





User manual



PRESSURE PUMP Greater production volume



DIRECT ACCES Easy maintenance



CLICK Secure fixed-locking connections



ENCAPSULATED MEMBRANE Minimum contact - maximum hygiene



ELECTRONIC ADAPTADOR External, reliable, high yield transformer



INSERT Secure tube connections



NSF CONNECTORS Maximum security tubes and fittings.



HT FILTERS Hygienic, easy to maintain



ZERO INSTALLATION No need for installation, no water connections



ECO FRIENDLY Efficient water use, recyclable filters

PnP

Plug & Play Ready to connect

Please keep this manual, including service and guarantees sections, to provide a reasonable after-sales service.

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1. PRESENTATION

Thank you and congratulations on selecting the ZIP Water Purifier. ZIP purifiers are among the best appliances you can find on the market to improve water taste and quality.

With the water quality of our environment worsening, we have been prompted to design and manufacture this compact, domestic RO purifier to meet these challenges with the highest quality solutions.

Your ZIP purifier will provide you and your family many benefits and advantages:

- ZIP is a physical system that does not use or add chemicals to the water.
- Provides high quality water.
- Ensures high production.
- Low maintenance costs.
- Compact innovative design and concept.
- No installation or water connections.
- No water waste. All water can be used.
- Saves time on set up and maintenance.

2. INTRODUCTION

With the ZIP purifier you will enjoy the improved taste of water for drinking, coffee, juice and ice cubes and any other drinking water use. RO water also enhances the flavour of food when cooking. Enjoy healthier water for your whole family. The small water produced has low mineralisation. This will help to prolong the lifetime of different electrical appliances like your vapor iron, coffee machines and so on.

It's imporant to carefully read and keep this manual. If you have any doubts about the setting up, use

or maintenance of this unit, please contact with the Technical Service of your distributor.

2.1 What is natural osmosis and reverse osmosis?

Natural or direct osmosis is common in nature, found in places like the semi-permeable membranes which are part of the vast majority of organisms (e.g. plant roots, our own body organs, cell membranes, etc ...)

When two solutions of different concentrations of salts (TDS -Total dissolved solids) are separated by a semi permeable membrane, it naturally produces a flow of water from the less concentrated solution to the higher concentrated solution. This flow continues until the concentrations on both sides of the membrane are equal.

To overcome this tendency, and reverse the natural flow of the system, (in order to obtain a flow of water from a higher salt concentration solution to a lower salt concentration solution) pressure is applied to the water on the side of the membrane with the higher concentration. Pure water is collected from the lower pressure side of the membrane and this process is what is called reverse osmosis. Today, reverse osmosis is one of the best methods for improving the characteristics of water by a physical process (without using chemicals).

The human body contains different quantities of water:



2.2 How does the membrane work?

Pressure is applied to the water on the inlet side of the semi permeable membrane, so that part of it (RO water) will flow through the pores of the membrane, while the rest of the water (water rejected with high salt concentration) will be diverted back to the supply pitcher to recycle and optimise performance.

Since the diameter of the pores of the membrane are less than 0.0001 microns, only water molecules and a small amount of minerals (sodium, potassium, calcium, magnesium, etc.) will pass through the membrane. Larger molecules will be "rejected" from passing through the membrane.



2.3 Contaminants and other substances reduced by reverse osmosis membrane.

The chemical composition and concentration of salts and other substances in the inlet water will affect the water produced. The reverse osmosis membrane of the ZIP Purifier is able to reduce the concentration of elements and compounds listed in the following tables, plus hundreds of others not listed.

INORGANICS		
Element / Compound	Reduction	
SODIUM	90-95%	
CALCIUM	93-98%	
MAGNESIUM	93-98%	
ALUMINIUM	93-98%	
COPPER	93-98%	
NICKEL	93-98%	
ZINC	93-98%	
BARIUM	93-98%	
CARBONATES	93-98%	
CHLORIDE	90-95%	
BICARBONATES	90-95%	
NITRATES	45-55%	
PHOSPHATES	93-98%	
FLUORIDE	93-98%	
CYANIDE	90-95%	
SULFATES	90-95%	
BORON	40-45%	
ARSENIC	93-98%	
ORGANICS		
Element / Compound	Reducción	
TOTAL ORGANIC COMPOUNDS	98%	
GLUCOSE	98-99%	
ACETONA	70%	
ISOPROPANOL	90%	
ETHYL BENZENE	71%	
ETHYLPHENOL	84%	
TETRACHLOROETHYLENE	68-80%	
UREA	70%	
1,2,4 TRICHLOROBENZENE	96%	
1,1,1,TRICHLOROBENZENE	98%	

2.4 Effect of pressure and temperature in a RO system.

The percentage salt rejection of the membrane is normally more than 95%, but depending on the water quality, temperature and pressure, the percentage may vary.

