

Toyota Land Cruiser Prado 120 Series Preline 150 Installation Guide

This document is to be used as a guide for the installation of the Direction-Plus™ Land Cruiser Prado 120 Series Preline 150 diesel pre-filter Kit to a 2003-2009 Toyota Land Cruiser Prado 150 Series Diesel. It is recommended that the installation of the product be carried out by a competent qualified mechanic. This kit also fits both 1KD-FTV and 1KZ-TE engines.

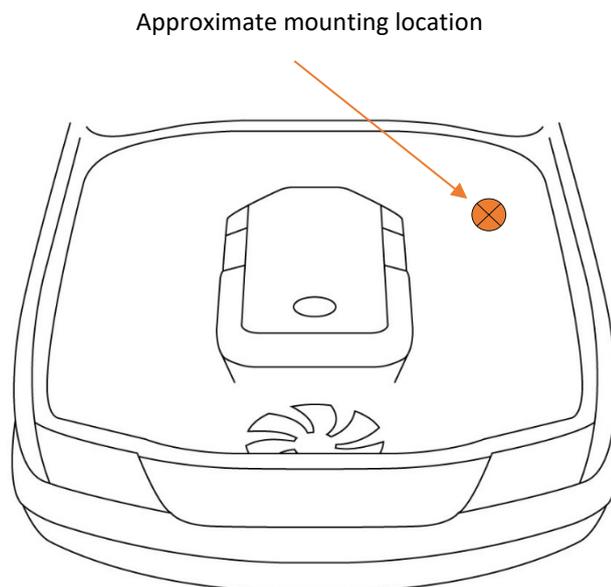
Important Before Starting

- Ensure the engine bay is clean and free from contaminants
- The filter head has direction arrows indicating the direction of flow
- You have the correct tools to complete the fitment
- Read the instructions in full and familiarize yourself with the installation, before commencing any work

