

TERA PRO

# USER MANUAL

Commercial Drinking Water Dispenser





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## BEFORE STARTING INSTALLATION

### Before Installation

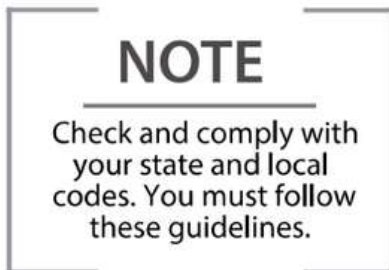
- You must read and understand the contents of this manual before installing or operating your drinking system. Personal injury or property damage could result if you fail to follow instructions in this manual.
- This system and its installation must comply with state and local regulations. Check with your local public works department for plumbing and sanitation codes. Local codes should be followed in the event the codes conflict with any content in this manual.
- This drinking system must be operated on pressures between 0.1MPa (15 psi) to 0.3MPa (44 psi). If the water pressure is higher than 0.3MPa (44 psi), use a pressure reducing valve in the water supply line to the softener.
- This unit must be operated at water temperatures between 4°C- 39°C (39°F and 102°F).
- Do not install this unit where it may be exposed to wet weather, direct sunlight, or temperatures outside of the range specified above.
- The appliance is only to be used with the power supply unit provided with the appliance.
- The appliance must only be supplied at safety extra low voltage corresponding to the marking on the appliance.
- Do not use water that is microbiologically unsafe without adequate disinfection before or after this system.
- This publication is based on information available when approved for printing. Continuing design refinement could cause changes that may not be included in this publication.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.



## INSTALLATION NOTES & SAFETY MESSAGES

Watch for the following messages in this manual:

EXAMPLE:



EXAMPLE:



EXAMPLE:





## DRINKING SYSTEM SPECIFICATIONS

Configuration	
Product Model	CCD-IT-C30
Water Supply	Municipal
Feed Water Temperature	4-39°C
Feed Water Pressure	1~3 bar(0.1~0.3 MPa)
Ambient Humidity	≤90% RH
Filtered Water Tank	12L
Cold Water Tank	8L
Hot Water Tank	2L
Faucet Quantity	1
Refrigerant	R600a
Child Lock	Yes
Leakage Alarm	Yes
Time-based ON&OFF	Yes
Display	LED
Inlet Connection	1/4"
Drip Tray Connection	φ18mm



Performance	
Hot Water Temperature	45~99°C
Cold Water Temperature	6~10°C
Continuous Hot Water Volume	1.4L
Continuous Cold Water Volume	4.7L
Water Heating Capacity	5L/H
Water Cooling Capacity	9L/H
Hot Water Dispensing Flow	1.5L/min
Cold Water Dispensing Flow	1.5L/min
Ambient Water Dispensing Flow	1.5L/min

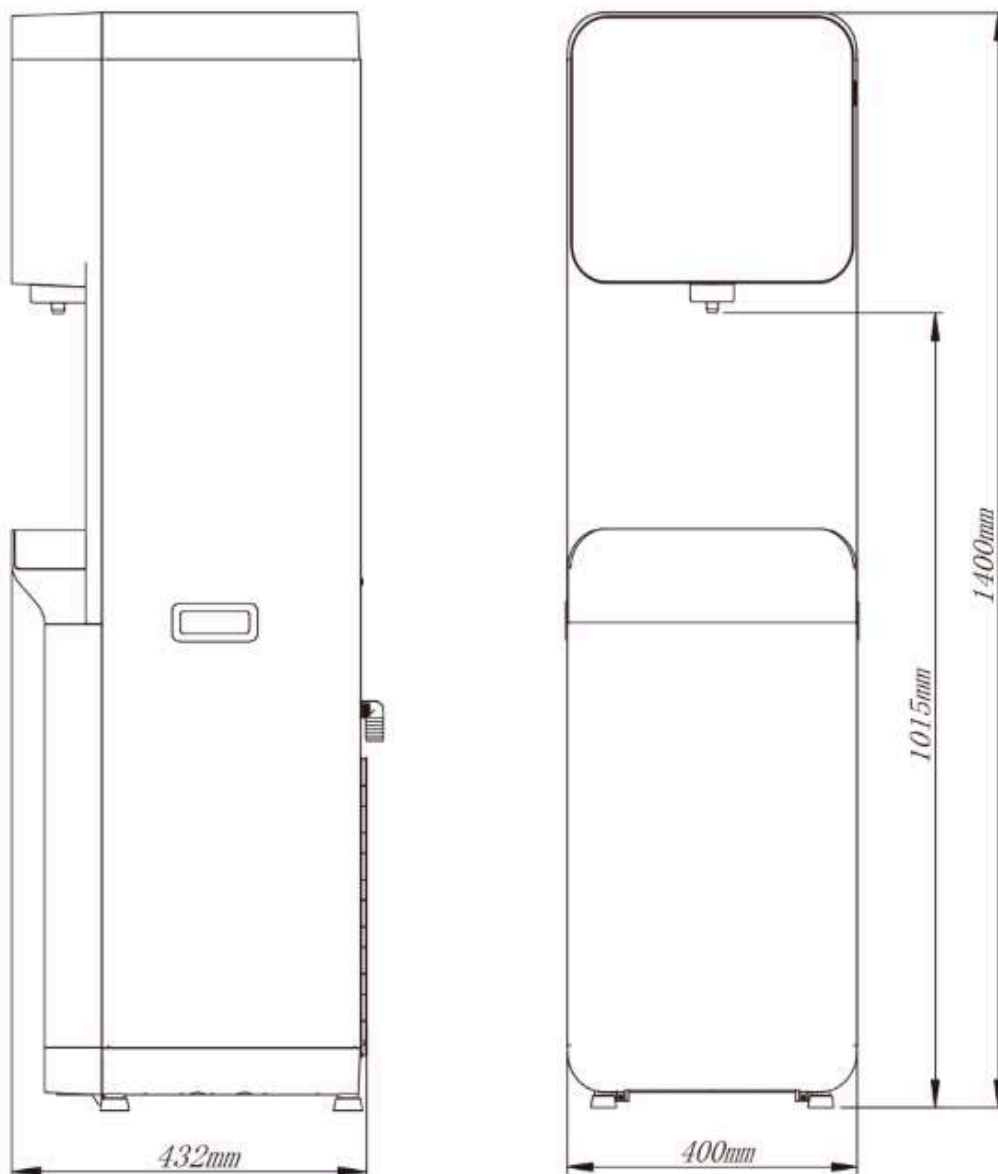
Electrical Parameters	
Rated Voltage	AC 220-240V
Rated Frequency	50 Hz
Anti-electric Shock Rate	Class I
Power Plug	European Standard
Rated Power	1000 W
Heating Power	800 W
Cooling Power	170 W

Shipment Information	
Net Weight	33 Kg
Gross Weight	39 Kg
Carton Dimension	490x442x1465 mm



Model	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
CCD-IT-C30	Sediment Filter	Pre Carbon Block Filter	Ultrafiltration Membrane	Post Carbon Block Filter	UV Light
	5 Micron	CTO	UF	CTO	