CONVERSION FACTORS					
	TEMPERATURE				
	CONVERSION FACTORS	S			
Temperature (°c)	ŀ	About the production			
6		0,38			
8		0,45			
10		0,52			
12		0,59			
14		0,66			
16		0,70			
18		0,77			
20		0,85			
22		0,88			
25		1,00			
28		1,09			
30	1,16				
32	1,23				
34		1,30			
FOR PRESSURE					
	FACTOR CONVERSION				
Pressure (Bar)	About production	Salt rejection (%)			
0,70	0,17	84			
1,00	0,25	88			
1,50	0,33	90			
1,75	0,42	92			
2,50	0,58	93			
4,00	1,00	95			
4,50	1,08	95			
4,90	1,17	95			
5,20	1,25	95			
5,80	1,42	95			

How to tell if the RO membrane needs replacement:

The condition of the membrane is assessed by testing the percent TDS rejection:



Using a TDS meter, compare the TDS of the inlet water to the pure RO water, and obtain the percentage of TDS rejection.

% Rejection Rate =
$$\left(\frac{\text{TDS of inlet water-TDS of pure water}}{\text{TDS of inlet water}}\right) \times 100$$

If rejection goes below 70%, the membrane life has come to an end.

- * The test has been done with a 75 GPD membrane at 14°C, without counter-pressure, hardness of 15° HF and TDS equilibrated with NaCl.
- ** The minimum pressure has been calculated for a 9 l/h production.

2.5 Effect of TDS concentration in the inlet water

Production rate will vary depending on the TDS content (Total Dissolved Solids) and temperature of water to be treated. Water with a lower temperature or higher TDS will be filtered slower than water which is warmer or of a lower TDS.

It is recommended to use water with a maximum hardness of 25 grains in order to obtain optimum performance.

If the inlet water is of hardness greater than 25 °HF, or contains high concentrations of iron or manganese, or hyper chlorination, there may be a reduction in one membrane life and performance of certain components of the purifier.

ZIP is designed for TDS up to 800 ppm. For TDS above 800 ppm, consult your dealer. (If the water being used is from a UK public supply, it will comply with requirements for water to be used for the ZIP purifier.)

PRESSURE CHART DEPENDING ON T.D.S.			
MAXIMUM INLET T.D.S. * MINIMUM INLE PRESSURE TO MEMBRANE**			
Up to 200 ppm	3,5 bar		
between 200 & 500 ppm	3,8 bar		
between 500 & 800 ppm	4,0 bar		

3. TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

DIMENSIONS: (H x W x D): 415 x 250 x 380 mm.

WEIGHT: 33 lbs (15 Kg)

TEMPERATURE RANGE (max /min): 40°C / 4°C. (104°F/ 40°F)

INLET TDS (max): 800** ppm.

INLET HARDNESS (max): 25° HF

MEMBRANE: 1 x 1812 75 GPD.

MEMBRANE PRODUCTION: 200 LPD *

Softened water, 250 ppm. Temp.:25°C. 15% recovery.

Membrane pressure: 3,4 bar (without counter-pressure).

PUMP: Booster.

ELECTRICAL OPERATION: 24Vdc. 24W ELECTRICAL ADAPTOR: 100-240V. 50/60Hz. 24Vdc. TREATED WATER RESERVOIR CAPACITY: 2 L SUPPLY WATER PITCHER CAPACITY: 4 L

*The flow can change +/- 20%. The produced flow can change depending on the salinity, temperature and pressure of the treated water. See 2.4 and 2.5 of this manual.

**For salinities up to 800 ppm, you can consult the pressures chart insection 2 of this manual. For salinities over thar 800 ppm ask your distributor.

This characteristics can change depending on the model, version or manufacturing year.

MANUFACTURER:

Manufactured by PURICOM WATER IND. CORP. (Taiwan) for **PURICOM EUROPE**.

Pol. Ind. L'Ametlla Park, c/ Aiguafreda, 8, 08480 L'Ametlla del Vallès, Barcelona (Spain) T: +34 902 305 310, F: +34 936 934 329.



4. PREVIOUS WARNINGS

Do not use with water that is microbiologically unsafe, of unknown quality, or without adequate disinfection
before or after the system. If the water being used is from a UK public supply, it will comply with requirements for water to be used for the ZIP purifier and your ZIP will substantially improve the water quality

In the event that the water to be treated is not from a public water supply, or is of unknown origin, in order to ensure proper purification, contact your distributor to advise you on the most appropriate physical, chemical and bacteriological water treatment to use with your ZIP system.

