



# Dual External Transmission Oil Cooler Kit Suitable for:



**Mitsubishi MV Triton with 6 Speed  
Automatic Transmission**

WITH THE FOLLOWING ENGINE:  
4N16 - 2.4L Inline 4 Turbo 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.

## Parts List



1x 3/8" Oil Cooler  
Preinstalled on Bracket



1.5m x 3/8" Cooler Line Hose with Conduit



2x M8 x 20mm SEMS  
Bolts



2x M8 Flange Nuts



1x M6 x 20mm SEMS  
Bolt



1x M10 Washer



4x 14-16mm Hose  
Clamps

Expected Installation Time: 2 Hours

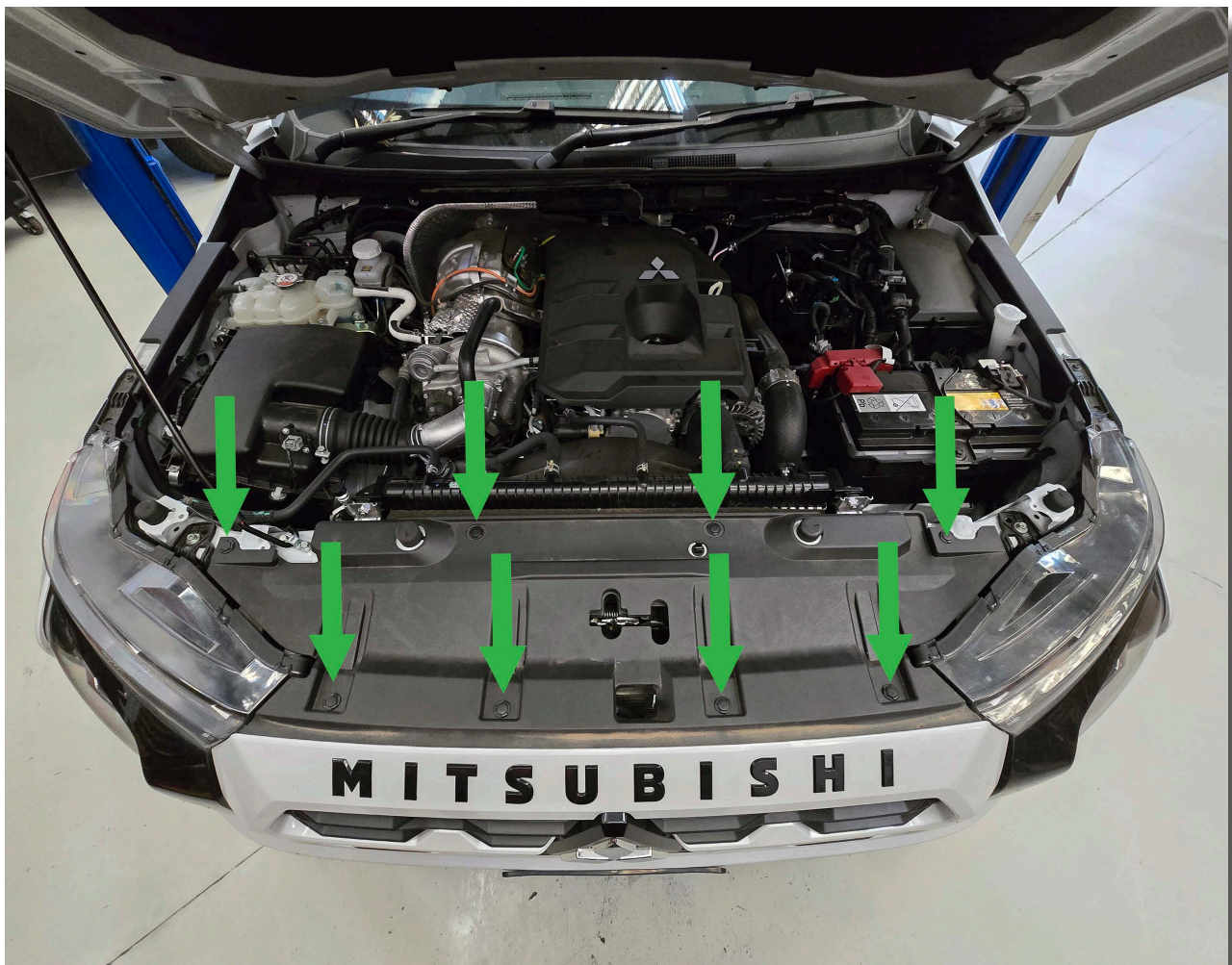
## Summary of Installation - For Experienced Fitters

- Ensure you have enough transmission fluid to top up your transmission after installation.
- Remove the plastic cowl above the radiator by first removing the 8x plastic clips.
- Remove the plastic trim surrounding the bonnet catch mechanism. Unplug the bonnet catch electrical connector. Remove the 3x bolts holding the bonnet catch and move it out of the way, being careful not to damage the bonnet release cable.
- Unclip the bonnet catch wiring from the upper radiator support and move it out the way.
- Remove the 2x horizontal bolts securing the upper radiator tank.
- Remove the 1x bolt securing the factory transmission cooler to the upper radiator support.
- Remove the 4x bolts securing the upper radiator support at each side near the headlights.
- Remove the front bash plate to reveal the lower air dam. Remove its 4x clips, then slide it down the factory hoses to reveal the 2x radiator centre brace bolts. Remove these bolts.
- Remove the upper radiator support from the vehicle.
- Install the Cooler Line Hose on each port of the cooler assembly, securing each end with one of the supplied hose clamps. Do not cut this hose yet.
- Remove the factory cooler hose that is connected to the port on the passenger side of the factory transmission cooler.
- Feed the cooler and bracket into the gap between the radiator and intercooler on the drivers side. Install the supplied M8 SEMS bolts through the lower radiator support and the bottom mounting tabs of the cooler bracket. Secure with the supplied M8 nuts, but leave these loose so you can adjust the alignment later.
- Route the hose from the upper cooler port to the exposed transmission cooler line. Cut the hose to length and secure with one of the supplied hose clamps.
- Route the hose from the lower cooler port to the exposed port on the factory transmission cooler. Cut the hose to length and secure with one of the supplied hose clamps.
- Reinstall the upper radiator support.
- Secure the cooler bracket to the upper radiator support using the supplied M6 bolt. Use the supplied washer to fill in the cavity on the back side of the upper radiator support. Once it is aligned tighten all the cooler bracket mounting bolts.
- Reinstall all other removed pieces.
- Check and top-up the transmission fluid level.
- Road test vehicle, then re-check transmission fluid level. Inspect cooler fittings for leaks and tighten if necessary.
- Clean up any spilled transmission fluid from the vehicle.

