



Transmission Cooler Installation Guide for Toyota Land Cruiser Prado 250 Series 2024+

This document is to be used as a guide for the installation of the **Direction Plus Arctic Black Transmission Cooler Kit (TCB668DPK)** to a **2024+ Toyota Land Cruiser Prado 250 Series (2.8L 4cyl) with automatic transmission**. It is recommended that the installation of the product be carried out by a competent qualified mechanic.

Included in the kit



Loose	Bagged	Cooler Mounting Hardware
1 x 32mm Cooler (TCC14DP)	2 x 15-17mm Clamps (FMC10)	8 x M6x16 Bolts (SSSS304M616)
1 x 2pce Mounting Bracket (TCB668-BR)	8 x Cable Ties (802078)	16 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 (7212-381BK)	2 x M16 Sealing Washers (PLFW16)	2 x M6 50mm Spacer (Supplied with TCB668-BR)
	2 x -6 to 3/8" Straight Tail (DPP0001-06)	2 x M8x16 Bolts (SSSS304M816)
	1 x 6mL Loctite 567 (567-6ML-LOC)	2 x M8 Nyloc Nuts (FMN8)
1 x TCBOX		4 x M8 Flat Washers (FMW8)
		2 x M6x16 Bolts (SSSS304M616)
		2 x M6 Flat Washers (FMW6)
		2 x M6 Spring Washers (FMSW6)

**APPROXIMATE MOUNTING LOCATION
TRANSCHILL TRANSMISSION COOLER KIT**

*Prado 250 series - 2.8L 4cyl
(TCB668DPK)*

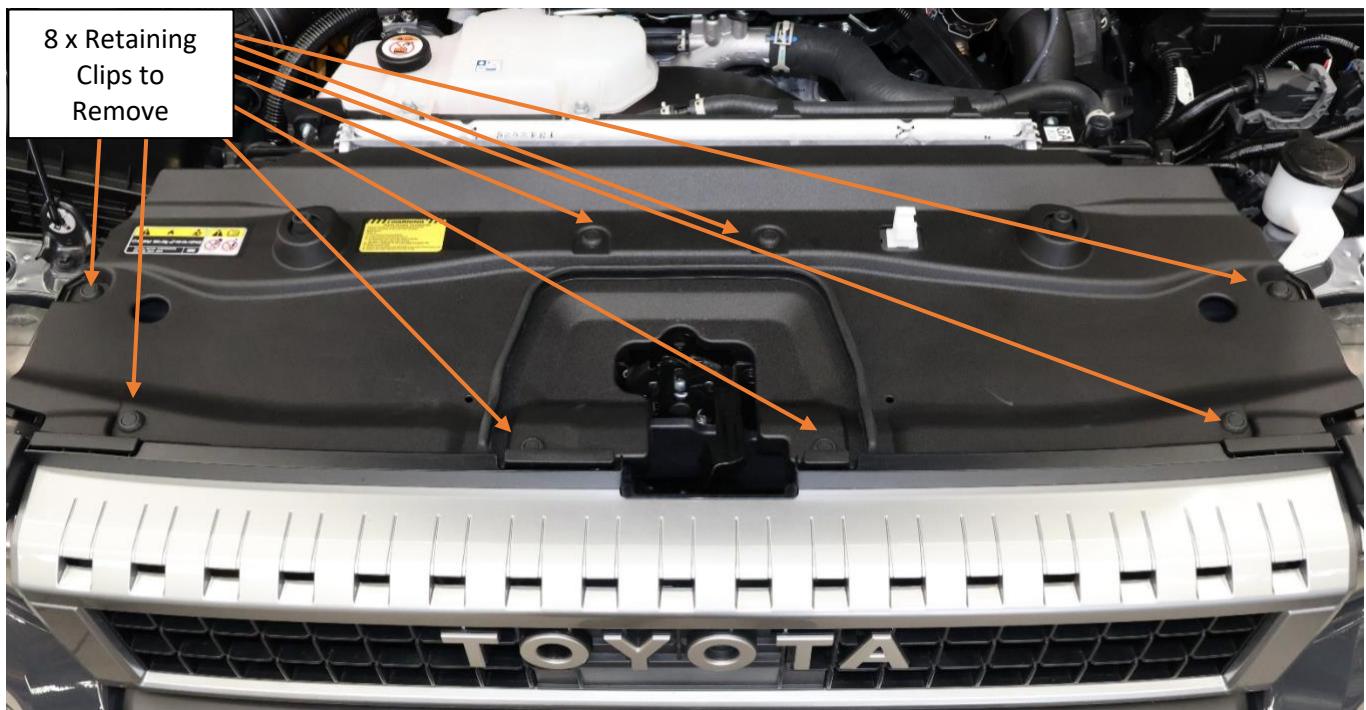


Tools Needed:

- 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.

