

# SMART PURIFIER™ MANUAL



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## Smart Purifier™ User Manual

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## Packing List

Water Purifier	1 pc	1/4" PE Pipe	3 m
Instruction Manual	1 pc	3/8" PE Pipe	3 m
Inlet Water T Valve	1 set	Faucet	1 set
Tape	1 roll	Adapter	1 pc
Pipe Pulling Tool	1 pc	1/4" Blue clip	9 pcs
1/4" Quick connecting	2 pcs	3/8" Blue clip	6 pcs
1/4" 0 Ring	3 pcs	3/8" Plastic fitting	2 pcs
3/8" 0 Ring	2 pcs	PP+C multi filter	1 pc
1/4" Plastic fitting	3 pcs	RO membrane	1 pc
Leak Sensor	1 set	T33 filter	1 pc
Faucet Plate	1 pc	Screws	3 pcs
Expansion Rubber	3 pcs		

Please check the accessories according to the packing list before installation.

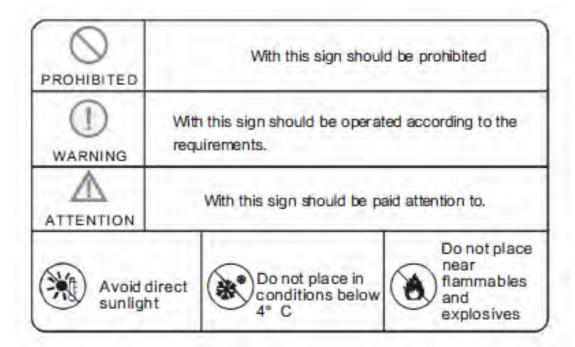
## **Notice**

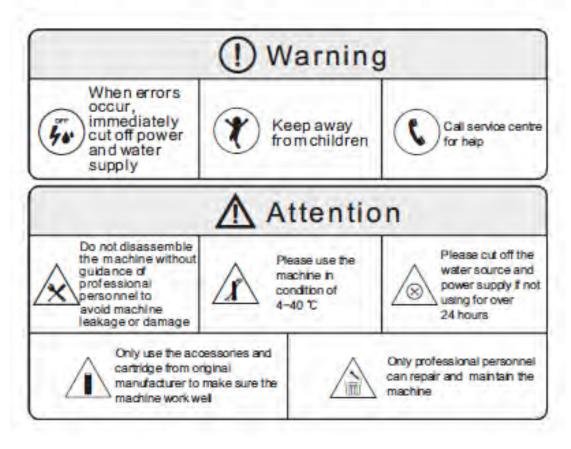
#### Attention: Please obey the following safety regulations strictly

- **1.** Do not use other accessories which are not permitted by manufacturer to avoid any damage of the RO system.
- **2.**Please check the RO system and all accessories before installation.
- **3.**Children are only permitted to maintain the system under guardian supervision.
- **4.** If malfunctions appear, please cut off the power, close the inlet water valve immediately, do not keep the RO system in working mode.
- **5.**This RO system shall be repaired by authorised and skilled personnel only.
- **6.**The production capacity of pure water is dependent on the feed water quality, pressure, and temperature.

  Abnormal values will result in a lower flowrate.

## **Notice**





## **Product Specifications**

Product	Reverse Osmosis Water Purifier
Item Number	BP-500G
Related Voltage and Frequency	10 0V-240V~50/60Hz
Rated Power	60W
Water Pressure	0.1-0.4MPa
Purified Water Rate	1.0L/min
Rated Capacity of Purified Water	2000L
Applicable Conditions	Temperature 4-40°C, ambient
	humidity below 90%
Water Source	Municipal Water
Product Size	443*132*356mm

