WARNINGS!

- Read all instructions before starting installation of this product!
- Installing the improper FASS Pump can cause severe engine damage.

FASS	Recommended Application	
T C12 095G	Duramax 2015-2016 with stock - moderate horse power modifications	
T C12 150G	Duramax 2015-2016 with moderate - extreme horsepower modifications	
	Note: Because of the higher fuel flow these systems have to offer, you may encounter problems with the stock fuel module. FASS can solve this with a Suction Tube Kit.	

- Secure vehicle from ROLLING!
- Cab and Chassis may require modifications
- Consult vehicle's manufacturers' instructions concerning the electrical system before attempting any electrical connections.
- Be sure that the serial # on this installation manual matches that of the outside of the box.



- Flush and clean all brass fittings and fuel line from debris.
- Keep debris from entering the internals of the system during installation. Getting debris in the water separator nipple can lock up the motor. If the motor does lock up from debris call FASS for technical assistance.



- Wear safety glasses when operating power tools such as drills and grinders or when using a punch or chisel.
- Properly secure lines to prevent chaffing.

BEFORE STARTING THE INSTALLATION PROCESS LUBRICATE THE BED BOLT WITH WD-40 TO HELP WITH INSTALLATION

INSTALLATION MANUAL

Follow these steps to ensure a simple installation of your new FASS TITANIUM FUEL SYSTEM

- 1. Read the installation manual completely before attempting installation. The installation of this product indicates that the buyer has read and understands the limitations of the FASS manufacturers warranty agreement and accepts the responsibility of its terms and conditions.
- 2. Inventory the package components. Notify the place of purchase immediately of any parts missing or damaged.
- 3. The installation recommendations contained herein are guidelines. Use good judgment and take into consideration your vehicles' accessories.
- 4. For best results in accuracy and efficiency (due to training, communication, and our relationship with our dealer network), we recommend a ViP FASS 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 the most prepared for that situation/problem. DPPI is not responsible for any installation mistakes.
- 5. If you have any questions or concerns that can not be addressed with your dealer, email or call FASS.
- 6. If any installation procedure is uncertain, contact FASS technical support. Email techsupport@FASSride.com with the following information:
 - Your Name, address and daytime phone number
 - Model (T C12 095G or T C12 150G)
 - Serial Number
 - Vin Number of Vehicle
 - Date of purchase
 - Nature of Your Concern

Serial # Found Here....

Call customer service; 636-433-5410 with the following information:

- Model (T C12 095G or T C12 150G)
- Serial Number
- Vin Number of Vehicle
- Date of purchase



TITANIUM SERIES

95 OR 150 GPH 8-10 PSI (APPROXIMATELY)

A fuel pressure gauge is highly recommended to identify fuel filter life and to prevent engine damage!



INSTALLATION

Step 1: **Install Electrical Harness**

Step 2: Prepare Suction and Return Lines

Step 3: Mount Fuel System

Step 4: Install Fuel Line

Step 5: Check Installation





STEP 1: INSTALL ELECTRICAL HARNESS

The installation of the electrical harness is done first, allowing power to be applied to the pump for

A. Using wire stripping tool remove excess insulation off the add-a-fuse and the WH-1006.



B. Place wire from 46177 and WH-1006 into butt connector. Using crimping tool connect 46177 and WH-1006 with butt connector. Install 46116 to 46177 bottom slot (opening that is near the spade).







C. Crimp the ring terminals to the red and green wires of the WH-1006 Wire Harness. Attach red wire to the positive terminal of the battery and the green terminal to the negative terminal. The use of a corrosion preventative on electrical connections is recommended.



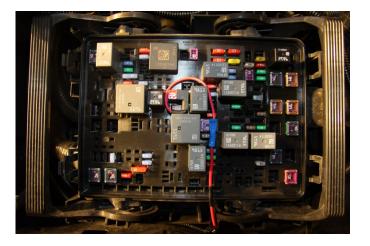
D. Secure relay and fuse in an upright position, as shown, to prevent moisture from entering. Di-electric grease may be applied to prevent corrosion.



STEP 1: INSTALL ELECTRICAL HARNESS

E. Locate fuse box under hood, remove fuse #11, and put Add-A-Fuse in place. Install fuse previously removed into Add-A-Fuse. **The use of a corrosion preventative on electrical connections is recommended.**







F. Route WH-1006 wire harness along frame rail to mounting location of pump. Completion of this step will be addressed in the Mounting Step 3.

