



Direction Plus Ryco Pre-filter Kit Installation Guide for Toyota Land Cruiser 79 Series 2.8L 4cyl 2024 - On

This document is to be used as a guide for the installation of the **Direction Plus Ryco pre-filter kit (RC648DPK)** to a **2024+ Toyota Land Cruiser 70 Series 2.8L 4 Cylinder Diesel**. *It is recommended that the installation of the product be carried out by a competent qualified mechanic.*

Important Before Starting

- Ensure you have the correct tools to complete the fitment.
- Read the instructions in full and familiarize yourself with the installation, before commencing any work.

Maintenance / Servicing

- It is recommended to drain the element every 5,000 – 10,000km
- Ryco filter element is to be replaced every 40,000km or as per your vehicles service interval

Included in the kit



1x RYCO ASSY (Z9805K16L)	2x 6mm Spring Washer (FMSW6)	2x P CLAMP 20MM (PCL20)
1x 79LC BRACKET (PLPV648-BR)	2x WASHER - 6MM (FMW6)	10x CABLE TIE 280 X 4.8 (802078)
2m DFL10 - FUEL HOSE (DPFH10)	2x M8 x 16 BOLT 304 SS (SSSS304M816)	1x WINDSCREEN LABEL (DPLABEL1)
2.1m 12MM HOSE - GATES (DPFH12-GAT)	2x 8mm Spring Washer (FMSW8)	1x ENGINE BAY LABEL (DPLABEL5)
1x RUBBER HAND PRIMER 10mm PIPE (B 415-10)	2x 8MM X 17MM (FMW8)	1x DP STICKER (DPLABEL6)
1x FITTING 12MM (DP816-8-M1615)	1x HOSE CLAMP - 10MM (FMC10)	1x DEFENCE STICKER (DPLABEL7)

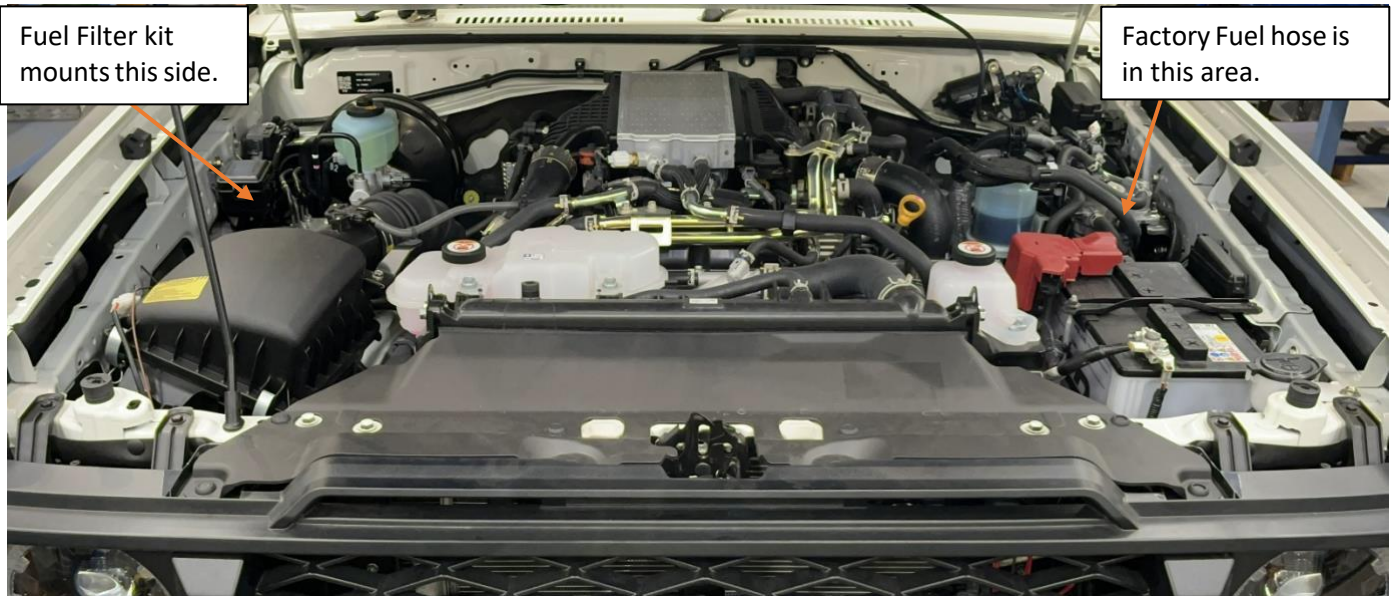
1x PUSH ON STRAIGHT - 12MM (DPP0001-08)	1x FMC12 - CLAMP 12MM (FMC12)	1x DP HOLO SECURITY SEAL (DPLABEL8)
1x FITTING 10MM (DP816-6-M1615)	1x HEAT SHEILD (HS35DP)	2x DP BAGS (DPBAG)
1x PUSH ON STRAIGHT - 10MM (DPP0001-06)	10x CABLE TIE 280 X 4.8 (802078)	1x DP ZIP LOCK BAG (DPZIPBAG)
2x M6 X 16mm BOLT (SSSS304M616)	1x LOCTITE 567 THREAD SEALANT (567-6ML-LOC)	1x RYCO FILTER KIT BOX (RCBOX)



Tools Needed:

- Spanners
- Sockets
- Screw Drivers
- Pliers
- Snips/Cutter
- Rags
- Small container for priming
- We suggest using a thread sealant like Loctite 567 or equivalent.

