



Dual External Transmission Oil Cooler Kit

Suitable for:



**Toyota Prado 250 Series
8 Speed
Automatic Transmission**

Australian Design Application No. 202616612

**WITH THE FOLLOWING ENGINES:
1GD-FTV 2.8L Diesel**

Please read through all of the instructions carefully before proceeding. If any of the information does not appear correct or the diagrams don't match your vehicle, please contact Wholesale Automatic Transmissions on +61 3 9762 8004.

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Safety First

Hot engines and hot transmissions can cause serious injury.
Before removing the hoses and parts from the vehicle,
allow sufficient time for engine and auto to cool.

Parts List

2 x 3/8" Oil Coolers
& Bracket Assembly



6 x 14-16mm Stainless
Steel Hose Clamps



3.5 m x 3/8" Cooler Line
Hose with Conduit



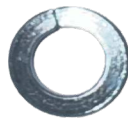
0.5 m x 3/8" Cooler Link
Hose with Conduit



1 x M10x50
Bolt



1 x M10
Spring Washer



2 x M10
Flat Washer



1 x M10
Flange Nut



1 x M8x25
Bolt



1 x M8
Flange Nut



7 x 300mm
Cable Ties



Expected Installation Time: 2 Hours

1. Summary of Installation - Experienced Fitters

- Ensure you have enough transmission oil to top up your transmission.
- Remove the Under Tray (4 bolts).
- Remove Lower Radiator Support centre stay (4 Bolts)
- Remove Radiator Air guide (Air deflector) on top of the lower radiator support crossmember. (4 plastic clips)
- Modify the Radiator Air guide.
- The cut out is in the illustrations provided with Dimensions. Page 5
- The air guide after modification will be installed with the oil cooler assembly together.
- Remove protective rubber socks from your new transmission cooler fittings.
- Install the provided clamps to the cooler lines onto the cooler fittings.
- Slide the cooler bracket and hose up in front of the radiator **together** with the Radiator air guide.
- Loosely install Top of bracket with existing factory bolt located on the upper radiator support
- Refit lower Radiator Support centre stay.
- Loosely fit the cooler assembly to the lower radiator support using supplied M10x50 bolt, spring washer and flat washer with flange nut.
- Do not fully tighten the bolts at this point.
- Locate the last remaining bolt hole on the bottom of the cooler bracket. Insert the M8 x25 bolt into the cooler bracket and tighten the bolt into the bolt hole.
- Tighten all cooler bracket bolts.
- The two hoses running from the cooler can now be connected. One should be routed to the top right of the radiator where the original OEM transmission line was attached. The other should be routed to the metal pipe coming from the transmission where the other end of the OEM line was attached.
- Trim hoses to required lengths and attach using the supplied stainless steel hose clamps.
- Use supplied cable ties to secure hoses as required.
- Road test vehicle then re-inspect cooler and fittings for leaks. Tighten if necessary.

2. Detailed Installation Instructions

Before commencing work, please ensure that you have at least 1L of transmission fluid to top up the transmission at the end of the job.

- 2.1. Ensure the car is fully switched off. It is recommended that the vehicle is cold prior to installation.
- 2.2. Working under the car, we would be focusing on removing the under tray, by removing the 4 bolts circled below, once the tray is out of the way you gain access to the Radiator Support Centre stay (4 Bolts).



- 2.3. Remove the radiator air deflector, there are 4 plastic clips holding it in place. We will now modify the radiator air deflector.



- 2.4. With the radiator air deflector out of the car we will now modify it. You will need to mark out a section of the air guide that you will be cutting out.

From the image we can see the cut out starts at 3.5cm from the edge. The total length of cut out is 29 cm and 4cm deep from edge to edge.

Once cut, you can now place this aside as it will be installed together with the oil cooler assembly.



- 2.5. Remove the cooler from the packaging and place on a flat bench. You can remove the rubber socks from the ends of the cooler.

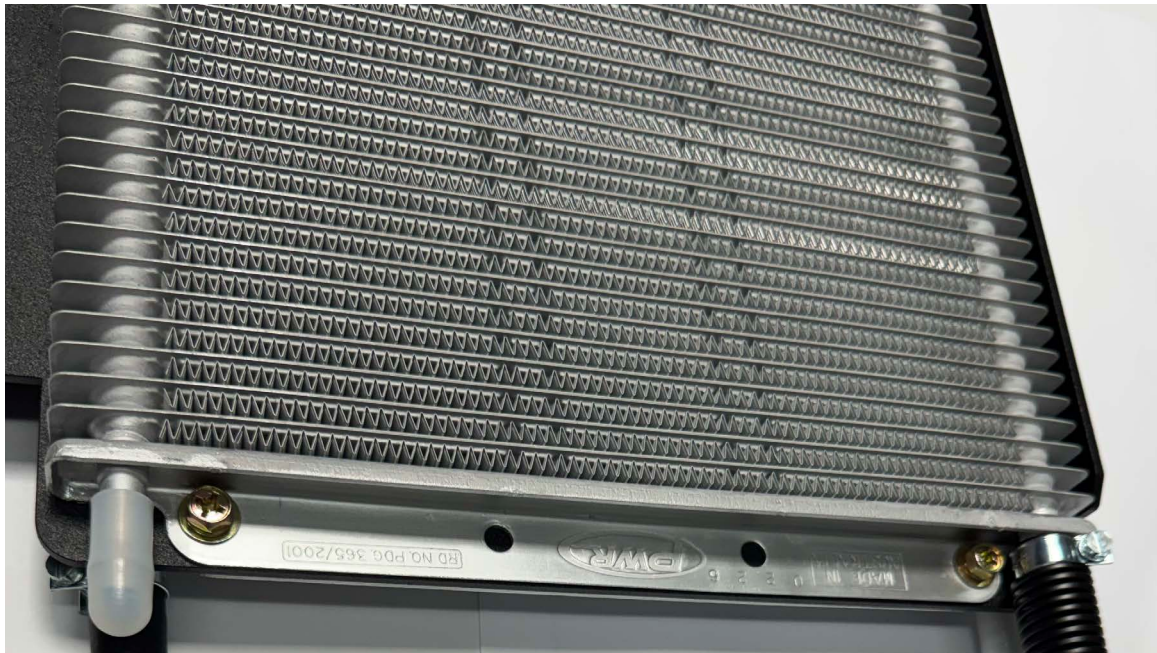
The coolers are omni-directional, so the direction of flow is not important.

- 2.6. Now insert hose clamps onto each ends of the cooler link hose, and fit the link hose onto the cooler.

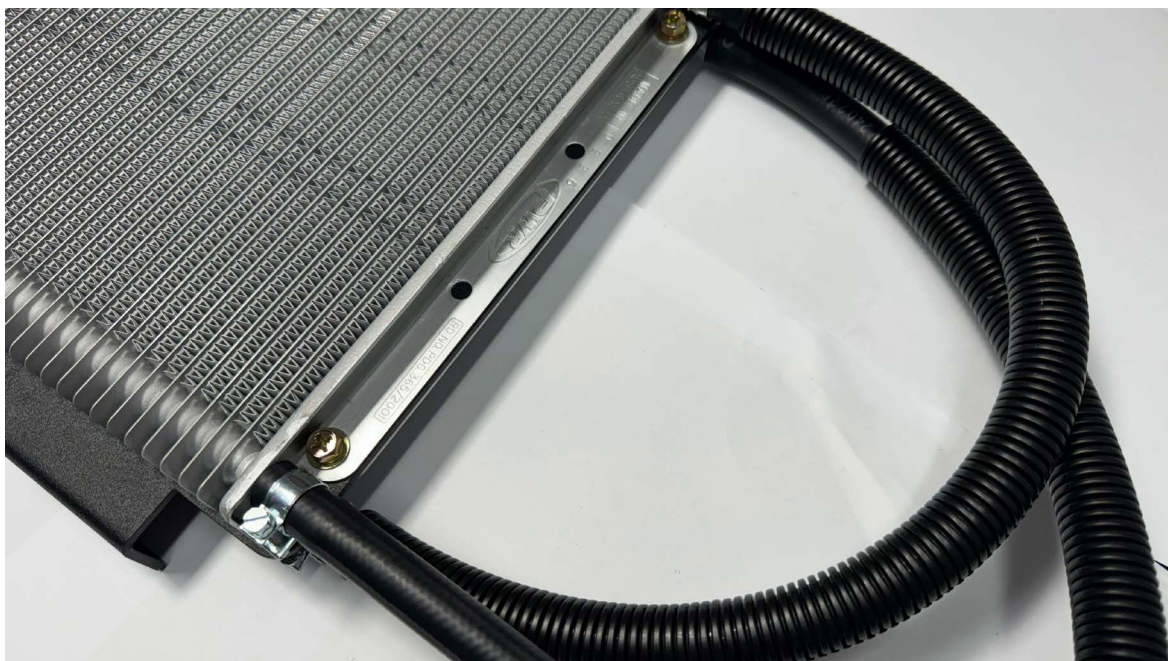
(Note: Do this without any lubrication.)



- 2.7. As per illustrations fit both ends of the link hose, connecting the coolers together



- 2.8. Connect the 3.5m x 3/8" hose to the remaining barbs and secure with hose clamps provided. Cut the 3.5 m length of hose in half.



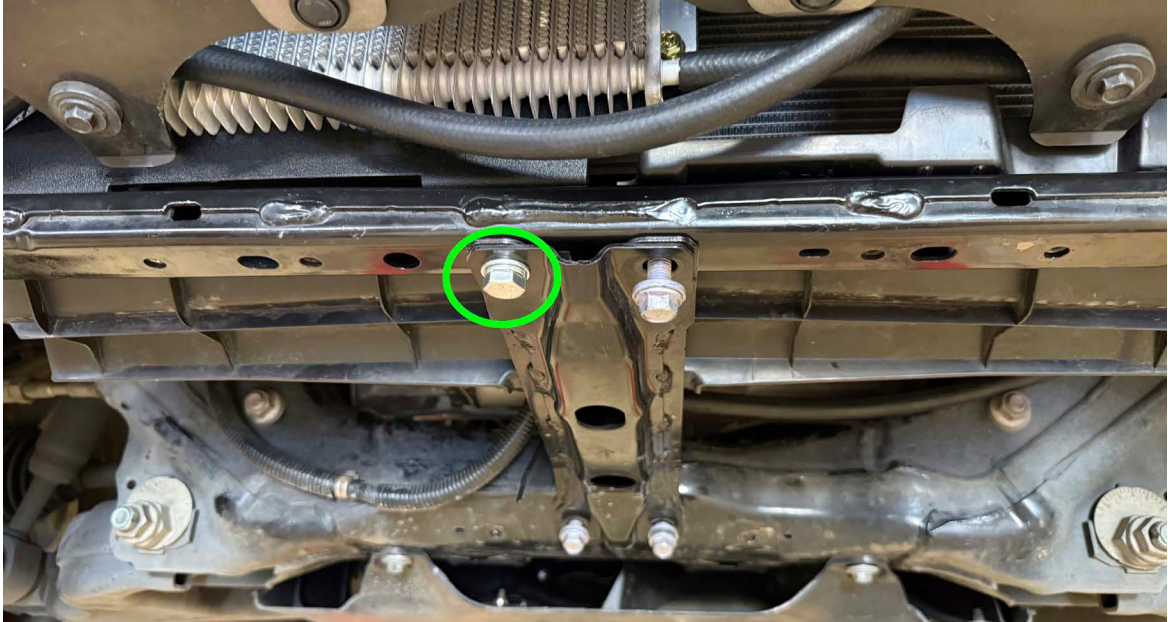
- 2.9. Lift the cooler and bracket assembly up from under the car. The location is circled below.



