

6.7L Powerstroke CP4 Return Fuel Filter Install Instructions

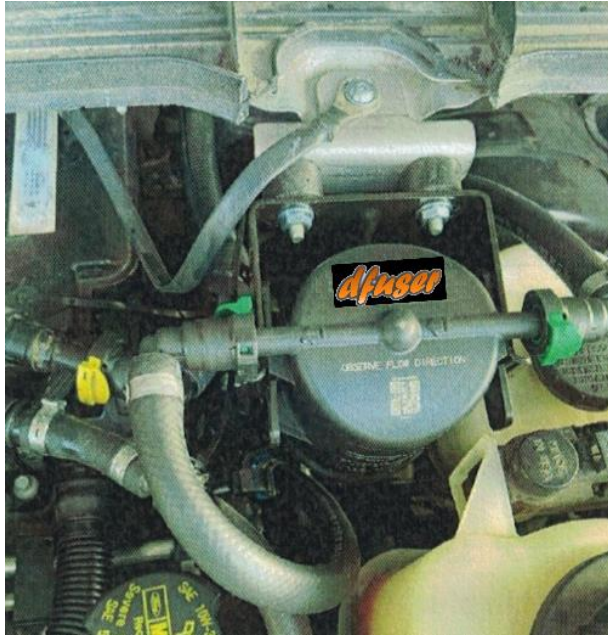


Tools & Accessories Needed:

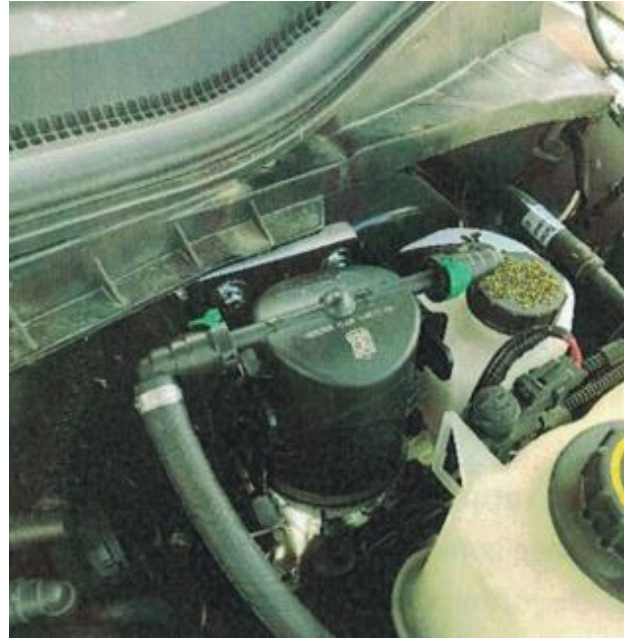
- Wrenches:
 - 10mm, 7/16, 3/8
- 4mm Allen
- Flush cuts for zip ties
- Plastic fastener remover tool
- Absorbent towels

*****See last page for filter change and interval instructions*****

The return filter mounting is slightly different between 2011-2016 trucks and 2017+. Please see below pending your truck model year.



2011-2016



2017+

Model Year Compatibility:

This kit has been designed to cover a wide range of model years even though there are some differences in the fitment. Because of this, there are some extra parts provided which you may not need based on the year of vehicle. The list below outlines the extra parts you'll have leftover after install for the various years.

Unneeded parts after a 2011-2016 install:	Unneeded parts after a 2017+ install:
○ Long pan head bolt (60mm)	○ 2 x rubber isolators
○ Aluminum spacer	○ 2 x ¼-20 flange nuts
○ 1 x fender washer	○ 1 x short pan head bolt
○ M6 locknut	
○ 2 x ¼-20 flange bolts	

2011-2016 Model Years

1. Assemble filter bracket to provided angle bracket with isolators
 - a. Use the fender washers under the nuts on the black filter bracket side
 - b. Use the flange nuts on both sides. Tighten with 7/16 wrench
 - c. Ensure that the stainless bracket is centered with the black bracket. (The slotted holes allow side to side adjustment later if needed for clearance to nearby components.)



Figure 1: Bracket installation with isolators



Figure 2

2. Remove the bolt holding the ground strap to the upper firewall/cowl above the brake fluid reservoir
3. Disconnect return side quick connect and rotate the fitting
 - a. Place some absorbent towels around the joint to catch diesel fuel
 - b. Disconnect the return line quick connect fitting (circled in blue, Figure 3) from the factory return barb (circled in red, Figure 3)
 - c. Rotate the plastic female quick connect fitting inside the molded tube 180 degrees, so it's facing upward. This may have to be slightly adjusted later.



