

Installation Guide of Direction-Plus PreLine-Plus Pre-Filter for Ford Ranger / Everest 2022+

BRACKET VERSION 1

Go to Page 8 for bracket version 2

This document is to be used as a guide for the installation of the **Direction-Plus PreLine-Plus pre-filter kit to a 2022+ Ford Ranger /Everest 6cyl 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

- PreLine-Plus filter element is to be replaced every 40,000km or as per your vehicles service interval.

Included in the kit:



Mounting Location

<i>Pre-assembled</i>	<i>Hardware Bag</i>	<i>Wiring Bag</i>
1 x MANN+HUMMEL PreLine 150 (PL150WSDP)	2 x M6x16 Bolts (SSSS304M616)	Wiring Harness, Warning Light, Short Earth Lead (PLWSIND)
2 x M16x1.5 to -6 Adaptors (DP816-6-M1615)	4 x M6 Flat Washers (FMW6)	10 x 100mm Cable Ties (802078)
2 x -6 to 3/8" 90° Fittings (DPP0090-06)	2 x M6 Spring Washers (FMSW6)	

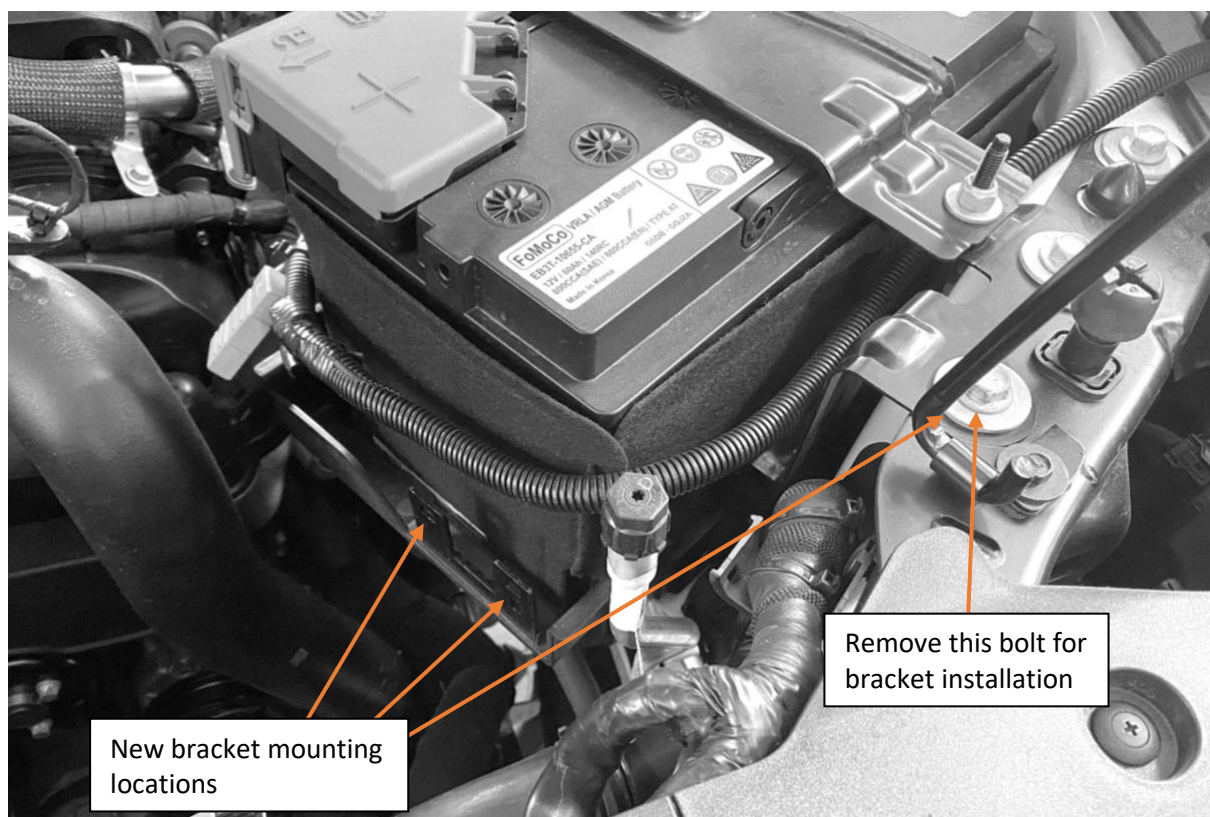
2 x M16 Alloy Washers (PLFW16)	2 x M6 Nyloc Nut (FMN6)	
	2 x 15-17mm Fuel Clamps (FMC10)	
	1 x 3500mm 3/8" Fuel Hose (DPFH9)	
1 x Bracket – 1 pce (PL671-BR)	1 x Male 3/8 QR to 3/8 Adaptor (DPRP703QRM-06)	<i>PreLine Mounting Kit Bag</i>
	1 x Female 3/8 QR to -6 Adaptor (DPRP703QRF-06)	1x 2x BOLTS, 2x NUTS, 4x WASHERS (FMB10KIT)
	1 x -6 to 3/8" 180° Fitting (DPP00180-06)	
	10 x 200mm Cable Ties (802078)	



