

PENTAIR appearing in the product manual or on the packaging are registered trademarks of Pentair used in various trademark displays.  
The trademark of this product is "PENTAIR."



Manufacturer: Suzhou Pentair Water Treatment Co., Ltd  
Production address: No. 371, Heshan Road, Suzhou New District  
Suzhou City, Jiangsu Province  
Postal code: 215011  
Service hotline: 400-820-6671  
Website: [www.pentairwater.cn](http://www.pentairwater.cn)

### Pentair Office in South East Asia

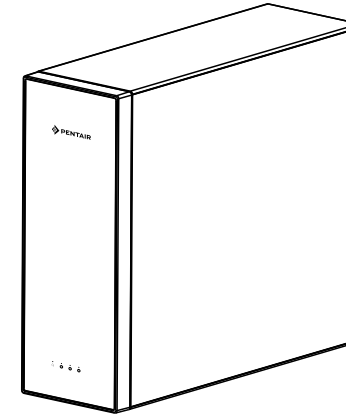
Singapore  
390 Havelock Road  
#04-01 King's Centre  
Singapore 169662  
Tel: +6567685900

Thailand  
16th Floor, The Ninth Towers  
Grand RAMA 9, Tower B  
33/4 Rama 9 Road, Huaykwang  
Bangkok 10310, Thailand  
Tel: +6621681092

All indicated Pentair trademarks and logos are property of Pentair.  
Third party registered and unregistered trademarks and logos are the property of their respective owners. ©2026 Pentair. All Rights Reserved.



## Pentair ES Series Reverse Osmosis Water Purifier Product Manual



Model: ES40-S/ES60-S/ES80-S

- Please read this instruction manual carefully before use.
- The company reserves the right to interpret the manual.
- Please refer to the actual product appearance.
- Please keep this manual properly along with the invoice.
- We reserve the right to upgrade product technology or software without prior notice.

## Table of Contents

<b>Instructions for Use</b>	
<b>Precautions</b>	<b>1</b>
<b>Packing List</b>	<b>2</b>
<b>Product External Dimensions</b>	<b>2</b>
<b>Product Interface</b>	<b>3</b>
<b>System Connection Diagram</b>	<b>4</b>
<b>Product Features</b>	<b>4</b>
<b>Function Overview</b>	<b>4</b>
<b>Product Usage</b>	<b>5</b>
<b>Product Specifications</b>	<b>5</b>
<b>Installation and Maintenance</b>	
<b>Product Structure and Key Components</b>	<b>6</b>
<b>Product Structure Diagram</b>	<b>6</b>
<b>Water Treatment Process Diagram</b>	<b>6</b>
<b>List of Key components</b>	<b>7</b>
<b>Product Installation</b>	<b>7</b>
<b>Maintenance and Care</b>	<b>10</b>
<b>Maintenance Checklist</b>	<b>11</b>
<b>Common Fault Handling</b>	<b>11</b>
<b>Water Efficiency Rating Description</b>	<b>12</b>
<b>Names and Content of Hazardous Substances in the Product</b>	<b>12</b>
<b>Contaminant Removal Rate</b>	<b>13</b>
<b>Warranty Card</b>	<b>14</b>
<b>User Information Feedback Slip</b>	<b>14</b>
<b>Back cover</b>	

Please read this manual carefully before use.

Please keep this manual in a safe place for future reference.

The actual product shall prevail in terms of appearance, colour, and surface patterns.

Our products are continuously updated, and any changes may be made without prior notice.

## Instructions for Use

### Precautions

#### Notice:

- For appliances connected to the water supply with a detachable hose assembly, always use the new hose assembly supplied with the appliance. Do not reuse old hose assemblies.
- During use, ensure the power plug is fully inserted into the power outlet and maintains proper contact.
- If an extension power outlet is required, use one that complies with national standards.
- If the product emits abnormal noise, odour, excessive heat, or shows signs of malfunction, stop using it immediately, turn off the switch, and disconnect the power.




