



REKA

DIRECT FLOW

USER MANUAL

EQUIPMENT REVERSE OSMOSIS

REKA

DIRECT FLOW

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USER MANUAL

FOR REVERSE OSMOSIS EQUIPMENT

O. MAIN FEATURES



FILTER CONTROL
AUTOMATIC
MAINTENANCE
NOTIFICATION



**ELECTRONIC
ADAPTER**
GREATER SECURITY
AND EFFICIENCY



IMMEDIATE CONTROL
SOLENOID
VALVE



**DOUBLE
FLOW**
HIGHER FLOW RATE
OF DISPENSED WATER



AQUASTOP
AUTOMATIC SYSTEM
LEAK DETECTION



**DIRECT
ACCESS**
EASE OF ACCESS
AND MAINTENANCE



**DIRECT
FLOW**
DIRECT PRODUCTION OF
OSMOTIZED WATER



QUALITY CONTROL
CONTROL OF
CONDUCTIVITY



LED
STATUS
INDICATIONS



**SOUND
WARNINGS**
SOUND
ALERTS



**HIGH PERFORMANCE
MOTOR**
ELEVATED PUMP
PERFORMANCE



**HIGH
EFFICIENCY**
RECOVERY
IN THE PRODUCTION



**SMART
FAUCET**
INTELLIGENT
TAP



**CAPSULATED
MEMBRANE**
ENCASED
RO MEMBRANE



Please keep this manual safe, as it includes the warranty and service book sections, in order to provide you with better after-sales service.

1. INTRODUCTION

Congratulations. You have acquired excellent equipment for domestic water treatment.

This kit will help you improve the characteristics of the water.

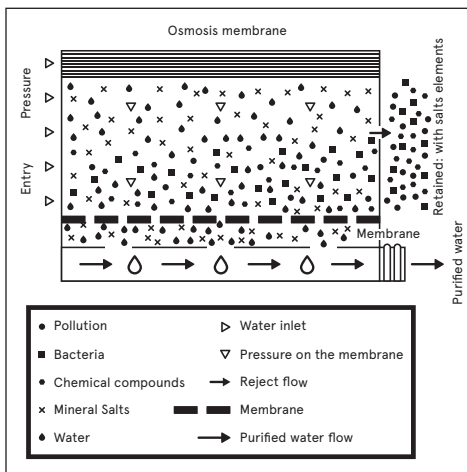
2. WHAT IS OSMOSIS?

Natural or direct osmosis is the most common in nature, since semipermeable membranes are part of the vast majority of organisms (for example, plant roots, organs of our own body, cell membranes, etc ...)

When two solutions of different salt concentrations are separated by a semi-permeable membrane, by a natural process, there is a flow of water from the lower concentration solution to the higher concentration one. This flow continues until the concentrations on both sides of the membrane equalize.

When it comes to reversing this process and achieving a flow of water with a lower concentration of salts from a one with a higher concentration, sufficient pressure must be applied to the water with a higher concentration on the membrane, to overcome the tendency and natural flow of the system. This process is what we call reverse osmosis. At present, reverse osmosis is one of the best methods to improve the characteristics of water, through a physical system (without the use of chemical products).

The water to be purified exerts pressure on the semi-permeable membrane, so that part of it will pass through the pores of the membrane (osmotic water), while the rest of the water (rejected or with a high concentration of salts) will be diverted towards the drain (Fig. 1).



3. PRIOR WARNINGS

! ATTENTION: Read carefully the warnings described in the corresponding section of the Technical Manual.

! ATTENTION: These units ARE NOT POTABILIZERS of water. Should the water to be treated comes from a public supply (and therefore complies with current legislation), this equipment will substantially improve the quality of the water.

Water treatment equipment requires periodic maintenance carried out by qualified technical personnel, in order to guarantee the quality of the water produced and supplied.

3.1. USE OF THE EQUIPMENT

· When you are going to be absent for more than a week, close the water inlet tap to the equipment, drain it and disconnect it from the power supply (PUMP model). When you return, connect the power supply to it, open the inlet valve and the tap. Let the water run out for at least 5 minutes before consuming the water.

! ATTENTION: After a prolonged period (more than one month) in which the equipment has not been working or producing water, contact your distributor in order to carry out proper sanitation and maintenance.

· Fill jugs or bottles and avoid occasional removal of glasses to improve equipment performance.

! ATTENTION: Special attention must be paid to the cleaning and hygiene of the osmosis tap on a regular basis and especially at the time of periodic maintenance and sanitization. To do this, use the sanitizing spray and single-use disposable kitchen towel. In no case should you use a cloth to dry your hands or a multipurpose flannel used for cleaning the kitchen.

· This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

3.2. RECOMMENDATIONS FOR THE CORRECT USE OF OSMOTIZED WATER

· If you wish to feed any other point of consumption with osmotic water (such as a refrigerator with an ice cube dispenser, another tap, etc ...), the canalization should not be carried out with metal tubing, as this would give the water a bad taste. Always use plastic fittings and tubing.

! ATTENTION: The water provided by the domestic osmosis equipment is LOW IN MINERALS. The mineral salts that the human body needs are mainly provided by food, especially dairy products and to a lesser extent drinking water.

· It is recommended not to use aluminium utensils when cooking with osmotic water.

4. BASIC OPERATION

The mains water to be treated enters the equipment through the sediment and carbon filter. In this filtration stage, suspended particles, chlorine, its derivatives and other organic substances are retained.

The flow of water into the equipment is controlled by a cut-off solenoid valve.

The water, after being treated at the filtration stage, is directed towards the reverse osmosis membranes. The equipment incorporates a pump to increase the pressure, since the pressure of the water on the membrane makes the reverse osmosis process possible.

The osmotized water flows out of the equipment through the tap for consumption. Reject water or water with excess salts and other dissolved substances is directed to the drain for disposal.

When you turn off the water at the tap, the equipment stops its operation by means of a maximum pressure switch.

This equipment incorporates a minimum pressure switch as a safety system, which protects the pump from inlet pressure loss, stopping the pump and preventing it from operating without water.

5. INTERFACE WITH THE USER

! ***ATTENTION: This equipment incorporates an electronic controller that will efficiently manage the functionality and status indications, as well as the different security systems.***

The equipment's technical data sheet describes the states in which the system can be found and the information provided by it (pages 20-22 of this manual).

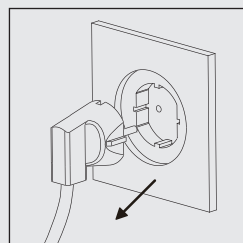
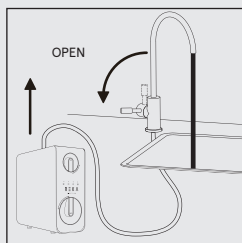
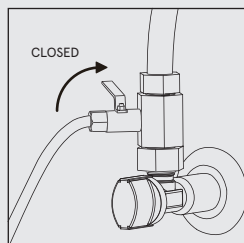
6. MAINTENANCE

In order to guarantee the quality of the water supplied by your equipment, regular maintenance should be carried out.