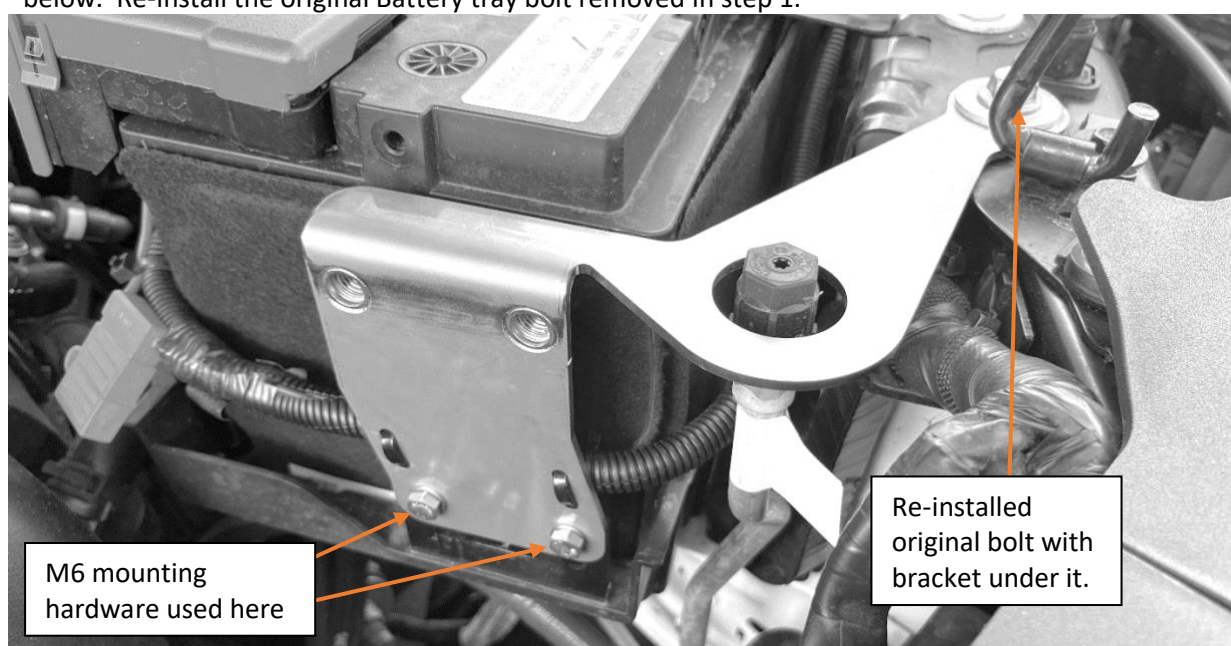
Tools Needed:

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

1. Begin by removing the bolt that secures the battery tray to the radiator support panel.



2. Using the M6x12mm bolts, four flat washers and M6 nyloc nuts, secure the bracket in place as per the photo below. Re-install the original Battery tray bolt removed in step 1.

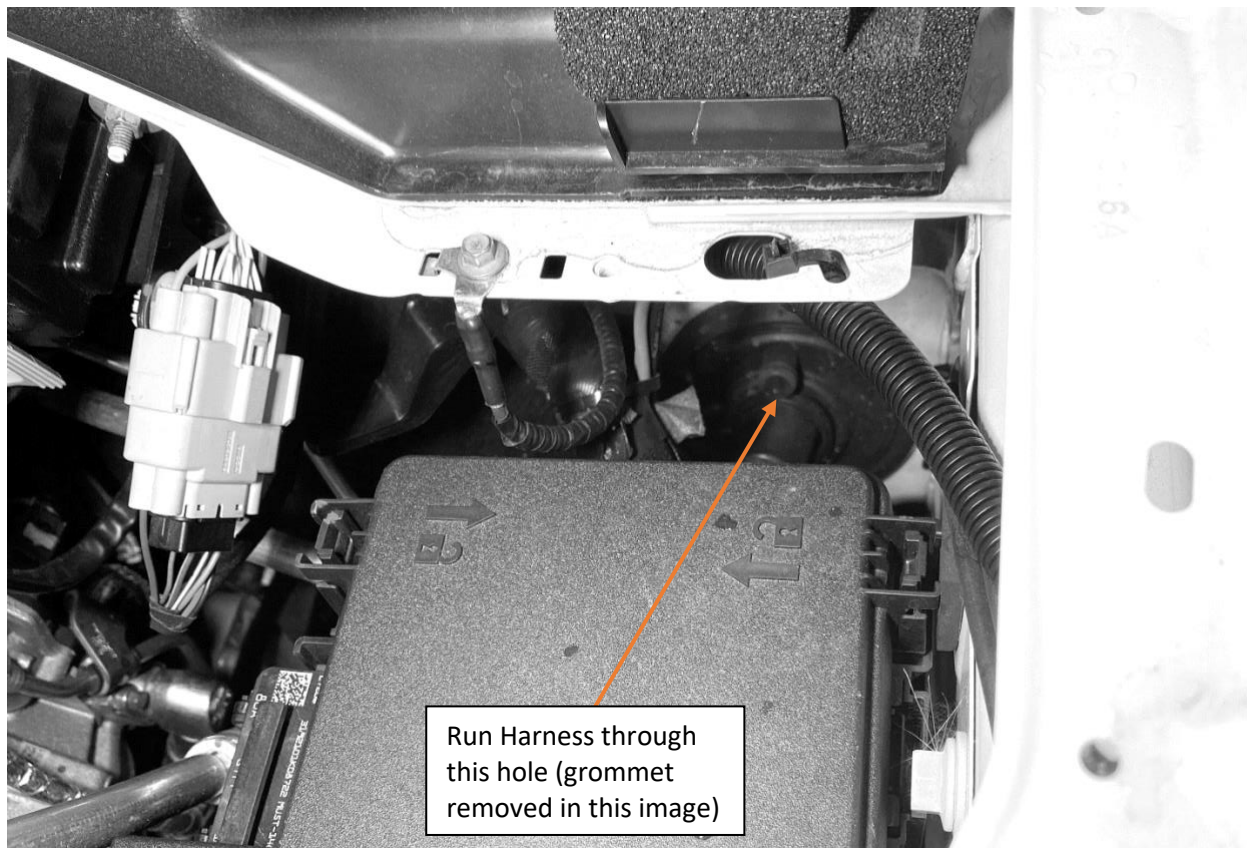


3. Install the threaded adaptors onto the PreLine 150, using the M16 washers between the filter head and the M16 adaptors. Make sure to use a sealant like Loctite 567 or equivalent. Keep the exposed -6 thread clean when installing.