- 2.10. Loosely install top of bracket with existing factory bolt located on the upper radiator support.

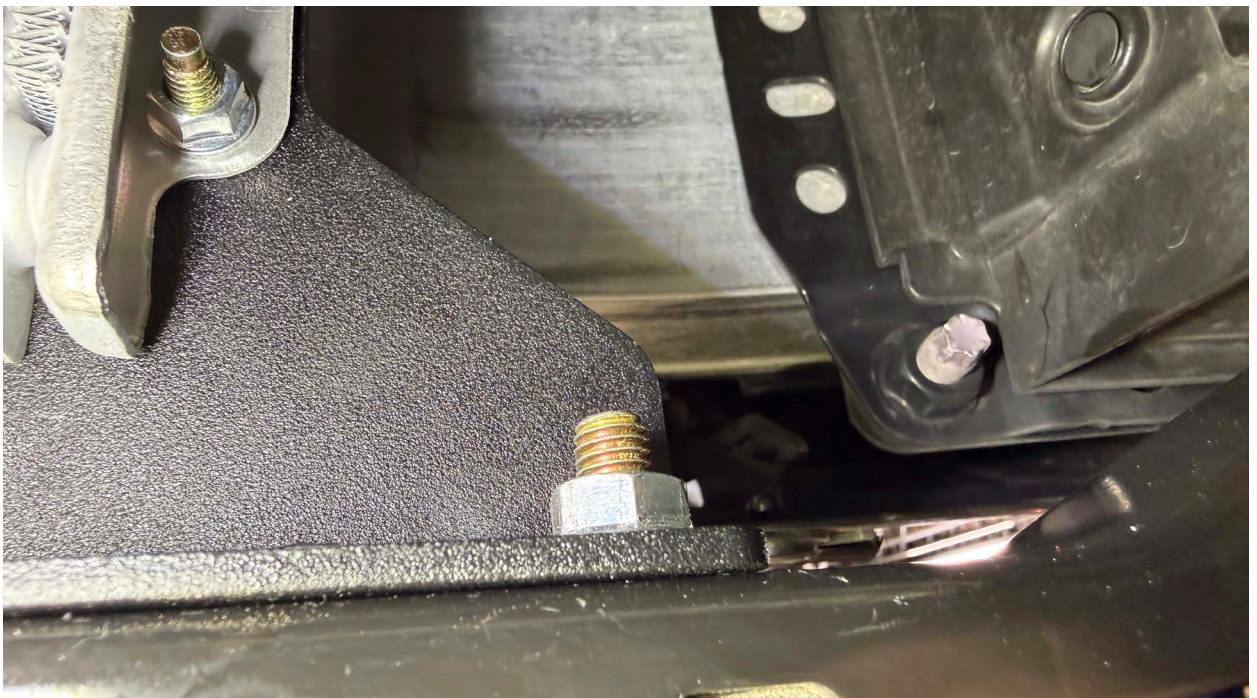


- 2.11. Refit the the lower radiator support centre stay. Loosely fit the cooler assembly to the lower radiator support using the supplied M10x50x1.25 bolt, spring washer and flat washer with flange nut. The circled bolt is the supplied item.