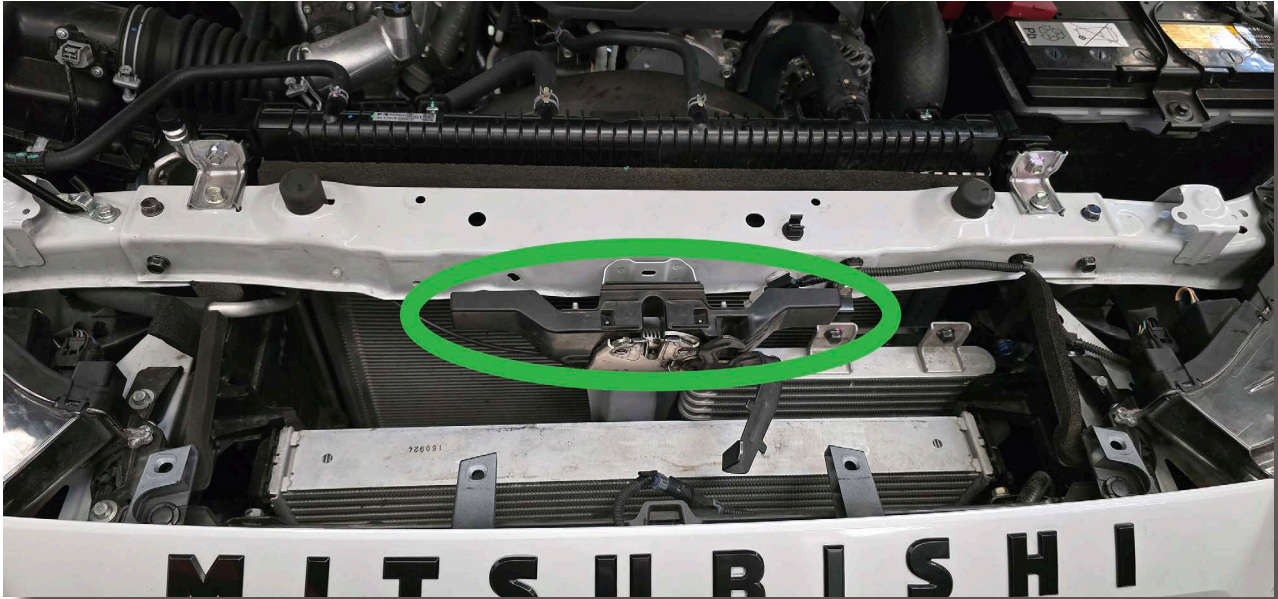
## Detailed Installation Instructions

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

1. Open the bonnet.
2. Remove the upper radiator cowl by removing the 8x plastic clips holding the radiator cowl in place.