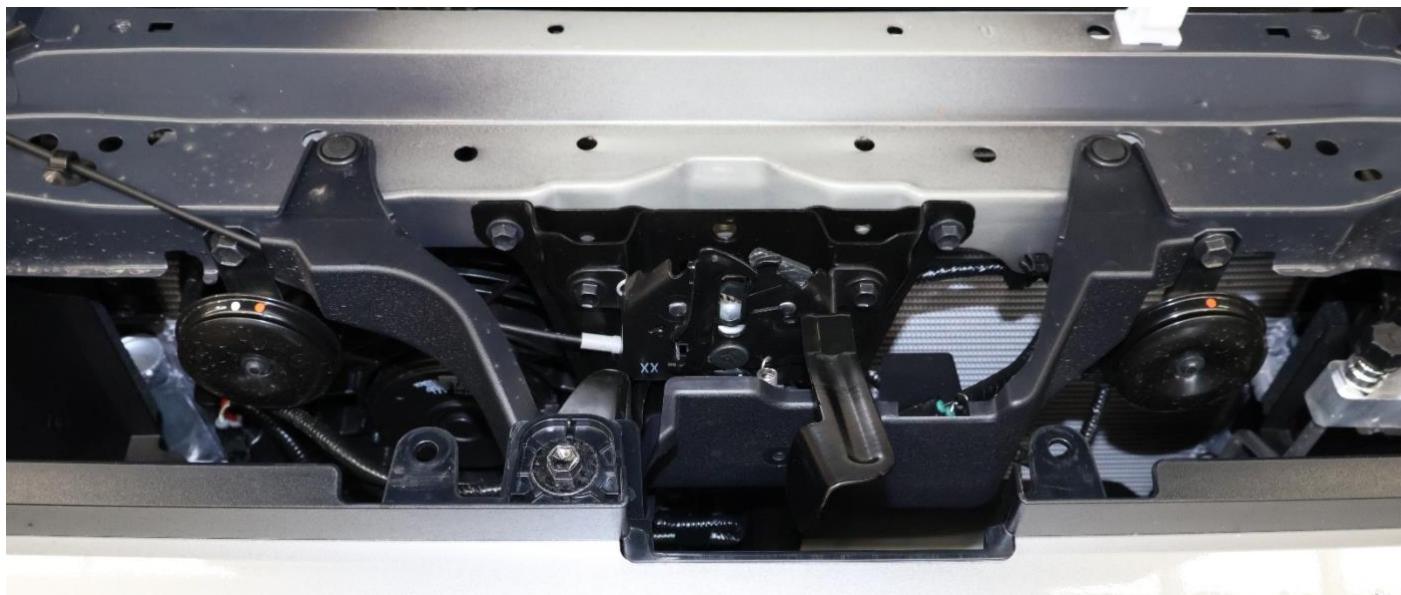
Installation Guide

1. Begin by removing the top trim panel between the radiator support and. It is held in place at the top by eight (8) clips. Once the clips are removed it can be lifted and removed.



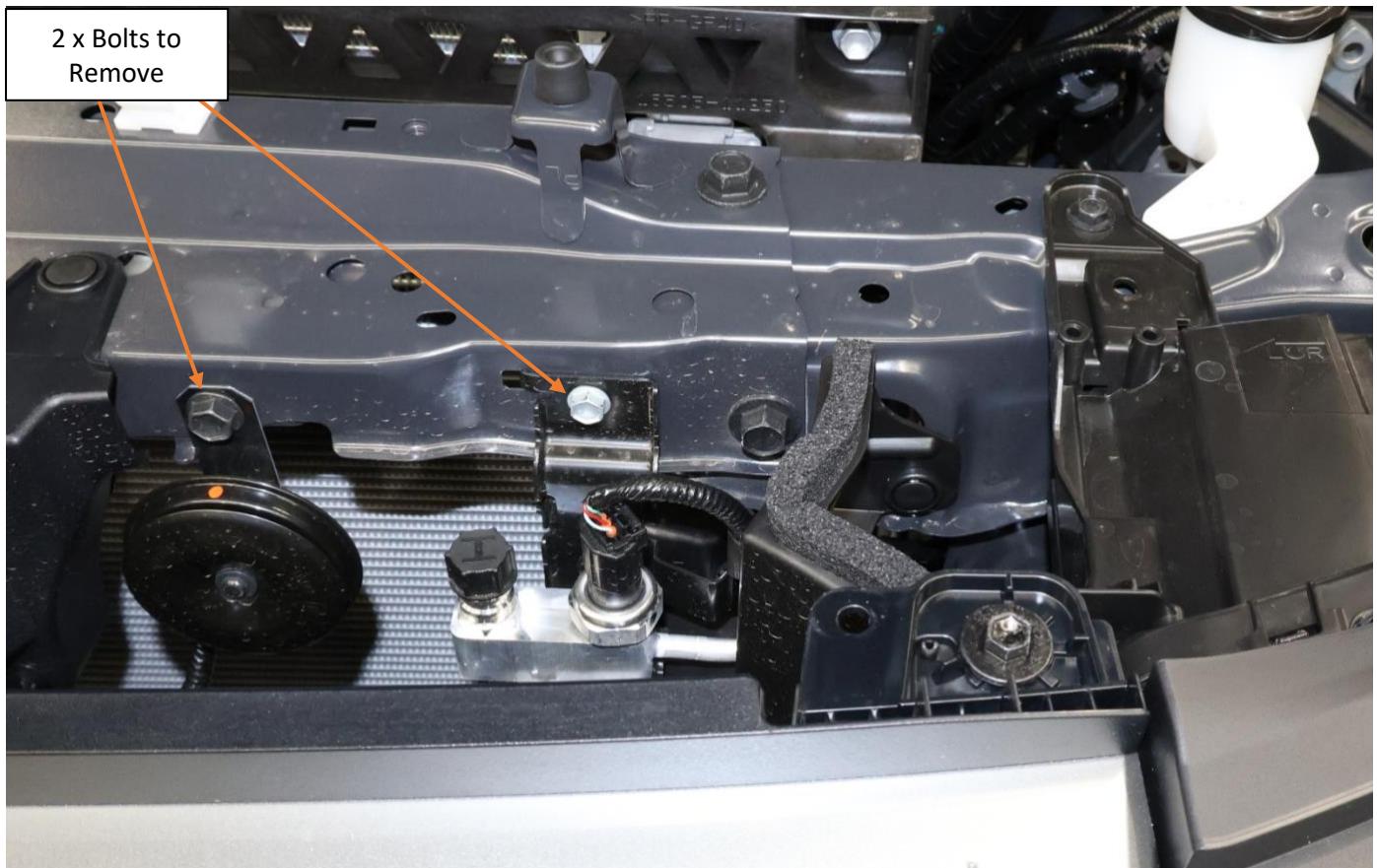
Land Cruiser Prado 250 Series Front of Engine Bay

