

## WHOLE HOUSE SYSTEM INSTALLATION CHECKLIST

Keep a copy of this document for your records.

### **REQUIRED TO ACTIVATE WARRANTY:**

Please have installer complete this checklist, email it to:

**Highly Recommended:** Schedule the installation during the following hours: (Mon-Fri, 11am-5pm *Mountain Standard Time*) to ensure we're available to assist.

**CUSTOMER'S ORDER#** \_\_\_\_\_.

I, \_\_\_\_\_ (*Installers' Full Name*), of: \_\_\_\_\_  
(*Company*), confirm that I've **initialed next to the completed steps below**:

\_\_\_\_ **1. Ensured to remove shrink wrap from cartridges inside the system/housings.**

\_\_\_\_ **2. Used the supplied fittings for connecting to the system/s.**

\_\_\_\_ **3. Measured the water Pressure (PSI) to ensure it is under 80PSI.** If the pressure is 80 PSI or greater and/or has a tendency to spike, a pressure-reducing valve (set below 80PSI) was installed BEFORE the entire filter system.

\_\_\_\_ **4. Ensured that the direction of the water flow matches** the directional indicators (e.g. In/Out Labels and/or Flow Direction Arrows) on the relevant components.

\_\_\_\_ **5. Created a Bypass around the entire filter system**, so that in an event the filter system is out of service the customer can still get water to their home.

\_\_\_\_ **6. If there's a fire suppression system**, connected its water supply **BEFORE** the leak-stopper device, to avoid water being shut off to it in case of fire.

\_\_\_\_ **7. Installed the included automatic Leak-Controller / Shut-Off Valve** at the INPUT of the entire whole house filter system.

\_\_\_\_ **8. Installed a garden hose faucet at the INPUT and OUTPUT** lines connecting to the filter system so that customer can flush cartridges/ bypass filter with garden hose.

\_\_\_\_ **9. If Customer purchased our Descaler-MAX<sup>TM</sup>**, ensure its installed as the Last stage of filtration and that the Descaler cartridge was inserted only after flushing preceding cartridges.

\_\_\_\_ **10. Thoroughly verified the installation to ensure there are no leaks and that the leak-stopper is functioning properly.**

\_\_\_\_\_  
Installers Signature

\_\_\_\_\_  
Installers License #

\_\_\_\_/\_\_\_\_/\_\_\_\_\_  
Installation Date



**PUREEFFECT**<sup>TM</sup>  
ADVANCED FILTRATION

**ULTRA-WH-PRO**  
*State-Of-The-Art Home Filtration Technology*

# INSTALLATION OPERATION MANUAL



Please read this manual carefully and save it for future reference.

For assistance/support, contact us at:

[www.PureEffectFilters.com](http://www.PureEffectFilters.com) / 1-347-492-4014 (Mon-Fri 11am-6pm MST) / [info@PureEffectFilters.com](mailto:info@PureEffectFilters.com)



## CONTENTS OF BOX

**Straight Connector**



**90 Degree Elbow Connectors (2)**



**Umbrella Cap**



**Flow Meter Assembly**



**Filter Cap**



**Filter Housing**



**Vertical Elbows (2)**



**Drain Valve Assembly**



## STEP 1- Assemble Main Tank Connections

Check plumbing pressure to ensure it's **under 80PSI** and determine optimal location of the Main Tank for connecting it to the main cold-water pipe; then assemble it as per **Steps 1A-1F** on next page.

**Note:** Ensure there is sufficient space for mounting the Pre-Filter and the Descaler-MAX™ (optional) housings to the right and left side of the Main Tank (see image on Page 6).