Installation Guide



Land Cruiser 70 Series 2.8L Engine Bay – Overall View

1. Begin by removing two of the nuts used to secure the ABS unit to the inner guard. The ones to remove are the closest ones to the centre of the vehicle.

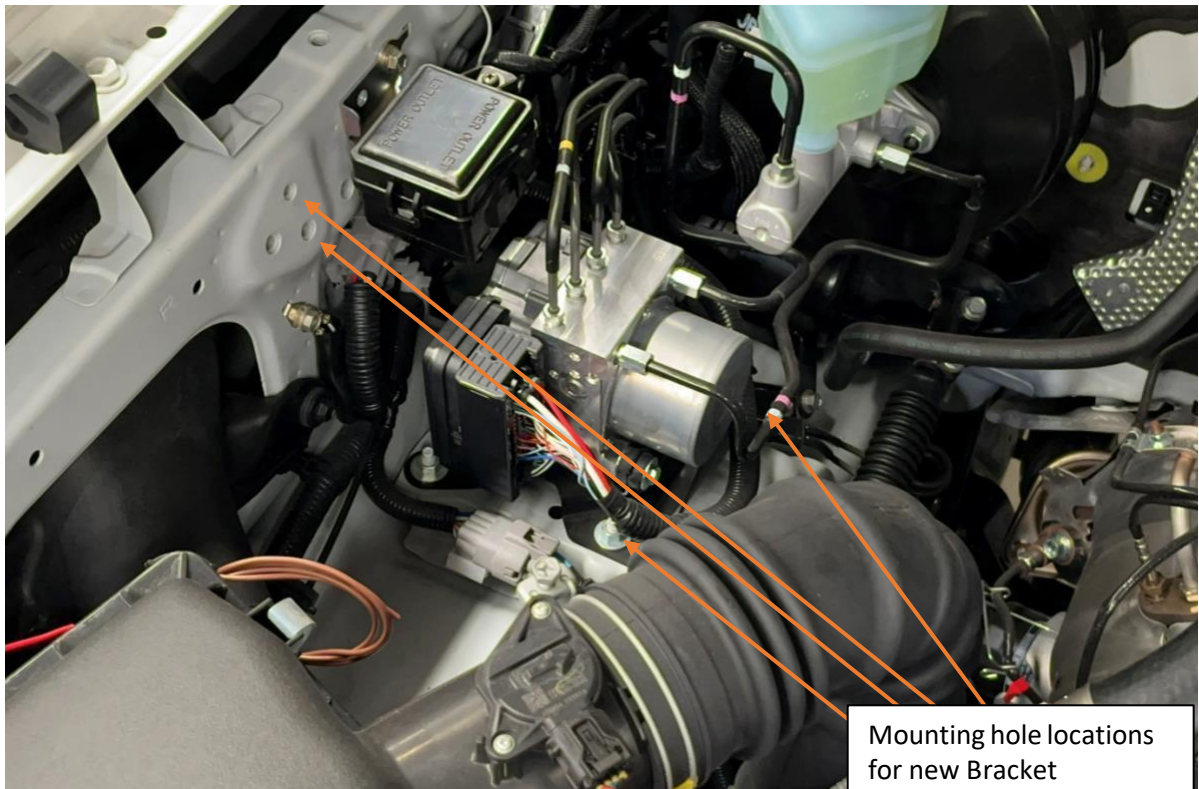
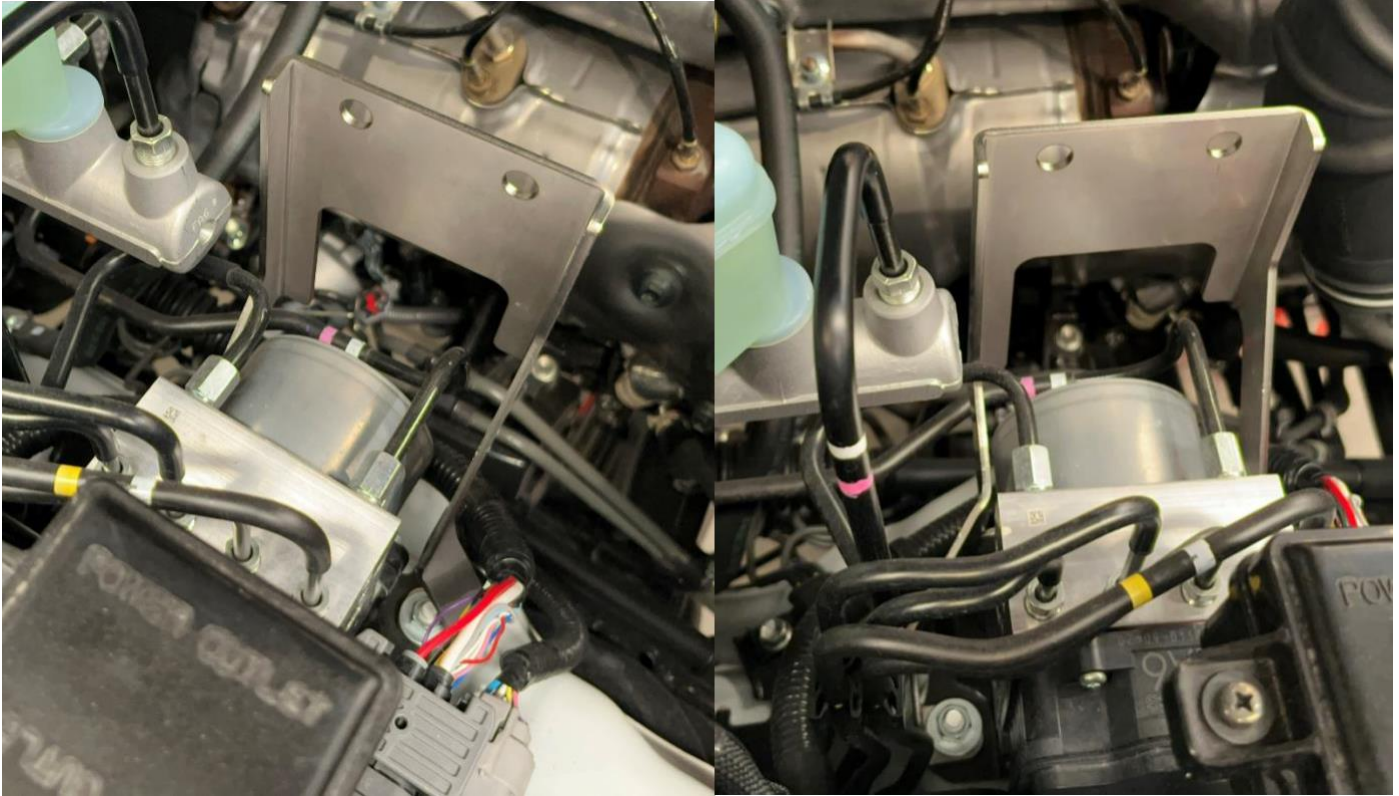