2. Remove the center trim piece around the bonnet catch mechanism, it is held in place by two clips on the top and a different clip in the center that secures the piece to the center support. There are also several clips that secure the wiring harness for the horns and radar that need to be unclipped.

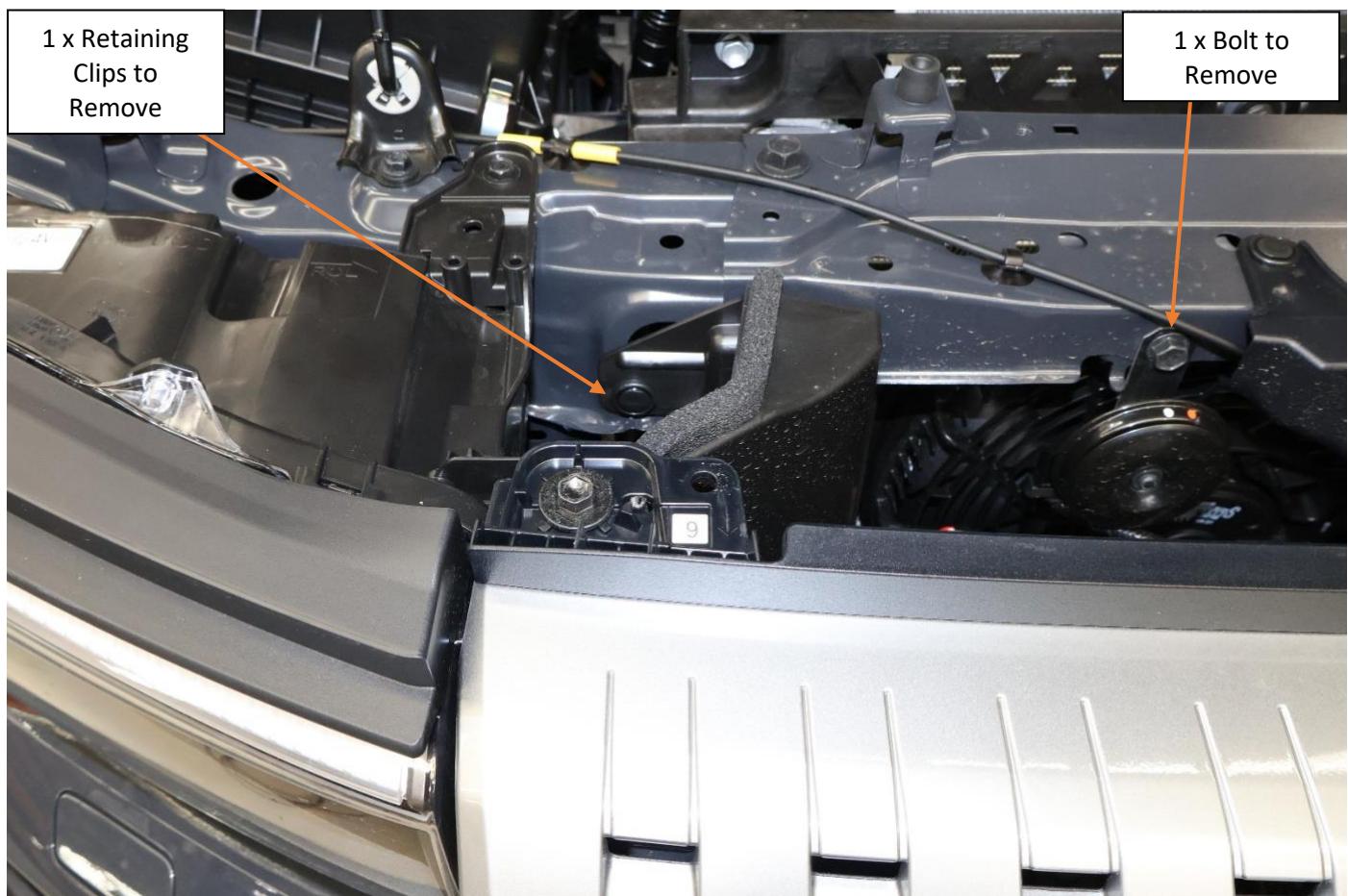


Land Cruiser Prado 250 Series Bonnet Catch Area

