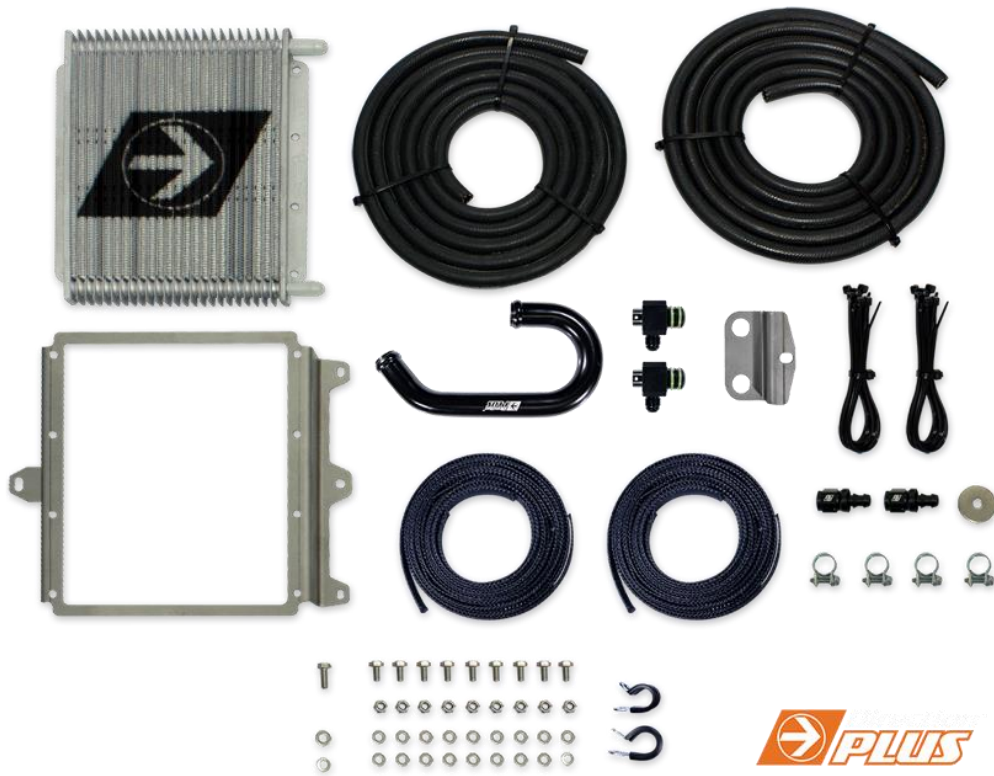


Ford Ranger / Everest 2018-2022 2.0L 10 Speed Transmission Cooler Installation Guide

This document is to be used as a guide for the installation of the **Direction-Plus™ Ford Ranger Transmission Cooler Kit to a 2018-2022 Ford Ranger and Everest 2.0L Bi-Turbo Diesel with 10 speed automatic transmission**. It is recommended that the installation of the product be carried out by a competent qualified mechanic.

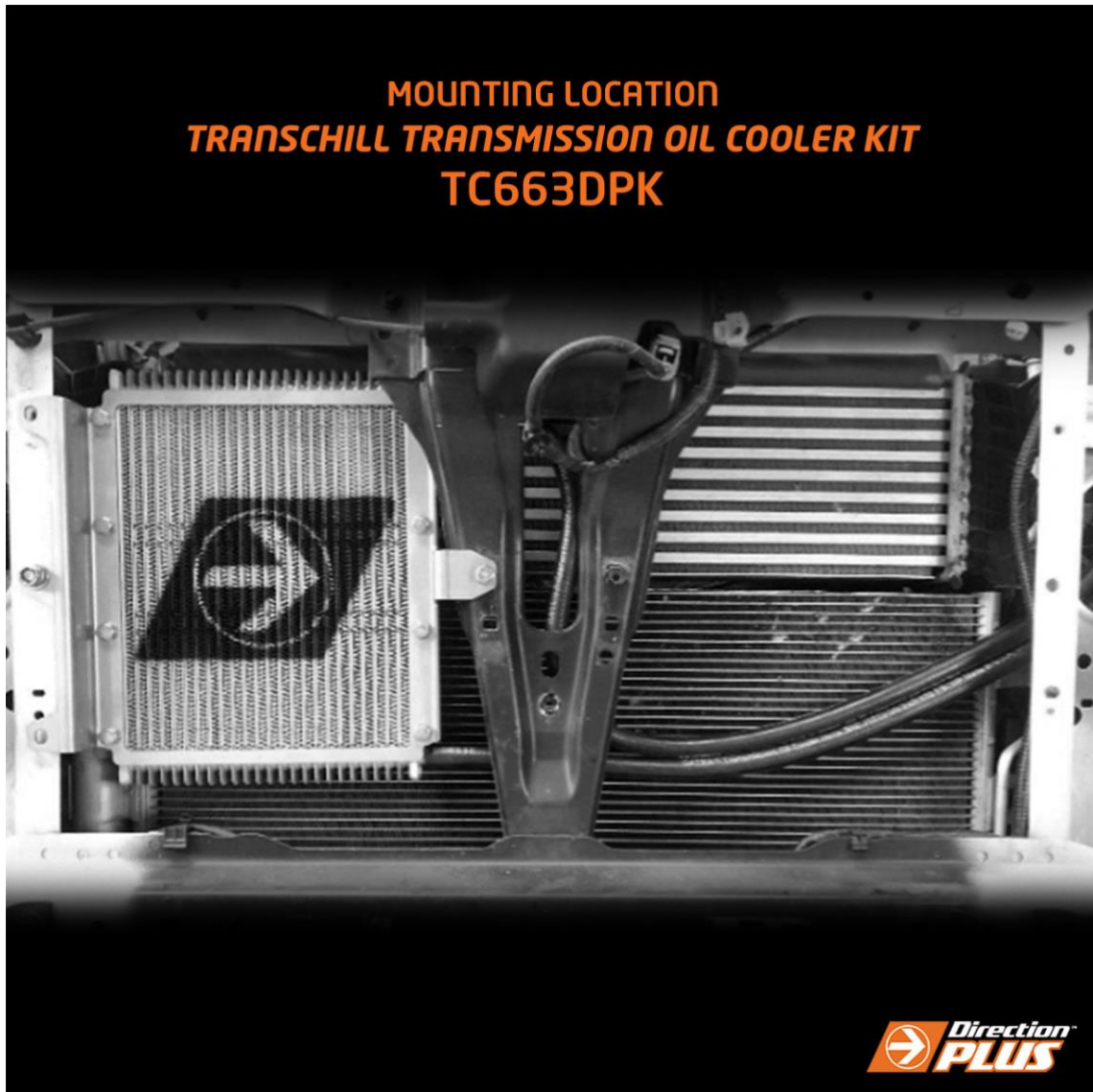
Note: when fitting to Ford Everest. If the factory cowling is still present, 35mm is required to be trimmed off the cowling. This is to allow enough clearance for the trans cooler and allow the cowling to be retained. See the last image for example.

