

Honeywell

HRO-400 Water Purifier

Product Installation & Operation Manual

Honeywell Environmental & Combustion Controls
(Tianjin) Co., Ltd.

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Important Notes

Users must install the water purifier with the help of professionals by strictly following the installation specification set out in the "Product Installation & Operation Manual" (hereinafter referred to as manual), and use the water purifier according to the instructions in the manual. Otherwise, the company does not assume any economic or legal responsibility for the water purifier damage or leakage and consequential property damage, or even personal injury due to improper installation and usage of water purifier.

- The water purifier is floor-mounted, and should not be mounted on the wall or hung up after assembly.
- Do not disassemble or modify the water purifier without approval, or else it may cause malfunction or leakage and consequential property damage.
- Check the water purifier and pipe fittings regularly to see whether there is any leakage, and avoid property damage caused by leakage.
- Check the power supply and electric wires regularly to see whether they are loose or damaged, and avoid major accidents caused by electric leakage.
- Prior to use, make sure the rated voltage of the water purifier is consistent with the actual voltage.
- Do not tug the power cord when you disconnect the plug.
- Do not use this product in case of the following situations:
 - The water purifier has been damaged
 - Plug or power cord is damaged
 - Water is flowing out of the water purifier
- If the power cord or plug is damaged, the water purifier is not working properly or there are other damages, please do not continue to use the water purifier, you should immediately contact the service personnel for testing, maintenance and adjustment.
- Do not disassemble the water purifier without approval or hand over the water purifier to unauthorized service personnel for repair. Improper repairs may cause danger!
- Any malfunction caused by improper use is not covered in the warranty.
- This water purifier is only designed for household use, and may not necessarily apply to other purposes.
- For the water purifier maintenance and filter cartridge replacement, use the replacement parts approved by Honeywell Environmental & Combustion Controls (Tianjin) Company Limited. All the quality problems, degradation of operational performance or consequential property damage caused by using unauthorized parts or accessories are not covered in the guarantee.
- Water purifier maintenance and filter cartridge replacement are paid services.

Product Functions

● Brief Introduction

The water purifier is designed to work under table near the sink in the kitchen.

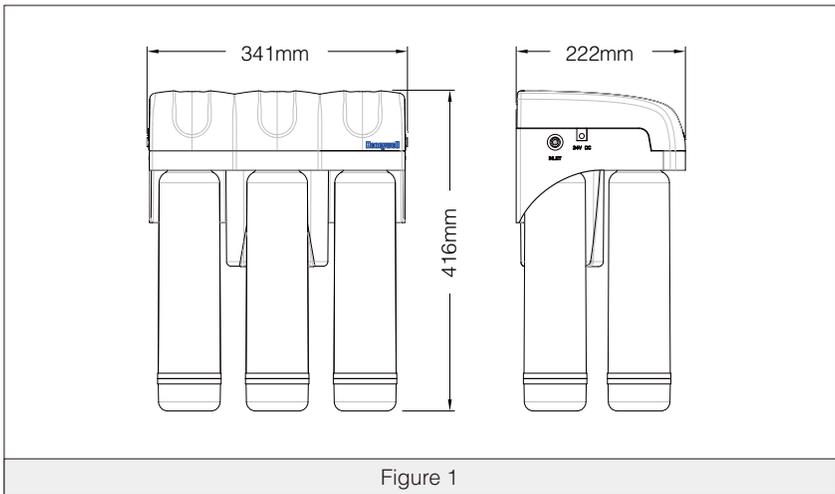
The supply pipe connects to your existing water pipe with a tee joint. This water purifier is designed to purify the drinking water.

Two water purification functions can be achieved by adjusting the water mixing valve (see Figure 5 for more details):

- 1) Reverse osmosis purification: After 100% purified by RO membrane filter, which has pore size of 0.0001 micron, almost all the dissolved solids in the water can be removed.
- 2) Mixed water purification: It meets the needs of different users and effectively increases the TDS value of water production.