Read the corresponding section of the Technical Manual to see the recommended maintenance frequency (page 11 of this manual).

7. IDENTIFICATION AND RESOLUTION OF PROBLEMS

TROUBLE	POSSIBLE CAUSE	SOLUTION
1. Leak to the outside the equipment.	Several possible causes.	Call for service.
2. Zero production.	<ol style="list-style-type: none"> 1. There is no water supply. 2. There is no power supply. 3. Leaking sensor activated. 	<ol style="list-style-type: none"> 1. Wait for the supply to return. 2. Check the electrical supply of the location. If the problem is not solved, call the technical service. 3. Leaking sensor activated. If the leak is not visible, dry the bottom of the equipment and the leaking sensor well. If it reoccurs, call the technical service.
3. Low production.	<ol style="list-style-type: none"> 1. Inlet tap partially closed. 2. Filters / membrane in poor condition 	<ol style="list-style-type: none"> 1. Open it completely. 2. Call for service.
4. Excessive production.	Several possible causes.	Call for service.
5. Unpleasant. Taste and smell.	Several possible causes.	Call for service.
6. White coloured water .	Air in the system. Microbubbles of air that disappear after a few seconds.	It is not a problem. The appearance will disappear as the air inside the equipment is expelled.
7. Continuous dripping noise in drain.	Several possible causes.	Call for service.
8. The equipment does not start.	<ol style="list-style-type: none"> 1. There is no water supply. 2. There is no power supply. 3. Leaking sensor activated. 	<ol style="list-style-type: none"> 1. Check the general condition and the inlet of the equipment. 2. Check the general power supply. If the problem is not solved, call the technical service. 3. If the leak is not detected, dry the bottom of the unit together with the leaking sensor. If it reoccurs, call the technical service.
9. The equipment stops and starts constantly.	Several possible causes.	Call for service.
10. The equipment never stops expelling water to the drain.	<ol style="list-style-type: none"> 1. Inlet solenoid valve damaged. 2. Deteriorated production check valve. 	<ol style="list-style-type: none"> 1. Check and replace. 2. Check and replace.



Read the INTERFACE section of the Data sheet. In the event of an anomaly, contact SAT and proceed as indicated: Close the inlet valve. Open the tap to depressurize the system and unplug.

TECHNICAL MANUAL

FOR REVERSE OSMOSIS EQUIPMENT

1. MAIN FEATURES

APPLICATION

Water treatment

Reverse osmosis

Use

Improvement of the characteristics of drinking water (which complies with the requirements of the European Directive on water for human consumption 98/83 or its national equivalents in the different member states of the European Community).

Modifications for reduction or contribution

· *Water treatment by reverse osmosis is capable of reducing concentrations of salts and other substances in high percentages.*

· *Minimal reduction * of certain compounds and parameters:*

Sodium: 90%.

Calcium: 90%.

Sulphate: 90%.

Chloride: 90%.

Total hardness: 90%.

Conductivity: 90%.

** Depending on the characteristics of the water to be treated (at the membrane outlet). These values may vary in depending on the type of post-filter that the equipment incorporates and / or regulation of the mixing valve (if it is included).*

OPERATING LIMITS

	EQUIPMENT WITH PUMP
Pressure (max/min):	4 bar - 1 bar (400kPa-100kPa) .
TDS (max):	1500ppm.
Temperature (max/min):	38 °C - 5 °C.
Hardness (max):	15 °HF. **

! **ATTENTION:** *If you have any questions about the installation, use or maintenance of this equipment, contact the technical assistance service (SAT) of your distributor.*

2. PRIOR WARNINGS

! **ATTENTION:** *this equipment DOES NOT POTABILIZE water. In the event that the water to be treated comes from a public supply (and therefore complies with current legislation), this equipment will substantially improve the quality of the water.*

! **ATTENTION:** *If the water to be treated does not come from a public supply network or is of unknown origin, it will be necessary to carry out a physical-chemical and bacteriological analysis of the water to ensure its correct purification by applying the techniques and equipment suitable for each requirement BEFORE INSTALLING the equipment. Contact your dealer in order to advise you on the most appropriate treatment for your case.*

2.1 CONDITIONS FOR THE CORRECT OPERATION OF THE EQUIPMENT

· The equipment should not be supplied with hot water (T > 38°C).

· The ambient temperature must be between 4° and 45°C.

· For waters with salinities higher than 1500 ppm, consult your distributor.

· It is recommended that the water to be treated be de-calcified or with a maximum hardness of 15°HF in order to obtain optimum performance from the equipment.

· In the event that the water to be treated has a hardness greater than 15 °HF, this could cause a reduction in the life of the membrane and in the performance of the equipment.

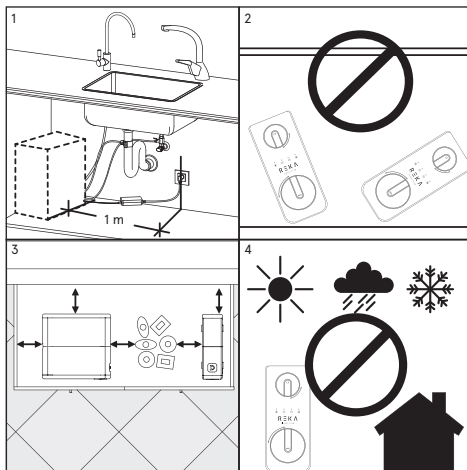
- If the inlet water contains a concentration higher than 1.2 ppm of total chlorine, the installation of an activated carbon filter is recommended to reduce the chlorine concentration in the water and thus protect and extend the life of the equipment components.

In case the water to be treated contains:

High concentrations of iron and manganese (Greater than 1ppm measured in the rejection of the machine). Prolonged hyperchlorination in time. Sludge or turbidity greater than 3 NTUs.

A nitrate concentration greater than 100 ppm.
A sulphate concentration greater than 250 ppm.

- Contact your distributor to recommend the most appropriate pre-treatment for your unit, thus ensuring the correct operation of the equipment, avoiding damage to components and guarantees the quality of the supplied water.



3. EQUIPMENT INSTALLATION

- In the event that the domestic installation has to be modified in order to install the equipment in the planned place, it must be carried out in accordance with the national regulations for indoor installations of water and electrical supplies.

- This equipment requires an electrical outlet less than 1 meter away (1).

- This equipment must not be installed either lying down or inclined (2), otherwise the leaking sensor will be disabled.

- The equipment when filled with water weighs more, the distribution of weight in the installed position could cause some connection element to be under strain which could cause a malfunction, damage to equipment components, or loss of water.

- The place planned for its installation must have enough space for the appliance itself, its accessories, connections and for conveniently carrying out maintenance (3).

- Under no circumstances should the equipment be installed outdoors (4).

- The environment where equipment and faucet are installed must be kept to adequate hygienic-sanitary conditions.

- The appliance must only be used with the power supply supplied with the appliance.

- The appliance must only be powered at a very low safety voltage.

- Avoid external drips on the equipment coming from pipes, drains, etc.