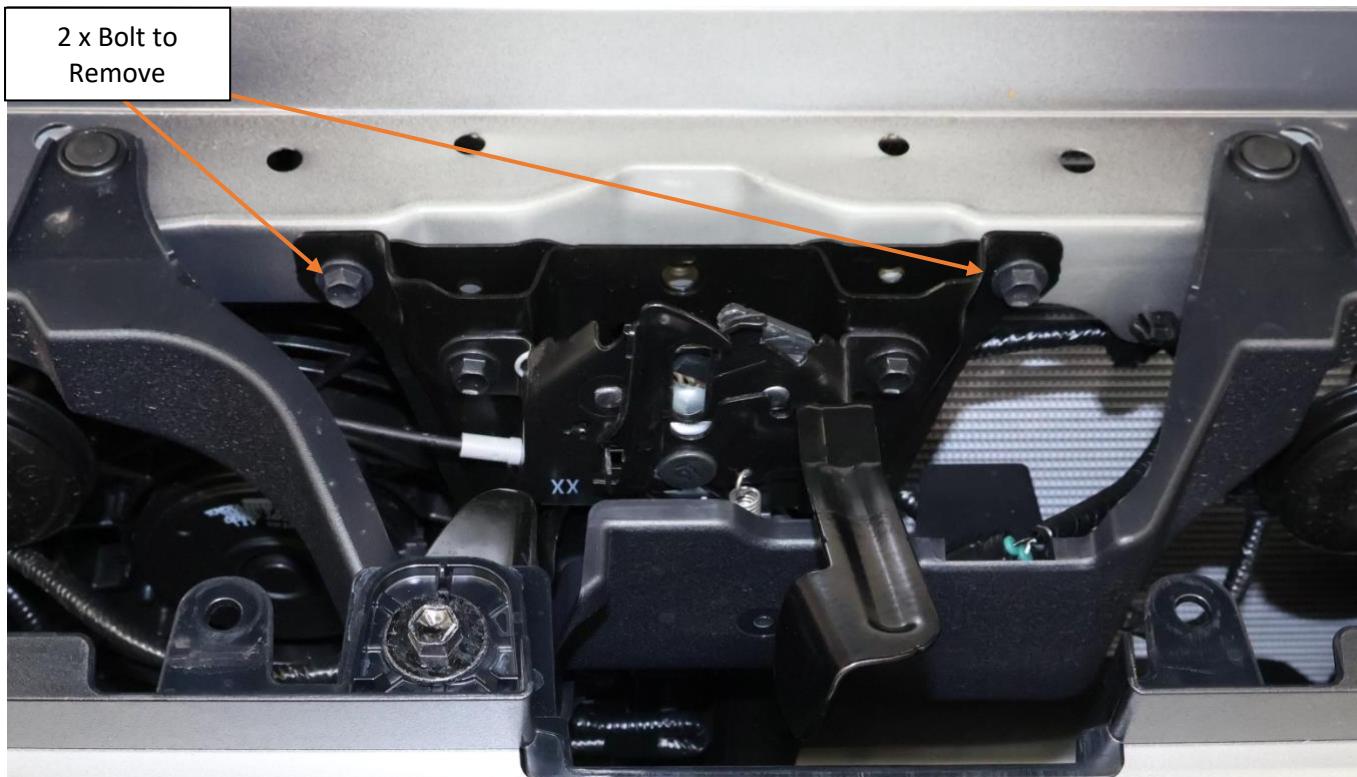
3. On each side of the radiator support panel, remove the two bolts that mount the horns, as well as the bolt that secures the A/C Port bracket. Swing the horns on the harness out of the way.



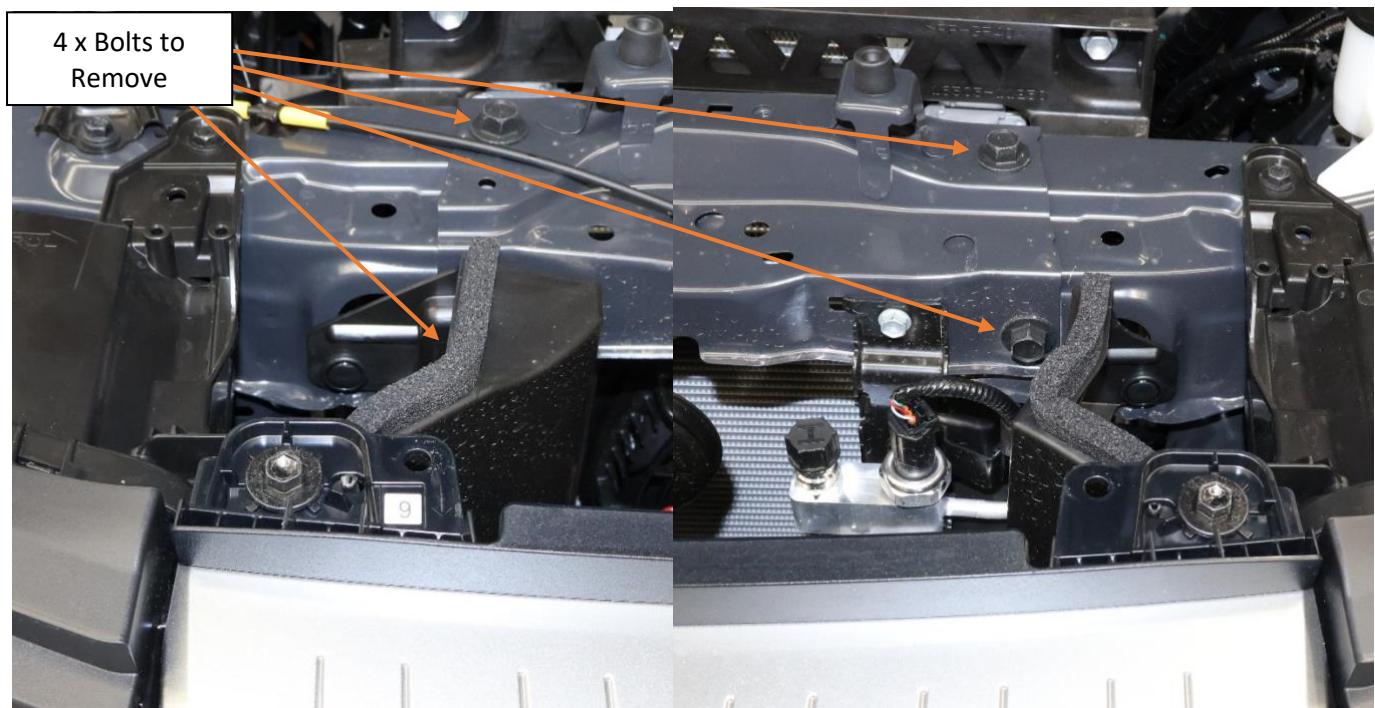
Land Cruiser Prado 250 Series Passenger Side Radiator Support Panel Mountings