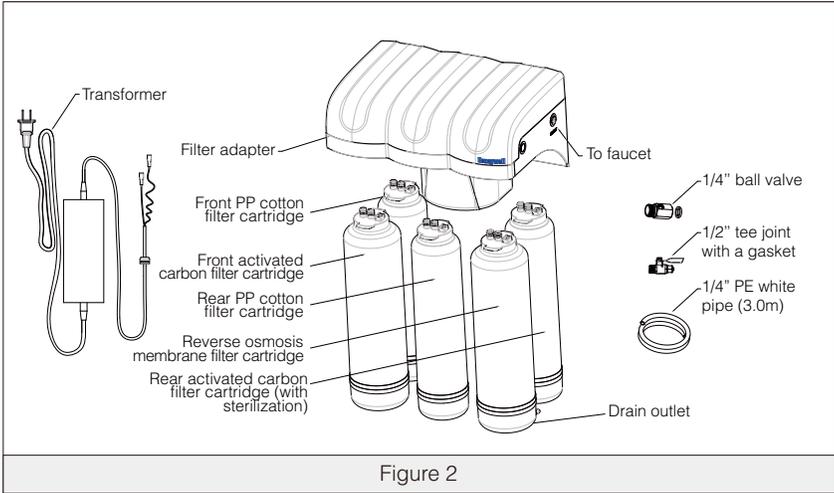
The water purifier filter cartridges need to be changed regularly. Replacement cycle will be indicated at the faucet (separate package) base. The green light indicates it is within the safe range, the yellow light indicates it needs to be replaced (close to safe range), and the red light indicates it exceeds the safety range, and must be replaced.

● Dimensions (Figure 1)



Product Functions

● Parts of Water Purifier (Figure 2)



● Technical Parameters (Table 1)

Model	HRO-400
Water Inlet Requirement	Municipal tap water, conforming to local standard
Water Inlet Pressure	0.1MPa-0.35MPa
Water Inlet Temperature	5-38 °C
Water Purification Flow Rate	2.0 L/Min
Rated Maximum Capacity	4.8 tons
Power Specifications	Input: 220V AC
	Outlet: 24V DC

* The rated maximum capacity is the effective treatment capacity continuously tested after adding the standard solution according to the inspection rules required by Ministry of Health. The actual water treatment capacity may vary depending on local water quality and operating environment.

Table 1

Product Functions

● Filter Performance (Table 2)

Filter cartridge	Filter function
Front PP cotton filter cartridge	Effectively remove suspended solids, sediment, rust and other impurities
Front activated carbon filter cartridge	Effectively remove residual chlorine in water, humus, disinfection byproducts, odor, color, etc
Rear PP cotton filter cartridge	Further remove particles in the water, suspended solids and colloids
Reverse osmosis membrane filter cartridge	Pore size of 0.0001 micron; effectively remove almost all the dissolved solids in the water
Rear activated carbon filter cartridge (sterilization)	Further improve water taste, kill bacteria and prevent bacteria reverse breeding

Table 2

Note:

Do not let water inside the drain pipe or water purifier to freeze.

If the water temperature or the ambient temperature drops below 5 °C, turn off the water supply pipe of the water purifier and discharge the water inside the water purifier. The freeze of water pipes or water purifier can cause the malfunction and damage of the casing or water supply pipe and possible injury.

Do not touch the power plug with wet hands, or else it may cause electric shock.

Installation Instructions

● Installation Precautions

- Do not install the water purifier in the water supply pipe, whose pressure exceeds 0.35MPa. If the water inlet pressure exceeds 0.35Mpa, the pressure reduce valve (purchased separately) must be installed.
- The water inlet temperature range of the water purifier is 5~38 C, and the water temperature exceeding 38 C may damage the seals and cause leakage; Water temperature below 5 C may cause water to freeze and lead to the pipe rupture and leakage.
- Install the filter cartridge in a correct order; otherwise the water purifier cannot perform its intended function.
- Do not install the water purifier reversely, and connect the water inlet pipe to the outlet.
- Do not install the water purifier in direct sunlight or at places where it is exposed to hazardous chemicals or may be damaged by falling or collision.
- Do not install the water purifier near any source of heat.
- Do not install the water purifier upside down.
- Only use the 220VAC power for the water purifier! The receptacle withstand current must be greater than 5.0A, or else it may cause overheat or fire accident.
- Disconnect the power before the installation! Do not touch the power plug with wet hands, or else it may cause electric shock.

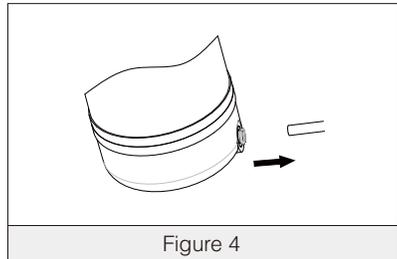
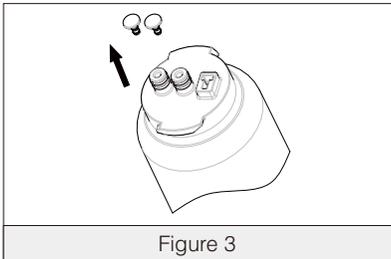
● Pre-installation Preparation

- Disconnect the power before installation!
- Before installation, please turn off the water inlet valve.
- Confirm the location where the water purifier will be installed (depending on the actual situation).
- Confirm that all the accessories required in the installation are complete (see the packing list).

