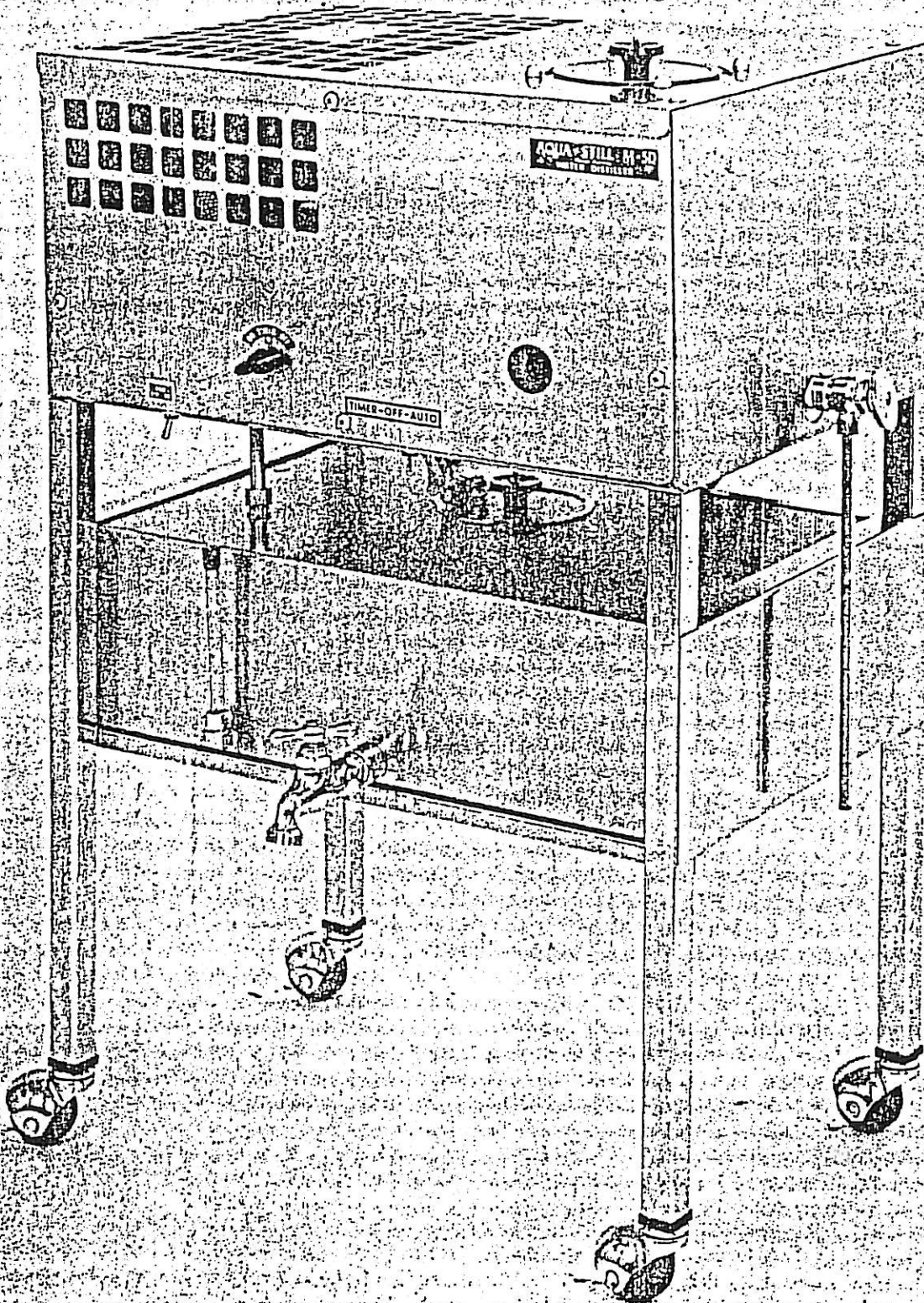
