

**Installation Manual  
FASS HPFP**

MODEL NO. FASS-HPFP-200-1004

**“HIGH PERFORMANCE FUEL PUMP”**



FROM: Diesel Performance Products, Inc.

SUBJECT: Welcome/Thank You

TO: Valued Customer

We at Diesel Performance Products, Inc. (DPP) would like to thank you for your confidence in purchasing one of the FASS Products. Building a quality product and providing excellent customer service is # 1 at DPP. Behind each fuel system/fuel pump are many years of design experience. We have implemented very rigorous testing procedures before bringing any item to the market along with very strict manufacturing procedures to provide a superb product. Our confidence is evident in the products we make as each product is backed by an industry leading warranty.

*We, Diesel Performance Products, promote “ALL” retail business through our dealer network to provide better customer service! We are confident that everyone involved is best serviced in this manner. We have given our dealer network proper knowledge and support to promote and service our line of products.*

Dealers receive appropriate troubleshooting guides to refer to. These have proven to be excellent references for those who choose to use them. We provide excellent assistance to our dealers so they in turn can assist their customers. DPP has decided to place this information on our website to accommodate all of our customers needs.

Our R & D Department in conjunction with our Dealer Support Department is continually searching for ways to improve quality, expand our product line, and provide superb support to our network of dealers so they can support their customers.

**Please make sure to fill out your product registration form and return the original form to Diesel Performance Products, Inc. within 30 days of purchase accompanied with a copy of the purchase receipt. Doing so will qualify you for the warranty!**

Steps to customer satisfaction can be found on the next page.

## STEPS TO CUSTOMER SATISFACTION

We want you to be happy with your FASS Fuel System. Customer satisfaction, your satisfaction, is the all-important ingredient for success in our business, as it is in any other.

Normally, warranty problems can be resolved by your Dealer's sales or service departments. That's why you should always talk to your Dealer's Service department first. If you're not satisfied with the dealership's response at this level, Diesel Performance Products, Inc. (DPP) recommends that you follow these steps, in order:

**STEP 1:** Discuss the problem with the owner or General Manager of the dealership.

**STEP 2:** If your dealership is unable to resolve the problem, contact Diesel Performance Products, Inc. Customer Care Center in writing; the address is located on page 14 of this manual or fax it to 636-433-5413. Be prepared to provide the Customer Center with the following information:

- Your Name, address and daytime phone number
- Model and Serial Number (Not Model Number)
- Dealer, contact name and phone number
- Date of purchase
- Nature of Problem

Once you have followed the two steps described, a DPP representative will review your situation. DPP will then follow up by contacting the dealer for more information. Depending on the situation a representative from the selling dealer or a representative of DPP may elect to contact you.

Thank you for your business, from the men and women of Diesel Performance Products, Inc.

# **WARNING!!**

Installing the improper FASS Fuel Pump can cause severe engine damage.

This installation manual applies to the *FASS-HPFP-200-1004* contained in the same package. The serial number on the installation/owners manual package should match the serial number on the outside of the box. If it doesn't, call your dealer.

## **This FASS-HPFP-200-1004 (200gph) applies to this application:**

Recommendation: FASS-HPFP-200-1004 – Dodge Cummins Trucks 05 - 07, with extreme horsepower modifications.

## **SAFETY GUIDELINES AND WARNINGS!**

- TIP!** Flush and clean all brass fittings and fuel line free from debris.
- WARNING!** **SECURE VEHICLE FROM ROLLING!**
- WARNING!** Use care not to drill into any electrical wires, air lines or other damageable components when drilling.
- WARNING!** Consult vehicle manufacturer's instructions concerning the electrical system before attempting any electrical connections.
- CAUTION:** Wear safety glasses when operating power tools such as drills and grinders or when using a punch or chisel.
- CAUTION:** Properly secure lines to prevent chaffing.

# INSTALLATION MANUAL

The installation of the FASS HIGH PERFORMANCE FUEL PUMP can be relatively simple when the following steps are followed.

