

# Ettore Aquaclean EZ Pure System User Manual



Manufactured in the USA  
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The EZ Pure System (D) Above consists of the following components as shipped:

- 1) Carbon and Sediment Filter
- 2) RO Membrane #1
- 3) RO Membrane #2
- 4) DI Cartridge
- A) Outlet Fitting
- B) Inlet Fitting
- C) Bypass Hose and Flush Valve



## **General EZ Pure System Overview:**

This Carbon – RO – DI Water Purification System is expected to perform as follows:

- 1) The intended use is to produce Pure Deionized Water for cleaning purposes.
- 2) De-Ionized Water for cleaning Glass should be held to 10 ppm TDS or less, painted surfaces, siding 50 ppm TDS or less and automobile cleaning 40 ppm TDS or less.
- 3) The system does not produce potable water.
- 4) Water Flow: Water Pressure input 40 to 140 psi input operating pressure.
  - a. Pure Water Flow:
    - i. 40 psi @ 65 degrees F – 1/2 Gallon per Minute
    - ii. 60 psi @ 65 degrees F - 1 Gallon per Minute
    - iii. 80 psi @ 65 degrees F - greater than 1 1/2 Gallons per minute.
    - iv. Lower water temperatures will reduce water flow.
  - b. Bypass Water Flow  
Bypass water carries away the impurities rejected by the RO Membrane, This rejection is an important part of the purification process; bypass water is a normal byproduct while the EZ Pure is operating.  
Close the Valve to produce pure water. *Note: some bypass water will continue to flow*
    - i. Bypass water will be produced in ratio to the water pressure.
    - ii. Bypass Water Ratio will typically range from 40 to 60% of the pure water output.

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The Bypass Valve will always permit some water to pass from the system. At the end of each pure water production cycle the Bypass Valve should be opened entirely (Flush Mode) and the RO Membrane flushed for 5 to 10 minutes. The EZ Pure should be flushed for at least 20 Minutes per week.

## 5) Expected results - Water Purification

Input water will be cleansed of Total Dissolved Solids and Chlorine

### a. The Carbon Filter Removes the Chlorine.

- i. If used regularly several days each week, the Carbon Filter should be replaced every 4 months.
- ii. If used half Time replace the Carbon Filter twice per year
- iii. Always replace the Carbon Filter at least once per year.

The Carbon Filter protects the RO Membrane from damage by Chlorine, Not conforming to the schedule above Carbon Filter can reduce the service life of the RO Membrane by allowing Chlorine to burn holes in the membrane.

### b. The RO Membrane rejects greater than 85% of the input water TDS.

- i. The RO Membrane should last 3 to 5 years in constant use.
- ii. Carbon Filter changes and regular flushing of the membrane are requires to get the best service life.
- iii. RO Membrane life is enhanced via regular use and high water pressure (80 psi or above) in-consistent use may cause the membrane to dry out and require replacement. Lack of regular flushing pressure or low pressure (lower that 60 psi) use may cause packing and constrict water flow causing premature replacement.

### c. The DI Cartridge removes the balance of the TDS from the water.

The life of the DI Cartridge is determined by the amount of input TDS from the tap water source and the number of gallons the system produces. Monitor the output TDS using a handheld TDS Monitor to evaluate the tap water input and pure water output. Test at startup and every 3 hours of use.

#### i. Input TDS is categorized as follows:

- |                  |                  |
|------------------|------------------|
| 1. Low TDS       | 90 or less       |
| 2. Medium TDS    | 91 to 190 TDS    |
| 3. High TDS      | 191 to 350 TDS   |
| 4. Very HIGH TDS | 350 TDS or Above |

TDS around the country varies tremendously, with some areas near Zeor and other areas as high as 1200 or more.

#### ii. Output TDS is categorized as follows:

- |                     |             |
|---------------------|-------------|
| 1. Glass Cleaning   | 10 or less  |
| 2. Painted Surfaces | 50 or less  |
| 3. Siding, Brick    | 50 or less  |
| 4. Automotive       | 40 or less. |

When your EZ Pure System Pure Water System reaches the TDS for your intended surface it is time to replace the DI Cartridge.