STEP 2: PREPARE SUCTION & RETURN LINES

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

NOTE: Before installing fittings make sure to inspect for burs or flare imperfections. When cutting fuel line make sure to blow out line to keep debris from moving forward.

A. Before tank is removed, identify ALL areas of clearance between the tank and the truck's bed for the best location to install the BHF assembly. With proper clearance, you want to install it as close to the Fuel sending unit as possible.



B. Remove the filler neck and overflow tubes from the truck by loosening the clamps at the fuel tank and fuel tank module. Disconnect electrical connector on top of fuel tank module.



C. Disconnect factory suction and return lines (located in front of fuel tank).



D. With the fuel tank empty of fuel, unbolt the tank straps and remove it from the vehicle. Clean the fuel module area then remove the lock ring on the top of the fuel tank. This is spring loaded, so, holding it down while removing the ring will prevent the sending unit from popping up and possibly causing damage.







STEP 2: PREPARE SUCTION & RETURN LINES

- E. Place the BHF-1002 bulkhead fitting on the tank with enough clearance for the fuel line and fittings. **Keep in mind the bulkhead must also clear the bottom of the bed support structure.**
- F. Once location has been established, **double check!** Mark location and drill 1 3/8" hole with hole saw. Hold a cup or catch can inside the tank while drilling to catch any debris. Place a rag over the opening to prevent tank contamination. Double check for debris around the ring and inside tank.
- G. De-burr hole and check for fit.
- H. Place fuel tank module on a suitable work area, hold TC-1002 in the location pictured, and mark center hole for DT-1003. Drill pilot holes for the draw tube assembly with a 1/16" bit. Use a 11/16" bit for the final hole size. Install TC-1002 with supplied self-tapping screws.
- I. Install DT-1003 into TC-1002 using supplied set screws, **be sure to apply red Loctite onto set screws**, push DT-1003 to bottom of fuel module and place a mark on tube, adjust 1/8" from bottom of tank module (or 2 quarters) and tighten set screws.
- J. Install 1/2" plug into BHF-1002 and torque to 20 ft/lbs. Install PL-1004 into BHF-1002 and torque to 20 ft/lbs. Install ST-1007P onto BHF-1002 with HC-1001 and tighten accordingly











STEP 2: PREPARE SUCTION & RETURN LINES

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

K. Install BHF-1002 into fuel tank hole previously drilled, slide LW-1001/BHN-1001 onto BHF-1002 and tighten accordingly. Carefully install tank module into fuel tank while guiding float arm. Attach ST-1007P onto DT-1003 using hose clamp HC-1001. Reinstall tank module locking ring. Install one end of FASS hose onto BHF-1002. Reinstall fuel tank by reversing steps taken for removal. Be sure FASS lines are free from obstructions and will not be pinched by body/ frame mounting points, cut FASS hose to approximate mounting location of the FASS pump.





L. Using oil, insert PLB-1212 into one end of the provided FL-1002 fuel line. Feed line over frame to the stock fuel connection.



NOTE: Hose clamps are not recommended for push lock fittings.

They will hold up to 300psi! Use oil on fittings and inside fuel line when installing Push-Lok fittings

M. Push the PLB-1212 into the stock suction line until you hear a click and the tabs are locked in place.



N. Using a HC-1001 hose clamp, insert the QD-1002 into the other end of the provided FL-1002 fuel line and secure. Loop this end over the frame to the factory steel fuel line disconnected in Step 2a. Oil the rings inside the QD-1002 and slide over the line until you hear a click.

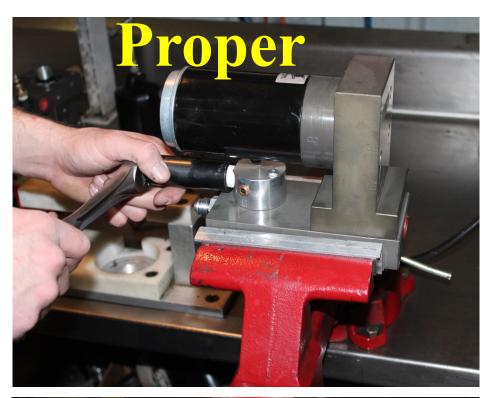




NOTE

ATTENTION: While installing fittings into Titanium pump

DO NOT Apply side pressure to draw
tube of pump

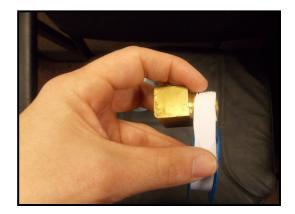




STEP 3: MOUNT FUEL SYSTEM

NOTE: Before installing fittings make sure to inspect for burs or flare imperfections.