Land Cruiser Prado 250 Series Driver Side Radiator Support Panel Mountings



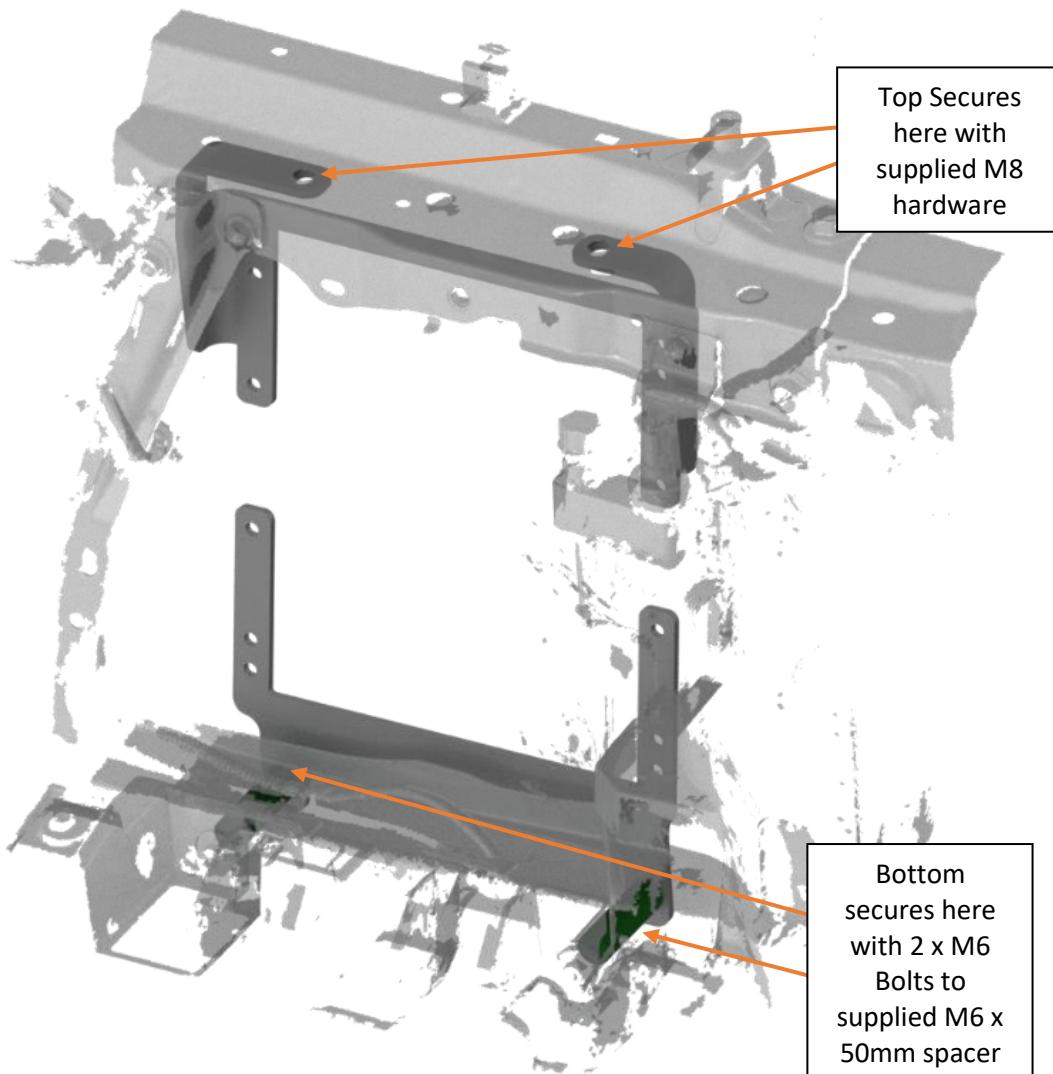
Land Cruiser Prado 250 Series Driver Side Radiator Support Panel Mountings



