

Dual Fuel Filter Controller







0 - 180 GPH Fuel Flows

Every engine runs better with a system that cleans fuel, removes water and senses when it's time for service.

The <u>FilterBoss</u> system is the most complete, most efficient and most reliable fuel maintenance system you can install.

Cleaner Fuel - Better Performance - Better Mileage

KTI Systems, Inc. 800-336-0315



The <u>FilterBOSS COMMANDER</u> system was designed to combat the normal fuel problems of a diesel engine.

A Dual fuel filter system that has one online filter and the other is offline, ready for use.

The single lever operation makes it easy to switch filters.

This allows for continued engine operation during the filter change.

Optional Remote operation allows the operator to electrically switch filters from the helm.

The remote "Early Warning Panel" will alert the operator that the filter is starting to clog and needs to be changed.

An integrated fuel pump provides back up fuel pressure to the engine lift pump if the lift pump has low pressure or fails. The pump also allows for quick system bleeding. Fuel filter servicing is easier using the "Filter Filter".



Fuel polishing accomplished with the integrated fuel pump and built in manifolds makes it easy to clean your fuel. The "polishing" mode will allow the operator to check the quality of the fuel that is being put into the tank while at the fuel pump or to run periodic fuel cleaning maintenance. The built in flow sight allows the operator to check for air bubbles and proper valve configuration.

Easy system testing can be accomplished prior to departure. This checks the fuel system for air leaks, proper fuel system operation and warning light operation.

The vacuum gauge helps the operator know the condition of the online filter and also helps in finding air leaks when performing the system test. The pressure gauge lets the operator know the pump is working and also helps in pressure testing the system for fuel leaks. The "Filter Light" helps the operator to view the condition of the fuel in limited lighting areas.

Powder coated aluminum housing with stainless steel fittings and tubing Modular design for tight spaces
12 and 24 volt control voltage
0 to 180 gallons per hour fuel flow

FC60-5M-W6-12 with Custom mounted fuel pump

Owning a FilterBOSS gives the operator
CONFIDENCE that his fuel system is working
properly. The PEACE OF MIND knowing that
when a problem appears he has the right equipment for the job,
and NOT HAVING TO WORRY about surprises.

What makes the *Filter*BOSS better:

	SINGLE TURBINE	DUAL TURBINES	<u>Filter</u> Boss	FUEL POLISHING SYSTEM
Capabilities				
Fuel circuit	primary	primary	primary	Secondary
Filter type	filter/water separator	filter/water separator	filter/water separator	Filter/water separator
Water block	Aquabloc II	Aquabloc II	Aquabloc II	Aquabloc II
Filters	1	2	2	1
Filter type	Racor Turbine	twin Racor turbine	Racor Turbine	Racor or Separ
Water removal	99%	99%	99%	99%
Clogged filter warning			standard	Standard
Remote filter warning			standard	
Primary filter switching (Manual)		standard	standard	
Filter servicing port			standard	
Fuel polishing			standard	standard
Back up engine fuel pressure			standard	
Quick fuel system bleeding			standard	
Fuel transfer			standard	Standard
Leak testing			standard	
System testing			standard	
Vacuum gage	optional	standard	standard	Standard
Pressure gage			standard	
Flow site			standard	
Primary filter switching (electronic at the helm)			optional	
Magnetic conditioner	optional	optional	optional	optional
Polishing timer			optional	standard
Water detector	optional	optional	optional	optional
Pump type			gear/piston	gear
Voltage			12/24/115	12/24/115

The <u>FilterBoss</u> system is the most complete, most efficient and most reliable fuel maintenance system you can install.

CHOOSING THE RIGHT SYSTEM

Our systems are rated in total fuel FLOW, that is the fuel burned and the fuel returned to the tank. If your engine burns 2 gallons per hour (GPH) and returns 15 GPH it would be a total of 17 GPH. For this example, we would recommend the FC60 system with a rated filter fuel flow from 0-60 GPH. If your fuel flow is more than 70% of the rated system, go to the next higher size. This will allow for more fuel filtration. You will also want to consider the size of your fuel tanks for the "polishing" mode of our unit.

