### REPLACING YOUR ECHO FILTER

## How to Replace the Filter

↑ IMPORTANT! Stop water flow prior to filter replacement.

# 1. Stop water flow by turning the power switch on the back side of the product to the OFF position.

When the digital filter life indicator displays 0000 or you see the flickering filter symbol, it is time to replace your filter.

If you do not replace the filter, the machine will no longer function until you change the filter with a genuine filter.



### 2. Open the filter door.

Press gently on the indentation on the side of the filter door to open.



### 3. Remove the expired filter.

Take hold of the filter securely with your hand, press the top of filter firmly down against the spring-loaded mechanism (Figure 1) to disengage the top of the filter and then pull it toward yourself (Figure 2) and up to remove it.

The upper part of the filter is separated from housing by pressing firmly down. Once you have engaged the spring-loaded mechanism, you can easily remove the filter from the main body by pulling it toward yourself. Remove the B filter with the same method as above. You may need to use a dull knife or what AB

a butter knife to press down on the top of the

small filter.

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### 4. Insert the new filter into the compartment.

Remove the plastic caps covering both ends of the new A filter.

Set the large opening (on the bottom of the filter cartridge) onto the base in the center of the filter cushion. Push the filter down and into the housing compartment, ensuring that the opening at the top of the filter is seated properly into the fitting at the top of the housing.

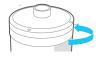


Change the B filter with the same method as above.

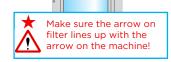


#### 5. Once the new filter is installed, rotate the filter until the arrow on the filter is aligned with the arrow on the machine.

Your Echo® filter is equipped with a genomic chip. This chip communicates with the machine how much water has flowed through the filter.







6. The filter life indicator will automatically reset once the machine detects a new filter present.



Check for leaks by running water through your machine before replacing the housing cover.



#### 7. Flush out the carbon dust.

The water flowing through will initially come out discolored (light to charcoal gray) due to carbon particulates in the new filter. It is not harmful.

Allow the water to flow for two to three minutes in the "Filtered" mode to flush out all the carbon dust

8. Replace the filter door.



### **COMPOSITION OF FILTER**

## **High Performance Carbon Filter**

Replacement Filter (for Echo Ultimate) Echo® Ultimate Secondary Filter Fiber Filter Activated Carbon KDF55 (NSF / ANSI Standard 42) (Coconut Husk) Fiber Filter KDF55 (NSF / ANSI 42) Activated Carbon Fiber Filter Activated Carbon (NSF / ANSI Standard 42) (Coconut Husk) Fiber Filter Tourmaline (NSF / ANSI 42) Fiber Filter Mesh Gauze

# Recommended period for changing filter

The effective period of filter use may differ greatly depending on the season, usage, and environment (i.e. water pressure, quality, of source water and, amount of use).



Please replace the filter when prompted by the machine or if any of the following occur:

- The water no longer tastes clean.
- Your machine has not been in use for a month or more.

### MEASURING THE PH OF WATER

#### **Important Note**

Water quality and mineral content vary greatly in di erent locations and will directly impact machine performance with respect to pH and hypochlorous acid production.

1. Fill the test container provided about 1/2 full with alkaline, acidic, filtered water or H2 water.

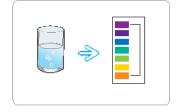


2. Add two or three drops of the pH reagent into the container and stir.

If the reagent and water are not mixed well, an incorrect reading may occur.



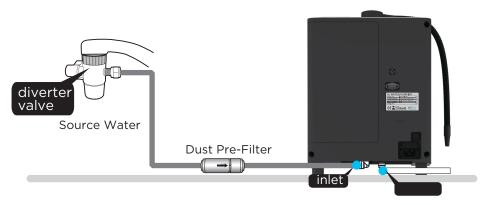
The pH value is determined by matching the color of the water to the pH color chart provided. A digital pH meter is more accurate than reagent.



- CAUTION
- DO NOT consume water containing pH reagent.
- Keep the pH reagent liquid and color chart away from open flames!
- CAUTION If the liquid comes in contact with the eyes, flush liberally with fresh water and seek medical help.
  - If ingested, induce vomiting, and seek medical help.

### COUNTERTOP INSTALLATION INSTRUCTIONS

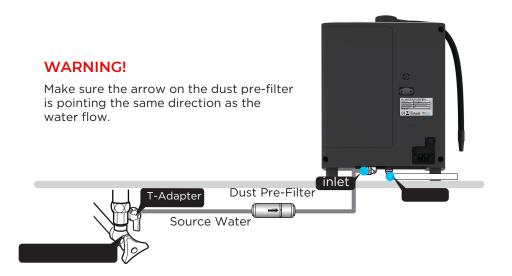
# **Connecting to a Standard Faucet**



#### **WARNING!**

Make sure the arrow on the dust pre-filter is pointing the same direction as the water flow.

