

SPECIFICATIONS

MODEL	CF-300 MKII	CF-400UV MKII	CF-500UV MKII
VOLTAGE	120 / 60 Hz	120 / 60 Hz	120 / 60 Hz
WATTAGE	18 WATTS	35 WATTS	55 WATTS
UV WATTAGE	NONE	9 WATTS	9 WATTS
GALS / HR	264	370	525
FILTER COMPARTMENTS	3	3	4

AQUATOP 1 YEAR LIMITED WARRANTY

Products are warranted by AQUATOP Aquatic Supplies to the original purchaser against defective material and workmanship under normal use for a period of 1 year from the date of the original purchase.

Products have no warranty if:

- 1.) The product has been serviced, modified or tampered with by anyone other than AQUATOP Aquatic Supplies,
- 2.) The product has been abused or damaged (including broken or cracked bulbs), and/or
- 3.) The product has been transported without proper packaging.

WARRANTY LIABILITY DISCLAIMER

In no event will Aquatop® be liable for any consequential or incidental damages, including but not limited to, lost sea life, personal injury, property damage, equipment damage, lost profits, lost wages, lost savings, lost income, etc., arising out of the use of any Aquatop® product.

For more information on tank health and maintenance as well as other products carried by Aquatop, visit our website: www.aquatop.com

775 Columbia St. Brea, CA 92821 Tel: (888) 915-27821 (562) 697-9860



www.aquatop.com VI / 2018



CF MKII Series

CANISTER FILTER



CF MKII Series Canister Filter Manual 2018

OWNER'S MANUAL

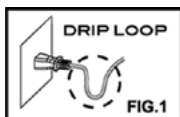
Thank you for choosing Aquatop's CF MKII Series of canister filters. The CF MKII Series is a diverse line that includes two models (CF400-UV MKII & CF500-UV MKII) with integrated UV sterilization to help control unwanted algae and some harmful disease-causing pathogens. All models have a convenient self-priming pump that eliminates the need for manual siphoning. The CF300 MKII and CF400-UV MKII have three filtration media trays for complete customization while the CF500-UV MKII has four media trays for increased filtering capacity. We recommend using only genuine OEM replacement filtration media for maximum effectiveness and to guarantee warranty coverage. Filtration media can be purchased at your local retail outlet, or visit www.aquatop.com. Please note that while filtration equipment can help keep your aquarium clear, it should never be used as a substitute for a regular cleaning and maintenance routine.

CAUTION/SAFETY INFORMATION

It is your sole responsibility to verify that the plug and the receptacle are clean and free of moisture and salt build-up at all times. The receptacle must be free of water, salt, calcium, magnesium and dust. Failure to do so can cause fire, damage to property and permanent damage to the product and personal injury not limited to loss of life.

1) Read and follow all instructions.

2) A drip loop must be used with all electrical aquarium devices. A drip loop is a self-made part of the cord hanging below the receptacle. (See Fig. 1)



CF300 MKII:

- RFP-CF300 White Filter Pads - 3pk
- RCP-CF300 Blue Filter Pad - 1pc
- CF300-RI Replacement Impeller
- CF300-ORING Replacement O-Ring for Barrelhead

CF400UV MKII:

- RFP-CF400UV White Filter Pads - 3pk
- RCP-CF400UV Blue Filter Pad - 1pc
- R9WUV-SQ 9 Watt UV Replacement Bulb
- CF400UV-RQS Replacement Quartz Sleeve
- CF400UV-RI Replacement Impeller
- CF400UV-ORING Replacement O-Ring for Barrelhead

CF500UV MKII:

- RFP-CF500UV White Filter Pads - 3pk
- RCP-CF500UV Blue Filter Pad - 1pc
- R9WUV-SQ 9 Watt UV Replacement Bulb
- CF500UV-RQS Replacement Quartz Sleeve
- CF500UV-RI Replacement Impeller
- CF500UV-ORING Replacement O-Ring for Barrelhead

