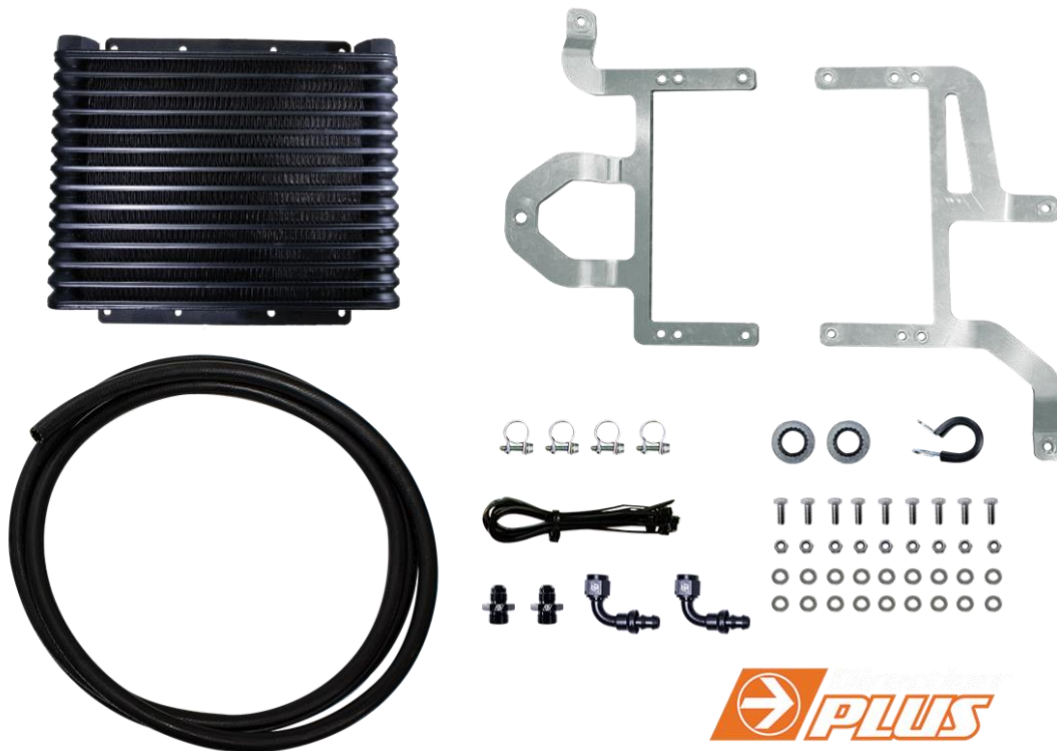


Transmission Cooler ARCTIC BLACK Installation Guide for Toyota Hilux N70

This document is to be used as a guide for the installation of the **Direction Plus Hilux N70 Direction Plus Transmission Cooler Arctic Black Kit** to a Toyota Hilux N70 with automatic transmission. It fits both 4.0L V6 1GR-FE and 3.0L 1KD-FTV diesel versions. 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)	9 x M6x16 Bolts (SSSS304M616)
1 x Upper Mounting Bracket (TCB612-BR)	8 x Cable Ties (802078)	18 x M6 Flat Washers (FMW6)
1 x Lower Mounting Bracket	2 x -6 to M16x1.5 Adaptors (DP816-6-M1615)	9 x M6 Nyloc Nuts (FMN6)
1x 3m of 3/8" Hose (27061)	2 x M16 Alloy Washers (PLFW16)	1 x 17mm Insulated P Clip (PCL20)
	2 x -6 to 3/8" 90° Tail (DPP0090-06)	

