

Transchill Arctic Black Transmission Cooler for Toyota Land Cruiser 300 Series 2022 - on Installation Guide

This document is to be used as a guide for the installation of the **Direction Plus Arctic Black Transmission Cooler Kit** to a **Toyota Land Cruiser 300 Series (2022 on)** with automatic transmission.

It is recommended that the installation of the product be carried out by a competent qualified mechanic.

Included in the kit:



<i>Loose</i>	<i>Bagged</i>	<i>Cooler Mounting Hardware</i>
1 x 32mm Transmission Cooler (TCC14DP)	4 x 15-17mm Clamps (FMC10)	11 x M6x16 Bolts (SSSS304M616)
1 x Upper Mounting Bracket (TCB635-BR)	8 x Cable Ties (802078)	22 x M6 Flat Washers (FMW6)
1 x Lower Mounting Bracket	2 x -6 to M16x1.5 Adaptors (DP816-6-M1615)	8 x M6 Nyloc Nuts (FMN6)
1x 3m of 3/8" Hose (27061)	2 x M16 Alloy Washers (PLFW16)	
1 x 6mL Loctite 567 (567-6ML-LOC)	1 x -6 to 3/8" 90° Tail (DPP0090-06)	
	1 x -6 to 3/8" Tail (DPP0001-06)	

Mounting Location:

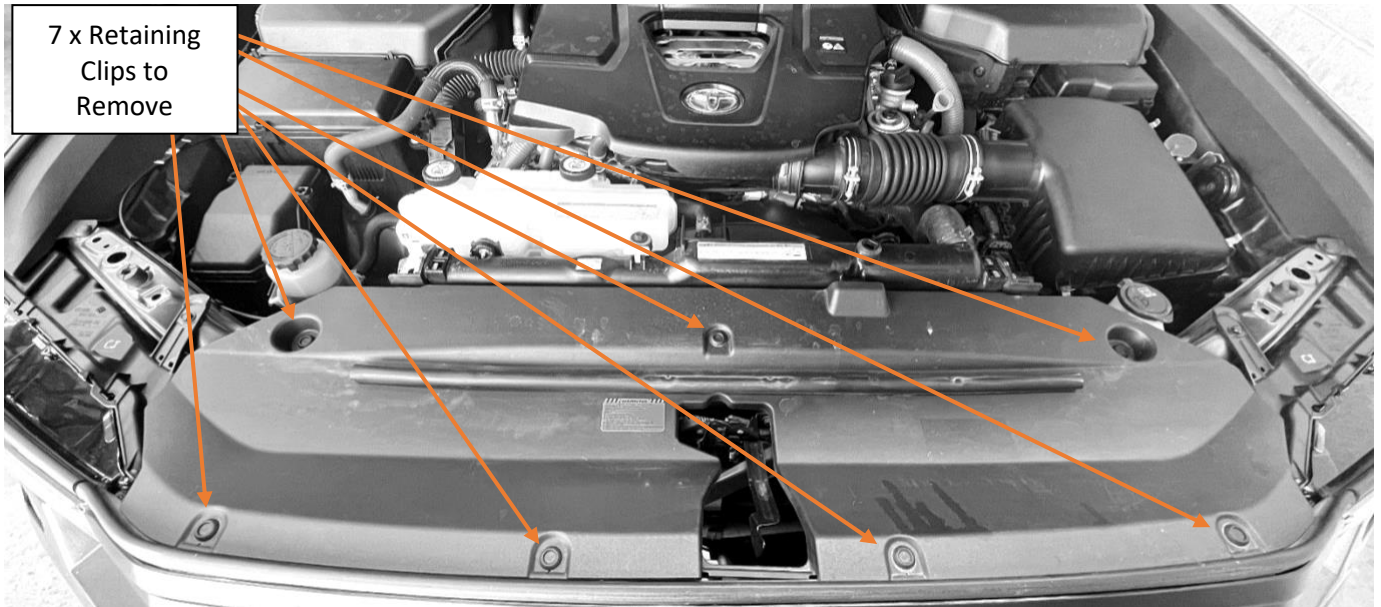


Tools Needed:

- 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.

