



FINERFILTERS

the home of water filters

DFT8 Reverse Osmosis Filter

Instruction and Maintenance Manual



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DFT8 Reverse Osmosis Filter

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DFT8 Reverse Osmosis Filter

General Information

Installation Guidelines

This Reverse Osmosis (RO) system is engineered for easy installation by someone with basic DIY and plumbing skills. It should be connected to the home's primary water supply.

Water Pressure and Temperature:

Ensure your water supply maintains a pressure between 1 to 4 bars, with a temperature range of 5°C to 45°C.

If the pressure falls below 1 bar or rises above 4 bars, install a booster pump or pressure-reducing valve between the main water supply and the RO unit.

Installation Location:

Do not install the RO unit outdoors if the temperature exceeds the specified range or if the area receives direct sunlight.

A suitable installation spot is a cupboard beneath a sink, often close to the main water inlet valve. If the water supply is not nearby, additional plumbing will be necessary.

Chemical Storage:

Avoid storing harsh chemicals like strong acids or alkalis near the RO unit to prevent potential damage.

Filter Accessibility:

Position the RO unit to allow horizontal removal of the filters. If space is limited, you may need to tilt the unit or slide it forward for easier access.

Flow Rate:

It's normal for the flow rate of filtered water to decrease with lower water pressure or temperature.

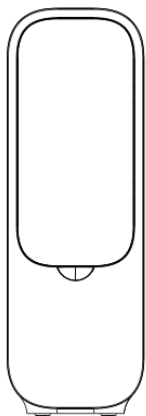
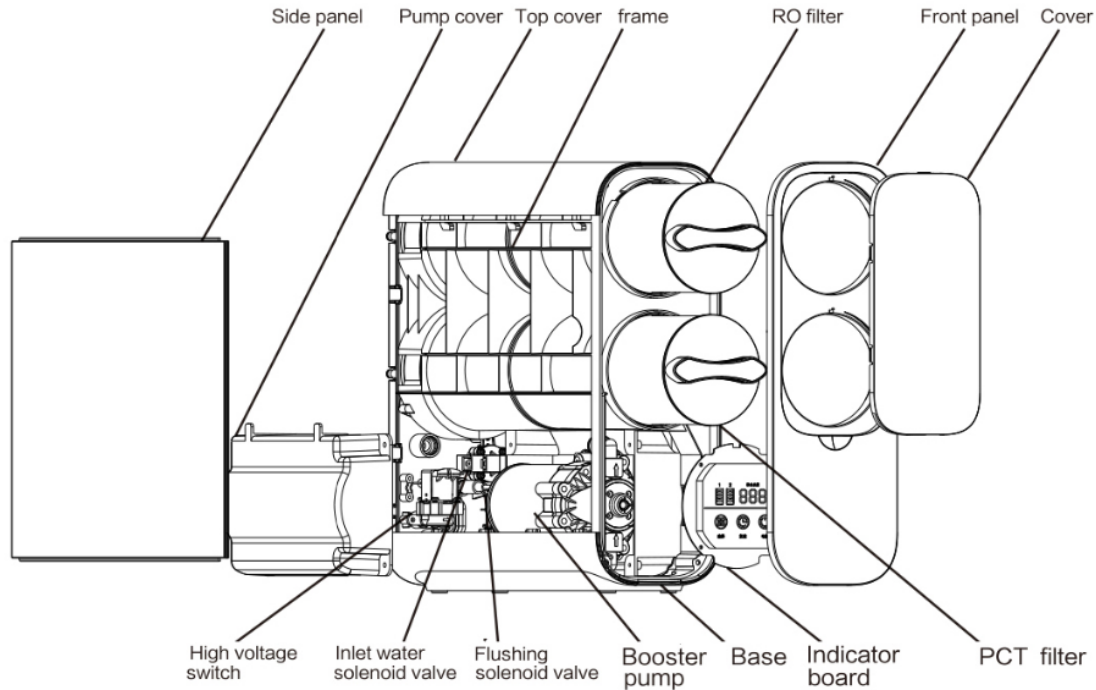
Important Notes:

This unit is designed for domestic mains water supply only. If the water supply contains higher levels of raw water, install a pre-filter between the shut-off valve and the unit to prolong the RO system's lifespan.

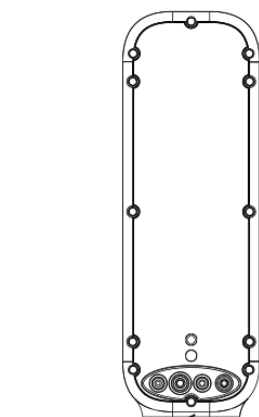
Do not obstruct the drainpipe or install any valves, as this will hinder efficient wastewater drainage.