Included in the kit:



1 x Transmission Cooler (TCC23DP)	4 x 15-17mm Clamps (FMC10)	9 x M6x16 Bolts (SSSS304M612)
1 x Mounting Bracket (TC621-BR)	18 x Cable Ties (802078)	17 x M6 Flat Washers (FMW6)
2m of 3/8" Hose (27061)	1 x M8 x 16 Bolt (SSSS304M816)	9 x M6 Nyloc Nuts (FMN6)
2m of 3/8" Hose (27061)	1 x M8 Flat Washer (FMW8)	1 x M6 Spring Washer (FMSW6)
2 x Transmission Adaptors (TC621ADP)	1 x M8 Spring Washer (FMSW8)	1 x M6 Mud Washer (FMW625)
2 x -6 Hose Tails (DPP0001-06)		1 x 20mm Insulated P Clip (PCL20)
1 x Coolant "J" Pipe (TC663-PIPE)	2x 2m Braid Sleeve (LV3373/100)	1 x 16mm Insulated P Clip (PCL14)
1 x Transmission Adaptor Retaining Bracket (TRB671-BR)		

Mounting Location

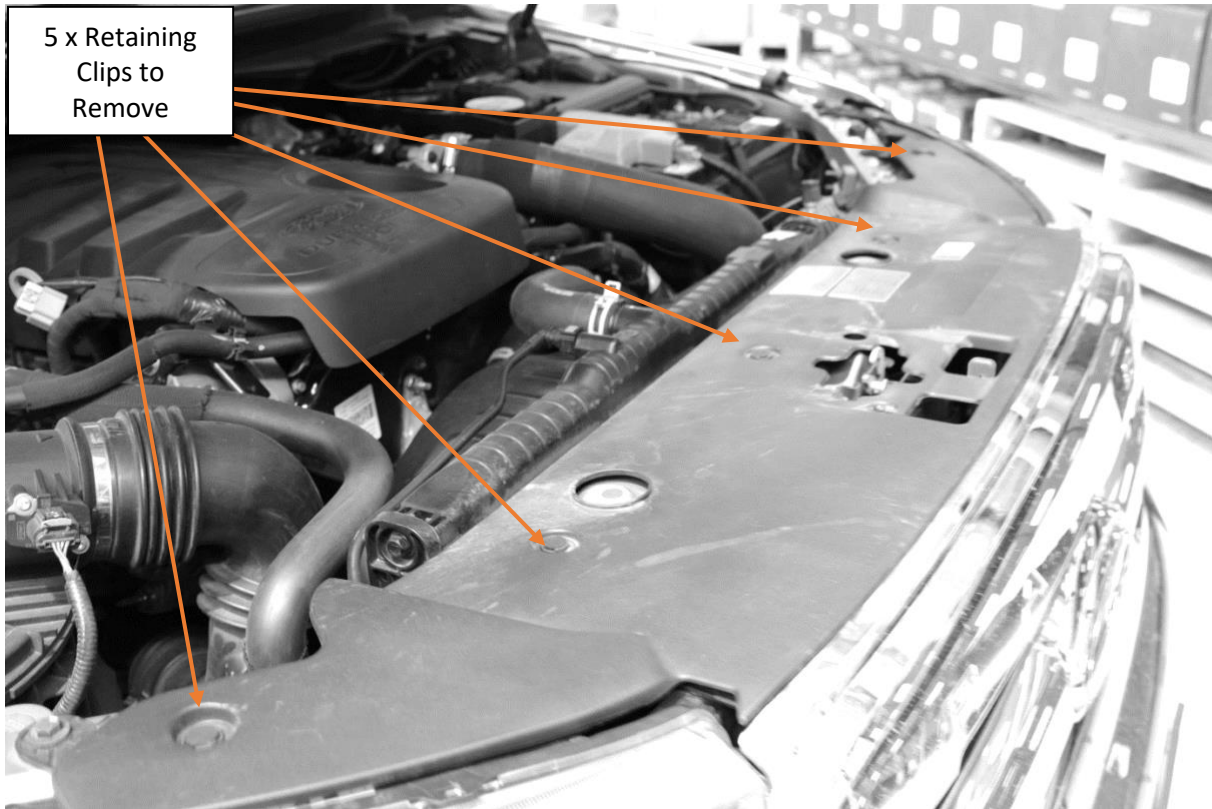


Tools Needed:

- Spanners
- Sockets
- Screw Drivers
- Pliers
- Snips/Cutter
- Rags
- Small container for catching oil drips
- We suggest using a thread sealant like Loctite 567 or equivalent.