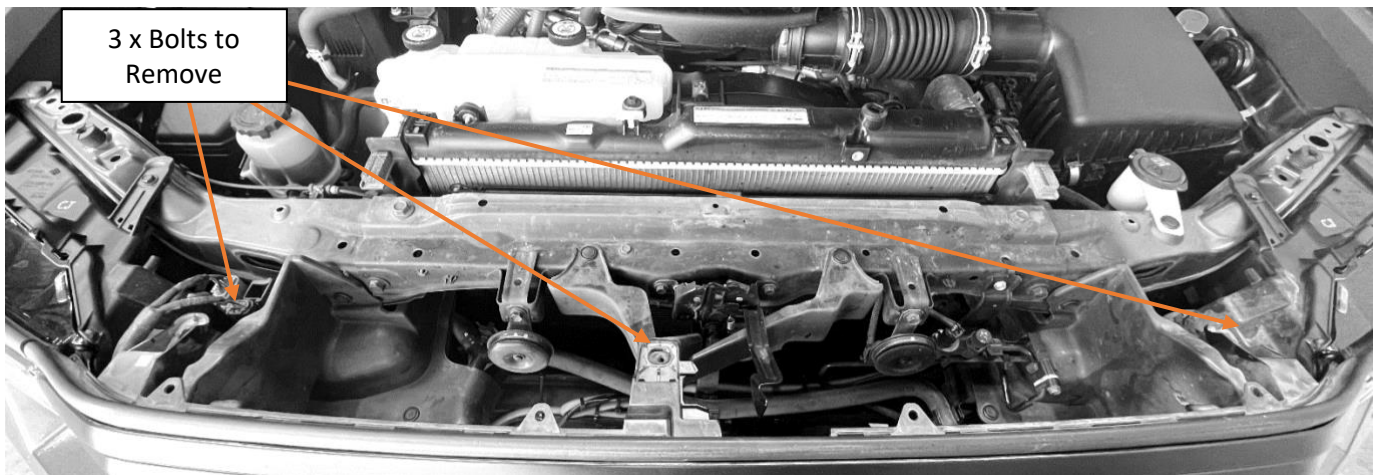
Installation Guide

1. Begin by removing the top trim panel between the radiator support and the grille. It is held in place at the top by seven clips. The clips push down in the center to release. Once the clips are removed the trim panel can be lifted and removed.

