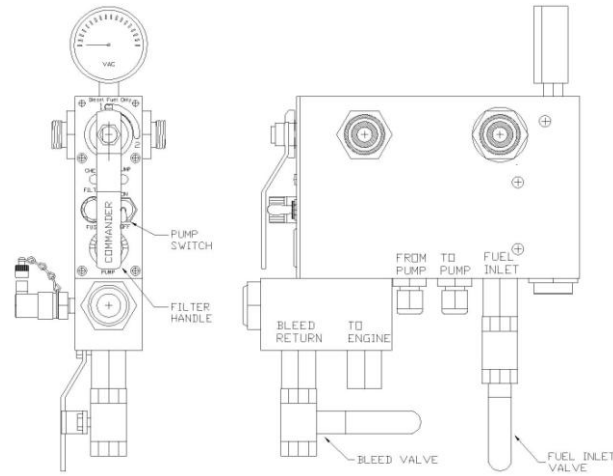
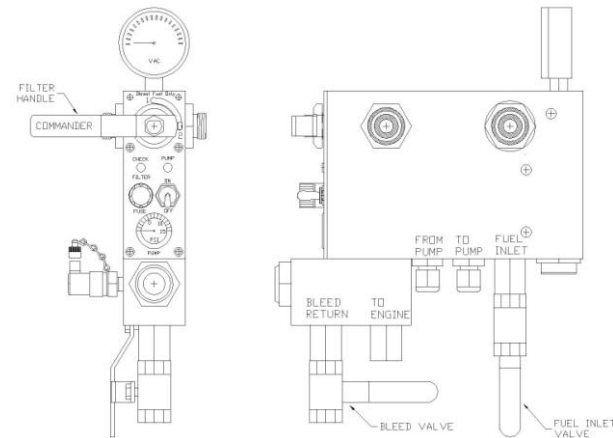


**NORMAL OPERATION**



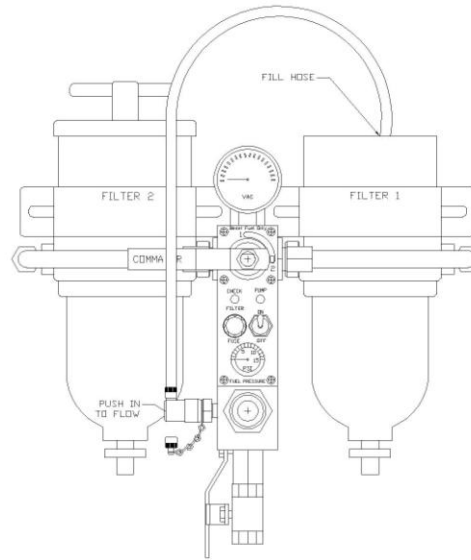
<b>FILTER HANDLE</b>	<b>Primary (Normally #1)</b>
<b>BLEED VALVE</b>	<b>Closed</b>
<b>FUEL INLET VALVE</b>	<b>Open</b>
<b>PUMP SWITCH</b>	<b>Off</b>

**SWITCHING FILTERS**



<b>FILTER HANDLE</b>	<b>#2 (ROTATE 90 Degrees)</b>
<b>BLEED VALVE</b>	<b>Closed</b>
<b>FUEL INLET VALVE</b>	<b>Open</b>
<b>PUMP SWITCH</b>	<b>Off</b>

**CHANGING (OFF LINE) FILTER ELEMENT**



<b>FILTER HANDLE</b>	<b>To Clean Filter</b>
<b>BLEED VALVE</b>	<b>Closed</b>
<b>FUEL INLET VALVE</b>	<b>Open</b>
<b>PUMP SWITCH</b>	<b>On when Filling filter</b>

Remove offline filter cover, Remove element, Drain water from filter bowl as needed, Install replacement element, Using Fill filter to top with fuel, Install filter cover.

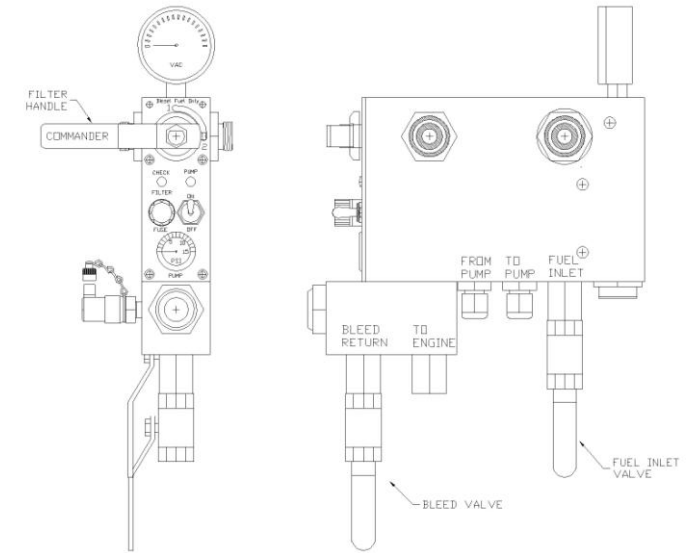
**BLEEDING ENGINE**

<b>PUMP SWITCH</b>	<b>On</b>
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With fuel pump on, bleed engine fuel system per engine manufactures directions. Note: Commander fuel pump will provide fuel pressure for bleeding.