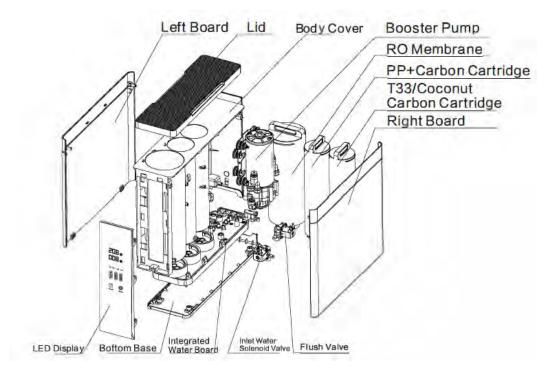
## **Purity to Waste Ratio**

## 1:1

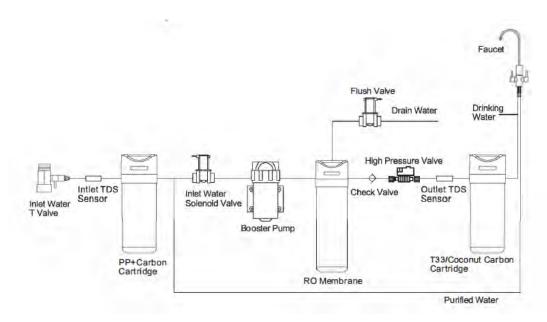
For every gallon of water this reverse osmosis system produces, one gallon is sent to drain.

## **RO Technical Drawings**

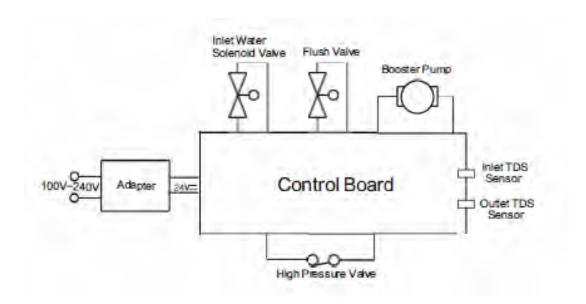
## **Product Spare Parts**



## **Technical Principle**



## Electric Principle Diagram



## **Product Introduction**

### **Product Function**

**Stage 1:** PP+Carbon Filter: Removes dirt,corrosion,sediment,red worms,sand and other physical particles to protect the RO membrane.

**Stage 2**: RO Membrane:Reverse Osmosis Membrane with the filtration precision  $0.0001\,\mu$  m removes bacterial,virus,antibiotics and other harmful substances,heavy metal and pesticide residues from water.

**Stage 3**: T33/Coconut Carbon Cartridge: Absorb odor and improve the taste of drinking water

## **Installation & Maintenance**

#### Installation

This RO system shall be installed by authorised and skilled personnel only. Please check all accessories before installation.

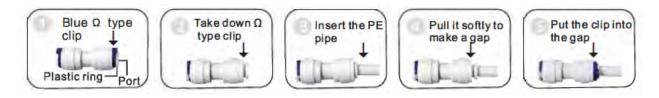
## Requirements of Installation Conditions

- **1.1** The RO system is equipped with a booster pump and shall be used with tap water only.
- **1.2** Please use the right adapter for voltage 100V-240V.
- **1.3** Make sure the installation place is clean and not in the proximity of direct sunlight, high humidity, flammables, explosives or unsafe electrical equipment.

Attention: Please pay attention to the safety when drilling and make sure there is no hidden water pipe, electric wire and gas tube.

## Installation of Quick Connector

- **3.1** Quick connector ports are adopted on the inlet and outlet of the RO system. Quick connector is a port which can connect quickly and firmly without any tools. Firstly,pull out the  $\Omega$  type clip on the port,push the movable plastic ring to the port,make it attaching to the port to move the plastic plunge or PE pipe. Insert the PE pipe to the end of the port,then pull slightly to make a gap between the movable plastic ring and the port. Finally insert the  $\Omega$  type clip in the gap. When taking the PE pipe from quick connector,first pull out the  $\Omega$  type clip,push the movable plastic ring to the port to make it attaching the port,then could pull out the PE pipe.
- **3.2** Divide and Connect of PE pipe and quick connector Connect: Take down  $\Omega$  type clip, cut the PE pipe to a smooth end face and insert into the quick connector, then pull slightly to check PE pipe has been in the oring seal of quick connector, finally insert the clip.

