

Direction-Plus Ryco Pre-Filter Installation Guide for Toyota Land Cruiser 300 Series

This document is to be used as a guide for the installation of the **Direction-Plus Ryco pre-filter kit (RC635DPK)** to a **Toyota Land Cruiser 300 Series V6 Diesel F33A-FTV (2022 on)**. It is recommended that the installation of the product be carried out by a competent qualified mechanic.

Important before starting

- Ensure the engine bay is clean and free from contaminates
- 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

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 (Z980SK16L)	3x 8mm Spring Washer (FMSW8)	1x DP HOLO SECURITY SEAL (DPLABEL8)
2x FITTING 12MM (DP816-8-M1615)	3x 8MM X 17MM (FMW8)	2x DP BAGS (DPBAG)
2x PUSH ON STRAIGHT - 12MM (DPP0001-08)	4x FMC12 - CLAMP 12MM (FMC12)	1x DP ZIP LOCK BAG (DPZIPBAG)
1x BOLT (SSB304M1090)	1.5m 12MM HOSE (DPFH12-GAT)	2x 10MM BOLT (FMB10)
2x 10MM SS WASHER (FMW10)	10x CABLE TIE 280 X 4.8 (802078)	2x 10MM NYLOC NUT M10 (FMN10)
1x 10MM NYLOC NUT M10 (FMN10)	1x WINDSCREEN LABEL (DPLABEL1)	2x 10MM SPRING WASHER (FMSW10)
1x RUBBER HAND PRIMER 12MM PIPE (B 415-12)	1x ENGINE BAY LABEL (DPLABEL5)	1x RYCO FILTER KIT BOX (RCBOX)
1x BRACKET - LC300 (PL635-BR)	1x DP STICKER (DPLABEL6)	

3x M8 x 16 BOLT 304 SS (SSSS304M816)	1x DEFENCE STICKER (DPLABEL7)	
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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

1. Begin by removing the spare tire, this will make kit installation much simpler as it provides more access.
2. Using the **M10x90mm bolt**, **two flat washers** and **M10 nyloc nut**, Bolt the fuel filter bracket to the outside of the chassis rail under the driver's rear quarter panel. It uses the **LC300PL150.2** bracket to locate the fuel filter bracket to the slots in the chassis rail.



LC300 DP Ryco mounting brackets and mounting hardware



DP Ryco bracket secured in place, note how smaller bracket lock in to prevent movement from the main bracket

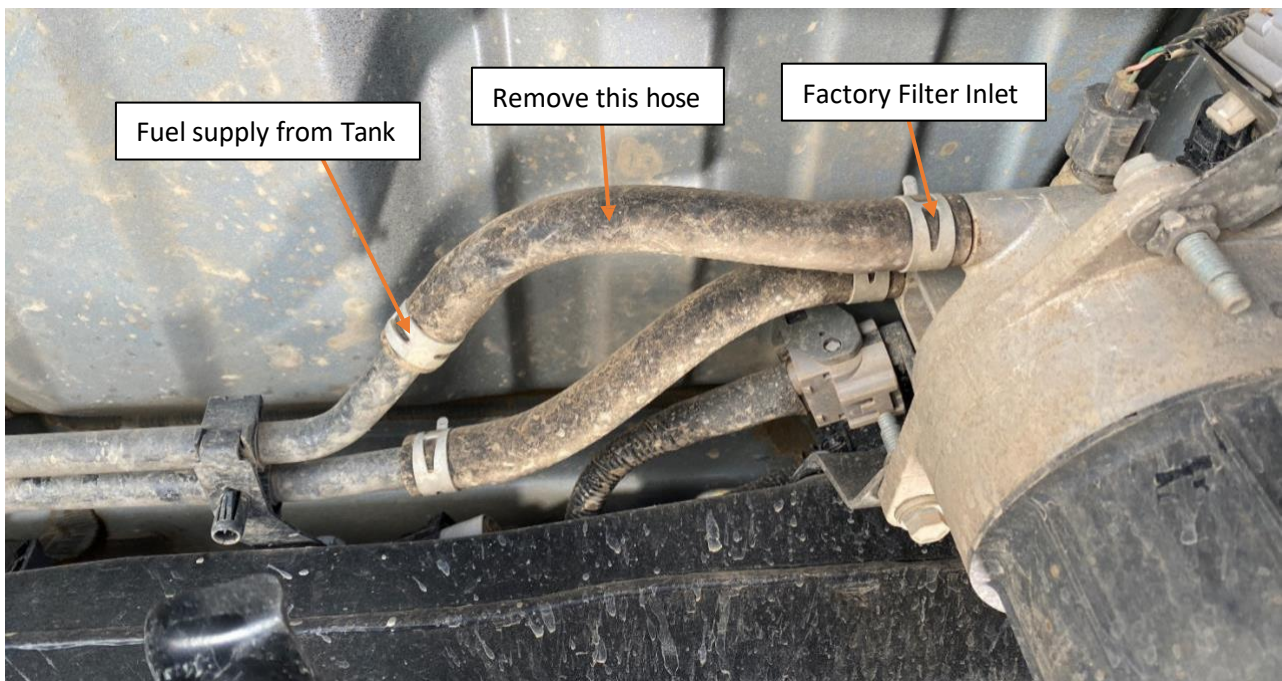


Inside view of new bracket secured in place

3. Install the threaded adaptors onto the Ryco filter, using the **M16 washers** between the filter head and the **M16 adaptors**. Apply thread sealant like **Loctite 567** or equivalent. Keep the exposed -8 thread clean when installing.



