THE RAIN CHAMBER DEMO DISTILLER™

INSTRUCTION AND MAINTENANCE MANUAL
(I) Introduction

Thank you for ordering the Rain Chamber Demo Distiller. We are confident that with proper use, it will greatly assist you in your efforts to promote Pure Water, Inc. products.

(II) ‘Principle of Operation’

The Rain Chamber Demo Distiller duplicates Nature’s Hydrologic Cycle. In Nature, the heat of the sun vaporizes the water molecules, drawing them from the earth’s surface into the atmosphere while leaving the impurities behind. As the vapor cools, it condenses and falls back to earth as rain or snow and is ready to start the cycle over again.

Distillation duplicates Nature’s Hydrologic Cycle. Raw water is heated until boiling, killing biological contaminants. The steam rises from the boiling water, leaving virtually all of the contaminants behind. The steam is collected and condensed to form high purity distilled water.

In the Demo Distiller, food coloring (preferably red) is added to the boiling flask to graphically show your prospects the effectiveness of distillation. Try it yourself and you too may be amazed.

The Demo Distiller is designed to:
- Start boiling the water in the flask in 7-8 minutes.
- Produce approximately 1/2 of a glass of water in 25 minutes.
- Produce distilled water at approximately 150° F maximum.

(III) CAUTIONS

A) GENERAL
- There are HOT surfaces on the Demo Distiller. Do not touch the surface, the back or the bottom of the hot plate, the flask, the silicone tube or the condenser coil while the machine is in operation. These parts continue to remain hot for a period of time after the distiller is turned off. Never leave the Demo Distiller unattended once it is operating.
- This machine is operated manually. When the flask is close to empty, the power should be turned off to prevent possible damage.
- Turn the power switch off if you have to leave the machine under any circumstances.
- Do not stick your fingers or any part of your body in the moving fan.
- Do not spill water on the hot plate. If water is spilled on the hot plate, first unplug the power cord. Do not run the machine until the hot plate is dried out from the inside. The hot plate can be dried out from the bottom by using a hair dryer.
- Never submerge the Demo Distiller in water.
- Never put a screw driver or any metallic part through the slots of the fan box.
- After the demonstration, allow the Demo Distiller to cool before touching the surfaces or packing it into a carrying case.
IMPORTANT:
This machine is operated manually. Therefore, a salesperson or demonstrator must not leave the machine unattended once it is on.

Turn off the power switch if you have to leave the machine under any circumstances.

(IV) GETTING TO KNOW THE DEMO DISTILLER

Hot Plate - Heats the water in the flask
Flask - Water is boiled in the flask
Stopper - Seals the flask
Clamp - Holds the flask in place
Condensing Coil - Steam is condensed in the coil and forms water
Fan - Coil is cooled by the fan
Fan Box - Protects the fan
Power Switch - Starts & stops the machine
Heat Switch - Regulates the temperature
Glass - Pure distilled water is collected in the glass which is ready for testing

(V) OPERATING YOUR DEMO DISTILLER

- Place the Demo Distiller on a flat surface.
- Put water in the flask up to the 500 ml mark. Put 3 drops of red food color in the water. Please Note: It is very important the flask be dry when heated on the hot plate. If any water was spilled on the flask, take special care in drying it prior to use.
- Place the flask on the center of the hot plate and gently tighten the clamp. Make sure the calibration on the flask is at the front.
- Put the rubber stopper into the top of the flask and press it down firmly.
- Put the glass underneath the condenser coil outlet to collect the distilled water.
- Plug the Demo Distiller into a suitable power supply. (When the Demo Distiller is used in countries with 220/240 volt supply see the instructions on the label.)
- Turn on the power switch. The fan will come on. Put the heat switch on ‘3’ (see Figure #1). The hot plate will come on.
OPERATING YOUR DEMO DISTILLER (Cont'd)

- Do not leave the machine unattended. Water in the flask will start boiling within 8-10 minutes. Use of hot water in the flask will accelerate the process.
- After the first few drops of distilled water starts coming out from the condensing coil, turn the heat knob to the ‘2 1/2’ (Fig. 2) position. This will evaporate the water uniformly. Distilled water will be collected in the glass.

![Fig. 2]

Once a sufficient amount of water has collected in the glass, you will be able to test this water for purity.
- After each cycle, the flask should be filled to 500 ml before starting a new cycle. (Do not overflow the glass.)
- Refill water in the flask as soon as the level reaches 300 ml mark. Unclamp the flask, switch the hot plate off while putting water in the flask.
- If you are demonstrating in a seminar for a long period of time, then it is advisable to put the heat knob on the 1 or 1 1/2 position.
- After you are done with the demonstration first turn off the hot plate i.e. turn knob to ‘0’ position. Then let the fan run for about 4-5 minutes to cool down the entrapped steam in the condensing coil. **Then turn off the power switch.**
- Unplug the power cord.
- Unclamp the flask, take off the stopper and carefully empty the water from the flask. Put the flask and the collection glass in a safe place while transporting the distiller.

(VI) MAINTENANCE

1) Keep the flask clean inside and outside. The flask is made from Pyrex and can easily be cleaned with the use of Lumen.
2) Tighten the clamp and coil holder nuts once a month or as needed.

(VII) Technical Specifications of the ‘Demo Distiller’

A) Electrical (120 volt/220 volt* versions)

1) Power cable - 16 AWG - 3 (grounded)
   *Countries with 220/240 volt power supply please read the instructions on the label.
2) Hot plate - 110 v/800w OR 220v/800w with six heat (wattage) switch.

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