

INSTALLATION INSTRUCTIONS

PRODUCT: SUREFLO SENDING UNIT FOR 2011-2016 LML DURAMAX

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FITMENT: 2011-2016 LML Duramax equipped Chevy/GMC trucks

KIT P/N: FPE-SF-GM-1116-SB, FPE-SF-GM-1116-LB

ESTIMATED INSTALLATION TIME: 2 Hours

TOOLS REQUIRED: 1/4" drive ratchet, 1/4" drive 8mm socket, 1/2" drive impact or ratchet, 1/2" drive 15mm socket, 1/2" drive 13mm socket, 1/2" drive 11mm socket, large hammer, and punch or chisel.

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.

KIT CONTENTS:

Item	Description
1	SureFlo sending unit
2	Fuel level float arm
3	O-ring
4	Adapter harness and connector body
5	-8 to 3/4"-16 straight male fitting w/ o-ring
6	90 degree -8AN to 1/2" pushlock



WARNINGS:

- Fuel 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.

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INSTALLATION PROCEDURE:

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STEP 1: Disconnect batteries and block the tires.

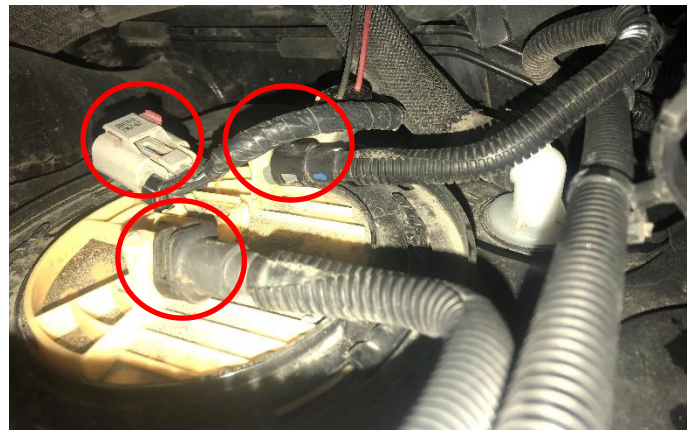
STEP 2: Remove the rear driveshaft. On short wheelbase trucks only remove the (4) - 11mm bolts on the yoke of the rear end. On long wheel base trucks, the carrier bearing mount must be removed as well.

STEP 3: Remove the protective fuel tank cover with (2) 13mm bolts and pull the cover over the tabs on the right side of the tank by swinging it downward.



STEP 4: Support the fuel tank with a lift jack. Loosen the front and rear fuel tank straps using a 15mm deep socket. Remove the front strap first, and leave the rear strap loose and attached at this time. Lowering the front of the fuel tank downward will allow access to unplug the sending unit and remove the fuel line quick disconnects and vent line.

STEP 5: Remove the fuel line quick disconnects. Disconnect the sending unit connector.



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STEP 6: Remove the filler neck hose at the tank with a 8mm socket to loosen the clamp. Remove the filler neck hose from the fuel tank. Remove the rear fuel tank strap and lower the complete fuel tank to the ground. Move the tank to an area where you have clear access to the tank.



STEP 7: Clean the area around the sending unit with pressurized air to remove debris. Wipe the area around the pump with a clean rag.

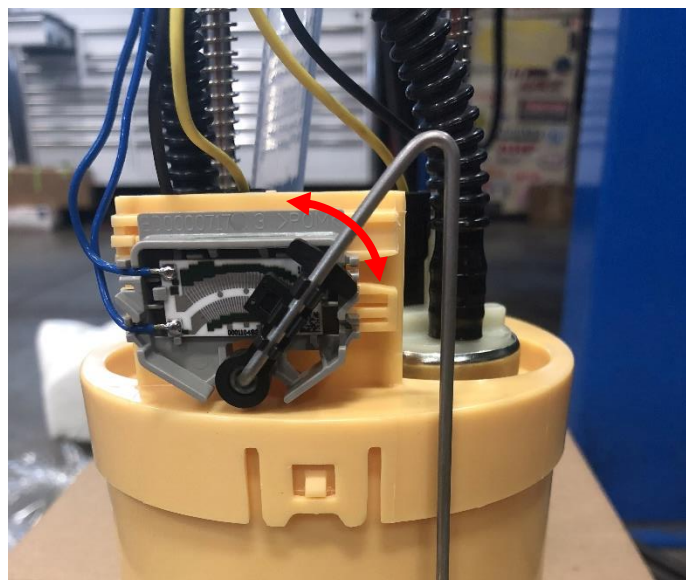
NOTE: Mark the orientation of the sending unit relative to the tank to ensure proper orientation of the SureFlo sending unit during installation.

Using a hammer and punch, rotate the retaining ring counter clockwise. Remove the retaining ring that holds the OEM sending unit into the tank and remove the sending unit from the tank by lifting it upward. Remove and discard the sealing o-ring from the tank.



STEP 8: Clean the tank sealing surface and place your new o-ring supplied in the kit for the SureFlo onto the top of the tank.

STEP 9: Install the fuel level float arm onto the SureFlo assembly by gently clipping the arm into the fuel level sensor.



