



Purification Kit & Skid Operation & Maintenance

Overview

The purification kit treats rainwater to drinking water standards and is suitable for all indoor water needs. The UV light system does not inject any chemicals into the water. The purification kit includes all the necessary filters, housing and housing wrenches. The kit requires the user to make all the connections necessary. The purification skid comes pre-assembled on a polyethylene mount (as pictured). The skid can be equipped with an optional jet pump, pressure tank and/or water meter.

Components

Housing: reinforced polypropylene with a high-flow polypropylene cap

Filters: 1 micron string wound and carbon

UV Light: 15 or 8 gpm UV

Optional Pump: 1 hp jet pump

Installation

Kit: Filter housings and UV light are installed in-line from the rainwater tank to the indoor water line in the order of: 1 micron string wound filter, UV light, carbon filter. All connections should be made with 1" pex pipe. Pressure gauges (not provided) and valves (not provided) should be installed prior to the 1 micron filter housing and after the carbon filter. Pressure gauges monitor flow to determine when filters require replacing. Valves allow for isolating filters for maintenance. Plug UV light into a grounded outlet.

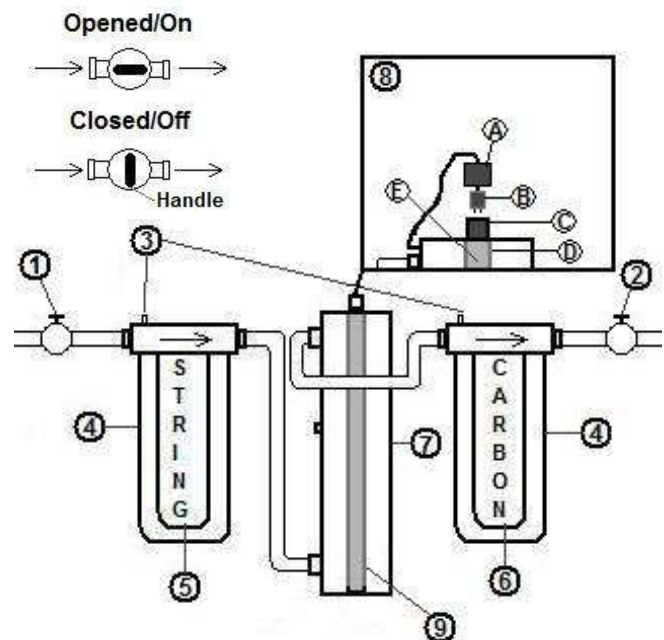
Skid: Connect the incoming rainwater line to the pump or water line entering the 1 micron string wound filter housing. Connect the water outlet from the carbon filter to the indoor water line. Plug UV light into a grounded outlet.

Maintenance

The 1 micron string wound filter and carbon filter require replacing on average every 6 months, depending on quality of water and flow. Filters will require replacing when the pressure gauge entering the 1 micron string wound filter housing is 10-15 psi higher than the water leaving the carbon filter. The UV light will require replacing every 12 months. Follow the following steps to replace the filters and UV light.

Removal and replacement of 1 micron string wound and carbon filters:

1. Turn pump off by flipping the correct breaker switch for the pump and unplug UV light from outlet.
2. Turn ball valve #2 to the off position to cut off the outgoing water from the filters.
3. If connected to a pressure tank, release pressure and excess water from system by draining the pressure tank. To do so, attach a hose to the faucet on the bottom of the pressure tank and open the faucet. Once the pressure gauge reads 0 remove hose and close faucet. Press pressure release button on filter housings (#3).



4. Remove the 1 micron string wound filter housing (#4) with the supplied wrench. Be sure to not allow the pipes to flex while turning the housing. Remove the 1 micron string wound filter (#5), wipe down the inside of the housing and replace with a new filter. Ensure the o-ring is in the groove on top of the cartridge housing and hand-tighten the housing back into the cartridge housing lid. *Do not use the supplied wrench to tighten.*

Note: Do not lose the rubber o-ring on top of the cartridge housing and make sure the o-ring is sitting properly when housing is screwed back onto the lid. Use a small amount of plumbers grease to help the o-ring stay in place and create a tight seal.

5. Repeat step four for replacing the carbon filter (#6).

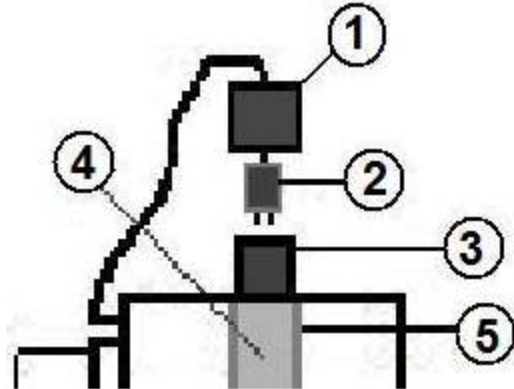
Removal and replacement of the UV bulb

Note: UV bulb or sleeve must not be touched with bare hands. Use a clean cloth while handling bulb at all times. Failure to do so will cause the bulb to fail and reduce the bulb life span.

1. Make sure unit is unplugged.

2. Remove dust cap #1

3. Remove bulb by lifting up on the socket connector. Once the bulb has started to come out of the housing grab the bulb and disconnect the socket connector from the bulb and pull the UV bulb the rest of the way out. Properly dispose of the old bulb.



4. Using a clean soft cloth, gently lower the new bulb down far enough to connect the socket connector to the bulb pins. Once connected, gently lower the bulb down into the housing. Replace the brass dust cap and plug the power cord for the UV light into the power outlet, which will illuminate a bright blue light from the sight port hole found on the side of the UV light housing.

5. Turn the breaker to the pump back on and slowly open the closed ball valve on the outgoing side. Release the air built up in the water lines by pushing and holding the red button on top of each filter housing (#3) until all the air is pushed out and water starts to spray out.

Note: If there is an audible alarm, the bulb has malfunctioned

Note: If the 1 micron string wound and carbon filters were extremely dirty, clean the quartz sleeve (#5) inside the UV housing.