



INSTALLATION GUIDE

2010+ Audi S4/S5 3.0T ColdFront Heat Exchanger and Reservoir

FOR RACING USE ONLY

Congratulations on your purchase of the AWE Tuning ColdFront Heat Exchanger and Reservoir for the 2010+ Audi S4 and S5 3.0T. Exquisite build quality with industry leading performance distinguishes this chargecooler system upgrade from all others.

Contact us with any installation questions.

215-658-1670

AWE-Tuning.com

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PARTS LIST

Heat exchanger:

- 1 AWE Tuning heat exchanger
- 2 AWE Tuning heat exchanger mounting bracket
- 4 M8 bolt
- 4 M8 flat washer
- 2 Straight hose adapter
- 6 27mm spring clamp
- 1 4 inch long hose
- 1 43 inch long hose
- 1 50 inch long abrasion braid
- 2 Adel clamp
- 2 Stainless steel pipe plug
- 10 Self tapping screw
- 1 #21 drill bit

Optional debris screen:

- 1 AWE Tuning heat exchanger debris screen
- 6 Stainless steel self tapping screws
- 1 #29 Drill bit

Reservoir:

- 1 AWE Tuning reservoir and cap

- 1 Reservoir mounting bracket
- 2 M8 bolt
- 2 M8 flat washer
- 2 M8 lock washer
- 2 7 inch long hose
- 6 27mm spring clamp
- 1 Straight hose adapter
- 1 90 degree hose adapter
- 1 Hose cap
- 3 Stainless steel hex head sheet metal screw
- 1 11.5mm spring clamp

Drive Select cooler:

- 1 Oil cooler with install pack
- 2 Hose connectors
- 6 One time use clamps
- 2 Self tapping screws
- 2 Medium zip ties

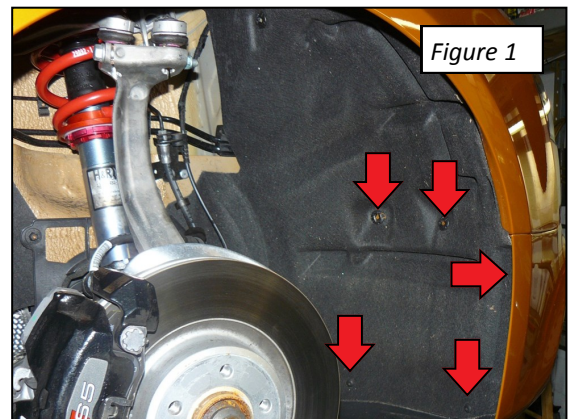
Additional tools/supplies required:

- Thread sealant
- Dremel tool (or equivalent)

Step 1

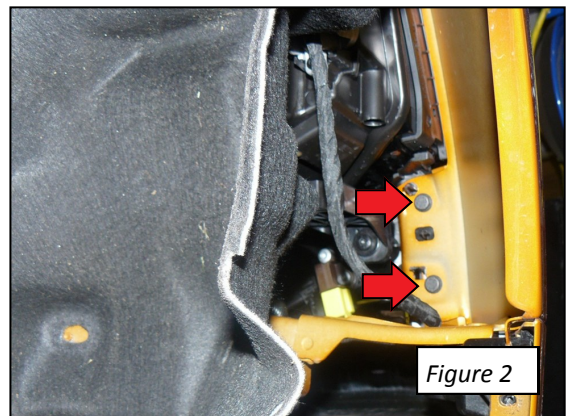
Raise the car and remove the front wheels.

Remove the outer three T25 Torx screws from both the fender liners and the two plastic clips holding the liners in place, at arrows in **Figure 1**.



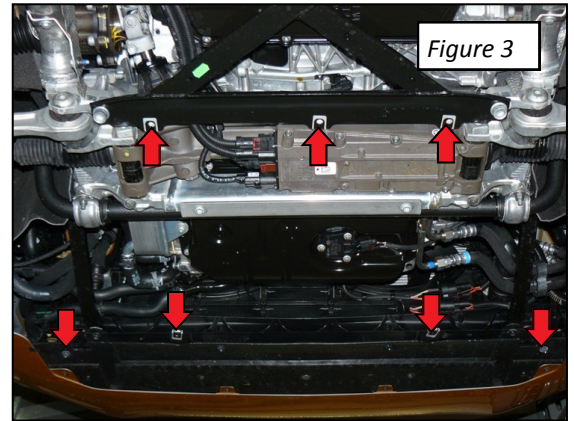
Step 2

Pull the fender liner back and remove the two 10MM bolts holding on the front bumper on each side, at arrows in **Figure 2**.



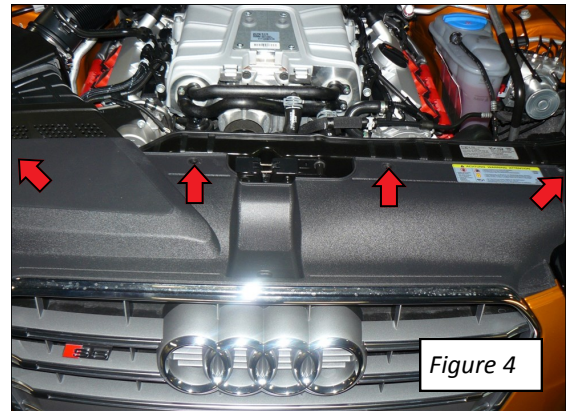
Step 3

Remove the belly pan underneath the car by removing the quarter turn fasteners and the four T30 bolts across the front of the car. **Figure 3** is shown with belly pan already removed.



