## Memo

Type of product			
Date of purchase			
Name		Tel	
Address			

ROYAL Reverse Osmosis Drinking Water Systems





## **REVERSE OSMOSIS SYSTEM**

## **RS-106M**

## **USER'S MANUAL**

- 01 Introduction of RS-106M
- 02 What is reverse osmosis
- 03 Components & Selected filters
- 04 Cartridge filters
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## $Thank\ you\ very\ much\ for\ selecting\ Pure-Pro\ Water\ Corp.$

In order to bring the best use of your system, please read the user's manual carefully before installation and follow the regulations.

## **Introduction of RS-106M**

## RS-106M Quick-change cartridges RO system

PurePro®ROYALRO system uses the most advanced water treatment technology: "Reverse Osmosis". Reverse Osmosis (RO) is recognized as one of the best available technologies for producing best quality drinking water. It's also the same method used by many bottled water companies to make safe and great tasting water. No other home water treatment system can offer you as much protection and reliability.

PurePro® ROYAL RO system uses 100GPD membrane which is powerful, fast and excellent efficiency. 100GPD membrane increase the daily production capacity and the speed of RO water production. This allows for better assurance that there is adequate water available when desired, even during heavy use times of the day. PurePro® ROYAL RO with its supreme quality ensures a great water flow rate with absolutely the least wasting of water.

The newly designed ROYAL RO system is user friendly with design simplicity in mind. It requires no tools for filter changes. Use twist and quick-change cartridge design makes filter changes fast, clean and easy. This space saving allows maximum use of your under counterspace.

## **Specifications**

• Production: 100 GPD/ 378 LPD

• Water storage tank: 3.2gallons / 12.2 liters

• Operation pressure: 50 - 100 psi

• Dimensions: (cm)27.5 (L) x 44.5(H) x 26.5 (W)

Weight: 9 kg - system4 kg - tank

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## **Maintenance checking list**

Filters	1st stage	2nd stage	3rd stage	4th stage	5th stage	6th stage

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## **FAQ**

## Q: What is the guarantee on the PurePro system?

The PurePro system (excluding filters) is guaranteed for 1 year for material and workmanship. All defective parts will be replaced free within the first year under natural breakdown. The membrane has one year pro-rated guarantee.

## Q: What factors affect the quantity and the quality of the water production?

There are four major variables to consider:

- 1.**Pressure**-The greater the water pressure, the better water quantity and quality it produced. Water pressure of 60 PSI is ideal.
- 2.**Temperature**-76°F is the ideal water temperature for R.O. 40°F water will cause the production of R.O. water to fall to half of that at 76°F. The maximum water temperature recommended is 85°F.
- 3.Total Dissolved Solids (TDS)-The higher the amount of dissolved contaminants in the water, the lower the quantity of water produced. A high level of TOTAL DISSOLVED SOLIDS can be overcome with additional water pressure.
- 4.Membrane-Different membranes have different characteristics. Some produce more water than others; some have better contaminant rejection capabilities; some have greater resistance to chemical abrasion for longer life. PurePro system includes TW30-1812-100 The Thin Film Composite (TFC) membranes combine the best of these characteristics and are considered the finest membrane in the world.

## Q: Can the PurePro system be connected to an extrafaucet?

It only takes a 1/4" tee and tubing to run the water to a refrigerator or a extra faucet. Some families run PureProsystem to all of their bathrooms.

## Q: What does the PurePro series drinking water taste like?

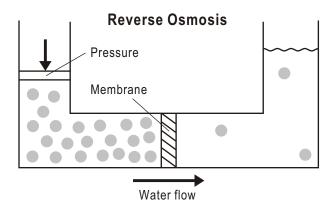
The taste of the PurePro water depends on the amount of contaminants in the tap water originally. If 95% of dissolved minerals and chemicals are removed, the R.O. water may taste like distilled water (no minerals), bottled water (low mineral), or natural spring water (moderate mineral content).

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## What is reverse osmosis

Reverse osmosis was originally designed to make sea water drinkable for the navy. It is ideal for anyone on a low sodium diet. An R.O. membrane has a pore size much smaller than bacteria virus, or the cryptosporidium parasite. When functioning properly it will remove all microorganisms from tap water and produce sterile water. Reverse osmosis is the reversal of the natural flow of osmosis. In a water purification system, the goal is not to dilute the salt solution, but to separate the pure water from the salt and other contaminants. When the natural osmotic flow is reversed, water from the salt solution is forced to pass through the membrane in the opposite direction by application of pressure-thus the term REVERSE OSMOSIS. Through this process, we are able to produce pure water by screening out the salts and other contaminants.