AQUATOP GENUINE OEM REPLACEMENT FILTRATION MEDIA

- PSAC-350G Premium Activated Carbon - 350g (Recommended for CF300)
- PQR-400G Quartz Rings - 400 grams (Recommended for CF300)
- PSAC-720G Activated Carbon - 720g
- PQR-800G Quartz Rings - 800 grams
- MBB-26 Bio-Balls 40 pcs/bag

Note: Aquatop recommends changing the activated carbon every 30 days. Heavier livestock loads may require more frequent replacement. Biological Filtration Media does not need to be replaced, however for optimal filtration, rinse excess buildup of debris periodically in a fish safe container with aquarium water. Filtration Pads should be replaced as needed.

Note: Aquatop recommends changing the UV Bulb (CF400UV /CF500UV only) every 6-9 months. Use a genuine Aquatop OEM UV Bulb for maximum effectiveness.

Note: To purchase Genuine OEM Replacement Filtration Media & Parts, please contact your local dealer, or visit: www.aquatop.com.

CAUTION/SAFETY INFORMANTION

- 3) A GFCI (ground fault circuit interrupter) should be used in the branch circuit supplying all power to water pumps and electrical aquarium equipment. If you do not have a GFCI, we strongly recommend having a qualified electrician install one prior to operating any aquarium component.
- 4) Do not plug into extension cord/power strip.
- 5) Use this product for its intended use only.
- 6) Never yank or pull the cord from the electrical outlet.
- 7) Do not operate if the plug or wire is damaged.
- 8) Do not operate without water.
- 9) Verify that hands are dry prior to disconnecting the power.
- 10) To reduce the risks of electrocution, keep all connections dry.
- 11) For indoor use only.
- 12) if any of the electrical components get wet, unplug immediately.
- 13) Do not use soaps or detergents when cleaning this device. Thoroughly clean and rinse with warm water and make sure the device is completely dry before connecting.
- 14) Do not disassemble the UV lamp while connected to power or turned on.
- 15) Do not look directly into the UV lamp when plugged in; UV light may damage your eye sight. Always keep cover on when UV light is in use.
- 16) Keep this product away from children.

Note: Always disconnect power to unit before performing any maintenance or bulb replacement.

TROUBLESHOOTING

ISSUE	PROBLEM	SOLUTION
Slow or inhibited water flow	Tubing or inlet/outlet hoses are extremely dirty	Periodically clean the inside of the tubing as well as inlet/outlet hoses
	Hoses have been incorrectly connected	Check whether the tubing is tangled or crimped
	Filter media is clogged	Remove filter media and replace as needed
	Air is entering the hose connection	Check whether the hoses are connected properly. Make sure connections are air tight.
	Air is trapped in the filter's main body enclosure	Leaving the power on, gently tilt the unit to help remove the air.
Abnormal sound is emitted when the filter is operating	Decreased water flow due to dirty impeller/drive magnet	Clean out the motor system and re-set the impeller
	Damaged impeller/drive magnet or spindle	Inspect the motor system for damage and replace impeller if necessary
	Air is trapped in the filter's main body enclosure	Leaving the power on, gently tilt the unit to help remove the air.
Canister filter is leaking	Missing or mis-aligned o-ring	Inspect all o-rings for correct installation
	Insufficient lubrication	Apply silicone based lubricant to all o-rings
	Damaged o-rings	Remove and inspect all o-rings. Replace if necessary.
	Quick dis-connect valve block not seated correctly	Check quick dis-connect valve block connections
	Barrelhead not sealed properly	Check media trays for mis-alignment. Make sure barrelhead clips are fastened securely
UV light indicator is not illuminating	UV light switch is turned off	Turn the UV light switch on
	UV bulb is not installed securely	Unplug the unit and check that the UV bulb is securely installed
	UV bulb has burn markings or broken filaments	Unplug the unit and replace the UV bulb
Moisture in the UV quartz tube	UV quartz tube is mis-aligned	Unplug the unit and check that the UV quartz tube is installed securely.
	UV quartz tube is cracked or damaged	Unplug the unit and replace the quartz tube immediately.
	Insufficient lubrication	Apply silicone-based lubricant to the quartz tube o-rings



