

# **Reverse Osmosis Instant Hot Water Dispenser System**

**Installation and Operation Manual** 





## **WARNING**

Please read this manual carefully before using your product, and keep it for future reference. As the appliance is kept upgrading, it may differ between the actual appliance and the one in the manual. Please refer to the actual product.

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# 1 Explanation of Symbols and Safety Instructions

This manual has safety information and instructions to help you eliminate or reduce the risk of accidents and injuries.

## 1.1 Recognize Safety Information



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

## 1.2 Understand Signal Words

A signal word will identify safety messages and property damage messages, and also will indicate the degree or level of hazard seriousness.



#### **DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



#### WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



#### CAUTION

Indicates a hazardous situation which, if not avoided, could result in property damage and minor or moderate injury.



#### NOTICE

This symbol indicates important information where there is no risk to people or property.

# 1.3 Important Safety Messages

- Please use municipal tap water as the water source. Do not use water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- 2. The installed system must be placed flat, not in reverse or diagonally.

- 3. This device is intended for domestic use only.
- 4. The inlet water temperature of the system should be within 40-100 °F (5-38 °C). When the inlet water temperature exceeds 100°F (38 °C), the filter could be damaged and become invalid. If the inlet water temperature is lower than 40 °F (5 °C), it may cause freezing and the parts of the system to rupture, resulting in water leakage.
- 5. At different altitudes, the boiling point of water is different. When the altitude is above 5000 ft (1500 m), the boiling point is lower than 203 °F (95 °C). The system needs to adjust the boiling point accordingly to match the altitude.
- 6. To avoid a possible electric shock hazard, the system plug must be inserted into a grounding socket that complies with local codes and regulations.
- 7. The product must be applied on a 10 A grounding socket or above, and the plug must be completely inserted into the socket to avoid damage to the components due to poor contact, causing a short-circuit, fire, or other hazards.
- When the machine fails, it must be repaired by professional maintenance personnel. If it is repaired by non-professionals, scalds, and electric shock hazards may occur.
- Before connecting the power supply, check whether the voltage marked on the nameplate of the system is consistent with the voltage of the power supply, to avoid damage to the component or causing a fire.
- Regularly check the power supply and power cord for damage or breakage to avoid major accidents caused by leakage.
- 11.To minimize the possibility of fire, DO NOT store flammable items such as rags, paper, or aerosol cans near the system, DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- The system needs to be installed in a ventilated, moisture-proof, sun-proof, and frost-proof room. Avoid placing it in contact with corrosive substances.

- 13. To prevent the risk of water leakage, please regularly check the connection position of the system's water tubing. If there are signs of damage or looseness, it needs to be repaired to avoid flooding.
- 14. DO NOT immerse in water.
- When getting hot water, do not touch the faucet outlet to prevent from scalding yourself.
- 16. When getting hot water, take care to prevent the water from escaping and scalding your skin. To prevent scalds, pay attention when wearing clothes that don't cover your skin.



#### WARNING

This product can expose you to lead, which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65warnings.ca.gov.

## **1.4 Installation Tips**

Please read this manual and the labels on the system before you install, operate, or service it. Then inspect the package. Open the box and take out the system, all the components and connector fittings. Check the packing list to confirm all accessories are included in the package. Contact Mizudo customer service if any components are missing or damaged during shipping. If there are any parts cracked or broken, please do not proceed with the installation and contact us. Identify and get familiar with all components for quick installation.



#### NOTICE

Before installing this system, make certain your water supply complies with the following operating specifications. Failure to do so may reduce the effectiveness of the system and will void the warranty.

