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**Title: DAVCO Fuel Pro 382 Technical Manual Installation Diagnostics and Service**

**Applies To: All Models with DAVCO Fuel Pro 382 Fuel Filter Feature Codes: 15LJT 15LJZ 15LLJ 15LKW 15LKX 15LKY 15LKZ 15LLA**

**CHANGE LOG**

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Dealers: Please refer to the change log text box below for recent changes to this article:

7/15/2014 - Added feature codes: 15LKW, 15LKX, 15LKY, 15LKZ, and 15LLA to the 'Applies To' section.

DAVCO Technology, LLC

# FUEL PRO® 382 TECHNICAL MANUAL

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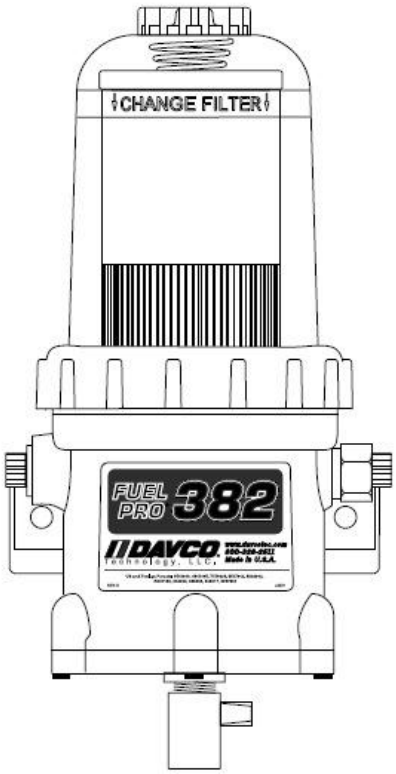


## OTHER DAVCO RESOURCES

| | |
|---|---|
| DAVCO Technology LLC Website | DAVCO Parts and Cross Reference |
| DAVCO Documents | DAVCO Fuel Pro Product Infomation (PDF) |
| DAVCO Diagnostics | DAVCO Fuel Pro 382 Technical Manual (PDF) |

## HOW IT WORKS

- Fuel from the tank enters the Fuel Processor body (suction side of the fuel system).
- Large contaminants and “free” water are separated from the fuel and remain in the body.
- Fuel rises into the clear cover.
- Contaminants and emulsified water are captured by the filter media.
- Fuel level rises to maintain a fuel path through the clean filter media with low restriction.
- Clean, water-free fuel exits the Fuel Processor and flows to the engine fuel injection system.

**Fuel System Diagram**

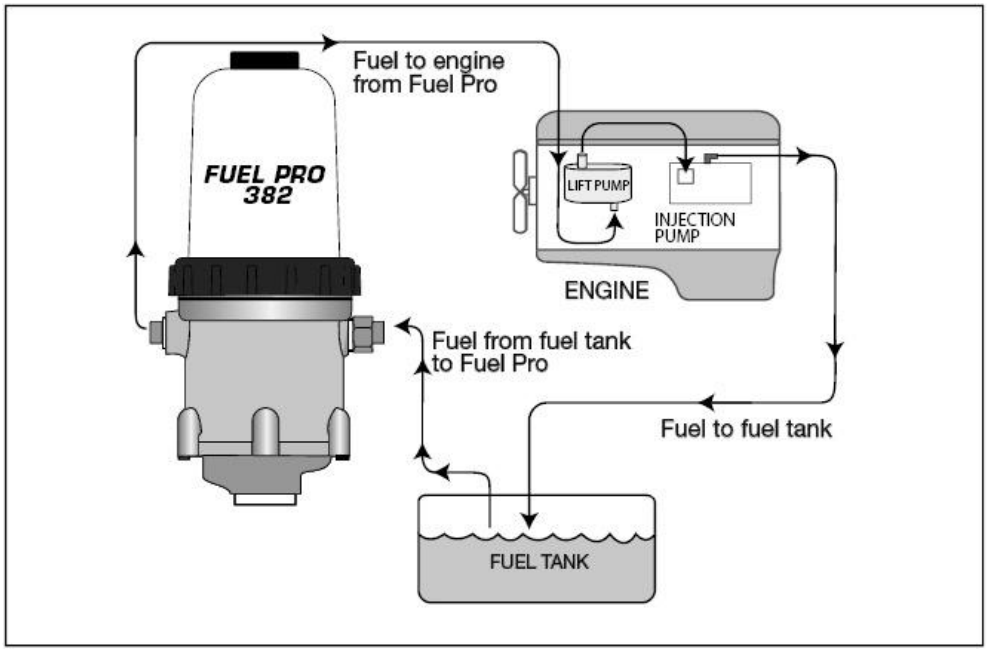


Figure 1

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## "SEEING IS BELIEVING"

- See when NOT to change the fuel filter.
- See the condition of the fuel. Seeing what collects on the filter media or what's happening inside the clear cover can help diagnose many fuel and mechanical conditions.
- "Filter on Top" configuration. Water and debris removed from the fuel falls to the lower chamber and stays away from the filter media resulting in longer filter life.
- Built in protection when priming the fuel filter. Unfiltered fuel is kept on the "dirty" side of the filter media during priming ensuring only clean fuel reaches the engine.
- Patented media. The "Best in Class" StrataPore™ media removes 98%

| | |
|---|---|
|  |  |
| **When new, the fuel level in the filter will be very low with minimal restriction.**<br><br>As the filter is used, contaminants collect on the filter from the bottom up. Fuel rises on the filter indicating remaining filter life. | **Fuel level increases in clear cover.**<br><br>As contaminants collect on the filter, the fuel rises to a non-contaminated section of the filter, providing optimal filtration while maintaining lowest restriction. |
|  |  |
| **Fuel level at filter wrap level.**<br><br>Even though the fuel level is now more than half of the filter element, the fuel is still flowing through clean media at minimal restriction levels. The filter still has significant life remaining. | **The filter element is now completely covered by fuel.**<br><br>At this point, all of the media's surface area is utilized. Restriction is increasing and the filter element should be changed at the next scheduled maintenance interval. |
| | |