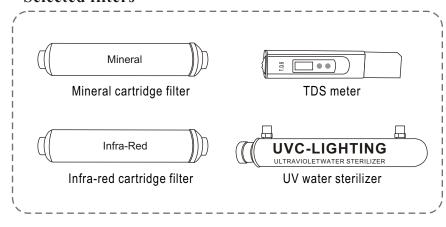




# European ceramic faucet Water storage tank Deliver-valve Water supply connector Tank ball shut-off valve Drain saddle

**Components & Selected filters** 

## Selected filters



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## The functions of Mineral Filter

The mineralized water after the Mineralized filter has perfectly balanced proportions of minerals necessary for healthy development of the human body. The Mineralized filter was designed by top specialists in The Military Medical Academy in Taiwan. This filter improves the qualities of clean water by adding necessary health minerals, such as Calcium, Magnesium, Sodium, Potassium, as well as others readily found in many natural mineral waters for proper human development. Mineral filters are mainly installed with RO systems to complement their absolute filtration qualities.

**Calcium-**It is the basic mineral for building teeth and bones. It allows proper digestion, and is necessary to regulate normal and healthy heart rhythm as well as good functions of arteries and muscles.

**Magnesium-**takes part in over 300 different biochemical functions inside human bodies. It's a deciding factor for the immune system and proper blood circulation. It prevents cancer related illnesses, atherosclerosis, strokes, and kidney diseases from happening.

**Sodium-**It is responsible for controlling the water adsorption and retention of a human body as well as properbalance of pH. This is an excellent moderator of blood. Daily absorption of minerals in water doesn't have a major impact on the physiological functions of our body, but it can be a great addition to the regular daily mineral intake with solid foods and supplements.

### Technical Specifications:

Diameter: 53mmLength: 254mm

Max. flow rate: 250 I/24h
Max. pressure: 6bar
Max. temperature: 51°C
Capacity: 6000 liters

· Cations in filtered water:

Ca<sup>2+</sup>: 34mg/l Mg<sup>2+</sup>: 12mg/l

Na<sup>+</sup>: 22mg/l

K<sup>+</sup>: 8.5mg/l

· Anions in filtered water:

CO<sub>3</sub><sup>2</sup>: 10mg/l SO<sub>4</sub><sup>2</sup>: 0.3mg/l Cl: 0.8mg/l

F: 0.06ma/l





## **Operation regulation**

- A. With everything connected, turn on the water check for leaks.
- B.Make sure the storage tank shut-off valve is "OFF". Open the sink top faucet.
- C. Within a few minutes (up to 15) the water will start to run from the faucet slowly.
- D.Let the water run for at least 30 minutes. This flushes the carbon filters on first time use.
- E.After initial flushing, open the shut-off valve on the tank and close the sink top faucet.
- F. Tank will now full of water (usually 2 to 3 hours) after the tank has filled. Open the sink top faucet and drain all water until the storage tank is empty and there is only a small flow from the sink top faucet.\*\*\* DO NOTUSE FIRST TANK OF WATER.\*\*\*
- G.Close the sinktop faucet. The system is now ready for use.
- H.Change filters regularly every 6 to 12 months and have the membrane checked annually.

## Caution

- 1.Do not use hot water (over 45°C)!
- 2.Do not freeze the machine!
- 3. Switch off electricity and water source if away for more than 5 days, and drain outpure water.

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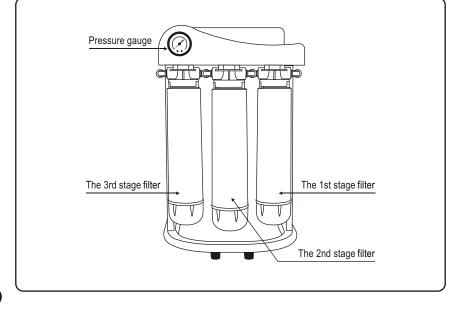


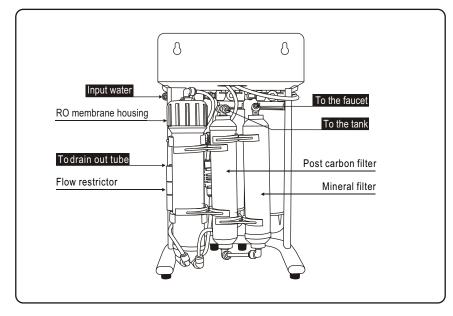
## **Cartridge filters**

Cartridge Filters	Filter Description	Service Life
Stage 1 5 Micron Sediment Filter	RS300ST With only five micron rating. It is effective in removing dirt, rustand sand particles.	6 Months
Stage 2 GAC Carbon Filter	RS300ND It takes out 99% of the chlorine and organic chemicals. It provides enhanced reduction of taste, odor, and color.	6 Months
Stage3 CTO Carbon Filter	RS300RD It takes out 99% of the chlorine and organic chemicals. It provides enhanced reduction of taste, odor, and color.	6 Months
Stage 4 TFC Membrane	A thin film composite (TFC) high quality membrane that processes 100 gallons per day. It remove the following hard water contaminants that may be present in your water: lead, cooper, barium, chromium, mercury, sodium, cadmium, fluoride, nitrite, nitrate, and selenium.	2 Years
Stage 5 Post Carbon Filter	to improve taste it removes any residual	
Stage 6 Mineral Filter	This filter improves the qualities of clean water by adding necessary health minerals, such as Calcium, Magnesium, Sodium, Potassium, as well as others readily found in many natural mineral waters for proper human development. Mineral filters are mainly installed with RO systems to complement their absolute filtration qualities.	1 Year