# **2 General Information**

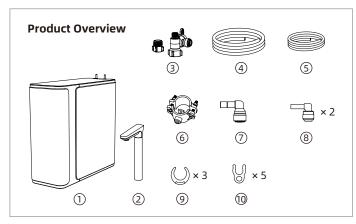
# 2.1 Product Specification

Model	WD800
Daily Production Capacity	800 GPD
Operating Water Temperatures	40-100 °F (5-38 °C)
Operating Water Pressure	15-100 psi (0.1-0.7 MPa)
Power Specifications	110-120 VAC 50/60 Hz
Rated Power	1100 W
pH Parameters	2-11
TDS (Total Dissolved Solids)	< 1800 ppm
Iron	< 0.2 ppm
Turbidity	< 5 NTU
Hardness	< 10 gpg (170 mg/L)
Size (L × W × H)	18.5" × 7.3" × 17.7"

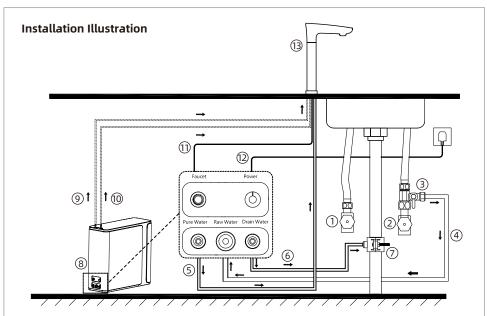
**Note:** The system will operate with a hardness of over 10 grains, but the membrane life may be shortened. The addition of a water softener may lengthen the membrane life.

Water Pressure: The operating water pressure in your home should be tested over a 24-hour period to attain the maximum pressure. If the incoming water pressure is above 80 psi, a water pressure regulator is required.

## 2.2 Product Overview and Installation Illustration



- 1) System
- (2) Smart Faucet
- (3) Angle stop valve
- 4) 3/8" White PE tubing
- 5 1/4" Red PE tubing
- 6 Drain connector
- 7 3/8" L-Fitting
- (8) 1/4" L-Fitting
- (9) 3/8" Clips
- 1/4" Clips



- (1) Hot valve
- (2) Cold valve
- (3) Angle Stop Valve
- (4) Water inlet tubing
- (5) Pure water outlet tubing
- (6) Drain water outlet tubing
- (7) Drain connector

- (8) System
- (9) Air outlet tubing
- (10) Hot water outlet tubing
- (11) Signal cord
- (12) Power cord
- (13) Smart Faucet

#### **Tools and Materials Required**

- Hand or electric drill(cordless preferred)
- · Adjustable wrenches
- Slotted and Phillips screwdrivers
- · Utility knife or scissors
- Safety glasses
- Drill bits: 1"(for faucet hole), 1/4"(for drain tubing)
- · Safety mask



#### NOTICE

Not all tools may be necessary for installation. Read installation procedures before starting to determine what tools are required.

# 3 Installation

#### 3.1 Installation Instructions

Read all installation and operating instructions before installing and using your RO system.

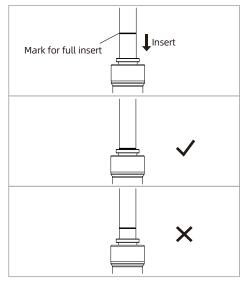


#### NOTICE

- Please check if there is sufficient space for installing the system itself, its accessories, connection.
- Under no circumstances should the system be installed outdoors.
- The environment where the system is installed should adhere to appropriate hygiene and sanitation conditions. Avoid any external dripping liquids from pipes or drains, etc, onto the system.
- This system should be placed on a stable and at the surface.
- Keep the system away from heat. It shall not be placed in a place that may have in-inflammable gas leakage.

# How to use the quick-connector fitting

#### To connect



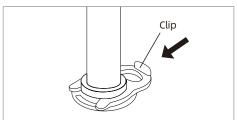
- There is an existing mark at the end of the PE tubing for you to confirm if the PE tubing is fully inserted into the fitting.
- Push the PE tubing into the fitting until you reach the mark on the tubing.



#### NOTICE

If the PE tubing is not fully inserted, no seal will be created, and leakage will occur.

 When the PE tubing is fully inserted, put the clip on the fitting. It will lock the PE tubing in place and prevent it from falling off.



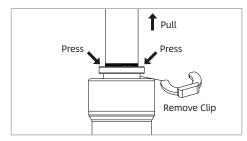


#### NOTICE

If the PE tubing is too long, cut it to a suitable length with a sharp utility knife or scissors. Cut the PE tubing squarely and cleanly. Make sure the PE tubing is fully inserted.