#### Warning:

- The total rated current of electrical appliances connected to an extension power outlet must not exceed the rated current of the original fixed outlet or circuit.
- Do not use this product near flammable, explosive, or similar hazardous materials.
- Users must not disassemble the appliance, modify internal wiring, or alter components or protective devices.
- Do not pull on the power cord when unplugging the appliance.
- Do not replace fuses in the appliance or power supply with ordinary conductors or fuses exceeding the specified current capacity.
- Do not operate the appliance in environments below 4°C. If the ambient temperature falls below 4°C, drain the water inside the appliance.

#### Caution:

- This appliance is intended for household and similar use, including: staff kitchen areas in shops, offices, or other working environments; farmhouses; use by guests in hotels, motels, and other residential environments; bed-and-breakfast-type environments.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless supervised or instructed by a person responsible for their safety.
- Supervise children to ensure they do not play with the appliance.
- The appliance must only be used with the power supply unit provided.
- The maximum operating altitude for this appliance is 2000 m (to prevent electric shock or equipment damage).
- Incorrect use may lead to potential injury.
- Do not misuse the power cord or power plug.
- Do not damage the power cord or plug (e.g., by cutting, modifying, exposing to high temperatures, forcefully bending, twisting, stretching, placing under heavy objects, or tying).
- Do not plug in or unplug the appliance with wet hands.
- Do not use damaged plugs or loose outlets (to avoid fire or electric shock).
- If the power cord is damaged, it must be replaced by the manufacturer, its service agents, or similarly qualified personnel to avoid hazards.
- Prevent liquids from spilling onto connectors.
- This product contains magnets. If you have a pacemaker, avoid close contact with the unit (normal operation from a safe distance is acceptable).

## Instructions for Use

	Any content with this symbol indicates behaviour that must be prohibited, otherwise it may cause product damage or endanger the personal safety of the user.
	Any content with this symbol must be strictly operated in accordance with the requirements, otherwise it may cause product damage or endanger the personal safety of the user.
	Any content with this symbol is a part that the user must pay attention to, otherwise improper operation may cause product damage or other losses.



### Warning

- If the machine malfunctions, immediately disconnect the water supply and power.
- Do not allow children to operate the machine.
- For assistance, please contact your local sales and service centre.



### Prohibit

- Avoid installing the product in areas exposed to direct sunlight or outdoors.
- Do not store or expose the product to environments below 0°C.
- Do not place flammable, explosive, heat-sensitive, or easily deformed items near the unit.



### Caution

- Do not disassemble any components of the machine yourself, as this may cause leakage or damage.
- Use the product only in dry environments with temperatures between 4°C and 40°C.
- If the purifier will not be used for more than 24 hours, turn off both the water supply and the power.
- To ensure proper operation, always use accessories and filter cartridges with the company's authenticity label.
- Only technicians who are professionally trained and certified by the company are permitted to service this machine.

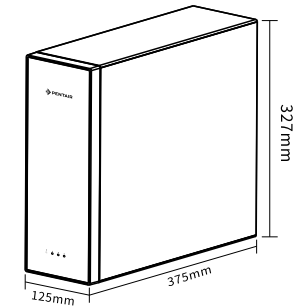
## Packing List

Water Purifier	1 set	2-point Threaded Straight Connector	1 pc
Manual	1 book	2-point PE Pipe	5 m
Water Inlet 3-way Ball Valve	1 set	3-point PE Pipe	2 m
Tube Removal Tool	1 pc	External Transformer	1 pc
2-point Elbow Insert	2 pcs	Filter Cartridge 1	1 pc
3-point Elbow Insert	1 pc	Filter Cartridge 2	1 pc
2-point Blue Clip	12 pcs	Faucet	1 set
3-point Blue Clip	5 pcs	Cable Ties	several