Parts Diagram	
1. Quick Dis-connect Valve Block	15. Inlet Tube
2. Priming Button	16. Inlet Hose Lock-nut
3. UV Light Switch & Indicator	17. Inlet Tube Stem
4. Barrelhead Clamp	18. Inlet / Outlet Suction Cups x 4
5. Barrelhead	19. Surface Skimmer Control Knob
6. Barrelhead O-ring	20. Surface Skimmer Stem
7. UV Bulb	21. Inlet Strainer
8. Quartz Glass Sleeve	22. Outlet Flow Control Knob
9. Canister Housing Clamp	23. Outlet Tube
10. Canister Housing	24. Inlet/Outlet Mounts
11. Inlet/Outlet Hoses	25. Outlet Extension
12. Media Tray Lid	26. Outlet Return Jet
13. Media Trays	27. Outlet Spraybar
14. Inlet Tube Cap	28. Outlet Spraybar End Cap

Aquatop recommends regular maintenance to keep the CF MKII Series Canister Filter running at maximum efficiency.

- **Mechanical Filtration** - when filter pads and/or Poly-Fiber contain debris, clean or replace.
- **Chemical Filtration** - when activated carbon is exhausted, replace. This usually happens within 30-45 days depending on the Bio-Load of an aquarium.
- **Biological Filtration** - when Ceramic/Quartz Rings or Bio-Balls become laden with debris, rinse with clean aquarium water. This can simply be done in a medium sized container with water from the aquarium. Aquatop does not recommend rinsing Biological Filtration Media neither inside the aquarium nor with tap water. Aquatop does not recommend exposing cultured biological media to air for prolonged periods of time. This can kill off a great percentage of the existing bacterial colonies.
- **Cleaning the quartz sleeve** - this should be done at a minimum every time the UV bulb is replaced (usually every 6-9 months). Please reference bulb replacement for uninstalling the UV quartz sleeve. Aquatop recommends soaking the quartz sleeve in a water and vinegar solution to help remove the heavy metal and salt deposits which may be impeding the ability of the UV light penetrating into the water column. Use a silicone based lubricant on the o-ring of the quartz glass tube to ensure a water tight seal

TROUBLESHOOTING

ISSUE	PROBLEM	SOLUTION
Compressing & depressing self-priming pump has no response	Inlet/Outlet tubing is attached in error onto the quick dis-connect valve block.	Re-attach the appropriate inlet / outlet tubing onto the quick dis-connect valve block.
	The inlet connections are not air tight.	Double check all inlet connections
The motor is not operating	The power is off	Turn on the power
	The impeller is damaged	Replace the impeller
	The impeller is missing or the motor is clogged with a foreign object such as substrate or debris.	Clean out the motor system and re-set the impeller

How the CF Canister Filter works:

Unfiltered aquarium water comes into the CF Canister Filter via the inlet line and passes by the UV sterilizing bulb first (the CF-300 MKII does not come with a UV sterilizing bulb but assembles and filters in the exact same manner as the CF-400UV MKII and CF-500UV MKII). The water moves down the stack of vertical cylinder cutouts in the media trays to the bottom of the CF unit. The water is then pushed up through the filter compartments. The bottom compartment first, the middle compartment second, and then the top compartments third. The filtered aquarium water returns from the CF Canister back into the aquarium via the outlet/return line.

Note: Check unit for any signs of damage. If signs of damage are present, return to original place of purchase.