● Installation Steps

Step 1:

Pull out two rubber plugs at the top (Figure 3) and one red rubber stick at the bottom (Figure 4) of the reverse osmosis membrane filter cartridge at the 4th stage. It is normal that a little protection fluids flow out after pulling out the red rubber stick; Pull out two rubber plugs at the top of the rear activated carbon filter cartridge at the 5th stage.



Installation Instructions

Step 2:

Open the top cover of the filter adapter in vertical direction, insert the black wire of the DC power into the square notch in the filter adapter, connect the short wire with the LV switch, and connect the long wire with the HV switch (Figure 5); Rotate the control valve according to the water purification requirements. Align it with R to produce reverse osmosis water; rotate clockwise to M to produce mixed water (Figure 6), and close the cover.

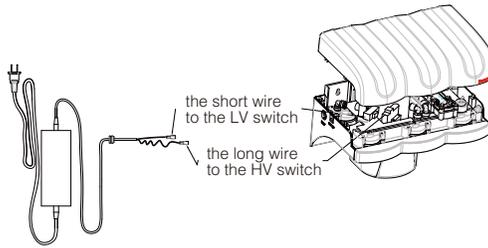


Figure 5

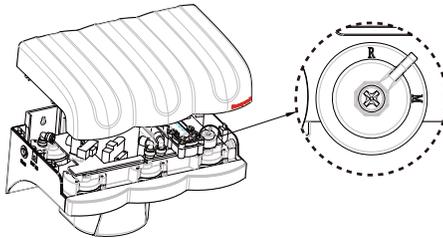


Figure 6

Step 3:

Install front PP cotton filter cartridge at the first stage of the filter adapter, the front activated carbon filter cartridge at the second stage of the filter adapter, the rear PP cotton filter cartridge at the third stage of the filter adapter, the reverse osmosis membrane filter cartridge at the fourth stage of the filter adapter, and rear activated carbon filter cartridge at the fifth stage of the filter adapter.

Align the 2 connection pipe of the filter cartridge to the connection holes of the filter adapter, and rotate counter-clockwise to the end. (Figure 7).

Installation Instructions

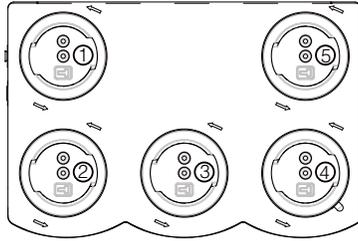


Figure 7

Step 4:

Cut the 1/4" PE pipe into two sections at appropriate length. The incision must be flat. Connect them with tee joint ball valve connector (Figure 8,9) and drinking water faucet separately (Figure 10).

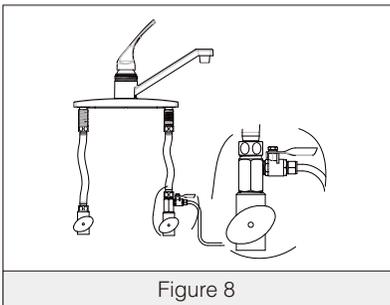


Figure 8

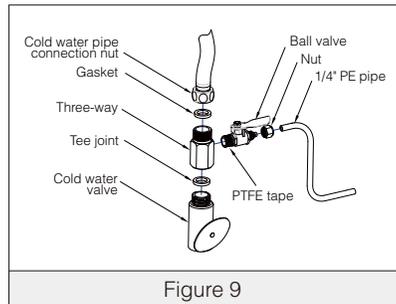


Figure 9

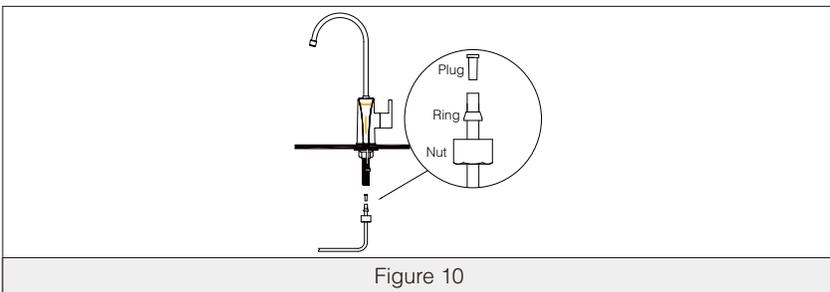
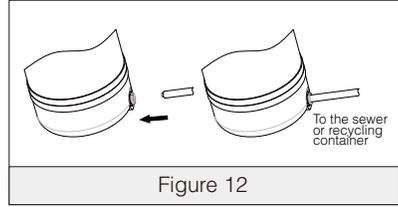
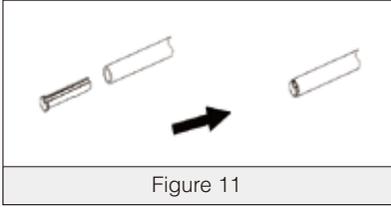