## Instructions for Use

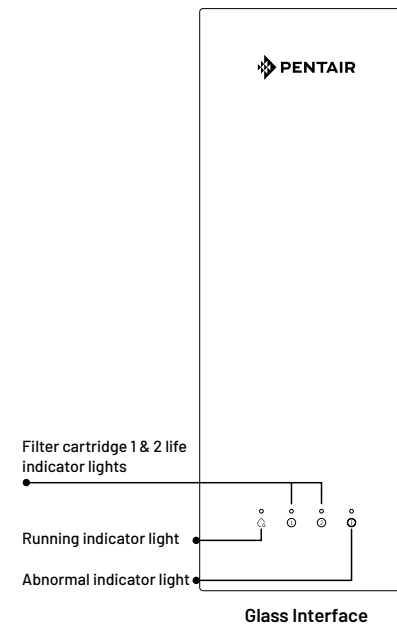
### Product External Dimensions

Product appearance:  
white body, white screen



### Product Interface

#### Body interface

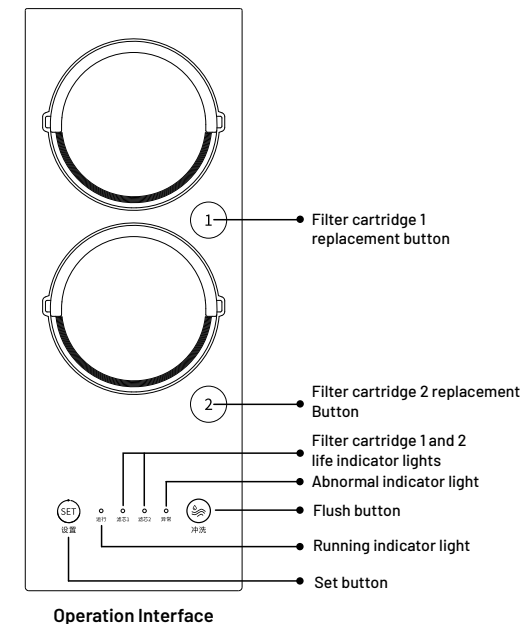


#### 1. Touch Buttons on the Unit

-Set: After replacing the filter, reset the filter life.  
-Flush: Perform a one-touch internal pipe flush at any time.

#### 3. Operation Indicator Lights on the Unit

White breathing light: Machine is producing water.  
White flashing light: Machine is flushing.



#### 2. Filter Life Indicator Lights on the Unit

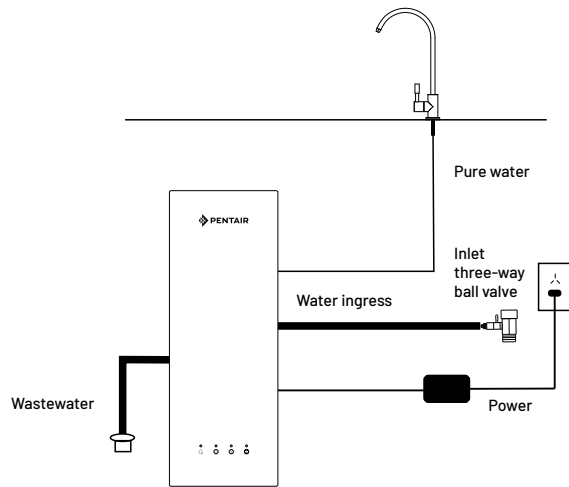
Indicates the status of Filter 1 and Filter 2:  
-White steady light: Normal filter life.  
-White flashing light: Filter nearing end of life; replacement is recommended.  
-Red steady light: Filter life has expired; replacement required.

#### 4. Error Indicator Light on the Unit

Red flashing light: Machine malfunction.

## Instructions for Use

### System Connection Diagram



### Product Features

- High-flow water output for instant drinking.
- Provides purified water through multi-stage, high-precision filtration.
- One-touch pop-up filter for easy and convenient replacement.
- Slim design allows flexible installation in various spaces.

### Function Overview

- **Water Purification:** Produces purified water through a high-precision multi-stage filtration system.
- **Filter Life Reminder:** The unit displays filter status for intuitive maintenance.
- **Automatic Flushing:** Automatically performs self-cleaning of the internal water system based on usage.

## Instructions for Use

### Product Usage

1. **Daily Use:** Once the product is installed, open the handle on the faucet to start using. Turning the faucet handle will allow water to flow, suitable for drinking.
2. **Filter Replacement and Maintenance:** During use, the filter life will gradually decrease. Please replace filters in a timely manner according to the status indicators on the display. If the filter indicator on the unit turns red, the filter has reached the end of its life and must be replaced. For detailed steps on filter replacement, please refer to the "Maintenance and Care" section.
3. **Extended Periods of Non-Use:** When using the water purifier again after a long period of inactivity, first run water through the faucet to flush the system. Only use the water once it is clear and odor-free (typically 3-5 minutes).