- 1) Remove CF Canister Filter from the aquatop box and set the extras aside. Face the canister unit toward yourself with the power cord running out the back.
- 2) To remove the barrelhead you must first unhook the clips that are in front and back of the unit. These two clips are attached to the bottom of the unit. Next unhook the clips that are left to right. These two clips are attached to the barrelhead. Remove the barrelhead by pulling it up vertically (be careful of the UV sterilizing bulb and the quartz glass tube when removing or securing the barrelhead on the CF-400UV MKII & CF-500UV MKII. (see FIGS. 1&2)



- 3) Remove all filter compartments. Note how the filter compartments are stacked to support the UV sterilizing bulb. The vertical cylinder cutouts of the filter compartments are to be stacked one on top of another and act as a sheath for the UV sterilizing bulb.
- 4) Rinse all filtration compartments and all filtration media: poly-fiber filter pad(s), sponge filter and bio-balls. Important: gently rinse the carbon until the run-off water is mostly clear. The carbon may take a few minutes to rinse clear.
- 5) Rinse out the bottom portion of the CF unit.
- 6) Stack the filtration compartment trays from the bottom up. The bottom/first compartment should receive the coarse sponge filter with a Poly-Fiber fine filter pad on top. The middle/second compartment should receive a Poly-Fiber filter on the bottom with the carbon on top. The top/third compartment should receive a Poly-Fiber filter on the bottom with Bio-Balls and/or Ceramic Rings on top. The top compartment receives any additional media and the filter compartment cover. (CF-500UV MKII only)

BULB REPLACEMENT (CF-400UV MKII / CF-500UV MKII MODELS ONLY)

Note: Aquatop strongly recommends replacing the UV Bulb every 6-9 months for maximum efficiency. Never replace the UV Bulb when the unit is plugged in or has power. Genuine OEM Replacement UV Bulbs can be purchased at your local retail outlet or by visiting, www.aquatop.com.

CF-400UV MKII:

- 1) Move the slide release lever to unlock the quartz glass tube that covers UV bulb
- 2) Turn quartz glass tube until it is free
- 3) Lift quartz glass tube to expose UV bulb
- 4) Remove UV bulb by gently lifting up from the base of the bulb and replace (do not grab bulb by the glass portion)

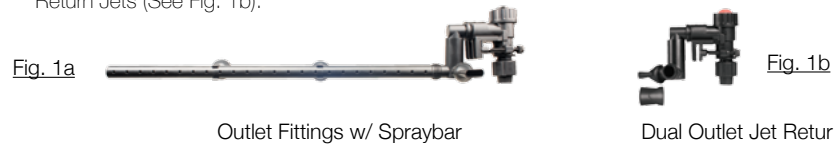


CF-500UV MKII:

- 1) Turn quartz glass tube that covers UV lamp until the ridges line up with the gap in barrelhead.
- 2) Gently lift quartz glass tube to expose UV bulb
- 3) Remove UV bulb by gently lifting up from the base of the bulb and replace (do not grab bulb by the glass portion)



- 7) The barrelhead goes back on top (be careful of the UV Sterilizing bulb and the quartz glass tube). The clips attached to the barrelhead must be hinged into place first (give a light downward push on the barrelhead to engage the bottom half of the unit). Next the clips attached to the bottom portion on the unit must be hinged into place. Make sure that the media trays are aligned properly before installing the barrelhead.
- 8) To secure the quick dis-connect valve block, you must pull up on the lever located between the inlet and outlet nozzles. Next insert the valve into designated area on top of the barrelhead. Push into place firmly and push lever down. The inlet and outlet valve is now open and secured to the Canister Filter.
- 9) How to secure inlet and outlet/return tubing to the CF Canister Filter: First slip the tubing over the nozzles located on top of the quick dis-connect valve block. Push the tubing on until it can go down no further. Next turn the fasteners, located at the base of the nozzles, until they have covered the tubing. The two fasteners secure the tubing by crimping them down onto the nozzles creating a watertight seal. Finally give a slight tug on the tubing to see if they are attached well. We recommend cutting the vinyl hoses to the appropriate length to minimize any bends, loops or kinks which will affect the prime and flow rate of the Canister Filter. Leave a little slack so that the Canister Filter can be moved if necessary for service and maintenance.
- 10) Next assemble the inlet and outlet/return lines to hang on the aquarium walls where desired. Attach the opposite hose ends to the assembled inlet and outlet fittings. The outlet line running from the Canister Filter will attach to the horizontally mounted spray bar (See Fig. 1a) or outlet Return Jets (See Fig. 1b).



