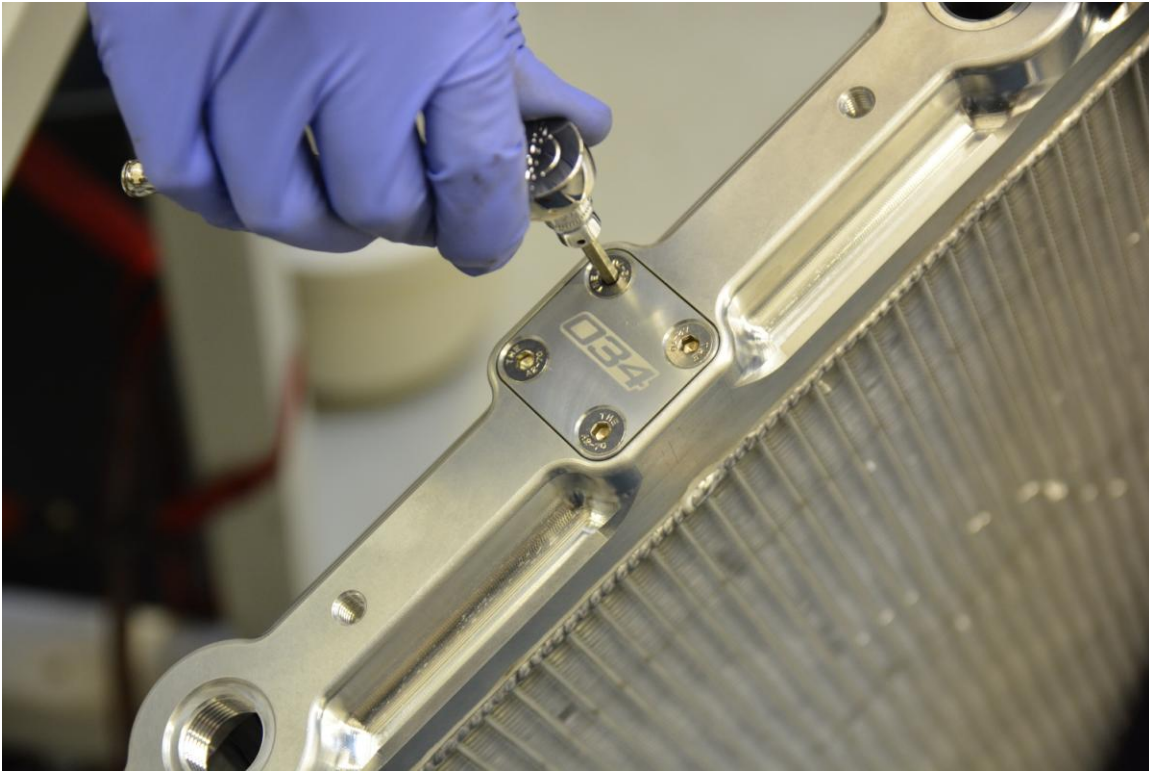
**Step 15a (B8.5 only)** – Insert diverter plate in driver side (RHD cars) end tank to create dual-pass unit.