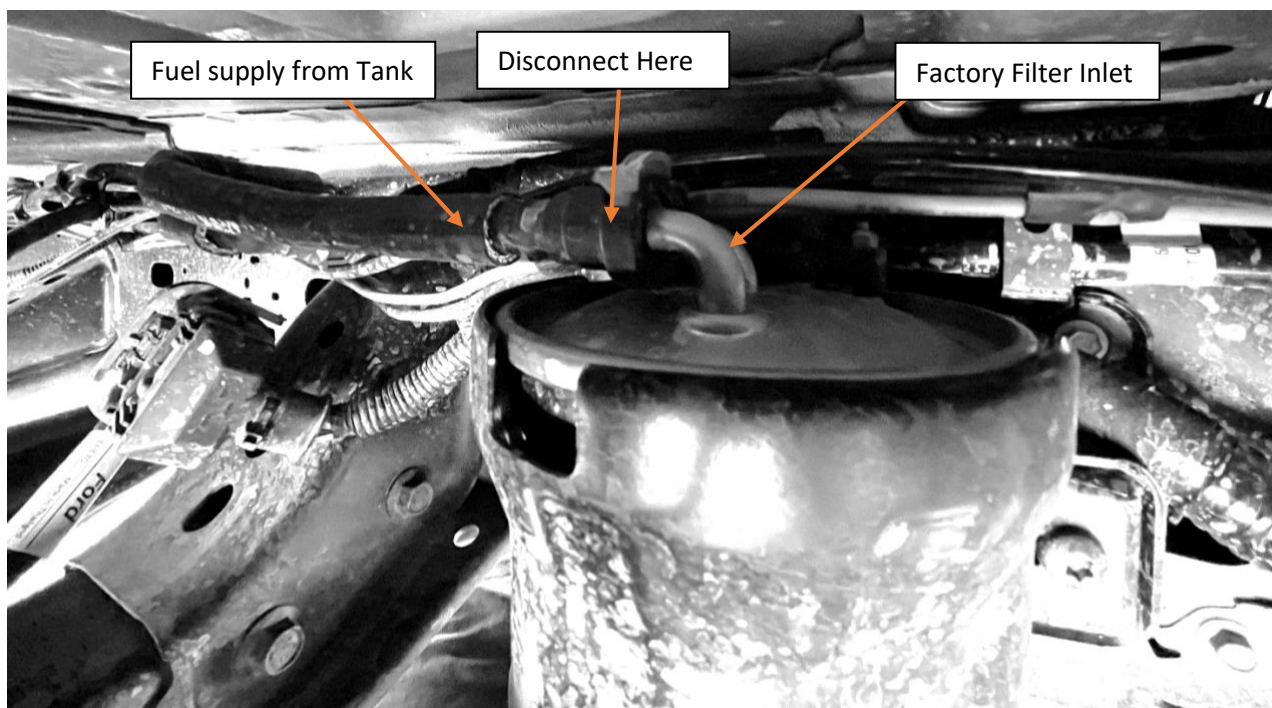


PreLine 150 in place on bracket with M16x1.5 to -6 Adaptors installed

4. Install the PreLine 150 to the fuel filter bracket using the two M10x30 bolts, 2 x spring washers and 2 x flat washers.

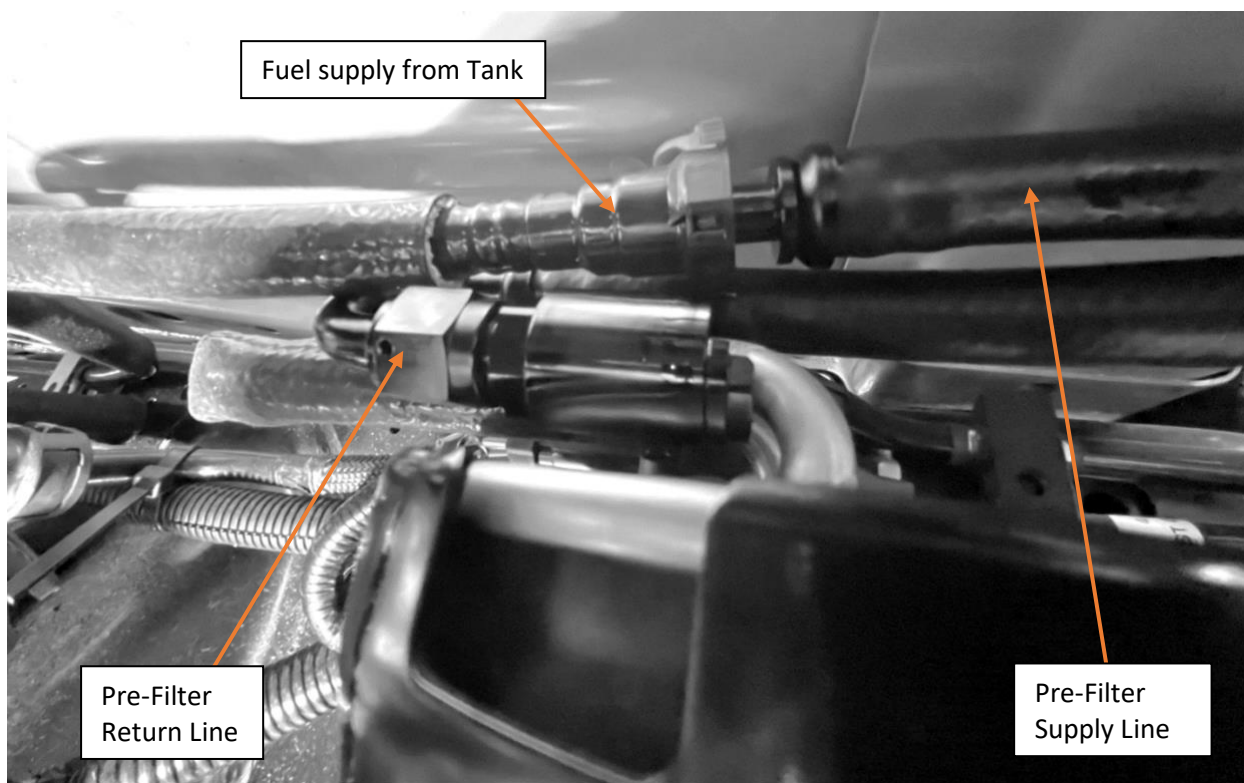


5. Connect the supplied wiring harness to the water sensor in the bottom of the fuel filter. Check to make sure the water sensor and the filter are snug on the assembly, do not over tighten as the thread can strip. Run the harness up through the grommet in the passenger firewall. Use cable ties to keep them in place.