Mounting Location

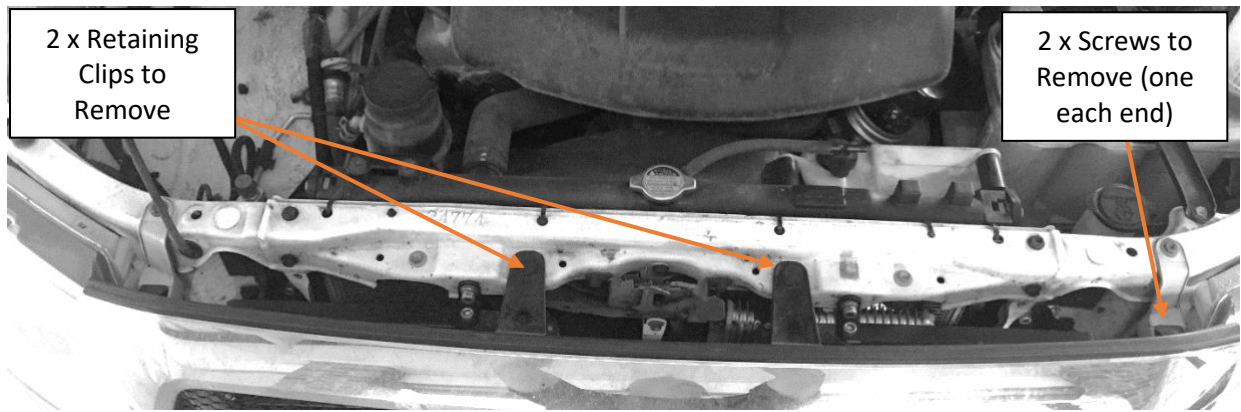


Tools Needed:

- 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.

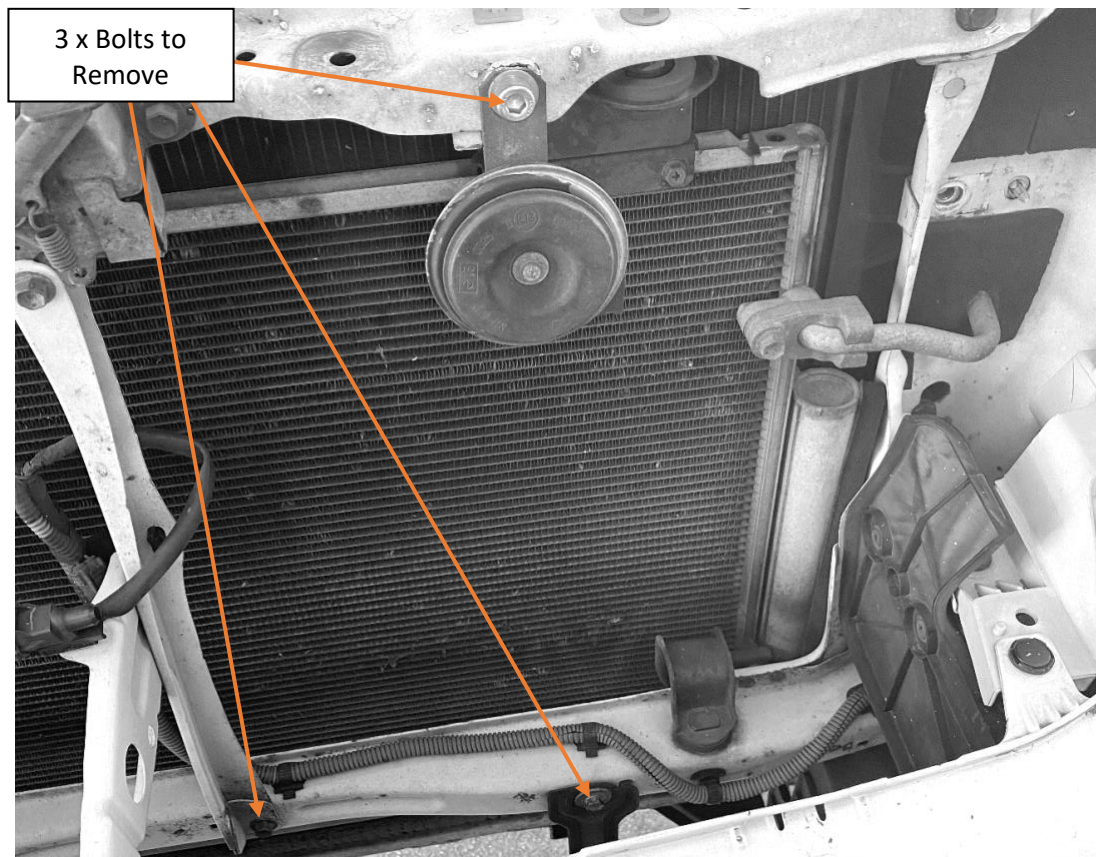
Installation Guide

1. Begin by removing the grille between the headlights. It is held in place at the top by two clips and two screws. Once the clips are removed it needs to be carefully removed from the clips that hold it to the stock front bumper. Pry down on the clips gently behind the grill so each one pops out.



