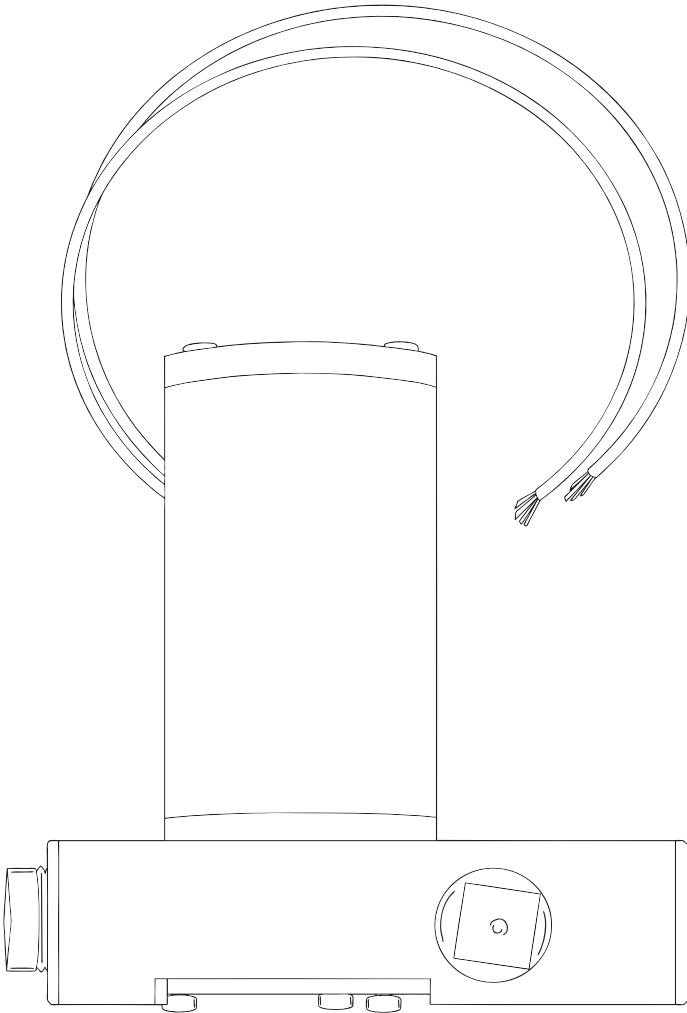


Pacific Performance Engineering, Inc.  
www.ppediesel.com



**Diesel Fuel Lift Pump  
(113050000)**

**Installation Guide**

**DISCLAIMER OF LIABILITY**

This is a performance product can be used to increased horsepower above and beyond factory specifications. Additional horsepower creates more stress on the drivetrain components, which could result in drivetrain failure. Note: Legal in California only for racing vehicles which may never be used on the highway.

This agreement sets forth the terms and conditions for the use of this product. The installation of this product indicates that the Buyer has read and understands this agreement and accepts the terms and conditions.

Pacific Performance Engineering Inc., its distributors, employees, and dealers (the "Seller") shall not be responsible for the product's proper use and service. The buyer hereby waives all liability claims.

The Buyer hereby acknowledges no reliance on the Sellers skill or judgment to select or furnish goods suitable for any particular purpose and that there are no liabilities which extend beyond the description on the face hereof, and the Buyer hereby waives all remedies or liabilities expressed or implied, arising by law or otherwise (including without any obligation of the Seller with respect to fitness, merchantability and consequential damages), or whether or not occasioned by the Seller's negligence. The Seller disclaims any warranty and expressly disclaims any liability for personal injury or damages. The Buyer acknowledges and agrees that the disclaimer of any liability for personal injury is a material term for this agreement and the Buyer agrees to indemnify the Seller and to hold the Seller harmless from any claim related to the item of equipment purchased. Under no circumstances will the Seller be liable for any damages or expenses by reason of use or sale of any such equipment. The Seller assumes no liability regarding the improper installation or misapplication of its products. It is the installer's responsibility to check for proper installation and if in doubt contact the manufacturer.

The Buyer is solely responsible for all warranty issues from the manufacturer.

**LIMITATION OF WARRANTY**

The Seller gives Limited Warranty as to description, quality, merchantability, and fitness for a particular purpose, productiveness, or any other matter of Seller's product sold herewith. The Seller shall not be responsible for the products proper use and service and the Buyer hereby waives all rights other than those expressly written herein. This warranty shall not be extended, altered or varied except by a written instrument signed by Seller and Buyer. The Warranty is limited to one (1) years from the date of sale and limited solely to the parts contained within the products kit. All products that are in question of Warranty must be returned prepaid to the Seller and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by Seller. Under no circumstances will the Seller be liable for any labor charged or travel time incurred in diagnosis for defects, removal, or reinstallation of this product or any other contingent expenses.