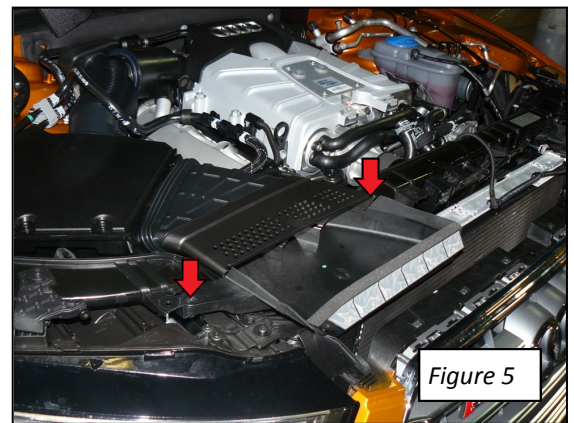
Step 4

Under the hood remove the upper radiator cover by pushing in on the center of each of the clips, at arrows in **Figure 4**, then remove.



Step 5

Remove the air box inlet duct by removing the two T25 Torx screws, at arrows in **Figure 5**, and pulling out on the duct. Next unclip the home link module from behind the front grille emblem.



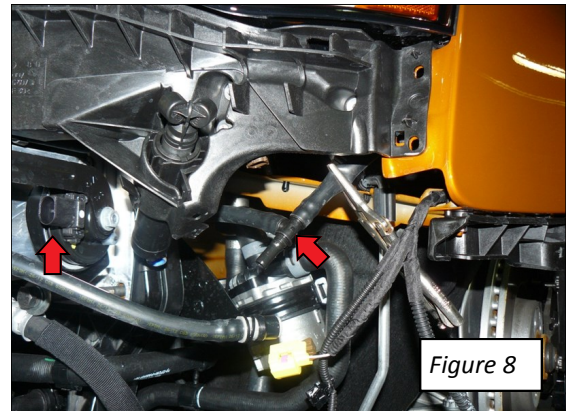
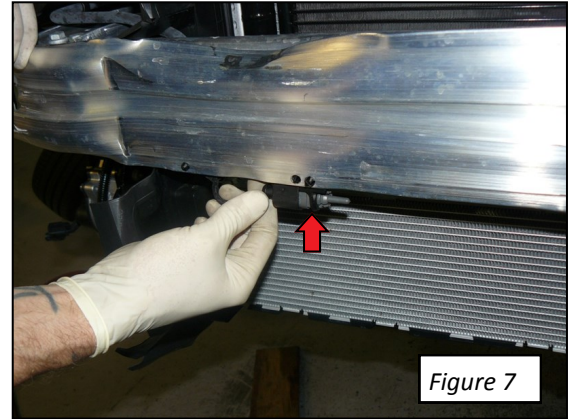
Step 6

On each side of the car gently pull out on the bumper cover to release it from the front fenders. Before fully removing the bumper cover, unplug the fog lights.



Step 7

Disconnect ambient temperature sensor, horns and head light washers, at arrows in **Figures 7** and **8**.

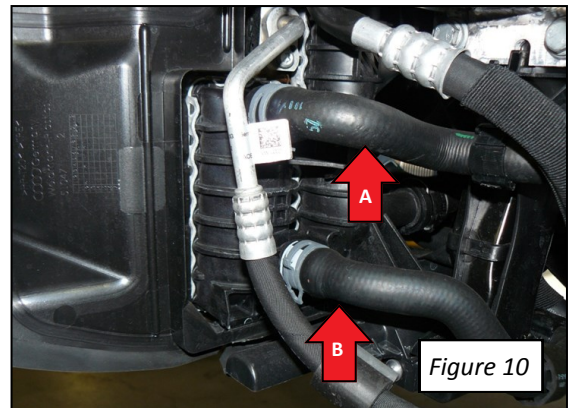
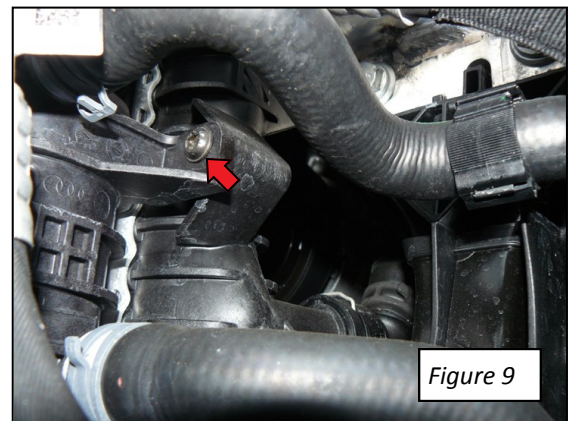


Step 8

On the driver's side of the factory heat exchanger, remove the T30 Torx screw securing the stock heat exchanger to the radiator, at arrow in **Figure 9**.

On B8.5 (2013+) cars, note and mark the hose locations at arrows in **Figure 10**.

With clamps, pinch off the inlet and outlet hoses in order to minimize coolant loss. Next remove spring clamps and hoses from the factory heat exchanger and then remove it from the car.



Step 9

Loosely bolt both brackets to the AWE Tuning heat exchanger and center it on the bumper support/crash bar on the front of the car, as shown in **Figure 11**.

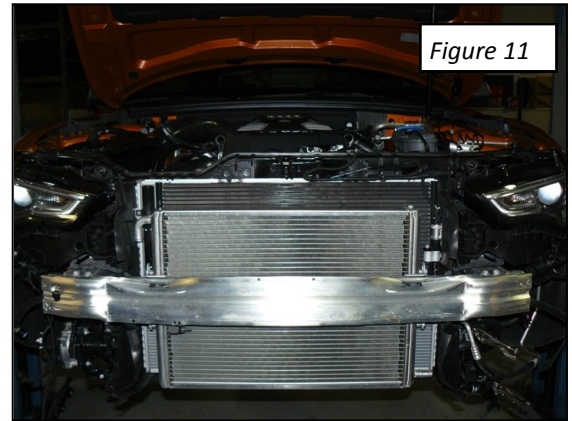


Figure 11

Step 10

With the exchanger properly centered, trace the locations of the brackets on the crash bar with a marker, as shown in **Figure 12**.