note: it is sometimes easier to run the alarm wiring first

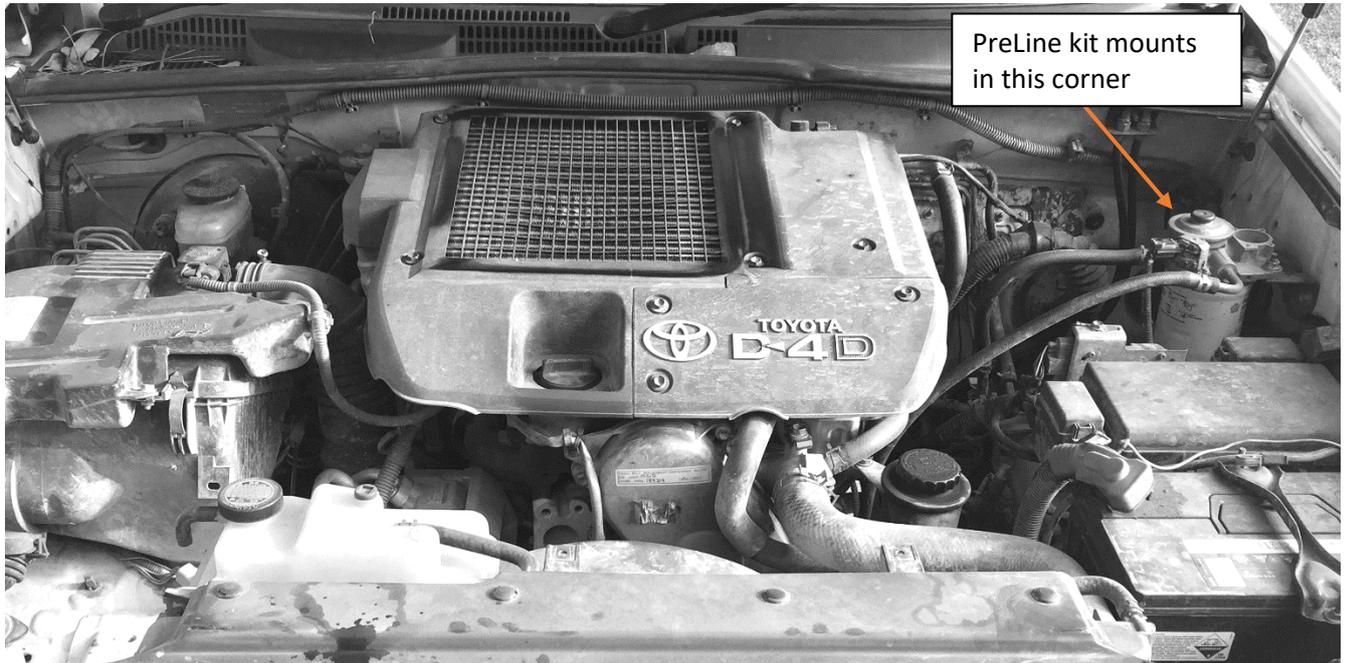
Included in the kit

- 1 x MANN+HUMMEL Preline 150
- 1 x Mounting Bracket part A
- 1 x Mounting Bracket part B
- 2 x M16x1.5 to -6 Adaptors
- 2 x -6 90° push fittings
- 2 x 15-17mm Hose Clamps
- 1 x 800mm 3/8" Fuel Hose
- 8 x 100mm Cable Ties
- 2 x M10x30 Bolts
- 2 x M10 Nyloc Nuts
- 4 x M10 Flat Washers
- 1 x Water alarm kit

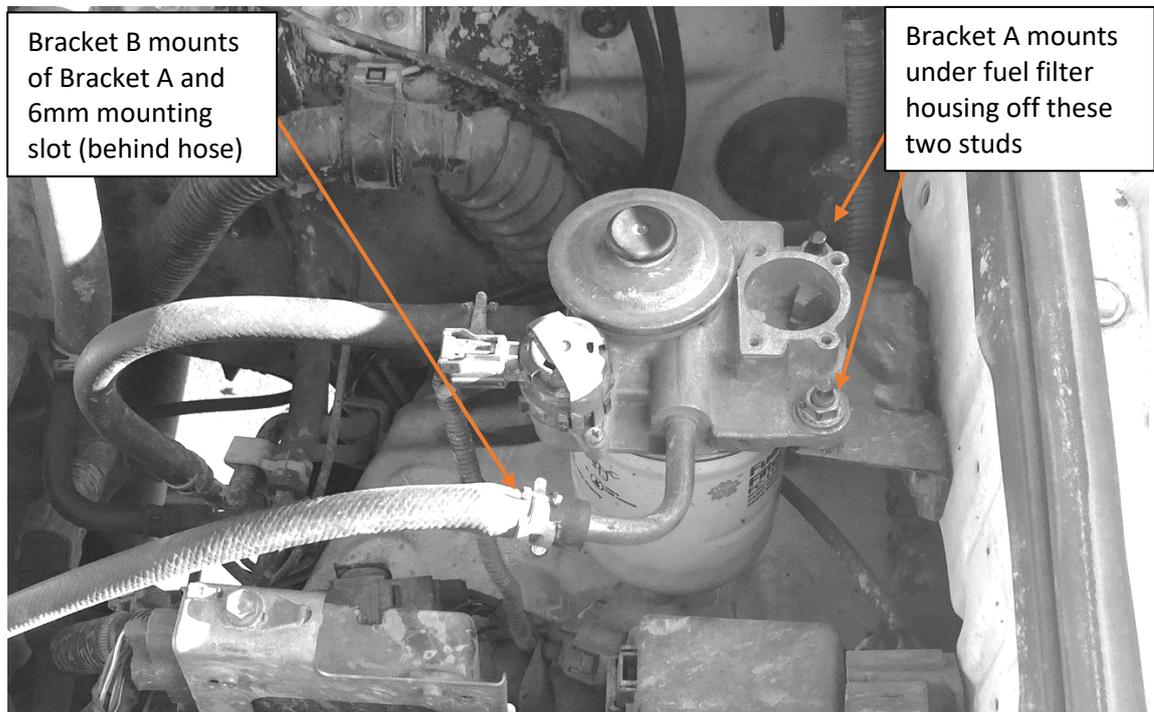


*Kit contents are subject to change based on component availability and/or refinement