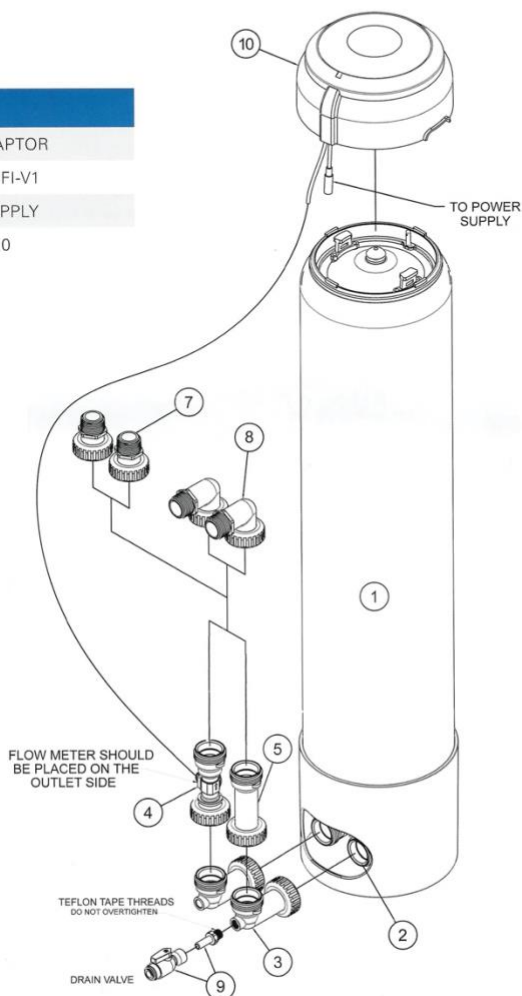
### PARTS DIAGRAM

#### SHOWN IN DIAGRAM

PART IDENTIFICATION	PART NUMBER
1. Filtration System / Housing	CTA0840BBBK5-06L00
2. In/Out Head for 1.050" Riser Pipe	CT-IOHMBK-INOOUT1050
3. 90 Degree Vertical Elbow With/without Machined Drain Port	CT-ELBOW-90DRAIN
4. Flow Meter Assembly With Cord	CT-METERASSY
5. Meter Spacer Assembly	CT-METERSPACER
6. <del>Bypass Manifold</del>	CT-IOHMBK-BYPASSMANIFOLD-GR
7. 1" MNPT Straight Connector	CT-1MNPTSTRAIGHT
8. 1" MNPT 90 Degree Elbow Connector	CT-1MNPTLNBOW
9. 3/8" PEX Drain Valve Kit Assembly With Shut-off	CT-38DRAINVALVEKIT-P
10. PCB Umbrella With Electronics Non-WiFi, Version 1	CT-PCBUMBRELLA-NONWIFI-V1

#### NOT SHOWN IN DIAGRAM

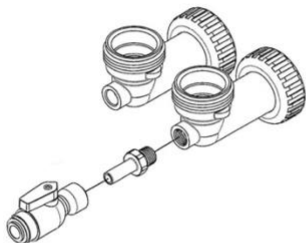
PART IDENTIFICATION	PART NUMBER
Head and Filter Adapter	CT-IOHMBK-FILTERADAPTOR
PCB Electronics Board Only Non-WiFi, Version 1	CT-PCBBOARD-NONWIFI-V1
ONE-E3-M Power Supply	CT-PIONEERPOWERSUPPLY
ONE-E3-M 10' Power Extender	CT-POWEREXTENDER10





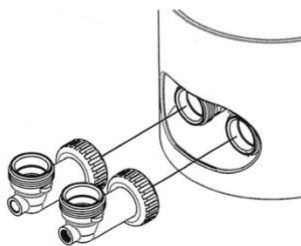
# ASSEMBLY INSTRUCTIONS

## STEP 1: TANK ASSEMBLY (SEE DIAGRAM ON PREVIOUS PAGE)



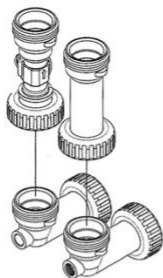
### STEP 1A

Wrap #9 (Drain Valve Assembly) with three clockwise wraps of Teflon® tape. Install/thread #9 (Drain Valve Assembly) into #3. **HAND TIGHTEN ONLY.**



### STEP 1B

Connect #3 to #2 on the bottom of Filter Housing #1. The threaded Drain Valve Assembly should be on the inlet side (right side) at the bottom of the tank. **HAND TIGHTEN ONLY.**



### STEP 1C

Connect #4 to #3; Flow Meter Assembly should be placed on the Outlet Side (left side) at the bottom of the tank. Connect #5 Bypass to #3. **HAND TIGHTEN ONLY.**



### STEP 1D

Connect #8 to #4 and #5. **HAND TIGHTEN ONLY.**

### STEP 1E

Connect 3/8" PEX plumbing to Drain Valve Assembly #9 (**NOT PROVIDED**).