Turn off pump when finished.

**FUEL POLISHING**



<b>FILTER HANDLE</b>	<b>To Clean Filter</b>
<b>BLEED VALVE</b>	<b>Open</b>
<b>FUEL INLET VALVE</b>	<b>Open</b>
<b>PUMP SWITCH</b>	<b>On for Polishing</b>

Select what tank to polish from and return to, if the alarm sounds rotate the filter handle to the clean filter and change out the dirty filter.

When the polishing is completed turn off pump and close bleed valve.

## PREDEPARTURE CHECK

FILTER HANDLE	To Either Filter
BLEED VALVE	Closed
FUEL INLET VALVE	Closed During Test
PUMP SWITCH	Off

Warm up engine for 5 minutes. Close the Fuel Inlet Valve and monitor vacuum gage, the gage needle will slowly move towards 10" hg. At 8± 2" the warning alarm should sound now turn off the engine and watch the vacuum gage needle to see if it starts to move towards zero. If the needle remains the same after 5 minutes open the Fuel Inlet Valve and continue the engine warm up.

If the test fails and the gauge needle starts to move towards zero, try doing the same test on the opposite filter, if the second filter test ok, it would be almost certain that the first filter is at fault. If both filters fail the test, it is most likely that the fuel line and or connections from the Commander outlet to the engine is at fault.

Filter leaks are generally due to rolled or cut o-rings and open drain valves. Make the necessary repairs and repeat the test.

## BACK UP ENGINE FUEL PRESSURE

FILTER HANDLE	To Either Filter
BLEED VALVE	Closed
FUEL INLET VALVE	Open
PUMP SWITCH	On for Engine Operation

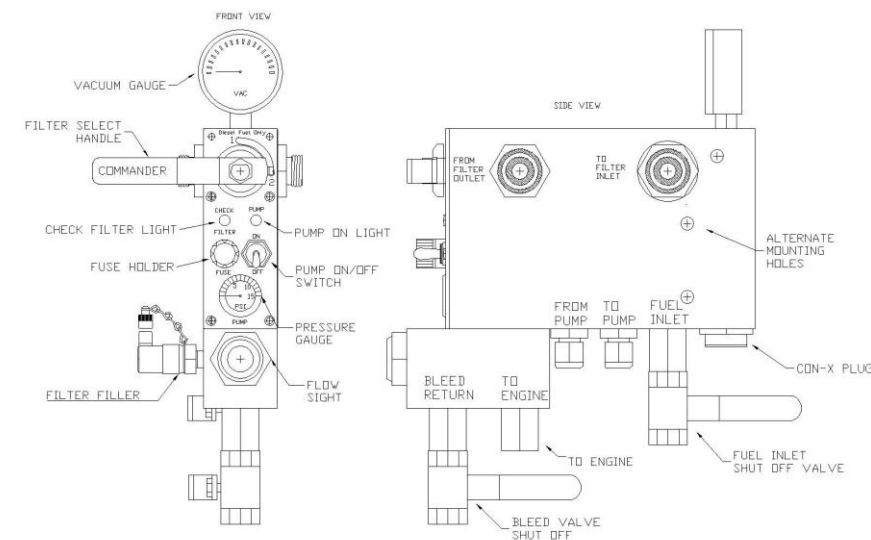
**WARNING: If the engine lift pump has failed it is possible to have fuel leaking from the lift pump into the engine crankcase when using a back up fuel pump, this can cause a run away engine condition and can only be stopped by cutting off the air supply.**

With the engine off, check the oil quantity to see if it has increased, if ok operate the engine using the COMMANDER fuel pump for 5 minutes, stop the engine and recheck the oil quantity, if ok operate the engine and recheck the oil quantity after 10 minutes do this until satisfied that fuel is not entering the crank case.

If fuel is entering the engine crankcase try bypassing the engine lift pump inlet line directly to the fuel outlet line this will keep fuel from entering the crankcase. (Some operators will have the proper connections ready to bypass the pump if this happens)

# FILTERBOSS COMMANDER

## QUICK REFERENCE GUIDE



**FOR FC2008M, FC60, FC90 AND FC180**

## ROUTINE MAINTENANCE

On a monthly basis, operate the ball valves, and filter selector lever several times to lubricate and clean the seat seals. Operate the fuel pump and pressure check the fuel system. Do a pre-departure check and check for air leaks and electrical operation. Check fittings for leakage and security. Clean off any dirt and wipe all surfaces with a very light oil or corrosion inhibitor.

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