## INSTALLATION MANUAL





**APPLICATION:** 

P D08 095G (95gph @ 16psi) P D08 150G (150gph @ 16psi)

Cummins 5.9L 24 Valve

1998.5-2004







**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 <a href="https://www.FASSride.com">www.FASSride.com</a>, 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.

<u>VERY IMPORTANT</u>: 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. <u>In</u> 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.

# WARNINGS!

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

FASS	Recommended Application
T D08 095G	Cummins 1998.5-2004 with stock - moderate horse power modifications
T D08 150G	Cummins 1998.5-2004 with moderate - extreme horsepower modifications

Note: If the truck has been retrofitted with an in-tank fuel pump, you must use a suction tube kit or return this kit in its new unused condition for a T D07 095G.

Due to the increase of fuel flow you may encounter a problem with the stock fuel module. Adding a FASS suction tube kit will solve that.

- Secure vehicle from ROLLING!
- Use caution when drilling. Steer clear of any electrical wires, air lines or other damageable components.
- 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.

#### **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 an Authorized or ViP 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. 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 D08 095G or T D08 150G)
  - Serial Number
  - Vin Number of Vehicle
  - Date of purchase
  - Nature of Your Concern

Serial # Found Here....

NS-3003

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

- Model (T D08 095G or T D08 150G)
- Serial Number
- Vin Number of Vehicle
- Date of purchase

#### TITANIUM SERIES

#### 95 OR 150 GPH 16 PSI (APPROXIMATELY)

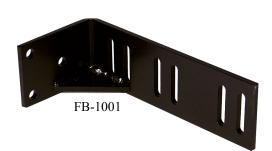
A fuel pressure gauge is highly recommended to identify fuel filter life and to prevent engine damage!



- 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



MP-9020

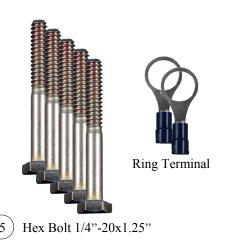




## MOUNTING PACKAGE CONTENTS

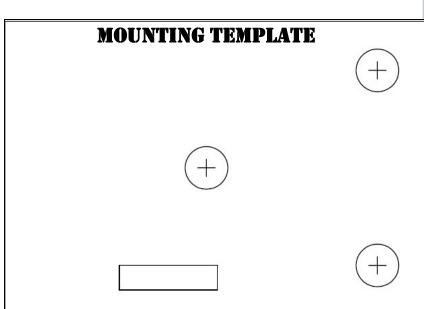


5) WA-2001



(7) Locking Nut 3/8"

Hex Bolt 3/8" -16x 1 1/4"



HC-1004

HC-1001

#### **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. Disconnect power source to the factory lift pump.
- c. Connect the WH-1002 wire harness branch coming from the relay to the factory power source removed in the Step 1b.



- d. Properly secure the relay, 2 examples
- e. Secure the electrical wire with wire ties. Please remember wire ties are inexpensive and can prevent major problems!
- f. Route the WH-1002 wire harness along the frame rail to the mounting location of the FASS fuel pump.



#### **STEP 2:** Prepare Suction and Return Line

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

a. Prepare FASS return line by cutting rubber junction connecting the filler neck to the fuel tank.



b. Filler neck removed for clarity. Insert & position, into cut filler neck, RM-1002 with the junction pipe aiming to outside of bed. Clamp rubber and RM-1002 using both HC-1004's and factory clamps.



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



d. Using a 3/8" hose clamp install the QD-1001 into the opposite end of the fuel line addressed in the previous step. Oil o-rings inside Quick Disconnect.



Note: Bed is removed for clarity.

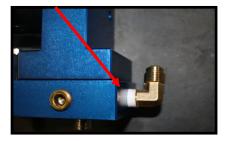
e. Disconnect factory suction line clip by pressing in on the two tabs located on either side in the connection fitting. Once removed, clean the suction tube and connect the QD-1001 addressed in the previous step. Loop fuel line over frame, will be addressed in step Installing Fuel Line. Plug or seal factory line or remove.



## **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).

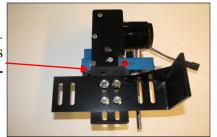




b. Attach BR-2001 to back of system using 5 1 1/4" Hex bolts and WA-2001 spacers. Torque to 110in/lbs.



c. Assemble the FASS pump brackets using the RS-1001 spacer between. Hold pump up to the mounting location for rough fitting. Once location is established, use mounting template located on the contents page to accurately mark drill points.



d. Position the pump assembly at the mounting location and check for fit. Once location is established, use template from back of manual to mark drill points.



Cab Bracket



Bed Support



Leaf Hanger



e. Pre-drill holes. Final drill with 3/8" bit.

### **STEP 3:** Mount Fuel System, Continued

f. Connect factory plug into the FASS harness. Plug FASS harness into the fuel module in tank. Make sure to lock red slide tab. Plug 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.



g. Using the 3/8" bolts, secure FASS with brackets to previously drilled mounting holes.



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



#### **STEP 4:** Install Fuel Line

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

Note: If the truck has had the retrofitted in-tank pump installed, usually installed by a Dodge Dealer after a fuel lift pump failure, a separate suction tube will need to be installed in the fuel tank. This retrofit will not allow fuel to be drawn through the FASS pump! Order a STK (Suction Tube Kit) from FASS.

a. Route suction line to 'T' port . Cut FL-1001 to length. Insert PL-1002 in line using oil. Attach to 10-299. Torque to  $18\ \text{ft./lbs.}$ 



- 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-1002 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-1002 in remaining fuel line. Connect to the 'E' port of the FASS system. Use oil. Torque to 18 ft./lbs. Route this line up to the injection pump.



Refer to these steps for routing the fuel line to the inlet port of the CP3 (Injection Pump) for 2003 – 2004. Refer to the following page for 1998.5 - 2002.

d. Disconnect factory fuel line from inlet side of the factory injection pump, Install the DIPF-1001 fuel fitting into this inlet port. (Note: This is where the suction fuel line from the fuel filter enters the injection pump.)



e. Measure and cut fuel line. Insert PL-1003 90° Push-Lok fitting using oil. Install fitting to DIPF-1001. Torque to 18 ft/lbs.





## **STEP 4:** Install Fuel Line, Continued

Refer to these steps for routing the fuel line to the inlet port of the VP44 (Injection Pump) for 1998.5 – 2002 trucks.

d. Disconnect factory fuel line from inlet side of the factory injection pump, Install the DIPF-1001 fuel fitting into this inlet port. (Note: This is where the suction fuel line from the fuel filter enters the injection pump.)





e. Measure and cut fuel line. Insert PL-1003 90° Push-Lok fitting using oil. Install fitting to DIPF-1001. Torque to 18 ft/lbs.



#### **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:

#### HARD STARTS (DODGE '98.5 - '02)

Answer the following questions:

• Did the vehicle start fine without the FASS or HPFP? Do you have high mileage on the VP44? If yes, have your VP44 checked. Has the VP44 been subjected to a PSI of 5 or less? Has the VP44 been subject to a failing lift pump? Does it occur more frequently when the conditions are warm? Have you recently replaced your VP44? Was it used?

**If yes** to any of these questions, Start vehicle as soon as you enter the key (*do not wait* for the "wait to start" light to go out) If the vehicle starts it suggest that the problem lies with the VP44.

- Is the fuel pressure where it should be?
- Has the truck had an ECM re-flash? If not, contact your dealer to find the most current flash for your truck.
- Do you have a WH-1002? If yes, refer to the "WH-1002" section located in "Electrical"

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