### Product Specifications

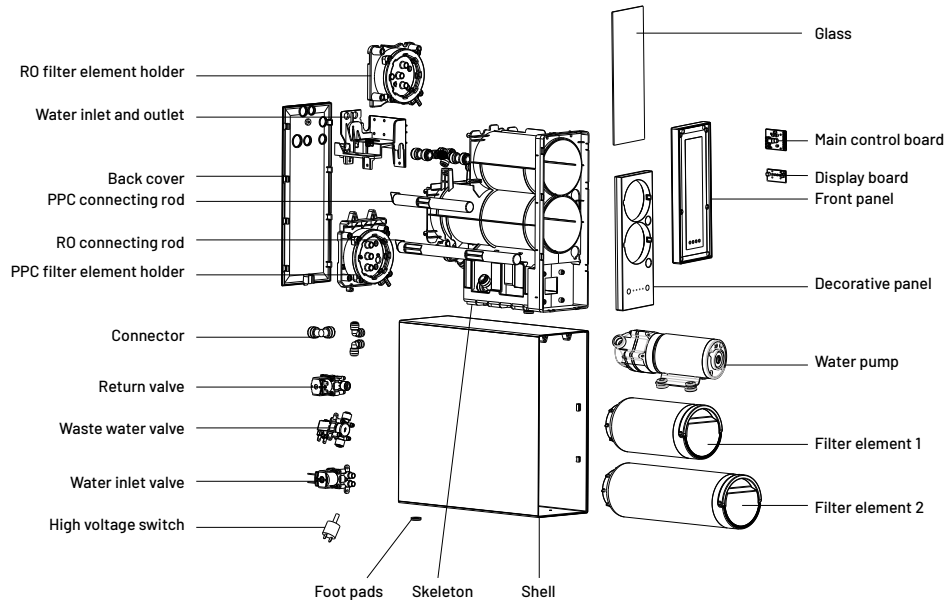
Product Name	Pentair ES series Reverse Osmosis Water Purifier		
Product model	ES40-S	ES60-S	ES80-S
Pure water flow	1.0L/min	1.5L/min	2.0L/min
Power rating	70W	80W	95W
Rated voltage	220V~	Rated frequency	50Hz
Rated total water purification	4000L	Water efficiency grade	Level 1
Water pressure is applicable	0.1Mpa-0.4MPa	Anti-electric shock type	Class II
Applicable environment	Ambient temperature 4°C-40°C, relative humidity ≤ 90% (indoor).		
Applicable water temperature	5°C-38°C		
Noise value	≤ 55dB(A)		
Applicable water quality	Municipal tap water		
Product size	L375xW125xH327(mm)		
The quality of the effluent	It meets the requirements of the "Hygiene, Safety and Functional Evaluation Code for Domestic Drinking Water Quality Processors - Reverse Osmosis Treatment Device" (2001).		
Health Permit Approval Number	Zhejiang (04) Weishui Zi (2025) No. XXXX		
Implementation standards	Q/320505PT301 "Reverse Osmosis Water Purifier"		

- Note:**
1. All performance parameters of this product are based on standard test conditions (25°C, 0.24 MPa). Actual performance may vary depending on usage conditions.
  2. The water output of the reverse osmosis water purifier is directly affected by water temperature. Lower output in winter due to colder water is considered normal.