Factory Fuel Filter hose locations

6. Install the first -6 90° hose fitting to one end of the hose. Make sure the hose is seated all the way on the push lock fitting. Finally, suggest applying Loctite 567 to the -6 thread on the supply port adaptor in the fuel filter before securing the 90° -6 hose fitting in place.
7. Find the factory fuel hose that supplies the factory fuel filter under the passenger side of the vehicle. Run the new hose to this location measure and cut it to length. Install the 3/8 QR male fitting with a hose tail on it into the end of the hose and secure with one of the new hose clamps.
8. Disconnect the factory 3/8 QR female fitting from the inlet to the factory fuel filter. Install the new 3/8 QR male fitting with the hose secured to it into this connector making sure it seats all the way.
9. Install the second -6 90° hose fitting to one end of the remaining hose. Make sure the hose is seated all the way on the push lock fitting. Finally, suggest applying Loctite 567 to the -6 thread on the return port adaptor in the fuel filter before securing the 90° -6 hose fitting in place.
10. Run the remaining new hose to the top of the stock fuel filter you removed the female 3/8 QR fitting from earlier, measure and cut to length. Install the new female 3/8 QR fitting with a hose tail in the kit to the end of the hose and secure with one of the new hose clamps.
11. Connect the new female 3/8 QR fitting to the male port on the top of the factory fuel filter. Take care to make sure it seats all the way.
12. Ensure hose clamps are used with hose fittings
13. Open the bleed port on the new pre filter head and prime the system to remove the excess air in the new filter and lines. Once bled close the bleed port in the filter head.



Ranger 2022+ Pre-filter fuel hose installed

14. 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 2A.
15. Mount the in-cabin warning light in the desired location, you will need a 20mm hole-saw to do this cleanly and quickly.
16. Secure the signal wire to one of the terminals on the warning light (it does not 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.
17. 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.
18. Connect the Negative eyelet on the harness to the negative terminal on the battery or nearby chassis earth.
19. Secure any excess wiring out of the way with the supplied cable ties.
20. Once complete start the vehicle, carefully and toughly check for leaks.
21. Run the vehicle for at least 20 minutes to ensure there are no air pockets in the fuel system.



Fuel hose routing for pre-filter on Ranger 2022+

End of Installation Guide of Version 1 Bracket

Installation Guide of Direction-Plus PreLine-Plus Pre-Filter Kit for Next Gen Ford Ranger / Everest 2022+ 4cyl & 6cyl Models

VERSION 2 BRACKET

Version 2 bracket released November 2023 will now fit 2L & 3L including models with additional fuse box mounted to the side of the main battery.

This document is to be used as a guide for the installation of the **Direction-Plus PreLine-Plus pre-filter kit to a 2022+ Ford Ranger /Everest 4cyl and 6cyl 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

- PreLine-Plus filter element is to be replaced every 40,000km or as per your vehicles service interval.

Included in the kit:



<i>Pre-assembled</i>	<i>Hardware Bag</i>	<i>Wiring Bag</i>
1 x MANN+HUMMEL PreLine 150 (PL150WSDP)	2 x M6x16 Bolts (SSSS304M616)	Wiring Harness, Warning Light, Short Earth Lead (PLWSIND)
2 x M16x1.5 to -6 Adaptors (DP816-6-M1615)	4 x M6 Flat Washers (FMW6)	10 x 100mm Cable Ties (802078)
2 x -6 to 3/8" 90° Fittings (DPP0090-06)	2 x M6 Spring Washers (FMSW6)	
2 x M16 Alloy Washers (PLFW16)	2 x M6 Nyloc Nut (FMN6)	
	4 x 15-17mm Fuel Clamps (FMC10)	
	1 x 3500mm 3/8" Fuel Hose (DPFH9)	
1 x Bracket - 3 PCE (PL671V2-BR)	1 x Male 3/8 QR to 3/8 Adaptor (DPRP703QRM-06)	<i>PreLine Mounting Kit Bag</i>
	1 x Female 3/8 QR to -6 Adaptor (DPRP703QRF-06)	1x 2x BOLTS, 2x NUTS, 4x WASHERS (FMB10KIT)
	1 x -6 to 3/8" 180° Fitting (DPP00180-06)	
	10 x 200mm Cable Ties (802078)	