## DRINKING SYSTEM DIMENSIONS

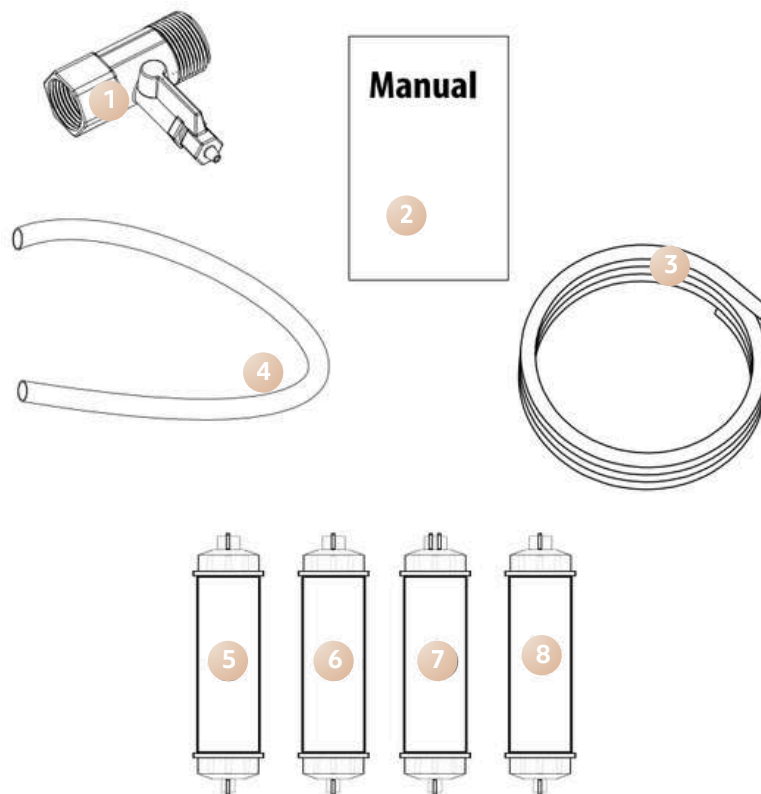




## Unpack & Inspect Your Drinking System

- Inspect the drinking system for any shipping damage. If damage is found, notify the transportation company and request a damage inspection. Damage to cartons should also be noted.
- Handle all components of the system with care. Do not drop, drag or turn components upside down.
- The manufacture is not responsible for damages in transit. Small parts, needed to install the drinking system, are in a parts box. To avoid loss the small parts, keep them in the parts bag until you are ready to install.

### PACKAGE CONTENTS



1. Inlet 3-Way Valve (1/2") x 1

2. User Manual x 1

3. 1/4" Tubing x 1

4. Drain Tubing  $\phi$ 18mm x 1

5. PP Filter x 1

6. Pre Carbon Block Filter x 1

7. UF Filter x 1

8. Post Carbon Filter x 1



## Check Model Label & Serial Number

- The model label and serial number is located on the side of the drinking system cabinet. Check to make sure this drinking system matches what you ordered. Serial numbers are important for troubleshooting.
- The Model Label shows product model, product flow rate, power supply requirement, feed water temperature etc.
- The Series Number Label shows part number and manufacturing date.

**Series Number**

**Model Label**

1050000463-W3G-02-0001

Product Part #      Year    Month    Date    Batch Code    Sequence #

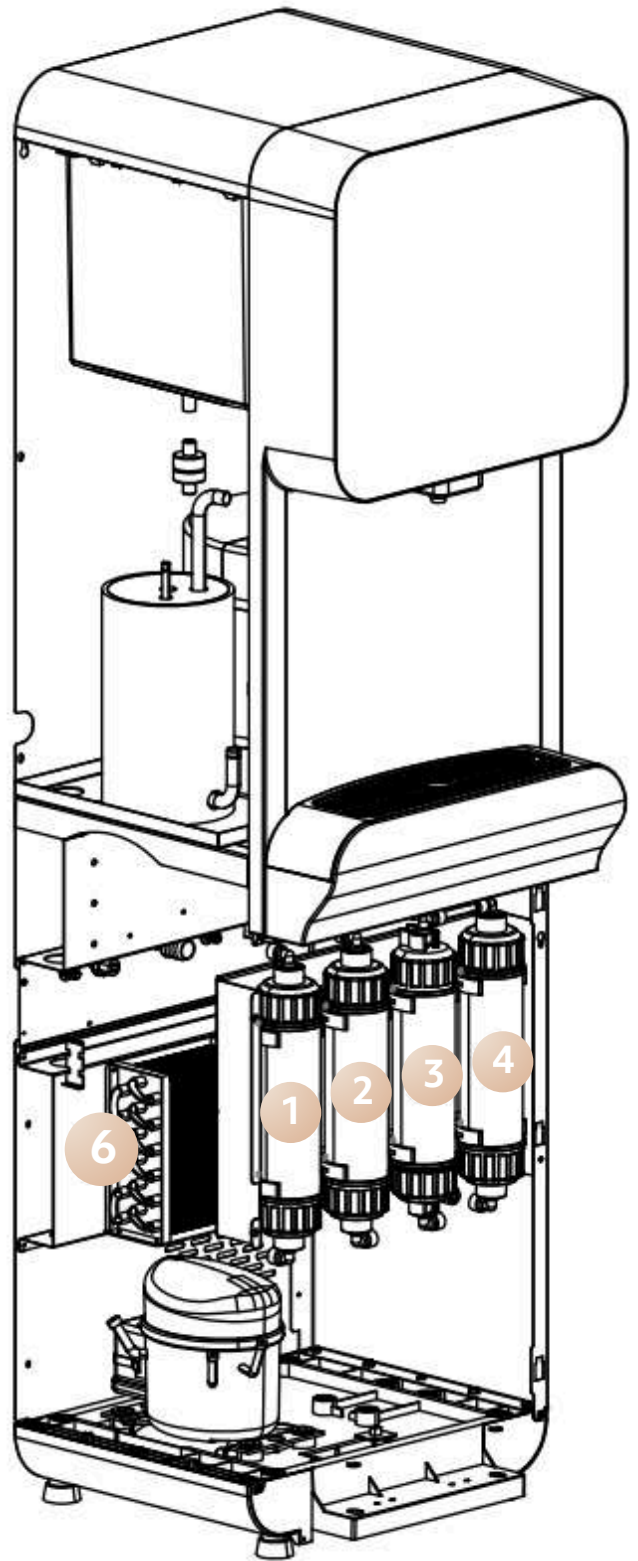
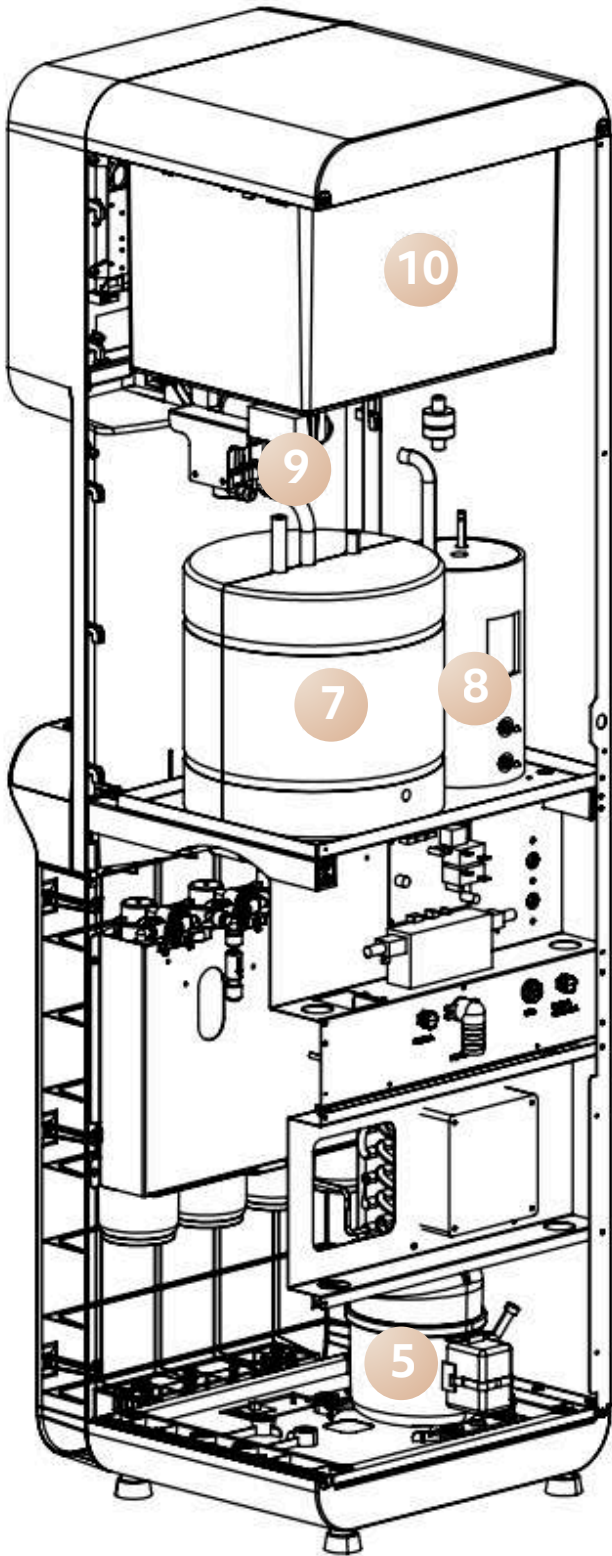
Date	Code
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	A
11	B
12	C
13	D
14	E
15	F
16	G
17	H
18	I
19	J
20	K
21	L
22	M
23	N
24	O
25	P
26	Q
27	R
28	S
29	T