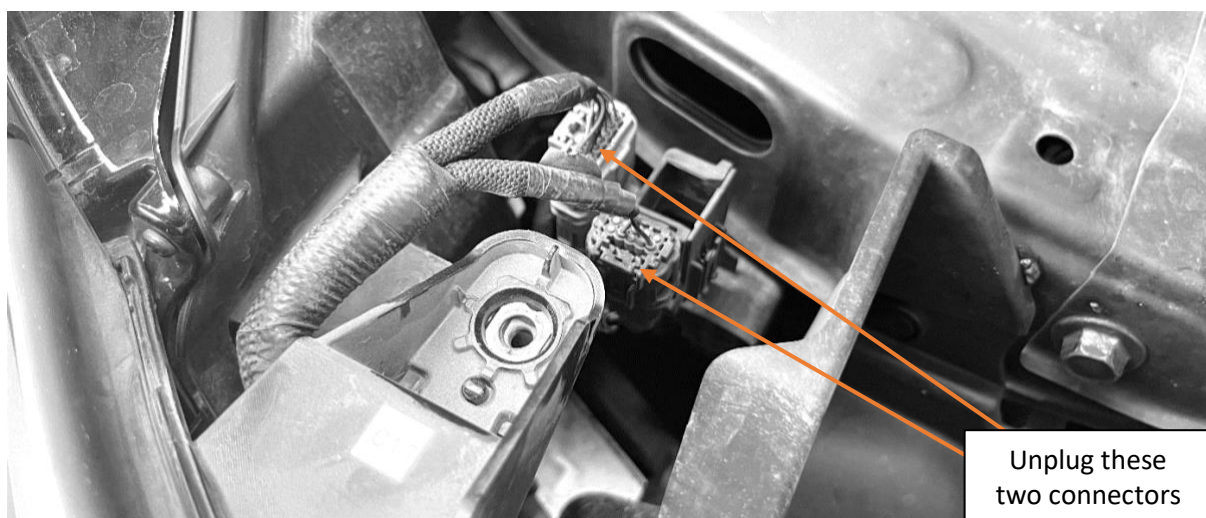


Land Cruiser 300 Series Front of Engine Bay

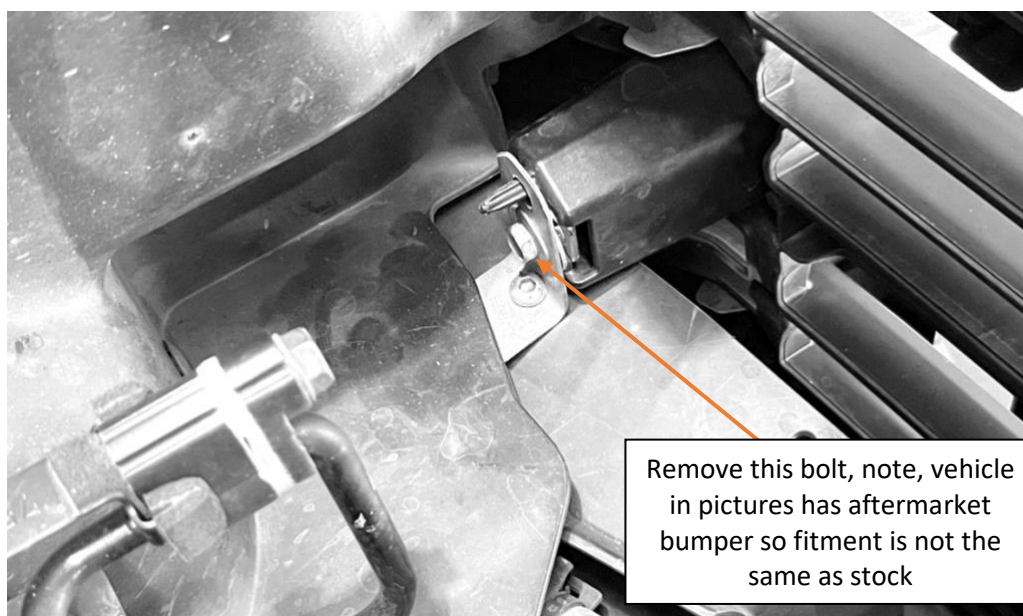
2. Remove the top three bolts that help support the grille.