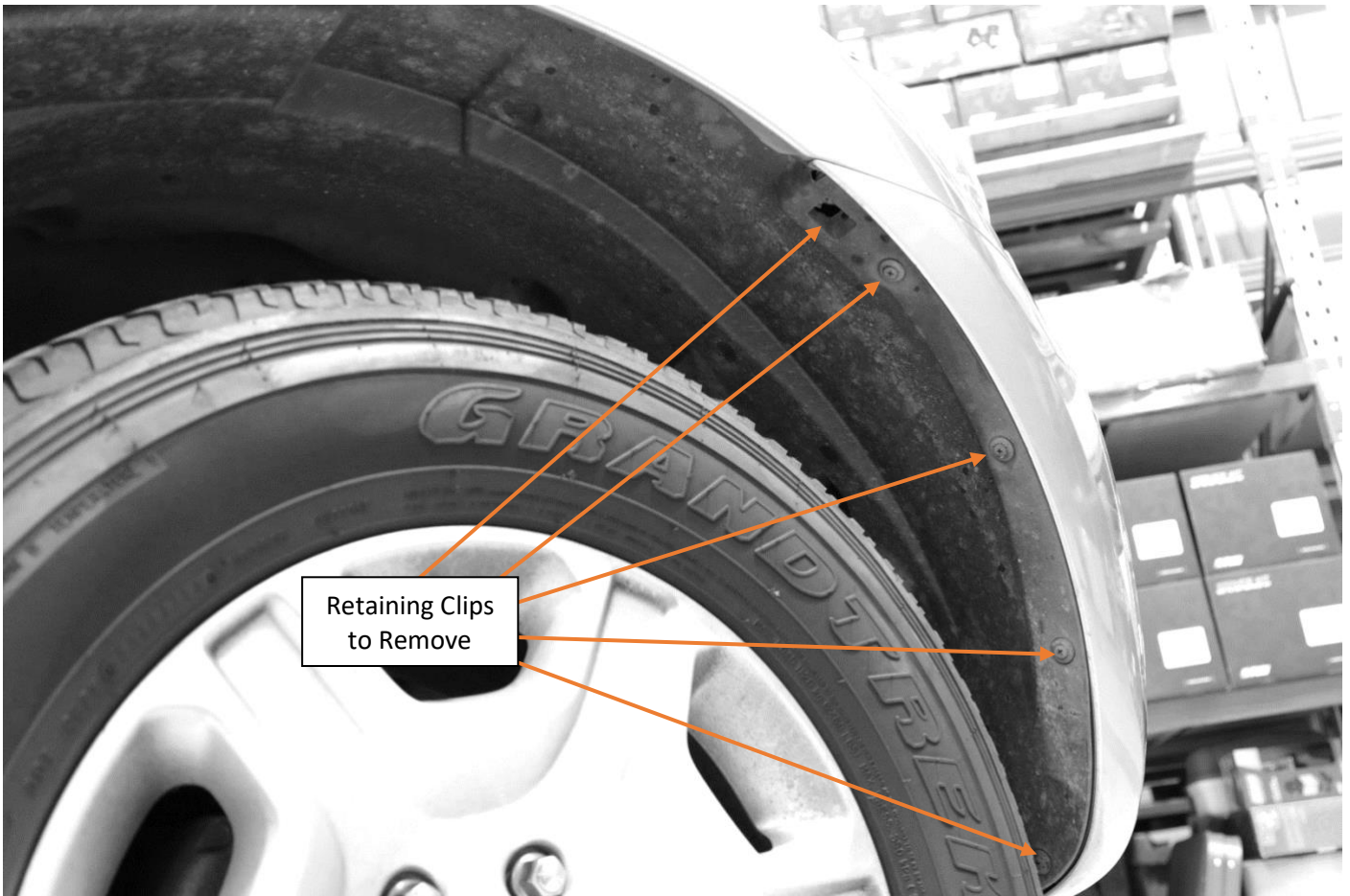
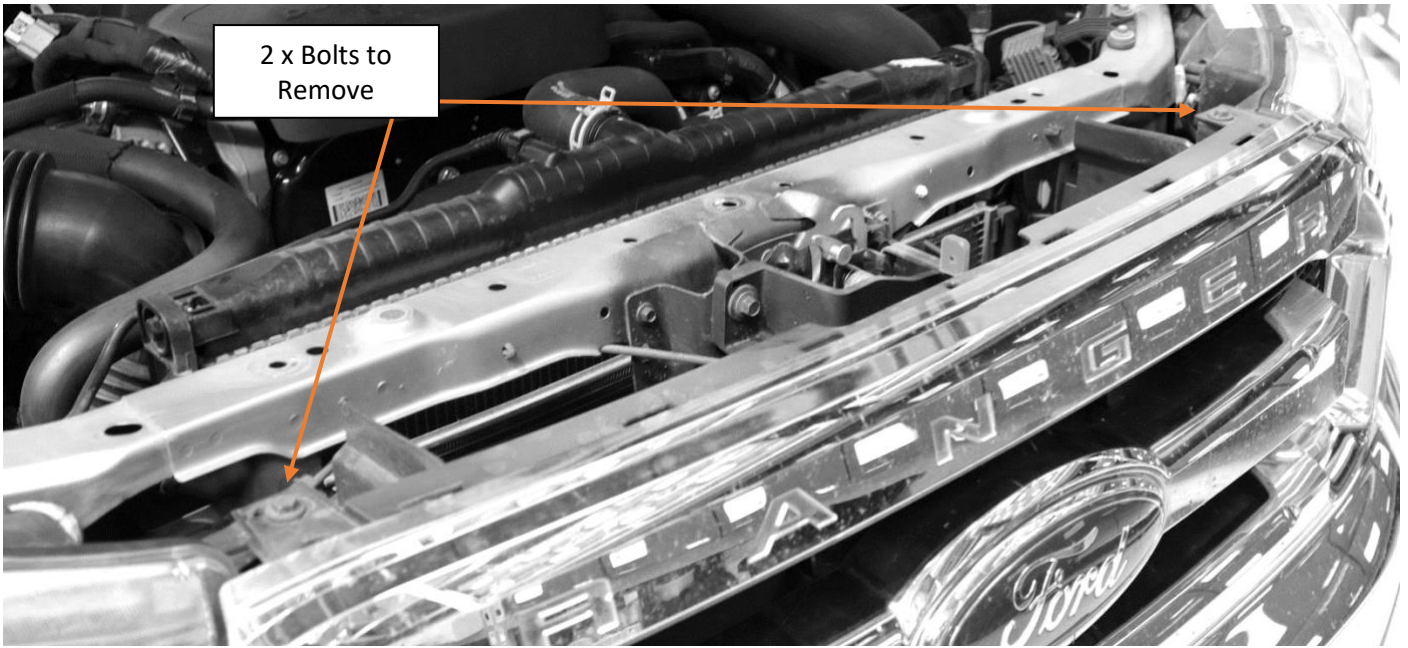
Installation Guide