**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.

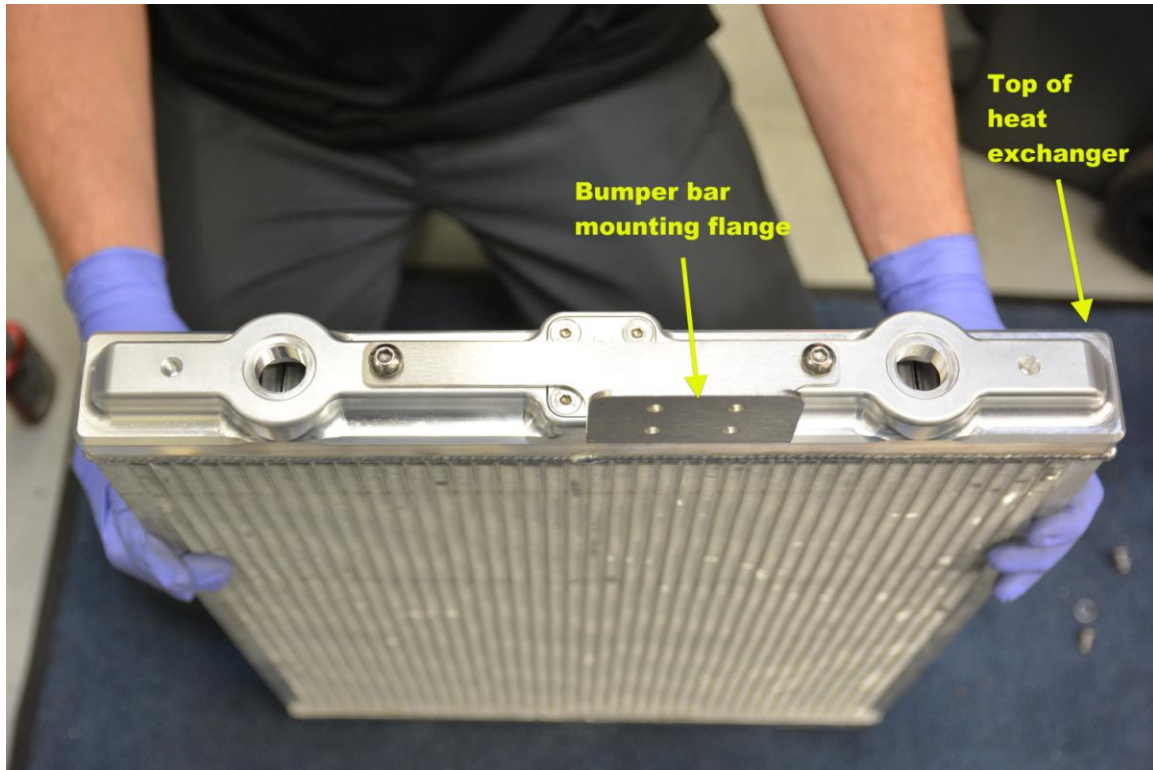


**Step 17** – Install -10AN plugs. **NOTE:** B8 will have a plug on each end; top on passenger side, bottom on driver side (RHD cars). B8.5 will have both plugs on passenger side, like in photo.