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## IMPORTANT SAFETY PRECAUTIONS

**WARNING: When diesel fuel is circulated through an operating engine, it can become very hot. To prevent personal injury:**

- Scalding hazard! Do not allow fuel to come in contact with eyes or unprotected skin. Allow the engine and fuel to cool to ambient temperature before replacing the fuel filter or performing service operations which could result in spillage of fuel from the fuel system. If this is not possible, protective equipment (face shield, insulated hat, gloves, and apron) must be worn.
- Fire Prevention! Heated diesel fuel can form combustible vapor mixtures in the area around the fuel source. To eliminate the potential for fire, keep open flames, sparks or other potential ignition sources away from the work area. Do not smoke during filter replacement or service operations.
- Inhalation Prevention! Always perform engine or vehicle fuel system maintenance in a well ventilated area that is kept free of bystanders.
- The ignition key must be in the off position.

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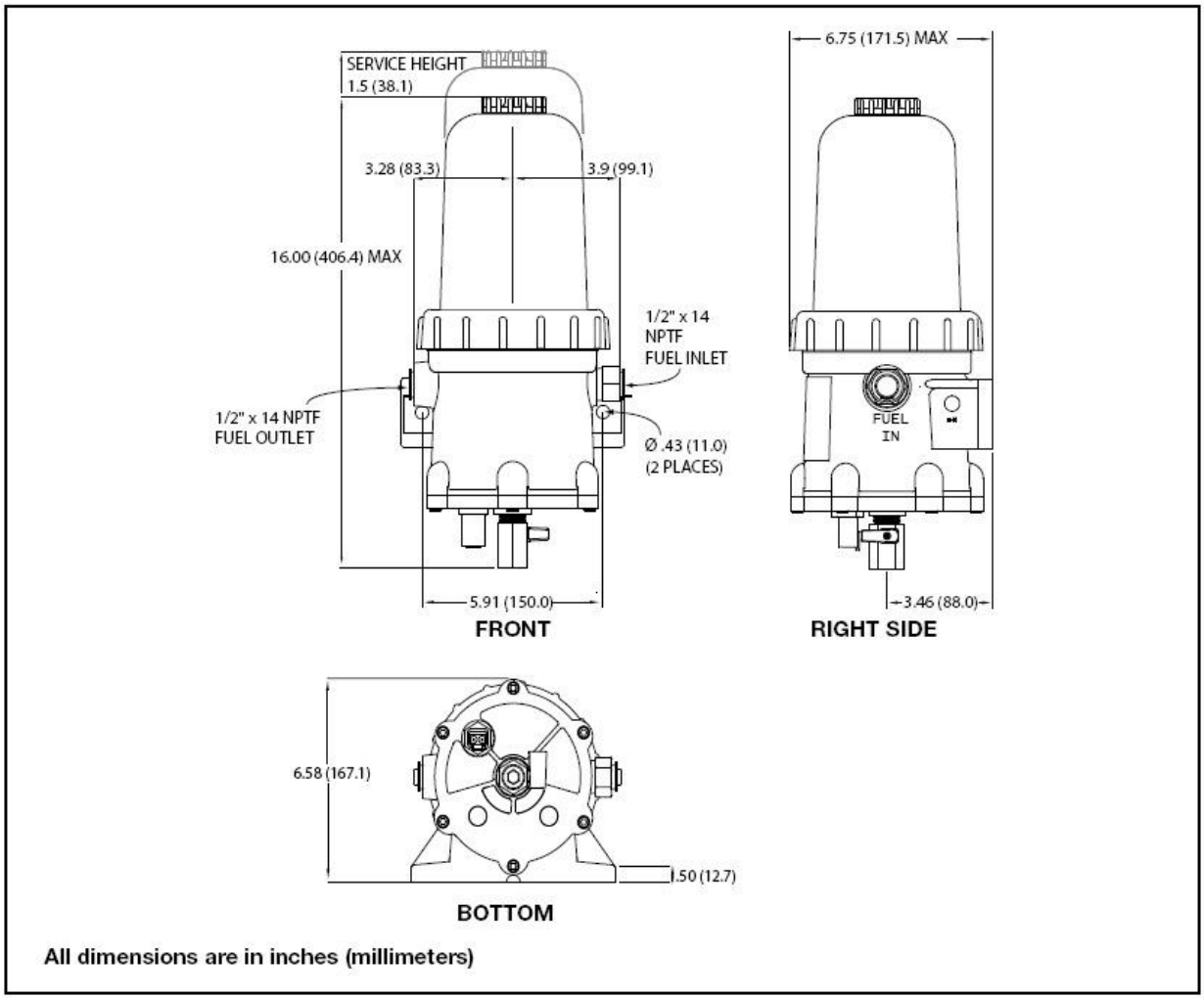
## FUEL PRO 382 DIMENSIONS

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# INSTALLATION INSTRUCTIONS

## Installation Location

The Fuel Pro must be installed between the fuel tank and the fuel transfer pump. In some cases, the Fuel Pro can be used as the only fuel filter in the system. This is generally dependent on the engine model year. Consult the engine manufacturer for their recommendation. If the Fuel Pro can be used as a single filter, DAVCO offers a diverter cap to replace the secondary filter. (See diverter cap installation section)

## Mounting the Fuel Pro

**Mount the Fuel Pro keeping the following points in mind:**

- Do not install the Fuel Pro directly on the engine.
- Mount vertically with the cover and element pointing up.
- Make sure there is enough top and side clearance for the cover to be conveniently removed for filter replacement.
- The Fuel Pro MUST be installed so that the Filter Element is above the "FULL" level of the fuel tank

**Step 1:** With the engine shut down and at ambient temperature, close the fuel shutoff valve (if equipped) and place a suitable container under the fuel filters.

