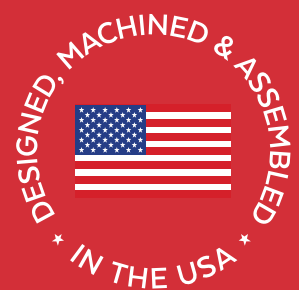




# HK-1002 HIGH OUTPUT FUEL HEATER KIT INSTALLATION MANUAL

**APPLICATION:**

**TITANIUM SIGNATURE  
SERIES  
OR  
TITANIUM SERIES WITH  
GRAY FILTER BASE**





[www.fassride.com](http://www.fassride.com)

(866) 769.3747

**Thank you for choosing FASS, from  
Diesel Performance Products, Inc.**

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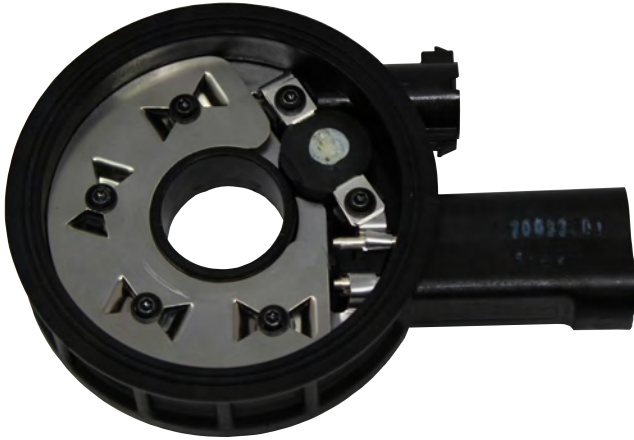
*Of course, that dedication to excellence comes at a price, but it is important to remember that price does not dictate quality-quality dictates price! We will never compromise by using cheaper, foreign-made components, like so many of our competitors do.*

*Customer satisfaction is our top priority and we strive always to provide outstanding customer service. Our Research and Development department, in conjunction with our Dealer Support Department, continually searches for ways to improve quality, expand our product line, and provide superb support. Our exclusive ViP Network ensures that customers receive the proper products and support at the local level. The extended four-year warranty is only available on products purchased from the network. There is no warranty on products not purchased outside the network.*

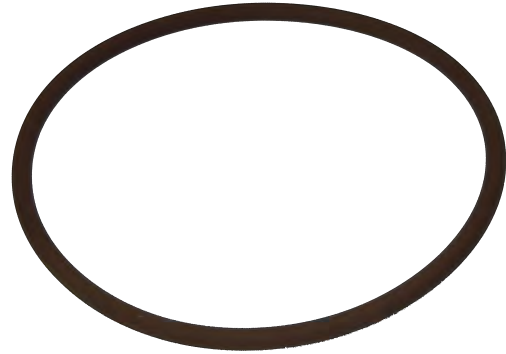
**For more information,  
contact Technical Support:  
Diesel Performance Products, Inc.  
16234 State Hwy O.  
Marthasville, MO 63357  
636-433-5410**

# CONTENTS

**NOTE:** Owner's Manual available for download on our website,  
[www.FASSride.com](http://www.FASSride.com)



**HEATER ELEMENT**



**OR-230**



**FHFN-1001**



**RING TERMINALS**



**HH-1002**



**46251**



**ADD-A-CIRCUIT  
46044**



**DIELECTRIC GREASE**



**BLUE THREAD SEALANT**

**STEP 1:**  
**INSTALL ELECTRICAL HARNESS**

**NOTE: USE SUPPLIED DIELECTRIC GREASE  
SPARINGLY ON ALL ELECTRICAL  
CONNECTIONS! BE SURE TO GREASE RELAY  
PIGTAIL!**



## **STEP 1:** **INSTALL ELECTRICAL HARNESS**

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

### **OPTIONAL WIRING STRATEGY:**

Installation of a lighted toggle switch will allow you to power the heater kit on prior to the FASS running. **THIS WILL ALLOW THE FUEL TO "THAW" PRIOR TO STARTUP, REMOVING ANY POTENTIALLY GELLED FUEL FROM THE FUEL FILTERS.** We suggest utilizing a lighted rocker switch in a highly visible location to prevent accidentally leaving the switch in the "on" position after leaving the vehicle and draining the batteries.





## **STEP 1:** **INSTALL ELECTRICAL HARNESS**

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

### **OPTIONAL WIRING STRATEGY:**

Another option for wiring the FASS heater kit is wiring the heater kit trigger wire to the headlamp or running lamp 12v + circuit. If this is the preferred method, the heater kit will run at all times when the headlamps/running lamps are on. The heater elements are thermostatically controlled so there is no need to worry about overheating the fuel.