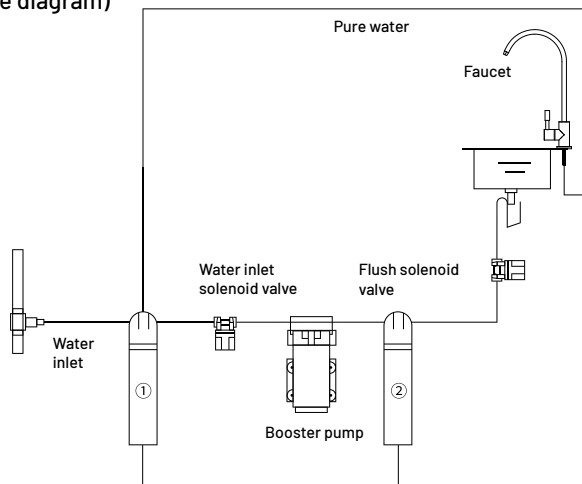
## Installation and Maintenance

### Product Structure and Key Components

#### Product Structure Diagram



#### Water Treatment Process Diagram (working principle diagram)



6

## Installation and Maintenance

### List of key components (core water treatment technology)

Part name	Main materials	Specification	Model	Quantity	Service Life
Front polypropylene carbon fibre & Rear carbon	Polypropylene, carbon fibre, activated carbon	Φ97*L211mm 5μm	ES-MPF-C1	1 piece	1 year
Reverse Osmosis (RO) membrane filter cartridge	Polypropylene, polyamide	Φ97*L320mm	ES-600-C2	1 piece	3 years

**Note:** Due to differences in users' water consumption habits and local water quality conditions, the actual service life of the filter cartridges may vary.

### Product Installation

#### Installation and Commissioning of the Product

After purchasing the water purifier, users should request professional technicians to install and commission the product. Please confirm whether all accessories included in the package are complete before installation.

#### 1. Installation Environment Requirements

- 1.1 This product is designed with a booster system and can be installed at locations with a municipal tap water supply connection.
  - 1.2 A 220V power outlet is required.
  - 1.3 The installation site must be clean and hygienic, free from pollution, direct sunlight, flammable or explosive materials, electrical appliances, and rain exposure.
  - 1.4 Ensure there is a reserved hole on the kitchen sink for the faucet.
- If not, a new hole must be drilled for installation.



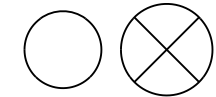
#### Warning

Pay attention to personal safety when using drilling tools. Ensure the drilling position does not contain concealed water pipes, electrical wiring, or gas pipelines.

#### 2. Installation Preparation

##### 2.1 Prepare the following tools before installation:

- Adjustable wrench
- Tube wrench
- Scissors
- Screwdriver



Power supply

##### 2.2 Turn off the household water supply valve and drain any remaining water from the inlet hose to prevent wetting furniture or the floor.



Thick water



Pure water



Raw water

Interface diagram

7

## Installation and Maintenance

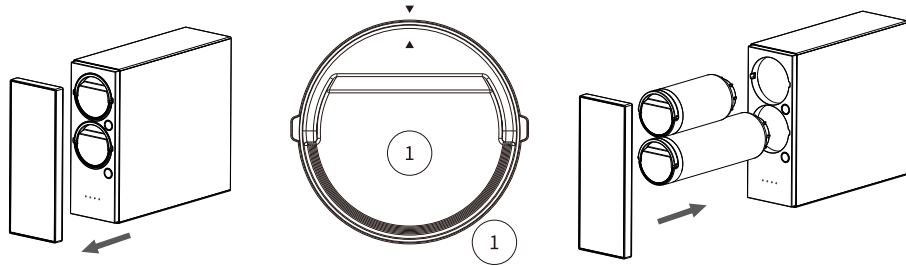
### 3. Filter Cartridge Installation

**3.1** Remove the front panel and place it safely aside. Take out the new filter cartridge from the package and remove the shrink wrap.

**3.2** Confirm that the filter cartridge number corresponds to the number on the filter replacement button on the machine.

**3.3** Align the handle of the filter cartridge with the positioning mark on the machine. Push the filter cartridge horizontally into the compartment and press firmly until a "click" sound is heard, indicating proper installation.

**3.4** Reattach the front panel.



### 4. Pipeline Installation Method

**4.1** Install the inlet three-way ball valve:

Clean the installation area, close the main water supply valve, remove the faucet connection (such as the tap or angle valve), then attach the inlet three-way ball valve.

Note: Apply sealing tape or use a sealing ring on threaded connections.

Reinstall the original faucet or angle valve afterward.

**4.2** Connect the water inlet:

Connect one end of the 3/8" PE tubing to the tap water inlet ball valve. Connect the other end to the 3/8" elbow fitting and then attach the elbow fitting to the "Raw Water" port on the back of the main unit.