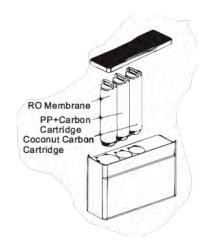


Divide: Take down  $\Omega$  type clip, make the plastic ring attaching to the port, pull out the PE pipe.



### **RO Cartridge Installation**

- **4.1** Press top button "Open", take the lid down and put aside.
- **4.2** Take out the cartridges from carton, remove the outer plastic packing.
- **4.3** Install cartridges according to the instructions on the top cover
- **4.4** After installation, put the lid back on machine.



#### Installation Place:

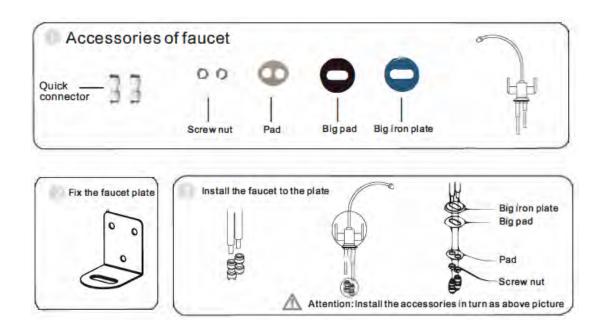
Place the machine on a flat and stable surface.

#### Installation of Water Inlet & Outlet

**6.1** Installation of inlet water T valve :Clean the installation area, close the inlet water valve, take apart the faucet or angle valve, then connect the inlet water T valve, finally connect to the original faucet or angle valve.

(Attention:Connection of screw thread should be sealed with tape or 0 ring to avoid leakage)

- **6.2** Connection of inlet water port :connect one side of PE pipe to the inlet water valve, and another side to the inlet water port on the machine.
- **6.3** Installation of faucet:According to the required place of faucet,drill a 29mm hole on the stainless steel sink,then fix the faucet.



- **6.4** Connection of purified water port:Connect the 1/4" fitting to one side of faucet,cut the 1/4" PE pipe to a suitable length,one side insert to the quick connector and the other side connect to the port of purified water on the machine.
- **6.5** Connection of drinking water port:Connect directly with the connecting rod of faucet, cut the 1/4" PE pipe to a suitable length, one side insert to the quick connector and the other side connect to the port of drinking water on the machine.
- **6.6** Connection of drain water port: Take a suitable length of 3/8" PE pipe to connect with the port of drain water on the machine. And connect another side to the drain line and fix the PE pipe to avoid drop.
- **6.7** Flush the cartridge: Install all the cartridges before flushing. Flushing of PP+C cartridge: After all the installation, turn on the purified water tap to flush PP+C filter about 10-20 minutes until the water is clean, then turn off the purified water tap. Flushing of T33 cartridge: After all the installation, turn on the drinking water tap to flush about 10-20 minutes until the water is clean.

#### Attention:

- 1. If there is no water coming from the tap, please check the power supply.
- 2. Flush filter cartridges according to instruction 6. 7. before first usage

#### **General Instructions**

When using for the first time, please open the faucet and the inlet water valve. When water is running from tap, close the tap for 30 minutes and check for leakages. If there are no leaks, you can use the machine normally. In normal user mode, keep the power connected, open and close the faucet. When using the machine after a longer period of no usage, please open the faucet and flush cartridges according to the instructions.

### Operation

The RO system is equipped with an LED display. When connecting the power supply, the machine buzzes once and goes into rinse mode.

#### 1. Rinse

- 1) Auto Rinse: Every time the power supply is connected the RO system will flush automatically. If the system is not used for more than 72 hours, the system will flush automatically.
- 2) When flushing, booster pump, inlet water solenoid valve and drain water are all in working mode, flushing last for 15 seconds, this will be indicated on the front panel.
- 3) If you press the "Select" button once, the machine will flush for 30 seconds.

#### 2. Purify

Turn on the water tap and start filtering, the inlet water solenoid valve and booster pump start working, this is indicated on the front panel.

