

Congratulations! You have purchased the very best personal water purifier available. 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 do not 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 damage the "O" rings.

Slip-On Fabric Cover

Use this fabric slip-on cover for the ceramic filter housing when in or near direct sunlight. This cover discourages the growth of algae in the housing.

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.

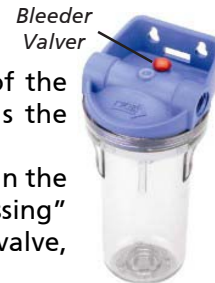
5. Intake Hose & Power Switch

- Put the intake hose in the water that you are purifying.
- 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.



7. Ultra Violet Sterilizer

Check the Ultra Violet sterilizer bulb is working by visually checking the inspection 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,
- 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 re-installing 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 its original packaging.

You must include the original purchase receipt and a copy of the failed water test within one year from date of purchase. Your purchase price will be refunded.

(Shipping costs are not covered by this money-back guarantee.)



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

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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:

- 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 done too aggressively.

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



Filter Gaskets

There are two soft rubber 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 off the filter.
- Locate the two removable gaskets.

When replacing the Doulton Ceramic Filter it is advised to keep the rubber gaskets from the filter being discarded as spares in case a gasket gets lost or damaged.

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.



For maximum efficiency your Merlin Water Purifier must be maintained properly.



Replacing the UV Bulb

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

- First disconnect the power source to the water purifier.
- Unscrew the stainless steel band clamps around the black cover caps at each end.
- Remove them.

If you still do not see light:

- 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.

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



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Merlin EcoSolutions
Solar Water Purifier



Operating & Maintenance Instructions

Please Read Carefully Before Using Your Merlin Water Purifier