Model	DFT8 - 600
System	Reverse Osmosis
Filtration Accuracy	0.0001 Micron
Daily water Flow	600gal
Water temp	5°C - 45°C
Water source	Municipal water
Inlet water pressure	1Bar min 4Bar max
Dimensions mm	381x165x435
Weight	7.8kg

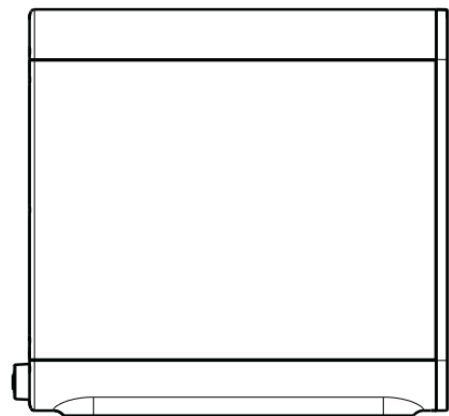
DFT8 Reverse Osmosis Filter System Layout and Components



Front view



Back view



Side view

DFT8 Reverse Osmosis Filter

Preparation and Installation

Position the RO unit where it is to be installed. The diagram below shows the various connections that will need to be made on the back of the unit. To remove the protective plugs push the collet ring back and at the same time pull out the plug. A video is available on our “Finerfilters LTD” YouTube channel – “How to remove tubing from a Pushfit water filter – Finerfilters” for a visual representation.

Recommended Tools for Installation

Variable Speed Drill: Utilized for drilling various-sized holes as needed.

3mm Drill Bit: For creating a pilot hole for the wastewater outlet.

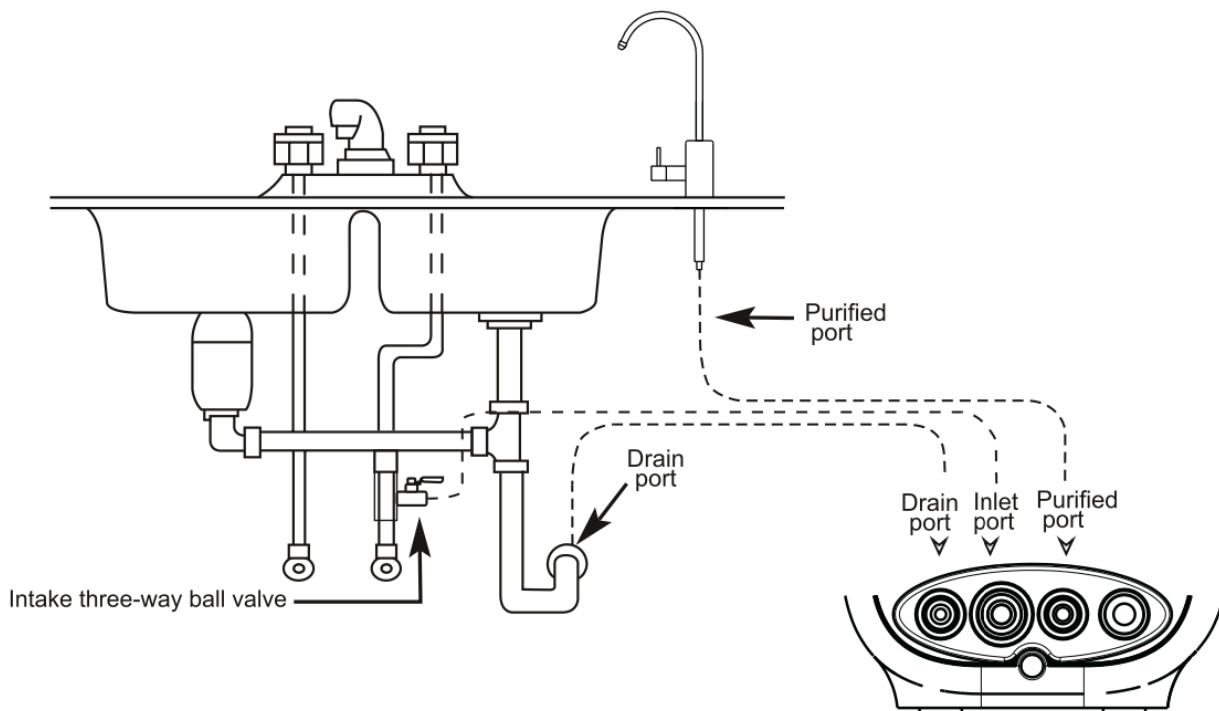
6mm Drill Bit: For drilling the actual hole for the wastewater outlet.

25mm Hole Saw: For drilling the hole for the tap.

Pliers: For gripping and tightening components.

Phillips Screwdriver: For screwing and unscrewing components.

Utility Knife: For cutting tubing to the desired length.



DFT8 Reverse Osmosis Filter

Preparation and Installation

Connecting to the Main Water Supply

Please refer to the accompanying diagram labelled "Fig 3" for visual guidance.

1. Preparing the Shut-off Valve Assembly:

Attach the ball valve to the female nut connection of the shut-off valve and secure it by tightening the nut.

Connect the push-fit fitting to the male end of the shut-off valve, ensuring the rubber seat is properly positioned, and tighten it.