Radiator Support Panel Top Mounting Crossmember Removal

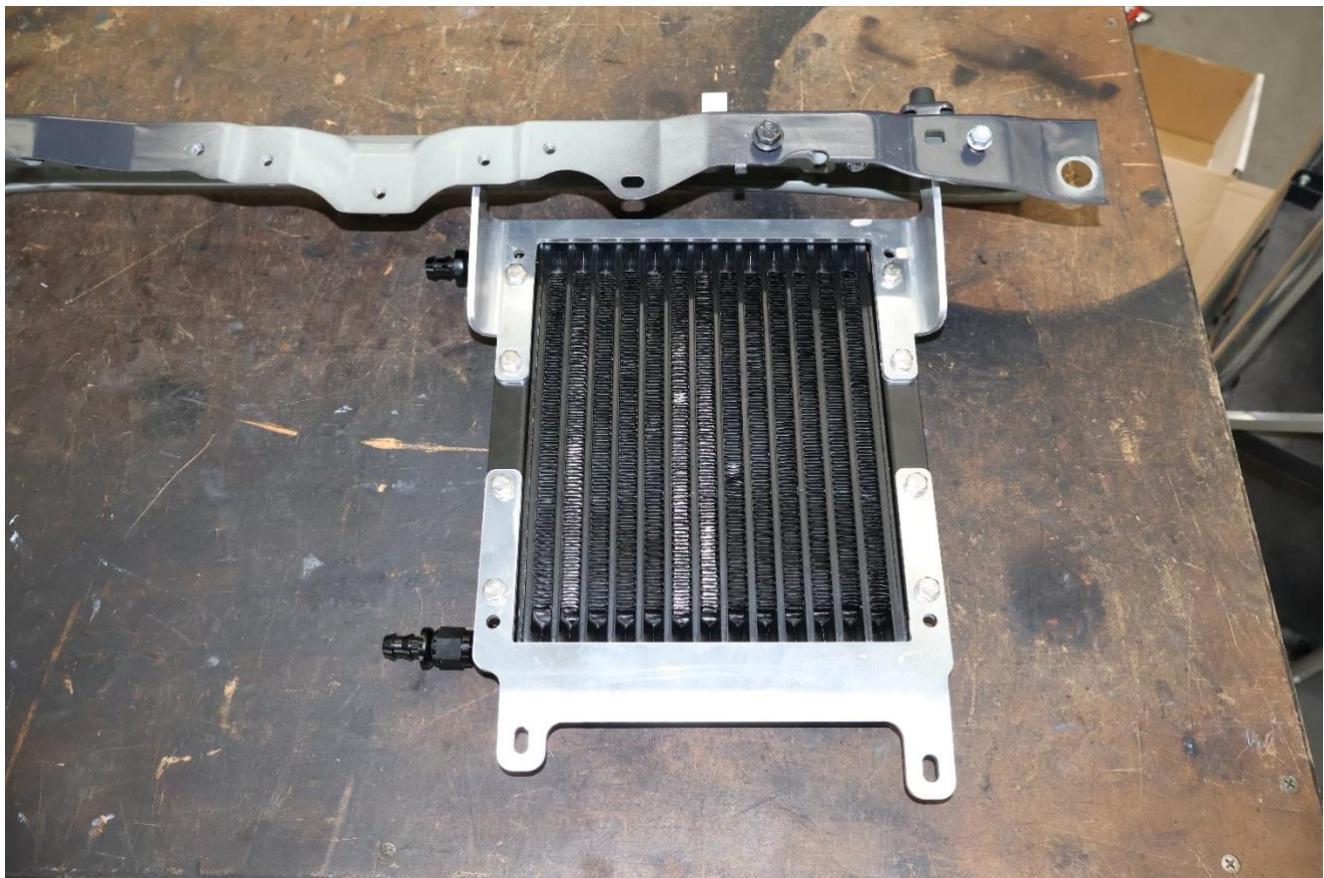
4. Remove the two M6 bolts securing the bonnet latch to the radiator support crossmember, after this remove the 4 M10 bolts that secure the radiator support crossmember to the vehicle.
5. Once all the bolts have been removed the radiator support crossmember can be lifted and removed from the vehicle. Take care to gently unclip and move the bonnet release cable out of the way.

6. 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 brackets 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.
7. Using Loctite 567 or similar, secure the M16x1.5 fittings into the cooler, making sure to use a sealing washer on each.
8. Cut the supplied 3/8" hose in half pushing one end of each onto the straight fittings, making sure to seat the hose all the way home.
9. Use the straight fittings on both ports, again using Loctite 567 or similar, to secure in place.