4.1 Operation conditions

Do not use water above 104°F (40 °C)

The ambient temperature must be between 40 and 114 $^{\circ}\text{F}$ (4 and 45 $^{\circ}\text{C}.$)

Keep the system from extreme temperatures, like cooking surfaces, direct sunlight, and extreme environmental conditions. Avoid external dripping on the purifier.

If feed water has salinity higher than 800ppm please contact your distributor.

Feed water hardness should be under 25°HF to obtain a better performance.

If the feed water hardness is higher than 25°HF, the membrane lifetime and system performance may be reduced.

If your feed water has:

- High Iron and Manganese concentrations.
- Frequent hyperchlorinations.
- Mud or turbidity over 3 NTU.

Some system components lifetime may be reduced.

4.2 System installation

If the installation needs to be modified to install the system all the modifications and installation procedures must be made according to local regulations.

- Remove purifier contents from box and place on a convenient counter top or table within three feet (1 metre) of an electrical outlet.
- Equipment must be operated on a leveled surface and not inclined.
- Plug the transformer wire into the power socket on the back of the ZIP. Plug the electric cord into a wall socket.





• Ensure you provide enough space for the RO unit, the accesories.

 The system must not be installed outdoors under any circumstances.





- Avoid external leaks over the unit.
- Unit can't be installed next to a heat source or any hot air stream.

4.3 Setup and maintenance



- Fill the supply filter to the "Max" level marked on the front of the pitcher.
- Push the button. The light will flash and the equipment will start the water treatment in the supply pitcher.





When the purifier is being used for the first time, the filters should be rinsed by running the purifier for two cycles, and discarding the water. After filtering two cycles, the pure water reservoir may be removed from the purifier and washed with a soft cloth and soap and water.

For cleaning the reservoirs use a sponge and soap.

must be chaged when indicated. See the maintenance and consumables section.



4.4 Use of equipment

After completing a filter cycle, completely empty the supply pitcher, and refill with fresh water before starting another cycle.







The water remaining in the supply pitcher after a filtration cycle has a higher concentration of TDS, so starting a new cycle, by adding fresh water to this remaining concentrate water will lower system performance and can damage the RO membrane and filters.







- Water should not be stored in the purifier for extended periods of time exceeding one week.
- If you plan to not use the purifier for more than one week, completely empty the water supply pitcher and pure water reservoir, and disconnect the power supply.







• When you return, connect the system to the electrical supply, fill the supply pitcher until the MAX level and push the button.







When this cycle has ended, discard all the water in both tanks and repeat the process. After that, the system will be ready to produce treated water again.

• If the purifier has not been used for more than one month, remove and wash with soap and water both the supply pitcher and pure water reservoir. Rinse the reservoirs and filter two cycles of water to rinse the system.













• Wash both reservoirs with a soft cloth and soap and water.



4.5 Recommendations for the correct use of Osmotic water.

• The water provided by domestic osmosis equipment is of low mineralization. The minerals needed by the human body are contributed mainly by food, especially dairy products and to a lesser extent by the drinking water.

• You should not use aluminum utensils to cook with osmotized water

After a treatment cycle, water accumulated in the supply tank must not be used for drinking water or cooking or in any application that could be affected by using high salinity water

5. OPERATION OF THE EQUIPMENT

5.1 Operation description

Feed water enters into the system passing through the turbidity and activated carbon filter. In this filtration stage all suspended materials, chlorine and its derivates are retained. Filtered water is then pumped to the membrane, making the reverse osmosis process possible.

Osmotized water, after going through a pH regulation cartridge is accumulated the treated water tank for usage. Reject water is returned to the supply water tank, allowing it to be recirculated, optimizing the system's performance.

A complete treatment cycle will produce up to 2 litres of water (approx.) that will be accumulated in the treated water tank.

The ZIP is equipt with different control and security devices. In case of any inadequate working parameters, the system will block automatically, even stopping production if necessary.

In this case, the system will remain blocked until the issue has been resolved. Until then, only the accumulated water will be available.

5.2 User interface

The ZIP Purifier has a blue, orange and red colour coded LED electronic control dial which integrates a time and security functions to efficiently manage the filtering cycle and indicate any malfunctions detected.



The chart below shows the condition of the ZIP by colour coding.