**Step 2:**

Remove the primary fuel filter element assembly, sedimenter, and/or water separator. Drain the used element and dispose of it in an environmentally responsible manner, according to state and/or federal (EPA) recommendations.

## Fuel Line Routing

**To minimize fuel system restriction, observe the following guidelines when plumbing the fuel system:**

- Keep the fuel line routing as smooth as possible with no low-hanging loops which can trap water.
- Use 90° elbows only when necessary.
- If the fuel hoses are cut to length on the job, be sure that the inner liner of the fuel hose is not cut by the fitting, which can cause check valve performance issues. Make sure hoses are clean and free of debris before installing.
- To avoid damaging the aluminum Fuel Pro body, do not overtighten fuel lines or fuel line fittings.

**Step 1:** Route the fuel supply line from the pick up on the fuel tank to the Fuel Pro inlet (labeled "Fuel In").

**Step 2:**

Route the fuel outlet line from the Fuel Pro outlet (labeled "Fuel Out") to the inlet of the fuel pump.

## Priming the Fuel System

**Step 1:**

Check to make sure the drain valve at the base of the Fuel Pro is closed.

**Step 2:**

Remove the vent cap from the top of the clear cover. Fill the Fuel Pro full with clean fuel. Reinstall the vent cap and tighten by hand only.

**Step 3:** Start the engine. When the lubrication system reaches its normal operating pressure, increase engine RPM to high idle for one to two minutes. After the air is purged loosen the vent cap until the fuel level lowers to just above the collar. Tighten the vent cap by hand only.

**Step 4:**

Hand tighten the collar again while the engine is running. To avoid damage, do not use tools to tighten the collar.

**Note:**

The clear filter cover will not fill completely during engine operation. It will gradually fill over time and the fuel level will rise as the filter becomes contaminated.

## Diverter Cap Installation

If a single fuel filter system is approved by the engine manufacturer, the following steps are to be taken to install a diverter cap properly.

**Step 1:**

Select the required secondary filter head diverter cap from those listed in Table 1. The required diverter cap is determined

| Diverter Cap Part Number | Required Filter Head Stud Size | Required Filter Head Seal ID | Required Filter Head Seal OD |
|---|---|---|---|
| 101480 | 1"-14 | 2.475" | 2.895" |
| | | | |

by the size of the spin-on filter stud and the filter sealing surface diameter.

**Step 2:**

Drain and remove the secondary fuel filter element.

**Step 3:**

Lightly lubricate the seal on the top of the diverter cap with clean engine oil.

**Step 4:**

Thread the adapter onto the secondary filter stud and tighten by hand only.

**Step 5:**

Install the "Do Not Remove" label on the diverter cap.

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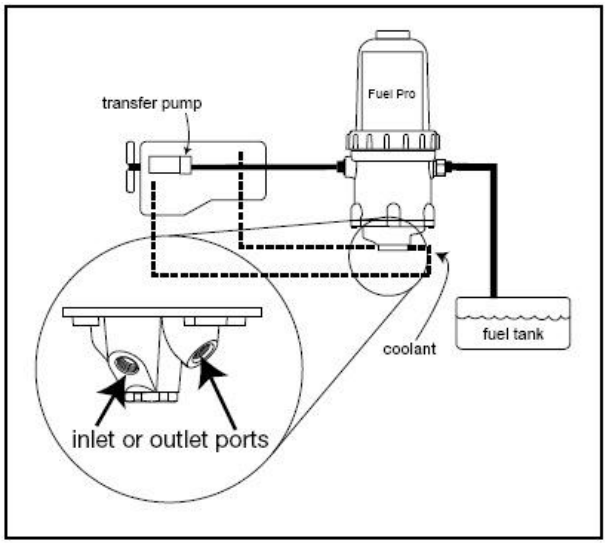
| | | | |
|---|---|---|---|
| 101589 | 1"-14 | 3.225" | 3.435" |
| 101570 | M16 x 1.5 | 2.475" | 2.895" |
| 101466 | ¾"-16 | 2.475" | 2.895" |
| 101492 | 7/8" x 14 | 2.475" | 2.895" |

Table 1

## FLUID HEATER INSTALLATION

The engine return fuel heat and engine coolant heat options apply ONLY to the fluid heater base shown in Figures 2 and 3. If the bottom plate is flat with ½ " NPT ports, only the electric pre-heater can be used. Contact DAVCO Customer Service to obtain the appropriate bottom plate.




FFigure 2

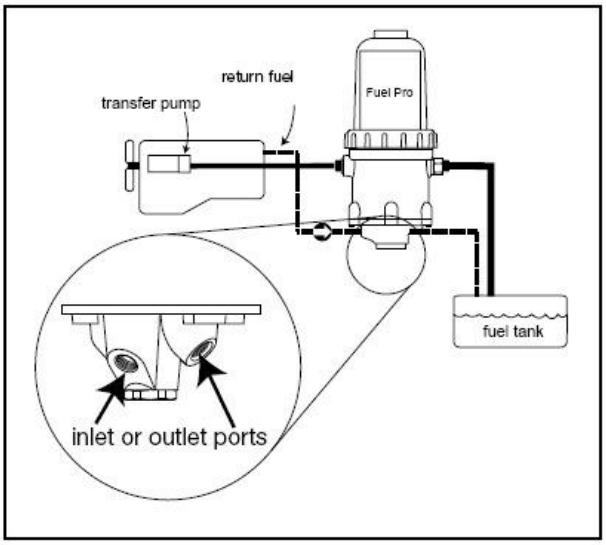



Figure 3

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# 12 VDC AND 24 VDC ELECTRIC PRE-HEATER INSTALLATION

**Installing 12 VDC and 24 VDC Electric Pre-heaters**

The Fuel Pro 382 12 VDC or 24 VDC electric pre-heater is installed in the processor base as shown in Figure 4.