Under no circumstances will the Seller be liable for any damage or expenses incurred by reason of the use or sale of any such equipment. In the event that the buyer does not agree with this agreement: the buyer may promptly return this product, in a new and unused condition in its original packaging, with a dated proof of purchase to the place of purchase within ten (10) days from date of purchase for a full refund. The installation of this product indicates that the buyer has read and understands this agreement and accepts its terms and conditions.

**\*\* IMPORTANT GENERAL SAFETY PRECAUTIONS \*\***

This pump is not legal for sale or use on emission controlled motor vehicles.

**CAUTION:** Installation of this product should only be performed by those persons knowledgeable in the repair and modification of high performance automotive fuel systems.

**WARNING:** Fuel system may be under pressure!

Do not loosen the fuel system connections before relieving pressure. Some fuel may leak when loosening the fuel system connections. Eliminate potential fire hazards before loosening any fuel system connections. Always wear appropriate personal safety equipment, such as safety goggles and other apparel as needed, for protection from debris and sprayed gasoline. Work in a well-ventilated area and keep an working fire extinguisher nearby. Extinguish any open flames and eliminate all sources of ignition in the area of the vehicle BEFORE proceeding with the installation.

**INSTALLATION GUIDELINE**

- Mount the fuel pump as close to the fuel tank as possible. The fuel pump can be mounted on the vehicle frame or body sheet metal (use appropriate mounting hardware, including fender style washers on sheet metal). The fuel pump can be mounted in any direction, vertical positioning is not required.
- If possible mount the fuel pump at the same height as the factory fuel line's connection is to the tank.
- If installing on a Duramax equipped truck then install the fuel pump onto the shelf next to the fuel tank.
- Remove any aftermarket filters or straining components between the tank and the inlet of the fuel pump. The fuel pump has a serviceable built-in straining filter. Use 1/2" minimum line size for the 160 GPH fuel pump.
- Connect the electrical power to pump using appropriate soldering techniques or terminals. Use minimum 14 gauge wiring for all connections. Run pump through an independent 10 amp fused circuit, so that the fuel pump only comes on when the ignition is in the "ON" position. Pump must not be connected to the battery. An electrical relay can be used with the fuel pump circuit. Ensure that the pump's negative wire (black color) is properly grounded to the vehicle's chassis (See Relay Wiring Diagram, pages 6-7).

### **Step 1**

With the ignition off and the engine cool, disconnect the negative battery terminal and relieve the fuel system pressure. See page 3 for proper safety precautions.

### **Step 2**

If your truck is equipped with an OEM lift pump then continue with Step 2, if your truck is not equipped with an OEM lift pump then proceed to Step 3.

Disconnect the existing pump fuel lines. Plug the open fuel line ends to prevent leakage and foreign matter from entering the fuel system. Remove the pump mounting screws and remove the existing pump.

### **Step 3**

Assemble the mounting bracket and the rubber isolator to the pump. Torque the bracket screw to 5-15 ft.lbs. Mount the new pump in a suitable place on the vehicle chassis using quality hardware (not supplied). Refer to the Figure on pg 5 for mounting hole locations. Replace the existing fuel lines as necessary to line up with the new pump.

**CAUTION:** Use common sense when routing fuel lines and electrical harnesses. Keep them away from hot exhaust components and/or moving parts. Properly secure lines to prevent chaffing or abrasion. Fuel lines should never be routed inside the passenger compartment of the vehicle! It is also recommended that all fuel lines be routed on the inside of chassis frame rails as close to the fuel tank as possible.

### **Step 4**

Connect and tighten the fittings on the inlet and outlet fuel lines (see Figure 1). Use thread sealer (not supplied) on fitting threads.

### **Step 5**

Connect electrical power (12 VDC) to the pump as described in the above installation guidelines.

**CAUTION:** Use care to route all electrical wires clear of moving suspension, driveline or exhaust components. Protect wires from abrasion and road obstructions.

### **Step 6**

If not previously equipped, attach a fuel pressure gauge to the fuel system. Operating pressure 4-8 psi with engine idling. Pressures are not user adjustable.