Mounting Location

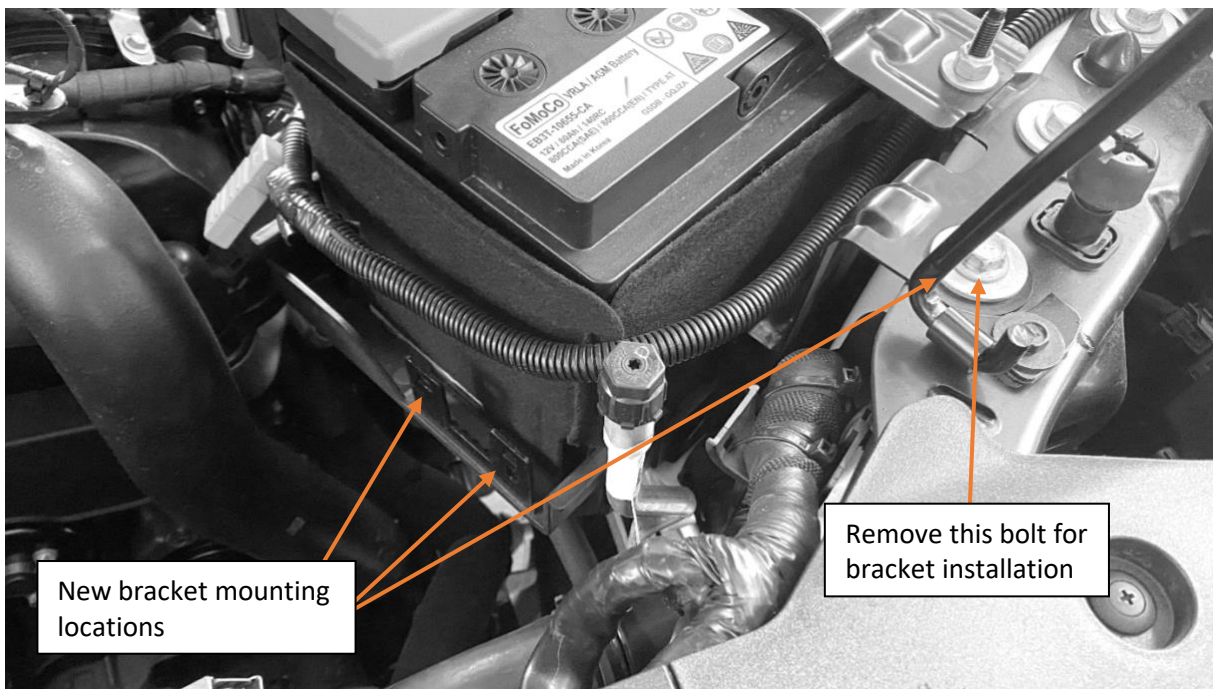


Tools Needed:

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

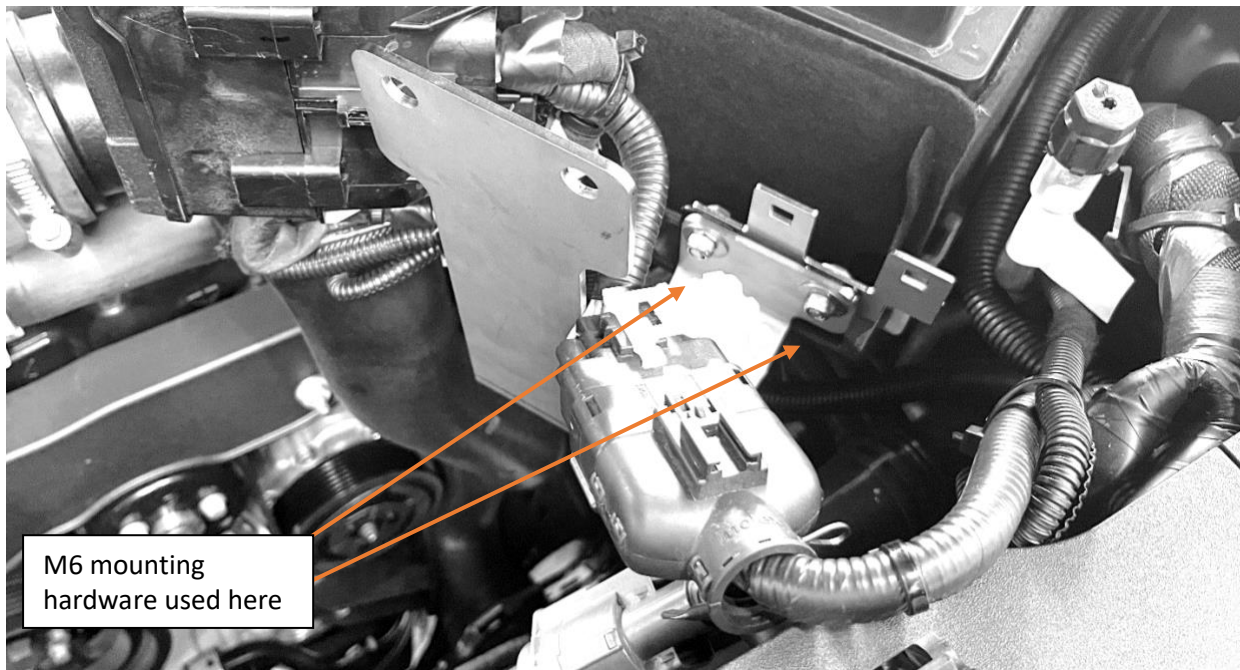
Installation Guide

1. Begin by removing the bolt that secures the battery tray to the radiator support panel.
2. For vehicles with roof mounted switch panel, unclip the accessory fuse box by pushing the tabs in and sliding it up.