A. Using thread tape, install the 10-300 into "E" and the 10-301 into the "T" port (on opposite end). Torque to 40 lb./ft.² **Note: Do Not Put Thread Tape on Flare of Fitting ***The use of thread sealant is not recommended*****

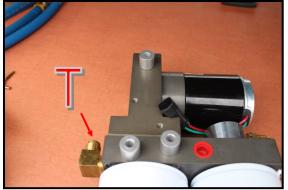








B. For fitting purposes. Secure PBR-2001 to pump assembly lightly with (3) 1/4"-20x1 3/4 bolts and (3) WA-1001D. This will assembly will be used in future steps for correct fitting of brackets. (Note: Bracket maybe flipped to accommodate your application.)

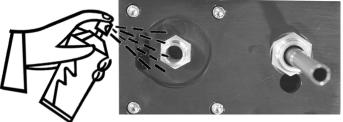




STEP 3: MOUNT FUEL SYSTEM

C. Connect female plug of the FASS harness into pump. Turn key to "on". With pump operating (you may have to bump the starter), turn pump over, liberally spray WD-40 (or equivalent) into water separator

nipple lubricating Gerotor.



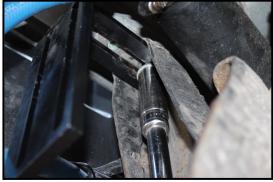
D. Unbolt driver side front bed bolt from bed retain bolt for future use. Align RS-2001 with PFB-2002.





E. Secure PFB-2002 and RS-2001 with bed bolt in previous step.





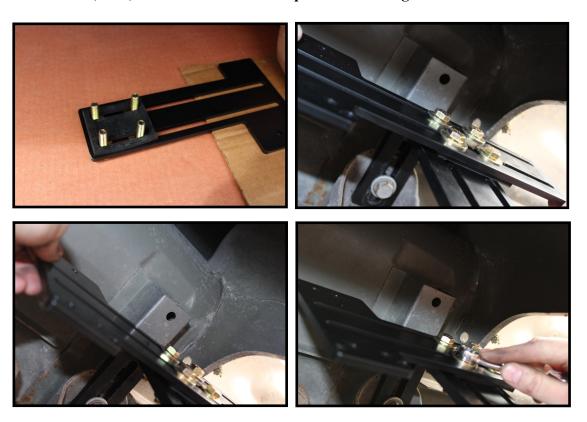
F. Position the PBR-2001 to the PFB-2002 pump assembly at the mounting location and check for fit. Once location is established mark location for mounting in next step.



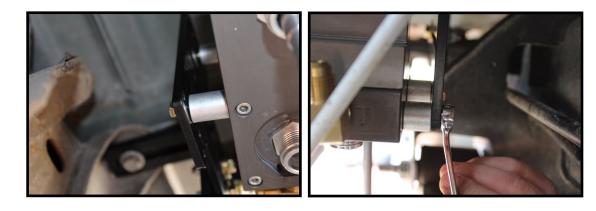


STEP 3: MOUNT FUEL SYSTEM

G. Assemble the FASS pump bracket PBR-2001 using the RS-2002 spacer between PFB-2002 and PBR-2001 bracket with 4-3/8 bolts, nuts, and washers. **Note: Torque bolts not flange nut.**



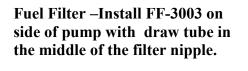
H. Once secure use 3-1 1/2 bolts and 3-WA-1001D spacers to mount the pump to the bracket.



STEP 3: MOUNT FUEL SYSTEM

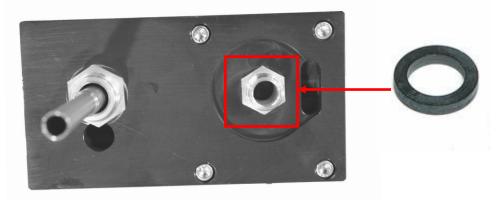
I. Apply motor oil to gasket located on filters. Attach to system and hand tighten.







Water Separator Filter –Install FS-1001 on water separator nipple without the draw tube. Make sure to insert O-Ring provided on nipple.



Note: O-Ring must be put back on suction side of pump. Failure to do so can result in priming issues, cavitation, or pressure loses.

STEP 4: INSTALL FUEL LINES

Do Not use sealant on AN (male flare) fittings. Only use sealant on threads installed into pump assembly.