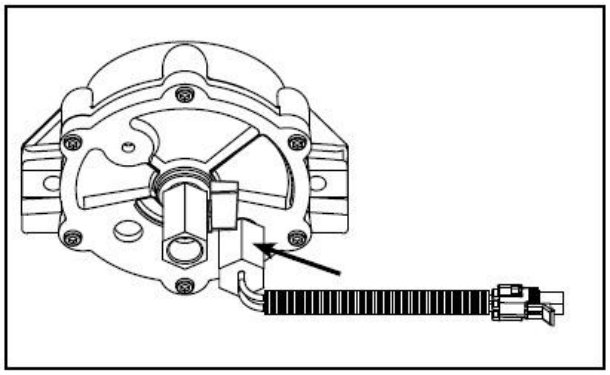

Figure 4

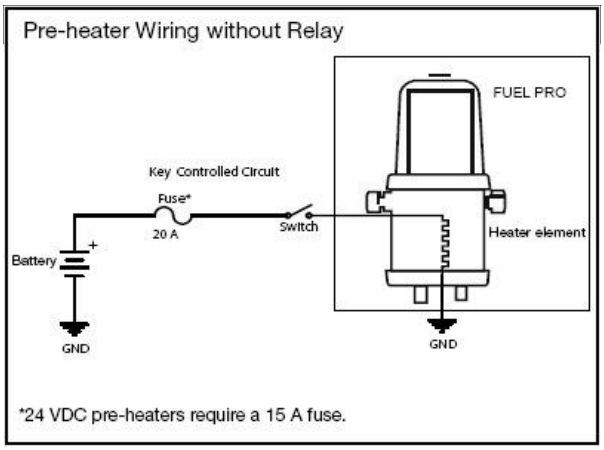


Figure 5

**Step 1:** Drain all the fuel from the Fuel Proqq. The fuel can be reused after the pre-heater is installed. If the fuel is not reused, dispose of it in an environmentally safe way.

**Step 2:**

Remove the pipe plug in the Fuel Pro base plate.

**Step 3:**

Apply liquid thread sealant to the pre-heater threads and install into the Fuel Pro base. Tighten to 15-30 ft-lbs.

**Step 4:**

Connect the chassis harness and wire.

- For 12 VDC or 24 VDC without a relay, refer to Figure 5.
- For 12 VDC or 24 VDC with a relay, refer to Figure 6.
- If the keyed circuit will not handle a minimum of 20 amps, use a relay.
- Provide proper (20 amp fuse) electrical protection for source voltage supplied to the pre-heater.

**Step 5:** Remove the vent cap from the top of the clear cover. Pour fuel into the Fuel Pro to one inch below the top of the filter element. Reinstall the vent cap and hand tighten.

**Step 6:**

Start the engine. When the lubrication system reaches its normal operating pressure, increase engine speed to high idle for one to two minutes. After the air is purged, loosen the vent cap until the fuel level drops to just above the collar. Tighten the vent cap by hand only.

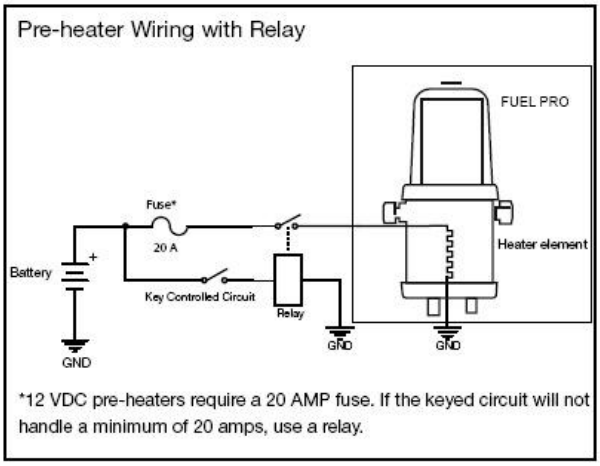


Figure 6

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## WATER IN FUEL SENSOR (WIF) INSTALLATION

**Step 1:** Remove the ½"-20 WIF plug in the bottom of the Fuel Pro.

**Step 2:**

Install the WIF Probe (P/N 102512) into the bottom of the Fuel Pro. Torque to 20-24 in-lbs.

**Step 3:**

Install the WIF wiring harness (P/N 102600) on WIF Probe. The harness has the following connections: black ground lead with a 3/8" diameter ring terminal and a green WIF wire.

**Step 4:**

Drill ½" hole in the instrument or control panel where the WIF indicator light is to be located.

**Step 5:**

Connect the black ground wire from the WIF indicator light to a ground source. Attach additional black wire as needed.

**Step 6:**

Install the WIF indicator light by pressing firmly into the drilled hole.

**Step 7:** Connect the black ground lead with a 3/8" diameter loop end on the WIF wiring harness to the ground source near the Fuel Pro (if applicable).