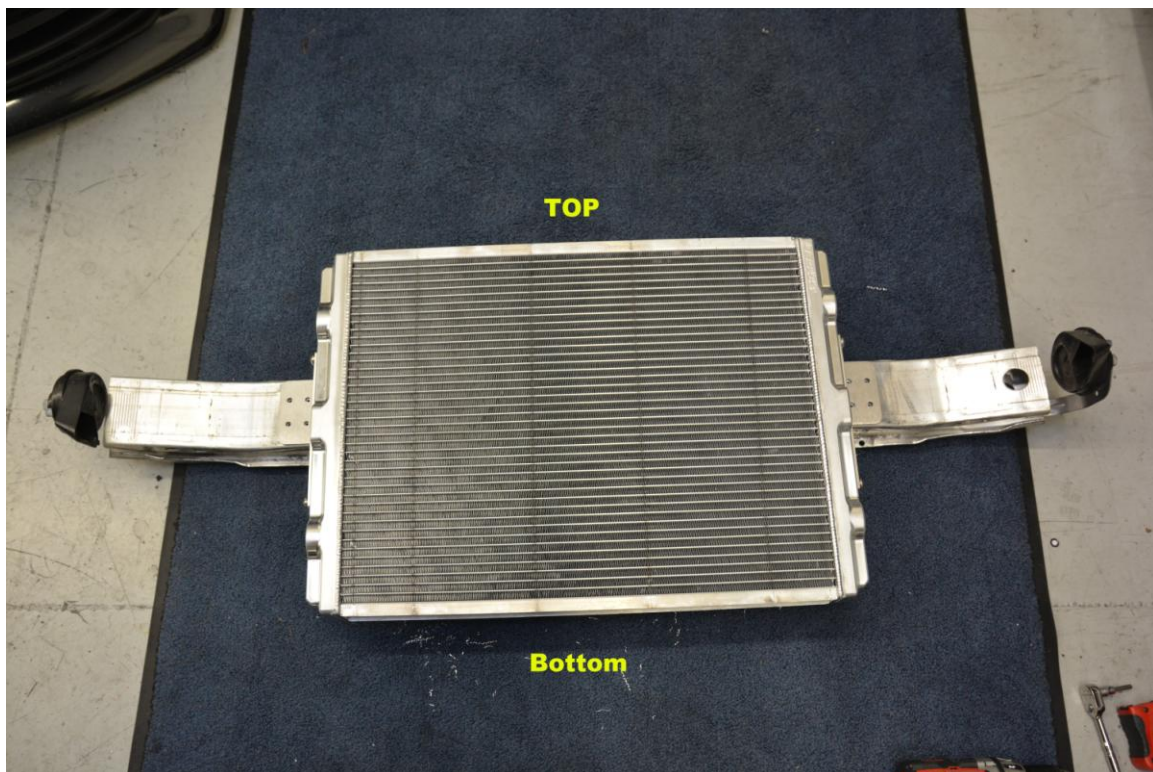




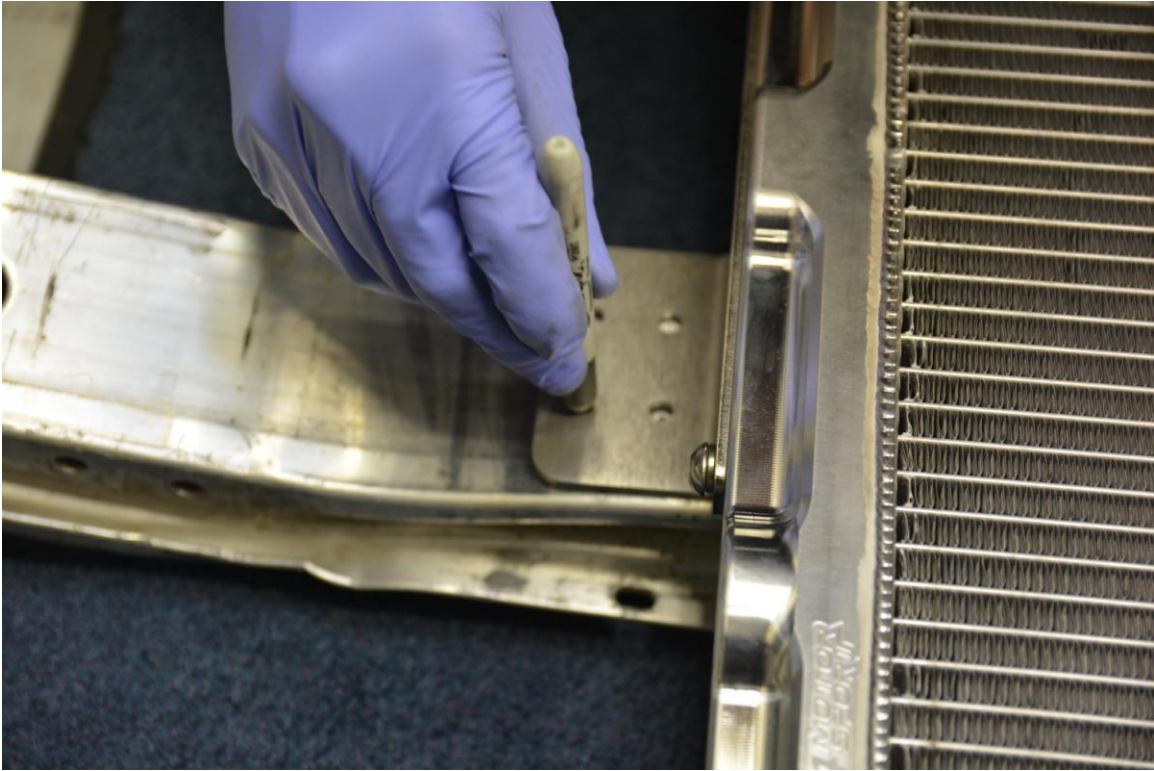
**Step 18** – Install mounting brackets using M8x14 button head cap screws and M8 lock washer. Blue Loctite can also be added to screws. **Note:** bracket to bumper bar mounting flange points outward from heat exchanger.



**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.



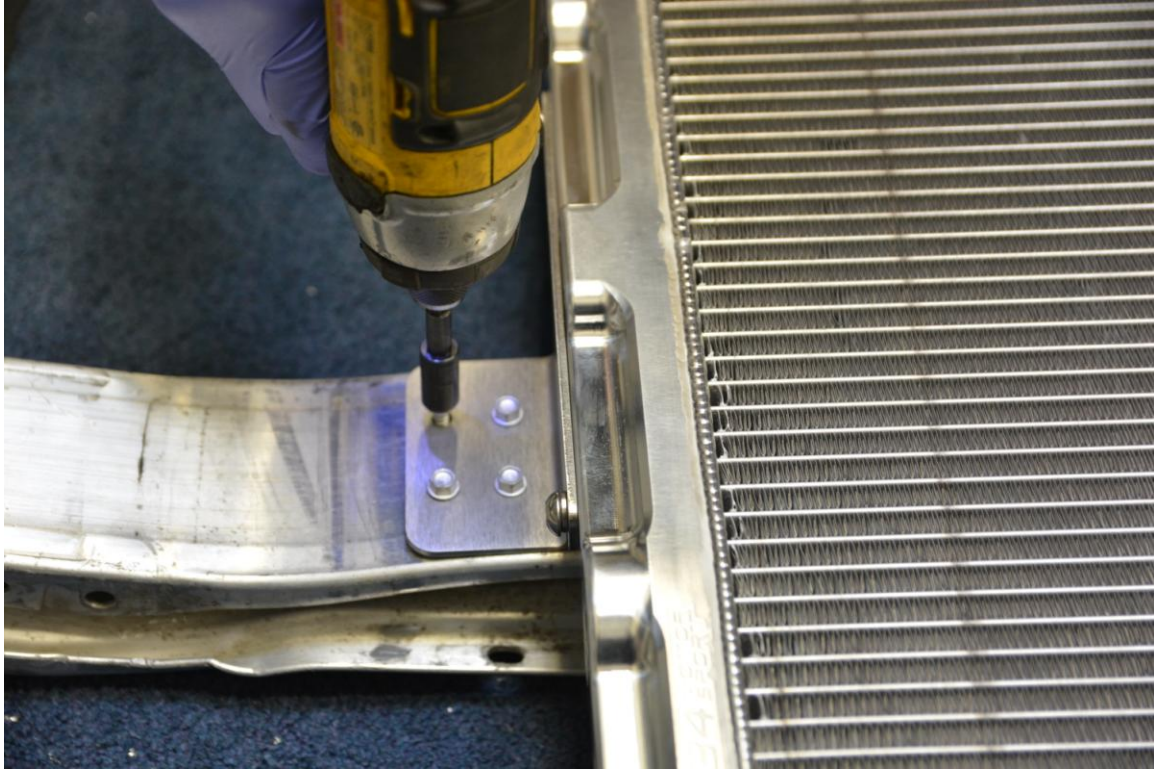
**Step 21** – Using a center punch, mark center of each mark from step 20. This will make drilling much easier.