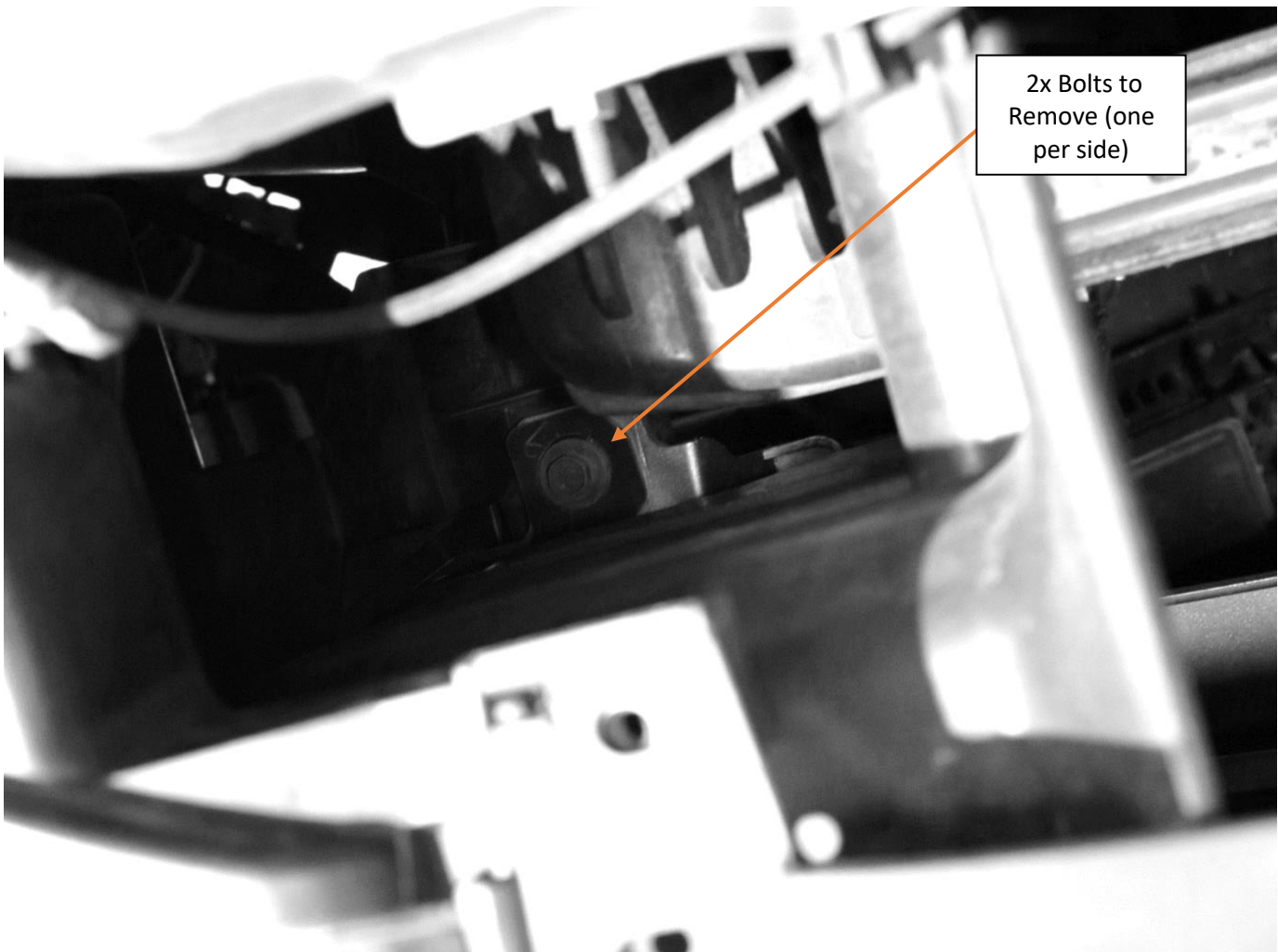
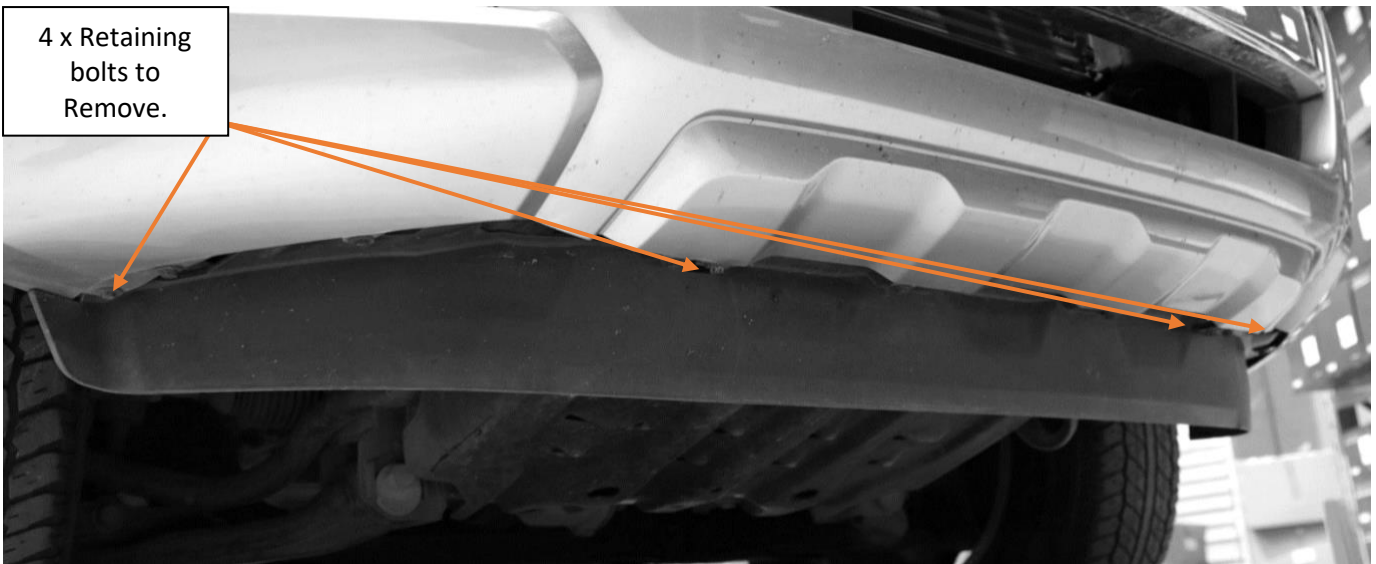
1. Begin by removing the radiator trim cover. It is held in place by five clips. Once the clips are removed it can be removed, TAKE CARE! As there are some tabs along the front edge hidden that can break if too aggressive.



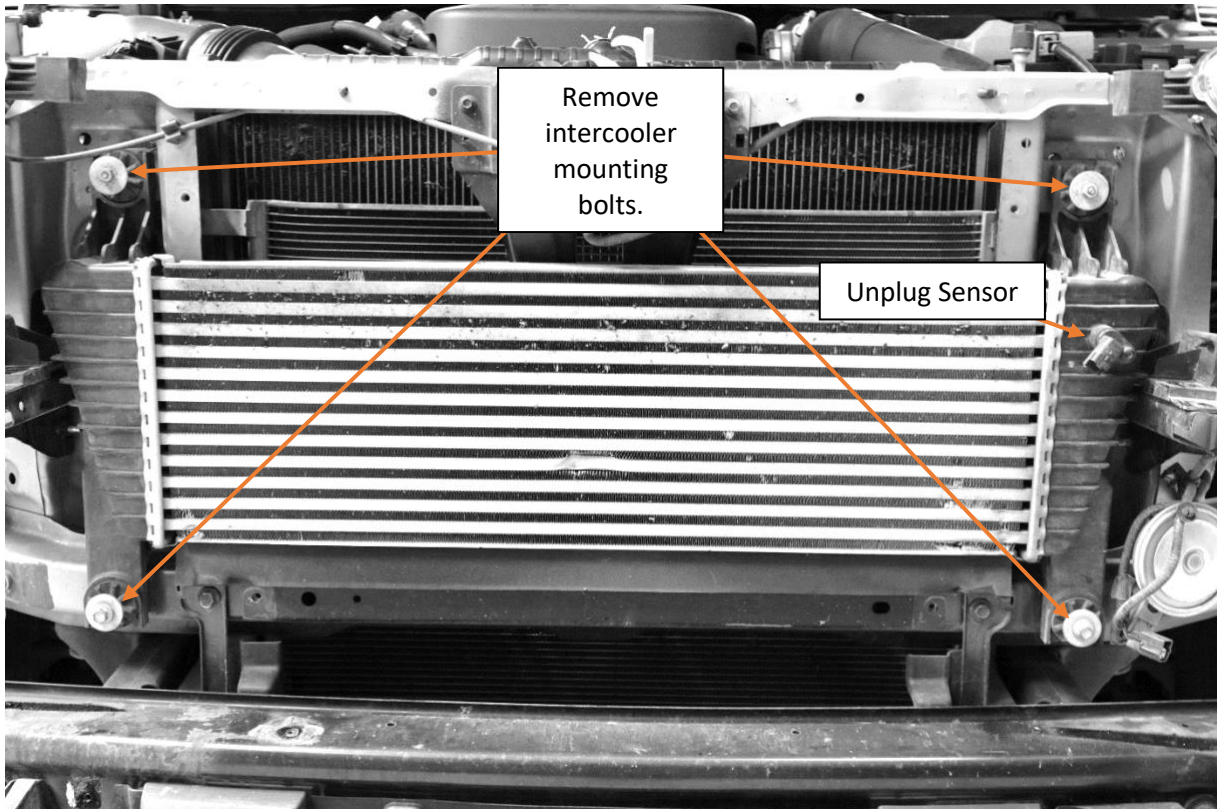
PX2 Ranger Front of Engine Bay

2. Once the radiator trim cover has been removed, the rest of the grille and front bumper assembly can be removed. There are two bolts on the top of the grille, clips through the wheel well and under the front of the vehicle and hidden bolts down behind the grille. You will also need to unplug fog lights, and parking sensors depending on trim level. NOTE for Aftermarket Bullbars: some vehicles do not need to have the whole bulbar removed to install the transmission cooler. This will have to be assessed at the time on a need be basis.

