

INSTALLATION INSTRUCTIONS

SUBJECT: SUREFLO® SENDING UNIT FOR 2014-2019 RAM 1500 ECODIESEL

FPE-2025-145
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FITMENT: 2014–2019 RAM 1500 with 3.0L Ecodiesel V6

KIT P/N: FPE-SF-RAM-ECO-1419

EST. INST. TIME: 3 hours

TOOLS REQ'D: 7mm socket or wrench, 16mm socket or wrench, hammer, chisel or punch, flathead screwdriver

KIT CONTENTS:

Item	Description	Qty
1	SureFlo sending unit	1
2	Tank flange O-ring	1
3	Level sender float	1
4	Adapter harness	1



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 caused 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.

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 tube and fuel tank vent tube using a 7mm socket or wrench. Disconnect the fuel filler and tank vent tubes.



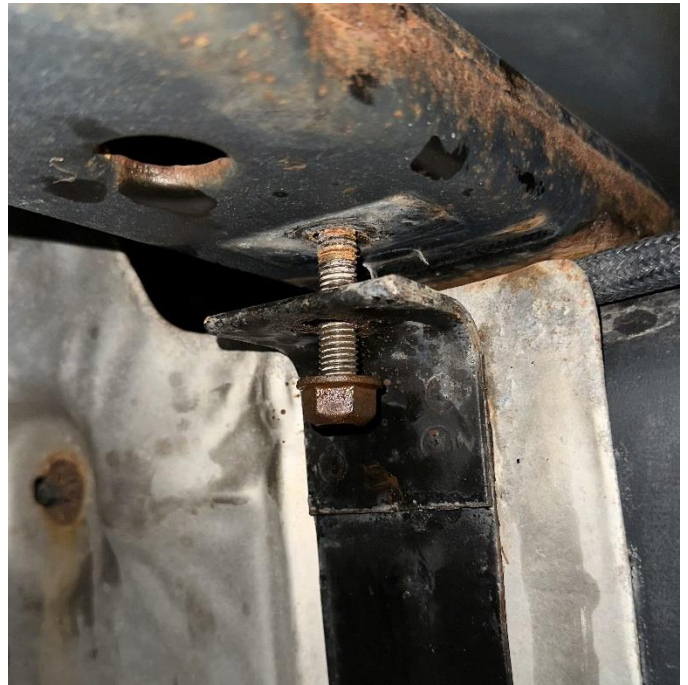
STEP 4: Disconnect the red fuel line quick disconnect fitting near the front of the fuel tank. To disengage the locking tab, spread the two ends of the tab and push them into the fitting. Disconnect the fuel line.



STEP 5: Disconnect the red quick disconnect fitting from the fuel filter assembly located on the rear, passenger side of the fuel tank. To disengage the locking tab, spread the two ends of the tab and push the ends toward the center of the fitting. Disconnect the fuel line.

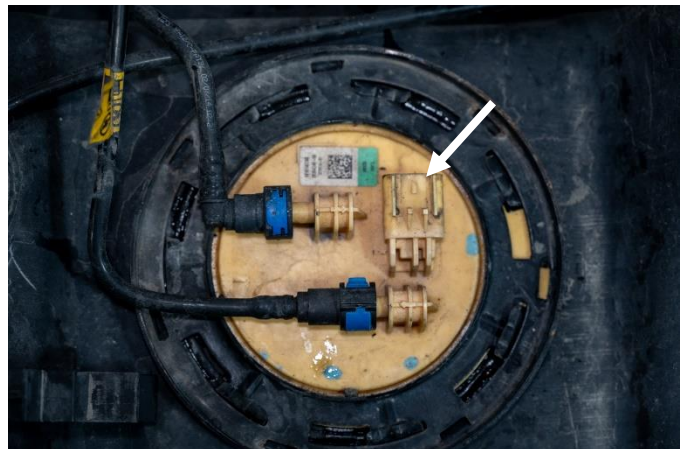


STEP 6: Place a transmission jack or floor jack under the fuel tank to lightly support it. Remove the two bolts retaining the tank straps using a 16mm socket or wrench.