**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.

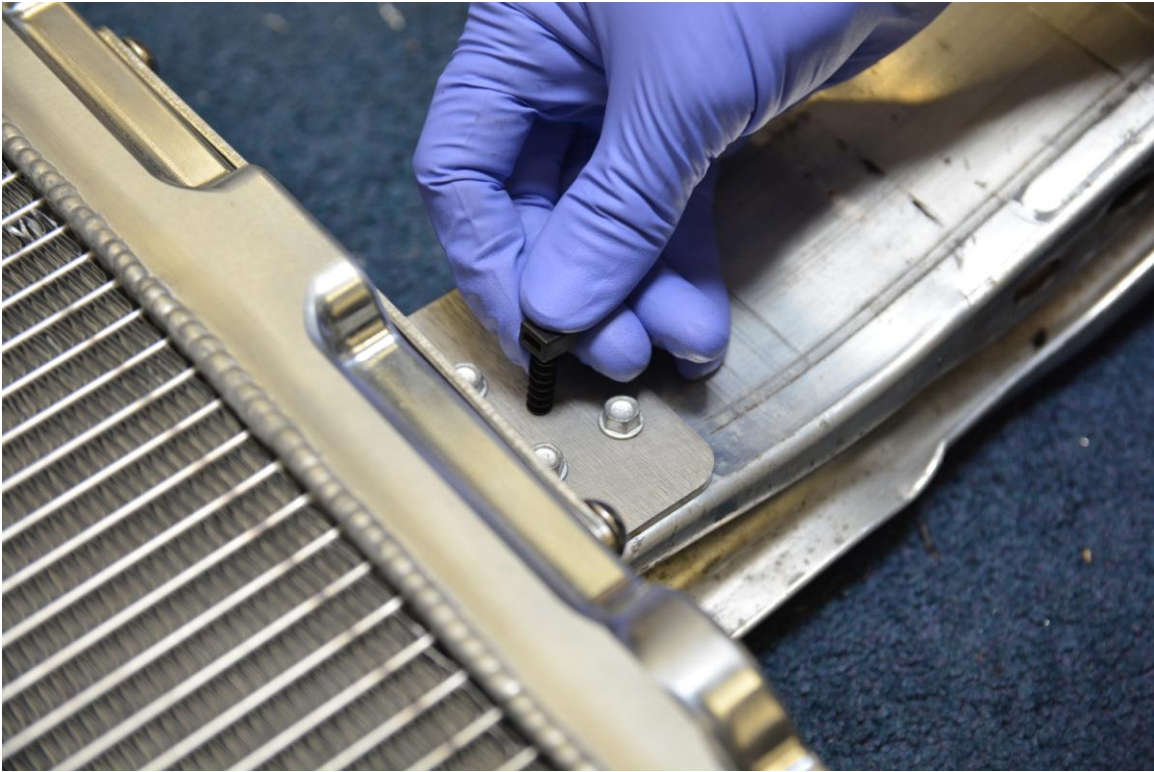


**Step 24** – Drill 3/16" hole through bumper bar for zip-tie anchor.





**Step 25** – Install zip-tie anchor.



**Step 26** – Install zip-tie.