Figure 10

Step 5:

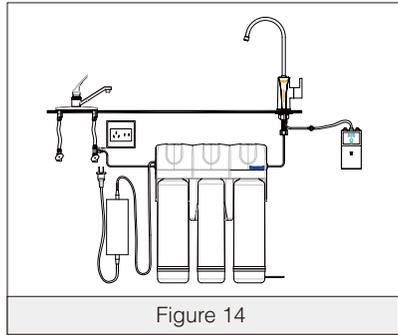
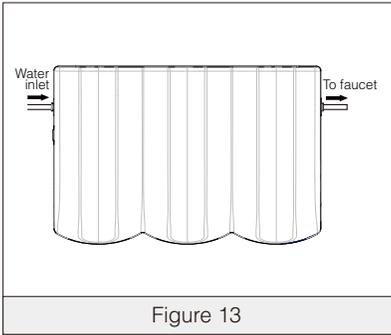
Cut the 1/4 "PE pipe at appropriate length. Insert the grooved flow-limiting plug supplied with the reverse osmosis membrane filter cartridge into the 1/4"PE pipe (Figure 11), then insert the 1/4"PE pipe with flow-limiting plug into the quick connection hole at the bottom of the reverse osmosis membrane filter cartridge at the 4th stage (Figure 12), and finally put the other end into the sewer or recycling container.

Installation Instructions



Step 6:

Connect the PE pipe connected in Step 4 to the water purifier (Figure 13). Place the water purifier in the appropriate position (Figure 14).



● Flush and Start Water Purifier

The water purifier must be flushed manually and automatically at the first installation and replacement.

1) Manual flush:

Pull out the grooved flow-limiting plug in the wastewater outlet (clean the groove if it is dirty). Plug in the power, turn on the water inlet valve and small ball valve, and flush for about 2-5 minutes. Turn off the small ball valve.

2) Automatic flush:

Install the grooved flow-limiting plug into the wastewater pipe, open the small ball valve, open the faucet water purifier, and the water purifier automatically flushes itself. Close the water faucet after 30 minutes.

3) Check the tightness at various each part of the product carefully when flushing. Wipe all the connections with tissue paper to see whether it is wet.

Check whether all the water pipes are installed correctly and completely.

4) Confirm that the flushing is complete, turn off the water faucet and complete the commissioning.

Instructions for Commissioning and Operation

1. Check the water purifier and pipe fittings regularly to see whether there is any leakage, and avoid property damage caused by leakage.
2. When you go out or do not use the water purifier for a long time, please shut off the water inlet (turn off the water inlet ball valve), disconnect the power , and close the water faucet.
3. If the purifier has not been used for more than 5 days (more than 3 days in summer), please flush the purifier for about 10 minutes; Do not keep the filter unused for long after the water flows through, especially in summer, generally no more than 14 days.
4. Do not place heavy objects and corrosive materials on the water purifier to avoid possible damages to the water purifier; the consequential water leakage and electric leakage may cause severe personal injury and property loss.
5. Turn off the water and disconnect the power when the water purifier will not be used for a long time. When reusing the water purifier, flush it according to the steps as using it for the first time. If the water quality is unsatisfactory after flushing, replace the filter cartridges as soon as possible.
6. Cut off the power and water before replacing the filter cartridge. Pay attention to the direction and order of the filter cartridges. After replacing the filter cartridges, carry out commissioning and flushing just like using it for the first time.
7. In case of the following situations, cut off the power and the water input of the purifier (turn off the water inlet ball valve) immediately, and contact the service provider as soon as possible:
 - If the pipe or related parts of the water filter are leaking.
 - If the related components of the water purifier malfunction.
 - If any other anomalies or failures occur.