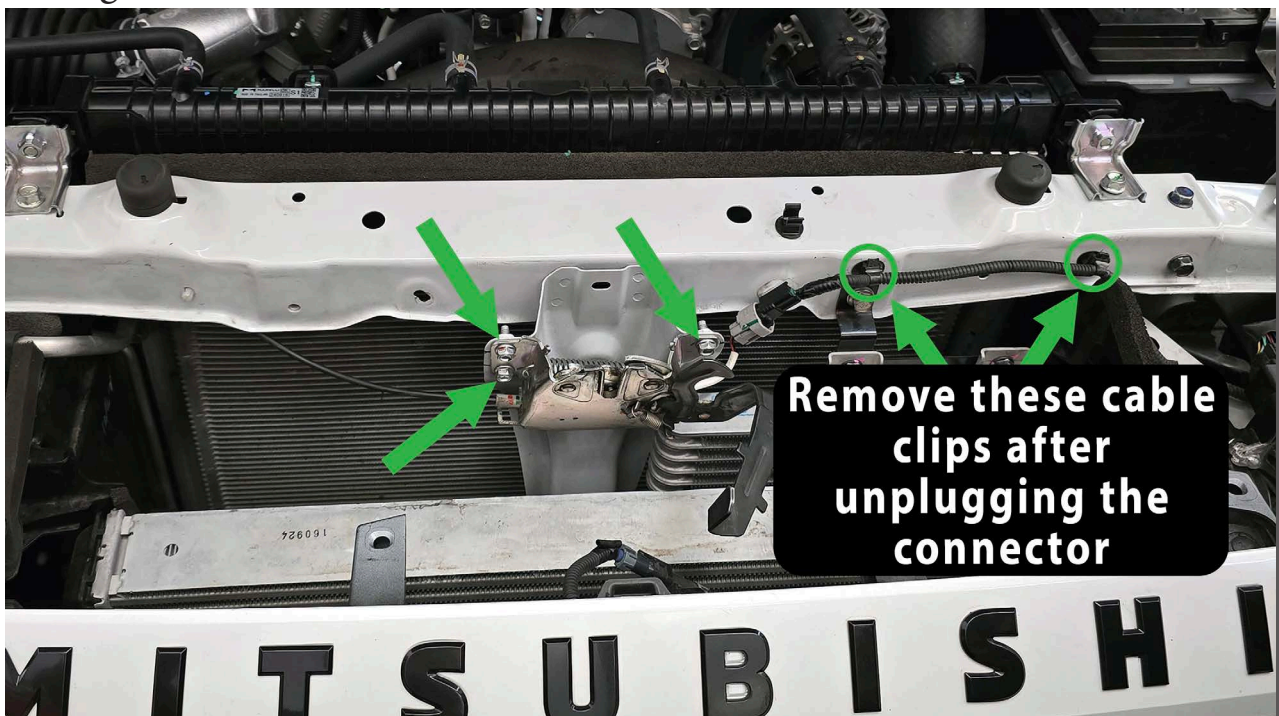


3. Remove the plastic trim surrounding the bonnet catch mechanism. This can be simply pulled straight up.

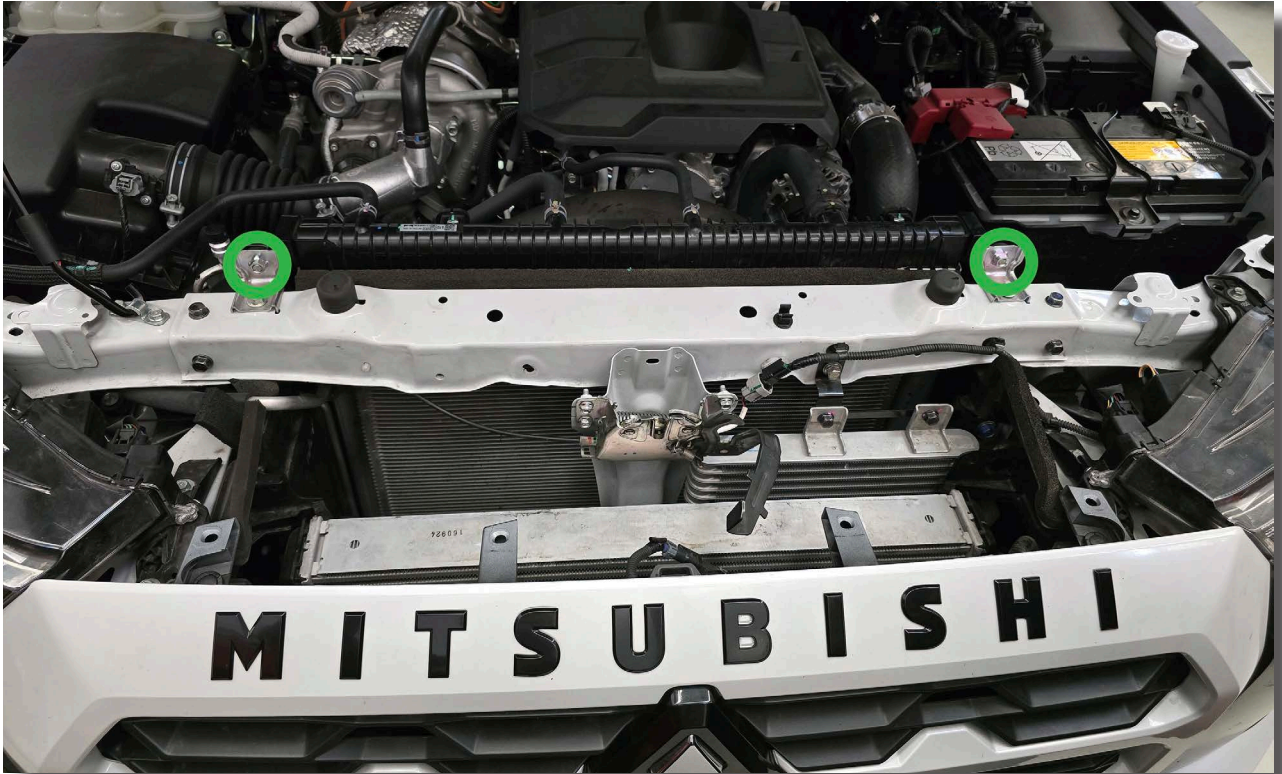


4. Unplug the bonnet catch connector and unclip the bonnet catch wiring harness from the upper radiator support. Move this wiring harness out of the way.

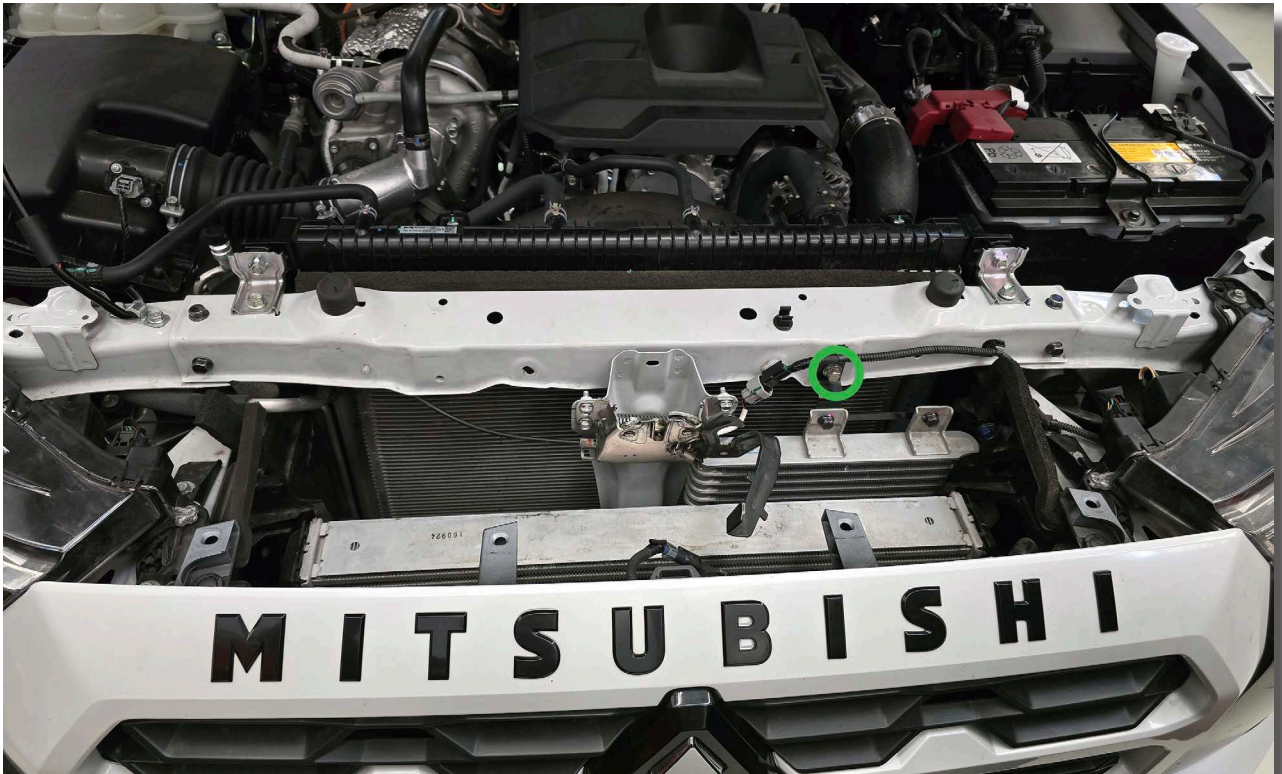
Remove the 3x bolts securing the bonnet catch mechanism to the central radiator brace. Move this out of the way, being mindful not to kink or damage the bonnet release cable.



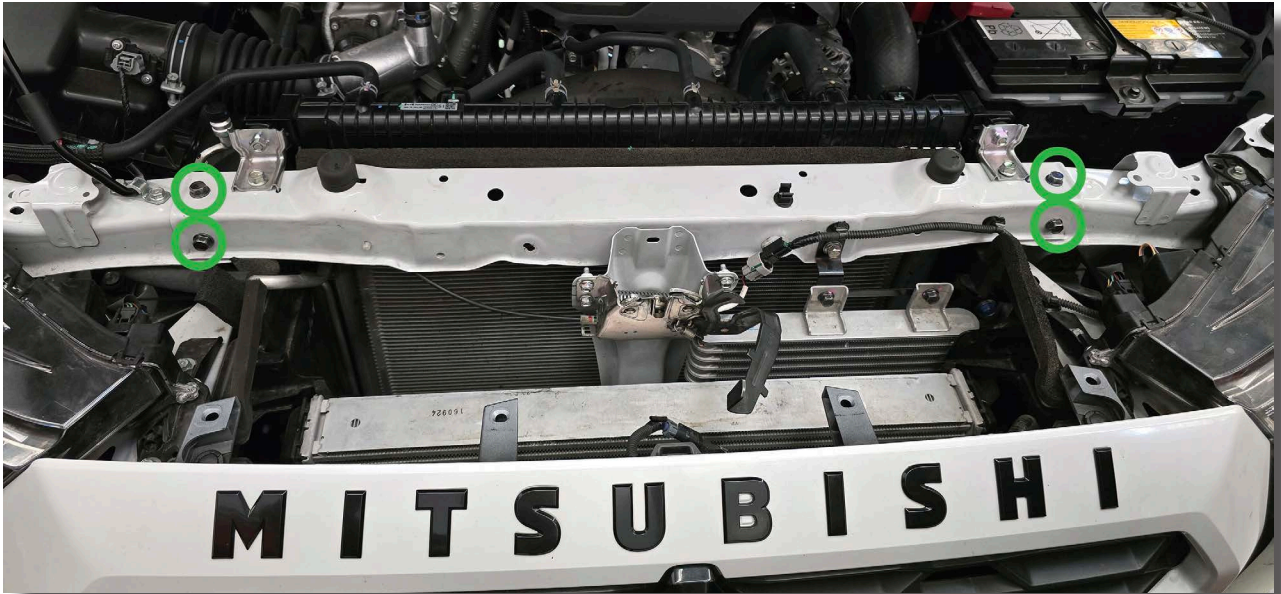
5. Remove the 2x horizontal bolts securing the upper radiator tank to the radiator mounting brackets on the upper radiator support.