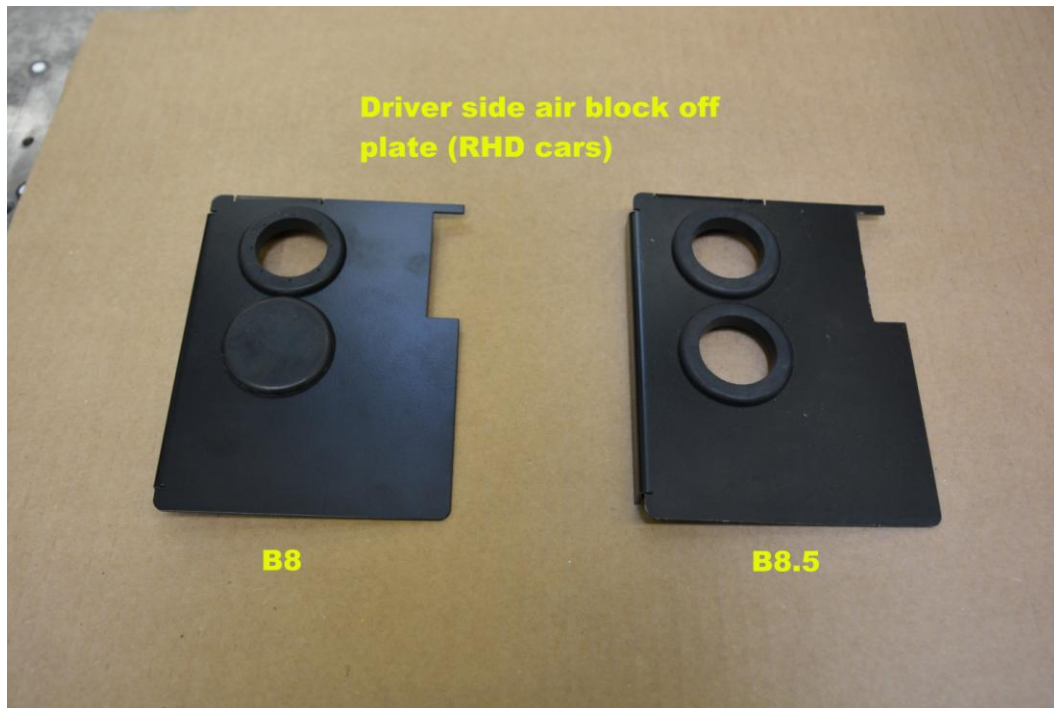




**Step 27** - Assemble air block-off plates.

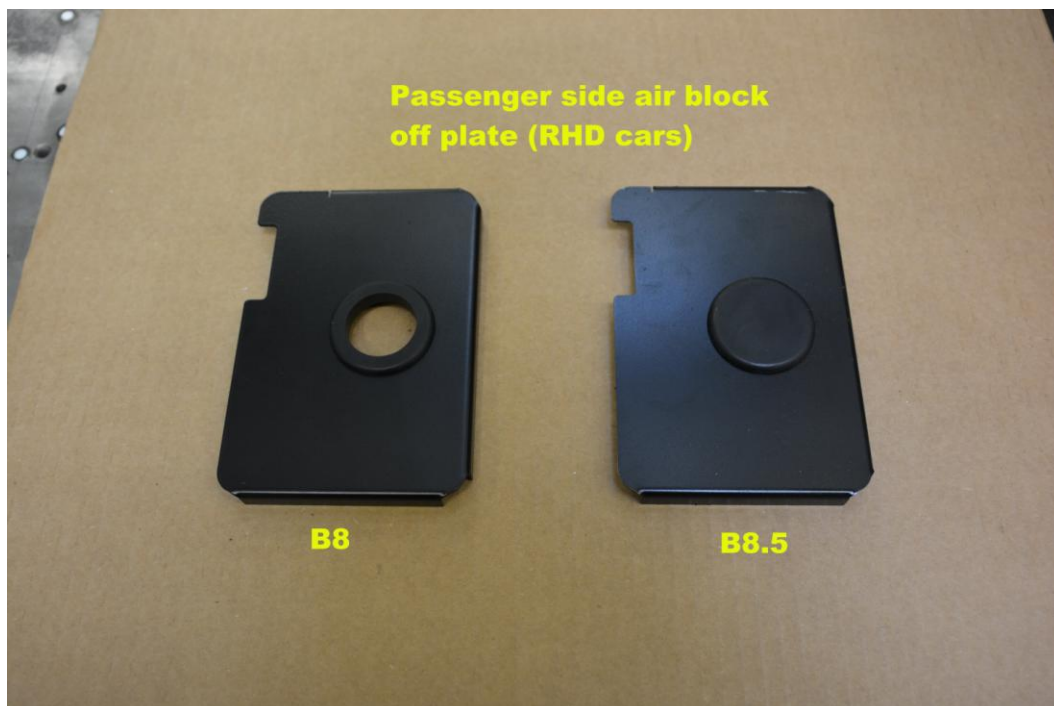
Driver Side

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



Passenger Side