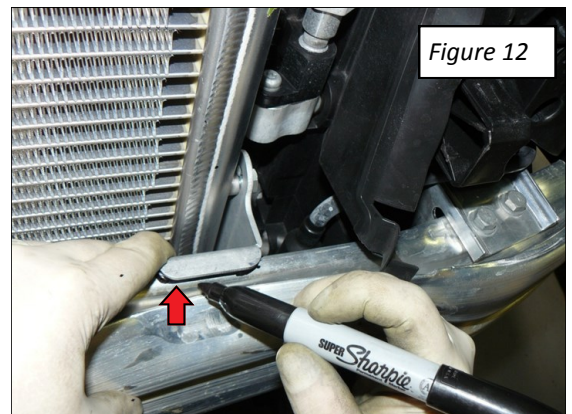


Figure 12

Step 11

Remove the AWE Tuning heat exchanger and brackets. With a 13mm wrench remove the crash bar. You may have to pry its upper and lower tabs apart to help remove the crash bar.

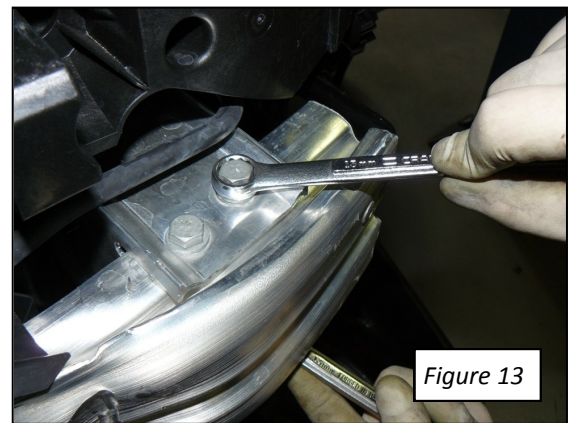


Figure 13

Step 12

With the crash bar removed, lay the heat exchanger brackets on it in their previously traced positions, and mark the drill hole locations as shown in **Figure 14**.

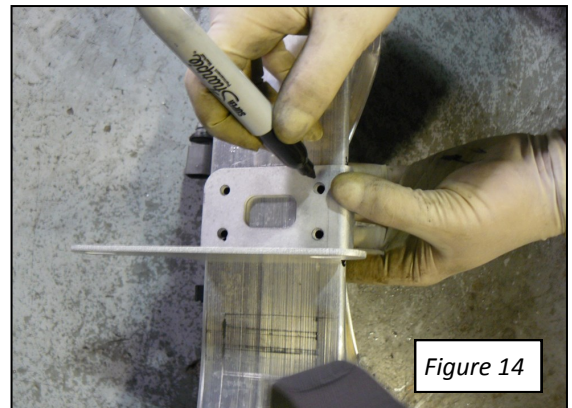


Figure 14

Step 13

Before drilling, remove the headlight washer hose from the crash bar so that it does not get damaged.

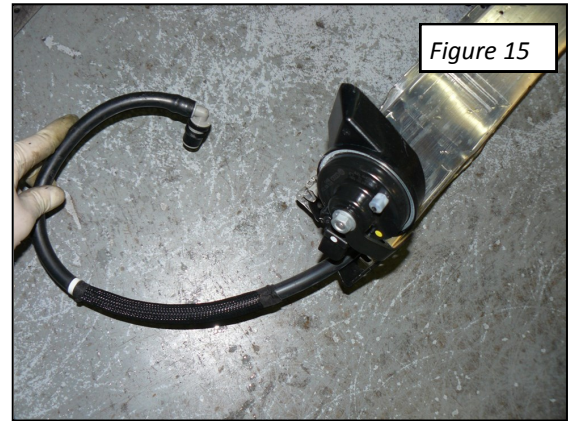


Figure 15

Step 14

Center punch the previously marked drill hole locations.
With the supplied #21 drill bit, drill holes where marked in Step 12.

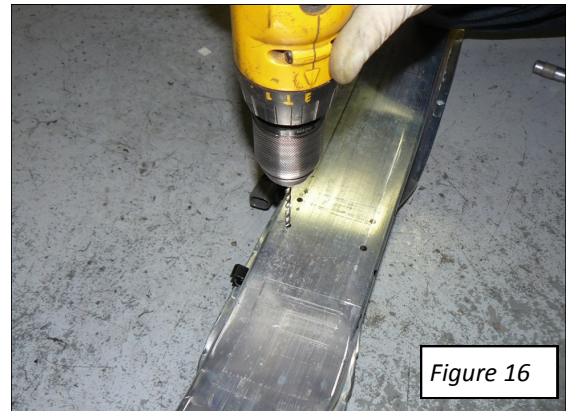


Figure 16

Step 15

Use the supplied eight self tapping screws to attach the brackets to the crash bar. Ensure they are orientated so that the longer ends of the brackets face downwards.

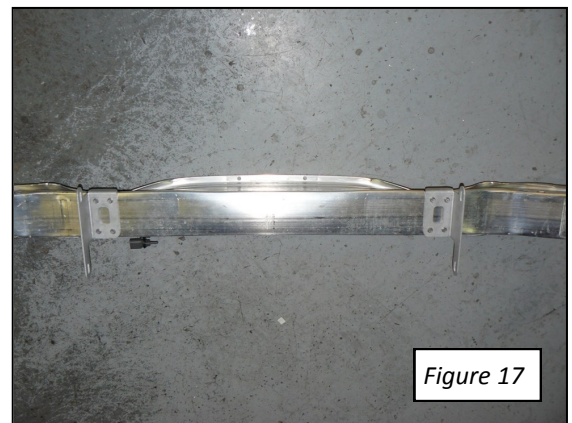


Figure 17

Step 16

Loosely mount the AWE Tuning heat exchanger to the crash bar brackets with the supplied 8mm bolts and washers.