3. Next up plug the two connectors next to the driver's side headlight.

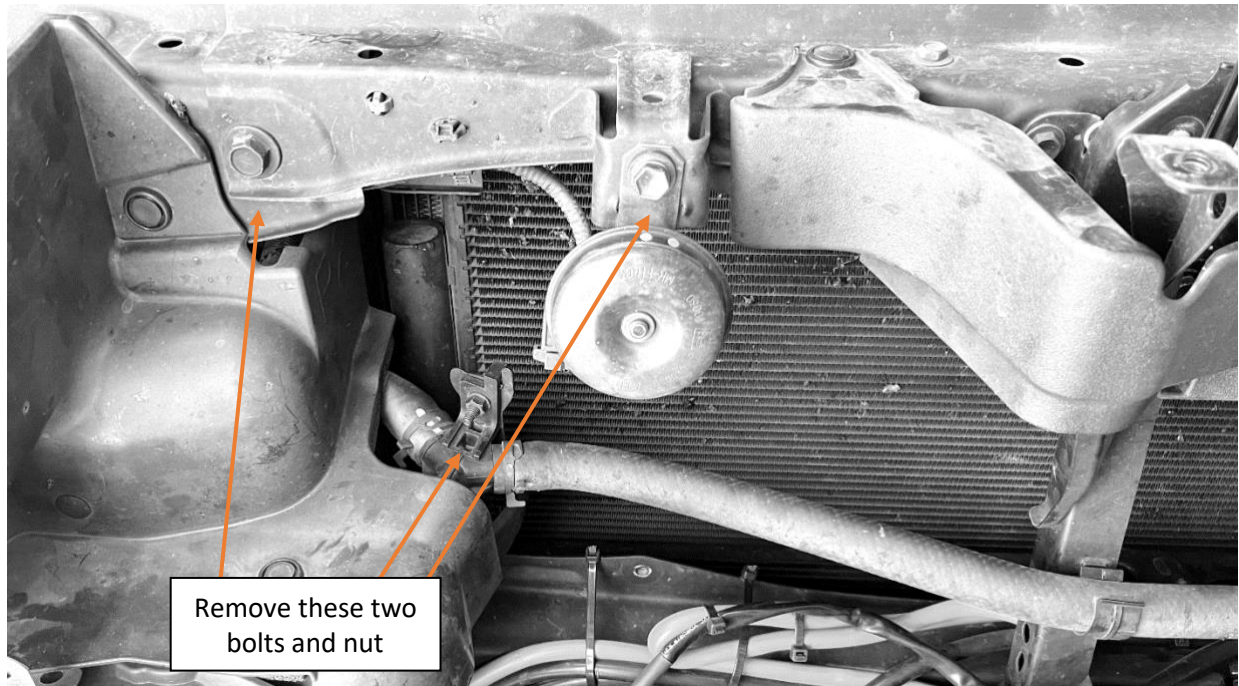


4. Next remove the two M6 bolts either side of the grill looking down from above. The grill can now be removed taking extreme care with the wiring harness.



Passenger side behind grille looking down from centre of vehicle towards outside of vehicle