## 6) Do not store this unit where it is susceptible to freezing.

## 7) We encourage you to keep a spare DI Cartridge within easy access of the EZ Pure System.

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## Initial Assembly

Locate the

- A) Output Water
- B) Input Water
- C) Bypass Water and Flush Valve

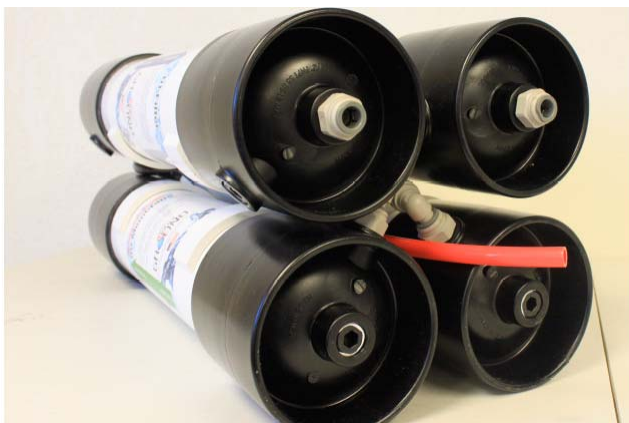
Components

- 1) Select the (A) Output Water Bib, with the Male Garden hose fitting and insert it into the End of the housing Labeled DI Cartridge (Supplied bib may have longer hose attached than depicted)
- 2) Select the (B) Input Water Connector, with the Female Garden hose fitting and insert into the end of the housing labeled Carbon Filter. (Supplied bib may have longer hose attached than depicted)
- 3) Select the (C) Bypass Water and Flush Valve and locate the loose tube that is attached to the side of the RO Membrane, insert the tube into the Bypass Valve.

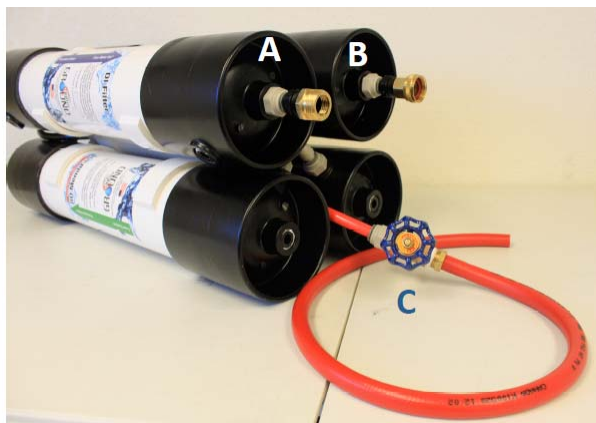
Component Parts as Shipped



EZ Pure As Shipped



EZ Pure After Initial Assembly



You are now ready to use your new RHG EZ Pure.

Handheld TDS Meter

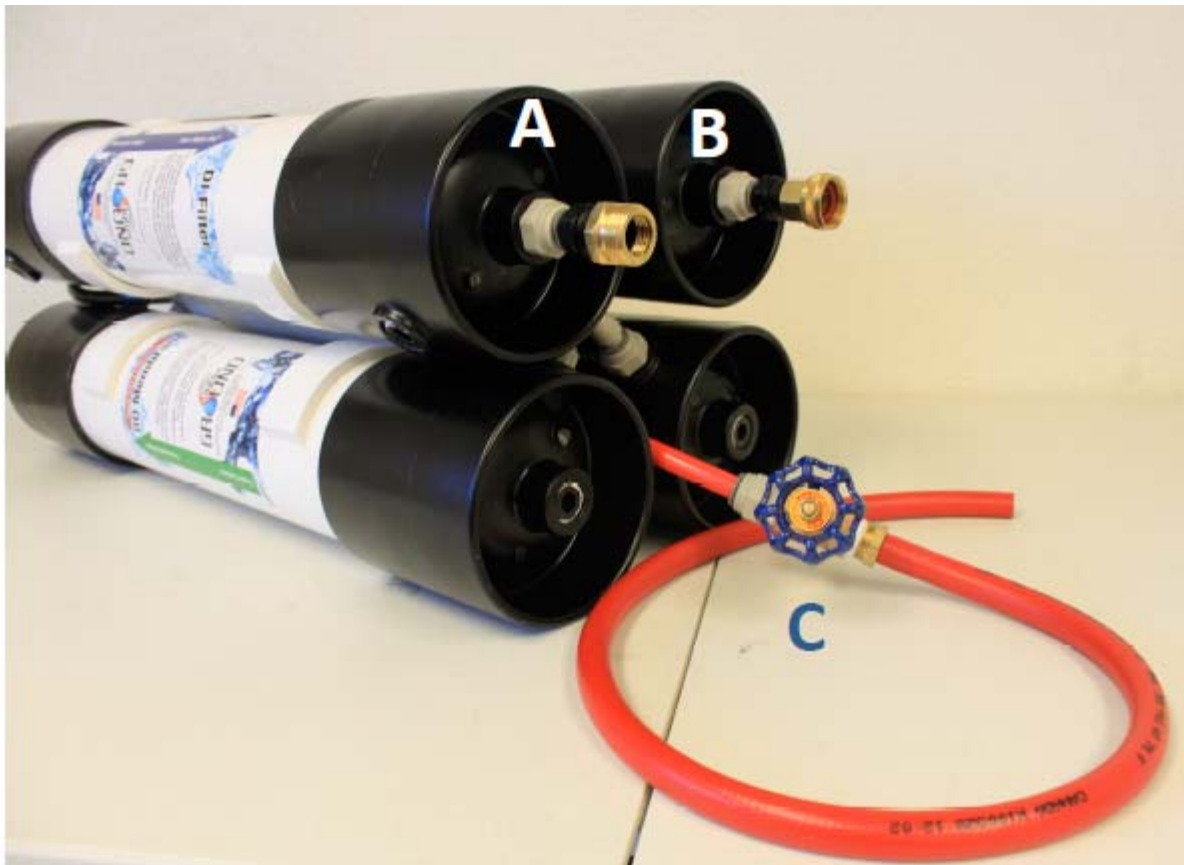
First Use:

- 1) Open the Bypass and Flush Valve all the way (Counter Clockwise)
- 2) Attach your tap water source to the (B) input connector
- 3) Turn on the tap water.
- 4) Run the EZ Pure in this configuration for 3 minutes.
- 5) Close and lightly hand tighten the Bypass Valve down into Production Mode (Clockwise)
  - a. Water will still be exiting the bypass hose
- 6) Run the EZ Pure in this configuration for 5 minutes.



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- 7) Test the input tap water and pure water output from your EZ Pure with a handheld TDS meter the initial output reading should be 3 or less.



## Regular Use

- 1) Open the Bypass and Flush Valve all the way (Counter Clockwise)
- 2) Attach your tap water source to the (B) input connector
- 3) Turn on the tap water.
- 4) Run the EZ Pure in this configuration until any air is expelled from the system.
- 5) Close and lightly hand tighten the Bypass Valve down into Production Mode (Clockwise)
  - a. Water will still be exiting the bypass hose
  - b. Allow 30 Seconds or so for system to settle.
- 6) Test the input tap water and pure water output from your EZ Pure with a handheld TDS meter the initial reading should be 3 or less.  
Test output TDS every 3 hours.

Handheld TDS Tester



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## Low Water Flow

Low water flow is generally caused by low input water pressure.

- 1) Test the tap water pressure to see if during water production the PSI of the input water flow is 60 psi or more.
- 2) If the pressure is lower than that consider the use of a booster pump to raise the input tap water pressure.
- 3) Booster Pumps are recommended for Water pressure below 60psi.

A 110v Booster Pump can be attached in front of your EZ Pure to boost input water flow. There are many pump configurations and the Wayne pump picture below is commonly available and is rated to provide a 40psi boost.



Be careful when working with any electrical device around water, use a GFCI extension cord to help assure your safety.

Should the added pressure from a pump not provide adequate pressure, then your RO Membrane may need testing and replacement.



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## Replacing Cartridges

As indicated in the general overview the Carbon Filter and DI Cartridge will require regular replacement. Perform this one housing at a time to preserve the correct connections as you replace filters and cartridges/

Steps to follow:

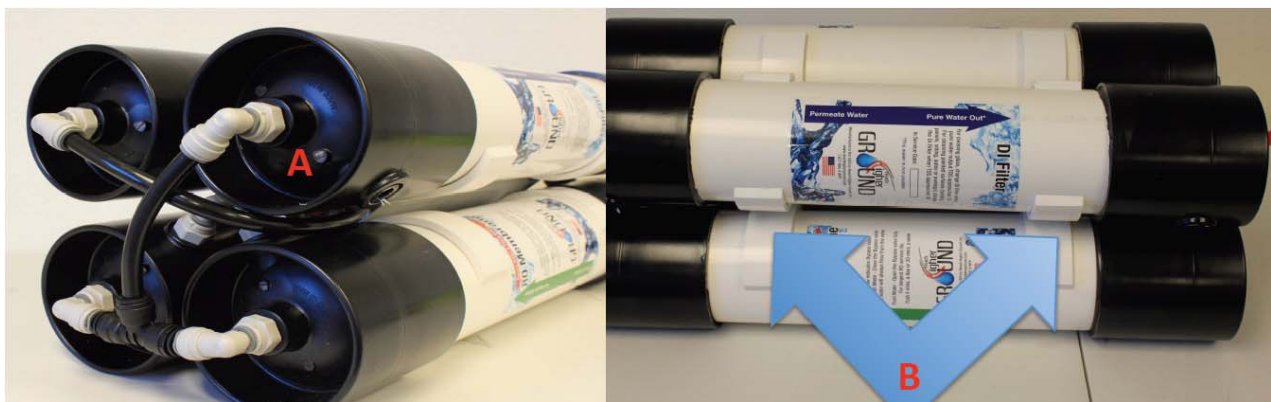
- 1) Select the housing to be replaced.
- 2) Disconnect the fittings from the housing.  
Simultaneously:
  - a. Push the grey collar toward the housing
  - b. Pull the tube from the collar.
- 3) The tube will become loose as shown →



- 4) Tug at the housing to remove it from the holding clamps →



- 5) Insert the new housing in the clamps (B) and reconnect the tubing (A).



Your EZ Pure is now ready for the First Use Startup procedure (again)