VISUAL INDICATION	LED STATE	FUNCTION	MEANING
BLUE LED FIXED	PUSH	POWER ON	The system is in service and waiting for a cycle.
BLUE LED FLASHING	PUSH	FILTERING	The system is in service and treatment is in process.
ORANGE LED FIXED	PUSH	ALARM	The supply pitcher is not moun- ted or set in correctly.
ORANGE LED FLASHING	PUSH	ALARM	The lower reservoir is empty or there is insufficient water.
RED LED FIXED	PUSH	ALARM MAINTENANCE	The system needs maintenance
RED LED FLASHING	PUSH	ALARM FILTER CHANGING	Filters need to be replaced

In order to guarantee the quality of the produced water, the unit needs regular maintenance. The unit must be sanitized regularly depending on the use and the water comsumption.

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CAUTION: Some components of this unit, such as pre filter and the RO Membrane are consumables and have a limited duration. STARTING A WATER TREATMENT CYCLE



To start a treatment cycle push the button and the light will flash. The unit will work for 20 minutes or until the reservoir is empty.



Gradually, as the membrane and filters become used, their filtration capability will be reduced.

If, after pushing the button the unit stops before completing a full cycle (2 liters of water to the pure water reservoir) this shows that the filters are reaching their operating limits and should be replaced.

6.MAINTENANCE AND CONSUMABLES

It's very important to ensure that your system is kept clean, sanitary and that the filters are regularly replaced using orginal ZIP filters, by authorised dealers only.

Any kind of manipulation made to the system or any use of non original replacements will cancel the guarantee.



Replacement filters lifetime will vary depending on system usage, wa-

RECOMMENDED SERVICING FREQUENCY			
Sediment prefilter:	12 month maximum		
Carbon prefilter:	12 month maximum		
Ro membrane:	Every 2 years		
	in soft water < 15 °F		
Post filter:	12 month maximum		
Sanitisation:	Every 6-12 months.		
NOTE: The Membrane should be replaced if any special water parameter is over the			
current local legislation for potable water.			

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7. SYSTEM COMPONENTS

ter consumption, feed water quality and on specific aspects like extremely high turbidity, hyper-chlorinations, iron concentration and so on.

educe 24 fure water reservoir cover.

s of the **3.Frontes button**embranes are merely be take **A.Bispenser**. We recommend that he ange show the state of the second sec



7.PP sediment prefilter.
8.Carbon prefilter.
9.Post filter pH adjuster.
10.RO membrane.
11.Power socket.
12.Electrical transformer.

8. HOW TO CHANGE THE FILTERS?

To change the prefilters proceed as follows.

1. Unplug the system.







- 2. Unscrew the two screws on the back of the purifier.
- 3. Remove the back cover.







4. Identify the filter to be changed. Rotate clockwise.

- 5. Once unscrewed, remove from the purifier.
- 6. Remove the new filter from packaging and insert into the purifier by gently pushing upwards while rotating counterclockwise until seated in place.
- 7.







To change the postfilter, proceed as follows..

- 8. Remove the back cover.
- 9. Pull the postfilter out to free it from the retaining clips.
- Disconnect the tubes from the elbow connectors on both ends of the postfilter. To do this, (1) remove the safety clip from under the collet sleeves on the elbow connector. (2) Push the collet sleeves in towards the elbow connector. (3) While holding the collet sleeves in, pull the tube out of the elbow.
- 11. Unscrew the elbow connectors from the ends of the postfilter.
- 12. Remove a new post filter from its wrapping and screw the







elbow connectors into the ends of the new postfilter using PTFE tape to avoid leaks.

- 13. Insert the tubes into the top and bottom elbow connectors paying attention to the direction of flow indicated by the arrow on the outside of the post filter, (top to bottom). Be sure to push the tubes all the way in to the elbow untill they set at the back of the elbow. Slide the collet sleeve out and replace the safety clip under the collet sleeve.
- 14. Mount the postfilter back into the retaining clips and replace a back cover.

To change the membrane, proceed as follows.



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- 1. Remove the back cover.
- 2. Remove the postfilter from the postfilter retaining clips and remove the retaining clips from the RO cartridge.



- 3. Pull the RO membrane cartridge to remove it from the RO cartridge retaining clips.
- 4. To remove the elbows from the RO cartridge, push the collet sleeves into the elbow connector.





10. Connect the postfilter retaining clips back onto the RO cartridge,

After any maintenance, please ensure absence of leaks in the sys-aining clips.

tem by means of a visual inspection while the system makes two

complete cycles.