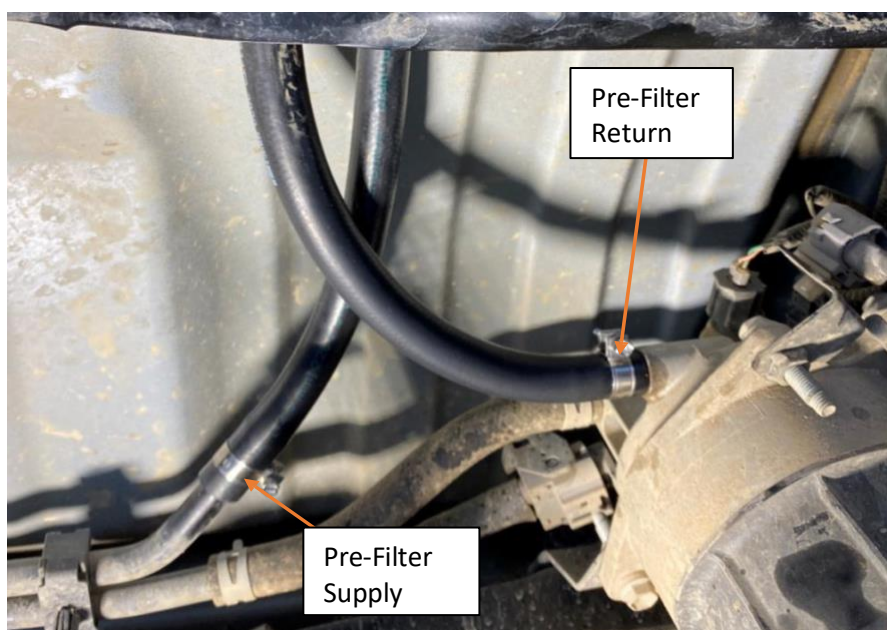
4. Install the Ryco filter to the fuel filter bracket using the **2x M10x30 bolts**, **2x spring washers** and **2x flat washers**.



Factory Fuel Filter hose locations

5. Cut the **supplied ½" fuel line** in half. Install the **straight° -8 hose fittings** to one end of each of two hoses. 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.

6. 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 EFI hose clamps**.
7. Measure and cut the **new fuel filter return hose** to the inlet to the factory fuel filter do not secure yet.
8. 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. **Retain hand pump in vehicle for future filter servicing & replacement.**
9. **Remove** the inline priming pump and connect the hose from the pre-filter assembly outlet to the factory fuel filter. Secure in place with an **18-20mm clamp**. Use the factory priming pump in the engine bay to draw the fuel the rest of the way.



LC300 Pre-filter fuel hose installed.

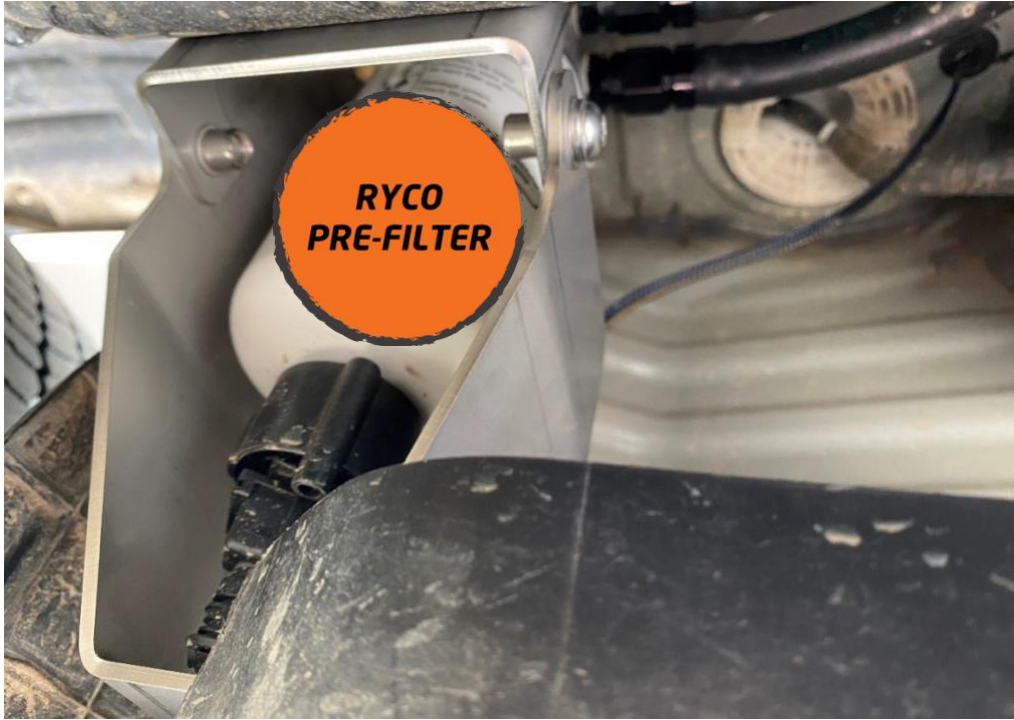


Fuel hose routing for Ryco on LC300



LC300 factory fuel system priming pump

10. Bolt the fuel filter cover into place (**bracket LC300.3**), using the **3x M8x16mm bolts, 3x spring washers, and 3x M8 flat washers**.



DP Ryco cover (LC300.3) bolted in place.

11. Once complete start the vehicle, carefully and thoroughly checking for leaks.
12. Run the vehicle for at least 20 minutes to ensure there are no air pockets in the fuel system.
13. Reinstall the spare tire that you removed in step 1.

End of Installation Guide