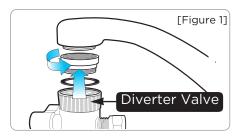
# Connecting to a Cold Water Valve



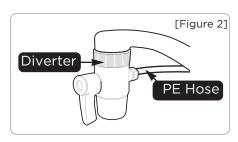
## **CONNECTING TO A STANDARD FAUCET**

#### **Installation Procedure 1**

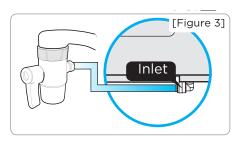




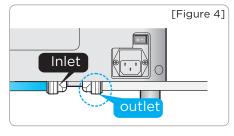
1. Remove aerator from faucet. Attach diverter valve. Use sizing rings and grommet if needed.



2. Connect 1/4 in. (PE) hose to the diverter in "Figure 2."



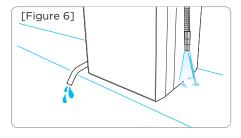
3. Push the 1/4 in. (PE) hose all the way into the water inlet at the bottom of the machine.



**4.** Connect the stainless steel acid line to the acidic outlet and allow it to drain into your sink.



5. After finishing the connection of "Figure 4," open the water supply valve and adjust the water pressure.



6. Check for leaks on all connections after installation is complete.

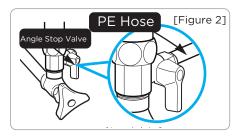
## CONNECTING TO UNDERCOUNTER WATER LINE

#### **Installation Procedure 2**

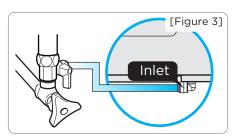




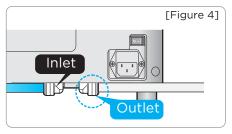
1. Loosen the nut of the cold water valve.



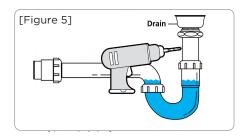
Connect 1/4 in. (PE) hose to the tadapter in "Figure 2."



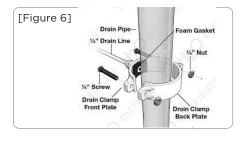
3. Push the 1/4in.(PE) hose all the way in the water inlet at the bottom of the machine.



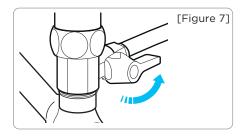
4. Connect one end of the 1/4in tubing to acidic outlet and the opposite end to drain saddle.



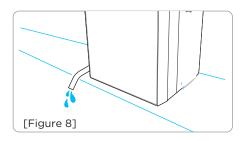
5. Choose where the drain clamp will be installed and drill a ¼inch. hole.



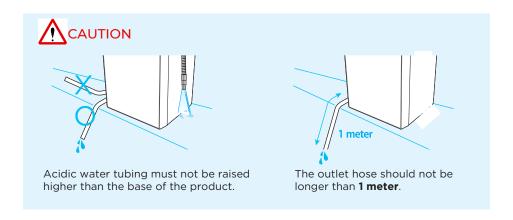
6. Insert the foam padding to the inside of the Drain clamp, around the hole. Apply the drain clamp to the drain pipe using the included nuts and bolts.

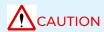


7. After finishing the connection of step 6, open the water supply valve and adjust the water pressure.



8. Check for leaks on all connections after installation is complete.



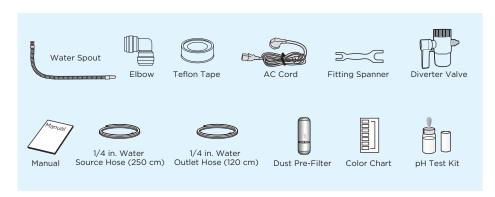


When using a reverse osmosis filter with your Echo Ultimate, verify that the RO storage tank pressure is 11 to 13 psi.

You will also need to remineralize the water to have at least 50 to 100 TDS in the water for optimum performance.

You can purchase a TDS meter at a reasonable price.

### Accessories



# **PRODUCT SPECIFICATIONS**

| Product Manufacture                       | No. 610 by KFDA (Ministry of Food and Drug Safety)  |  |  |
|---|---|--|--|
| Permission Number                         | No. 010 by N. DA (Hillistry of 1 000 and Drug Safety)                                       |  |  |
| Feature                                   | Hydrogen/Ion Water Generator  |  |  |
| Model                                     | Echo Ultimate   |  |  |
| INPUT Voltage                             | AC 110V ~ 240V, 50Hz~60Hz   |  |  |
| Power Supply                              | SMPS  |  |  |
| Power Consumption                         | Max 420W  |  |  |
| Overall Dimension                         | 10 3/8 x 8 7/16 x 14 5/8 (L x W x H) inches,<br>263.525 X 214.3125 X 371.475 (L x W x H) mm |  |  |
| Applicable Water Inflow<br>Pressure       | 10-71psi / 0.7-5Kgf/cm²   |  |  |
| Applicable Water<br>Temperature           | 41-86°F / 5°C-29°C  |  |  |
| Unit Operation Type                       | One Touch Automated Start   |  |  |
| Electrolysis Method                       | Continuous Electrolysis / Proprefary Hydrogen Module  |  |  |
| Electrodes in Alkaline/<br>Acid (Chamber) | 5 Layers of Platinum Over Titanium, 9 Electrodes  |  |  |
| Electrodes in Hydrogen<br>Module          | 2 Electrodes Platinum Coated  |  |  |
| Electrolysis Capacity                     | DARC system (3.5L/min. at 49.8 psi)   |  |  |
| Electrolysis Setting                      | H2 Water / Alkaline (4 levels) / Acidic (4 levels)  |  |  |
| Automatic Cleaning                        | Patented Anti-Sealing Technology<br>Reverse Polarity Every Use.                             |  |  |
| pH Value                                  | pH 4.0(±0.5)-11.5(±0.5)   |  |  |
| Filter Replacement                        | Easily Replaceable Cartridge  |  |  |
| Filter Composition                        | Activated Carbon, KDF55, Tourmaline   |  |  |
| Filter Life                               | 1056 gal./4000L   |  |  |
| Filter Life Indicator                     | LCD Graphic Display, Voice Prompt   |  |  |

