

# RO-CRISTALLE

## Owner's Manual



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# CONGRATULATIONS

## Dear Client,

Thank you for purchasing RO-CRISTALLE purification device. We would like you to know that in manufacturing process of this device only the genuine parts were used in order to satisfy highest industry standards and quality expectations set by market needs to assure flawless work of your newly acquired device.

Your new Reverse Osmosis device is designed to bring you years of healthy, delicious and crystal-clear water.

Technologies used to produce your newly acquired water purification device make it the most advanced product in the world. The Reverse Osmosis water treatment method is regarded as one of the most efficient and effective way to remove all viruses, bacteria, impurities and mechanical dirt from water.

Here are some of the advantages of your newly acquired device:

**Purity** - With our device you can be assured that you will be drinking only crystal clear water

**Flexibility** - Installation and set-up will take minutes, after which you will be able to use unlimited amounts of water.

**Durability** - Our devices require only twice a year serviceman check-up and maintenance assuring you always the same quality of water

**Economy** - With our devices you can economize up to 90% on your water costs.

## WARNING:

When using electrical appliances, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and/or injury to persons, including the following:

1. **Read** all instructions and information in this instruction book and any other literature included in this carton referring to this product before operation or using this appliance.
2. **To protect** against fire, electric shock and personal injury do not immerse cord, plugs or appliance in water or any other liquid.
3. **Close** supervision is necessary when any appliance is used by or near children.
4. **Unplug** from outlet when not in use and before cleaning.
5. **Do not** operate any appliance with a damaged cord or plug or after the appliance malfunctions or if appliance has been damaged in any way. Return the appliance to the nearby authorized service center for examination, repair or adjustment.
6. **The use** of accessory attachments is not recommended by the appliance manufacturer and result may be fire, electric shock or personal injury.
7. **Do not** use outdoors.
8. **Do not** let cord hang over the edge of table or counter, or touch hot surfaces.
9. **Do not** place on or near a hot gas or electric burner, or in a heated oven.
10. **Always** turn appliance "OFF", by plugging the cord out of the wall outlet.
11. **Do not** use the appliance for other than intended household use.

## SAVE THESE INSTRUCTIONS

## CAUTION:

This appliance is for household use only. Any servicing other than cleaning should be performed only by and authorized service center. To reduce the risk of fire or electric shock, do not disassemble the appliance. There are no user serviceable parts inside. Repairs should be done only by authorized service personnel.

1. Check voltage to be sure that the voltage indicated on the nameplate agrees with your voltage.
2. Never use warm or hot water as a device supply. Use cold water only.
3. Keep the cord away from hot parts. This way you protect it from melting.
4. Never clean with scouring powders or hard implements. Simply use a soft cloth dampened with water.

### INSTRUCTIONS FOR THE POWER SUPPLY CORD

- A. A short power supply cord is provided to reduce risks of getting tangled up or tripping over a longer cord.
- B. Longer extension cords are available and may be used if care is exercised in their use.
- C. If a longer cord is used:
  1. The marked electrical rating of the extension should be at least as great as the electrical rating of the appliance.
  2. If the appliance is on the grounded type, the extension cord should be a grounding type.
  3. The cable does not hang from the table to avoid the risk of getting caught up in it.

## IMPORTANT TO KNOW

1. **RO-CRISTALLE** can work with feed water which is either treated municipally or from own sources (wells...). TDS (Total Dissolved Solids) must not exceed the amount of 2000ppm.
2. **RO-CRISTALLE** can operate only with cold water temperatures which cannot be lower than 4°C and higher than 40 °C. These devices are not designed to work with hot water sources nor can be used for such.
3. **Reverse Osmosis** membrane must be stored on temperature higher than 8°C. If frozen, do not attempt to de-freeze it in any type of microwave oven or exposing it to any type of heat. Frozen membrane is considered as faulty and as such must be replaced. Warranty does not cover the cost of these expenses.

## BEFORE INSTALLATION CHECK FOLLOWING POINTS

### Space necessary for installation, usage and maintenance:

1. **Device** is installed on flat, even surface
2. **Device** must be positioned in safe place where it cannot be knocked over or cause injury.
3. **Electricity** (wall socket) must be available in radius of 2 meter of device installation place.
4. **To prevent** melting or damage to the casing, do not place the device on very hot surfaces or near open flames.
5. **Place the device at least** 5 cm away from walls and cooking tops.
6. **Do not keep** the device at a temperatures below 8°C; frost will damage it.
7. **The wall outlet** must be reachable at all times.
8. **Do not** use the device outdoors.