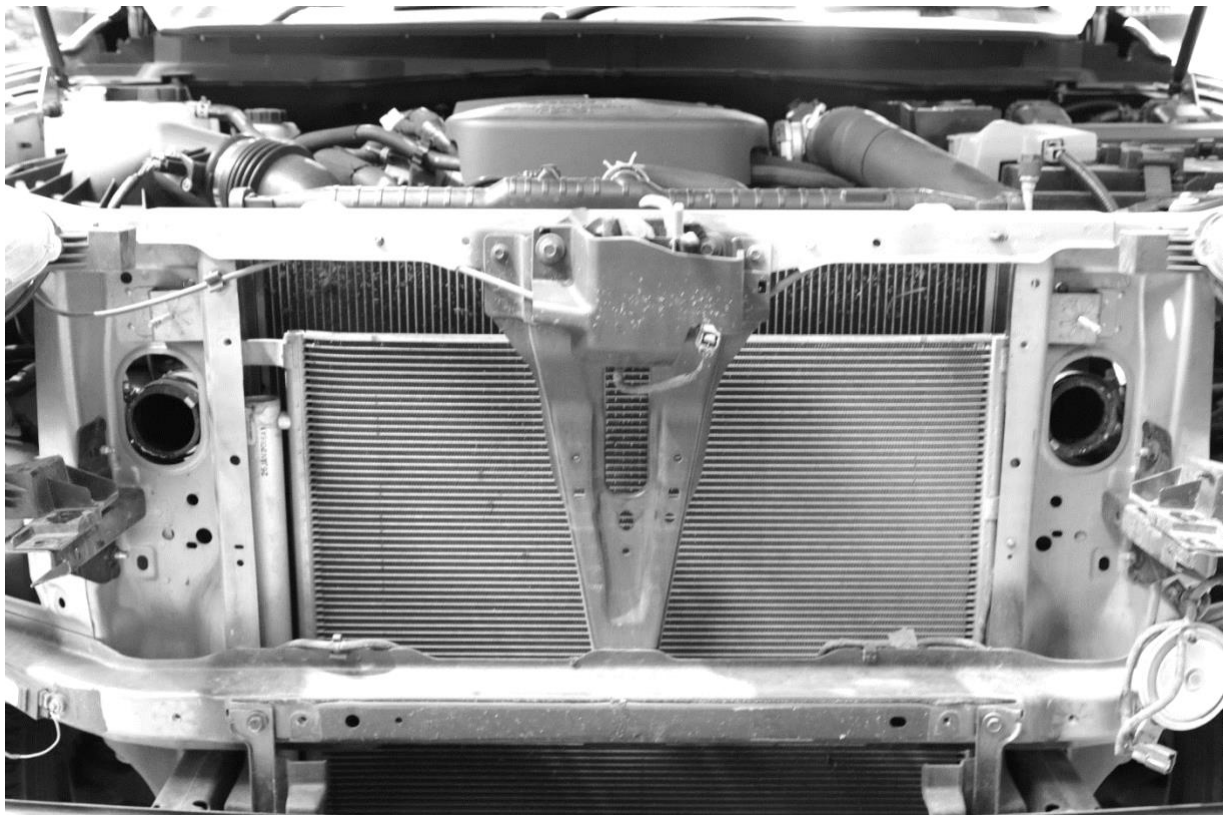




3. Once the front bumper is removed, remove the black plastic trim pieces at either end of the intercooler, to allow access to remove the intercooler.
4. Loosen the hose clamps that secure the hoses to the intercooler (on the engine bay side)



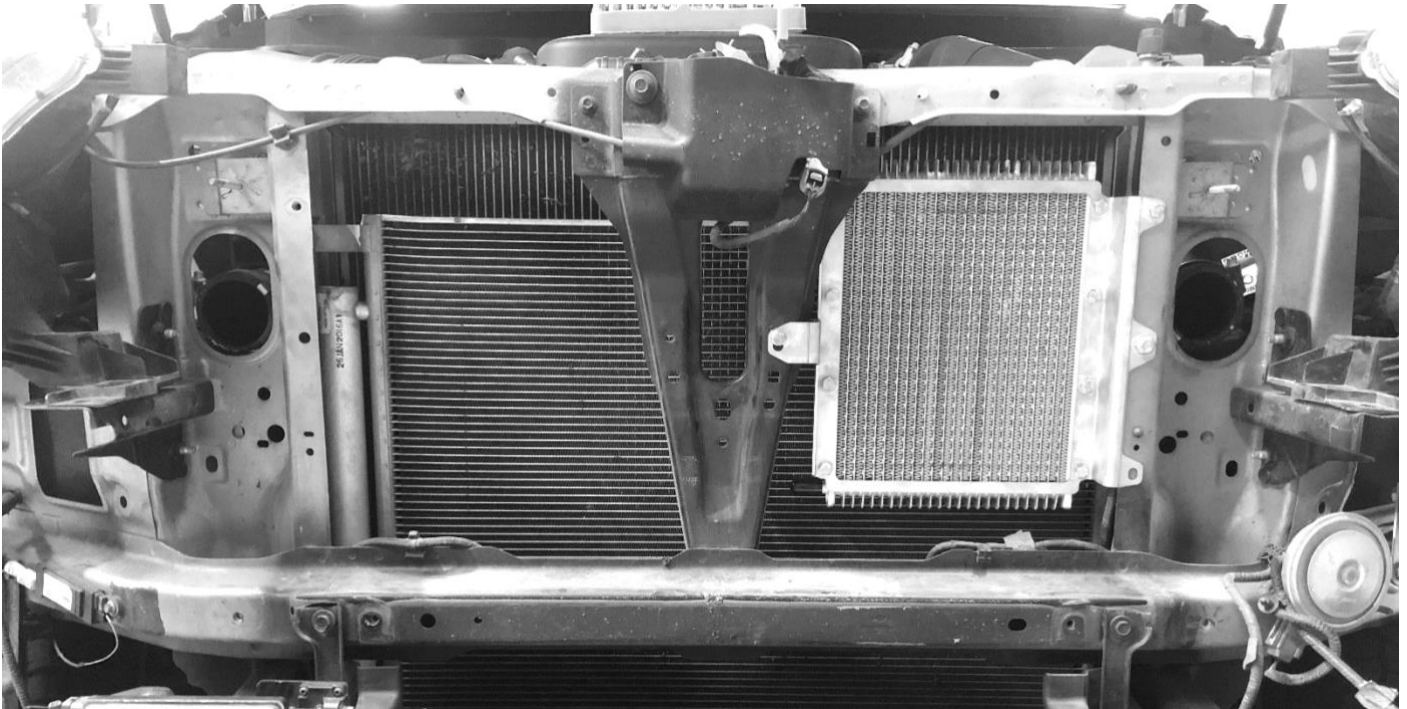
Front grille, bumper and plastic trim pieces at ends removed. Showing the four mounting locations of the intercooler that need to be removed. Note to unplug sensor on the right first.