! ATTENTION: The equipment must not be installed next to a heat source or directly receiving a flow of hot air over it (dryer, refrigerator, etc.).

- The new hose-sets supplied with the appliance are to be used and that old hose-sets should not be reused.

3.1. COMMISSIONING AND MAINTENANCE

! ATTENTION: This water treatment equipment needs periodic maintenance carried out by qualified technical personnel, in order to guarantee the quality of the water produced and supplied.

- New tubes supplied with the appliance must be installed and old tubing must not be reused.

- Consumable items must be replaced with the frequency indicated by the manufacturer.

- The equipment must be sanitized periodically and prior to commissioning.

- After commissioning, you must discard the water produced during the first 30 minutes of use.

- Maintenance must be carried out by qualified technical personnel with appropriate hygienic conditions and knowledge, in order to reduce the risk of internal contamination of the appliance and its hydraulic system. (For more information, contact the technical service of your distributor).

4. UNPACKING

It is important that before installation and start-up, you check the box and the condition of the equipment, in order to ensure that it has not been damaged during transport.

! ATTENTION: Claims for damage during transport must be presented together with the delivery note or invoice to your distributor, attaching the name of the carrier within a maximum period of 24 hours after receipt of the merchandise.

Remove the equipment and accessories from their cardboard packaging, removing the corresponding protections.

! ATTENTION: Properly dispose of and keep plastic bags out of reach of children, as they can be a danger to them.

Inside you will find: Water treatment equipment, installation accessories and documentation. The materials used in the packaging are recyclable and must be disposed of in the appropriate selective collection containers or in the



specific local centre for the recovery of waste materials.

This product cannot be disposed of along with common urban waste. When the useful life of the equipment has ended, it must be delivered to the company or centre where the equipment was purchased, or to a specific local clean-up point or centre for the recovery of materials, indicating that it has electrical and electronic components. The correct collection and treatment of unusable appliances contribute to preserving natural resources and also to avoiding potential risks to public health.

5. INSTALLATION

The installation of your osmosis equipment must be carried out by personnel who are sufficiently qualified to do so. Read this manual beforehand and consult with your dealer if in doubt.

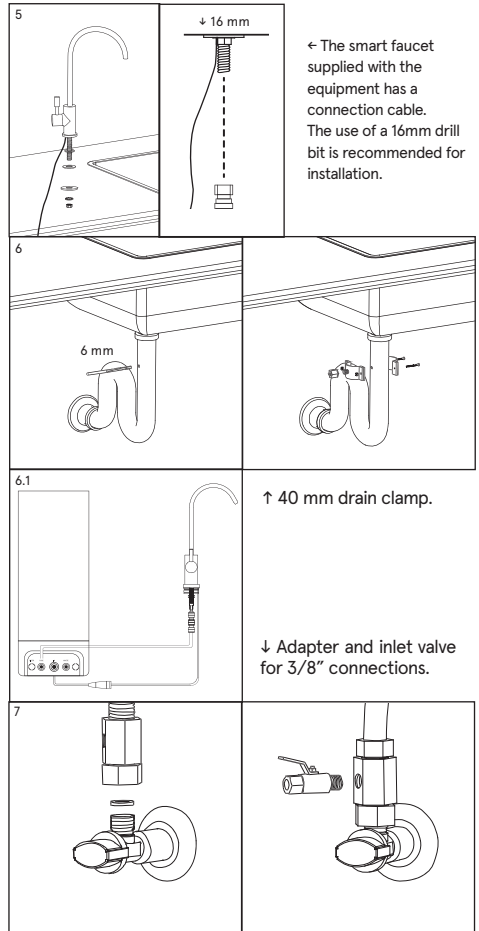
! ATTENTION: Since the appliance to be installed improves the quality of the water to be consumed, all the tools to be used for assembly and installation must be clean and in no case may they be contaminated or impregnated with fats, oils or oxides. Use exclusive tools for tube cutting, membrane handling, etc. Keep them clean and disinfect them periodically.

! ATTENTION: The work must be carried out with knowledge and adequate hygienic conditions, taking extreme precautions in everything related to materials and components that are going to be in contact with the water to be treated or consumed.

(For more information contact your dealer).

! ATTENTION: Avoid the risks of external contamination of the equipment due to improper handling, using gloves, hand sanitizing gel or washing your hands as many times as necessary throughout.

The most frequent place for installing the equipment is It will be under the kitchen sink or in an attached cabinet. Install the faucet, hydraulically and electrically (depending on the model), to the equipment drain collar and tap adapter input and connect them to the respective connectors of the equipment (5, 6, 6.1 and 7). Note that for the cable to pass through, the hole must be at least 16 mm (for the model with electronic tap).



See hydraulic diagram on page 13.

! ATTENTION: Some of the installation accessories may vary depending on the model and the region in which the equipment is distributed.

5.1. MIXING KIT

- In case you want to increase the pH, conductivity and chlorine concentration at the outlet, you must carry out the installation according to the following scheme and using the corresponding components included in the mixing kit (consult your distributor).
- After starting up, open the tap and with the corresponding meter for the parameter of interest, measure in the water dispensed from the tap and slowly and progressively open the mixing valve until the desired parameter is achieved.
- The water dispensed must comply with the drinkability requirements established by European Directive 98/83

or the corresponding national legislation that regulates it.

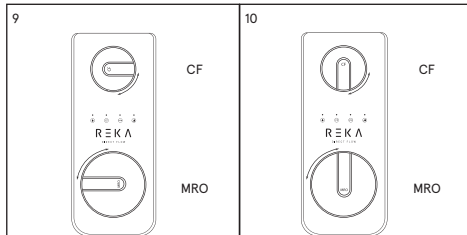
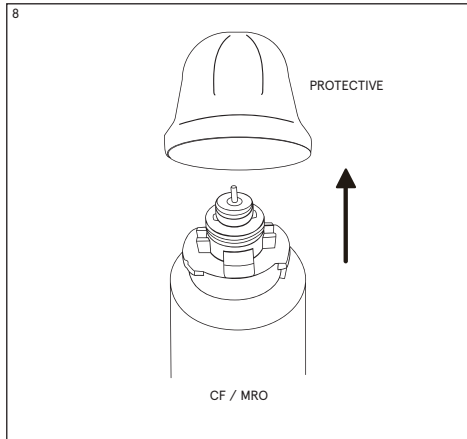
5.2. FILTER INSTALLATION

- Remove the plastic wrapping and remove the protector before installing the filters (as shown in figure 8).

- Install the CF filter in the first stage of the REKA machine (upper position), the RO membrane in the second stage of the REKA machine (lower position).

- To install the filters, present each filter in its respective housing with the handle in a horizontal position, as shown in figure 9.

- Insert firmly all the way and turn the handle 90 degrees clockwise. After installation, the two filters should be as shown in figure 10.