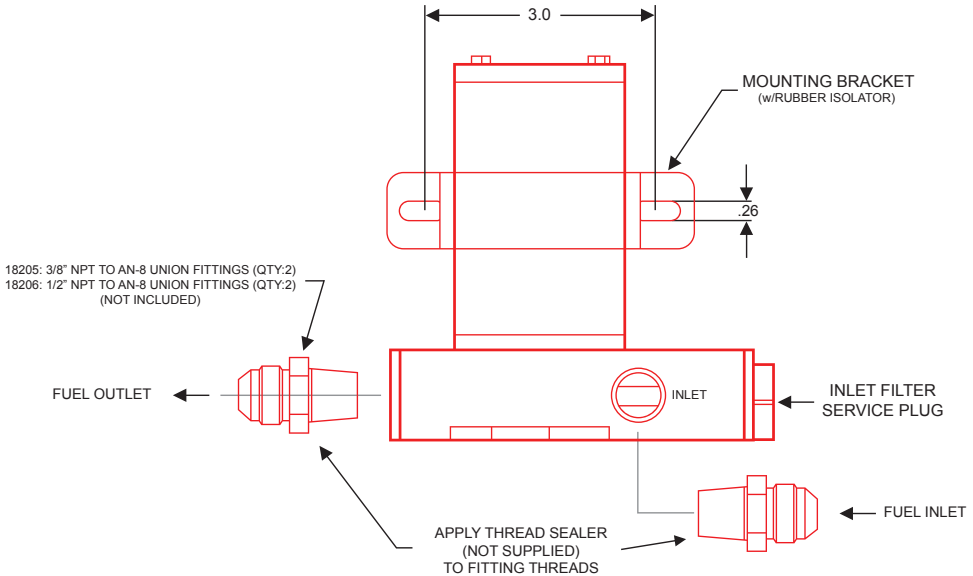
### Step 7

Reconnect the battery. Turn the ignition to ON (without starting the engine) and check for fuel pressure after allowing the pump to run for several seconds. If there is no pressure, then turn the ignition to OFF. If no pressure is registered on the gauge after running the pump for several seconds and you have found no leaks, check all fuel and electrical connections to determine the cause.

**WARNING:** If any leaks exist, shut the power off immediately and repair before continuing.

### Step 8

Once steady fuel pressure is obtained, start the engine and check the fuel system for leaks.

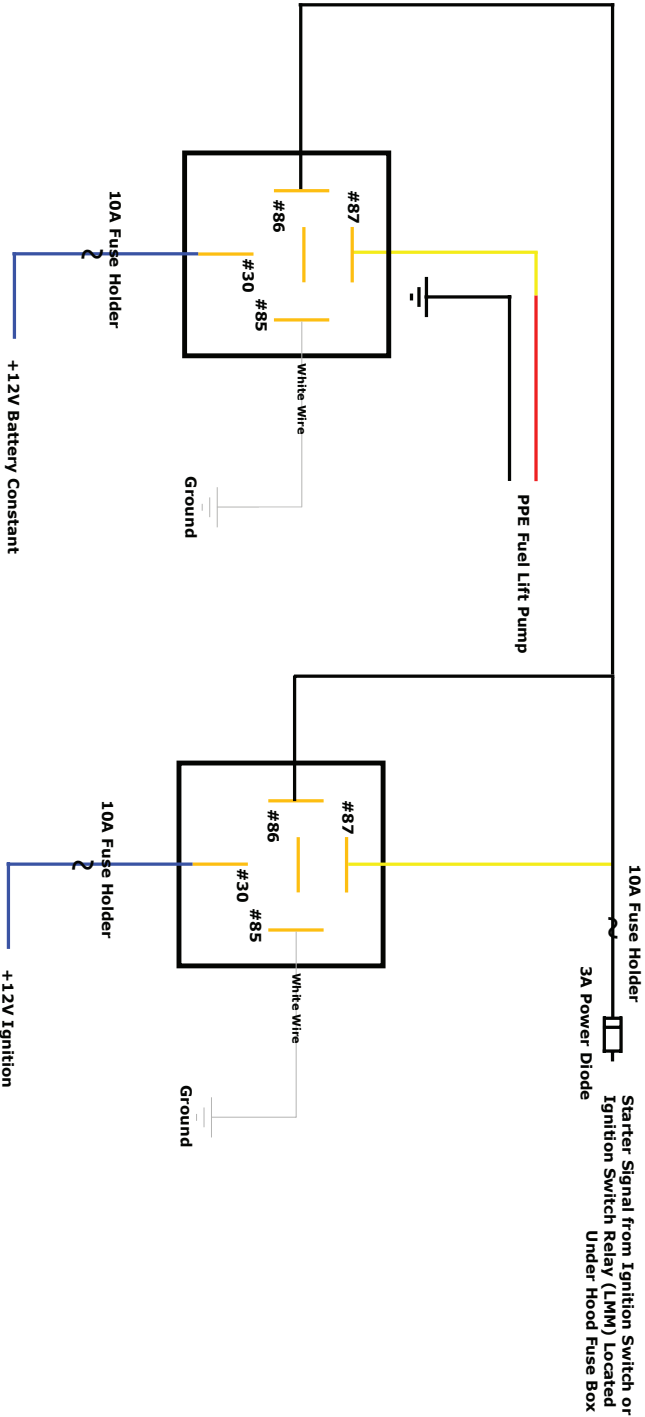


### Maintenance:

Clean the inlet strainer filter a minimum of once per year (more often when operating in dirty environments). Remove by loosening filter service plug and removing element.