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



**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.

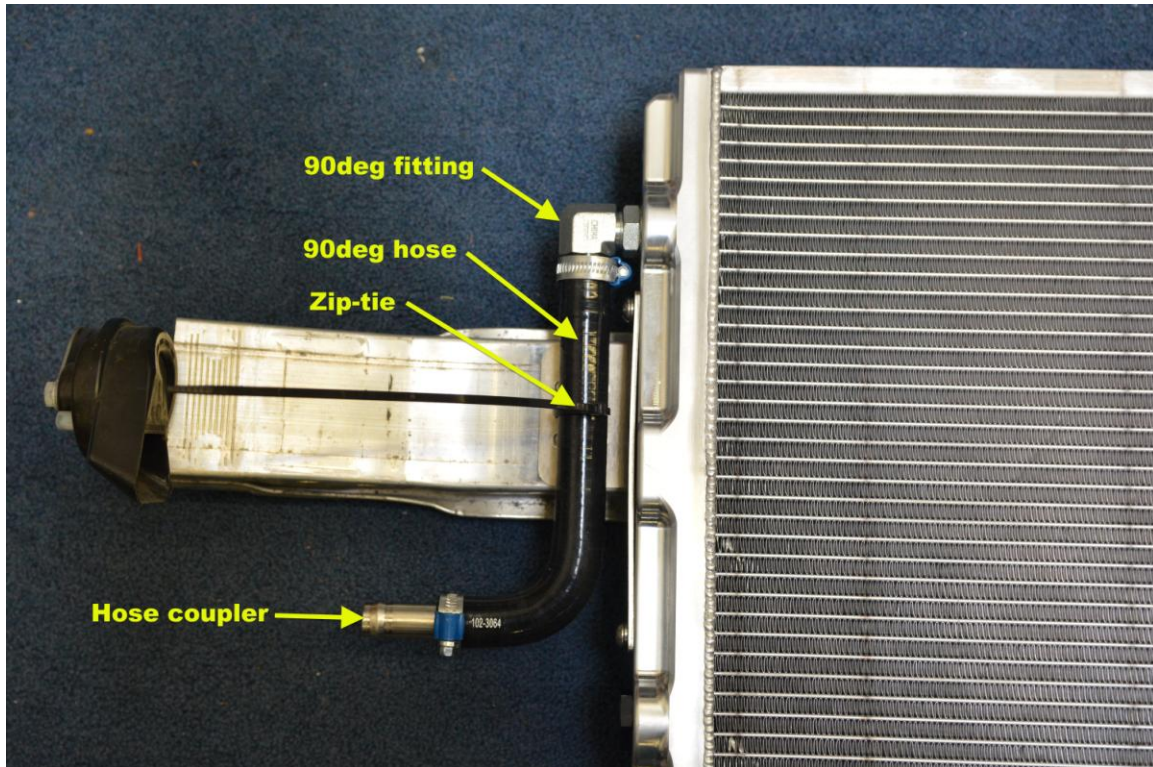


**Step 31** – Remove backing from double sided tape and install air deflector plate, pressing firmly to attach tape.