#### To disconnect



- Remove the blue lock clip from the fitting;
- Use your thumb and index finger to press down the lock sleeve. Use your other hand to pull out the PE tubing from the fitting.



#### NOTICE

Please do not pull out the PE tubing directly. This will damage the fitting and cause leakage.

## 3.2 Selecting the Faucet Location

Most sinks have pre-drilled holes designed for spray hoses. The RO faucet may be through using one of these holes despite their larger size. If these pre-drilled holes cannot be used or are in an inconvenient location, it will be necessary to drill a 1-1/4" hole in the sink or through the countertop next to the sink.

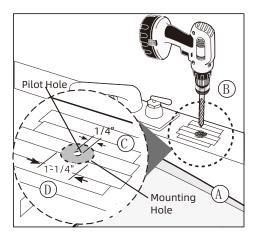


#### CAUTION

- This procedure may generate dust, which can cause severe irritation if inhaled or come in contact with the eyes. Safety glasses and a safety mask are recommended for this procedure.
- Do not attempt to drill through an allporcelain or porcelain-coated sink. For applications on these types of sinks, we recommend using the sprayer hole or drilling the hole through the countertop.
- When drilling through a countertop, make sure the area below the drilled area is free of wiring and piping. Make certain that you have ample room to make the proper connections to the bottom of the countertop.
- Do not drill through a countertop that is more than 1 inch thick.
- Do not attempt to drill through a tiled, marble, granite or similar countertop.
   Consult a plumber or the countertop manufacturer for advice or assistance.

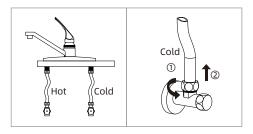
# The following instructions apply to stainless steel sinks ONLY.

- (A)Line the bottom of the sink with newspaper to prevent shavings, parts or tools from falling down the drain.
- (B) Place masking tape over the area to be drilled to help prevent scratches if drill bit slips.
- © Mark the point with a center punch. Use a 1/4inch drill bit to drill a pilot hole through the sink.
- (D) Use a 1-1/4" hole saw to enlarge the hole. Smooth rough edges with a file.

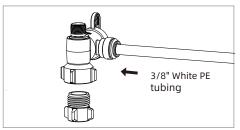


# 3.3 Install the Angle Stop Valve for the feed water (3/8" or 1/2")

(A) Turn off the cold water supply valve. Turn on the kitchen cold water faucet to release the pressure and allow water to drain from the line. Disconnect the cold water hose from the cold water valve.



(B) Insert the 3/8" white PE tubing into the angle stop adapter's fitting. Secure the tubing with a 3/8" clip.

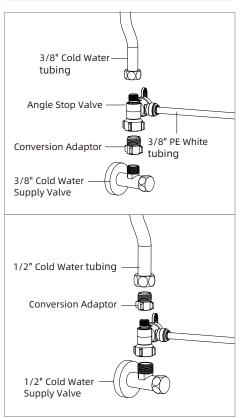


(C) Install the Angle Stop Valve on the cold water valve and tighten it with an adjustable wrench. Please don't miss the gasket inside the angle stop adapter during installation.

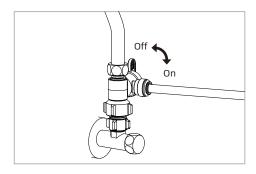
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#### NOTICE

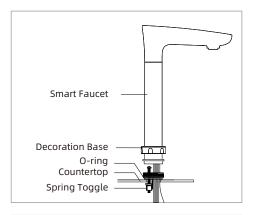
If the cold water tubing is 1/2", screw the conversion adaptor upper the Angle Stop Valve.



(D) Switch off the angle stop adapter. Turn on the cold water supply valve. Wipe the connections with a tissue to check for leakage. If the tissue stays dry, the angle stop valve is installed correctly.