**Step 8:**

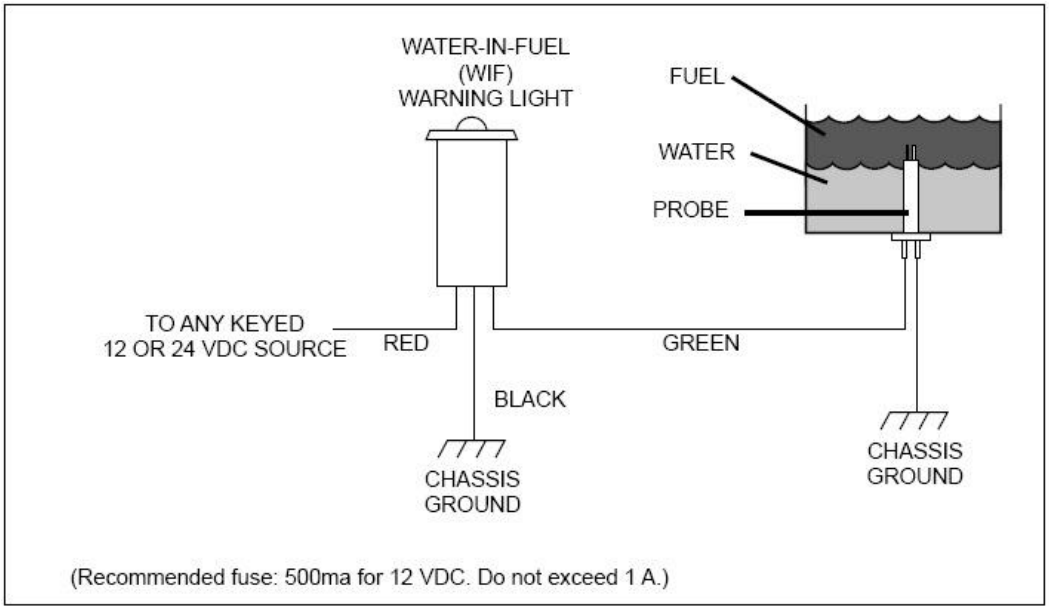
Connect the green signal wire on WIF wiring harness to green signal wire on WIF indicator light. Use additional green wire as needed.

**Step 9:**

Locate 12 VDC or 24 VDC key controlled on power source. Install a red wire from the power source to the red wire on WIF indicator light. Add a 1 amp in-line fuse (not included).

**Note:**

Use appropriate connectors to attach the wires. To test the WIF indicator light, pour water into the body of the Fuel Pro until it covers the WIF probe. The WIF indicator light should illuminate.

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## PREVENTIVE MAINTENANCE

**Weekly – Drain water**

- Turn off the engine and open the vent cap.
- Place a suitable eight ounce, plastic or metal container under the drain valve at the base of the Fuel Pro and open the valve.
- Water will flow into the container. When fuel begins to flow out the drain, close the drain valve. Drain the least amount of fuel as possible
- Hand-tighten the vent cap.
- Start the engine. Raise the RPM for one minute to purge the air from the system.

**Every filter change**

- Change the cover and vent cap o-rings (included with the service fi lter kit).

**Every 12 months**

- Check all electrical connections for corrosion. Check all fuel fittings for leaks.

**Extreme winter or salt corrosion environments may require lubrication of the collar threads with anti-seize lubricant every 180 days.**

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## FILTER CHANGE PROCEDURE

**Filter Change**

For filter selection visit www.davcotec.com/parts.html (Parts And Cross Reference) for the correct filter for your application or call DAVCO Customer Service at 800-3282611.

**Step 1:**

Remove the vent cap and open the drain valve to drain the fuel below the collar level.

**Step 2:**

Remove the collar (using the DAVCO collar wrench) then remove the clear cover.

**Step 3:**

Remove the filter, cover and vent cap seals. Dispose of the filter and the seals properly.

**Step 4:**

Using a clean shop rag, clean the cover, the collar and threads on the Fuel Pro body.

**Step 5:** Install a new filter, cover seal and vent cap seal.

**Step 6:**

Reinstall the clear cover and collar.

**Hand tighten the collar.**

**Step 7:**

Prime the unit by filling the clear cover with clean diesel fuel until it reaches the top of the fi lter.

**Step 8:**

Install the vent cap.

**Hand tighten only.**

**Step 9:**

Start the engine and run for one minute. **Slowly** open the vent cap and allow the fuel to drop to about one inch above the collar.

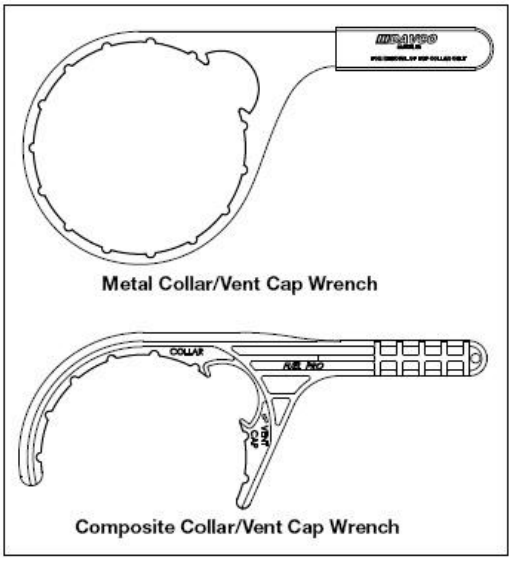
**Step 10:**

Close the vent cap. **Hand tighten only.** It is normal for the fuel level to vary after the initial start-up and during engine operation. Filter performance is not affected

**Service Wrench Information**

- The DAVCO Fuel Pro vent cap and collar are designed to be removed with a DAVCO wrench.
- Vent caps and/or collars damaged as a result of not using the DAVCO wrench will not be covered under warranty. Wrench is for removal ONLY.

| DESCRIPTION | PN |
|---|---|
| Metal Collar/Vent Cap Wrench | 380134 |
| Composite Collar/Vent Cap Wrench | 382002 |