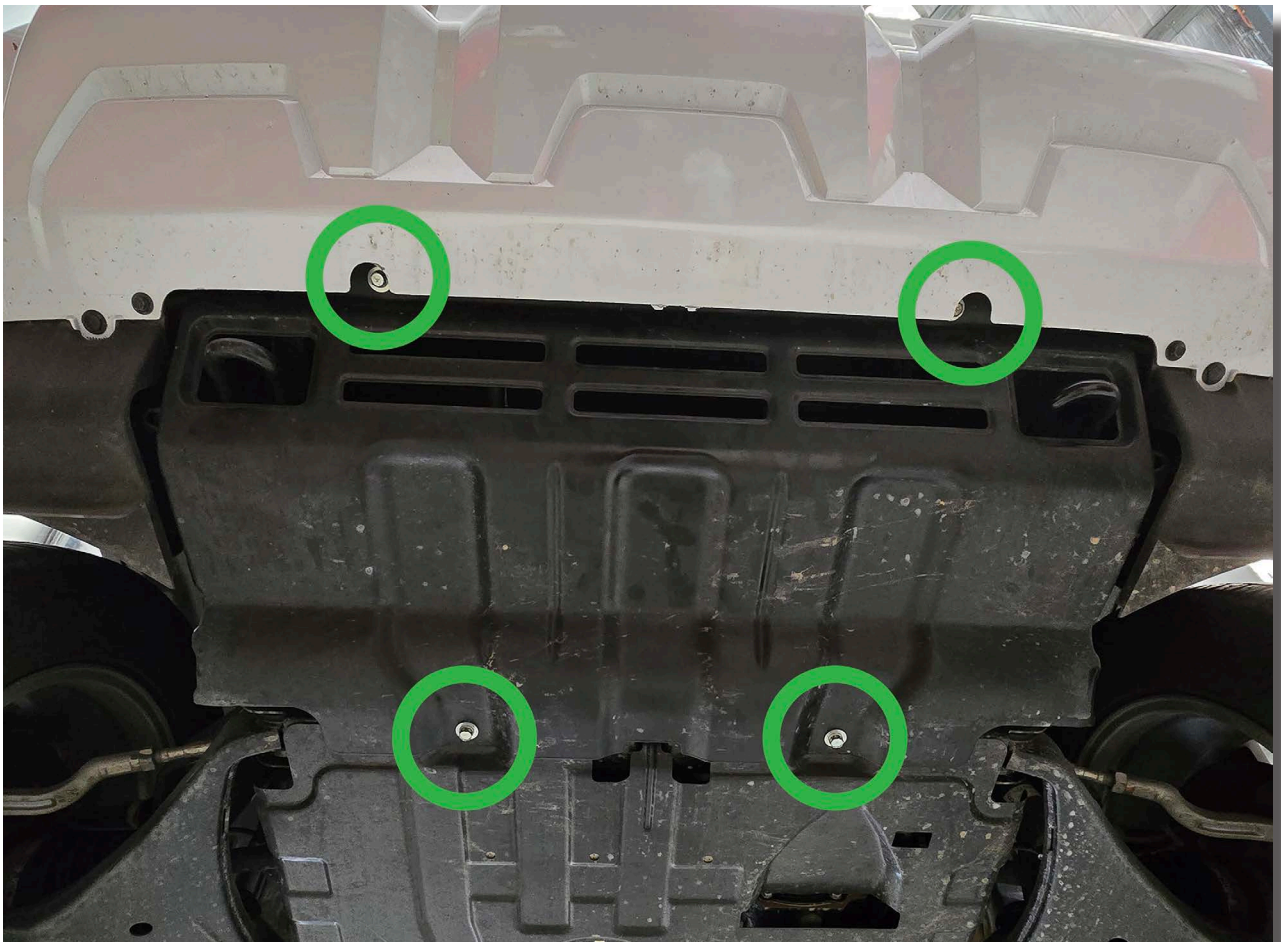
6. Remove the bolt securing the factory transmission cooler to the upper radiator support.



7. Remove the 4x bolts securing the upper radiator support, 2 on either side near the head lights.

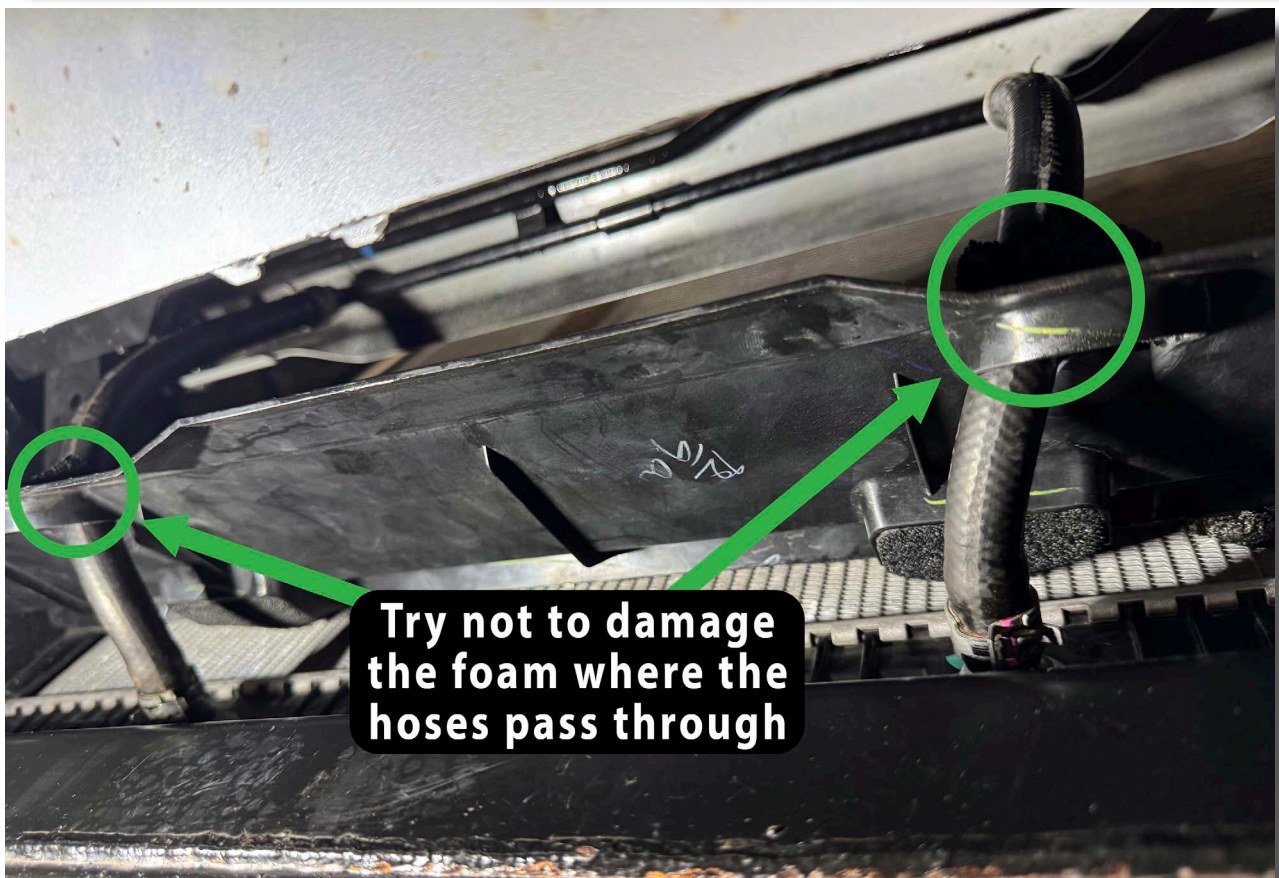
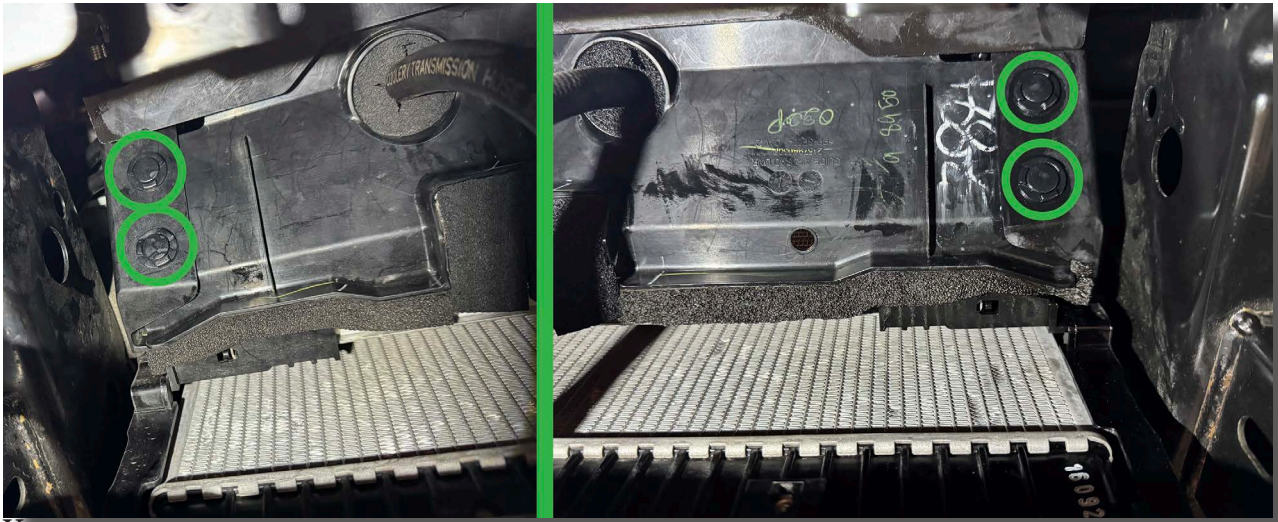