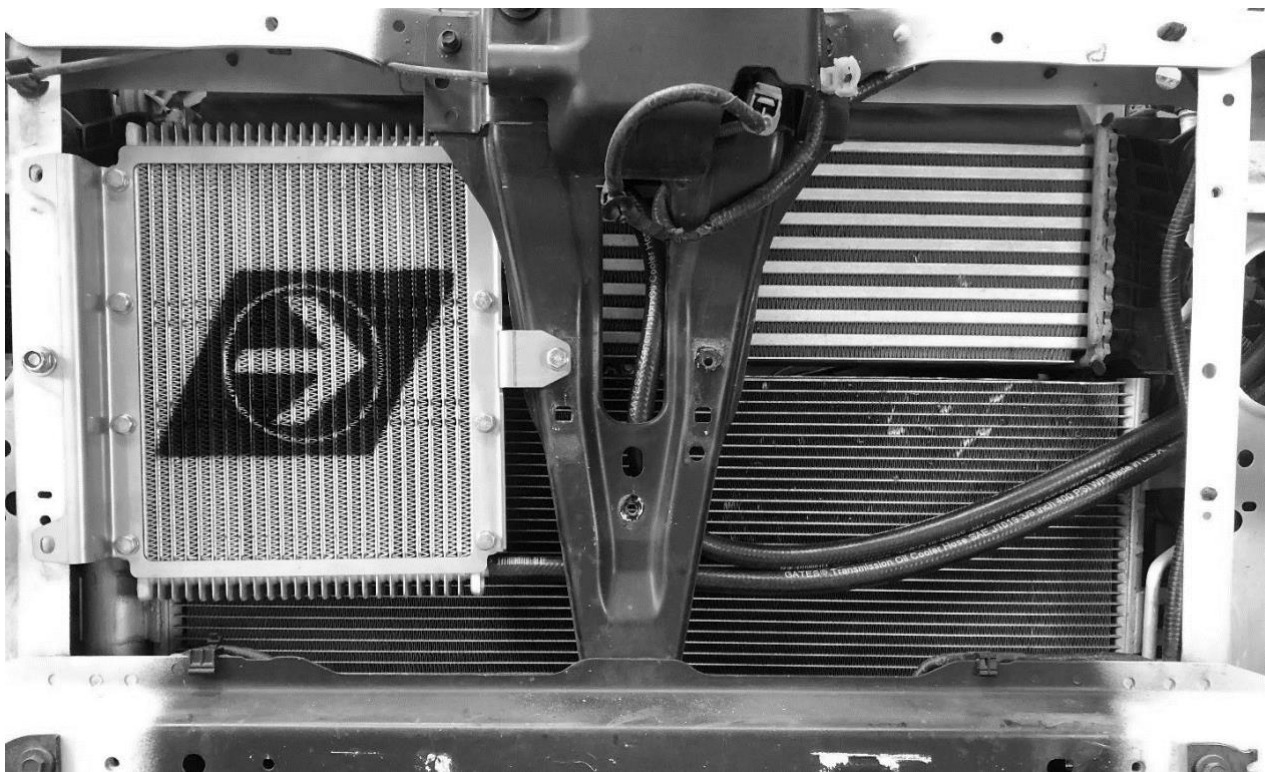
Intercooler and trim pieces all removed. Ready for installation of transmission cooler.

5. Assemble the transmission cooler to the brackets in the kit. The assembly will use all 8xM6 bolts, 16xM6 flat washers and 8xM6 nyloc nuts. Note, the kit can sit on the right, left or in the case of a dual kit, both sides.

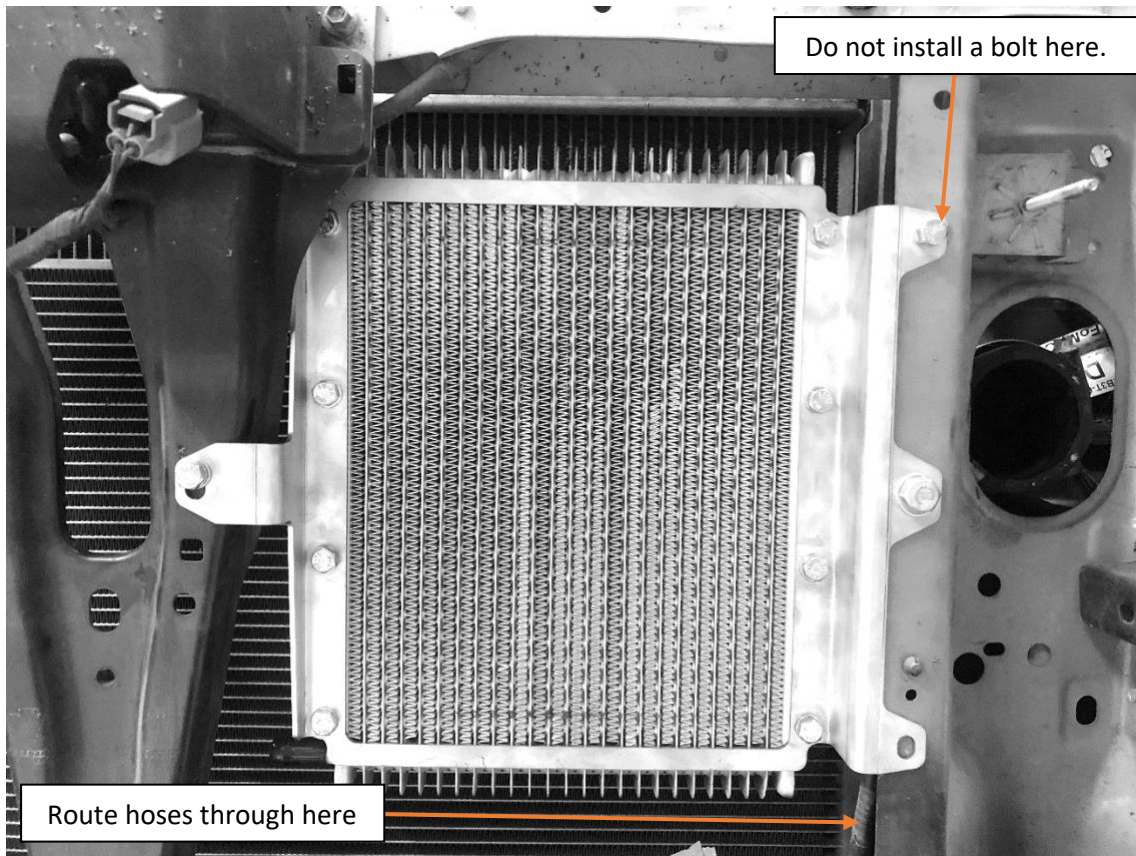
Make sure you locate the transmission cooler the correct way around for your installation. This installation shows a passenger side installation.