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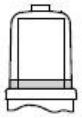
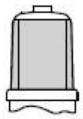
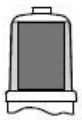
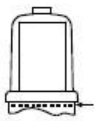
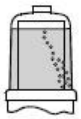
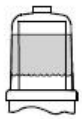
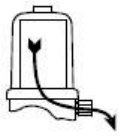
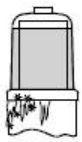
## VISUAL DIAGNOSTICS

| | | | |
|---|---|---|---|
| **Fuel level is not at the top of the fuel filter.**<br><br>+Normal - Do not change the filter |  | **Fuel level is at the top of the filter. Low power.**<br><br>+Change the filter at the first available opportunity. |  |
| **Fuel level is at the top of the filter and appears to be full of wax.**<br><br>+Change the filter - Run the engine for a minimum of 25 minutes at idle. Do not run at full RPM. |  | **There is a power complaint and the fuel level is below the collar.**<br><br>+Check for a missing grommet at the lower end of the filter or missing/broken spring at top of filter. |  |
| **Bubbles are seen flowing in with the fuel.**<br><br>+Check all fittings and lines from the fuel tank to the fuel processor. Check lower and upper collar o-rings. |  | **Water is noticed in the cover.**<br><br>+Drain the water. If engine coolant is visible, follow proper engine pressure testing procedures to determine root cause. |  |
| **Fuel drains back to the fuel tank when changing the fuel filter or draining separator**.<br><br>+Remove the check valve assembly. Clean or replace and retest. Check air leaks in the fuel system. |  | **No engine coolant flow to the Fuel Pro heater.**<br><br>+Check for closed cutoff valves at the coolant lines to the fuel processor. Make sure the cab heater valve is open. |  |

## VISUAL DIAGNOSTICS

There are two kinds of bubbles that may be visible at the fuel pump inlet of a diesel fuel system. The bubbles can be characterized as either air bubbles or vapor bubbles.

**Air Bubbles (will affect engine performance)**

Air bubbles are caused by any air leak on the vacuum (suction) side of the fuel system from the fuel tank pick-up to, and including, the lift pump. (See Figure 7)

If there is an air leak in the fuel system, air bubbles will be present in the clear cover of the Fuel Pro. Follow test procedures outlined in "Troubleshooting" for air leak diagnostics.

If there are no bubbles present in the Fuel Pro cover and the engine continues to run rough, lopes or has a loss of power, there may be an air leak between the Fuel Pro outlet port and lift pump inlet. This type of air bubble can be seen if a sight tube is installed at the lift pump inlet. Air bubbles may also be visible in the fuel return (spill) hose out of the fuel gallery. These leaks are easily eliminated by checking and torquing the fuel fittings in the area of the leak.

If there are no air leak symptoms, but bubbles are present in a sight tube at the fuel lift pump inlet, they are most likely vapor bubbles.

**Note:**

A quick procedure to determine if the air leak is between the fuel tank and the Fuel Pro is to remove the Fuel Pro inlet hose and route a new hose from the Fuel Pro inlet into a container of

**Vapor Bubbles (will not affect engine performance)**

All diesel fuel has some level of entrained air caused by the natural splashing that occurs in the fuel tank during normal vehicle or equipment operation. Vapor bubbles develop in the Fuel Pro because the pressure inside the Fuel Pro is lower than the atmospheric pressure in the fuel tank. Vapor bubbles can vary from champagne size up to ¼" in diameter. They may increase in size or volume as engine RPM increases. The lower pressure draws the entrained air/vapor out of the fuel and these bubbles will be visible as the fuel exits the Fuel Pro. (See Figure 8)

As the fuel enters the lift pump, it is pressurized and the bubbles are compressed back into the fuel. There will be no bubbles on the fuel return side of the system. (See Figure 8). These vapor bubbles will not affect the performance of the engine.

There is no diagnostic or repair procedure required for vapor bubbles. Vapor bubbles do not cause performance issues and will not be present after the lift pump.

fuel or the fuel tank fill cap opening. Start the engine and check for bubbles.

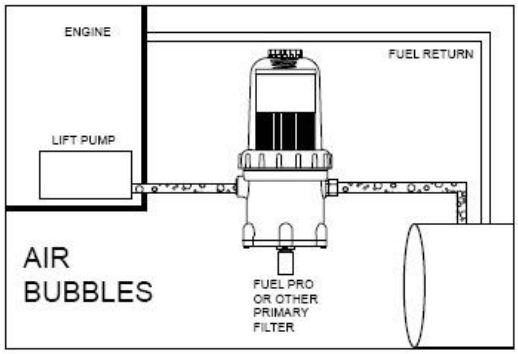



Figure 7

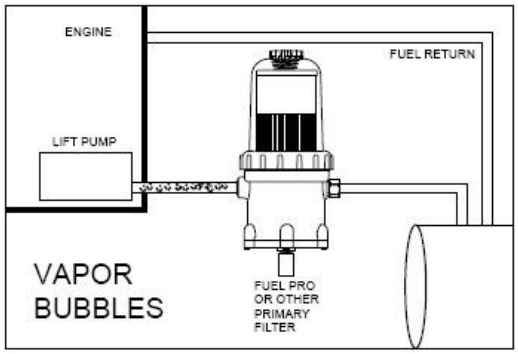



Figure 8

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## DIAGNOSTIC PROCEDURES

**Fluid Heater Thermovalve Test**

**Step 1:**

Drain the Fuel Pro completely.

**Step 2:**

Remove the fluid hoses going to the bottom plate. These will either be engine coolant hoses or return fuel hoses. Engine coolant hoses will have to be plugged when removing them from the Fuel Pro.

**Step 3:**

Remove the bottom plate.

**Step 4:**

While looking into the fluid port of the bottom plate (see Figure 9) flow cold water over the thermovalve for 30 seconds, then run hot water over the thermovalve and determine if the thermovalve spool is opening and closing.

**Step 5:**

Replace with a new bottom plate seal and install the bottom plate onto the Fuel Pro.

**Note:**

There are two styles of bottom plates.

- Torque the collar version to 50 to 60 ft-lbs (the use of 2-3 drops of Loctite 406 is recommended to secure the bottom collar). Use seal P/N 101994.
- Torque the bolts on the bolt-on version bottom plate to 10 ft-lbs. Use seal P/N 910005.

**Step 6:** Reconnect the fluid hoses to the bottom of the Fuel Pro.

**Step 7:**

Fill the Fuel Pro with fuel and restart the engine.

