

# INSTALLATION MANUAL

## TITANIUM SERIES



### APPLICATION:

95 GPH (T F16 095G)

150 GPH (T F16 150G)

Powerstroke 6.4L

2008-2010



PICKUP



Dear Valued Customer,

**“Made in the USA”** is not just a slogan at FASS; it’s what we live by! FASS is not only assembled in the USA but 98%+ of the FASS product is manufactured in the USA, helping to employ Americans and strengthen America. At FASS, we scrutinize our suppliers and demand the highest quality American-made components. However, this does come at a price, which is one of the main reasons FASS products are more expensive than the competition. Remember price does not dictate quality but quality does dictate price! Here at FASS, we believe it’s worth the commitment and will continue this practice to support America! Our competition is doing exactly the opposite by using foreign-made components.

Building extremely “High-Quality” fuel products is our business. We concentrate all of our efforts in this arena. No one else is as specialized as FASS in what we do! This is one of the ingredients to insure you are running with the “Highest-Quality” fuel system in the world! We have implemented very rigorous testing procedures to provide the “Highest Quality” we have become known for. Not only is our product superior, but customer satisfaction is #1 at FASS. It is our goal to provide the best service possible. Our confidence is evident in the products we make as each product is backed by an industry leading warranty!

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 our customers’ needs and expectations will be exceeded.

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 must purchase through a dealer to comply with our warranty policies. **If you do not, there is no warranty!** We recommend you go to [www.FASSride.com](http://www.FASSride.com), 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.

**VERY IMPORTANT:** Make sure to fill out your product registration form and return the original form to FASS Fuel Systems within 30 days of purchase accompanied with a copy of the purchase receipt. Complying with these guidelines will qualify you for the Extended Warranty!

See the Owner’s Manual for full Limitation of Warranty. 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 receipt, 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 the Limitation of Warranty agreement and accepts its terms and conditions.**

## STEPS TO CUSTOMER SATISFACTION

We expect every FASS System to exceed your expectation. Customer satisfaction, your satisfaction, is the all-important ingredient for success to our business, as it is in any other.

Normally, technical issues can be resolved by your dealer's service department, as they can usually inspect the situation physically. If you're not satisfied with the dealership's response you can either email or call FASS.

Email [techsupport@FASSride.com](mailto:techsupport@FASSride.com) with the following information:

Your Name, address and daytime phone number

Model and Serial Number (Not Motor Number)

Example: Model – Titanium Series      Serial: 00125966

Vin Number of Vehicle

Date of purchase

Nature of Problem



Call customer service; to better assist you please gather the following information before calling:

Model and Serial Number (Not Motor Number)

Example: Model – Titanium Series      Serial: 00125966

Vin Number of Vehicle

Date of purchase



# WARNINGS!!

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

This installation manual applies to the T F16 095G & T F16 150G 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 T F16 095G or T F16 150G applies to this application:**

Recommendation: T F16 095G – Ford Powerstroke 2008-2010 with stock to moderate horse power modifications.

Recommendation: T F16 150G – Ford Powerstroke 2008-2010 with moderate to extreme horsepower modifications.