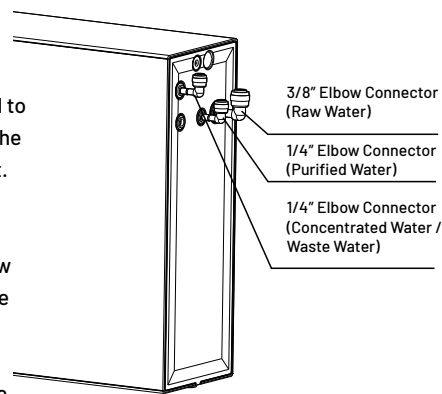
**4.3** Connect the purified water outlet:

Cut an appropriate length of 1/4" PE tubing. Connect one end to the faucet, and the other end to a 1/4" elbow fitting. Then connect this tubing to the "Purified Water" port on the back of the main unit.

**4.4** Connect the wastewater outlet:

Prepare a suitable length of 1/4" PE tubing and connect it to a 1/4" elbow fitting. Attach the elbow fitting to the "Wastewater" port on the back of the main unit.

Connect the other end to the drainage pipe and secure the tubing to prevent it from coming loose.



## Installation and Maintenance



The wastewater tubing must not be placed into a container without overflow protection to avoid flooding and floor damage.

**4.5** Filter Cartridge Flushing: After installing the filter cartridges, flush the system before using the water purifier for the first time. Open the purified water faucet and let the water run for 30 minutes, then turn off the machine for 3 hours. Then, open the faucet again and let the water run for 20 minutes. This is considered one cycle. Repeat 8 cycles before the unit can be used normally.

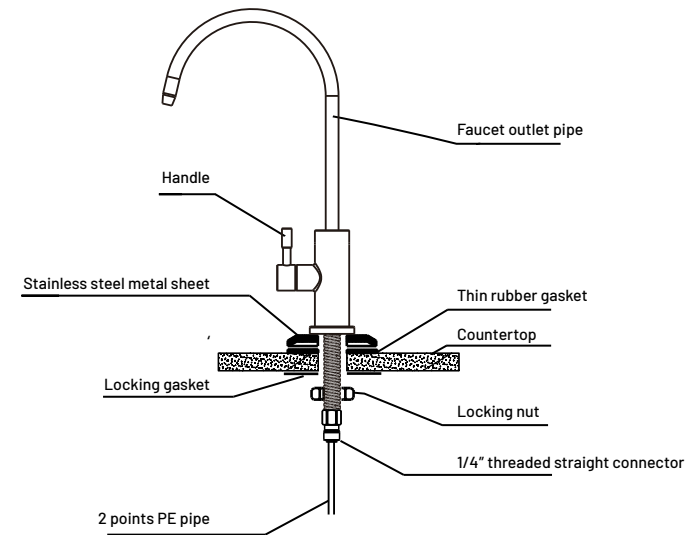
### 5. Faucet Installation

**5.1** Open the soap dispenser hole cover on the sink edge.

**5.2** Unscrew the nut from the threaded rod on the faucet.

**5.3** Insert the threaded section of the faucet through the reserved hole in the sink.

Adjust the faucet to the desired direction. From underneath the sink, place the rubber gasket onto the threaded rod and tighten the nut to secure the faucet.



## Installation and Maintenance

### Maintenance and Care

#### 1. Filter element replacement cycle

Please follow the filter cartridge replacement reminders shown on the corresponding filter icons on the purifier. The replacement cycle depends entirely on the water quality in your area and your purified water usage. Replacing the filter cartridges at a safe and timely frequency ensures the purifier operates properly and maintains the quality of the purified water.



Caution

In areas where a rooftop water tank is used, the tank is often not cleaned regularly, leading to heavy sediment buildup.

#### 2. Filter element replacement steps

**2.1** Turn off the power to the water purifier, close the inlet three-way ball valve, open the faucet, and drain any remaining water in the machine.

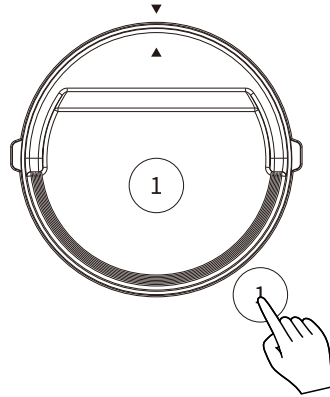
**2.2** Refer to the illustration on the right. Press the filter replacement button, and the cartridge will pop out. Remove the old filter cartridge that needs to be replaced.