1. Inventory the package components completely. Notify the place of purchase immediately of any parts missing or damaged.
2. We have invested many hours into the development of the installation manual to simplify the installation of the **FASS Fuel Pumps**. Please read the installation manual completely before attempting installation. Understand how the system operates and installation recommendations before beginning installation. Most of the questions that you will have will be answered in the manual. If you have a question please review the installation manual.
3. The installation recommendations contained herein are suggested installation guidelines only. Each installation can and may vary considerably because of the many options and accessories available to the truck market.





















Installation personnel should use good judgment and common sense when installing the FASS High Performance Fuel Pump.

If any installation procedure is uncertain, contact the place of purchase

Due to training, communication and our relationship we have with our authorized dealers we recommend an authorized Diesel Performance Products, Inc. dealer for the installation. They are prepared to install the FASS fuel pumps with the most efficiency. If a situation/problem arises during the installation they are most prepared for that situation/problem. It may take more time for an unauthorized shop to address the situation/problem. We will not be responsible.

**For the 6 year warranty please fill out the “PRODUCT REGISTRATION FORM” and attach a copy of the sales receipt. We must receive the original product registration form and sales receipt within 30 days of the purchase or the 6 year warranty will not be valid.**

Contents Include:

	Description				Quantity		Part #	
1.	Pump/Filtration Unit	--	--	--	1	--	FASS-HPFP	
2.	Fuel Pump Bracket	--	--	--	1	--	THB-1001 BHB-1001	
3.	Electrical Harness w/relay	--	--	--	1	--	WH-1001	
4.	3/8" Fuel Line	--	--	--	14'	--	FL-1001	
5.	1/4 "x 1 3/4" bolt	--	--	--	4	--	--	
6.	1/4" – 20 x 3 1/4" bolt	--	--	--	2	--	--	
7.	1/4" - nut and lock washer	--	--	--	2 ea.	--	--	
8.	3/8" x 1/2" (Push Lock x MPT)	--	--	--	2	--	PL-1001	
9.	3/8" x 1/2" (Push Lock x Female Flare)	--	--	--	1	--	PL-1002	
10.	3/8" x 3/8" (Push Lock x 90° Female Flare)	--	--	--	1	--	PL-1003	
11.	3/8" Line Hose Clamp	--	--	--	2	--	HC-1001	
12.	Injection Pump Fuel Line Fitting (O'ring)	--	--	--	1	--	DIPF-1001	
13.	Ring Terminal	--	--	--	1	--	NRB516-K	
14.	Fuel Filter	--	--	--	1	--	FF5079	
15.	Fuse Tap	--	--	--	1	--	MBFT	
16.	Flag Terminal Female	--	--	--	1	--	187F1AG	
17.	Bulkhead (3/8 x 3/8)	--	--	--	1	--	BHF-1001	
18.	Grommet	--	--	--	1	--	RS2770	
19.	3/8 mpt Suction Tube (12 1/4 length)	--	--	--	1	--	ST-1001	
20.	3/8 x 1/2 (mpt x flared)	--	--	--	1	--	10-299	

## **BEGIN INSTALLATION**

**STEP 1:**     **Removing & Preparing Fuel Tank:**     Use the following photo's to complete this step.

Some of the photo's are of a different application, procedures are the same.



**Photo 1A**



**Photo 1B**



**Photo 1C**



**Photo 1D**



**Photo 1E**

1. Remove the filler neck tube from the truck by loosening the clamps at both ends.
2. Disconnect overflow tube from the fuel tank.
3. Disconnect the factory suction and return line. The factory lines are removed by pressing in on the two tabs located in the connecting harness. These tabs are opposite of each other.