For B8 cars (2010-2012) equipped with Drive Select Suspension, continue to Step 33 for Auxiliary Cooler installation instructions.

For B8 cars (2010-2012) without Drive Select Suspension, continue to Step 18.

For all B8.5 cars (2012+), continue to Step 17.

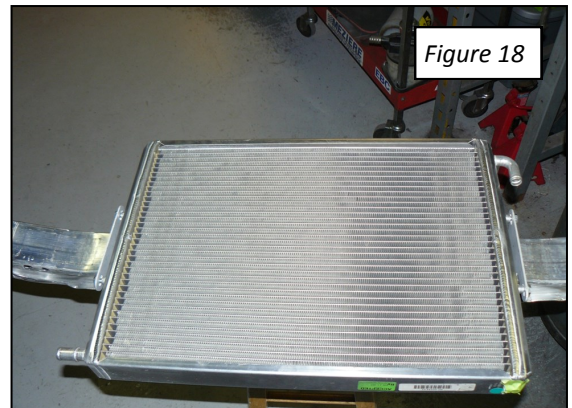


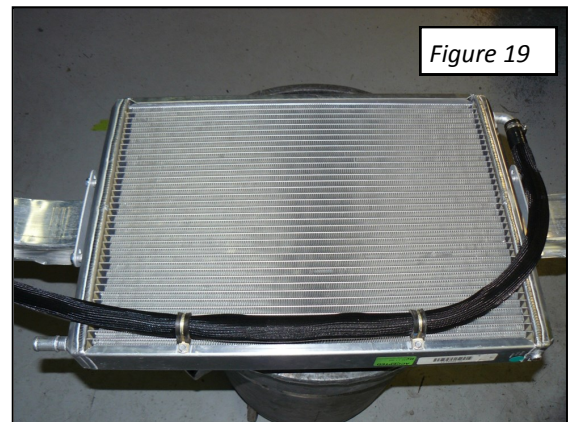
Figure 18

Step 17

For B8.5 (2013+) cars only: attach the long coolant hose to the 90 degree angled heat exchanger port with a supplied hose clamp.

Slide the abrasion sleeve over the hose and secure each end in place with a wrap of black electrical tape. With the supplied #21 drill bit, carefully drill two holes along the lower edge of the heat exchanger, as shown in **Figure 19**.

Use the supplied adel clamps and self tapping screws to mount the hose to the lower edge of the heat exchanger as shown.



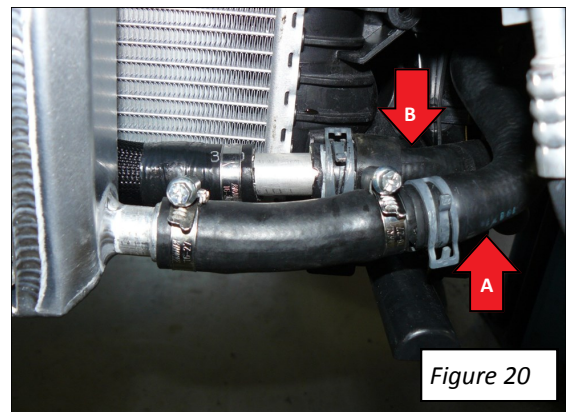
Step 18

Re-install the crash bar and heat exchanger assembly back on the car.

On B8.5 (2013+) cars, the hose at **Arrow A** in **Figure 20** attaches to the straight exchanger port as shown using the supplied hose barb, 4" hose extender, and clamps. Hose at **Arrow B** attaches to the previously installed long coolant hose using the supplied hose barb and clamps, as shown in **Figure 20**.

On earlier B8 (2010-2012) cars, hose at **Arrow B** is on the passenger side of the heat exchanger and installs directly to the angled port (trim the hose to fit). Hose at **Arrow A** installs identical to B8.5 cars.

Ensure that all hoses are not being stretched or strained.



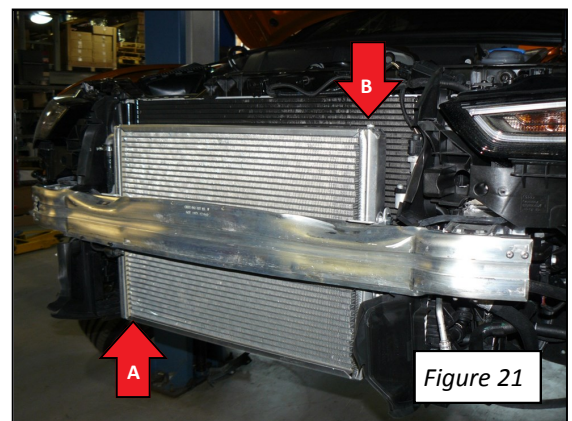
Step 19

Apply thread sealant to one of the supplied bleed plugs and insert it into the bottom threaded bung of the heat exchanger, at **Arrow A** in **Figure 21**.

Remove the pinch clamps used previously to block coolant from spilling from the hoses. Add factory coolant to the car slowly until you see it appear at the top of the upper threaded bung, at **Arrow B** in **Figure 21**. Apply thread sealant to the remaining plug and install it into the upper bung. Continue to refill the coolant system.

