

INSTALLATION INSTRUCTIONS

SUBJECT: SUREFLO® SENDING UNIT FOR 2011 – 2016 FORD POWERSTROKE

FPE-2023-108
July, 2024
Page 1 of 8

FITMENT: 2011–2016 Ford F250/350 6.7L Powerstroke equipped pickups

KIT P/N: FPE-SF-FMC-1116-SB (Short Bed), FPE-SF-FMC-1116-LB (Long Bed)

EST. INST. TIME: 1 hour

TOOLS REQ'D: 8mm socket or wrench, 13mm socket or wrench, socket extension, hammer, chisel or punch.

Part Cross-Reference:

	FPE P/N	Ford OE P/N
Short Bed	FPE-SF-FMC-1116-SB	BC3Z-9275A or PS401
Long Bed	FPE-SF-FMC-1116-LB	BC3Z-9275B or PS402

KIT CONTENTS:

Item	Description	Qty
1	SureFlo sending unit	1
2	Tank flange o-ring	1
3	Level sender float	1
4	90 deg -8AN to hose barb fitting	2
5	-8AN to 3/4"-16 adapter fitting	2
6	90 deg -10AN to hose barb fitting	1
7	-10AN to 3/4"-16 adapter fitting	1



IMPORTANT: SureFlo performance sending units are designed for use in conjunction with an aftermarket externally mounted fuel pump OR as a replacement sending unit for trucks originally equipped without an in-tank low pressure lift pump. SureFlo units DO NOT contain a pump.

WARNINGS:

- Fuel system, including fuel tank, fuel supply, and fuel return lines must be clean before installation.
- Use of this product may void or nullify the vehicle's factory warranty.
- The purchaser and end user releases, indemnifies, discharges, and holds harmless Fleece Performance Engineering, Inc. from any and all claims, damages, causes of action, injuries, or expenses resulting from or relating to the use or installation of this product that is in violation of the terms and conditions on this page, the product disclaimer, and/or the product installation instructions. Fleece Performance Engineering, Inc. will not be liable for any direct, indirect, consequential, exemplary, punitive, statutory, or incidental damages or fines cause by the use or installation of this product.

PROCEDURE:

STEP 1: Ensure that the fuel tank is at most $\frac{1}{4}$ full. If necessary, drain the tank to $\frac{1}{4}$ full and then proceed.

STEP 2: Park the vehicle on a flat and level surface. Disconnect the battery terminals.

STEP 3: Loosen the hose clamps on the fuel filler and breather tubes using an 8mm socket. Disconnect both tubes.

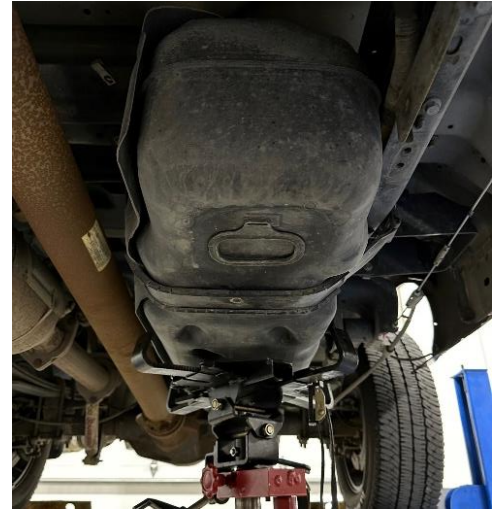


STEP 4: Remove the skid plate below the fuel tank (if equipped). See the image to the right for bolt locations. Use a 13 mm socket or wrench.

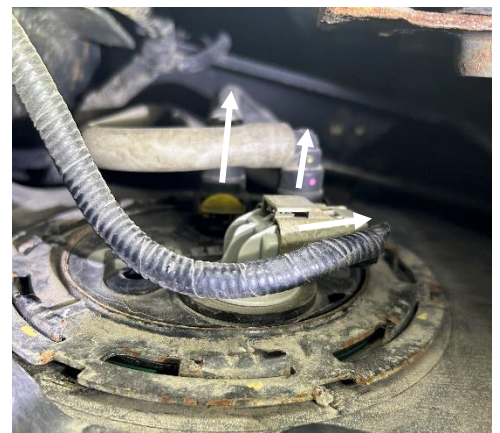


STEP 5: Place a transmission jack or floor jack under the fuel tank to lightly support it. Remove the bolts on the tank straps using a 13mm socket or wrench.

Note: Short bed vehicles will have two tank straps. Long bed vehicles will have three tank straps.