**STEP 1:     Removing & Preparing Fuel Tank:** Continued

4.     Disconnect the factory electrical harness located between the suction and return lines on top of the fuel tank.
5.     With the fuel tank empty of fuel now remove it from the vehicle.
6.     As seen in photo 1A remove the lock ring on the top of the fuel tank.
7.     Once the lock ring is removed, remove pick up module from fuel tank.
8.     Reviewing photo's 1B and 1C, place the lock ring back into place for measurement reasons. Lay the grommet into proper location and use a punch to mark the center. Drill a 1 ¼" hole, catch all debris, example cup.
9.     Using photo 1D assembly the pick up assembly. Use pipe tape on the pipe threads.
10.    Insert the grommet into the 1 ¼" hole. Place the pick up assembly into grommet, take measurements so the bottom of the suction tube is only 1/8" (no more than 2 quarters stacked) from the bottom of the fuel tank.
11.    Before cutting the suction tube triple check the measurements, it is much more efficient to cut the tube to long and then correct to proper length than it would be to cut to short.
12.    With proper length being obtained with the suction tube kit, debur and flush assembly. Place the assembly into the grommet as seen in photo 1E.
13.    Reinstall install pick up module.
14.    Reinstall fuel tank. Remember to connect both factory fuel lines, wire harness and torque tank hanger bolts to proper specifications.
15.    Review photo 1F and the location of the return manifold before completing this step. Cut the rubber tube to allow the return manifold to junction with the filler tube. When assembling the return manifold into the filler tube position it to where the 3/8" junction pipe aims to the outside of the bed. It may be necessary to remove approximately ½" – ¾" of the rubber where the 3/8" junction tube exits the manifold.
16.    Assemble the return manifold using the 2 – 1 3/4" hose clamps. Do not tighten at this time.

**STEP 2:**     **Mounting FASS Fuel Pump:**     Use the following photo's to complete this step:



**Photo 2A**



**Photo 2B**

1. Drill 2 - 1/4" holes, as seen in photo 2A. Note: the mounting bracket may be mounting on either side of the bed rail.
2. Now install the 2 - 1/4"x 3 1/4" bolts, nuts and lock washers and torque proper torque specifications.

*Note: Before mounting the fuel pump assemble 3/8" x 1/2" (push lock x mpt) fittings into ports label with the letters "T" and "E" **using tread tape.** Torque to proper specifications.*

3. As seen in photo 2B using the bottom portion of the mounting bracket and the 4 - 1/4" - 20 x 1 3/4" bolts mount the fuel pump so the port labeled "T" is facing the rear of the truck. **VERY IMPORTANT: REMEMBERING THE POSITION OF THE "T" PORT THERE IS A SMALL HOLE IN THE BASE DIRECTLY NEXT TO THE ELECTRIC MOTOR, THIS HOLE MUST AIM DIRECTLY TO THE GROUND!! IMPROPER INSTALLATION OF THE PUMP CAN CAUSE PREMATURE WEAR AND VOID MANUFACTURES WARRANTY.** Torque the 4 - 1/4 - 20x 1 3/4" bolts to 110 inch pounds.

**STEP 3: Installing Fuel Line:** Use the following photo's to complete this step:



**Photo 3A**



**Photo 3B**



**Photo 3C**



**Photo 3D**



**Photo 3E**

1. Insert the 3/8" x 1/2" (push lock x female flare) fitting into the fuel line. Remember to oil the fitting and fuel line as seen in photo 3A
2. Route fuel line from the suction port of the fuel tank to the separator, using the 3/8" clamp to attach the fuel line to the separator, then to the port of the FASS Fuel Pump labeled with the letter "T". As seen in photo 3B.
3. Cut and attach to the push lock fitting. Remember to oil the fitting and fuel line before connecting.
4. Disconnect factory fuel pump from the side of the factory fuel filter as seen in photo 3D using a 5mm allen head socket.
5. Disconnect factory fuel line from inlet side of the factory fuel filter and install the injection pump o'ring fuel (part# DIPF-1001) fitting into this inlet port. This is the banjo fitting in photo 3C. Torque to 18ft lbs.
6. Connect the remaining fuel line to the push lock fitting located in the port on the FASS Fuel Pump labeled "E". Remember to use oil.
7. Route this fuel line to the inlet side of the fuel filter and insert the 3/8" x 3/8" (push lock x 90°female flare) fitting into the fuel line. Remember to use oil.
8. Attach 3/8" x 3/8" (push lock x 90°female flare) fitting to the injection pump fitting as seen in photo 3E. Torque to 18ft lbs.