### STEP 1F

Install 3-AAA batteries in umbrella cap; connect to power supply.

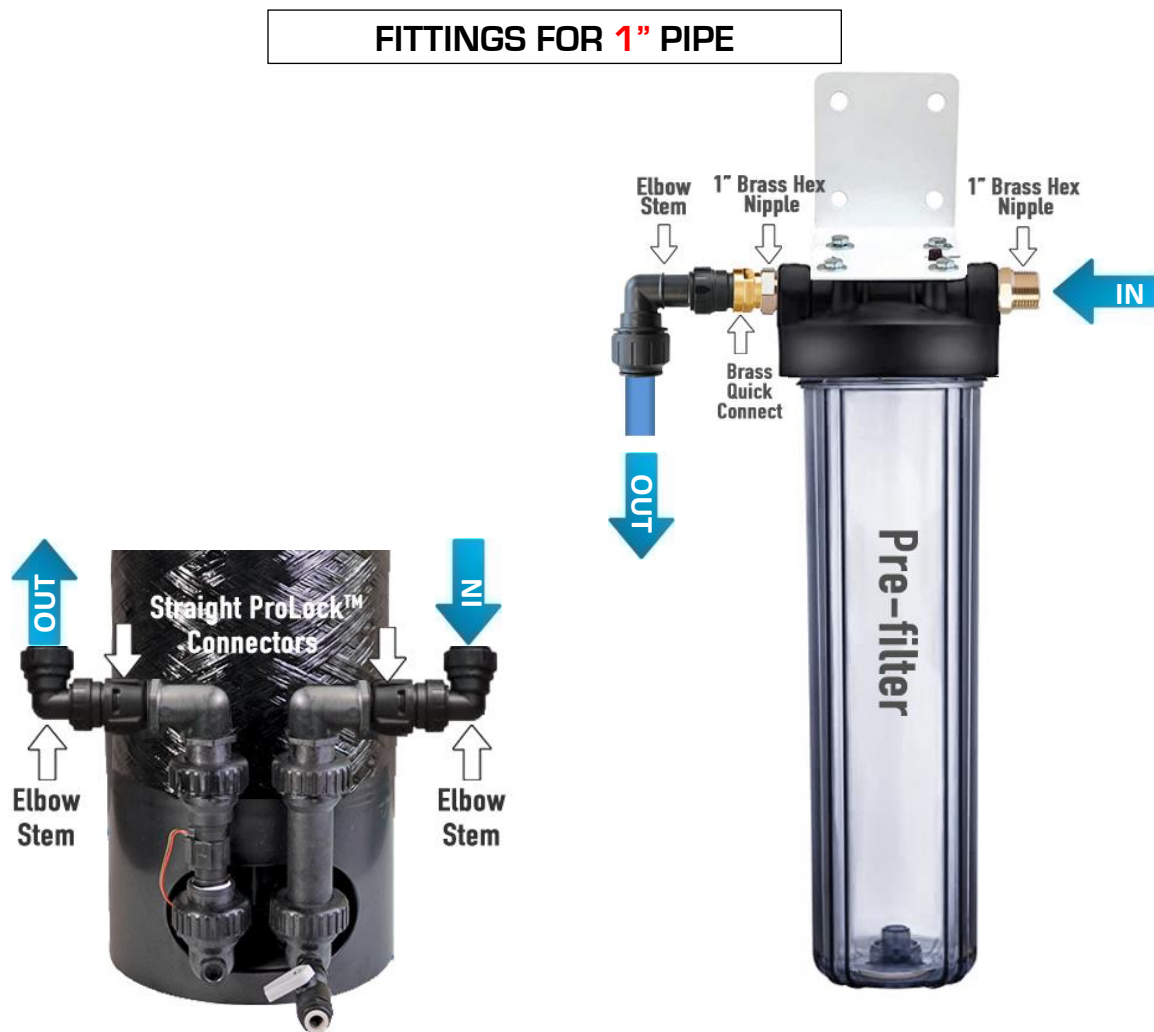
## STEP 2 - Attach Brackets & Fittings. Align & Hang Housings.