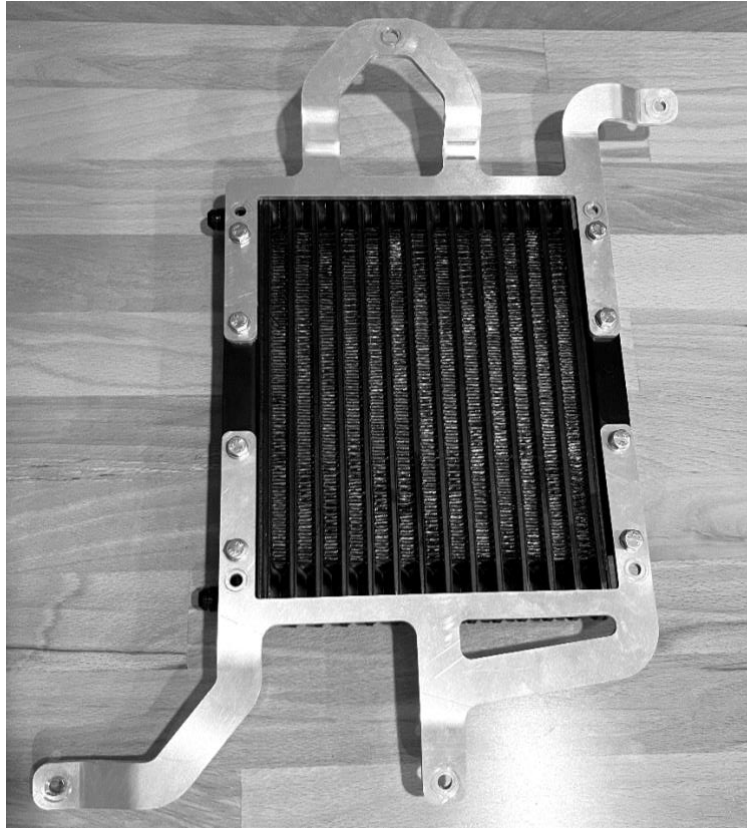
N70 Hilux Front of Engine Bay

- Remove the top M8 bolt on the passenger side horn. This is one of the new top transmission cooler bracket mounting locations. Remove the lower M6 bolt that helps secure the stock bumper trim (providing it is still installed). Remove the M6 bolt in the lower center support for the bonnet latch. These are the new lower transmission cooler bracket mounting locations.