**WIRING THE HEATER KIT TO THE HEADLAMP CIRCUIT WILL ALLOW YOU TO PRE-HEAT THE DIESEL FUEL PRIOR TO STARTING THE ENGINE.** This method will prevent accidentally leaving the heater kit on after leaving the vehicle, potentially draining the batteries.

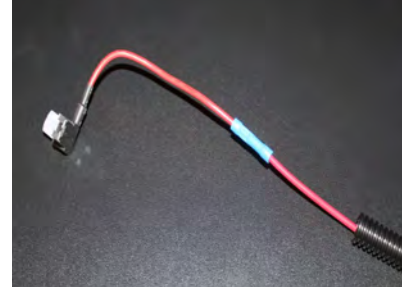
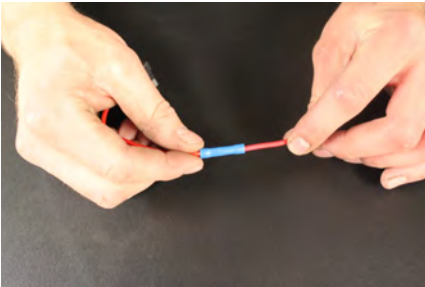


## **STEP 1:** **INSTALL ELECTRICAL HARNESS**

**A.** Using wire stripping tool remove excess insulation off the ADD-A-CIRCUIT 46044 and the single red wire of HH-1002.



**B.** Place wire from ADD-A-CIRCUIT 46044 and HH-1002 into butt connector. Using crimping tool connect ADD-A-CIRCUIT 46044 and WE-1001 with butt connector. Install 46251 to ADD-A-CIRCUIT 46044 bottom slot (opening that is near the spade). Route ADD-A-CIRCUIT 46044 lead to the fuse panel.



**C.** Crimp the ring terminals to the red and green wires of the HH-1002 Wire Harness. Attach red wire to the positive terminal of the battery and the green wire to the negative terminal. Use supplied dielectric grease on all electrical connections.

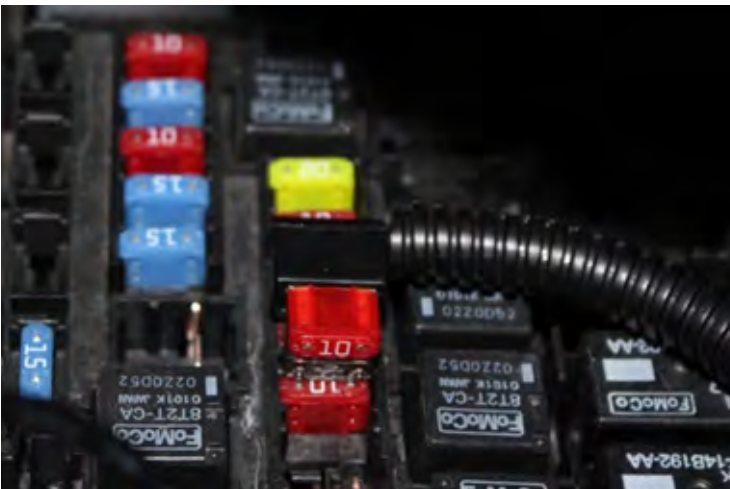


## **STEP 1:** **INSTALL ELECTRICAL HARNESS**

**D.** Secure relay and fuse in an upright position, as shown, to prevent moisture from entering. Apply dielectric grease to the relay pigtail.



**E.** Route the 46044 to the fuse panel. Remove a fuse (maximum of 10A) that is “hot” when the key is on, install the 46044 into the open location. Install the pulled fuse into the open space on the fuse tap. Disconnect the vehicles’ battery and continue installation.



**F.** Route HH-1002 wire harness along frame rail to mounting location of pump. Completion of this step will be addressed in the mounting step.



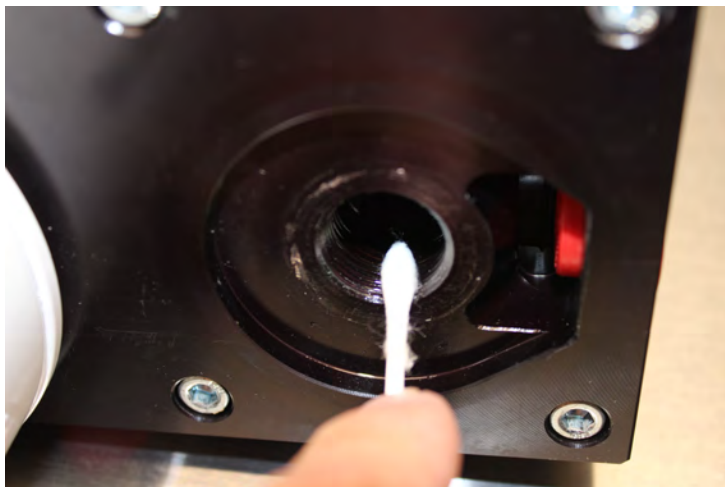
## **STEP 2: INSTALLING THE FUEL HEATER ELEMENT**