Transmission Cooler Assembly Bolted in Place. Note: Cooler sits on back face of the bracket, with nuts towards the rear, bolts to the front. The inlet and outlet ports should be facing the center support of the vehicle. Note there are only two bolts needed to secure the cooler bracket to the vehicle at this stage, the top bolt is reused when the factory end trim pieces are reinstalled.

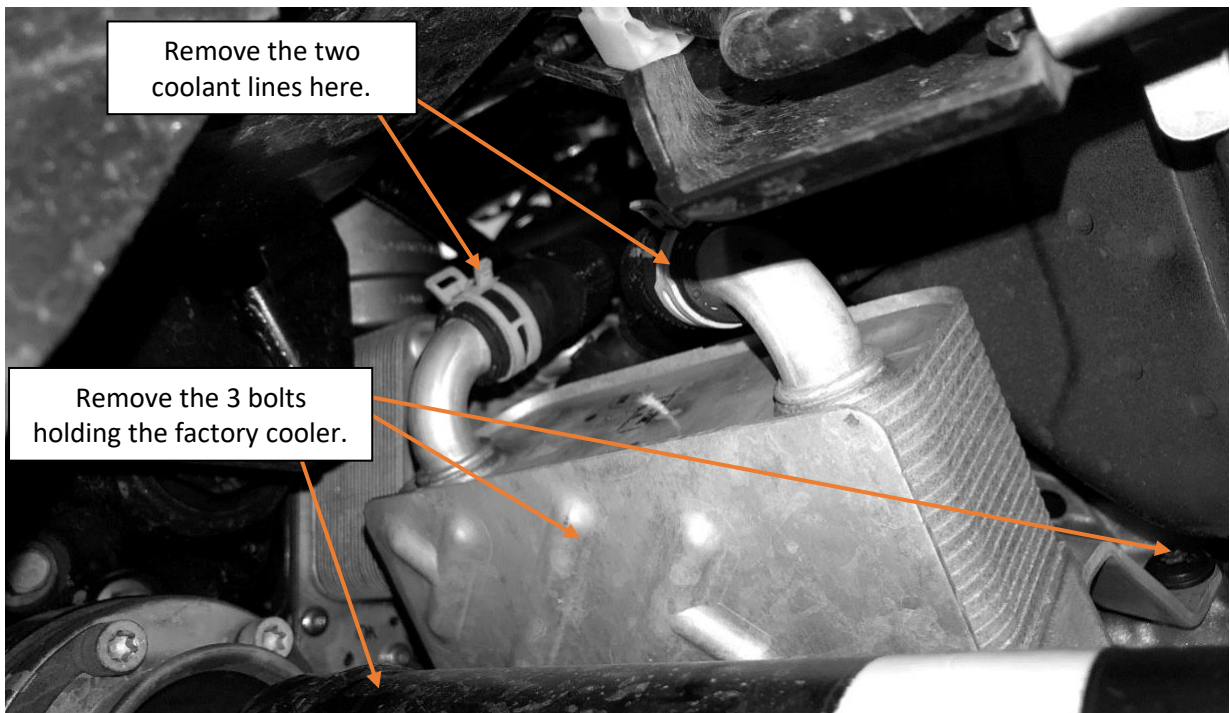


Transmission Cooler Installed. Above images illustrate LEFT and RIGHT mounting orientations



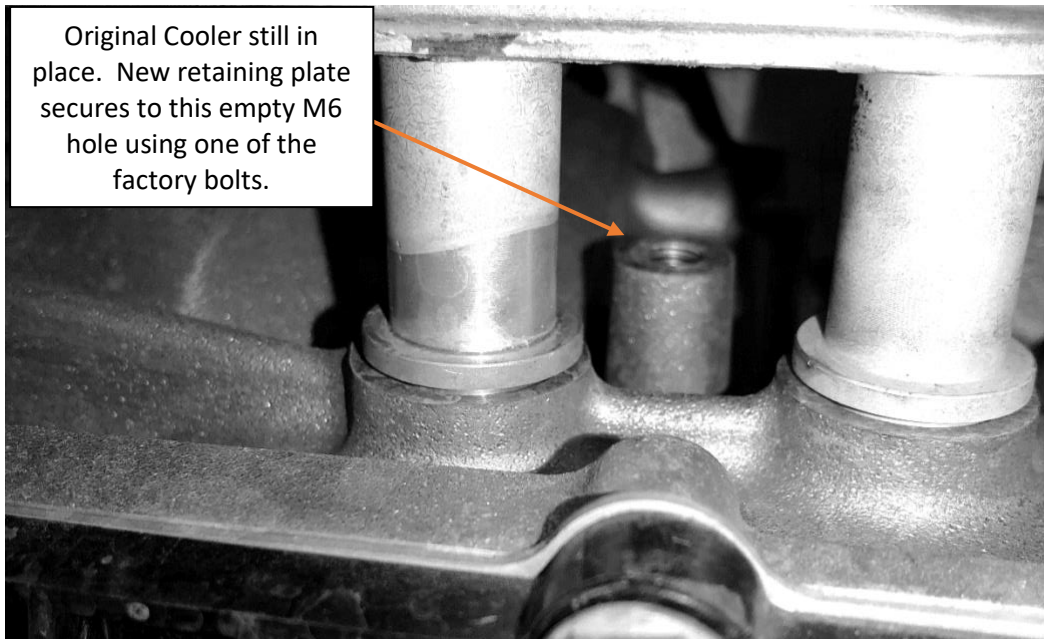
Transmission cooler installed – closeup.

6. Bolt the new transmission cooler and bracket assembly into the vehicle locating off the empty threaded holes in the center support and side support. The M8x16 bolt and washers for outside threaded hole, M6x16 bolt and washers for center support.