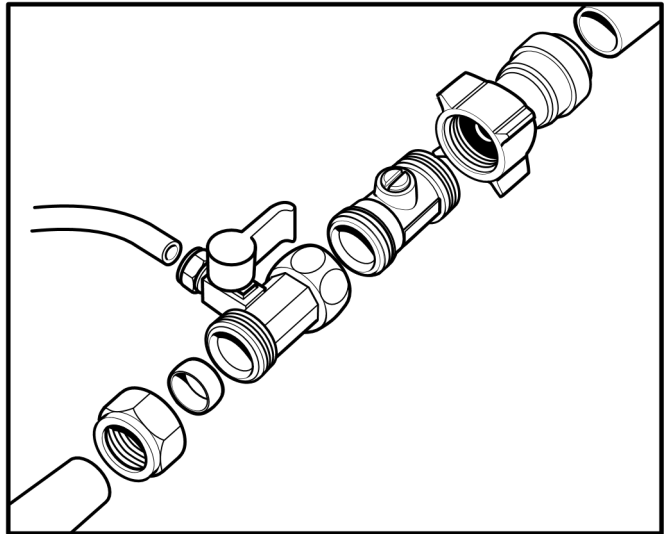


Fig 3

2. Measuring and Preparing the Tubing:

Measure the required length of 3/8" plastic tubing needed to link the shut-off valve to the inlet connection on the RO unit's back.

3. Connecting the Tubing:

Remove the nut from the shut-off valve nipple and loosely fit it onto the 3/8" tubing. Insert the tubing onto the valve nipple, then screw the nut back onto the valve and tighten it securely.

4. Preparing the Main Water Supply:

Prior to making any cuts, ensure to turn off the water supply via the stopcock valve.

To prevent water spillage, drain the system:

Open all taps and showers in the property to allow air in as the water drains out.

There's usually a drain cock attached to the stopcock—connect a hose to it and let the water drain into a large bowl or basin.

5. Installing the Shut-off Valve Assembly:

Cut away a 95mm section of the main water supply pipe after the stopcock valve.

Install the shut-off valve assembly to the main water pipe as demonstrated in Fig 3.

6. Finalizing the Installation:

Ensure the shut-off valve is in the OFF position.

Turn the stopcock valve back on to restore the water supply.

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Preparation and Installation

Connecting to the Waste Water Pipe

Refer to the diagram labelled "Fig 4" for visual guidance.

1. Locating the Drain Clamp:

Position the drain clamp either on a horizontal or vertical section of the pipe above the under-sink waste trap. Mount it as low as possible to minimize drainage noise.

2. Drilling the Hole:

Drill a 1/4" hole on the front side of the pipe as shown in Fig 4.

3. Applying the Sponge:

Remove the center piece from the black self-adhesive sponge, then stick the sponge onto the pipe around the hole you've drilled. Refer to Fig 4 for positioning.

4. Assembling the Drain Clamp:

Loosely fit the two halves of the drain clamp around the pipe using the provided nuts and bolts.

Use a pen or pencil to align the hole in the clamp with the hole in the waste pipe.

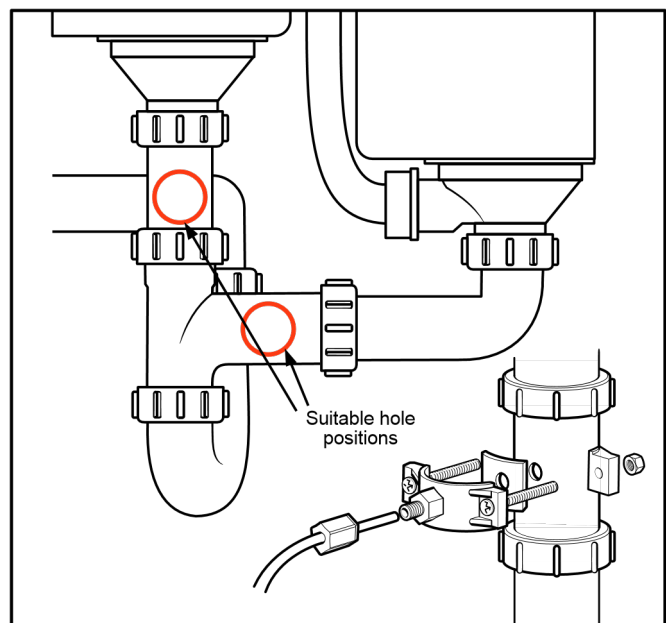


Fig 4

5. Securing the Drain Clamp:

Once aligned, tighten the bolts using a Phillips screwdriver, as depicted in Fig 4. Be cautious not to overtighten the bolts.

6. Measuring and Cutting the Tubing:

Determine the length of tubing needed to connect the drain outlet of the RO unit to the drain clamp.

Note: Ensure you measure enough tubing to allow for movement of the RO unit for filter changes. Cut the tubing at right angles for a proper fit, as illustrated in Fig 5.

7. Connecting the Tubing:

Insert the tubing into the clamp, slide the locking nut up the tubing, then screw it into the clamp and tighten securely.

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Preparation and Installation

Smart Light Display Faucet Instructions:

Upon powering on the unit, the light ring on the faucet will flash three times, displaying colours in the sequence of blue, orange, and blue.