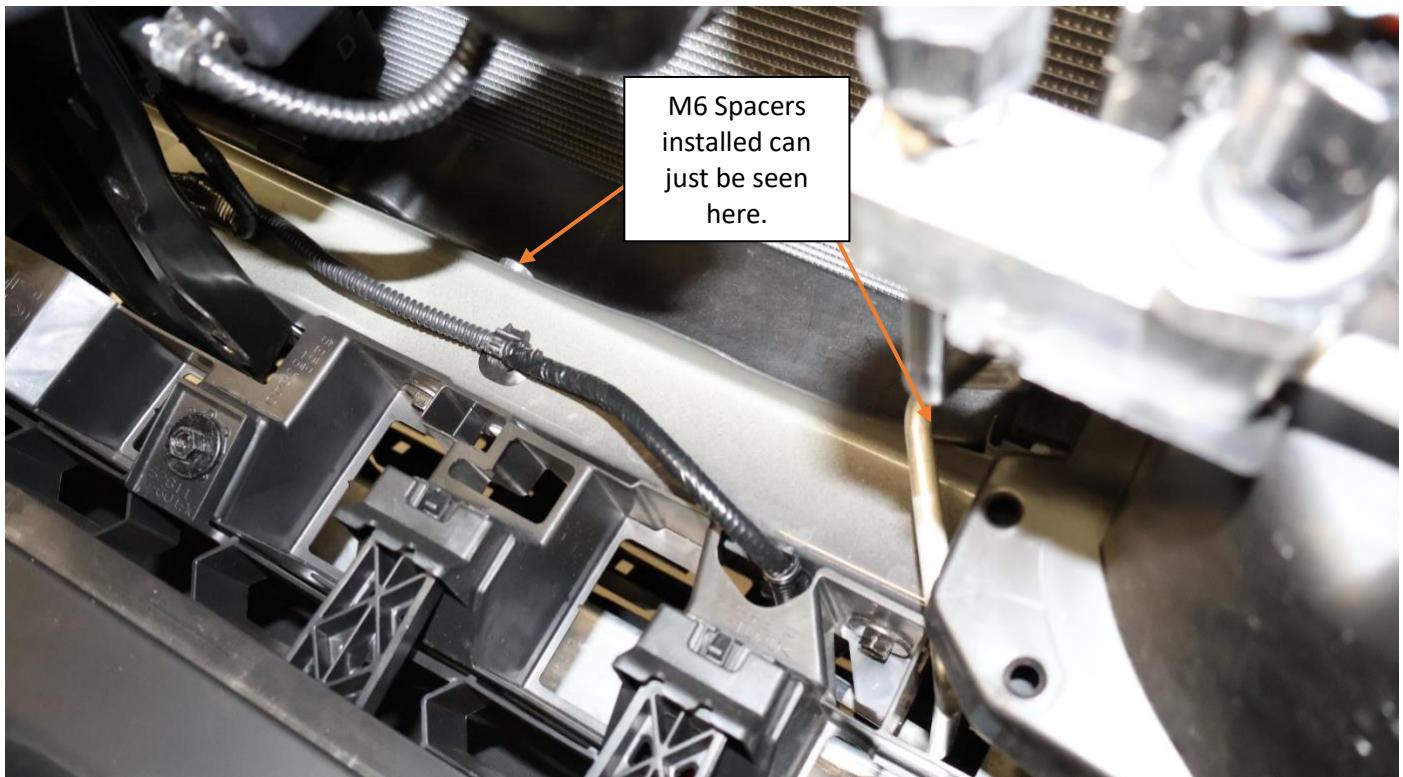


Location of brackets installed on vehicle

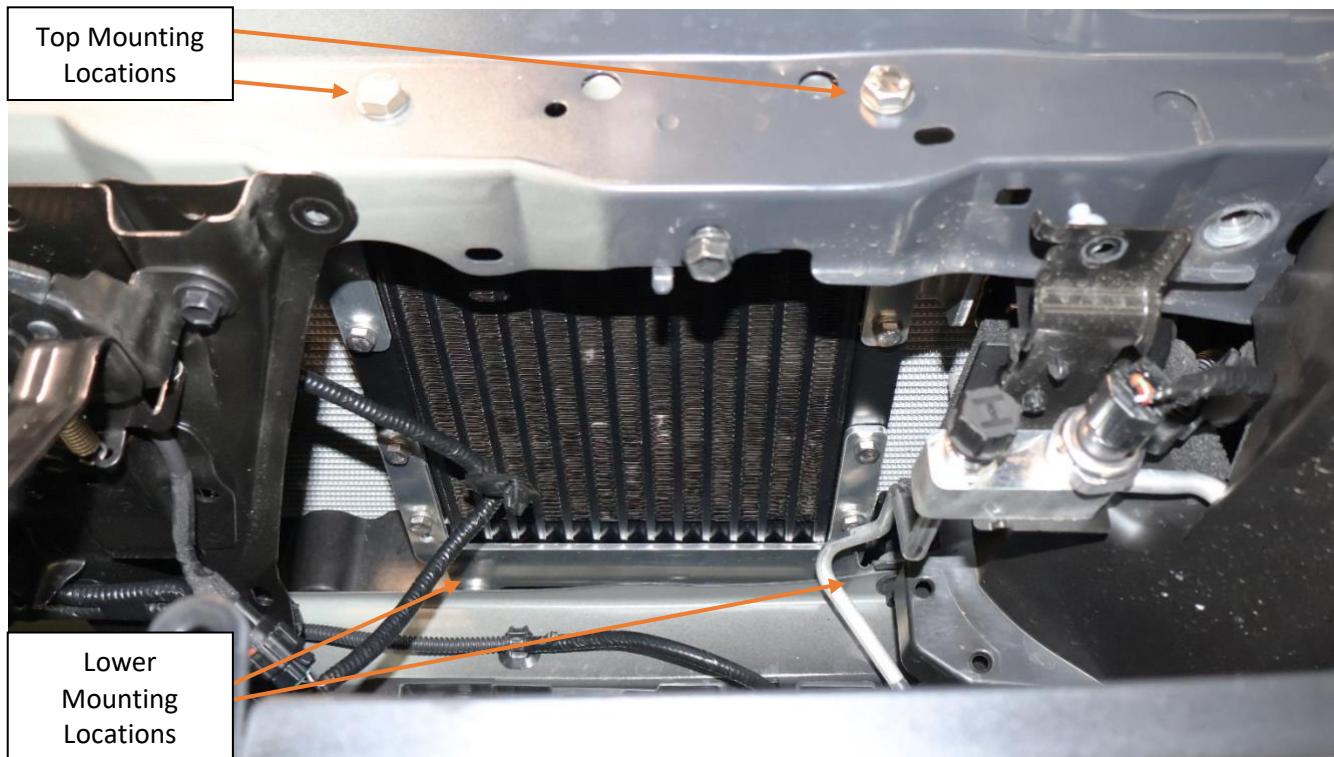
10. Loosely secure the new cooler assembly to the radiator support crossmember, do not fully tighten the bolts yet. Make sure the bolts go from the top of the panel down, with nuts on the underside.