9. TROUBLESHOOTING

SYMPTOM	CAUSE	SOLUTION	
1. The faucet is dripping	Dispenser defective.	Call for service.	
2. Leakage outside the system	Several possible causes.	Call for service.	
	No water in the lower reservoir.	Fill tank	
3. Zero production	No power.	Check power supply. If problem not solved, call for service.	
	Lower reservoir misplaced.	Ensure that the lower reservoir is positioned properly. If problem not solved, call for service.	
	Inner tube pinched.	Check and repair.	
4. Production reduced	Feed water outside the operating range.	Check feed water quality or call Technical Services.	
	Filter elements have exceeded their useful life	Replace filters or call technical Service	
5. Taste and odour	Several possible causes	Call for technical service.	
	No water in the lower reservoir.	Fill reservoir	
	No power.	Check power supply	
6. System does not work	Lower reservoir misplaced.	Ensure that the lower reservoir is positioned properly. If problem not solved, call for service.	
7. LED off	The transformer is disconnected or defective.	Make sure that the transformer is properly attached.	

10. FILTER CHANGE AND MAINTENANCE RECORD

Purchase date _____

DATE	SERVICE	MAINTENANCE	SIGNATURE
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /			
/ /			GUARANTEE
/ /	OTHERS		
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /			EXTRAORDINADY
/ /			GUARANTEE
/ /			
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /			
/ /			GUARANTEE
/ /			
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /			EXTRAORDINADY
/ /			GUARANTEE
/ /			
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	
/ /			EXTRAORDINADY
/ /			GUARANTEE
/ /			
/ /	START-UP	Technical	
/ /		Stamp	
/ /			
/ /			GUARANTEE
/ /	OTHERS		

Purchase date _____

DATE	SERVICE	MAINTENANCE	SIGNATURE
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /	REPAIR		
/ /			GUARANTEE
/ /	OTHERS		
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /			
/ /			GUARANTEE
/ /	OTHERS		
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /			
/ /			GUARANTEE
/ /	OTHERS		
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /	REPAIR		
/ /			GUARANTEE
/ /	OTHERS		
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /			
/ /			GUARANTEE
/ /			
/ /	START-UP	Technical	
/ /	COMPLETE MAINTENANCE	Stamp	ORDINARI
/ /	REPAIR		
/ /	SANITIZATION		GUARANTEE
/ /	OTHERS		

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GUARANTEE CERTIFICATE FOR ZIP

SYSTEM GUARANTEE FOR THE END USER

The distributor guarantees its systems for two (2) years against any manufacturing defect. The guarantee comprises the repair and replacement of defective parts by authorised personnel from the Distributor or the Official Technical Service Assistance (TAS), in the place of installation or their workshops. The guarantee includes the labour and shipment costs that may arise.

PURICOM EUROPE shall not offer guarantee for parts suffering usual wear and tear, lack of maintenance,

hits and other faults due to the improper use of the system outside specifications and operating limitations indicated by the manufacturer. Likewise the guarantee will not be valid in the event of misuse, or in those cases where it has been modified or repaired by personnel that do not belong to the distributor or the official TAS. All the replaced parts under guarantee shall remain the property of PURICOM EUROPE.

PURICOM EUROPE shall be held responsible for the lack of conformity when this refers to the origin,

identity or compliance of the products, according to its nature and purpose. Taking into account the technical specifications of the systems, it is essential, for the guarantee to be valid, that the technical conditions of the instalation and operation are fulfilled. Should this conditions not be fulfilled, the guarantee would remain invalid, taking into account the importance of the system's use as well as the conditions and operating limitations in which it must operate.

The distributor must guarantee that the installed system is appropriate for the improvement of the quality of water that is going to be treated, according to the technical specifications of the system and the regulations in force.

The distributor must guarantee the proper installation and start-up of the system, according to the instructions provided by the manufacturer and the regulations in force. Furthermore, it shall be held responsible for the lack of conformity due to an inaccurate application, installation or start-up of the system.

For any claims under guarantee you are required to provide the receipt of purchase. The term of the 2-year guarantee starts on the date of purchase of the system in your distributor.

Should you suffer any problem with the system while it is under guarantee, contact your distributor.

COMPANY AND/OR AUTHORIZED INSTALLER:

Company and authorize installer, date and signature:

The system is installed and in operation as required by the client, and for this to be officially recorded:



The owner of the system has been properly and clearly informed about the use, anipulation and maintenance of the system, in order to guarantee a proper operation and the quality of produced water. To such effect, a maintenance contract has been offered. * Ref. of the maintenance contract:

ACCEPTS the maintenance contract. DOES NOT ACCEPT the maintenance contract.

For further information, to report a breakdown or that the system is not working properly, and to requedt maintenance or the assistance of a technician, previously read the sections and how to operate the system, and detection and solution of problems, in this manual and contact the distributor or company where the system was purchased.

S/O	
P/N	
S/N	



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Distributed By: