



M4 WATER STILL USER MANUAL



Warning ! This is not a medical device.

User's manual are made for different models.

Please, compare the picture and the details of your device with the information given in the user's manual.

Before operating your device, you should read and follow all of the instructions given in this document.

In case you sell or give the device to another, or need information for later application sources, you should keep the all documents carefully.



Danger of Suffocation

Your new device had been packed as required.

Folios and cartoons can be dangerous. To avoid danger of suffocation keep these packages away from babies and children.



This product conforms to the EMC requirements as laid down by the Council Directive 89/336/EEC and to the Low Voltage Regulation. (73/23/EEC)

TABLE OF CONTENTS

Precautions	3
General View	4
Front Panel	5
Use and Functions	6
Technical Specification	7
Lifting, Transport and Installing	8
Operating	10
Periodical Maintenance and Cleaning	11
Troubleshooting	12
Detailed Circuit Diagram	14

SERIAL NUMBER:

SAFETY PRECAUTIONS

- ❑ Operate the unit on 220 V AC, 50 Hz only.
- ❑ Should any solid object or liquid fall into the cabinet, turn off the power, unplug the unit and have it checked by a qualified personnel before operating it any further.
- ❑ Do not drop or place heavy objects on the power cord. If the power cord is damaged, turn off the power immediately. It is dangerous to use the unit with a damaged cord.
- ❑ Connect the power cord to the wall AC outlet.
- ❑ Unplug the unit from the wall outlet if it is not to be used for several days or more.
- ❑ Disconnect the power cord from the wall AC outlet by grasping the plug, not pulling the cord.
- ❑ Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and may require repair by qualified service representative.
- ❑ Wear gloves which are resistant to heat while using the water distilling apparatus.
- ❑ Be sure that the electric plant power can resist minimum 3 KW.

GENERAL VIEW



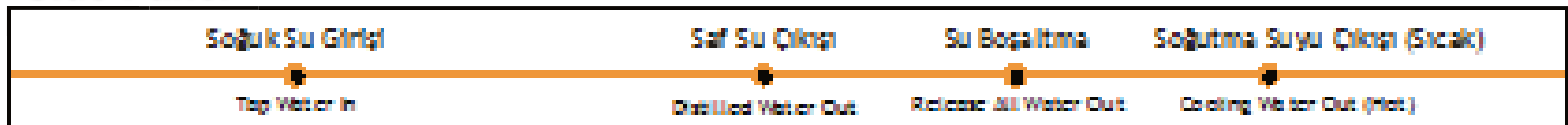
M4 Water Distilling Apparatus

- 1) Front Panel
- 2) Boiling Chamber Cover
- 3) Waterspout
- 4) Cooling Water Inlet Tap
- 5) Distilled Water Outlet
- 6) Water Release Tap
- 7) Cooling Water Outlet (Hot)
- 8) Power Cable

FRONT PANEL

- 1) **Power Switch:** It is used as a power key and turn the water distilling apparatus on.
- 2) **Indicator:** This led shows whether your device (**Distillation Process On**) is running or not.
- 3) **Indicator:** This led shows that there is a failure (**Interruption to Distillation**) in the system in getting distilled water.
- 4) **Indicator:** This lamp is aktive in full downward. (**Tank Full**)
- 4) **Analog Manometer:** It is used to monitor the water pressure.

Side Panel



- 5) **Tap Water In:** It is used to get cooling water that is needed for the system.
- 6) **Distilled Water Out:** It is the place where you get distilled water.
- 7) **Release All Water Out:** It is used to release the water inside the boiling chamber before cleaning.
- 8) **Cooling Water Out (Hot):** It is the place where the condensed cooling water get out.

USE AND FUNCTIONS

- Water distilling apparatus is designed for continuous, automatic and efficient production of high quality distilled water.
- Water purification is done by distillation method which can remove a broad spectrum of contaminants and biological impurities.
- The water is heated in the boiling tank by means of stainless steel heaters to produce steam and then the steam is condensed while it is passing through special serpentine in which cooling water is circulating and distilled water is produced.
- There is a safety thermostat that protects heater against a decrease in water level.
- Water distilling apparatus can be both used on bench top or wall mounted.