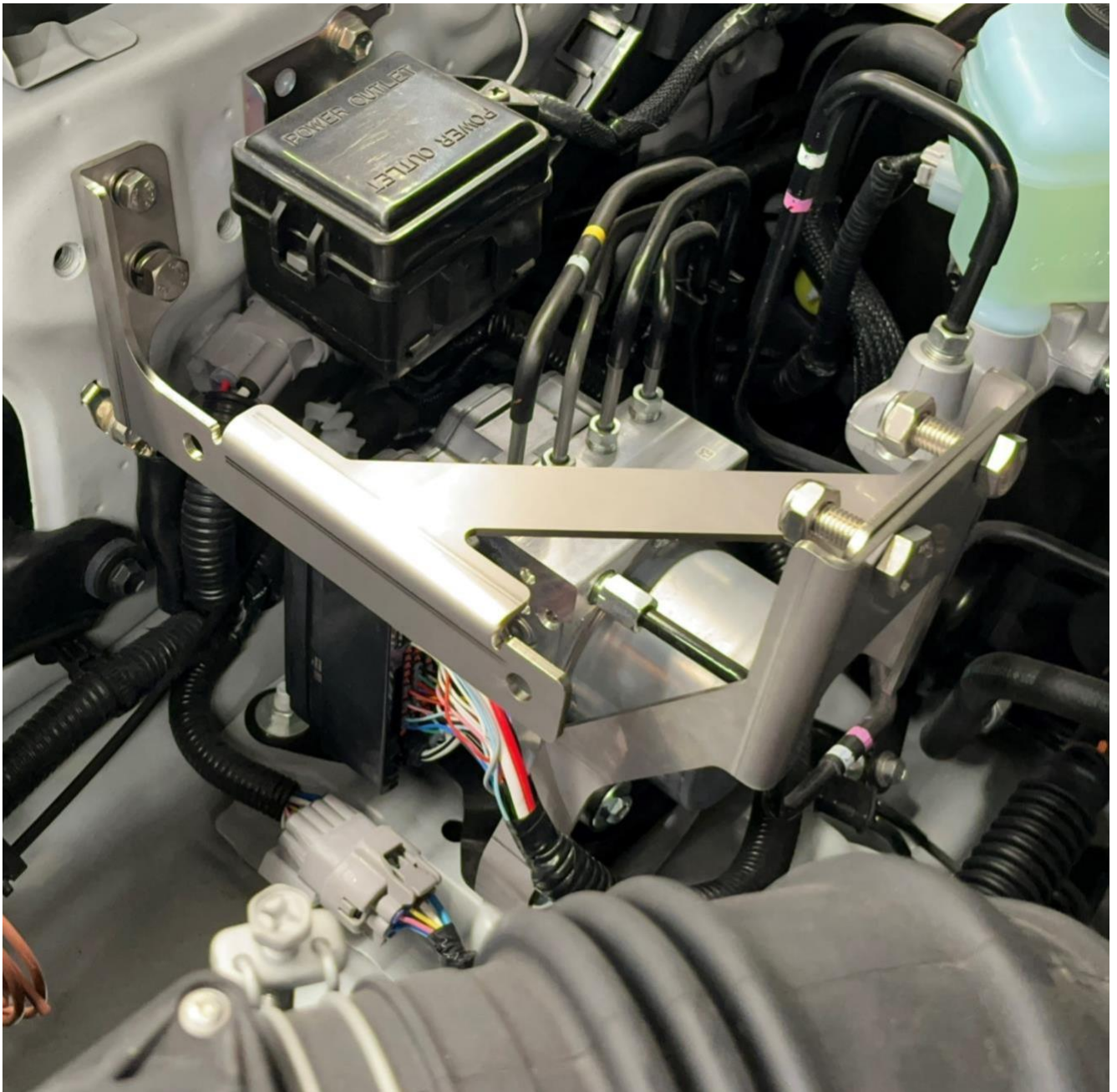
Image shows new bracket mounting location.

2. Mount the new bracket in place, it goes under the top line on the rear of the ABS unit and under the wiring harness on the front side, take care and it does manipulate in there without too much trouble. Reuse the original nuts to loosely secure in place – Do not tighten them yet!