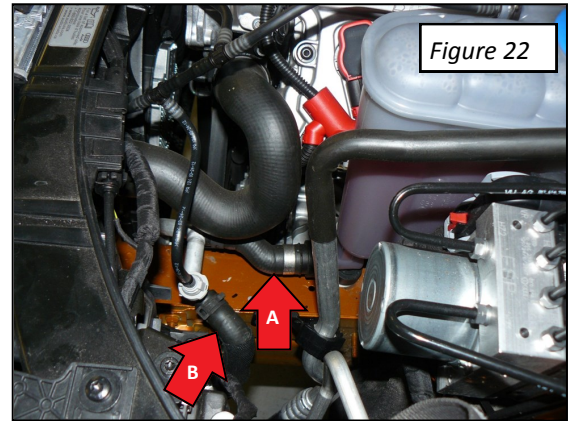
If you are installing the optional AWE Tuning ColdFront Reservoir, proceed to Step 20 at this point. If you are re-using the factory reservoir, proceed below. If you are installing the optional AWE Tuning heat exchanger debris screen, proceed to Step 29.

Reinstall bumper cover and wheel wells in reverse order of disassembly.



Step 20

To begin installation of the AWE Tuning Reservoir, use the pinch clamps to pinch off the lower coolant reservoir hose, at **Arrow A** in **Figure 22**. Next remove the hose clamp from the coolant return hose at **Arrow B**.

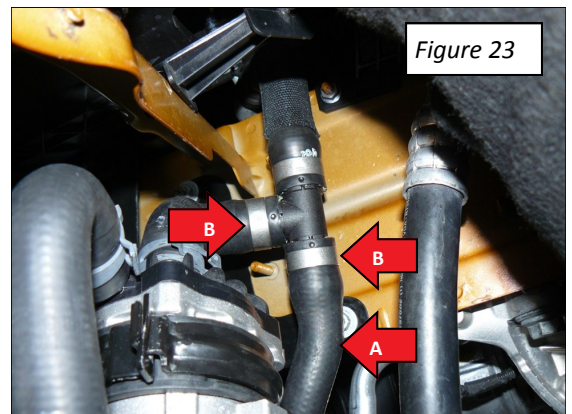


Step 21

In the driver wheel well, pinch off the lower part of the supercharger coolant return hose, at **Arrow A** in **Figure 23**.

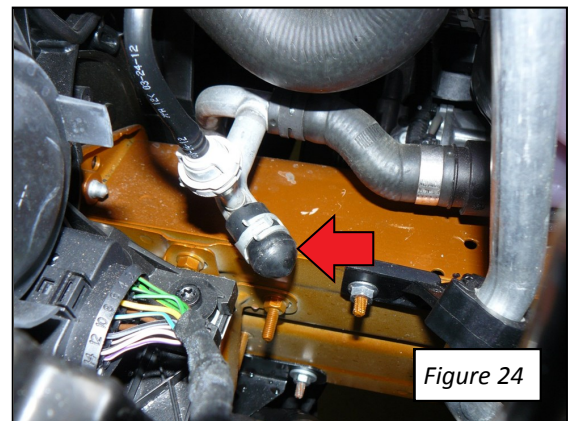
With a Dremel Tool, or similar, cut the two one-time-use clamps at **Arrows B** in **Figure 23**. **Be very careful not to damage the hose when cutting off the clamps.**

Remove the tee fitting and upper hose after cutting the clamps.



Step 22

With the tee fitting and upper return hose removed, install the supplied cap and spring clamp to the open port. You can trim the cap to length if necessary. Once the cap is installed you can remove the hose pinch clamp from the coolant reservoir hose.

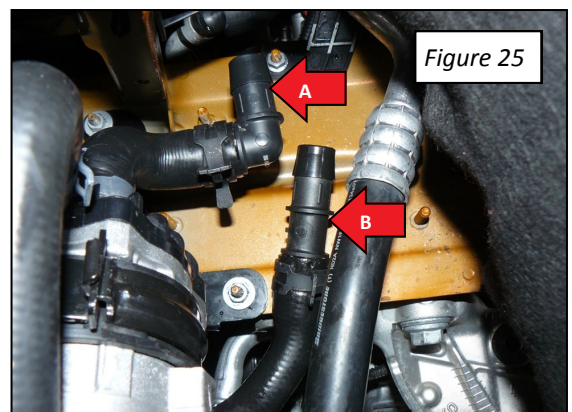


Step 23

Back in the wheel well, install the supplied 90 degree fitting into the hose on the coolant pump, at **Arrow A** in **Figure 25**.

Install the straight fitting into the pinched off coolant return hose, at **Arrow B** in **Figure 25**.

Use the supplied spring clamps to fasten both fittings.



Step 24

Bolt the AWE Tuning reservoir tank to its bracket using the supplied M8 bolts. Place the assembly on the driver side frame rail positioned so that it is not contacting any surrounding components.

Use a marker to mark the location of the bracket holes on the frame rail. Remove the reservoir tank from the bracket. Line the bracket up with the markings and use a 5/16" socket and long extension to secure the bracket to the frame rail with the supplied self piercing sheet metal screws. **Be careful not to over tighten the screws to avoid stripping the screw holes.**

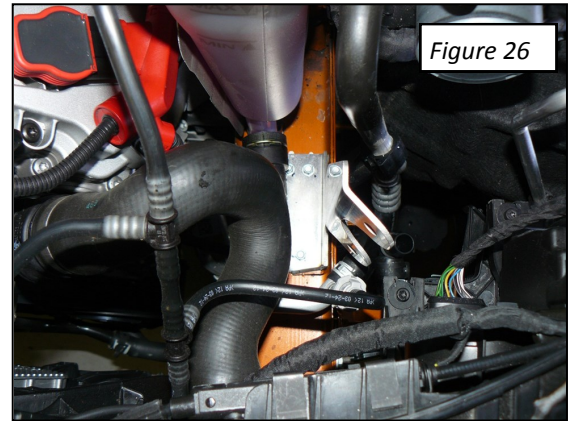


Figure 26

Step 25

Reattach the reservoir to the bracket, using the supplied M8 bolts, M8 lock washers, and M8 flat washers.