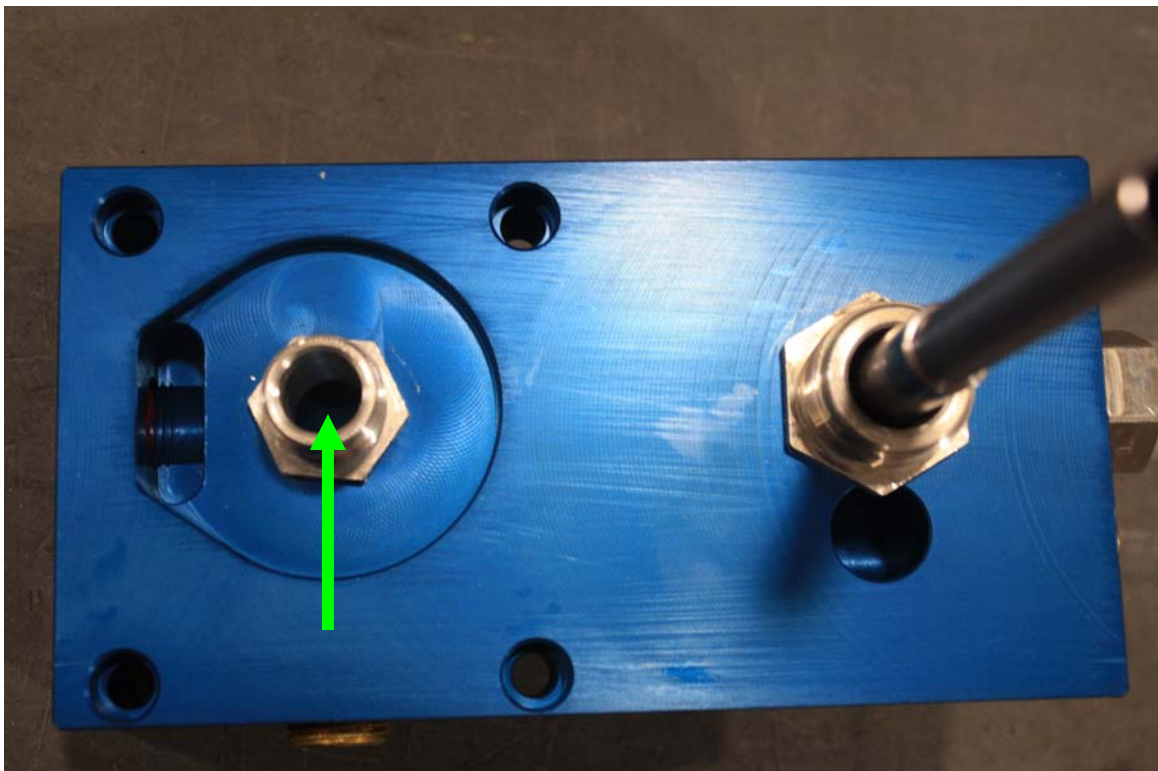
## **SAFETY GUIDELINES AND WARNINGS!**

- 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.

**Read all instructions before starting installation of this product!**

# WARNINGS!!

Use caution when installing the FASS Fuel System, keeping debris from entering the internals of the system. 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. 100% of the FASS Fuel Systems are vigorously tested, which includes (but not limited to) wet testing for pressure, amps, flow, & including total all around performance before being shipped.



