# **INSTALLATION MANUAL** RK-1004



#### **ACCESSORY:**

Relocation Kit DDRP 04

Dodge Cummins 2003 - 2004



ENGINEERED EXCELLENCE

# **CONTENTS** FL-1001 x14' WE-1007 Self Tapping Screw

# BEFORE YOU GET STARTED

- 1. The contents of this kit were designed to be used in conjunction with the parts in the DDRP 04 kit.
- 2. Using the manual that came with your DDRP is recommended.
- 3. The DDRP may be relocated anywhere between the stock location and the tank. Although this installation manual shows the pump located on the inside of the frame, you may also choose to locate the pump outside the frame, on a cross member, bed mount, etc.

Note: If this is a re-install, proceed to Step 2.

#### Step 1: Removal of Stock Components

1. Disconnect wiring harness of factory lift pump. Remove the Banjo Bolt connecting the inlet fuel line to the factory filter housing.



2. Remove the 4 socket head screws attaching lift pump to the side of the filter housing. Remove factory lift pump. Keep the top 2 screws for later use.



Note: There should be an o-ring located in the inlet port of the fuel canister or still attached to the factory lift pump outlet port. Keep this o-ring for the next step.

3. Attach the DIPF-1001 Diesel Injection Pump Fitting to the FP-1001 Fuel Plate. Torque to 18 ft/lbs. Apply oil to the outlet port of the fuel plate and install o-ring from the previous step.



4. Mount the Fuel Plate assembly on the side of the filter housing in place of the factory lift pump using the 2 socket head bolts removed in step 2. Torque to 9 ft/lbs.



Note: If this is a new install, proceed to Step 3.

#### **Step 2: Removal of DDRP**

1. Disconnect WE-1007 from the factory harness. You may need to reuse this later.

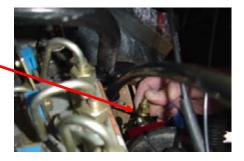
#### Note: Use of a container to catch leaking fuel is highly recommended

2. Disconnect fuel line from factory fuel line on the frame using a 3/8" Fuel Line Disconnect



Note: If you have the in-line filter, reuse or replace it. If you have the Banjo Bolt Screen, now is the time to replace it with a 3/8" in-line filter.

3. Remove the PL-1003 90° fitting attached to the DIPF-1001/FP-1001 Fuel Plate Assembly on the inlet of the factory filter housing.



4. Remove the pump/ bracket assembly. Remove banjo bolts and fuel lines. You may need to remove bracket to re-install in new location.



5. Remove fuel line from the QD-1001 Quick Disconnect fitting and the BF-4001 Banjo bolt fitting. Keep the bolts, fittings, and clamps for reuse later.



## **Step 3: Installation**

1. Find a new location for the pump and clean the area.



Note: The following photos will show the installation between the fuel tank and the transfer case on the inside frame rail. Make sure your location can be drilled and the pump/ bracket assembly fits.

2. Install PL-1003 90° fitting into new fuel line using oil on fitting and inside line.



3. Attach PL-1003 to Fuel Plate Assy on side of filter housing. Torque to 18 ft/lbs. Connect WH-1007 Wiring Harness to factory plug. Route fuel line and harness along frame to the new location of pump.



4. Using the BR-4001 Mounting Bracket as a guide, drill one self-tapping screw through bracket to hold pump in place. A pilot hole makes this easier. Install 2 remaining screws.



5. Install pump on bracket using 3-5/16" Hex bolts. Torque to 18 ft/lbs.

Note: Weep hole must be facing down.



6. Once proper length of fuel line is established, cut, and insert BF-4001 banjo fitting using oil. Attach line to the outlet port of the pump using BB-4001 Banjo Bolt and copper washers. Torque to 18 ft/lbs.

Note sequence: bolt, washer, banjo fitting, washer.



7. Insert the other BF-4001 into remaining fuel line using oil. Attach to inlet port on pump using BB-4001 banjo bolt and 2 copper washers. Torque to 18 ft/lbs.



8. Route line back to fuel sending unit in tank. Remove OEM suction line by pinching in green tabs. The green clip will need to be removed. After acquiring proper length, cut and attach QD-1001 Quick Disconnect using HC-1001 clamp. Tighten. Lube o-rings inside the QD-1001 and attach to the suction port of the OEM fuel sending unit.



9. In a serviceable location between the pump and the tank, cut line and install 3/8' in-line fuel filter. Make sure the direction of flow is correct, as seen in photo.



10. Plug in WH-1007 to pump. Make sure wire coming out of pump is not bent at a severe angle and secure.



11. Use Zip-Ties or similar fasteners to tie up fuel line and wiring harness.



## **Step 3: Final Check**

- 1. Bolts and fasteners properly tightened?
- 2. Electrical Harness and Fuel Lines secured and/or properly tightened? Unused stock fuel lines should be blown out and capped.
- 3. Prime the fuel system!
  - a. Turn the key to the point that it barely turns the engine over (this will allow the pump to cycle longer). This may need to be repeated several times. If so, perform this function before the pump shuts off.
  - b. While the pump is running loosen the 90 degree fitting on the filter housing until fuel is present and then retighten.
- 4. Check for leaks.
- 5. Start the engine!
- 6. Recheck all fluid connections and filters for leaks.