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STEP 10: Install the SureFlo assembly into the tank, use caution with the float arm and do not over-rotate the pump once installed.

NOTE: Use caution when installing the SureFlo to not damage the float arm. Do not rotate the pump once it is installed in the tank, you may damage the float arm or sending unit – align it before you place it into the tank.

STEP 11: Reinstall the original retaining ring using your hammer and punch by rotating it clockwise to the fully engaged position.



STEP 12 (AFTER MARKET LIFT PUMP EQUIPPED TRUCKS ONLY): For aftermarket pumps that have a fuel return from the pump: remove the hex plug located on the side of the sending unit cap and install the -8 to 3/4-16 o-ring fitting and 90 degree push-lock fitting. This will allow you to run your injector return fuel and pump return fuel directly to the SureFlo bucket, ensuring optimal performance. This step must be performed AFTER the retaining ring is in place. Alternatively, you may run your injector return fuel and pump return fuel together prior to the SureFlo head port, thereby requiring the use of only one port. In that case, you will not remove the hex cap.

If your truck has an aftermarket pump previously installed and is returning fuel to the filler neck from the pump, it is required that you re-route this to the pump return fitting on the SureFlo.

NOTE: There is a spring and poppet located under the hex cap. These components must remain installed when using the port as a secondary return.

Remove the hex cap to allow for pump return fuel to feed the bucket

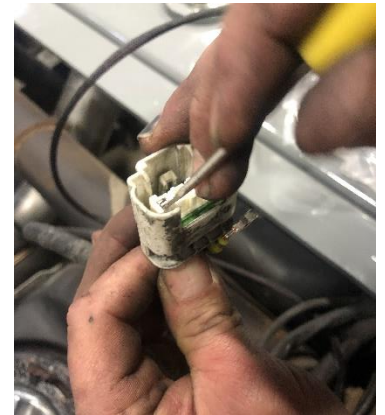
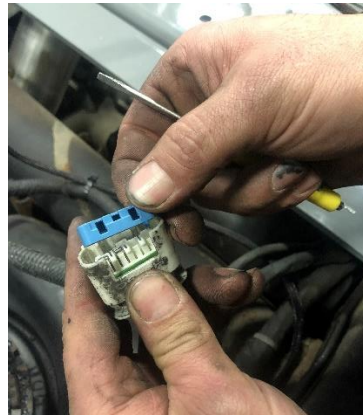


STEP 13: DE-POPULATE OEM SENDING UNIT CONNECTOR

Locate the OEM electrical connector that was connected to the original factory sending unit. You will be de-populating the two pins from this connector and transferring them to a new connector. Only socket locations 3 and 4 will be populated on the 4 pin connector. These two pins are used to supply the fuel gauge on the dash with a resistance reading from the sending unit on the pump assembly.

Using a small flat screwdriver, gently pry the locking tab from the front of the connector body.

With the locking tab removed, press down gently on the retaining tab that secures the electrical pin and pull the wire and electrical pin out from the back side of the connector. Do this one pin at a time. The cavity seals will remain on the harness and will be used on the new connector body assembly. Completely remove the two electrical pins from the connector body and clean them with electrical parts cleaner if required.



STEP 14: INSTALL OEM PINS INTO NEW CONNECTOR BODY

Locate the new connector body and locking tab provided with the Fleece electrical harness. You will be transferring the two pins the new connector body.

Insert the pins with cavity plugs intact into the rear of the new connector body. The pins can be inserted into either cavity. Once inserted, gently tug on the wires to make sure the pins are locked in place.

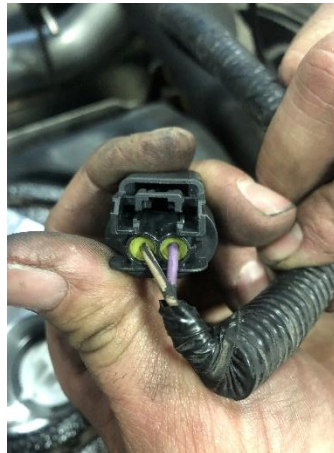
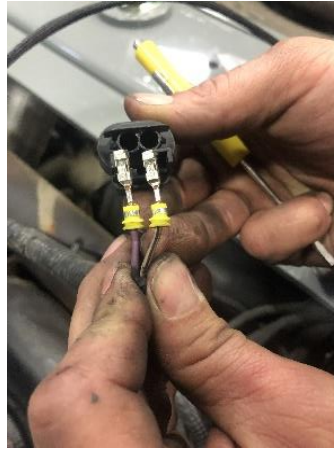
Install the locking tab onto the front of the connector body to lock the pins in place.

STEP 15: Connect the fuel supply, fuel return, and vent line to the SureFlo.

STEP 16: Reinstall the fuel tank. Make the proper connections for the fuel lines. Make sure the quick disconnect fuel lines are fully seated with retaining clips in place. When the quick disconnect fitting is fully seated you will not be able to pull it back off the pump fitting without releasing the retaining clip.

Using the electrical adapter harness provided in the kit, connect one end to the chassis harness that was just re-pinned for the OEM sending unit. Connect the free end of the adapter harness to the SureFlo sending unit.

Gray Connector – To SureFlo sending unit
Black Connector – To OEM harness



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