 SYSTEM
 FUEL FLOW

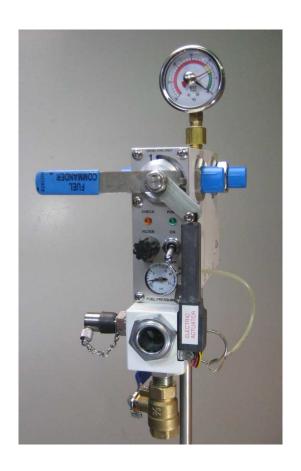
 FC60
 0-60 GPH

 FC90
 0-90 GPH

 FC180
 0-180 GPH



OPTIONAL HELM OPERATION





NEW Electric Actuator for all *Filter* Boss COMMANDER models.

Mounted at the helm for a one time switch to a clean filter, without needing to go below!

You will still need to change the clogged filter and reset the switch, but perhaps it can be done under better conditions......



Part No: ETK2008-12/24



Fuel Pressure Gauge



MODULAR SYSTEM



Vacuum Gauge with tell-tale for easy filter monitoring



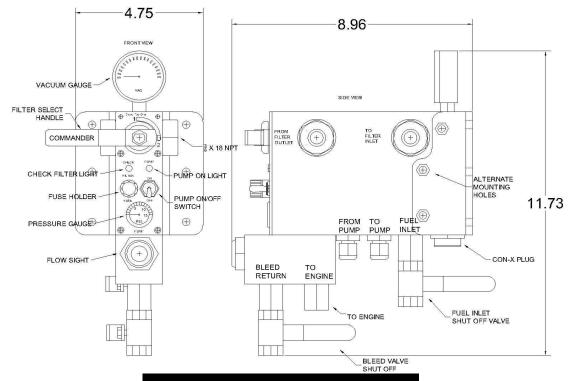


System Alert Lights

Flow Sight for easy system bleeding

KTI SYSTEMS' FilterBOSS COMMANDER is a dual filter controller with built in vacuum and pressure gauges for monitoring the online filter. This modular system allows for the mounting of the COMMANDER along with two fuel filters and an integrated fuel pump, in the best configuration for your boat. The remote Early Warning Panel (EWP) allows an advance warning at the helm that the filter is clogging by an amber LED light. A green LED light indicates when the fuel pump is on. The warning panel is 1" square so it can be mounted in close quarters. The bleed port along with an integrated fuel pump helps with filter or engine servicing to bleed out air. It will also allow for onboard fuel polishing. The "Filter Filler" helps to top off the filter when changing elements. Additionally the fuel pump can supply fuel flow to the injector unit if the engine lift pump fails. The unit is powder-coated aluminum with stainless steel fittings and a Con-x weather tight cannon plug with 10' electrical harness.

You will need two fuel filters and a fuel pump to use this system as instructed.



Part No: ETK2008-12/24

How the Filter Filler Works.....

VOLTAGE 12 OR 24 AMPS Varies by Pump FLOW RATE Varies by Filter & Pump

FUEL TYPE DIESEL FUSE 5 AMP MAX PRESSURE 15 PSI

VACUUM SWITCH TRIP POINT TRIP POINT 7 TO 10 IN HG

(70 Degree day)

PORT SIZE 3/8 NPT or 1/2 NPT

VACUUM GAUGE -30 IN HG, 2.5" INTERNAL SNUBBER PRESSURE GAUGE 0-15 PSI, 1" INTERNAL SNUBBER

EARLY WARNING PANEL STANDARD 10' WIRING HARNESS STANDARD FILTER FILLER STANDARD

FILTER LIGHT N/A



Remove Filter Filler Cap



Attach Filler Hose







Turn on pump, push in valve

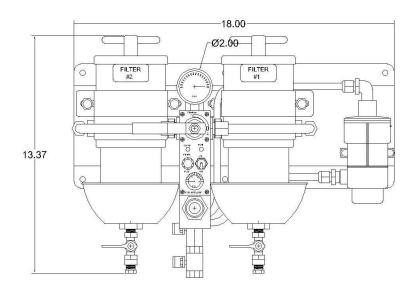


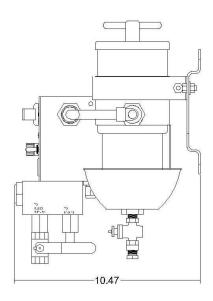
Part No: FC60-12/24



The dual filter package comes complete with the *Filter*BOSS COMMANDER mounted on a pre-drilled panel with two **Racor 500MA** filters and the integrated **Walboro** fuel pump. The filters and pump are connected with stainless steel tubing and tested for leaks. All the installer needs to do is mount the dual filter package, connect the fuel inlet and outlet lines, install the early warning panel and connect the pre-assembled wiring harness.