# 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 FASS technical support.

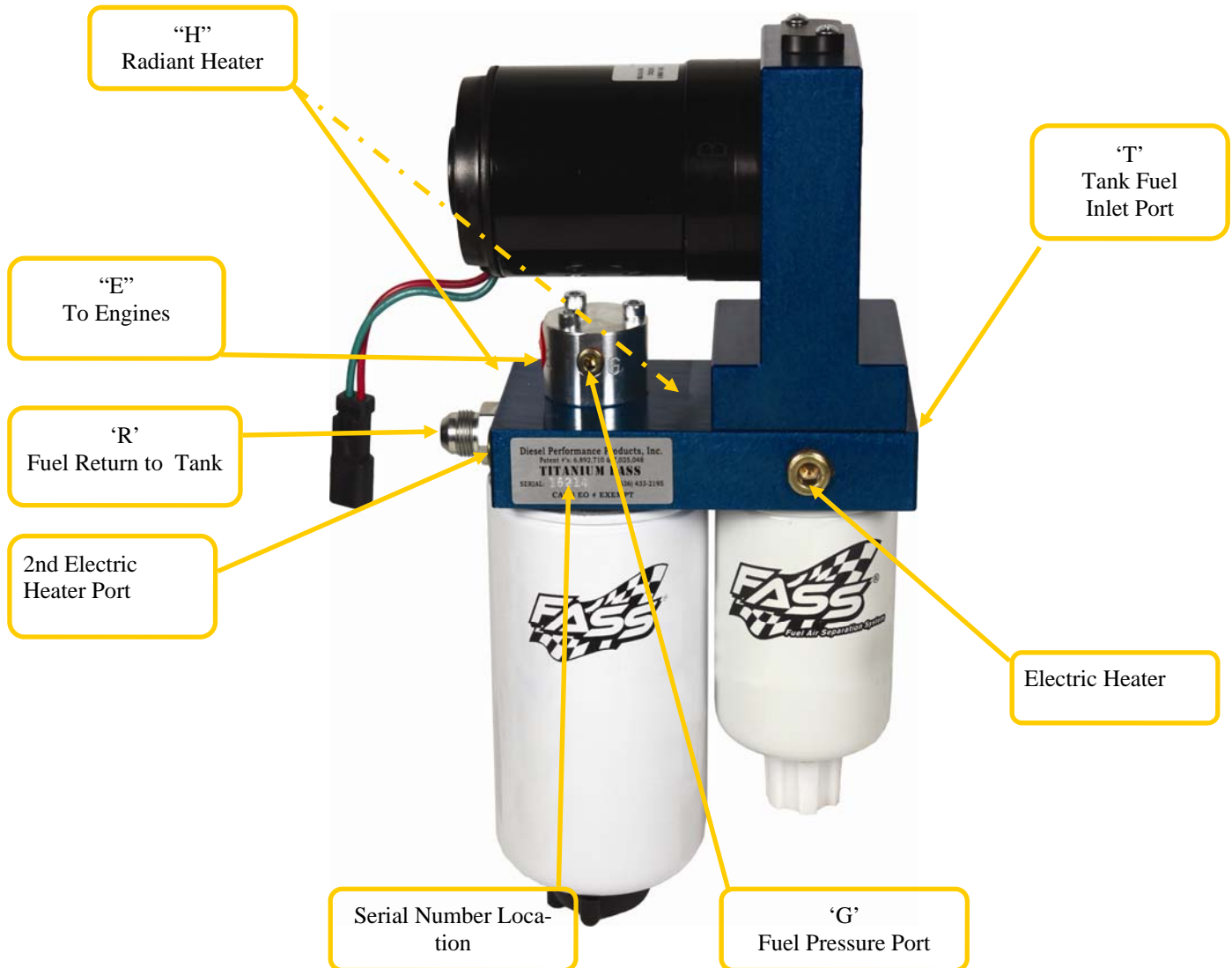
Due to training, communication, and our relationship with our authorized dealers, we recommend an authorized FASS Fuel Systems dealer for the installation. They are prepared to install the FASS fuel pumps with the most efficiency. If a situation/problem arises during the installation, they are the most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

# TITANIUM SERIES

## 95 OR 150 GPH

### 8 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



# CONTENTS:



BR-2001



FL-1002 x 17'



WH-1004



FB-1009

MP-9052



10-298



10-299



PL-1005



QD-1002



800-155  
Double Bead



RM-1004



HC-1004



HC-1001



Ring Terminal



WE-1006



RS-1001



WA-2001



(1/4)" - 20 x 1.25"



Hex Bolt 3/8-16 x 1 1/2"



3/8" Lock Nut

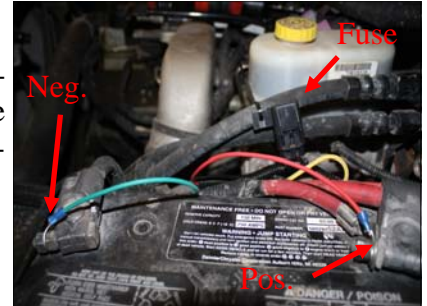


# STEP 1: Install Electrical Harness

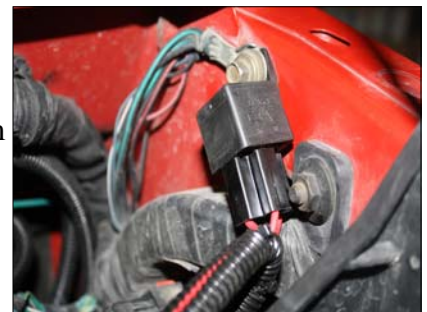
**Note:** The installation of the electrical harness is done first, allowing power to be applied to the pump for lubrication purposes.