**Electric Pre-Heater and Thermoswitch Tests**

**Equipment Needed:**

- A precision low resistance Ohm Meter capable of measuring 1/10th Ohm or less is recommended.
- Current Flow Meter (Clamp-on type for DC current).
- Ice, dry-ice, $CO_2$ or means of chilling the thermo-switch
- A flameless source of heat. Infrared heat lamp, etc. (a Vortex tube is a good tool to heat and cool for testing).

DO NOT USE a test light that has a wire probe for any of these tests. If the insulation of the wiring is punctured, moisture and road salt can penetrate into the wires creating a corrosion issue and potential failure.

There are various configurations of electric pre-heaters and thermoswitches available for the Fuel Pro. These include 12 VDC pre-heaters, 24 VDC pre-heaters, 120 VAC pre-heaters, thermoswitch, and combination pre-heater thermoswitch. The voltage and wattage ratings are stamped either on the sheath or the hex of each component for identification.

**If it is necessary to remove the fuel from the fuel/water separator:**

- Shut off the engine and set the parking brake.
- Attach a length of hose to the drain valve and into a container.
- Loosen the vent cap on top of the clear housing, and open the drain valve to drain the fuel into the receptacle.
- When the fuel is drained, close the drain valve.

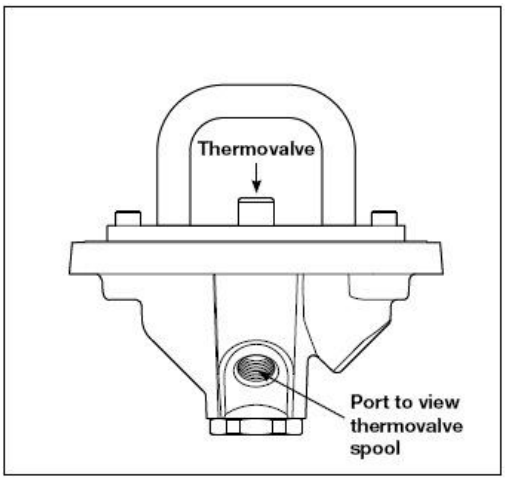


Figure 9

**Pre-heater Test**

**Step 1:**

Disconnect the pre-heater from the harness.

**Step 2:**

Connect the Ohm meter leads to the pins of the pre-heater (connect to a pin and the bushing for pre-heaters with one pin).

**Step 3:**

Using the Table 1, read the value of the resistance and determine if the pre-heater is within the acceptable range.

**Step 4:**

Prime the unit by filling the clear cover with clean diesel fuel until it reaches the top of the fi lter.

**Step 5:**

Install the vent cap. **Hand tighten only.**

**Step 6:**

Start the engine and run for one minute. **Slowly** open the vent cap and allow the fuel to drop to about one inch above the collar. Close the vent cap. **Hand tighten only.**

| Electric Pre-heater | Watts | Resistance Range in Ohms |
|---|---|---|
| 12 VDC (two pin) | 250 W | 0.6 to 0.8 |
| 12 VDC (single pin) | 250 W | 0.6 to 0.8 |
| 12 VDC (single pin) | 150 W | 0.8 to 1.1 |
| 12 VDC (two pin) | 150 W | 0.8 to 1.1 |
| 24 VDC (two pin) | 250 W | 2 to 2.5 |
| 24 VDC (single pin)<br>24 VDC (single pin)<br>120 VAC 120 VAC | 250 W<br>150 W<br>75 W<br>37 W | 1.8 to 2.3 3.6 to 4.1<br>173 TO 203 369 TO 411 |

Table 2

**12 VDC Thermoswitch Test**

**Step 1:**

Disconnect the thermoswitch harness (see Figure 10).

**Step 2:**

Connect the Ohm meter leads to the pins of the thermoswitch.

**Note:**

This test requires the thermoswitch to be below 40°

F. (Use one of the cooling sources listed under "Equipment Needed".) The resistance should be less than 0.1 Ohm.

**Step 3:**

Using one of the heat sources listed under "Equipment Needed", raise the temperature above 60° F. The resistance should be more than 10M Ohms.

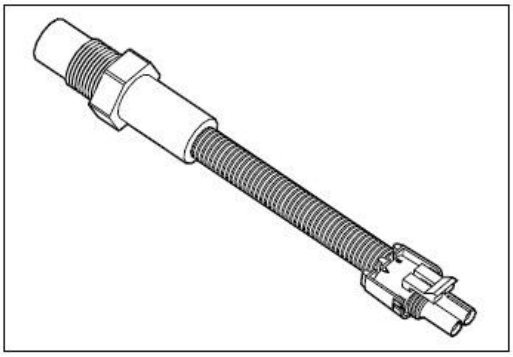

Figure 10

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## CHECK VALVE DIAGNOSTICS

To test for proper check valve operation, remove the fuel inlet hose and open the vent cap. Fuel should not fl ow out of the Fuel Pro, although a slight seepage of fuel is normal.

If fuel drains back to the fuel tank, remove the check valve assembly at the fuel inlet fitting.

**Step 1:** Use a back-up wrench to hold the check valve body and remove the fuel hose from the inlet of the Fuel Pro.

**Step 2:**

Remove and disassemble the check valve assembly.

**Step 3:**

Clean and inspect the check valve body. Replace the check valve body if any cuts, grooves or nicks are evident or if the ball seat is not smooth.

**Step 4:**

Inspect the check valve spring and spring retainer. If the spring or spring retainer is broken or if the check ball has groves, nicks or is out of round, replace with a check valve service kit. Otherwise, clean and reassemble the check valve assembly.

**Note:**

The spring retainer snaps into a groove in the check-valve body.

**Step 5:**

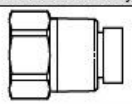
Replace the check valve assembly into the body and torque to 44-60 ft-lb.