Transmission Cooler Assembly Secured to Radiator Support Crossmember (hoses not installed)



11. Install the threaded M6 spacers on to the spare thread on the factory bolts that go through the back of the bumper support.
12. Bolt the new transmission cooler bracket and radiator crossmember assembly into the vehicle locating off the four original radiator crossmember bolts removed earlier. Make sure not to tangle up the hoses, just run them towards the fan on the driver side of the vehicle, they will be secured in a later step.



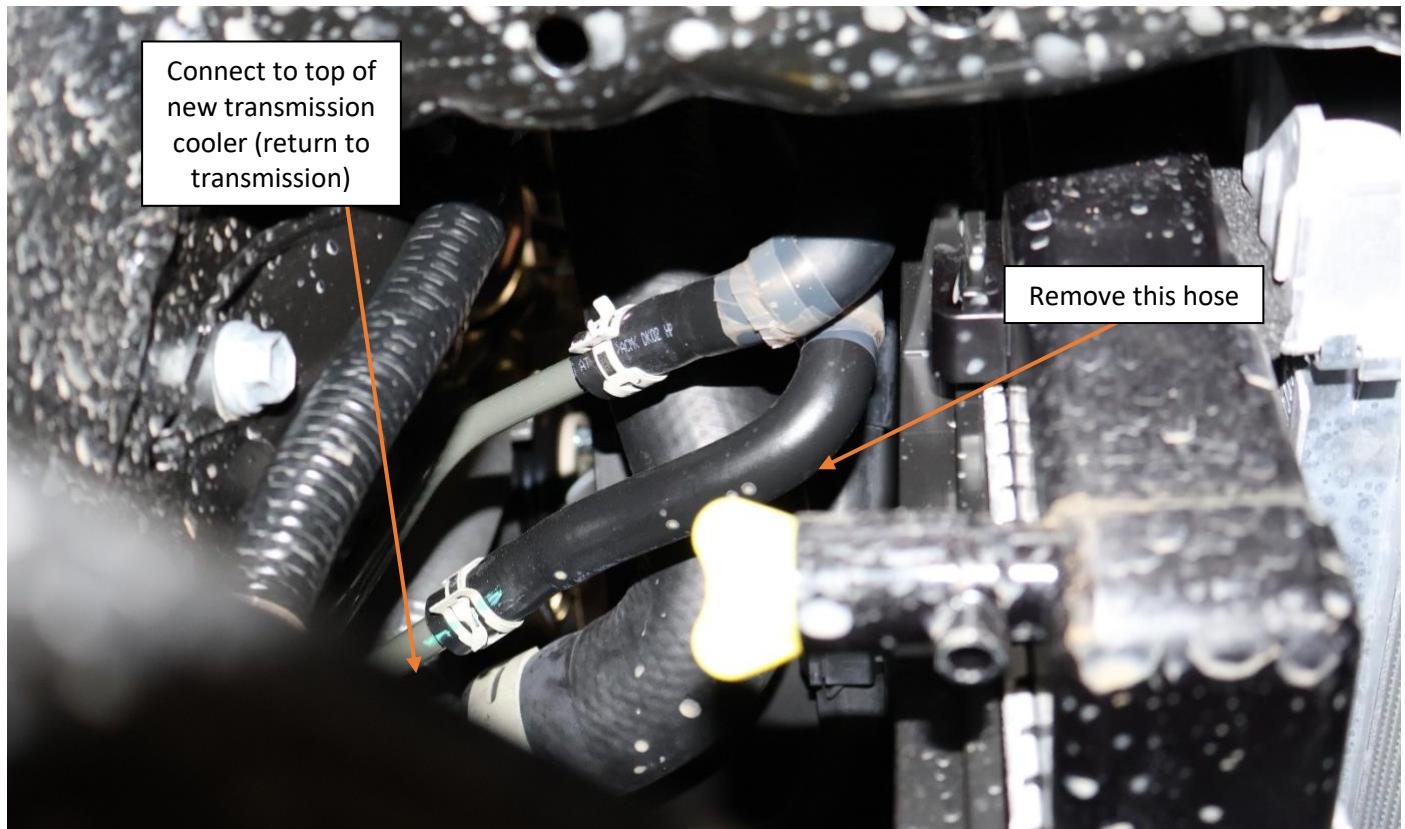
Transmission Cooler Assembly Bolted in Place.

13. Use the two remaining M6x16 bolt, M6 spring washer and M6 flat washer to secure the bottom mounting bracket tabs to the M6 threaded spacers installed earlier. Once they are installed everything can be tightened down securely
14. The lower hose from the new transmission cooler connects to the outlet fitting of the stock transmission cooler, it is in the driver side end tank of the radiator. Measure and cut the hose to length and secure in place using a supplied clamp.



Stock transmission cooler lines in drivers side radiator end tank

15. The upper hose from the new transmission cooler connects to the hard steel return line to the transmission that used to connect the stock transmission cooler, it is located drivers' side down low just behind the radiator. Run the top hose from the straight hose tail along the underside of the radiator 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.



Stock transmission cooler lines return to transmission

16. Use cable ties to secure any loose cooler line to prevent rubbing.
17. Reinstall the factory components in reverse as how they were removed in step 1-4.
18. 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.
19. Start vehicle and check for any leaks. Take for a test drive, once complete check again for leaks.

End of Installation Guide