Filter Element Life Indicator:

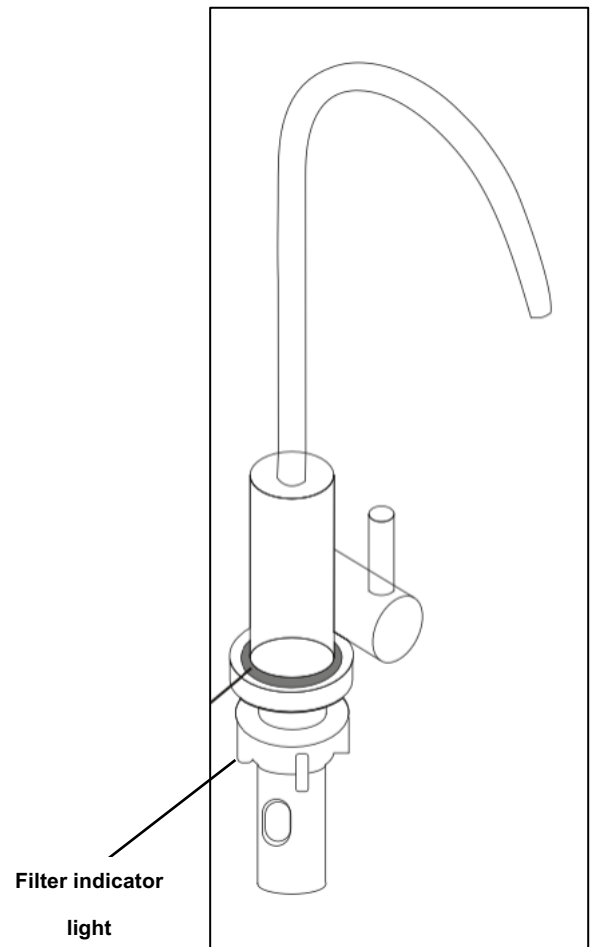
Throughout the lifespan of the filter element, turning on the faucet will illuminate the light ring in bright blue, indicating the filter is functioning properly.

As the filter element nears the end of its lifespan (at 10% remaining life), turning on the faucet will cause the light ring to flash blue, signalling it's near time for a replacement.

Once the filter element life depletes to the predetermined set value, turning on the faucet will illuminate the light ring in red, indicating the need for filter replacement.

Note:

The light ring will remain off when the faucet is not in use to conserve power.

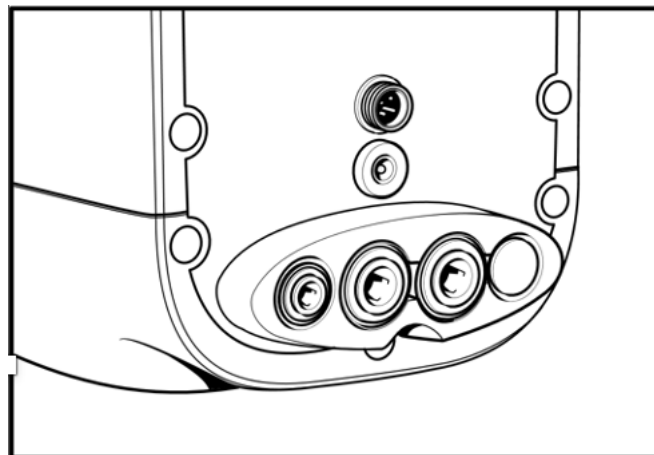
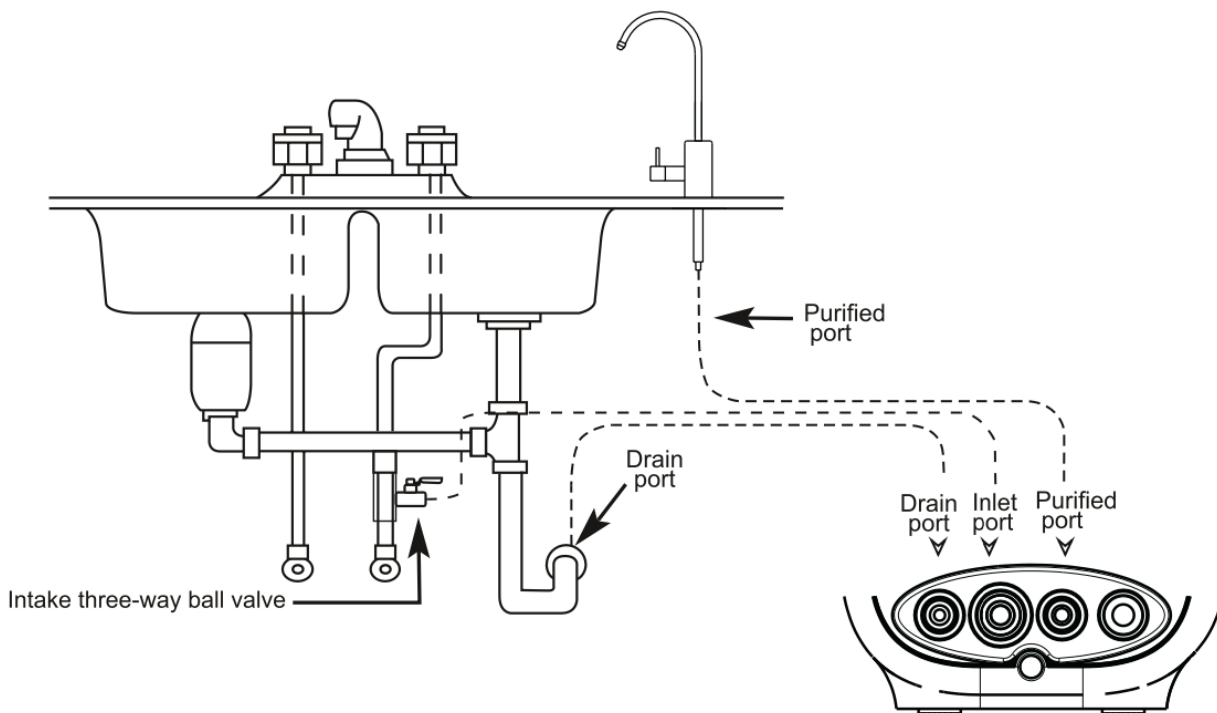


DFT8 Reverse Osmosis Filter

Preparation and Installation

Connecting to the RO unit.