Figure 3: Quick connect to remove and rotate

4. Install filter bracket to the upper firewall/cowl
 - a. Use provided short metric Allen drive button head bolt to hold the ground strap and filter bracket to the firewall as circled in blue (Figure 4)

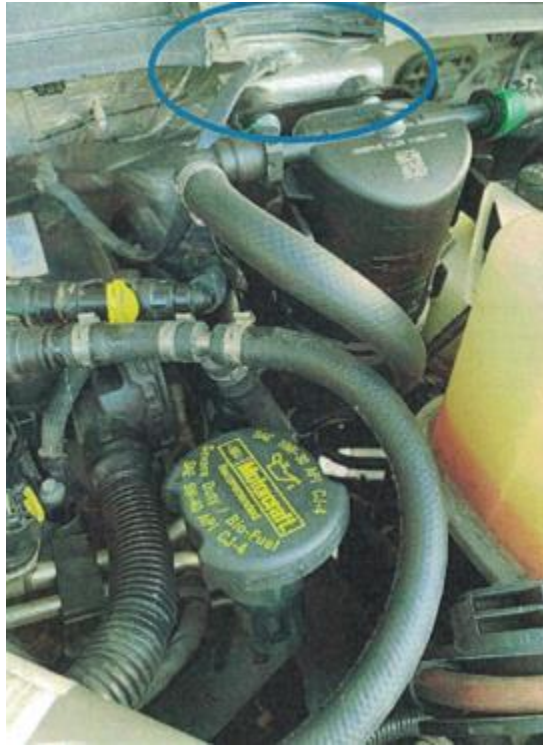


Figure 4: Bracket mounted, filter installed, hoses attached

5. Install the filter into the bracket, ensure flow is going from right to left referencing the arrows on top



Figure 5: Filter orientation and flow direction

6. Install the longer of the 2 provided hoses (right side)
 - a. The larger quick connect goes on the barb that you removed the factory fitting from earlier (Figure 3)
 - b. The hose wraps around the back of the filter and the small black/green quick connect attaches to the right side of the filter

7. Install the supplied zip tie hose clip
 - a. Put the zip tie around the factory supply line and clip the hose to it, adjust as necessary to keep the hose off the brake booster and reservoir (Figure 6)



Figure 6: Zip tie clip placement

8. Install the shorter left side hose
 - a. The aluminum barb goes into the quick connect fitting that was previously disconnected and rotated
 - b. The other side connects to the left side of the filter
 - c. Adjust rotation of quick connect fitting as necessary to avoid chafing as pictured (Figure 7)



Figure 7: Left side hose installation

9. Cycle the key to run the electric supply pump. Monitor the clear view fuel filter bowl to identify when the air is purged from the system. Start the engine and check for leaks.

2017+ Model Years

1. Assemble filter bracket to stainless bracket using supplied $\frac{1}{4}$ -20 bolts and flange nuts
 - a. Use the fender washers under the nuts on the black filter bracket side
 - b. Put the flange nut on the opposite side of the filter so the extra bolt length does not interfere with the filter



Figure 1: Back side



Figure 2: Front side

2. Loosen the cowl to access the hole for installing the fuel filter
 - a. Release 3 clips in the front (circled in red, Figure 3) and 2 clips underneath (near where the blue circles are, Figure 3) that you release by wiggling and prying up on the cowl gently