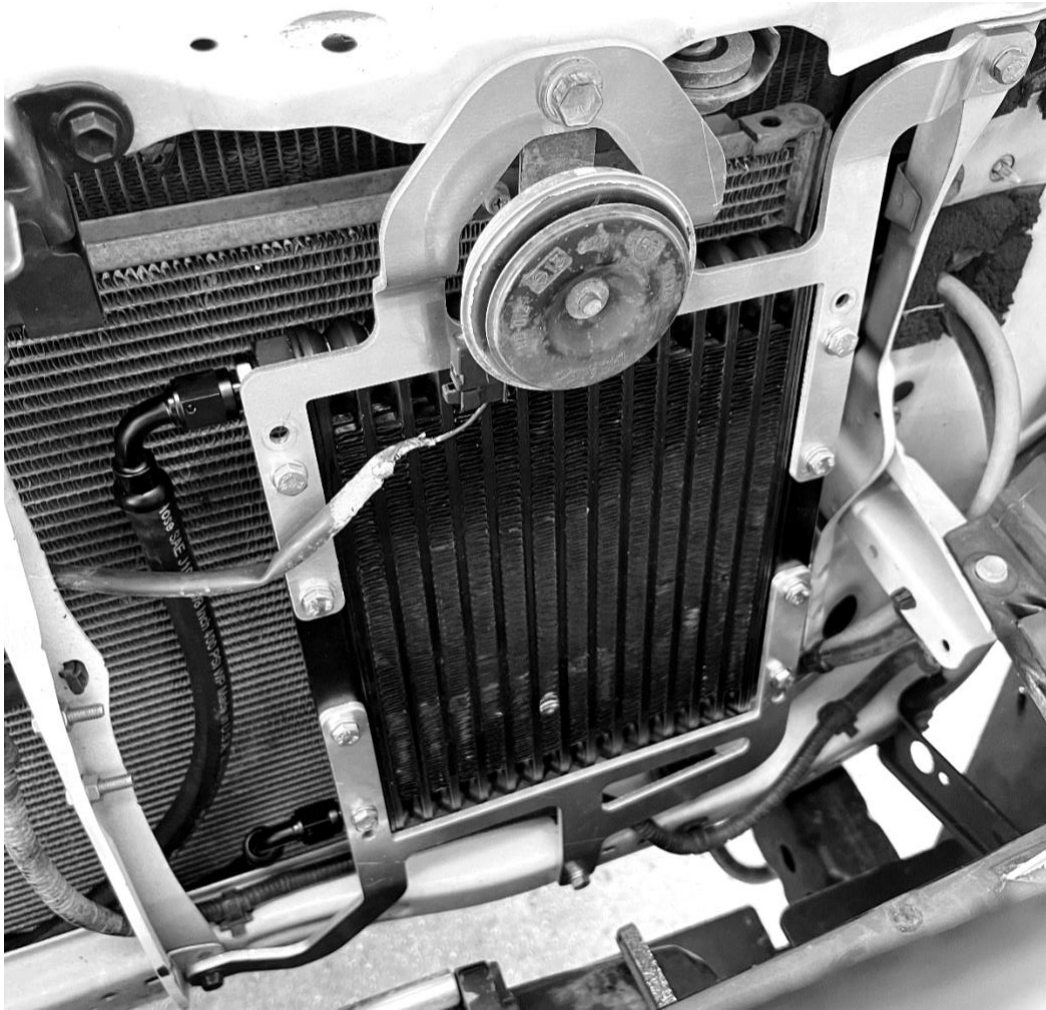
- Assemble the transmission cooler to the brackets in the kit. The assembly will use 8xM6 bolts, 16xM6 flat washers and 8xM6 nyloc nuts. Bolts go through bracket first with the nuts hidden on the rear face. The Transmission Cooler mounts to the rear face of the brackets. NOTE: the transmission cooler ports face the center of the vehicle.
- Using Loctite 567 or similar, secure the M16x1.5 fittings into the cooler, making sure to use an alloy washer on each.
- Use the 90° fitting on each port, again using Loctite 567 or similar to secure in place. The top 90° fitting should be facing down towards the bottom fitting.