### 3.4 Install the Smart Faucet

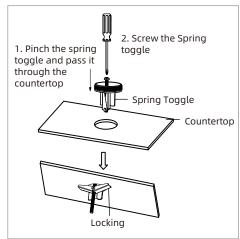


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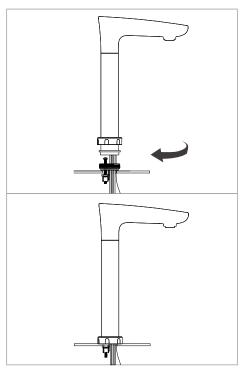
#### NOTICE

If your kitchen sink or countertop does not have an existing hole (1-1/4" to 1-1/2"), you will have to drill one (1-1/4"). Refer to chapter 3.2.

- Insert the power cord, tubing into the hole on the countertop. Then pinch the spring toggle so that it can pass through the hole. Once through the hole, it will naturally open.
- 2. Use the screw driver to screw the Spring toggle.



3. Slide on the decoration base and tighten firmly.



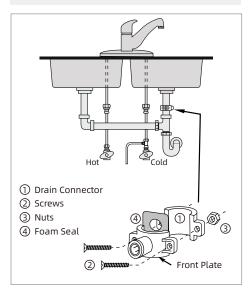
#### 3.5 Install RO drain connector

- 1. Identify drain outlet location.
- 2. Knock out the center hole on the foam seal (4).
- 3. Use the hole in the foam seal (④) as a template to locate your drilling position above the drain tap. Mark the location with a pencil. Note: If you have a double sink and cross- or horizontal drain tubing, it is safe to mark the drill location on the top of the horizontal drain tubing.
- At the marked location, drill a 1/4" hole through the wall of the drain tubing, being sure not to penetrate the opposite side of the tubing.
- Remove the protective cover from the back of the foam seal (③) and attach it to the front plate of the drain connector (①) in alignment with the holes.
- 6. Begin to position the drain connector (①) on the sink drain tubing with Screws (②) and Nuts (③), using your pencil (or a thin pen) in the drain connector (①) tube hole to guide your location over your drilled hole as you securely tighten Nuts (③) and Screws (②).



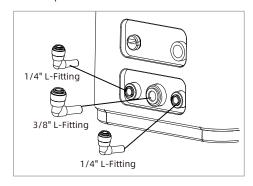
#### NOTICE

Remove the pencil once the location is established.



# 3.6 Connecting the tubing to the System

 Before connecting the PE tubing to the system, ensure you have removed the plug from the water port. Next, insert the L-fitting into the water port.

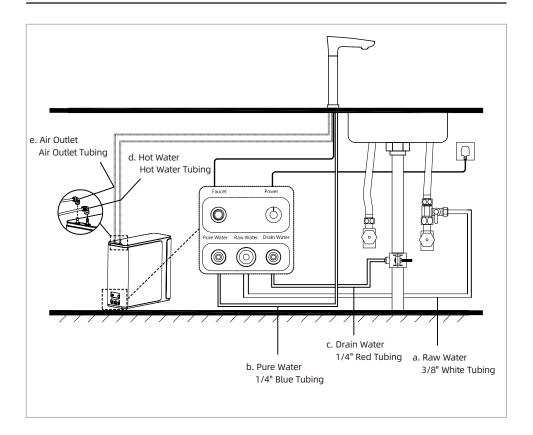


- 2. Connecting the tubing to the System
- a. Insert 3/8" White Tubing into "Raw Water" port.
- b. Insert 1/4" Blue Tubing into "Pure Water" port.
- c. Insert 1/4" Red Tubing into "Drain Water" port.
- d. Insert Hot Water Tubing into "Hot Water" port.
- e. Insert Air Outlet Tubing into "Air Outlet" port.



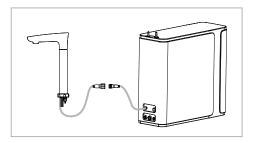
#### **NOTICE**

Make sure it is fully inserted until you reach the mark on the tubing and secure it with the lock clip.



## 3.7 Connecting the Power Cord

Insert the faucet power cord which is connected to the faucet into the "FAUCET" connector at the back of the housing and tighten the nut.





#### NOTICE

DO NOT insert the plug into the socket vet.