5. Remove the M8 bolt that retains the horn on the driver's side and lift the horn up of the way.

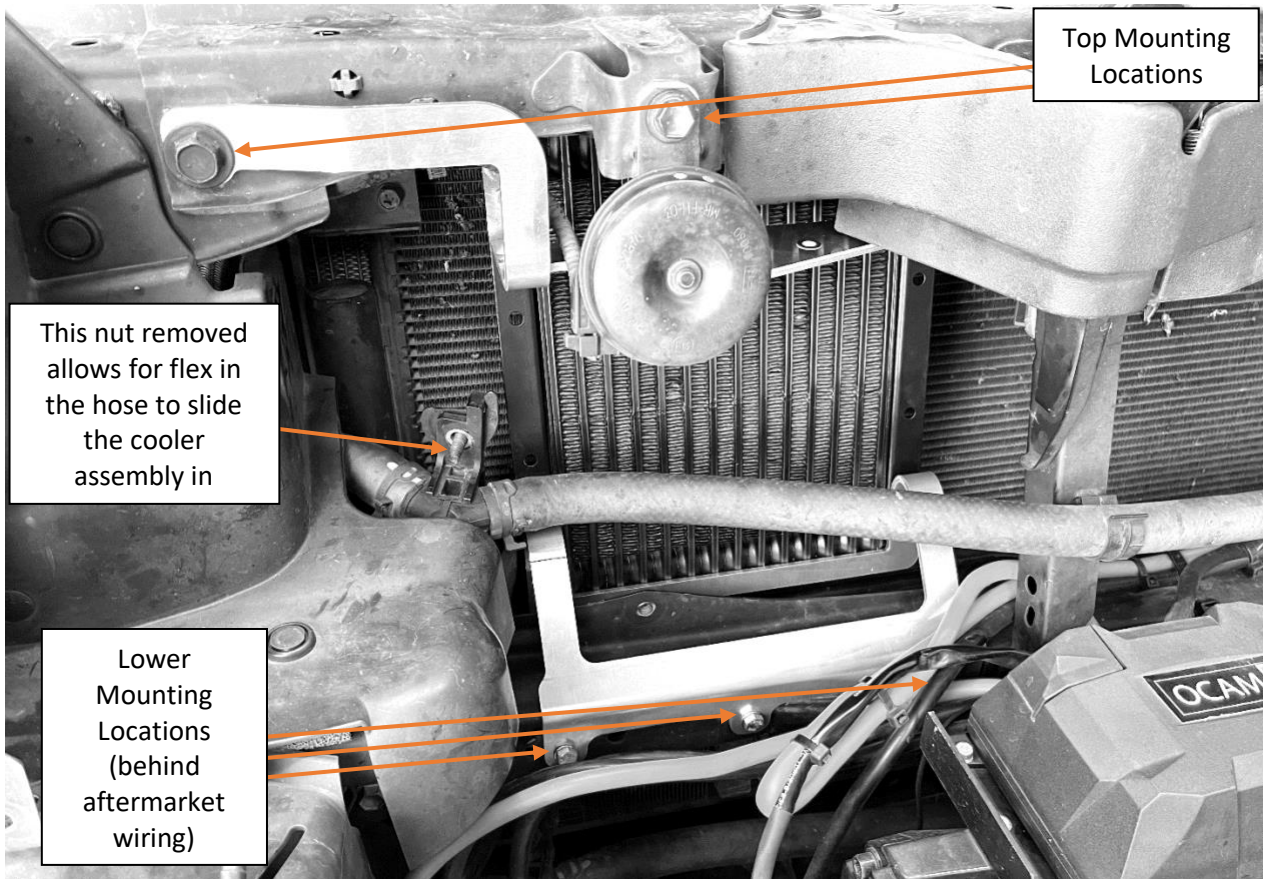


6. Assemble the transmission cooler to the brackets in the kit. The assembly will use all 8xM6 bolts, 16xM6 flat washers and 8xM6 nyloc nuts. The cooler mounts to the rear face of the brackets.
7. Secure the M16x1.5 threaded adaptors to the ports of the transmission cooler, making sure to use a 16mm sealing washer under each and Loctite 567 (or similar) on the thread to secure them in place.



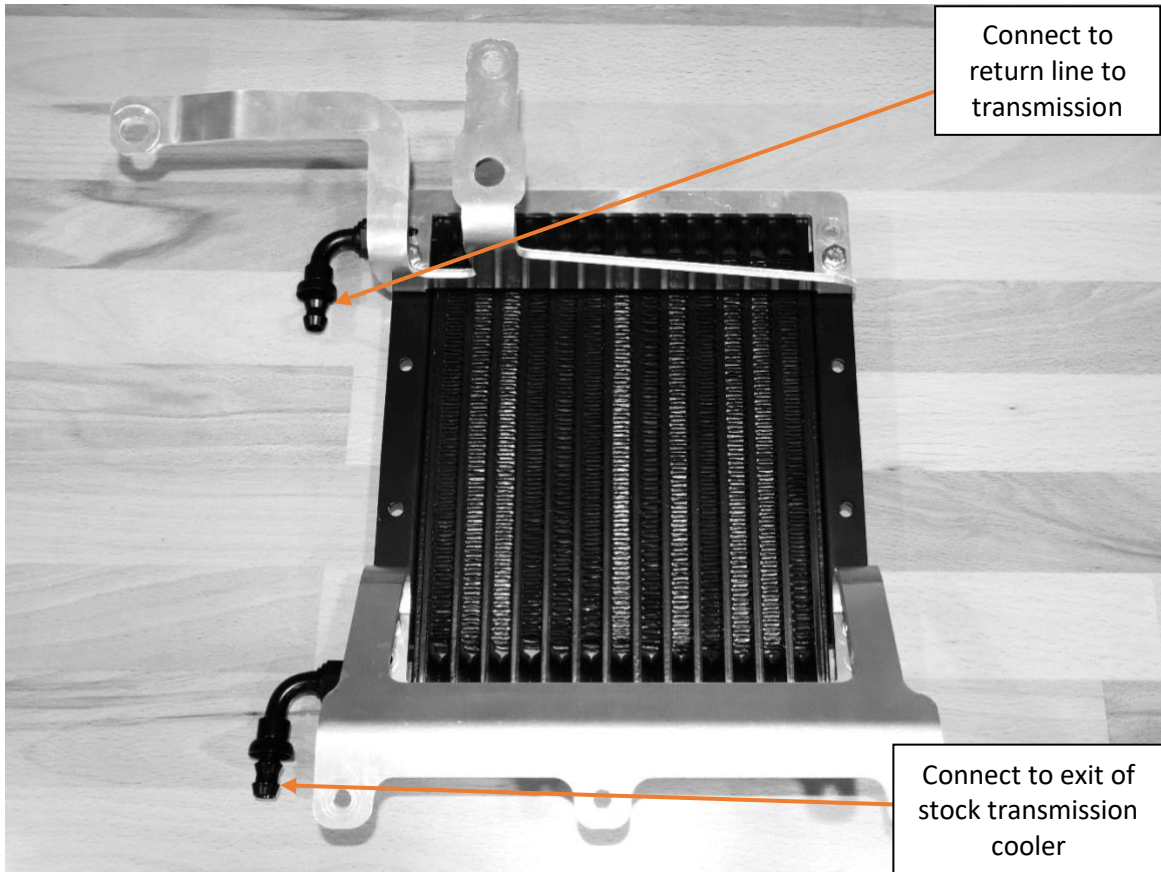
Cooler assembly with fittings in place at correct orientation