6. START-UP

6.1. FILTER RINSING

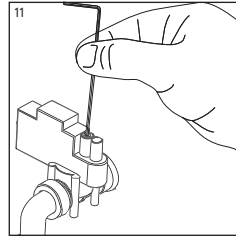
- It is necessary to eliminate the dust of the carbon filter that is generated during the transport and handling of the equipment. This dust must be eliminated since it could partially or completely obstruct the membrane as well as cause a malfunction of the equipment. The equipment will automatically perform a wash when replacing the filters.

6.2. EQUIPMENT SANITIZATION

- Carry out a sanitization of the equipment, depending on the model and procedure indicated by the manufacturer (see Hygienization procedure). If in doubt, consult your dealer.

6.3. SYSTEM TIGHTNESS, STOP AND START

- Close the tap of the unit on the countertop and keep the equipment hydraulically or electrically powered and performing a visual inspection of the system to ensure that there are no leaks (for approx.15min.).

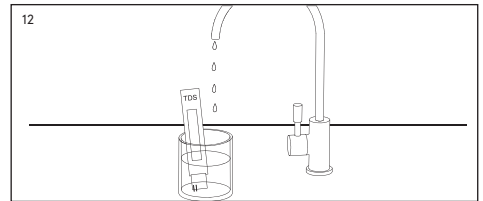


- In case the pump the equipment does not stop, adjust the maximum pressure switch tare with an Allen key size 2, until the pump (11) is stopped. Open the dispensing tap. The equipment should activate and supply water. Close the tap again and check that the equipment stops.

activate and supply water. Close the tap again and check that the equipment stops.

6.4. RINSE AND CLEAN

- Open the tap of the equipment and measure the quality of the water that is being produced. With a conductivity or TDS meter, check that the reduction of salts obtained is adequate with respect to the water to be treated (12).



! ATTENTION: in the case of detecting that the dispensed water does not comply with the current national legislation, carry out the measurement again. If the deviation persists, close the inlet valve, drain it through the tap, disconnect it electrically and contact your technical service.

- Finally, clean the inside and the bottom of the equipment with single-use kitchen towel, in order to remove any water that may have fallen into it, as this could cause a false alarm and block the system.

7. MAINTENANCE

! ATTENTION: Some components of your equipment, such as the pre-filters and the membrane, are consumables that have a limited life.

- The duration will depend on the quality of the local water, consumption, type of use and specific aspects of the water to be treated such as extreme turbidity, high chlorination, excess iron, etc.

! ATTENTION: In order to guarantee the quality of the water supplied by your equipment, periodic maintenance must be carried out.

RECOMMENDED MAINTENANCE

CF pre-filter: at least every 12 months. * sanitization.
RO osmosis membrane: Every 3 years approx (for water to be treated soft (hardness <15 °HF)).

Sanitization: At start-up. At least every 12 months depending on use. Every time components in contact with water in the equipment are accessed or no water has been consumed for more than a month.

* Depending on the intended use and characteristics of the water to be treated.

Maintenance must be carried out by trained personnel, who must handle the equipment properly, as well as use original spare parts to maintain the characteristics, guarantee, certifications and performance of the equipment and thus preserve the quality of the water dispensed.

! *ATTENTION: The use of non-original spare parts, installation outside the operating limits and improper start-up, maintenance or use, may lead to the loss of the guarantee, as well as the invalidation of the certifications to which has been submitted for the unit.*

An excess of any compound (total chlorine, turbidity, hardness, etc...) can cause a reduction in the life of filters and certain components. These maintenances are indicative. Your distributor will anticipate the duration of the consumables depending on the characteristics of the water to be treated and the expected consumption in each case.

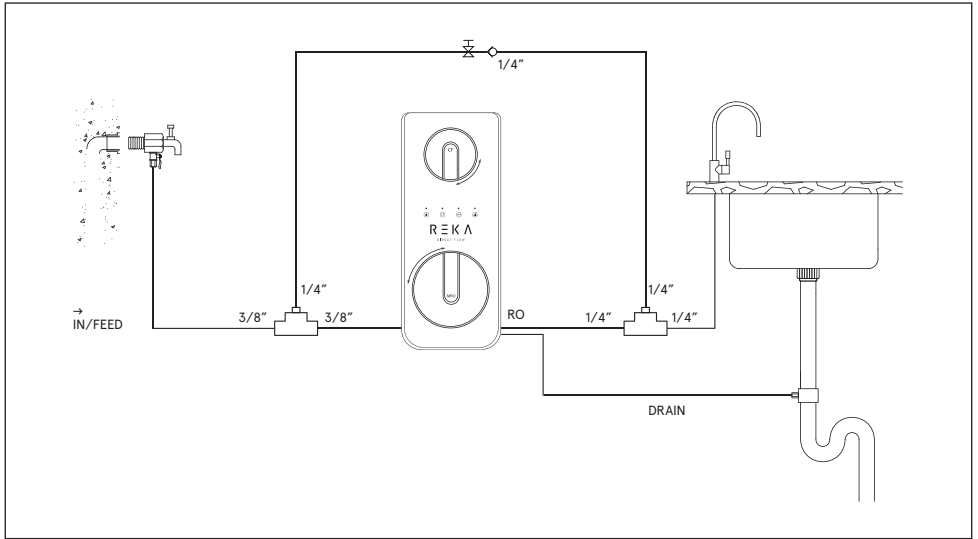
! *ATTENTION: All consumables are supplied in individual packaging specially designed to guarantee hygienic storage and transport conditions. Exercise hygiene precautions after removing the consumables from their packaging and when handling the various connectors and components.*

! *ATTENTION: Before dismantling the equipment, provide all the material that you will need to carry out maintenance operations (read section 5 Installation) and the space necessary for this. Work in a well-lit place, with adequate hygienic conditions and with enough space to carry out operations comfortably.*

- Carry out the filter change properly. Ensure the tightness of the joints and the original hydraulic configuration of the system as recommended by the manufacturer.
- Sanitize the equipment following the indications described in the Sanitation Procedure.
- For more information, see the data sheet of the equipment. If you have any other questions, consult your dealer.

! *ATTENTION: Use gloves or appropriate personal protection measures, if you use chemicals during sanitization.*

Hydraulic diagram.



SANITATION PROCEDURE

1. SANITIZATION

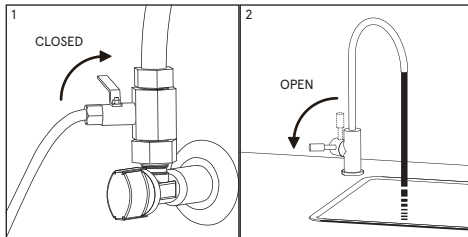
Necessary material:

- Manual valve.
- Dosing cartridge and connectors.
- 3% hydrogen peroxide (0.5 l).
- Brush.
- Single-use latex gloves.
- Easy-rinse soap or detergent.
- Food grade lubricant.
- Hydrogen peroxide detector strips.
- Sanitizing spray.
- Disposable paper roll.