The inlet line running from the Canister Filter will attach to the vertically mounted inlet bar that has The Vortex pumpless prime feature. The inlet fittings can be assembled with the inlet strainer (See Fig. 2a), or with the optional surface skimmer and strainer (See Fig. 2b). For additional instructions on the surface skimmer assembly, see pages 6 & 7.



Secure the two lines with the suction cups and clips provided. These accessories are included in the accessories box that comes with the CF Canister Filter.

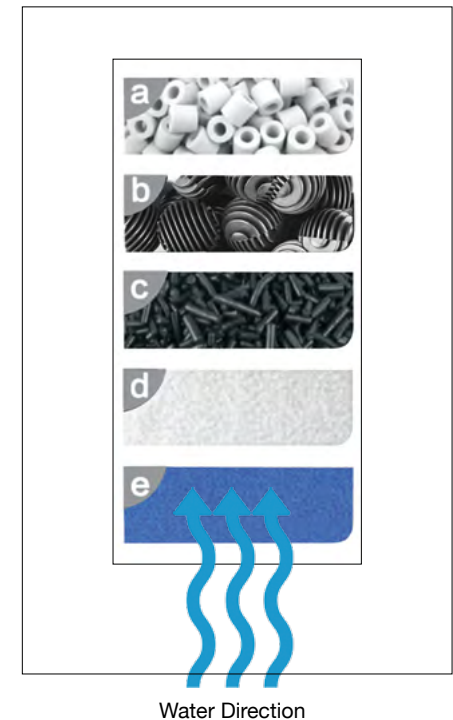
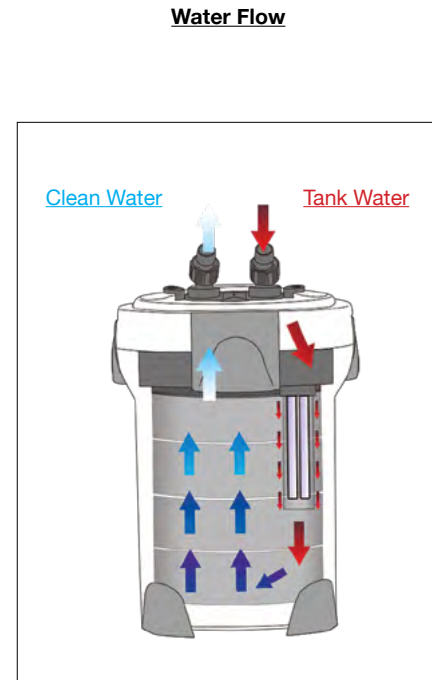
- 11) Place CF MKII Canister Filter (with attached/secured tubing) where desired underneath your aquarium.
- 12) Before plugging in your CF Canister Filter, you must fill it using the prime pump which is the oval button located on the top of the barrelhead, or the vortex pumpless prime option on the inlet tube. Priming the filter fills the Canister Filter and tubing by creating a siphon (gravity feed). Your aquarium must be adequately filled with water to do this.

NOTE: This unit includes an Adjustable Flow Control Knob located on the top of the Outlet U-bar. Do not fully reduce the flow as this can compromise the o-rings seals and leakage may occur. To stop the flow completely, simply unplug the unit.

- **Bio Filtration**
Both Bio Balls and Ceramic/Quartz Rings provide a large surface area for beneficial bacteria to colonize and break down harmful toxins in the aquarium water.
- **Chemical Filtration**
The Premium Activated Carbon removes odor, discoloration and impurities.
- **Mechanical Filtration**
The Coarse Blue Pad removes larger dirt or debris while the White Polishing Pad removes finer debris and particulates.