TECHNICAL SPECIFICATIONS

MODEL	M 4
Output Capacity	4 litres / hr
Cooling Water Consumption	40 litres / hr
Cooling Water Outlet Temperature	50-60 °C
Reservoir Tank Capacity	7 lt
Heater Type	Stainless steel tube
Heaters are protected by	Electrode low-water cut out
Outer casing material	Stainless steel with stoved enamel finish
Boiling chamber material	Stainless steel
Internal fittings are made of	PVC and rubber tubing
Optimum Working Pressure	1-1,5 bar
Glass Fuse	25 Ampere
Power Supply	220 V. – 50 Hz.
Power Rating	3000 W.
Overall Dimensions (w x h x d/cm.)	65 x 52 x 18
Net Weight (kg.)	18

LIFTING, TRANSPORT AND INSTALLING

Lifting and Transport

All lifting and transport must be carried out using proper handling equipment. Water distilling apparatus should be supported from underneath and never turned over.

When transporting the unit, protect it from vibration and impact.

Warning!

Do not try to lift the equipment from the bulged particles your water distilling apparatus can be damaged.

Before repacking :

- Turn off the 'On/Off switch'.
- Disconnect all cables and cord.
- Be sure that there is no tube in the buckets.

Do not throw away the cartoon and packing materials. They make an ideal container with which to transport the unit. When shipping it to another location repack it.

Electrical Connections

The name plate indicating operating voltage, power consumption etc., is located on the rear of the water distilling apparatus. Before starting, check that the mains supply is suitable for the instruments power consumption.

Installing

Water distilling apparatus can be both used on bench top or wall mounted.

If you want to use the water distilling apparatus on bench, do not place it on a surface that is smaller than the apparatus's bottom panel. Be sure to locate water distilling apparatus on a flat, wide surface.

If you want to use the water distilling apparatus on wall, hang it to fixed screws from the holes at the back of the outer cabinet.

Connect the cooling water outlet to wastewater place (washbasin, wastewater canal etc.) with a tube.

Connect the cooling water inlet tap to mains supply water with a tube. If it is possible, demineralize the water coming from the mains supply before connecting it to cooling water inlet tap.

Connect the distilled water to a cap with a tube. Be sure that the tube you are using does not spoil the characteristics of distilled water.

Ideal Environmental Conditions

Please pay special attention to the followings,

- Temperature: -5°C/+40°C
- Humidity level %80 up to 22°C
- Max. performance is obtained between 15 °C and 25 °C
- Indoor use only
- IP 22

OPERATING

Before you start to run water distilling apparatus, check the installation. Then;

- ☑ Connect the power card to the wall AC outlet.
- ☑ Before you operate the water distilling apparatus,
 1. open the mains supply water and see water coming out from the cooling water outlet.
 2. See that the heaters are covered with water by opening the boiling chamber cover and then close the cover.

- ☑ Turn the 'Power Switch' on.

Indicator (distillation process on) will turn on and your device will produce distilled water in about 30 minutes.

- ☑ During the operation regulate the flow of cooling water such that any water will come out of waterspout. To regulate it you should turn on or off the cooling water inlet tap.
- ☑ To stop the operation turn the 'On/Off Switch' and cooling water inlet tap off.

PERIODICAL MAINTENANCE AND CLEANING

Warning!

- When cleaning, keep liquid away from electrical contacts and connectors.

Cleaning

- To keep the unit looking brand-new periodically clean it with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleaners since they will damage the cabinet.

Maintenance

- You should clean the boiling chamber at least once a month according to amount of mineral in cooling water.
- As a safety precaution, unplug the unit and wear gloves during the cleaning.
- Turn the cooling water inlet tap off.
- Open the cover of boiling chamber.
- Clean the lime, sediment etc. which had come into being over the heaters and inside the boiling chamber with decalcifiers or hydrochloric acid using a soft brush.
- Protect the heaters and thermostat ballo from being damaged during the cleaning.
- Clear the chamber and water canals by water.
- Do not use the distilled water you get without measuring the pH value after the cleaning.