**A).** Screw the white metal brackets to the top of **Black Caps** of the **CLEAR Pre-Filter** and the **WHITE Descaler-MAX™** (if purchased) housings. (Fully assembled system image on next page).

**Note:** Use the included **Phillips** Head Screws for this. Notice the **IN/OUT** indicators on the caps before attaching bracket so as to maintain proper flow direction.

**B).** Apply sufficient plumbers' tape on the brass hex nipple threads and screw them into the in/out ports of the Pre-Filter and Descaler-MAX™ housings. **(Take care not to strip the threads).**

**C).** Connect the **JG® Speedfit™/ProLock™** fittings (included) as per diagrams below:



**D).** After the fittings are installed, ensure the housings are properly positioned/aligned against the wall in relation to the Main Tank connections so that the pipes will match up properly with all fittings when connected, then hang the housings accordingly.

**Note:** The brackets must be screwed into sufficient wall support: e.g., into wood beam or onto an additional wood support backboard (if you need to extend the housings beyond the wall).

## STEP 3 - Install Flood-Stop™ Safety Device

Connect the Flood-Stop™ (required to maintain warranty) as per its instructions **BEFORE** the system's Pre-Filter but AFTER the Bypass.

**INSERT THE SENSOR INTO THE CLOTH SLEEVE BEFORE USE!**

**Note:** Insert backup batteries into the control panel (Plug it into a GFI power outlet **AFTER** installation is complete and everything is dry). Test by dipping sensor (without sleeve) in water to ensure proper operation.

**NOTE: If there is a Fire Suppression System:** Ensure its water supply is connected **BEFORE** the leak-stopper to prevent the leak-stopper from cutting water off to it in event of a fire.



## STEP 4 - Install Bypass, Connect Pipes & Pressure Gauge

Create a plumbing bypass around the entire system but **BEFORE the Flood-Stop™ device** so one can re-direct water to the home in case the Flood-Stop™ device gets triggered and/or system ever needs to be serviced. **Connect** the pipes (Plastic piping is required with hard water and/or if adding Descaler-MAX™) to the system. **Connect** Pressure Gauge as shown below.

**Note:** After the pipes are connected, twist the black ProLock™ rings on the relevant fittings to lock the pipes in place, you should hear/feel a click, ensuring maximum security.

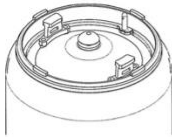


## STEP 5 – Install Cartridges

### 1. Install Main Tank Cartridge:

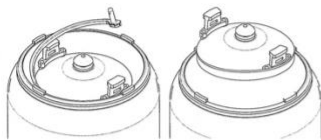


#### STEP 2: REMOVING THE TOP CAP



##### STEP 2A

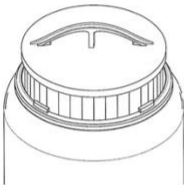
Unseat the snap ring by pushing down on the top cap with both hands. Remove the ring by taking the handle and pulling inward, then upward; the ring should slide completely out.



##### STEP 2B

Remove the snap ring on the top of the tank, then remove the top cap from the housing assembly. Lift up on the handles to pull the cap out of the top of the tank.