Year	Code
2021	V
2022	W
2023	X
2024	Y
2025	Z
2026	AA
2027	AB
2028	AC
2029	AD
...	...
2052	BA
2053	BB
2054	BC
2055	BD

Month	Code
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	A
11	B
12	C



# SYSTEM COMPONENTS





## 1. PP Filter

The PP filter screens out particulate material, such as dirt, sand, or rust, which may clog the other filters in the system.

## 2. Pre Carbon Filter

The activated carbon prefilter reduces chlorine which may damage the RO membrane filter. It must be regularly checked and/or replaced to prevent premature membrane failure and poor water quality.

## 3. Ultrafiltration Membrane

Remove suspended solids, turbidity, colloids, macromolecular organic substances, bacteria, viruses, and other contaminants through physical sieving and filtration using hollow fiber membranes with nanoscale micropores.

## 4. Post Carbon Filter

The post carbon filter refine the tastes and odor just before the water is delivered to the filtered storage tank.

## 5. Compressor

The compressor is to inhale low temperature and low pressure refrigerant gas from the suction tube, the piston driven by the motor will compress the refrigerant gas to high temperature and high pressure gas thus provide power for cooling cycle.

## 6. Condenser

An element of refrigeration system that converts gas or vapor into a liquid, works as a type of heat exchanger, it transfers heat from the tube, in a very rapid way, to the air near the tube.

## 7. Cold Water Tank

Cold water storage tank and also evaporator build inside it. The refrigerant evaporates in the evaporator and absorbs the heat of the water to achieve the purpose of refrigeration.



## 8. Hot Water Tank

Use stainless steel rod inside to heat the water stored in hot water tank, water temperature is controlled by temperature sensor.