8. Remove the 4x bolts securing the front bash plate and remove the bash plate from the vehicle.



9. To gain access to the lower radiator central brace mounting bolts you need to move the factory air dam. This is located about 3/4 of the way down the radiator, and has two rubber transmission cooler lines passing through it. We DO NOT need to remove these two hoses.

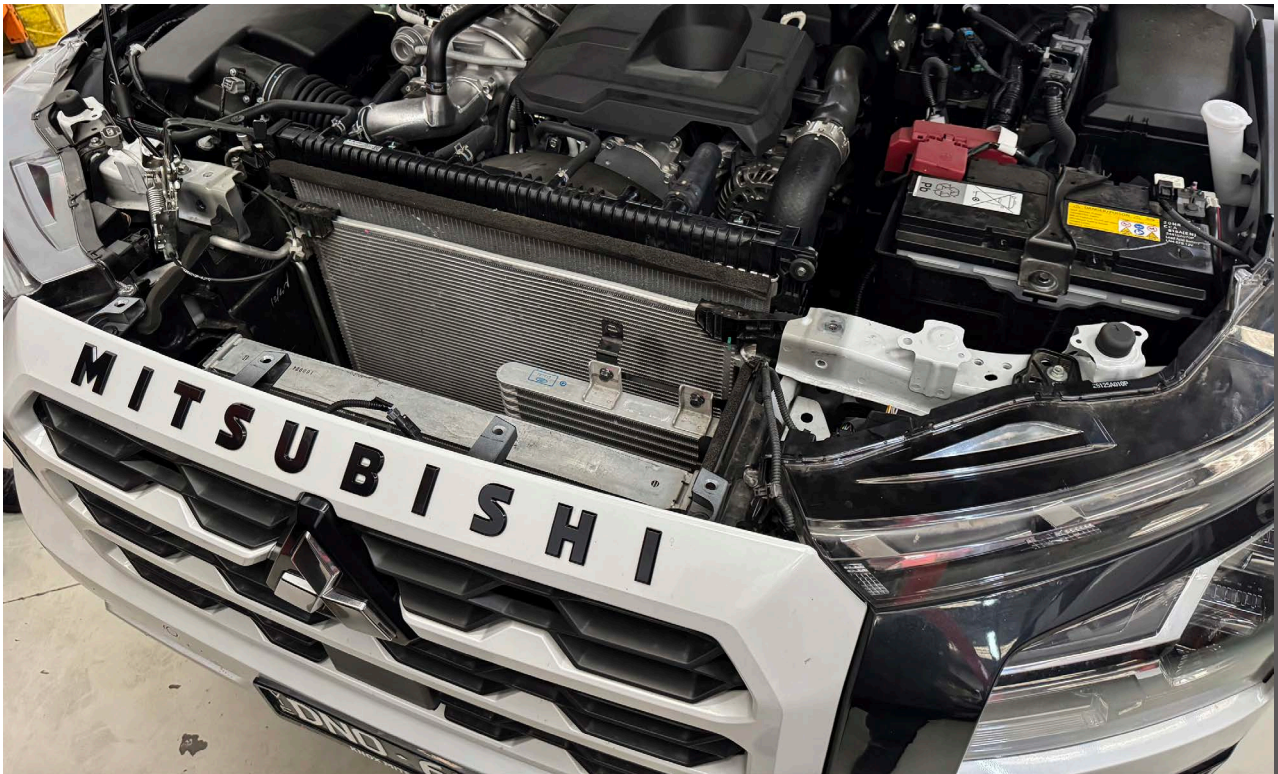
Remove the 4x plastic clips securing the air dam, 2 on either side. Slide the air dam down the cooler hoses towards the ground.