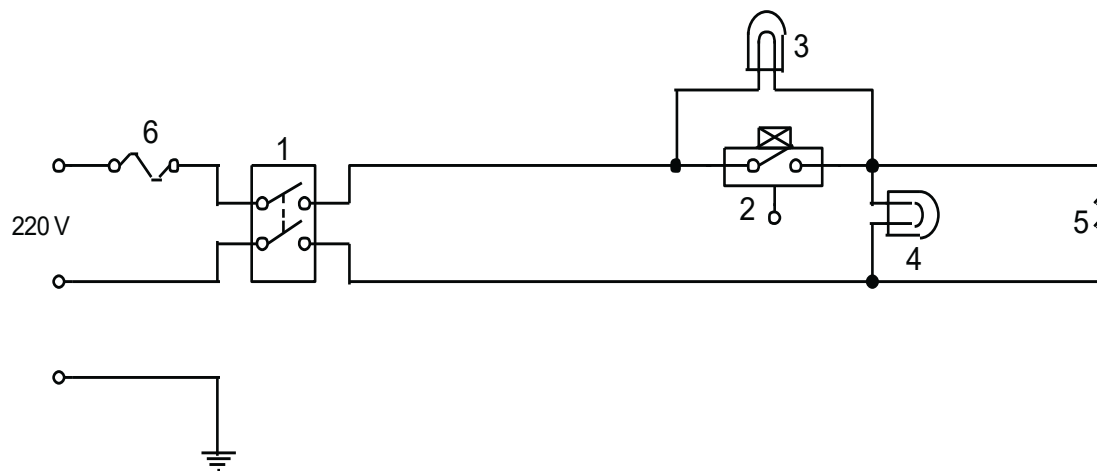
TROUBLESHOOTING

Unplug the water distilling apparatus from the wall outlet and refer servicing to qualified service personnel under the following conditions.

- When the power cord or plug is damaged or frayed.
- If liquid has been spilled into it.
- If it has been exposed to rain or water.
- If it does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustments of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
- If it has been dropped or the cabinet has been damaged.
- If it exhibits a distinct change in performance, indicating a need for service.
- If you can not isolate the problem with the information given on page 13.

Symptom	Possible Cause	Corrective Action
The water distilling apparatus doesn't work	<input checked="" type="checkbox"/> The power of the apparatus to be used is not turned on. <input checked="" type="checkbox"/> The glass fuse has blown. <input checked="" type="checkbox"/> There is no electricity. <input checked="" type="checkbox"/> The plug is defective.	Turn on the power. Replace the glass fuse or check for the short circuit. When the electricity is on again, the program runs again. Check the plug and if necessary change it.
The indicator (Interruption to distillation) is on	<input checked="" type="checkbox"/> The cooling water is turned off.	Turn on the cooling water and then press thermostat button.
Too much steam occurs in the environment	<input checked="" type="checkbox"/> Distilled water outlet hose	Be sure that outlet hose is undamaged and the end of it is not inside the distilled water container.
Water overflows from the waterspout	<input checked="" type="checkbox"/> Water drainage tube <input checked="" type="checkbox"/> Cooling water	Be sure that tube is undamaged or not clogged. Adjust the quantity of cooling water coming into the apparatus.

CIRCUIT DIAGRAM



- 1) On-off switch
- 2) Thermostat
- 3) Failure exciter lamp
- 4) Working exciter lamp
- 5) Heater
- 6) Fuse

Title		
M 3		
Size A	Document Number (Doc)	Rev
Date: Friday February 19, 1999	Sheet	1 of 1

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İkitelli O.S.B Demirciler sitesi B7 Blok No:153

İkitelli/İSTANBUL

Tel : 0212 549 55 25

Fax: 0212 549 52 09

e-mail: info@elektro-mag.com

www.elektro-mag.com