6. Cut the supplied 3/8" hose in half pushing one end of each onto the fittings.



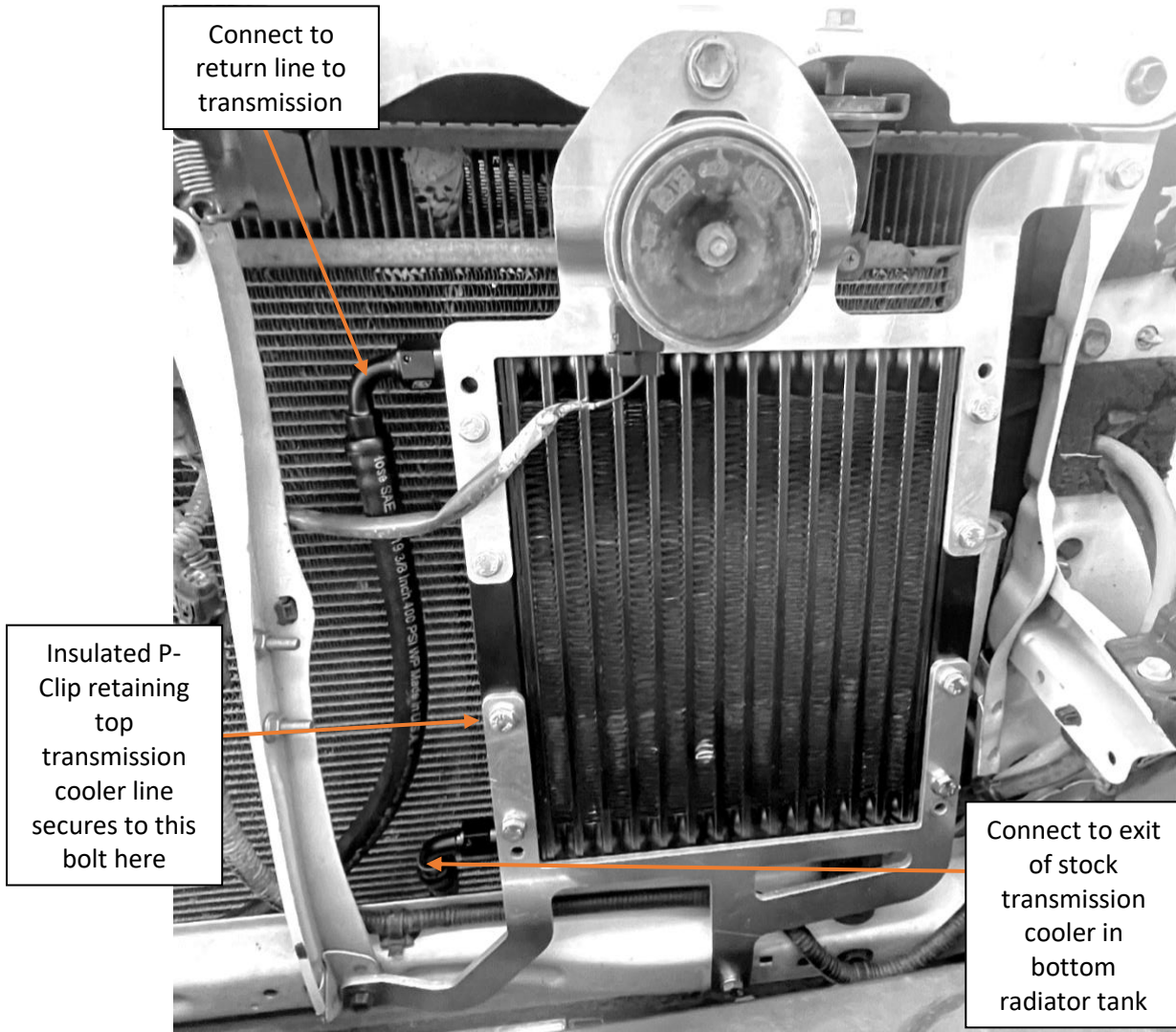
Cooler sits on rear face of brackets, with nuts towards the rear, bolts to the front.

7. Bolt the new transmission cooler and bracket assembly into the vehicle locating off the M8 and M6 bolts that were removed in step 2. Use the final M6 bolt, two flat washers and nyloc nut to secure the top outer mount to the empty hole in the body.

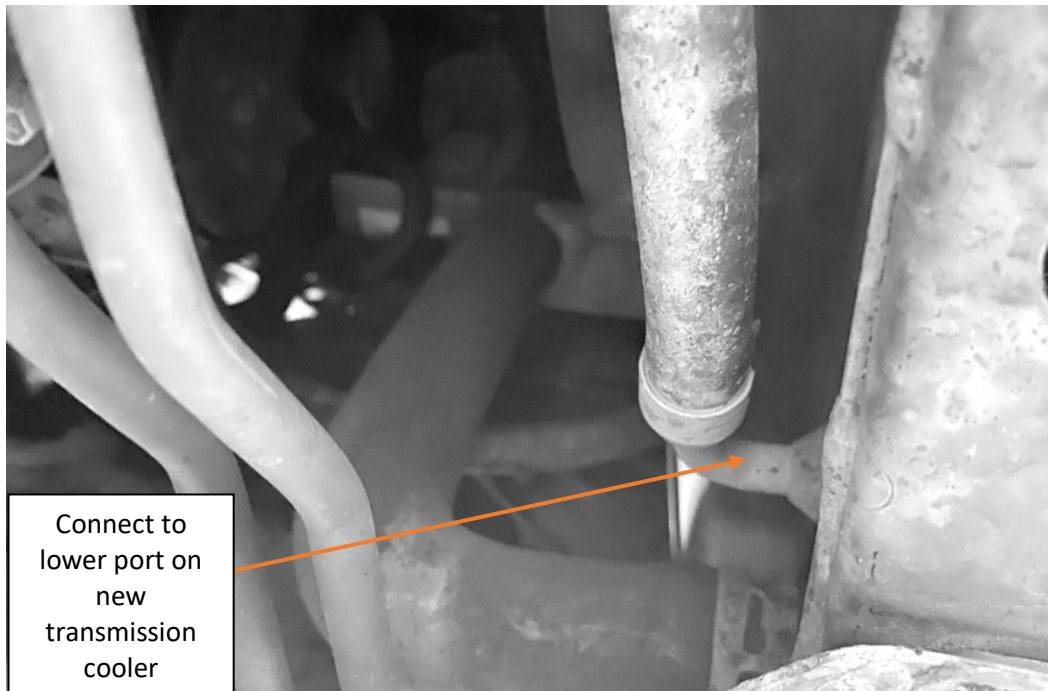


Transmission Cooler Assembly Bolted in Place. Note, horn bracket sits behind the new transmission cooler bracket. Hoses already installed in photo.