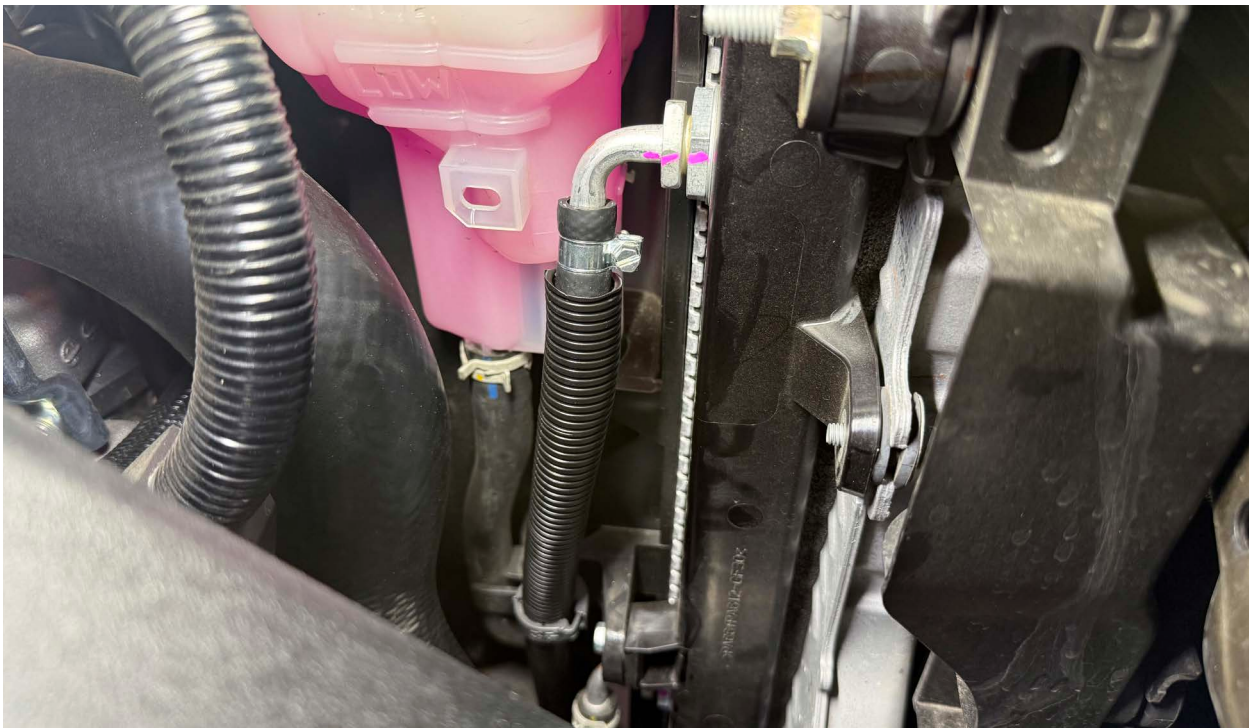


- 2.12. Locate the last remaining bolt on the bottom of the bracket. Insert the M8 x 25 x1.25 bolt with spring washer and flat washer, onto the cooler bracket and tighten the bolts. You can now tighten all the bolts on the oil cooler.

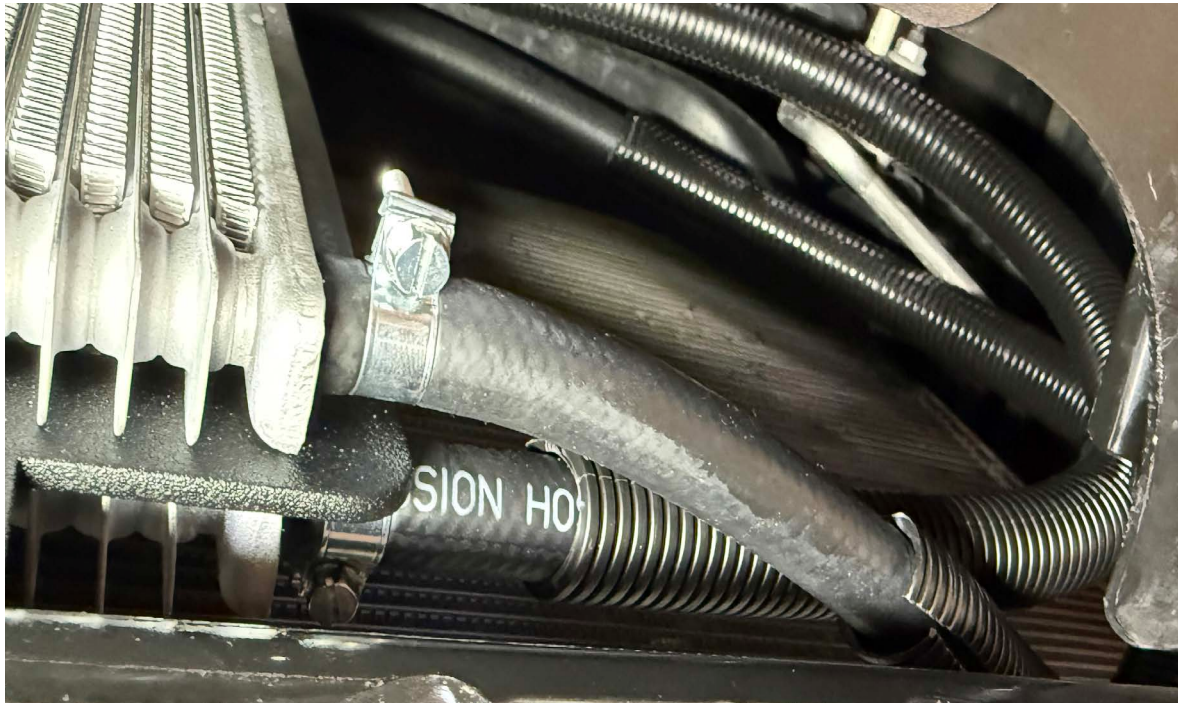
You can also resinstall the clips on the air deflector.



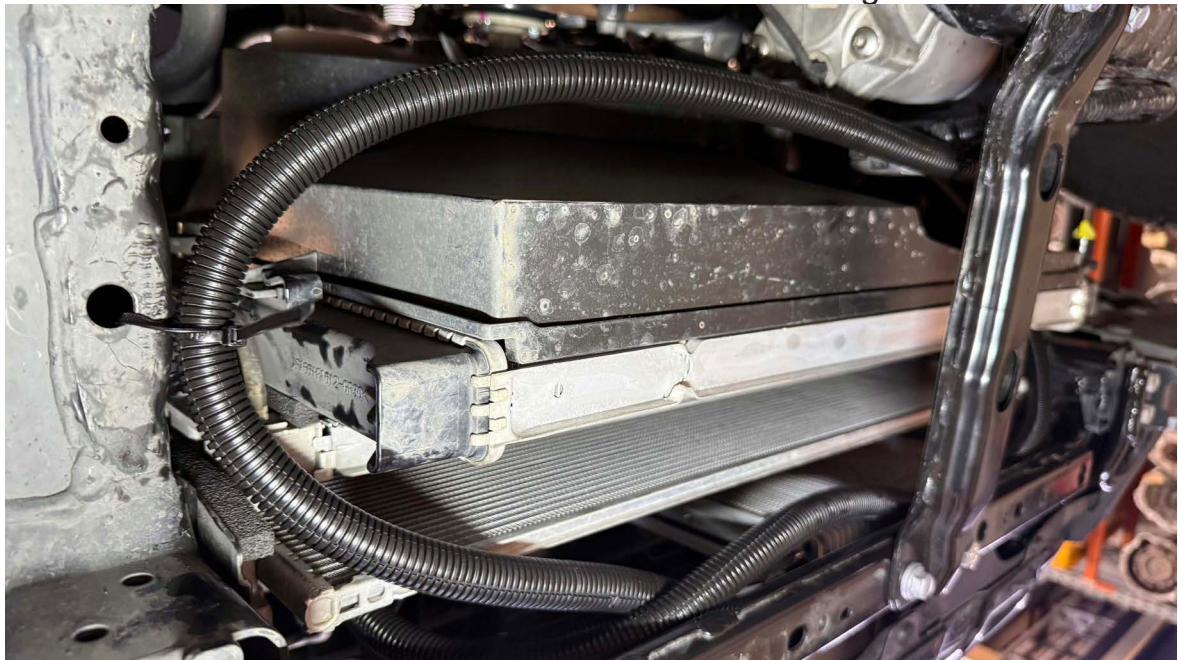
- 2.13. Remove the OEM hose running from the top port of the radiator on the driver's side to the steel return line back to the transmission. Now you can connect the 2 hoses from the collar, secure the hose running to the radiator with the OEM house Plastic clamp.



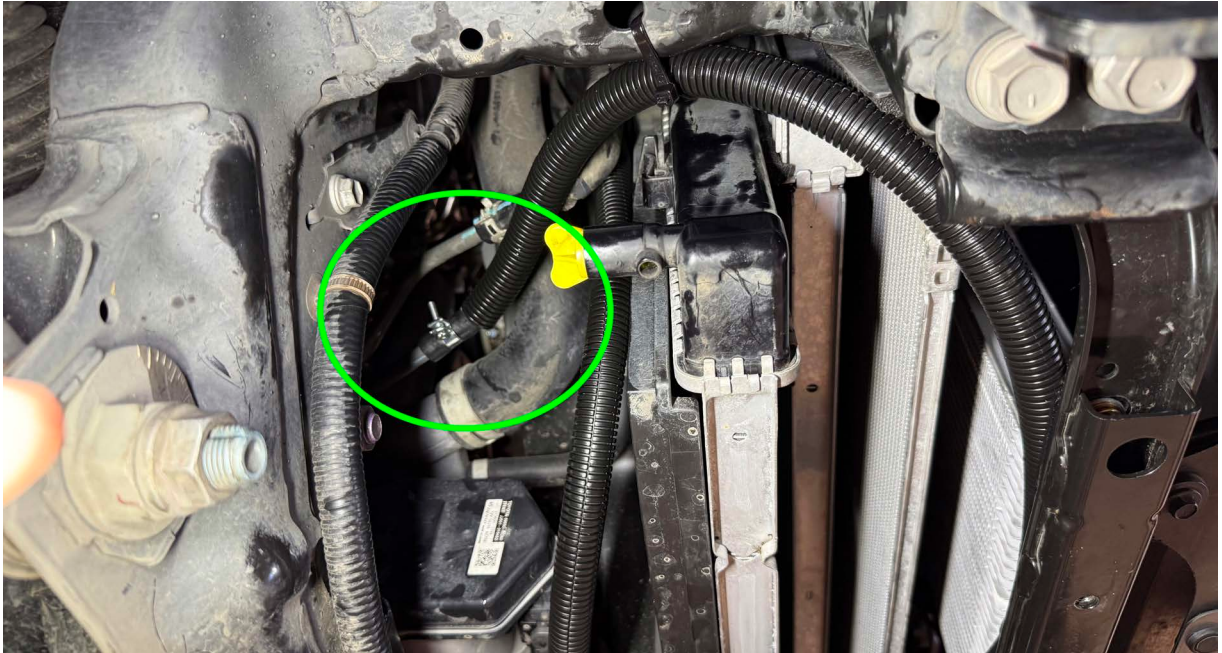
- 2.14. The other end of the hose will need to be attached to the same line as the hose which you have removed from the radiator. It leads back down to the transmission.



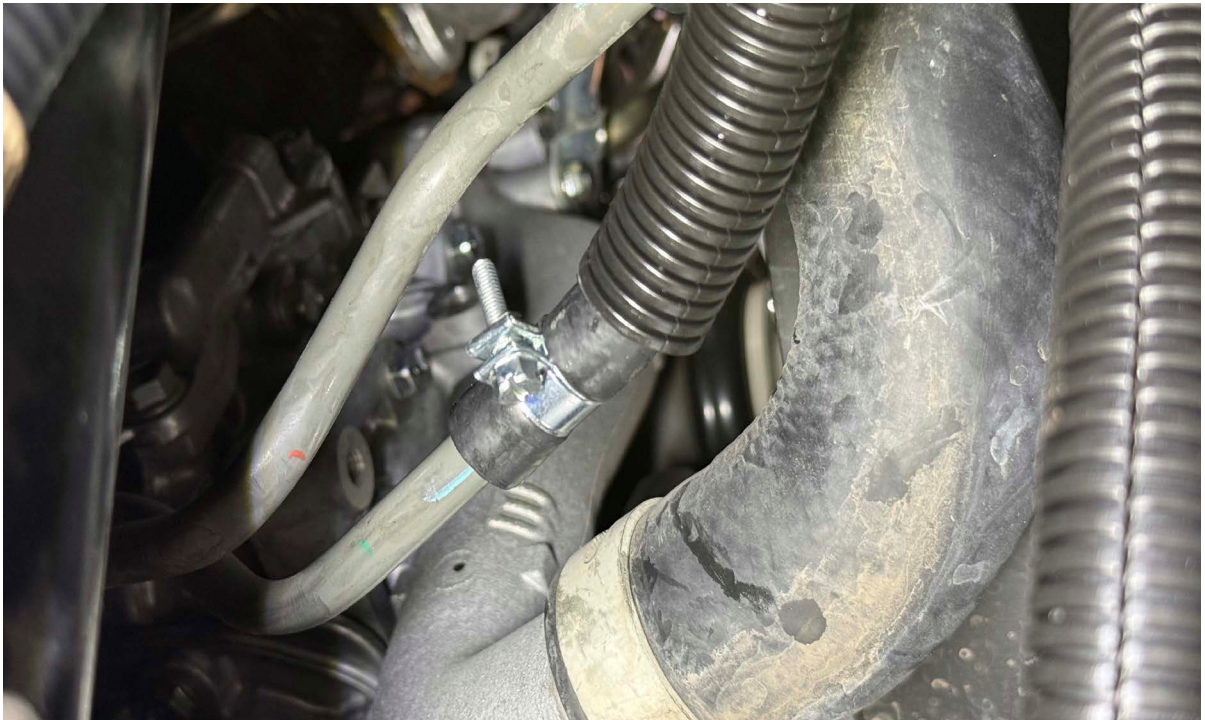
- 2.15. You can use the holes on the chassis to secure the length of hose.



- 2.16. The return end of the cooler will go into where you have removed the hose from the radiator.



- 2.17. Check that the cooler hoses are properly secured in place away from direct heat and moving parts. Secure using cable ties supplied.



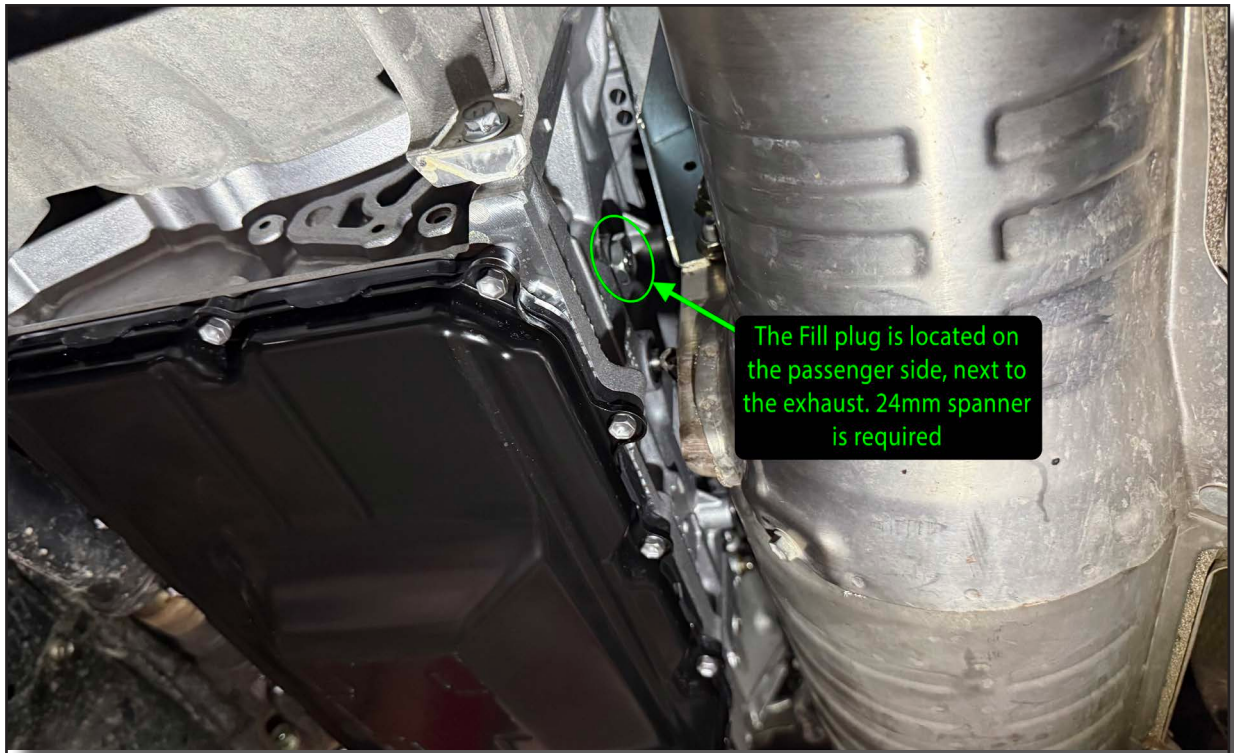
- 2.18. We recommend not refitting under trays yet incase you need to adjust or tighten hose clamps after test driving.

DO NOT START VEHICLE YET.

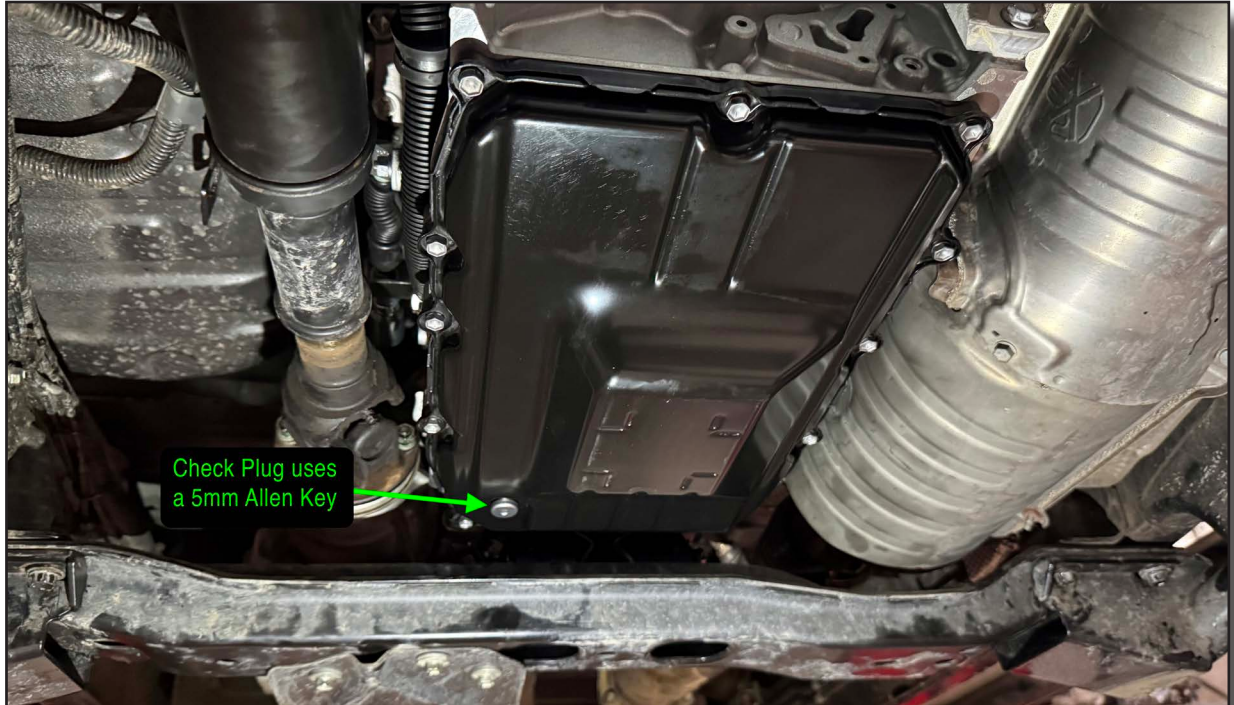
It will be easier with 2 people during this process.

You will need a 5mm Hex Allen Key and fluid catcher under the transmission before starting.

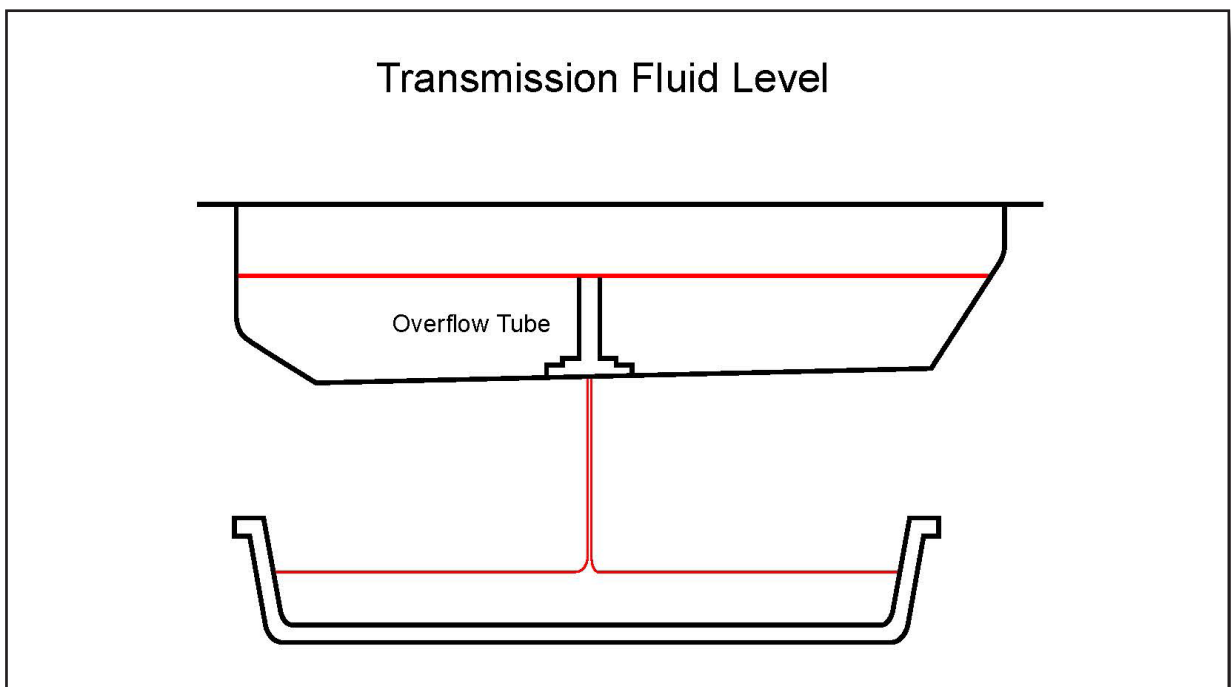
- 2.19. Unbolt Transmission Fluid Fill Plug on the passenger side of the transmission just above the pan.



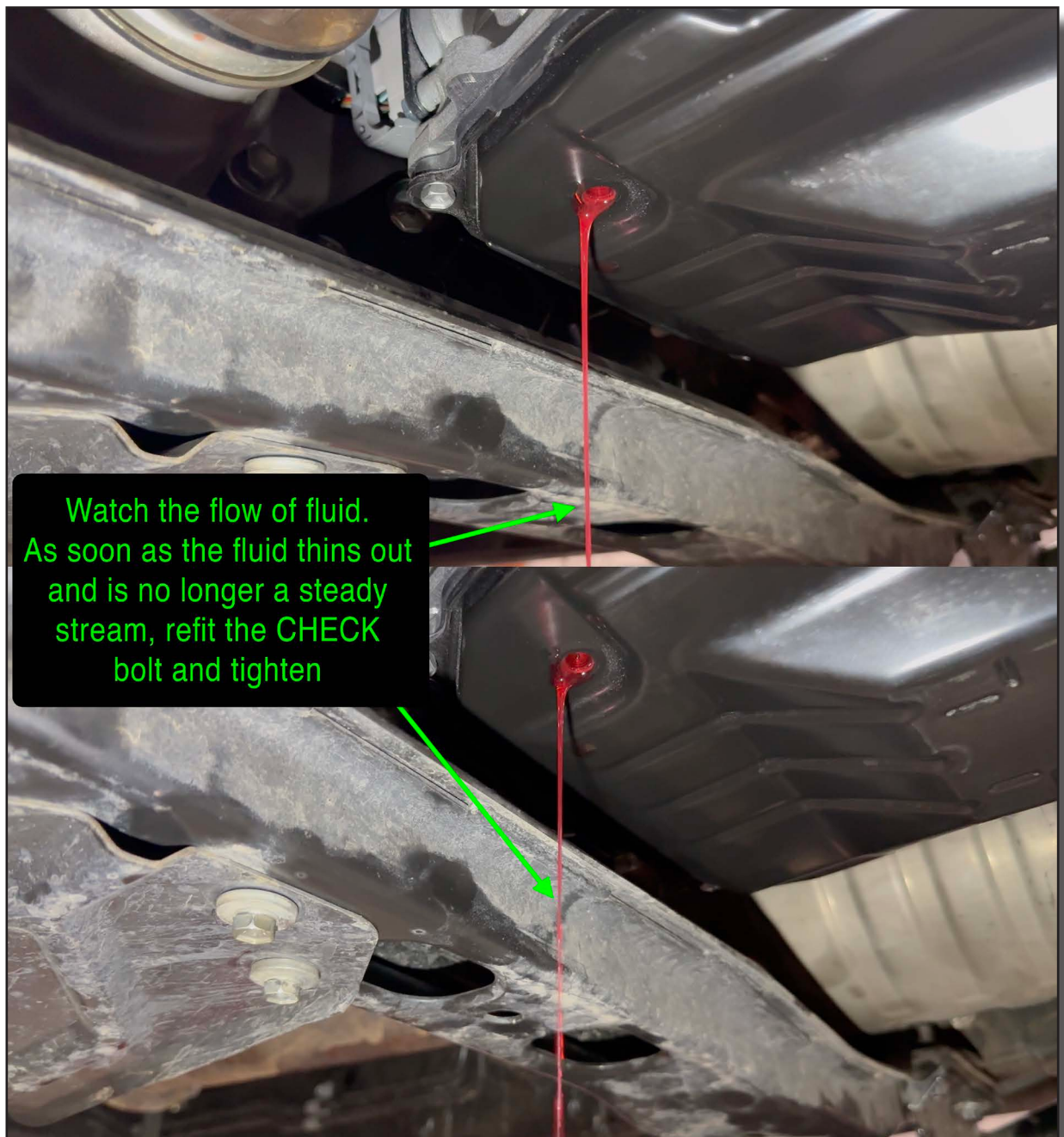
- 2.20. Start vehicle and leave in Park. Allow the vehicle to run for 30 seconds before removing the CHECK bolt on the underneath of the pan, labeled '**CHECK**' (5mm Allen Key). When you remove the CHECK bolt, there may or may not be any fluid coming out of the hole. This is not a problem.



- 2.21. If no fluid is coming out of the CHECK bolt hole, continue to add transmission fluid until it starts to flow. Avoid inserting the nozzle/hose too far into the Transmission Fluid Fill Plug hole to avoid the spinning drum.



- 2.22. When the fluid starts coming out of the CHECK bolt hole, ensure that the handbrake is firmly engaged and with your foot firmly on the brake. Shift the transmission into Drive for 10 Seconds then in Reverse for 10 Seconds. If the fluid starts to sputter or slow during the shifts, continue to add a little more fluid until the flow is a consistant stream coming from the CHECK bolt hole again. Then shift back to Park once finished
- 2.23. Now that the garage shifts are complete, watch the fluid flow closely and look the first sign of slowing or spluttering in the fluid. As soon as you see that, refit the CHECK bolt and tighten.



This completes the installation of the Dual External Transmission Oil Cooler Kit to suit:

Toyota Prado 250 Series 8 Speed Automatic Transmission

Please remember ALL automatic transmissions have a service interval of
2 years or 40,000km to improve the longevity of the transmission.

Please Provide us with Feedback

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Using your smart phone or device's camera app, point at the QR code below to take you straight to our feedback page for you to choose the most appropriate feedback method.