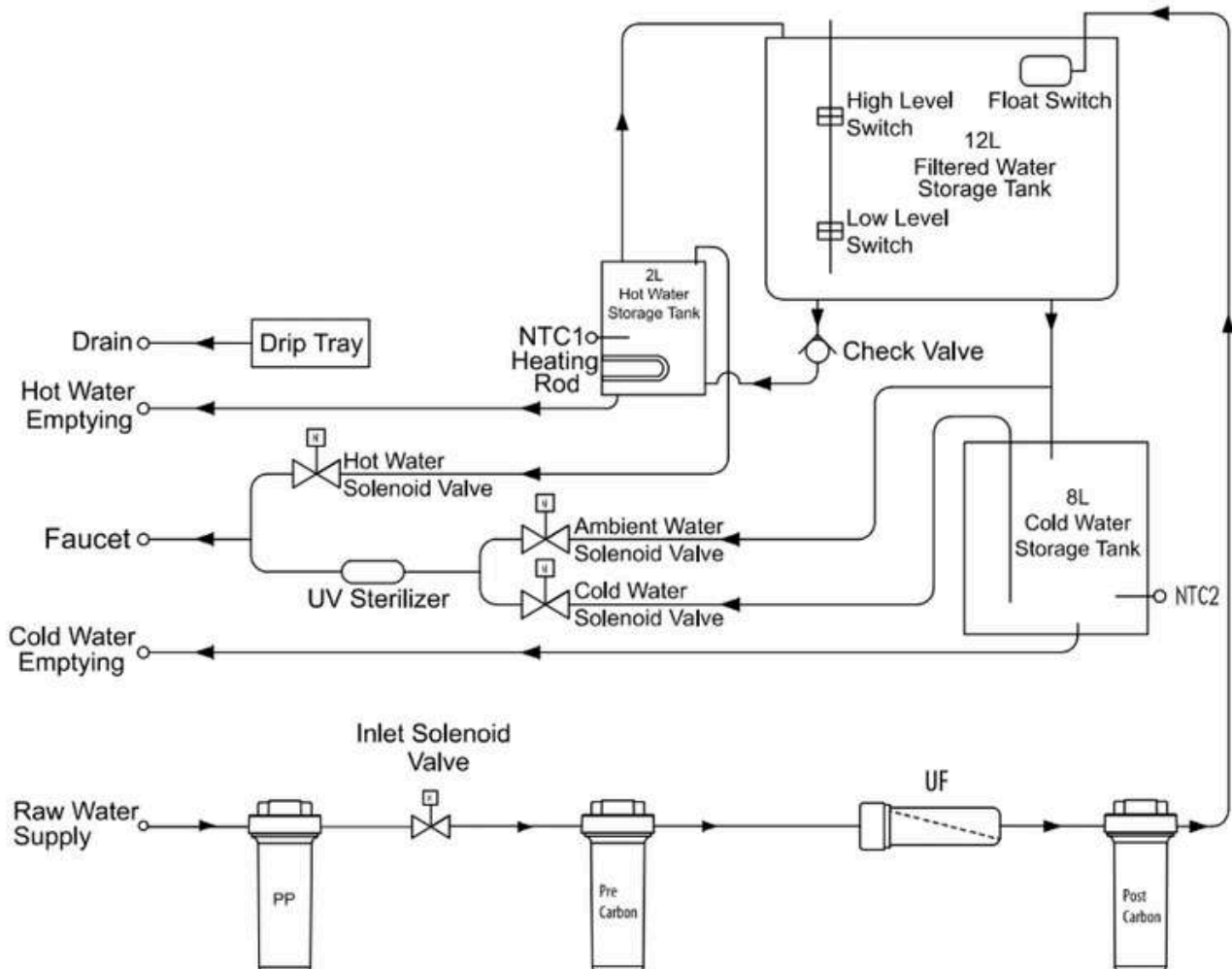
## 9. UV Light

As the power is on, the UV light on the cover of filtered water tank will be on for 1 hour and off for 1 hour alternately.

## 10. Filtered Water Tank

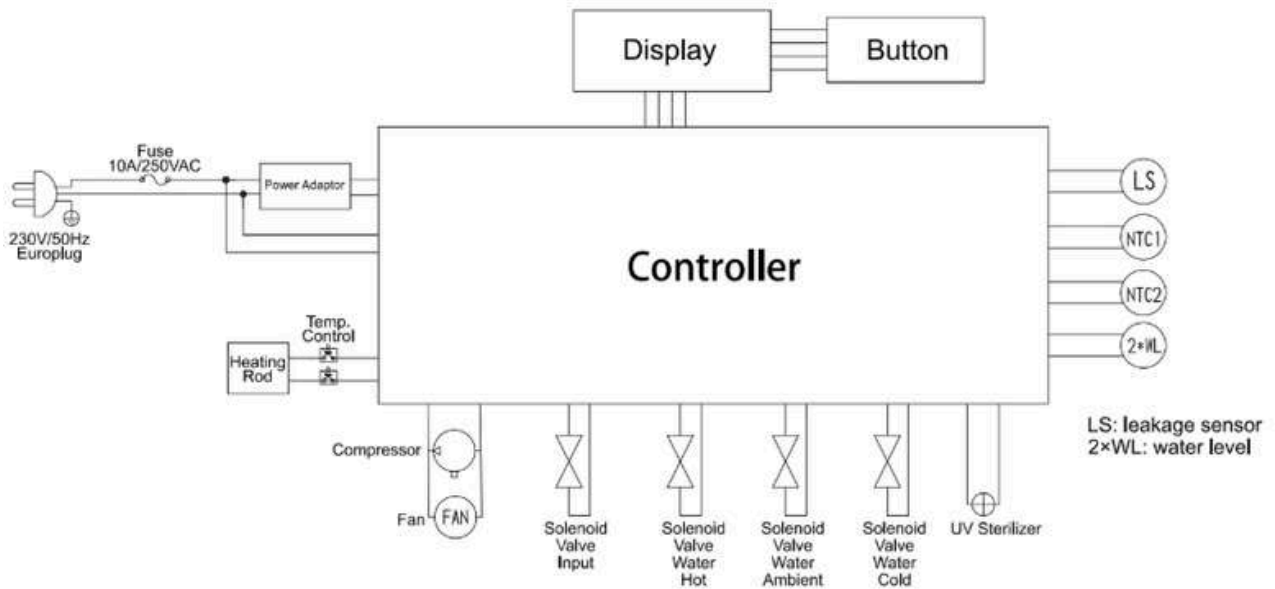
This is filtered water storage tank, also works as water supplying tank for hot water tank and cold water tank.