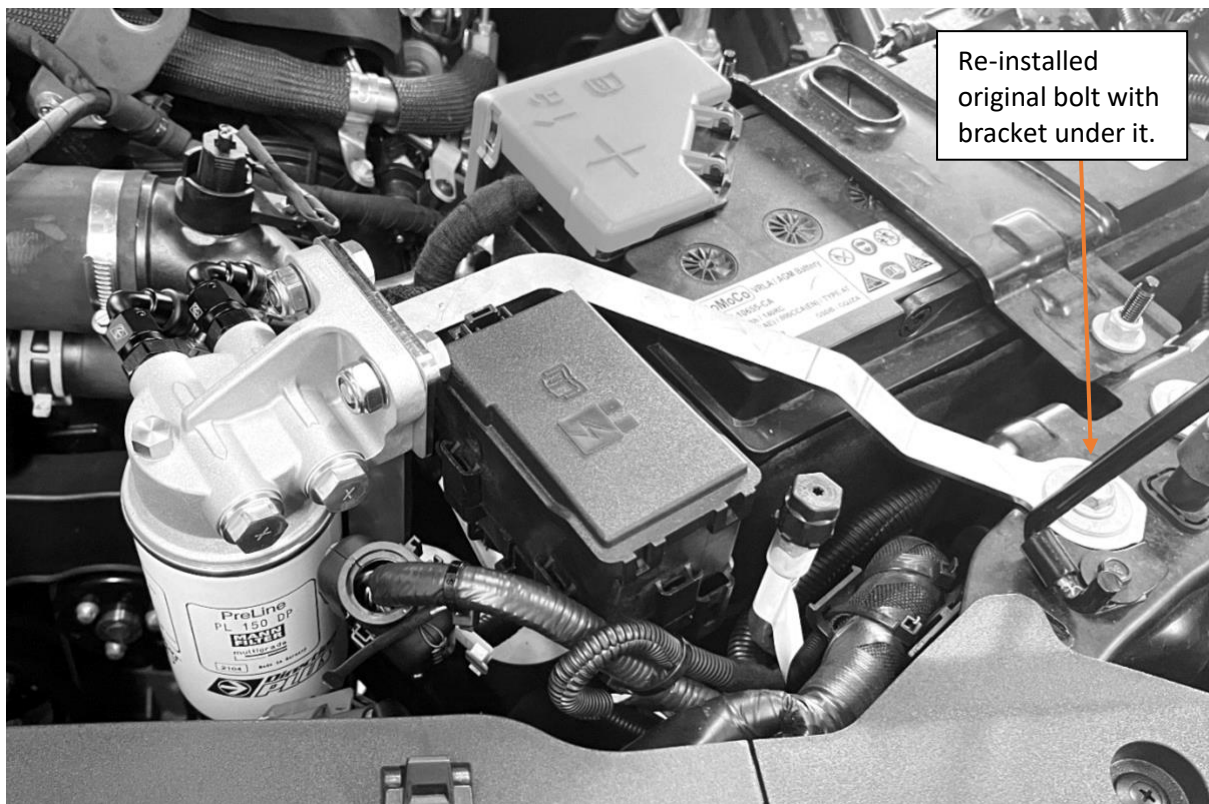


PreLine 150 Bracket Mounting Locations – Accessory Fuse Box not shown

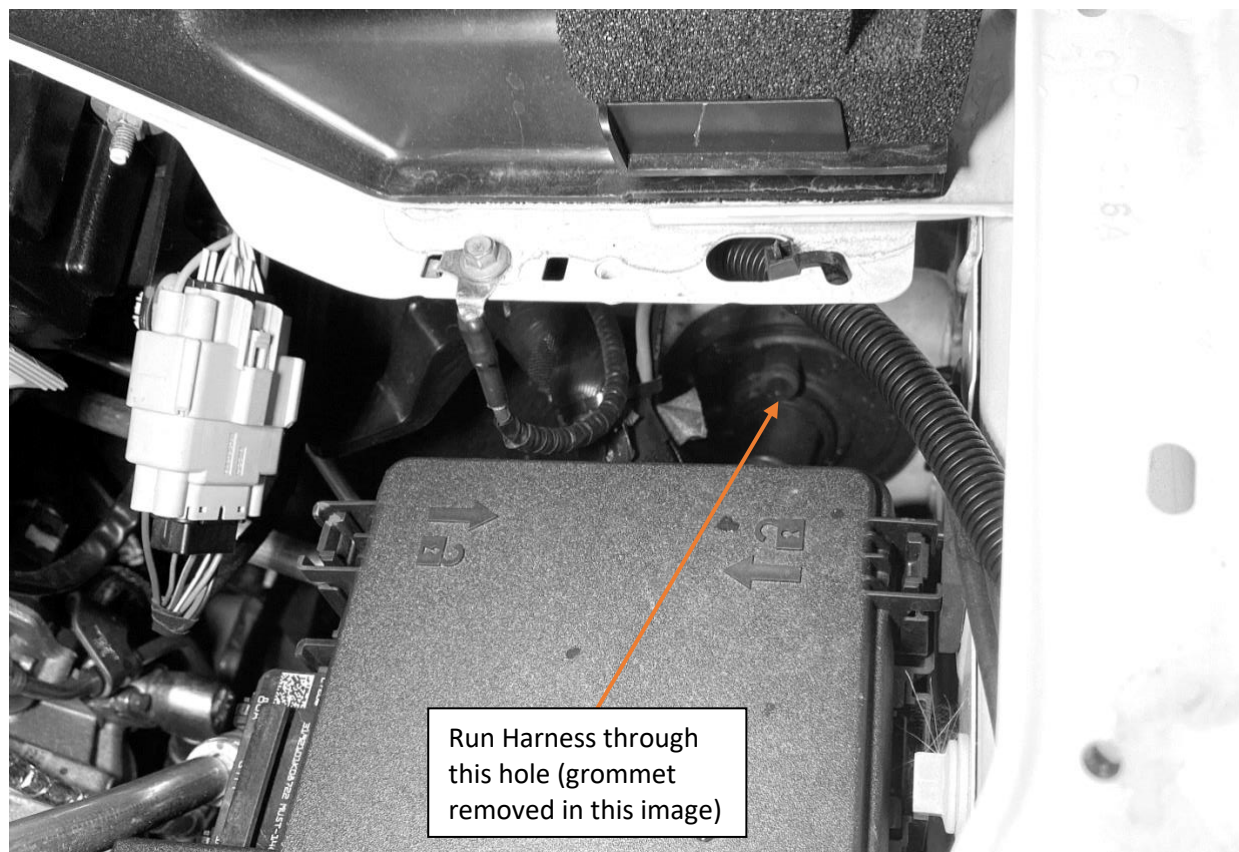
3. Using the M6x12mm bolts, four flat washers and M6 nyloc nuts, secure the bracket in place as per the photo below.