8. Loosely bolt the new transmission cooler and bracket assembly into the vehicle locating the top off the two bolts removed in step 2. Sandwich between the horn and mounting face. You may need to remove the trim around the bonnet latch to provide more clearance. If you struggle to fit it as a complete assembly it can be fitted with the top bracket only and then fit the lower bracket once the cooler is in the vehicle.

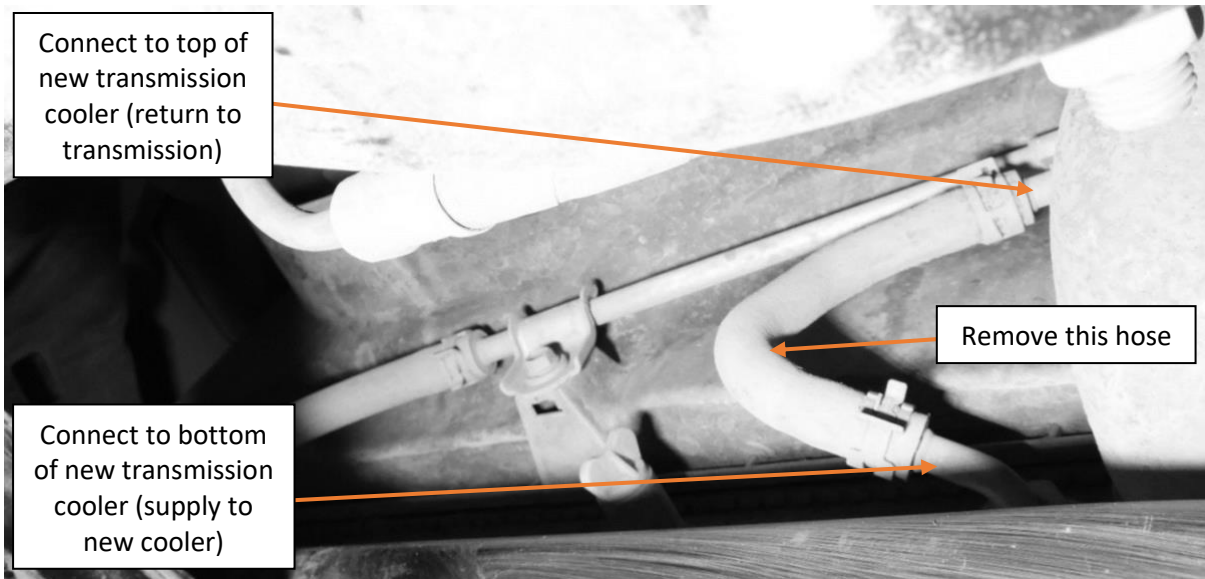


Transmission Cooler Assembly Bolted in Place.