### HYDRAULIC SCHEMATIC

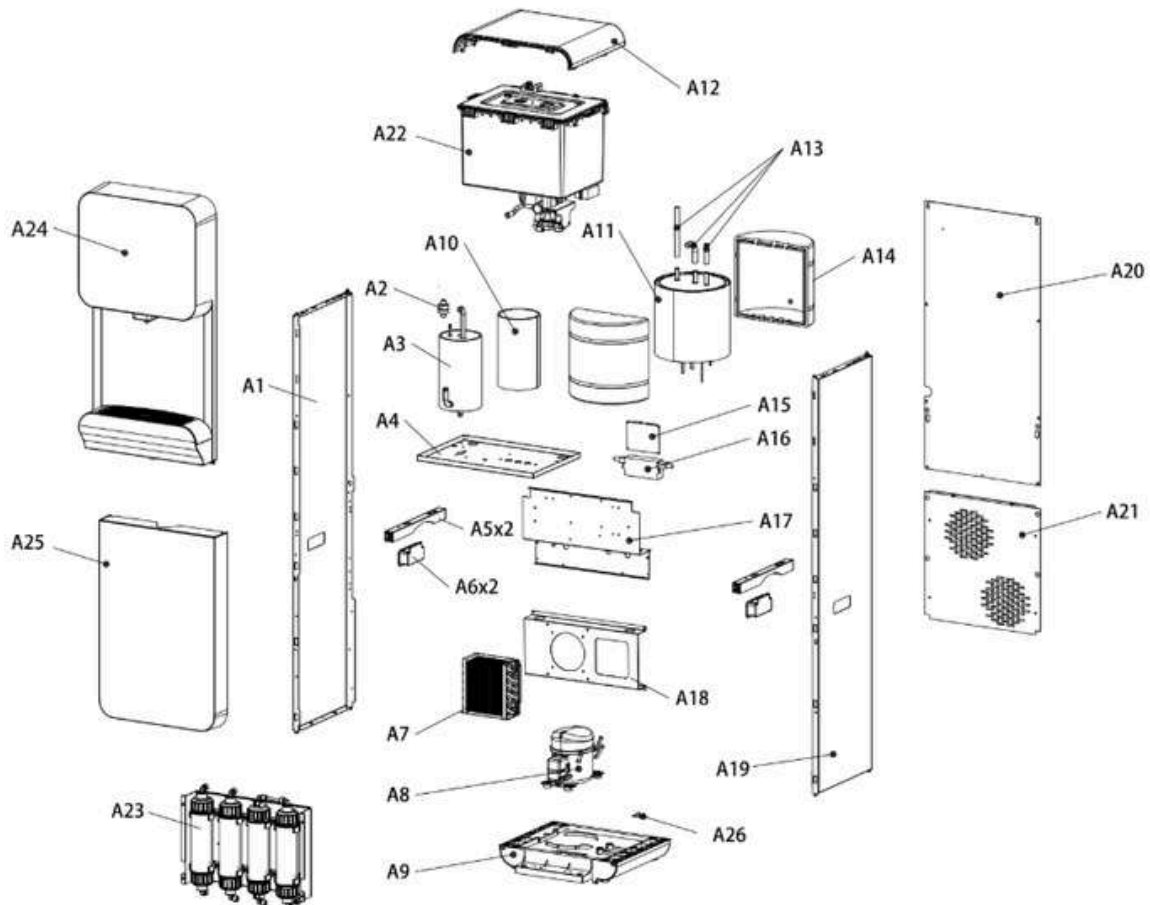




## ELECTRICAL SCHEMATIC



## PARTS BREAKDOWN

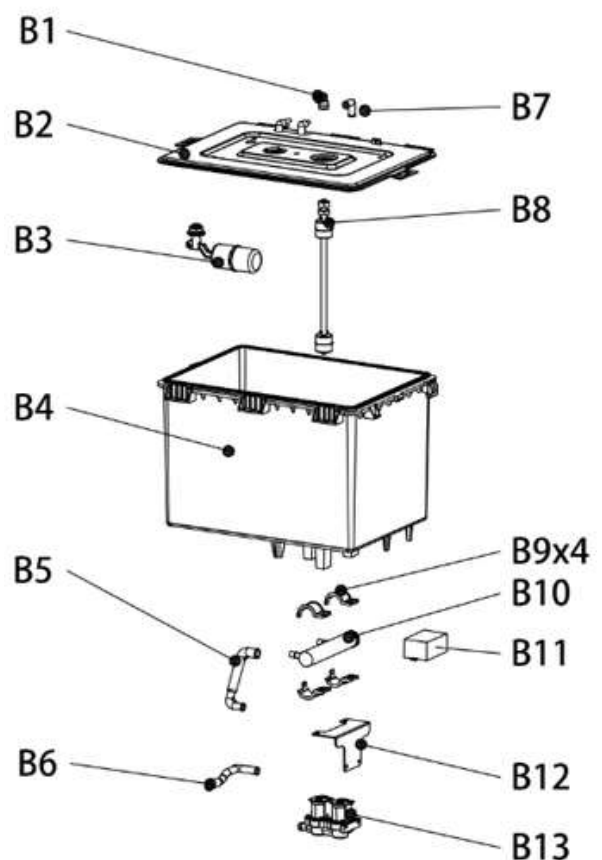




No.	Description	Qty
A1	Left Side Plate	1
A2	Anti-channeling Temperature Check Valve	1
A3	Hot Tank Assembly	1
A4	Separator Plate	1
A5	Plastic Support	2
A6	Handle	2
A7	Cooling Fan	1
A8	Compressor	1
A9	Bottom Support Plate	1
A10	Heat Preservation Foam	1
A11	Cold Tank Assembly	1
A12	Top Cover	1
A13	Silicon Tube	1

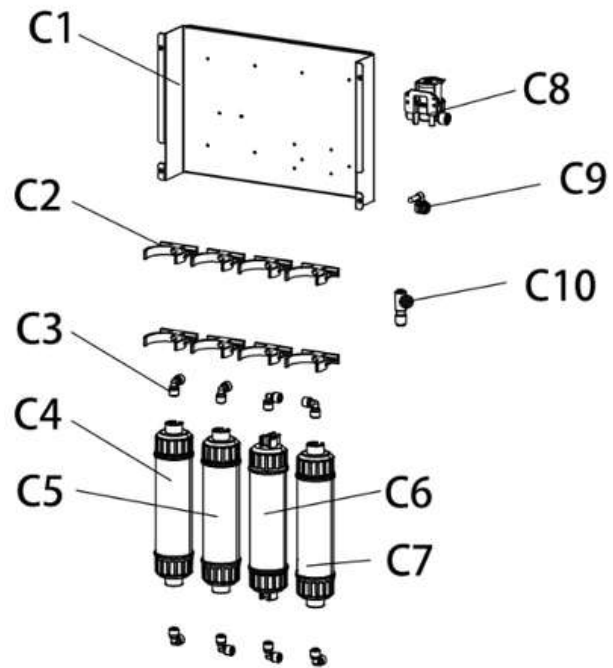
No.	Description	Qty
A14	Cold Preservation Foam	1
A15	Main PCB Board	1
A16	Power Transformer	1
A17	Main PCB Bracket	1
A18	Cooling Fan Bracket	1
A19	Right Side Plate	1
A20	Upper Back Plate	1
A21	Lower Back Plate	1
A22	Filtered Tank Assembly	1
A23	Filter Assembly	1
A24	Front Panel Assembly	1
A25	Door Panel	1
A26	Leakage Sensor	1

No.	Description	Qty
B1	L-Connector 1/4"X1/4"	1
B2	Filtered Water Tank Cover	1
B3	Float Switch	1
B4	Filtered Water Tank	1
B5	Silicone Tube-1	1
B6	Silicone Tube-2	1
B7	Silicone Tube-3	1
B8	Water Level Switch	1
B9	Sterilizer Clamp	4
B10	UV Sterilizer	1
B11	Electrical Ballast	1
B12	Outlet Solenoid Valve Bracket	1
B13	Outlet Solenoid Valve	1

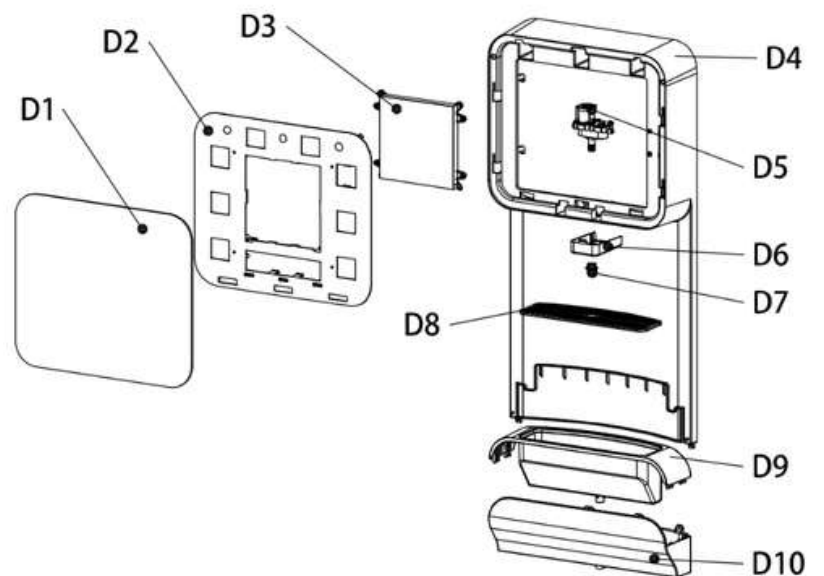




No.	Description	Qty
C1	Filter clip	1
C2	Filter Bracket	8
C3	L-Connector 1/4"X1/4"	8
C4	PP Filter	1
C5	Pre Carbon Filter	1
C6	UF Filter	1
C7	Post Carbon Filter	1
C8	Inlet Solenoid Valve	1
C9	L-Connector 1/4"X1/4"Stem	2
C10	Check Valve	1



No.	Description	Qty
D1	Acrylic Panel	1
D2	Toughened Glass Bracket	1
D3	LED Display	1
D4	Large Front Panel	1
D5	Combined Outlet Solenoid Valve	1
D6	Faucet Decorative Box	1
D7	Water Faucet	1
D8	Drip Tray Board	1
D9	Drip Tray Upper Box	1
D10	Drip Tray Lower Box	1





## INSTALLATION INSTRUCTIONS

### Typical Installations Follow This Sequence:

1. Select system installation locations.
2. Install T-adapter valve on water supply.
3. Flush the CTO filters.
4. Install filters.
5. Connect tubings.