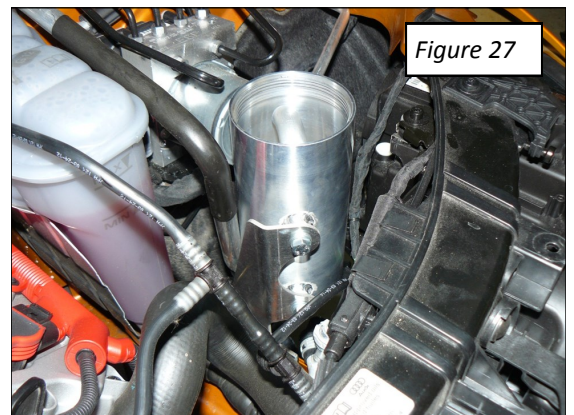


Figure 27

Step 26

In the wheel well install one of the supplied 7" sections of hose onto the reservoir port closest to the frame rail. Use a supplied spring clamp.

Trim the supplied hose to length to ensure there are no kinks or sharp bends in the coolant return hose that it will be attached to. Connect the other end of the hose to the straight fitting on the pinched off coolant return hose using a supplied spring clamp.

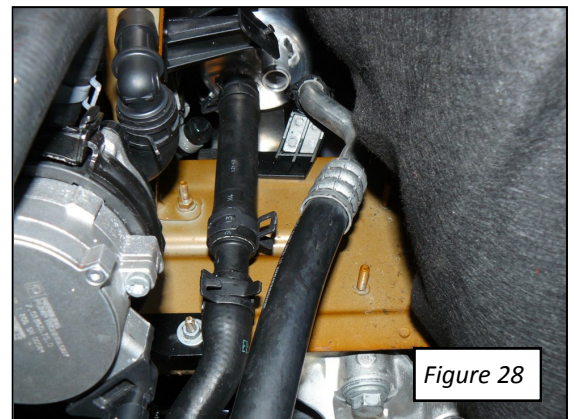


Figure 28

Step 27

Install the remaining 7" straight length of hose to the other port on the bottom of the reservoir. Use a supplied spring clamps.

Trim the straight hose to length to ensure there are no kinks or sharp bends in the coolant pump hose that it will be attached to.

Attach the other end of this hose to the coolant pump hose with the previously installed 90 degree fitting using a supplied spring clamp.

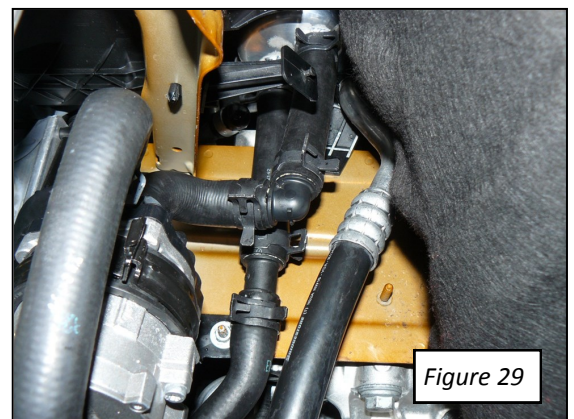


Figure 29

Step 28

Remove the pinch clamp from the coolant return hose.

Fill the reservoir with factory engine coolant to about two inches from the top. Install the reservoir cap and run the car up to operating temperature. Inspect to make sure there are no leaks. Shut the car off and open the cap to check fluid level, and top off if necessary. Apply a small amount of anti-seize paste to the cap threads to aid in future removal.

If you are not installing the optional AWE Tuning debris screen, reinstall wheel wells and bumper cover in reverse order of disas-

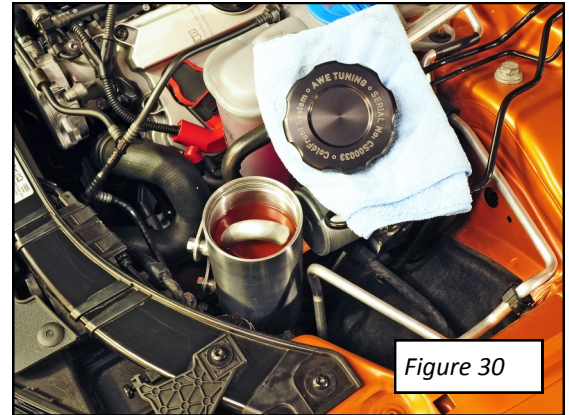


Figure 30

Step 29

If you are installing the optional AWE Tuning heat exchanger debris screen, do not yet re-install the bumper.

Carefully hold the debris screen square and centered to the front of the AWE-Tuning heat exchanger. Mark and center punch the screw hole locations on the heat exchanger frame as shown in **Figure 31**.

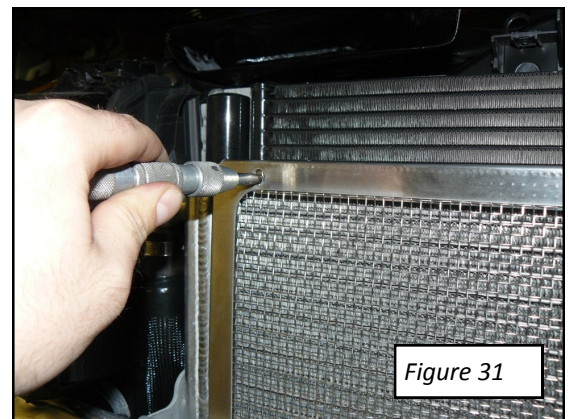


Figure 31

Step 30

Use the supplied #21 drill bit to drill the marked pilot holes. Be very careful that the drill bit does not pierce the heat exchanger or radiator behind it.