## Preventing Injury:

1. Do not leave packing material near children. The device must be out of the reach of children.
2. Children are not aware of the risks involved with electrical and non-electrical devices

## Power Supply

1. Connect the device to a suitable outlet only. The voltage must match the one specified by device technical characteristics
- 2.

## Power Supply Cord:

1. **Never use** the device if it has a faulty cord.
2. **The defective** cord must be replaced immediately.
3. **Authorized service center** must replace the defective cords and plugs immediately.
4. **Do not** let the cord touch sharp edges, very hot objects and oily surfaces.
5. **Do not** carry or pull the device by the cord.
6. **Do not** pull the cable to remove the plug, and do not touch the plug with wet hands or feet.
7. **Avoid** letting the cord dangle from tables or raised surfaces.

## Intended Use:

1. This device is intended for household use only.
2. Do not make technical changes and use the appliance inappropriately: damage/injury hazard!
3. The device can only be used by adults who are in full control of their mental and physical capacities.

**BEFORE INSTALLATION  
CHECK FOLLOWING POINTS  
(continued)**

**Storing The Device:**

1. **When** the appliance is not used regularly, switch OFF the appliance and remove the plug from the wall outlet.
2. **Store** it in a dry place, away from children.
3. **Protect** it from dust and dirt.
4. **Turn water supply off** (on cold feed water valve)
5. **Empty** water tank

**Repairing/Maintenance:**

1. **If the device falls** and you see or suspect damages or malfunctions, immediately remove the plug from the wall. Never use faulty machines.
2. **Repairs** must be made by authorized service centers only.
3. **If authorized** service centers do not carry out maintenance work and/or repairs, the manufacturer is not liable for any damages.
4. **Filter replacing** must be made by authorized service centers only.
5. **In case** genuine parts are not used or filters are not replaced by authorised service centers, local distributors nor manufacturer are liable for any damages or water quality.

**Cleaning:**

1. **Before** cleaning the device, turn OFF the device then, remove the plug from the wall outlet.
2. **Never** immerse the appliance in water! Avoid splashes.
3. **Never** tamper with the machine inside parts.

**INSTALLATION:**

**INSTALLATION AND FILTER  
REPLACING PROCEDURES  
ARE KNOWN ONLY TO  
AUTHORISED SERVICE  
CENTERS AND CAN BE  
MADE ONLY BY  
AUTHORISED SERVICE  
CENTER PERSONNEL!**

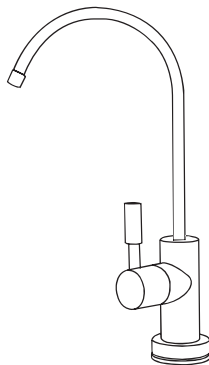
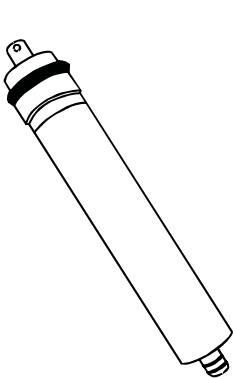
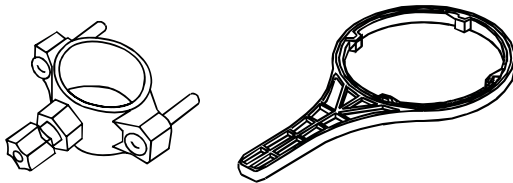
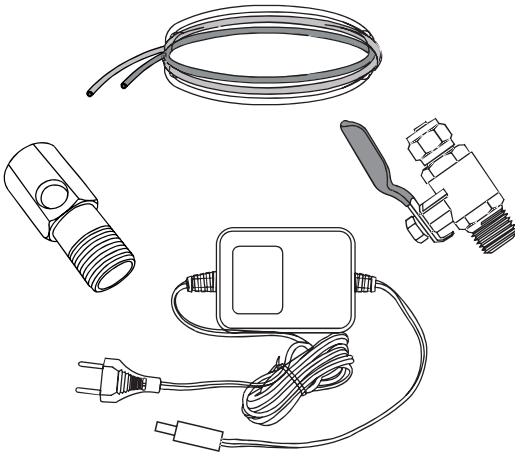
**In order to avoid difficulties during installation of your Reverse Osmosis device, we advice you to carefully choose device placement and assure enough space (at least 10cm from device each side) as well as cold feed water (3/8" or 1/2"outlet), drain water pipe and electricity feed (220V/50Hz).**

## RO-CRISTALLE BOX CONTENTS

The product package includes:

- RO-CRISTALLE
- AC Adapter
- Stainless Steel faucet
- RO Membrane
- Owner's Manual
- Feed Water Valve
- Drain Water Valve
- Tubes

Your device's configuration may vary. This list is made only for checking purposes. For exact list of box contents please contact your local distributor.