Racor Filters are available in 2, 10 or 30 micron.





Part No: FC60-12/24

VOLTAGE	12 OR 24	FILTER	RACOR 500MA
AMPS	3 OR 1.7	WATER REMOVAL	99%
FLOW RATE	50 GPH	MAX FLOW	60 GPH
FUEL TYPE	DIESEL	MICRONS	2, 10 and 30
FUSE	5 AMP	DRAIN VALVE	STANDARD
MAX PRESSURE	15 PSI TRIP POINT 7 TO 10 IN HG	FUEL PUMP	WALBORO
VACUUM SWITCH TRIP POINT (70 Degree day)	TRIP POINT 7 TO 10 IN HG	PRESSURE	6 to 9 PSI
PORT SIZE	3/8 NPT	LIFT	48 INCHES
VACUUM GAUGE	-30 IN HG, 2.5" INTERNAL SNUBBER	FLO RATE	50 GPH
PRESSURE GAUGE	0-15 PSI, 1" INTERNAL SNUBBER	AMPS	3 AMPS
EARLY WARNING PANEL	STANDARD	FILTER	INLET 70 MICRON
10' WIRING HARNESS	STANDARD	OPTIONS	WATER DETECTOR
FILTER FILLER	STANDARD		FUEL HEATER
FILTER LIGHT	STANDARD		SONALERT

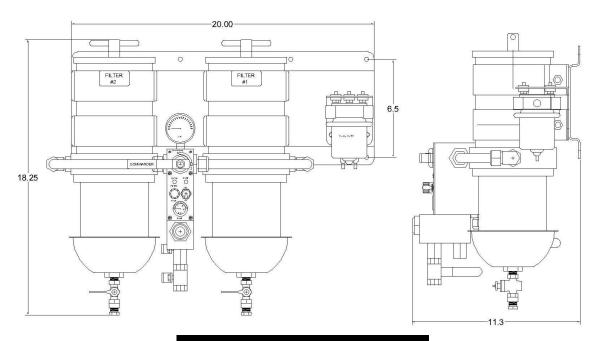


Part No: FC90-12/24



The dual filter package comes complete with the *Filter*BOSS COMMANDER mounted on a pre-drilled panel with two **Racor 900MA** filters and the integrated **Carter** fuel pump. The filters and pump are connected with stainless steel tubing and tested for leaks. All the installer needs to do is mount the dual filter package, connect the fuel inlet and outlet lines, install the early warning panel and connect the pre-assembled wiring harness

Racor Filters are available in 2, 10 or 30 microns



Part No: FC90-12/24

VOLTAGE	12 OR 24	FILTER	RACOR 900MA
AMPS	3 OR 1.7	WATER REMOVAL	99%
FLOW RATE	72 GPH	MAX FLOW	90 GPH
FUEL TYPE	DIESEL	MICRONS	2, 10 and 30
FUSE	5 AMP	DRAIN VALVE	STANDARD
MAX PRESSURE	15 PSI	FUEL PUMP	CARTER
VACUUM SWITCH TRIP POINT (70 Degree day)	TRIP POINT 7 TO 10 IN HG	PRESSURE	6 to 9 PSI
PORT SIZE	3/8 NPT or 1/2 NPT	LIFT	24 INCHES
VACUUM GAUGE	-30 IN HG, 2.5" INTERNAL SNUBBER	FLOW RATE	72 GPH
PRESSURE GAUGE	0-15 PSI, 1" INTERNAL SNUBBER	AMPS	3.5 AMPS
EARLY WARNING PANEL	STANDARD	FILTER	SCREEN
10' WIRING HARNESS	STANDARD	OPTIONS	WATER DETECTOR
FILTER FILLER	STANDARD		FUEL HEATER
FILTER LIGHT	STANDARD		SONALERT