# 4 Operation

#### 4.1 The first-time Use

- A. Turn on the cold water supply and ensure the supply adapter valve is open.
- B. Insert the system's power plug into the socket. After powering up, screens on the system will light up. The screen on the faucet displays "C1" and the " \( \sqrt{} \) " button flashes.

Ambient



#### WARNING

The system plug must be inserted into a grounding socket that complies with local codes and regulations.

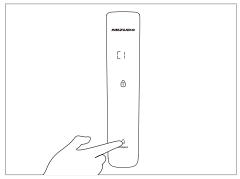
If the system can't be powered on after you insert the power plug, check whether the power plug is live; if the power plug is live and the system still cannot be powered on normally, please feel free to contact us.

C. Touch the button "Ambient", faucet will turn on.
The system flushes for 16 minutes (960 s) until
there is no water output from the faucet. After
that, the system is ready, and you can start to
consume the pure water.

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#### NOTICE

Don't operate the faucet control panel during system flushing or water filling to the heating tank.



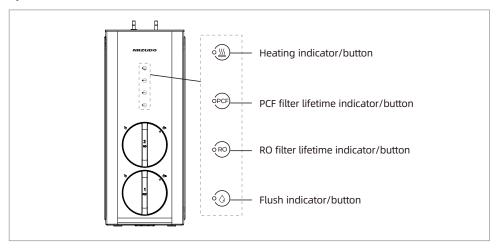


#### NOTICE

Initially, the water may appear cloudy. This is a result of air trapped in the RO filter. It is not harmful and will disappear in a matter of minutes. It may take up to a week after installing a new RO filter for the trapped air to dissipate.

#### 4.2 User Interface

#### System user interface



Indicator	Indication	Status
<u>()))</u>	Constant blue light	Heating mode on
<u></u>	Off	Heating mode off
	Constant blue light	Lifetime > 10%
OPCF ORO	Flash red light	0 < Lifetime ≤ 10%
	Constant red light	Lifetime = 0
	Constant blue light	Filtering water
(O)	Flash blue light	Flush mode
	Constant red light	Malfunction

#### **Touch button**

A. (11) Heating button - Start up/shut off heating mode

Start-up: Press and hold the heating button for 3 seconds until the heating indicator light turns on.

Shut-off: Press and hold the heating button for 3 seconds until the heating indicator light turns off.

B. OPCF) ORO Filter lifetime reset button

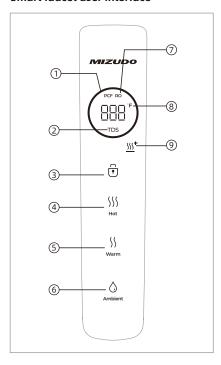
Press and hold the reset button for 3 seconds to reset the filter lifetime.

Then the faucet screen will show "C2" and the ambient indicator will flash. Press the "Ambient" button the system will take 8 minutes (480 s) to flush the new filter.

#### C. Flush button

Pressing the flush button will flush the system for 30 seconds.

#### Smart faucet user interface



(1) Water temperature indicator

Blue - Ambient water

Red - Hot water

Blue flashing - Filtering water for the hot water tank or System flushing

- 2 Pure water TDS Value
- 3 Safety lock Unlock before using hot/warm water.
- (4) Hot water button
- 5 Warm water button

When the hot water temperature is set to 113 °F (45 °C), the warm water function is unavailable and the button indicator is off.

- 6 Ambient water button
- (7) PCF/RO filter lifetime indicators

White - Filter liftime > 10% Orange - Filter liftime ≤ 10% Red - Filter lifetime = 0

- 8 Hot water temperature
- Meating indicator/Temperature control button The preset temperature is 203 °F (95 °C).

#### **Getting Water**

**Get ambient water:** Touch the ambient water button " oget ambient water.

**Turn off the ambient water:** While getting ambient water, touch the ambient water button to turn off ambient water.

(When getting ambient water, the faucet will automatically shut off the water flow after 10 minutes.)

**Get hot/warm water:** Touch the safety lock button "  $\overline{\mathbf{t}}$ ", the safety lock function is disabled, and hot/warm water can be obtained by touching the hot/warm water button.