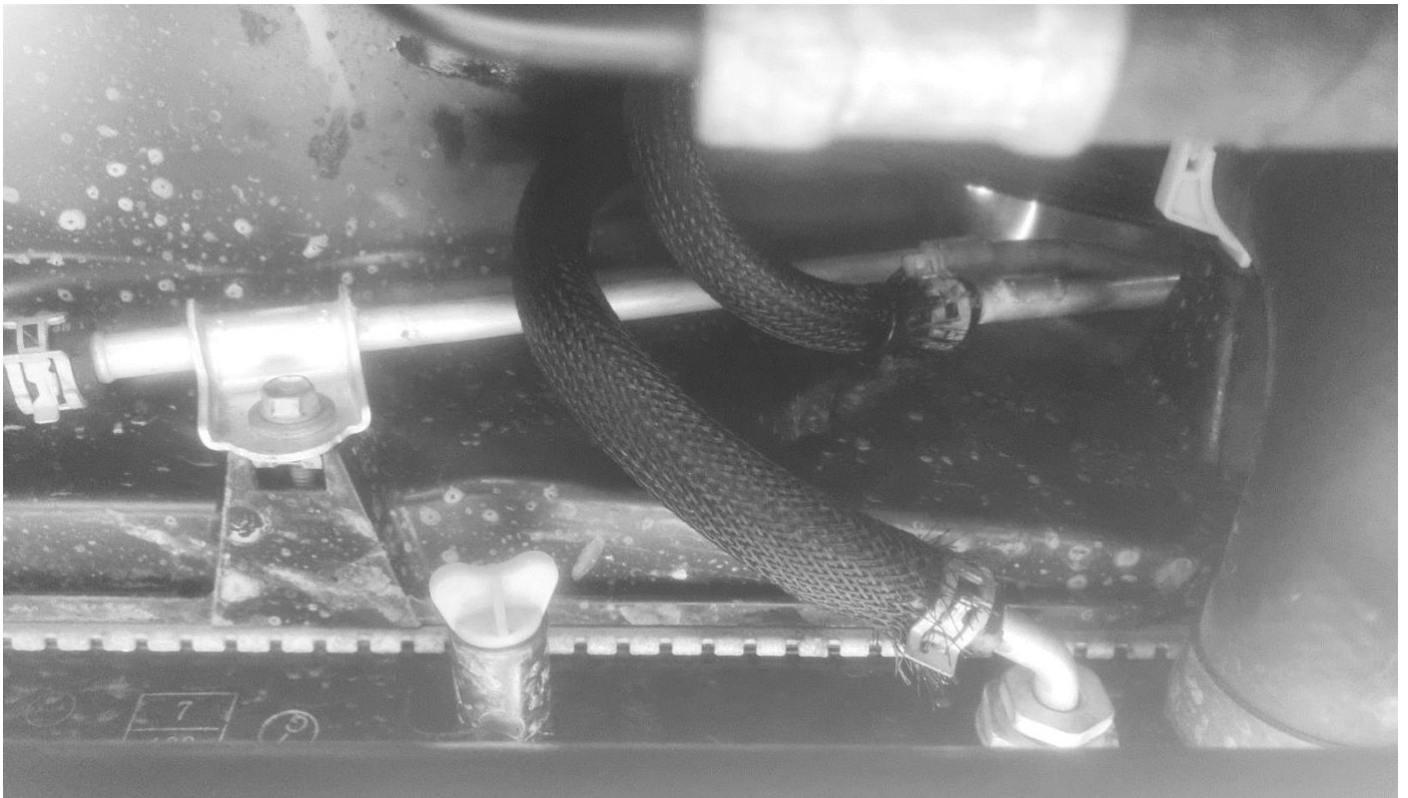
9. Using 3 x M6x16 bolts, spring washers and flat washers to secure the lower mount to the three empty threaded holes in the front support.
10. Once the cooler is in its final location you can tighten all bolts and reinstall the bonnet latch trim and horn (don't forget to plug it back in if you unplugged it). The nut securing the coolant pipe can also be reinstalled now.
11. Cut the 3/8" hose in half and push one end of each onto the two -6 90° fittings.
12. Use the first 90° fittings on the lower port, again using Loctite 567 (or similar) to secure in place. The 90° fitting should be aimed down.
13. From the lower port fitting, run the hose down on the driver's side of the vehicle between the radiator and support panel. Measure and cut the hose to length and connect the other end to the outlet port on the stock transmission cooler (located in the bottom of the radiator on the driver's side), secure in place with a clamp.



Cooler Assembly Hose Connections



Stock transmission cooler lines running to factory cooler in radiator bottom tank.



New Transmission Cooler Lines Installed.

14. From the top port fitting, run the hose down on the driver's side of the vehicle between the radiator and support panel. Measure and cut the hose to length and connect the other end to the hard steel return line to the transmission that used to connect to the stock transmission cooler, secure in place with a clamp.
15. Tighten down the -6 fittings now the hoses are connected and use cable ties to secure any loose cooler line to prevent rubbing.
16. The cooler itself holds 500mL of fluid, plus 70mL per 1m of hose, calculate the total amount and top up the transmission using the correct factory specified transmission fluid.
17. Reinstall the grille and cowl panel in reverse as how it was removed in step 1-4.

End of Installation Guide