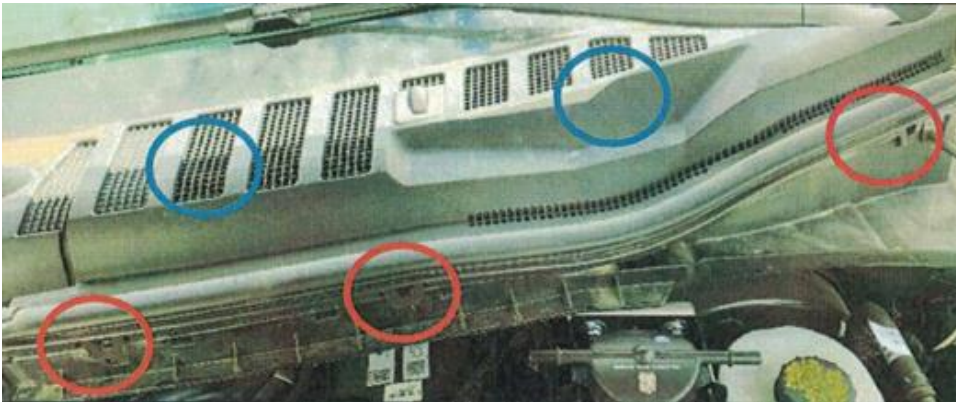


Figure 3: Clip locations



Figure 4: Clip under the cowl

3. Remove plastic fastener from the hole under the cowl and discard it (Figure 5)

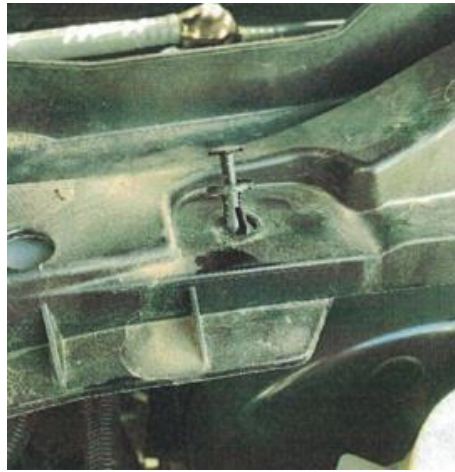


Figure 5: Remove plastic fastener

4. Disconnect return side quick connect and rotate the fitting
 - a. Place some absorbent towels around the joint to catch diesel fuel (Figure 6)
 - b. Disconnect the return line quick connect fitting
 - c. Rotate the plastic female quick connect fitting inside the molded tube 180 degrees, so it's facing upward. This may have to be slightly adjusted later.



Figure 6: Removing return line and reorienting fitting

5. Install the filter bracket in the same hole that the plastic fastener came out of under the cowl
 - a. Put the provided long bolt through the hole, then the spacer, then the filter bracket (Figure 7). Tighten with the provided locknut. Be careful to not crack the plastic around the bolt.



Figure 7: Bracket installed with spacer

6. Install the filter into the bracket, ensure flow is going right to left with the arrows on top



Figure 8: Filter orientation and flow direction

7. Install the longer of the 2 provided hoses (right side)
- The larger quick connect goes on the barb that you removed from the factory fitting from earlier (Figure 9)
 - The hose wraps around the back of the filter and the smaller quick connect attaches to the right side of the filter



Figure 9

8. Install the shorter left side hose
- The aluminum barb goes into the quick connect fitting that was previously disconnected
 - The other side connects to the left side of the filter
 - If installing with other bypass kit, the hose will likely have to wrap around the bypass kit hose to route nicely

9. Install the supplied zip tie hose clip
 - a. Attach in location seen on Figure 10 and connect it further back on the return hose (Figure 9)
 - b. May have to adjust zip tie clip and rotation of the factory quick connect to ensure proper placement on that hose to not chafe on any components. It should look like Figure 11



Figure 10: Zip tie clip placement



Figure 11: Proper hose clearance

Filter Change Interval:

- The filter is designed to be easily serviceable and is a complete disposable unit. You simply squeeze the tabs on the side of the filter, pull the filter assembly forward out of the mount, and dispose of the assembled unit. Purchase a replacement filter from dfuser.com. Part Number: DFR-1002487
- The return side fuel filter recommended change interval is the same as the other fuel filters on the vehicle. See below for the factory Ford filter change recommendations based on duty cycle and operating conditions.
- A major advantage to the return side filter is the ability to visually see when air is purged from the system. When the factory fuel filters are changed on the truck, it can take up to 7-8 key cycles to purge the air. Monitor the clear view return side filter bowl when the electric supply pump is running to confirm when the system is primed. This prevents running the CP4 dry, pump damage, and air locks in the system.

Vehicle Service	6.7L Normal	6.7L Special*
Fuel Filter Change (both) ¹	Change both fuel filters every 3 rd oil change or every 22,500 miles (36,000 km) or as indicated by the message center, whichever comes first	Change every 15,000 miles (24,000 km) or 600 engine hours or as indicated by the message center, whichever comes first

***Special** = Operating Conditions like Extensive Towing, Long Idle Time, Extended Low Speed Driving. For Off Road/Dusty Conditions, oil change intervals should be every 7,500 miles (12,000 km) or 300 hours of engine operation.

Note: Replacement Filter Part number: DFR-1002487