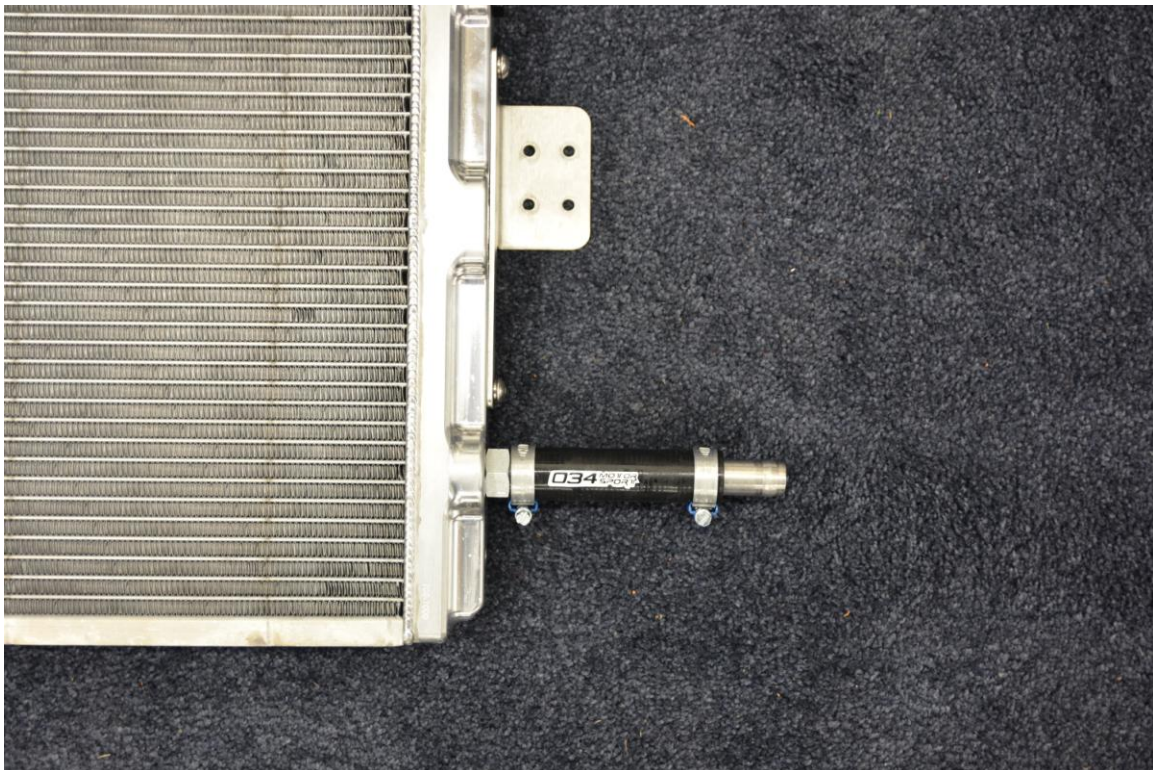


**Step 32** – Install 90° fitting, hose and hose coupler.

**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.

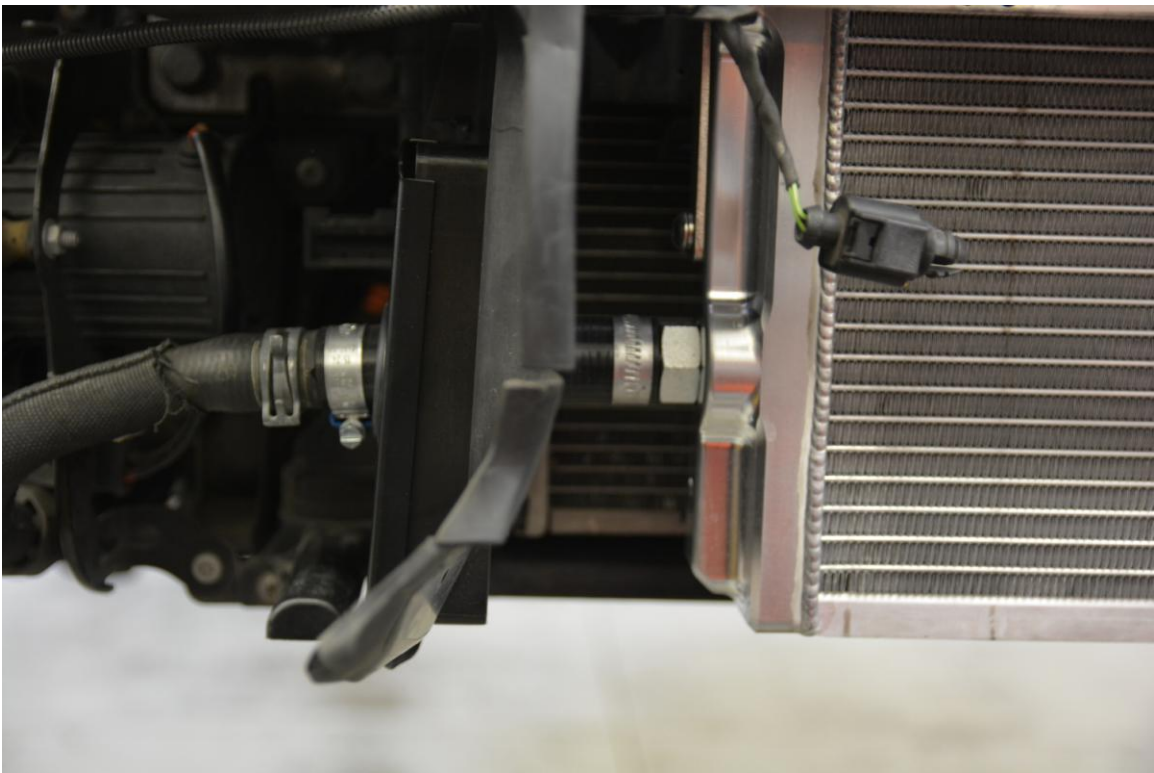
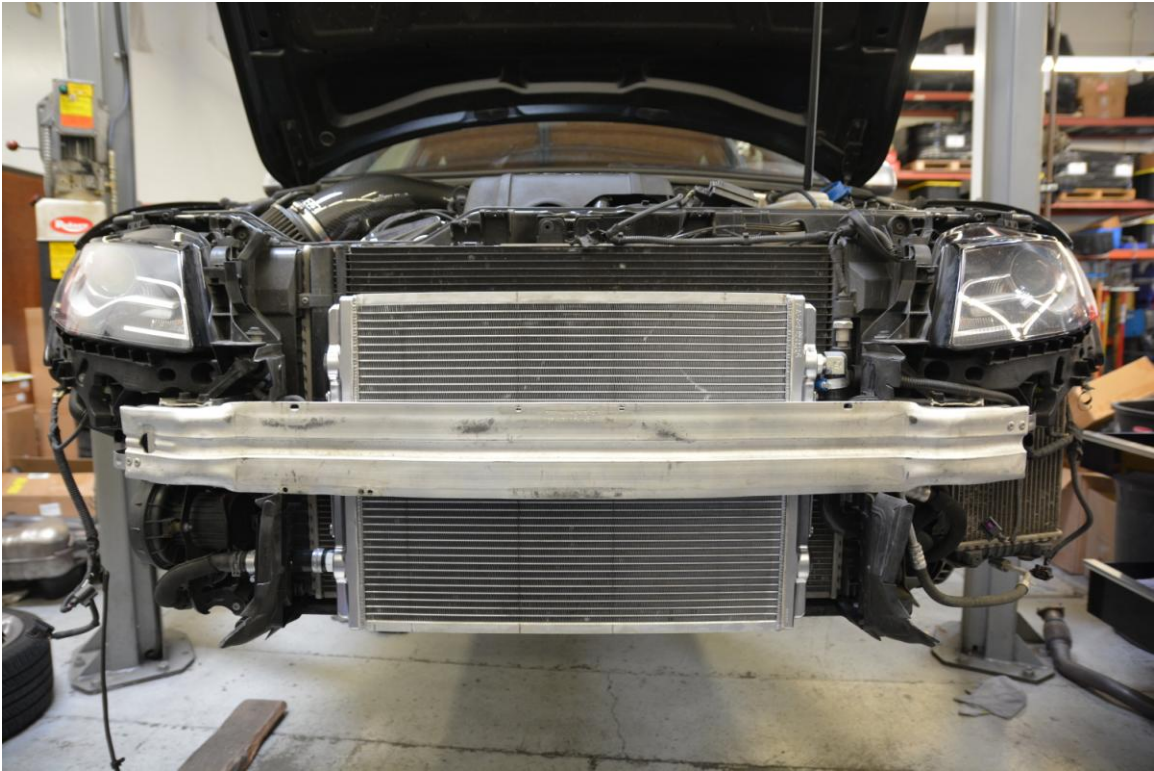