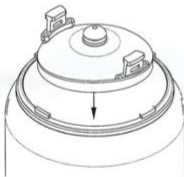
#### STEP 3: FILTER PREPARATION



##### STEP 3A

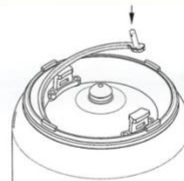
Remove the filter cartridge from the packaging, then place it into the tank with the O-ring down. Align the cartridge to the bottom center opening. *(Note: There's a small opening in the bottom center of the tank to help you align the cartridge.)* Press down on the filter cartridge so the O-ring moves down into place.

#### STEP 4: REATTACH THE TOP CAP



##### STEP 4A

Place the top cap back into its original location.



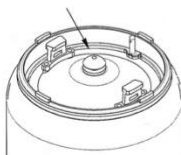
##### STEP 4B

Reattach the snap ring, then pull up on the cap to lock in the O-rings.

#### STEP 5: FINAL CHECK

##### STEP 5A

Allow enough time for glue to dry, if PVC glue fittings are used on initial system install, according to instructions provided by the manufacturer.



##### STEP 5B

Slowly turn the water back on. Press down on the red button located in the middle of the cap. This depressurizes the system and relieves it of air. Keep the button pressed down as the water comes back on. DO NOT stop pushing the button until all air pressure is released and water comes out of the depressurization button.

##### STEP 5C

Release the button, then check the system for leaks. Run water for 10 minutes through the system to make sure it's fully flushed out.



**2. Install the Pre-Filter Sediment cartridge:**

Remove the shrink wrap from the Pre-Filter and Descaler-MAX™ Cartridges that are inside the housings.

**3. Leave the Descaler-MAX™ cartridge out for now** and close that housing empty for the flush.

## **STEP 6 – Flush System & Check for Leaks**

**Flush the system** (bypassing home's plumbing) **for apx. 10 minutes and carefully check all connection points for leaks** (a flashlight can help you better target and detect leaks).

**Once the flush is complete, the system is ready for use.**

**Note:** If you purchased the Descaler-MAX™ add-on, you may insert that cartridge into that chamber after this flush. **\*If you have new copper plumbing**, leave the Descaler-MAX™ cartridge out for about 6 weeks to allow the new pipe copper leaching to clear out.

**CONGRATULATIONS YOUR INSTALLATION IS COMPLETE!**

# MAINTENANCE

**CAUTION!! BEFORE SERVICING THE UNIT:** Turn off main water supply to the home first, then open the drain valve on the bottom of the main tank and a faucet on the lowest floor of your home to release water pressure. Press the Red Pressure Release buttons on top of each housing until all air escapes & main tank's fully drained before opening housing/s.

**A). MAIN TANK CARTRIDGE:** Replace when LED lights turn Red [or sooner if water flow is significantly reduced in home despite changing PreFilter]. When the LED lights turn Yellow we recommend you order a new cartridge set as this means you have 10% capacity remaining.

## EASY TO UNDERSTAND LED REPLACEMENT NOTIFICATIONS

The Real-time Dynamic LED System monitors water and flow rate and provides a visual color-coded notification to the homeowner, letting them know when to replace their filter.