Mounting Bracket A fitted to the vehicle.

3. Using mounting bracket B, the M10 bolts, nuts and washers, along with the single M6x16 bolt + washers and the single M8x16 bolt + washers. Fit the bracket to the vehicle as shown in the image below. Bolt the Ryco filter to the bracket now. Once both brackets are in place, tighten the bolts and ABS nuts.



Mounting Bracket A and B fitted to the vehicle.

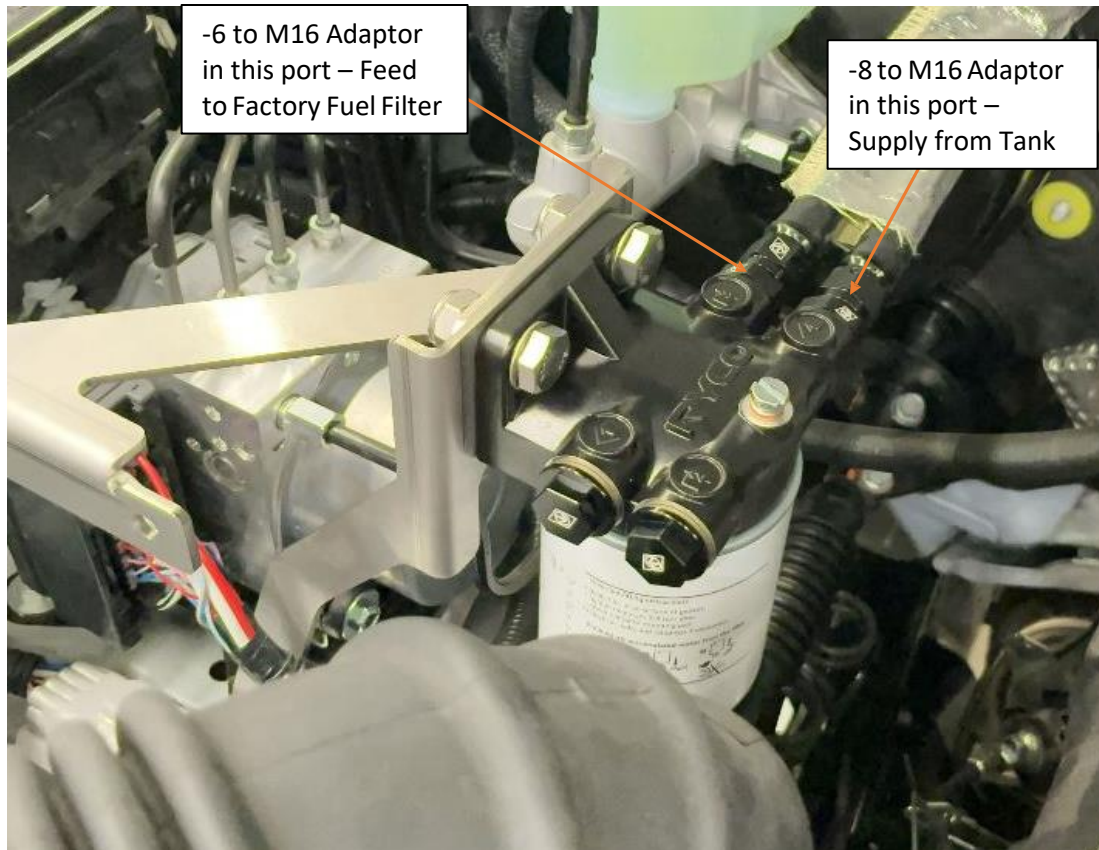


Ryco filter mounted to Fuel filter bracket.