### Before Installation:

1. Check the accessories in the packing box and confirm if they are complete.
2. Shut off the water supply before installation.
3. Prepare some tools or equipments required for installation.

### Step-1 Select System Installation Locations

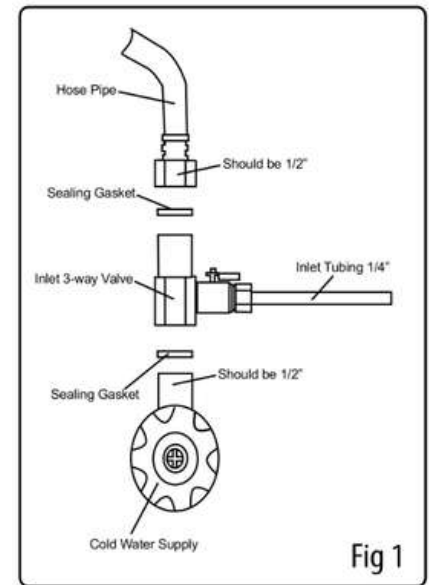
#### Important Considerations:

1. The drinking system assembly is designed to be vertically installed on the floor. It should be positioned such that there is access to an inlet water source and drain. The installation should also allow convenient access for servicing.
2. Be sure there is access to an approved power supply socket.
3. Be sure the floor under the drinking system is clean, level and strong enough to support the unit.



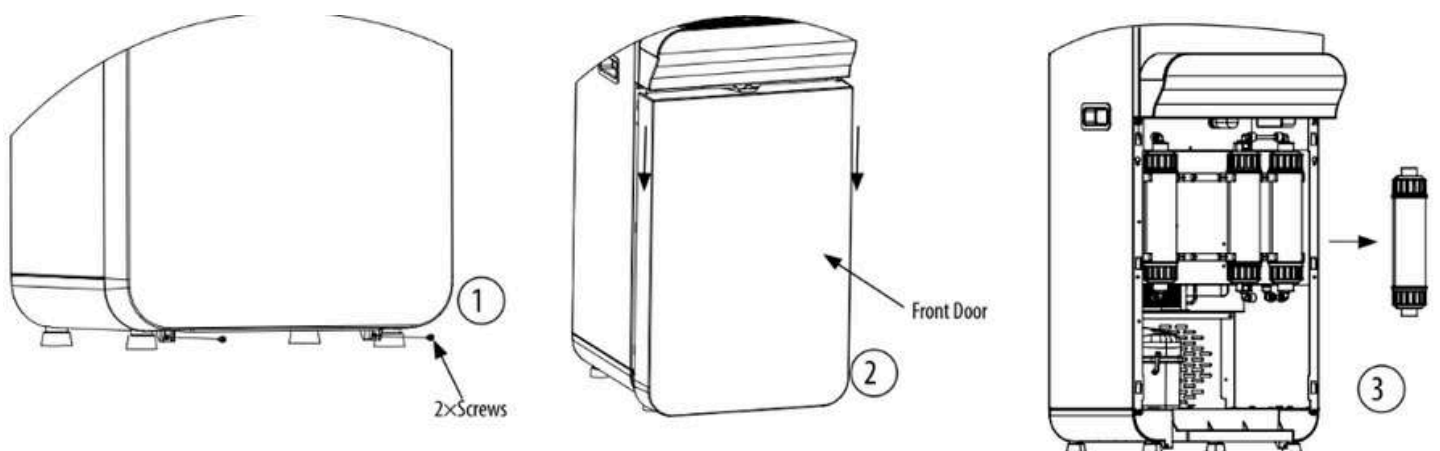
## ✓ Step-2 Install T-Adaptor Valve

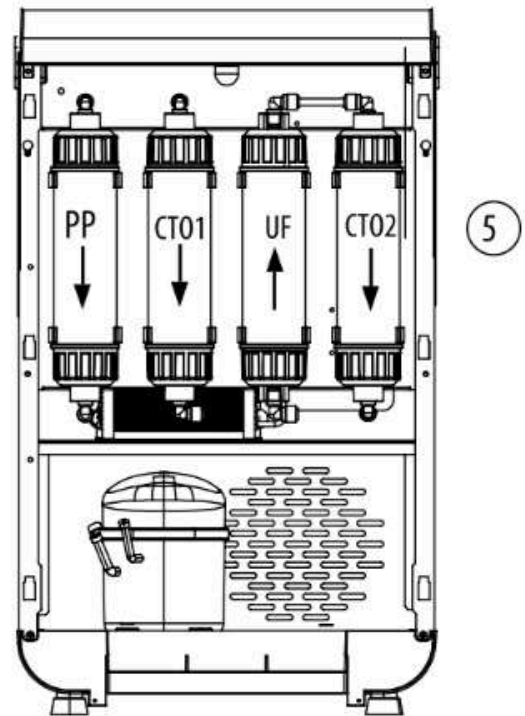
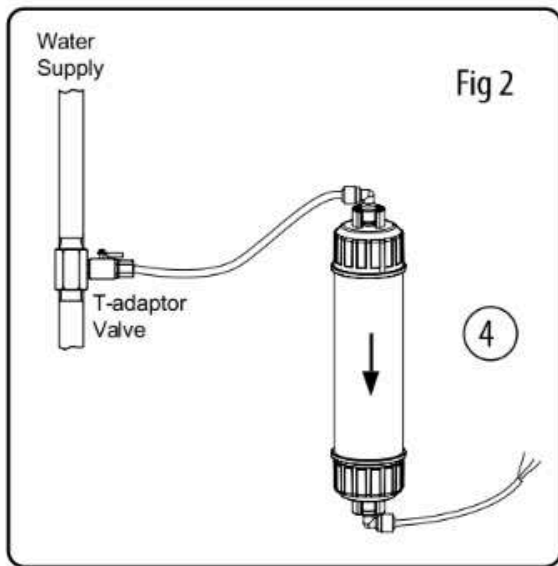
1. Turn off the water supply, disconnect the hose pipe. Take the T-adaptor valve out from the accessory bag, install it on the pipe line as the Fig 1.
2. Take out the 1/4" tubing from the accessory bag, cut it to proper length, attach one end to the T-adaptor valve (Fig 1).