**2.3** Refer to "3. Filter Cartridge Installation" to install the new cartridge.

**2.4** Open the three-way ball valve and reconnect power to the water purifier.

**2.5** Open the faucet and manually flush water for 10 minutes.

**2.6** Follow the steps below to reset the filter cartridge before normal use.



#### Filter Reset Procedures

1. Enter reset mode: Press and hold the "Settings" key for 3 seconds. The buzzer will beep once.
2. Select the filter cartridge: Press the "Settings" key briefly to select the filter you want to reset. The selected filter indicator will flash red and white.
3. Perform the reset: After the filter is selected, press and hold the "Settings" key for 3 seconds. The buzzer will beep once, and the filter indicator will turn white, marking completion of reset. If no operation is performed within 10 seconds in reset mode, the unit will automatically exit the reset mode.

#### Notes

Due to variations in regional water quality, ambient temperature, and usage habits, the actual filter replacement cycle may differ.

#### Cleaning & Maintenance

Do not use soap, detergents, thinners, gasoline, alcohol, or other strong volatile solvents to clean the product, as these may cause cracking, scratches, or discoloration.

Do not rinse the machine directly with water. In areas where rooftop water tanks are used and maintenance is infrequent; sludge and sediment accumulation may be heavy. Under such conditions, the first-stage filter requires more frequent replacement.

## Installation and Maintenance

### Maintenance Checklist

Serial No.	Components	Recommended maintenance cycle
1	Filter housing	5 years
2	RO filter housing	5 years
3	Gooseneck faucet	5 years
4	Integrated waterway	5 years
5	board	2 years
6	PE plastic tubing	2 years
7	Solenoid valves	2 years

**\* Long-term use may lead to aging and water leakage. It is recommended to replace the components according to the maintenance schedule.**

### Common Fault Handling

Fault Condition	Possible Cause	Solution
Machine not producing water / Reduced water output	PE tubing is bent	Straighten the PE tubing
	Inlet three-way ball valve is closed	Open the inlet three-way ball valve
	Tap water supply is interrupted	Wait for water supply to resume
	Filter cartridge is clogged	Replace the filter cartridge
	Water pressure is lower than the rated requirement	Add a booster pump
Machine not operating	Raw water temperature is too low	No action required
	Power failure	Check if power is available
	Power adapter failure	Replace the power adapter
Abnormal taste	Machine is in low-water protection state	Check whether the water source is available; after confirming water supply, power off and restart
	Machine not used for a long time	Flush each filter cartridge (except RO membrane) for 5 minutes; if taste remains abnormal, replace the filter cartridge
	Poor water source quality	Ensure the water source is municipal tap water
Abnormal noise during operation	Filter not replaced for a long time	Replace the filter cartridge
	Power voltage instability	Contact service for adjustment or replacement
	Insufficient raw water flow	Add more water to the raw water container
	Transformer exposed to water	Contact service for adjustment or replacement
Water leakage	Water pump malfunction	Contact service for adjustment or replacement
	Pipeline or filter cartridge not installed properly	Reinstall correctly or contact after-sales service
	Filter cartridge sealing ring worn	Contact after-sales service
	Inlet/outlet connector sealing ring worn or misaligned	Contact after-sales service
Status light flashing red	Other parts worn	Contact after-sales service
	Machine producing water for an extended period	Turn power off and on again in protection mode, or press any button to clear the fault

## Water Efficiency Rating Description

### 1. Water Efficiency Rating of Water Purifiers

For purified water produced by water purifiers, according to the national standard GB 34914-2021 "Minimum Water Efficiency Requirements and Water Efficiency Grades for Water Purifiers", the water efficiency rating is divided into three levels, with Level 1 being the highest. The purified water recovery rate and the rated total purified water volume for each level must comply with the requirements listed in the table of the standard.

#### Water efficiency index value of water purifier

Water efficiency grade	Level 1	Level 2	Level 3
Water Yield Rate/%	≥65	≥55	≥45
Rated total water purification/L	≥4000	≥3000	≥2000

2. For the water efficiency rating of this product, please refer to the parameters shown on the product's "China Water Efficiency Label."

3. During continuous water production: If the machine produces water continuously for 60 minutes, it will automatically enter shutdown protection mode (continuous water production protection). To resume operation, please restart the power supply.