# TROUBLESHOOTING GUIDE

| Abnormal Condition  | Cause(s)  | Resolution   |
|---|---|--|
| The Function Display Panel does not come on.  | The power plug is not properly inserted, or it is inserted into a faulty outlet.  | Properly insert power plug into a correctly functioning power outlet.  |
|   | The fuse is blown.<br>The fuse is not inserted properly.  | Replace the fuse. A spare<br>fuse is located in the rear-<br>panel fuse holder. (5A /<br>250V fuse)  |
| pH test shows alkaline water<br>color as neutral (7) while<br>acidic water color gets yellow<br>(6). This is normal | Faulty or evaporated reagent: alkaline / acidity are always produced in inverse proportions. Therefore, showing an acidic color means inversely that alkaline water has to be generated from the unit. Lack of alkaline color can result from a chemical reaction where carbonic acid in water evaporates some test reagent elements. | Test pH value on level 3 or<br>4 water: replace reagent.<br>Test TDS of source water.<br>The optimal TDS is 75-150<br>ppm.   |
| Power supply is suddenly cut o while operating the unit.  | Elevated level of salt in the water or high TDS, extended operation at high pH, or sudden change in electrical current. In these cases, your machine will shut down automatically to protect the electrodes and circuitry.  | Wait — the unit will become operational again after about one hour. Your machine has a safety mechanism built in to protect the electrodes and circuitry. This mechanism will shut the machine down automatically. This mechanism protects the unit from damage or excessive electric current. |
| Low output of alkaline water from the unit.   | Filter is clogged. Premature clogging may be caused by sudden drop in water quality and high level of sediment or other contaminants, which clog the filter.  | Replace your filter or clean dust pre-filter. There may be calcium buildup in the top spout. Clean the machine with the cleaning cartridge. Call customer support to order a new filter and cleaning cartridge.  |
|   | Low pressure in your household plumbing.  | Ensure water supply valves are fully open. The water pressure in the house may be too low.   |
|   | The input hose is bent, kinked, or otherwise restricted.  | Straighten any bent hose.  |

# TROUBLESHOOTING GUIDE

| Abnormal Condition  | Cause(s)  | Resolution  |
|---|---|---|
| The Function Display Panel / display indicators do not come on even after turning the tap on. | Faulty PCB<br>(Printed Circuit Board)   | Immediately unplug the unit and contact customer service toarrange service.   |
| Strange smell from alkaline water.  | Expired filter from ordinary use or premature clogging due to contaminants in water quality.  | Replace your filter.  |
|   | Sudden change in water quality with elevated level of sulfur (not chlorine). Elevated sulfur levels are observed in some areas during summer months. These levels fall within safe drinking water standards, yet will cause a reaction with electrolyzed water, causing a sulfur smell.               | Select lower pH level (1-2). If still present, filter replacement may be necessary.   |
| Alkaline water appears murky;<br>(white, snow-like particles in<br>the bottom of your glass). | You have high hardness (primarily calcium) in your water. The white is extracted CaCO3 (calcium carbonate). After CO2 in water is bonded with Ca where elevated levels of CO3 exist in your water. In water where elevated levels of CO3 exist, what you see after electrolysis is calcium carbonate. | This is calcium and is harm- less. You can lower the alkaline setting to 1 or 2. Lower the voltage to the electrodes. Typically, this only occurs in extremely hard water. You can also add a softening pre-filter. |
| At first no smell, but then smell from the alkaline water about one hour after.               | Your water bottle needs cleaning.Expired filter. Dish washer detergent is embedding itself in the bottle's materials.   | Clean your bottle or<br>container. Select lower pH<br>level (1-2). Replace your<br>filter. Change dishwasher<br>detergent brand.  |
| Water leakage from the filter cartridge housing.  | Filter not installed correctly into filter housing.   | Remove your filter and reinstall it, properly following the filter replacement instructions. Increase the quantity of source water inflow.  |
| No acid water flow from the bottom water outlet.  | Bottom water outlet hose is bent, kinked, or otherwise restricted.  | Straighten the bent hose.<br>Increase water flow from<br>supply.  |



### **ECHO TECHNOLOGIES**

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