A. Route suction line from BHF-1002. If necessary, To gain access to the top of the fuel tank, if necessary, carefully bend the sheet metal down that is covering the side. to the 'T' port of the FASS pump. Cut FL-1002 to length. (measure twice cut once) Insert PL-1005 using oil. Attach to 10-301. Torque to 18 ft./lbs.



B. Measure from the factory feed connection from Step 2M to the 'E' port of the FASS system. Cut and insert PL-1005. Connect to the 10-300 in the 'E' port of the FASS system. Torque to 18 ft./lbs.



C. Using oil, insert a PL-1005 into the remaining fuel line from step 2L. Connect to the 'R' port fitting on the FASS system, and torque to 18 ft./lbs. The FASS will now be utilizing the factory feed line on top of fuel tank for the FASS return line. If necessary, re-bend sheet metal that allowed access to fuel tank.





Note: Secure all fuel lines with cable ties. Cable ties are an economical way to prevent the possibility of problems occurring!

STEP 5: REVIEW INSTALLATION

To assist with priming your FASS pump crack the FF-3003. Put power to the FASS pump to activate the pump. When the tone of the pump changes you can tighten up the fuel filter. If you need a video of the priming process go to www.FASSride.com.



Note: The Red Plastic Plugs located in the "H" ports can stay in place fuel will not flow through these ports. Coolant can be plumbed into these ports to heat the fuel in the Winter months.

STEP 5: REVIEW INSTALLATION

- Blow out any open lines/cover any open ports
- Bolts and fasteners properly tightened?
- Electrical harness and fuel lines secured and properly tightened? Reconnect the battery.
- Has the system been primed?
 - 1. Turn key to the ignition position, turning on the FASS pump for 15 sec..
 - 2. Crank engine and allow to run for at least 1 minute.
- Check for leaks.
- Start the engine
- Recheck all fluid and filter connections for leaks
- This pump comes with a 1 Year Manufacturer's Warranty based on the date it has been manufactured. To receive your extended Lifetime Warranty, you have 30 days from date of purchase to send the completed warranty information along with a copy of the purchase receipt in to Diesel Performance Products, Inc. Att: Warranty 16240 Hwy O Suite B Marthasville, MO 63357

LIMITATION OF LIFETIME WARRANTY

Disclaimer: To help insure you receive the proper system and customer support at the local level, FASS has a VIP and Authorized Dealer network representing FASS products. This is one reason you <u>must</u> purchase through a dealer to comply with our warranty policies. If you do not, there is no warranty! We recommend you go to <u>www.FASSride.com</u>, click "Find a Dealer", put in their ZIP code, select the type of dealer, and see if the company you purchased from is listed. If they are not, put their phone number in the field below the ZIP code field to see if they are listed. Below these two fields is a list of "Terminated/Unauthorized" dealers. You may want to review this list. If the company is not listed or is on the "Terminated/Unauthorized" list, we suggest you return the product immediately to that dealer and call FASS. We'll recommend you to the nearest dealer.

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.

When MANUFACTURER receives the "ORIGINAL" PRODUCT REGISTRATION form with a copy of the "BILL OF SALE/SALES RECEIPT" within 30 days of the sale, then the following applies! The Warranty will then and only then be validated to that of which typically accompanies your unit for your specific application from the date of sale or for recommended service life and limited solely to the original purchaser and/or vehicle and parts contained within the product's kit. This warranty does not cover normal wear on consumable items such as but not limited to filters, fuel line, wire harness & etc. The warranty does not cover seized gears due to lack of filtration. Warranty is voided if used with other than diesel fuel. 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.

A Return Material Authorization (RMA) number must be obtained before any product is to be returned to Diesel Performance Products, Inc. for warranty consideration, repair or product return. Requests for product returns must be offset by an equal value order. Return parts must be completed and in resalable condition. No returns after 30 days.

The following information is required to obtain a RMA number before returning product:

Your Name, Address, and Phone Number's Model and Serial Number (Not Motor Number) Example: Model HD Series, Serial: 00125966 VIN Number of Vehicle Date of Purchase Nature of Problem

RMA and Product Serial Number must be on all paperwork and correspondence. Failure to obtain the required information or paperwork will result in \$25.00/item penalty and delay or denial of any warranty claim.

Under no circumstances shall the SELLER and/or MANUFACTURER 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 and/or MANUFACTURER 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 PROMPLY 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:

Diesel Performance Products, Inc. 16240 State Hwy O Suite B Marthasville, MO 63357 636-433-5410