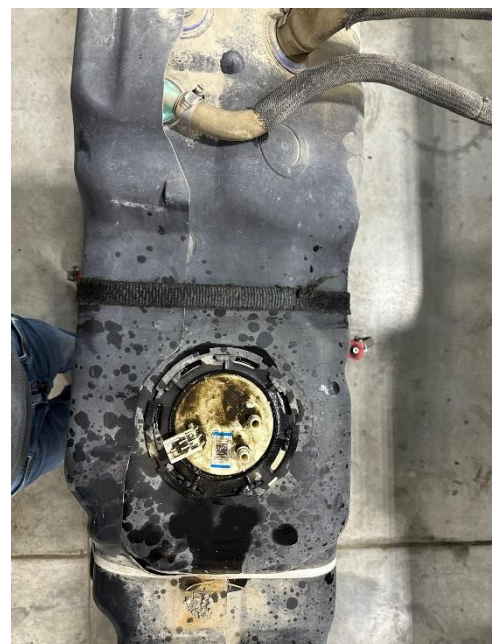


STEP 6: Lower the tank five to six inches and remove the electrical harness connector and the two fuel quick disconnects on the OE sending unit.



STEP 7: Fully lower the tank. You may have to adjust the fuel filler tube and breather to help clear the frame.

STEP 8: Thoroughly clean off the top side of the tank around the sending unit to avoid getting any debris inside the fuel tank when the sending unit is removed.



STEP 9: Using a hammer and a chisel or punch, remove the locking ring by tapping the ring counterclockwise.



STEP 10: Clean any remaining debris away from the sending unit with a vacuum and rag to avoid debris entering the fuel tank. Remove the OE sending unit.



STEP 11: Remove and discard the existing O-ring from the tank and replace it with the new O-ring included in the kit.

STEP 12: Install the included fuel level float arm onto the new Fleece Performance SureFlo sending unit by gently clipping the arm into the fuel level sensor.



STEP 13: Install the new SureFlo sending unit into the tank. The molded arrow on the fuel tank indicates the location of the alignment tab. **DO NOT** rotate the sending unit after inserting into the tank, as damage to the float arm can occur. Reinstall the locking ring, tapping it clockwise using a hammer and punch or chisel.



STEP 14: Place the tank back on the jack and lift the tank until it reaches around five to six inches short of its installed position. Reconnect the fuel lines and the electrical harness connector.

NOTE: For specific applications and configurations regarding fitting selection for the SureFlo, reference pages 6-8.

STEP 15: Fully raise the tank to its installed position and reinstall the tank straps using a 13mm socket or wrench.



STEP 16: Reinstall the skid plate (if equipped) using a 13mm socket or wrench.

STEP 17: Reconnect the fuel filler and breather tubes and tighten the hose clamps.

STEP 18: Reconnect the battery terminals and cycle the ignition to on to draw fuel through the sending unit. Start the engine and check for leaks.



SUREFLO CONFIGURATION FOR FACTORY INSTALLED AND AFTERMARKET LIFT PUMPS

FACTORY LIFT PUMP AND FILTER ASSEMBLY:

When using SureFlo P/N's FPE-SF-FMC-1116-SB and FPE-SF-FMC-1116-LB to replace a factory sending unit, no changes to the pre-installed quick connect fittings is necessary. The quick connect fittings will mate directly to the factory feed and return fuel lines.

FASS FUEL SYSTEMS LIFT PUMPS:

When using SureFlo P/N's FPE-SF-FMC-1116-SB and FPE-SF-FMC-1116-LB in conjunction with FASS model 180F 140GPH (TSF17180F140G):

- Remove the installed quick connect feed fitting and the auxiliary return plug from the top of the SureFlo.
- In the port labeled "FEED", install the -10AN to 3/4"-16 adapter (item #7) and use the 90-degree -10AN to hose barb fitting (item #6) to connect to the fuel feed hose supplied in the FASS kit.
- In the auxiliary return port, install the -8AN to 3/4"-16 adapter (item #5) and use the 90-degree -8AN to hose barb fitting (item #4) to connect to the fuel return hose supplied in the FASS kit.

For an overview on the routings and connections, refer to the graphic on page 7.