## ✓ Step-3 Flush the CTO

1. Remove the two screws at the bottom.
2. Down press the front door, then pull the front door out.
3. Take out one CTO filter, Use tubing to connect the filter to the T-adaptor valve as Fig 2 shows.
4. Open the T-adaptor valve to flush the CTO filter until the outlet water is clean.
5. Reassemble the CTO filter into the machine.



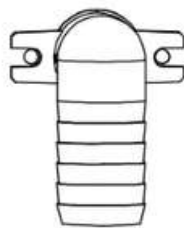


## ✓ Step-4 Connect Tubings

Please familiarize yourself with the connections on the back of machine:



Cold Tank



Drip Tray



Inlet



Hot Tank  
**Caution Hot!**

**Cold Tank:** This drainage is used to empty the water in cold water storage tank.

**Drip Tray:** This connection is to drain the water in drip tray, use  $\phi 18\text{mm}$  tubing to connect.

**Inlet:** This connection is to connect to the T-adaptor inlet valve, use 1/4" tubing.

**Hot tank:** This drainage is used to empty the water in hot water storage tank.



## START-UP INSTRUCTIONS

### **Step-1 Connect Water Supply and Power Supply**

1. Open the inlet 3-way valve to connect to water supply.
2. Plug the power on. (Check the power supply is applicable)
3. Check the pump is running and water is filling into the storage tank, when the tank is full, system stop producing water.

### **Step-2 Flush the Tanks and Tubings**

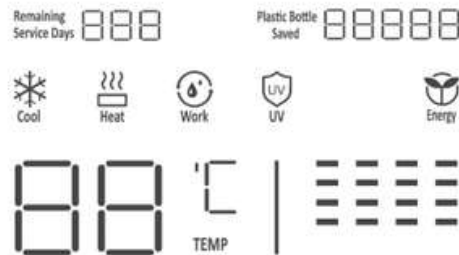
1. When the system is full of water, unlock the screen, press the "hot" key to let water flush the hot tank.
2. As the ambient water storage tank is short of water, wait the system to refill the water and then press the cold key to flush the cold tank.
3. Use this way to flush the hot tank and cold tank for 3 times.

### **Step-3 Activate the Heating Function**

1. Press and hold "Unlock" and "Cold" key simultaneously for 10 seconds to enter system setting menu.
2. Continuously short press the "Cold" key to select code number "C21".
3. Press the "Hot" key to change the option to number 1.
4. Press and hold the "Cold" key for 5 seconds to save and exit setting menu.
5. Heating function is activated.
6. Your drinking system is ready to use.



## LED DISPLAY & TOUCH KEYS PROGRAMMING GUIDE



Unlock

This is child lock protection, hot water can only be used if screen is unlocked, press "Unlock" key to unlock the screen.



Hot

At standby status, press "Unlock" key to unlock the screen, then press "Hot" key to get hot water.



Ambient

At standby status, press "Ambient" key to get ambient water.



Cold

At standby status, press "Cold" key to get cold water.



**NOTE:** After water is continuously running for one minute, the system will automatically cut off water, and keys need to be pressed again to take water.



**Icon Light On:** System start to cool down the water in cold water tank and keep water temperature within the range of setting.



**Icon Light On:** System start to heat the water in hot water tank and keep water temperature within the range of setting.



**Icon Light On:** System start to produce filtered water as the water level inside filtered tank lower than the high level switch.



**Icon Light On:** UV light start to sterilize the water inside, it will only work if ambient & cold water being used.



**Icon Light On:** If no one uses water for several hours (this is preset value in system setting page, default is zero), the system will automatically turn off the heating function to save energy.

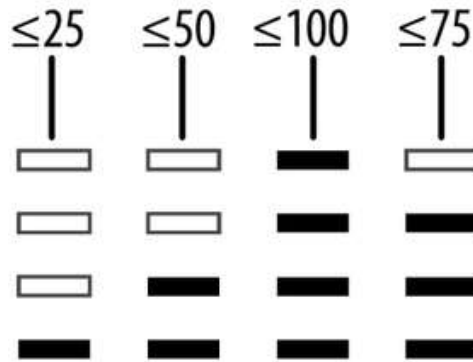
Remaining Service Days

If the system is working properly, it will always display number "365". If the system fails, the corresponding error code will be displayed, find it in error code menu and get solution.

Plastic Bottle Saved

This use a formula to calculate out how many plastic bottles of water are saved based on the amount of water used, this is an initiative to reduce the use of plastic.

This is the water temperature display area. At standby mode, it shows the temperature of hot water and cold water alternately, as hot water or cold water is used, it shows the temperature of water being used.



## Filter Life Indicator

- There are 4 lights to indicate the filter life. If the filter element is first use, the 4 lights should be all light on and indicate the filter element life is 100% full. As the filter system treated more water, the filter element life become less.
- As the duration of one filter element reached to its 75% designed life. One light goes off from top.
- Two lights go off from top when filter element reached to its 50% designed life.
- Three lights go off from top when filter element reached to its 25% designed life.
- As the filter element reached to its 100% designed life, that filter icon and lights will be flashing.
- After the filter element is replaced and filter life is reset, the filter icon and lights will all light on again, light will stop flashing, system restore normal working status.

## SYSTEM SETTING MENU INTRODUCTION

### Setting Operation

1. Press and hold "Unlock" and "Cold" key simultaneously for 10 seconds to enter system setting menu.
2. Continuously short press the "Cold" key to change setting code.
3. Press the "Hot" key to go up(plus value) or press "Ambient" key to go down(minus value).



4. Press and hold the "Cold" key for 5 seconds to save and exit setting menu.

5. If no key is operated in 1 minute, display will automatically go back to standby display.

Item		Code	Option	Default	Unit	Remark
Time	Hour	C 04	0-23	/	Hour	Need to set if Time Switch On & Off function set ON.
	Minutes	C 05	0-59	/	Minutes	
Power	Time Switch On & Off	C 06	1, 0	0	/	1: Turn On 0: Turn Off
	Time Switch On	C 07	0:00-23:00	6:00	Hour	08:00
	Time Switch Off	C 08	0:00-23:00	22:00	Hour	20:00
Drink Water	Way to Drink	C 11	1, 2	2	/	1: Press & Hold 2: Twice Touch
	Child Lock	C 12	1, 0	1	/	1: Yes 0: No
Heating	Heating Switch	C 21	1, 0	1	/	1: Turn On 0: Turn Off
	Temperature	C 22	45~99	99	°C	
Energy-Saving		C 23	0/2/4/6/8	0	Hour	"0" means to close energy saving
Cooling	Cooling Switch	C 31	1, 0	1		1: Turn On 0: Turn Off
	Temperature	C 32	6~10	6	°C	
Sterilizing	UV Delay Shut Off	C 51	10~90	10	Minutes	The interval is 10 minutes
Reset	Filter Life	C 61	0,1,2,3,4	0		1: PP; 2: CT01; 3: UF; 4: CT02, Code C98 has to be set to "01"
	Plastic Bottles	C 62	1, 0	0	/	1: Reset to zero Code C98 has to be set to "1"
Display	Filter Life	C 82	1, 0	0	/	1: Turn On 0: Turn Off Code C98 has to be set to "1"
	Backlight	C 93	1~8	5	/	
Lock	Setting Lock	C 98	0, 1	0	/	This setting has to be set to "1" when set code C61~C82
Default Setting	Restore Factory Defaults					1: Restore Factory Defaults
						Automatically change to "0" after restore factory default.
						Invalid for code C61, C62, C82



## SERVICE & MAINTENANCE

### Service Schedule

- To keep the drinking system operating properly, it is necessary to change the filter elements periodically.
- Typically, this should be done on an annual basis. Service frequency may vary depending on local water conditions. High sediment, chlorine, turbidity, or hardness levels may require more frequent service.