**Turn off hot/warm water:** While getting hot water, touch the hot/warm water button to turn off hot water.

After the hot/warm water stops, the safety lock does not need to be released if the hot water is retaken within 20 seconds (the safety lock indicator light is off).

(When getting hot/warm water, the faucet will automatically shut off the water flow after 2 minutes.)



#### NOTICE

When the hot water temperature is set to 113 °F (45 °C), the warm water function is unavailable, and the button indicator is off.



#### WARNING

When hot/warm water is obtained, there may be hot gas or hot water that splashed at the tap outlet, please be careful to avoid burns.

#### 4.3 Temperature Setup

#### 1. Preset temperature

When the heating mode is first started, the preset temperature is 203  $^{\circ}$ F (95  $^{\circ}$ C) . The screen will display the preset temperature.

#### 2. Temperature adjustment

Press and hold the temperature control button "\(\overline{\text{M}}^+\)" for 3 seconds to activate adjustment mode; The screen will flash the set temperature. Touch the temperature control button "\(\overline{\text{M}}^+\)" to select the desired temperature (113 °F/167 °F/185 °F/203 °F). Once chosen, press and hold the temperature control button "\(\overline{\text{M}}^+\)" for 3 seconds to confirm, then the screen will stop flashing and display the setup

#### 3. Boiling point adjustment

temperature.

Simultaneously press and hold the hot water and ambient temperature buttons (" 55 " + "  $\frac{1}{N}$  ") for 5 seconds to enter manual boiling point adjustment mode. Press the ambient temperature button

" On lightly to decrease the boiling point by 1°F; Press the hot water button lightly to increase the boiling point by 1°F. You can press and hold the warm water button " \( \sum\_{Mornion} \sigma \) " for 1.5 seconds to save.



#### NOTICE

At different altitudes, the boiling point of water is different. When the altitude is above 5000 ft (1500 m), the boiling point is lower than 203 °F (95 °C). The system needs to adjust the boiling point accordingly to match the altitude.

# 5 Maintenance

If the system is not used for a long time, it is recommended that you turn off the water inlet valve, disconnect the system's power supply, remove the filter and seal it, and put it into the refrigerator (not into the freezer).

When the system is used again, it is recommended that you turn on ambient water first, let the system run for 10 minutes, wash the filter, and then turn on the hot water, let the water tank empty twice, and discharge the old water in the heating tank to avoid bacterial breeding if not used for a long time.

### 5.1 Filter Cartridge Replacement



#### NOTICE

The life of the filter cartridges depends on the water volume used and the quality of the feed water. For the best performance, please change your filter cartridge according to the filter lifetime indicator or the filter replacement cycle suggested below. When there is a noticeable change in taste, odor, or flow of filtered water, we recommend changing the filters as well.

#### Filter Service Life Table

Filter	Recommended replacement cycle	
PCF Filter	12 months/1000 gallons	
RO Filter	36 months/3000 gallons	

#### **Status Reminder**

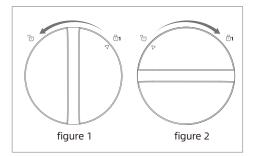
Status	Remaining time	Remaining capacity	Faucet indicator light	System indicator light	Filter status
Normal	> 10%	> 10%	White	Blue	Perfect
Early warning	> 0 and ≤10%	> 0 and ≤10%	Orange	Flash red light	Replace soon
Warning	0	0	Red	Red	Replace now



#### NOTICE

The actual lifetime of the filter cartridge depends on the local tap water quality and daily usage. The recommended replacement cycle is an average based on different local tap water quality. If the local tap water quality is below the average, the actual lifetime of the cartridge would differ from the recommended replacement cycle. If the filter cartridge is blocked, please replace it.

#### Filter cartridge replacement



- Before replacing the filter cartridges, ensure to turn off both the power and water supply.
- Rotate the filter that needs replacement anticlockwise and gently pull it out (figure 1).
- Install the new filter by turning it clockwise until the triangle icon on the filter aligns with the lock icon on the system (figure 2).
- Turn on the water supply and reconnect with power. Press and hold the reset button for 3s to reset the filter lifetime.
- 5. The faucet screen will show "C2" and the ambient indicator will flash. Press the "Ambient button, the system will take 8 minutes to flush the new filter.



