Cebilon
silver

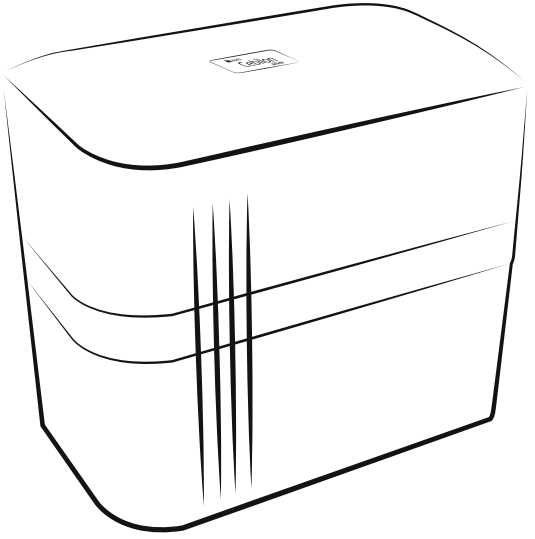
Reverse Osmosis System

User Manual

MODEL 101MF

MODEL 101MP

PUMP



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Functions of the Parts

5 Micron Sediment Filter (340071Z), holds the floating matters and particles in water in order to clarify water.

Granular Activated Carbon Filter (GAC) (340069Z), holds free chloride organic matters and undesired odour.

1 Micron Sediment Filter (340070Z), holds the carbon dust to keep from plugging of membrane.

Membrane Filter (349004Z02), is where reverse osmosis phenomenon takes place. A long film made of a semi-permeable material is folded in a spiral-wound configuration around a permeate colection tube to obtain double layer film. A filet shaped permeate channel spacer placed between layers to prevent layers sticking together and to let clean water flow through between layers into the holes on tube. Tube is a plastic tube with one end closed, other end lets water coming from film bag through holes flow to tank or faucet. Two long sides and one short side welded with spacer material together to prevent water leakage from sides expect the tube side. The membrane film looks like long bag having all sides welded and closed expect the end at the tube side. Film bag with an other filet shaped spacer wrapped around the tube together, film and spacer form a spiral shape. This spacer constitutes a space between film bag wraps to let water flow and reach whole film surfaces. Some of water passes into the inside of film bag by pressure effect, taken off from outflow holes on the tube while polluted water passes by grazing the film surfaces in a flow named as crossover flow, some water moves to the inner part of the film as fresh water by pressure effect.

Fresh Water Tank has an inner surface coated by a "food contact" plastic material appropriate to food any provides storage of fresh water in a hygienic condition.

Tank Valve controls inflow and outflow of water.

Mineral Post Carbon Filter (340005Z06) enriches water by adding minerals before the fresh water stored in the tank of coming directly from the membrane, flows through the tap and regulates Ph.

Flow Restrictor provides formation of the necessary pressure in the membrane by restriction the flow, in order to perform decomposition process. It is placed on the line where waste water is discharged.

Faucet is the tap where fresh water is received.

Low Pressure Switch *, stops the pump when water is cut off or the pressure is below 0.2 bars (3 psi).

Pressure Pump *, brings the pressure of water passing through pre-filtration, to the level which is necessary for the membrane to function.

Shut-off Valve, controls the water flow. Cuts off water flow once the tank pressure reaches to the membrane entrance pressure.

High Pressure Switch *, stops the pump once the pressure in the tank filled up with fresh water reaches 2.6 bars (38 psi).
Pump Adapter * is the power supply of the pump, it transforms the mains voltage to 24 V DC.

*** Only available in 101MF model.**

Application

This appliance is used to obtain drinking water from the mains water that have passed through the municipal treatment processes. This water should be microbiologically safe, subjected to the necessary disinfection. If the parameters of the water are within the following ranges effcient operation of the appliance is ensured.