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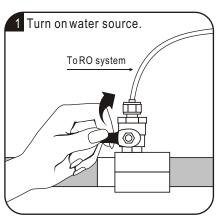


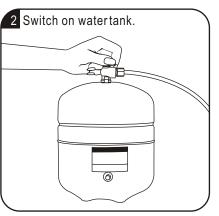


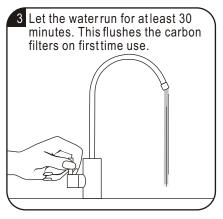


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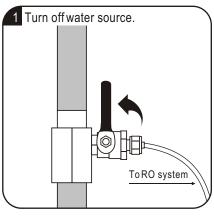








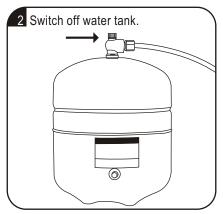
## **Change membrane**

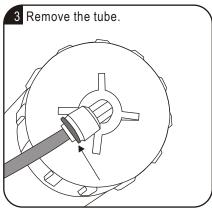


SYSTEM

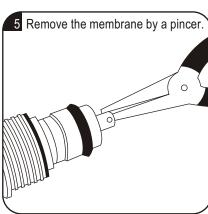
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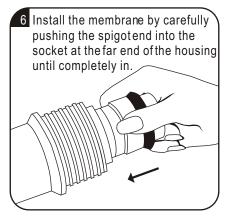
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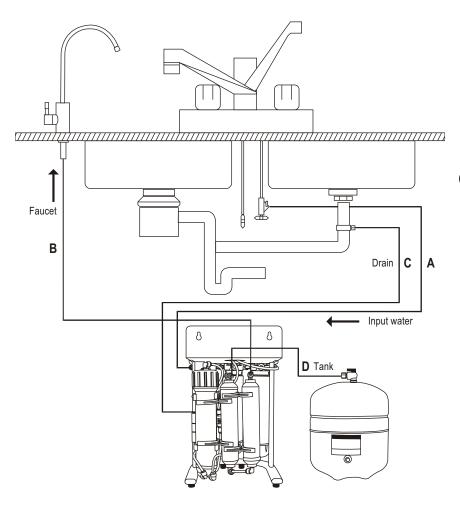
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## **Tubing connection diagram**

## **CONNECTING THE COLORTUBING:**

- A. Connect the WHITE tubing to the water supply connector.
- B. Connect the BLUE tubing to the sink top faucet.
- C. Connect the BLACK tubing to the drain saddle.
- D. Connect the RED tubing to the storage tank.

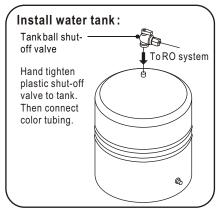


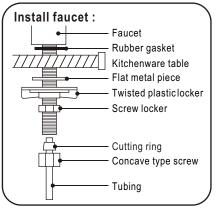


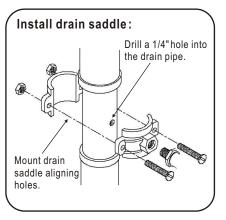
SYSTEM

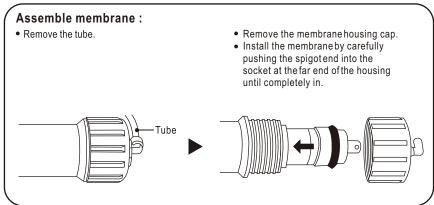
## PURE-PRO 👩 RE

## Input water : Water supply connector To RO system Towater source pipe Deliver valve





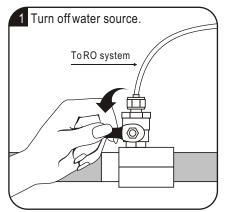


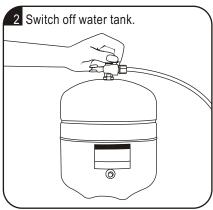


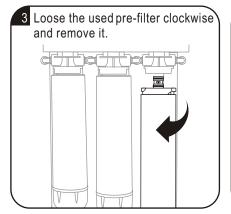
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## **Change filters**









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