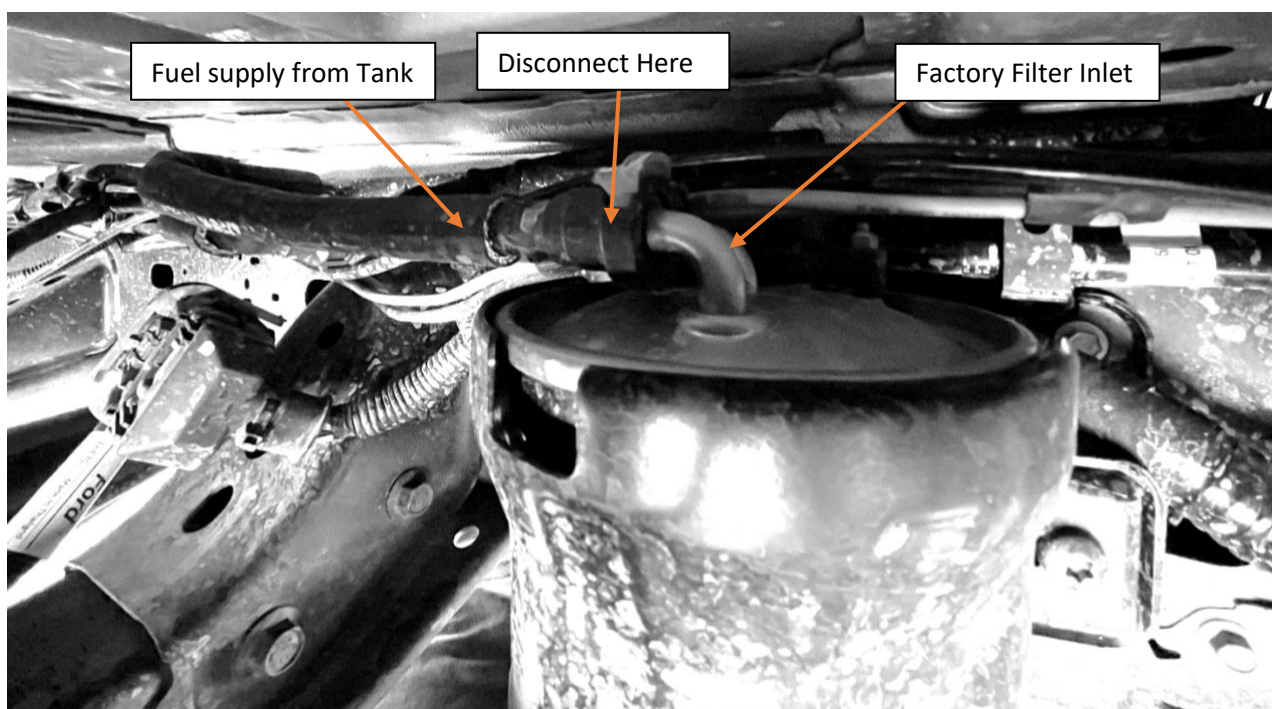
4. Install the threaded adaptors onto the PreLine 150, using the M16 washers between the filter head and the M16 adaptors. make sure to use a sealant like Loctite 567 or equivalent. Keep the exposed -6 thread clean when installing.
5. Install the PreLine 150 to the fuel filter bracket and the support brace using the two M10 bolts, 2 x spring washers and 2 x flat washers. Re-install the original Battery tray bolt removed in step 1.



PreLine 150 in place on bracket with support brace and accessory fuse box back in place



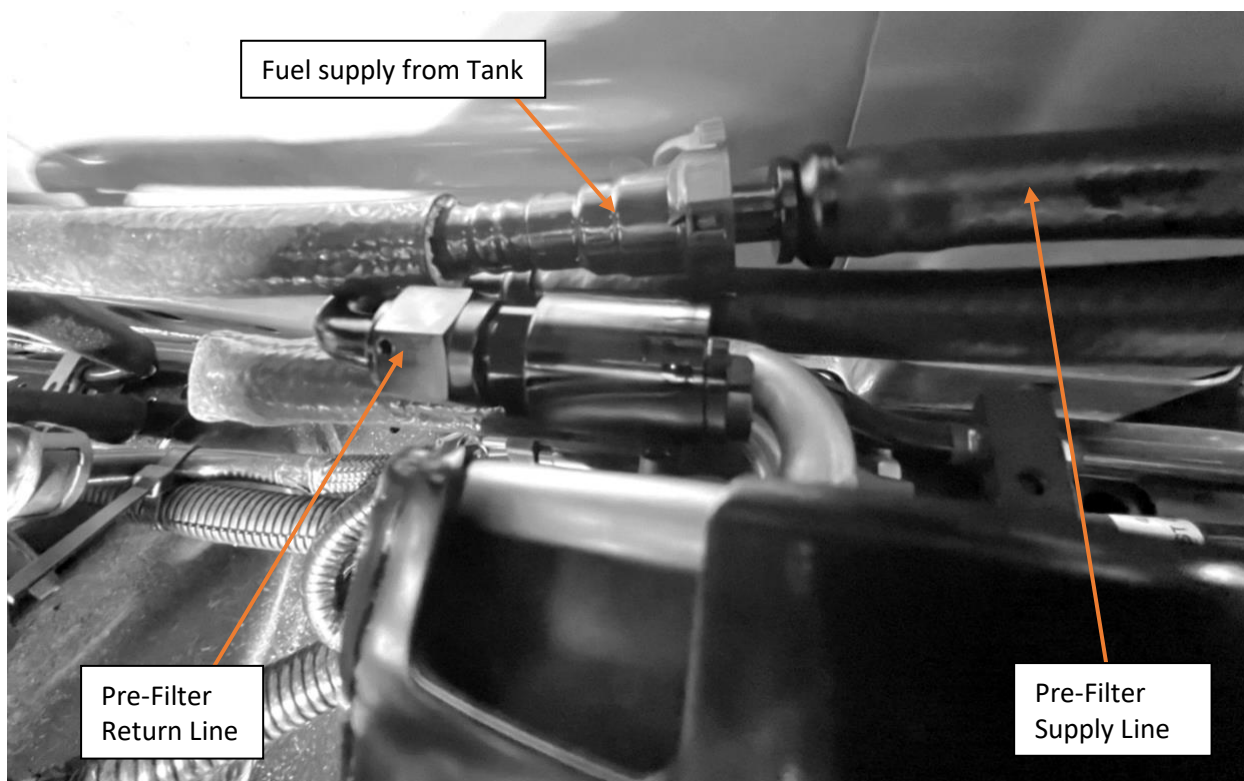
6. Connect the supplied wiring harness to the water sensor in the bottom of the fuel filter. Check to make sure the water sensor and the filter are snug on the assembly, do not over tighten as the thread can strip. Run the harness up through the grommet in the passenger firewall. Use cable ties to keep them in place.