## DISPLAY EXPLANATION FOR: RO-CRISTALLE

Every time device's power cord is turned on, you will see a display showing all indicators for 6 seconds.

### Device's name

This indicator stays turned on at all times. It means that all functions of device are working properly and correctly.

### Service

This indicator turns on when the time has reached to preform maintenance. In case this indicator stays on for longer period of time device will block and stop functioning until maintenance is not completed. For more information about maintenance schedule please contact your local distributor.

### Error

This indicator will turn on in case any type of malfunction occurs. In this moment device will stop functioning and it is advised to contact **AUTHORISED SERVICE CENTER**

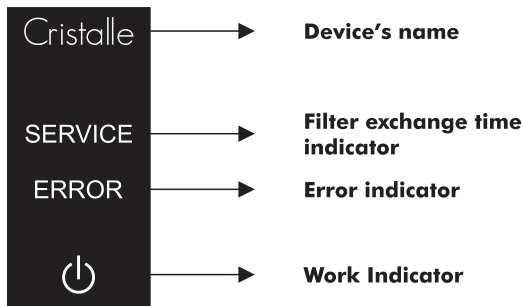
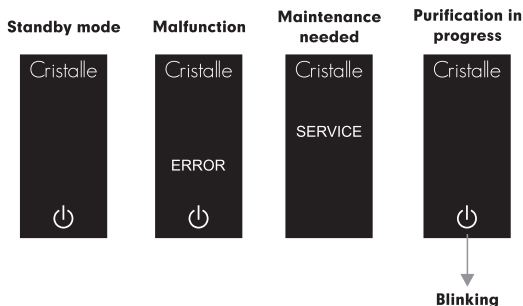
### Malfunctions that can happen are:

- No feed water
- Leak
- Very low feed water pressure
- Bad quality of feed water
- Pump failure
- Electronics failure

In case of no feed water, it is not necessary to contact your local **AUTHORISED SERVICE CENTER**. Device will start again as soon as feed water becomes available, we advise to close the device's feed water valve so any bigger dirt particles do not enter device.

### ON/OFF indicator

This indicator will light while device is not being used or while device not making pure water. As soon as device starts purification process or conducts membrane automatic flushing (every 6 hours), this indicator will start blinking and remain like that until the tank is full.





## **CONSUMABLES & MAINTENANCE PERIODICALS**

In order for your device to perform perfectly it is necessary to replace its consumables by following periodicals (for all devices):

### **PREFILTERS:**

Cristalle is equipped with three (3) PreFilters in following order:

- Push-In PolyPropylene 5 micron
- Push-In CTO or GAC (carbon pre-filter)
- Push-In PolyPropylene 1 micron

In order for your device to perform perfectly and to avoid any malfunctions it is necessary to replace consumables in periodicals stated by your local distributor. In case these filters are left to perform longer than stated by your local distributor, warranty for whole device is automatically voided.

### **POSTFILTER:**

Cristalle is equipped with In-Line GAC (granular activated carbon) PostFilter. In order for your device to perform perfectly and to avoid any malfunctions as well as hazard for human health (if post-filter used too long) it is necessary to replace this consumable in periodicals stated by your local distributor.

### **R.O. membrane:**

Cristalle is equipped with R.O. (reverse osmosis) membrane. It is a main working part of device. Main process of water purification is conducted by this element. R.O. membrane is made to last longer period of time, its life span greatly depends from feed water quality. Due to changing water quality it is not possible to determine this element's exact usage period. Your local AUTHORISED SERVICE PERSONNEL will conduct tests during each maintenance and inform you when it is needed to replace this element.

Below, we provide approximate information on replacing R.O. membrane element for different device configurations:

**DEVICE WITHOUT DIAPHRAGM PUMP:** approximately once every two (2) years from the moment of installation or last such maintenance.

**DEVICE WITH DIAPHRAGM PUMP:** approximately once every three to four (3-4) years from the moment of installation or last such maintenance. Devices with diaphragm pump replace this element every 3-4 years due to higher and constant pressure on R.O. membrane. Additionally, device performs Auto-Flush operations every 6 hours what prologues R.O. membrane life span.

### **DIAPHRAGM PUMP:**

Device is equipped with self-regulating diaphragm pump which needs to be checked periodically on pump performance. This test is made once a year and performed only by AUTHORISED SERVICE PERSONNEL.

### **TANK:**

Tank must remain at all times pressurized. Tank pressure is checked at every maintenance only by AUTHORISED SERVICE PERSONNEL. Once (1) per year it is necessary to clean the tank. This work is performed only by AUTHORISED SERVICE PERSONNEL.

