

Follow these easy steps to assemble and operate your Merlin Water Purifier.

1. Select your power source

- Merlin EcoSolutions Solar Panels designed especially for your purifier.
 - A 12-volt battery.
 - AC / DC convertor plugged into standard line voltage.
- Connect with the supplied electrical cords.

*Polarity MUST be respected.
Use only the electrical connectors supplied to avoid damage to your purifier.*



2. Doulton Ceramic Filter

- The .5 micron *ceramic filter* goes into the clear filter housing. Make sure it is installed.
- Place the Ceramic Filter into the clear housing.
- Check the "O" ring at the top between the blue plastic and the clear housing. Tighten the housing to prevent leaks. *Avoid over tightening so you don't damage the "O" ring.*



The wrench sent with the unit is the correct device to use when removing the clear housing sump. You may also use the wrench to re-attach the sump; but *hand tightening is recommended* to prevent damaging the "O" rings.

3. Sediment Filter

Check to make sure the *sediment filter* on the intake hose is tightened as well. This filter will clog up first when the purifier is used with visually dirty water. Familiarize yourself with how the filter housing unscrews. The stainless steel filter may be cleaned and reinstalled. Keeping this filter clean will ensure that correct and adequate outflow rates are maintained.



4. Systems Check

After ensuring the power is connected and the filters are in place and properly tightened you are ready to purify water.

5. Intake Hose & Power Switch

- Put the intake hose into the water to be purified.
 - Turn the power on.
- The power switch is in the panel next to the pump. You should hear the pump running, if not check the power source.

6. Bleeder Valve

- Once the water is flowing:
- Locate the red button on the top of the ceramic filter housing. This button is the "bleeder valve".
 - Press the button down to let the air in the system escape. When the air stops "hissing" and water starts coming out of the valve, release the red button.

Bleeder Valve



7. Ultra Violet Sterilizer

Make sure Ultra Violet sterilizer bulb is working by visually checking the inspections slots in the plastic ends caps of the stainless steel UV light housing connected to the outlet hose.



A purple/blue light will be visible in the inspection holes in the black caps at the end of the housing. In broad daylight this may be difficult to see, so cup your hands over the tube ends and check to see the glowing light.

WARNING! Never Look into an Uncovered UV Bulb that is Turned On. It Will Damage Your Eyes and Skin!

It is very important to allow the UV bulb to warm up for 1 minute of running/pumping water before drinking or using any water from the purifier. The bulb must warm up properly. In cold weather, under 40 degrees Fahrenheit, allow 2 minutes for warm-up.

This UV tube provides a purifying blast/ray of ultra-violet light that sterilizes all unwanted organisms, cysts, bacteria, and viruses as the water passes through the Merlin Water Purifier.

8. Positioning Your Purifier

- There are 3 screws that can be removed to "open" or unfold the purifier allowing it to be laid flat.
- The purifier should be vertical when running. This lets all air within the system be expelled along with the outflow of water.
- Hang the purifier flat on a wall using the holes in the top of the back-board, or
 - Set the purifier on a flat surface when it is in the collapsed triangle shape.

Storage Maintenance

When not in use for any extended period of time drain all water from the system.

- Unscrew both filter housings.
- Drain completely.
- Turn the pump on and run the pump dry for 1 minute.
- Then turn the purifier upside down and continue to drain all remaining water from the hoses and UV tube.
- Let the filters air dry completely before reinstalling and assembly.

Never let any water freeze in your purifier.

Finally - A Word of Caution...

Because there are so many unknown contaminants in our water today, especially chemicals, we cannot guarantee this device will eliminate all potential health hazards. We strongly recommend each water source be tested by a certified local testing agency after running the water through the Merlin Water Purifier.

The Merlin Eco-Solutions Water Purifier One Year "Money Back" Guarantee

If for any reason the purified water does not test as "potable" simply return the Merlin Water Purifier in original packaging within one year of purchase. You must include the original purchase receipt and a copy of the failed water test. Your purchase price will be refunded.



Cleaning the Filters

The Doulton Ceramic Filter

The Doulton Ceramic Filter is a relatively soft, washable material, unlike most "throw-away" filters that are used on other purifiers.

When the water out-flow rate decreases, it is likely that one or both of the filters are clogged or dirty.

To clean the Ceramic Filter

DO NOT DROP THIS FILTER!
It could break or shatter.

- Unscrew the clear housing.
 - Remove the filter.
 - Gently scrub the filter with a soft brush or cloth, or simply rinse it by hand.
- DO NOT SCRUB HARD!** The filter material will be scrubbed away if cleaning is too aggressive.

NOTE: Ceramic filter housing is either blue or clear.



Filter Gaskets

There are two soft rubber O-ring gaskets on the ceramic filter, one at each end. **These gaskets are Essential!** The water going through the purifier will NOT be properly filtered if these gaskets are not present and properly sealed.

- Take the filter out of the housing.
- Make certain the two removable O-ring gaskets are in place.

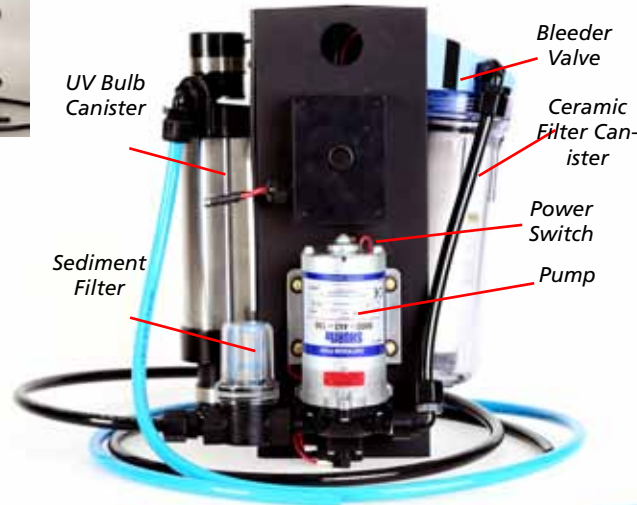
TIP: When replacing the Ceramic Filter keep the used rubber gaskets as spares.

Ceramic Filter Gauge

• On the bottom of the filter housing panel there is a "half circle" cut out of the backer board. This is the *filter gauge*. If the ceramic filter fits into this half circle, the filter is worn out. Replace the filter.

To clean the Sediment Filter

- Unscrew the sediment filter housing on the intake hose.
- Remove the filter.
- *Using Purified Water* gently brush or rub clean the stainless steel screen.
- Return the filter to the housing.
- Screw the cap back on.



With clean filters and an adequate power source, approximately 1 gallon, or four liters of potable water will be delivered every minute.

UltraViolet Sterilizer

To replace the UV Sterilizer Bulb

If the purple/blue light is not visible, it is time to replace the UV sterilizer bulb:

- Unscrew the stainless steel band clamps around the black cover caps at each end.
- Remove them.

If you still do not see light:

- Disconnect the power source to the purifier.
- Slip the plugs off the bulb at each end.
- Remove the broken or burned out bulb from the chamber.
- Insert the new UV bulb into the chamber without touching it (*use a tissue or cloth to hold the bulb*).
- Slide the electrical contacts at each end of the bulb back into the slots in the plug.
- Replace the black cover caps and re-tighten the band clamps.

TIP: The UV bulb treats water for 9000 hours of use or for 2 years of intermittent use even if the bulb still lights.

For replacement filters or UV bulbs visit
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**Merlin EcoSolutions
Solar Water Purifier**



**Operating &
Maintenance
Instructions**

Please Read Carefully Before Using Your
Merlin Water Purifier