Carry out a sanitization of the equipment during start-up, when appropriate (whenever there is a risk of contamination of the equipment by handling components in contact with water) or with the indicated period of time. To do this, follow the steps below:

! **ATTENTION:** *The water used during sanitization must be drinking water (from the public distribution network complying with the corresponding potability requirements of RD 140/2003, European directive 98/83 or current local legislation).*

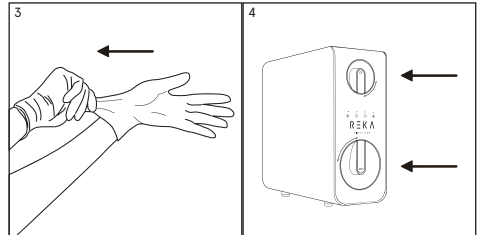
- Open the tap and let water recirculate in order to renew the water inside the equipment.
- Close the inlet valve (1) and open the dispenser tap (2) to decrease the pressure in the equipment.



· Change the filters and wash them as indicated in the corresponding section of the equipment's Technical Manual. The sanitization must be carried out with the new pre-filters and post-filters installed and previously rinsed in an adequate way (the carbon dust from them has been correctly removed).

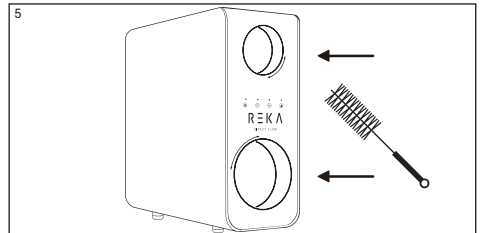
- Use single (3) use vinyl gloves to handle sanitizing products.

! **ATTENTION:** *Exercise extreme hygiene measures when handling the filters, the membrane and the equipment components in contact with water. Use disposable gloves or wash your hands as many times as necessary to avoid risks of contamination of the equipment.*



· To sanitize the equipment, the filters must be inside their housings (4).

· In case you replace a deteriorated membrane or filter at the end of its useful life, remove the deteriorated one for disposal and clean the inside of the housing and the connections with a brush (which must be kept clean and disinfected) together with Easy-to-rinse soap or detergent (low-suds) and suitable for cleaning surfaces in contact with food (5). Subsequently rinse the housings and connections correctly ensuring that all traces of detergent are removed.



2. TREATMENT OF THE PRE-FILTER, THE MEMBRANE

· Disconnect the inlet tube to the equipment marked as "feed-in" and install the solution cartridge between the inlet valve and the equipment's water inlet. (6). For greater comfort and ease of access during sanitization and the inlet valve opening and closing operations, you can insert, together with the sanitizing dosing cartridge, a manual valve in the closed position, which will perform the same functions as the manual inlet shut-off valve to the equipment.

· Once the assembly is installed, keep the new manual inlet valve closed and open the inlet valve connected to the wall adapter (7). The measuring cup must be empty.

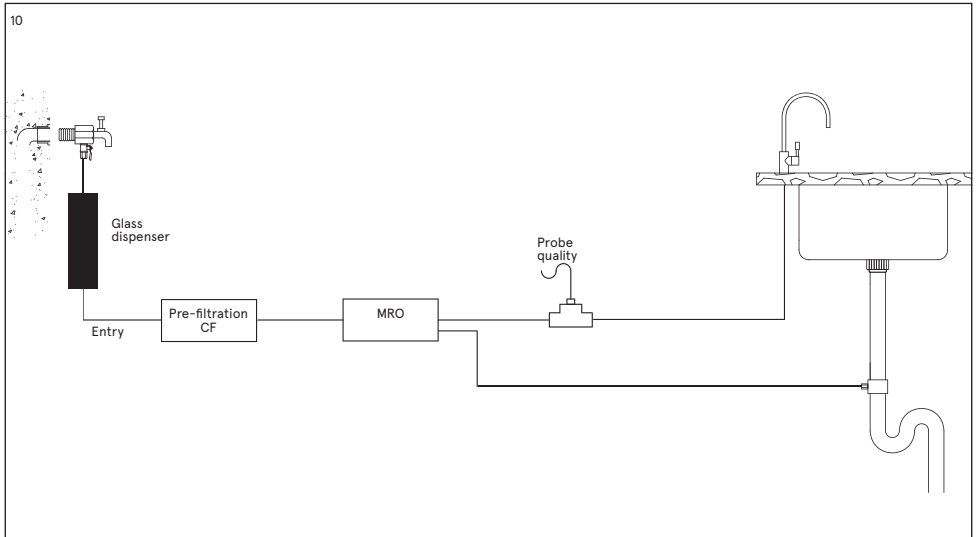
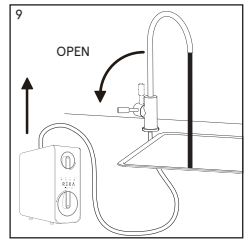
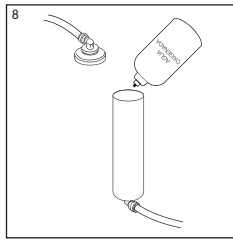
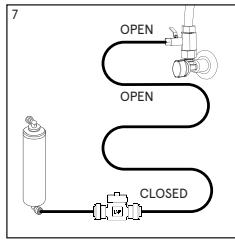
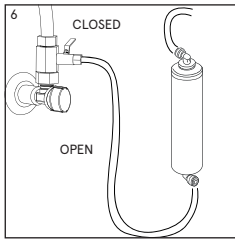
· Pour 0.25 liters of Hydrogen Peroxide into the dosing beaker inserted at the inlet of the equipment (8). Screw the glass correctly to its head.

· The manual inlet valve and the tap must be closed.
Connect the equipment to the electrical supply.

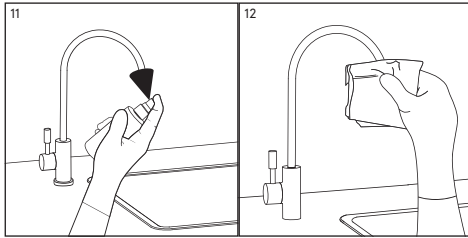
· Open the water inlet valve to the equipment and open the tap, allowing it to start operating and letting the Oxygenated Water flow into it. Fill a 1L jug with tap water. Before closing the tap, close the inlet valve again to lower the pressure. Refill the dispenser with 0.25l of hydrogen peroxide and empty 1 more litre of water. Close the tap. At this time the entire circuit contains sanitizing liquid.

· After 10 mins. open the dispenser tap (9) and let the tap water flow for 5 minutes.

· Empty the dosing cartridge. Before opening it, have at hand a container where it can be emptied, as it may be full of water.



- Pay special attention to sanitizing the tap spout. Use the sanitizing spray (or, failing that, hydrogen peroxide, dosing it in such a way that it penetrates the faucet spout) and single-use kitchen paper. Spray the spray on the tap nozzle (11), rub the spout and tap nozzle with the disposable paper and do not touch it directly with your hands (12).



3. RINSE

- Given that sanitization and rinsing do not ensure the complete removal of carbon dust from new filters or sanitization residues, rinse the osmosis equipment with plenty of water, after each sanitization, circulating mains water of adequate quality for 5 minutes or more. Discard the first 5 litres of water before consuming it.