Tecnical Specifications

Tank Capacity	8 L (100 psi/689 kPa)
Tank Air Pressure	6-7 psi (40-48 kPa)
Daily Capacity	67,04 gpd (253,77 L/d)
Purification Rate	%85 - %98
Pump Discharge *	0,8 L/m-1,2 L/m
Pump Pressure *	80 psi-110 psi (551-758 kPa)
Pump Power Supply *	24 VDC
Product Size (mm)	400x270x385mm
Total weight	101MF 12,5 kg / **101MP** 9,5 kg

*** Only available in 101MF model.**

Operating Principle

The first filter of the system is the 5-micron sediment filter where the solid particles are retained. The water from the sediment filter is passed through the carbon filter. Granular Active Carbon (GAC) filter retains organic matter especially free chlorine and eliminates unwanted odors, carbon and other particles that may escape from the filter, even the chlorine is passed through the 1 M sediment filter and it is ensured that the pre-membrane filters, even more suitable. This is also a factor affecting the life of the membrane. The water cleaned in three pre-filters, solid ions dissolved in the membrane that is the basis of the RO water treatment system, small particles are retained to a large extent and given to the waste water.

While the waste water containing the undesirable substances are discharged from one line of the membrane running with cross-fow method, water received from the other line of the cross-fow is collected in a pressurized tank. The amount of waste water should always be more than the clean water so that the membrane works in a healthy way and has a long life. Through the ready the water in the tank, water is supplied faster. Your appliance's tank capacity is 6.1 liters (approximately 1.61 gallons)

Installation

Your appliance is very practical for use and the water installation can be easily installed anywhere. Installation of your appliance must be made by Authorized Services.

Aura Cebilon RO System contains critical components that are required to be replaced periodically to purify the total dissolved solid materials (TDS). To check the efficiency of the system, water from the appliance must be periodicallytested. Free chlorine may affect the polymer structure of the membrane filter that is located inside the system.

! Warning

1- Measures should be taken against freezing.
2- Waste water should not interfered with.
3- When muddy (clay) water comes from the mains, close the water inlet of the appliance.
4- If a water supply other than the mains will be used, you must receive a drinking water report from relevant institutions.
5- If it is a water source other than the mains water, make sure that the disinfection process is performed.
6- Filters are considered as supplies and areoutside the scope of warranty.

Water Connection

• Close the mains water from the apartment inlet valve.
• After draining the water left in the pipes from proper places, mount the three-way adapter to the mains by ensuring the sealing.
• First, mount the 1/4 ball valve to the three-way adapter by wrapping a teflon tape in a position so that the valve is opened and closed easily (Figure 5.a).
• Connect the water inlet hose to the ball valve (Figure 5.b).
• Make sure the ball valve is closed (Figure 5.c).
• Open the mains water, check whether there is any leakage (Figure 5.d).
• Place the appliance on a suitable place underneath the counter in upright position.

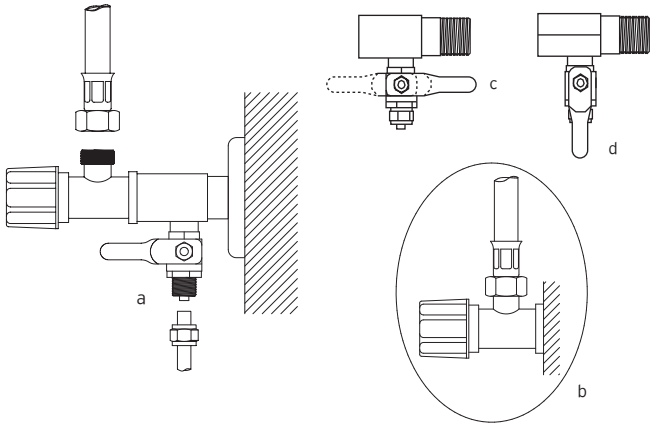


Figure 5. Water connection fittings

Installing a faucet

Clean water faucet should be mounted carefully in terms of use and aesthetics. If the counter or kitchen sink will be drilled, drilling process should be proceeded after the dimensions are obtained so as to install the washers, nuts and unions under the counteror kitchen sink (Figure 6).

Otherwise, drilling may be incorrect. The location to be drilled may be granite, marble, concrete or stainless sink. If the counter is granite, it must be drilled with a 20 mm diameter bore bit. Bore bit is attached to the end of the drill and it is set to low speed. Water is poured on the ground to be drilled (do not drill without water). Bend the bore bit as 45 degrees and press slightly, it makes a trail on the granite. Then it is brought to an upright position slowly without lifting. When it reaches the upright position, drilling is completed by applying enough force. If the bore bit is not kept constant when we start drilling, parts can break off from the granite surface. The o-ring on the faucet's mirror cannot ensure sealing and may cause the water leakage down from the counter. Marble countertops can be drilled by the same drilling bit or bore bit. Concrete countertops are drilled with a contact tip and hammer drill. If concrete is coated with tiles, a pre drill is made with a small-diameter drill bit to avoid cracking the tiles. Bore bit for the stainless sinks is different.

The hose should be mounted carefully between the faucet mounted on the counter and on the appliance where "Clean Water" is written.

Water connection fittings

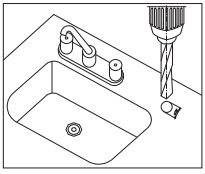
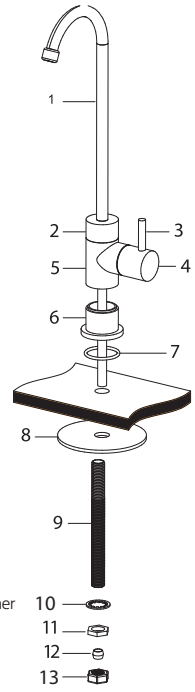


Figure 6. Faucet

1 Faucet Pipe
2 Upper Body Part
3 Opening/Closing Handle
4 Hub Cover
5 Faucet Body
6 Body Bushing
7 Body Bushing O-ring
8 Plastic Mounting Washer
9 Faucet Screw
10 Washer
11 Mounting Compression Washer
12 Hose Clip
13 Hose Compression Nut

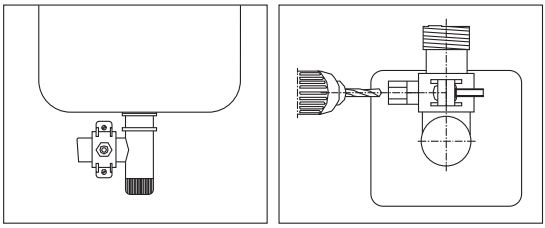


Waste Water Connection

• If waste water pipe of the sink is not a throat hose but a 40 mm plastic pipe, it is mounted in a 3/8" clamp sealing sponge affixed state (Figure 7a).

• The flush is drilled from the hole of the clamp in 8 mm diameter on the same axis (Figure 7b). One end of the 3/8" waste water faucet is connected to this clamp and the other end is connected to the 3/8" waste water union.

• If waste water hose will be mounted on the 50 mm waste water installation, 3/8" clamp will be mounted and the waste water a hose will be mounted on its location above this. A seal must be used when mounting the adapter to the waste water installation.



a Figure 7. Waste water connection b

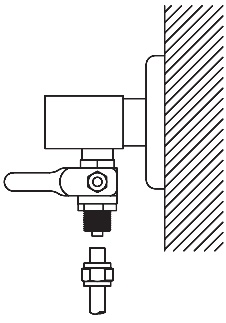


Figure 8. Mains inlet valve

Pre-tests

• Adapter is plugged in after the adapter jack is inserted into the 24 V DC power inlet on the appliance.*

• Fresh water tap is open .

• Tank valve should be closed.

• Opening up the ¼" ball valve, mains water is supplied to the system (Figure 8.).

• When amount of water flow took place, tap is closed

• Once the operation of the pump is stopped, leakage control is performed in each and every connection, tank valve is opened up.

• Since the tank will be filled for the first time, tank water is let to flow for no purpose, for at least once. The appliance is now ready to use

• This system should be used after the twenty-four hours washing process, (Installation is done after this process is carried out by an authorized service.)

*** Only available in 101MF model.**

Points for Attention

• The appliance is designed for domestic use. Parts such as storage tank, waste water hose, faucet must be attached indoor environment. Necessary measures should be taken to prevent freezing and waste water flow.