**STEP 5:**     **Installing Electrical Harness:**     Use the following photo to complete this step.



**Photo 5A**



**Photo 5B**

1. Connect the male end of the wire harness to the female electrical connector on the FASS System.
2. Route the wire harness along the frame rail up to the fuse panel in the engine compartment.
3. Using the fuse tap & flag terminal connect the “Red” lead from the wiring harness (Part # WH-1001) to the fuse labeled, cigarette lighter. **Note: Connect the fuse tap to the hot side of the fuse.**
4. Using the ring terminal connect the green wire of located in the WH-1001 to the negative post of the battery.
5. Properly secure the wire harness and fuel lines with wire ties.
6. At the fuel tank there is an electrical connector connecting to the top of the fuel tank. Disconnect this connector; gently pull this wire harness and connector below the frame rail (this will allow space to work with this harness). Simply cut the black outside wire, this is the wire at one end of the harness going into the connector. FOR AVAILABILITY OF THE STOCK FUEL PUMP AT A LATER DATE CUT THIS GROUND WIRE AWAY FROM THE CONNECTOR, THIS WILL ALLOW FOR EASIER CONNECTION!

**STEP 5: FINAL CHECK:**

1. Bolts and fasteners properly tightened?
2. Electrical Harness and Fuel Lines secured or properly tightened?
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).
  - 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.

**Our part number, IL-1001, is an in-cab indicator light. This kit monitors the fuel system pressures and will indicate when the fuel pressure of the FASS falls below 7psi.**

**NOTE: The electric fuel pump runs continuously while the engine is running. The fuel pump on the FASS System will feel warm or hot to the touch.**

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## **LIMITATION OF WARRANTY**

Diesel Performance Products, Inc. (hereafter "SELLER") gives Limited Warranty as to description, quality, merchantability, fitness for any product's purpose, productiveness, or any other matter of SELLER's product sold herewith. The SELLER shall be in no way responsible for the product's open use and service and the BUYER hereby waives all rights other than those expressly written herein. This Warranty shall not be extended or varied except by a written instrument signed by SELLER and BUYER.

The Warranty is Limited to six (6) years from the date of sale or for recommended service life and limited solely to the parts contained within the product's kit. This warranty does not cover normal wear on consumable items such as filters. All products that are in question of Warranty must be routed through place of purchase. Returned items will arrive prepaid to the place of purchase. Diesel Performance Products, Inc. will repair, without cost, any product found to be defective during the warranty period; parts only, or at its option, will replace such products in exchange for the product. Repair or replacements are warranted for the remainder of the original warranty period. All Warranty claims are subject to approval by Diesel Performance Products, Inc.

Under no circumstances shall 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 shall the SELLER be liable for any damage or expenses insured by reason of the use or sale of any such equipment.

This warranty does not apply to products which Diesel Performance Products, Inc. has determined to have been misused or abused, improperly maintained by the user, or where the malfunction or defect can be attributed to the use of non-genuine Diesel Performance Products, Inc. parts.

**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, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE WITHIN THIRTY (30) DAYS FROM DATE OF PURCHASE FOR A FULL REFUND LESS SHIPPING.**

**THE INSTALLATION OF THIS PRODUCT INDICATES THAT THE BUYER HAS READ AND UNDERSTANDS THIS AGREEMENT AND ACCEPTS ITS TERMS AND CONDITIONS.**

Technical Support:           Contact the place of purchase; please provide the model number along with the serial number ready prior to calling.

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