**Note:** Use of corrosion preventative spray is recommended.

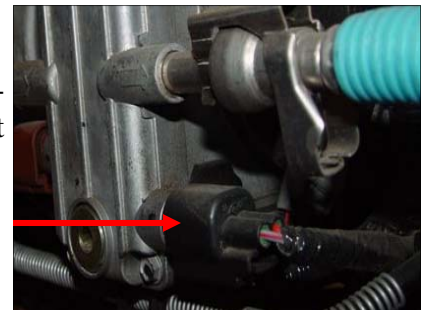
- a. Using ring terminals, attach red wire of the WH-1002 to the positive battery terminal. Attach green wire to a clean ground, preferably the negative battery terminal. Secure fuse block in a location protected from outside elements.



- b. Secure Relay in an upright position, as shown, to prevent moisture from entering. Di-electric grease may be applied to prevent corrosion.



- c. Connect WE-1006 to the female lead of the WH-1002 coming off the relay. Disconnect factory power supply from the factory fuel pump. Connect WE-1006 to this factory power supply.



- d. Route wire harness along frame to the approximate mounting location near the fuel tank.

**Note:** Completion of this step will be addressed in the Step 3.

## STEP 2: Prepare Suction and Return Line

Caution: make sure there is enough tube on each side of the cut to insert the RM-1004 and to place the hose clamps.

- a. Mark location on the filler tube that allows you to install RM-1004. Cut tube.



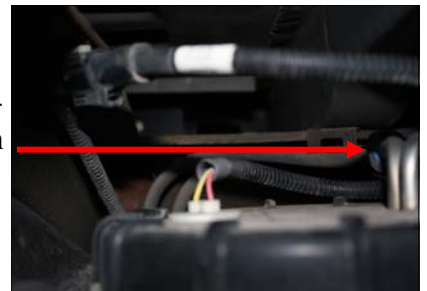
- b. Position RM-1004 with the junction pipe aiming to outside of bed. Connect rubber and RM-1004 using both HC-1004's but do not tighten.



- c. Using a HC-1001 connect FL-1002 to the junction of RM-1004.

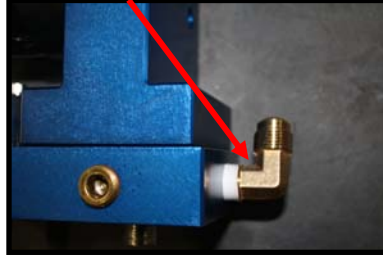
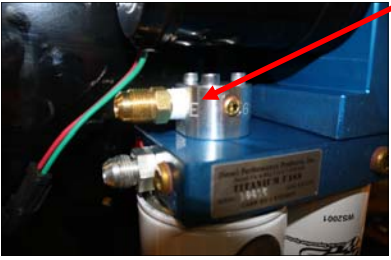


- d. Disconnect factory suction line and clip by pressing in on the two tabs located on either side on the connecting fitting. Thoroughly clean this suction port .

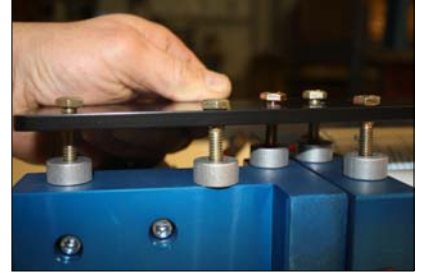


## STEP 3: Mount Fuel System

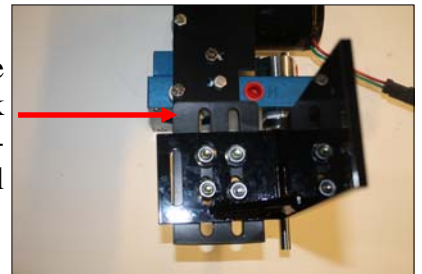
- a. Using thread tape, install the 10-298 into “E” and the 10-299 into the “T” port (on opposite end).