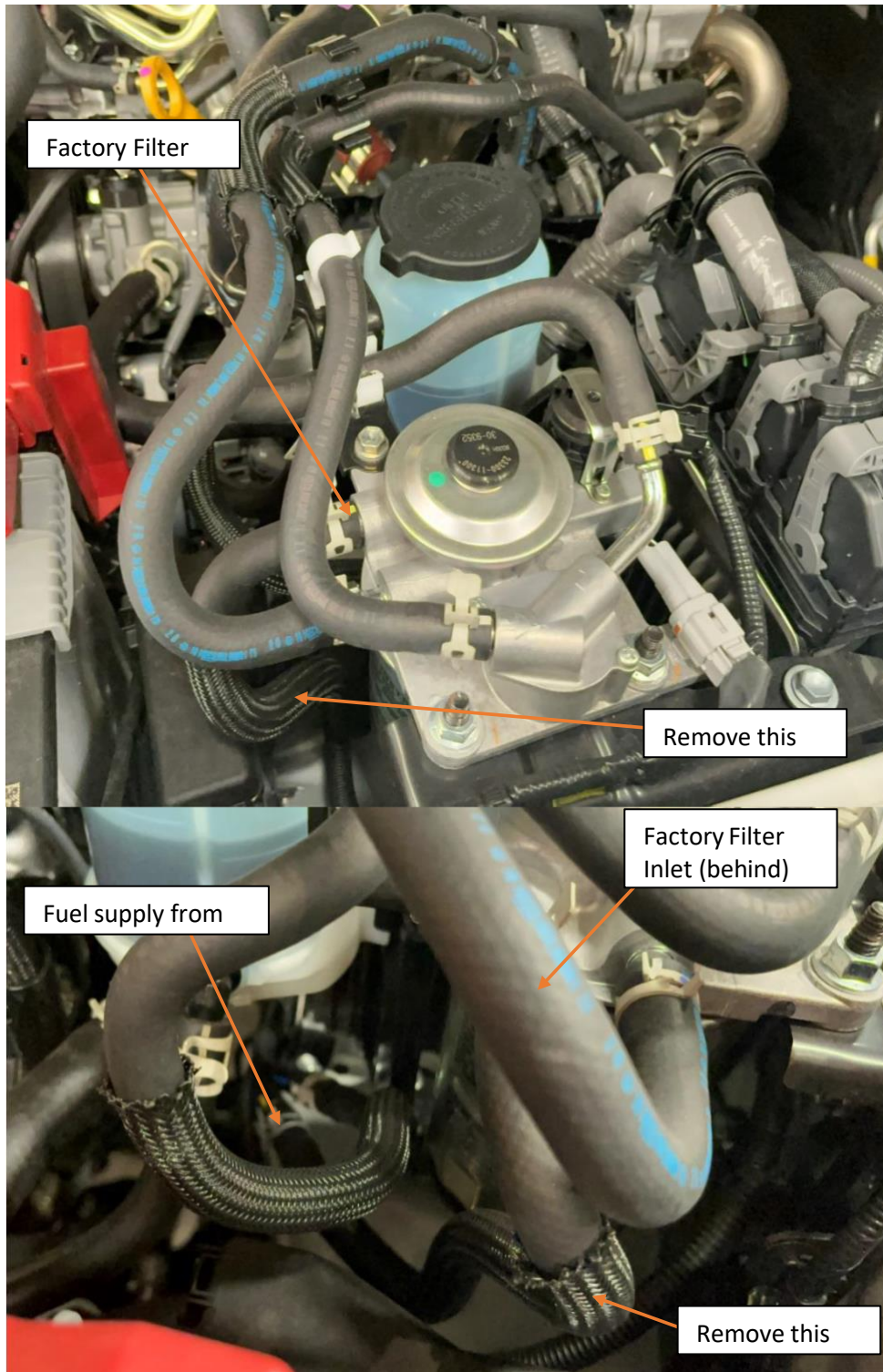
Ryco filter inlet & outlet

4. Install the threaded -8 to M16 adaptor into the rear port on the Ryco filter, using the M16 washers between the filter head and the adaptor. Make sure to use a sealant like Loctite 567 or equivalent. Keep the exposed thread clean when installing.
5. Install the threaded -6 to M16 adaptor into the front port on the Ryco filter, using the M16 washers between the filter head and the adaptor. Make sure to use a sealant like Loctite 567 or equivalent. Keep the exposed thread clean when installing.



Ryco filter in place on bracket with Adaptors installed.

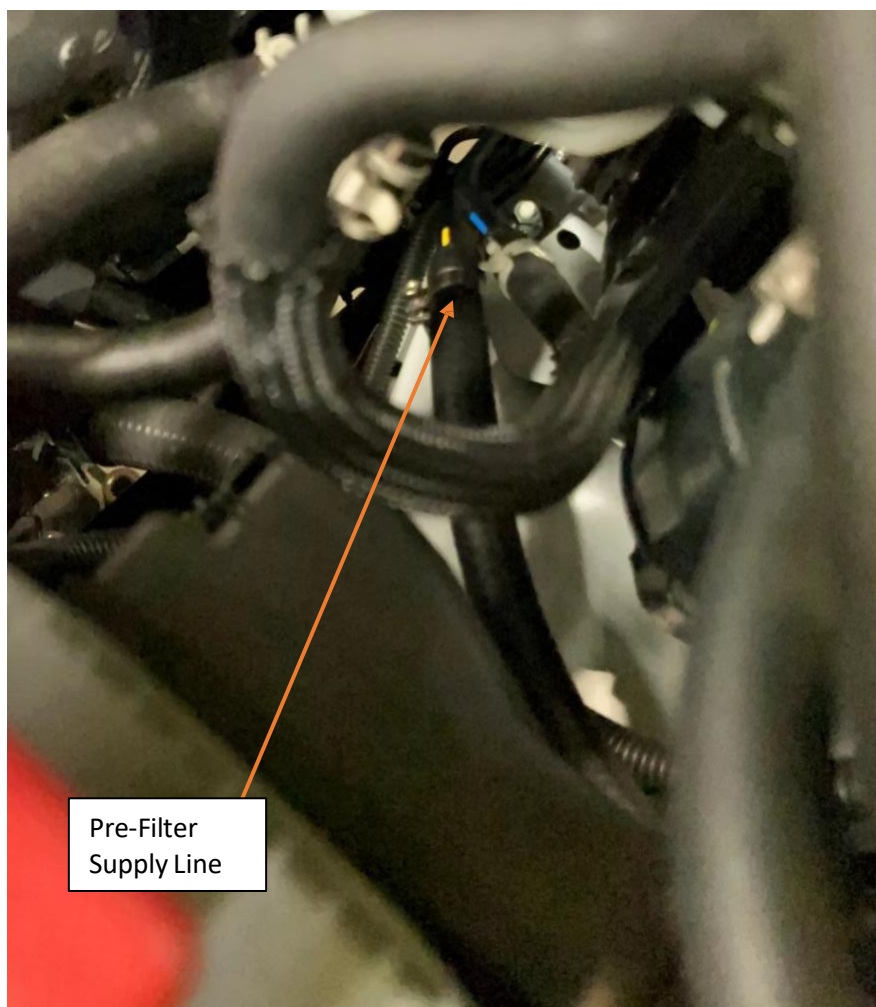
6. Install the straight° -8 hose fitting to one end ½” hose. Make sure the hose is seated all the way on the push lock fitting. Finally, apply Loctite 567 to the -8 thread on the adaptor in the fuel filter ports before securing the straight -8 hose fitting in place. Install the heat sleeve over the hose.
7. Find the factory fuel hose that supplies the factory fuel filter. Remove the hose completely. To the hardline side, measure, cut and install other end of the new fuel filter supply hose and secure with one of the new stainless hose clamps.