Installation Guide

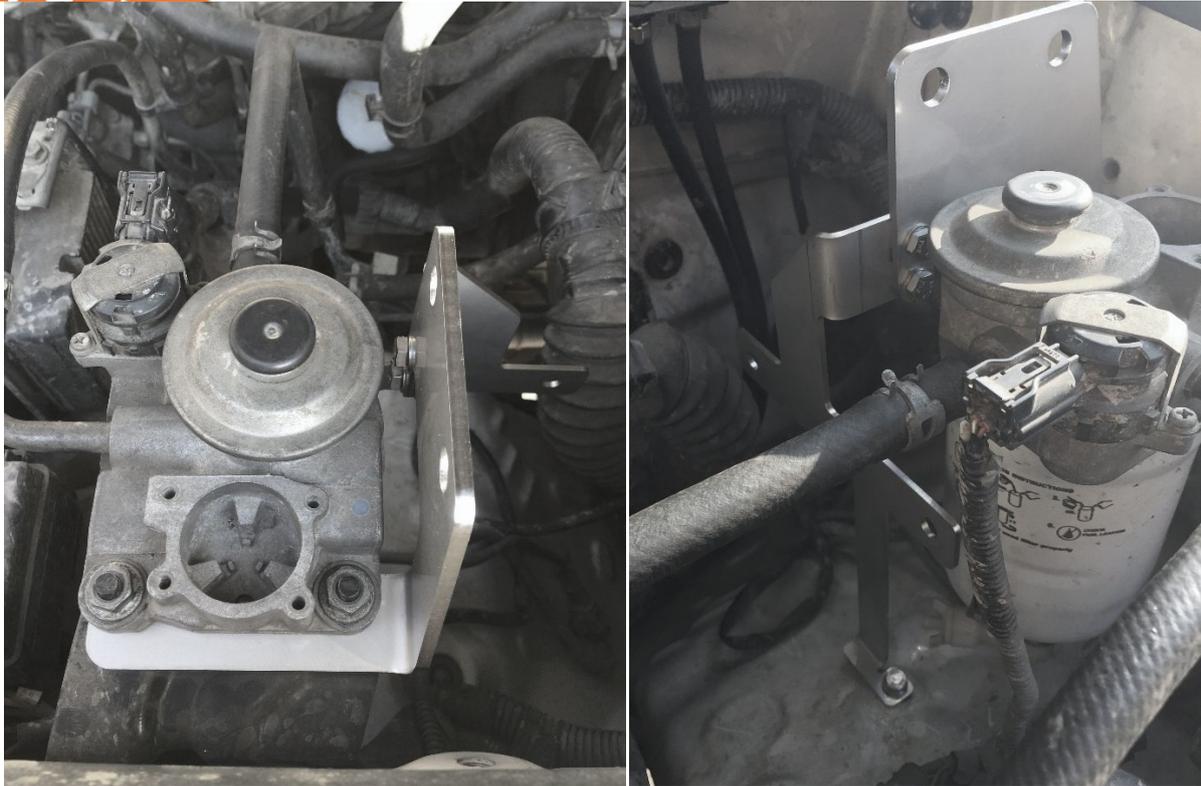


Land Cruiser Prado 120 Series Engine Bay – Overall View



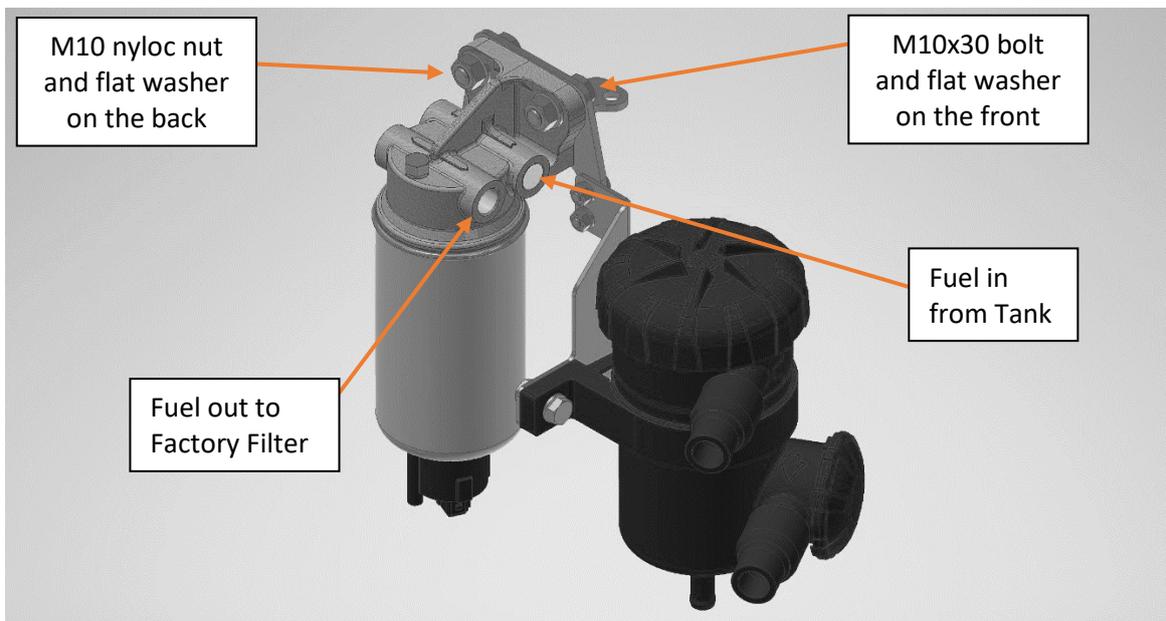
Land Cruiser Prado 120 Series ProVent Bracket Mounting