STEP 7: Lower the tank five to six inches and disconnect the electrical harness connector from the cap of the OE lift pump.

STEP 8: Fully lower the tank and remove it from the vehicle.



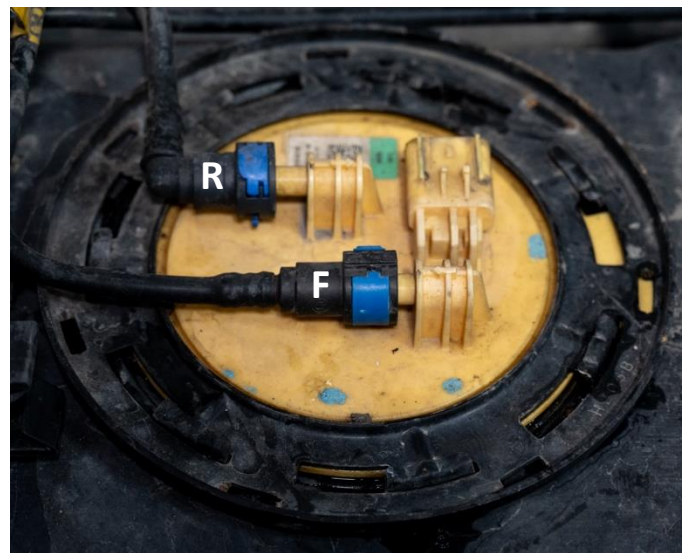
STEP 9: Thoroughly clean off the top side of the tank around the sending unit to avoid getting any debris inside the fuel tank when the OE unit is removed.



STEP 10: Disconnect the two quick disconnect fittings from the feed and return ports on the cap of the OE lift pump. See the identifying labels at right.

To disengage the locking tab on the feed side (labeled “F” at right), squeeze the two ends of the locking tab together and push the tabs into the center of the fitting.

To disengage the locking tab on the return side (labeled “R” at right), pull the two ends of the locking tab away from the connection on the tank, then push the ends into the center of the fitting.



STEP 11: Using a hammer and punch/chisel, remove the metal lift pump locking ring.

NOTE: The locking ring will need to be turned counterclockwise to remove.



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: Place the included tank flange O-ring onto the tank flange. Carefully install the new SureFlo sending unit into the tank in the orientation shown at right.

NOTE: Use caution when installing the sending unit to not damage the float arm or put stress on the resistor card element. Do not unnecessarily rotate the unit once installed.



STEP 14: Install the locking ring back onto the tank to retain the sending unit assembly. Using a hammer and punch or chisel, turn the ring clockwise until fully seated.



STEP 15: Install any necessary fittings provided with your aftermarket lift pump onto the SureFlo sending unit. See the image at right for connections on the cap of the SureFlo sending unit. Connect your factory fuel return fitting onto the unit.

The fuel return from your aftermarket lift pump will route to the auxiliary return port on the cap of the SureFlo sending unit. Remove the hex plug using a 3/8" allen wrench or socket. The port has a 3/4"-16 thread size.

The factory engine fuel return will still retain the use of the OE fuel return line.

The feed to your aftermarket lift pump may require an additional fitting to connect. The feed port on the SureFlo sending unit uses a 3/4"-16 thread size.

**AUXILIARY
RETURN**



STEP 16: Place the fuel tank under the truck and onto a transmission jack. Lift the tank 5-6 inches short of its fully installed position and connect the adapter harness to the truck side lift pump connection. Connect all hoses required for your application.

STEP 17: Fully raise the tank to its installed position and reinstall the tank straps using a 16mm socket or wrench.

STEP 18: Reconnect the fuel filler and fuel tank vent tubes. Use a 7mm socket or wrench to tighten the hose clamps. Connect the red quick disconnect fitting near the front of the fuel tank.

STEP 19: Reconnect the battery terminals. Follow the recommended fuel priming instructions specific to your model of lift pump. Start the engine and check for leaks.