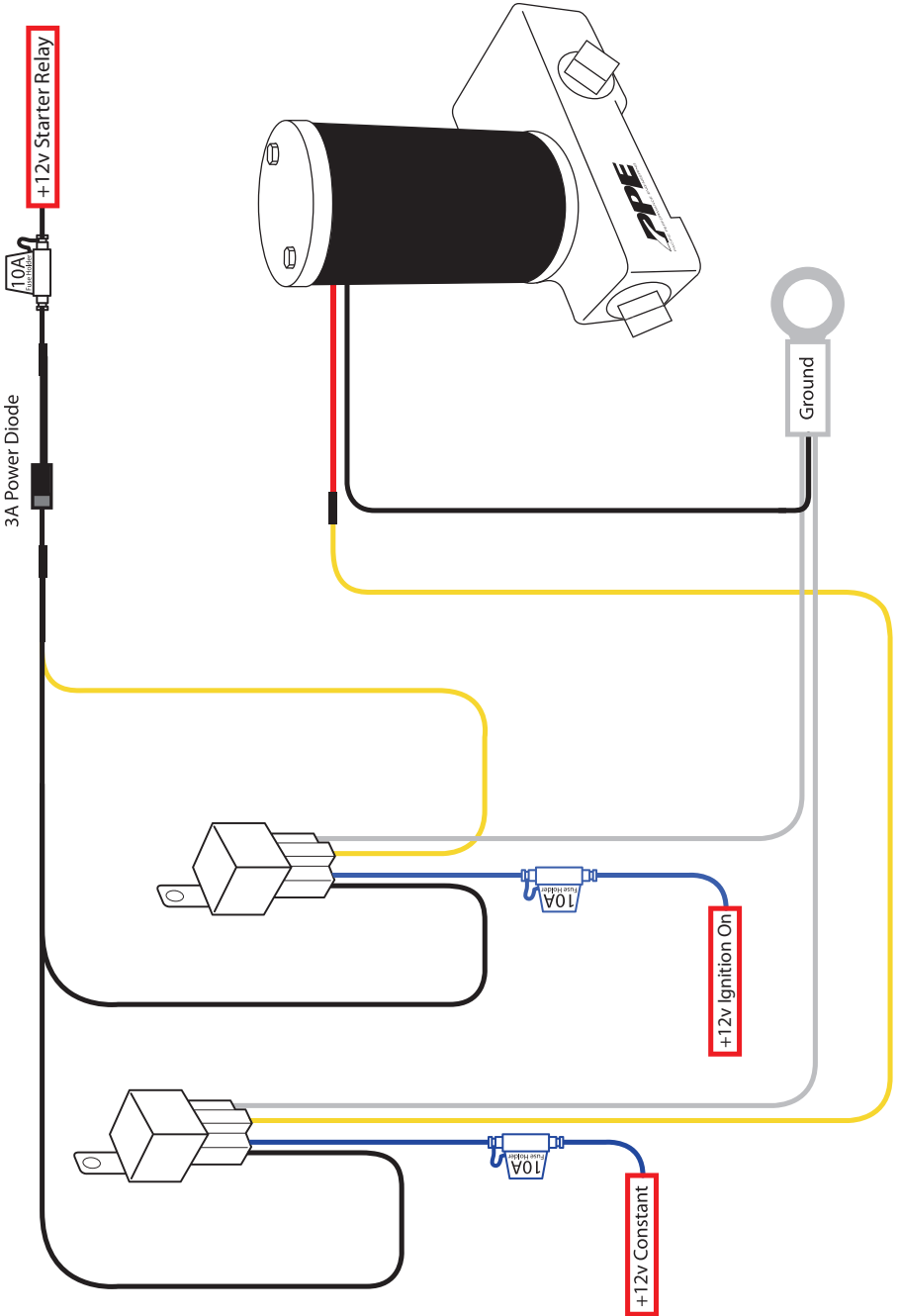
**WARNING:** Be sure to have the fuel level very low, and an approved container with funnel ready to capture leaking fuel near by. Fuel may exit the service plug and completely drain the fuel tank or cell. Clean the filter element with solvent and compressed air. Lubricate O-Ring and reinstall the filter with the filter service plug. Tighten the plug to between 5 to 15 ft.lbs. of torque.

# TECHNICAL WIRING DIAGRAM



*For pump to run when key is in cranked position*

**VISUAL WIRING DIAGRAM**





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