#### NOTICE

When replacing the RO filter, the water may initially appear cloudy due to trapped air in the new RO filter. This is harmless and should dissipate within a few minutes. Complete dissipation of trapped air may take up to a week.

## 5.2 Automatic Flushing

The system will be flushed automatically in one of the following situations:

#### 1. Flush for Power Restore

When power is restored after a blackout, the system will be forced to be flushed automatically for 30 seconds.

#### 2. Recycled Flushing

The recycled flushing function ensures that each cup of water is fresh and healthy. The system will automatically recycle flushing after it has dispensed water for more than 10 minutes.

#### 3. Flush for Accumulative Time per 24 hours

To maintain and extend the life expectancy of the filters, the system will be automatically flushed for 300 seconds per 24 hours.

The flush mode doesn't affect the user when taking water. If the user decides to take water during the flushing, the system will quit flushing and switch to dispensing.

# **6 Troubleshooting**

# **6.1 Error Display**

When the system fails, the faucet screen will display the error code, as follows.

Error	Problems	Method	
E1/E6/E7/E8 /E9/F1/F4	System malfunction	Unplug the system and wait for one minute. Then reconnect the power and check if it can resume normal operation.  If the system still displays the error code, please feel free to contact us.	
E2/F2	The system continuously heats water for a long time.	Check the boiling point of your site. If the boiling point is less than 203 °F, first you should adjust the boiling point, then power on the system again to restore it.  If the error code persists, please contact us for further assistance.	
	No water comes out from the faucet.	This is probably because there is no water feeding or the water tubing is bent. Please check the water feeding and	
E3/E4/F3	The water flow is abnormal	the water tubing.  Power on the system again to recover it. If the error code persists, please contact us for further assistance.	
	System malfunction		
FO	The temperature of the heating tank is abnormal.	Power on the system again to recover it.  If the error code persists, this is probably because the temperature sensor of the system is damaged. Please feel free to contact us.	

# **6.2 Troubleshooting Guide**

Problem	Possible cause	Solution	
System indicators all flash red, the buzzer keeps beeping. Smart faucet is light off.	The faucet power cord is not tightly connected.	Reconnect the faucet power cord.	
No water runs to the	The drain tubing is bent.	Make sure the tubing is straightened, or replace it with a new tubing.	
drain.	System malfunctions.	Contact customer services.	
There is leadened	The tubing are not connected properly.	Reconnect the tubing.	
There is leakage.	System malfunctions.	Contact customer services.	
	The system hasn't been used for a long time.	Open the faucet and allow it to run for a while. The TDS reading will return to normal.	
	The RO filter expired.	Replace the RO filter immediately.	
High TDS reading.	The drain tubing is bent.	Make sure the tubing is straightened, or replace it with a new tubing.	
	The source water may have a high TDS.	Test the source water and filtered water. The filtered water's TDS shall be about 0%-10% of your source water's TDS. This is a normal range. If there is a high TDS in the source water, it may reduce the service life of the system.	
	The system is not positioned in a flat area.	Reconnect the tubing.	
Loud sound.	The system is placed against the cabinet.	Not place the system against the cabinet. The system may vibrate when it works.	
	The water pressure is unstable.	Check and confirm the water pressure is between 15psi and 100psi (0.1-0.7 Mpa). The sound will decrease when the water pressure becomes stable.	

Problem	Possible cause	Solution
	The heating mode is off.	Please confirm whether the system is in heating mode.
Water is not hot when taking hot water.	The system is heating.	The system can continuously produce approximately 40 oz (1.2 L) of hot water at a time. Afterward, the heating tank needs to be refilled with water and reheated. During heating, the indicator will flash, and once heating is complete, the indicator will remain a steady white light.
	The heating module may be damaged.	In this case, the faucet screen will display the error code. Please stop using and contact customer services.