1. Bolt both parts of the mounting bracket to the passenger's side of the vehicle, using the two M8 studs of the fuel filter bracket and empty 6mm slot in the inner guard. Secure the top bracket to the M8 studs first, then use two M6x16mm bolts and nyloc nuts with washers under both sides to secure the two brackets together. Use the third M6x16 bolt and nyloc nut to secure bottom of bracket to the inner guard. See images below.



New brackets bolted in place, note the top bracket goes under the factory fuel filter housing

2. Install the M16x1.5 to -6 adaptors and 16mm flat washers to the PreLine. It may be required to relocate the pre-installed plugs.
3. Connect the wiring harness to the water sensor in the bottom of the fuel filter. Check to make sure the water sensor and the filter are tight on the assembly.

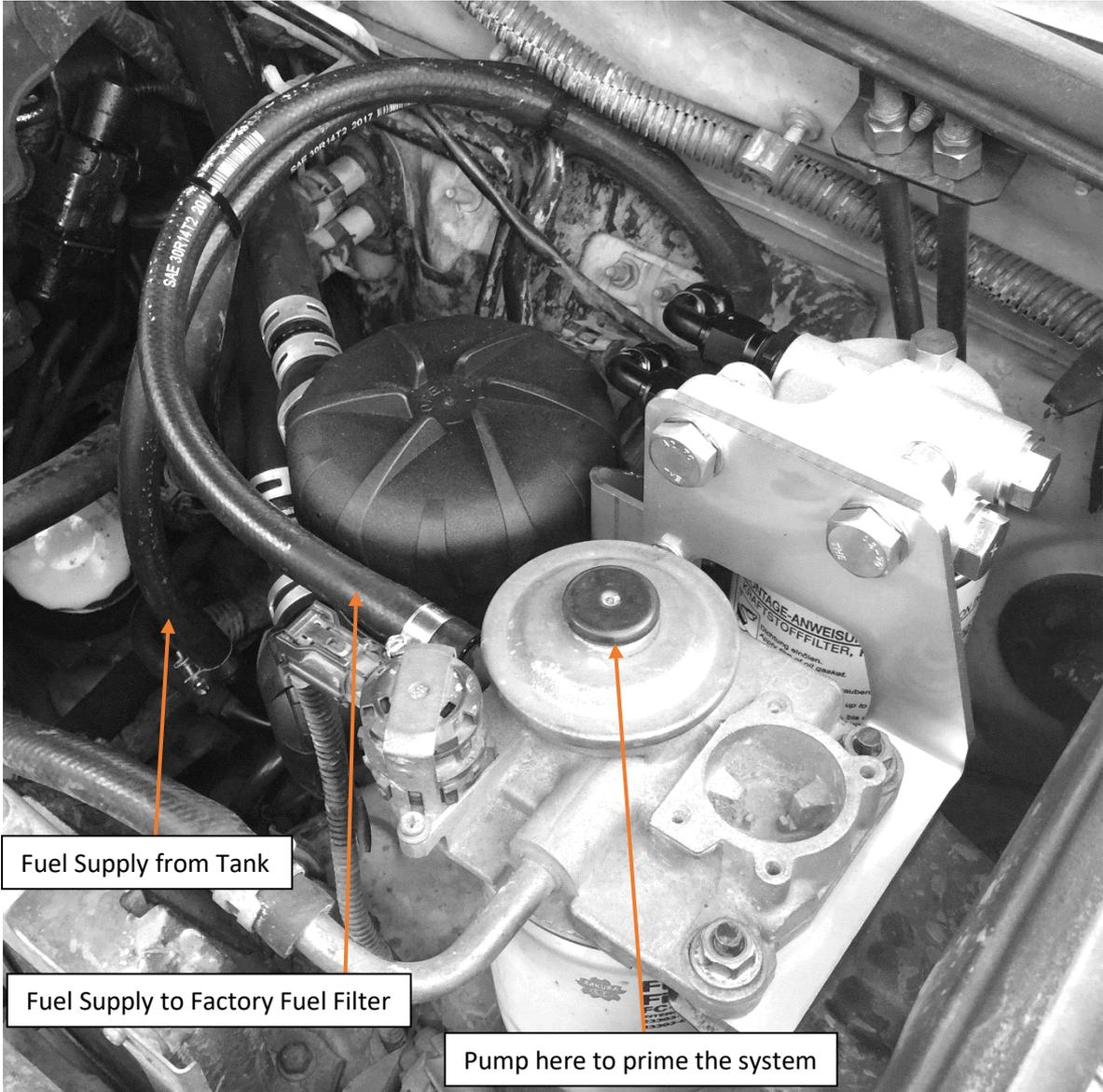


Pre-assembled Preline 150 with bracket (fuel fittings not shown)

4. Bolt the fuel filter assembly into place, using the M10x30mm bolts and nyloc nuts, making sure to use a flat washer under each bolt head and nut. Adjust the position of the fuel filter assembly to make sure there is clearance from other components. Once you are happy with the location, tighten the bolts and nuts to retain in place.



5. There are three wires on the harness, a long wire (signal), a short black wire with an eyelet(earth) and a short wire with an add-a-fuse holder (power). The fuse is a mini blade type and rated at 5A.
6. Route the signal wire for the in-cabin warning light into the cabin via the grommet in the firewall on the passenger's side. Use cable ties to retain in place.
7. Mount the in-cabin warning light in the desired location, you will need a 20mm hole-saw to do this cleanly and quickly. We recommend installing it in one of the empty switch covers.
8. Secure the signal wire to one of the terminals on the warning light (it doesn't matter which). To the other terminal, connect the short earth lead. Use one of the M6 earth locations just above the kick panel on the driver's side to secure the eyelet on the short earth lead.