- Push the main water, wastewater, filtered water tubes and the smart tap plug into their appropriate positions on the back of the unit.



DFT8 Reverse Osmosis Filter

Preparation and Installation

Setting Up and Debugging Instructions for Tankless Reverse Osmosis System

Installation Completion Verification:

- ☐ Once the installation of the system is completed, open the three-way ball valve.
- ☐ Check for any water leakage at the connections between the system and other fittings.
- ☐ Turn on the power supply.

System Flushing and Membrane Preparation:

- ☐ Turn on the faucet to initiate the flushing of the reverse osmosis membrane filter element.
- ☐ To ensure the best purification performance from the reverse osmosis membrane filter element, adhere to the following steps:
- ☐ Turn on the pure water faucet and allow the water to flow normally for 1 hour.
- ☐ Turn off the faucet and let the system sit idle for 24 hours.
- ☐ Afterwards, turn on the pure water faucet again. Allow for 20 to 30 minutes of normal water production before using the water. The water produced post this period is safe for consumption.

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User Guide

Full Water State:

Display Screen (Light Belt): The display will remain brightly lit to indicate a full water state. If the high voltage switch is turned off, the system enters the full water state.

Maintenance Mode:

If the system doesn't fill up within 60 minutes of continuous water production, it will stop water production and enter maintenance mode.

The display will show an "E1" error code and sound an alarm. The alarm will sound five times every half an hour.

To exit maintenance mode, turn the power off and then on again.

Pure Water Quality:

The display shows the real-time TDS (Total Dissolved solids) value of the pure water, updating every 10 seconds while water is being produced.

The TDS value will not update during the full water state.

Filter Element Life:

When the filter requires replacement, the filter indicator light will illuminate. The default timer tracks both the cumulative usage time and the natural time of the pump.

Once the cumulative usage time reaches the system's preset time, an alarm will sound ten times, and the filter element indicator along with the life bar frame will flash until reset.

The filter element life indicator has a power-off memory function. If powered off and then on again during a flashing alert, it will return to its original flashing state.

Post Water Production:

When water production stops, the membrane inside will empty and undergo a thorough rinse, expelling approximately 380ml of wastewater.

This process is normal and ensures optimal filter performance.

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User Guide

Functionality:

This unit is designed for household use or similar settings, utilizing a multi-stage filtration system based on reverse osmosis membrane technology. Once installed, simply power on the unit, and you can initiate or halt water production by opening or closing the faucet.

Display Instructions:

Select Key:

When the system is not in flushing mode, press and hold the select key for 3 seconds to initiate an 18-second strong flush cycle.

Reset Key:

- ☐ Press and hold the reset key for 3 seconds to access the filter element reset function.
- ☐ Once in reset mode, press the select key to cycle through and choose the filter element to reset.
- ☐ The chosen filter element indicator will flash, while others remain lit.
- ☐ To reset the selected filter element, press and hold the reset key for 3 seconds within a 10-second window, thereby exiting the reset function. If no action is taken within 10 seconds, the system exits reset mode.

Power Key:

- ☐ Tap the power key to toggle the display interface on or off, while the power indicator remains lit.
- ☐ Note: The power button solely controls the display brightness.



DFT8 Reverse Osmosis Filter

User Guide

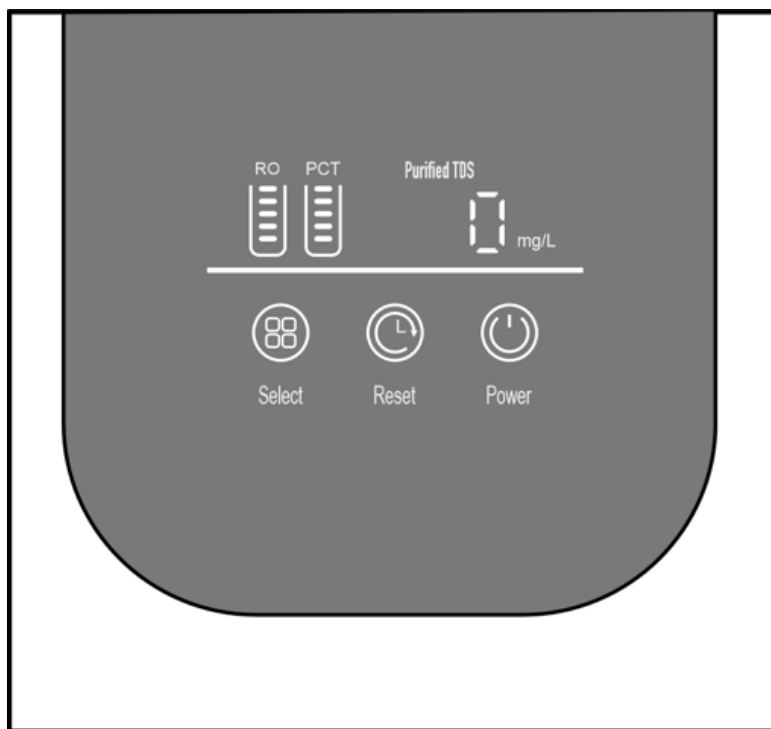
Function Descriptions:

Flushing Status:

- ☐ Display Screen (Light Belt): Indicates flushing mode by flashing.
- ☐ Upon power on, an automatic 30-second flush initiates.
- ☐ Press and hold the select key for 3 seconds for an 18-second flush.
- ☐ If water production is continuous for ≥ 30 minutes without mid-cycle flushing, an automatic 18-second flush occurs upon entering the full water standby state.
- ☐ After a continuous standby time of ≥ 6 hours without flushing, an automatic 18-second flush initiates.
- ☐

Water Production Status:

- ☐ Display Screen (Light Belt): Indicates water production mode with a racing lantern display.
- ☐ Water production mode is activated when the high-voltage switch is closed.



Button Description		
1	Select	Forced Flush: In idle state, press and hold the 'Select' button for 3 seconds to initiate a forced flush which lasts for 18 seconds.
2	Reset	Filter Element Reset: Press and hold the 'Reset' button for 3 seconds to enter the filter element reset mode. Once in reset mode, briefly press the 'Select' button to cycle through filter elements; the selected filter element indicator will flash while others remain illuminated. To reset a filter element, press and hold the 'Reset' button for 3 seconds within a 10-second window. This will reset the selected filter element and exit the reset mode. If no action is taken within 10 seconds, the system will exit the reset mode automatically.
3	Power	Power Button: Tap the 'Power' button to toggle the display interface on or off; the power light remains on. (Note: The power button only controls the display, not the entire system.)
Function Description		
1	Flushing State	The system will automatically flush for 30 seconds upon startup. Press and hold the 'Select' button for 3 seconds to manually initiate an 18-second flush (forced flush). If water production exceeds 30 minutes without flushing, and then reaches a full water standby state, an automatic 18-second flush will occur. If the continuous standby time surpasses 6 hours without any flushing, an 18-second flush will be automatically initiated.
2	Water Production Status	During water production, the display (light strip) will exhibit a marquee mode. When the high-voltage switch is closed, water production commences.
3	TDS (Total Dissolved Solids) Display	The TDS value is displayed in real time, updating every 10 seconds during water production, but remains static during a full water state.
4	Maintenance Status	If the system fails to reach a full water state within 60 minutes, it will cease water production, display an "E1" error code, and emit a buzzer alarm every 30 minutes until reset by powering off and on again.
5	Pure Water Quality	The TDS value is displayed in real time, updating every 10 seconds during water production, but remains static during a full water state.
6	Filter Life Indicator:	The filter life indicator remains illuminated unless a filter is replaced. When a filter's cumulative usage time meets the system's preset limit, a buzzer will sound 10 times as a reminder, and the corresponding filter element along with the life bar frame will flash until reset. The filter element life indicator has a power-off memory function, preserving its state through power cycles.

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Filter Replacements

Filter Element Replacement Cycle

(Recommended):

Over time, the filter element in the system accumulates impurities which can slow down the water flow. To maintain a normal effluent rate, it's essential to replace the filter element regularly. Assuming an average daily pure water consumption of 10 litres from municipal tap water, with standard water temperature, pressure, and quality, the recommended replacement cycle for each filter element is as follows:

Filter element type	PCT	RO
Replacement frequency	8-12 months	12-24 months

Influencing Factors:

The life expectancy of the filter elements, including the reverse osmosis membrane, is significantly impacted by water quality among other factors.

Actual lifespan may vary based on your local water conditions, and the below data should serve as a reference point.

DFT8 Reverse Osmosis Filter

Filter Replacements

Filter Element Replacement Cycle

Indicators for Replacement:

Consider replacing the filter element under the following circumstances:

The quality or taste of the filtered water deteriorates.

There's a noticeable reduction in the water flow rate. Check for potential blockages in the filter element or membrane (ensure this isn't due to a drop in water temperature).

Severe blockages prevent water production or inhibit the flow of clean water from the system.

Reminder: Before proceeding with changing the filter element, ensure to shut off the water supply and open the faucet to relieve any pressure in the system.

Preparation:

Run the entire machine for 3-5 minutes, then cut off the power.

Note: A small amount of residual water may flow out during the filter element replacement process.

Removing the Old Filter Element:

Step 1: Adhering to the reminder, cut off both water and power supplies.

Step 2: Remove the cover plate to access the filter elements. Identify the filter element you wish to replace. Rotate the filter element counterclockwise by hand until the arrow logo on the filter aligns with the unlock logo (figure 1), then remove the filter element.

Step 3: After removing the filter element, use a clean towel to wipe away any remaining water in the filter cartridge frame.