### **SMALL PARTS:**

All small parts used in device are being checked during the maintenance. These checks are performed only by AUTHORISED SERVICE PERSONNEL. In case replacement of any part is needed, you will be informed upon. During warranty period small parts are subject to free of charge replacement which is performed only by AUTHORISED SERVICE PERSONNEL.

## EXPLANATION OF TERMINOLOGY:

**R.O. membrane** - Reverse Osmosis membrane. Main filtration unit used to purify water. Works on principle of reverse osmosis.

**R.O. device** - Device which consists of several pre-filters, R.O. membrane, post-filter, tank and faucet. Configuration may vary from type of device.

**PreFilter** - Every R.O. device consists of three (3) pre-filters which are used to prepare water for main purification, such prepared water is delivered to R.O. membrane to start the purification process. Pre-filters inside device have following specifications:

- 1st PreFilter: 5 micron PolyPropylene

- 2nd PreFilter: GAC (Granular Activated Carbon) or CTO (Solid Carbon Block)

-3rd PreFilter: 1 micron PolyPropylene

**PolyPropylene** - material used to manufacture first and third PreFilter.

**In-Line PostFilter** - Filter which is placed after R.O. membrane. Water from the tank flows through post-filter just before it is released through faucet.

**Tank** - Stainless steel or plastic tank which is used to store purified water. These tanks exist in several sizes: 2.0G (7.56L), 2.2G (8.31L), 2.8G (10.58L), 3.2G (12.09L), 3.8G (13.36L) (plastic tank), 4.0G (15.12L) (plastic tank), 10G (37.80L), 20G (75.60L)

**Self-Adjusting Diaphragm Pump** - Pump which is installed before R.O. membrane. Its purpose is to higher the pressure and amount of water delivered to R.O. membrane. Pump helps to prolong R.O. membrane life span.

**High pressure switch** - Electrical mechanism installed inside device which function is to stop the device's work when the tank is full.

**Low pressure switch** - Electrical mechanism which is installed before water enters PreFilters which function is to detect presence of water. In case of low pressure or lack of feed water device stops to function until water returns or pressure has risen again.

**Solenoid** - Electrical mechanism used to stop water

flow. Each R.O. device with pump has 2 solenoids. First is used to stop the water entering device, second for membrane Auto-Flushing.

**Auto-Flush** - Automatic process on devices with pump, occurring every 6 hours. Auto-Flush raises the pressure in R.O. membrane housing for 30 seconds. R.O. membrane is being cleaned this way. This function prolongs R.O. membrane life span.

**Anti-Leak** - Small electrical sensor placed at the bottom of device which reacts to water presence by stopping the device's operation.

### COMPONENTS CHARACTERISTICS:

**1st PreFilter** - This is first filter which comes in contact with water. Its main function is not to allow particles larger than 5 microns to pass through it. These particles can be: dirt, sand, rust, microscopic particles several times smaller than grain of sand.

**2nd PreFilter** - This filter only function is to reduce elements that cause water to taste and smell unpleasantly, including the taste and odor of chlorine which is also very dangerous for R.O. membrane and if present in larger amounts can damage R.O. membrane in very short period of time.

**3rd PreFilter** - This filter is placed after 2nd PreFilter and its function is not to allow particles larger than 1 micron to pass through it. Usually these are all smaller particles which can influence with R.O. membrane life span.

**R.O. membrane** - Its average removal percentage are as follows:

Aluminum97+%, Nickel97+%, Ammonium85+%, Nitrate93+%, Arsenic94+%, Phosphate99+%, Bacteria99+%, Polyphosphate98+%, Bicarbonate95+%, Potassium92+%, Bromide93+%, Pyrogen99+%, Cadmium98%, Radioactivity95+%, Calcium96+%, Radium97+%, Chloride94+%, Selenium97%, Chromate98%, Silica85+%, Chromium96+%, Silicate95+%, Copper99%, Silver95+%, Cyanide90+%, Sodium92+%, Ferrocyanide99%, Sulphate99+%, Flouride94-96%, Sulphite96+%, Iron98+%, Zinc98+%, Lead96+%, Virus99+%, Magnesium96+%, Insecticides97%, Manganese96+%, Detergents97%, Mercury 96+%, Herbicides97%, TDS 95+%.

## LIMITED WARRANTY

As an expression of our confidence in our products, your drinking water system is warranted to the original end-user, when installed by your local MAINTENANCE SERVICE CENTER PERSONNEL by manufacturers specification, against defects in material and workmanship from the date of original installation, as follows:

Two (2) years - The entire R.O. device, excluding PreFilters and PostFilter.