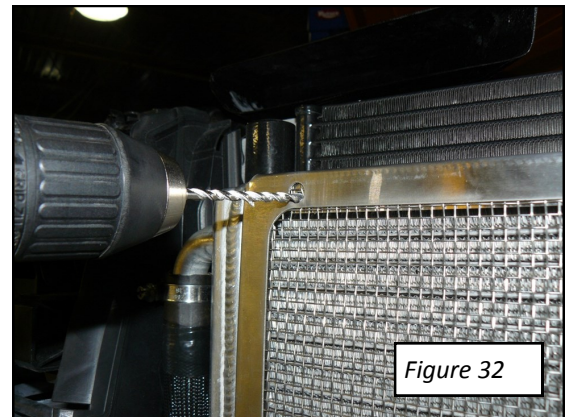


Figure 32

Step 31

With a 5/16" socket and ratchet install the six self tapping screws into the drilled holes, fastening the debris screen to the face of the heat exchanger.

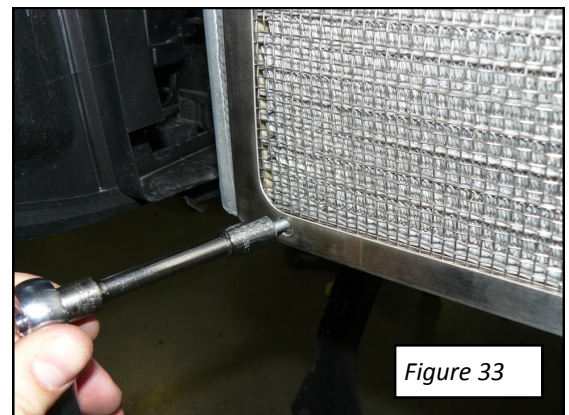


Figure 33

Step 32

Reinstall wheel wells and bumper cover in reverse order of disassembly.

For all cars, continue to end of document.

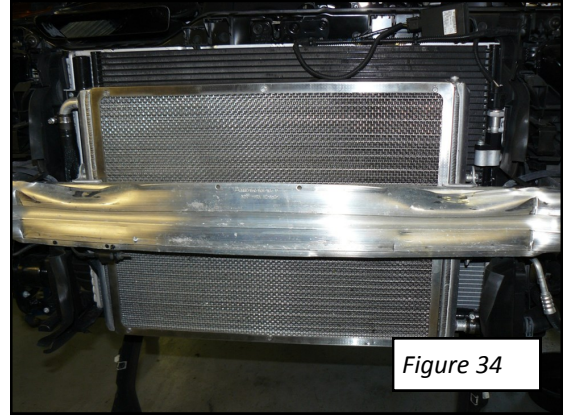


Figure 34

Step 33

Continued from Step 16, B8 cars only (2010-2012) equipped with Drive Select suspension option:

Remove the factory oil cooler by unclipping it from the plastic mounts, at arrows in **Figure 35**.

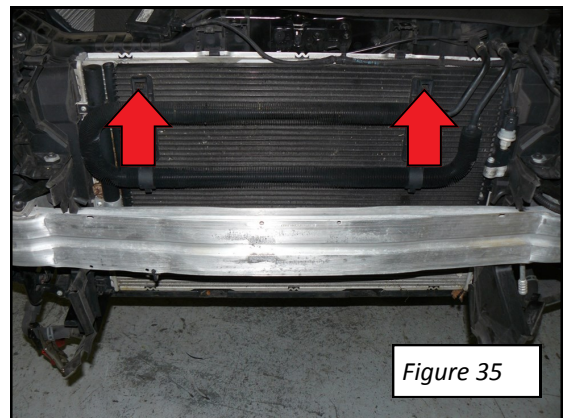


Figure 35

Step 34

Use a cut off wheel to remove the plastic tabs that held the factory oil cooler in place, as shown in **Figure 36**.

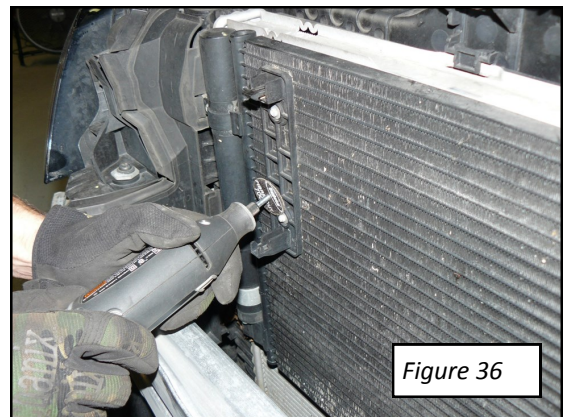


Figure 36

Step 35

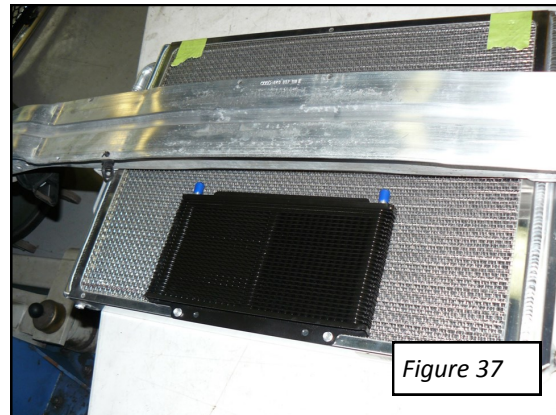
Place the foam pads from the cooler install kit on the back of the Drive Select cooler to protect the fins of the heat exchanger.

With the ColdFront heat exchanger mounted to the crash bar, center the cooler along the lower edge of the heat exchanger.

Use the bottom outer holes as a guide and mark the heat exchanger for drilling.

Use the drill bit supplied to drill the two lower mounting holes.