Care & Maintenance

● The Set Handling Capacity and Replacement Time Recommended for Various Filter Cartridges (Table 3)

Filter cartridge name	Recommended handling capacity	Recommended replacement time
Front PP cotton filter cartridge	1-2 tons	3-9 months
Front activated carbon filter cartridge	1-3 tons	6-12 months
Rear PP cotton filter cartridge	1-3 tons	6-12 months
Reverse osmosis membrane filter cartridge	4-5 tons	2-3 years
Rear activated carbon filter cartridge (sterilization)	1-2 tons	6-12 months

Table 3

The recommended handling capacity and replacement time may be adjusted based on the water quality and usage.

Every filter cartridge of the product uses flow and time dual control. Whichever reaches the set value, the faucet will give indication. See the faucet manual for details.

1) The recommended replacement cycles for various filter cartridges of the water purifier are estimated by referencing the average indicators of water supply at various regions. When the water quality at the user's site and the purifier usage are quite different from the average indicator, filter cartridge usage and estimated cycle may be significantly different, such as early clogging or failure of filter cartridge. The actual usage will be used as the basis for replacing the filter cartridge, and contact the service provider to reset the setting.

2) The handling capacity of filter cartridge is based on the average household water consumption. It is only applicable for household use, and may not be applicable in public places with large water consumption.

● The Replacement Method of Filter Cartridge

1. Rotate the filter cartridge clockwise until it stops, and the filter cartridge automatically comes off the filter adapter (See Figure 7 in reverse direction).

2. Select the corresponding replacement filter cartridge, align the 2 connection pipes with the connections holes in the filter adapter, and rotate counter-clockwise until it stops (see Figure 7).

3. When replacing the water purifier water cartridge, there is no need to turn off the water inlet valve, because the filter adapter will automatically turns off the water outlet. When removing the filter cartridge, there may be a little water coming out of the filter cartridge, and wipe the water off.

4. Please destroy the replaced filter cartridge connection pipe.

Warranty Provisions

1. Warranty Period

We provide one year warranty for the whole product since the installation, but consumables are not covered (consumables include various filter cartridges).

Note: The water purifier is only intended for household use, and may not be suitable for commercial sites.

2. Warranty Conditions

Users should follow the following rules, or else the warranty rights will be voided.

- 1) Users should purchase the product from legal sellers through legal ways.
- 2) Users should keep the invoice and the manual in a safe place.
- 3) The product should be installed by service teams authorized by Honeywell or qualified installation teams authorized by the State authority (Do not install the product by yourself without any guidance).
- 4) The supplied manual must be strictly followed when using the product.
- 5) Users should make sure to use the product at proper service conditions.
- 6) If maintenance and care is required during operation, contact the specified service provider.

3. Exception Conditions

Product malfunctions or damages in the following situations are not covered in the warranty

- 1) Purchase the product through illegal means or illegal ways.
- 2) Products without invoice or proof materials.
- 3) Product malfunctions or damages caused by installation of the unqualified team or without guidance of the manufacturer.
- 4) Malfunctions or damages caused by improper use and breaking the rules of "Installation & Operation Manual".
- 5) Malfunctions or damages caused by forced use under abnormal conditions (such as the water pressure or voltage is too low or high).
- 6) Product damage caused by human errors (deliberately or accidentally)
- 7) Damages caused by force majeure (such as natural disaster, wars).
- 8) Products repaired by non-authorized staff.

4. Warranty Service

Our company will provide comprehensive warranty service for the malfunctioned and damaged products within the warranty period if they comply with the warranty conditions and do not comply with any exceptional conditions. The warranty services include:

- 1) Repair the malfunctioned products for free;
- 2) Replace the malfunctioned parts for free;
- 3) Other services specified in the State regulations.

5. Warranty Service Procedure

- 1) When the product malfunctions, turn off the water immediately. After verifying that it meets all the requirements, contact the specified service provider immediately.
- 2) When the maintenance staff provides on-site services, the user should provide valid invoice and describe the service conditions and malfunctions. After verifying the product, the maintenance staff will carry out inspection and repair.
- 3) If the malfunction is not covered in the warranty, the user will pay the service fees based on the charging standards presented by the service staff.

Packing List

No	Name		Quantity
1	Filter adapter(Transformer)		1 set
2	Front PP cotton filter cartridge		1 set
3	Front activated carbon filter cartridge		1 set
4	Rear PP cotton filter cartridge		1 set
5	Reverse osmosis membrane filter cartridge		1 set
6	Rear activated carbon filter cartridge		1 set
7	Accessories	1/4" PE white pipe	3.0 m
8		1/2" tee joint	1 set
9		1/4" ball valve	1 pcs
10	Manual		1 pcs

Table 4

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