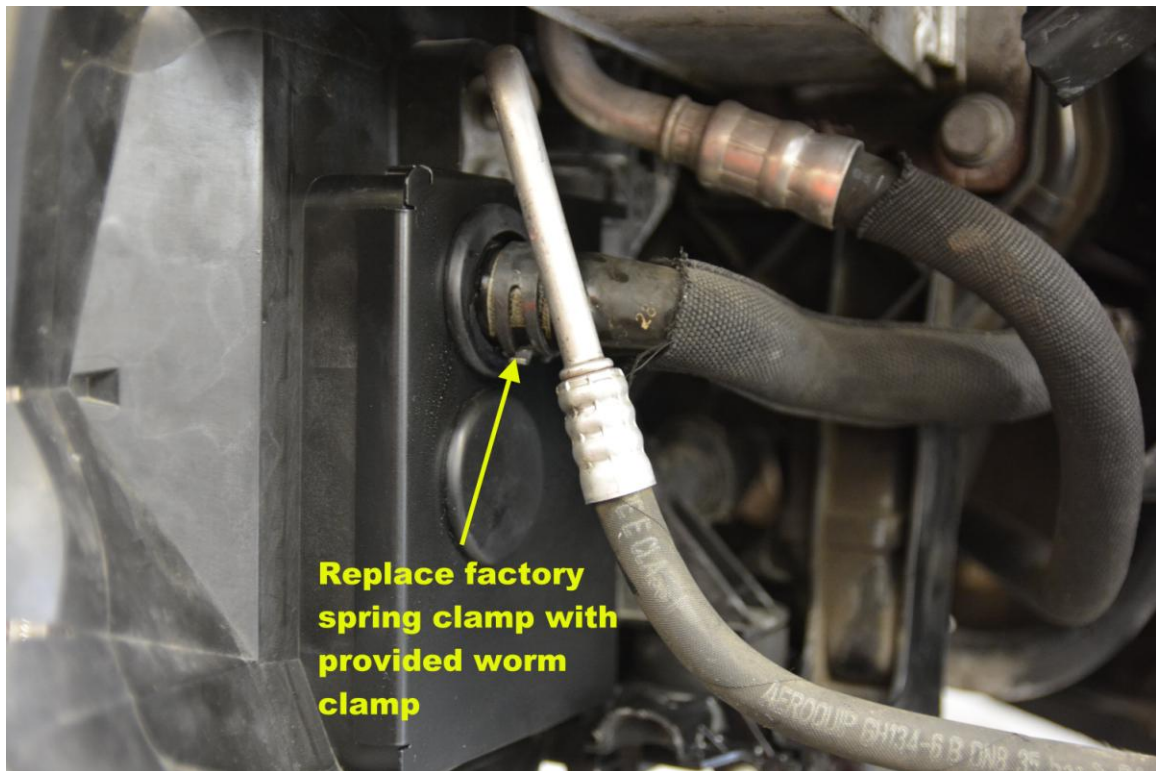
**Step 33** – Install straight fitting, hose and hose coupler.



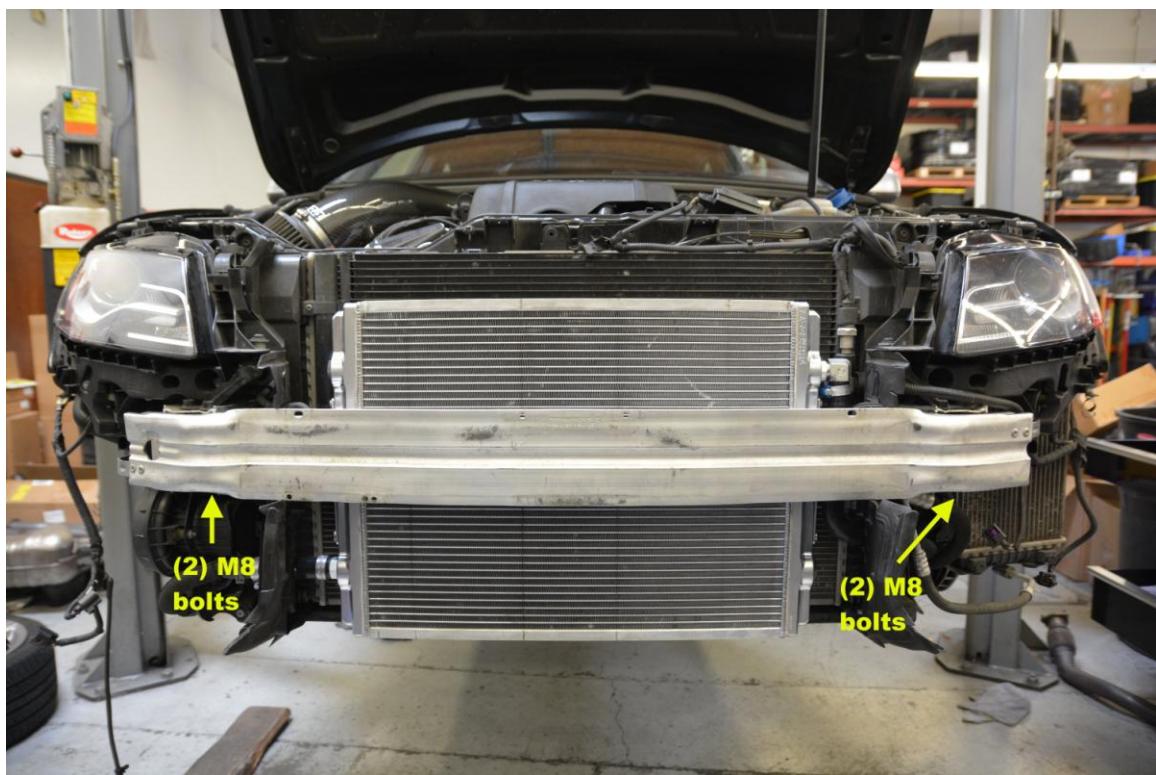


**Step 34** – Install heat exchanger assembly. Run silicone hoses through grommets in air deflector plates, and connect to stock lines.





**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!