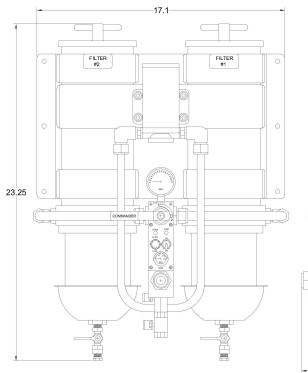


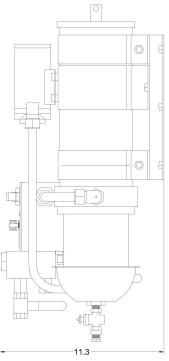
Part No: FC180-12/24



The dual filter package comes complete with the <u>FilterBOSS COMMANDER</u> mounted on a pre-drilled panel with two **Racor 1000MA** filters and the integrated **Reverso** fuel pump. All the installer needs to do is mount the dual filter package, connect the fuel inlet and outlet lines, install the early warning panel and connect the pre-assembled wiring harness. The filters and pump are connected with stainless steel tubing and tested for leaks. The fuel pump is mounted in front of the filters to save space.

Racor filters are available in 2, 10 or 30 microns





Part No: FC180-12/24

VOLTAGE	12 OR 24
AMPS	10
FLOW RATE	180 GPH
FUEL TYPE	DIESEL
FUSE	10 AMP
MAX PRESSURE	15 PSI
VACUUM SWITCH TRIP POINT (70 Degree day)	TRIP POINT 7 TO 10 IN HG
PORT SIZE	1/2 NPT
VACUUM GAUGE	-30 IN HG, 2.5" INTERNAL SNUBBER
PRESSURE GAUGE	0-15 PSI, 1" INTERNAL SNUBBER
EARLY WARNING PANEL	STANDARD
10' WIRING HARNESS	STANDARD
FILTER FILLER	STANDARD
FILTER LIGHT	STANDARD

FILTER	RACOR 1000MA
WATER REMOVAL	99%
MAX FLOW	180 GPH
MICRONS	2, 10 and 30
DRAIN VALVE	STANDARD
FUEL PUMP	REVERSO
PRESSURE	0 to 10 PSI
LIFT	120 INCHES
FLOW RATE	3 GPM (180 GPH)
AMPS	10 AMPS
FILTER	NO FILTER
OPTIONS	WATER DETECTO
	FUEL HEATER
	SONALERT

OR

The **SENTINAL**

Is our Early Warning System Kit and Boost Pump



Part No: BRK1926



Part No: KEK1987M

A single filter system to improve that spin-on type filter

- Single Filter System
- Easy change top-loading filter
- Remote Early Warning detection
- Easy Engine Bleeding
- Back up engine fuel pump
- Easy system testing
- Filter condition gage
- Modular system

NOTE: Engine must be shut down to change filter.

Fuel Manifold Systems

PART NO: **MAN2502-A** 2 Valves ¼", aluminum housing PART NO: **MAN2503-A** 3 Valves ¼", aluminum housing PART NO: **MAN2504-A** 4 Valves ¼", aluminum housing PART NO: **MAN3752-A** 2 Valves 3/8", aluminum housing PART NO: **MAN3753-A** 3 Valves 3/8", aluminum housing PART NO: **MAN3754-A** 4 Valves 3/8", aluminum housing



Fuel Boost Pump

PART NO: BRK1926

Higher Fuel Flow, 3/8" fittings

The Fuel Boost Pump was designed so it can be installed between your fuel tank and primary filter, or between the primary filter and the engine lift pump. In parallel with the Fuel Boost Pump is a bypass shut off valve; this allows the "normal" flow to travel around the pump which reduces the possibility of the pump clogging. Locating the Fuel Boost Pump between the fuel tank and primary filter will allow for pressure servicing of the filter. The Fuel Boost Pump will supply sufficient fuel pressure and flow for servicing and bleeding, as well as act as a back up if your engine lift pump fails and is not leaking.

The Fuel Boost Pump comes pre-mounted.

Mounting board is 4.5" x 9.5"