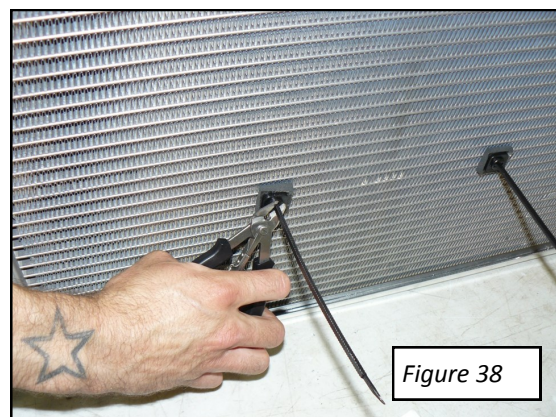
Use the supplied bolts to attach the cooler to the bottom of the heat exchanger.



Step 36

Slide the pointed end of plastic mounting ties from the cooler install kit through the top holes of the cooler and through the heat exchanger. Attach the install kit foam and clip to the ties on the back of the heat exchanger, as shown in **Figure 38**.

Trim off the excess length with wire cutters.

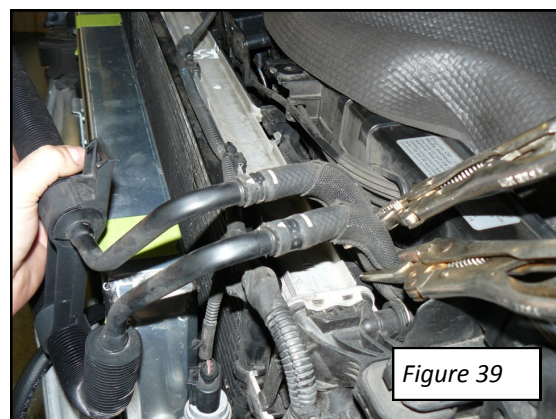


Step 37

Reinstall the crash bar assembly back into the car.

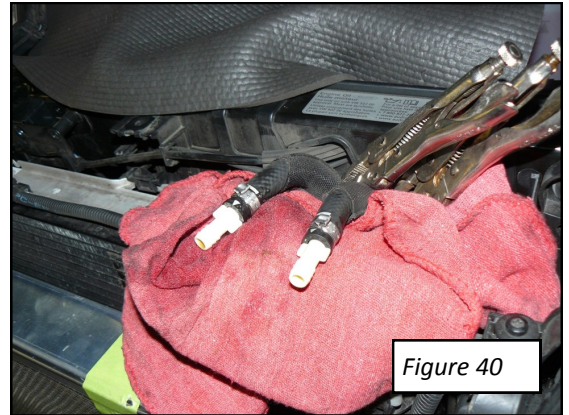
Remove the one time use clamps holding the factory oil cooler lines in place and clamp off the lines to minimize fluid loss.

Remove the factory oil cooler.



Step 38

Use the supplied one time use clamps to install the supplied plastic hose couplers.

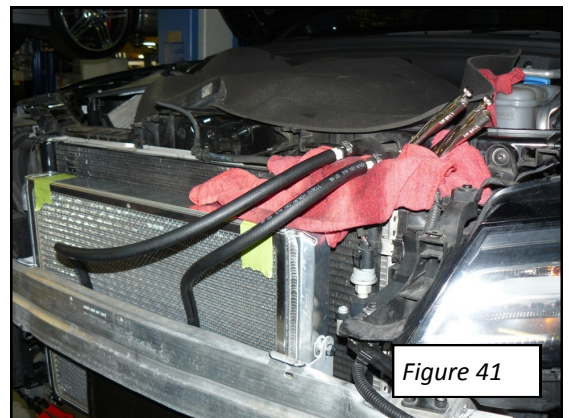


Step 39

Run the supplied rubber hoses from the cooler install pack down to the Drive Select cooler. Use the supplied one time use clamps to secure the hoses to the factory lines and to the cooler.

Use the supplied zip ties to safely route the cooler lines away from sharp edges.

Return to Step 18.



ENJOY

Check coolant level regularly for the first week of driving to ensure no air is left in the system and fluid level has stabilized.



Any questions or comments,
please do not hesitate to contact us:

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Thank you for choosing AWE Tuning as your performance automotive parts supplier. Please remember that a performance car is only as strong as its weakest link. Therefore, it is vital that you maintain your vehicle to factory specifications.

By installing or using the purchased product, the Consumer accepts this warranty and any specific Manufacturer warranties enclosed.

Limited Warranty

The following warranty is valid only in the United States.

The Manufacturer's full warranty applies to all products sold.

Secor Ltd. (AWE Tuning) warrants to the original retail purchaser (Consumer) this product (3.0T Heat Exchanger, Debris Screen, Drive Select Cooler, and Reservoir) against manufacturing defects for ONE YEAR from date of original purchase.

Upon verification of warranty coverage, AWE Tuning will repair or replace the defective product at their discretion, without charge. This is the only remedy the Consumer has for any loss or damage, however arising, due to nonconformity in or defect of the product. This warranty does not cover consequential damage, loss of time or revenues, inconvenience, loss of use of vehicle, shipping costs, installation labor costs, damage to the vehicle or components, or other incidental or indirect damage.

All warranties are void if the product was not installed by a certified auto mechanic, improperly serviced, modified, or used in a way not intended by the Manufacturer. Use of product in Motorsports or Racing conditions is grounds for warranty denial. Motorsports and Racing is an inherently abusive operational condition, and it is impossible to warranty for this type of usage.

The Consumer is responsible for ensuring that the product is installed in a safe and proper manner, and should cease usage of the product immediately if an unsafe or improper condition is noted. If an unsafe or improper condition is noted, the Consumer should then immediately contact the facility where the product was installed or AWE Tuning directly.

Please contact the original place of purchase for any warranty claims or explanations of this document.