- Rinse the pre-filter each time it is replaced and prior to each sanitization of the equipment.

- Rinse the pre-filter, preferably isolated from the rest of the equipment, even before its installation.

- Rinse with plenty of water that complies with local applicable regulations regarding water potability parameters.

- Fill the pre-filter slowly in order to evacuate the contained air and avoid internal turbulence that may alter the different stages of filtration. When the water comes out of the outlet opening, progressively increase the flow rate. Draw at least 4L and make sure this water no longer contains carbon dust.

- Maintain, throughout the process, the filter in the same position that it will occupy once installed in the equipment.

- At the end, take a drying kitchen paper, dry all the parts that may have gotten wet and especially the Aquastop leak detection probe (if the equipment incorporates it).

TECHNICAL DATA SHEET

FOR REVERSE OSMOSIS EQUIPMENT

1. TECHNICAL CHARACTERISTICS

APP

Water treatment

Inverse osmosis

Use

Improvement of the characteristics of drinking water (which complies with the requirements of the European Directive on water for human consumption 98/83 or its national equivalents in the different member states of the European Community).

Modifications for reduction or contribution

- Water treatment by reverse osmosis is capable of reducing concentrations of salts and other substances in high percentages.

- Minimal reduction *of certain compounds and parameters:

Sodium: 90%.

Calcium: 90%.

Sulphate: 90%.

Chloride: 90%.

Total hardness: 90%.

Conductivity: 90%.

*Depending on the characteristics of the water to be treated (at the membrane outlet). These values may vary depending on the type of post-filter that incorporates the equipment and / or regulation of the mixing valve (if it is incorporated).

OPERATING LIMITS

EQUIPMENT WITH PUMP

Pressure (max/min):	4 bar - 1 bar (400kPa-100kPa).
TDS (max):	1500ppm.
Temperature (max/min):	38 °C - 5 °C.
Hardness (max):	15 °HF. **

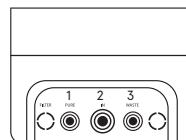
Control type:

Maximum pressure switch. Inlet control solenoid valve. Flushing solenoid valve.

1. Faucet
2. Entrance
3. Drain

Security system:

Electronic leaking sensor. Water quality control. Maintenance indications.



Dimensions (A x B x C in mm):

456 x 155 x 401 mm.

Weight (in kg, including all accessories):

12.

Inlet connection:

3/8".

Drain connection:

1/4".

Tap connection:

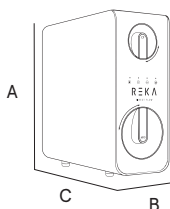
1/4".

Wall adapter:

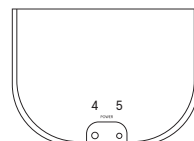
3/8" M-F. *****

Drain collar:

Pipe clamp
40mm drain.

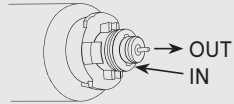


4. "Power"
5. Data interface



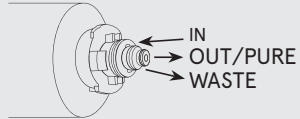
CF pre-filter

1 x sediment / carbon combined.



RO membrane
(PP+RO+CB+PET)

1 x 600/800 GPD. membrane



Power supply: Power

24 VDC / 36 VDC

Adapter:

230 Vac 50/60 Hz: 24 Vdc / 36 VDC

Faucet type:

Smart tap.

Production:

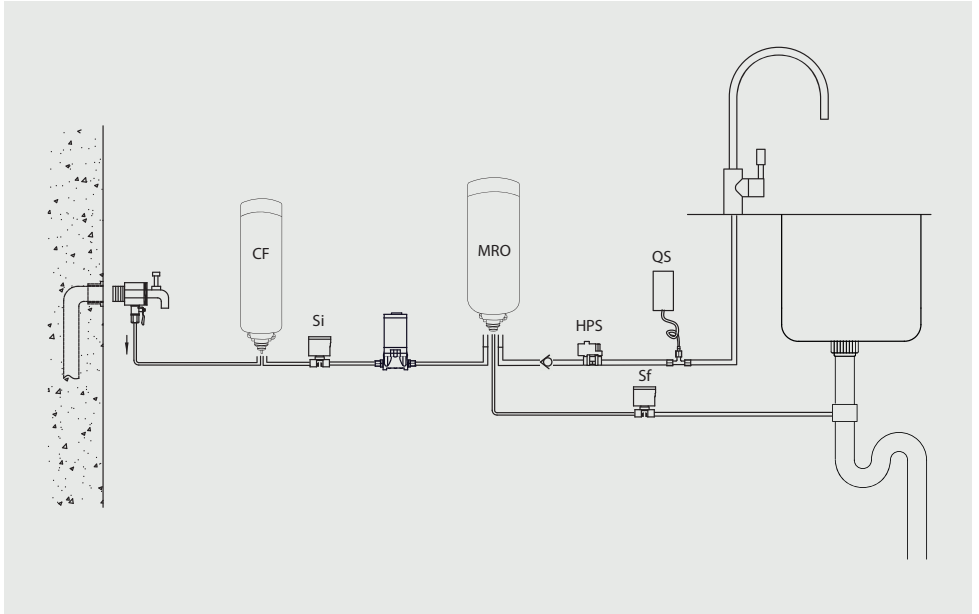
1.6 bpm / 2.1 bpm

(inlet water conditions: 450 μ S, 15 °HF, 17 °C and 3 bar)

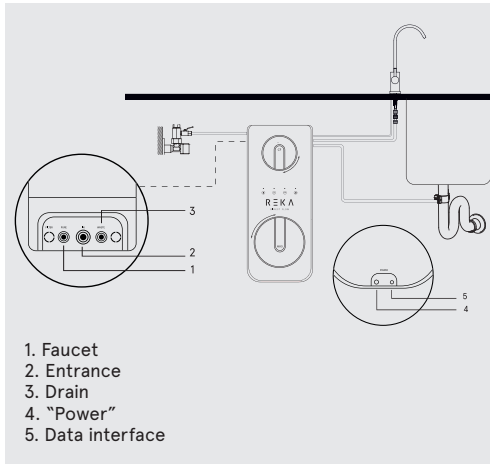
Membrane cleaning system:

Automatic flushing (see section 3.3)

HYDRAULIC SCHEME



HYDRAULIC CONNECTION DIAGRAM



- * For salinities higher than 1500ppm consult with your dealer.
- ** Higher hardnesses may reduce the life and performance of certain components.
- *** Maximum accumulation as a function of the pressure entry.
- **** Flow rates may vary by 20% depending on the temperature, pressure and specific composition of the water to be treated.
- ***** May vary depending on the model.

DISTRIBUTED BY:

IONFILTER
Aiguafreda, 8
Pol. Ind. L'Ametlla Park
08480, L'Ametlla del Vallès
Barcelona - Spain
T. 902 305 310 F. +34 936 934 329

2. OPERATION OF THE EQUIPMENT

· The mains water to be treated enters the equipment through the pre-filtration stage that incorporates a GAC (CF) turbidity and carbon filter. In this filtration stage, suspended particles, chlorine, its derivatives and other organic substances are retained.