8. Run the lower hose between the body mount and the radiator on the driver's side of the vehicle. 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), secure in place with a clamp.

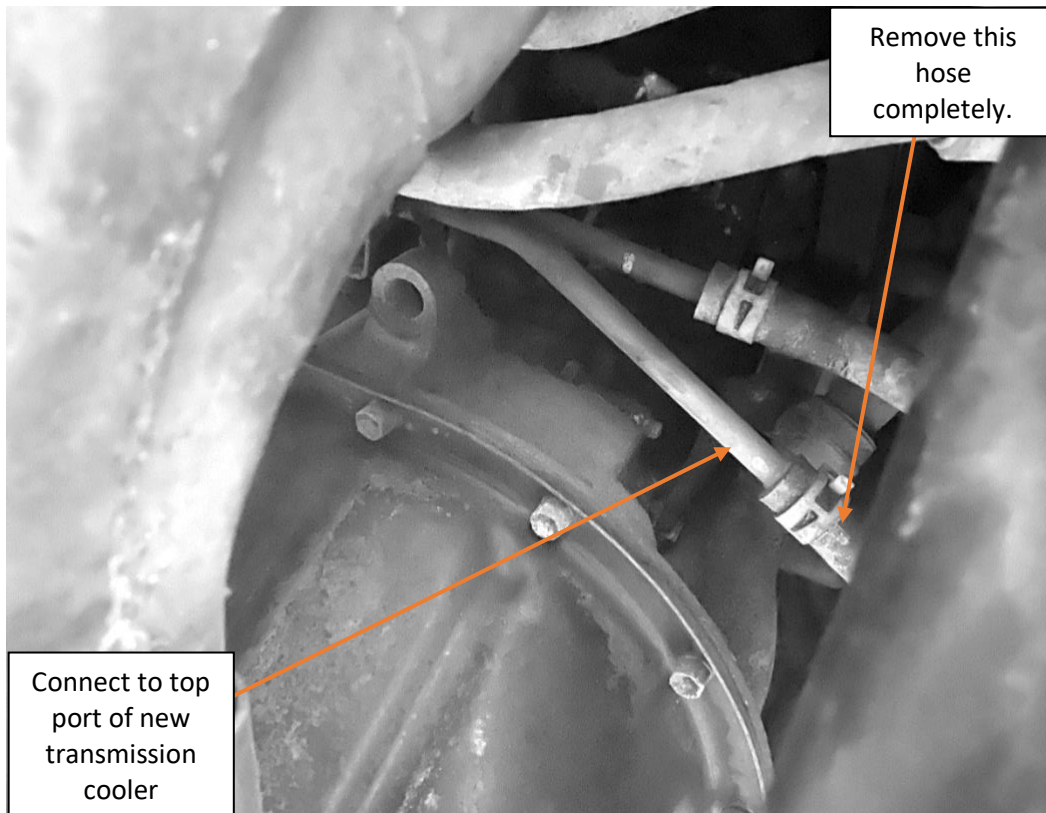


Finished Cooler Assembly in Place, Note: Insulated P Clip not shown



Stock transmission cooler hose going to stock cooler in lower radiator tank (passenger side)

9. Use the insulated P Clip to secure the line from the top port of the new transmission cooler, using the second bottom M6 bolt, near the center of the vehicle as shown above. Leave enough slack to not cause tension in the line as shown.



Factory transmission cooler hard lines connect return hose as marked

10. Run the top hose down the side of the new cooler and along with the bottom hose between the body mount and the radiator on the driver's side of the vehicle. Measure and cut the hose to length and connect the other end to the of this hose to the hard steel return line to the transmission that used to connect to the stock transmission cooler, secure in place with a clamp.
11. Use cable ties to secure any loose cooler line to prevent rubbing.
12. 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.
13. Reinstall the grille in reverse as how it was removed in step 1.

End of Installation Guide