9. Connect the Power wire to an ignition source in the fuse box, piggy backing the original fuse. (the original fuse for the circuit goes into the empty fuse location in the add-a-fuse holder. The PreLine system draws well under 1 amp, so its current draw is minimal.
10. Connect the Negative eyelet on the harness to the negative terminal on the battery or nearby chassis earth.
11. Secure any excess wiring out of the way with the supplied cable ties.
12. Install the -6 90° push fittings to the PreLine unit with the correct sealant (Loctite 577) do not tighten all the way yet (allow to swivel)
13. Disconnect the fuel supply line to the factory fuel filter and remove the hose. Use the supplied hose and run from the rigid fuel supply line to the inlet port of the new PreLine unit. Use a 15-17mm clamp to secure in place to the rigid fuel supply line. Run the other end to the -6 90° push fitting on the inlet port to the PreLine 150 unit. Push the hose home all the way, it does not require a clamp. Once happy with the routing and orientation of the fitting, tighten the hex on the -6 90° push fitting.
14. Connect the end of the remaining 3/8" fuel hose onto the outlet -6 90° push fitting of the PreLine 150.
15. Connect the hose from the pre-filter assembly outlet to the factory fuel filter, you may need to trim this hose to length as the hose supplied is longer than required. Secure in place with a 15-17mm clamp.
16. Use the priming pump on the factory fuel filter to prime the system.
17. Once complete start the vehicle, carefully and toughly checking for leaks.
18. Run the vehicle for at least 20 minutes to ensure there are no air pockets in the fuel system.



Fuel Supply from Tank

Fuel Supply to Factory Fuel Filter

Pump here to prime the system

Finished Preline 150 installed in place



Finished ProVent 200 and PreLine 150 Kit Installed

End of Installation Guide