· The passage of water into the equipment is controlled by a cut-off solenoid valve (Si).

· The water, after being treated in the filtration stage, is driven towards the reverse osmosis (RO) membrane. The equipment incorporates a pump (P) to increase the pressure. The pressure of the water on the membrane makes the reverse osmosis process possible.

· Before leaving the tap, the water passes through the carbon post-filter, which improves the taste.

· Reject water or water with excess salts and other dissolved substances is directed to the drain for disposal.

· Direct flow equipment controls start and stop by means of a pressure switch (HPS)

· The equipment incorporates different functional and / or security systems, managed by a state-of-the-art electronic module:

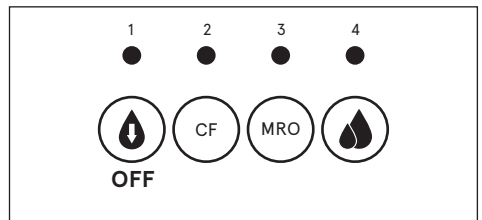
· Electronic leak detection system (L). When the system detects this situation, it blocks the equipment by emitting an acoustic and light signal alarm. The equipment will remain blocked until the detection probe is dry.

· Probe for reading the conductivity of the produced water to evaluate the state of the membrane and its components (Q). When dispensing water from the tap, the system will measure the conductivity of the produced water.

· Automatic filter change notice, in order to inform the user that adequate maintenance must be carried out to guarantee the quality of the water dispensed.

. INTERFACE. STATE OF THE SYSTEM

Display



1. Working indicator
2. CF filter life indicator/pusher
3. RO membrane filter life indicator/pusher
4. Failure / quality water indicator

3.1 COLORS OF THE WATER QUALITY INDICATOR

- Blue: TDS≤200ppm
- Purple: 200ppm <TDS ≤ 300ppm
- Red: TDS> 300ppm

3.2 OPERATION INDICATOR

It will remain illuminated in blue while the equipment is dispensing water.

3.3. FUNCTIONALITIES

FUNCTION	ACTIONS	STATUS OF THE LIGHTS
1. Functional flushing for the first use.	The machine will flush the RO membrane for 5 minutes. Next, the tap should be turned on for 30 minutes.	During washing, the water quality light is flashing at 1Hz.
2. Flushing when turning on the machine.	Whenever the system is started it will flush the RO membrane for 20 seconds. If the user opens the tap, the machine will stop flushing and go into normal mode.	When flushing is in progress, the water quality light shows the previous on status.
3. Flushing when accumulating operating time.	Every time the accumulated working time reaches 2 hours, the system will flush the membrane for 20 seconds. If the user opens the tap, the machine will stop flushing and go into normal mode.	When flushing is in progress, the water quality light shows the previous flushing status.
4. Daily flushing.	When the machine has not been running for 24 hours, the system will flush the membrane for 20 seconds. If the user opens the tap, the machine will stop flushing and go into normal mode.	When washing is in progress, the water quality light shows the previous flushing status.
5. Flushing after filter change.	<p>CF: By changing the CF pre-filter and resetting its usage counter, the system will initiate a flushing of the CF filter and RO membrane for 5 minutes.</p> <p>RO: By changing the RO membrane and resetting its usage counter, the system will start a 5 min flush.</p>	When the CF pre-filter or RO membrane is being flushed, the water quality light shows red and will flash at 1Hz.
6. Faucet opening.	The system starts up normally.	<p>During the first 30 seconds, the water quality light shows the latest quality status and is always on.</p> <p>For the next 30 seconds, the water quality light displays real-time quality data and is always on.</p>
7. Close the tap.	The system stops producing water and goes into standby.	The water quality light turns off.
8. Turning on the system.	The system starts up.	After connecting the power supply, a beep sounds and all the lights turn on and blink at the same time, changing from blue to purple to red. Each colour is displayed for 1 second.

3.4. BUG IDENTIFICATION AND RESOLUTION

TYPE	TIMER		SOLUTION
	DISPLAY	ACOUSTIC	
1. Leak inside the machine.	Water quality indicator, CF and MRO flashing red	Beeps for 3 minutes.	When the leak is eliminated, the alarm is deactivated and it returns to the normal state.
2. Protection by pump time.	CF and MRO indicator flashing red	4 beeps.	The pump has been working between 30 and 33 minutes. Disconnect and reconnect the electrical connection.
3. Protection by start / stop bomb.	CF and MRO indicators flashing in purple	5 beeps.	Disconnect and reconnect the electrical connection.
4. Low temperature protection.	Water quality indicator and CF flashing in red	5 beeps.	Disconnect and reconnect the electrical connection.

When you detect that the equipment is in any of the states described, contact the maintenance service to make an appointment to carry out the required maintenance.

Contact your technical service if the equipment does not stop production after several hours of continuous operation, without the extraction of water.

Contact your technical service if after opening the tap, the equipment is at rest without dispensing water through the tap or displaying any type of alarm.

See the corresponding section in the technical manual.

Contact your technical service if the equipment is repeatedly blocked due to lack of mains water pressure at the entrance to it and there is pressure in the rest of the home.

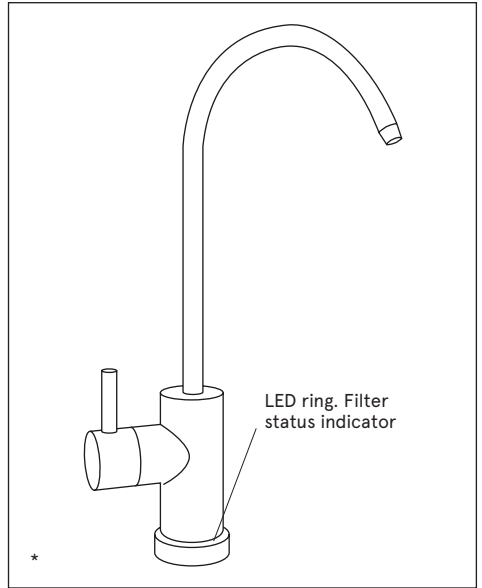
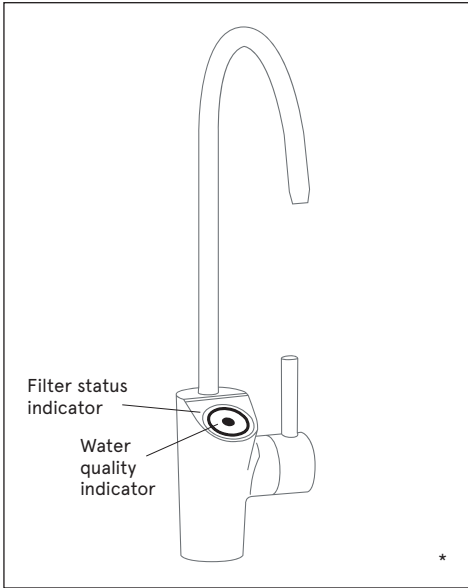
Contact your technical service to reset the counters after changing the filters.