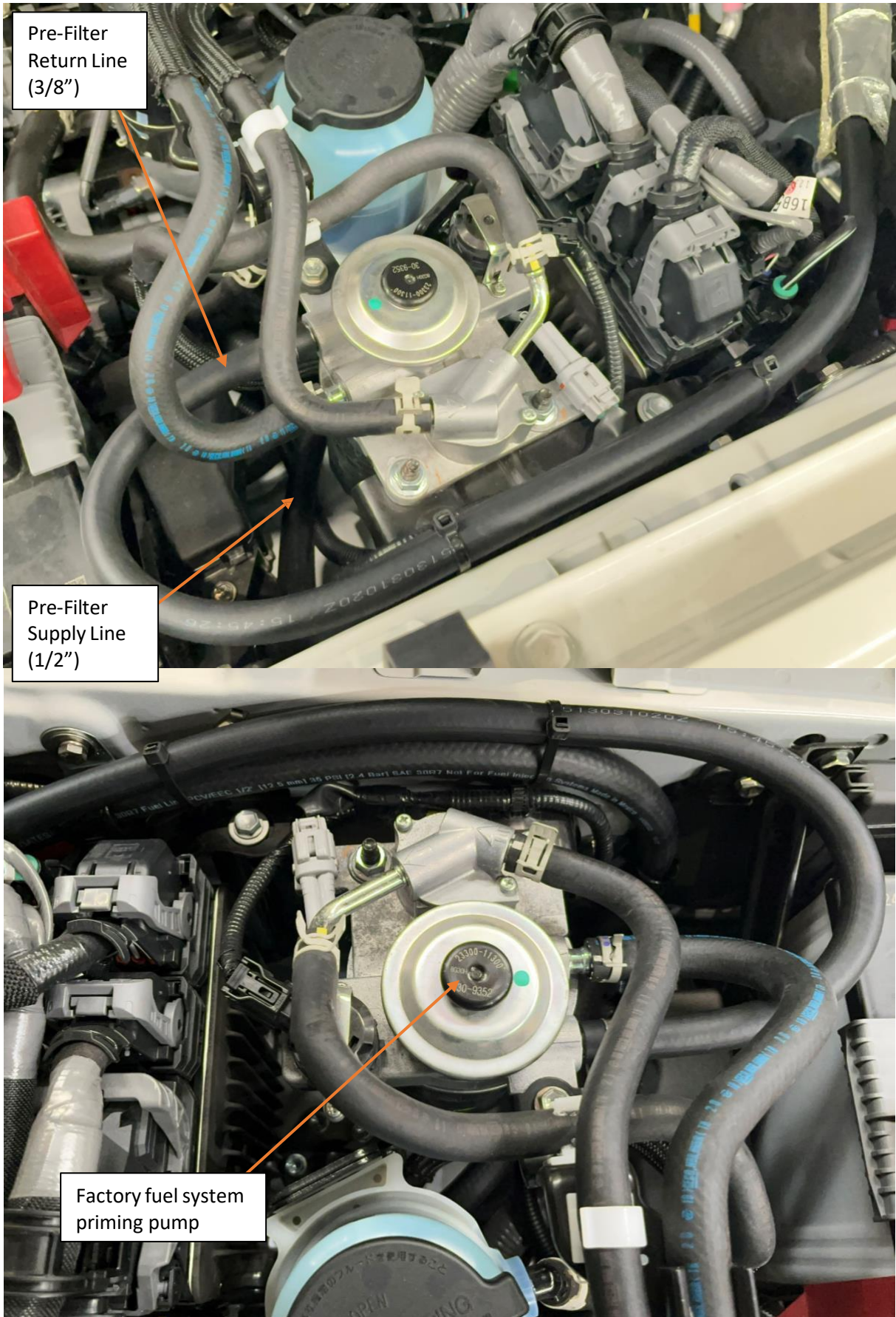


Factory Fuel Filter hose locations

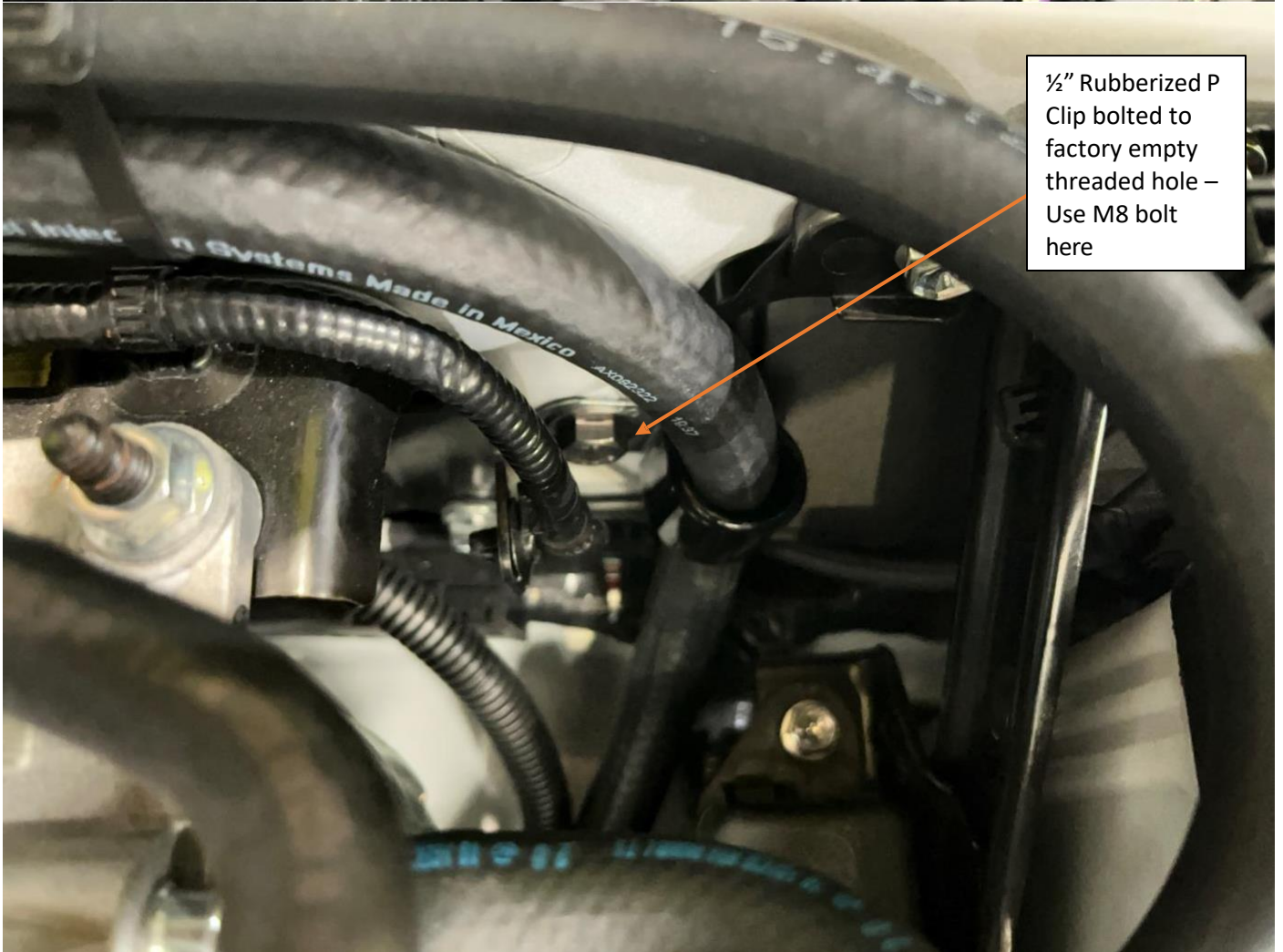
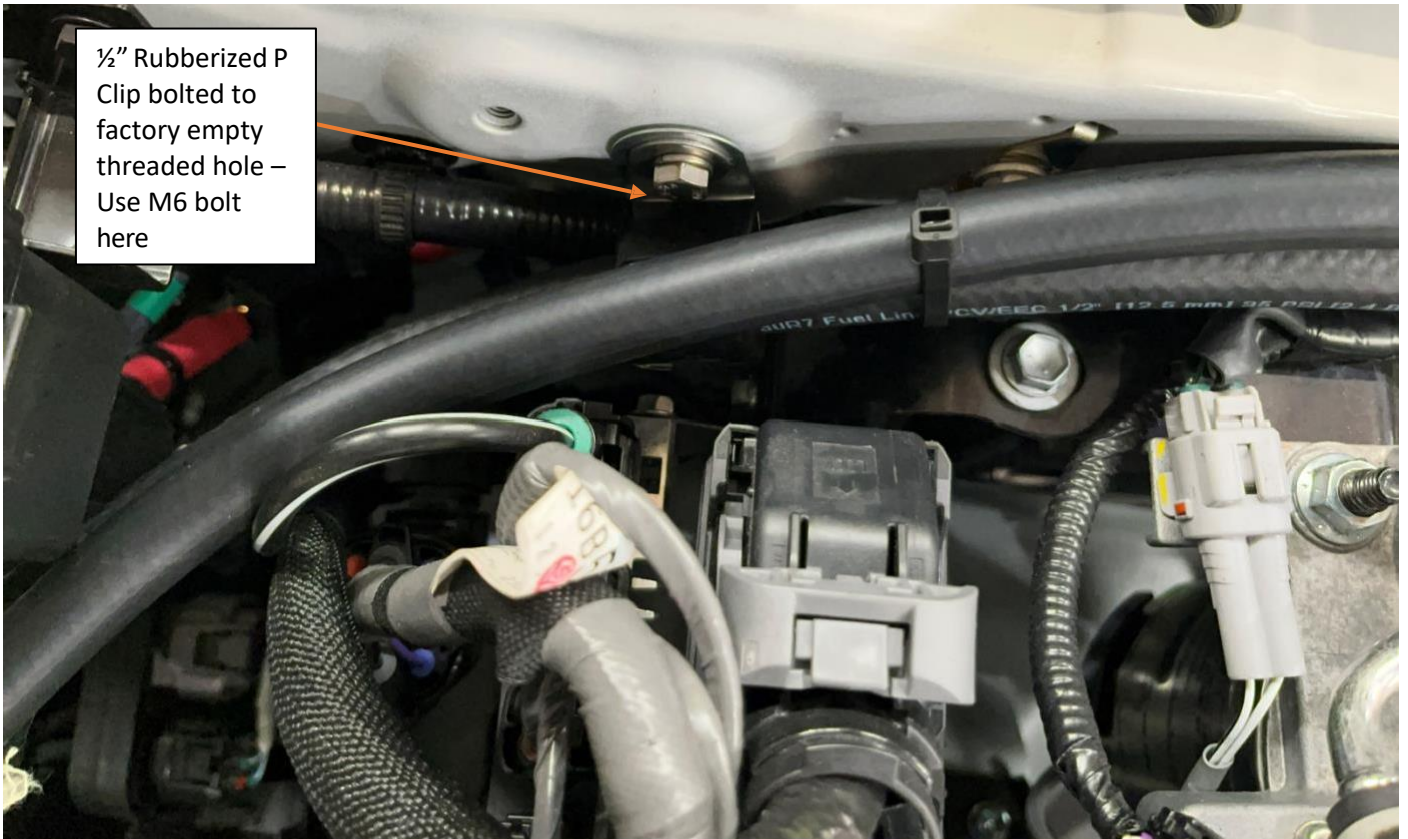
8. Install the straight -6 hose fitting to one end 3/8" hose. Make sure the hose is seated all the way on the push lock fitting. Finally, apply Loctite 567 to the -6 thread on the adaptor in the fuel filter ports before securing the straight -6 hose fitting in place. Run the hose through the same heat sleeve the 1/2" hose is running through.