Factory Fuel Filter hose locations

7. Install the first -6 90° hose fitting to one end of the 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 supply port adaptor in the fuel filter before securing the 90° -6 hose fitting in place.

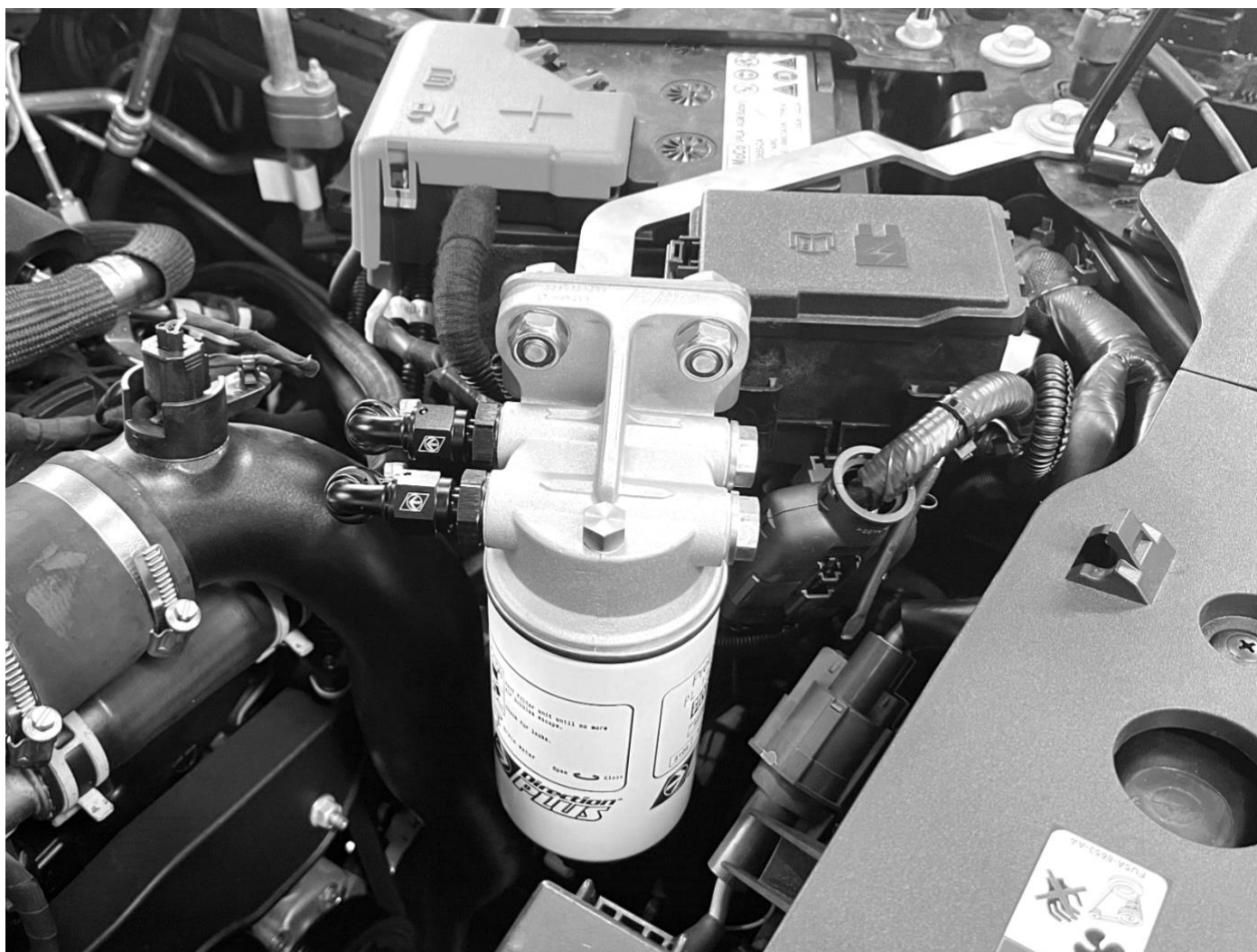
8. Find the factory fuel hose that supplies the factory fuel filter under the passenger side of the vehicle. Run the new hose to this location measure and cut it to length. Install the 3/8 QR male fitting with a hose tail on it into the end of the hose and secure with one of the new stainless EFI hose clamps.
9. Disconnect the factory 3/8 QR female fitting from the inlet to the factory fuel filter. Install the new 3/8 QR male fitting with the hose secured to it into this connector making sure it seats all the way.
10. Install the second -6 90° hose fitting to one end of the remaining 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 return port adaptor in the fuel filter before securing the 90° -6 hose fitting in place.
11. Run the remaining new hose to the top of the stock fuel filter you removed the female 3/8 QR fitting from earlier, measure and cut to length. Install the new female 3/8 QR fitting with a hose tail in the kit to the end of the hose and secure with one of the new stainless EFI hose clamps.
12. Connect the new female 3/8 QR fitting to the male port on the top of the factory fuel filter. Take care to make sure it seats all the way.
13. Ensure hose clamps are used with hose fittings
14. Open the bleed port on the new pre filter head and prime the system to remove the excess air in the new filter and lines. Once bled close the bleed port in the filter head.



Ranger 2022+ Pre-filter fuel hose installed – note clamps not installed in this image

15. 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 2A.
16. Mount the in-cabin warning light in the desired location, you will need a 20mm hole-saw to do this cleanly and quickly.

17. Secure the signal wire to one of the terminals on the warning light (it does not 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.
18. Connect the Power wire to an ignition source in the fuse box under the steering column, piggy backing the original fuse. The original fuse for the circuit goes into the empty fuse location in the add-a-fuse holder.
19. Connect the Negative eyelet on the harness to the negative terminal on the battery or nearby chassis earth.
20. Secure any excess wiring out of the way with the supplied cable ties.
21. Once complete start the vehicle, carefully and toughly check for leaks.
22. Run the vehicle for at least 20 minutes to ensure there are no air pockets in the fuel system.



Fuel hose routing for pre-filter on Ranger 2022+ -Note wiring is not yet cable tied in this image.

End of Installation Guide