**Step 6:**

. Connect the fuel inlet hose, using liquid or paste type thread sealant.

**Step 7:**

Prime the fuel system, start the engine and check for any fuel leaks.

| Check Valve Body | Check Valve Service Kit |
|---|---|
|  |  |
| P/N 090037 | P/N 101132 |

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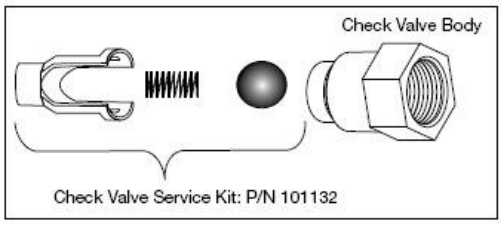
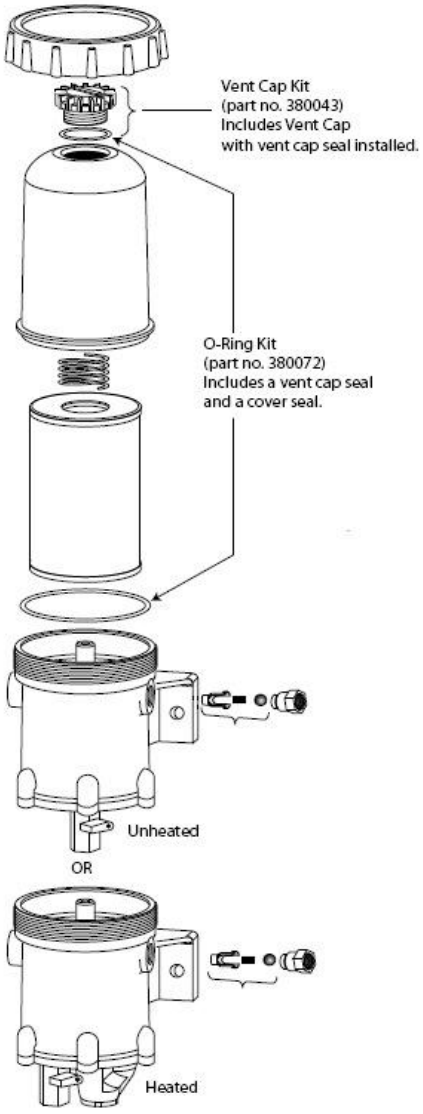
## SERVICE PARTS

| SERVICE PARTS | |
|---|---|
| DESCRIPTION | PART NUMBER |
| Collar | 102425 |
| Clear Cover | 380040 |
| Hold Down Spring | 380040 |
| Filter Element | www.davcotec.com/parts.html Filter Element |
| Drain Valve | 102008 |
| Check Valve Body | 090037 |

| SERVICE KITS | | |
|---|---|---|
| DESCRIPTION | CONTENTS | PART NUMBER |
| Vent Cap Service Kit | Vent Cap Vent Cap O-Ring | 380043 |
| O-Ring Service Kit | Vent Cap and Cover O- Rings | 380072 |
| Check Valve Service Kit | Check Valve Service Kit (Does not include the check valve body) | 101132 |

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# WARRANTY AND CUSTOMER SERVICE

**LIMITED PRODUCT WARRANTY Diesel Pro 232®,**

**Diesel Pro 233®, Diesel Pro 243® Fuel Pro 382®, Fuel Pro 482®, Industrial Pro®, Sea Pro® and REN® Products:**

DAVCO Technology, LLC warrants these products for 5-years/500,000 miles or 10,000 hours (whichever comes fi rst) and electrical parts for 2-years/200,000 miles or 4,000 hours (whichever comes first) from the purchase date.*

**EyeMax®, Electronic Gauges, Electronic Dipsticks, Fuel Pro 384®** and Diesel Pro 234®**:**

DAVCO Technology, LLC warrants these products to be free of defects in material and workmanship for 2-years/200,000 miles (whichever comes first) from the purchase date.* In the event of a defective product, DAVCO will either rework the defective product or replace it.

**Limitation:**

DAVCO is not responsible for failures resulting from misuse, misapplication, faulty installation, alteration, poor maintenance, neglect or accident. DAVCO is not responsible for downtime, loss of profits or income, living expenses, or other incidental, special or consequential damages. This warranty is the sole warranty made by DAVCO. DAVCO makes no other warranties, expressed or implied, of merchantability or fitness for a particular purpose.

**Service parts are not warranted.**

I

f you feel you have a warrantable issue, contact DAVCO at 800-328-2611 for a Return Goods Authorization (RGA) Number. (An RGA number is required prior to any return of product.)

**

Diesel Pro 384 and Diesel Pro 234 products are warranted when used in an application containing not more than 20% of ASTM spec biodiesel blend stock.

DAVCO Technology, LLC reserves the right to modify this document without notice.

This document is on the web at:

http://www.davcotec.com/pdf/Quality/F1096-warrantyprocedure.pdf

**PARTS RETURN GENERAL POLICY**

**Note:**

A Return Goods Authorization (RGA) must be obtained from DAVCO prior to returning any products.

Returns may be accepted under the following circumstances:

- Order Shipping Error: A credit against the original invoice (including freight charges for both ways) will be issued for returns in which DAVCO inadvertently shipped incorrect quantity or product.
- Overstock: Returns for ordering more product(s) than required, or incorrect part(s), will be accepted within 60 days from the date of purchase. Proof of purchase will be required (for example, original invoice/delivery receipt). These types of return(s) are subject to a minimum restocking fee of 40% or $40.00, whichever is higher. Additional restocking fees may apply. Product(s) will be inspected for "like new" condition and additional costs will be the responsibility of the customer. No obsolete parts may be returned.
- Freight charges for return(s) will be the responsibility of the customer.

DAVCO Technology, LLC P. O. Box 487 Saline, MI 48176 Call 800-328-2611 www.davcotec.com F1271

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