## REPLACING THE CARTRIDGE

1. Turn off the water supply to the system by shutting off the inlet and outlet valves on the bypass.
2. (Optional) Install a 3/8" PEX tubing hose to the provided John Guest® fitting and shut-off that connects to the inlet side of the filtration system. Run the hose to a floor drain or bucket, and use to drain sediment or to aid in filter removal during change-out.
3. Remove Umbrella Cap on the top of the vessel. Replace the 3-AAA batteries with new batteries. Push and hold the reset button on the metered board for 3 seconds to reset the totalizer. When the totalizer is reset the LED lights will flash green 3 times to confirm that it is reset.
4. Depressurize the system by pushing down on the red depressurization button on the top cap of the system. Keep the button pushed down until all the air or water pressure is completely released.
5. Push down the top cap with both hands to unseat the retaining ring.
6. Remove the retaining ring by carefully grasping the handle and pulling inward, then upward. The retaining ring should slide completely out of the groove.
7. Remove the top cap of the system by lifting up on the top handles, remove old filter.
8. Open the John Guest® fitting and shut-off, and flush out the bottom of the system.
9. Look down into the tank assembly, and you should see a small opening centered in the bottom of the tank.
10. Remove packaging from the new filter, place the new cartridge into the tank with the double o-ring facing down.
11. Position the cartridge so that it is aligned with the bottom, center opening.
12. Press down on the cartridge so that the double o-ring seal moves into place within the bottom, center opening.
13. Reposition the Top Cap into its original location.
14. Reattach the top tank Snap Ring, pull up on the Top Cap to seat o-rings.
15. (If completed Step 2, then...) Close the John Guest® fitting and shut-off.
16. Turn the water supply on, opening the inlet and outlet valves on the bypass.
17. Relieve the system of air in the tank as the system fills with water, by pushing down on the red depressurization button on the top cap of the system. Keep the button pushed down until all the air pressure is completely released, and water comes out of the red depressurization button.
18. Release the red depressurization button.
19. Replace the Umbrella cap to the top of the system.
20. Check for leaks.
21. Flush the new cartridge per its installation instructions.
22. During flush, confirm green LED lights are flashing with flowing water. If lights are not flashing green, go back to step 3.

### #3 UMBRELLA CAP & LED LIGHTS



### PRESS THE RED PRESSURE RELIEF VALVE & PULL SNAP-RING



### LIFT TOP CAP



**B). PRE-FILTER CARTRIDGE:** Replace every **4** months or when you notice a significant reduction in water flow and/or significant discoloration of the cartridge (e.g., **dark orange, dark brown, dark grey**, etc.).

**C). DESCALER-MAX™ CARTRIDGE:** Replace every **2** years (regardless of gallons used).

**D). ONCE A MONTH:** If you're on CITY WATER, it is recommended to bypass the whole filter system and run regular city water through your plumbing by opening all the faucets (hot & cold) in your home for apx. 5 minutes. This will help periodically sanitize your pipes with chlorinated water.

**E). EVERY 4-6 MONTHS:** (If you have hard water): Close and open the leak-gopher valve (via "Off" and "On" buttons) to help prevent internal mechanism from locking up from calcium buildup.

**Note:** During cartridge changes, you may wipe the housings down inside with a paper towel to remove any buildup.

### **KEEP SYSTEM OUT OF THE ELEMENTS, DIRECT SUNLIGHT OR FREEZING TEMPS.**

**Minimum Operating Temperature** 34 F / 1 C  
**Maximum Operating Temperature:** 120 F / 50 C  
**Minimum Operating Pressure:** 20 psig / 1.38 bar  
**Maximum Operating Pressure:** 80 psig / 8.6 bar  
**Electrical Requirements:** Grounded & Unswitched 115 V outlet and 3-AAA Batteries  
**Filter Replacement Operating Instructions:** New cartridges must be flushed for a minimum of 10 minutes prior to use. System and installation to comply with state and local laws and regulations.  
**Do not** use with water that is microbiologically unsafe or unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.  
Manufactured from NSF/ANSI standard 61 and California Prop 65 Compliant certified coconut shell carbon and raw materials.

## **WARNINGS**

If this or any other system is installed in a metal (conductive) plumbing system, i.e. copper or galvanized metal, the plastic components of the system will interrupt the continuity of the plumbing system. As a result any errant electricity from improperly grounded appliances downstream or potential galvanic activity in the plumbing system can no longer ground through contiguous metal plumbing. Some homes may have been built in accordance with building codes, which actually encouraged the grounding of electrical appliances through the plumbing system. Consequently, the installation of a bypass consisting of the same material as the existing plumbing, or a grounded "jumper wire" bridging the equipment and reestablishing the contiguous conductive nature of the plumbing system must be installed prior to your systems use.

**DO NOT USE** extra lubricants, unapproved sealants and tools to tighten hand tightened only parts. Use of tools other than hand tighten only parts voids warranty. Testing was performed under standard laboratory conditions; actual performance may vary. Flush the system and change the filter as suggested. The contaminants or other substances removed or reduced by this water filter are not necessarily in all users' water.