#### 3. Leak

When leaking, the "Leak" indicator on the front panel will turn red and a 6 seconds alarm goes off. After solving the problem, reconnect the power and restart the machine.

#### 4. Fault

When continuously filtering or rinsing for 1 hour, the fault light turn red meanwhile buzzing for 6 seconds until solve the problems to connect the power again.

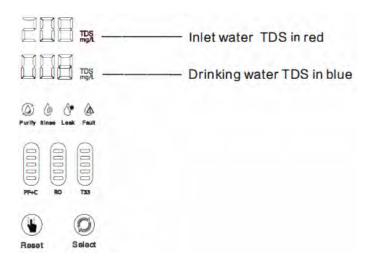
## 5. Cartridge Life

Filter life time is indicated on the front panel. Over time and usage the bars will lower. When the last bar is arrived, a 10 second alarm goes off. After that, for 3 more times, every half an hour an alarm goes off.

## 6. Replace Cartridge

Press "Reset" button for 3 seconds until you hear a sound. You are in replacement mode now. To switch between cartridges, push "Select" once. Select the cartridge to be changed and press "Reset" button for 3 seconds until you hear a sound.

## 7. LED display content as following:



## **Installation & Maintenance**

## Cartridge Replacement Time

Cartridge	PP + Carbon Filter	RO Membrane	T33/Coconut Carbon
			Cartridge
Replacement Time	6 Months	18 Months	12 Months

The cartridge replacement time is according to the local water quality and usage. Above replacement time is only for reference.

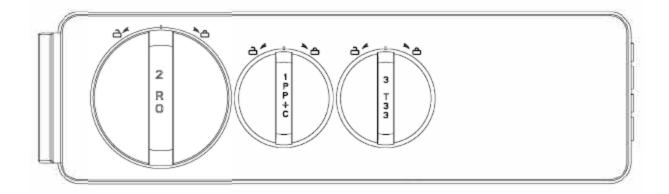
#### Attention:

- 1.Depending on the inlet water quality, please change 1st stage cartridge accordingly.
- 2. When drinking water TDS increases rapidly, the RO membrane needs to be changed soon.
- 3.T33 is for improving the taste of drinking water, if the water taste becomes bad or when the cartridge life is expired, please replace the T33 cartridge.
- 2. Replacing the cartridges

Please change cartridges regularly to maintain an effective and efficient filtration.

Close inlet water, cut off the power supply and open the faucet until water stops running.

Remove the lid and put aside. Remove and install the cartridges as described.



## **Installation & Maintenance**

#### Attention:

- 1. Please replace the cartridge in turn and make sure in right position.
- 2. The cartridge life will be different according to the area, water quality, season and working time. Please change them in time as actual usage

## Maintain the RO system

- ♦ When cleaning the RO system, do not use soap, detergent and strong volatile solvent like thinner, gasoline and alcohol, it will cause the cracks and color change.
- ♦ Do not wash the system directly in water.

## Troubleshooting

Common Malfunction	Possible Reason	Solutions
	P E pipe is bent	Straighten pipe
	Inlet water T valve is closed	Open the inlet water T valve
Very little or no water flow	Source water is shut down	Wait for the water source supply
	PP+C cartridge is blocked	Replace the cartridge
	Water pressure is low	Add pressure boost treatment
	Feed water temperature is lower than required	Increase feed water temperature
Machine does not work	Electricity fault	Check power supply
	Adaptor loses efficiency	Replace the adaptor
	Machine short of water	Check feed water. If feed water is OK, reconnect power supply
Water Taste is abnormal	Not using for long time	Flush the cartridge for 5 minutes, if not solve the problem, please replace cartridges
	Poor feed water quality	Check feed water quality
	Not replace the cartridges for long time	Replace the cartridges
Noises during machine operation	Power and voltage do not match	Call professional personnel to check and repair
	Feed water flow too little	Increase feed water flow rate
	Adaptor is damaged	Call professional personnel to check and repair
	Failure caused on water pump	Call professional personnel to check and repair