10. Remove the two bolts securing the radiator centre brace. The easiest way to access these is from under the vehicle.

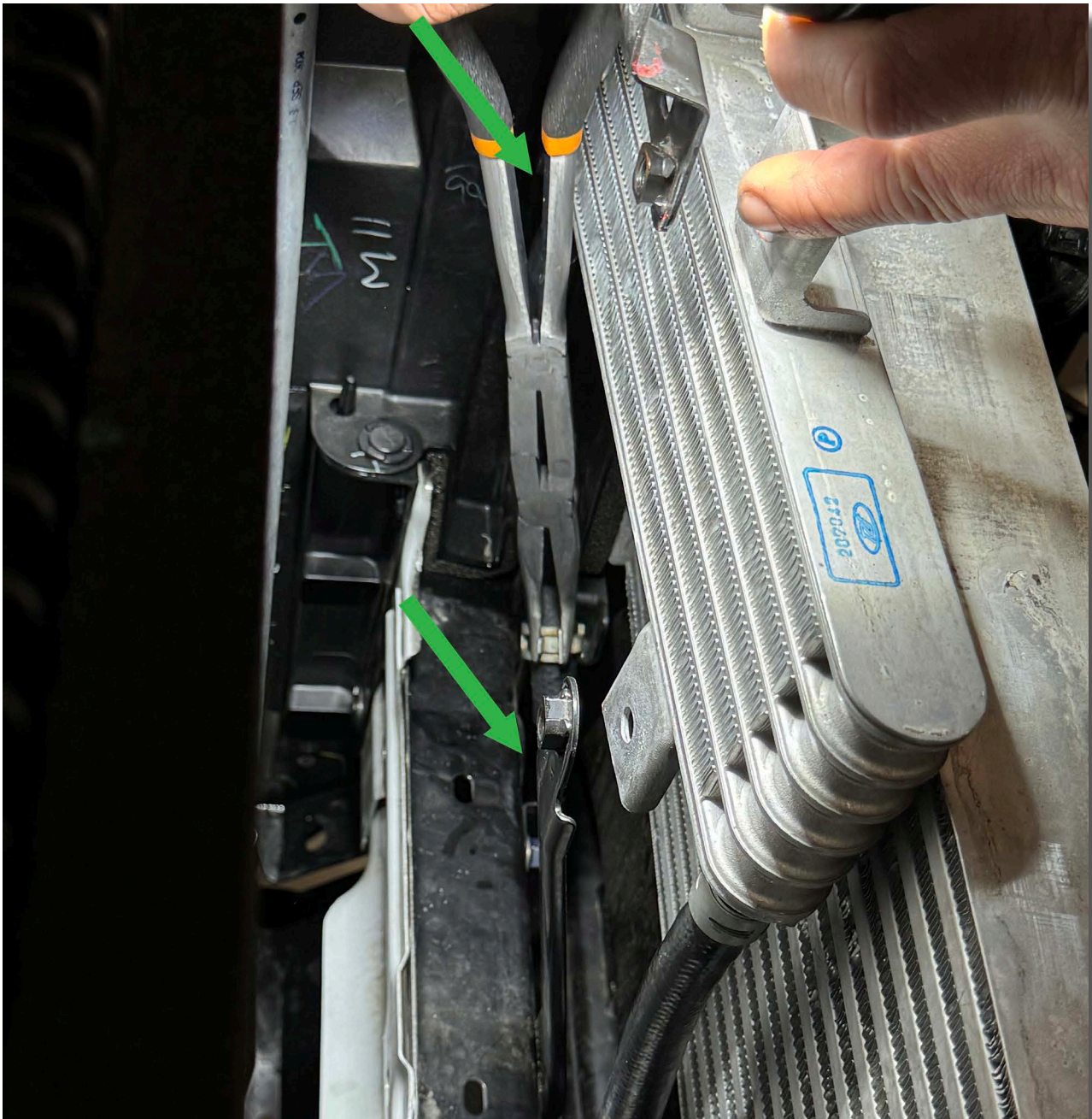


11. Remove the upper radiator support from the vehicle. Be careful not to damage the AC condenser or intercooler, especially when trying to lift it out enough to get clearance for the central radiator brace.

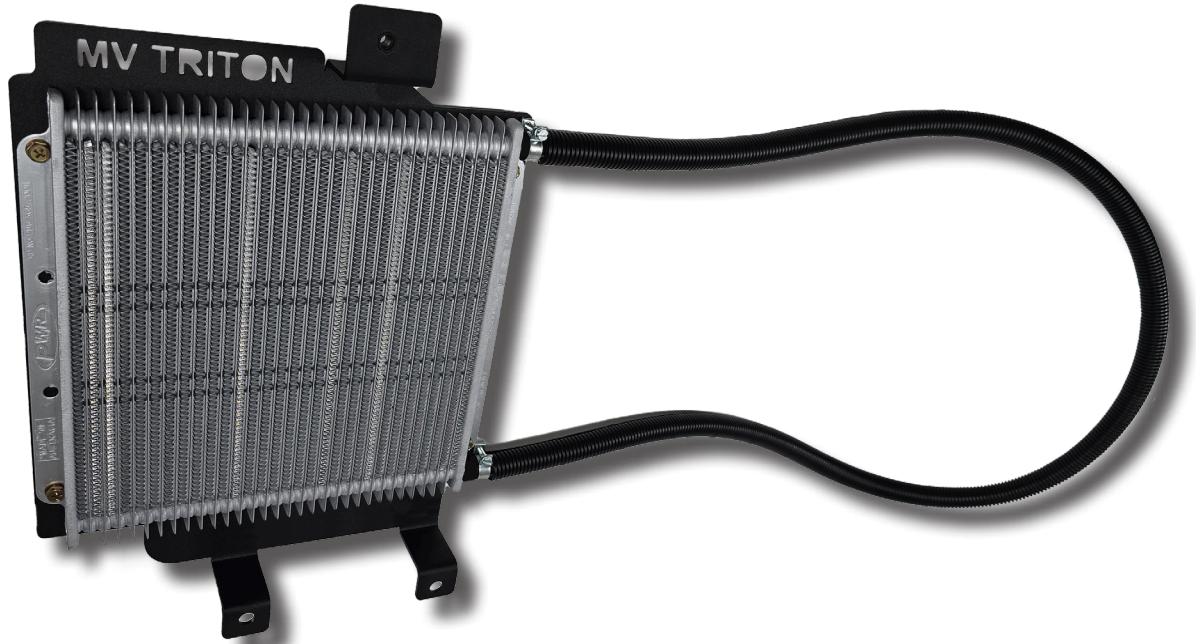


12. Remove the hose from the passenger side port of the factory transmission cooler - you may need some long pliers in order to release the factory spring clamp securing this hose to the transmission cooler hard line. Discard this hose.

Note that in the following photos we have shown the factory transmission cooler unbolted from its mount to gain better access for photos. Unless you are struggling to get your hands in the gap, however, we recommend leaving the factory transmission cooler bolted in place.