## **PERFORMANCE**

This system conforms to NSF/ANSI 53 for the specific performance claims verified and substantiated by test data. Performance claims are based on independent lab results and manufacturer's internal test data\*. Actual performance is dependent on influent water quality, flow rates, system design and applications. Your results may vary. Performance claims are based on a complete system, including a filter, housing, and connection to a pressurized water source. This filter must be operated according to the system's specifications in order to deliver the claimed performance. It is essential to follow operational, maintenance, and filter replacement requirements, as directed for each application, for this filter and system to perform correctly. Read the Manufacturer's Performance Data Sheet accompanying the system and change the filter as suggested. The contaminants or other substances removed or reduced by this water filter are not necessarily in all users' water.



# WATER TOTALIZER NOTIFIER

The overall purpose of this device is to receive a water meter input and totalize the amount of water that passes through the meter. When there is flow through the water meter, the lights flash at a rate that increases with the water flow rate. When the total amount of water flowed reaches within 10% of a pre-selected amount the totalizer turns yellow. When the total amount reaches the pre-selected amount the totalizer turns red.

## POWER

This unit is to be powered using +12VDC. The power input is a wire tail with a 2.5 mm center positive barrel jack.

The totalizer has a battery backup. The battery backup uses 3 AAA size batteries. The battery holder is a part of the PCB assembly and can be accessed by removing the lid to the cartridge filter. Battery life will vary based on water flow when running on battery mode and type of batteries used. With high continuous flow, the batteries are expected to last approximately less than 7 days. With no flow the batteries are expected to last approximately 6 months.

## OPERATION

### Water Meter

The totalizer keeps track of the gallons using a water meter. The water meter is a turbine style meter with a magnetic pickup that sends a pulse to the electronics for every revolution of the meter turbine. The meter turbine is removable for inspection and cleaning. Make sure water is bypassed or turned off when removing the meter for maintenance. The meter has a three pin plug that connects to the electronic board.

### LEDs

Normal colors for the LEDs are green, yellow and red, which are dependent on the totalizer value.

- **Green:** 0–90% of the programmed totalizer maximum
- **Yellow:** 90–100% of the programmed totalizer maximum
- **Red:** Greater than 100% of the programmed totalizer maximum

If there is flow the LEDs should alternately turn off in the following pattern: 1-2-3-2 (repeat). The frequency that they turn off is linearly correspondent to the flow rate being received from the water meter. For every 1 revolution from the meter, the LED pattern should be incremented to turn off the next LED. If there are no pulse edges for 2 seconds, all the LEDs will turn on solid.

If the battery is determined to be low, the middle LED (#2) will turn blue. The battery is checked only once an hour to minimize the battery drain from checking the voltage.

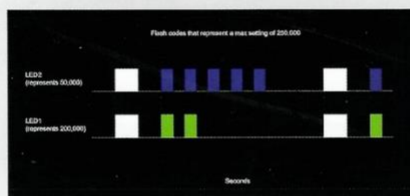
### Pushbutton

The pushbutton allows for the totalizer to be reset as well as the maximum value to be programmed.

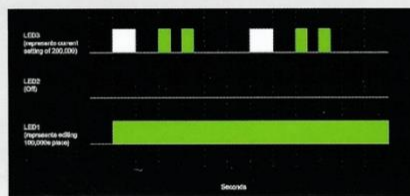
To reset the totalizer, the user should flip the umbrella cover over to see the logo/sticker. While looking at the top, the user should press and hold the button on the electronics board for three seconds. When the totalizer is reset, the LEDs should flash green three times to confirm that it is reset. "GREEN" colored LEDs (LED1) represent 100,000s and "BLUE" colored LEDs (LED2) represent 10,000s.

The push button allows the unit to be programmed for the total gallons limit. It can be programmed between the range of 10,000 gals.–990,000 gals.