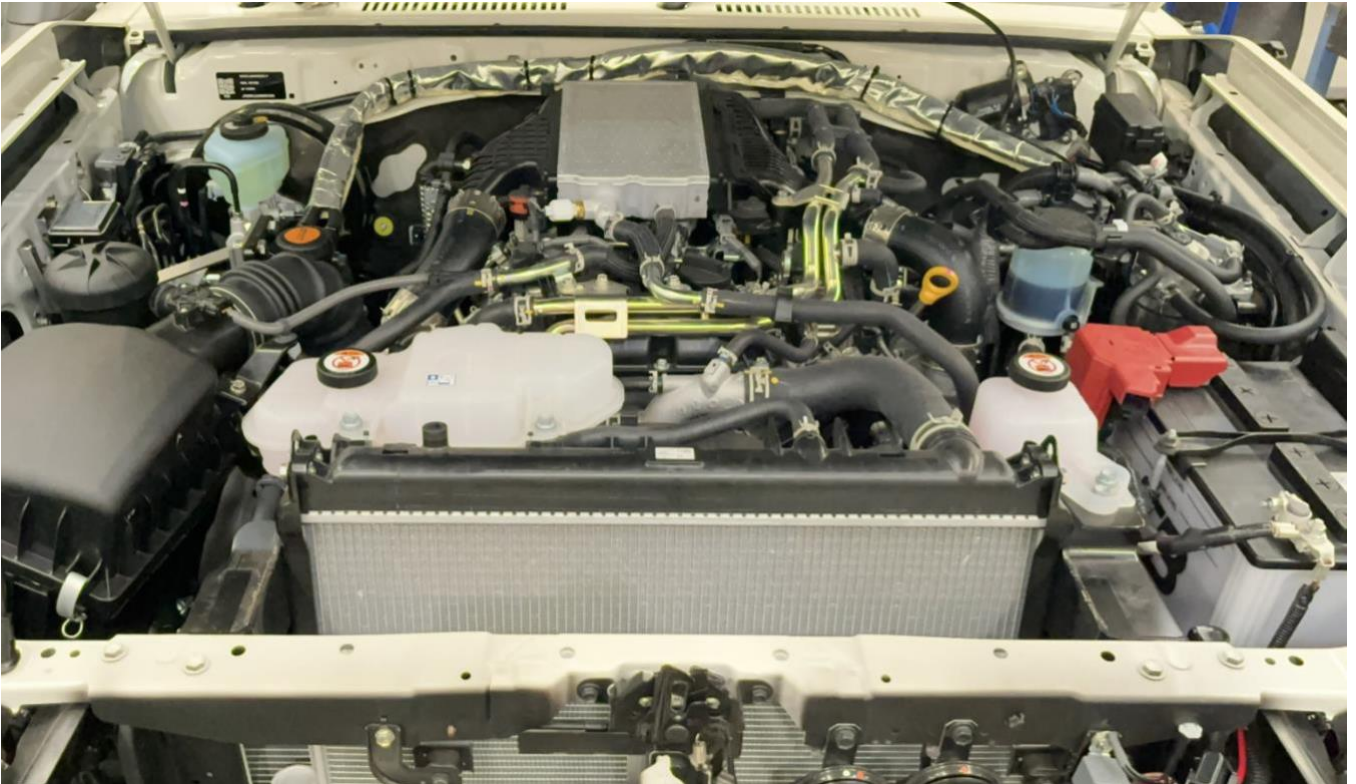
9. Measure and cut the new fuel filter return hose to the inlet to the factory fuel filter do not secure yet.
10. Temporarily install the inline priming pump to the end of the pre-filter return hose, pump until there is fuel just about to come out of the pre-filter outlet hose. This is done to minimize any air locks in the system.
11. Remove the inline priming pump and connect the hose from the pre-filter assembly outlet to the factory fuel filter. Secure in place with a 15-17mm clamp. Use the factory priming pump in the engine bay to draw the fuel the rest of the way.





LC70 2.8L factory fuel system priming pump





Fuel hose routing for pre-filter on LC70 2.8L

12. Once complete start the vehicle, carefully and toughly check for leaks.
13. Run the vehicle for at least 20 minutes to ensure there are no air pockets in the fuel system.

End of Installation