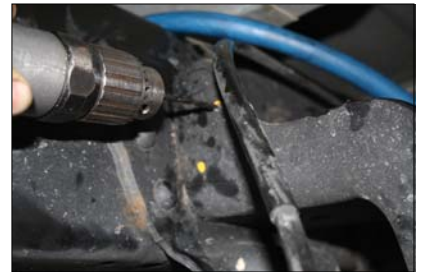
- b. Attach BR-2001 to back of system using 5 1 1/4” Hex bolts and WA-2001 spacers. Torque to 110in/lbs.



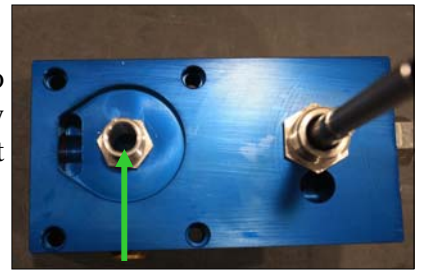
- c. Assemble the FASS pump brackets FB-1009 to the BR-2001, placing the RS-1001 spacer between the brackets, using the 3/8” Hex bolts and lock nuts. Hold pump up to the mounting location for rough fitting. Once location is established, use template on back of manual to accurately mark drill points.



- d. Position the pump assembly at the mounting location (drivers side leaf spring front support) check for fit. Once location is established, use template from back of manual to mark drill points.



**Note - Before Mounting in Position:** Route wire harness along frame rail to mounting location. Plug female plug of the FASS harness into pump. Turn key on. With pump operating, liberally spray WD-40 (or equivalent) into ‘T’ port lubricating gear.



- e. Pre-drill holes. Final drill with 3/8” bit. Mount pump, level, tighten all bolts.



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



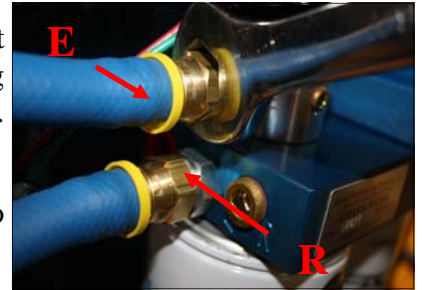
## STEP 4: Installing Fuel Line

Caution: Do Not use sealant on AN fittings. Only use sealant on threads installed into pump assembly.

- a. Route suction line to 'T' port . Cut FL-1002 to needed length and insert PL-1005 using oil. Connect to 10-299 in 'T' port . Torque to 18 ft./lbs.



- b. Route fuel line from the Return Manifold in the filler neck to the 'R' port on the FASS system with a gentle bend. Cut and attach the PL-1005 fitting to the hose. Use oil. Attach fitting to the 'R' port. Do not use any sealant. Torque to 18 ft./lbs.



- c. Insert PL-1005 into remaining 1/2" fuel line using oil. Connect fuel line to 'E' port. Torque to 18 ft./lbs. Route this line up to engine bay.

- d. Drain fuel from factory pump/filter.



- e. Disconnect factory fuel supply line to the engine using a 1/2" quick disconnect tool. This is located on the drivers side rear of the engine.



- f. Insert QD-1002 into fuel line from FASS pump using supplied hose clamp. Oil O-rings inside QD-1002 and slide over factory fuel line until you hear a click.



- g. Disconnect return fuel lines from the engine to the inlet and outlet ports of the factory fuel pump. Connect the return lines together with the Double Bead line.



## **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?
- Has the system been primed?
  1. Turn key to the ignition position, turning on the FASS pump.
  2. While the pump is running, loosen the fuel filter just enough to break the gasket seal. Once the tone of the pump changes, quickly retighten filter.
- Check for leaks.
- Start the engine (you will hear the system running)
- Recheck all fluid and filter connections for leaks
- Fill out product registration, attach receipt of purchase and mail to:

FASS Fuel Systems  
16240 State Hwy O, Suite B  
Marthasville, MO 63357

# TEMPLATE