## Names and Content of Hazardous Substances in the Product

Table of Hazardous Substances Contained in the Product

Component Name	Hazardous Substances									
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)	Dibutyl Phthalate (DBP)		Butyl Benzyl Phthalate (BBP)	Di(2-ethylhexyl) Phthalate (DEHP)
Electronic Control Board Assembly	×	○	○	○	○	○	○	○	○	○
Panel and Its Components	○	○	○	○	○	○	○	○	○	○
Rear Cover and Its Components	○	○	○	○	○	○	○	○	○	○
Power Cord and Connection Cables	○	○	○	○	○	○	○	○	○	○
Packaging & Printing Components	○	○	○	○	○	○	○	○	○	○
Faucet	○	○	○	○	○	○	○	○	○	○
Inlet Solenoid Valve	○	○	○	○	○	○	○	○	○	○
Flushing Solenoid Valve	○	○	○	○	○	○	○	○	○	○

This table is compiled in accordance with SJ/T 11364.

○: Indicates that the content of the hazardous substance in all homogeneous materials of the component is below the limit requirements specified in GB 26572.

×: Indicates that the content of the hazardous substance in at least one homogeneous material of the component exceeds the limit requirements specified in GB 26572.

\* The components listed in the table are a summary of the main components included in different product models. Whether a specific component is included in this product depends on the actual product configuration.

\* Components and homogeneous materials not listed in the table contain no hazardous substances.

\* Components marked with "X" are currently unable to replace the hazardous substances due to limitations in current industry technology.

#### Friendly Reminder

To protect the environment, when this product or any of its components reach end-of-life, as a consumer, you are responsible for separating it from household waste and delivering it to a qualified recycling facility. The recycling facility will dismantle, sort, and recycle the materials according to national regulations. For detailed information regarding recycling and disposal of this product, please consult local government authorities or waste management organizations.

Electronic information products sold within the People's Republic of China must display this mark.

The number inside the circle indicates the environmentally safe usage period of the product under normal operating conditions.



## Contaminant Removal Rate

Contaminant Name	Required Removal Rate / Purification Efficiency	Measured Removal Rate <sup>83%</sup>
Arsenic (As)	83%	99.9%
Cadmium (Cd)	83%	99.9%
Chromium (Hexavalent Cr(VI))	67%	98.6%
Fluoride	75%	99.7%
Lead (Pb)	90%	99.9%
Nitrate Nitrogen	67%	99.7%
Chloroform	95%	99.9%
Carbon Tetrachloride	98%	99.9%
Conductivity	85%	XX.X%
Total Hardness (CaCO <sub>3</sub> )	90%	XX.X%

Note: According to Zhejiang Fris Testing Technology Co., Ltd., Report No. FW250926-28-C.



### TERMS AND CONDITIONS OF WARRANTY

1. The warranty period is 1 year from the date of purchase. During the warranty period, Pentair (Company) is responsible for providing free warranty for faults arising from normal operation and use according to the installation manual and user's manual. Pentair will charge repair and maintenance fees after the warranty expires.
2. The user should keep valid purchase invoice, which serves as the basis for after-sales service.
3. Installation, maintenance and repair services will be provided by Pentair's authorized distributors. In the event that the user is unable to present the warranty card or valid purchase invoice, Pentair will deem the warranty to have expired and charge the relevant fees.
4. Warranty will be void in the following conditions:
  - Installation by personnel who are not authorized by Pentair;
  - Product malfunction or damage resulting from user's failure to follow the instructions described in user's manual to operate the system;
  - Error or damage caused by the user's self-repair or modification of the equipment;
  - Error or damage caused by force majeure (including but not limited to natural disasters such as fires, floods, earthquakes, lightning strikes, etc.);
  - Error or damage caused by human factors (including but not limited to drop, knock, etc.);
  - Where the user is unable to present warranty card or purchase invoice, or the content of the invoice has been altered;
  - Any problems caused by using parts that are not approved by Pentair.
5. The repair parts replaced during the warranty period are owned by Pentair.
6. Warranty does not cover for all consumables, such as filter element and materials.
7. Pentair reserves the right to charge a certain service fee for or repair service provided on-site in remote areas.