Tray Arrangement

- a. Ceramic/Quartz Rings*
- b. Bio Balls
- c. Premium Activated Carbon
- d. Fine White Filter Pads
- e. Coarse Blue Filter Pad

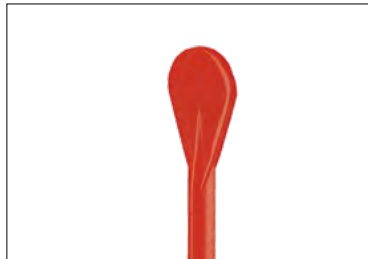


*Ceramic Rings included with CF-500UV Model Only. (Optional for CF-300/CF400UV Models)

OPTIONAL SURFACE SKIMMER DIAGRAM



1. Skimming Cup (including neck) - This is the surface water entry point. Cup grill prevents debris from clogging the Surface Skimmer.



2. Skimming control knob – use to adjust the amount of surface skimming. Rotating clockwise will decrease surface skimming and increase intake from the inlet strainer at the bottom of the siphon tube. Turning the control knob counter-clockwise will increase surface skimming and decrease intake through the bottom inlet strainer.

Note: Do not overtighten (clockwise) the skimmer control knob as it may disrupt the prime. If this occurs, it may be necessary to re-prime the canister filter using the Vortex Prime or the Priming Pump button.



3. Siphon stem & inlet strainer – the main body of the surface skimmer, water enters through both the top (skimmer cup) and the bottom inlet strainer.



4. Inlet extension tube



5. Suction cups



6. Skimmer Attachment Elbow



A) Make sure all inlet fitting connections are completely sealed and air tight in order to start the siphon



B) Make sure that there are no loops, kinks or bends in the inlet/outlet hoses.



C) With a filled aquarium, compress and depress the prime pump to remove air from the canister filter and to draw in water into the canister filter.

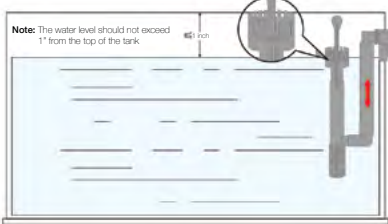


D) Once water is present in the filter and in the tubing, you will no longer see air bubbles expelled through the outlet returns.



E) Once the filter is primed, plug the unit in and water will begin to flow through the Canister Filter and back into the aquarium.

SURFACE SKIMMER INSTALLATION



The skimming cup should float freely on the surface of the water.

Note: The water level should not exceed 1" from the top of the tank.

Please install the surface skimmer according to the instructions. Rotate the Skimming Control Knob to adjust the skimming intensity between the Skimming Cup and the bottom Inlet Strainer. Rotating clockwise will decrease surface skimming and increase intake from the inlet strainer at the bottom of the siphon tube. Turning the control knob counter-clockwise will increase surface skimming and decrease intake through the bottom inlet strainer.



1. Before priming the canister filter, remove the Skimmer Cup from the Main Siphon Stem and make sure that the Main Siphon Stem opening is below the waterline, this will prevent air from entering the filter system. Note: Always ensure that the Skimmer Cup is not interfered with by a canopy, cover, rim or anything else that prevents its free movement at the surface.



3. Once the filter is functioning, insert the Skimming Cup assembly into the Main Siphon Stem (always ensure that there is a full pocket of air under the skimmer cup) and adjust the skimming intensity with the Skimming Control Knob (See Description for Skimming Intensity Adjustment Knob usage). It is recommended to adjust the unit so that the entering water line descends approximately half way (approx. 1 to 2 in.) down the transparent neck of the Skimmer Cup.



2. Prime the canister filter using the priming pump or the pumpless prime option.



A) Once the Inlet & Outlet tubing has been assembled and installed, lift the lever on the Quick Dis-connect Valve Block.



D) Place the Inlet Cap back onto the Inlet Tube. Secure the cap with the locknut.



B) Remove the Inlet Tube Cap by loosening the locknut.



E) Make sure that the quick dis-connect valve block is seated securely and then push down on the lever.



C) Pour water into the inlet opening until the hose is filled with water



F) The Canister Filter will begin filling with aquarium water and the air within the Canister Filter will be expelled through the outlet returns.

G) Allow a few minutes for the Canister Filter to completely fill with water.

H) Once the filter is primed, plug the unit in and water will begin to flow through the Canister Filter and back into the aquarium.