3.5. FILTER LIFETIME DISPLAY

PERIOD OF LIFE	TIME OF LIFE REMAINING (DAYS)	LITERS OF CAPACITY REMAINING	TIMER	
			DISPLAY	ACOUSTIC
Normal.	> 15	> 150	Permanent blue.	No alarm.
There is little left.	$0 < X \leq 15$	$0 < Y \leq 150$	Permanent lilac.	Double beep when there is little time of life of the filters.
Exhausted.	≤ 0	≤ 0	Permanent red.	Beeps when water is dispensed.

3.6. SMART FAUCET STATUS INDICATORS

The smart faucet replicates on its outer ring the status of the filters that are seen on the equipment display (CF, MRO and CB). The droplet symbol replicates the status of the water quality indicator LED.



DISPENSED WATER QUALITY		<p>BLUE: right TDS in dispensed water. MAGENTA: medium TDS in dispensed water. RED: high TDS in dispensed water.</p>
FLUSHING		<p>Blinking indicator while the unit is flushing the membrane.</p>
FILTER LIFESPAN STATUS		<p>BLUE: working properly. MAGENTA: a maintenance will be required soon. RED: the spanlife of some filter has expired.</p>

* Faucet depending on the model.

4. WARRANTY

The distributor guarantees the equipment for a period of two years in the event of any non-compliance detected in the equipment, in accordance with Royal Decree 1/2007 of 16 November (revised text of the General Law for the Defence of Consumers and Users).

- The guarantee includes the repair and replacement of faulty parts by personnel authorised by the distributor or by the official technical assistance service (S.A.T.) at the place of installation or in its workshops. Included in the warranty is labor and shipping costs that may be generated.

- The distributor is exonerated from providing a guarantee in the case of parts subject to natural wear, lack of maintenance, blows or other nonconformities resulting from improper use of the equipment or inadequate according to the conditions and operating limits indicated by the manufacturer of the same. Likewise, the warranty becomes ineffective in cases of improper handling and use of the equipment or in those cases in which they have been modified or repaired by personnel outside the distribution company or official S.A.T..

- The parts replaced under warranty will remain the property of the distributor.

- The distributor is responsible for the lack of conformity of the equipment when it refers to the origin, identity or suitability of the products, according to their nature and purpose. Bearing in mind the characteristics of the equipment it is essential for the warranty to cover the lack of conformity, the fulfillment of the technical conditions of installation and operation. Failure to comply with these conditions may result in the absence of a warranty, taking into account the relevance of the destination of the equipment and the conditions and operating limits in which it must operate.

- The distributor must ensure that the installed equipment is suitable for improving the quality of the water to be treated in particular, according to the characteristics of the equipment and the regulations in force.

- The distributor must ensure the correct installation and start-up of the equipment as indicated by the manufacturer and current regulations and will also be liable for any lack of conformity resulting from incorrect application, installation or start-up of the equipment.

- For any warranty claim it is necessary to present the purchase invoice. The period of two years is calculated from the purchase of the equipment from the distributor.

- If there is a problem with your equipment during the warranty period, please contact your dealer.

The equipment is installed and operating to the customer's satisfaction and for the record:

* Pre-treatment of the equipment:

* Hardness of entry to the equipment (°F):

* TDS input to the equipment (ppm):

* TDS produced water (ppm):

* Pressure of entry to the equipment (bar):

*Result of the installation and commissioning sheet:

Correct:

Others:

The owner of the equipment has been properly and clearly informed of the use, handling and maintenance that the equipment requires to ensure its proper functioning and the quality of the water produced. A maintenance contract is offered for this purpose.

*Ref: Maintenance contract:

ACCEPTS the maintenance contract

DOES NOT ACCEPT the maintenance contract

If you need information, report a malfunction or malfunction, request for maintenance or intervention by a technician, please read the operation, troubleshooting and troubleshooting sections of this manual beforehand and contact the distributor or company that sold you your equipment.

COMPANY AND/OR AUTHORIZED INSTALLER, DATE AND SIGNATURE:

SERIAL NUMBER:



NOTE TO THE COMPANY AND/OR AUTHORIZED TECHNICIAN/INSTALLER: the data marked with the * symbol must be filled in by the installer and transcribed by him/herself from the INSTALLATION REGISTRATION sheet.



5. INSTALLATION REGISTER SHEET



NOTES TO THE TECHNICIAN/INSTALLER: read this manual carefully. If in doubt, contact your dealer's Technical Support Service (T.A.S.). The data marked with the symbol * must be filled in by the technician/installer and transcribed by him/herself to the WARRANTY page. This sheet must be kept by the installer and may be requested by the distributor in order to improve after-sales service and customer service. The technician who performs the installation and commissioning of the equipment must have adequate technical training.

INFORMATION ON THE USE OF THE EQUIPMENT:

Origin of the water to be treated:

PUBLIC SUPPLY NETWORK

OTHER _____

* Pre-treatment of the equipment: _____

* Hardness of entry to the equipment (°F): _____

* TDS of entry to the equipment (ppm): _____

* TDS produced water (ppm): _____

Inlet pressure to the equipment (bar): _____

INSTALLATION STEP CONTROL:

Pre-filter assembly:
Overflow installation:
Start-up according to protocol:
Checking of fittings:
Measurement of inlet hardness:
Output hardness measurement:

Installation of isolation by-pass:
Correct drainage installation:
Brine suction test/tank filling:
Leakage of the pressurised system:
Programming of the equipment:
Adjustment of residual hardness:

COMMENTS

* Result of installation and commissioning:

CORRECT (equipment installed and working correctly. Produced water suitable for the application).

OTHER: _____

IDENTIFICATION OF THE AUTHORISED TECHNICIAN/INSTALLER: CONFORMITY OF THE OWNER OF THE EQUIPMENT:

COMPANY AND/OR AUTHORIZED INSTALLER, DATE AND SIGNATURE:

I have been clearly informed of the use, operation and maintenance required by the installed equipment, having been offered a maintenance contract and informed of how to contact a customer service in the event of a request for information, communication of a breakdown or malfunction, request for maintenance or intervention by a technician.

Remarks: _____

*Ref: Maintenance contract: _____

ACCEPTS the maintenance contract

DOES NOT ACCEPT the maintenance contract

Model/Ref: _____

Owner: _____

Street _____

Telephone: _____

City: _____

Province: _____

C.P.: _____

SERIAL NUMBER

EQUIPMENT WARRANTY DIRECTED TO THE DISTRIBUTOR:

The distributor will only be responsible for the replacement of parts in the event of non-conformity. The repair of the equipment and the costs involved (labour, shipping costs, travel, etc.) will be borne by the distributor, in accordance with the general conditions of contract and sale, so it can not be passed on later to the manufacturer.



6. MAINTENANCE SERVICE

DATE	TYPE OF SERVICE	NAME, SIGNATURE AND STAMP OF TECHNICIAN	
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