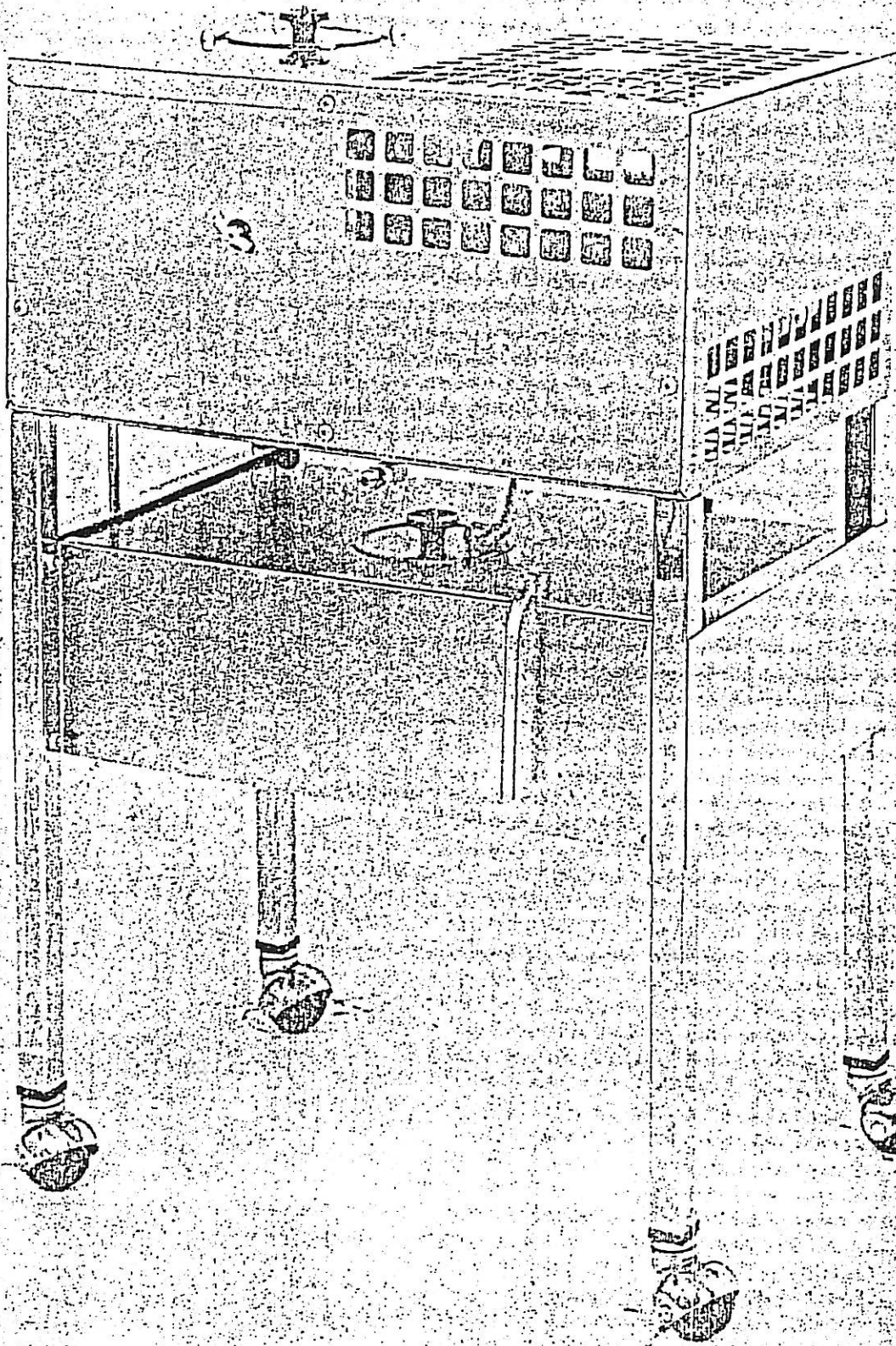


M-50

Automatic direct waterline hookup
or may be used as portable.





M-5D AQUA STILL
DIRECTIONS FOR USE AS
MANUAL-FILL, PORTABLE UNIT

The M-5D Aqua Still is designed and manufactured for use as a direct waterline hookup or manual-fill, portable unit. You will receive the M-5D Aqua Still with a pipe cap on the waterline inlet and ready to be used as a manual-fill, portable unit.

Please Follow Carefully For Operating As A Manual-Fill, Portable Unit:

This unit has been test-run at the factory in order to inspect its parts and assembly. The user is encouraged to sterilize this unit prior to its regular use. See directions below for steam sterilizing. Be sure the reservoir tank holding the distilled water has been thoroughly washed with hot, soapy water and rinsed well.

OPERATING STEPS FOR DISTILLING CYCLE

1. Unpack and assemble stand (see directions below).
2. Unpack and assemble top part of distilling unit (see directions below).
3. Remove lid--fill with water to level gauge.
4. Replace lid--make sure lid is fit in proper groove.
5. Be sure reset button is pushed in.
6. Switch fan to "on" position.
7. Plug cord into electrical outlet.
8. Turn timer to left to "on" position. M-5D Aqua Still produces approximately 1/2 gallon distilled water in 1 hour.
9. Collect distilled water.

DIRECTIONS - Assembly Of Stand And Distiller

The M-5D Aqua Still will be shipped in two separate boxes. One of the boxes contains the top distiller portion of the unit, and the other contains the bottom stand and reservoir storage tank. The storage tank must be unpacked and the drain valve for distilled water outlet assembled onto the fitting in front of the tank. (See illustration on sheet #1).

Four casters will be located under the inter-packing in the bottom of the box. They are installed by inserting the metal stem on the caster into the plastic insert at the bottom of the legs.

The lid for the reservoir storage tank must be installed so that the float arm is free to move up and down. The float is pointing toward the end of the storage tank. Be sure the round control magnet switch is centered in the clips which hold it in place. The black colored end of the magnet should be pointing toward the front of the tank. (See illustration on sheet #2). Install lid and control assembly into the storage tank and tighten the lid knob.

Unpack top distiller portion of the unit and assemble onto stand. The base of the distiller has one short, round leg at each corner. These legs are to be inserted into the square tube legs on the stand. If you have a tight fit you may loosen the back cross brace and bottom cross brace on the stand and then assemble the top onto the bottom stand and re-tighten fasteners on the cross braces.

Assemble residue drain valve extension tube. (See illustration on sheet #1). Insert tube into valve and then tighten compression nut, making the connection. The distilled water outlet tube must be connected to the straight adaptor on top of the storage tank. Then tighten compression nut, making the connection of the distilled waterline into the storage tank.

The water level control switch will be taped to the bottom of the unit. Untape it and connect it into the clip on top of the storage lid. (See illustration on Sheet #2). Make sure the control is centered in the clip and that the end with the wire lead is toward the front of the unit. NOTE: The one end on the magnet under the lid and the end of the control switch on top of the lid are black in color and both must be pointed in the same direction. The control switch on top of the lid may have to be moved toward one end or the other of the clip in order to find the proper location or setting to start the unit. After this has been determined, adjustments should not be necessary.

Remove lid by turning black knob counter-clockwise until lid becomes loose enough to tip toward one side for removal.

Fill tank with water you wish to distill up to bottom of water level gauge. Filling water above water gauge may allow undistilled water to flow into condensing coils and out into user's container. DO NOT OVERFILL

If warm water is used, it will take less time for distillation. Fasten lid after it is in proper groove by turning black knob clockwise until it is tight. The reset button is tested at the factory. Push the reset button in to make sure it is in. The reset switch is an overheat safety switch. It will turn the unit off if it overheats. It will not be necessary to push it in every time you start your unit.

The fan switch must be on for the distilling cycle. Plug unit into 120 volt, A.C., single phase electrical outlet which is properly grounded. Turn control knob on timer left to the one gallon mark. DO NOT OVERSET TIMER

Water level should remain above the heating element after completing the cycle. This setting for production of the unit may vary. Control knob may be advanced or set back for desired production.

OPERATING STEPS FOR STEAM STERILIZING CYCLE

Follow Operating Steps For Distilling Cycle with the exception of step 6, and then turn off fan. This will allow the steam to pass through the condensing coils and sterilize the unit. After boiling starts, run unit for 15 to 30 minutes.

CAUTION: Do not turn unit on unless water in tank is of proper depth. (To do so would shorten the life of the heating element unnecessarily).

This machine, like all electrical appliances, should be grounded.

Do not use an extension cord.