### Use the Following as a Guide:

Filter Elements	Service Schedule
Stage 1: PP Filter	6 Months
Stage 2: Pre Carbon Filter	6 Months
Stage 3: UF Filter	12 Months
Stage 4: Post Carbon Filter	6 Months



NOTE: Filter life may vary greatly depend on different water quality, UF filter life will be affected by other factors. The service schedule above is only for reference.



## When to Replace Filter Elements?

**If following situations occur, filter elements may need to be changed.**

1. Produced water quality is poor, taste bad.
2. Product water rate decrease dramatically, PP Filter or UF Filter may clog. (Make sure it is not caused by cold water temperature)
3. The filter life indicator is flashing.

## How to Replace Filter Elements?

1. Close the T-adaptor valve to shut off water supply.
2. Press "Ambient" key to let water flow until the "Work" icon light on, this is to release the pressure inside machine.
3. Turn off power supply.
4. If the filter cartridge that need to be replaced is carbon filter, use the filter cartridge base provided in accessory bag to flush the carbon cartridge until the water is clean.
5. Rotate the old filter cartridge for 90° anti-clockwise, then pull out the filter cartridge.
6. Take out the new filter cartridge, insert it into filter cartridge base and rotate it for 90° clockwise.
7. Turn on the power and water supply.
8. Follow the instructions on Page 23 to reset filter element life.
9. Press the "Ambient key to let water flow to flush the new installed filters for 15 ~ 20 minutes.
10. Filter element replacement complete.



CAUTION: Always follow the steps below prior to replace the filters.

- 1 Shut off water supply → 2 Release the pressure → 3 Turn off power supply

## How to Reset Filters' life?

1. Press and hold "Unlock" and "Cold" key simultaneously for 10 seconds to enter system setting menu.
2. Continuously short press the "Cold" key to select code number "C61", the default number should be "0", then press the "Hot" key to change the number to the corresponding filter number, number 1 indicate the first stage, number 2 indicate the second stage, number 3 indicate the third stage, number 4 indicate the fourth stage.
3. Select the correct stage of filter that need to be reset filter life. For example, if number 1 is selected.
4. Continuously short press the "Cold" key to change the code number to "C98", press the "Hot" key to change the number to 1.
5. Press and hold the "Cold" key for seconds to save and exit setting menu.
6. The filter life of first stage is reset.
7. Follow the above steps from step 1 to step 5 to reset other stage filters life.



## ERROR CODE GUIDE

Error Code	Issue	Description	System Action	Solution
E02	Abnormal Working	System producing water continuously for 16 hours but not stop	Stop producing water and sterilizing	Power on again after troubleshooting
E05	Abnormal Heating	Heating continuously for 1 hour but temperature not exceed 50°C	Stop heating	Power on again after troubleshooting
E07	Water Leakage	Leakage sensor detect water leakage continuously for 15s	System shut down	Replug again after troubleshooting
E09	NTC malfunction (hot water)	The data NTC detected exceeds the limit value continuously for 15 s	Stop heating	1. Correct the NTC data within the limit valve.
				2. Replug again after troubleshooting
E18	NTC malfunction (cold water)	The data NTC detected exceeds the limit value continuously for 15 s	Stop heating	1. Correct the NTC data within the limit valve.
				2. Replug again after troubleshooting
E22	Abnormal liquid level switch	Abnormal liquid level position	System shut down	Replug again after troubleshooting
E35	Abnormal communication	Abnormal communication between display PCB and system	System shut down	1. Unplug and plug again.
				2. Wait for communication



## TROUBLESHOOTING GUIDE

Problem	Reason	Possible Solutions
Faucet Not Dispensing	A. Power is off. B. Outlet solenoid valve is not open.	A. Check the power. B. Check and replace the failure outlet solenoid valve.
Display no display	A. Power is off. B. Display is failure. C. Control board is failure.	A. Check the power. B. Replace display. C. Replace the control board.
Tank does not fit at all	<b>1. No water enters the supply.</b>  A. The inlet 3-Way valve is closed. B. The water dispenser is unplugged. C. No water supply. D. Obstruction of the supply line to the source.	A. Open the inlet 3-Way valve. B. Plug the water dispenser into the power supply. C. Wait the water supply. D. Replace feed tube.
	<b>2. The solenoid valve does not open.</b>  A. No power to the solenoid valve. B. The solenoid valve is damaged.	A. The tank is full and there is no water demand. B. Replace the solenoid valve.
	<b>3. Solenoid valve do not work.</b>  A. Level switch does not work. B. The solenoid valve is damaged.	A. See point 4. B. Replace the solenoid valve.
	<b>4. The level switch does not work.</b>  A. It is damaged and does not respond to raising and lowering the float. B. The electronic board is damaged.	A. Replace the level switch. B. Replace the electronic board.



Problem	Reason	Possible Solutions
Production is low	<p><b>1. Sediment filter is blocked.</b></p> <p>A. Partial blockage of the sediment filter, comparing the inlet flow rate with the outlet flow rate of the sediment cartridge.</p> <p>B. Partial blockage of the solenoid valve, comparing the inlet flow rate with the outlet flow rate of the solenoid valve.</p>	<p>A. Replace the sediment filter.</p> <p>B. Replace the solenoid valve.</p>
Water does not come out cold	<p>A. Customer draws cold water continuously too much.</p> <p>B. Cooling system is damaged or refrigerant gas has been lost.</p> <p>C. The cold water tank thermostat is damaged.</p>	<p>A. Continuous cold water volume is 4.7L.</p> <p>B. Repair or replace the cooling system.</p> <p>C. Replace the cold water tank thermostat.</p>
Water does not come out hot	<p>A. Customer draws hot water continuously too much.</p> <p>B. The heating element is damaged.</p> <p>C. The hot water tank thermostat is damaged.</p>	<p>A. Continuous hot water volume is 1.4L.</p> <p>B. Replace the heating element.</p> <p>C. Replace the hot water tank thermostat.</p>
Noise in system	<p>A. Pipeline vibration.</p> <p>B. The pump is idling.</p>	<p>A. Fix the tubing.</p> <p>B. Check the pump flow.</p>

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