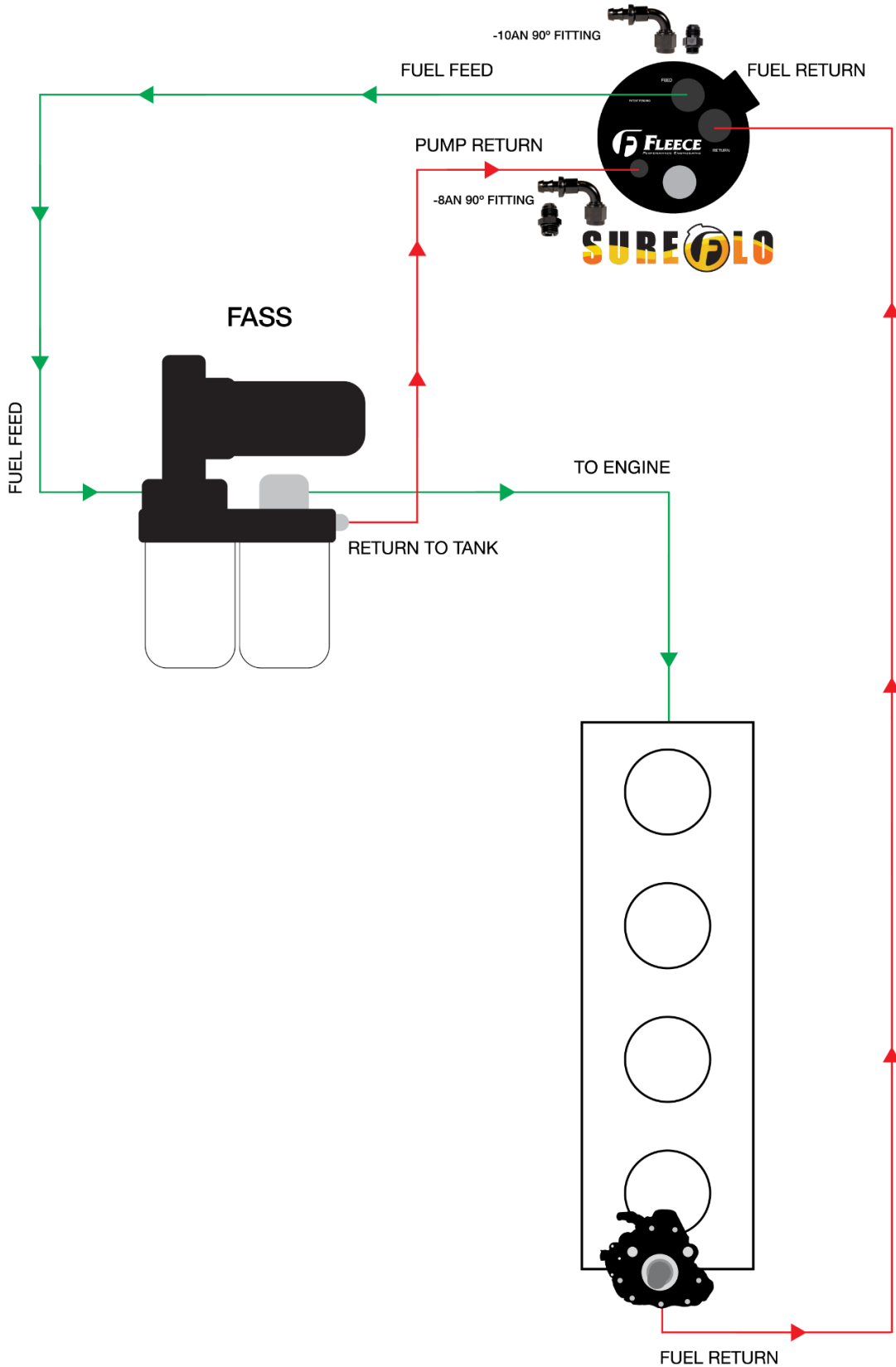
AIRDOG LIFT PUMPS:

When using SureFlo P/N's FPE-SF-FMC-1116-SB and FPE-SF-FMC-1116-LB in conjunction with an AirDog II-5G model lift pump it is not necessary to make any modifications to the quick connect fittings as outlined in AirDog's installation instructions. While no change is required, the fuel feed to the lift pump may be connected using the included AN fittings to create a custom fuel feed routing to the pump inlet.

- Remove the fitting from the port labeled "FEED" on the cap of the SureFlo.
- In the port labeled "FEED", install the -8AN to 3/4"-16 adapter (item #5) and use the 90-degree -8AN to hose barb fitting (item #4) to connect to the new fuel feed hose. Use the hose supplied in your AirDog kit or an alternative diesel rated fuel hose to connect the fuel feed port to the AirDog pump inlet port.

For an overview on the routings and connections, refer to the graphic on page 8.

FLEECE PERFORMANCE SUREFLO SENDING UNIT AND FASS FUEL SYSTEMS LIFT PUMP CONNECTIONS



FLEECE PERFORMANCE SUREFLO SENDING UNIT AND AIRDOG LIFT PUMP CONNECTIONS