A three-prong plug to a two-prong adapter may be used. (This is for outlets not wired for three-prong grounded plug). When using this adapter, the short lead must be grounded.

The unit should be operated in a spot away from other heat sources. The lower the temperature of the room, the better for distillation.

FUNCTION OF OVERHEAT SAFETY SWITCH

Should the M-5D Aqua Still become overheated, it will shut off automatically. The overheating of the unit may be caused by being in a closed area. This unit must have air circulating around it. It should not be used in a small room, such as a closet. To restart the unit, it must be cooled down to operating temperature. You can let it cool off by itself or you can speed up the process by draining the hot water out of the boiling tank and refilling with cold water. It may take 15 to 30 minutes for the unit to cool down. Once it has cooled off, the reset button must be pushed in firmly to restart the machine.

CLEANING PROCEDURE

We suggest cleaning the unit after every third distillation. Naturally this will vary from one area to another depending upon mineral content of the water. We have some customers who must clean their unit after each distillation cycle because of the extremely high mineral content; and then in some cases, we have people who drain the unit once a week. Each individual will have to judge for himself by the amount of residue remaining in the tank. The drain valve on the outside of the tank end of the unit is used for this purpose.

CAUTION: Make certain the heating element is free of mineral build up as this could shorten the life of the heating element.

M-5D AQUA
DIRECTIONS FOR USE AS
AUTOMATIC DIRECT WATERLINE UNIT

When you receive your M-5D Aqua Still, it will be set up to be used as a manual-fill, portable unit.

To change the unit for direct waterline use, follow the steps and illustrations on sheet #2 by using parts in the kit furnished.

KIT TO INCLUDE: See illustrations on sheet #2

1. Flexible tubing 1/4 O.D. x approximately 20 ft.
2. Straight adapter 1/8 NPT female x 1/4 O.D. compression fitting.
3. Nylon stiffener (for use with flexible tubing only).
4. Nylon compression ring (for use with flexible tubing only).
5. Saddle clamp assembly packet (see illustration).

DIRECTIONS FOR HOOKING UP DIRECT WATERLINE:

- A. Remove 1/8 NPT pipe cap in rear of unit.
- B. Connect straight adapter to pipe fitting in rear of unit after 1/8 NPT pipe cap has been removed.
- C. If the flexible tubing is to be used, the nylon stiffener insert must be placed inside the flexible tubing and the nylon compression ring must be used in place of the metal compression ring. With the nylon stiffener and compression ring in place, tighten compression nut to adapter making the connection at the rear of unit complete.
- D. For Direct Waterline connection, select water pipe and location which will be convenient for connection.
- E. Turn water off in the line you selected. Then, drill a 1/4" diameter hole into the waterline preferably on top or on the side of a horizontal line.
CAUTION: Care should be taken in not getting water into the power drill or electrical lines when drilling the hole.
- F. The 90° valve must be screwed into the saddle and the rubber washer placed on the underside which will fit next to the water pipe.
- G. Assemble the saddle clamp onto the waterline (see illustration on sheet #2).

- H. Refer to Step C for a similar procedure in assembling of flexible line into 90° valve.
- I. Turn main waterline on and open 90° valve completely. Check for leaks (the fittings may have to be tightened if any leaks occur).

DIRECTIONS FOR OPERATING AUTOMATIC DIRECT WATERLINE UNIT

You have completed hooking your M-5D Aqua Still unit up for automatic waterline use. When you start the unit for the first time, add water up to the heating element to protect the heating element while it is filling. Turn unit on and it will fill automatically.

To operate the unit, follow the same steps as for manual-fill, portable operation except your unit will fill automatically and by moving the switch on the right side, lower front of the unit to automatic, the M-5D Aqua Still will operate automatically.

A metering valve has been installed in the rear of the unit. This valve has been set at the factory 1/4 turn on. It can be adjusted if you find your machine producing more distilled water than is running into the boiling tank causing the water level to be down or below the heating element. The valve can be turned on approximately 1/8 of a turn at a time until you reach proper flow.

To clean your unit when hooked up for direct waterline use, turn the unit off, add water up to the water level gauge and add cleaner. Let soak, then open residue drain valve and drain residue and resin out thoroughly.