• Use the appliance after the necessary measures are taken in microbiologically unsafe or disinfected waters.

• The appliance must be supplied with its own power adapter. *

• If the appliance will not be used for a long time (such as more than 1 month), the inlet water valve must be closed , the tank should be drained and the adapter should be plugged out and the authorizes service must be called to disinfect the appliance when reactivating.

• When there not anyone in the house, close the water inlet valve of the appliance for safety purposes (Figure 8).

• The appliance must not be interfered for repair and maintenance purposes. Otherwise, it falls out of the warranty scope, these operations are carried out by Authorized Service.

• As the inlet water temperature changes, the amount of clean water to be received and the efficiency may change. Therefore, water obtained may be low in winter and high in summer.

• In any unfavorableness (Figure 8) close the water inlet valve and consult Authorized Service.

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Filter Flushing and Conditioning Procedures

• The first three filters shall be flushed separately. Firstly close the ball valve that supplies mains water to the system. Remove the outlet tube on the housing cover of first filter. Insert one meter ¼ Inch tube to the outlet of the cover. And then open the ball valve, flush the filter for 2-3 minutes with mains water. Insert the outlet tube to its place and follow the same procedure for the other two filters.
• After that when you flush membrane filter remove tubes on the both outlets of the membrane housing. Insert one meter tube to the both outlet. Flush the membrane for 2-3 minutes to clear membrane form protective membrane solution.
• Install the tube that has flow restrictor on it but not to install the tube that goes to post carbon filter.
• Allow water flow for 2-3 minutes to clear the membrane solution completely. And then install the tube that goes to post carbon filter.
• Then storage tank will be filled for the first time, tank water is let to flow for no purpose, for at least once. The appliance is now ready to use.
• Also there are three pcs L elbow that is not installed to the device. These elbows should be fixed to the inlet and outlets of the device for preventing tube breakage.
• As the inlet water temperature changes, the amount of clean water to be received and the efficiency may change. Therefore, water obtained may be low in winter and high in summer.
• In any unfavorableness (Figure 8) close the water inlet valve and consult Authorized Service.

Maintenance

Maintenance of your appliance must be performed by an Authorized Service. The life of the filters used in Aura Cebilon RO System changes depending on various factors with the amount of water used. These major factors are inlet water quality, chlorine amount, residue amount etc. Filters are considered as supplies and they are out of warranty.

Recommended Filter Replacement Periods

Have timely periodic maintenance of your appliance to use your system efficiently and for longer time. The following replacement periods are the recommended durations for appliances used in mains water under normal conditions.
The usage condition of your appliance may change depending on the properties of inlet water, amount of chlorine and sediment.
Authorized services will perform periodic maintenance required for your system to work efficiently every six months.

Filter Name	Replacement Period	Duties
5 Micron Sediment Filter 340071Z	6 months	Sediment filtration is performed by taking coarse particles in water. Clears the water at a micron level. Its life varies depending on the nature of the inlet water.
GAC Filtre 340069Z	6-12 months	Keeps all the gas in water chemically in itself. The excess chlorine reduces the life of the 1st carbon filter (GAC). Timely replacement protects from damage of chlorine and extends the life of the membrane filter.
1 Micron Sediment Filter 340070Z	6-12 months	Sediment filter holds the carbon dust to keep from plugging of membrane
Mineral Carbon Filter 340005Z06	6-12 months	Regulates the pH by supplying mineral to water.
Membrane 349004Z02	1-5 years	This is where Reverse Osmosis occurs. Life of the filter will change depending on the ion concentration in the mains water, amount of the distilled water and whether the maintenance is carried out in a timely manner.

Complies with WEEE Regulation.
This symbol on the product or packaging shows that the product should not be disposed of withnormal domestic waste and should be transmitted to the collection points for recycling theelectrical and electronic appliances. If you dispose of this product correctly, you will be contributingto the protection of the nature and human health. Wrong disposal will be harmful to the nature andhuman health. You may find further information on recycling this product from your municipal, waste collection service or from the store you have purchased the appliance.

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