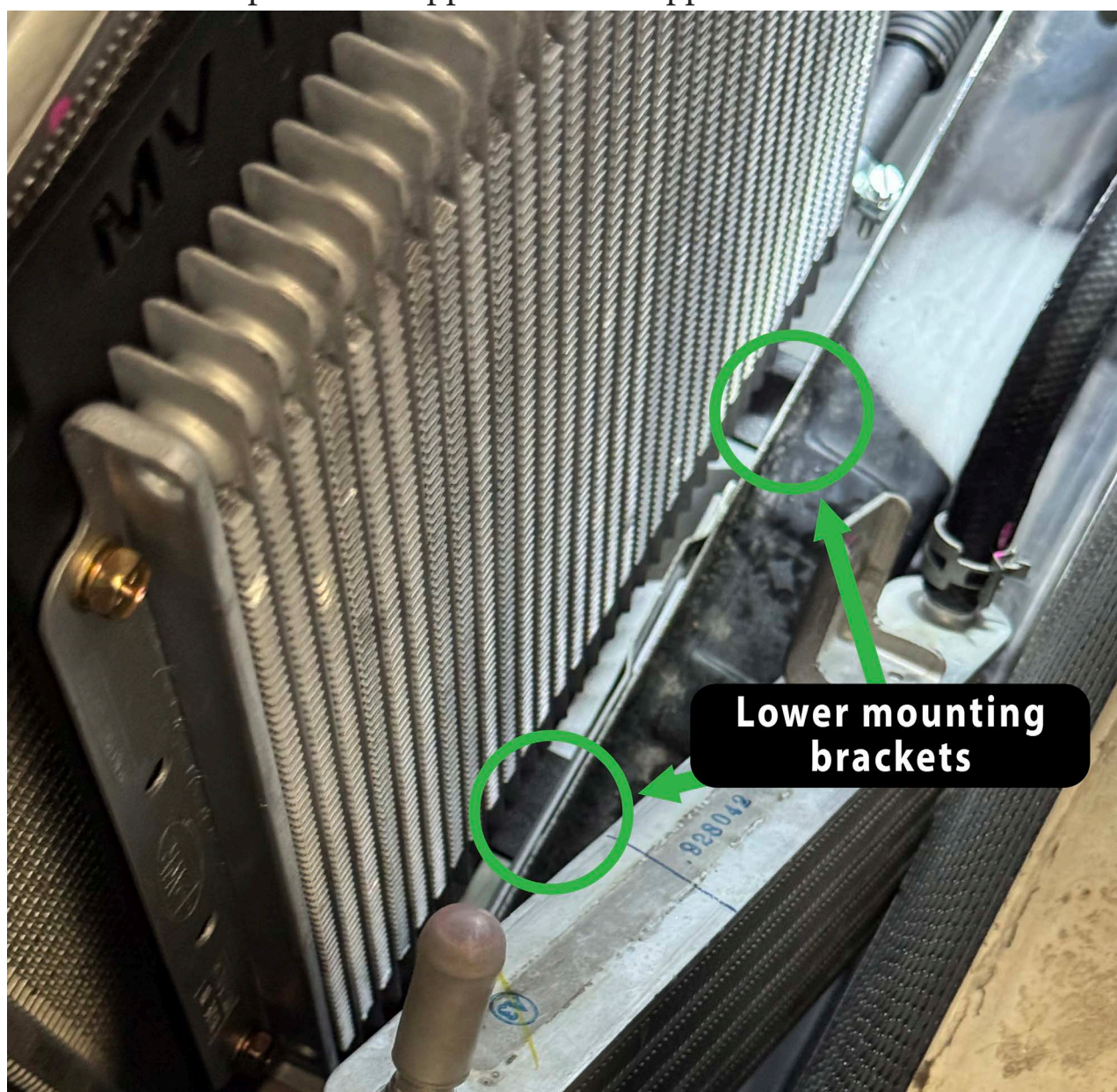


13. Remove the soft plastic caps from the barbs on the cooler preinstalled on the mounting bracket. Install the cooler hose onto both barbs, but do not cut this hose yet. Secure each end of the cooler hose to the cooler using the supplied hose clamps.



14. Feed the cooler bracket into the gap between the AC condenser and the intercooler on the drivers side of the vehicle. The single mounting tab with installed rivnut needs to be facing up, with the cooler barbs facing to the passenger side of the vehicle. The cooler should be on the side of the bracket facing forwards.

Line up the lower mounting brackets with the bolt holes already present in the lower radiator support. Insert the supplied M8 SEMS bolts through the lower radiator support and the lower cooler bracket mounting tabs and secure with the supplied M8 nuts. Leave these loose to allow you to line the cooler bracket up with the upper radiator support later.



15. Route the cooler hose from the upper cooler port to the exposed factory transmission cooler hard line. Make sure the hose won't rub on the AC condenser, and if you removed the factory transmission cooler for access make sure the hose can't kink when the factory cooler is reinstalled.

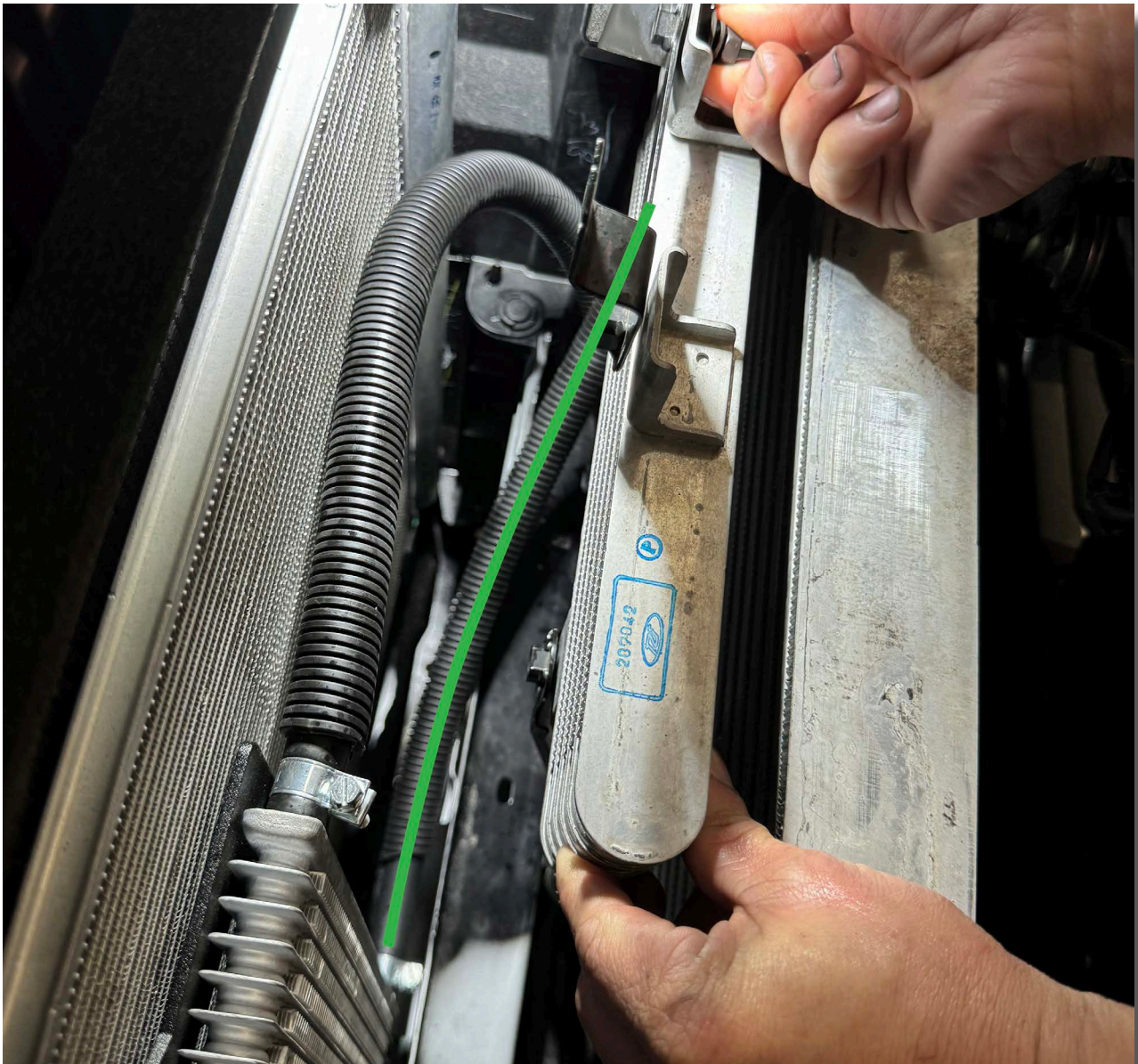
Cut the cooler hose and protective sheath to length. Slide one of the supplied hose clamps over the cut side of the cooler hose and then install that cooler hose onto the factory hard line. Secure it with the hose clamp, then reinstall the protective sheath.



16. Route the hose coming from the lower port on the new cooler to the exposed port on the factory transmission cooler. Make sure the hose won't rub on the AC condenser, and if you removed the factory transmission cooler for access make sure the hose can't kink when the factory cooler is reinstalled.

Cut the cooler hose and protective sheath to length. Slide one of the supplied hose clamps over the cut side of the cooler hose and then install that cooler hose onto the factory transmission cooler. Secure it with the hose clamp, then reinstall the protective sheath.

Reinstall the factory transmission cooler using the 3x factory bolts if you removed it.



17. Reinstall the upper radiator support. Be careful not to scrape the central radiator brace on any of the coolers when you are feeding it down. The cooler bracket upper mount needs to be on the inside of the upper radiator support.

Loosely thread in the 6x bolts that hold in the upper radiator support. Make sure the upper radiator support is centered, then tighten the 6x bolts.

18. Reinstall the 2x horizontal radiator upper tank mounting bolts.
19. Use the supplied M6 SEMS bolt to secure the cooler bracket upper mount to the upper radiator support, threading it into the preinstalled rivnut. Use the supplied washer as a spacer to fill in the cavity in the upper radiator support where the cooler bracket is mounted. Once the cooler bracket is installed tighten all 3 of its mounting bolts.



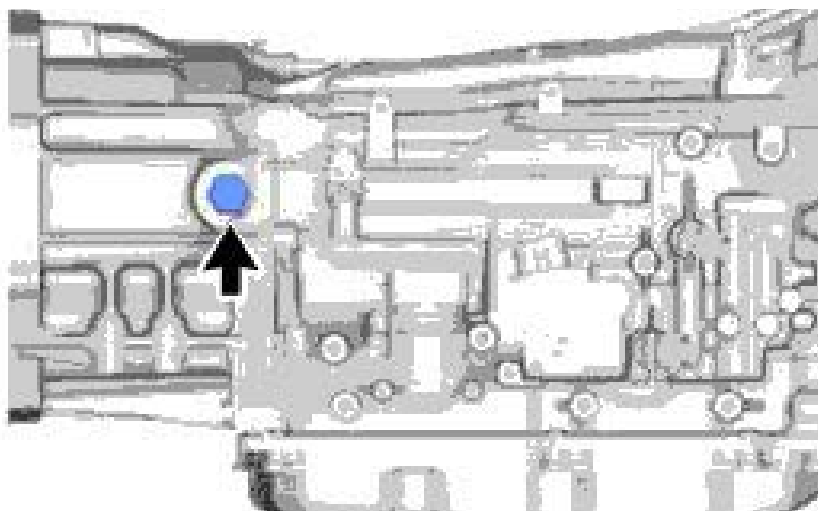
20. Reinstall the bonnet catch and air dam using the factory hardware. We suggest leaving the bash plate and upper radiator cowl removed to make it easier to check for leaks after the test drive.

Plug the bonnet catch mechanism back into its harness and secure the factory clips before replacing its plastic shroud.

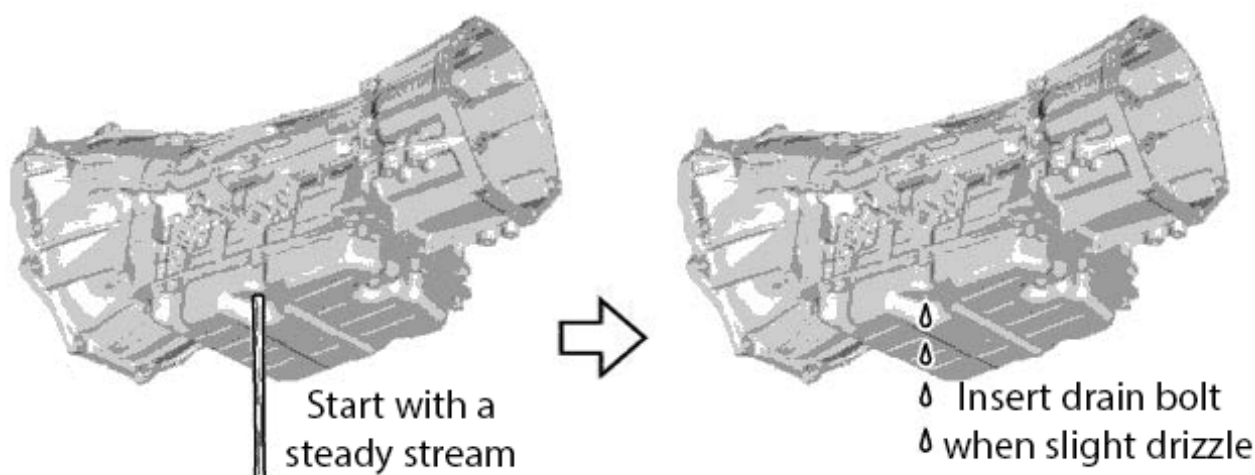
21. Finally, re-check that all the screw clamps are tight prior to starting the engine.
22. Next we need to check the transmission fluid and top as required. **The engine must be running while you are checking the transmission fluid.**
23. Before checking the fluid level you must allow the engine to run for at least one minute. This pumps the fluid that has drained into the pan back into the torque converter, cooler lines and valve body.
24. In the transmission sump or pan locate the check bolt - the bolt will have "Check" engraved into it.



25. With the **engine running** remove the check bolt using a 5mm Allen key. DO NOT remove the 14mm bolt located at the rear of the transmission pan as this is the drain plug.
26. If there is no oil dribbling out of the check plug, locate and remove the 24mm fill plug on the drivers side of the transmission. This may be located behind a heat shield; if this is the case please first remove the heat shield.



27. Carefully top up the transmission fluid through the fill plug until there is fluid flowing out of the check plug hole. Once the flow drops to a dribble quickly put the check plug back in and tighten. Re-install the 24mm fill plug.



28. Prior to road testing check all connections for weeping or leaking of transmission fluid. Tighten the clamps if necessary.
29. Clean all the areas of the engine and chassis where transmission fluid may have spilled.
30. Road test the vehicle. You are looking for anomalies such as high transmission fluid temperatures indicating fluid level is still too low / high or possibly an air lock or cooler line blockage. If transmission operates as expected then return to the workshop.
31. Do not switch off the engine yet.
32. With the engine still running, visually check for leaks and re-tighten any fittings as required.
33. With the engine still running re-check the transmission fluid level by repeating the steps 25 to 27. It is important to re-check the transmission fluid level as you are likely to force more air out of the transmission coolers and lines during the test drive.  
  
**Please note: the transmission fluid may be quite hot. Please take care when undoing the check valve bolt.**
34. If the fluid is at the correct level clean any remaining spilled transmission fluid off the vehicle.
35. If the level is low repeat steps 25 to 27. Once the fluid level is correct clean any spilled transmission fluid off the vehicle.
36. Finally, reinstall any other removed parts, bash plates etc to finish the installation.



# This completes the installation of the Dual External Transmission Oil Cooler Kit to suit: Mitsubishi MV Triton with 6 Speed Automatic

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

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## Please Provide us with Feedback

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