One (1) year - Reverse Osmosis membrane. This warranty is voided if TDS is higher than 1000 ppm and device is not maintained on schedule.

Two (2) years - For R.O. pump. This warranty is voided if device is not maintained on schedule.

For water quality. This warranty is voided if genuine maintenance parts are not used and maintenance is not performed by schedule prescribed by your local MAINTENANCE SERVICE CENTER.

This warranty is nontransferable and is limited to the original purchaser. This warranty gives you specific legal rights, and you may also have other rights which vary under local laws. If a part described above is found defective within the specified period, you should notify your dealer and arrange a time during normal business hours for the dealer to inspect the drinking water system on your or his premises.

### REMEDIES

Manufacturer's entire liability and your exclusive remedy for any breach of warranty shall be, at Manufacturer's option, to: (A) any part found defective within the terms of this warranty will be repaired or replaced by the dealer, provided that device is returned to the point of purchase or such other place as Manufacturer may direct, with a copy of sales receipt. You pay only freight from our factory and local dealer charges, (B) refund the price paid. Any refund will be made in the period of 30 days from date of purchase with written explanation and reason why refund shall be made. These remedies are void if failure of device resulted by damage caused by accident, fire, flood, freezing, Act of God, misuse, misapplication, neglect, alteration, unauthorized service personnel installation or operation contrary to our printed instructions, or by the use of accessories or components which do not meet our specifications, is not covered by this warranty.

### DISCLAIMER OF WARRANTY.

THE WARRANTIES EXPRESSLY SET FORTH IN THIS AGREEMENT REPLACE ALL OTHER WARRANTIES. TO THE EXTENT PERMITTED BY LAW, WE DISCLAIM ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD-PARTY RIGHTS WITH RESPECT TO THE R.O. DEVICE. NO DEALER, AGENT OR EMPLOYEE IS AUTHORIZED TO MAKE ANY MODIFICATION, EXTENSION, OR ADDITION TO THIS WARRANTY. TO THE EXTENT REQUIRED BY LAW, ANY IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE TWO-YEAR PERIOD SPECIFIED FOR THE PARTS DESCRIBED IN THIS LIMITED WARRANTY.

As manufacturer, we do not know the characteristics of your water supply or the purpose for which you are purchasing a R.O. system. Please understand that the quality of water supplies may vary seasonally or over a period of time, and that your water usage rate may vary as well. Water characteristics can also change considerably if your drinking water system is moved to a new location. For these reasons, we assume no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligations for us. Further, we assume no liability and extend no warranties, express or implied, for the use of this product on a non-potable water source.

OUR OBLIGATIONS UNDER THIS WARRANTY ARE LIMITED TO THE REPAIR OR REPLACEMENT OF THE FAILED PARTS OF THE R.O. DEVICE. IN NO EVENT WILL MANUFACTURER OR ITS SUPPLIERS BE LIABLE FOR ANY COSTS OF PROCUREMENT OF SUBSTITUTE PRODUCTS OR SERVICES, LOST PROFITS, LOSS OF INFORMATION OR DATA OR ANY OTHER SPECIAL, DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, GENERAL, OR OTHER DAMAGES ARISING IN ANY WAY OUT OF THE SALE OF, USE OF, OR INABILITY TO USE ANY PRODUCT OR SERVICE, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO CASE SHALL MANUFACTURERS AND DISTRIBUTORS LIABILITY EXCEED THE ACTUAL MONEY PAID FOR THE PRODUCT OR SERVICE GIVING RISE TO THE LIABILITY. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The above limitation will not apply in case of personal injury where and to the extent that applicable law requires such liability.

# OWNER INFO

**name** \_\_\_\_\_ **installation date** \_\_\_\_\_

\_\_\_\_\_ **installation address** \_\_\_\_\_

**surname** \_\_\_\_\_

\_\_\_\_\_ **date** \_\_\_\_\_

\_\_\_\_\_ **device type** \_\_\_\_\_

DATE	MAINTENANCE TYPE	Membrane	Pump	Tank	Other Parts	Signature

DATE	MAINTENANCE TYPE	Membrane	Pump	Tank	Other Parts	Signature

DATE	MAINTENANCE TYPE	Membrane	Pump	Tank	Other Parts	Signature

## WARRANTY CONFIRMATION

This warranty is voided in case of no existence of distributor's stamp and signature. If you received this manual without below entered information, please contact your distributor and appoint signing and stamping this warranty.

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Authorized Reseller

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Maintenance Center telephone number

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Maintenance Center address