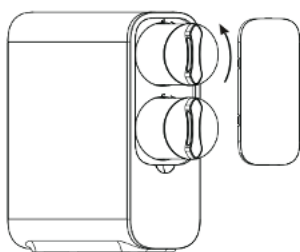


Figure ①

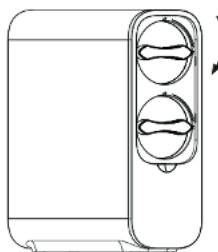


Figure ②

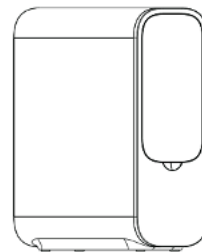


Figure ③

DFT8 Reverse Osmosis Filter

Filter Replacements

Filter Element Replacement Cycle

Installing the New Filter Element:

Step 1:

Position the new filter element so that the arrow logo on the filter element aligns with the unlock indicator on the filter housing.

Once aligned, rotate the filter element clockwise until the arrow logo aligns with the lock indicator.

Step 2:

Place the cover plate back onto the unit (as depicted in Figure 3).

Step 3:

Reconnect the power supply and water source.

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

Tap the selection key to cycle through and select the filter element that was replaced.

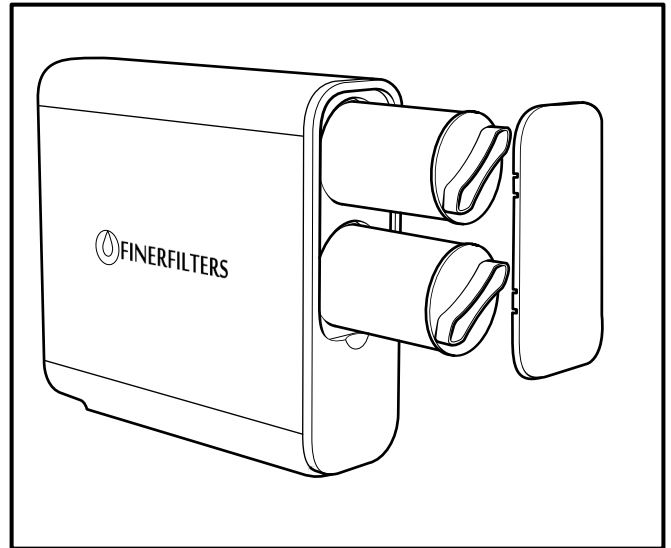
Once the correct filter element is selected, press and hold the reset button for 3 seconds to complete the reset process (you may notice a sound or a signal indicating a successful reset).

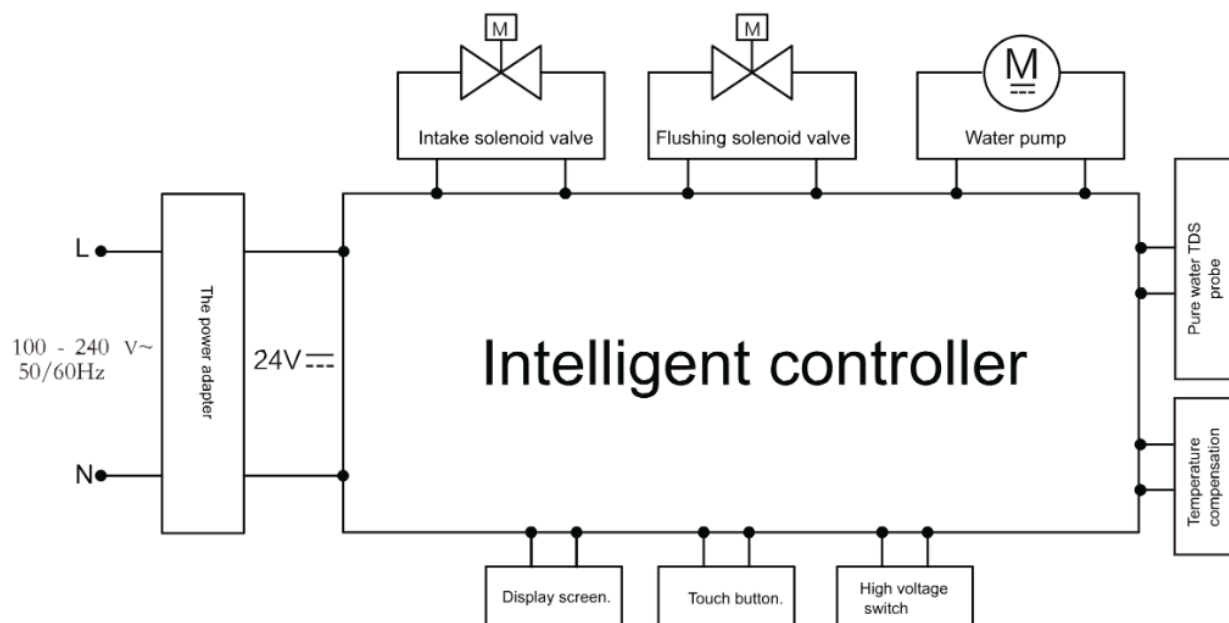
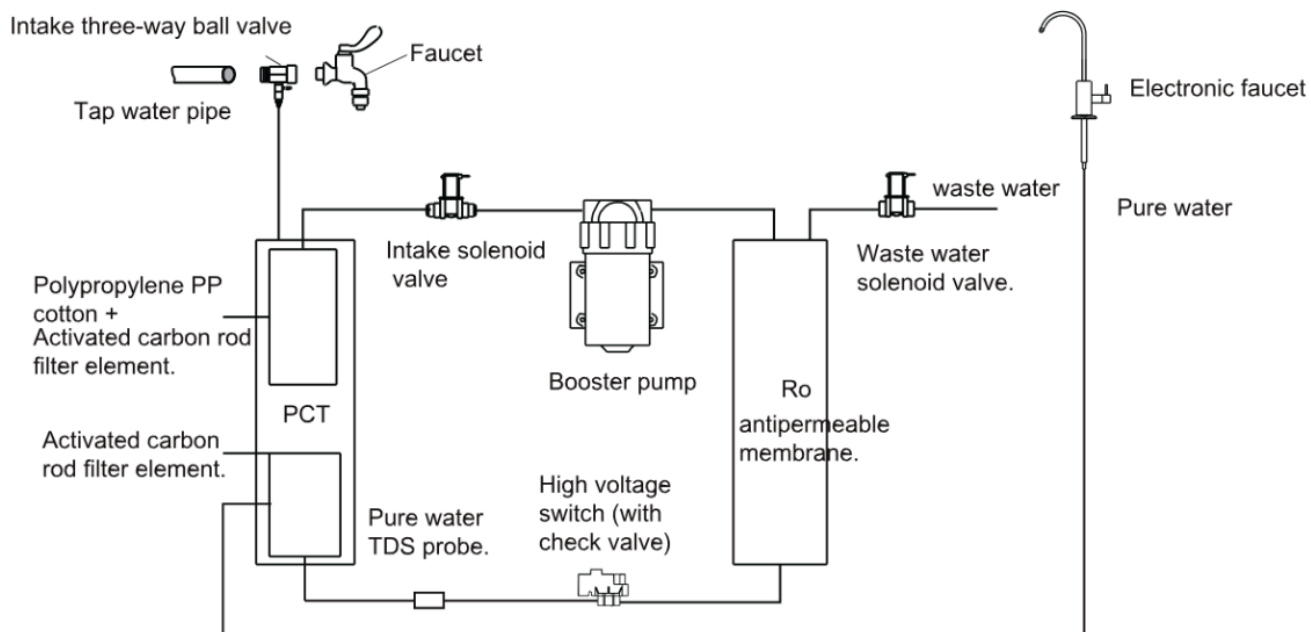
Step 4:

Press and hold the "Select" button for 3 seconds to initiate a flushing cycle.

Turn on the gooseneck faucet and allow the system to rinse for 5-10 minutes, then turn off the faucet.

During this time, inspect the entire unit for any potential leaks to ensure a successful installation.





(This picture is for reference only, please refer to the kind of product.)

Precautions

Note: All contents of this project are related to safety, please be sure to comply with it.

The precautions in this project are only for the correct use of this product.

The precautions explain the hazards, the extent of the hazard and possible accidents.

1. Do not use other accessories that are not approved by the manufacturer. If the machine malfunctions, the warranty will be automatically terminated.
2. Please check the product for damage after removing the package and check whether the accessories are complete.
3. Children and incapacitated persons should use this product under the supervision of the guardian.
4. in case of failure, should immediately unplug the power plug, close the machine's water inlet ball valve, do not put the defective product in the working state.
5. This product can only be repaired in an authorized repair center, and other unsafe factors may easily be caused when it is repaired in an unauthorized repair center.
6. The filtration water production flow of reverse osmosis filter core will be affected by water quality, water pressure and water temperature. When the water quality does not meet the standard, the water pressure is too low and the water temperature is less than 25° C, the water production flow will be less than the standard value.

	Any content bearing the mark must be prohibited, or it may be May cause damage to the product or endanger the personal safety of the user.
	Any content with the mark, must be strictly in accordance with the requirements, otherwise May cause damage to the product or endanger the personal safety of the user.
	Any content with the mark is the part that users must pay attention to. Otherwise, improper operation will cause product loss or other losses.

Forbidden

	Avoid the sun and outdoors, Avoid installation in direct sunlight and Outdoor space		antifreeze Do not store or expose the product Below 0° C		heat Do not store it near the body It is easy to be burnt or deformed by heat Quality goods
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! Warning



Fault handling

When the machine breaks down, please cut off the water and power immediately



Avoid child contact

Do not allow children to operate



Emergency call

For help, please call local Sales service center

! Pay attention



maintenance

Do not remove the parts of the machine by yourself to prevent water leakage and damage



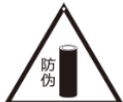
Temperature

Please use in dry place at 4~40° C



disable

If the water purifier is not used for more than 24 hours please turn off the water source and power supply



Accessories and filter elements

In order to maintain the normal operation of the machine, please be sure to use the parts and filter elements with the company's anti-counterfeiting label



Correct maintenance service

This machine can only be maintained by the personnel with professional training and certificate appointed by our company

Product model and main parameters

name	RO water purifier	
capacity	600G	
Suitable for water quality	Municipal tap water	
Applicable water pressure	0.1MPa~0.4MPa	
Applicable water temperature	5°C~38°C	
Applicable environment	Ambient humidity <90% (indoor)	
Rated voltage	24V ==	
rated power	90W	
Anti-shock type	Class II	
water flow	1.58L/min	
Total water	4000L	
Effluent water quality	It conforms to the requirements of reverse osmosis treatment unit (2001), which is the hygienic safety and function evaluation specification of drinking water processor of the ministry of health.	
Product Size	432X137X407mm	