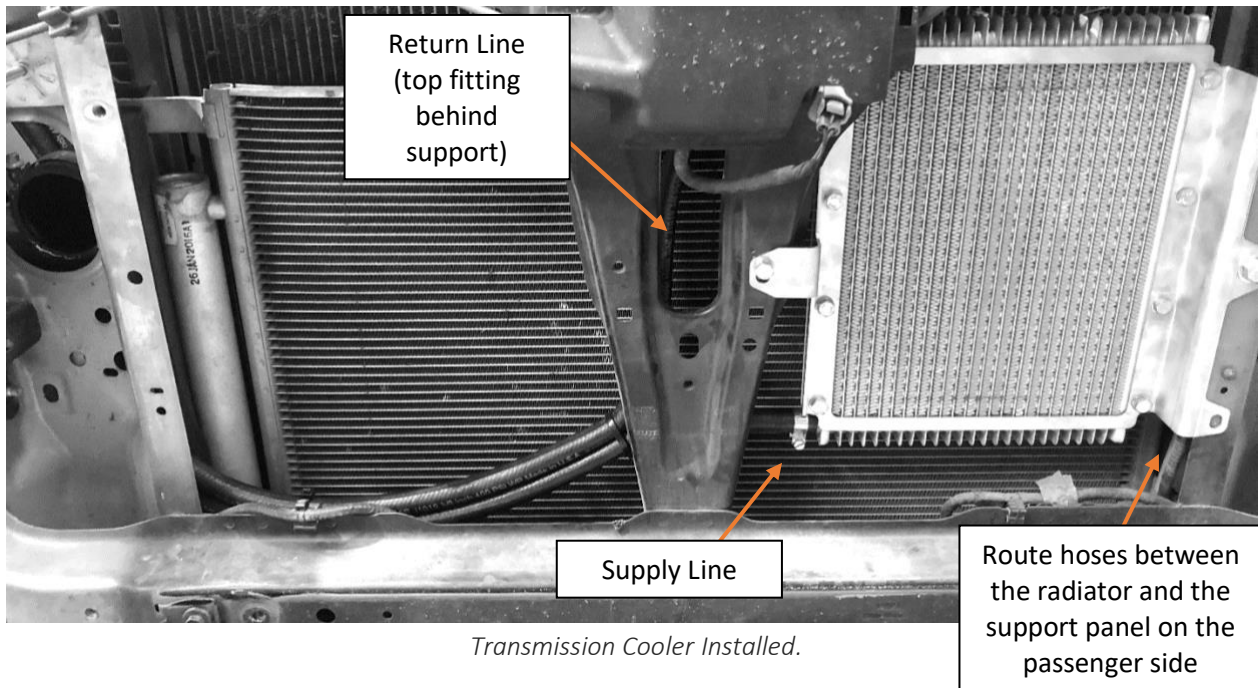


7. Clamp the coolant lines going to the original transmission cooler and remove the cooler to prevent coolant loss.

8. Install the supplied "J" pipe in place of the original cooler, reusing the original clamps.



9. Remove the 3 bolts holding the transmission cooler in place, **be sure to have a container handy as some transmission fluid will leak from the cooler when removed.**
10. Install the -6 hose tails to the new transmission adaptor and then install the new transmission adapter assembly using the new retaining plate and one of the original bolts. Note: We recommend the use of thread sealer between the hose tails and transmission adaptor (Loctite 567 or 577 or similar)
11. Connect the supplied hose to the lower port on the transmission cooler, secure in place with a clamp.
12. Connect the other end of the hose to the **lower** port on the new transmission cooler block, secure in place with a clamp. You will need to measure and cut it to length. Once cut you can install the protective braid sleeve over the hose.
13. Connect one end of the remaining supplied hose to the top port on the transmission cooler, secure in place with a clamp.
14. Connect the other end of the remaining hose to the **upper** port on the new transmission cooler block, secure in place with a clamp. You will need to measure and cut it to length. Once cut you can install the protective braid sleeve over the hose.



15. **Optional for single kit, required for dual kit:** Use the insulated P Clip to secure the line from the top port of the new transmission cooler, using the third bolt down on the transmission cooler bracket. Make sure to “loop” the hose so it’s not kinked and make sure it is not rubbing on anything.
16. Use cable ties to secure any loose cooler line to prevent rubbing.
17. The cooler itself holds 120mL of fluid (per cooler for dual kits), plus 70mL per 1m of hose, calculate the total amount and top up the transmission using the correct factory specified transmission fluid. Note the factory cooler when removed will hold about 250mL of fluid, this can be reused.

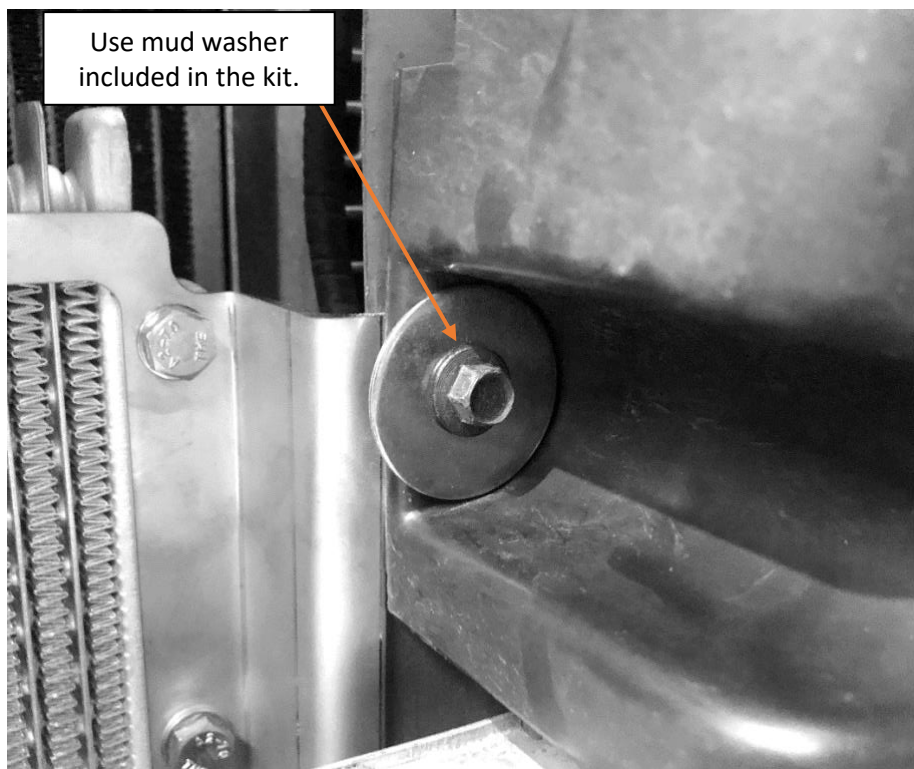


Transmission cooler lines in place to new transmission adaptor block, note drive shaft removed for clearer photos

18. Once everything is installed and secured, you will need to check and top up the engine coolant as needed.
19. Reinstall the intercooler, trim pieces, bumper, and grille in reverse as how it was removed.



Intercooler and trim pieces reassembled.



The top bolt installed with trim piece also secures the top outer mount for transmission cooler bracket.



Example of trimmed cowling for Everest fitment, if only one cooler is fitted only one side needs to be trimmed.

20. Start the engine allowing the cooling system to bleed and to check for leaks.

End of Installation Guide