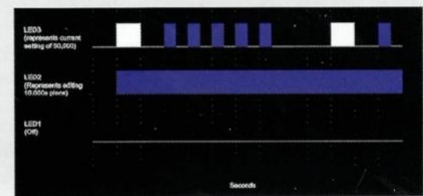
To program the maximum value using the push button: press and hold the button while powering up the board (either battery power or 12VDC power). Once the board is powered LED 1 (right LED) will represent 100,000's place and should be green. LED 2 (middle LED) will represent 10,000's place and should be blue. Both LEDs will be flashing at 1 Hz, the number of flashes that corresponds to the current setting for that digit placeholder. To indicate the start of the flash sequence both LEDs should flash white for 1 second, then flash the appropriate number of times. Once both are done wait 2 seconds and repeat. Refer to the figures below for an example.



**FIGURE 1**  
To change the maximum gallons setting, press and hold the button for 1 second. LED 1 should turn solid green, LED 2 should turn off and LED 3 should flash green the number of times that corresponds to the current setting. Pressing the button for less than 1 second would increment the value, rolling over from 9 to 0. Figure 2 is an example of the LEDs in this mode.



**FIGURE 2**  
To save the setting for the 100,000s place and begin editing the 10,000s place press and hold the button for greater than 1 second. LED 1 should turn off, LED 2 should turn solid blue, and LED 3 should flash blue the number of times that corresponds to the current setting. Again, pressing the button for less than 1 second would increment the value, rolling over from 9 to 0. Figure 3 is an example of the LEDs in this mode.



**FIGURE 3**  
To save the setting for the 10,000s place, exit editing mode and return to the mode in Figure 1 press and hold the button for greater than 1 second. This will also save the current setting into internal EEPROM memory.

### Power Monitoring and Battery Mode

The board monitors the 12Vdc power and the battery power. If there is a power failure and no batteries are installed, the current totalizer value will be saved to non-volatile memory. When power is resumed, the totalizer count will resume from when it had previously lost power.

The LEDs should shut off during battery mode. If the totalizer is to the yellow or red state or if the battery voltage gets low, the right LED will flash on in the appropriate colors for 0.125 seconds every 30 seconds.



## RETURN POLICY & WARRANTY

1. If the filter arrived damaged, please call us immediately to get an exchange: 1-347-492-4014
2. If you choose to return the filter for any reason other than damage upon arrival, we will be happy to issue a full purchase price refund or exchange within: **14 days of delivery date, minus shipping cost. The return policy applies to water filter systems and any unused (sealed) filter media cartridges.** If cartridges have been opened and used, we will deduct the price of the cartridges from the refund, as they will no longer be re-sellable.
3. **If you decide to return past the 14-day return period, we will still accept the item for up to 30 days from delivery date,** however, there will be a reasonable 10% restocking fee applied. Please call us or send an email to initiate the return process or if you have any further questions.

Once you've experienced your new system, feel free to share your positive experience by going to our website product page and writing a review. ☺ Thank You! - The PureEffect Team



### **NO-HASSLE 2-YEAR WARRANTY**

*PureEffectFilters LLC. dba PureEffectFilters.com, warrants its water filter systems to be free of defects in parts and workmanship for a period of: **two (2) years** from the date of purchase.*

*All our systems are made of high-quality components (not made in china) and are designed to last for many years beyond the warranty period, but if any manufacturing defect is present, it will make itself know well within the warranty period.*

*In the rare case that it should become necessary to repair or replace the filtration system or one of its components, please take a photo of the damaged part and email it along with your order # and a detailed description of the defect to: **info@PureEffectFilters.com** or contact our Customer Service Department at: **1-888-891-4821**. We will handle your claim promptly, and as hassle-free as possible.*

*This warranty does not apply to defects resulting from action/s of the user such as: misuse, accidents, improper installation, operation outside of specification (e.g. over the indicated PSI limit, exposure to direct sunlight, freezing temps, UV light), improper maintenance or repair and unauthorized modification.*

*PureEffectFilters LLC total liability is limited solely to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.*