**FOR INSTALLATION MANUAL VISIBILITY PURPOSES, THE HEATER ELEMENT IS INSTALLED ON A WORK BENCH. THIS CAN BE JUST AS EASILY INSTALLED WITH THE FASS MOUNTED ON THE TRUCK!!**

- A.** Using a 1-1/8" socket, remove the filter nipple from the filter base. ***BE SURE YOU REMOVE THE FILTER NIPPLE THAT IS MOUNTED BELOW THE "T" BLOCK.***



- B.** Apply rubbing alcohol or acetone onto a Q-Tip, and clean the filter nipple threads free of diesel fuel or any contaminants. ***BE SURE THE THREADS ARE COMPLETELY DRY BEFORE PROCEEDING TO THE NEXT STEP!!***



## **STEP 2: INSTALLING THE FUEL HEATER ELEMENT**

**FOR INSTALLATION MANUAL VISIBILITY PURPOSES, THE HEATER ELEMENT IS INSTALLED ON A WORK BENCH. THIS CAN BE JUST AS EASILY INSTALLED WITH THE FASS MOUNTED ON THE TRUCK!!**

C. Install OR-230 into the O-Ring groove of the fuel heater element.



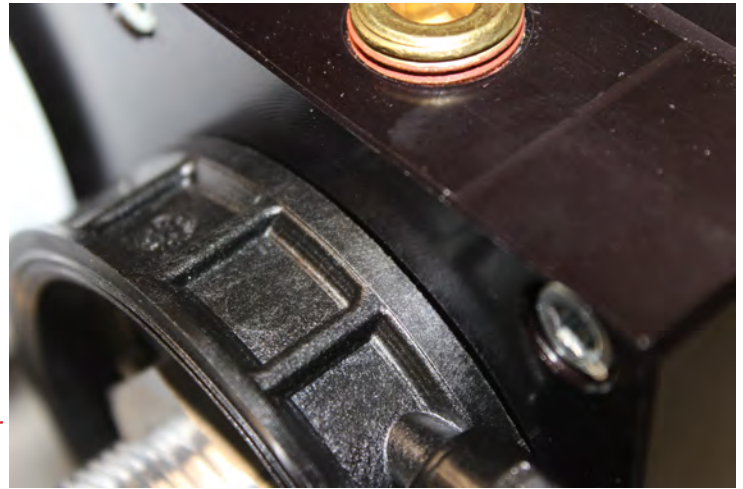
D. Apply the supplied blue thread sealant to the threads which go into the filter base of FHFN-1001. Install FHFN-1001 into the fuel heater element, be sure the O-Ring of the fuel heater is sealing against the filter base.



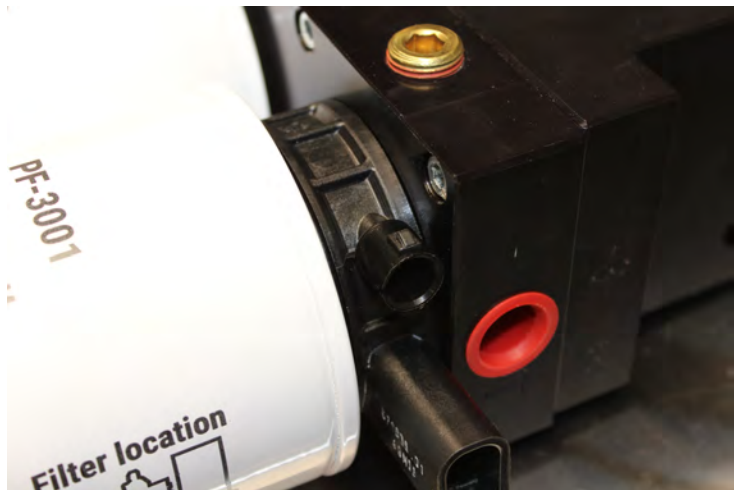
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**E. VERY GENTLY**, using a 1-3/8" socket torque the FHFN-1001 to 10 ft./lbs. Do not over-tighten as this will damage the fuel heater element.



**F.** Install the fuel filter nipple O-Ring onto FHFN-1001, install the fuel filter previously removed onto the FHFN-1001.



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

**G.** Connect HH-1002 to the fuel heater element. Re-prime the FASS and check for leaks.